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.: LC-064243A
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT AGREEMENT NAME: Indian Hills Unit
8. FARM OR LEASE NAME, WELL NO.: Indian Hills Unit # 58
9. API WELL NO.: 30-015-33390
10. FIELD AND POOL, OR WILDCAT: Indian Basin UpperPenn. Assoc.
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec.17, T-21-S, R-24-E
12. COUNTY OR PARISH: Eddy
13. STATE: N.M.

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

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

RECEIVED
OCT 21 2003
OCD-ARTESIA

2. NAME OF OPERATOR: Marathon Oil Company

3. ADDRESS AND TELEPHONE NO.: P.O. Box 552 Midland, TX 79702 (915) 687-8360

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1288' FSL & 2046' FEL
At proposed prod. zone: 70' FSL & 1700' FEL

SUBJECT TO LIKE APPROVAL BY STATE

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 15 NW of Carlsbad N.M.

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
70' BHL	640	320 S/2
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**
* see below	8600'	Rotary

21. ELEVATIONS (Show whether DF,RT, GR, etc.): 4212' 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
WITNESS 12-1/4"	9-5/8" K-55	36#	1800'	640 sks. WITNESS
8-3/4"	7" K-55	23#/ 26#	8600'	1280 sks.

NSL 4755-B (BHL) (SD)

Marathon Oil Company is proposing to drill a directional Upper Penn Associated gas well to 8600'.

This well is Non Standard to the South boundary line of the Project Area.
The wells BHL is outside the Standard 660' Producing Area window.

*The BHL of the proposed IHU # 58 will be 1520' from the BHL of the IHU # 52 in U.L. "O" of Section 17.

CARLSBAD CONTROLLED WATER BASIN

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 Hoskins TITLE Engineer Tech. DATE September 25, 2003

(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 ACTING TITLE FIELD MANAGER DATE 28 OCT 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 YEAR

505-178 [illegible]

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.
LC-064243-A

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

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

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

8. Well Name and No.
Indian Hills Unit # 52/58

2. Name of Operator
Marathon Oil Company

9. API Well No.
30-015-32805

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)*
SHL @ 1265' FSL & 2073' FEL Sec. 17, T-21-S, R-24-E
BHL Approx. 100' FSL & 2100' FEL Sec. 17, T-21-S, R-24-E
Eddy Co. N.M.

11. County or Parish, State
Eddy 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	☐ 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.)

Marathon is proposing to extend the original permitted IHU # 52 pad to accomodate a second well to be staked just beside the IHU # 52. The pad will need to be extended approximately 25 feet to the North and 20 feet to the East.

If the newly staked second well for the pad should not be drilled, Marathon has agreed with Barry Hunt to DOWNSIZE the additions made to the original pad.

SENT TO Roswell
8/18/03

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

Title
Engineer TEch.

Date 8/18/03

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/ Joe G. Lara ACTING

Title FIELD MANAGER

Date 28 OCT 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 United 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
	Indian Hills Unit	58

OGRID No.	Operator Name	Elevation
14021	MARATHON OIL COMPANY	4212'

Surface Location

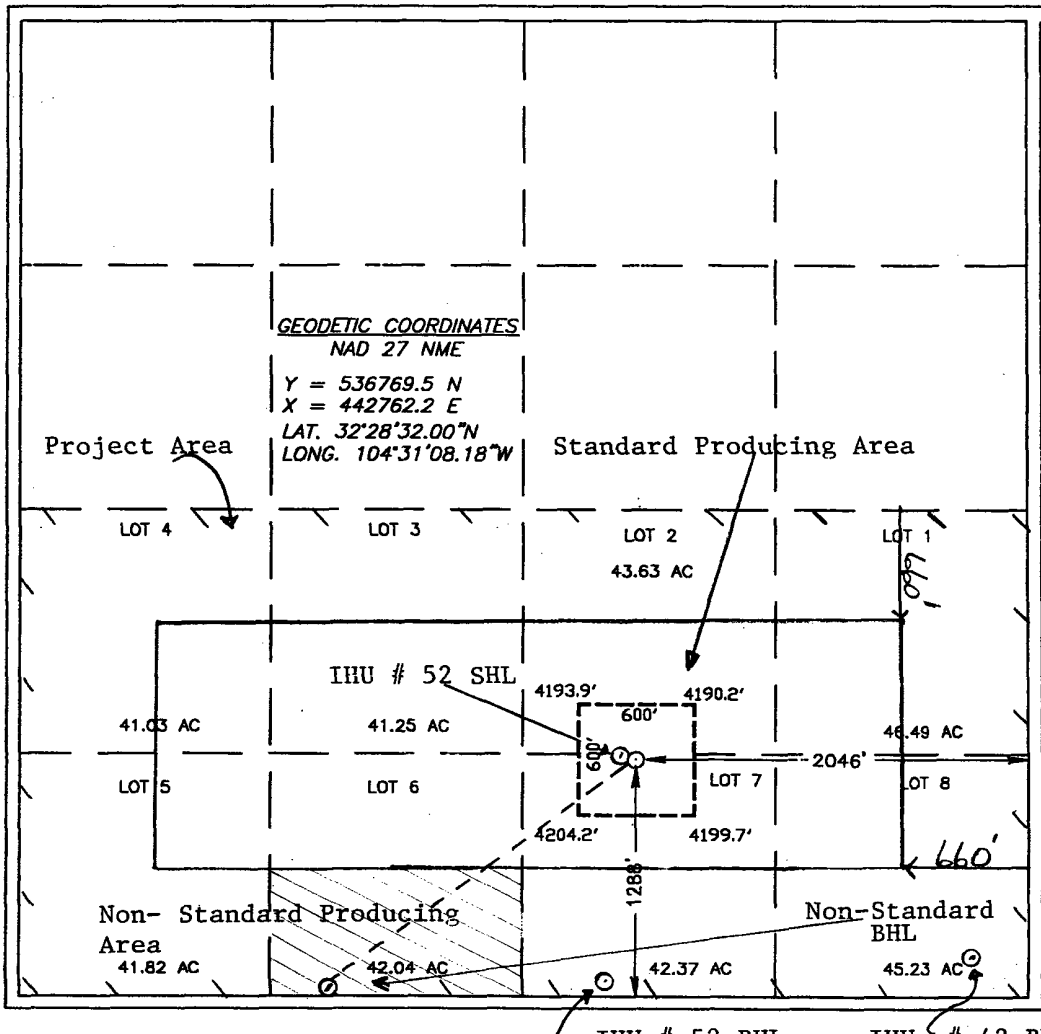
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	17	21-S	24-E		1288'	SOUTH	2046'	EAST	EDDY

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
O	17	21-S	24-E		70'	SOUTH	1700'	WEST	EDDY

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

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



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

Jerry Fletcher
Printed Name

Engineer Tech.
Title

9/25/03
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 27, 2003
Date Surveyed AWB

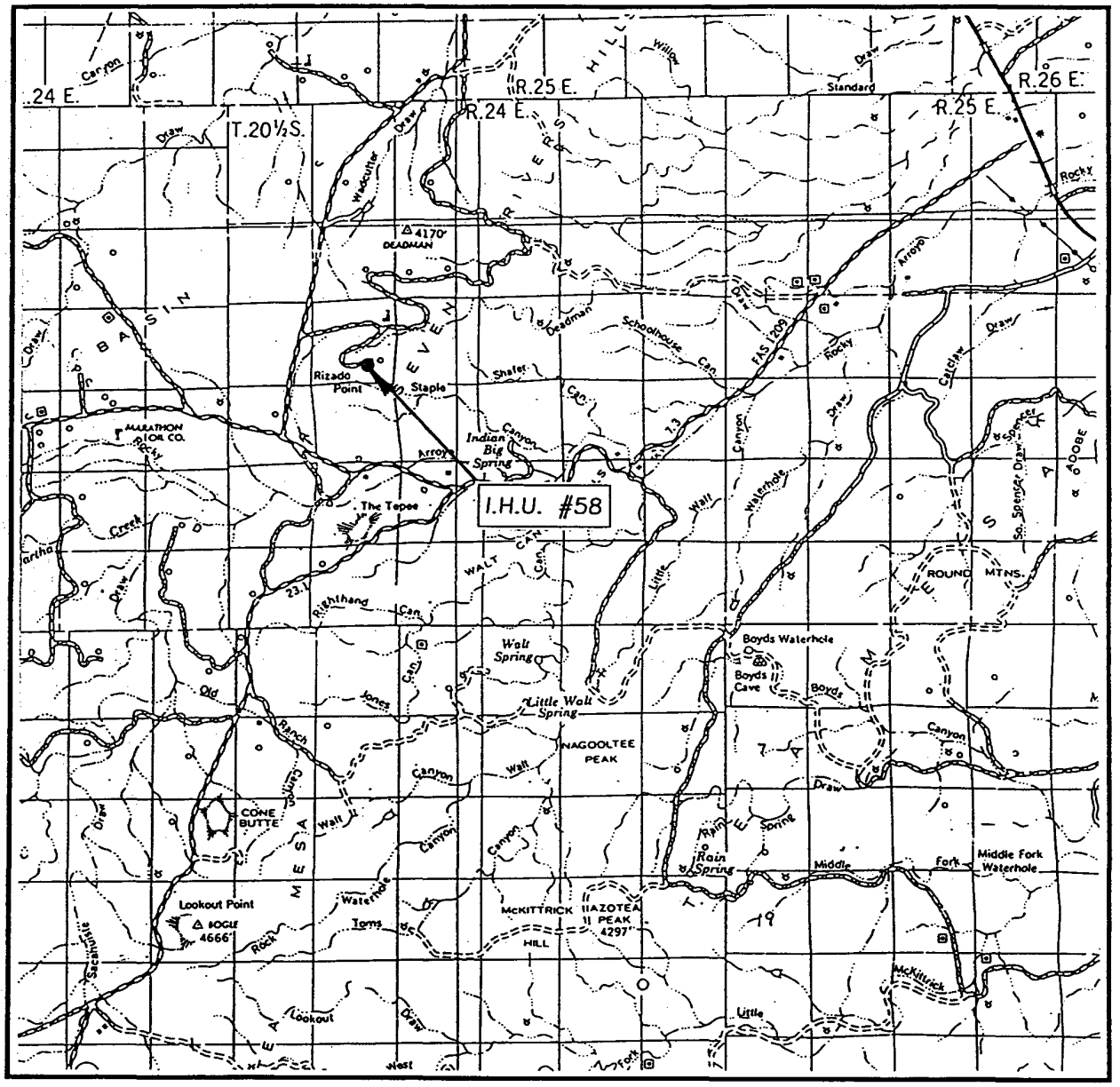
Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL SURVEYOR

