12/20/96	1/9/97	MS	KV	NSL

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

ADMINISTRATIVE APPLICATION COVERSHEET

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

Application Acronyms:

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

Marathon

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DEC 20 1996
OIL CONSERVATION DIVISION

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

[A] Location - Spacing Unit - Directional Drilling

☒ NSL ☐ NSP ☐ DD ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

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

☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

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

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

[B] ☐ Offset Operators, Leaseholders or Surface Owner

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

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

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

[F] ☐ Waivers are Attached

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

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

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

W. J. Dueease	Walter J. Duncan	Drilling Superintendent	12/18/96
Print or Type Name	Signature	Title	Date

Mid-Continent Region
Production United States

Marathon Oil Company

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

December 19, 1996

NSL-2825.27

Energy Minerals and Natural Resources Dept.
Oil Conservation Division
2040 South Pacheo
Santa Fe, NM 87505
Attn: Mr. M. E. Stogner

Re: Application for Administrative Approval
For Non-Standard Location
North Indian Basin Unit #34
660' FSL & 660' FEL
Sec. 4, T-21-S, R-23-E
Eddy County, New Mexico

Dear Mr. Stogner:

Administrative approval is requested for an Upper Penn and Morrow test in the NIBU 34. The well is staked at 660' from the South line and 660' from the East line of Section 4, T-21-S, R-23-E and is an unorthodox location for the Upper Penn. The location is selected based on the geological constraints in the Upper Penn. This location is orthodox for the Morrow.

The Indian Basin field is bounded to the Northwest by limestone, non-reservoir rock. This is shown by the tan colored area on the Canyon structure map in Exhibit 1. The gas field produces from dolomite reservoir rock to the East and South. Section 4, T-21-S, R-23-E is located along the limestone/dolomite transition. The unorthodox location for the NIBU 34 is needed to maximize the potential to intersect reservoir dolomite and develop the reserves in Section 4.

Exhibit 2 illustrates the limestone-dolomite transition in cross section. Cross section A-A' shows that two wells drilled in Section 8, T-21-S, R-23-E intersected all limestone. A third well drilled to the East across the Limestone/Dolomite transition intersected reservoir dolomite (refer to Exhibit 1). A similar case can be made for the NIBU 34 and is illustrated by cross section B-B'on Exhibit 2. The orthodox well, NIBU Gas Com. No. 6, encountered limestone. The interpreted limestone/dolomite transition is to the Southeast of NIBU Gas Com. No. 6 as shown on the Canyon structure map of Exhibit 1. A well located in the SE/SE of Section 4 will have the best probability to encounter dolomite and develop the reserves on the Section 4 lease.

The NIBU 34, Section 4, T-21-S, R-23-E, is unorthodox to three Marathon Oil Company operated North Indian Basin Unit leases, S/2 Section 3, Section 9, and Section 10, T-21-S, R-23-E. Marathon is its only affected offset operator to this proposed non-standard location.

Also enclosed please find an approved Application to Drill and Lease plat indicating all affected offset acreage. If anything additional is needed, please feel free to call me at 800/351-1417.

