

4/26/99 - 5/17/99 MS KW NSL

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

THIS COVERSHEET IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS

Application Acronyms:

[NSP-Non-Standard Proration Unit] [NSL-Non-Standard Location]  
[DD-Directional Drilling] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Directional Drilling

☒ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

99 APR 26 PM 1:33

OIL CONSERVATION DIV.

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO

U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☒ Waivers are Attached

[3] INFORMATION / DATA SUBMITTED IS COMPLETE - Statement of Understanding

I hereby certify that I, or personnel under my supervision, have read and complied with all applicable Rules and Regulations of the Oil Conservation Division. Further, I assert that the attached application for administrative approval is accurate and complete to the best of my knowledge and where applicable, verify that all interest (WI, RI, ORRI) is common. I further verify that all applicable API Numbers are included. I understand that any omission of data, information or notification is cause to have the application package returned with no action taken.

Note: Statement must be completed by an individual with supervisory capacity.

W. J. DUEEASE

Print or Type Name

W. J. DUEEASE

Signature

Title

4/21/99

Date



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

April 21, 1999

Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505  
Attention: Mr. Mike Stogner

Re Application for Administrative Approval of an Unorthodox Well Location  
Eddy County, New Mexico

Dear Mr. Stogner,

Marathon Oil Company respectfully requests administrative approval of a non-standard location for its Indian Hills Unit well # 11, Lot 15, 335' FSL & 1880' FEL, Section 33, T-21-S, R-24-E, Eddy County, New Mexico. This non-standard location is proposed based on geological and topographical constraints. The objective of the Indian Hills Unit # 11 is the Cisco gas column in the Upper Pennsylvanian Associated Pool. This location is selected to maximize the thickness of the Cisco (see exhibit # 1) and the structural elevation (exhibits #2 and # 3). The IHU # 11 location will allow development of gas reserves in the SW/4 of section 33, T-21-S, R-24-E and protect correlative rights from drainage by the Jones Canyon # 3 in the NW/4 of Section 4, T-22-S, T-22-S, R-24-E.

The proposed location falls within the East Indian Basin-Azotea Mesa Environmental Assessment which requires operators to locate wells on slopes less than 20% to avoid excessive cut and fill. The Bureau of Land Management encouraged Marathon to locate this well away from steep slopes which would cause excessive cut and fill and damage to the nearby drainage of Right Hand Canyon. Refer to exhibit #4, a topographic map showing the best available drillsite in the SE/4 of section 33.

Well # 11 is the fourth Indian Basin Upper Pennsylvanian well to be drilled to the Cisco formation in section 33. Please refer to the topographic map and the attached C-102 (exhibit 5). The attached C-102 describes a S/2 Gas Proration Unit comprising 342.48 acres.

Also attached is a copy of Administrative Order DD-139 issued on April 30, 1999, granting Marathon Oil Company authorization to directionally drill the proposed well to a standard BHL in Lot 15, Section 33, T-21-S, R-24-E. Marathon requests the Oil Conservation Division vacate Administrative Order DD-139 and approve the change from a directional wellbore drilled to a standard BHL to a vertical wellbore drilled to an unorthodox location. In April of

Indian Hills Unit #11

April 21, 1999

Page 2

1996 Marathon believed that Santa Fe Energy Resources, the only affected offset operator, would object to this action but has willingly granted a waiver of our intentions to drill a vertical well.

The Indian Hills Unit # 11 Was spud on 5/28/96, surface casing was run and set at 1800 feet. No directional work was initiated on the well, inclination surveys reflected a maximum deviation of 1 degree in the surface hole interval. The air drilling rig was de-mobilized and no further drilling activity has taken place since 6/2/96 pending review of Marathon's directional expenses and other options

Marathon's directional experience in the Indian Hills area is extensive but has been costly. Dry hole costs for the Indian Hills unit # 13, a directional well drilled to the Cisco was \$1.32 MM. Marathon participated in the Devon operated Winston Gas Com #3, also drilled to the Cisco, which had a dry hole cost of \$1.0 MM. A typical vertical well in this area will have an average dry hole cost of \$2.4 M.