Gary L. Jones 9/4/03
03.11.0918

Certificate No. GARY JONES 12641

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 17 TWP. 21-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1288' FSL 2046' FEL

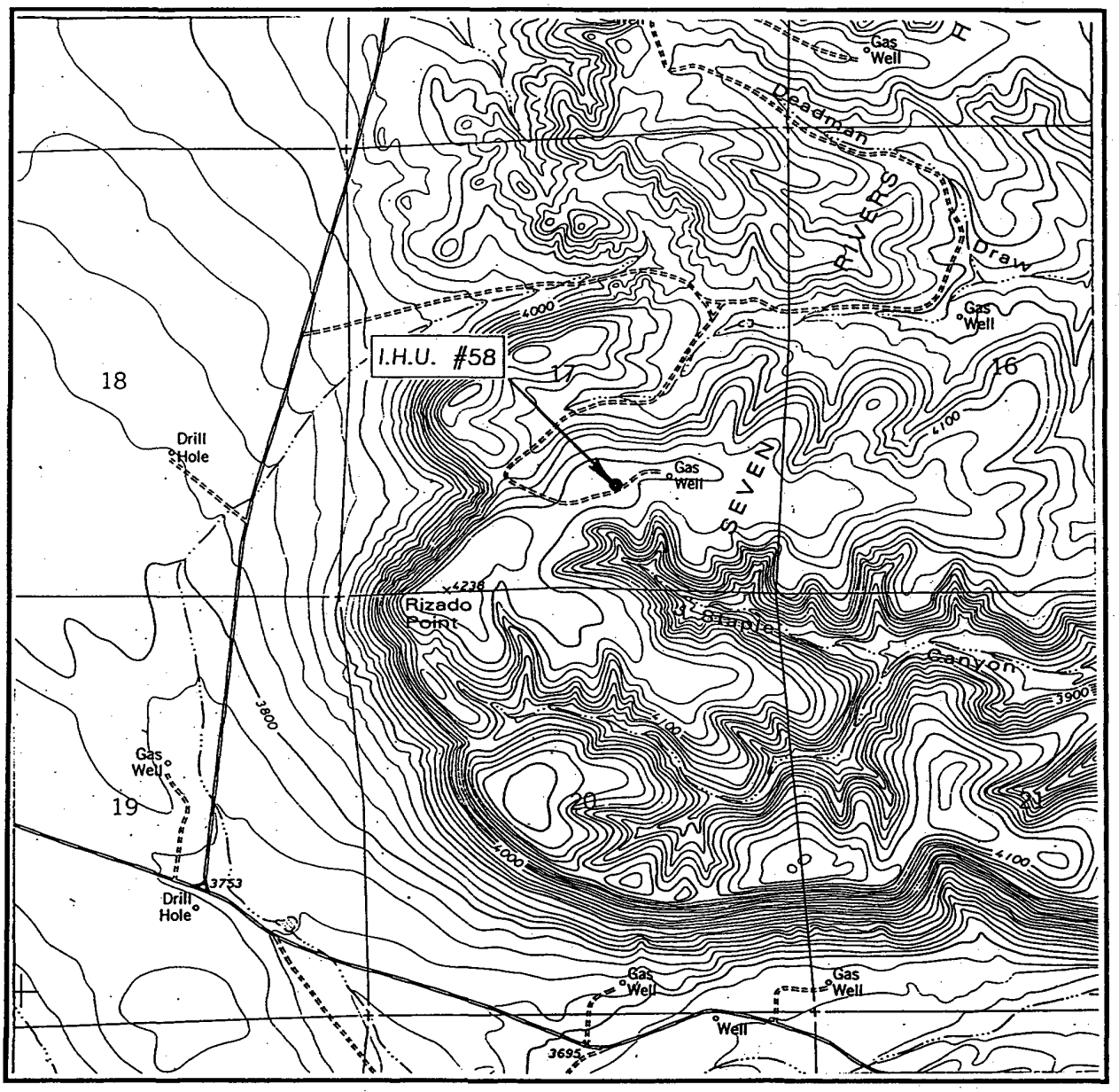
ELEVATION 4212'

OPERATOR MARATHON OIL COMPANY

LEASE I.H.U.

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

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

SEC. 17 TWP. 21-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1288' FSL 2046' FEL

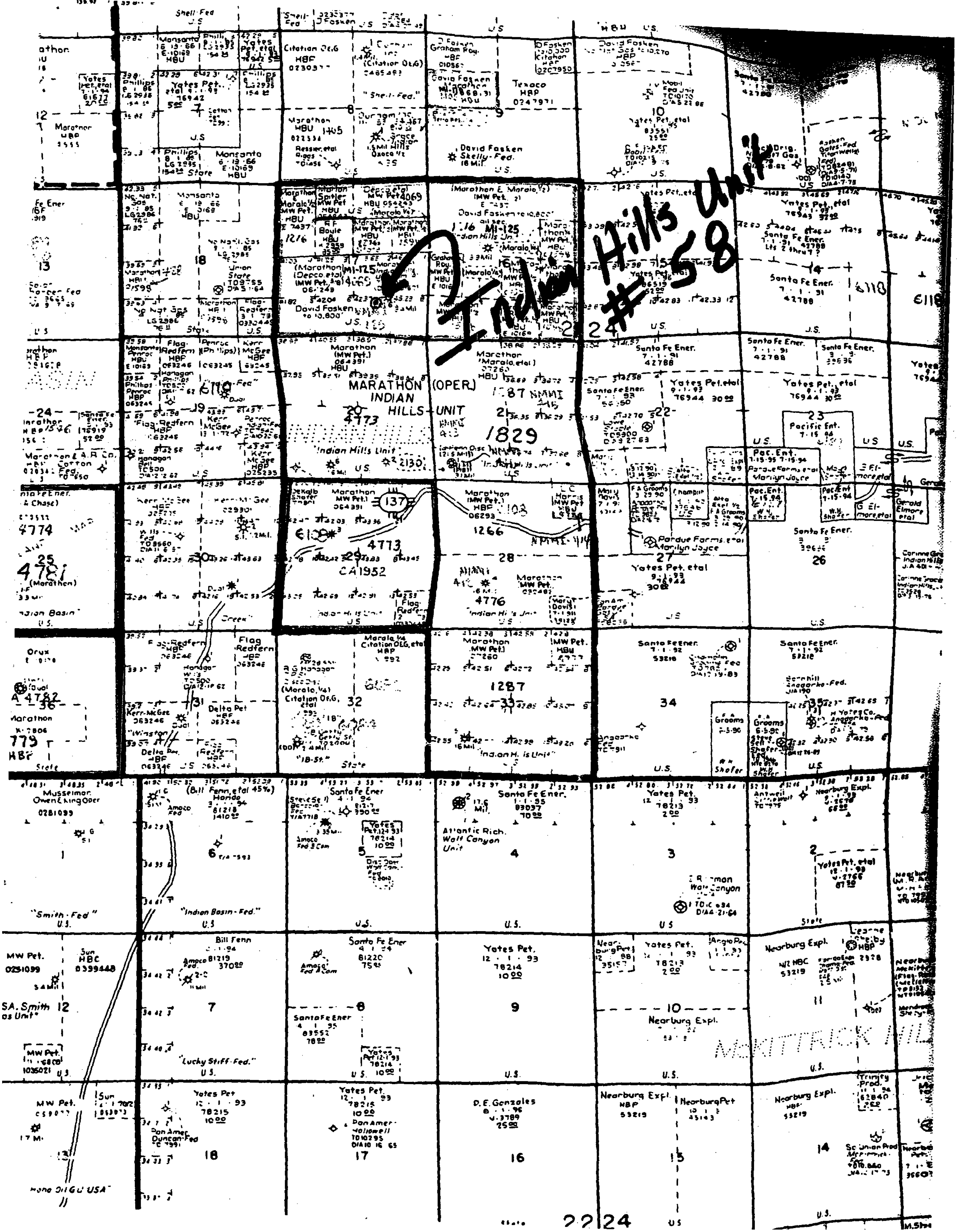
ELEVATION 4212'

OPERATOR MARATHON OIL COMPANY

LEASE I.H.U.