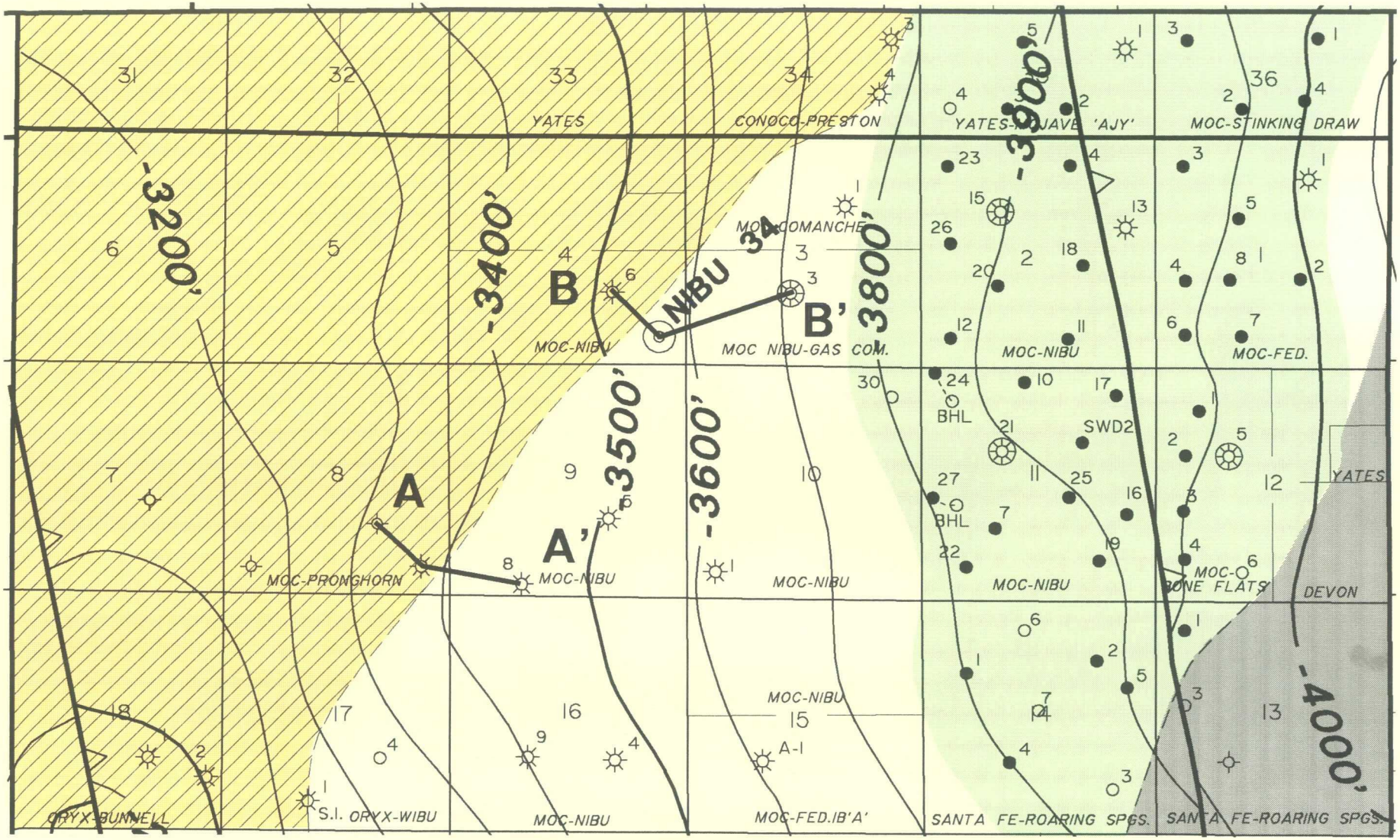
Very truly yours,

Walter J. Dueease
MARATHON OIL COMPANY

WJD/dt
h:\dueease\nibu34.ltr

R 23 E

T 21 S



NON-RESERVOIR

UPPER PENN. OIL WELL

UPPER PENN. GAS WELL

MORROW GAS WELL

0 1/2 1

MILE

MARATHON OIL COMPANY
MID-CONTINENT REGION

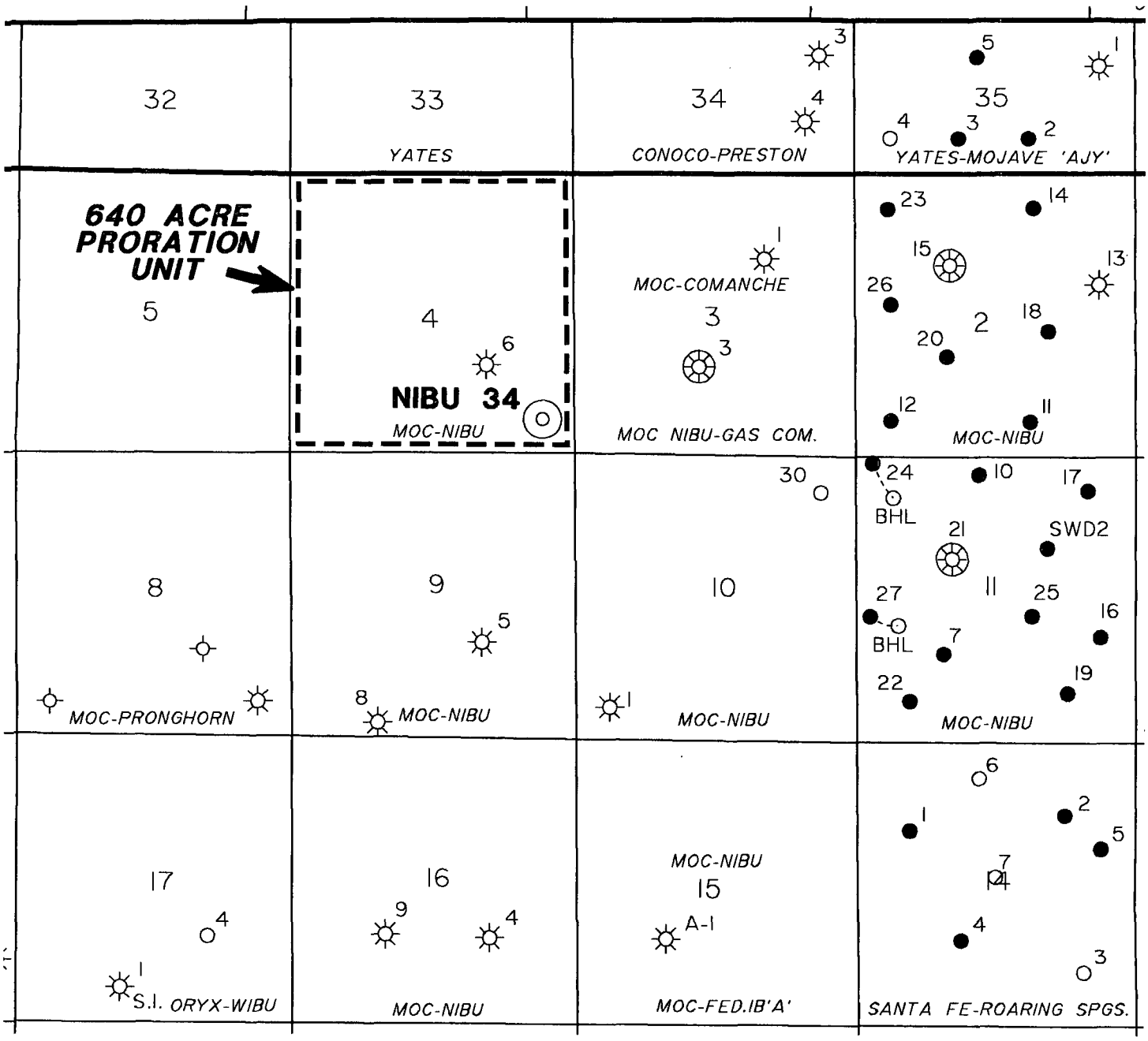
INDIAN BASIN FIELD AREA

EDDY COUNTY, NEW MEXICO

TOP CANYON STRUCTURE

C.I.: 100'

R 23 E



● UPPER PENN. OIL WELL

☼ UPPER PENN. GAS WELL

◎ MORROW GAS WELL

0 1/2 1

MILE

MARATHON OIL COMPANY
MID-CONTINENT REGION

INDIAN BASIN FIELD AREA

EDDY COUNTY, NEW MEXICO

OPERATOR COPY

Form 3160-3
(July 1992)

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

1a. TYPE OF WORK: DRILL ☐ DEEPEN ☐

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

2. NAME OF OPERATOR: Marathon Oil Company

3. ADDRESS AND TELEPHONE NO.: P.O. Box 552, Midland, TX 79702 — 915/687-8327

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FSL & 660' FEL
At proposed prod. zone: 660' FSL & 660' FEL

5. LEASE DESIGNATION AND SERIAL NO.: NM05607

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME: NORTH INDIAN BASIN

8. FARM OR LEASE NAME, WELL NO.: N. INDIAN BASIN U. #34

9. API WELL NO.:

10. FIELD AND POOL, OR WILDCAT: N. INDIAN BASIN (MORROW, U. PE

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 4, T21S, R23E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 MILES S.W. OF LAKEWOOD, NM

12. COUNTY OR PARISH: EDDY — 13. STATE: NM

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
1980'	5760	640
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	9,600'	ROTARY

21. ELEVATIONS (Show whether DF,RT, GR, etc.): 3862' G.L.

22. APPROX. DATE WORK WILL START*: ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM — DESIGNATED WATER BASIN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	16"	50"	40'	CONDUCTOR-REDI-MIX TO SURFACE
12 1/4"	9 5/8"	36	1800'	1000 - CIRCULATE TO SURFACE
8 3/4"	7"	23,26	9,600'	1300 - CIRCULATE TO SURFACE

See attached Multipoint and Drilling Program for specific details.

WELL IS PROPOSED INDIAN BASIN (MORROW), INDIAN BASIN (UPPER PENN) TEST.

#18 DISTANCE TO MORROW WELL 5280' - NIBU #30 IN NE/4, NE/4 SEC. 10
DISTANCE TO U. PENN WELL - 2950' - NIBU GAS COM #3 @ NE/4, SW/4 SEC. 3

THIS PROPOSED WELL IS A NON STANDARD LOCATION FOR THE UPPER PENN.
AN APPLICATION WILL BE FILED WITH THE NMOCD.

SUBJECT TO LIKE APPROVAL BY STATE
FOR UNORTHODOX LOCATION

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

RECEIVED
96 NOV 12 9 47 AM

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 Walter J. Duncan FOR DON — TITLE Drilling Superintendent — DATE 11/6/96

(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 Tony L Ferguson — TITLE ADM, Minerals — DATE 12/2/96

*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.

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

RECEIVED
NOV 12 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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		North Indian Basin (Morrow, North Indian Basin

Property Code	Property Name	Well Number
	NORTH INDIAN BASIN UNIT	34

OGRID No.	Operator Name	Elevation
	MARATHON OIL COMPANY	3862'

Surface Location

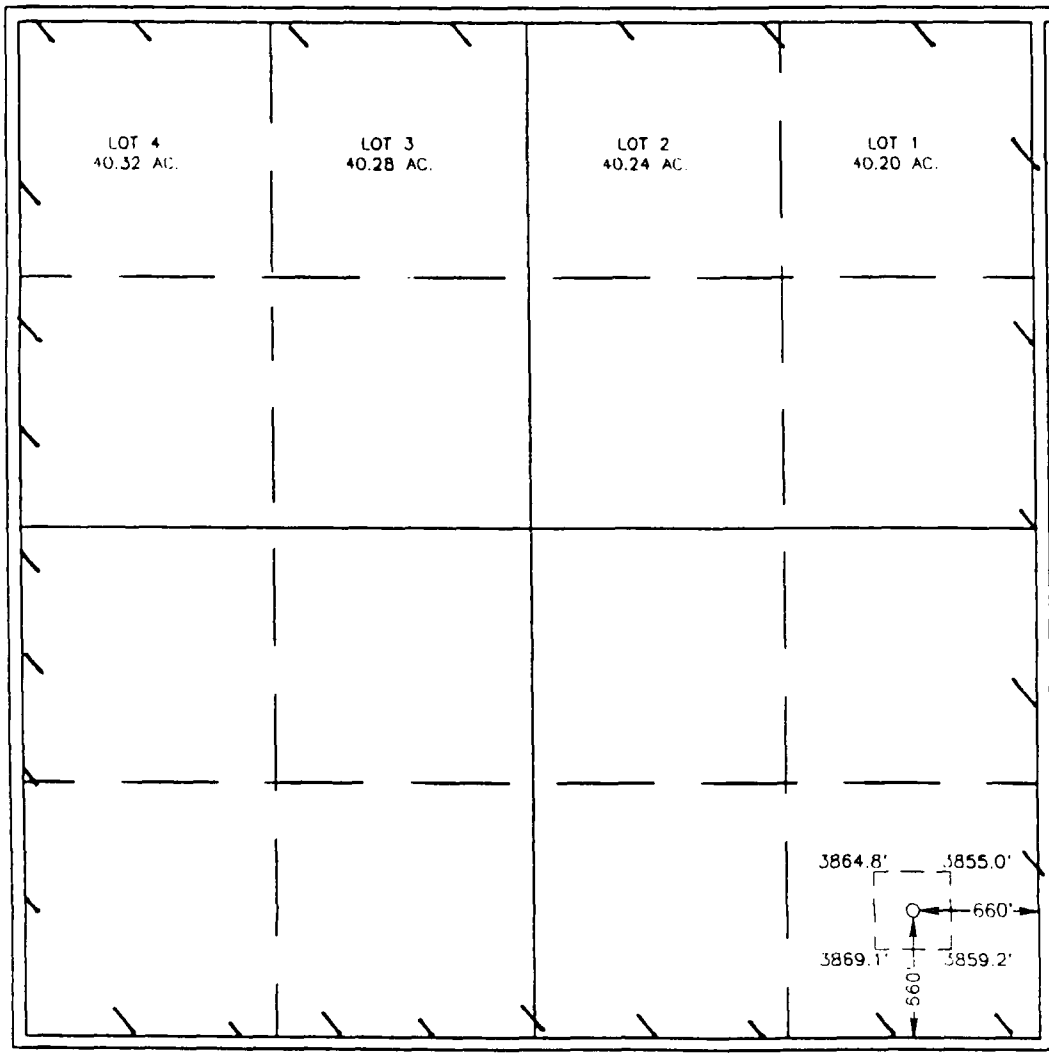
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	4	21 S	23 E		660	SOUTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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.

