



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**Bill Richardson**

Governor

**Joanna Prukop**

Cabinet Secretary

July 15, 2003

**Lori Wrotenbery**

Director

Oil Conservation Division

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

**Attention: Steve Millican**  
**SEMillican@MarathonOil.com**

## *Administrative Order NSL-4215-B (BHL) (SD)*

Dear Mr. Millican:

Reference is made to the following: (i) your application filed with the New Mexico Oil Conservation Division ("Division") on May 30, 2003 (*administrative application reference No. pKRV0-315347812*); and (ii) the Division's records in Santa Fe, including the file on Division Administrative Orders NSL-4215 and 4215-A (SD): all concerning Marathon Oil Company's ("Marathon") request for an exception to Rule 2 (b) of the *"Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool"*, as promulgated by New Mexico Oil Conservation Division ("Division") Order Nos. R-9922, R-9922-A, R-9922-B, R-9922-C, R-9922-D, and R-9922-E and the *"General Rules and Regulations for the Associated Oil and Gas Pools of Northwest New Mexico and Southeast New Mexico,"* as promulgated by Division Order No. R-5353, as amended, for its proposed Indian Hills Unit Well No. 53 to be drilled as an upper Pennsylvanian infill well to an unorthodox subsurface location within an existing standard 320-acre lay-down spacing and proration unit comprising the S/2 of Section 28, Township 21 South, Range 24 East, NMPM, Indian Basin-Upper Pennsylvanian Associated Pool (33685), Eddy County, New Mexico.

This unit is currently simultaneously dedicated to Marathon's:

- (i) Indian Hills Unit Well No. 19 (API No. 30-015-30572), located at an unorthodox location (approved by Division Administrative Order NSL-4215, dated February 18, 1999) 1400 feet from the South line and 1248 feet from the West line (Unit L) of Section 28;
- (ii) Indian Hills Unit Well No. 20 (API No. 30-015-30658), located at an unorthodox location (approved by Division Administrative Order NSL-4215-A, dated August 13, 2001) 2250 feet from the South line and 1730 feet from the East line (Unit J) of Section 28; and
- (iii) Indian Hills Unit Well No. 35 (API No. 30-015-32199), located on the surface 1087 feet from the North line and 2037 feet from the East line (Unit B) of Section 33, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, and completed within the Indian Basin-Upper Pennsylvanian Associated Pool (33685) at a standard sub-surface location within the SW/4 SE/4 (Unit O) of Section 28.

It is our understanding the proposed Indian Hills Unit Well No. 53, because of topographic reasons, will be spud at a surface location 1383 feet from the North line and 1586 feet from the West line (Unit F) of Section 28, and drilled directionally to the south-southeast to a targeted-bottomhole location at an approximate depth 8,119 feet (TVD) 2397 feet from the South line and 2014 feet from the West line (Unit K) of Section 28. The wellbore is to intersect the top of the Upper-Pennsylvanian interval at an approximate depth of 7,419 feet (TVD) 2582 feet from the South line and 1945 feet from the West line (Unit K) of Section 28. The proposed well will be unorthodox in that the entire producing interval will be closer then the standard setback distance of 660 from the northern boundary line South line of this spacing and proration unit. Further, this bottom-hole location has been chosen by Marathon to optimize reservoir drainage and minimize geological risk.

This application has been duly filed under the provisions of Division Rule 104.F and Rule 2 (c) of the Division's associated pool rules.

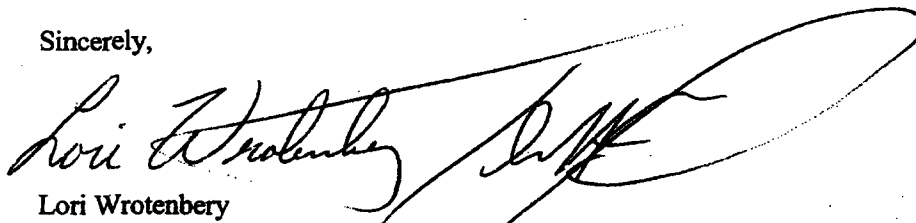
By the authority granted me under the provisions of Division Rule 104.F (2) and the applicable provisions of the special rules governing the Indian Basin-Upper Pennsylvanian Associated Pool, the above-described unorthodox sub-surface location for the Indian Hills Unit Well No. 53 within the N/2 of Section 28, is hereby approved.

Further, the aforementioned well and spacing unit will be subject to all existing rules, regulations, policies, and procedures applicable to the Indian Basin-Upper Pennsylvanian Associated Pool.

Marathon is hereby authorized to simultaneously dedicate production attributed to the Indian Basin-Upper Pennsylvanian Associated Pool from the aforementioned Indian Hills Unit Wells No. 19, 20, 35, and 53. Furthermore, Marathon is permitted to produce the allowable assigned the subject 320-acre spacing and proration unit from both wells in any proportion.

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

Sincerely,



Lori Wrotenbery  
Director

LW/mes

cc: New Mexico Oil Conservation Division - Artesia  
U. S. Bureau of Land Management - Carlsbad  
File: NSL-4215  
NSL-4215-A (SD)



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

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

February 18, 1999

Marathon Oil Company  
P. O. Box 552  
Midland, Texas 79702-0552  
Attention: Walter J. Dueease

*Administrative Order NSL-4215*

Dear Mr. Dueease:

Reference is made to the following: (i) your initial application dated January 26, 1999; (ii) the New Mexico Oil Conservation Division's ("Division") letter dated February 9, 1999 from Mr. Michael E. Stogner, Chief Hearing Officer/Engineer, withdrawing this application; (iii) your re-submittal of this application hand delivered to the Division's Santa Fe office on February 17, 1999; (iv) the records of the Division in Santa Fe; and (v) Division Order No. R-9922-D, issued in Case No. 12006 dated December 7, 1998, which adjusted the Upper-Pennsylvanian pool boundaries in the area subject to your application: all concerning Marathon Oil Company's request for a non-standard oil/gas well location within a 320-acre standard spacing and proration unit for the Indian Basin-Upper Pennsylvanian Associated Pool comprising the S/2 of Section 28, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.

The subject application has been duly filed under the provisions of Division Rule 104.F.

By the authority granted me under the provisions of: (i) Rule 2(c) of the "Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool," as promulgated by Division Order Nos. R-9922, R-9922-A, R-9922-B, R-9922-C, and R-9922-D and the "General Rules and Regulations for the Associated Oil and Gas Pools of Northwest New Mexico and Southeast New Mexico," as promulgated by Division Order No. R-5353, as amended; and, (ii) Division Rule 104.F(2), the following described well, to be drilled at an unorthodox oil/gas well location within the Indian Basin-Upper Pennsylvanian Associated Pool is hereby approved:

***Indian Hills Unit Well No. 19  
1400' FSL & 1248' FWL (Unit L) of Section 28  
(API No. 30-015-30572).***

It is our understanding that this well is to be a replacement for Marathon Oil Company's Indian Hills Unit Well No. 4 (API No. 30-015-10738), located 1650 feet from the South and West lines (Unit K) of Section 28, which was drilled by Ralph Lowe in 1965 and produced from the Upper-Pennsylvanian interval until 1970 when this well was temporarily abandoned.

Further, Marathon Oil Company will assure that any and all wells in Section 28 producing from the Indian Basin-Upper Pennsylvanian Associated Pool are being operated pursuant to the requirements of Division Order No. R-9922-D.

Sincerely,

Lori Wrotenbery  
Director

LW/MES/kv

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



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

August 13, 2001

**Lori Wrotenbery**

Director

Oil Conservation Division

**Marathon Oil Company  
c/o W. Thomas Kellahin  
P. O. Box 2265  
Santa Fe, New Mexico 87504-2265**

**Telefax No. (505) 982-2047**

***Administrative Order NSL-4215-A (SD)***

Dear Mr. Kellahin:

Reference is made to the following: (i) your initial application filed with the New Mexico Oil Conservation Division ("Division") on behalf of the operator, Marathon Oil Company ("Marathon") on July 23, 2001 (*Division application reference No. pKRV0-120540431*); (ii) your telephone conversation with Mr. Michael E. Stogner, Engineer/Chief Hearing Officer with the Division in Santa Fe on Monday, August 13, 2001; and (iii) the Division's records in Santa Fe, including the file on Division Administrative Order NSL-4215, dated February 18, 1999: all concerning Marathon's request for an exception to Rule 2 (b) of the "*Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool*", as promulgated by New Mexico Oil Conservation Division ("Division") Order Nos. R-9922, R-9922-A, R-9922-B, R-9922-C, and R-9922-D and the "*General Rules and Regulations for the Associated Oil and Gas Pools of Northwest New Mexico and Southeast New Mexico*", as promulgated by Division Order No. R-5353, as amended, for an existing infill well that was inadvertently drilled at an unorthodox well location within an existing 320-acre lay-down spacing and proration unit comprising the S/2 of Section 28, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.

This unit is currently dedicated to Marathon's Indian Hills Unit Well No. 19 (API No. 30-015-30572), located at an unorthodox location (approved by Division Administrative Order NSL-4215) 1400 feet from the South line and 1248 feet from the West line (Unit L) of Section 28.

The subject application has been duly filed under the provisions of Division Rule 104.F and Rule 2 (c) of the Division's associated pool rules.

By the authority granted me under the provisions of Division Rule 104.F (2) and the applicable provisions of the special rules governing the Indian Basin-Upper Pennsylvanian Associated Pool the following described well located at an unorthodox infill location within this 320-acre unit is hereby approved:

Administrative Order NSL-4215-A(SD)  
Marathon Oil Company  
August 13, 2001  
Page 2

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**Indian Hills Unit Well No. 20  
2250' FSL & 1730' FEL (Unit J) of Section 28  
(API No. 30-015-30658).**

Marathon is hereby authorized to simultaneously dedicate production attributed to the Indian Basin-Upper Pennsylvanian Associated Pool (33685) from its existing Indian Hills Unit Wells No. 19 and 20. Furthermore, Marathon is permitted to produce the allowable assigned the subject 320-acre spacing and proration unit from both wells in any proportion.

Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,



Lori Wrotenbery  
Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Artesia  
New Mexico Department of Land Management - Carlsbad  
NSL-4215 /

**N.M. Oil Cons. Div-Dist. 2**  
**1301 W. Grand Avenue**  
**Artesia, NM 88210**  
**UNITED STATES**  
**DEPARTMENT OF THE INTERIOR**  
**BUREAU OF LAND MANAGEMENT**

FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

**APPLICATION FOR PERMIT TO DRILL OR DEEPEN**

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☐

GAS WELL ☒

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Marathon Oil Company

3. ADDRESS AND TELEPHONE NO.

P.O. Box 552 Midland, TX 79702

432-687-8360

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
At surface

1383' FNL & 1586' FWL

At proposed prod. zone

2397' FSL & 2014' FWL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

15 miles NW of Carlsbad

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest dir. unit line, if any) P.P. 52'

18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT. 24'

16. NO. OF ACRES IN LEASE

320

19. PROPOSED DEPTH

8385'

17. NO. OF ACRES ASSIGNED

TO THIS WELL

80

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

G.L. 3702

22. APPROX. DATE WORK WILL START\*

July 1, 2003

23.

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<u>12-1/4"</u>	<u>9-5/8" K-55</u>	<u>36#</u>	<u>1200'</u>	<u>515 sks.</u>
<u>8-3/4"</u>	<u>7" K-55</u>	<u>23/26#</u>	<u>8385'</u>	<u>1280 sks.</u>

**Carlsbad Controlled Water Basin**

Marathon Oil Company is proposing to drill a Directional well from the existing drilling pad of the Indian Hills Unit # 34.

The same drilling pit used to drill the IHU # 34 will be re-opened and used again. Pit contents will be stockpiled on liner material to prevent soil contamination.

This well will have a Non-Standard BHL. The BHL is too close to the outer boundary of the 320 acre South half proration unit of Section 28.

Baker directional plan is attached.

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

H2S Contingency Plan on File

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

[Signature]

TITLE Engineer Tech.

DATE 5/28/03

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

/s/ LESLIE A. THEISS

TITLE

FIELD MANAGER

DATE

JUL 03 2003

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**APPROVAL FOR 1 YEAR**

## DISTRICT I

P.O. Box 1888, Hobbs, NM 88241-1888

## State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1984

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## DISTRICT II

P.O. Drawer 88, Artesia, NM 88211-0718

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

## DISTRICT III

1000 Rio Brazos Rd., Artesia, NM 87410

## DISTRICT IV

P.O. Box 2088, Santa Fe, N.M. 87504-2088

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 33685	Pool Name Indian Basin Upper Penn. Assoc.
Property Code	Property Name INDIAN HILLS UNIT	Well Number 53
OGRID No. 14021	Operator Name MARATHON OIL COMPANY	Elevation 3702'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	28	21-S	24-E		1383'	NORTH	1586'	WEST	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 320 <sup>N</sup> / <sub>2</sub>	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>GEODETIC COORDINATES</b> NAD 27 NME Y = 528872.9 X = 446801.8 LAT. 32°27'13.92"N LONG. 104°30'20.87"W</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Jerry Fletcher</i> Signature</p> <p>Jerry Fletcher Printed Name</p> <p>Engineer Tech. Title</p> <p>5/28/03 Date</p>
		<p><b>SURVEYOR CERTIFICATION</b></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 belief.</p> <p>May 20, 2003</p> <p>Date Surveyed _____ AWB</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Ronald J. Edson</i> 5/23/03 03.11.0532</p> <p>Certificate No. RONALD J. EDSON 3238 GARY EDSON 12641</p>

DISTRICT I  
P.O. Box 1680, Hobbs, NM 88241-1680

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1984  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0718

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 33685	Pool Name Indian Basin Upper Penn. Assoc.
Property Code	Property Name INDIAN HILLS UNIT	Well Number 53
OGRID No. 14021	Operator Name MARATHON OIL COMPANY	Elevation 3702'

Surface Location

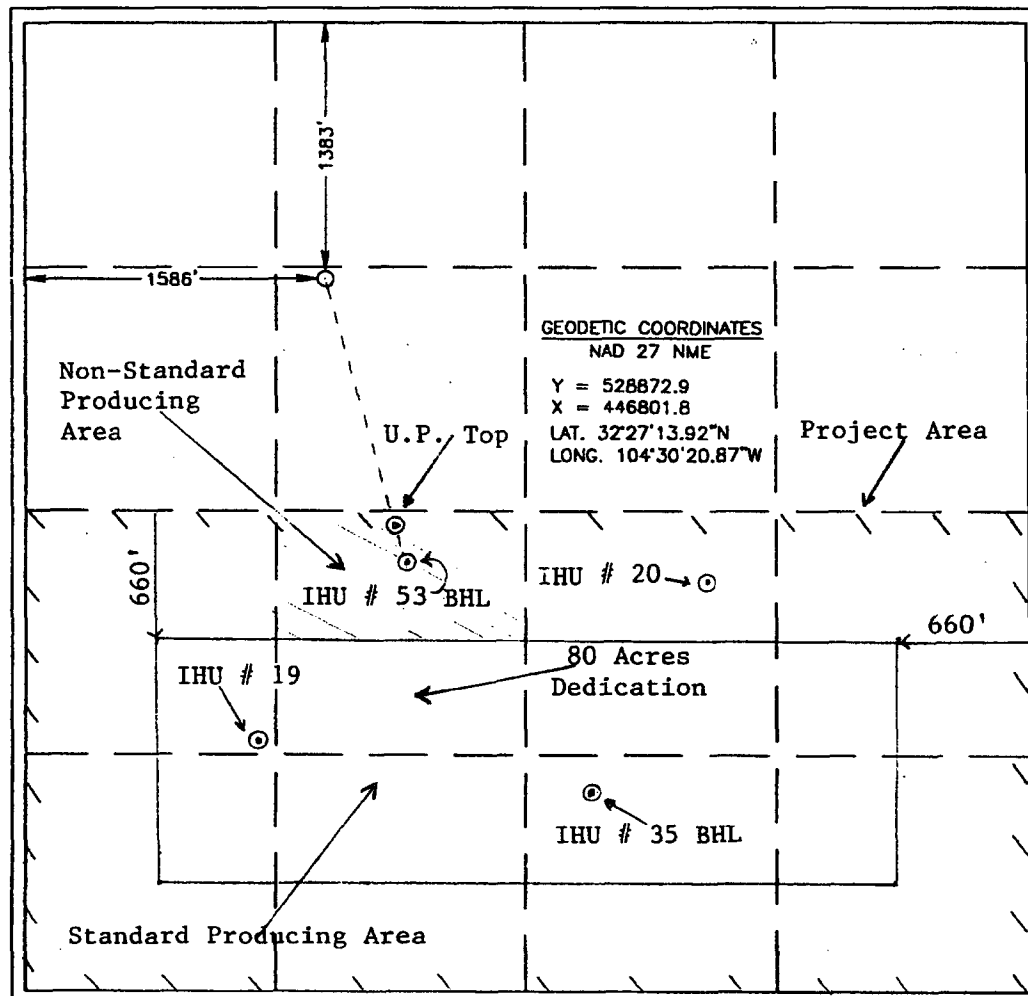
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	28	21-S	24-E		1383'	NORTH	1586'	WEST	EDDY