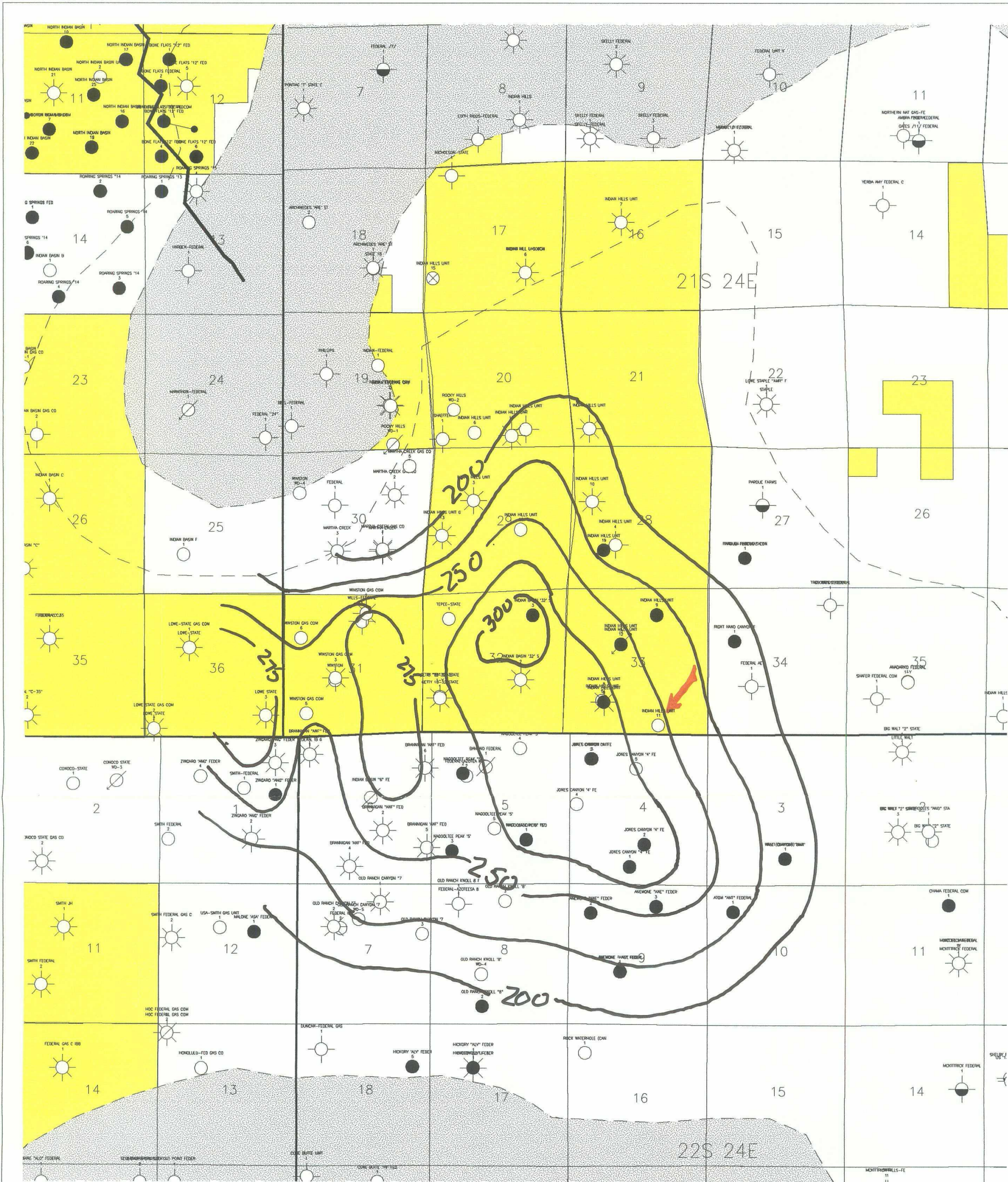
Please review this request for Administrative Approval for a Non-Standard location and call me if you have any questions at (800) 351-1417.

Very truly yours,

A handwritten signature in black ink, appearing to read "Walter Dueease", with a long, sweeping horizontal stroke extending to the right.

Walter Dueease





State Plane Coordinate System  
New Mexico East

Scale 1:48000.

