Form 3160-3
(July 1992)

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

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM 06293
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT AGREEMENT NAME: Indian Hills Unit 6409
8. FARM OR LEASE NAME, WELL NO.: Indian Hills Unit # 49
9. API WELL NO.: 30-015-32723
10. FIELD AND POOL, OR WILDCAT: Indian Basin Field / Indian Basin Upper Penn. Assoc
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 28, T-21-S, R-24-E UL "A"

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR: Marathon Oil Company 14021

3. ADDRESS AND TELEPHONE NO.: P.O. Box 552 Midland, TX 79702 915-687-8357

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface: ~~1739'~~ 1855' FNL & 906' FEL Per SN Dated 3/11/03
At proposed prod. zone: 1600' FNL & 660' FEL

APR 2003 RECEIVED OCD ARTESIA

SUBJECT TO LIKE APPROVAL BY STATE

12. COUNTY OR PARISH: Eddy
13. STATE: N.M.

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 drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
739'	640	320
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
288'	8200' M.D.	Rotary

21. ELEVATIONS (Show whether DF,RT, GR, etc.): 3649' G.L.
22. APPROX. DATE WORK WILL START*: ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8" K-55	36#	1200'	440 sks.
8-3/4"	7" K-55	23#/26#	8200'	1280 sks.

WITNESS

Carlsbad Controlled Water Basin

Marathon is proposing to drill a Directional well to a BHL Southeast of the Surface hole location. The well will be drilled to a Standard BHL target.

The Surface hole is located on the same drilling pad as the previously drilled and completed Indian Hills Unit # 45. This will conserve space and minimize surface disturbances.

Archaeology is clear on the area of disturbance for the well.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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 Jerry Patterson TITLE Engineer Tech. DATE 9/09/02

(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/ JOE G. LARA TITLE FIELD MANAGER DATE APR 4 2003

*See Instructions On Reverse Side

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 YEA

Form 3160-5
(August 1999)

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

5. Lease Serial No.
NM-06293

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or
Indian Hills Unit

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Indian Hills Unit # 49

2. Name of Operator
Marathon Oil Company

9. API Well No.

3a. Address
P.O. Box 552 Midland, TX 79702

3b. Phone No. (*include area code*)
915-687-8360

10. Field and Pool, or Exploratory Area
Indian Basin U. P. Assoc.

4. Location of Well (*Footage, Sec., T., R., M., or Survey Description*)
Sec. 28, T-21-S, R-24-E 705' FNL & 855' FEL

11. County or Parish, State
Eddy N.M.

Eddy Co. N.M.

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ After Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration there
If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zon
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 da
following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed on
testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator h
determined that the final site is ready for final inspection.)

A mistake was made on the Surface hole location stake. John West has corrected the mistake and sent a new
C-102 plat and verification map. Please note the new Surface location footage calls.

Due to the error on the surface hole location a new Directional plan was made to match the new location. Please find the new directional plan and C-102 attached.

14. I hereby certify that the foregoing is true and correct
Name (*Printed/Typed*)
Jerry Fletcher

Title
Engineer Tech.

Signature: Jerry Fletcher

Date 3/21/03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /S/ JOE G. LARA

Title FIELD MANAGER

Date APR 4 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 FIELD 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 Unite States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
	33685	Indian Basin Upper Penn. Assoc.

Property Code	Property Name	Well Number
6409	INDIAN HILLS UNIT	49

OGRID No.	Operator Name	Elevation
14021	MARATHON OIL COMPANY	3649'

Surface Location

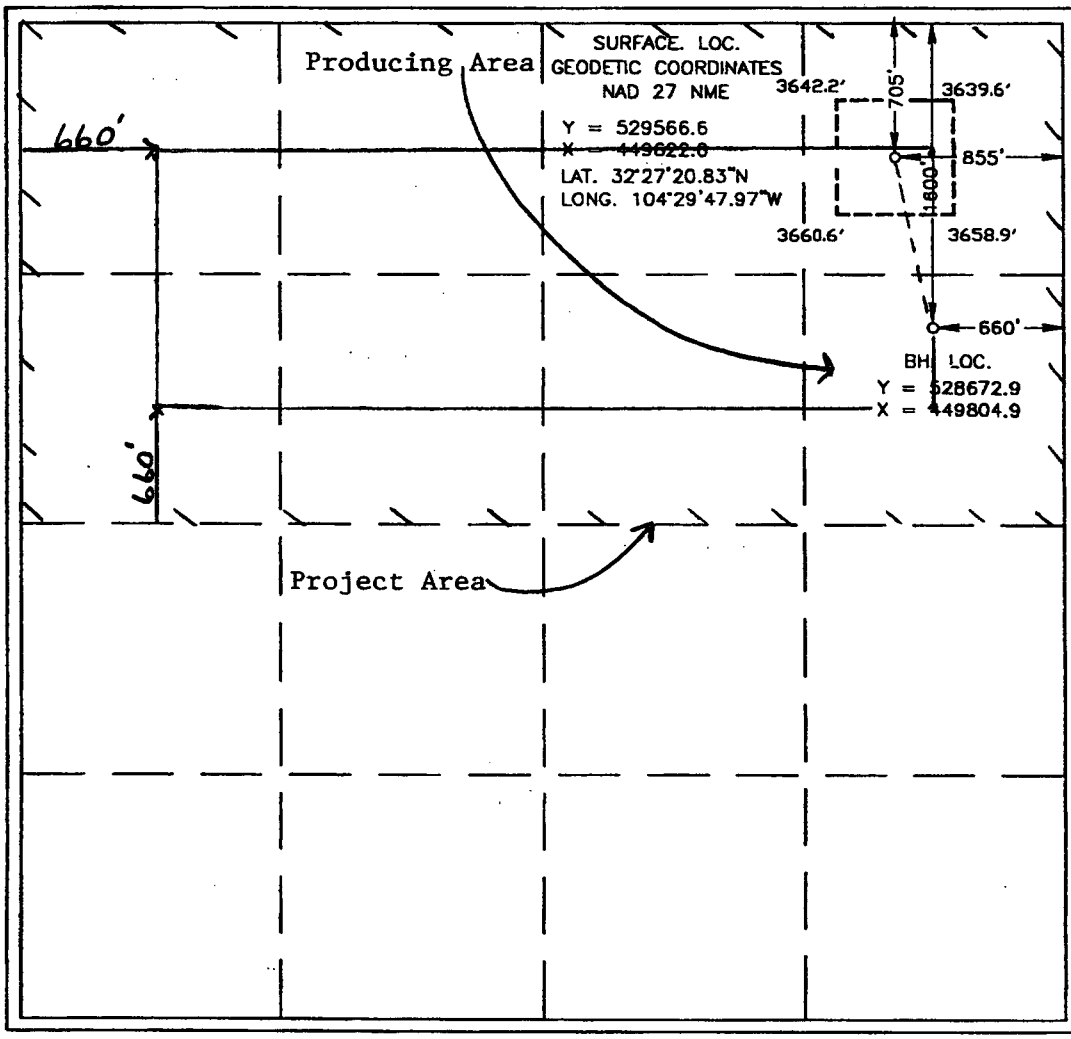
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	21-S	24-E		705'	NORTH	855'	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	28	21-S	24-E		1600'	NORTH	660'	EAST	EDDY

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



OPERATOR CERTIFICATION

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

Signature

Jerry Fletcher
Printed Name

Engineer Tech.
Title

3/21/03
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

AUGUST 13, 2002
Date Surveyed AWB

Signature & Seal of Professional Surveyor

3/7/03
02.11.0576

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
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FORM APPROVED
OMB NO. 1004-0135
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Sec. 28, T-21-S, R-24-E 705' FNL & 855' FEL

11. County or Parish, State
Eddy N.M.

JUN 2003
RECEIVED
OCD - ARTESIA

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 recompletion 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 the attached end of well report.

ACCEPTED FOR RECORD
JUN - 4 2003
ALEXIS C. SWOBODA
PETROLEUM ENGINEER

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Jerry Fletcher

Title
Engineer Tech.

Date 6/2/03

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	

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Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49 Spud Date: 4/26/2003
Event Name: ORIGINAL DRILLING Start: 4/24/2003 End:
Contractor Name: KEY ENERGY SERVICES Rig Release: Group:
Rig Name: EDWARD CARRASCO Rig Number: 438

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
4/26/2003	08:00 - 18:00	10.00	RIG	DMOB	MIRU	Location built by B&HConst. Drilled & set 40' of 14" conductor pipe (GL). Cemented to surface. MIRU McVay #4. Finished rigging up.Welded on 13 5/8" flange on conductor pipe. NU 13 5/8" 3 M Hydril & drilling spool. Shut down for night.
4/27/2003	08:00 - 09:00	1.00	TRIP	BBHD	MIRU	PU Hammer./Safety meeting
	09:00 - 13:45	4.75	DRILL	AIR	DRLSUR	Spudded 12 1/4" hole @ 0900 hrs. Mist drilled f/ 60' t/
	13:45 - 14:15	0.50	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	14:15 - 00:45	10.50	DRILL	AIR	DRLSUR	Air Drilling 3400 SCF/min @ 30 BPH of water 2 GPH of soap. Lots of water.
	00:45 - 01:00	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	01:00 - 01:45	0.75	TRIP	BIT	DRLSUR	Trip out for Hammer.
	01:45 - 02:30	0.75	TRIP	BBHD	DRLSUR	BHA/Bit Handling. L/D Hammer PU Bit & 3 pt Reamer
	02:30 - 03:15	0.75	TRIP	BIT	DRLSUR	Trip in w/ Bit
	03:15 - 06:00	2.75	DRILL	AIR	DRLSUR	Air Drilling. Misting 30 BPH of water/3400 SCF of air.
4/28/2003	06:00 - 07:45	1.75	DRILL	AIR	DRLSUR	Air Drilling
	07:45 - 08:00	0.25	EQUIP	RSEQ	DRLSUR	Repair Service equipment
	08:00 - 15:45	7.75	DRILL	AIR	DRLSUR	Air Drilling
	15:45 - 16:00	0.25	CIRC	CLN	DRLSUR	Pumped on hole.
	16:00 - 16:15	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	16:15 - 18:00	1.75	TRIP	BIT	DRLSUR	Tripout of hole. L/D 3-8" DC's.
	18:00 - 20:00	2.00	CSG	RUN	CSGSUR	Safety meeting. Ran Casing 28 jts of 9 5/6",36# csg. Landed @ 1200'.
	20:00 - 21:30	1.50	WAIT	EQIP	CSGSUR	Pumped on hole. 15 mins. Safety meeting. RU HES .
	21:30 - 22:00	0.50			CSGSUR	Pumped 10,000 SCF of N2, 10 bbls of N2- water, 20 bbls of N2 gelled water, 10 bbls of N2 water.
	22:00 - 23:00	1.00	CEMT	PRIM	CSGSUR	Cemented 9 5/8" surface casing with 700 sks Nitrofied Premuim Plus cement. Tailed w/ 150 sks Premuim Plus. Plug down @ 2300 hrs. No cmt or returns to surface.
	23:00 - 01:15	2.25	CEMT	PRIM	CSGSUR	1 hr to transfer 400 sks to cmt bin. Pumped 400 sks of Foam cmt down annulus. Capped w/ 75 sks of Premuim w/ 2% CaCl2, 1% CalSeal. 0 psi.SI annulas.
	01:15 - 02:30	1.25	WAIT	CEMT	CSGSUR	Wait on Cement
	02:30 - 06:00	3.50	NUND	DBOP	CSGSUR	ND Diverter. Cut off 9 5/8" csg. Snubbed out Hydril w/ Tandam truck. Welded on 11" 3M SOW Casing head. NU bOP @ 0600 hrs.
4/29/2003	06:00 - 08:00	2.00	NUND	UBOP	CSGSUR	Install BOP Equipment
	08:00 - 13:00	5.00	TEST	BOP	CSGSUR	BOP and Well Control Testing. Tst pipe& blind rams, Choke & all valves t/ 3000 psi high, 250 psi low. Tested Hydril t/ 1500 psi & 250 psi.
	13:00 - 15:00	2.00	TRIP	BIT	CSGSUR	Trip in w/ Bit 1160'.
	15:00 - 15:15	0.25	TEST	CSG	CSGSUR	Test Casing, 1500 psi.
	15:15 - 15:30	0.25	DRILL	CEMT	CSGSUR	Drill Cement / Drill Shoe
	15:30 - 15:45	0.25	DRILL	AIR	DRLPR	Drill formation f/ 1200' t/ 1222'.
	15:45 - 16:00	0.25	DRILL	AIR	DRLPR	Unload hole. Repair Gasket on flow-show.
	17:15 - 22:15	5.00	DRILL	AIR	DRLPR	Aired drilled Pumping 18 BPH of water
	22:15 - 22:45	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	22:45 - 06:00	7.25	DRILL	AIR	DRLPR	Aired drilled Pumping 24 BPH of water. Drilling @ 55'/hr.
4/30/2003	06:00 - 06:30	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	06:30 - 14:15	7.75	DRILL	AIR	DRLPR	Air Drilling. Making water. Kicked on # 1 pump @ 45 stk.min. @ 3.5 BPM w/ 1000 SCF of air to matain pit level constant.
	14:15 - 14:30	0.25	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	14:30 - 00:15	9.75	DRILL	AIR	DRLPR	Air Drilling.
	00:15 - 00:30	0.25	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	00:30 - 06:00	5.50	DRILL	AIR	DRLPR	Air Drilling. 3.5 BPM 1000 SCF of air. Drilling 50'/hr.
5/1/2003	06:00 - 11:30	5.50	DRILL	DOH	DRLPR	Drill Open Hole.Drilled w/ airiated fluid.