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

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



Indian Hills Unit # 58
MARATHON (OPER.) INDIAN HILLS UNIT
Indian Hills Unit
Marathon MW Pet. HBU
David Fasken
Santa Fe Ener.
Yates Pet. etal
Pacific Ent.
Nearburg Expl.
Atlantic Rich. Wolf Canyon Unit
Indian Basin-Fed.
Smith-Fed
Lucky Stiff-Fed.
Pardue Farms, etal Marilyn Joyce
Kerr-McGee
Flag-Redfern
Delta Pet
Citation Oil & G
Texaco HBP
Monsanto
Phillips
Bill Fenn
D. E. Gonzales
Pan Amer. Hollowell
Amoco
Musselman Owen & King Oper
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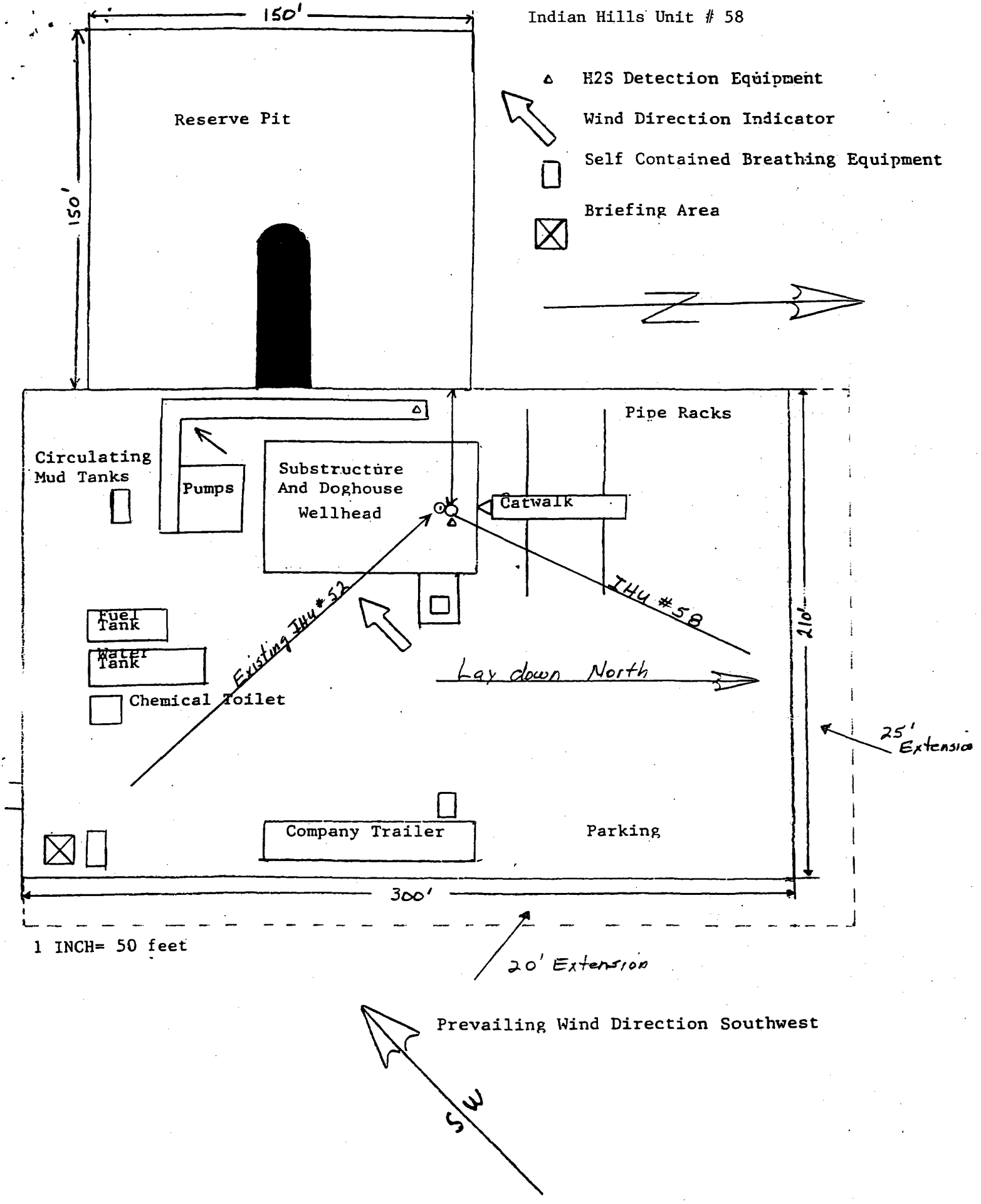

Indian Hills Unit # 58
150'
150'
Reserve Pit
H2S Detection Equipment
Wind Direction Indicator
Self Contained Breathing Equipment
Briefing Area
Pipe Racks
Circulating Mud Tanks
Pumps
Substructure And Doghouse
Wellhead
Catwalk
Fuel Tank
Water Tank
Chemical Toilet
Existing IHU #52
IHU #58
Lay down North
210'
25' Extension
Company Trailer
Parking
300'
1 INCH= 50 feet
20' Extension
Prevailing Wind Direction Southwest
SW

Thirteen Point Surface Use Plan
MARATHON OIL COMPANY

INDIAN HILLS UNIT #58
Sec. 17, T-21-S, R-24-E
SHL 1288' FSL & 2046' FEL
BHL 70' FSL & 1700' FWL
Eddy County, New Mexico

1. Existing Roads: Refer to Vicinity Lease Map.

   a. The proposed well site is staked and the surveyor's plat is attached.

   b. To reach the location from Carlsbad, New Mexico: Follow Hwy. 285 North of Carlsbad 11 miles. Turn left on (NM)137. Go 6 miles west. Turn Right on Marathon Road. Follow 1.9 miles to White Pine Road. Go North 1.3 miles, turn Right on lease road and continue East 1 mile. Turn left at "Y" and follow lease road 1/4 mile to location on the North side of the road. **IHU # 58 is located on same drilling pad as the IHU # 52**

   c. Existing roads within a one-mile radius (refer to Vicinity Lease Map).

   d. The existing road will be maintained as necessary to provide access during the drilling operation.

2. Planned Access Road: Refer to Vicinity Lease Map.

   The existing access road will be used. Plans will require blading and rolling the road and pad. The access road enters the drilling pad on the Southeast corner. The drilling location will have a V-door facing North.

3. Location of Existing Wells: See Vicinity Lease Map.

4. Location of Existing and Proposed Production Facilities within a one-mile radius:

   a. Existing: There are seven oil and gas wells operated by Marathon and Fasken within a one-mile radius of the proposed location. These locations have production facilities including separators, condensate, oil, water storage tanks. Marathon and Fasken operate a variety of dehydrators, meter runs, and several gathering lines in the one-mile radius.

   b. New Facilities: ~~New flow lines will be run to the existing Station # 117.~~ **Flow line Sundry is attached to this APD package for expeditious approval.**

   c. Rehabilitation of disturbed areas no longer needed for operations will be accomplished by grading, leveling and seeding as recommended.

10/9/03 mistake as per phone conversation with Jerry Fletcher (Bay Hut)

5. Location and Type of Water Supply:

   a. Source: Indian Basin Gas Plant, NE/4 Sec. 23, T-21-S, R-23-E.

   b. The water will be transported by a trucking contractor. No new construction will be required on/along the water route. If poly line is utilized it will be run along existing ROW's

c. No water well will be drilled on this location.

6. Source of Construction Materials:

a. Construction materials may be obtained from the construction site.

b. If production is obtained, native materials will be used on the location and for installation of production facilities.

c. On-site inspection may dictate any changes in location construction.

7. Methods of Handling Waste Material Disposal:

a. Cuttings - will be deposited in the reserve pit.

b. Drilling fluids - contained in reserve pit and allowed to evaporate. Free water will be removed and transported to an approved disposal site to accelerate pit drying.

c. Produced fluids - none anticipated.

d. A portable chemical toilet will be provided for human waste

e. Garbage and other waste material - garbage and trash will be stored in a receptacle on location and periodically hauled to an approved sanitary landfill.

f. After the rig moves out, all materials not necessary for operations will be removed. Pits will be backfilled and leveled. The location will be cleaned of all trash and debris.

8. Ancillary Facilities: Camp facilities will not be required. Portable trailers will be on location to house a company drilling foreman and contract tool pusher.

9. Well site Layout:

a. The well pad layout shows the drill site layout as staked. Topsoil will be stockpiled per specifications.

b. The reserve pit will be fenced on three sides before drilling begins. The fourth side will be fenced when the drilling rig leaves location.

c. The reserve pit will be lined with (8 mil plastic material).

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Indian Hills Unit #58

10. Plans for Restoration of the Surface:

a. Backfilling, leveling, and contouring are planned as soon as all pits have dried. Waste disposal and spoiled materials will be hauled away immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.

b. The soil banked material will be spread over the area. Re-vegetation will be accomplished by planting mixed grasses as per formula provided by the BLM. Re-vegetation is recommended for road area, as well as around the drill pad.

c. The reserve pit will be fenced during drilling operations. Fencing will be maintained until leveling and cleanup are accomplished.

d. If any oil is in the pits and is not immediately removed after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with mesh.

e. The rehabilitation operations will begin after the completion rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and re-vegetation will be done between July 15 and September 15.

f. All efforts will be made to minimize surface disturbances and protect the visual resources along the scenic byway.

11. Other Information:

a. There are no significant archaeological or cultural sites visible in the area of disturbance. A cultural resource survey was performed by Archaeological Consultants Inc. of Roswell for the existing IHU # 52. No further arch work should be needed.

b. General topography: Shown on Vicinity Lease Map. The terrain at the well site is gently rolling hills. Vegetation is primarily sage brush and natural grasses.

c. Animal life: Prairie dogs, domestic livestock, rabbits and native rodents and predators.

d. Dwellings (nearest): Approximately 2 miles.

e. General location: Approximately 15 miles Northwest of Carlsbad, New Mexico.

f. Drainage: Internal

g. Surface Owner: The surface is owned by the Federal Government.

h. Due to proximity of the location and nearby drainage, Marathon will make every effort to minimize surface disturbance. Please see the location pad and reserve pit dimensions..

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Indian Hills Unit #58

Operator Representatives:

Tom Laylock
Drilling, Completion, & Workover Superintendent
P. O. Box 552
Midland, TX 79702
800/351-1417
915/687-8344 (Direct Line)

13. Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge and belief, true and correct; and that the work associated with the operations proposed herein will be performed by MARATHON OIL COMPANY and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date 10/2/03

Tom Laylock

DRILLING PROGRAM
MARATHON OIL COMPANY
INDIAN HILLS UNIT #58

1. Estimated KB Elevation: 4228' KB G.L. 4212' Rig Floor 16'

FORMATION	TOP MEASURED	TOP SUBSEA	BASE MEASURED	BASE SUBSEA	FLUID CONTENT
Queen	Surface	+4228'	650'	+3578'	water
San Andres	650'	+3578'	2250'	+1978'	water
Glorietta	2250'	+1978'	2355'	+1873'	
Delaware	3300'	+928'	4300'	- 72'	
Bone Spring	4300'	-72'	5950'	-1722'	oil gas
Wolfcamp	5950'	-1722'	7520'	-3292'	oil gas
B/Permian Shale	7520'	-3292'	7530'	-3302'	
U. Penn	7530'	-3302'	8600'	-4372'	gas, oil, water

FORMATION	EST SBHP PSIG	EST SBHP PPG EMW	EST DEG f	SBHT PPM	H2S	SIGNIFICANCE (obj, marker, etc.)
Bone Springs	1210	8.5			500	marker
Wolfcamp	1680	9.0				marker
B/Permian Shale	1810	9.0				marker
U. Penn	2050	9.0			5000	objective pay

2. See (1) above.
If any unexpected water or mineral bearing zones are encountered, they will be reported, evaluated, and protected as circumstances and regulations require.