Bottom Hole Location If Different From Surface

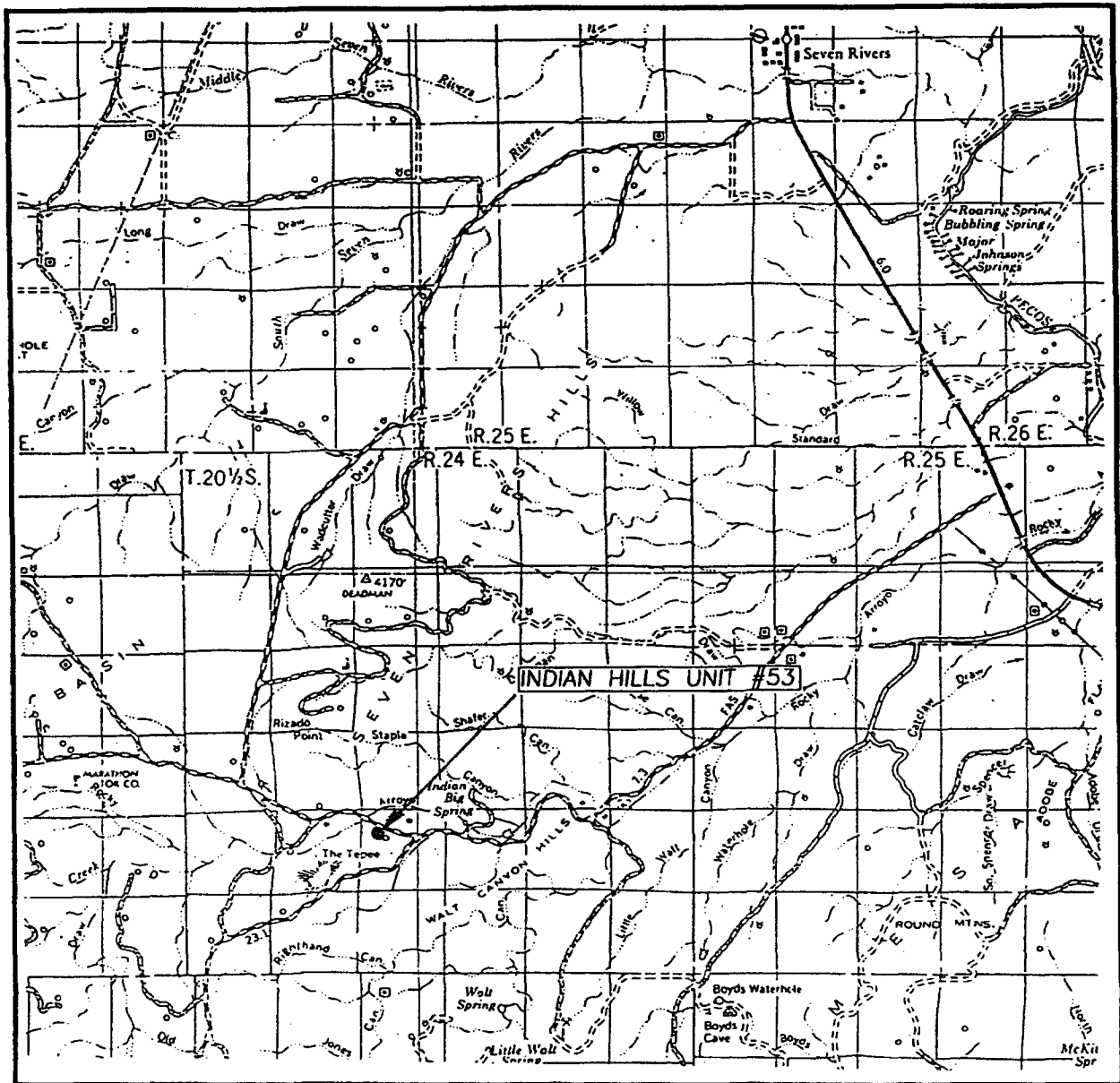
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	28	21-S			2397'	SOUTH	2014'	WEST	

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320 S/2			

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><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Jerry Fletcher</i> Signature Jerry Fletcher Printed Name Engineer Technician Title 5/28/03 Date</p> <p><b>SURVEYOR CERTIFICATION</b></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 belief.</p> <p>May 20, 2003 Date Surveyed AWB Signature &amp; Seal of Professional Surveyor <i>Ronald J. Edson</i> 5/23/03 03.11.0532 Certificate No. RONALD J. EDSON 3238 GARY EDSON 12641</p>
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# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 28 TWP. 21-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1383' FNL 1586' FWL

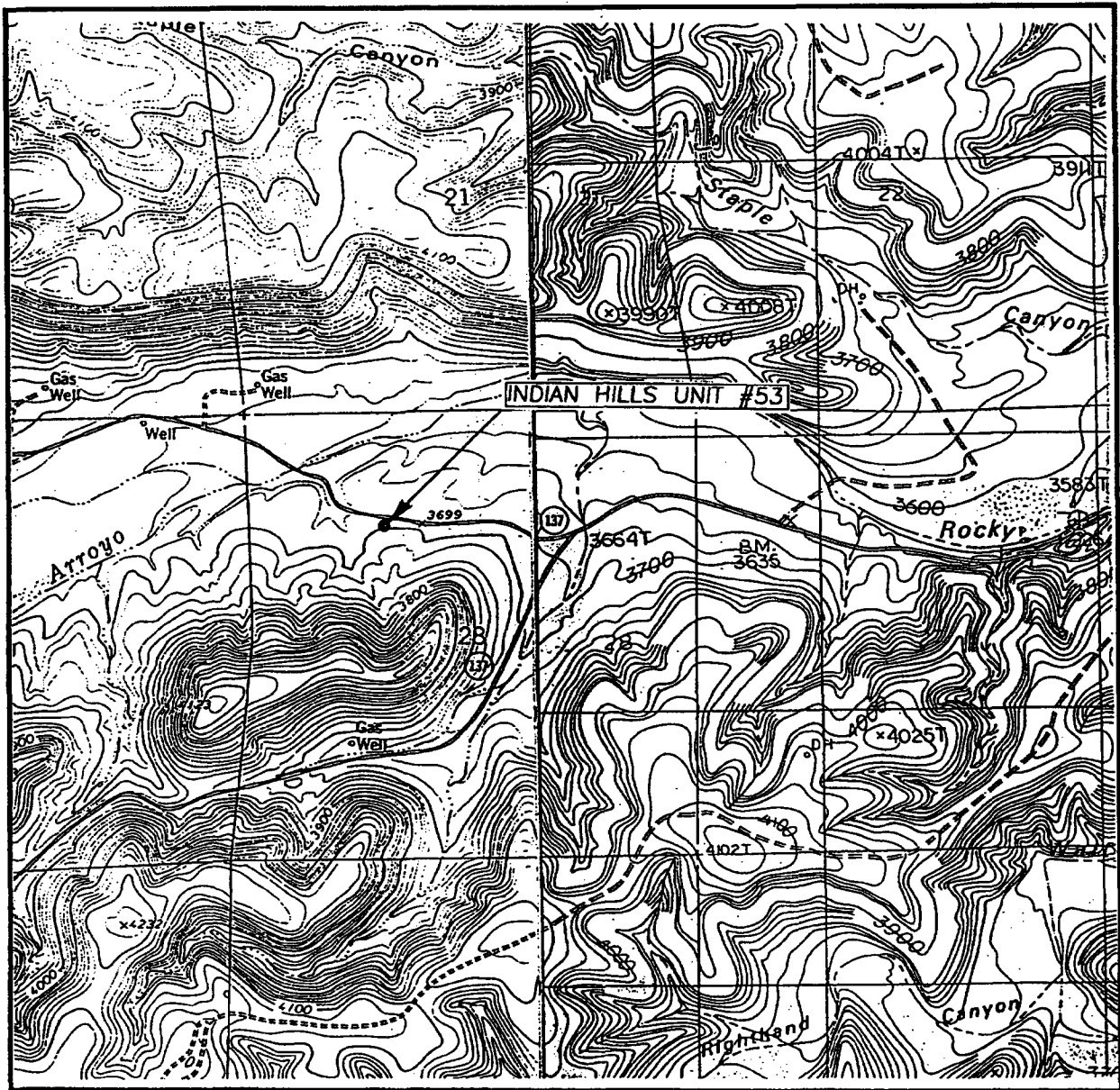
ELEVATION 3702'

OPERATOR MARATHON OIL COMPANY

LEASE INDIAN HILLS UNIT

JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505) 393-3117

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 20'  
MARTHA CREEK, N.M.  
AZOTEA PEAK, N.M.

SEC. 28 TWP. 21-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1383' FNL 1586' FWL

ELEVATION 3702'

OPERATOR MARATHON OIL COMPANY

LEASE INDIAN HILLS UNIT

U.S.G.S. TOPOGRAPHIC MAP  
MARTHA CREEK AZOTEA PEAK, N.M.

JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505) 393-3117



# Marathon Oil Company

Structure : Indian Hills Unit #53

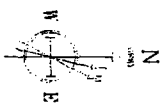
Slot : slot #1

Field : INDIAN BASIN

Location : Eddy County New Mexico

## WELL PROFILE DATA

Point	MD	Surf	Top	TD	Bottom	East	North	True Vert
100'	0.00	0.00	164.55	0.00	0.00	0.00	0.00	0.00
200'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00
300'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00
400'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00
500'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00
600'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00
700'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00
800'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00
900'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00
1000'	0.00	0.00	164.55	200.00	0.00	0.00	0.00	0.00



27-May-2003 (Source: BGM)  
Magnetic North is 8.9 degrees East of True North  
Declination is 8.9 degrees East  
To correct azimuth from True to GRID add 0.09 deg  
To correct azimuth from Magnetic to GRID add 9.09 deg

### STRUCTURE SET-UP REFERENCE

LAT : 36.111111 N

LONG : 106.111111 W

### PROJECTION: MERCATOR

Mercator Zone: 18N

Spheroid Used: GRS80

Date Source: BGM

Dip Angle: 0.00 deg

Field Strength: 0.00 nT

### PROPOSED BHL

1570.98' ON AZI 164.55 DEGS

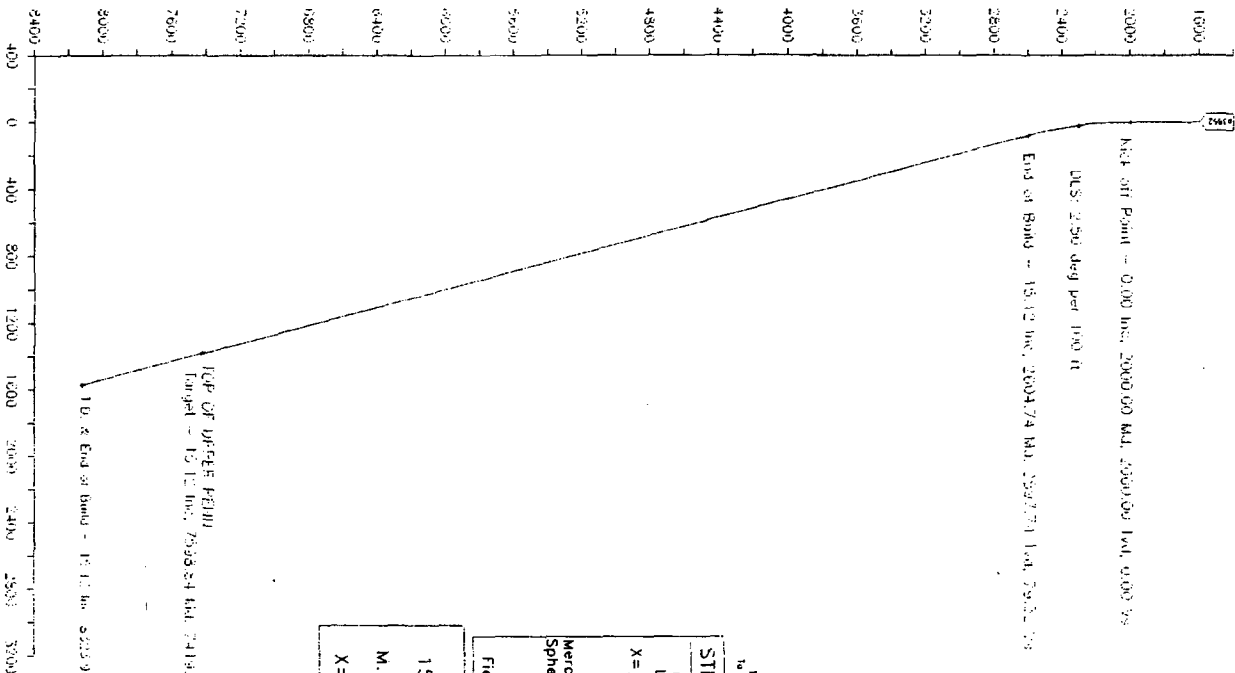
FROM SURFACE LOCATION

M.D: 8323.94' T.V.D: 8119.00'

S- 1514.19' E- 418.59'

X= 447220.39 Y= 527358.71

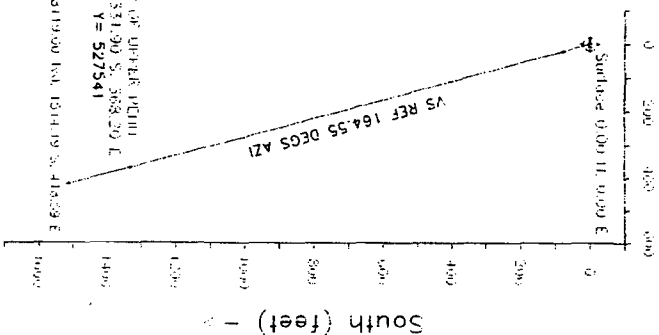
True Vertical Depth (feet)



FOR UP-DIP PERM  
Target - 7419.00 T.V.D. 1514.19 S. 418.59 E  
X= 447170 Y= 527541

TD & End of Build - 8119.00 Tvd, 1514.19 S, 418.59 E

East (feet) -



Credited By: kelvin

Date: 27-May-2003

File Reference is PD 203 341-01

Coordinates are in local reference slot #1.

True vertical depths are reference today table

Indu53

INTEQ

--- Baker Hughes INTEQ ---

Azimuth 164.55 with reference 0.00 N, 0.00 E from slot #1

Marathon Oil Company  
Indian Hills Unit #53

slot #1  
INDIAN BASIN  
Eddy County New Mexico

P R O P O S A L L I S T I N G

by  
Baker Hughes INTEQ

Your ref : P0 2DJ SM/JF  
Our ref : Prop3862  
License :

Date printed : 27-May-2003  
Date created : 27-May-2003  
Last revised : 27-May-2003

Field is centred on n32 30 0.000, w104 30 0  
Structure is centred on 446801.800, 528872.900, 999.00000, N

Slot location is n32 27 13.917, w104 30 20.874  
Slot Grid coordinates are N 528872.900, E 446801.800  
Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico East (3001), Spheroid: Clarke - 1866  
Reference North is Grid North

Marathon Oil Company  
Indian Hills Unit #53, slot #1  
INDIAN BASIN, Eddy County New Mexico

PROPOSAL LISTING Page 1  
Your ref : PO 2DJ SM/JF  
Last revised : 27-May-2003

Measured Depth	Inclin Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect	G R I D Easting	C O O R D S Northing
0.00	0.00	164.55	0.00	0.00N	0.00E	0.00	446801.80	528872.90
500.00	0.00	164.55	500.00	0.00N	0.00E	0.00	446801.80	528872.90
1000.00	0.00	164.55	1000.00	0.00N	0.00E	0.00	446801.80	528872.90
1500.00	0.00	164.55	1500.00	0.00N	0.00E	0.00	446801.80	528872.90
2000.00	0.00	164.55	2000.00	0.00N	0.00E	0.00	446801.80	528872.90
2100.00	2.50	164.55	2099.97	2.10S	0.58E	2.50	446802.38	528870.80
2200.00	5.00	164.55	2199.75	8.41S	2.32E	2.50	446804.12	528864.49
2300.00	7.50	164.55	2299.14	18.90S	5.22E	2.50	446807.02	528854.00
2400.00	10.00	164.55	2397.97	33.56S	9.28E	2.50	446811.08	528839.34
2500.00	12.50	164.55	2496.04	52.36S	14.48E	2.50	446816.28	528820.54
2600.00	15.00	164.55	2593.17	75.27S	20.81E	2.50	446822.61	528797.63
2604.74	15.12	164.55	2597.74	76.45S	21.14E	2.50	446822.94	528796.45
3000.00	15.12	164.55	2979.33	175.82S	48.60E	0.00	446850.40	528697.08
3500.00	15.12	164.55	3462.02	301.51S	83.35E	0.00	446885.15	528571.39
4000.00	15.12	164.55	3944.72	427.20S	118.10E	0.00	446919.90	528445.70
4500.00	15.12	164.55	4427.41	552.90S	152.85E	0.00	446954.65	528320.00
5000.00	15.12	164.55	4910.10	678.59S	187.59E	0.00	446989.39	528194.31
5500.00	15.12	164.55	5392.80	804.28S	222.34E	0.00	447024.14	528068.62
6000.00	15.12	164.55	5875.49	929.97S	257.09E	0.00	447058.89	527942.93
6500.00	15.12	164.55	6358.19	1055.67S	291.84E	0.00	447093.64	527817.23
7000.00	15.12	164.55	6840.88	1181.36S	326.58E	0.00	447128.38	527691.54
7500.00	15.12	164.55	7323.58	1307.05S	361.33E	0.00	447163.13	527565.85
7598.84	15.12	164.55	7419.00	1331.90S	368.20E	0.00	447170.00	527541.00
8323.94	15.12	164.55	8119.00	1514.19S	418.59E	0.00	447220.39	527358.71

Top of U.P.  
Terminus

All data in feet unless otherwise stated. Calculation uses minimum curvature method.  
 Coordinates from slot #1 and TVD from rotary table.  
 Bottom hole distance is 1570.98 on azimuth 164.55 degrees from wellhead.  
 Vertical section is from N 0.00 E 0.00 on azimuth 164.55 degrees.  
 Grid is mercator - New Mexico East (3001).  
 Grid coordinates in FBET and computed using the Clarke - 1866 spheroid  
 Presented by Baker Hughes INTEQ

Marathon Oil Company  
 Indian Hills Unit #53, slot #1  
 INDIAN BASIN, Eddy County New Mexico

PROPOSAL LISTING Page 2  
 Your ref : P0 2DJ SM/JF  
 Last revised : 27-May-2003

MD TVD Rectangular Coords. Comment  
 =====

7598.84 7419.00 1331.90S 368.20E TOP OF UPPER PENN

Targets associated with this wellpath  
 =====  
 Target name Geographic Location T.V.D. Rectangular Coordinates Revised

TOP OF UPPER PENN 447170.000,527541.000,0.00000 7419.00 1331.90S 368.20E 27-May-2003

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Oil Cons.  
N.M. Div-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Marathon Oil Company

3a. Address

P.O. Box 552 Midland, TX 79702

3b. Phone No. (include area code)

1-800-353-1417

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1383' FNL & 1586' FNL Sec. 28, T-21-S, R-24-E

BHL @ 2397' FSL & 2014' FNL Sec. 28, T-21-S, R-24-E

5. Lease Serial No.

NM-030482

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

INDIAN HILLS UNIT

8. Well Name and No.

INDIAN HILLS UNIT 53

9. API Well No.

30-015-32875

10. Field and Pool, or Exploratory Area

INDIAN BASIN U. P. ASSOC.