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49 Spud Date: 4/26/2003
Event Name: ORIGINAL DRILLING Start: 4/24/2003 End:
Contractor Name: KEY ENERGY SERVICES Rig Release: Group:
Rig Name: EDWARD CARRASCO Rig Number: 438

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/1/2003	11:30 - 11:45	0.25	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	11:45 - 18:45	7.00	DRILL	DOH	DRLPR	Drill Open Hole. Drilled w/ airiated fluid.Bit torqued.
	18:45 - 21:00	2.25	TRIP	BHA	DRLPR	POOH L/D 4 jt's & POOH f/ motor.
	21:00 - 23:00	2.00	TRIP	BBHD	DRLPR	L/D Shock sub & bit.Picked up Motor #1w/ Teleco,Shock sub NMDC & pony, & Orient motor. Tested motor & Teleco.O.K.
	23:00 - 03:00	4.00	TRIP	BIT	DRLPR	TIH w/ motor #1 & bit. Tagged up @ 3291'.L/D 5 jt's.
	03:00 - 04:45	1.75	DRILL	WSHR	DRLPR	Ream f/ 3291' to 3451'.
	04:45 - 06:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary w/ motor.
5/2/2003	06:00 - 06:30	0.50	CIRC	CLN	DRLPR	Circulate Clean
	06:30 - 08:00	1.50	SURV	GYRO	DRLPR	Survey with GYRO system
	08:00 - 09:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:00 - 09:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	09:15 - 09:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide . 1.76 / 218.6
	09:30 - 10:15	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:15 - 10:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 171. Grid
	10:30 - 11:15	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:15 - 11:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:30 - 12:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 171GRID
	12:00 - 12:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:45 - 13:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 171GRID
	13:15 - 14:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	14:00 - 14:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:15 - 14:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 171GRID
	14:30 - 15:15	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:15 - 15:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 171GRID
	15:45 - 16:15	0.50	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	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	18:15 - 19:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:00 - 19:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:15 - 19:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	19:30 - 20:15	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:15 - 20:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	20:45 - 21:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:15 - 21:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:30 - 21:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	21:45 - 22:30	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:30 - 23:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	23:00 - 23:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:30 - 23:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:45 - 00:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	00:00 - 00:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:30 - 01:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	01:00 - 01:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:30 - 01:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:45 - 02:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	02:00 - 02:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:30 - 02:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	02:45 - 03:30	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:30 - 03:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	03:45 - 04:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49 — Spud Date: 4/26/2003
Event Name: ORIGINAL DRILLING — Start: 4/24/2003 — End:
Contractor Name: KEY ENERGY SERVICES — Rig Release: — Group:
Rig Name: EDWARD CARRASCO — Rig Number: 438

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/2/2003	04:00 - 04:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:30 - 05:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	05:00 - 06:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
5/3/2003	06:00 - 07:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:15 - 07:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	07:30 - 08:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:45 - 09:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	09:00 - 09:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 60L
	09:30 - 10:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	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 90L
	11:30 - 12:15	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:15 - 12:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:30 - 13:15	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:15 - 13:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:30 - 14:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 100L
	14:00 - 14:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	14:45 - 15:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 90L
	15:15 - 15:45	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:45 - 16:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:00 - 17:00	1.00	DRILL	DOHS	DRLPR	Drill Open Slide 80L
	17:00 - 18:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:15 - 18:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	18:30 - 19:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 90L
	19:15 - 20:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:30 - 20:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	20:45 - 21:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 80L
	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 85L
	00:00 - 01:45	1.75	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 85L
	02:45 - 04:45	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	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
5/4/2003	06:00 - 06:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 15R
	06:30 - 07:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:45 - 08:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:00 - 08:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 15L
	08:45 - 10:30	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:30 - 10:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:45 - 11:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 20L
	11:30 - 13:15	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:15 - 13:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:30 - 14:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 20L
	14:15 - 16:30	2.25	TRIP	BIT	DRLPR	Trip in / out for Bit
	16:30 - 17:00	0.50	TRIP	BBHD	DRLPR	Change out bit.
	17:00 - 18:45	1.75	TRIP	BIT	DRLPR	Trip in / out for Bit
	18:45 - 20:30	1.75	DRILL	WSHR	DRLPR	L/D 3 jt's & installed rotating head & reamed to btm f/ 4824' to 4917'.
	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 - 23:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49 — Spud Date: 4/26/2003
Event Name: ORIGINAL DRILLING — Start: 4/24/2003 — End:
Contractor Name: KEY ENERGY SERVICES — Rig Release: — Group:
Rig Name: EDWARD CARRASCO — Rig Number: 438

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/4/2003	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 - 01:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 20L
	01:15 - 02:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:45 - 03:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	03:00 - 03:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	03:15 - 04:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:30 - 04:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:45 - 06:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
5/5/2003	06:00 - 06:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	06:15 - 06:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 25L
	06:45 - 08:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 08:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:15 - 09:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 10L
	09:00 - 10:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:00 - 10:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:15 - 11:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 15L
	11:00 - 12:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:00 - 12:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:15 - 12:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 10L
	12:45 - 13:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:45 - 14:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:00 - 14:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	14:30 - 15:15	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:15 - 15:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:30 - 16:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	16:00 - 17:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	17:00 - 17:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	17:15 - 17:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	17:45 - 19:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:00 - 19:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:15 - 19:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 15R
	19:45 - 20:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:45 - 21:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:00 - 21:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 10R
	21:45 - 22:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:45 - 23:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:00 - 23:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 15L
	23:45 - 00:00	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:00 - 00:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 30L
	00:45 - 01:00	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:00 - 01:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:15 - 01:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	01:45 - 03:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:00 - 03:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	03:15 - 03:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	03:30 - 04:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:45 - 05:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	05:00 - 05:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 30L
	05:15 - 06:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
5/6/2003	06:00 - 06:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:30 - 06:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49 Spud Date: 4/26/2003
Event Name: ORIGINAL DRILLING Start: 4/24/2003 End:
Contractor Name: KEY ENERGY SERVICES Rig Release: Group:
Rig Name: EDWARD CARRASCO Rig Number: 438

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/6/2003	06:45 - 07:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide .Tried to slide motor stalled.
	07:00 - 09:30	2.50	TRIP	MOTR	DRLPR	Trip for Motor Bearings locked up.
	09:30 - 11:00	1.50	TRIP	BBHD	DRLPR	Replaced bit, motor & installed stabilizer.
	11:00 - 11:30	0.50	CHECK	SURF	DRLPR	Changed out 8" line in flow line.
	11:30 - 14:30	3.00	TRIP	MOTR	DRLPR	Trip for Motor. TIH w/ new bit,redressed motor, & installed Andergauge stabilizer. RT tool 13 stands above HWDP.
	14:30 - 15:00	0.50	DRILL	WSHR	DRLPR	Installed stripper rubber & wash 11' to btm. w/ 2' fill.
	15:00 - 15:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 10R.
	15:30 - 16:45	1.25	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 H/S
	17:45 - 18:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:45 - 19:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:00 - 20:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:00 - 20:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	20:15 - 21:30	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:30 - 21:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:45 - 22:00	0.25	CHECK	BHA	DRLPR	Perform Check of BHA .Cycle Andergauge stabilizer.
	22:00 - 22:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 15L
	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 - 00:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 15L
	00:15 - 01:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:15 - 04:00	2.75	RIG	RCNT	DRLPR	Rig Repair, Contractor owned.Belles hung up in derrick had to work free before we could go back to drilling.
	04:00 - 04:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:15 - 05:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	05:15 - 05:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	05:30 - 05:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 60R
	05:45 - 06:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
5/7/2003	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 25R
	07:45 - 09:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:15 - 09:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	09:30 - 10:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide 10R
	10:00 - 11:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:15 - 11:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:30 - 12:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	12:00 - 14:00	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	14:00 - 14:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:15 - 15:15	1.00	DRILL	DOHS	DRLPR	Drill Open Slide
	15:15 - 16:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:45 - 17:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	17:00 - 18:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:00 - 18:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	18:45 - 19:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:15 - 19:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:30 - 20:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide 45R
	20:15 - 22:00	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:00 - 22:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	22:15 - 23:15	1.00	DRILL	DOHS	DRLPR	Drill Open Slide 75R
	23:15 - 00:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49 — Spud Date: 4/26/2003
Event Name: ORIGINAL DRILLING — Start: 4/24/2003 — End:
Contractor Name: KEY ENERGY SERVICES — Rig Release: — Group:
Rig Name: EDWARD CARRASCO — Rig Number: 438

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/7/2003	00:45 - 01:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:00 - 01:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	01:45 - 02:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:45 - 03:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide 35R
	03:00 - 04:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:00 - 04:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:15 - 04:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide H/S
	04:45 - 06:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
5/8/2003	06:00 - 06:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:30 - 06:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	06:45 - 07:30	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	07:30 - 08:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 09:00	1.00	DRILL	DOHS	DRLPR	Drill Open Slide
	09:00 - 09:15	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:15 - 09:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	09:30 - 10:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	10:00 - 10:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:45 - 11:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	11:00 - 11:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:45 - 12:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:00 - 12:45	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	12:45 - 13:30	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:30 - 14:00	0.50	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	SURV	MWD	DRLPR	Survey with MWD Tools
	14:45 - 15:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	15:15 - 17:00	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	17:00 - 17:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	17:15 - 18:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	18:00 - 19:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:00 - 19:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:15 - 20:45	1.50	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 - 21:30	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:30 - 22:15	0.75	DRILL	DOHS	DRLPR	Drill Open Slide
	22:15 - 22:30	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:30 - 23:00	0.50	SURV	MWD	DRLPR	Survey with MWD Tools. Open Stab. t/ 8.5 OD
	23:00 - 23:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:45 - 00:00	0.25	CIRC	HOLE	DRLPR	Circulate/Cycle Andergauge
	00:00 - 00:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:45 - 01:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools.
	01:00 - 01:15	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Lost all returns @ 7724'.
	01:15 - 01:45	0.50	CIRC	HOLE	DRLPR	Pumped 50 LCM pill/ 40#/bbl.
	01:45 - 02:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Dry drill.
	02:15 - 02:30	0.25	CIRC	HOLE	DRLPR	Pumped 50 LCM pill/ 40#/bbl.
	02:30 - 02:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools.
	02:45 - 03:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. 20% returns.
	03:45 - 04:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools.
	04:00 - 05:30	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary.35% returns.
	05:30 - 05:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools.
	05:45 - 06:00	0.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary.45% returns.
5/9/2003	06:00 - 07:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Mudded up @ 8008'. 50% returns.

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49 Spud Date: 4/26/2003
Event Name: ORIGINAL DRILLING Start: 4/24/2003 End:
Contractor Name: KEY ENERGY SERVICES Rig Release: Group:
Rig Name: EDWARD CARRASCO Rig Number: 438

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/9/2003	07:00 - 07:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	07:15 - 08:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. 50% returns.
	08:45 - 09:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	09:00 - 10:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. 50% returns.
	10:15 - 10:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:30 - 12:15	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. 50% returns.
	12:15 - 12:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:30 - 14:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. 50% returns.
	14:00 - 15:30	1.50	CIRC	MUD	DRLPR	Circulate and Condition Mud 80% returns. Pumped 30 bbl sweep/80 vis
	15:30 - 17:00	1.50	TRIP	WTRP	DRLPR	Wiper Trip. No hole problems.
	17:00 - 18:30	1.50	CIRC	MUD	DRLPR	4' of fill. Washed to bottom. Circ. Spotted high vis pill on botton 50 bbls.
	18:30 - 22:00	3.50	TRIP	BIT	DRLPR	TOOH. No excessive drag on trip out. L/D Directional tools.
	22:00 - 00:30	2.50	LOG	OPEN	EVALPR	Safety meeting. RU HES loggers. Ran HEL Triple Combo. RI t/ 8020'. Pulled up t/ 7900'. Stuck tool 12:15 AM CST.
	00:30 - 06:00	5.50	LOG	OPEN	EVALPR	Working stuck tool. Pulling 7250# of maximum pull of 8000#. Waiting on fishing tools. Lost 53 bbls of mud in the last 7 hrs.
5/10/2003	06:00 - 08:00	2.00	FISH	RFSH	EVALPR	Unloaded fishing tools. Stripped off lub & logging adapater. Clamped off line. Cut 7/16" OD elec cable. Made up rope sockets for line overshot. Held safety meeting. Hung shields.
	08:00 - 16:00	8.00	FISH	RFSH	EVALPR	Run in Hole with Fishing Tools on 4 1/2" OD DP. (6 1/2" OD overshot w/ 3.625 grapple) Fish came free after passing loss zone @ 7724'. RI t/ 7900'. Latched onto fish.
	16:00 - 18:30	2.50	FISH	RFSH	EVALPR	Pulled 1 std. to confirm fish in place. Pulled out of rope socket.10,200#. Clamped off line. Cut line. Pulled out w/ electric line using WL truck.
	18:30 - 22:30	4.00	FISH	PFSH	EVALPR	Pull out of Hole with Fishing Tools / Fish. Full recovery.
	22:30 - 00:30	2.00	FISH	PFSH	EVALPR	L/D Fish & tools.
	00:30 - 04:30	4.00	TRIP	BIT	EVALPR	TIH w/ bit.
	04:30 - 05:00	0.50	CIRC	FILL	EVALPR	Washed 30' t/ bottom 6' of fill.
	05:00 - 06:00	1.00	CIRC	HOLE	EVALPR	Circulate and Condition Hole

Marathon Oil Company

Casing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49		S
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #: 1	R
Event Name:	ORIGINAL DRILLING	Start: 4/24/2003	E

General Information

String Type: SURFACE CASING		Permanent Datum:	KELLY BUSHING	Hole Size:		H
Hole TVD:	1,200.0 (ft)	KB-Datum:	0.00 (ft)	Water TMD:		S
Ground Level:	3,649.00 (ft)	CF Elevation:	(ft)	Liner Overlap:	(ft)	M
Circ Hours:	0.50 (hr)	Mud Lost:	(bbl)	KB to Cutoff:	(ft)	D

Casing Flange / Wellhead

Manufacturer:	WOOD GROUP	Model:	FMC C-22	T
Hanger Model:	11"3M SOW	Packoff Model:		B

Actual TMD Set: 1,200.450 (ft)

Integral Casing Detail

Item	Size (in)	Weight (lb/ft)	Grade	Drift (in)	Threads	JTS	Length (ft)	Top (ft)	MU Torq. (ft-lbf)	THD	Manufacturer	Model
CASING JOINT(S)	9.625	36.0	J-55	8.921	8 ROUND	27	1,171.700					
CASING FLOAT COLLA	9.625			8.921	8 ROUND		1.200	1,171.70				
CASING JOINT(S)	9.625	36.0	J-55	8.921	8 ROUND	1	26.100	1,172.90				
CASING FLOAT SHOE	9.625			8.921	8 ROUND		1.450	1,199.00				

Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	Int Top (ft)
CENTRALIZER	GEMCO	8	90.0	

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49			Spud Date:	4/26/2003
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #:	1	Report Date:	4/27/2003
Event Name:	ORIGINAL DRILLING	Start:	4/24/2003	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: 1,200.0 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 4/27/2003	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