3. **Pressure Control Equipment**:

9-5/8" Surface: 11" 3M annular tested to 300/3000 PSI, 11" 3M dual rams, choke manifold and mud cross, tested to 300/3000 PSI.
Auxiliary Equipment:

Surface Hole: Annular or rotating head w/air rig.

Intermediate Hole: N/A

Production Hole: Flow indicator, PVT, H_2S Sensors, air packs, stroke counter, rotating head.

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and tested prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers and casing will be pressure tested before drilling casing cement plugs.

Upper and lower kelly cocks with valve handle and safety valve and subs to fit all drill string connections in use will be available on rig floor.

Test Frequency

1. When installed.
2. Anytime a pressure seal is broken (test confined only to affected equipment).
3. At least every 20 days.
4. Blind and pipe rams shall be activated each trip but not more than once/day.

4. Casing and Cement Program:

---DEPTH--- FROM	TO	SECTION LENGTH	HOLE SIZE	CSG SIZE	WT. PPF	GRADE	THREADS COUPLINGS	NEW USED
0	1800'	1800'	12.25"	9-5/8"	36.00#	K-55	8rd, STC	New
0	4800'	4800'	8.750"	7"	23.00#	K-55	8rd, LT&C	New
4800'	8600'	3800 '	8.750"	7"	26.00#	K-55	8rd, LT&C	New

Casing String	DV Depth	Stg.	Lead Tail	Amt SXS	Type Cement	Yield CF/SX	Wt. PPG.	TOC	Additives
9.625"	none	1	L	500	Foam Cmt.	1.78	11.2	100'.	
9.625"	none		T	140	"C" Neat	1.35	14.8	900'	3% Cacl

NOTE: Pump 55 sks. Class "C" dn. Annulus W/ 3% CACL2, Yield: 1.35cf/sk, Density 14.8 ppg coverage, Surface To 100'.

7.0"	6300'	1	L	340	Prem.	1.44	13.0	5600'	Foamers, N2
7.0"		2	L	840	Interfill "C"	2.47	11.9	Surface	1/4pps Cello,3pps Gilsonite,0.2% Halad 322
7.0"		2	T	100	"C" Neat	1.32	14.8	6000'	N/A

Each stage will be preceded by an appropriate mud flush. Actual production hole volumes will be based on the caliper volume plus 25% excess .

Centralizer Program:

9 5/8" Conventional centralizers. Bottom 3 joints and every fourth joint to surface.

7-0" Conventional centralizers middle of first joint Then every joint to 7500', and 1 centralizer every fourth joint Thereafter to 8600'.

5. Mud Program

---DEPTH---			WEIGHT		WL		VISUAL
FROM	TO	MUD TYPE	(PPG)	VIS	CC	ADDITIVES	MONTR.
0	1800'	fresh water	8.3	28	N/A	Gel, Lime	Reserve
1800'	5000'	fresh/ produced	8.5	28-32	N/C	Gel, caustic, H_2S Scavenger	Reserve
5000'	7000'	fresh/ produced	8.9	32-36	N/C	Gel, caustic, H_2S Scavenger	Reserve
7000'	8600'	fresh/ produced	8.9	32-36	<20	Gel, caustic, H_2S Scavenger	Steel Pits

Sufficient quantities of additives will be on location to maintain above mud properties for any anticipated well conditions.

6. Logging, Testing & Coring Programs:

LOG/TEST/CORE/MUDLOG/OTHER	--INTERVAL- FROM	TO	REMARKS
DLL/MSFL/GR/CNL/LDT/CAL	TD	5000'	
LDT/CNL/GR/CAL	TD	surf casing	
MUD LOGGER	6000'	TD	ROP, Lithology, Gas Analysis, Chromatograph

NO CORES OR DST'S

7. Abnormal Pressures, Temperatures or Potential Hazards:

None anticipated. Possible H_2S in Cisco & Upper Penn. See H_2S Drilling Operations Plan.

8. Other Information:

Anticipated Starting Date: As soon as possible.

Duration of Well: drilling - 25 days, completion - 10 days.

9. This well shall be directionally drilled to a Non standard BHL. BHL will extend outside the Standard 660' producing area for the Indian Basin Upper Penn. Associated Gas Pool.

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.

MARATHON OIL COMPANY

H2S DRILLING OPERATIONS PLAN

I. 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 as seen in attached diagram.

B. Automatic H2S detection alarm equipment (both audio and visual).

C. Clearly visible warning signs as seen on the attached diagram. 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 as seen in the attached diagram.

2. WELL CONTROL SYSTEMS

A. Blowout Prevention Equipment

Equipment includes but is not limited to:

a. pipe rams to accomodate all pipe sizes
b. blind rams
c. choke manifold
d. closing unit

Auxillary 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 H2S circulated to surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers when appropriate will minimize hazards when penetrating H2S bearing zones.

D. Drill Stem Test intervals are as follows:

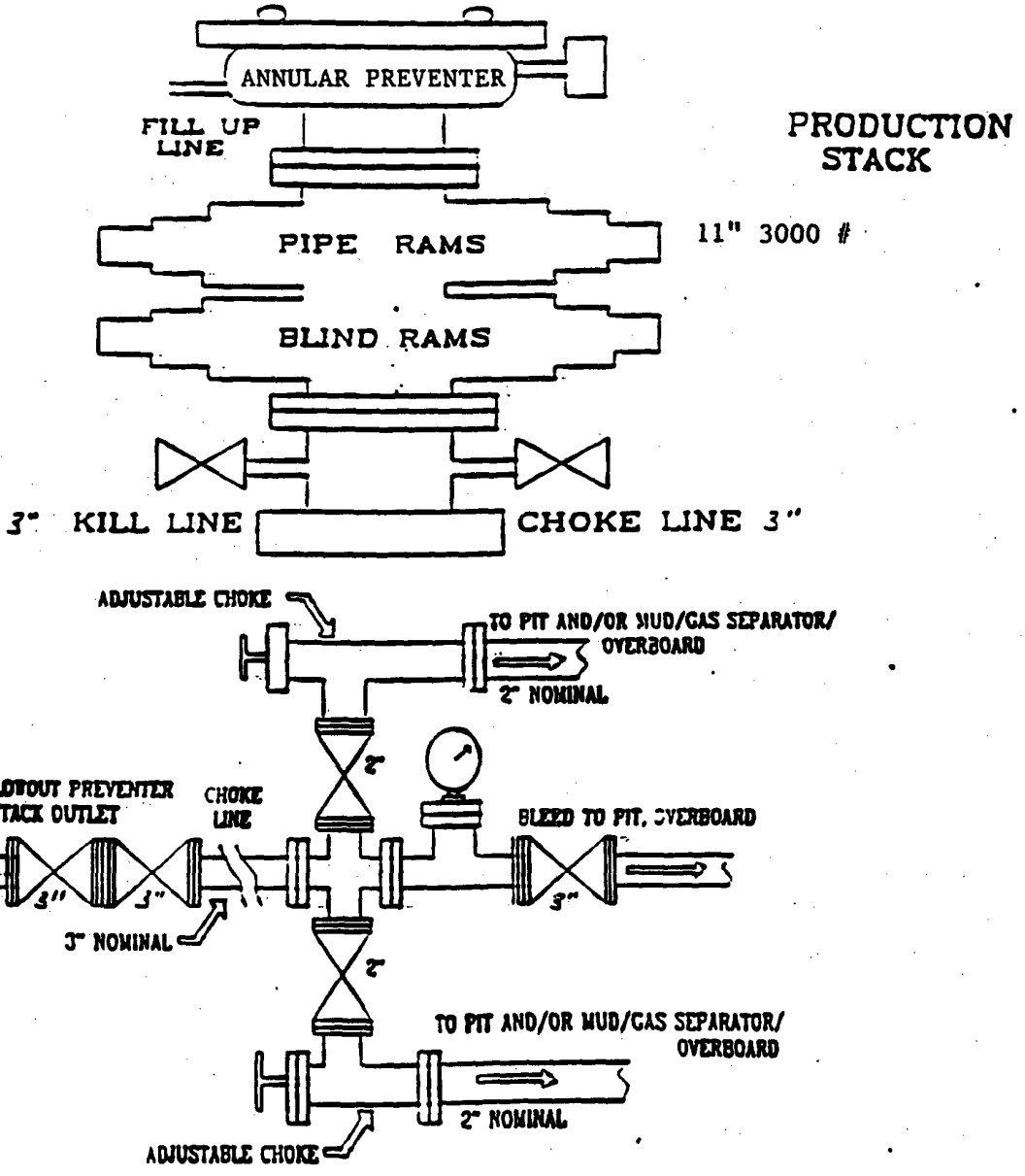
DST No. 1 _____ft. to _____ ft.
DST No. 2 _____ft. to _____ ft.
DST No. 3 _____ft. to _____ ft.

Drill Stem Testing Safety Rules are attached.

III. WELL SITE DIAGRAM

A complete well site diagram including the following information is attached.