11. County or Parish, State

EDDY

NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☒ Subsequent Report  
☐ Final Abandonment Notice

TYPE OF ACTION

- |   |   |  |   |
|---|---|--|---|
| <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input type="checkbox"/> Other _____    |
| <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |   |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Please see attached well summary report.

ACCEPTED FOR RECORD

OCT - 6 2003

LES BABYAK  
PETROLEUM ENGINEER

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

Name (Printed/Typed)

Mike Mick

Title

Eng. Tech

Date

10-02-03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

# Marathon Oil Company Casing Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
Common Well Name: INDIAN HILLS UNIT NO. 53  
Event Name: ORIGINAL DRILLING

Report #: 1  
Start: 8/7/2003

Spud Date: 8/14/2003  
Report Date: 8/15/2003  
End:

## General Information

String Type: SURFACE CASING	Permanent Datum: KELLY BUSHING	Hole Size:	Hole TMD: 1,210.0 (ft)
Hole TVD: 1,210.0 (ft)	KB-Datum: 0.00 (ft)	Water TMD:	Str Wt on Slips: (lb)
Ground Level: 3,702.00 (ft)	CF Elevation:	Liner Overlap:	Max Hole Angle: 0.40 (°)
Circ Hours: (hr)	Mud Lost:	KB to Cutoff:	Days From Spud: (days)

## Casing Flange / Wellhead

Manufacturer: WOOD GROUP  
Hanger Model: 11" x 9 5/8"  
Model: FMC C-22  
Packoff Model:  
Top Hub/Flange: 11,000 (in) / 3,000 (psi)  
BTM Hub/Flange: 9,625 (in) / (psi)

Actual TMD Set: 1,210.120 (ft)

## Integral Casing Detail

Item	Size (in)	Weight (lb/ft)	Grade	Dmt (ft)	Threads	UTS	Length (ft)	Top (ft)	Hub TMD (ft)	Manufacturer	Model	Cond	Max OD (in)	Mfr ID (ft)	Comp Name
CASING FLOAT SHOE	9.625	36.0	K-55	8.765	8 ROUND	1	1,100					NEW		8.921	
CASING JOINT(S)	9.625	36.0	K-55	8.765	8 ROUND	1	44.970	1.10				NEW		8.921	
CASING FLOAT COLLA	9.625	36.0	K-55	8.765	8 ROUND	1	1,100	46.07				NEW		8.921	
CASING JOINT(S)	9.625	36.0	K-55	8.765	8 ROUND	26	1,162.950	47.17				NEW		8.921	

## Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	Top (ft)	Interval Bottom (ft)	How Fixed
CENTRALIZER	GEMCO	11	90.0	45.0	1,195.0	CLAMPED

# Marathon Oil Company Cementing Report

Page 1 of 3

Legal Well Name: INDIAN HILLS UNIT NO. 53	Report #: 1	Spud Date: 8/14/2003
Common Well Name: INDIAN HILLS UNIT NO. 53	Start: 8/7/2003	Report Date: 8/15/2003
Event Name: ORIGINAL DRILLING		End:

## Cement Job Type: Primary

Primary	Squeeze Open Hole	Squeeze Casing	Plug
Hole Size: 12.250 (in)	Hole Size:	Hole Size:	Hole Size:
TMD Set: 1,210.0 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 8/15/2003	SQ Date:	Date Set:	BTM set: (ft)
Csg Type: SURFACE CASING	SQ Type:	Csg Type:	Plug Date:
Csg Size: 9.625 (in)		SQ TMD:	Plug Type:
		SQ Date:	Drilled Out:
Cmtd. Csg: OPEN HOLE	Cmtd. Csg:	Cmtd. Csg:	Cmtd. Csg:

Cement Co: HALLIBURTON	Cementer:	Pipe Movement: NO MOVEMENT
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## Pipe Movement

Rot Time Start: :	Time End: :	RPM:	Init Torque: (ft-lbf)	Avg Torque: (ft-lbf)	Max Torque: (ft-lbf)
Rec Time Start: :	Time End: :	SPM:	Stroke Length: (ft)	Drag Up: (lb)	Drag Down: (lb)

## Stage No: 1 of 1

Type: PRIM CMT 1ST STAGE	Start Mix Cmt: 18:30	Disp Avg Rate: 4.00 (bbl/min)	Returns: 100% returns
Volume Excess %: 100.00	Start Slurry Displ: :	Disp Max Rate: 6.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From: KB	Start Displ: :	Bump Plug: Y	Cmt Vol to Surf: 120.00 (bbl)
Time Circ Prior	End Pumping: :	Press Prior: 600 (psi)	
To Cementing: 1.00	End Pump Date:	Press Bumped: 900 (psi)	Ann Flow After: N
Mud Circ Rate: 250 (gpm)	Top Plug: N	Press Held: 5 (min)	Mixing Method:
Mud Circ Press: 300 (psi)	Bottom Plug: Y	Float Held: Y	Density Meas By:

## Mud Data

Type: AIR/GAS Density: (ppg) Visc: (s/qt)	PV/YP: (cp)/(lb/100ft <sup>2</sup> ) Gels 10 sec: (lb/100ft <sup>2</sup> ) Gels 10 min: (lb/100ft <sup>2</sup> )	
Bottom Hole Circulating Temperature: 76 (°F)	Bottom Hole Static Temperature: (°F)	
Displacement Fluid Type: FRESH WATER	Density: 8.4 (ppg)	Volume: 138.00 (bbl)

## Stage No: 1 Slurry No: 1 of 4

### Slurry Data

Fluid Type: LEAD	Description: FOAM	Class: CLASS C	Purpose: FILLER CEM
Slurry Interval: (ft)	To: 837.00 (ft) Cmt Vol: 650 (sk)	Density: 14.8 (ppg)	Yield: 1.34 (ft <sup>3</sup> /sk)
Water Source: Frac-tanks	Slurry Vol: 10.0 (bbl)	Water Vol: 120.0 (bbl)	Other Vol: (l)
			Mix Water: 6.36 (gal/sk)
			Foam Job: Y

### Test Data

	Temperature: (°F)	Compressive Strength 1: 12.00	Temp (°F)	Pressure 600 (psi)
Thickening Time: 3.00				
Free Water: (%)	Temperature: (°F)	Compressive Strength 2: 24.00	(°F)	1,950 (psi)
Fluid Loss: 800.0 (cc)	Temperature: (°F)			
Fluid Loss Pressure: (°F)				

## Marathon Oil Company

Page 2 of 3

## Cementing Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL DRILLING

Report #: 1  
 Start: 8/7/2003

Spud Date: 8/14/2003  
 Report Date: 8/15/2003  
 End:

## Stage No. 1 Slurry No. 1 of 4 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
1.5% ZoneSeal		1.50			% BWOC
CALC2	ACCELERATOR	2.00			% BWOC

## Stage No. 1 Slurry No. 2 of 4

## Slurry Data

Fluid Type: TAIL Description: NEAT Class: CLASS C Purpose: SHOE INTEG  
 Slurry Interval: (ft) To: (ft) Cmt Vol: 150 (sk) Density: 14.8 (ppg) Yield: 1.34 (ft³/sk) Mix Water: 6.34 (gal/sk)  
 Water Source: Frac tanks Slurry Vol: (bbl) Water Vol: 36.0 (bbl) Other Vol: ( ) Foam Job: N

## Test Data

	Temperature: (°F)	Time	Temp	Pressure
Thickening Time:		Compressive Strength 1: 12.00	(°F)	1,800 (psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2: 24.00	(°F)	3,200 (psi)
Fluid Loss: (cc)	Temperature: (°F)			
Fluid Loss Pressure: (°F)				

## Stage No. 1 Slurry No. 2 of 4 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CALC2	ACCELERATOR	2.00			% BWOC
Cal-Seal		10.00			% BWOC

## Stage No. 1 Slurry No. 3 of 4

## Slurry Data

Fluid Type: OTHER Description: FOAM Class: CLASS C Purpose: FILLER CEM  
 Slurry Interval: 200.00 (ft) To: 450.00 (ft) Cmt Vol: 150 (sk) Density: 14.8 (ppg) Yield: 1.35 (ft³/sk) Mix Water: 6.37 (gal/sk)  
 Water Source: Slurry Vol: (bbl) Water Vol: (bbl) Other Vol: ( ) Foam Job: Y

## Test Data

	Temperature: (°F)	Time	Temp	Pressure
Thickening Time:		Compressive Strength 1: 12.00	(°F)	600 (psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2: 24.00	(°F)	1,200 (psi)
Fluid Loss: 800.0 (cc)	Temperature: (°F)			
Fluid Loss Pressure: (°F)				

## Stage No. 1 Slurry No. 3 of 4 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
Zonesealant		1.50			% BWOC
CaCl2		2.00			% BWOC

## Marathon Oil Company

Page 3 of 3

## Cementing Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
Common Well Name: INDIAN HILLS UNIT NO. 53  
Event Name: ORIGINAL DRILLING

Report #: 1  
Start: 8/7/2003

Spud Date: 8/14/2003  
Report Date: 8/15/2003  
End:

## Stage No: 1 Slurry No: 4 of 4

## Slurry Data

Fluid Type: OTHER Description: BENTONITE ACCEL. Class: CLASS C Purpose: CONDUCTOR  
Slurry Interval: (ft) To: (ft) Cmt Vol: 30 (sk) Density: 14.8 (ppg) Yield: 1.32 (ft³/sk) Mix Water: 14.80 (gal/sk)  
Water Source: Slurry Vol: (bbl) Water Vol: (bbl) Other Vol: ( ) Foam Job: Y

## Test Data

	Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1: 12.00	(°F) 1,800 (psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2: 24.00	(°F) 3,200 (psi)
Fluid Loss: 200.0 (cc)	Temperature: (°F)		
Fluid Loss Pressure: (°F)			

## Stage No: 1 Slurry No: 4 of 4 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CALC2	ACCELERATOR	2.00			% BWOC
Cal-Seal		10.00			% BWOC

## Casing Test

## Shoe Test

## Liner Top Test

Test Press: 2,000 (psi)  
For: 10 (min)  
Cement Found between  
Shoe and Collar: Y

Pressure: (ppge)  
Tool: N  
Open Hole: (ft)  
Hrs Before Test:

Liner Lap:  
Pos Test: (ppge) Tool: N  
Neg Test: (ppge) Tool: N  
Hrs Before Test:  
Cement Found on Tool: N

## Log/Survey Evaluation

## Interpretation Summary

CBL Run: N  
Under Pressure: (psi)  
Bond Quality:  
Cet Run: N  
Bond Quality:  
Temp Survey: N  
Hrs Prior to Log:

Cement Top: 100 (ft)  
How Determined: Water Volume/Filled  
TOC Sufficient: N  
Job Rating:  
If Unsuccessful Detection Indicator:  
Remedial Cementing Required: N  
Number of Remedial Squeezes:

## Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL DRILLING  
 Contractor Name: MCVAY DRILLING  
 Rig Name: MCVAY DRILLING

Start: 8/7/2003  
 Rig Release: 8/30/2003  
 Rig Number: 4  
 Spud Date: 8/14/2003  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
8/13/2003	06:00 - 22:00	16.00	RIG	MIRU	MIRU	Location built by Key Services: Added on to IHU #34 Drilled & set 40' by 14" conductor pipe, rat & mouse hole. Cemented conductor to surface. Welded on 13 5/8" flange & N/U 13 5/8" 3m Hydril w/ rotating head. MIRU rig & equipment. Weld on flowline
8/15/2003	06:00 - 09:00	3.00	EQUIP	RURD	MIRU	RU/RD Equipment. PU 12 1/4" hammer bit. Safety meeting
	09:00 - 13:30	4.50	DRILL	DOHR	DRLSUR	Spudded 12 1/4" hole @ 0900 hrs. Drill Open Hole Rotary. Air drilled f/ 56' t/ 295'.
	13:30 - 14:45	1.25	EQUIP	REQP	DRLSUR	Survey. Redman shut down Booster to ck oil. Not able to start. Chg out starter. Down 1 hr.
	14:45 - 20:30	5.75	DRILL	AIR	DRLSUR	Air Drilling. Water @ 491'. 2 t/3 BPM.
	20:30 - 20:45	0.25	SURV	GYRO	DRLSUR	Survey with GYRO system
8/16/2003	20:45 - 02:15	5.50	DRILL	AIR	DRLSUR	Aired drilled
	02:15 - 02:30	0.25	SURV	GYRO	DRLSUR	Survey with GYRO system
	02:30 - 06:00	3.50	DRILL	AIR	DRLSUR	Aired drilled 30 GPH 3200 SCF Drilling 48"/hr.
	06:00 - 09:00	3.00	DRILL	AIR	DRLSUR	Air Drilling
	09:00 - 09:15	0.25	SURV	GYRO	DRLSUR	Survey with GYRO system
	09:15 - 13:00	3.75	DRILL	AIR	DRLSUR	Air Drilling
	13:00 - 13:15	0.25	CIRC	CLN	DRLSUR	Circulate Clean
	13:15 - 13:30	0.25	SURV	GYRO	DRLSUR	Survey with GYRO system
	13:30 - 14:30	1.00	TRIP	BIT	DRLSUR	TOOH. LD 1- 8" DC. L/D Hammer.
	14:30 - 17:30	3.00	CSG	RUN	CSGSUR	Safety meeting. RU. Ran 27 jts of 9 5/8", 36#, K-55 csg. Landed @ 1210'.
8/17/2003	17:30 - 18:30	1.00	CIRC	CLN	CSGSUR	Circulate Clean. Good returns.
	18:30 - 20:00	1.50	CEMT	PRIM	CSGSUR	Safety meeting. Tst t/ 3000 psi. RU Cmt. Pumped 10,000 SCF of N2, 20 bbls of gelled water ahead of Cmt w/ 650 sks. of Premuim Plus( foamed) tailed w/ 150 sks of Premuim Plus w/ 2% CaCl2. Circ 400 sks. Bullheaded 35 sks of Thix-set down annulus. SI @ 108 psi.
	20:00 - 00:00	4.00	WAIT	CEMT	CSGSUR	Wait on Cement
	00:00 - 03:00	3.00	NUND	UBOP	CSGSUR	Cut of 14" & 9 5/8" csg. Pulled Hydril. Welded on 9 5/8" SOW x 11" 3M Casing head. Tested t/ 1500 psi.
	03:00 - 06:00	3.00	NUND	UBOP	CSGSUR	NU 11" BOP & choke @ 0600 hrs.
	06:00 - 07:00	1.00	NUND	UBOP	CSGSUR	Install BOP Equipment
	07:00 - 12:30	5.50	TEST	BOP	CSGSUR	Tested pipe & blind rams, choke, TIW valves t/ 3000 psi high, 250 psi low. Tested Hydril t/ 1500 psi high, 250 psi low. Ran Acc test. Replaced 1" manual choke & 2" choke valve.
	12:30 - 15:30	3.00	TRIP	BBHD	CSGSUR	PU 8 3/4" bit, Motor, NM DC, Tested Teleco & motor. TIH w/ 6 1/4" DC's & HWDP. Tagged @1152'.
	15:30 - 15:45	0.25			CSGSUR	Test Casing 1500 psi.
	15:45 - 16:30	0.75	DRILL	CEMT	CSGSUR	Drill Cement / Drill Shoe
8/18/2003	16:30 - 17:30	1.00	EQUIP	RURD	CSGSUR	Weld saddle in flowline. Hook up RPM's ( Epoch)
	17:30 - 18:15	0.75	DRILL	CEMT	CSGSUR	Drill Cement / Drill Shoe
	18:15 - 19:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary t/ KOP.
	19:30 - 20:30	1.00	RIG	RCNT	DRLPR	Repaired Rotary lock.
	20:30 - 22:30	2.00	CHECK	SURF	DRLPR	Trouble shoot Panal t/ Teleco.
	22:30 - 00:30	2.00	TRIP	BHA	DRLPR	Trip for BHA
	00:30 - 05:00	4.50	WAIT	EQUIP	DRLPR	Wait on Teleco.
	05:00 - 06:00	1.00	TRIP	BHA	DRLPR	PU new Teleco. TIH @ 0600 hrs.
	06:00 - 06:30	0.50	TRIP	BHA	DRLPR	Trip for BHA
	06:30 - 06:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	06:45 - 07:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:15 - 07:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	07:45 - 08:00	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 08:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide

## Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL DRILLING  
 Contractor Name: MCVAY DRILLING  
 Rig Name: MCVAY DRILLING