2000. 0. 2000. 4000. 6000. 8000. 10000. feet



0.2 0. 0.2 0.4 0.6 0.8 1. miles



MARATHON OIL COMPANY

INDIAN BASIN AREA, EDDY CO., NM

**CISCO GROSS ISOPACH**

Non-Reservoir Shaded Gray

Prospect: EIB

**CI: 25'**

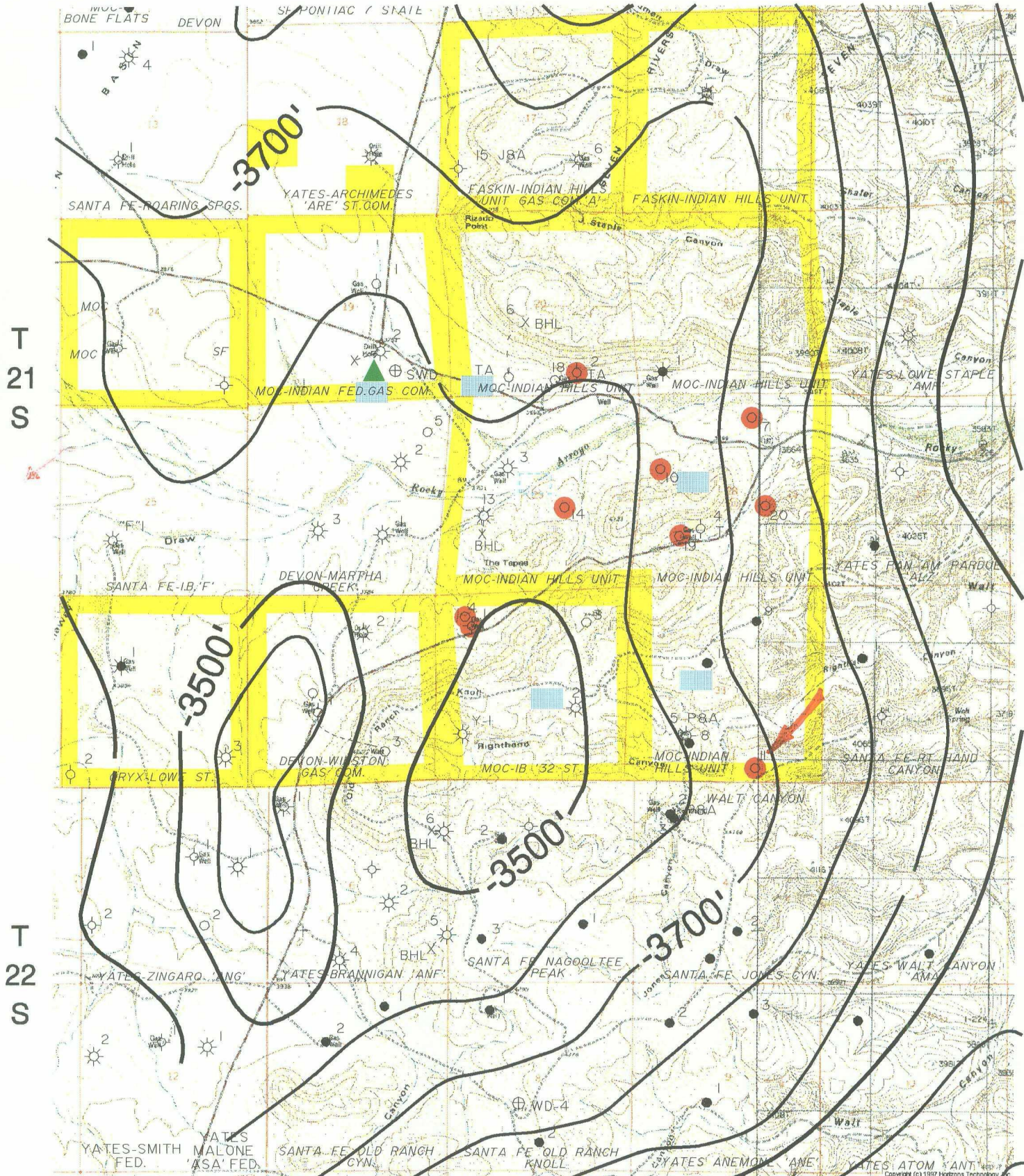
4/8/99

IB\_SDD.GPF

Scale 1:48000.