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: 21:30	Disp Avg Rate: 5.00 (bbl/min)	Returns: None
Volume Excess %: 120.00	Start Slurry Displ: :	Disp Max Rate: 5.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From: KB	Start Displ: :	Bump Plug: Y	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: 200 (psi)	
To Cementing: 0.25	End Pump Date:	Press Bumped: 800 (psi)	Ann Flow After: N
Mud Circ Rate: 350 (gpm)	Top Plug: N	Press Held: 500 (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: Y	Float Held: Y	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.4 (ppg) Visc: 27 (s/qt) PV/YP: (cp)/ (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)
Displacement Fluid Type:FRESH WATER Density: 8.4 (ppg) Volume: 94.00 (bbl)

Stage No: 1 Slurry No: 1 of 4

Slurry Data

Fluid Type: LEAD	Description: FOAM		Class: CLASS C	Purpose: FILLER CEM	
Slurry Interval: 250.00 (ft) To: 800.00 (ft)	Cmt Vol: 700 (sk)	Density: (ppg)	Yield: 14.80 (ft³/sk)	Mix Water: 6.36 (gal/sk)	
Water Source: frac tank	Slurry Vol: (bbl)	Water Vol: (bbl)	Other Vol: ()	Foam Job: Y	

Test Data

			Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Marathon Oil Company
Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49			Spud Date:	4/26/2003
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #:	1	Report Date:	4/27/2003
Event Name:	ORIGINAL DRILLING	Start:	4/24/2003	End:	

Stage No: 1 Slurry No: 2 of 4

Slurry Data

Fluid Type: TAIL	Description: OTHER		Class: CLASS C	Purpose: SHOE INTEG	
Slurry Interval: 800.00 (ft) To: 1,242.00 (ft)	Cmt Vol: 150 (sk)	Density: (ppg)	Yield: 1.34 (ft³/sk)	Mix Water: 6.37 (gal/sk)	
Water Source: frac tank	Slurry Vol: (bbl)	Water Vol: 36.0 (bbl)	Other Vol: ()	Foam Job: N	

Test Data

			Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(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
CACL2 (LIQUID)	ACCELERATOR	2.00			% BWOC

Stage No: 1 Slurry No: 3 of 4

Slurry Data

Fluid Type: OTHER	Description: FOAM		Class: CLASS C	Purpose: FILLER CEM	
Slurry Interval: 250.00 (ft) To: 250.00 (ft)	Cmt Vol: 400 (sk)	Density: (ppg)	Yield: 1.35 (ft³/sk)	Mix Water: 6.37 (gal/sk)	
Water Source: frac tank	Slurry Vol: (bbl)	Water Vol: 95.0 (bbl)	Other Vol: ()	Foam Job: Y	

Test Data

			Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Stage No: 1 Slurry No: 3 of 4 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
Zone Seal		1.50			% BWOC
CACL2 (LIQUID)	ACCELERATOR	2.00			% BWOC

Stage No: 1 Slurry No: 4 of 4

Slurry Data

Fluid Type: OTHER	Description: BENTONITE ACCEL.		Class: CLASS C	Purpose: FW PROTEC	
Slurry Interval: (ft) To: 75.00 (ft)	Cmt Vol: 75 (sk)	Density: (ppg)	Yield: 1.48 (ft³/sk)	Mix Water: 6.80 (gal/sk)	
Water Source: frac tank	Slurry Vol: (bbl)	Water Vol: 18.0 (bbl)	Other Vol: ()	Foam Job: N	

Test Data

			Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Marathon Oil Company
Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49			Spud Date:	4/26/2003
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #:	1	Report Date:	4/27/2003
Event Name:	ORIGINAL DRILLING	Start:	4/24/2003	End:	

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

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CACL2 (LIQUID)	ACCELERATOR	2.00			% BWOC
CaSeal		1.00			% BWOC

Casing Test

Test Press: (psi)
For: (min)
Cement Found between Shoe and Collar: N

Shoe Test

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

Liner Top Test

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

Log/Survey Evaluation

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

Interpretation Summary

Cement Top: 95 (ft)
How Determined: Tagged
TOC Sufficient: Y
Job Rating:
If Unsuccessful Detection Indicator:
Remedial Cementing Required: N
Number of Remedial Squeezes:

Remarks

Started to cir well to surface on last 15 to 20 bbl's before bumping plug.Cir. foam had some signs of cement. Pumped 275 sks of foam cement down back side showing about 85 psi while pumping. Capped w/ 75 sks liquid cement. Pressure dropped to 0. After N/D stack & cutting off 9 5/8" casing Ran string line down backside & tagged around 75 to 80 '. Poured 5 1/2 yards on backside to surface.

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49 — Spud Date: 4/26/2003
Event Name: ORIGINAL COMPLETION — Start: 5/20/2003 — End:
Contractor Name: KEY ENERGY SERVICES — Rig Release: — Group:
Rig Name: EDWARD CARRASCO — Rig Number: 438

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/11/2003	06:00 - 06:30	0.50	CIRC	CLN	CSGPRO	Circulate Clean
	06:30 - 14:30	8.00	TRIP	LDDP	CSGPRO	LD DP & DC's.
	14:30 - 22:45	8.25	CSG	RUN	CSGPRO	Safety meeting. Ran Float Shoe, 1- 7"-26# Shoe jt., float collar, 80 jts of 7"-26#, 106 jts of 7"-23#, 2- jts of 7"-26#. Washed the last jt to bottom @ 8180'. (12' of fill)
	22:45 - 00:30	1.75	CIRC	CLN	CSGPRO	Circulate Clean
	00:30 - 04:00	3.50	CEMT	PRIM	CSGPRO	Safety meeting. Pumped 50,000 SCF of N2 ahead. Slurry-1 Cemented w/ 100 sks of foamed acid soluable cement @ 15 ppg Yield- 2.55. Slurry 2- Lead 950 Class "H" foamed w/ N2 @ 13. ppg Yield-2, Slurry-3 tailed w/ 120 sks. of Mod. Super "H" w/ .4% CFR-3, 5PPG Gilsointe, .5% H-344, .2% HR-7, 1 PPG Salt. Displaced w/ 317 bbls of fresh water. Bumped plug @ 0345AM CST. Circ 180sks. Capped w/ 75 sks of Premuim Plus w/ 3% CaCl2, 10# Ca-Seal. 250 psi on annulus. (used a total of 187,569 SCF of N2).
	04:00 - 06:00	2.00	WAIT	CEMT	CSGPRO	Wait on Cement
5/12/2003	06:00 - 12:00	6.00	NUND	DBOP	CSGPRO	WOC 2 hrs. ND 11" BOP. Set 7" casing slips. Cut off 7" csg. Pulled BOP. NU 11" x 7 1/16" 3M Tubing head. Tested t/ 3000 psi. Released Rig @ 12:00 noon CST. Move t/ IHU # 38 on Tues.
5/19/2003	06:00 - 08:00	2.00	RIG	MIRU	MIRU	Move in / RU Rig, Workover Unit spot equipment. RU BOPs. Test blind rams and casing to 1500 psig. Function test pipe rams and torus annular.
	08:00 - 14:30	6.50	PLRNRP		RCMP	PJSM. Took del of 266 jts of 2 7/8" L-80 tbg. Racked, tallied - PU & RIH w/ 6.125" used bit, csg scraper - RIH to TD @ 8153'.
	14:30 - 18:30	4.00	CLEAN	WELL	RCMP	RU rev unit and circ well clean. PUH 10'. RU HES. Pickle tbg & casg w/ 1000 gals of 15% HCl. Circ OOH. RD HES. SDFN
5/20/2003	06:00 - 09:00	3.00	SAFETY	SMTG	PERF	Safety Meeting. POH w/ tubing. LD bit & scraper.
	09:00 - 19:30	10.50	PERF	WLNC	PERF	RU Baker Atlas. Test lubr to 1500#. Ran gamma tool - correlated to Halliburton Down Pass OH log (5/8/2003) Made 9 runs perf from 7526'-32',7564'-77',7607'-11',33'-37',50'-64',72'-86',7697'-7707',13'-31',40'-54',66'-80',7812'-7816' @4JSPF in 120 deg phs. RD B/A
	19:30 - 21:30	2.00	PKRPLG	RUN	RCMP	PU 7" PPI pkrs spaced out @ 2'. RIH on 60 stands of tbg. Closed and locked pipe rams. SDFN
5/21/2003	06:00 - 07:00	1.00	SAFETY	SMTG	STIM	Safety Meeting. RU Halliburton. Dropped SV. Test lines to 4500#. Dropped RFC - Function test Open: 1085 psig. Close 560 psig.
	07:00 - 13:00	6.00	STIM	ACID	STIM	PUH w/ PPI packer in 2' spacings. Acidized new perfs in 68 settings @ 100 gpf for a total of 13,000 gals of 17% CCA sour acid. (Aver break - 2202#) (Max brk - 3800#) (Min brk - 1540#) Avg treat - 1806# Min treat - 1395# Max treat - 2300# Avg rate of 2.1 BPM RD Halliburton Acid
	13:00 - 21:30	8.50	PKRPLG	PULL	RCMP	Fish retrievable valves. POOH w/ tbg. LD PPI packers.
	21:30 -		PKRPLG	RUN	RCMP	PU 7" RBP. RIH to 3136'. Set RBP. Load and test to 500 psig. OK Closed and locked pipe rams. SDFN
5/22/2003	07:00 - 08:30	1.50	TRIP		RCMP	RI w/ 7" RBP. Set @ 3400'. Loaded & tested t/ 500 psi. POOH w/ tbg.
	08:30 - 14:00	5.50	WAIT	EQIP	RCMP	Wait on Equipment (Sub pump)
	14:00 - 17:00	3.00	EQUIP	RURD	RCMP	Made up Baker Centrilift sub pump. 4-pumps, Seperator, Seal, 2 Motors, PHD, 62'-5 1/2" OD shroud. FC 2200 pumps, 2- 132 HP Motors.
	17:00 - 19:30	2.50	PLRNRP	PTBG	RCMP	Run in hole w/ 2 7/8" tbg t/ top of RBP @ 3400'. SIFN. Clamped bottom 2000' of tubing.2- 3/8" CT strings.
5/23/2003	06:00 - 13:00	7.00	PLRNRP		RCMP	PJSM. CIH w/ sub pump to RBP. Latch on - equaliized CIH w/ remaining 150 jts of 2 7/8" tbg. PU hgr, measure and made fianl splice. Land hgr in wehhlhead. RD spoolers.
	13:00 - 14:00	1.00	RIG	RDMO	RCMP	Move out / RD Rig, Workover Unit, etc.

Marathon Oil Company

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49
Event Name: ORIGINAL COMPLETION
Contractor Name: KEY ENERGY SERVICES
Rig Name: EDWARD CARRASCO

Start: 5/20/2003
Rig Release:
Rig Number: 438

Spud Date: 4/26/2003
End:
Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
5/23/2003	14:00 - 15:30	1.50	EQUIP	RURD	RCMP	RU wellhead.
	18:00 - 22:30	4.50	WELD	FABR	OTHER	Completed flowline. Will start unit in the morning.
5/24/2003	09:00 - 10:45	1.75	HANOVR	RTRP	RCMP	Purged flowline. Daniel Ruiz completed pre-starup checklist. Started unit to production. Fluid to surface in 15 minutes. IPIP 940 SPIP - 880 Turned well over to B. Hamilton.

Marathon Oil Company

Casing Report

Legal Well Name: INDIAN HILLS UNIT NO. 49
Common Well Name: INDIAN HILLS UNIT NO. 49
Event Name: ORIGINAL COMPLETION

Report #: 1
Start: 5/20/2003

General Information

String Type: PRODUCTION CASING #1		Permanent Datum:	KELLY BUSHING	Hole Size:		
Hole TVD:	8,089.0 (ft)	KB-Datum:	0.00 (ft)	Water TMD:		
Ground Level:	3,649.00 (ft)	CF Elevation:	(ft)	Liner Overlap:	(ft)	
Circ Hours:	1.50 (hr)	Mud Lost:	(bbl)	KB to Cutoff:	(ft)	

Casing Flange / Wellhead

Manufacturer:	WOOD GROUP	Model:	FMC C-22
Hanger Model:	11"3M	Packoff Model:	

Actual TMD Set: 8,180.270 (ft)

Integral Casing Detail

Item	Size (in)	Weight (lb/ft)	Grade	Drift (in)	Threads	JTS	Length (ft)	Top (ft)	MU Torq. (ft-lbf)	THD	Manufacturer	Model
CASING JOINT(S)	7.000	26.0	K-55	6.151	8 ROUND	2	89.780		3,410			
CASING JOINT(S)	7.000	23.0	K-55	6.241	8 ROUND	106	4,677.450	89.78	3,410			
CASING JOINT(S)	7.000	26.0	K-55	6.151	8 ROUND	78	3,388.240	4,767.23	3,410			
CASING FLOAT COLLA	7.000	26.0	K-55	6.151	8 ROUND		1.900	8,155.47	3,410	Y	GEMCO	
CASING JOINT(S)	7.000	26.0	K-55	6.151	8 ROUND	1	21.000	8,157.37	3,410	Y		
CASING FLOAT SHOE	7.000	26.0	K-55	6.151	8 ROUND		1.900	8,178.37	3,410	Y	GEMCO	

Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	In Top (ft)
CENTRALIZER	GEMCO	26	45.0	7,600.