Walter Duncan
Signature

D. P. Nordt
Printed Name

Drilling Superintendent
Title

November 7, 1996
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.

OCTOBER 25, 1996
Date Surveyed

CDG

Signature & Seal of Professional Surveyor

NEW MEXICO
12797
96-11-1401
REGISTERED PROFESSIONAL SURVEYOR

10-31-96

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. JONES 7977

Thirteen Point Surface Use Plan
MARATHON OIL COMPANY

North Indian Basin Unit #34
Sec. 4, T-21-S, R-23-E
Eddy County, New Mexico

---

1. Existing Roads: Refer to Vicinity Lease Map.

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

   b. To reach the location from Carlsbad, New Mexico: Follow Hwy.. 285 North of Carlsbad 14 miles. Turn West on Queen's highway (NM 137) for 8.8 miles. Turn right on NM 401. Follow NM 401 2.2 miles then left 1.4 miles on existing lease road then north .1 miles into location.

   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.

   Access will be by existing lease roads. Construction plans will require blading and rolling the road and pad. An access road of approximately 300' will be required. The access road will enter the drilling pad on the Southeast corner. The drilling location will have a V-door facing East.

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 six gas wells operated by Marathon and Santa Fe within a one-mile radius of the proposed location. These locations have production facilities including separators, condensate, oil, water starage tanks. Marathon and Santa Fe operates a variety of dehydrators, meter runs, and several gathering lines in the one-mile radius.

   b. New Facilities: The proposed location will have a separator and gas sales line. The actual equipment and its configuration will be determined after the well is completed.

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

5. Location and Type of Water Supply:

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

   b. The water will be trucked by a contractor over existing roads to the well location. No new construction will be required on/along the water route.

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

6. Source of Construction Materials:

   a. Construction materials will 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.

   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 toolpusher.

9. Wellsite Layout:

   a. The wellpad layout shows the drillsite layout as staked. Cross-sections have been drafted to visualize the planned cuts and fills across the location. 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 (8 mil material).

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 buried or 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. Revegetation will be accomplished by planting mixed grasses as per formula by BLM. Revegetation 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 drilling 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 revegetation will be done between July 15 and September 15.

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.

b. General topography: Shown on Vicinity Lease Map. The terrain at the wellsite 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 4-1/2 miles.

e. General location: Approximately 8.5 miles west of Lakewood, New Mexico.

f. Drainage: Internal

g. Surface Owner: The surface is owned by the Federal Government, the surface is leased for grazing to the Forrest Lee Residuary Trust.

12. Operator Representatives:

David Nordt
Drilling, Completion, & Workover Superintendent
P. O. Box 552
Midland, TX 79702
800/351-1417
915/682-1626

13. Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the proposed drillsite 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.

11/6-96
Date

W. J. Nordt
D. R. Nordt

DRILLING PROGRAM
MARATHON OIL COMPANY

North Indian Basin Unit #34

1. Estimated KB Elevation: 3878'

FORMATION	TOP MEASURED	TOP SUBSEA	BASE MEASURED	BASE SUBSEA	FLUID CONTENT
Queen	Surface	+3878'	650'	+3228'	water
San Andres	650'	+3228'	2250'	+1628'	water
Glorietta	2250'	+1628'	2355'	+578'	
Delaware	3300'	+578'	4300'	-422'	
Bone Spring	4300'	-422'	5950'	-2072'	oil gas
Wolfcamp	5950'	-2072'	7520'	-3642'	oil gas
B/Permian Shale	7520'.	-3642'	7530'	-3652'	
U. Penn	7530'	-3652'	7550'	-3672'	gas, oil, water
Penn Dolomite	7550'	-3672'	8500'	-4272'	gas, oil, water
T/Strawn	8150'	-4272'	8800'	-4922'	
T/Atoka	8800'	-4922'	9050'	-5172'	
T/Morrow	9050'	-5172'	9500'	-5622'	

FORMATION	EST SBHP PSIG	SBHP PPG EMW	EST SBHT DEG f	H2S PPM	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
Penn Dolomite	2164	9.0		5000	objective
Morrow	3460	9.2			Objective

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 200#/2000#, 11" 3M dual rams, choke manifold and mud cross, tested to 300#/3000#.

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 drillstring 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"	9.625"	36	K-55	8rd, STC	New
0	2800'	2800'	8.75"	7"	23	K-55	8rd, LTC	New
2800'	9600'	6800'	8.75"	7"	26	K-55	8rd, LTC	New

CASING STRING		DV DPTH	STG	LEAD TAIL	AMT SXS	TYPE CEMENT	YIELD CF/SX	WT. PPG.	TOC	ADDITIVES
9.625"	None	1	L	700	"C" Lite	1.99	12.4	Surf		10#/SK.Gilsonite, 3% $CACl_2$, 1/4# cello
9.625"			T	300	"C" Neat	1.32	14.8	Surf		2% CACl, 1/4# cello
7"	±5600'	1	L	500	"C" Lite	1.8	13.6	5600'		8 pps Silica, .6% Halad 9, 3% salt, 5 pps Gilsonite
7"		2	L	675	"C" Lite	1.91	12.8	5500'		5 pps, salt, 5 pps Gilsonite, 1/4 pps Cello
7"		2	T	100	"C" Neat	1.32	14.8	±1000'		

Each stage will be preceded by an appropriate mud flush. Actual production hole volumes will be based on the caliper volume plus 15% excess.

Centralizer Program:

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

7" Conventional centralizers middle of 1st joint, then every joint to 7500', and 1 centralizer every 4th joint thereafter to 1100'.

A. P. D. (cont.)
Thirteen Point Surface Use Plan
North Indian Basin Unit #34

5. Mud Program:

--DEPTH-- FROM	TO	MUD TYPE	WEIGHT (PPG)	VIS	WL CC	ADDITIVES	VISUAL MONTR.
0	1800'	air/mist		N/A	N/A	N/A Soap for mist	Reserve
1800'	5000'	fresh	8.5	28-32	N/C	Gel, caustic, H_2S Scavenger	Reserve
5000'	7200'	cut brine	9.0	32-36	N/C	Saturated brine	Reserve
7200'	9600'	cut brine	9.0	32-36	<20	Salt gel, starch, caustic	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

