

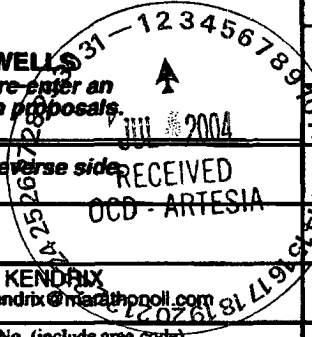
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NMOCD

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

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

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



1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NM-06293 ✓
2. Name of Operator MARATHON OIL COMPANY		If Indian, Allottee or Tribe Name
3a. Address P.O. BOX 3128 HOUSTON, TX 77253		If Unit or CA/Agreement, Name and/or No. NM 70964A
3b. Phone No. (include area code) Ph: 800.351.1417 Ext: 8104 Fx: 915.687.8196		Well Name and No. INDIAN HILLS UNIT 49
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 28 T21S R24E NENE 705FNL 855FEL SHL		9. API Well No. 30-015-32723
10. Field and Pool, or Exploratory INDIAN BASIN U. PENN ASSOC.		11. County or Parish, and State EDDY COUNTY, NM

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

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

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or 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 with approx. 200 sks. of premium cement the 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. 28, 21-S, 24-E). Marathon plans on cutting a window in the existing 7" casing @ approx. 7700' and drill a 4 3/4" hole to new BHL 2590' FNL and 1000' FEL of SEC. 28, 21-S, 24-E. Marathon will use fresh and produced water as drilling fluids. The completion will be OPEN HOLE (no liner).

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

Electronic Submission #32498 verified by the BLM Well Information System  
For MARATHON OIL COMPANY, will be sent to the Carlsbad

Name (Printed/Typed) <i>Mike Mick</i> MIKE MICK	Title SR. ADV. ENG. TECH
Signature <i>m7mick</i> (Electronic Submission)	Date 06/30/2004 <i>6/30/04</i>

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By (ORIG. SGD.) ALEXIS C. SWOBODA	Title PETROLEUM ENGINEER JUN 30 2004
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office

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

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

~~\*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\* DRAFT \*\*~~

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

DISTRICT II  
P.O. Drawer 20, Aramark, N.M. 88111-0020

DISTRICT III  
1000 Elie Strassus Rd., Artes, N.M. 87418

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 <b>30-015-32723</b>	Pool Code <b>33685</b>	Pool Name <b>I. B. Upper Perm. Assoc.</b>
Property Code	Property Name <b>INDIAN HILLS UNIT</b>	Well Number <b>49</b>
OGED No.	Operator Name <b>MARATHON OIL COMPANY</b>	Elevation <b>3649'</b>

Surface Location

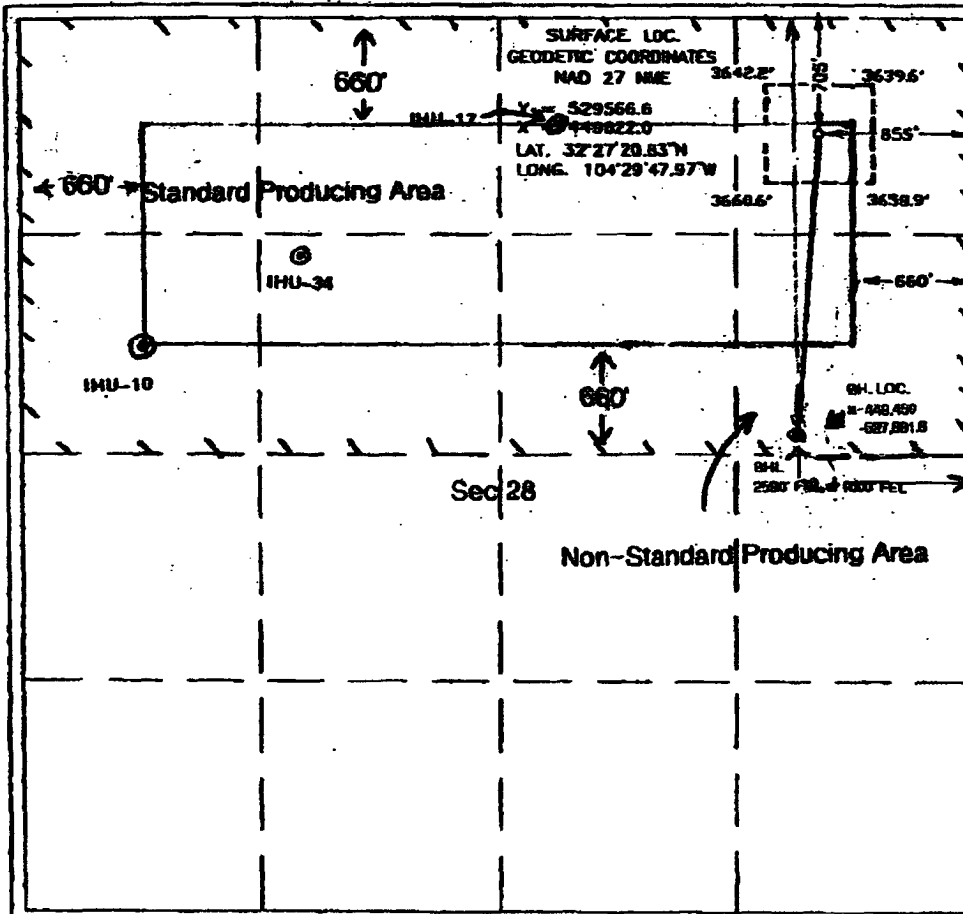
UL or lot No.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County
A	28	21-S	24-E		705'	NORTH	855'	EAST	EDDY