Start: 8/7/2003  
 Rig Release: 8/30/2003  
 Rig Number: 4

Spud Date: 8/14/2003  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operation
8/18/2003	08:30 - 09:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:00 - 09:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	09:15 - 09:30	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:30 - 09:45	0.25	EQUIP	RSEQ	DRLPR	Chg out flowline valve.
	09:45 - 10:30	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:30 - 10:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	10:45 - 12:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:00 - 12:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	12:15 - 12:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:45 - 13:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	13:15 - 13:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:45 - 14:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	14:00 - 14:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	14:30 - 14:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	14:45 - 15:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:15 - 15:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	15:45 - 16:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:15 - 16:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	16:30 - 17:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	17:00 - 17:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	17:30 - 18:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:00 - 18:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	18:30 - 19:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:00 - 19:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	19:30 - 20:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:00 - 20:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	20:15 - 20:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:45 - 21:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	21:00 - 23:15	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:15 - 23:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:30 - 00:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:45 - 01:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:00 - 02:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:00 - 02:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:15 - 02:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	02:30 - 03:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:45 - 04:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:00 - 04:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	04:15 - 06:00	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
8/19/2003	06:00 - 07:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:00 - 07:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	07:15 - 07:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	07:30 - 10:00	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:00 - 10:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:15 - 10:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	10:30 - 11:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:45 - 12:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:00 - 12:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	12:15 - 16:15	4.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:15 - 16:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:30 - 16:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	16:45 - 18:30	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:30 - 18:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools

# Marathon Oil Company

## Operations Summary Report

Page 3 of 7

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL DRILLING  
 Contractor Name: MCVAY DRILLING  
 Rig Name: MCVAY DRILLING

Start: 8/7/2003  
 Rig Release: 8/30/2003  
 Rig Number: 4

Spud Date: 8/14/2003  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
8/19/2003	18:45 - 19:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	19:00 - 20:45	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:45 - 21:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:00 - 21:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	21:15 - 23:00	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:00 - 23:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:15 - 01:30	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:30 - 01:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:45 - 02:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	02:15 - 04:15	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:15 - 04:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:30 - 06:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
8/20/2003	06:00 - 07:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:00 - 07:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	07:15 - 07:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	07:45 - 09:45	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:45 - 10:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:00 - 10:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	10:30 - 12:45	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:45 - 13:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:00 - 16:00	3.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:00 - 16:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:15 - 18:45	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:45 - 19:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:00 - 19:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	19:30 - 21:45	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:45 - 22:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	22:00 - 22:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	22:30 - 01:00	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:00 - 01:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:15 - 02:30	1.25	DRILL	DOHS	DRLPR	Drill Open Slide
	02:30 - 04:45	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
8/21/2003	04:45 - 05:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	05:00 - 06:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:00 - 08:00	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 08:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:15 - 10:30	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:30 - 10:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:45 - 13:15	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:15 - 13:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:30 - 16:00	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:00 - 16:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:15 - 16:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide w/ 180 T/F
	16:45 - 19:15	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:15 - 19:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:30 - 23:15	3.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary . Switched to pump #1. 4319' to 4395'. Lower out put & pressure. Cut back on wt. P-rate slowed down to 25' Per hour.
	23:15 - 23:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:30 - 02:00	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:00 - 02:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:15 - 05:00	2.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	05:00 - 05:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	05:15 - 06:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary

## Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL DRILLING  
 Contractor Name: MCVAY DRILLING  
 Rig Name: MCVAY DRILLING

Start: 8/7/2003  
 Rig Release: 8/30/2003  
 Rig Number: 4  
 Spud Date: 8/14/2003  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
8/22/2003	06:00 - 08:00	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 08:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:15 - 08:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide . 160R . Switched to pump #1.
	08:45 - 11:45	3.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Still on pump #1. Replace swabs on pump #2. P-rate slowed down due to less wt on bit & less gpm on motor.
	11:45 - 12:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:00 - 15:00	3.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Switched back to pump #2.
	15:00 - 15:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:15 - 17:15	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	17:15 - 17:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	17:30 - 20:30	3.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:30 - 20:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	20:45 - 21:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:45 - 00:30	2.75	TRIP	BIT	DRLPR	POOH w/ Bit #2. Bearing were going out on motor. Button's on bit started breaking of on gauge roll on all three comb's. Flat crested wear on bit.
	00:30 - 01:30	1.00	TRIP	BBHD	DRLPR	BHA/Bit Handling. Changed out motor bearing was going out & replace bit. Check motor & MWD O.K.. Installed bit #3.
	01:30 - 05:30	4.00	TRIP	BIT	DRLPR	TIH w/ Bit #3 . Picked up kelly & wash 40' to btm. No fill.
	05:30 - 06:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
8/23/2003	06:00 - 08:00	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 08:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:15 - 08:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 110 R
	08:30 - 10:45	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:45 - 11:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:00 - 11:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 75R
	11:15 - 11:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:45 - 12:15	0.50	RIG	RCNT	DRLPR	Rig Repair, Contractor owned. Worked on over riding clutch.
	12:15 - 13:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:45 - 14:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:00 - 14:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. H/S
	14:15 - 15:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:00 - 15:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 15R
	15:15 - 16:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:15 - 16:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:30 - 17:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. H/S
	17:00 - 18:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:00 - 18:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	18:15 - 18:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide.
	18:45 - 19:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:45 - 20:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	20:00 - 20:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	20:30 - 21:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:30 - 21:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:45 - 22:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	22:30 - 23:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:30 - 23:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:45 - 00:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	00:30 - 01:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:45 - 02:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:00 - 02:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	02:45 - 03:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:45 - 04:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools

## Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL DRILLING  
 Contractor Name: MCVAY DRILLING  
 Rig Name: MCVAY DRILLING

Start: 8/7/2003  
 Rig Release: 8/30/2003  
 Rig Number: 4  
 Spud Date: 8/14/2003  
 End:  
 Group:

Date	From - To	Hours	Code	Sub-Code	Phase	Description of Operations
8/23/2003	04:00 - 04:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	04:45 - 06:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
8/24/2003	06:00 - 07:00	1.00	DRILL	DOHS	DRLPR	Drill Open Slide. 15L
	07:00 - 08:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:15 - 08:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:30 - 09:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 30L
	09:00 - 10:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:15 - 10:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:30 - 11:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 30L
	11:00 - 12:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:15 - 12:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:30 - 13:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 30L
	13:00 - 14:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	14:15 - 14:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:30 - 15:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide. 20L
	15:15 - 15:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:45 - 16:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 20L
	16:15 - 16:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:45 - 17:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	17:00 - 17:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide. 25L
	17:45 - 18:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:15 - 19:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	19:00 - 19:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:45 - 20:45	1.00	RIG	RCNT	DRLPR	Rig Repair, Contractor owned. Replaced overriding clutch plate.
	20:45 - 21:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:00 - 21:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	21:30 - 22:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:45 - 23:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:00 - 00:00	1.00	DRILL	DOHS	DRLPR	Drill Open Slide
	00:00 - 01:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:15 - 01:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:30 - 02:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	02:15 - 03:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:45 - 04:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:00 - 04:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	04:30 - 06:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
8/25/2003	06:00 - 06:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	06:15 - 06:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 45L
	06:30 - 08:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 08:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:15 - 08:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 110L
	08:30 - 11:00	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:00 - 11:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:15 - 13:30	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:30 - 13:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:45 - 14:00	0.25	NUND	URTH	DRLPR	Install Rotating Head
	14:00 - 14:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 175R
	14:30 - 16:15	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:15 - 16:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:30 - 17:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 165R
	17:00 - 18:45	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:45 - 19:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:00 - 19:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide.

## Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL DRILLING  
 Contractor Name: MCVAY DRILLING  
 Rig Name: MCVAY DRILLING

Start: 8/7/2003  
 Rig Release: 8/30/2003  
 Rig Number: 4  
 Spud Date: 8/14/2003  
 End:  
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
8/25/2003	19:30 - 21:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:00 - 21:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:15 - 23:15	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:15 - 23:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:30 - 00:30	1.00	DRILL	DOHS	DRLPR	Drill Open Slide. 25R
	00:30 - 02:15	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:15 - 02:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:30 - 03:45	1.25	DRILL	DOHS	DRLPR	Drill Open Slide. HS
	03:45 - 06:00	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Switched to pump #1 @ depth 7145' to 7170'. Swab on motor side went out. Switched back to #2 @ 7170'.
8/26/2003	06:00 - 06:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide. 30L
	06:45 - 07:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Pumped 10 bbl sweeps w/ magnifiber & gel to clean hole.
	07:15 - 07:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 15L
	07:45 - 08:30	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:30 - 08:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:45 - 09:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 30L
	09:15 - 10:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Pump 10-15 bbl sweeps w/ magnifiber & gel to clean hole.
	10:45 - 11:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:00 - 11:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 45L
	11:30 - 13:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:00 - 13:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:15 - 13:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 25L
	13:45 - 15:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Pump 10-15 bbl sweeps w/ magnifiber & gel to clean hole.
	15:15 - 15:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:30 - 17:30	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	17:30 - 17:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	17:45 - 18:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 120L
	18:00 - 19:30	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Pumped
	19:30 - 19:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:45 - 20:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 120L
	20:15 - 21:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Pump 10-15 bbl sweeps w/ magnifiber & gel to clean hole.
	21:45 - 22:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	22:00 - 23:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Started losing returns. Pit check. 18-20 BPH. Started pumping 25 bbl sweeps w/ magnifiber to clean hole & help w/ lost returns.
	23:15 - 23:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:30 - 00:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 120L
	00:00 - 01:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:00 - 01:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:15 - 01:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 140L
	01:30 - 02:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:30 - 02:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:45 - 04:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Pump 25 bbl sweep w/ magnifiber w/ gel to sweep hole & help w/ lost returns.
8/27/2003	04:15 - 04:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:30 - 05:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 140L
	05:00 - 06:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Losing up to 30-35 bph.
	06:00 - 06:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	06:15 - 06:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. 160L

Marathon Oil Company  
**Operations Summary Report**

Page 7 of 7

Legal Well Name: INDIAN HILLS UNIT NO. 53  
Common Well Name: INDIAN HILLS UNIT NO. 53  
Event Name: ORIGINAL DRILLING  
Contractor Name: MCVAY DRILLING  
Rig Name: MCVAY DRILLING

Start: 8/7/2003  
Rig Release: 8/30/2003  
Rig Number: 4  
Spud Date: 8/14/2003  
End:  
Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
8/27/2003	06:30 - 07:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:30 - 07:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	07:45 - 09:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:00 - 09:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	09:15 - 09:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 150L
	09:45 - 11:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Started mudding up @ 8120'.
	11:00 - 11:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:15 - 13:00	1.75	DRILL	DOHS	DRLPR	Drill Open Slide
	13:00 - 13:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:15 - 15:15	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:15 - 15:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:30 - 17:45	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	17:45 - 18:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	18:00 - 20:30	2.50	CIRC	HOLE	DRLPR	Circulate and Condition Hole
	20:30 - 21:30	1.00	TRIP	WTRP	DRLPR	Wiper Trip. 12 stand round trip.
	21:30 - 22:15	0.75	CIRC	HOLE	DRLPR	Circulate and Condition Hole. Wash down 31' & spotted pill.
	22:15 - 02:30	4.25	TRIP	LOGS	DRLPR	POOH to log. Strapped out.
	02:30 - 03:30	1.00	TRIP	BBHD	DRLPR	BHA/Bit Handling. L/D Baker tool's & loaded on truck.
	03:30 - 06:00	2.50	LOG	OPEN	DRLPR	Standard Open Hole Logging. R/U & make up tools to log well.
	06:00 - 10:00	4.00	LOG	OPEN	EVALPR	Standard Open Hole Logging. Top of the logging tools hung in the bottom of Logging Adapter. Pulled out of rope socket dropping 60' of tools down hole.
8/28/2003	10:00 - 11:30	1.50	FISH	PFSH	EVALPR	Waited on overshot
	11:30 - 18:00	6.50	FISH	PFSH	EVALPR	Made up 7 3/8" OD overshot, 3 5/8" grapple. TIH. t/ top of fish @ 8240'. Engaged overshot over fish. Good increase in pump pressure 2-4,000# drag.
	18:00 - 23:30	5.50	FISH	PFSH	EVALPR	Pull out of Hole with Fishing Tools / Fish
	23:30 - 00:30	1.00	FISH	PFSH	EVALPR	L/D logging tool & tools. Full recovery.
	00:30 - 01:45	1.25	TRIP	BIT	EVALPR	TIH w/ 8 3/4" bit & Dc's.
	01:45 - 03:15	1.50	RIG	SCDL	EVALPR	Slip and Cut Drill Line
	03:15 - 06:00	2.75	TRIP	BIT	EVALPR	TIH w/ 8 3/4" bit t/ 8300'. Circ @ 00600 hrs.

## Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL COMPLETION  
 Contractor Name: MCVAY DRILLING  
 Rig Name: MCVAY DRILLING

Start: 8/7/2003  
 Rig Release: 8/30/2003  
 Rig Number: 4  
 Spud Date: 8/14/2003  
 End:  
 Group:

Date	From To	Hours	Code	Sub Code	Phase	Description of Operations
8/29/2003	06:00 - 08:00	2.00	DRILL	DOHR	CSGPRO	Circ/Drill Open Hole Rotary
	08:00 - 09:30	1.50	CIRC	CLN	CSGPRO	Circulate Clean
	09:30 - 17:30	8.00	TRIP	LDDP	CSGPRO	RU L/D machine. Safety meeting. LD DP & DC's.
	17:30 - 02:30	9.00	CSG	RUN	CSGPRO	Safety meeting. Ran FS, FS, FC, 78- jts of 7", 26#, 100 jts of 7" 23# csg. Landed @ 8315'. No fill.
	02:30 - 03:45	1.25	CIRC	CLN	CSGPRO	Circulate
8/30/2003	03:45 - 06:00	2.25	CEMT	PRIM	CSGPRO	Safety meeting. RU cmt head. Tested lines t/ 4000 psi. Pumped 50,000 SCF of N2 ahead. Pumped 10 bbls of 2% CaCl2 water, 10 bbl water spacer, 24 bbls of Super flush, 10 bbls of water, Slurry-1 Cemented w/ 100 sks of foamed acid soluble cement @ 15 ppg Yield- 2.55. Slurry-2 1200 sks of foamed Premuim 2% Zonesealant, Yield-1.125 @ 15.2 ppg tailed w/ 120 sks of Mod. "H". Cmt @ 06000 hrs.
	06:00 - 08:00	2.00	CEMT	PRIM	CSGPRO	Safety meeting. RU cmt head. Tested lines t/ 4000 psi. Pumped 50,000 SCF of N2 ahead. Pumped 10 bbls of 2% CaCl2 water, 10 bbl water spacer, 24 bbls of Super flush, 10 bbls of water, Slurry-1 Cemented w/ 100 sks of foamed acid soluble cement @ 15 ppg Yield- 2.55. Slurry-2 1200 sks of foamed Premuim 2% Zonesealant, Yield-1.25 @ 15.2 ppg tailed w/ 120 sks of Mod. "H". Cmt Yield-1.67 @ 13 ppg. Circ 320 sks. Capped w/ 75sks of Premuim plus.
	08:00 - 14:00	6.00	NUND	DBOP	XMBO	ND BOP. Set 7" slips. Cut off 7" csg. Pulled BOP. NU 11" x 7 1/16" 3M Tubing Head. Tested t/ 2000 psi.
	14:00 - 15:00	1.00	EQUIP	RURD	XMBO	Jet pits. Rig released @ 1500 hrs CST.
	07:00 - 10:00	3.00	RIG	MIRU		Pre job safety meeting. WO anchors to be set. Unload, prep and tally 267 jts of 2 7/8" L-80 new tubing. Set and tested anchors. RU PU.
9/4/2003	10:00 - 16:00	6.00	PLRNRP		OTHER	RU PU/LD machine. PU 264 jts. of tubing. RIH tag at 8269'
	16:00 - 18:00	2.00	FLUID	DPLC	RCMP	Displace hole with freshwater. Pickle tubing with 1000 gals 17% HCl. Reverse out to acid tank.
	18:00 - 19:00	1.00	PLRNRP		RCMP	POOH with tubing 50 stands. SDFN.
	06:00 - 07:00	1.00	PLRNRP			PJSM, POOH with tubing.
	07:00 - 11:30	4.50	LOG	CSGD		RU Baker Atlas cased hole loggers. RIH and log from PBTD to 7400'. POOH with W/L Encountered slight drag on bottom 50'. RD cased hole loggers.
9/5/2003	11:30 - 17:30	6.00	PERF			RU Baker Atlas. RIH and get on depth. Perforate Upper Penn. Made 9 perf runs (see perforation report). IFL - 500' from surface. FFL - 650' from surface.
	17:30 - 18:00	0.50	PLRNRP			RIH with killstring. SDFN.
	06:45 - 07:30	0.75	PLRNRP			PJSM. POOH with killstring.
	07:30 - 10:00	2.50	PERF			RU Baker Atlas. RIH and perforate Upper Penn. 5 runs from 76212'-7732'. Fluid level at start of operations, 4000' from surface, fluid level on last run, 4400' from surface. RD Baker Atlas.
	10:00 - 12:00	2.00	PKRPLG			PU 7" PPI packers with 2' spacings. RIH and swing above top perf. SDFW.
9/8/2003	07:00 - 08:00	1.00	RIG			PJSM. MIRU Halliburton Energy Services. Test lines to 3850 psi. Drop RFC valve and function test.
	08:00 - 19:00	11.00	STIM			PPI new perforations with 100 gpf 17% CCA sour. POOH 10 stands. SDFN.
9/9/2003	07:00 - 09:30	2.50	PLRNRP			PJSM. POOH with PPI packers on production tubing. LD PPI tools.
	09:30 - 10:30	1.00	PKRPLG			PU 7" BV RBP and RIH to 3500'. Load and test to 500 psi. POOH to 40 stand killstring. SDFN.
9/10/2003	06:00 - 06:30	0.50	SAFETY	SMTG	RCMP	Safety Meeting
	06:30 - 14:30	8.00	PLRNRP	ESP	RCMP	BO psi. POH w/ KS. PU and assembled GC2900 pump w/ 223 stages and tandem 150 HP motors. RU 3 spoolers. Respliced motor lead due to burr in cable. Located 72 protector clamps left over from other job.

## Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 53  
 Common Well Name: INDIAN HILLS UNIT NO. 53  
 Event Name: ORIGINAL COMPLETION  
 Contractor Name: MCVAY DRILLING  
 Rig Name: MCVAY DRILLING

Start: 8/7/2003  
 Rig Release: 8/30/2003  
 Rig Number: 4

Spud Date: 8/14/2003  
 End:  
 Group:

Date	From To	Hours	Code	Sub Code	Phase	Description of Operations
9/10/2003	06:30 - 14:30	8.00	PLRNRP	ESP	RCMP	RIH on 36 stands of 2 7/8" L-80 tubing until collar clamp supply was exhausted. Left pump swinging. Closed torus and SDFN. Notified engineering to obtain additional clamps for run in tomorrow.
9/11/2003	06:30 - 07:00	0.50	SAFETY	SMTG	RCMP	Safety Meeting
	07:00 - 14:00	7.00	PLRNRP	ESP	RCMP	Bled off. Opened torus. Unloaded pallet of cable clamps. Prepped clamps. CIH w/ pump on 14 additional stands of 2 7/8" tubing to RBP. Latched on to RBP. Allowed pressure to equalize. CIH w/ remaining 157 jts of 2 7/8" tbg. Used a total of 202 protector clamps (1690' f/ surface) PU new hanger. Made top splice. Connected cable to bottom of hanger and 2 CT nylon lines Land hanger in wellhead. Nipple down blow out preventer and torus annular. Build wellhead tubing connections in to casing wrap around. Open flowline. SDFN

## MARATHON OIL COMPANY

Page 1 of 2

Daily Drilling Report  
Development-Gas

WELL NAME UTLEY A-9	KB 22.0	GL 357.00	24 HR PROG	TMD 5,090	TVD 5,056	DFS 7	DOL 8	RPT # 7	DATE 28-Sep-2003
SUPERVISOR Danny Jackson	RIG NAME & NO. NABORS 365			AUTH MD 12,637	WBS DD.03.09208.CAP.DRL			SAP/WBS COST 931,000	
FIELD NAME MIMMS CREEK	RIG PHONE 903-389-1208			MOC WI 37.5000	NRI 31.0246	DAILY WELL COST 120,498.00		CUM WELL COST 480,469.08	
STATE/PROV Texas	COUNTY/OTHER Freestone		LAST CASING 9.625 (in) @ 5,090 (ft)			NEXT CASING 4,500 (in) @ 12,650 (ft)			LEAKOFF
CURRENT STATUS / MTS P/U Motor			24 HR FORECAST						

OPERATION COMMENTS  
Run 9 5/8 Csg., Cement, Nipple up BOP

## OPERATIONS SUMMARY

FROM	TO	HRS	FROM	TO	SUB	PHASE	OP	TRBL	DESCRIPTION
06:00	07:00	1.00	5,090	5,090	AF	DRLIN1	TRIP		Finish L/D Directional Tools & MWD
07:00	07:30	0.50	5,090	5,090	AF	CSGIN1	SAFETY		Hold Pre Job Safety Meeting With Csg. Crew, L/D Machine Operators, And Nabors Emp.
07:30	08:30	1.00	5,090	5,090	AF	CSGIN1	EQUIP		RU Bo Gray Csg. Crew & Lay Down Machine.
08:30	09:00	0.50	5,090	5,090	TA	CSGIN1	EQUIP	CSHD	Weld up J hooks on L/D shute
09:00	13:30	4.50	5,090	5,090	AF	CSGIN1	CSG		M/U Float Shoe and Float Collar, Run 110 lts. of 9 5/8", 40#, J-55, Csg. to 5,090'. (1 shoe Jt. 52 Centrizers installed)
13:30	14:00	0.50	5,090	5,090	AF	CSGIN1	CEMT		Install Haliburton Cementing Head and lines
14:00	15:30	1.50	5,090	5,090	AF	CSGIN1	CIRC		Circulate and Condition Hole for cement job.
15:30	17:00	1.50	5,090	5,090	AF	CSGIN1	CEMT		Pumped 20 bbl. water spacer, Mix and pump Lead Cement 970 sks. Haliburton Light Cement + 0.3% CFR-3 + 0.3% Econolite, + 0.25# sx. Phenoseal LCM, + 10.64 GPS water. Mixed @ 12.4 ppg. 1.93 CF/sx. 334 bbl. slurry. Tailed with 230 sxs. Premium Cement, 5.23 GPS mix water. Mixed @ 15.6 ppg. Yield 1.93 CF/Sx., 48.5 bbbls. slurry. Displace with 383 bbbls. 9.1 ppg. mud. Bumped plug with 500 psi. over Diff. psi. of 1,100 psi. Floats Held, Bleed back 2.5 bbbls. 100% Returns through out job. Returned 80 bbbls. Cement to Surface.  Faxed TRRC District 5 Notification Form and Intention of Cementing.
17:00	18:00	1.00	5,090	5,090	AF	CSGIN1	NUND		Flush out Riser, well head, flow line with water, R/D Haliburton
18:00	21:30	3.50	5,090	5,090	AF	CSGIN1	NUND		Lift Riser Set slips with 100% String wt. of 125,000. Make Rough Cut on Csg. Remove Riser and Csg. from under Rig, Make Final Cut on Csg. Install "B" Section, and test to 1,500 psi.
21:30	02:00	4.50	5,090	5,090	AF	CSGIN1	NUND		Nipple up 11" 5M BOP
02:00	04:30	2.50	5,090	5,090	AF	CSGIN1	TEST		Test Bop and all related well control equipment to 250 low, 5,000 psi. high. Test Annular to 250 psi. low, 3,000 high.
04:30	05:00	0.50	5,090	5,090	AF	CSGIN1	DRILL		Rig Up & Clear off Floor, Install Wear Bushing, Close Csg. Valve.
05:00	06:00	1.00	5,090	5,090	AF	DRLPR	TRIP		Make up Bit, Motor, Teledrift Sub.

DENSITY(ppg)	9.10	PP		ECD		MUD DATA	DAILY COST		0.00	CUM COST		2937.00		
FV	PV/YP	GELS	WL/HTHP	FC/T.SOL	O/W	%Sand/MBT	Ph/pM	Pt/Mt	Cl/Ca	CaCl2(wt%)	H2S	LIME	ES	6RPM
34	5/5	2/7	18.0/	/	/	/	8/	/	600 /					

## MARATHON OIL COMPANY

Page 2 of 2

Daily Drilling Report  
Development-Gas

WELL NAME	KB	GL	24 HR PROG	TMD	TVD	DFS	DOL	RPT #	DATE
UTLEY A-9	22.0	357.00		5,090	5,056	7	8	7	28-Sep-2003

## MATERIALS / CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL							

## PERSONNEL DATA

POB @ 06:00:

COMPANY	SERVICE	NO.	HOURS	COMPANY	SERVICE	NO.	HOURS
Nabors Drilling USA	Drilling Contractor	11	132.00	Woods Group	Well Head	1	5.00
Baroid Drilling Fluids	Mud Engr	1	2.00	Bo Gray	Csg. Crew & L/D Machine	4	28.00
Brammer Eng.	Consulting	1	24.00	Halliburton	Cementing	4	20.00
Scientific Drilling	Directional driller & MWD	3	18.00	Jet Blast	Bop Testing	1	6.00
Bo Gray	L/D Machine, Csg. Crew	5	40.00	Simons Petroleum	Fuel	1	2.00

## CASING SUMMARY

LAST BOP TEST: 9/28/2003

LAST CASING TEST:

NEXT BOP TEST:

SIZE (in)	ID (in)	SHOE TEST (ppg)	MAX SICP (psi) @ (ppg)	MD (ft)	TVD (ft)	WT (lb/ft)	GRADE	BURST (psi)
13.375	12.715			1,076	1,076	48.00	H-40	1,730
9.625	8.835		(psi) @ 9.10 (ppg)	5,090	5,056	40.00	J-55	3,950

## MARATHON OIL COMPANY

Page 1 of 2

Daily Drilling Report  
Development-Gas

WELL NAME UTLEY C-15	KB 21.0	GL 408.00	24 HR PROG 185.0	TMD 10.445	TVD 10,445	DFS 13	DOL 18	RPT # 13	DATE 28-Sep-2003
SUPERVISOR Bruce Ellis	RIG NAME & NO. NABORS DRILLING 151			AUTH MD 12.650	WBS DD.03.09213.CAP.DRL			SAP/WBS COST 850.000	
FIELD NAME MIMMS CREEK	RIG PHONE 903-388-8174			MOC WI 36.8939	NRI 31.3418	DAILY WELL COST 20,973.58		CUM WELL COST 577,530.38	
STATE/PROV Texas	COUNTY/OTHER Freestone		LAST CASING 9.625 (in) @ 5.053 (ft)			NEXT CASING 4.500 (in) @ 12,700 (ft)			LEAKOFF
CURRENT STATUS / MTS Drig @ 10,445'			24 HR FORECAST Drill ahead						

OPERATION COMMENTS  
Bit trip, cut drill line, service rig, TIH to 10,170', wash and ream 90' to 10,260', And drill from 10,260' to 10,445'.

## OPERATIONS SUMMARY

FROM	TO	HRS	FROM	TO	SUB	PHASE	OP	TRBL	DESCRIPTION
06:00	10:00	4.00	10,260	10,260	AF	DRLPR	TRIP		Trip out for Bit No. 5 Note: Hole slick and took the right amount of fill. Bit graded as: 8-8-WT-A-E-2-BT-PR
10:00	12:00	2.00	10,260	10,260	AF	DRLPR	TRIP		Trip in w/ Bit No. 6 to 9-5/8" casing shoe.
12:00	13:00	1.00	10,260	10,260	AF	DRLPR	RIG		Slip and Cut Drill Line
13:00	13:30	0.50	10,260	10,260	AF	DRLPR	RIG		Service Rig
13:30	15:00	1.50	10,260	10,260	AF	DRLPR	TRIP		Trip in w/ Bit No. 6 to 10,170'.
15:00	16:30	1.50	10,260	10,260	AF	DRLPR	TRIP		Wash/Ream from 10,170' to 10,260'. Note: Pulled bit was 1/8" undersize.
16:30	06:00	13.50	10,260	10,445	AF	DRLPR	DRILL		Drill Open Hole Rotary from 10,260' to 10,445'.

DENSITY(ppg)		8.90	PP	ECD	MUD DATA		DAILY COST		438.00	CUM COST	9282.00			
FV	PV/YP	GELS	WL/HTHP	FC/T.SOL	OW	%Sand/MBT	Ph/pM	Pf/Mf	Cl/Ca	CaCl2(wt%)	H2S	LIME	ES	6RPM
29	2/2	/3	22.0/	2.0/3.0	/	/	8/	0.1/	1,000 /					

## BITS

BIT/RUN	SIZE	MANUF.	TYPE	SERIAL NO.	JETS OR TFA	DEPTH IN	DATE IN	I-O-D-L-B-G-O-R
5 / 1	8.750	Smith	F80D	MP0765	10/10/11/111111	9,532.0	9/25/2003	8-8-BT-A-E-2-WT-PR
6 / 1	8.750	Smith	F80D	MP3621	11/10/10/111111	10,260.0	9/28/2003	0-0---

BIT / RUN	WOB	RPM	GPM	PRESS	P BIT	HRS	24Hr DIST	24Hr ROP	CUM HRS	CUM DEPTH	CUM ROP
5 / 1	60 / 65	58 / 60	327	2,100	1,446			15.60	50.00	728.0	14.56
6 / 1	60 / 65	55 / 55	327	2,100		13.50	185.0	13.70	13.50	185.0	13.70

## BHA

BHA NO.	LENGTH	EFF WT.	PICK UP	SLACK OFF	ROT WT.	TORQUE (max/min)	BHA HRS	JAR HRS	MWD HRS	MTR HRS	SS HRS
5	1,369.09	0	265,000	240,000		/					

BHA DESCRIPTION Tri-Cone Bit , Bit Sub , 6-1/4" Drill Collars (36), 9 Joints 4-1/2" HWDP (9)

## PUMP / HYDRAULIC DATA

NO.	MAKE OF PUMP	STROKE (in)	LINER (in)	SPM	Q (gpm)	PRESS. (psi)	TOTAL Q	KILL SPM / PRESSURE
1	NATIONAL	9.000	6.000	104	326.51	2,100	326.51	66 925
2	NATIONAL	9.000					326.51	60 975

## MUD VOLUMES (bbl) / ANNULAR VELOCITIES (ft/min)

HOLE					TOTAL	MUD LOST	ANN VEL DP	ANN VEL DC
810.0	700.0				1,510.0			

## SURVEY DATA

MD	INCL	AZIMUTH	TVD	VS	N/S CUM	E/W CUM	DOGLEG	MD	INCL	AZIMUTH	TVD	VS	N/S CUM	E/W CUM	DOGLEG
10,230.0	2.00	0.00	10,226.38	255.33	255.33	0.00	0.07								

# MARATHON OIL COMPANY

Page 2 of 2

## Daily Drilling Report Development-Gas

WELL NAME	KB	GL	24 HR PROG	TMD	TVD	DFS	DOL	RPT #	DATE
UTLEY C-15	21.0	408.00	185.0	10,445	10,445	13	18	13	28-Sep-2003

### MATERIALS / CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
GEL, FRESH	392	28	392	Mica	50		73
BARITE SACKS	480	40	320	EZ Mud	13		12
Lime	5		5	EZ Spot	9		9
Caustic Soda	44		42	B-Seal	300		300

### PERSONNEL DATA

POB @ 06:00: 13

COMPANY	SERVICE	NO.	HOURS	COMPANY	SERVICE	NO.	HOURS
Marathon		1	24.00	Baroid Drilling Fluids		1	1.00
Nabors Drilling USA		11	144.00				

### CASING SUMMARY

LAST BOP TEST: 9/19/2003			LAST CASING TEST:			NEXT BOP TEST: 10/3/2003		
SIZE (in)	ID (in)	SHOE TEST (ppg)	MAX SICP	MD (ft)	TVD (ft)	WT (lb/ft)	GRADE	BURST (psi)
13.375	12.715		(psi) @ (ppg)	1,070	1,070	48.00	H-40	1,730
9.625	8.835		(psi) @ (ppg)	5,053	5,053	40.00	K-55	3,920

## Page 1 of 2

WELL NAME	KB	GL	24 HR PROG	TMD	TVD	DFS	DOL	RPT #	DATE					
UTLEY A-9	22.0	357.00	2,108.0	7,198	7,164	8	9	8	29-Sep-2003					
SUPERVISOR	RIG NAME & NO.			AUTH MD	WBS			SAP/WBS COST						
Danny Jackson	NABORS 365			12,637	DD.03.09208.CAP.DRL			931,000						
FIELD NAME	RIG PHONE			MOC WI	NRI	DAILY WELL COST		CUM WELL COST						
MIMMS CREEK	903-389-1208			37,5000	31.0246	22,810.00		503,279.08						
STATE/PROV	COUNTY/OTHER		LAST CASING			NEXT CASING			LEAKOFF					
Texas	Freestone		9.625 (in) @ 5,090 (ft)			4,500 (in) @ 12,650 (ft)								
CURRENT STATUS / MTS			24 HR FORECAST											
Drilling														

FROM	TO	HRS	FROM	TO	SUB	PHASE	OP	TRBL	DESCRIPTION
06:00	09:00	3.00	5,090	5,090	AF	DRLPR	TRIP		P/U Motor, Teledrift, TIH to 5,050'
09:00	09:30	0.50	5,090	5,090	AF	DRLPR	TEST		Test 9 5/8 Csg. to 2,500 psi.
09:30	10:00	0.50	5,090	5,090	AF	DRLPR	DRILL		Drill Cement / Drill Shoe
10:00	17:30	7.50	5,090	5,898	AF	DRLPR	DRILL		Drill F/5,090' to 5,898'
17:30	18:00	0.50	5,898	5,898	AF	DRLPR	RIG		Service Rig
18:00	20:00	2.00	5,898	6,245	AF	DRLPR	DRILL		Drill F/5,898' to 6,245'
20:00	21:00	1.00	6,245	6,245	TA	DRLPR	RIG		Change Swivel Packing
21:00	02:00	5.00	6,245	6,830	AF	DRLPR	DRILL		Drill F/6,245' to 6,830'
02:00	02:30	0.50	6,830	6,830	TA	DRLPR	RIG		Changed Swab #2 Mud Pump
02:30	05:30	3.00	6,830	7,198	AF	DRLPR	DRILL		Drill F/6,830' to 7,198'
05:30	06:00	0.50	7,198	7,198	AF	DRLPR	SURV		Teledrift Surveys @ 5,333, 5,817', 6,067', 6,325', 6,575', 6,801', 7,051'

## BITS

BIT / RUN	WOB	RPM	GPM	PRESS	P BIT	HRS	24Hr DIST	24Hr ROP	CUM HRS	CUM DEPTH	CUM ROP
3 / 1	/	80 / 100	565	2,300	120	17.50	2,108.0	120.46	17.50	2,108.0	120.46

**BHA**

BHA DESCRIPTION	Polycrystalline Diamond Bit , Positive Displacement Motor , Teledrift , 6-1/4" Drill Collar (18), Drilling Jar , 6-1/4" Drill Collar (3) 4-1/2" Heavy Weight Drill Pipe (9)
-----------------	--