Marathon Oil Company
Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49			Spud Date:	4/26/2003
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #:	1	Report Date:	5/11/2003
Event Name:	ORIGINAL COMPLETION	Start:	5/20/2003	End:	

Cement Job Type: Primary

Primary	Squeeze Open Hole	Squeeze Casing	Plug
Hole Size: 8.750 (in)	Hole Size:	Hole Size:	Hole Size:
TMD Set: 8,180.0 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 5/11/2003	SQ Date:	Date Set:	BTM set: (ft)
Csg Type: PRODUCTION CASIN	SQ Type:	Csg Type:	Plug Date:
Csg Size: 7.000 (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

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: 205 (lb)	Drag Down: 180 (lb)	

Stage No: 1 of 4

Type: PRIM CMT 1ST STAGE	Start Mix Cmt: 00:30	Disp Avg Rate: 5.00 (bbl/min)	Returns: 70%
Volume Excess %: 60.00	Start Slurry Displ: :	Disp Max Rate: 5.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing: 1.50	End Pump Date:	Press Bumped: (psi)	Ann Flow After: N
Mud Circ Rate: 388 (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: 1,500 (psi)	Bottom Plug: N	Float Held: N	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
Bottom Hole Circulating Temperature:126 (°F) Bottom Hole Static Temperature: (°F)
Displacement Fluid Type:FRESH WATER Density: 8.3 (ppg) Volume: 334.00 (bbl)

Stage No: 1 Slurry No: 1 of 1

Slurry Data

Fluid Type: LEAD		Description: EXTENDED		Class: CLASS H	Purpose: FILLER CEM
Slurry Interval: (ft)	To: (ft)	Cmt Vol: 100 (sk)	Density: 15.0 (ppg)	Yield: 2.55 (ft³/sk)	Mix Water: 11.10 (gal/sk
Water Source: Corky Glenn		Slurry Vol: (bbl)	Water Vol: 26.0 (bbl)	Other Vol: ()	Foam Job: Y

Test Data

			Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:	12.00	(°F)	500 (psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:	24.00	(°F)	1,200 (psi)
Fluid Loss: 400.0 (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Marathon Oil Company
Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49			Spud Date:	4/26/2003
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #:	1	Report Date:	5/11/2003
Event Name:	ORIGINAL COMPLETION	Start:	5/20/2003	End:	

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

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
Zone Seal		2.00			% BWOC

Stage No: 2 of 4

Type: PRIM CMT 2ND STAGE	Start Mix Cmt: 01:00	Disp Avg Rate: 5.00 (bbl/min)	Returns: 70%
Volume Excess %: 60.00	Start Slurry Displ: :	Disp Max Rate: 5.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing: 1.50	End Pump Date:	Press Bumped: 2,600 (psi)	Ann Flow After: Y
Mud Circ Rate: 388 (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: N	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)
Displacement Fluid Type: Density: (ppg) Volume: (bbl)

Stage No: 2 Slurry No: 1 of 1

Slurry Data

Fluid Type: LEAD	Description: FOAM		Class: CLASS H	Purpose: FILLER CEM	
Slurry Interval: (ft)	To: 7,100.00 (ft)	Cmt Vol: 950 (sk)	Density: 13.0 (ppg)	Yield: 2.00 (ft³/sk)	Mix Water: 5.20 (gal/sk)
Water Source: Corky Glenn		Slurry Vol: (bbl)	Water Vol: 117.0 (bbl)	Other Vol: ()	Foam Job: Y

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:	12.00	(°F)	1,150 (psi)
Free Water: 1.00 (%)	Temperature: (°F)	Compressive Strength 2:	24.00	(°F)	2,100 (psi)
Fluid Loss: 700.0 (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Stage No: 2 Slurry No: 1 of 1 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
Zone Seal		2.00			% BWOC

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49			Spud Date:	4/26/2003
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #:	1	Report Date:	5/11/2003
Event Name:	ORIGINAL COMPLETION	Start:	5/20/2003	End:	

Stage No: 3 of 4

Type:	PRIM CMT 3RD STAGE	Start Mix Cmt:	:	Disp Avg Rate:	5.00 (bbl/min)	Returns:	70%
Volume Excess %:	60.00	Start Slurry Displ:	:	Disp Max Rate:	5.00 (bbl/min)	Total Mud Lost:	(bbl)
Meas. From:		Start Displ:	:	Bump Plug:	Y	Cmt Vol to Surf:	75.00 (bbl)
Time Circ Prior		End Pumping:	:	Press Prior:	2,200 (psi)		
To Cementing:		End Pump Date:		Press Bumped:	2,600 (psi)	Ann Flow After:	N
Mud Circ Rate:	388 (gpm)	Top Plug:	Y	Press Held:	5 (min)	Mixing Method:	
Mud Circ Press:	(psi)	Bottom Plug:	N	Float Held:	Y	Density Meas By:	

Mud Data

Type: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)
Displacement Fluid Type:FRESH WATER Density: 8.3 (ppg) Volume: 334.00 (bbl)

Stage No: 3 Slurry No: 1 of 1

Slurry Data

Fluid Type: TAIL	Description: OTHER			Class: CLASS H		Purpose: SHOE INTEG
Slurry Interval: 7,100.00 (ft)To: 8,180.00 (ft)	Cmt Vol: 120 (sk)	Density: 13.0 (ppg)		Yield: 1.67 (ft³/sk)		Mix Water: 8.20 (gal/sk)
Water Source: Corky Glenn	Slurry Vol: (bbl)	Water Vol: 24.0 (bbl)		Other Vol: ()		Foam Job: N

Test Data

			Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

Stage No: 3 Slurry No: 1 of 1 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CFR-3		4.00			% BWOC
Gilsonite		5.00			lbs/sack
HR-344		5.00			% BWOC
HR-7		0.20			% BWOC
Salt		1.00			lbs/sack

Marathon Oil Company
Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49			Spud Date:	4/26/2003
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #:	1	Report Date:	5/11/2003
Event Name:	ORIGINAL COMPLETION	Start:	5/20/2003	End:	

Stage No: 4 of 4

Type: SUFACE TOPOUT	Start Mix Cmt: 03:45	Disp Avg Rate: (bbl/min)	Returns: Bullhead
Volume Excess %:	Start Slurry Displ: :	Disp Max Rate: (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing:	End Pump Date:	Press Bumped: (psi)	Ann Flow After: Y
Mud Circ Rate: (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: N	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)
Displacement Fluid Type: FRESH WATER Density: 8.4 (ppg) Volume: 2.00 (bbl)

Stage No: 4 Slurry No: 1 of 1

Slurry Data

Fluid Type: OTHER		Description: Modfied Super "H"		Class: CLASS H	Purpose: FILLER CEM
Slurry Interval: (ft)	To: 350.00 (ft)	Cmt Vol: 75 (sk)	Density: 14.8 (ppg)	Yield: 1.35 (ft³/sk)	Mix Water: 6.36 (gal/sk)
Water Source:		Slurry Vol: (bbl)	Water Vol: 20.0 (bbl)	Other Vol: ()	Foam Job: N

Test Data			**Time**	**Temp**	**Pressure**
Thickening Time:	Temperature: (°F)	Compressive Strength 1:		(°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:		(°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)				
Fluid Loss Pressure: (°F)					

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

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CaCl2		3.00			% BWOC
CalSeal		10.00			lbs/sack

Marathon Oil Company

Cementing Report

Legal Well Name:	INDIAN HILLS UNIT NO. 49			Spud Date:	4/26/2003
Common Well Name:	INDIAN HILLS UNIT NO. 49	Report #:	1	Report Date:	5/11/2003
Event Name:	ORIGINAL COMPLETION	Start:	5/20/2003	End:	

Casing Test	Shoe Test	Liner Top Test
Test Press: (psi)	Pressure: (ppge)	Liner Lap:
For: (min)	Tool:	Pos Test: (ppge) Tool:
Cement Found between	Open Hole: (ft)	Neg Test: (ppge) Tool:
Shoe and Collar:	Hrs Before Test:	Hrs Before Test:
		Cement Found on Tool:

Log/Survey Evaluation	Interpretation Summary
CBL Run:	Cement Top: (ft)
Under Pressure: (psi)	How Determined:
Bond Quality:	TOC Sufficient:
Cet Run:	Job Rating:
Bond Quality:	If Unsuccessful Detection Indicator:
Temp Survey:	Remedial Cementing Required:
Hrs Prior to Log:	Number of Remedial Squeezes:

Form 3160-5
(August 1999)

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

5. Lease Serial No.
NM06293

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
INDIAN HILLS UNIT
NM 70964A

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
INDIAN HILLS UNIT #49

2. Name of Operator
Marathon Oil Company

9. API Well No.
30-015-32723

3a. Address
P.O. Box 552 Midland, TX 79702

3b. Phone No. (include area code)
800-351-1417

10. Field and Pool, or Exploratory Area
INDIAN BASIN UPPER PENN ASSOCIATED GAS POOL

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SURFACE: UL "A", 705' FNL & 855' FEL, SECTION 28, T-21-S, R-24-E
BHL: UL "H", 1594' FNL & 746' FEL, SECTION 28, T-21-S, R-24-E

11. County or Parish, State
EDDY COUNTY NM

JUL 2003 RECEIVED OCD ARTESIA

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

TYPE OF SUBMISSION	TYPE OF ACTION			
[ ] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
[X] Subsequent Report	[ ] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
[ ] Final Abandonment Notice	[ ] Casing Repair	[ ] New Construction	[ ] Recomplete	[ ] Other
	[ ] Change Plans	[ ] Plug and Abandon	[ ] Temporarily Abandon	
	[ ] Convert to Injection	[ ] Plug Back	[X] 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 recomplete 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 recompletion 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.)

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
Name (Printed/Typed) Ginny Larke

Title Engineer Technician

Date 7/21/03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (ORIG. SGD.) ALEXIS C. SWOBODA

Title PETROLEUM ENGINEER

Date JUL 28 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

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.

July 24, 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 Com # 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

July 24, 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

Form 3160-4
(August 1999)

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. 1004-0137
Expires: November 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. NM06293

1a. Type of Well [X] Oil Well [ ] Gas Well [ ] Dry Other

b. Type of Completion: [X] New Well [ ] Work Over [ ] Deepen [ ] Plug Back [ ] Diff.Resvr,. Other

6. If Indian, Allotee or Tribe Name

7. Unit or CA Agreement Name and No. 70964A INDIAN HILLS UNIT

2. Name of Operator: Marathon Oil Company

8. Lease Name and Well No. INDIAN HILLS UNIT #49

3. Address: P.O. Box 552 Midland, TX 79702

3a. Phone No. (include area code): 800-351-1417

9. API Well No. 30-015-32723

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface: UL "A", 705' FNL & 855' FEL

At top prod. interval reported below: UL "H", 1464' FNL & 746' FEL

At total depth: UL "H", 1594' FNL & 726' FEL

10. Field and Pool, or Exploratory: INDIAN BASIN UPPER PENN ASSOC.

11. Sec., T., R., M., or Block and Survey or Area: SECTION 28, T-21-S, R-24-E

12. County or Parish: EDDY

13. State: NM

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14. Date Spudded	15. Date T.D. Reached	16. Date Completed	17. Elevations (DF, RKB, RT, GL)*
4/27/03	5/9/03	[ ] D & A [X] Ready to Prod. 5/24/03	GL-3649; KB-3666

18. Total Depth: MD / TVD	19. Plug Back T.D.: MD / TVD	20. Depth Bridge Plug Set: MD / TVD
8180 / 8090	8155 / 8045	

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

SPECTRAL DENSITY DUAL SPACED NEUTRON - DOWNLOG

22. Was well cored? [X] No [ ] Yes (Submit analysis)
Was DST run [X] No [ ] Yes (Submit report
Directional Survey? [ ] No [X] es (Submit copy)

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 Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.25	9.625K55	36	0	1814		1325		0	
8.75	7 K55	23/26	0	8178		1245			CIRC. 180 SX

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	8096	REP-8096						

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	UPPER PENN	7518	TD	7526-7816			OPEN
B)							
C)							
D)							

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

Depth Interval	Amount and Type of Material
7526-7816	13,000 GALS 17% CCA SOUR ACID

ACCEPTED FOR RECORD
JUL 28 2003
ALEXIS C. SWOBODA
PETROLEUM ENGINEER

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method
5/24/03	7/12/03	24		416	308	1601			PUMPING

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status
	300	200					740	PRODUCING

28a. Production-Interval B

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	Oil BBL	Gas MCF	Water BBL	Gas: Oil Ratio	Well Status

8b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	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	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	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
CISCO	7518	7654	DOLOMITE CAPPED W/LIMESTONE	BONE SPRING LIME	5154
CANYON	7654	TD	DOLOMITE W/SHALE INTERBEDS	TUBB	6712
				WOLFCAMP	6851
				CISCO	7518
				CANYON	7654

32. Additional remarks (include plugging procedure):

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 Inclination Survey

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

Name (please print) Ginny Larke Title Engineer Technician

Signature Ginny Larke Date 7/24/03

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.

Scientific Drilling

MARATHON OIL COMPANY

Field: Indian Basin
Site: Eddy County, NM
Well: Indian Hills #49
Wellpath: VH - Job #32K0503211
Survey: 05/01/03

This survey is correct to the best of my knowledge
and is supported by actual field data.

.....Company Representative

Notorized this date 27th of May, 2003.

Deborah Sue Bynum
Notary Signature
County of Midland
State of Texas

DEBORAH S BYNUM
Notary Public, State of Texas
My Commission Expires
05-09-2004

Scientific Drilling
Survey Report

Company:	MARATHON OIL COMPANY	**Date:** 5/27/2003	**Time:** 10:12:45	**Page:**	1
Field:	Indian Basin	**Co-ordinate(NE) Reference:**	Site: Eddy County, NM, True North		
Site:	Eddy County, NM	**Vertical (TVD) Reference:**	SITE 0.0		
Well:	Indian Hills #49	**Section (VS) Reference:**	Well (0.00N,0.00E,171.99Azi)		
Wellpath:	VH - Job #32K0503211	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

Survey:	05/01/03 KSRG 0'-3330'	**Start Date:**	5/1/2003
Company:	Scientific Drilling	**Engineer:**	Cary Coffee
Tool:	Keeper,Keeper Gyro	**Tied-to:**	From Surface