1. Rig orientation
2. Terrain
3. Briefing areas
4. Ingress and egress
5. Pits and flare lines
6. Caution and danger signs
7. Wind indicators and prevailing wind direction


ANNULAR PREVENTER
FILL UP LINE
PRODUCTION STACK
PIPE RAMS
11" 3000 #
BLIND RAMS
3" KILL LINE
CHOKE LINE 3"
ADJUSTABLE CHOKE
TO PIT AND/OR MUD/GAS SEPARATOR/ OVERBOARD
2" NOMINAL
2"
BLOWOUT PREVENTER STACK OUTLET
CHOKE LINE
BLEED TO PIT, OVERBOARD
3"
3"
3"
3" NOMINAL
2"
TO PIT AND/OR MUD/GAS SEPARATOR/ OVERBOARD
2" NOMINAL
ADJUSTABLE CHOKE

Marathon Oil Company
Indian Hills Unit #58

slot #1
INDIAN BASIN
Eddy County New Mexico

3-D M I N I M U M D I S T A N C E C L E A R A N C E R E P O R T

by
Baker Hughes INTEQ

Your ref : Plan 2
Our ref : prop4120
License :

Date printed : 15-Jan-2004
Date created : 15-Jan-2004
Last revised : 15-Jan-2004

Field is centred on 445535.500,521332.200,-105.00000,N
Structure is centred on 442762.000,536769.000,-105.00000,N

Slot location is n32 28 31.990,w104 31 8.182
Slot Grid coordinates are N 536769.000, E 442762.000
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

DECREASING CLEARANCES of less than 1000 feet are indicated by an asterisk, e.g. 487.4*

Object wellpath	Closest approach with 3-D Minimum Distance method			
	Last revised	Distance	M.D.	Diverging from M.D.
MWD,slot #1,Indian Hills Unit 52	7-Oct-2003	35.2	0.0	0.0

Indian Hills Unit #58,slot #1
INDIAN BASIN,Eddy County New Mexico

Your ref : Plan 2
Last revised : 15-Jan-2004

Reference wellpath

Object wellpath : MWD,slot #1,Indian Hills Unit 52

M.D.	T.V.D.	Rect Coordinates		M.D.	T.V.D.	Rect Coordinates		Horiz Bearing	Min'm Dist	TCyl Dist
0.0	0.0	0.0N	0.0E	0.0	0.0	20.0S	29.0W	235.4	35.2	35.2
100.0	100.0	0.0N	0.0E	99.8	99.8	19.7S	29.4W	236.2	35.4	35.4
200.0	200.0	0.0N	0.0E	199.7	199.7	18.9S	30.7W	238.4	36.1	36.1
300.0	300.0	0.0N	0.0E	299.7	299.6	17.7S	32.5W	241.4	37.0	37.0
400.0	400.0	0.0N	0.0E	399.7	399.6	16.6S	34.2W	244.2	38.0	38.0
500.0	500.0	0.0N	0.0E	499.7	499.6	15.4S	35.8W	246.7	39.0	39.0
600.0	600.0	0.0N	0.0E	599.7	599.6	14.6S	37.2W	248.5	40.0	40.0
700.0	700.0	0.0N	0.0E	699.7	699.6	14.2S	38.4W	249.7	41.0	41.0
800.0	800.0	0.0N	0.0E	799.8	799.7	13.6S	39.6W	251.1	41.8	41.8
900.0	900.0	0.0N	0.0E	899.8	899.7	12.8S	40.7W	252.5	42.6	42.6
1000.0	1000.0	0.0N	0.0E	999.7	999.6	12.2S	41.7W	253.7	43.5	43.5
1100.0	1100.0	0.0N	0.0E	1099.6	1099.4	11.5S	43.1W	255.0	44.6	44.6
1200.0	1200.0	0.0N	0.0E	1199.6	1199.4	10.7S	44.6W	256.5	45.9	45.9
1300.0	1300.0	0.0N	0.0E	1299.6	1299.4	9.9S	46.1W	257.9	47.1	47.1
1400.0	1400.0	0.0N	0.0E	1399.4	1399.3	9.4S	47.5W	258.8	48.5	48.5
1500.0	1500.0	0.0N	0.0E	1499.4	1499.2	9.3S	49.1W	259.3	50.0	50.0
1600.0	1600.0	0.0N	0.0E	1599.5	1599.3	9.2S	50.7W	259.7	51.5	51.5
1700.0	1700.0	0.0N	0.0E	1699.6	1699.4	9.3S	52.0W	259.9	52.9	52.9
1800.0	1800.0	0.0N	0.0E	1799.8	1799.6	9.5S	53.1W	259.8	53.9	53.9
1900.0	1900.0	0.0N	0.0E	1899.8	1899.6	9.8S	53.8W	259.7	54.7	54.7
1912.5	1912.5	0.0S	0.0E	1912.3	1912.1	9.8S	53.9W	259.7	54.8	54.8
1925.0	1925.0	0.1S	0.1E	1924.8	1924.6	9.9S	54.0W	259.8	55.0	55.0
1937.5	1937.5	0.2S	0.2E	1937.3	1937.1	9.9S	54.1W	259.9	55.2	55.2
1950.0	1950.0	0.4S	0.4E	1949.8	1949.6	9.9S	54.2W	260.1	55.4	55.4
1962.5	1962.5	0.6S	0.6E	1962.3	1962.1	10.0S	54.3W	260.3	55.7	55.7
1975.0	1975.0	0.9S	0.9E	1974.8	1974.6	10.0S	54.4W	260.6	56.0	56.0
1987.5	1987.5	1.2S	1.2E	1987.3	1987.1	10.0S	54.5W	261.0	56.3	56.4
2000.0	2000.0	1.5S	1.5E	1999.7	1999.5	10.0S	54.6W	261.4	56.7	56.8
2012.5	2012.5	2.0S	2.0E	2012.2	2012.0	10.1S	54.7W	261.8	57.2	57.2

2025.0	2024.9	2.4S	2.4E	2024.7	2024.5	10.1S	54.7W	262.3	57.7	57.7
2037.5	2037.4	2.9S	2.9E	2037.2	2036.9	10.1S	54.8W	262.9	58.2	58.3
2050.0	2049.9	3.5S	3.5E	2049.6	2049.4	10.2S	54.9W	263.4	58.8	58.9
2062.5	2062.4	4.1S	4.1E	2062.1	2061.9	10.2S	55.0W	264.1	59.4	59.5
2075.0	2074.8	4.7S	4.7E	2074.6	2074.3	10.3S	55.1W	264.7	60.1	60.2
2087.5	2087.3	5.4S	5.4E	2087.0	2086.8	10.3S	55.2W	265.4	60.9	61.0
2100.0	2099.7	6.2S	6.2E	2099.5	2099.2	10.3S	55.3W	266.1	61.7	61.8
2112.5	2112.2	7.0S	7.0E	2111.9	2111.7	10.4S	55.4W	266.9	62.5	62.7
2125.0	2124.6	7.8S	7.8E	2124.3	2124.1	10.4S	55.6W	267.6	63.4	63.6
2137.5	2137.1	8.7S	8.7E	2136.8	2136.5	10.4S	55.7W	268.4	64.4	64.6
2150.0	2149.5	9.6S	9.6E	2149.2	2149.0	10.5S	55.8W	269.2	65.4	65.6
2162.5	2161.9	10.6S	10.6E	2161.6	2161.4	10.5S	55.9W	270.1	66.5	66.7
2175.0	2174.3	11.7S	11.7E	2174.0	2173.8	10.6S	56.0W	270.9	67.6	67.9
2187.5	2186.7	12.7S	12.7E	2186.4	2186.2	10.6S	56.1W	271.8	68.8	69.2
2200.0	2199.1	13.9S	13.9E	2198.8	2198.6	10.7S	56.2W	272.6	70.1	70.5
2212.5	2211.5	15.0S	15.0E	2211.2	2211.0	10.7S	56.3W	273.5	71.4	71.7
2225.0	2223.9	16.2S	16.0E	2223.6	2223.4	10.8S	56.4W	274.3	72.6	73.0
2237.5	2236.3	17.4S	17.0E	2236.0	2235.8	10.8S	56.5W	275.1	73.8	74.1
2250.0	2248.7	18.6S	18.0E	2248.4	2248.2	10.8S	56.6W	276.0	74.9	75.2
2262.5	2261.2	19.9S	18.8E	2260.8	2260.6	10.9S	56.7W	276.8	76.0	76.3
2275.0	2273.6	21.1S	19.6E	2273.2	2273.0	10.9S	56.8W	277.6	77.1	77.3
2287.5	2286.0	22.4S	20.3E	2285.6	2285.4	11.0S	56.9W	278.4	78.1	78.3

All data is in feet unless otherwise stated.
Casing dimensions are not included.
Coordinates from slot #1 and TVD from rotary table.
Vertical section is from N 0.00 E 0.00 on azimuth 233.76 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