D. COX





R 24 E

- 1999 BUDGET WELLS
- EXISTING SATELLITE
- FUTURE SATELLITE
- ▲ CENTRAL FACILITY

MARATHON OIL COMPANY  
MID-CONTINENT REGION

## EAST INDIAN BASIN AREA

EDDY COUNTY, NEW MEXICO

T/CISCO CARBONATE  
STRUCTURE MAP

FILE LOG: ISTOP.DGN EXPL









EXHIBIT  
4



DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

EXHIBIT

5

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-28749	Pool Code 33685	Pool Name Indian Basin Upper Penn Assoc.
Property Code 6409	Property Name INDIAN HILLS UNIT	Well Number 11
OGRID No. 14021	Operator Name MARATHON OIL COMPANY	Elevation 4087

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
15	33	21 S	24 E		335	SOUTH	1880	EAST	EDDY

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
Dedicated Acres 342.54	Joint or Infill	Consolidation Code	Order No.						

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

LOT 4	LOT 3	LOT 2	LOT 1
42.16 AC. LOT 5	42.38 AC. LOT 6	42.59 AC. LOT 7	42.81 AC. LOT 8
42.29 AC. LOT 12	42.51 AC. LOT 11	42.72 AC. LOT 10	42.94 AC. LOT 9
42.42 AC. LOT 13	42.64 AC. LOT 14	42.85 AC. LOT 15	43.07 AC. LOT 16
42.55 AC.	42.77 AC.	42.98 AC. SEE DETAIL	43.28 AC.

DETAIL

4054.4' 4063.3' 4088.3' 4057.8'

1880' 335'

SEPTEMBER 27, 1995

OPERATOR CERTIFICATION

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

Signature  
R. J. Longmire  
Printed Name  
Drilling Superintendent  
Title  
4/21/99  
Date

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.

Date Surveyed  
Signature & Seal of Professional Surveyor  
NEW MEXICO  
W.O. Lum 95-1472  
Certificate No. JOHN C. WEST 676 RONALD J. EIDSON 3239 GARY EIDSON 12641



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

XTRA COPY  
ORIG IN FILE

April 30, 1996

Marathon Oil Company  
P. O. Box 552  
Midland, Texas 79702  
Attention: Walter J. Dueease

*Administrative Order DD-139*

Dear Mr. Dueease:

Reference is made to your application dated April 4, 1996 for authorization to directionally drill its proposed Indian Hills Unit Well No. 11, Eddy County, New Mexico.

**The Division Director Finds That:**

- (1) The subject application submitted by Marathon Oil Company as operator 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) The operator proposes to drill the Indian Hills Unit Well No. 11 at an unorthodox surface location 335 feet from the South line and 1880 feet from the East line (Lot 15/Unit O) of Section 33, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, drill vertically to a depth of approximately 5,000 feet, kickoff in a northerly direction and directionally drill to an estimated true vertical depth of 8,350 feet within the Indian Basin-Upper Pennsylvanian Associated Pool at a standard subsurface well location within the SW/4 SE/4 (Lot 15/Unit O) of said Section 33;
- (3) The 342.48 acres comprising Lots 9 through 16 (the S/2 equivalent) of said Section 33 is to be dedicated to said well thereby forming a non-standard oil or gas spacing and proration unit for said pool;
- (4) By Order Nos. R-9922 and R-5353, as amended, the Division promulgated "General Rules and Regulations for the Associated Oil and Gas Pools of Northwest and Southeast New Mexico/Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool", which includes provisions for 320-acre spacing and proration units for both oil and gas and well location requirements

which provides that wells be no closer than 660 feet to the outer boundary of a 320-acre spacing unit and not closer than 330 feet to any quarter-quarter section line or subdivision inner boundary thereon;

- (5) It is necessary for the operator to directionally drill the Indian Hills Unit Well No. 11 in the above-described manner in order to satisfy the United States Bureau of Land Management surface use restrictions and to obtain an acceptable subsurface location for this well;
- (6) The applicable drilling window or "producing area" for said wellbore should include that area within the Lot 15 (the SW/4 SE/4 equivalent) of said Section 33 that is no closer than 660 feet to the South line of said Section 33 nor closer than 330 feet to any internal Lot (quarter-quarter section) line; and,
- (7) It appearing 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) The applicant, Marathon Oil Company, is hereby authorized to drill its Indian Hills Unit Well No. 11 at an unorthodox surface location 335 feet from the South line and 1880 feet from the East line (Lot 15/Unit O) of Section 33, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico and directional drill in a northerly direction in such a manner as to bottom said well within the Indian Basin-Upper Pennsylvanian Associated Pool at a standard subsurface well location within Lot 15 (the SW/4 SE/4 equivalent) of said Section 33 that is no closer than 660 feet to the South line of said Section 33 nor closer than 330 feet to any internal Lot (quarter-quarter section) line.