Survey

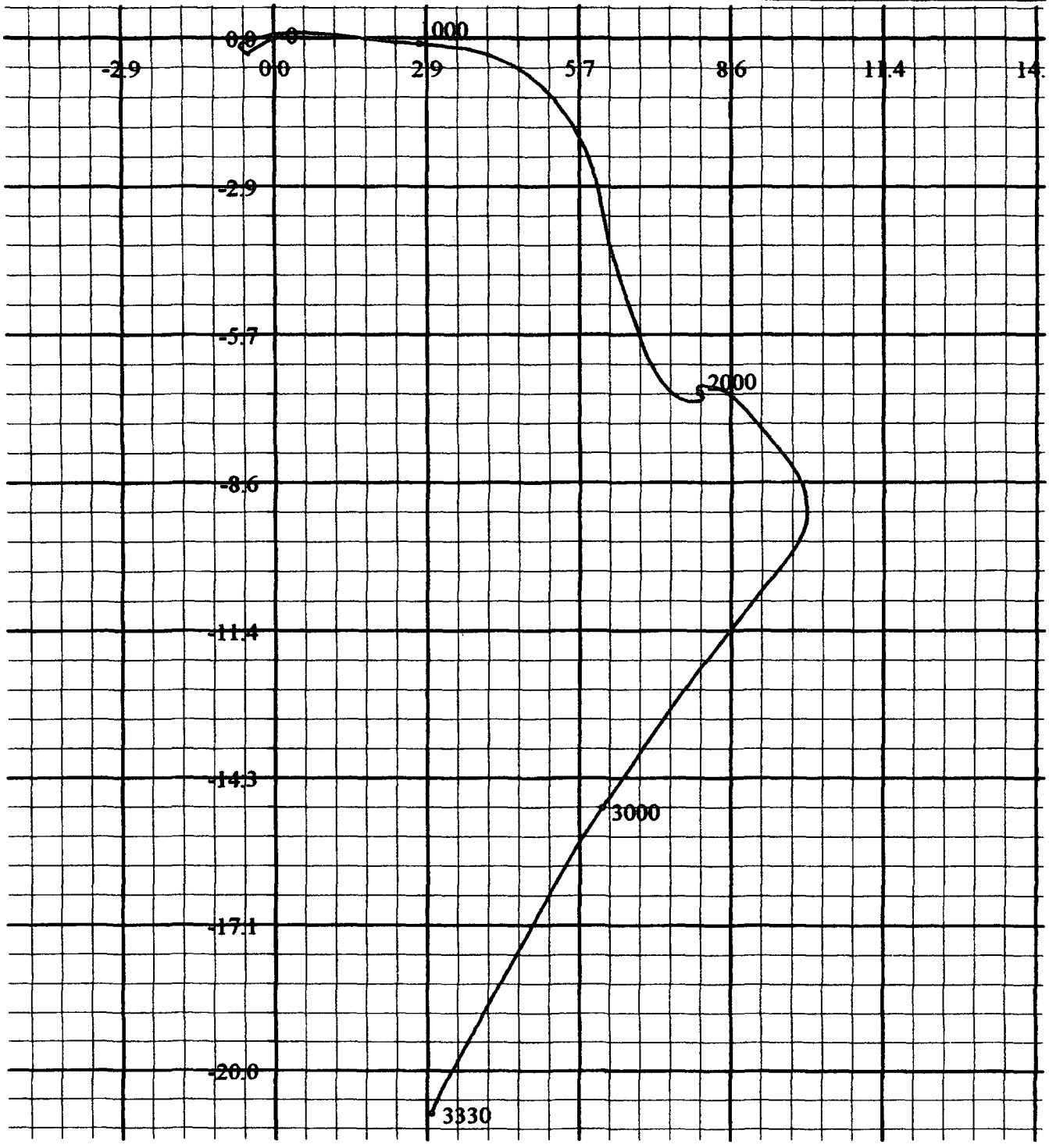
MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.16	240.10	100.0	0.1	-0.1	-0.1	0.16	0.1	240.10
200.0	0.16	240.04	200.0	0.2	-0.2	-0.4	0.00	0.4	240.08
300.0	0.03	180.97	300.0	0.2	-0.3	-0.5	0.15	0.6	237.79
400.0	0.01	52.83	400.0	0.3	-0.3	-0.5	0.04	0.6	235.67
500.0	0.18	307.11	500.0	0.1	-0.2	-0.6	0.18	0.6	249.13
600.0	0.22	71.40	600.0	0.0	-0.1	-0.5	0.35	0.5	262.39
700.0	0.37	78.06	700.0	-0.1	0.1	0.0	0.15	0.1	322.12
800.0	0.52	93.75	800.0	0.0	0.1	0.7	0.19	0.7	82.73
900.0	0.63	97.98	900.0	0.3	0.0	1.7	0.12	1.7	90.45
1000.0	0.52	92.34	1000.0	0.5	-0.1	2.7	0.12	2.7	92.28
1100.0	0.49	100.30	1100.0	0.7	-0.2	3.6	0.08	3.6	93.23
1200.0	0.58	119.06	1200.0	1.1	-0.5	4.5	0.20	4.5	96.72
1300.0	0.64	140.56	1300.0	1.9	-1.2	5.3	0.23	5.4	102.88
1400.0	0.67	157.08	1400.0	3.0	-2.2	5.8	0.19	6.2	110.40
1500.0	0.73	172.41	1500.0	4.2	-3.3	6.1	0.20	7.0	118.51
1600.0	0.80	161.02	1599.9	5.5	-4.6	6.5	0.17	7.9	125.63
1700.0	0.71	160.74	1699.9	6.8	-5.9	6.9	0.09	9.1	130.45
1800.0	0.42	137.44	1799.9	7.7	-6.7	7.3	0.36	10.0	132.51
1900.0	0.31	88.53	1899.9	8.0	-7.0	7.9	0.32	10.5	131.66
2000.0	0.27	314.42	1999.9	7.9	-6.8	8.0	0.53	10.5	130.59
2100.0	0.38	95.59	2099.9	7.8	-6.7	8.1	0.61	10.5	129.46
2200.0	0.44	139.40	2199.9	8.2	-7.0	8.7	0.31	11.2	128.85
2300.0	0.59	141.46	2299.9	8.9	-7.7	9.3	0.15	12.1	129.71
2400.0	0.38	148.88	2399.9	9.7	-8.4	9.8	0.22	12.9	130.67
2500.0	0.47	175.99	2499.9	10.4	-9.1	10.0	0.22	13.5	132.34
2600.0	0.77	217.62	2599.9	11.3	-10.0	9.6	0.52	13.9	136.26
2700.0	0.76	217.31	2699.9	12.2	-11.1	8.8	0.01	14.1	141.60
2800.0	0.86	217.79	2799.9	13.2	-12.2	7.9	0.10	14.6	147.01
2900.0	0.90	212.27	2899.9	14.3	-13.5	7.0	0.09	15.2	152.37
3000.0	1.00	214.28	2999.9	15.6	-14.9	6.1	0.11	16.1	157.54
3100.0	0.93	207.88	3099.9	16.9	-16.3	5.3	0.13	17.1	162.08
3200.0	1.20	208.55	3199.8	18.4	-17.9	4.4	0.27	18.5	166.25
3300.0	1.60	207.08	3299.8	20.3	-20.1	3.3	0.40	20.3	170.80
3330.0	1.46	200.16	3329.8	21.0	-20.8	2.9	0.77	21.0	171.99

Scientific Drilling

Field: Indian Basin
Site: Eddy County, NM
Well: Indian Hills #49
Wellpath: VH - Job #32K0503211
Survey: 05/01/03

Azimuths to True Nort
Magnetic North: -6.9

Magnetic Fiel
Strength: 31348n
Dip Angle: -28.5
Date: 5/27/200
Model: WMM_9



South(-)/North(+) [ft]

West(-)/East(+) [ft]

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

Well Name and Number: Indian Hills #49

Location: Sec. 28, T21S, R24E, Eddy County, NM

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	
¾	218	12	4658	11.8	7315
½	645	11 ¼	4848	11.9	7822
½	1143	12	4976	10.7	8138
½	1490	12 ¼	5167		
¾	1871	12	5294		
¾	2315	12	5798		
1	2816	13	5983		
1 ¼	3260	12 ¼	6114		
2 ¾	3583	11 ½	6302		
4 ½	3774	11 ¾	6493		
10 ½	4026	12.5	6746		
11 ¼	4280	11.2	6935		
12	4531	9.2	7062		

Drilling Contractor: McVay Drilling Company

By: _____

Subscribed and sworn to before me this 13th **day of** May, **2003**

_____
Notary Public

My Commission Expires: 8-16-05 **Lea County, New Mexico**

Form 3160-5
(August 1999)

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

5. Lease Serial No.
NM06293

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
70964A INDIAN HILLS UNIT

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
INDIAN HILLS UNIT #49

2. Name of Operator
Marathon Oil Company

9. API Well No.
30-015-32723

3a. Address
P.O. Box 552 Midland, TX 79702

3b. Phone No. (include area code)
800-351-1417

10. Field and Pool, or Exploratory Area
INDIAN BASIN UPPER PENN ASSOCIATED

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: UL "A", 705' FNL & 855' FEL SECTION 28, T-21-S, R-24-E
BHL: UL "H", 1594' FNL & 726' FEL SECTION 28, T-21-S, R-24-E

11. County or Parish, State
EDDY COUNTY NM

JUL 2003
RECEIVED
OCD - ARTESIA

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☒ Acidize	☐ Deepen	☒ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other INITIAL COMPLETION
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 recompletion 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.)

Work began on 5/19/03. MIRU PU, NU BOPs and RIH w/bit & csg scraper. Tag @ 8153', RU reverse unit & circulate hole clean. Pickle tbg & csg W/1000 gals 15% HCl & circulate out of the hole. RIH & perf from 7526'-7532', 7564'-7577', 7607'-7611', 7633'-7637', 7650'-7664', 7672'-7686', 7697'-7707', 7713'-7731', 7740'-7754', 7766'-7780', 7812'-7816' w/4 jspf, 120 degree phasing. PU 7" PPI packers, spaced out @ 2' and RIH. Dropped valves & PUH acidizing perfs, 7526'-7816', @ 100 gpf for a total of 13,000 gals of 17% CCA sour acid. Avg. break psi - 2202, max break psi - 3800, avg treating psi - 1806, max treating psi - 2300, avg rate 2.1 bpm. POOH & PU RBP. Set, load and test to 500 psi, & POOH w/tbg. Made up sub pump & RIH on 2-7/8" tbg to RBP. Latched on, equalized & continued in hole w/remaining tbg. PU hanger, measured and made final splice. Landed hanger in wellhead, RD PU & NU wellhead. Purged flowline, started pump and turned over to production department 5/24/03.

ACCEPTED FOR RECORD
JUL 28 2003
ALEXIS C. SWOBODA
PETROLEUM ENGINEER

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed) Ginny Larke
Title Engineer Technician
Date 7/24/03

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.

Form 3160-5
(August 1999)

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

5. Lease Serial No.
NM06293

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or
INDIAN HILLS UNIT
NM 70964A

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No.
INDIAN HILLS UNIT #49

2. Name of Operator
Marathon Oil Company

9. API Well No.
30-015-32723

3a. Address
P.O. Box 552 Midland, TX 79702

3b. Phone No. (*include area code*)
800-351-1417

10. Field and Pool, or Exploratory Area
INDIAN BASIN UPPER PENN ASSOCIATED GAS POOL

4. Location of Well (*Footage, Sec., T., R., M., or Survey Description*)
SURFACE: UL "A", 705' FNL & 855' FEL, SECTION 28, T-21-S, R-24-E
BHL: UL "H", 1594' FNL & 746' FEL, SECTION 28, T-21-S, R-24-E

11. County or Parish, State
EDDY COUNTY NM

RECEIVED
JUL 2003
OCD ARTESIA

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

TYPE OF SUBMISSION	TYPE OF ACTION			
[ ] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
[X] Subsequent Report	[ ] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
[ ] Final Abandonment Notice	[ ] Casing Repair	[ ] New Construction	[ ] Recomplete	[X] Other Amend Commingle Permit Add New Well
	[ ] Change Plans	[ ] Plug and Abandon	[ ] Temporarily Abandon	
	[ ] Convert to Injection	[ ] Plug Back	[ ] Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration there If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zon 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 d following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed or testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator h determined that the final site is ready for final inspection.)

Please modify the Indian Basin Field-wide commingle agreement as follows:

The production from Indian Hills Unit Well #49 is being piped from the wellhead to the production header at Station 128 Satellite Production Facility, located at UL "C", Section 28, T-21-S, R-24-E, Eddy County, NM. No other changes will be made in the handling or transporting of any of the hydrocarbon production at this satellite facility. Attached, please find an updated facility diagram. Copies of this diagram are also being sent to the Carlsbad Office as an update to the Site Security Diagrams required for this lease.

14. I hereby certify that the foregoing is true and correct
Name (*Printed/Typed*) Ginny Larke — Title Engineer Technician

Ginny Larke — Date 7/21/03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (ORIG. SGD.) ALEXIS C. SWOBODA — Title PETROLEUM ENGINEER — Date JUL 29 200

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

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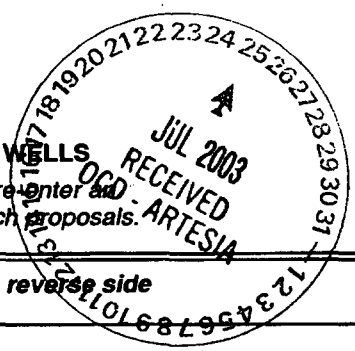
Form 3160-5
(August 1999)

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

5. Lease Serial No.
NM06293

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No
70964A INDIAN HILLS UNIT

1. Type of Well
☐ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
INDIAN HILLS UNIT #49

2. Name of Operator
Marathon Oil Company

9. API Well No.
30-015-32723

3a. Address
P.O. Box 552 Midland, TX 79702

3b. Phone No. (*include area code*)
800-351-1417

10. Field and Pool, or Exploratory Area
INDIAN BASIN UPPER PENN ASSOCIATED

4. Location of Well (*Footage, Sec., T., R., M., or Survey Description*)
SHL: UL "A", 705' FNL & 855' FEL SECTION 28, T-21-S, R-24-E
BHL: UL "H", 1594' FNL & 726' FEL SECTION 28, T-21-S, R-24-E

11. County or Parish, State
EDDY COUNTY NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☒ Acidize	☐ Deepen	☒ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other INITIAL COMPLETION
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 recompletion 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.)

Work began on 5/19/03. MIRU PU, NU BOPs and RIH w/bit & csg scraper. Tag @ 8153', RU reverse unit & circulate hole clean. Pickle tbg & csg W/1000 gals 15% HCl & circulate out of the hole. RIH & perf from 7526'-7532', 7564'-7577', 7607'-7611', 7633'-7637', 7650'-7664', 7672'-7686', 7697'-7707', 7713'-7731', 7740'-7754', 7766'-7780', 7812'-7816' w/4 jspf, 120 degree phasing. PU 7" PPI packers, spaced out @ 2' and RIH. Dropped valves & PUH acidizing perfs, 7526'-7816', @ 100 gpf for a total of 13,000 gals of 17% CCA sour acid. Avg. break psi - 2202, max break psi - 3800, avg treating psi - 1806, max treating psi - 2300, avg rate 2.1 bpm. POOH & PU RBP. Set, load and test to 500 psi, & POOH w/tbg. Made up sub pump & RIH on 2-7/8" tbg to RBP. Latched on, equalized & continued in hole w/remaining tbg. PU hanger, measured and made final splice. Landed hanger in wellhead, RD PU & NU wellhead. Purged flowline, started pump and turned over to production department 5/24/03.

14. I hereby certify that the foregoing is true and correct
Name (*Printed/Typed*) Ginny Larke

Title Engineer Technician

Date 7/24/03

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.