Bottom Hole Location if Different From Surface

UL or lot No.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County
H	28	21-S	24-E		2590'	NORTH	1000'	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Cycle	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 that the information contained herein is true and complete to the best of my knowledge and belief.

*Mike Mick*  
Signature

*Mike Mick*  
Printed Name

*Dist. Sr. Engr. Tech*  
Title

*5-21-04*  
Date

SURVEYOR CERTIFICATION

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

AUGUST 13, 2002

Date Surveyed: \_\_\_\_\_ AWB

Signature & Seal of Professional Surveyor

*David J. Edson* 3/7/03  
02.11.0576

Surveyor: DAVID J. EDSON 3238  
EDSON 12641

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

5. Lease Serial No. NMNM06293 ✓  
6. If Indian, Allottee or Tribe Name  
7. If Unit or CA/Agreement, Name and/or No. NMNM70964A  
8. Well Name and No. INDIAN HILLS UNIT 49  
9. API Well No. 30-015-32723-00-S1  
10. Field and Pool, or Exploratory INDIAN BASIN U. Penn Ass  
11. County or Parish, and State EDDY COUNTY, NM

1. Type of Well  
 Oil Well  Gas Well  Other  
2. Name of Operator MARATHON OIL COMPANY Contact: CHARLES KENDRIX E-Mail: cekendrix@marathonoil.com  
3a. Address P O BOX 3128 HOUSTON, TX 77253  
3b. Phone No. (include area code) Ph: 800.351.1417 Ext: 8104 Fx: 915.687.8196  
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) ✓Sec 28 T21S R24E NENE 705FNL 855FEL

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

TYPE OF SUBMISSION	TYPE OF ACTION			
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<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Drilling Operations
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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 construction 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.