NO.	MAKE OF PUMP	STROKE (in)	LINER (in)	SPM	Q (gpm)	PRESS. (psi)	TOTAL Q	KILL SPM / PRESSURE
1	GARDNER-DENVER	9.000	6.000	90	282.56	2,300	565.12	
2	GARDNER-DENVER	9.000	6.000	90	282.56	2,300	565.12	

MD	INCL	AZIMUTH	TVD	VS	N/S CUM	E/W CUM	DOGLEG	MD	INCL	AZIMUTH	TVD	VS	N/S CUM	E/W CUM	DOGLEG
5,333.0	1.00	0.00	0.00	0.00	0.00	0.00	0.00	6,325.0	1.00	0.00	0.00	0.00	0.00	0.00	0.00
5,817.0	1.00	0.00	0.00	0.00	0.00	0.00	0.00	6,575.0	1.00	0.00	0.00	0.00	0.00	0.00	0.00
6,067.0	1.00	0.00	0.00	0.00	0.00	0.00	0.00	6,801.0	1.00	0.00	0.00	0.00	0.00	0.00	0.00

# MARATHON OIL COMPANY

Page 2 of 2

## Daily Drilling Report Development-Gas

WELL NAME	KB	GL	24 HR PROG	TMD	TVD	DFS	DOL	RPT #	DATE
UTLEY A-9	22.0	357.00	2,108.0	7,198	7,164	8	9	8	29-Sep-2003

### SURVEY DATA

MD	INCL	AZIMUTH	TVD	VS	N/S CUM	E/W CUM	DOGLEG	MD	INCL	AZIMUTH	TVD	VS	N/S CUM	E/W CUM	DOGLEG
7,051.0	1.00	0.00	0.00	0.00	0.00	0.00	0.00								

### MATERIALS / CONSUMPTION

ITEM	UNITS	USAGE	ON HAND	ITEM	UNITS	USAGE	ON HAND
DIESEL							

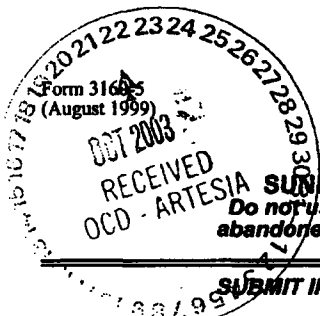
### PERSONNEL DATA

POB @ 06:00:

COMPANY	SERVICE	NO.	HOURS	COMPANY	SERVICE	NO.	HOURS
Nabors Drilling USA	Drilling Contractor	11	132.00	Brammer Eng.	Consulting	1	24.00
Baroid Drilling Fluids	Mud Engr	1	2.00				

### CASING SUMMARY

LAST BOP TEST: 9/28/2003			LAST CASING TEST:			NEXT BOP TEST:		
SIZE (in)	ID (in)	SHOE TEST (ppg)	MAX SICP	MD (ft)	TVD (ft)	WT (lb/ft)	GRADE	BURST (psi)
13.375	12.715		(psi) @ (ppg)	1,076	1,076	48.00	H-40	1,730
9.625	8.835		(psi) @ 9.10 (ppg)	5,090	5,056	40.00	J-55	3,950



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NMOCD

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

**SUNDY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	2. Name of Operator MARATHON OIL COMPANY	Contact: CHARLES KENDRIX E-Mail: cekendrix@marathonoil.com	5. Lease Serial No. NMNM030482
3a. Address P O BOX 552 MIDLAND, TX 79702	3b. Phone No. (include area code) Ph: 800.351.1417 Ext: 8104 Fx: 915.687.8307	10. Field and Pool, or Exploratory INDIAN BASIN UPPER PENN ASSOC	6. If Indian, Allottee or Tribe Name
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 28 T21S R24E SENW Lot F 1383FNL 1586FWL		11. County or Parish, and State EDDY COUNTY, NM	7. If Unit or CA/Agreement, Name and/or No. NMNM70964A
		8. Well Name and No. INDIAN HILLS UNIT 53	9. API Well No. 30-015-32875-00-S1

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input checked="" type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

As required by ONSHORE ORDER #7, Marathon Oil Company is notifying you of existing and intended methods of water disposal from this well. Produced water from this well will be sent, via pipeline, to one of the wells listed under PRIMARY DISPOSAL on the attached sheets. If additional capacity is required, water may be sent via pipeline (if available) or truck hauled to any of the wells listed under SECONDARY DISPOSAL on the attached sheets.

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS ATTACHED**

14. I hereby certify that the foregoing is true and correct. Electronic Submission #24372 verified by the BLM Well Information System For MARATHON OIL COMPANY, sent to the Carlsbad Committed to AFMSS for processing by LINDA ASKWIG on 10/20/2003 (04LA0027SE)			
Name (Printed/Typed)	CHARLES KENDRIX	Title	AUTHORIZED REPRESENTATIVE
Signature	(Electronic Submission)	Date	10/17/2003
<b>THIS SPACE FOR FEDERAL OR STATE OFFICE USE</b>			
Approved By <u>ALEXIS C SWQBODA</u>		Title	PETROLEUM ENGINEER
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Date	10/21/2003
		Office	Carlsbad
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.			

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

October 17, 2003

**ATTACHMENT I**

**Marathon Oil Company Indian Basin**

**Primary Disposal:** MOC Battery Disposal System

Operated By: Marathon Oil Company  
Well Name: MOC SWD # 1  
Location: UL "M", Section 7, T-20-S, R-25-E  
Permit#: SWD 448

Operated By: Marathon Oil Company  
Well Name: Indian Hills State Corn # 7  
Location: UL "F", Section 36, T-20-S, R-24-E  
Permit #: SWD 570

**Primary Disposal:** IBGP Disposal System

Operated By: Marathon Oil Company  
Well Name: AGI # 1 SWD  
Location: UL "E", Section 23, T-21-S, R-23-E  
Permit #: SWD 784

Operated By: Marathon Oil Company  
Well Name: Marathon Federal # 1  
Location: UL "K", Section 24, T-21-S, R-23-E  
Permit #: SWD 55

**Primary Disposal:** Indian Hills Unit Disposal System

Operated By: Marathon Oil Company  
Well Name: Rocky Hills #1 SWD  
Location: UL "O", Section 19, T-21-S, R-24-E  
Permit #: SWD 691

Operated By: Marathon Oil Company  
Well Name: Rocky Hills #2 SWD  
Location: UL "I" Section 20, T-21-S, R-24-E  
Permit #: SWD 738

Operated By: Marathon Oil Company  
Well Name: Indian Hills Unit #30 SWD  
Location: UL "L", Section 20, T-21-S, R-24-E  
Permit #: SWD 801

**Secondary Disposal**

Well Name: Springs SWD  
Operator: Rowland  
Location: Sec 27, T-20-S, R-26-E  
Permit#: SWD 86

Well Name: BKE  
Operator: Rowland  
Location: Sec 13, T-23-S, R-27-E  
Permit#: SWD 495

Well Name: Salty Bill SWD  
Operator: Grace Oil  
Location: Sec 36, T-22-S, R-26-E  
Permit#: SWD R-118 Fed ID # 850303046

October 17, 2003

Well Name: Big Eddy Federal 100 SWD (Whistle Stop)  
Operator: Dakota Resources  
Location: Unit "L", Sec 8, T-21-S, R-28-E  
Permit#: SWD 461

Well Name: Dorstate SWD  
Operator: Mesquite Services  
Location: Sec 27, T25S, R26E  
Permit#: SWD 247

Well Name: Aikman SWD State # 1  
Location: Section 27, T-19-S, R-25-E  
Permit#: SWD 417

Well Name: Holstun # 1 SWD  
Operated By: Nearburg Producing Company  
Location: Section 4, T-20-S, R-25-E  
Permit#: R 9269

Well Name: Charlotte McKay Federal # 1 SWD  
Operated By: Yates Petroleum  
Location: Section 25, T-20-S, R-25-E  
Permit#: SWD 460

Well Name: Walter Solt State No. 1  
Location: Unit "L", Sec 5, T-18-S, R-28-E  
Permit#: SWD 318

Well Name: Dagger Draw Salt Water Disposal  
Location: Sec 22, T-19-S, R-25-E  
Permit#: R7637

Well Name: Corrine Grace Salt Water Disposal Well  
Location: Sec 36, T-22-S, R-26-E  
Permit#: K6290

Well Name: Myrtle-Myra WIW # 1  
Location: Sec 21, T-21-S, R-27-E  
Permit#: NMOCD-FWD-391

Solids that can't be hauled into one of these disposal sites will be sent to:

Well Name: CRI SWD  
Location: Sec 27, T20S, R32E  
Permit #: SWD R91166

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NMOC

Form 3160-4  
(August 1999)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires: November 30, 2000

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5. Lease Serial No. NMNM030482	
b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr. Other _____		6. If Indian, Allottee or Tribe Name	
2. Name of Operator MARATHON OIL COMPANY		7. Unit or CA Agreement Name and No. NMNM70964A	
3. Address P O BOX 552 MIDLAND, TX 79702		8. Lease Name and Well No. INDIAN HILLS UNIT 53	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface SENW Lot F 1383FNL 1586FWL At top prod interval reported below SENW Lot F 1383FNL 1586FWL At total depth SENW Lot F 2384FSL 1879FWL		9. API Well No. 30-015-32875-00-S1	
14. Date Spudded 08/15/2003	15. Date T.D. Reached 08/27/2003	16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 09/14/2003	17. Elevations (DF, KB, RT, GL)* 3702 GL

18. Total Depth: MD 8315 TVD 8115	19. Plug Back T.D.: MD 8289 TVD 8089	20. Depth Bridge Plug Set: MD TVD
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) SPECTRALDENSITY		22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)

## 23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sls. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.250	9.625 K55	36.0	0	1210		835		0	
8.750	7.000 L80	23.0	0	8315		1495		0	

## 24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8209							

## 25. Producing Intervals

## 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) UPPER PENN	7612	7980	7612 TO 7980			OPEN
B)						
C)						
D)						

## 27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
7612 TO 7980	36800 GALLONS 17% CCA SOUR

## 28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
09/14/2003	10/14/2003	24	→	188.0	740.0	2635.0			ELECTRIC PUMP SUB-SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	240	180.0	→	188	740	2635		POW	

## 28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

ACCEPTED FOR RECORD

OCT 20 2003

ALEXIS C. SWOBODA  
PETROLEUM ENGINEER

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #23972 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

**28b. Production - Interval C**

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

**28c. Production - Interval D**

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

**29. Disposition of Gas(Sold, used for fuel, vented, etc.)  
SOLD**
**30. Summary of Porous Zones (Include Aquifers):**

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

**31. Formation (Log) Markers**

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
UPPER PENN	7568	8315		QUEEN SAN ANDRES GLORIETA YESO BONE SPRING TUBB- ABO WOLFCAMP CISCO CANYON	617 1216 2423 2584 4812 6884 6876 6854 7568 7784

**32. Additional remarks (include plugging procedure):**  
Inclination Survey will be sent at later date with the logs.

**33. Circle enclosed attachments:**

- |   |                    |               |                       |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.)     | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis   | 7. Other:     |                       |

**34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):**

Electronic Submission #23972 Verified by the BLM Well Information System.

For MARATHON OIL COMPANY, sent to the Carlsbad

Committed to AFMSS for processing by ARMANDO LOPEZ on 10/16/2003 (04AL0026SE)

Name (please print) CHARLES KENDRIX

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 10/16/2003

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\***

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NM 030482	
2. Name of Operator MARATHON OIL COMPANY		6. If Indian, Allottee or Tribe Name	
3a. Address P.O. BOX 552 MIDLAND, TX 79702		7. If Unit or CA/Agreement, Name and/or No. 70964A	
3b. Phone No. (include area code) Ph: 432.687.8104 Fx: 432.687.8307		8. Well Name and No. INDIAN HILLS UNIT 53	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 28 T21S R24E SENW 1383FNL 1586FWL		9. API Well No. 30-015-32875	
		10. Field and Pool, or Exploratory INDIAN BASIN UPPER PENN ASSOC	
		11. County or Parish, and State EDDY COUNTY, NM	

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Production Start-up
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

09/04/2003 Rigged up and tagged at 8269'. Run cased hole logs from PBTD 8269 to 7400. Perforated casing intervals 7612-7616, 7630-7650, 7660-7669, 7677-7687, 7690-7717, 7724-7732, 7736-7750, 7761-7771, 7790-7810, 7816-7822, 7832-7842, 7846-7854, 7867-7937, 7944-7946, 7950-7952, 7956-7980 at 4 shots per ft.  
PPI new perforations with 100 gpf 17% CCA sour total of 25000 gals. POOH with PPI packers. RIH with RBP tested to 3500#. POOH w/kills string. RIH w/ GC2900 sumersible pump and 257 jts 2 7/8 N80 tubing. Nipple up well head and turned to production 09/11/2003.

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

Electronic Submission #24317 verified by the BLM Well Information System  
For MARATHON OIL COMPANY, will be sent to the Carlsbad

Name (Printed/Typed) CHARLES KENDRIX

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 10/17/2003

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\***

NMOC

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**

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**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM030482
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3a. Address P O BOX 552 MIDLAND, TX 79702		7. If Unit or CA/Agreement, Name and/or No. NMNM70964A
3b. Phone No. (include area code) Ph: 800.351.1417 Ext: 8104 Fx: 915.687.8196		8. Well Name and No. INDIAN HILLS UNIT 53
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 28 T21S R24E SENW Lot F 1383FNL 1586FWL		9. API Well No. 30-015-32875-00-S1
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TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Surface Commingling
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Please amend the Indian Basin Field commingle as follows:

Production from the Indian Hills Unit 53 is sent to Station 128 Satellite Facility. The production manifold tied to the test and production separators allow for individual well testing of the Indian Hills Unit wells 10, 17, 19, 24, 34, 45, 49 & 53, while production from the remainder of these wells flows to the production separator. After separation, the gas and liquids are handled in the same manner described in the paragraph titled "Station 128 Satellite Facility" in the current commingle agreement. I have attached an updated diagram of this facility and copies of this diagram will be sent of you by mail and to the Carlsbad office as well to update their site security diagrams for this facility.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #24451 verified by the BLM Well Information System For MARATHON OIL COMPANY, sent to the Carlsbad Committed to AFMSS for processing by LINDA ASKWIG on 10/23/2003 (04LA0035SE)	
Name (Printed/Typed) CHARLES E. KENDRIX	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 10/22/2003

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By ALEXIS C SWOBODA	Title PETROLEUM ENGINEER	Date 10/23/2003
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resrv. Other _____						6. If Indian, Allottee or Tribe Name			
2. Name of Operator <b>MARATHON OIL COMPANY</b>						7. Unit or CA Agreement Name and No. <b>70964A</b>			
3. Address <b>P.O. BOX 552 MIDLAND, TX 79702</b>				3a. Phone No. (include area code) <b>Ph: 800.351.1417 Ext: 8104</b>		8. Lease Name and Well No. <b>INDIAN HILLS UNIT 53</b>			
4. Location of Well (Report location clearly and in accordance with Federal requirements)*  At surface <b>SENW Lot F 1383FNL 1586FWL</b>  At top prod interval reported below <b>SENW Lot F 1383FNL 1586FWL</b>  At total depth <b>SENW Lot F 2384FSL 1979FWL</b>						9. API Well No. <b>30-015-32875</b>			
						10. Field and Pool, or Exploratory <b>INDIAN BASIN U. PENN ASSOC.</b>			
						11. Sec., T., R., M., or Block and Survey or Area <b>Sec 28 T21S R24E Mer NMP</b>			
12. County or Parish <b>EDDY</b>		13. State <b>NM</b>							
14. Date Spudded <b>08/15/2003</b>		15. Date T.D. Reached <b>08/27/2003</b>		16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. <b>09/14/2003</b>		17. Elevations (DF, KB, RT, GL)* <b>3702 GL</b>			
18. Total Depth: <b>MD 8315                               TVD 8115</b>		19. Plug Back T.D.: <b>MD 8269                               TVD 8069</b>		20. Depth Bridge Plug Set: <b>MD   TVD</b>					
21. Type Electric & Other Mechanical Logs Run (Submit copy of each) <b>SPECTRAL DENSITY DUAL SPACED NEUTRON SPECTRAL GAMM</b>						22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)			
23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
8.750	7.000 L80	23.0							
12.250	9.625 K55	36.0	0	1210		835		0	
8.750	7.000 L80	26.0	0	8315		1495		0	
24. Tubing Record									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
2.875	8209								
25. Producing Intervals					26. Perforation Record				
Formation	Top	Bottom	Perforated Interval			Size	No. Holes	Perf. Status	
A) UPPER PENN	7612	7980	7612 TO 7980					OPEN	
B)									
C)									
D)									
27. Acid, Fracture, Treatment, Cement Squeeze, Etc.									
Depth Interval			Amount and Type of Material						
7612 TO 7980			36800 GALLONS 17% CCA SOUR						
28. Production - Interval A									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
09/14/2003	10/14/2003	24	→	186.0	740.0	2635.0			ELECTRIC PUMP SUB-SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	240	180.0	→					PGW	
28a. Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

*(See Instructions and spaces for additional data on reverse side)*

**ELECTRONIC SUBMISSION #23972 VERIFIED BY THE BLM WELL INFORMATION SYSTEM**

**\*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\***

**28b. Production - Interval C**

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

**28c. Production - Interval D**

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

**29. Disposition of Gas(Sold, used for fuel, vented, etc.)**

**SOLD**

**30. Summary of Porous Zones (Include Aquifers):**

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

**31. Formation (Log) Markers**

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
UPPER PENN	7568	8315		QUEEN SAN ANDRES GLORIETA YESO BONE SPRING TUBB ABO WOLFCAMP CISCO CANYON	617 1216 2423 2584 4812 6684 6876 6954 7568 7784

**32. Additional remarks (include plugging procedure):**

Inclination Survey will be sent at later date with the logs.