								Horiz	Min'm	TCyl
M.D.	T.V.D.	Rect Coordinates		M.D.	T.V.D.	Rect Coordinates		Bearing	Dist	Dist
2300.0	2298.4	23.7S	21.0E	2298.1	2297.9	11.0S	57.0W	279.2	79.0	79.2
2312.5	2310.8	25.0S	21.6E	2310.5	2310.3	11.1S	57.1W	280.1	79.9	80.1
2325.0	2323.2	26.4S	22.1E	2322.9	2322.7	11.1S	57.2W	280.9	80.7	80.9
2337.5	2335.6	27.7S	22.6E	2335.4	2335.1	11.1S	57.2W	281.7	81.6	81.7
2350.0	2348.1	29.1S	23.0E	2347.9	2347.6	11.2S	57.3W	282.6	82.3	82.5
2362.5	2360.5	30.5S	23.3E	2360.3	2360.1	11.2S	57.4W	283.4	83.0	83.1
2375.0	2372.9	31.9S	23.6E	2372.7	2372.5	11.3S	57.5W	284.3	83.7	83.8
2387.5	2385.3	33.3S	23.8E	2385.1	2384.9	11.3S	57.6W	285.1	84.3	84.4
2400.0	2397.7	34.8S	24.0E	2397.6	2397.4	11.3S	57.6W	286.0	84.9	85.0
2412.5	2410.1	36.2S	24.0E	2410.0	2409.8	11.4S	57.7W	286.9	85.4	85.5
2425.0	2422.6	37.7S	24.0E	2422.5	2422.2	11.4S	57.8W	287.8	85.9	86.0
2437.5	2435.0	39.2S	24.0E	2434.9	2434.6	11.5S	57.8W	288.7	86.4	86.4
2450.0	2447.4	40.8S	23.9E	2447.3	2447.1	11.5S	57.9W	289.7	86.8	86.9
2462.5	2459.8	42.3S	23.7E	2459.7	2459.5	11.6S	57.9W	290.6	87.2	87.3
2475.0	2472.2	43.9S	23.4E	2472.2	2471.9	11.6S	58.0W	291.6	87.6	87.6
2487.5	2484.6	45.4S	23.1E	2484.6	2484.3	11.7S	58.1W	292.6	87.9	87.9
2500.0	2497.0	47.0S	22.7E	2497.0	2496.7	11.8S	58.1W	293.6	88.2	88.2
2512.5	2509.3	48.6S	22.3E	2509.4	2509.1	11.9S	58.2W	294.6	88.5	88.5
2525.0	2521.7	50.3S	21.7E	2521.8	2521.5	11.9S	58.3W	295.6	88.7	88.8
2537.5	2534.1	51.9S	21.2E	2534.2	2533.9	12.0S	58.3W	296.7	89.0	89.0
2550.0	2546.5	53.6S	20.5E	2546.5	2546.3	12.1S	58.4W	297.7	89.2	89.2
2562.5	2558.8	55.3S	19.8E	2558.9	2558.7	12.2S	58.5W	298.8	89.4	89.4
2575.0	2571.2	57.0S	19.0E	2571.3	2571.1	12.3S	58.6W	300.0	89.6	89.6
2587.5	2583.5	58.7S	18.2E	2583.7	2583.4	12.4S	58.6W	301.1	89.7	89.7
2600.0	2595.9	60.5S	17.3E	2596.0	2595.8	12.4S	58.7W	302.3	89.9	89.9
2612.5	2608.2	62.2S	16.3E	2608.5	2608.2	12.5S	58.8W	303.5	90.0	90.1
2625.0	2620.6	64.0S	15.3E	2620.8	2620.6	12.6S	58.9W	304.7	90.2	90.2
2637.5	2632.9	65.8S	14.2E	2633.2	2632.9	12.7S	58.9W	306.0	90.3	90.3
2650.0	2645.2	67.6S	13.0E	2645.5	2645.3	12.9S	59.0W	307.3	90.4	90.5

2662.5	2657.5	69.5S	11.8E	2658.1	2657.8	13.0S	59.0W	308.6	90.6	90.6
2675.0	2669.8	71.3S	10.5E	2670.4	2670.1	13.1S	59.1W	309.9	90.7	90.7
2687.5	2682.1	73.2S	9.1E	2682.7	2682.5	13.2S	59.1W	311.3	90.8	90.8
2700.0	2694.3	75.1S	7.7E	2695.0	2694.7	13.3S	59.2W	312.7	91.0	91.0
2712.5	2706.6	77.0S	6.2E	2707.4	2707.1	13.5S	59.2W	314.2	91.1	91.1
2725.0	2718.9	78.9S	4.6E	2719.7	2719.4	13.6S	59.2W	315.6	91.3	91.3
2737.5	2731.1	80.8S	3.0E	2731.9	2731.7	13.7S	59.2W	317.1	91.5	91.5
2750.0	2743.3	82.8S	1.3E	2744.2	2743.9	13.9S	59.3W	318.7	91.7	91.8
2762.5	2755.6	84.7S	0.5W	2756.4	2756.2	14.0S	59.3W	320.3	92.0	92.0
2775.0	2767.8	86.7S	2.3W	2768.6	2768.4	14.1S	59.3W	321.9	92.3	92.4
2787.5	2780.0	88.7S	4.2W	2780.8	2780.6	14.2S	59.3W	323.5	92.7	92.8
2800.0	2792.1	90.8S	6.1W	2793.0	2792.8	14.3S	59.3W	325.2	93.1	93.2
2812.5	2804.3	92.8S	8.1W	2805.1	2804.9	14.4S	59.3W	326.9	93.6	93.7
2825.0	2816.5	94.9S	10.2W	2817.3	2817.1	14.5S	59.3W	328.6	94.2	94.3
2837.5	2828.6	96.9S	12.4W	2829.5	2829.2	14.6S	59.3W	330.3	94.8	94.9
2850.0	2840.7	99.0S	14.6W	2841.6	2841.4	14.7S	59.3W	332.0	95.5	95.6
2862.5	2852.8	101.1S	16.8W	2853.7	2853.5	14.8S	59.3W	333.8	96.2	96.4
2875.0	2864.9	103.3S	19.2W	2865.9	2865.6	14.9S	59.3W	335.6	97.1	97.3
2887.5	2877.0	105.4S	21.6W	2877.9	2877.7	15.0S	59.3W	337.3	98.0	98.3
2900.0	2889.1	107.6S	24.0W	2890.0	2889.8	15.1S	59.4W	339.1	99.0	99.4
2912.5	2901.1	109.7S	26.6W	2902.0	2901.8	15.2S	59.4W	340.9	100.1	100.5
2925.0	2913.1	111.9S	29.2W	2914.1	2913.8	15.3S	59.4W	342.6	101.3	101.8

All data is in feet unless otherwise stated.
Casing dimensions are not included.
Coordinates from slot #1 and TVD from rotary table.
Vertical section is from N 0.00 E 0.00 on azimuth 233.76 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

M.D.	T.V.D.	Rect Coordinates		M.D.	T.V.D.	Rect Coordinates		Horiz Bearing	Min'm Dist	TCyl Dist
2937.5	2925.2	114.1S	31.8W	2926.1	2925.9	15.4S	59.4W	344.4	102.6	103.2
2950.0	2937.2	116.3S	34.5W	2938.2	2937.9	15.5S	59.5W	346.1	103.9	104.6
2962.5	2949.1	118.6S	37.3W	2950.2	2949.9	15.6S	59.5W	347.8	105.4	106.2
2975.0	2961.1	120.8S	40.2W	2962.2	2961.9	15.7S	59.6W	349.5	107.0	107.9
2987.5	2973.0	123.1S	43.1W	2974.2	2973.9	15.8S	59.6W	351.2	108.6	109.7
3000.0	2985.0	125.4S	46.0W	2986.1	2985.9	15.9S	59.7W	352.9	110.4	111.6
3009.5	2994.0	127.2S	48.4W	2995.2	2995.0	16.0S	59.7W	354.2	111.8	113.1
3019.1	3003.1	128.9S	50.7W	3004.5	3004.2	16.1S	59.8W	355.4	113.2	114.7
3028.6	3012.1	130.7S	53.1W	3013.5	3013.3	16.1S	59.9W	356.6	114.8	116.4
3038.1	3021.2	132.5S	55.5W	3022.6	3022.3	16.2S	59.9W	357.8	116.3	118.1
3100.0	3079.9	144.1S	71.4W	3081.7	3081.4	16.9S	60.3W	5.0	127.7	130.4
3200.0	3174.7	162.9S	97.0W	3177.3	3177.0	18.2S	60.7W	14.1	149.2	153.4
3300.0	3269.5	181.6S	122.6W	3272.6	3272.3	19.6S	61.2W	20.8	173.3	179.2
3400.0	3364.4	200.4S	148.1W	3368.0	3367.7	21.1S	61.6W	25.8	199.1	206.6
3500.0	3459.2	219.1S	173.7W	3462.6	3462.2	22.7S	61.8W	29.7	226.1	235.5
3600.0	3554.0	237.9S	199.3W	3557.7	3557.3	24.1S	61.9W	32.8	254.2	265.2
3700.0	3648.9	256.6S	224.9W	3652.7	3652.4	25.5S	62.1W	35.2	282.8	295.6
3800.0	3743.7	275.4S	250.5W	3747.4	3747.0	26.7S	62.3W	37.1	312.0	326.8
3900.0	3838.5	294.2S	276.1W	3841.3	3841.0	27.5S	62.6W	38.7	341.7	358.3
4000.0	3933.3	312.9S	301.7W	3936.3	3935.9	28.0S	62.8W	40.0	371.8	389.5
4100.0	4028.2	331.7S	327.3W	4035.3	4035.0	29.0S	63.4W	41.1	401.7	418.9
4200.0	4123.0	350.4S	352.9W	4139.1	4138.7	31.7S	64.4W	42.2	430.3	445.6
4300.0	4217.8	369.2S	378.5W	4249.9	4249.3	37.7S	66.4W	43.3	456.5	469.3
4400.0	4312.7	388.0S	404.1W	4360.2	4359.2	47.0S	69.8W	44.4	479.8	489.2
4500.0	4407.5	406.7S	429.7W	4483.6	4481.5	62.0S	76.5W	45.7	499.1	505.0
4600.0	4502.3	425.5S	455.3W	4605.3	4601.1	82.3S	85.9W	47.1	513.8	517.4
4700.0	4597.2	444.2S	480.9W	4725.4	4718.1	107.0S	97.4W	48.7	524.8	526.8
4800.0	4692.0	463.0S	506.5W	4832.1	4821.0	132.5S	108.8W	50.3	533.0	534.6
4900.0	4786.8	481.8S	532.1W	4931.0	4916.1	157.8S	118.8W	51.9	540.9	542.8
5000.0	4881.6	500.5S	557.7W	5023.8	5005.2	182.2S	127.0W	53.5	549.7	552.9
5100.0	4976.5	519.3S	583.3W	5104.1	5082.4	204.2S	131.5W	55.1	561.0	566.9
5200.0	5071.3	538.0S	608.9W	5187.2	5162.0	227.6S	132.8W	56.9	575.6	584.3