*Handwritten note: 4" NB casing cement mud*

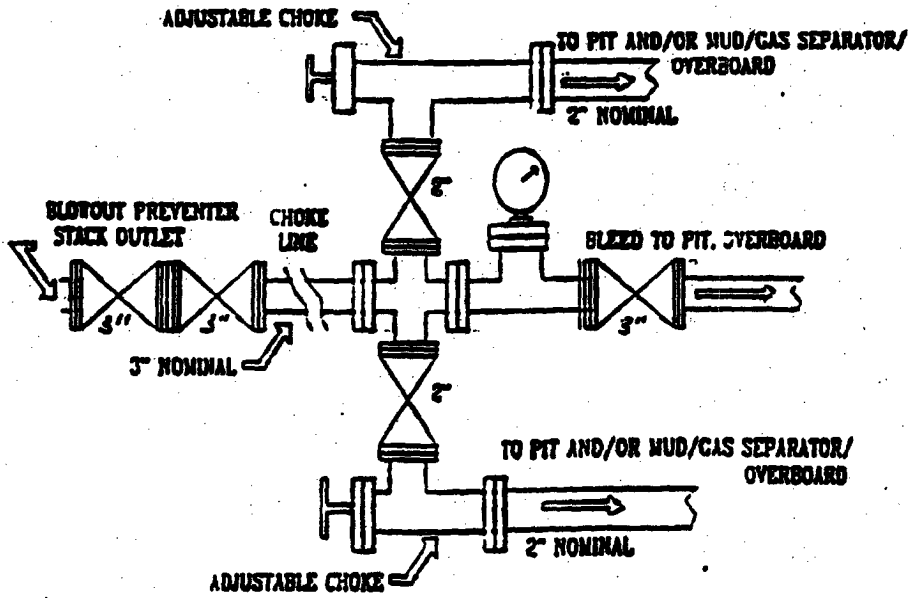
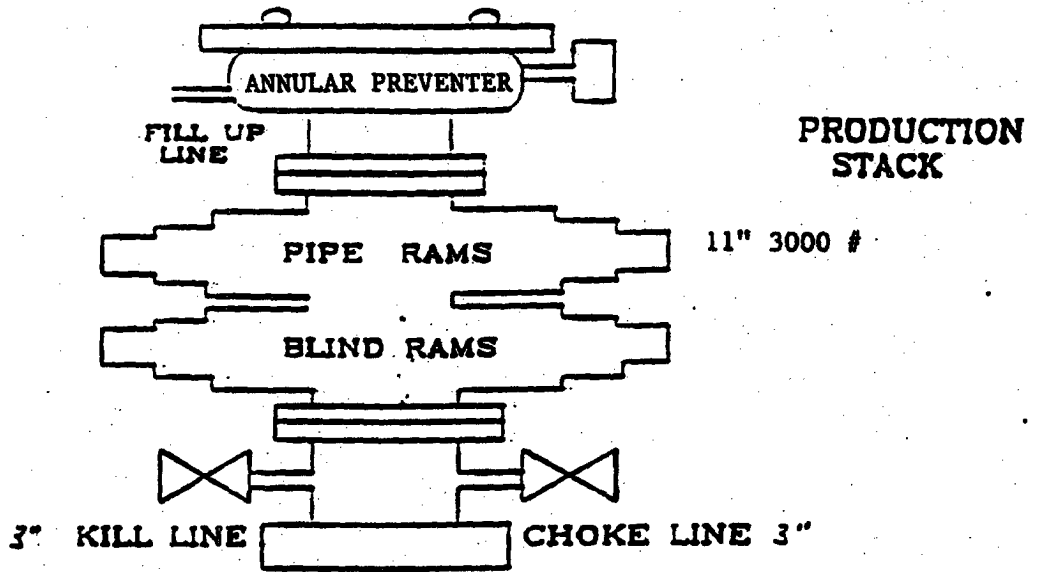
*See revised sundry 6/30/04*

14. I hereby certify that the foregoing is true and correct.  
Electronic Submission #32218 verified by the BLM Well Information System For MARATHON OIL COMPANY, sent to the Carlsbad Committed to AFMSS for processing by LINDA ASKWIG on 06/22/2004 (04LA0507SE)  
Name (Printed/Typed) MIKE MICK Title SR. ADV. ENG. TECH  
Signature (Electronic Submission) Date 06/22/2004

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

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

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



Marathon Oil Company  
Indian Hills Unit #49

slot #1  
INDIAN BASIN  
Eddy County New Mexico

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

by  
Baker Hughes INTEQ

Your ref : ST Pln 2  
Our ref : prop4273  
License :

Date printed : 21-May-2004  
Date created : 21-May-2004  
Last revised : 21-May-2004

Field is centred on 445535.500,521332.200,-105.00000,N  
Structure is centred on 449622.000,529566.600,-105.00000,N

Slot location is n32 27 20.826,w104 29 47.972  
Slot Grid coordinates are N 529566.600, E 449622.000  
Slot local coordinates are 0.00 N 0.00 E