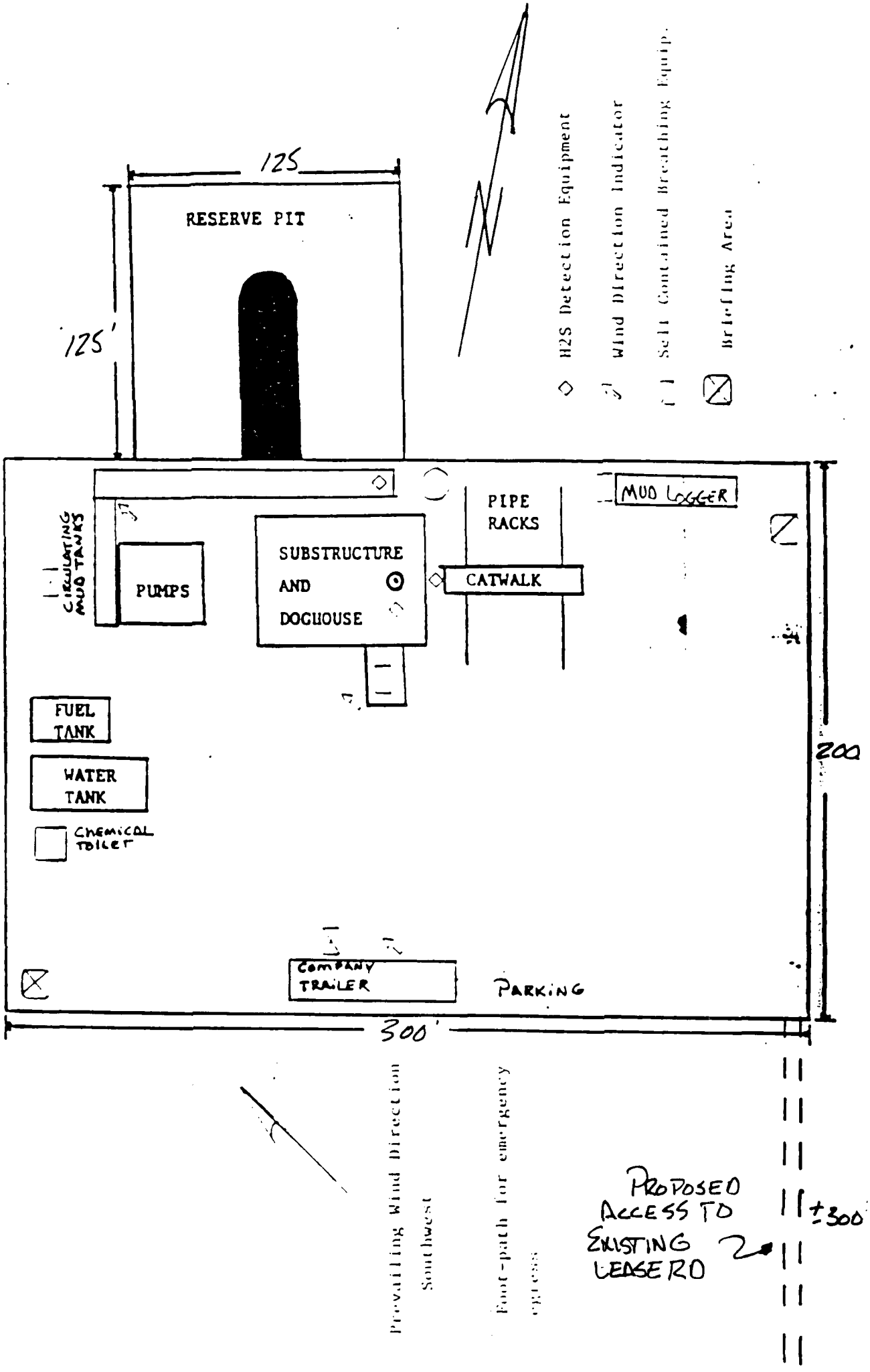
7. Abnormal Pressures, Temperatures or Potential Hazards:

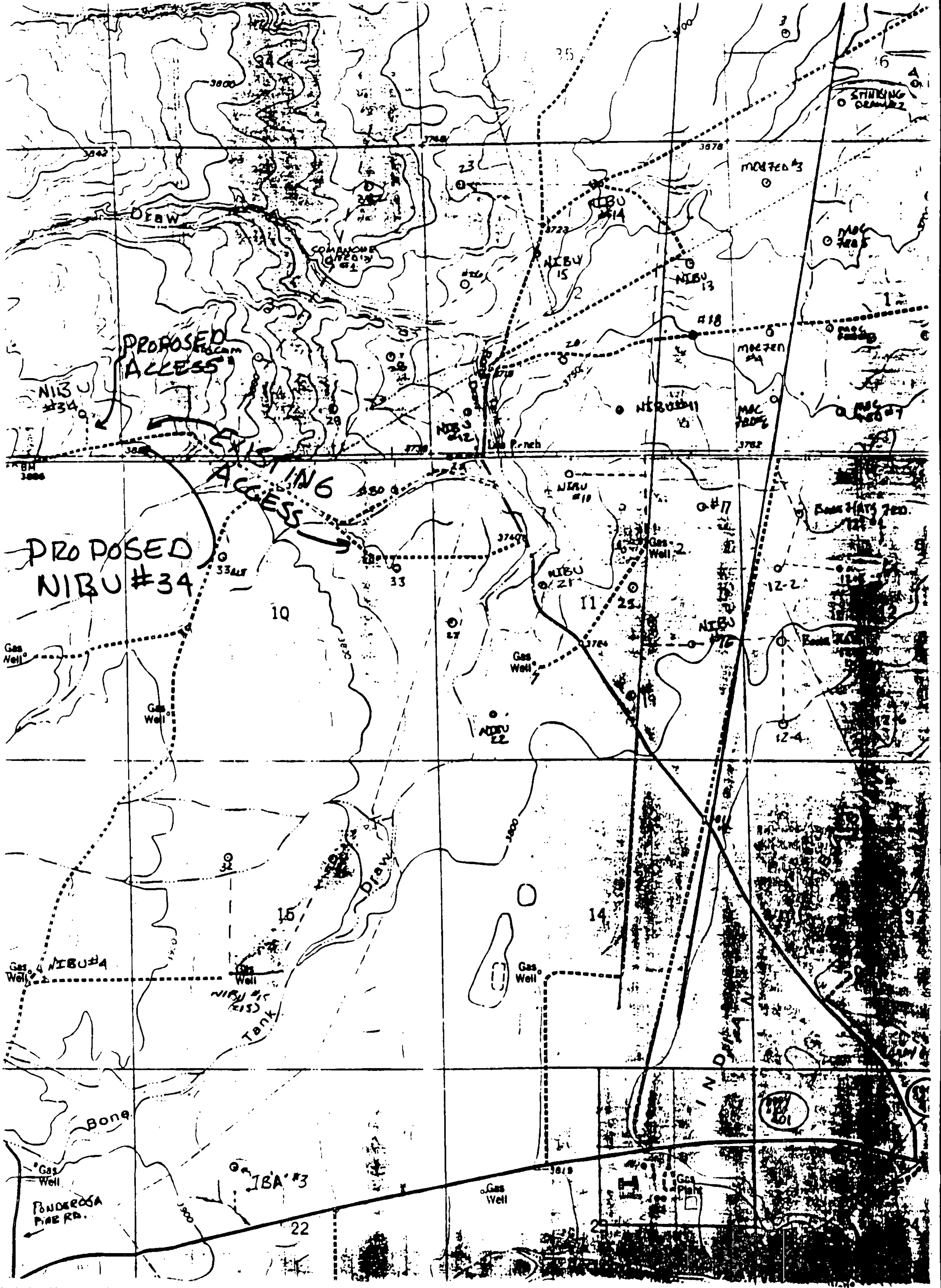
None anticipated. Possible H_2S in Cisco & Upper Penn. See H_2S Drilling Operations Plan.