5300.0	5166.1	556.8S	634.5W	5278.3	5249.2	254.1S	131.7W	59.0	592.8	603.5
5400.0	5261.0	575.6S	660.1W	5371.5	5338.5	280.5S	130.2W	60.9	611.4	623.3
5500.0	5355.8	594.3S	685.7W	5471.2	5434.5	307.5S	129.4W	62.7	630.9	643.3
5600.0	5450.6	613.1S	711.3W	5567.2	5526.9	333.5S	129.2W	64.3	650.3	664.4
5700.0	5545.5	631.8S	736.9W	5660.7	5616.8	359.6S	128.2W	65.9	670.7	686.8
5800.0	5640.3	650.6S	762.5W	5753.4	5705.8	385.2S	126.9W	67.3	691.9	710.1
5900.0	5735.1	669.4S	788.1W	5846.5	5795.3	410.8S	125.2W	68.7	714.1	734.6
6000.0	5829.9	688.1S	813.7W	5934.8	5880.3	434.8S	123.2W	69.9	737.2	759.1
6100.0	5924.8	706.9S	839.3W	6036.3	5978.0	462.1S	120.7W	71.2	761.1	783.7
6200.0	6019.6	725.6S	864.9W	6129.9	6068.1	487.5S	118.6W	72.3	784.9	807.8
6300.0	6114.4	744.4S	890.5W	6235.5	6169.8	515.9S	116.8W	73.5	808.7	832.9
6400.0	6209.3	763.2S	916.1W	6329.2	6259.6	542.3S	115.4W	74.6	832.2	858.8
6500.0	6304.1	781.9S	941.7W	6420.2	6347.0	568.0S	113.5W	75.5	856.5	885.4
6600.0	6398.9	800.7S	967.3W	6512.4	6435.5	593.7S	111.3W	76.4	881.5	913.2
6700.0	6493.8	819.4S	992.9W	6606.9	6526.0	620.5S	108.6W	77.3	907.0	940.8
6800.0	6588.6	838.2S	1018.5W	6694.2	6609.6	645.5S	105.6W	78.1	933.2	966.5
6900.0	6683.4	857.0S	1044.1W	6790.4	6701.5	673.6S	101.7W	79.0	960.3	991.7
7000.0	6778.3	875.7S	1069.7W	6910.7	6816.9	707.5S	98.9W	80.2	986.1	1016.7
7100.0	6873.1	894.5S	1095.3W	7009.7	6912.1	734.6S	98.4W	80.9	1010.4	1041.8

All data is in feet unless otherwise stated.
Casing dimensions are not included.
Coordinates from slot #1 and TVD from rotary table.
Vertical section is from N 0.00 E 0.00 on azimuth 233.76 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

Reference wellpath				Object wellpath : MWD,slot #1,Indian Hills Unit 52						
								Horiz	Min'm	TCyl
M.D.	T.V.D.	Rect Coordinates		M.D.	T.V.D.	Rect Coordinates		Bearing	Dist	Dist
7200.0	6967.9	913.2S	1120.9W	7108.8	7007.3	762.1S	97.7W	81.6	1035.1	1066.9
7300.0	7062.7	932.0S	1146.5W	7206.2	7101.3	787.7S	98.0W	82.2	1059.1	1092.1
7400.0	7157.6	950.8S	1172.1W	7305.3	7197.9	809.6S	98.6W	82.5	1083.5	1117.1
7500.0	7252.4	969.5S	1197.7W	7400.9	7291.5	828.8S	99.6W	82.7	1107.8	1141.2
7600.0	7347.2	988.3S	1223.3W	7498.4	7387.2	847.5S	100.4W	82.9	1132.4	1166.9
7700.0	7442.1	1007.0S	1248.9W	7608.7	7495.3	869.5S	102.1W	83.2	1156.2	1192.3
7800.0	7536.9	1025.8S	1274.5W	7690.1	7575.0	886.4S	103.6W	83.2	1179.8	1217.0
7900.0	7631.7	1044.6S	1300.1W	7777.1	7660.2	903.5S	103.9W	83.3	1204.8	1240.6
8000.0	7726.6	1063.3S	1325.7W	7890.8	7771.8	925.7S	104.9W	83.6	1229.4	1264.3
8100.0	7821.4	1082.1S	1351.3W	7990.5	7869.7	944.3S	106.4W	83.7	1253.4	1289.9
8200.0	7916.2	1100.8S	1376.9W	8109.5	7986.0	969.3S	109.4W	84.1	1276.2	1315.3
8300.0	8011.0	1119.6S	1402.5W	8183.9	8058.0	987.7S	110.8W	84.2	1299.3	1340.4
8400.0	8105.9	1138.4S	1428.1W	8267.1	8138.2	1010.0S	110.8W	84.4	1323.9	1365.2
8500.0	8200.7	1157.1S	1453.7W	8370.7	8237.8	1038.3S	110.7W	84.9	1348.8	1388.6
8600.0	8295.5	1175.9S	1479.3W	8472.0	8335.1	1066.6S	111.2W	85.4	1373.1	-
8700.0	8390.4	1194.6S	1504.9W	8577.8	8436.2	1098.0S	111.6W	86.0	1397.4	-
8800.0	8485.2	1213.4S	1530.5W	8692.7	8545.4	1133.6S	113.6W	86.8	1420.4	-
8900.0	8580.0	1232.2S	1556.1W	8764.0	8612.9	1156.5S	115.2W	87.0	1443.3	-
8973.8	8650.0	1246.0S	1575.0W	8764.0	8612.9	1156.5S	115.2W	86.5	1463.0	-

All data is in feet unless otherwise stated.

Casing dimensions are not included.
Coordinates from slot #1 and TVD from rotary table.
Vertical section is from N 0.00 E 0.00 on azimuth 233.76 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

Marathon Oil Company
Indian Hills Unit #58

slot #1
INDIAN BASIN
Eddy County New Mexico

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

by
Baker Hughes INTEQ

Your ref : Plan 2
Our ref : prop4120
License :

Date printed : 15-Jan-2004
Date created : 15-Jan-2004
Last revised : 15-Jan-2004

Field is centred on 445535.500,521332.200,-105.00000,N
Structure is centred on 442762.000,536769.000,-105.00000,N

Slot location is n32 28 31.990,w104 31 8.182
Slot Grid coordinates are N 536769.000, E 442762.000
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

Marathon Oil Company
Indian Hills Unit #58,slot #1
INDIAN BASIN,Eddy County New Mexico

PROPOSAL LISTING Page 1
Your ref : Plan 2
Last revised : 15-Jan-2004

Measured Depth	Inclin Degrees	Azimuth Degrees	True Vert Depth	RECTANGULAR COORDINATES		Dogleg Deg/100ft	Vert Sect	GRID COORDS Easting	Northing
0.00	0.00	135.00	0.00	0.00N	0.00E	0.00	0.00	442762.00	536769.00
500.00	0.00	135.00	500.00	0.00N	0.00E	0.00	0.00	442762.00	536769.00
1000.00	0.00	135.00	1000.00	0.00N	0.00E	0.00	0.00	442762.00	536769.00
1500.00	0.00	135.00	1500.00	0.00N	0.00E	0.00	0.00	442762.00	536769.00
1900.00	0.00	135.00	1900.00	0.00N	0.00E	0.00	0.00	442762.00	536769.00
2000.00	2.50	135.00	1999.97	1.54S	1.54E	2.50	-0.33	442763.54	536767.46
2100.00	5.00	135.00	2099.75	6.17S	6.17E	2.50	-1.33	442768.17	536762.83
2200.00	7.50	135.00	2199.14	13.86S	13.86E	2.50	-2.99	442775.86	536755.14
2300.00	6.67	154.24	2298.39	23.71S	21.00E	2.50	-2.92	442783.00	536745.29
2400.00	6.72	175.81	2397.73	34.77S	23.95E	2.50	1.24	442785.95	536734.23
2500.00	7.63	194.57	2496.96	47.03S	22.71E	2.50	9.49	442784.71	536721.97
2600.00	9.15	208.24	2595.89	60.47S	17.28E	2.50	21.81	442779.28	536708.53
2700.00	11.03	217.68	2694.35	75.05S	7.66E	2.50	38.19	442769.66	536693.95
2800.00	13.12	224.28	2792.13	90.76S	6.12W	2.50	58.58	442755.88	536678.24
2900.00	15.33	229.05	2889.06	107.55S	24.03W	2.50	82.96	442737.97	536661.45
3000.00	17.62	232.63	2984.95	125.40S	46.05W	2.50	111.27	442715.95	536643.60
3038.11	18.50	233.77	3021.19	132.48S	55.51W	2.50	123.09	442706.49	536636.52
3500.00	18.50	233.77	3459.20	219.13S	173.75W	0.00	269.68	442588.25	536549.87
4000.00	18.50	233.77	3933.35	312.93S	301.75W	0.00	428.37	442460.25	536456.07
4500.00	18.50	233.77	4407.50	406.73S	429.74W	0.00	587.05	442332.26	536362.27
5000.00	18.50	233.77	4881.65	500.53S	557.74W	0.00	745.74	442204.26	536268.47
5500.00	18.50	233.77	5355.80	594.32S	685.73W	0.00	904.42	442076.27	536174.68
6000.00	18.50	233.77	5829.95	688.12S	813.73W	0.00	1063.11	441948.27	536080.88
6500.00	18.50	233.77	6304.10	781.92S	941.73W	0.00	1221.80	441820.27	535987.08
7000.00	18.50	233.77	6778.25	875.72S	1069.72W	0.00	1380.48	441692.28	535893.28
7500.00	18.50	233.77	7252.40	969.52S	1197.72W	0.00	1539.17	441564.28	535799.48
8000.00	18.50	233.77	7726.55	1063.32S	1325.72W	0.00	1697.85	441436.28	535705.68
8500.00	18.50	233.77	8200.70	1157.12S	1453.71W	0.00	1856.54	441308.29	535611.88
8973.79	18.50	233.77	8650.00	1246.00S	1575.00W	0.00	2006.91	441187.00	535523.00

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 2008.27 on azimuth 231.65 degrees from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 233.76 degrees.
Grid is mercator - New Mexico East (3001).
Grid coordinates in FEET and computed using the Clarke - 1866 spheroid
Presented by Baker Hughes INTEQ

Comments in wellpath

MD	TVD	Rectangular Coords.		Comment
8973.79	8650.00	1246.00S	1575.00W	BHL

Targets associated with this wellpath

Target name	Geographic Location	T.V.D.	Rectangular Coordinates		Revised
BHL		8650.00	1246.00S	1575.00W	15-Jan-2004