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

Reference North is Grid North

Measured Depth	Inclin Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect	G R I D C O O R D S	
								Easting	Northing
7680.00	12.28	170.32	7599.59	790.14S	114.57E	0.00	776.47	449736.57	528776.46
7700.00	21.47	181.53	7618.72	795.91S	114.83E	48.58	782.19	449736.83	528770.69
7730.00	35.77	187.58	7644.99	810.17S	113.52E	48.58	796.51	449735.52	528756.43
7780.00	59.88	191.77	7678.32	846.37S	107.09E	48.58	833.15	449729.09	528720.23
7800.00	69.54	192.84	7686.85	864.01S	103.23E	48.58	851.07	449725.23	528702.59
7830.00	84.06	194.22	7693.68	892.33S	96.41E	48.58	879.89	449718.41	528674.27
7850.97	94.20	195.14	7694.00	912.59S	91.10E	48.58	900.54	449713.10	528654.01
7880.00	94.20	195.14	7691.88	940.53S	83.54E	0.00	929.06	449705.54	528626.07
7930.00	94.20	195.14	7688.21	988.67S	70.52E	0.00	978.18	449692.52	528577.93
7980.00	94.20	195.14	7684.55	1036.80S	57.49E	0.00	1027.30	449679.49	528529.80
8000.00	94.20	195.14	7683.08	1056.06S	52.28E	0.00	1046.95	449674.28	528510.54
8030.00	94.20	195.14	7680.89	1084.94S	44.47E	0.00	1076.42	449666.47	528481.66
8080.00	94.20	195.14	7677.22	1133.07S	31.44E	0.00	1125.54	449653.44	528433.53
8130.00	94.20	195.14	7673.56	1181.21S	18.42E	0.00	1174.66	449640.42	528385.39
8180.00	94.20	195.14	7669.90	1229.34S	5.40E	0.00	1223.77	449627.40	528337.26
8230.00	94.20	195.14	7666.23	1277.48S	7.63W	0.00	1272.89	449614.37	528289.12
8280.00	94.20	195.14	7662.57	1325.61S	20.65W	0.00	1322.01	449601.35	528240.99
8330.00	94.20	195.14	7658.91	1373.75S	33.67W	0.00	1371.13	449588.33	528192.85
8380.00	94.20	195.14	7655.24	1421.88S	46.70W	0.00	1420.25	449575.30	528144.72
8430.00	94.20	195.14	7651.58	1470.02S	59.72W	0.00	1469.37	449562.28	528096.58
8480.00	94.20	195.14	7647.92	1518.15S	72.74W	0.00	1518.49	449549.26	528048.45
8500.00	94.20	195.14	7646.45	1537.41S	77.95W	0.00	1538.13	449544.05	528029.19
8530.00	94.20	195.14	7644.25	1566.29S	85.77W	0.00	1567.60	449536.23	528000.31
8580.00	94.20	195.14	7640.59	1614.42S	98.79W	0.00	1616.72	449523.21	527952.18
8630.00	94.20	195.14	7636.93	1662.56S	111.81W	0.00	1665.84	449510.19	527904.04
8680.00	94.20	195.14	7633.27	1710.69S	124.84W	0.00	1714.96	449497.16	527855.91
8730.00	94.20	195.14	7629.60	1758.83S	137.86W	0.00	1764.08	449484.14	527807.77
8780.00	94.20	195.14	7625.94	1806.96S	150.89W	0.00	1813.20	449471.11	527759.64
8830.00	94.20	195.14	7622.28	1855.10S	163.91W	0.00	1862.32	449458.09	527711.50
8861.06	94.20	195.14	7620.00	1885.00S	172.00W	0.00	1892.83	449450.00	527681.60

All data in feet unless otherwise stated. Calculation uses minimum curvature method.  
 Coordinates from slot #1 and TVD from rotary table.  
 Bottom hole distance is 1892.83 on azimuth 185.21 degrees from wellhead.  
 Vertical section is from N 0.00 W 0.00 on azimuth 185.21 degrees.  
 Grid is mercator - New Mexico East (3001).  
 Grid coordinates in FEET and computed using the Clarke - 1866 spheroid  
 Presented by Baker Hughes INTEQ

MD	TVD	Rectangular Coords.		Comments in wellpath =====
				Comment
8861.06	7620.00	1885.00S	172.00W	BHL

Targets associated with this wellpath =====					
Target name	Geographic Location		T.V.D.	Rectangular Coordinates	Revised
BHL	449450.000,527681.600,-105.00		7620.00	1885.00S 172.00W	21-May-2004
Arc	450450.000,527597.000,-105.00		10000.00	1969.60S 828.00E	21-May-2004



# Marathon Oil Company

Created by: dani  
 Date plotted: 21-May-2004  
 Plot Reference is ST Pin 2.  
 Coordinates are in feet reference slot #1.  
 True Vertical Depths are reference rotary table.  
 496162pp  
 --- Baker Hughes INTEQ ---