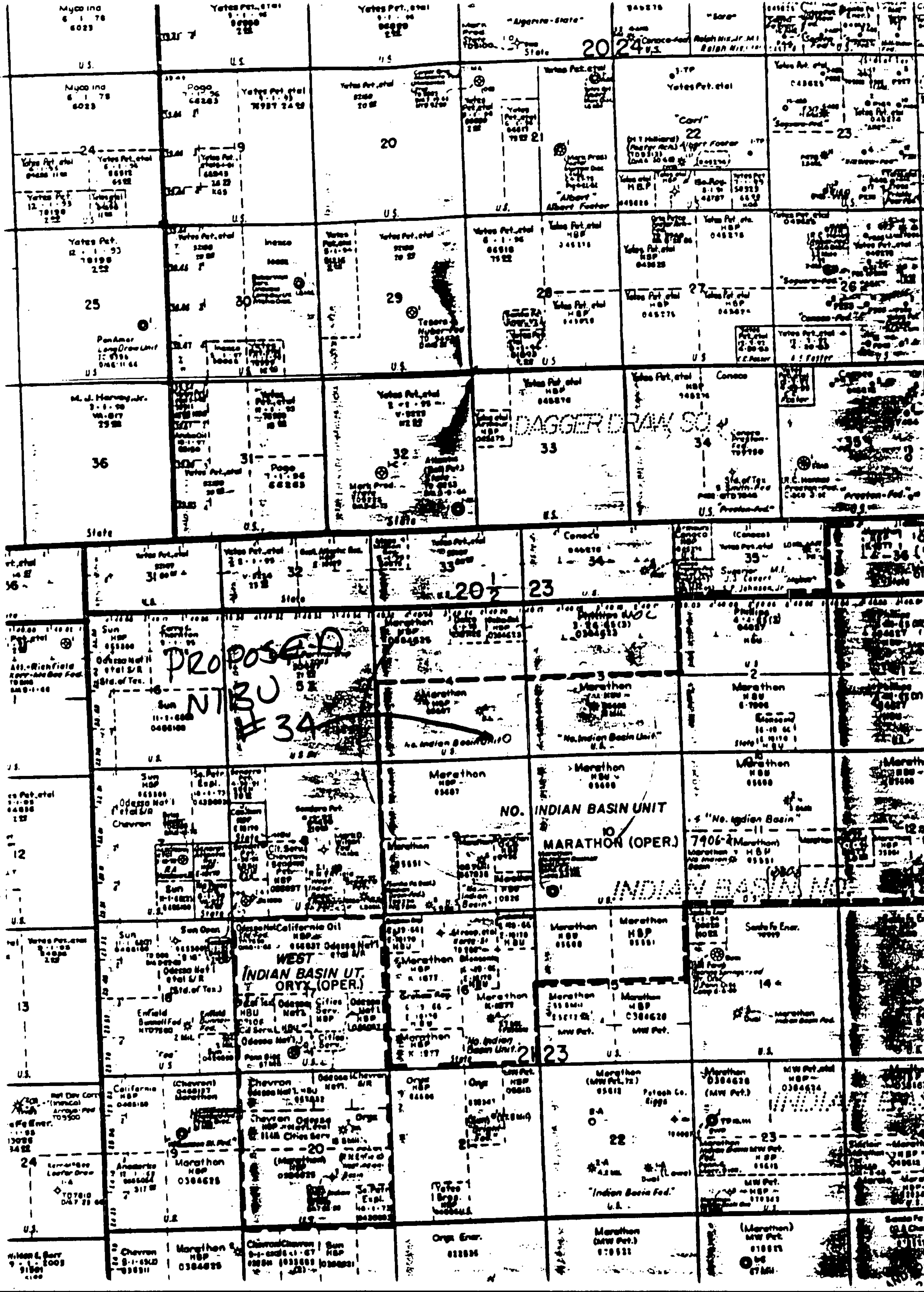
8. Other Information:

Anticipated Starting Date: As soon as possible.

Duration of Well: drilling - 18 days, completion - 10 days.


125
RESERVE PIT
125'
H2S Detection Equipment
Wind Direction Indicator
Self Contained Breathing Equip.
Briefing Area
MUD LOGGER
PIPE RACKS
CIRCULATING MUD TANKS
PUMPS
SUBSTRUCTURE AND DOGHOUSE
CATWALK
FUEL TANK
WATER TANK
CHEMICAL TOILET
COMPANY TRAILER
PARKING
300'
200
Prevailing Wind Direction
Southwest
Foot-path for emergency
egress
PROPOSED ACCESS TO EXISTING LEASE RD
±300


PROPOSED ACCESS
NIBU #34
EXISTING ACCESS
PROPOSED NIBU #34
Draw
NIBU 15
NIBU 13
NIBU 14
NIBU 21
NIBU 22
NIBU #11
NIBU #4
Gas Well
Tank
Draw
Bone
IBA #3
PONDEROSA PINE RD.
STINKING DRAW #2
12-2
12-4
10
11
14
15
22
33
32



PROPOSED
NIBU
#34
DAGGER DRAW, SO.
NO. INDIAN BASIN UNIT
MARATHON (OPER.)
WEST
INDIAN BASIN UT.
ORYX (OPER.)
"Indian Basin Fed."
"No. Indian Basin Unit"
Marathon
Yates Pet. etal
Conoco
Chevron
Odessa Nat'l
California Oil
Santa Fe Ener.
Sun
Enfield
Pogo
Anadarko
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24
20 1/2

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: N/A

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

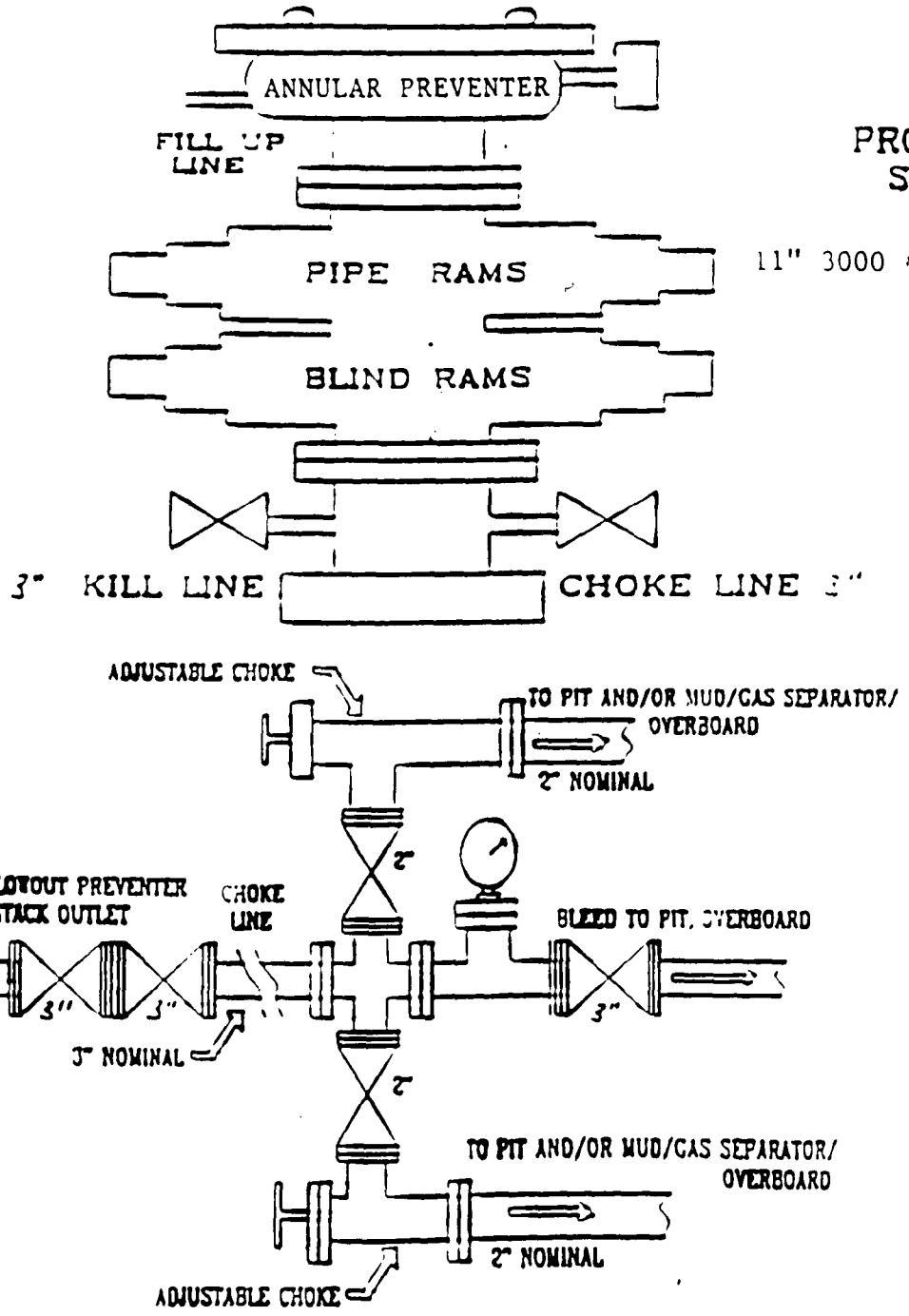
Drill Stem Testing Safety Rules are attached.

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

PRODUCTION STACK



SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

OPERATOR'S NAME MARATHON OIL COMPANY WELL NO. & NAME # 34 N. INDIAN BASIN
LOCATION 660' F S L & 660' F E L SEC. 4, T. 21S., R. 23E.
LEASE NO. NM-05607 COUNTY EDDY STATE NM

The special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 and 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( ) Lesser Prairie Chicken (Stips attached)
( ) San Simon Swale (Stips attached)
( ) Floodplain (Stips attached)
( ) Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(✓) The BLM will monitor construction of this drill site. Notify the (✓) Carlsbad Resource Area Office at (505) 887-6544 ( ) Hobbs Office at (505) 393-3612, at least 3 working days prior to commencing construction.