**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 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 Artesia 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 Artesia offices



of the Division upon completion.

(3) Lots 9 through 16 (the S/2 equivalent) of said Section 33 shall be dedicated to said well thereby forming a non-standard 342.48-acre oil or gas spacing and proration unit for said pool.

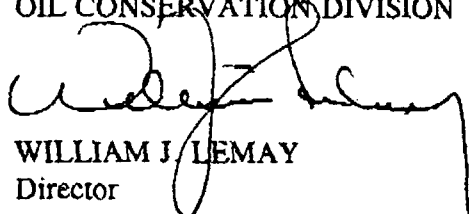
(4) The operator shall comply with all requirements and conditions set forth in Division General Rule 111.E(2) and any applicable requirements in 111.D and F.

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

(6) 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

WJL/MES/kv

cc: Oil Conservation Division - Artesia  
U. S. Bureau of Land Management - Carlsbad



P.O. Box 552  
Midland, TX 79702-0552  
Telephone 915/682-1626

RECEIVED

MAR 05 1999

LAND DEPT.  
MIDLAND, TX

March 3, 1999

Attn: Meg Muhlinghouse  
Santa Fe Energy Resources, Inc.  
550 W. Texas, Ste. 1330  
Midland, TX 79701

Re: Application of Marathon Oil Company for  
Administrative Approval of an Unorthodox Well location  
Eddy County, New Mexico

Dear Ms. Muhlinghouse:

Enclosed is a copy of a plat for a proposed well to be drilled by Marathon Oil Company seeking approval of an unorthodox well location for an Indian Basin Upper Pennsylvanian Associated Pool well to be drilled at 335' FSL and 1880' FEL of Section 33, Township 21 South, Range 24 East, N.M.P.M., Eddy County, New Mexico. The pool rules for the Indian Basin Upper Penn Associated Pool state that wells are to be spaced 660' from exterior boundaries. The proposed well is located 335' from Marathon's lease line. This location is unorthodox due to a BLM requirement to minimize cut and fill and restrict construction on slopes greater than 20% in the East Indian Basin-Azotea Development Area. This well shall have a 320 acre lay down proration unit.

If you have an objection to this application, it must be filed in writing with the New Mexico Oil Conservation Division at its Santa Fe Office within twenty days from the date of this letter.

Should you have no objections to this request, please signify by signing below and returning one executed copy to me in the envelope provided.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'K. Tatarzyn'.