Structure : Indian Hills Unit #49

Slot : slot #1

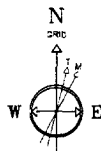
Field : INDIAN BASIN

Location : Eddy County New Mexico

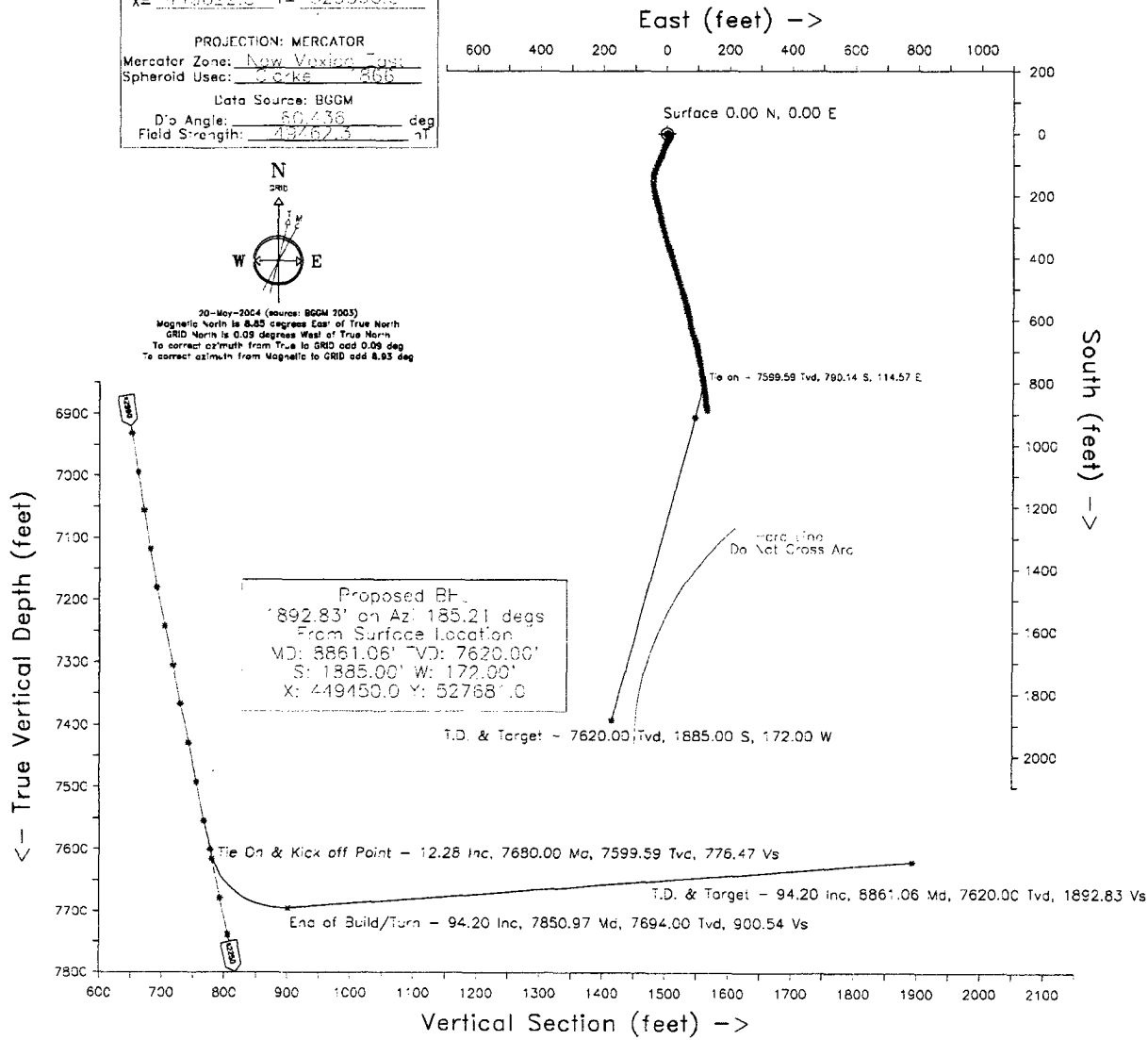
## WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100
KOP	7680.00	12.28	170.32	7599.59	-790.14	114.57	776.47	0.00
End of Build/Turn	7850.97	94.20	195.14	7694.00	-912.59	91.10	900.54	48.58
T.D. & Target BHL	8861.06	94.20	195.14	7620.00	-1885.00	-172.00	1892.83	0.00