(✓) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately ____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

( ) Other

III. WELL COMPLETION REQUIREMENTS

( ) A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(✓) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at a depth of 1/2 inch) with the following seed mixture, in pounds of Pure Live Side (PLS), per acre.

( ) A. Seed Mixture 1 (Loamy Site)
Lehmanns Lovegrass (Eragrostis lehmannlana) 1.0
Side Oats Grass (Bouteloua curtipendula) 5.0
Sand Dropseed (Sporobolus cryptandrus) 1.0

( ) B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (Sporobolus cryptandrus) 1.0
Sand Lovegrass (Eragrostis trichodes) 1.0
Plains Bristlegrass (Setaria magrostachya) 2.0

(✓) C. Seed Mixture 3 (Shallow Sites)
Sideoats Grama (Boute curtipendula) 1.0
Lehmanns Lovegrass (Eragrostis lenmanniana) 1.0
or Boar Lovegrass (E. chloromalas)

( ) D. Seed Mixture 4 ("Gyp" Sites)
Alkali Sacaton (Sporobolus airoides) 1.0
Four-Wing Saltbush (Atriplex canescens) 5.0

Seeding should be done either late in the fall (September 15 - November 15, before freeze up) or early as possible the following spring to take advantage of available ground moisture.

( ) Other

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

1) Lined as specified above and,

2) A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and is capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to proceed by BLM.

TRASH PIT STIPS

All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Marathon Oil Company
Well No. 34 - North Indian Basin Unit
Location: 660' FSL & 660' FEL sec. 4, T. 21 S., R. 23 E.
Lease: NM-05607

I. DRILLING OPERATIONS REQUIREMENTS:

The Bureau of Land Management (BLM) is to be notified at (505) 887-6544 in sufficient time for a representative to witness:

1. Spudding

2. Cementing casing: 9-5/8 inch 7 inch

3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.

II. CASING:

1. 9-5/8 inch surface casing should be set at 1800 feet, below usable water and circulate cement to the surface. If cement does not circulate to the surface this BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. Minimum required fill of cement behind the 7 inch production casing is sufficient to tie back 200 feet into the 9-5/8 inch surface casing set at 1800 feet.

III. PRESSURE CONTROL:

1. Before drilling below the 9-5/8 inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.

3. After setting the 9-5/8 inch intermediate casing string and before drilling into the Wolfcamp formation, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

4. The results of the test will be reported to the BLM Carlsbad Resource Area office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.

IV. OTHER:

1. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the Cisco formation. A copy of the plan shall be posted at the drilling site.

2. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval of this office.

EXHIBIT A

BLM Serial Number: NM-05607

Company Reference: # 34 N. INDIAN BASIN UNIT

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
THE ROSWELL DISTRICT, BLM

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

/__/ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

/✓/ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

/__/ Flat-blading is authorized on segment(s) delineated on the attached map.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

/__/ 400 foot intervals.

/__/ ____ foot intervals.

/__/ locations staked in the field as per spacing intervals above.

/__/ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

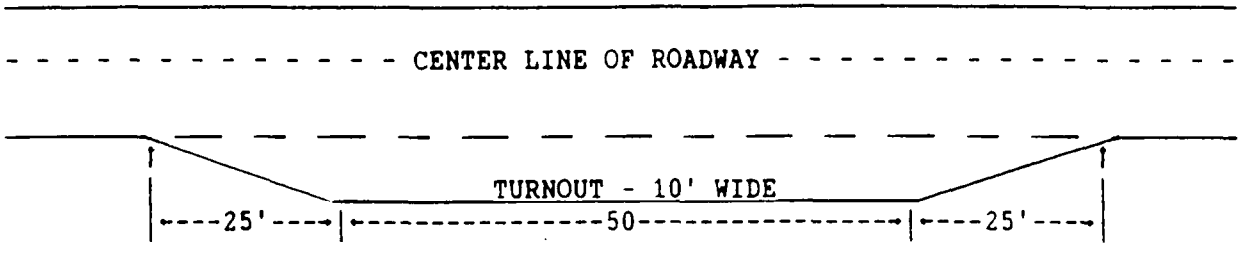
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval = $\frac{400}{4}$ + 100 = 200 feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

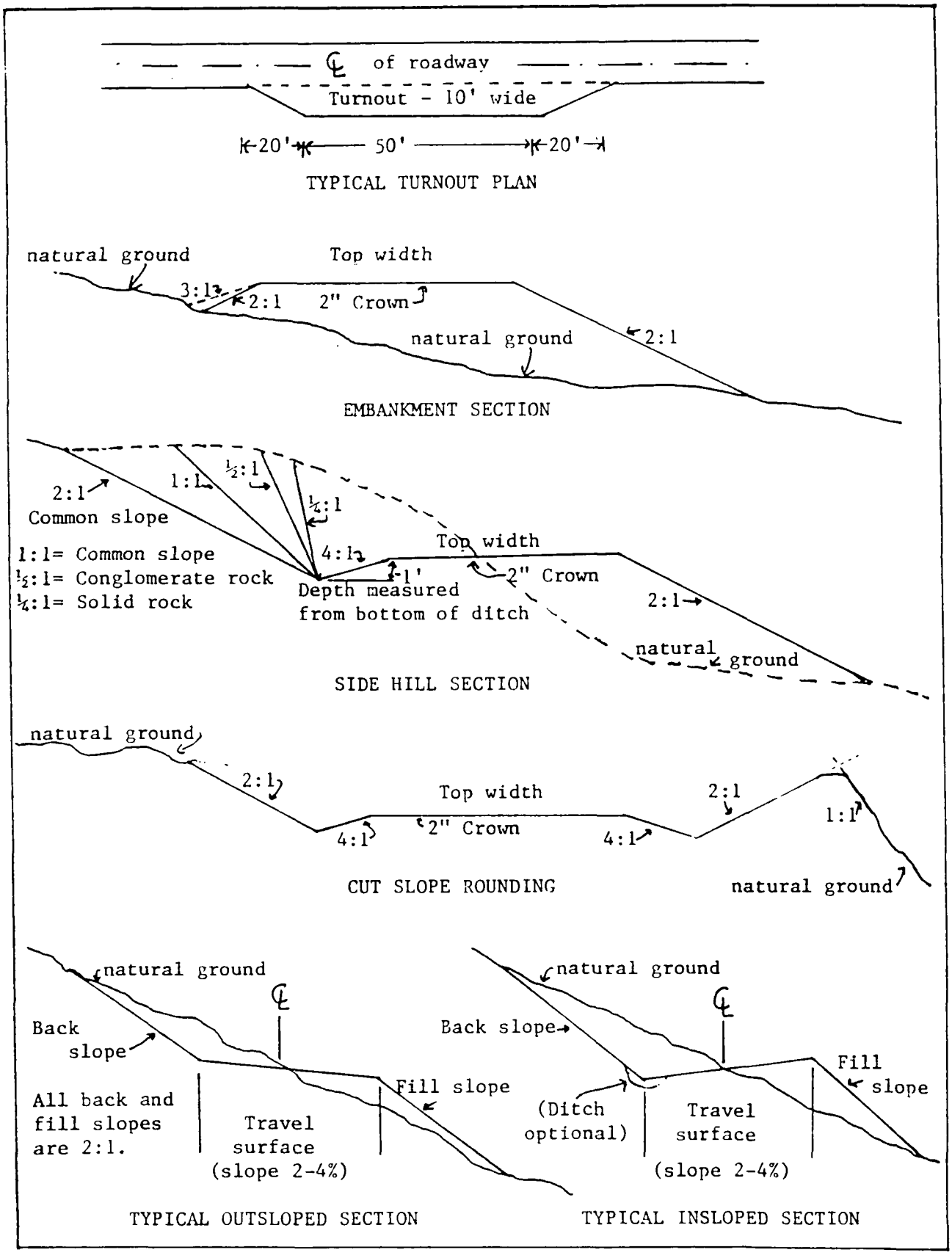
9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS: None.

FIGURE 1: CROSS-SECTIONS AND PLANS FOR TYPICAL ROAD CONSTRUCTION REPRESENTATIVE OF BLM RESOURCE, AND HIGHER CLASS, ROADS.

(Travel way, top width, driving surface, and travel surface are synonomous.)