Kenneth W. Tatarzyn  
Project Manager Indian Basin

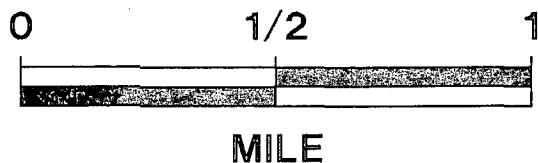
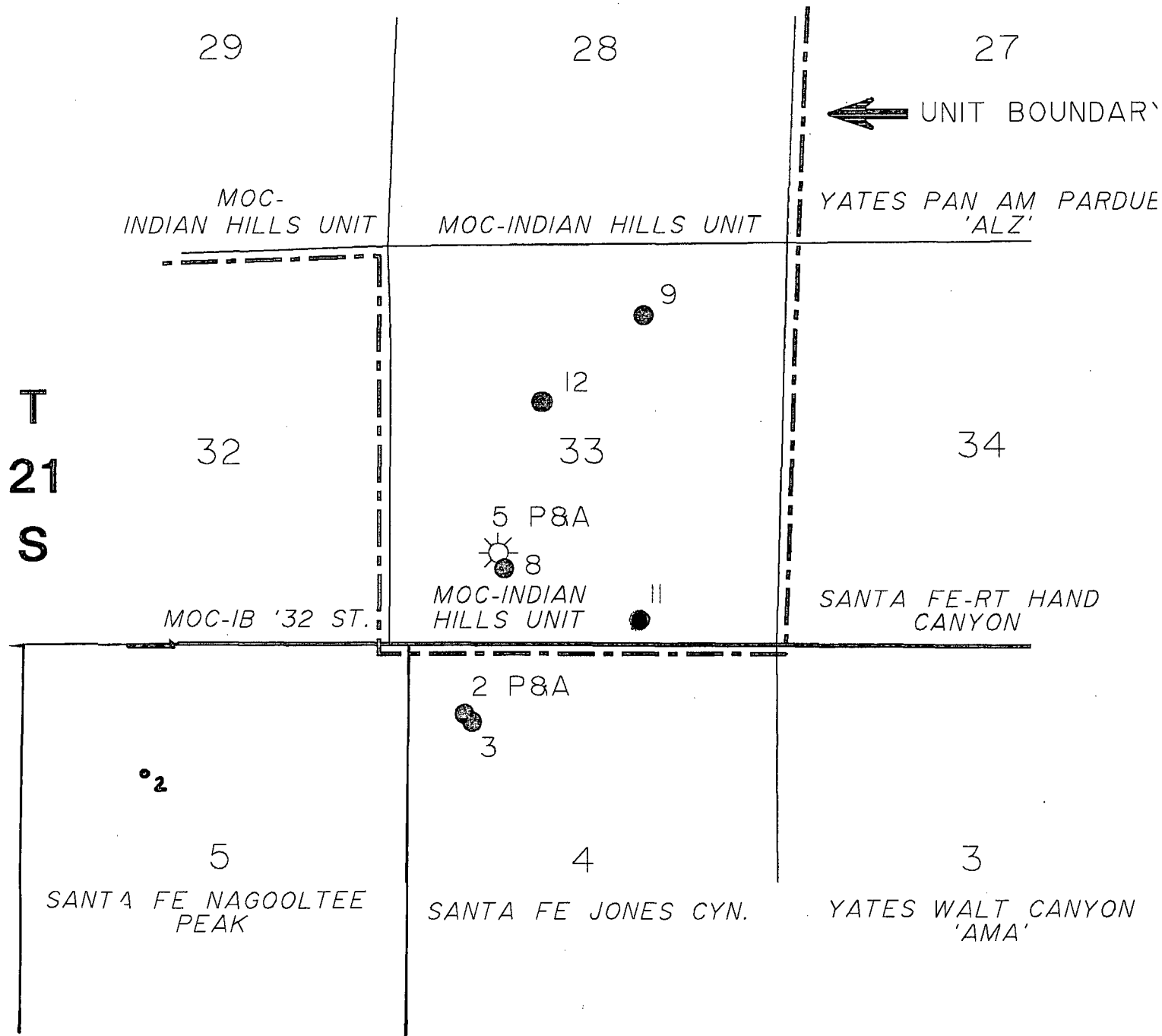
I/WE, AS OFFSET OPERATOR, WAIVE OBJECTION TO MARATHON'S INTENT TO DRILL ITS INDIAN HILLS UNIT WELL #11 AT 335' FSL AND 1880' FEL, SECTION 33, T-21-S, R-24-E, EDDY COUNTY, NEW MEXICO.

SANTA FE ENERGY RESOURCES, INC.

By: De Don D. De Carlo by CSL

Title: Vice President

R 23 E



MARATHON OIL COMPANY  
MID-CONTINENT REGION

## INDIAN HILLS UNIT

EDDY COUNTY, NEW MEXICO

**INDIAN HILLS UNIT**  
**#11**





STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

August 9, 1995

**Marathon Oil Company**  
**P. O. Box 552**  
**Midland, Texas 79702-0552**

**Attention: R. A. Biernbaum**

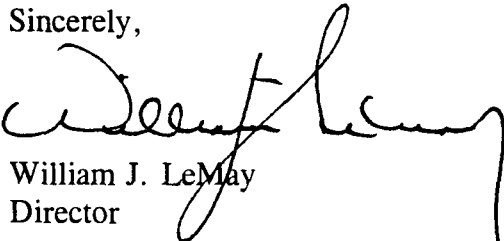
**Corrected**  
***Administrative Order NSL-3558(NSP)***

Dear Mr. Biernbaum:

It has been brought to my attention that the "**Indian Hills Unit Well No. 8**" authorized by Division Administrative Order NSL-3558(NSP) to be drilled at an unorthodox gas well location 1182 feet from the South line and 1545 feet from the West line (Lot 14/Unit N) of Section 33, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, was referenced incorrectly in said order as the "**Indian Hills Unit Well No. 5**".