MARATHON

BAKER HUGHES

INTEQ

Marathon Oil Company

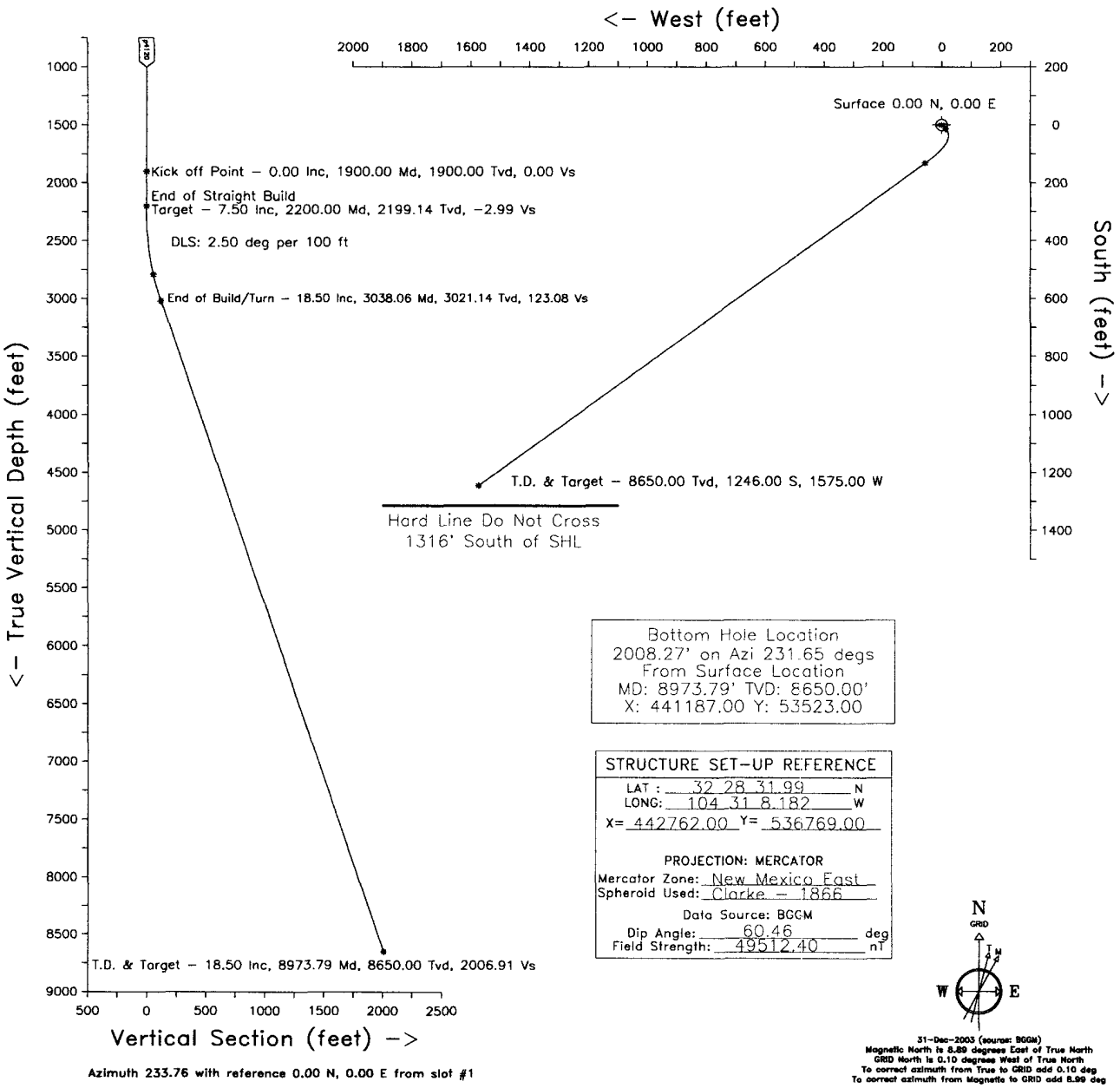
Structure : Indian Hills Unit #58 Slot : slot #1

Field : INDIAN BASIN Location : Eddy County New Mexico

Created by: danf
Date plotted : 15-Jan-2004
Plot Reference is Plan 2.
Coordinates are in feet reference slot #1.
True Vertical Depths are reference rotary table.
58p2pp
--- Baker Hughes INTEQ ---

WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100
Tie on	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00
KOP	1900.00	0.00	135.00	1900.00	0.00	0.00	0.00	0.00
Target End of Straight	2200.00	7.50	135.00	2199.14	-13.86	13.86	-2.99	2.50
End of Build/Turn	3038.06	18.50	233.76	3021.14	-132.46	-55.52	123.08	2.50
T.D. & Target BHL	8973.79	18.50	233.76	8650.00	-1246.00	-1575.00	2006.91	0.00



Bottom Hole Location
2008.27' on Azi 231.65 degs
From Surface Location
MD: 8973.79' TVD: 8650.00'
X: 441187.00 Y: 53523.00

STRUCTURE SET-UP REFERENCE

LAT : 32 28 31.99 N
LONG: 104 31 8.182 W
X= 442762.00 Y= 536769.00

PROJECTION: MERCATOR
Mercator Zone: New Mexico East
Spheroid Used: Clarke - 1866
Data Source: BGGM
Dip Angle: 60.46 deg
Field Strength: 49512.40 nT

31-Dec-2003 (source: BGGM)
Magnetic North is 8.89 degrees East of True North
GRID North is 0.10 degrees West of True North
To correct azimuth from True to GRID add 0.10 deg
To correct azimuth from Magnetic to GRID add 8.99 deg

April 13, 2004

Marathon Oil Company
P. O. Box 3487
Houston, Texas 77253-3487

Attention: **Mark Mick**
Operations Engineer
msmick1@yahoo.com

Administrative Order NSL-4755-B (BHL) (SD)

Dear Mr. Mick:

Reference is made to the following: **(i)** your application filed with the New Mexico Oil Conservation Division ("Division") on March 11, 2004 (***administrative application reference No. pMES0-409128991***); and **(ii)** the Division's records in Santa Fe, including the files on Division Administrative Orders NSL-4755 (BHL) and NSL-4755-A (BHL) (SD): all concerning Marathon Oil Company's ("Marathon") request for an exception to Rule 2 (b) of the "*Special Rules and Regulations for the Indian Basin-Upper Pennsylvanian Associated Pool*", as promulgated by New Mexico Oil Conservation Division ("Division") Order Nos. R-9922, R-9922-A, R-9922-B, R-9922-C, R-9922-D, and R-9922-E and the "*General Rules and Regulations for the Associated Oil and Gas Pools of Northwest New Mexico and Southeast New Mexico,*" as promulgated by Division Order No. R-5353, as amended, for its proposed Indian Hills Unit Well No. 58 to be drilled as an upper Pennsylvanian infill well to an unorthodox subsurface location within an existing standard 343.86-acre lay-down spacing and proration unit comprising Lots 1 through 8 (S/2 equivalent) of Section 17, Township 21 South, Range 24 East, NMPM, Indian Basin-Upper Pennsylvanian Associated Pool (**33685**), Eddy County, New Mexico.

This unit is currently simultaneously dedicated to Marathon's:

(i) Indian Hills Unit Well No. 42 (**API No. 30-015-32355**), located on the surface 475 feet from the North line and 2522 feet from the East line (Lot 2/Unit B) of Section 20, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, and completed within the Indian Basin-Upper Pennsylvanian Associated Pool at an unorthodox sub-surface location within Lot 8 (SE/4 SE/4 equivalent - Unit P) of Section 17, see Division Administrative Order NSL-4755 (BHL), dated July 3, 2002; and

(ii) Indian Hills Unit Well No. 52 (**API No. 30-015-32805**), located on the surface 1265 feet from the South line and 2073 feet from the East line (Lot 7/Unit O) of Section 17, and completed within the Indian Basin-Upper Pennsylvanian Associated Pool at an unorthodox sub-surface infill location within Lot 7 (SW/4 SE/4 equivalent - Unit O) of Section 17, see Division Administrative Order NSL-4755-A (BHL) (SD), dated May 22, 2003.

It is the Division's understanding that Marathon's proposed Indian Hills Unit Well No. 58, because of topographic reasons and to utilize the same well pad as its above-described Indian Hills Unit Well No. 52, will be spud at a surface location 1288 feet from the South line and 2046 feet from the East line (Lot 7/Unit O) of Section 17, and drilled directionally to the southwest to a targeted-bottomhole location at an approximate depth 8,650 feet (TVD) 70 feet from the South line and 1700 feet from the West line (Lot 6/Unit N) of Section 17. The wellbore is to intersect the top of the Upper-Pennsylvanian interval at an approximate depth of 7,919 feet (TVD) 212 feet from the South line and 1880 feet from the West line (Lot 6/Unit N) of Section 17. The proposed well will be unorthodox in that the entire producing interval will be closer then the standard setback distance of 660 from the South line of Section 17. Further, this bottom-hole location has been chosen by Marathon to optimize reservoir drainage and minimize geological risk.

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

By the authority granted me under the provisions of Division Rule 104.F (2) and the applicable provisions of the special rules governing the Indian Basin-Upper Pennsylvanian Associated Pool, the above-described unorthodox sub-surface location for the Indian Hills Unit Well No. 58 within the S/2 equivalent of Section 17 is hereby approved.

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

Marathon is hereby authorized to simultaneously dedicate production attributed to the Indian Basin-Upper Pennsylvanian Associated Pool from the aforementioned Indian Hills Unit Wells No. 42, 52, and 58. Furthermore, Marathon is permitted to produce the allowable assigned the subject 343.86-acre spacing and proration unit from all three wells in any proportion.

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

Sincerely,

Michael E. Stogner
Engineer/Hearing Officer

MES/ms

cc: New Mexico Oil Conservation Division - Artesia
U. S. Bureau of Land Management – Carlsbad
File: NSL-4755 (BHL)
NSL-4755-A (BHL) (SD)