INTENTIONAL OMISSIONS

The following document(s) have been intentionally omitted from this file due to the indicated reasons.

FILE # NSL 3759

DESCRIPTION OF OMITTED DOCUMENTS

OMITTED DOCUMENT	REASON OMITTED
EXHIBIT B 2 - Logs, MAPS, graphs	Too Large

OPERATOR COPY

Form 3160-3
(July 1992)

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.: NM05607

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☐ DEEPEN ☐

7. UNIT AGREEMENT NAME: NORTH INDIAN BASIN

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

8. FARM OR LEASE NAME, WELL NO.: N. INDIAN BASIN U. #34

2. NAME OF OPERATOR: Marathon Oil Company

9. API WELL NO.:

3. ADDRESS AND TELEPHONE NO.: P.O. Box 552, Midland, TX 79702 — 915/687-8327

10. FIELD AND POOL, OR WILDCAT: N. INDIAN BASIN (MORROW, U. PEN

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FSL & 660' FEL
At proposed prod. zone: 660' FSL & 660' FEL

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 4, T21S, R23E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 MILES S.W. OF LAKEWOOD, NM

12. COUNTY OR PARISH: EDDY — 13. STATE: NM

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
1980'	5760	640
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	9,600'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3862' G.L.

22. APPROX. DATE WORK WILL START*: ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM — UNDESIGNATED INDIAN BASIN

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	16"	50"	40'	CONDUCTOR-REDI-MIX TO SURFACE
12 1/4"	9 5/8"	36	1800'	1000 – CIRCULATE TO SURFACE
8 3/4"	7"	23,26	9,600'	1300 – CIRCULATE TO SURFACE

See attached Multipoint and Drilling Program for specific details.

WELL IS PROPOSED INDIAN BASIN (MORROW), INDIAN BASIN (UPPER PENN) TEST.

#18 DISTANCE TO MORROW WELL 5280' – NIBU #30 IN NE/4, NE/4 SEC. 10
DISTANCE TO U. PENN WELL – 2950' – NIBU GAS COM #3 @ NE/4, SW/4 SEC. 3

THIS PROPOSED WELL IS A NON STANDARD LOCATION FOR THE UPPER PENN.
AN APPLICATION WILL BE FILED WITH THE NMOCD.

SUBJECT TO LIKE APPROVAL BY STATE
FOR UNORTHODOX LOCATION

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

NOV 12 9 47 AM '96
RECEIVED

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 Walter J. Duncan FOR DAN — TITLE Drilling Superintendent — DATE 11/6/96

(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 Tony L Ferguson — TITLE ADM, Minerals — DATE 12/12/96

*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.

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

RECEIVED
NOV 12 9 46 AM '96

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		North Indian Basin (Morrow, North Indian Basin

Property Code	Property Name	Well Number
	NORTH INDIAN BASIN UNIT	34

OGRID No.	Operator Name	Elevation
	MARATHON OIL COMPANY	3862'

Surface Location

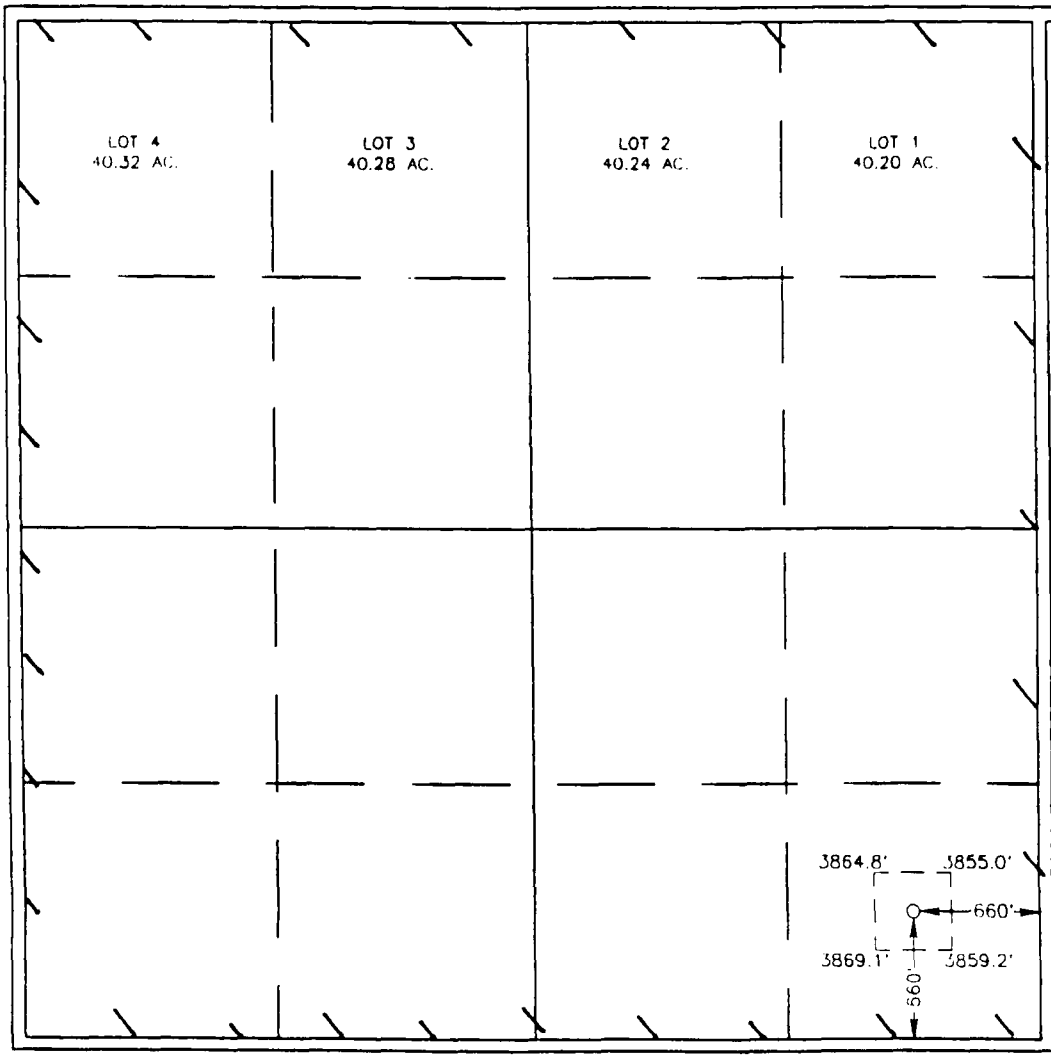
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	4	21 S	23 E		660	SOUTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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.

Walter Duncan
Signature

D. P. Nordt
Printed Name

Drilling Superintendent
Title

November 7, 1996
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.

OCTOBER 25, 1996
Date Surveyed

CDG

Signature & Seal of Professional Surveyor

Ronald J. Eidson 10-31-96

NEW MEXICO 9672 REGISTERED PROFESSIONAL SURVEYOR 96-11-1461

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239
GARY L. EIDSON 12641

Thirteen Point Surface Use Plan
MARATHON OIL COMPANY

North Indian Basin Unit #34
Sec. 4, T-21-S, R-23-E
Eddy County, New Mexico

---

1. Existing Roads: Refer to Vicinity Lease Map.

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

   b. To reach the location from Carlsbad, New Mexico: Follow Hwy.. 285 North of Carlsbad 14 miles. Turn West on Queen's highway (NM 137) for 8.8 miles. Turn right on NM 401. Follow NM 401 2.2 miles then left 1.4 miles on existing lease road then north .1 miles into location.

   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.

   Access will be by existing lease roads. Construction plans will require blading and rolling the road and pad. An access road of approximately 300' will be required. The access road will enter the drilling pad on the Southeast corner. The drilling location will have a V-door facing East.

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 six gas wells operated by Marathon and Santa Fe within a one-mile radius of the proposed location. These locations have production facilities including separators, condensate, oil, water starage tanks. Marathon and Santa Fe operates a variety of dehydrators, meter runs, and several gathering lines in the one-mile radius.

   b. New Facilities: The proposed location will have a separator and gas sales line. The actual equipment and its configuration will be determined after the well is completed.

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

5. Location and Type of Water Supply:

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

   b. The water will be trucked by a contractor over existing roads to the well location. No new construction will be required on/along the water route.

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

6. Source of Construction Materials:

   a. Construction materials will 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.

   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 toolpusher.