STRUCTURE SET-UP REFERENCE	
LAT :	32° 27' 20.276" N
LONG :	104° 28' 47.972" W
X=	449622.0 Y= 529566.6
PROJECTION: MERCATOR	
Mercator Zone:	New Mexico East
Spheroid Used:	C. Clarke 1866
Data Source: BGGM	
D's Angle:	60.436 deg
Field Strength:	2.87673 mT



20-May-2004 (Source: BGGM 2003)  
 Magnetic North is 8.85 degrees East of True North  
 GRID North is 0.09 degrees West of True North  
 To correct azimuth from True to GRID add 0.09 deg  
 To correct azimuth from Magnetic to GRID add 8.85 deg



## **MARATHON OIL COMPANY**

### **H2S DRILLING OPERATIONS PLAN**

#### **• HYDROGEN SULFIDE TRAINING**

**All contractors and subcontractors employed by Marathon Oil Company will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.**

- 1. The hazards and characteristics of hydrogen sulfide (H2S)**
- 2. Safety precautions**
- 3. Operations of safety equipment and life support systems**

**In addition, contractor supervisory personnel will be trained or prepared in the following areas:**

- 1. The effect of H2S on metal components in the system. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.**
- 2. Corrective action and shut-down procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.**
- 3. The contents and requirements of the contingency plan when such plan is required.**

**All personnel will be required to carry documentation of the above training on their person.**

#### **II. H2S EQUIPMENT AND SYSTEMS**

##### **1. Safety Equipment**

**The following safety equipment will be on location.**

- A. Wind direction indicators.**
- B. Automatic H2S detection alarm equipment (both audio and visual).**



**C. Clearly visible warning signs. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.**

**D. Protective breathing equipment will be located in the dog house and at briefing areas.**

## **2. WELL CONTROL SYSTEMS**

### **A. Blowout Prevention Equipment**

**Equipment includes but is not limited to:**

- a. pipe rams to accommodate all pipe sizes**
- b. blind rams**
- c. choke manifold**
- d. closing unit**

**Auxiliary equipment added as appropriate includes:**

- a. annular preventor**
- b. rotating head**
- c. mud- gas separator**
- d. flare line and means of ignition \_\_\_\_\_ e. remote operated choke**

### **B. Communication**

**The rig contractor will be required to have two-way communication capability. Marathon Oil Company will have either land-line or mobile telephone capabilities.**

### **C. Mud Program**

**The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices, and the use of H<sub>2</sub>S scavengers when appropriate will minimize hazards when penetrating H<sub>2</sub>S bearing zones.**

## **III. WELL SITE DIAGRAM**

**Exhibit "I"**

**Marathon Oil Company**

**SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN  
(SPCC PLAN)**

Marathon Oil Company has pollution prevention, good housekeeping, safety and fire prevention policies that are to be followed at all times. All company employees, contractors and subcontract personnel are to observe safe working practices and prevent pollution to the maximum extent possible.

In the event of an emergency, spill, fire, explosion or blowout, personal injuries, property or equipment damage, call **MARATHON OIL COMPANY @ 1-800-351-1417**

Prior to drilling, certain measures should be taken:

1. Use impervious materials to build the location and the reserve pit.
2. Ditch the outline of the rig toward the reserve pit.
3. Place sumps on each end of the rig to catch any free oil or debris from entering the reserve pit.
4. Keep materials on location to contain or clean up spills (absorbent pads, shovels, etc).
5. Make known to Drilling Supervisors a list of spill response contractors available.
6. BOP testing shall be performed each time a casing string is set.
7. The Drilling contractor is required to have a certified SPCC plan for the Drilling rig.
8. Routine inspections of the operations shall be performed to ensure SPCC guidelines are followed.
9. Ensure all Marathon personnel are HAZWOPER trained in methods for stopping, controlling, and cleaning up any spills.

Spill control measures to be taken:

1. Shut down activities underway, as deemed necessary by the person in charge.
2. Determine the source of pollution and stop the discharge, if possible.
3. Isolate and contain the discharged materials, if possible.
4. Seek guidance from the Southern Region Emergency Action Plan.