Form 3160-4
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: November 30, 2000

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. NM06293

1a. Type of Well [X] Oil Well [ ] Gas Well [ ] Dry Other

b. Type of Completion: [X] New Well [ ] Work Over [ ] Deepen [ ] Plug Back [ ] Diff.Resvr,. Other

6. If Indian, Allotee or Tribe Name

7. Unit or CA Agreement Name and No. 70964A INDIAN HILLS UNIT

2. Name of Operator: Marathon Oil Company

8. Lease Name and Well No. INDIAN HILLS UNIT #49

3. Address: P.O. Box 552 Midland, TX 79702

3a. Phone No. (include area code): 800-351-1417

9. API Well No. 30-015-32723

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface UL "A", 705' FNL & 855' FEL

At top prod. interval reported below UL "H", 1464' FNL & 746' FEL

At total depth UL "H", 1594' FNL & 726' FEL

10. Field and Pool, or Exploratory: INDIAN BASIN UPPER PENN ASSOC.

11. Sec., T., R., M., or Block and Survey or Area: SECTION 28, T-21-S, R-24-E

12. County or Parish: EDDY

13. State: NM

14. Date Spudded	15. Date T.D. Reached	16. Date Completed	17. Elevations (DF, RKB, RT, GL)*
4/27/03	5/9/03	[ ] D & A [X] Ready to Prod. 5/24/03	GL-3649; KB-3666

18. Total Depth: MD / TVD	19. Plug Back T.D.: MD / TVD	20. Depth Bridge Plug Set: MD / TVD
8180 / 8090	8155 / 8045	

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

SPECTRAL DENSITY DUAL SPACED NEUTRON - DOWNLOG

22. Was well cored? [X] No [ ] Yes (Submit analysis)
Was DST run [X] No [ ] Yes (Submit report
Directional Survey? [ ] No [X] es (Submit copy)

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 Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12.25	9.625K55	36	0	1814		1325		0	
8.75	7 K55	23/26	0	8178		1245			CIRC. 180 SX

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	8096	RBP-8096						

25. Producing Intervals / 26. Perforation Record

	Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)	UPPER PENN	7518	TD	7526-7816			OPEN
B)							
C)							
D)							

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

Depth Interval	Amount and Type of Material
7526-7816	13,000 GALS 17% CCA SOUR ACID

RECEIVED
JUL 2003
OCD - ARTESIA

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method
5/24/03	7/12/03	24		416	308	1601			PUMPING
Choke Size	**Tbg. Press. Flwg. SI**	**Csg. Press.**	**24 Hr. →**	**Oil BBL**	**Gas MCF**	**Water BBL**	**Gas: Oil Ratio**	**Well Status**	
	300	200					740	PRODUCING	

28a. Production-Interval B

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

8b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	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	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. →	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
CISCO	7518	7654	DOLOMITE CAPPED W/LIMESTONE	BONE SPRING LIME	5154
CANYON	7654	TD	DOLOMITE W/SHALE INTERBEDS	TUBB	6712
				WOLFCAMP	6851
				CISCO	7518
				CANYON	7654

32. Additional remarks (include plugging procedure):

33. Circle enclosed attachments:

(1.) Electrical/Mechanical Logs (1 full set req'd) 2. Geologic Report 3. DST Report (4.) Directional Survey

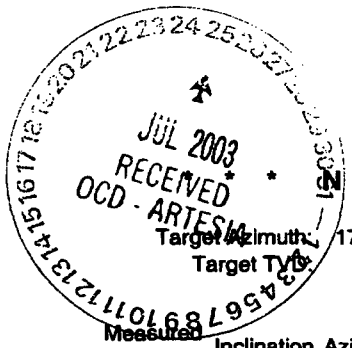
5. Sundry Notice for plugging and cement verification 6. Core Analysis (7.) Other Inclination Survey

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

Name (please print) Ginny Larke Title Engineer Technician

Signature Ginny Larke Date 7/24/03

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.



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

Well: Indian Hills Unit 49

Target Azimuth: 171.54 — Closure Direction: 172

Target TVD: 8100

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	0.00	0.00	0.00	0.00	0.00	0.00	<==== Tie-in Data				
100	0.16	240.10	100.00	0.05	-0.07	-0.12	0.14	0.002	2.401	0.16	gyro
200	0.16	240.04	200.00	0.15	-0.21	-0.36	0.42	0.000	-0.001	0.00	gyro
300	0.03	180.97	300.00	0.23	-0.30	-0.48	0.57	-0.001	-0.591	0.15	gyro
400	0.01	52.83	400.00	0.25	-0.33	-0.48	0.58	0.000	-1.281	0.04	gyro
500	0.18	307.11	500.00	0.14	-0.23	-0.60	0.64	0.002	-1.057	0.18	gyro
600	0.22	71.40	600.00	-0.01	-0.07	-0.54	0.54	0.000	1.243	0.35	gyro
700	0.37	78.06	700.00	-0.06	0.06	-0.04	0.07	0.002	0.067	0.15	gyro
800	0.52	93.75	799.99	0.01	0.10	0.73	0.73	0.002	0.157	0.19	gyro
900	0.63	97.98	899.99	0.26	-0.01	1.72	1.72	0.001	0.042	0.12	gyro
1,000	0.52	92.34	999.98	0.50	-0.11	2.72	2.72	-0.001	-0.056	0.12	gyro
1,100	0.49	100.30	1,099.98	0.73	-0.20	3.60	3.60	0.000	0.080	0.08	gyro
1,200	0.58	119.06	1,199.98	1.17	-0.52	4.46	4.49	0.001	0.188	0.20	gyro
1,300	0.64	140.56	1,299.97	1.96	-1.20	5.26	5.39	0.001	0.215	0.24	gyro
1,400	0.67	157.08	1,399.96	3.01	-2.17	5.84	6.23	0.000	0.165	0.19	gyro
1,500	0.73	172.41	1,499.96	4.21	-3.34	6.15	7.00	0.001	0.153	0.20	gyro
1,600	0.80	161.02	1,599.95	5.53	-4.63	6.46	7.95	0.001	-0.114	0.17	gyro
1,700	0.71	160.74	1,699.94	6.83	-5.88	6.89	9.06	-0.001	-0.003	0.09	gyro
1,800	0.42	137.44	1,799.93	7.74	-6.73	7.35	9.96	-0.003	-0.233	0.36	gyro
1,900	0.31	88.53	1,899.93	8.08	-6.99	7.86	10.52	-0.001	-0.489	0.32	gyro
2,000	0.27	314.42	1,999.93	7.92	-6.82	7.97	10.49	0.000	-1.341	0.53	gyro
2,100	0.38	95.59	2,099.93	7.81	-6.69	8.13	10.53	0.001	-2.188	0.61	gyro
2,200	0.44	139.40	2,199.93	8.22	-7.01	8.71	11.18	0.001	0.438	0.31	gyro
2,300	0.59	141.46	2,299.93	8.99	-7.71	9.28	12.06	0.002	0.021	0.15	gyro
2,400	0.38	148.88	2,399.92	9.74	-8.39	9.77	12.88	-0.002	0.074	0.22	gyro
2,500	0.47	175.99	2,499.92	10.46	-9.09	9.97	13.49	0.001	0.271	0.22	gyro
2,600	0.77	217.62	2,599.91	11.33	-10.03	9.59	13.88	0.003	0.416	0.52	gyro
2,700	0.76	217.31	2,699.90	12.26	-11.09	8.78	14.14	0.000	-0.003	0.01	gyro
2,800	0.86	217.79	2,799.89	13.24	-12.21	7.92	14.55	0.001	0.005	0.10	gyro
2,900	0.90	212.27	2,899.88	14.35	-13.47	7.04	15.19	0.000	-0.055	0.09	gyro
3,000	1.00	214.28	2,999.87	15.59	-14.85	6.13	16.06	0.001	0.020	0.11	gyro
3,100	0.93	207.88	3,099.85	16.89	-16.29	5.25	17.12	-0.001	-0.064	0.13	gyro
3,200	1.20	208.55	3,199.84	18.38	-17.93	4.37	18.45	0.003	0.007	0.27	gyro
3,300	1.60	207.08	3,299.81	20.35	-20.09	3.24	20.35	0.004	-0.015	0.40	gyro
3,330	1.46	200.16	3,329.80	21.02	-20.82	2.92	21.02	-0.005	-0.231	0.77	gyro
3,458	1.76	218.60	3,457.75	23.79	-23.89	1.13	23.91	0.002	0.144	0.46	mwd
3,521	2.00	213.70	3,520.71	25.27	-25.56	-0.09	25.56	0.004	-0.078	0.46	mwd
3,583	2.90	203.40	3,582.66	27.40	-27.90	-1.31	27.93	0.015	-0.166	1.61	mwd
3,647	3.50	200.60	3,646.56	30.49	-31.21	-2.64	31.32	0.009	-0.044	0.97	mwd
3,710	3.00	203.50	3,709.45	33.56	-34.52	-3.97	34.75	-0.008	0.046	0.84	mwd
3,774	4.40	200.30	3,773.32	37.14	-38.36	-5.49	38.75	0.022	-0.050	2.21	mwd
3,837	6.50	200.30	3,836.03	42.38	-43.98	-7.57	44.62	0.033	0.000	3.33	mwd
3,901	7.70	198.60	3,899.54	49.38	-51.44	-10.19	52.44	0.019	-0.027	1.90	mwd
3,963	8.90	200.30	3,960.89	57.28	-59.87	-13.18	61.31	0.019	0.027	1.98	mwd
4,026	10.40	203.10	4,023.00	66.40	-69.67	-17.10	71.74	0.024	0.044	2.49	mwd
4,089	11.80	204.90	4,084.82	76.62	-80.75	-22.05	83.70	0.022	0.029	2.29	mwd
4,153	11.60	204.90	4,147.49	87.46	-92.52	-27.51	96.52	-0.003	0.000	0.31	mwd
4,216	12.00	204.50	4,209.15	98.25	-104.22	-32.89	109.29	0.006	-0.006	0.65	mwd
4,280	11.90	201.10	4,271.77	109.57	-116.43	-38.03	122.49	-0.002	-0.053	1.11	mwd
4,342	12.00	193.60	4,332.43	121.11	-128.66	-41.85	135.30	0.002	-0.121	2.51	mwd
4,404	12.10	183.40	4,393.07	133.44	-141.42	-43.75	148.03	0.002	-0.165	3.43	mwd
4,468	12.70	179.60	4,455.58	146.97	-155.15	-44.10	161.29	0.009	-0.059	1.58	mwd
4,531	12.50	173.60	4,517.06	160.64	-168.85	-43.29	174.31	-0.003	-0.095	2.10	mwd
4,594	13.30	170.40	4,578.47	174.70	-182.77	-41.32	187.38	0.013	-0.051	1.70	mwd

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

Well: Indian Hills Unit 49

Target Azimuth: 171.54
Target TVD: 8100

Closure Direction: 172

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)
4,658	12.00	165.50	4,640.92	188.68	-196.47	-38.43	200.19	-0.020	-0.077	2.63	mwd
4,721	10.80	164.80	4,702.68	201.05	-208.51	-35.24	211.46	-0.019	-0.011	1.92	mwd
4,785	11.10	166.20	4,765.51	213.14	-220.28	-32.20	222.62	0.005	0.022	0.63	mwd
4,848	11.30	167.20	4,827.31	225.34	-232.18	-29.38	234.04	0.003	0.016	0.44	mwd
4,912	12.00	165.90	4,889.99	238.21	-244.75	-26.37	246.17	0.011	-0.020	1.17	mwd
4,976	12.00	165.50	4,952.59	251.45	-257.65	-23.09	258.68	0.000	-0.006	0.13	mwd
5,039	11.80	165.90	5,014.24	264.37	-270.23	-19.88	270.96	-0.003	0.006	0.34	mwd
5,103	11.80	165.50	5,076.89	277.39	-282.92	-16.64	283.41	0.000	-0.006	0.13	mwd
5,167	12.30	165.50	5,139.48	290.68	-295.85	-13.30	296.15	0.008	0.000	0.78	mwd
5,230	11.90	166.20	5,201.08	303.82	-308.66	-10.07	308.82	-0.006	0.011	0.68	mwd
5,294	11.90	164.40	5,263.70	316.93	-321.42	-6.72	321.49	0.000	-0.028	0.58	mwd
5,357	12.10	163.70	5,325.33	329.92	-334.01	-3.12	334.03	0.003	-0.011	0.39	mwd
5,420	12.50	163.40	5,386.88	343.21	-346.89	0.68	346.89	0.006	-0.005	0.64	mwd
5,483	12.60	161.90	5,448.37	356.73	-359.95	4.76	359.98	0.002	-0.024	0.54	mwd
5,546	12.30	162.70	5,509.89	370.14	-372.89	8.89	372.99	-0.005	0.013	0.55	mwd
5,610	12.00	162.00	5,572.46	383.44	-385.72	12.98	385.94	-0.005	-0.011	0.52	mwd
5,672	12.20	162.30	5,633.08	396.26	-398.10	16.96	398.46	0.003	0.005	0.34	mwd
5,735	12.20	163.80	5,694.66	409.43	-410.83	20.84	411.36	0.000	0.024	0.50	mwd
5,798	12.00	165.50	5,756.26	422.53	-423.56	24.34	424.26	-0.003	0.027	0.65	mwd
5,859	12.00	164.80	5,815.93	435.14	-435.82	27.59	436.69	0.000	-0.011	0.24	mwd
5,922	13.20	162.70	5,877.41	448.75	-449.01	31.44	450.11	0.019	-0.033	2.04	mwd
5,985	13.10	162.70	5,938.76	462.91	-462.69	35.71	464.07	-0.002	0.000	0.16	mwd
6,049	12.5	162.7	6,001.17	476.92	-476.23	39.92	477.90	-0.009	0.000	0.94	mwd
6,114	12.3	164.1	6,064.65	490.74	-489.61	43.91	491.57	-0.003	0.022	0.56	mwd
6,178	12.60	164.50	6,127.14	504.43	-502.89	47.65	505.14	0.005	0.006	0.49	mwd
6,241	12.40	165.20	6,188.65	517.97	-516.05	51.21	518.59	-0.003	0.011	0.40	mwd
6,303	11.40	166.20	6,249.32	530.69	-528.44	54.37	531.23	-0.016	0.016	1.65	mwd
6,367	11.40	165.20	6,312.05	543.27	-540.70	57.50	543.74	0.000	-0.016	0.31	mwd
6,430	11.70	163.40	6,373.78	555.78	-552.84	60.91	556.18	0.005	-0.029	0.74	mwd
6,493	11.80	163.40	6,435.46	568.48	-565.13	64.58	568.81	0.002	0.000	0.16	mwd
6,556	10.90	164.4	6,497.23	580.77	-577.04	68.02	581.04	-0.014	0.016	1.46	mwd
6,620	10.90	167.9	6,560.07	592.81	-588.79	70.91	593.04	0.000	0.055	1.03	mwd
6,682	11.60	169.7	6,620.88	604.89	-600.65	73.26	605.10	0.011	0.029	1.26	mwd
6,746	12.10	170.10	6,683.52	618.03	-613.59	75.56	618.23	0.008	0.006	0.79	mwd
6,809	12.70	169.00	6,745.05	631.55	-626.89	78.02	631.73	0.010	-0.017	1.02	mwd
6,873	12.10	163.00	6,807.56	645.21	-640.21	81.32	645.36	-0.009	-0.094	2.22	mwd
6,936	11.20	158.50	6,869.26	657.70	-652.22	85.50	657.80	-0.014	-0.071	2.03	mwd
6,999	9.90	159.50	6,931.19	668.96	-662.99	89.63	669.02	-0.021	0.016	2.08	mwd
7,062	9.20	165.90	6,993.32	679.27	-672.95	92.76	679.31	-0.011	0.102	2.02	mwd
7,125	9.20	170.10	7,055.51	689.32	-682.79	94.85	689.35	0.000	0.067	1.07	mwd
7,188	9.90	167.60	7,117.64	699.75	-693.04	96.88	699.78	0.011	-0.040	1.29	mwd
7,251	11.10	168.30	7,179.58	711.21	-704.27	99.27	711.23	0.019	0.011	1.92	mwd
7,315	11.80	169.00	7,242.31	723.90	-716.73	101.77	723.92	0.011	0.011	1.12	mwd
7,379	11.90	169.00	7,304.94	737.03	-729.63	104.28	737.04	0.002	0.000	0.16	mwd
7,442	12.00	171.10	7,366.58	750.07	-742.47	106.53	750.08	0.002	0.033	0.71	mwd
7,506	11.30	172.20	7,429.26	762.99	-755.26	108.41	763.00	-0.011	0.017	1.15	mwd
7,570	11.20	171.50	7,492.03	775.48	-767.62	110.18	775.49	-0.002	-0.011	0.26	mwd
7,633	12.50	170.10	7,553.69	788.41	-780.39	112.26	788.42	0.021	-0.022	2.11	mwd
7,696	12.20	170.40	7,615.23	801.88	-793.67	114.54	801.89	-0.005	0.005	0.49	mwd
7,760	12.00	171.80	7,677.81	815.30	-806.92	116.62	815.30	-0.003	0.022	0.55	mwd
7,822	11.90	171.80	7,738.46	828.13	-819.63	118.45	828.14	-0.002	0.000	0.16	mwd
7,886	11.80	171.10	7,801.10	841.28	-832.62	120.40	841.28	-0.002	-0.011	0.27	mwd
7,948	11.60	172.50	7,861.81	853.85	-845.07	122.20	853.85	-0.003	0.023	0.56	mwd
8,011	11.30	171.50	7,923.56	866.35	-857.45	123.93	866.36	-0.005	-0.016	0.57	mwd