**33. Circle enclosed attachments:**

- |   |                    |               |                       |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.)     | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis   | 7 Other:      |                       |

**34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):**

**Electronic Submission #23972 Verified by the BLM Well Information System.  
For MARATHON OIL COMPANY, will be sent to the Carlsbad**

Name(please print) CHARLES KENDRIX

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 10/16/2003

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\***



**McVAY DRILLING COMPANY**  
Post Office Box 924  
Hobbs, New Mexico 88241  
(505) 397-3311  
FAX: 39-DRILL

**Well Name and Number: Indian Hills Unit #53**

**Location: Sec. 23, T21S, R24E**

**Operator: Marathon**

**Drilling Contractor: McVay Drilling Company**

The undersigned certifies that he is an authorized representative of the drilling contractor who drilled the above described well and that he has conducted deviation tests and obtained the following results:

Degrees @ Depth		Degrees @ Depth		Degrees @ Depth	
1/4	235	12 3/4	3312	16 1/4	6513
1/2	481	14 1/2	3597	17 1/2	6735
3/4	721	13 1/2	3787	14 3/4	7053
1	969	13 3/4	4639	13 1/2	7148
1 1/4	1151	12 3/4	4831	13 1/4	7371
1 1/2	1227	13 1/4	5053	12 3/4	7612
1 3/4	1480	11 1/4	5345	13	7812
2	1862	11 1/2	5627	11 3/4	7939
2 1/4	2057	11 3/4	5880	11 1/4	8129
2 1/2	2493	12	6134	13 1/4	8240
2 3/4	2842	14 3/4	6324		
3	3028	16	6451		

**Drilling Contractor: McVay Drilling Company**

By: Jan L. Llewellyn

Subscribed and sworn to before me this 21st day of October, 2003

Tina Hernandez  
Notary Public

My Commission Expires: 8-16-05

Lea County, New Mexico



\* \* \* N A U T I C A L ( V e r s i o n 4 . 0 1 ) \* \*

Well: Indian Hills Unit 53

Target Azimuth: 164.55

Target TVD: 8199

Closure Direction:

168.01 2003

RECEIVED  
OCD - ARTESIA

Calculation Method - Minimum Curvature

Measured Depth (ft)	Inclination (deg.)	Azimuth (deg.)	True Vertical Depth (ft)	Vertical Section (ft)	North/ South (ft)	East/ West (ft)	Closure (ft)	Build Rate (deg/ft)	Walk Rate (deg/ft)	Dogleg Severity (d/100')	Tool Face (deg)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Tie-in Data				
235.00	0.25	64.00	235.00	-0.09	0.22	0.46	0.51	0.001	0.272	0.11	MSS
481.00	0.40	84.00	481.00	-0.05	0.55	1.80	1.88	0.001	0.081	0.08	MSS
724.00	0.25	139.00	723.99	0.57	0.24	2.99	3.00	-0.001	0.226	0.14	MSS
969.00	0.25	69.00	968.99	1.00	0.03	3.84	3.84	0.000	-0.286	0.12	MSS
1,150.00	0.00	69.00	1,149.99	0.96	0.17	4.21	4.21	-0.001	0.000	0.14	MSS
1,222.00	0.20	94.50	1,221.99	1.00	0.16	4.33	4.34	0.003	0.354	0.28	MWD
1,293.00	0.50	167.20	1,292.99	1.35	-0.15	4.52	4.53	0.004	1.024	0.68	MWD
1,354.00	2.20	175.00	1,353.97	2.77	-1.58	4.69	4.94	0.028	0.128	2.80	MWD
1,416.00	3.40	177.10	1,415.89	5.74	-4.60	4.88	6.71	0.019	0.034	1.94	MWD
1,480.00	4.30	171.80	1,479.75	9.97	-8.87	5.32	10.34	0.014	-0.083	1.51	MWD
1,544.00	5.80	172.80	1,543.50	15.55	-14.46	6.07	15.68	0.023	0.016	2.35	MWD
1,608.00	7.80	174.30	1,607.05	23.03	-21.99	6.90	23.04	0.031	0.023	3.14	MWD
1,671.00	9.70	173.20	1,669.31	32.49	-31.51	7.96	32.50	0.030	-0.017	3.03	MWD
1,735.00	11.50	171.80	1,732.21	44.15	-43.18	9.51	44.21	0.028	-0.022	2.84	MWD
1,798.00	13.00	170.10	1,793.78	57.44	-56.38	11.62	57.56	0.024	-0.027	2.45	MWD
1,862.00	14.40	168.70	1,855.96	72.54	-71.27	14.42	72.72	0.022	-0.022	2.25	MWD
1,926.00	14.70	168.30	1,917.90	88.58	-87.03	17.62	88.79	0.005	-0.006	0.49	MWD
1,988.00	14.90	169.00	1,977.85	104.37	-102.56	20.74	104.63	0.003	0.011	0.43	MWD
2,052.00	14.90	169.40	2,039.70	120.78	-118.72	23.82	121.09	0.000	0.006	0.16	MWD
2,114.00	15.00	168.60	2,099.80	136.72	-134.42	26.88	137.08	0.002	-0.013	0.37	MWD
2,178.00	14.90	165.90	2,161.43	153.21	-150.52	30.52	153.58	-0.002	-0.042	1.10	MWD
2,239.00	14.20	164.10	2,220.47	168.53	-165.32	34.48	168.88	-0.011	-0.030	1.37	MWD
2,303.00	13.90	163.40	2,282.56	184.07	-180.24	38.82	184.37	-0.005	-0.011	0.54	MWD
2,366.00	14.20	163.40	2,343.68	199.36	-194.90	43.19	199.62	0.005	0.000	0.48	MWD
2,430.00	13.60	161.60	2,405.80	214.72	-209.56	47.81	214.94	-0.009	-0.028	1.16	MWD
2,493.00	13.30	160.60	2,467.07	229.35	-223.42	52.56	229.52	-0.005	-0.016	0.60	MWD
2,556.00	13.90	160.90	2,528.31	244.13	-237.41	57.44	244.26	0.010	0.005	0.96	MWD
2,651.00	13.60	163.70	2,620.58	266.69	-258.91	64.31	266.78	-0.003	0.029	0.77	MWD
2,747.00	13.50	166.50	2,713.91	289.17	-280.64	70.09	289.26	-0.001	0.029	0.69	MWD
2,842.00	12.90	165.10	2,806.40	310.86	-301.67	75.41	310.95	-0.006	-0.015	0.72	MWD
2,937.00	13.60	164.40	2,898.87	332.63	-322.68	81.14	332.72	0.007	-0.007	0.78	MWD
3,028.00	13.30	163.70	2,987.38	353.80	-343.03	86.95	353.88	-0.003	-0.008	0.38	MWD
3,123.00	13.90	163.40	3,079.71	376.13	-364.45	93.28	376.20	0.006	-0.003	0.64	MWD
3,218.00	13.50	161.99	3,172.01	398.62	-385.93	99.97	398.67	-0.004	-0.015	0.55	MWD
3,312.00	12.70	158.10	3,263.57	419.85	-405.95	107.21	419.87	-0.009	-0.041	1.27	MWD
3,407.00	13.30	157.80	3,356.13	441.07	-425.76	115.24	441.08	0.006	-0.003	0.64	MWD
3,502.00	14.50	156.40	3,448.35	463.70	-446.78	124.13	463.70	0.013	-0.015	1.31	MWD
3,597.00	14.60	158.10	3,540.30	487.37	-468.79	133.36	487.38	0.001	0.018	0.46	MWD
3,692.00	14.00	162.70	3,632.36	510.75	-490.87	141.24	510.78	-0.006	0.048	1.35	MWD
3,787.00	13.50	168.70	3,724.64	533.30	-512.71	146.83	533.32	-0.005	0.063	1.59	MWD
3,883.00	12.70	165.10	3,818.14	555.03	-533.90	151.74	555.04	-0.008	-0.037	1.19	MWD
3,977.00	12.90	163.40	3,909.81	575.85	-553.94	157.39	575.87	0.002	-0.018	0.45	MWD
4,069.00	13.20	161.60	3,999.43	596.61	-573.75	163.64	596.63	0.003	-0.020	0.55	MWD
4,164.00	13.70	163.00	4,091.83	618.69	-594.80	170.36	618.72	0.005	0.015	0.63	MWD
4,259.00	13.20	164.80	4,184.22	640.78	-616.03	176.49	640.81	-0.005	0.019	0.69	MWD
4,354.00	13.30	165.50	4,276.69	662.55	-637.07	182.07	662.58	0.001	0.007	0.20	MWD
4,449.00	13.50	165.90	4,369.11	684.57	-658.41	187.51	684.59	0.002	0.004	0.23	MWD
4,544.00	13.50	163.40	4,461.48	706.74	-679.79	193.38	706.76	0.000	-0.026	0.61	MWD
4,639.00	13.90	161.90	4,553.78	729.22	-701.26	200.09	729.25	0.004	-0.016	0.56	MWD
4,735.00	12.60	163.00	4,647.22	751.21	-722.24	206.73	751.24	-0.014	0.011	1.38	MWD
4,831.00	12.80	164.40	4,740.87	772.31	-742.49	212.65	772.34	0.002	0.015	0.38	MWD
4,925.00	12.90	160.90	4,832.52	793.20	-762.44	218.89	793.23	0.001	-0.037	0.83	MWD
5,021.00	13.10	158.50	4,926.06	814.71	-782.68	226.38	814.77	0.002	-0.025	0.60	MWD

\* \* \* N A U T I C A L ( V e r s i o n 4 . 0 1 ) \* \* \*

Well: Indian Hills Unit 53

Target Azimuth: 164.55

Closure Direction: 165

Target TVD: 8199

Calculation Method - Minimum Curvature

Measured Depth (ft)	Inclination (deg.)	Azimuth (deg.)	True Vertical Depth (ft)	Vertical Section (ft)	North/ South (ft)	East/ West (ft)	Closure (ft)	Build Rate (deg/ft)	Walk Rate (deg/ft)	Dogleg Severity (d/100')	Tool Face (deg)
5,053.00	13.20	157.80	4,957.22	821.94	-789.44	229.09	822.01	0.003	-0.022	0.59	MWD
5,154.00	13.50	154.60	5,055.49	845.01	-810.77	238.51	845.12	0.003	-0.032	0.79	MWD
5,250.00	12.30	157.40	5,149.07	866.19	-830.33	247.24	866.36	-0.013	0.029	1.41	MWD
5,345.00	11.20	161.60	5,242.08	885.45	-848.43	254.04	885.65	-0.012	0.044	1.47	MWD
5,439.00	11.10	164.80	5,334.31	903.61	-865.82	259.30	903.82	-0.001	0.034	0.67	MWD
5,502.00	11.30	169.40	5,396.11	915.83	-877.74	262.02	916.02	0.003	0.073	1.45	MWD
5,565.00	11.60	170.40	5,457.85	928.28	-890.05	264.21	928.44	0.005	0.016	0.57	MWD
5,627.00	11.50	170.80	5,518.60	940.62	-902.30	266.24	940.76	-0.002	0.006	0.21	MWD
5,690.00	11.30	172.20	5,580.36	952.98	-914.62	268.08	953.10	-0.003	0.022	0.54	MWD
5,754.00	11.20	171.80	5,643.13	965.36	-926.98	269.82	965.45	-0.002	-0.006	0.20	MWD
5,816.00	11.20	171.80	5,703.95	977.31	-938.90	271.54	977.38	0.000	0.000	0.00	MWD
5,880.00	11.30	172.90	5,766.72	989.68	-951.27	273.20	989.73	0.002	0.017	0.37	MWD
5,943.00	12.00	176.40	5,828.42	1,002.19	-963.94	274.37	1,002.22	0.011	0.056	1.58	MWD
6,006.00	11.90	177.10	5,890.05	1,014.94	-976.96	275.11	1,014.96	-0.002	0.011	0.28	MWD
6,070.00	12.00	176.70	5,952.67	1,027.89	-990.19	275.83	1,027.89	0.002	-0.006	0.20	MWD
6,134.00	12.00	175.70	6,015.27	1,040.92	-1,003.47	276.71	1,040.92	0.000	-0.016	0.32	MWD
6,196.00	12.10	174.30	6,075.90	1,053.65	-1,016.36	277.84	1,053.65	0.002	-0.023	0.50	MWD
6,260.00	13.60	172.90	6,138.30	1,067.71	-1,030.50	279.44	1,067.72	0.023	-0.022	2.39	MWD
6,324.00	14.80	169.70	6,200.34	1,083.29	-1,046.01	281.83	1,083.32	0.019	-0.050	2.24	MWD
6,387.00	15.30	170.40	6,261.18	1,099.58	-1,062.13	284.65	1,099.61	0.008	0.011	0.84	MWD
6,451.00	16.00	171.80	6,322.81	1,116.73	-1,079.18	287.32	1,116.78	0.011	0.022	1.24	MWD
6,513.00	16.20	170.40	6,382.38	1,133.81	-1,096.17	289.98	1,133.88	0.003	-0.023	0.70	MWD
6,576.00	16.80	168.70	6,442.78	1,151.63	-1,113.76	293.23	1,151.72	0.010	-0.027	1.22	MWD
6,671.00	17.10	163.70	6,533.66	1,179.29	-1,140.63	299.84	1,179.38	0.003	-0.053	1.57	MWD
6,735.00	17.40	163.00	6,594.78	1,198.26	-1,158.81	305.28	1,198.35	0.005	-0.011	0.57	MWD
6,799.00	16.90	162.70	6,655.94	1,217.13	-1,176.85	310.85	1,217.21	-0.008	-0.005	0.79	MWD
6,862.00	15.90	164.80	6,716.37	1,234.91	-1,193.92	315.83	1,234.98	-0.016	0.033	1.85	MWD
6,926.00	16.00	165.90	6,777.91	1,252.49	-1,210.93	320.28	1,252.57	0.002	0.017	0.50	MWD
6,989.00	15.70	164.10	6,838.51	1,269.70	-1,227.55	324.73	1,269.78	-0.005	-0.029	0.91	MWD
7,053.00	14.90	166.60	6,900.25	1,286.58	-1,243.88	329.01	1,286.66	-0.013	0.039	1.62	MWD
7,116.00	14.00	169.00	6,961.25	1,302.27	-1,259.24	332.34	1,302.36	-0.014	0.038	1.72	MWD
7,180.00	13.20	171.80	7,023.46	1,317.24	-1,274.08	334.86	1,317.35	-0.013	0.044	1.62	MWD
7,244.00	13.80	171.80	7,085.69	1,332.06	-1,288.86	336.99	1,332.19	0.009	0.000	0.94	MWD
7,307.00	13.60	172.20	7,146.90	1,346.86	-1,303.64	339.07	1,347.01	-0.003	0.006	0.35	MWD
7,371.00	13.70	173.60	7,209.09	1,361.80	-1,318.63	340.93	1,361.99	0.002	0.022	0.54	MWD
7,434.00	13.40	175.30	7,270.34	1,376.34	-1,333.32	342.36	1,376.57	-0.005	0.027	0.79	MWD
7,497.00	13.50	176.40	7,331.61	1,390.71	-1,347.93	343.42	1,390.99	0.002	0.017	0.44	MWD
7,559.00	12.40	175.70	7,392.03	1,404.32	-1,361.79	344.38	1,404.66	-0.018	-0.011	1.79	MWD
7,621.00	12.70	173.90	7,452.55	1,417.58	-1,375.21	345.60	1,417.97	0.005	-0.029	0.79	MWD
7,684.00	13.20	171.50	7,513.95	1,431.55	-1,389.21	347.40	1,431.98	0.008	-0.038	1.17	MWD
7,748.00	12.80	165.90	7,576.31	1,445.89	-1,403.31	350.21	1,446.35	-0.006	-0.087	2.06	MWD
7,812.00	13.00	164.80	7,638.69	1,460.18	-1,417.13	353.82	1,460.63	0.003	-0.017	0.49	MWD
7,875.00	12.70	163.00	7,700.12	1,474.19	-1,430.59	357.70	1,474.63	-0.005	-0.029	0.79	MWD
7,939.00	11.70	161.60	7,762.67	1,487.70	-1,443.48	361.81	1,488.13	-0.016	-0.022	1.63	MWD
8,002.00	11.30	159.20	7,824.41	1,500.23	-1,455.31	366.02	1,500.63	-0.006	-0.038	0.99	MWD
8,066.00	11.40	156.30	7,887.15	1,512.73	-1,466.96	370.79	1,513.10	0.002	-0.045	0.91	MWD
8,129.00	11.90	154.60	7,948.86	1,525.29	-1,478.53	376.07	1,525.61	0.008	-0.027	0.96	MWD
8,193.00	12.80	154.60	8,011.38	1,538.77	-1,490.90	381.95	1,539.04	0.014	0.000	1.41	MWD
8,240.00	13.20	153.50	8,057.17	1,549.16	-1,500.40	386.57	1,549.40	0.009	-0.023	1.00	MWD
8,300.00	13.70	152.00	8,115.52	1,562.82	-1,512.81	392.97	1,563.01	0.008	-0.025	1.02	proj

1383'FWL  
+ 1513'  
2896'FWL

1586'FWL  
+ 393'  
1979'FWL

10/3/2003

Page 2/2

01ihu53-NAUTICAL.XLS

5280  
- 2896  
2384'FSL

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

Form C-104  
Revised March 25, 1999

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Submit to Appropriate District Office  
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator name and Address <b>Marathon Oil Company P.O. Box 552 Midland, TX 79702</b>		<sup>2</sup> OGRID Number <b>014021</b>
		<sup>3</sup> Reason for Filing Code <b>NEW WELL</b>
<sup>4</sup> API Number <b>30-0 30-015-32875</b>	<sup>5</sup> Pool Name <b>INDIAN BASIN UPPER PENN ASSOCIATED GAS POOL</b>	<sup>6</sup> Pool Code <b>33685</b>
<sup>7</sup> Property Code <b>6409</b>	<sup>8</sup> Property Name <b>INDIAN HILLS UNIT</b>	<sup>9</sup> Well Number <b>53</b>