At this time Division Administrative Order NSL-3558(NSP), dated August 7, 1995, shall be amended to reflect said correction. Further, all other provisions of said order shall remain in full force and effect until further notice.

Sincerely,



William J. LeMay  
Director

WJL/MES/kv

cc: Oil Conservation Division - Artesia  
US Bureau of Land Management - Carlsbad



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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

August 7, 1995

Marathon Oil Company  
P. O. Box 552  
Midland, Texas 79702-0552

Attention: R. A. Biernbaum

*Administrative Order NSL-3558(NSP)*

Dear Mr. Biernbaum:

Reference is made to your application dated July 25, 1995 for an unorthodox gas well location in the Indian Basin-Upper Pennsylvanian Gas Pool for your proposed Indian Hills Unit Well No. 5. Said well to be drilled 1182 feet from the South line and 1545 feet from the West line (Lot 14/Unit N) of Section 33, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.

All of said irregular Section 33 being a non-standard 682.88-acre gas spacing and proration unit for said pool is to be dedicated to said well.

By the authority granted me under the provisions of RULES 3 and 5 of the "*Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Gas Pool*", as promulgated by Division Order No. R-2440, as amended, the above-described unorthodox gas well location and non-standard gas spacing and proration unit are hereby approved.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. LeMay", written over a horizontal line.

William J. LeMay  
Director

WJL/MES/kv

cc: Oil Conservation Division - Artesia  
U. S. Bureau of Land Management - Carlsbad

CMD :  
OG5SECTONGARD  
INQUIRE LAND BY SECTION05/12/99 08:20:38  
OGOMES -TPSC  
PAGE NO: 1

Sec : 33 Twp : 21S Rng : 24E Section Type : NORMAL

4 42.16  Federal owned U	3 42.38  Federal owned U	2 42.59  Federal owned U A	1 42.81  Federal owned U
5 42.29  Federal owned U	6 42.51  Federal owned U A	7 42.72  Federal owned U	8 42.94  Federal owned U

PF01 HELP  
PF07 BKWDPF02  
PF08 FWDPF03 EXIT  
PF09 PRINTPF04 GoTo  
PF10 SDIVPF05  
PF11PF06  
PF12

CMD :  
OG5SECTONGARD  
INQUIRE LAND BY SECTION05/12/99 08:20:42  
OGOMES -TPSC  
PAGE NO: 2

Sec : 33 Twp : 21S Rng : 24E Section Type : NORMAL

12 42.42  Federal owned U	11 42.64  Federal owned U	10 42.85  Federal owned U	9 43.07  Federal owned U
13 <u>42.55</u> 84.97 Federal owned U	14 42.77 <u>85.41</u> Federal owned U A A	15 42.98 <u>85.83</u> Federal owned U A	16 43.20 <u>86.27</u> Federal owned U

PF01 HELP  
PF07 BKWDPF02  
PF08 FWDPF03 EXIT  
PF09 PRINTPF04 GoTo  
PF10 SDIVPF05  
PF11PF06  
PF12

11  
84.97  
85.41  
170.38  
85.83  
256.21  
86.27  
342.48

CMD : ONGARD 05/12/99 08:21:12  
OG6C101 C101-APPLICATION FOR PERMIT TO DRILL OGOMES -TPSC

OGRID Idn : 14021 API Well No: 30 15 28749 APD Status(A/C/P): A  
Opr Name, Addr: MARATHON OIL CO Aprvl/Cncl Date : 12-06-1995  
PO BOX 552  
MIDLAND,TX 79702

Prop Idn: 6409 INDIAN HILLS UNIT Well No: 11

	U/L	Sec	Township	Range	Lot Idn	North/South	East/West
Surface Locn	: 15	33	21S	24E		FTG 335 F S	FTG 1880 F E
OCD U/L	: O		API County	: 15			

Work typ(N/E/D/P/A) : N Well typ(O/G/M/I/S/W/C): O Cable/Rotary (C/R) : F  
Lease typ(F/S/P/N/J/U/I): F Ground Level Elevation : 4087

State Lease No: Multiple Comp (Y/N) : N  
Prpsd Depth : 8000 Prpsd Frmtn : U/PENN

E0009: Enter data to modify record

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06 CONFIRM
PF07	PF08	PF09 PRINT	PF10 C102	PF11 HISTORY	PF12