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

Well: Indian Hills Unit 49

Target Azimuth: 171.54
Target TVD: 8100

Closure Direction: 172

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)
8,075	10.80	170.40	7,986.37	878.62	-869.56	125.86	878.63	-0.008	-0.017	0.85	mwd
8,120	10.70	170.80	8,030.58	887.01	-877.84	127.23	887.02	-0.002	0.009	0.28	mwd
8,180	10.70	170.80	8,089.54	898.15	-888.84	129.01	898.16	0.000	0.000	0.00	proj

889'S 129'E

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

Well Name and Number: Indian Hills #49

Location: Sec. 28, T21S, R24E, Eddy County, NM

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	
¾	218	12	4658	11.8	7315
½	645	11 ¼	4848	11.9	7822
½	1143	12	4976	10.7	8138
½	1490	12 ¼	5167		
¾	1871	12	5294		
¾	2315	12	5798		
1	2816	13	5983		
1 ¼	3260	12 ¼	6114		
2 ¾	3583	11 ½	6302		
4 ½	3774	11 ¾	6493		
10 ½	4026	12.5	6746		
11 ¼	4280	11.2	6935		
12	4531	9.2	7062		

Drilling Contractor: McVay Drilling Company

By: _____

Subscribed and sworn to before me this 13th **day of** May, **2003**

_____
Notary Public

My Commission Expires: 8-16-05 **Lea County, New Mexico**

Scientific Drilling

MARATHON OIL COMPANY

Field: Indian Basin
Site: Eddy County, NM
Well: Indian Hills #49
Wellpath: VH - Job #32K0503211
Survey: 05/01/03

This survey is correct to the best of my knowledge and is supported by actual field data.

.....Company Representative

Notorized this date 21th of May, 2003.

Notary Signature
County of Midland
State of Texas

Scientific Drilling
Survey Report

Company:	MARATHON OIL COMPANY	**Date:** 5/27/2003	**Time:** 10:12:45	**Page:**	1
Field:	Indian Basin	**Co-ordinate(NE) Reference:**	Site: Eddy County, NM, True North		
Site:	Eddy County, NM	**Vertical (TVD) Reference:**	SITE 0.0		
Well:	Indian Hills #49	**Section (VS) Reference:**	Well (0.00N,0.00E,171.99Azi)		
Wellpath:	VH - Job #32K0503211	**Survey Calculation Method:**	Minimum Curvature	**Db:**	Sybase

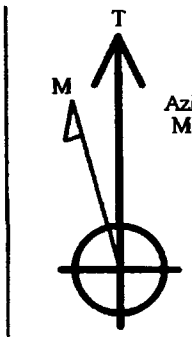
Survey:	05/01/03 KSRG 0'-3330'	**Start Date:**	5/1/2003
Company:	Scientific Drilling	**Engineer:**	Cary Coffee
Tool:	Keeper,Keeper Gyro	**Tied-to:**	From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	CldD ft	ClsA deg
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.16	240.10	100.0	0.1	-0.1	-0.1	0.16	0.1	240.10
200.0	0.16	240.04	200.0	0.2	-0.2	-0.4	0.00	0.4	240.08
300.0	0.03	180.97	300.0	0.2	-0.3	-0.5	0.15	0.6	237.79
400.0	0.01	52.83	400.0	0.3	-0.3	-0.5	0.04	0.6	235.67
500.0	0.18	307.11	500.0	0.1	-0.2	-0.6	0.18	0.6	249.13
600.0	0.22	71.40	600.0	0.0	-0.1	-0.5	0.35	0.5	262.39
700.0	0.37	78.06	700.0	-0.1	0.1	0.0	0.15	0.1	322.12
800.0	0.52	93.75	800.0	0.0	0.1	0.7	0.19	0.7	82.73
900.0	0.63	97.98	900.0	0.3	0.0	1.7	0.12	1.7	90.45
1000.0	0.52	92.34	1000.0	0.5	-0.1	2.7	0.12	2.7	92.28
1100.0	0.49	100.30	1100.0	0.7	-0.2	3.6	0.08	3.6	93.23
1200.0	0.58	119.06	1200.0	1.1	-0.5	4.5	0.20	4.5	96.72
1300.0	0.64	140.56	1300.0	1.9	-1.2	5.3	0.23	5.4	102.88
1400.0	0.67	157.08	1400.0	3.0	-2.2	5.8	0.19	6.2	110.40
1500.0	0.73	172.41	1500.0	4.2	-3.3	6.1	0.20	7.0	118.51
1600.0	0.80	161.02	1599.9	5.5	-4.6	6.5	0.17	7.9	125.63
1700.0	0.71	160.74	1699.9	6.8	-5.9	6.9	0.09	9.1	130.45
1800.0	0.42	137.44	1799.9	7.7	-6.7	7.3	0.36	10.0	132.51
1900.0	0.31	88.53	1899.9	8.0	-7.0	7.9	0.32	10.5	131.66
2000.0	0.27	314.42	1999.9	7.9	-6.8	8.0	0.53	10.5	130.59
2100.0	0.38	95.59	2099.9	7.8	-6.7	8.1	0.61	10.5	129.46
2200.0	0.44	139.40	2199.9	8.2	-7.0	8.7	0.31	11.2	128.85
2300.0	0.59	141.46	2299.9	8.9	-7.7	9.3	0.15	12.1	129.71
2400.0	0.38	148.88	2399.9	9.7	-8.4	9.8	0.22	12.9	130.67
2500.0	0.47	175.99	2499.9	10.4	-9.1	10.0	0.22	13.5	132.34
2600.0	0.77	217.62	2599.9	11.3	-10.0	9.6	0.52	13.9	136.26
2700.0	0.76	217.31	2699.9	12.2	-11.1	8.8	0.01	14.1	141.60
2800.0	0.86	217.79	2799.9	13.2	-12.2	7.9	0.10	14.6	147.01
2900.0	0.90	212.27	2899.9	14.3	-13.5	7.0	0.09	15.2	152.37
3000.0	1.00	214.28	2999.9	15.6	-14.9	6.1	0.11	16.1	157.54
3100.0	0.93	207.88	3099.9	16.9	-16.3	5.3	0.13	17.1	162.08
3200.0	1.20	208.55	3199.8	18.4	-17.9	4.4	0.27	18.5	166.25
3300.0	1.60	207.08	3299.8	20.3	-20.1	3.3	0.40	20.3	170.80
3330.0	1.46	200.16	3329.8	21.0	-20.8	2.9	0.77	21.0	171.99

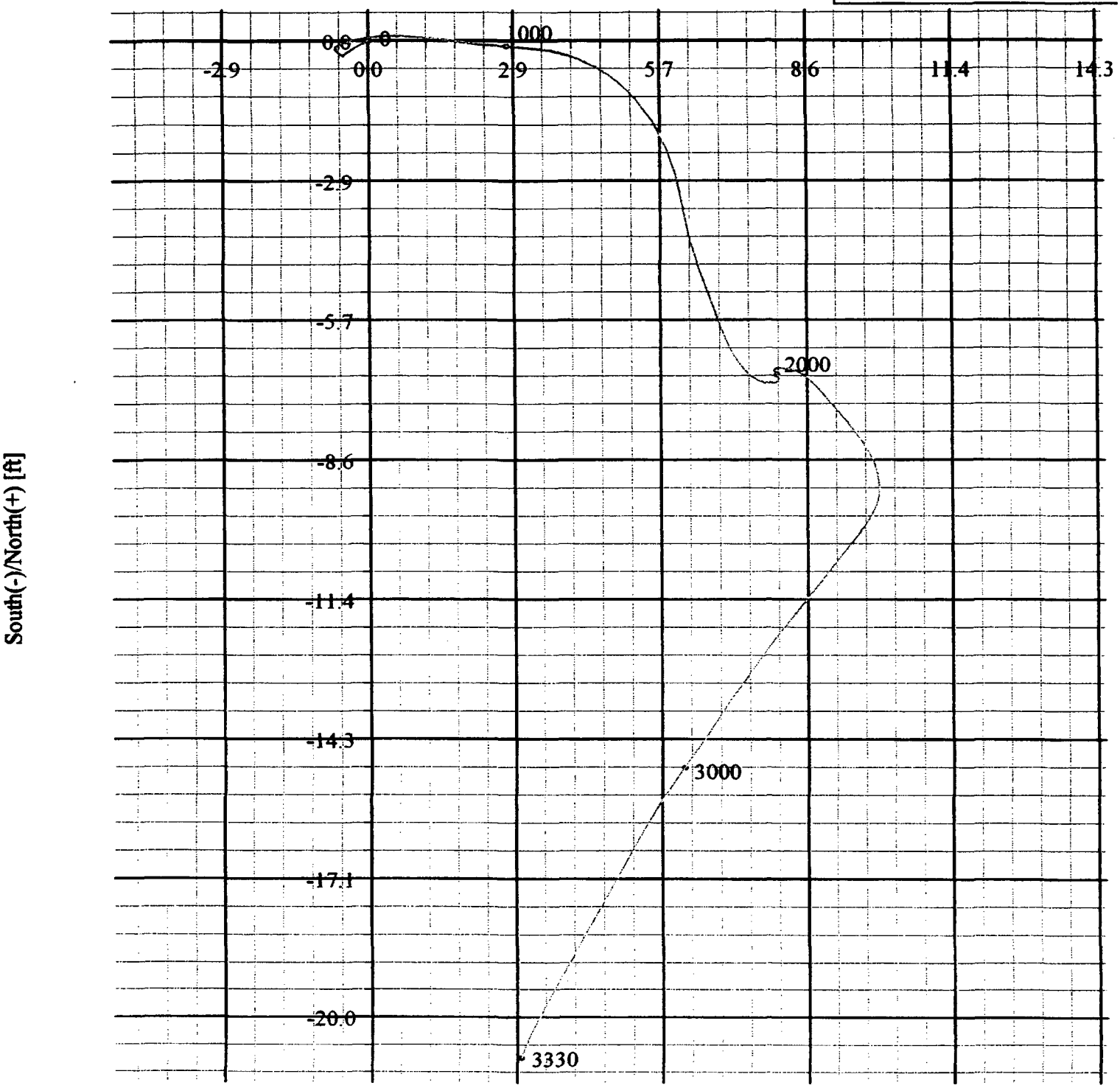
Scientific Drilling

Field: Indian Basin
Site: Eddy County, NM
Well: Indian Hills #49
Wellpath: VH - Job #32K0503211
Survey: 05/01/03



Azimuths to True North
Magnetic North: -6.99°

Magnetic Field
Strength: 31348nT
Dip Angle: -28.58°
Date: 5/27/2003
Model: WMM_95



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

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

5

Form C-104
Revised March 25, 1999

Submit to Appropriate District Office
5 Copies

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address	2 OGRID Number
MARATHON OIL COMPANY P. O. BOX 552 MIDLAND, TEXAS 79701	014021
	3 Reason for Filing Code NEW WELL

4 API Number	5 Pool Name	6 Pool Code
30-0 30-015-32723	INDIAN BASIN UPPER PENN ASSOCIATED GAS POOL	33685
7 Property Code	**8 Property Name**	**9 Well Number**
6409	INDIAN HILLS UNIT	49

II. 10 Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
A	28	21S	24E		705	NORTH	855	EAST	EDDY

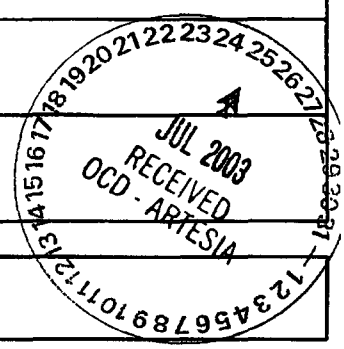
11 Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
H	28	21S	24E		1594	NORTH	726	EAST	EDDY

12 Lse Code	13 Producing Method Code	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date
F	PUMPING	5/24/03			

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 POD	21 O/G	22 POD ULSTR Location and Description
2264	BIG TEX CRUDE OIL COMPANY P. O. BOX 5722 ABILENE, TX 79608	2816323	OIL	UL "P", SECTION 19, T-21-S, R-24-E LOT 12
14035	MARATHON OIL COMPANY P. O. BOX 1324 ARTESIA, NM 88211-1324	2823213	GAS	UL "C", SECTION 28, T-21-S, R-24-E



IV. Produced Water

23 POD	24 POD ULSTR Location and Description
2823214	UL "C", SECTION 28, T-21-S, R-24-E

V. Well Completion Data

25 Spud Date	26 Ready Date	27 TD	28 PBTD	29 Perforations	30 DHC, MC
4/27/03	5/24/03	8180	8155	7526-7816	

31 Hole Size	32 Casing & Tubing Size	33 Depth Set	34 Sacks Cement
12.25	9.625	1814	1325
8.75	7	8178	1245

VI. Well Test Data

35 Date New Oil	36 Gas Delivery Date	37 Test Date	38 Test Length	39 Tbg. Pressure	40 Csg. Pressure

1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For drilling and production facilities, submit appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office.