II. <sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
<b>F</b>	<b>28</b>	<b>21-S</b>	<b>24-E</b>		<b>1383</b>	<b>NORTH</b>	<b>1586</b>	<b>WEST</b>	<b>BLDY</b>

<sup>11</sup> Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
<b>K</b>	<b>28</b>	<b>21-S</b>	<b>24-E</b>		<b>2384</b>	<b>SOUTH</b>	<b>1979</b>	<b>WEST</b>	<b>BLDY</b>
<sup>12</sup> Lse Code <b>F</b>	<sup>13</sup> Producing Method Code <b>PUMPING</b>	<sup>14</sup> Gas Connection Date <b>9/14/2003</b>	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> POD	<sup>21</sup> O/G	<sup>22</sup> POD ULSTR Location and Description
<b>138648</b>	<b>AMOCO PIPELINE TRUCKS 502 N. WEST AVENUE LEWELAND, TX 79336</b>	<b>2816323</b>	<b>OIL</b>	<b>UL "P", SECTION 19, T-21-S, R-24-E LOT 12</b>
<b>14035</b>	<b>MARATHON OIL COMPANY P. O. BOX 1324 ARTESIA, NM 88211-1324</b>	<b>2823213</b>	<b>GAS</b>	<b>UL "P", SECTION 19, T-21-S, R-24-E LOT 12</b>

IV. Produced Water

<sup>23</sup> POD <b>2823214</b>	<sup>24</sup> POD ULSTR Location and Description <b>UL "P", SECTION 19, T-21-S, R-24-E</b>
-------------------------------------	---

V. Well Completion Data

<sup>25</sup> Spud Date <b>08/15/2003</b>	<sup>26</sup> Ready Date <b>09/14/2003</b>	<sup>27</sup> TD <b>8315</b>	<sup>28</sup> PBTD <b>8269</b>	<sup>29</sup> Perforations <b>7612-7980</b>	<sup>30</sup> DHC, MC
<sup>31</sup> Hole Size <b>12-1/4</b>	<sup>32</sup> Casing & Tubing Size <b>9-5/8"</b>	<sup>33</sup> Depth Set <b>1210'</b>	<sup>34</sup> Sacks Cement <b>835 SK</b>		
<b>8.75"</b>	<b>7 "</b>	<b>8315'</b>	<b>1495 SK</b>		
	<b>2-7/8"</b>	<b>8209'</b>			

VI. Well Test Data

<sup>35</sup> Date New Oil <b>09/14/2003</b>	<sup>36</sup> Gas Delivery Date <b>09/14/2003</b>	<sup>37</sup> Test Date <b>10/14/2003</b>	<sup>38</sup> Test Length <b>24 HRS</b>	<sup>39</sup> Tbg. Pressure <b>240</b>	<sup>40</sup> Csg. Pressure <b>180</b>
<sup>41</sup> Choke Size <b>186</b>	<sup>42</sup> Oil <b>740</b>	<sup>43</sup> Water <b>2635</b>	<sup>44</sup> Gas <b>FUMPING</b>	<sup>45</sup> AOP	<sup>46</sup> Test Method

<sup>47</sup> I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.  
Signature: *Charles E. Kendrick*

Printed name:  
**Charles E. Kendrick**

Title:  
**Engineer Technician**

Date:  
**10/22/2003**

Phone:  
**432-687-8104**

*[Signature]*  
Approved by:

Title:  
*Jim W. Gurn*  
**District Supervisor**

Approval Date:  
**OCT 28 2003**

<sup>48</sup> If this is a change of operator fill in the OGRID number and name of the previous operator

Previous Operator Signature	Printed Name	Title	Date
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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NMOC

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM030482
2. Name of Operator MARATHON OIL COMPANY		6. If Indian, Allottee or Tribe Name
Contact: CHARLES KENDRIX E-Mail: CEKENDRIX@MARATHONOIL.COM		7. If Unit or CA/Agreement, Name and/or No. NMNM70964A
3a. Address P O BOX 3487 HOUSTON, TX 77253	3b. Phone No. (include area code) Ph: 713-296-2096	8. Well Name and No. INDIAN HILLS UNIT 53
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 28 T21S R24E SENW Lot F 1383FNL 1586FWL		9. API Well No. 30-015-32875-00-S1
10. Field and Pool, or Exploratory INDIAN BASIN UPPER PENN ASS		11. County or Parish, and State EDDY COUNTY, NM

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize <input type="checkbox"/> Deepen <input type="checkbox"/> Production (Start/Resume) <input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing <input type="checkbox"/> Fracture Treat <input type="checkbox"/> Reclamation <input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair <input type="checkbox"/> New Construction <input checked="" type="checkbox"/> Recomplete <input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans <input type="checkbox"/> Plug and Abandon <input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Convert to Injection <input type="checkbox"/> Plug Back <input type="checkbox"/> Water Disposal

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Indian Hills Unit # 53 is a directionally drilled Upper Penn Assoc.gas well w/perfs: 7612' to 7980'(MD). Marathon intends to squeeze off current perfs.w/ approx 150 sks of cement, and cut a window in the 7" casing at approx. 7810'. Then drill a 4.75" horizontal lateral to a new TL-of 800' FSL & 2050' FWL of same section and producing interval. This will be an Open Hole completion. Please see attached C-102 and directional plan.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #52644 verified by the BLM Well Information System For MARATHON OIL COMPANY, sent to the Carlsbad Committed to AFMSS for processing by ARMANDO LOPEZ on 01/05/2005 (05AL0077SE)	
Name (Printed/Typed) MIKE MICK	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 01/05/2005

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By ALEXIS C SWOBODA	Title PETROLEUM ENGINEER	Date 01/06/2005
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015-32875</b>	<sup>2</sup> Pool Code <b>33685</b>	<sup>3</sup> Pool Name <b>INDIAN BASIN UPPER FERRY ASSOCIATED</b>
<sup>4</sup> Property Code <b>6409</b>	<sup>5</sup> Property Name <b>INDIAN HILLS UNIT</b>	<sup>6</sup> Well Number <b>53</b>
<sup>7</sup> OGRID No. <b>14021</b>	<sup>8</sup> Operator Name <b>Marathon Oil Company</b>	<sup>9</sup> Elevation <b>3702'</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>F</b>	<b>28</b>	<b>21-S</b>	<b>24-E</b>		<b>1383'</b>	<b>North</b>	<b>1586</b>	<b>West</b>	<b>BLIX</b>

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>F</b>	<b>28</b>	<b>21-S</b>	<b>24-E</b>		<b>800'</b>	<b>South</b>	<b>2050'</b>	<b>West</b>	<b>BLIX</b>

<sup>12</sup> Dedicated Acres <b>320 S/2</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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><b>GEODESIC COORDINATES</b> <b>IND 27-100</b> <b>SURF.</b> <b>Y=32875.1 N</b> <b>X=142851.2 E</b> <b>LAT=32.45387° N</b> <b>LONG=104.205787° W</b></p> <p><b>RECEIVED</b> <b>JAN 10 2005</b> <b>OOD:ARTE910</b></p> <p><b>PRODUCING AREA</b> <b>IND 19</b> <b>IND 20</b> <b>IND 35</b> <b>Y=32875.1 N</b> <b>X=142851.2 E</b> <b>LAT=32.45387° N</b> <b>LONG=104.205787° W</b></p>	<p><b><sup>17</sup> OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mike Mick</i> Signature</p> <p><b>Mike Mick</b> Printed Name</p> <p><b>Adv Sr. Engineer Technician</b> <b>mfmick@marathonoil.com</b> Title and E-mail Address</p>
	<p><b><sup>18</sup> SURVEYOR CERTIFICATION</b> I hereby certify that the well location shown on this plat was plotted from field notes of correct survey data by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p><b>MAY 20, 2003</b> Date Surveyed: <b>05/15/04</b></p> <p><i>[Signature]</i> Signature of State of Professional Surveyor</p> <p><b>04.13.1029</b> Certificate No. <b>0405 H0000</b> <b>1994</b></p>

Marathon Oil Company  
Indian Hills Unit #53

slot #1  
INDIAN BASIN  
Eddy County New Mexico

P R O P O S A L L I S T I N G

by  
Baker Hughes INTEQ

Your ref : Plan 1 Horizontal  
Our ref : prop4417  
License :

Date printed : 8-Dec-2004  
Date created : 8-Dec-2004  
Last revised : 8-Dec-2004

Field is centred on 445535.500,521332.200,-105.00000,N  
Structure is centred on 446801.800,528872.900,-105.00000,N

Slot location is n32 27 13.917,w104 30 20.874  
Slot Grid coordinates are N 528872.900, E 446801.800  
Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico East (3001), Spheroid: Clarke - 1866

Reference North is Grid North

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Marathon Oil Company  
Indian Hills Unit #53, slot #1  
INDIAN BASIN, Eddy County New Mexico

PROPOSAL LISTING Page 1  
Your ref : Plan 1 Horizontal  
Last revised : 8-Dec-2004

Measured Depth	Inclin Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect	G R I D C O O R D S Easting Northing	
7748.00	12.80	165.90	7576.31	1403.30S	350.24E	0.00	1422.93	447152.04	527469.60
7810.00	12.80	165.90	7636.77	1416.62S	353.59E	0.00	1436.44	447155.39	527456.28
7900.00	53.52	182.07	7710.64	1464.54S	354.76E	45.93	1484.34	447156.56	527408.36
7986.08	92.93	185.48	7735.00	1545.14S	349.19E	45.93	1564.41	447150.99	527327.76
8000.00	92.93	185.48	7734.29	1558.98S	347.86E	0.00	1578.13	447149.66	527313.92
8100.00	92.93	185.48	7729.18	1658.39S	338.33E	0.00	1676.73	447140.13	527214.51
8200.00	92.93	185.48	7724.07	1757.81S	328.79E	0.00	1775.32	447130.59	527115.09
8300.00	92.93	185.48	7718.96	1857.22S	319.26E	0.00	1873.91	447121.06	527015.68
8400.00	92.93	185.48	7713.85	1956.63S	309.72E	0.00	1972.51	447111.52	526916.27
8500.00	92.93	185.48	7708.74	2056.04S	300.18E	0.00	2071.10	447101.98	526816.86
8600.00	92.93	185.48	7703.62	2155.46S	290.64E	0.00	2169.69	447092.44	526717.44
8700.00	92.93	185.48	7698.51	2254.87S	281.11E	0.00	2268.29	447082.91	526618.03
8800.00	92.93	185.48	7693.39	2354.28S	271.57E	0.00	2366.88	447073.37	526518.62
8900.00	92.93	185.48	7688.28	2453.69S	262.03E	0.00	2465.47	447063.83	526419.21
9000.00	92.93	185.48	7683.16	2553.11S	252.49E	0.00	2564.06	447054.29	526319.79
9100.00	92.93	185.48	7678.04	2652.52S	242.95E	0.00	2662.66	447044.75	526220.38
9200.00	92.93	185.48	7672.93	2751.93S	233.41E	0.00	2761.25	447035.21	526120.97
9300.00	92.93	185.48	7667.81	2851.34S	223.87E	0.00	2859.84	447025.67	526021.56
9400.00	92.93	185.48	7662.69	2950.76S	214.33E	0.00	2958.43	447016.13	525922.14
9500.00	92.94	185.48	7657.57	3050.17S	204.78E	0.00	3057.02	447006.58	525822.73
9550.13	92.94	185.48	7655.00	3100.00S	200.00E	0.00	3106.44	447001.80	525772.90

All data in feet unless otherwise stated. Calculation uses minimum curvature method.  
Coordinates from slot #1 and IVD from rotary table.  
Bottom hole distance is 3106.44 on azimuth 176.31 degrees from wellhead.  
Vertical section is from S 0.00 E 0.00 on azimuth 176.31 degrees.  
Grid is mercator - New Mexico East (3001).

Grid coordinates in FEET and computed using the Clarke - 1866 spheroid  
Presented by Baker Hughes INTEQ

Marathon Oil Company  
Indian Hills Unit #53, slot #1  
INDIAN BASIN, Eddy County New Mexico

PROPOSAL LISTING Page 2  
Your ref : Plan 1 Horizontal  
Last revised : 8-Dec-2004

				Comments in wellpath
				=====
MD	TVD	Rectangular Coords.		Comment
7986.08	7735.00	1545.14S	349.19E	End of Curve
9550.13	7655.00	3100.00S	200.00E	TD Lateral

Targets associated with this wellpath				
=====				
Target name	Geographic Location	T.V.D.	Rectangular Coordinates	Revised
End of Curve		7735.00	1545.14S 349.19E	8-Dec-2004
TD Lateral		7655.00	3100.00S 200.00E	8-Dec-2004

# Marathon Oil Company

Structure : Indian Hills Unit #53

Slot : slot #1

Field : INDIAN BASIN

Location : Eddy County New Mexico

Created by carynm

Date printed 8-Dec-2004

Plot Reference is Plan 1 Horizontal

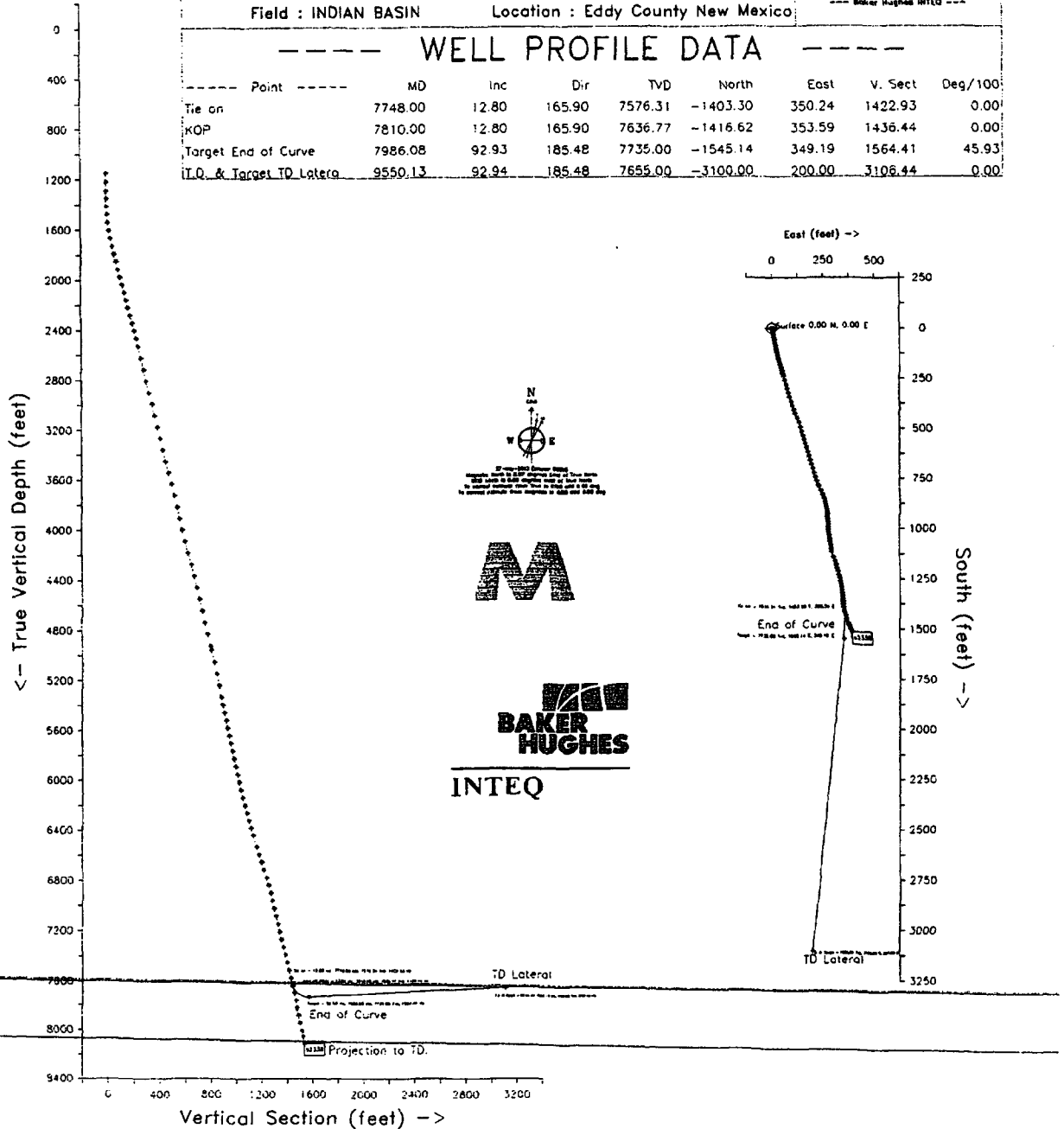
Coordinates are in feet reference slot #1.

True Vertical Depths are reference rotary table.

--- Baker Hughes INTEQ ---

## WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100
Tie on	7748.00	12.80	165.90	7576.31	-1403.30	350.24	1422.93	0.00
KOP	7810.00	12.80	165.90	7636.77	-1416.62	353.59	1436.44	0.00
Target End of Curve	7986.08	92.93	185.48	7735.00	-1545.14	349.19	1564.41	45.93
T.O. & Target TD Laterals	9550.13	92.94	185.48	7655.00	-3100.00	200.00	3106.44	0.00



Azimuth 176.31 with reference 0.00 S, 0.00 E from slot #1