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MAY 27 2004
OCD-ARTESIA

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒
Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Marathon Oil Company Telephone: 7132963254 e-mail address: mfmick@marathonoil.com
Address: P.O. Box 3128 Houston, Tx. 77253
Facility or well name: Indian Hills Unit #49 API #: 30-015-32723 U/L or Qtr/Qtr A Sec 28 T 21S R 24E
County: Eddy Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☒ Indian ☐

Pit	**Below-grade tank**	
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlimited ☐ Liner type: Synthetic ☒ Thickness 20mil Clay ☐ Volume _____ bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more X	(20 points) (10 points) (0 points) X
Wellhead protection area. (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No X	(20 points) (0 points) X
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more X	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: onsite ☒ offsite ☐ If offsite, name of facility _____ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date: 5-21-04

Printed Name/Title: Mike Mick Adv. Sr. Eng. Tech Signature: MMick

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: 6/2/04

Printed Name/Title: Mike Bratcher Compliance Officer Signature: M Bratcher

Additional Information- Indian Hills Unit # 49

General

The Indian Hills Unit # 49 SL is located on Fee lands and Federal subsurface. The applied for pit will be constructed with-in the original pit area, with no new surface disturbances. Approx. size 120'x 120' x 4'. Indian Hills Unit #45 has been approved to construct a reserve pit. Both wells are on the same location (well pad), it is Marathon intention to utilize the same pit for both well operations. Marathon intends to work on Indian Hills Unit # 49 first and upon completion, move straight to Indian Hills Unit #45.

- Topsoil will be stripped and stockpiled for use as the final cover of fill at the time of closure.
- Contents removed from old pit will be stockpiled on a liner to prevent soil contamination.
- A 20 mil. Liner will be installed. Padding will be added if necessary. Liner will be anchored per OCD's guidelines. OCD will be contacted 24 hrs. prior to liner installation.
- All necessary steps will be taken to prevent liner damage.
- Marathon will used a combination of produced and freshwater during drilling, anticipated chloride content of drilling fluids - 10,000 ppm.
- Pit Area will be fence, work access will remain open during operations, closed once rig operations cease.
- All fluids will be removed from pit in a timely manner after operations cease.
- OCD will be contacted when pit closure commences.
- Closure of pit will be performed as per current OCD guidelines for onsite encapsulation The liner edges shall be folded over the contents and a 40 mil liner shall be installed on top. A min. of 3 foot of clean soil shall be spread over encapsulated pit contents. Stockpiled top soil shall be spread and contoured. Pit area will be re-seeded and re-vegetation promoted.

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form
Revised February
Submit to Appropriate Distr
State Lease –
Fee Lease –

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED

API Number	Pool Code	Pool Name
30-015-32723	33685	I. B. Upper Penn. Assoc.

Property Code	Property Name	Well Numb
	INDIAN HILLS UNIT	49

OGRID No.	Operator Name	Elevation
	MARATHON OIL COMPANY	3649'

Surface Location

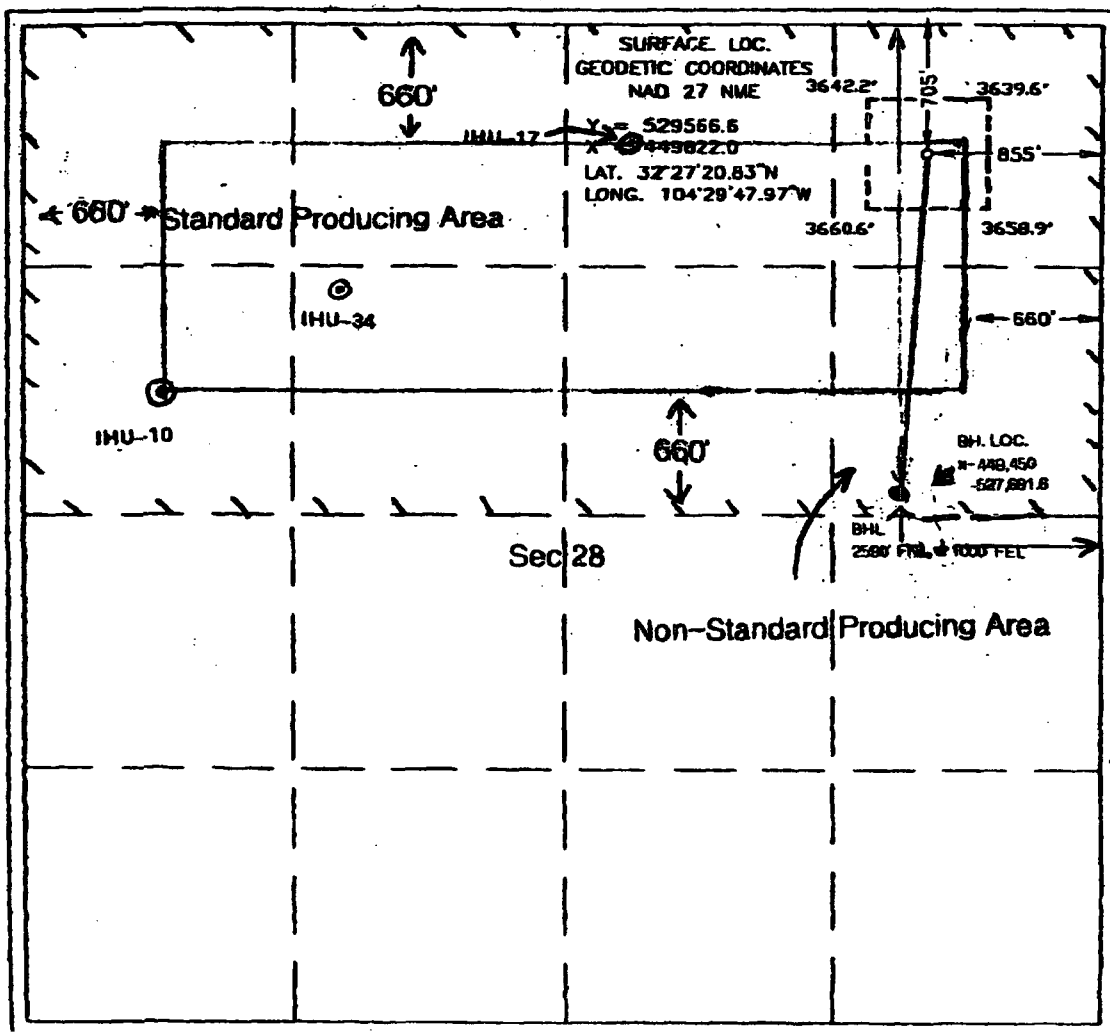
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line
A	28	21-S	24-E		705'	NORTH	855'	EAST

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
H	28	21-S	24-E		2590'	NORTH	1000	EAST

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

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



OPERATOR CERTIFICATI

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

Mike Mick
Signature

Mike Mick
Printed Name

Adv. SR. Engr. Tech
Title

5-21-04
Date

SURVEYOR CERTIFICATI

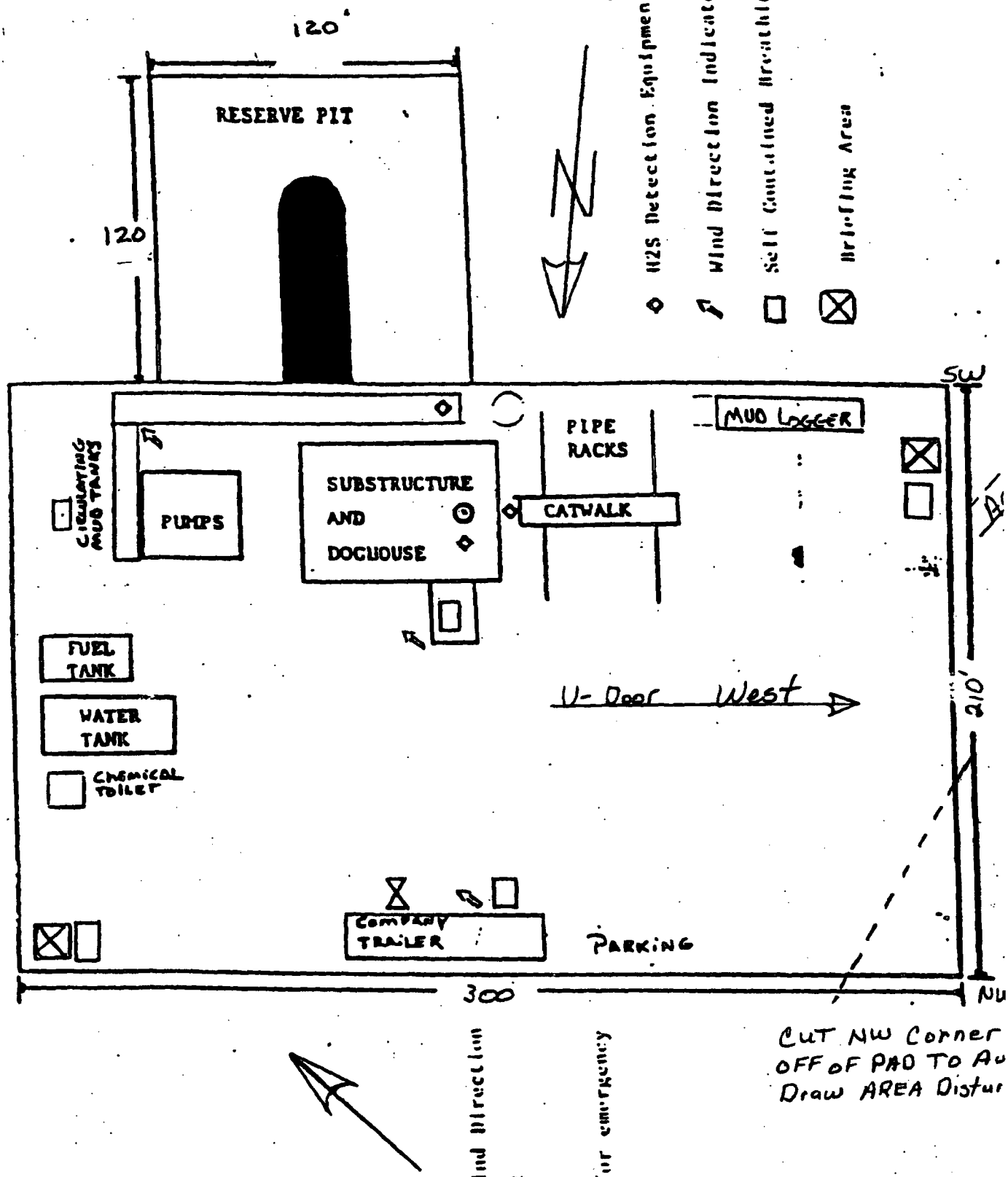
I hereby certify that the well location on this plat was plotted from field n actual surveys made by me or un supervison, and that the same is t correct to the best of my belief.

AUGUST 13, 2002
Date Surveyed

Signature & Seal of Professional Surveyor

02.11.0576

Certificate No. RONALD J. EIDSON
GARY EIDSON


120'
RESERVE PIT
120'
H2S Detection Equipment
Wind Direction Indicator
Self Contained Breathing
Briefing Area
SW
MUD LOGGER
PIPE RACKS
CIRCULATING MUD TANKS
PUMPS
SUBSTRUCTURE AND DOGHOUSE
CATWALK
FUEL TANK
WATER TANK
CHEMICAL TOILET
V-Door West
210'
COMPANY TRAILER
PARKING
300
NW
CUT NW Corner OFF of PAD TO Av Draw AREA Distur
Prevailing Wind Direction
Southwest
Foot-path for emergency
egress

OCD - Artesia

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

EC

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.

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5. Lease Serial No.
NMNM06293

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM70964A

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
INDIAN HILLS UNIT 49

2. Name of Operator
MARATHON OIL COMPANY
Contact: CHARLES KENDRIX
E-Mail: cekendrix@marathonoil.com

9. API Well No.
30-015-32723-00-S1

3a. Address
P O BOX 3487
HOUSTON, TX 77253-3487

3b. Phone No. (include area code)
Ph: 800.351.1417 Ext: 8104
Fx: 915.687.8196

10. Field and Pool, or Exploratory
INDIAN BASIN

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 28 T21S R24E NENE 705FNL 855FEL

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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Surface Disturbanc
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 recompletion 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.)

Marathon Oil Co. intends to plug off existing permitted Indian Basin U.Penn Assoc. completion interval(N/2 of SEC. 28, 21-S, 24-E) and re-drill to a different bottom-hole location in the same permitted producing interval, Indian Basin U. Penn Assoc. (N/2 of SEC. 21, 21-S, 24-E). Marathon requests approval of constructing a reserve pit 120'X 120' at the site of the original reserve pit which was 150' x 150'. Cuttings removed from original pit will be stockpiled on a liner to prevent surface contamination. Pit will be padded to accept a 20 Mil liner. At the end of drilling operations pit area will be reclaimed as per BLM's & OCD's requirements. Prior approval has been granted for costruction of a pit for I.H.U. #45 which is on the same location. Marathon intends to construct only one pit and utilize it for both wells. Well work will start on I.H.U. #49 and upon completion of drilling, move immediately to I.H.U.#45.

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

Electronic Submission #31009 verified by the BLM Well Information System
For MARATHON OIL COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by ARMANDO LOPEZ on 05/24/2004 (04AL0180SE)

Name *(Printed/Typed)* MIKE MICK — Title SR. ADV. ENG. TECH

NMOCD

Signature (Electronic Submission) — Date 05/21/2004

Accepted for record

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By /s/ Joe G. Lara — Title Petroleum Engineer — Date 6/1/04

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 FIELD 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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****