9. Wellsite Layout:

   a. The wellpad layout shows the drillsite layout as staked. Cross-sections have been drafted to visualize the planned cuts and fills across the location. 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 (8 mil material).

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 buried or 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. Revegetation will be accomplished by planting mixed grasses as per formula by BLM. Revegetation 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 drilling 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 revegetation will be done between July 15 and September 15.

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.

b. General topography: Shown on Vicinity Lease Map. The terrain at the wellsite 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 4-1/2 miles.

e. General location: Approximately 8.5 miles west of Lakewood, New Mexico.

f. Drainage: Internal

g. Surface Owner: The surface is owned by the Federal Government, the surface is leased for grazing to the Forrest Lee Residuary Trust.

A. P. D. (cont.)
Thirteen Point Surface Use Plan
North Indian Basin Unit #34

12. Operator Representatives:

David Nordt
Drilling, Completion, & Workover Superintendent
P. O. Box 552
Midland, TX 79702
800/351-1417
915/682-1626

13. Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the proposed drillsite 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.

11/6-96
Date

W. J. Nordt
D. R. Nordt

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DRILLING PROGRAM
MARATHON OIL COMPANY

North Indian Basin Unit #34

1. Estimated KB Elevation: 3878'

FORMATION	TOP MEASURED	TOP SUBSEA	BASE MEASURED	BASE SUBSEA	FLUID CONTENT
Queen	Surface	+3878'	650'	+3228'	water
San Andres	650'	+3228'	2250'	+1628'	water
Glorietta	2250'	+1628'	2355'	+578'	
Delaware	3300'	+578'	4300'	-422'	
Bone Spring	4300'	-422'	5950'	-2072'	oil gas
Wolfcamp	5950'	-2072'	7520'	-3642'	oil gas
B/Permian Shale	7520'.	-3642'	7530'	-3652'	
U. Penn	7530'	-3652'	7550'	-3672'	gas, oil, water
Penn Dolomite	7550'	-3672'	8500'	-4272'	gas, oil, water
T/Strawn	8150'	-4272'	8800'	-4922'	
T/Atoka	8800'	-4922'	9050'	-5172'	
T/Morrow	9050'	-5172'	9500'	-5622'	

FORMATION	EST SBHP PSIG	SBHP PPG EMW	EST SBHT DEG f	H2S PPM	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
Penn Dolomite	2164	9.0		5000	objective
Morrow	3460	9.2			Objective

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 200#/2000#, 11" 3M dual rams, choke manifold and mud cross, tested to 300#/3000#.

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 drillstring 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"	9.625"	36	K-55	8rd, STC	New
0	2800'	2800'	8.75"	7"	23	K-55	8rd, LTC	New
2800'	9600'	6800'	8.75"	7"	26	K-55	8rd, LTC	New

CASING STRING		DV DPTH	STG	LEAD TAIL	AMT SXS	TYPE CEMENT	YIELD CF/SX	WT. PPG.	TOC	ADDITIVES
9.625"	None	1	L	700	"C" Lite	1.99	12.4	Surf		10#/SK.Gilsonite, 3% $CACl_2$, 1/4# cello
9.625"			T	300	"C" Neat	1.32	14.8	Surf		2% CACl, 1/4# cello
7"	±5600'	1	L	500	"C" Lite	1.8	13.6	5600'		8 pps Silica, .6% Halad 9, 3% salt, 5 pps Gilsonite
7"		2	L	675	"C" Lite	1.91	12.8	5500'		5 pps, salt, 5 pps Gilsonite, 1/4 pps Cello
7"		2	T	100	"C" Neat	1.32	14.8	±1000'		

Each stage will be preceded by an appropriate mud flush. Actual production hole volumes will be based on the caliper volume plus 15% excess.

Centralizer Program:

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

7" Conventional centralizers middle of 1st joint, then every joint to 7500', and 1 centralizer every 4th joint thereafter to 1100'.

A. P. D. (cont.)
Thirteen Point Surface Use Plan
North Indian Basin Unit #34

5. Mud Program:

--DEPTH-- FROM	TO	MUD TYPE	WEIGHT (PPG)	VIS	WL CC	ADDITIVES	VISUAL MONTR.
0	1800'	air/mist		N/A	N/A	N/A Soap for mist	Reserve
1800'	5000'	fresh	8.5	28-32	N/C	Gel, caustic, H_2S Scavenger	Reserve
5000'	7200'	cut brine	9.0	32-36	N/C	Saturated brine	Reserve
7200'	9600'	cut brine	9.0	32-36	<20	Salt gel, starch, caustic	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

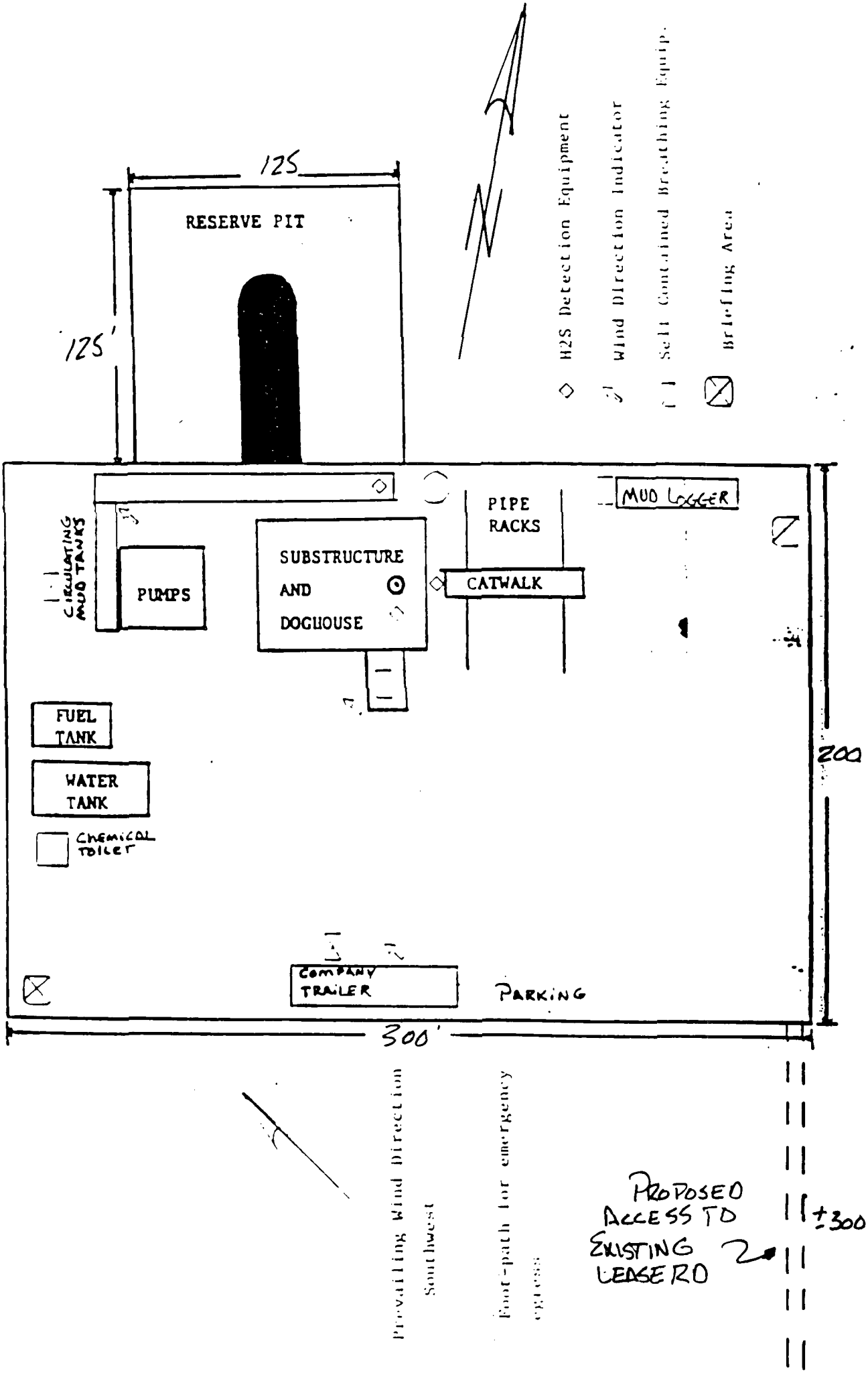
7. Abnormal Pressures, Temperatures or Potential Hazards:

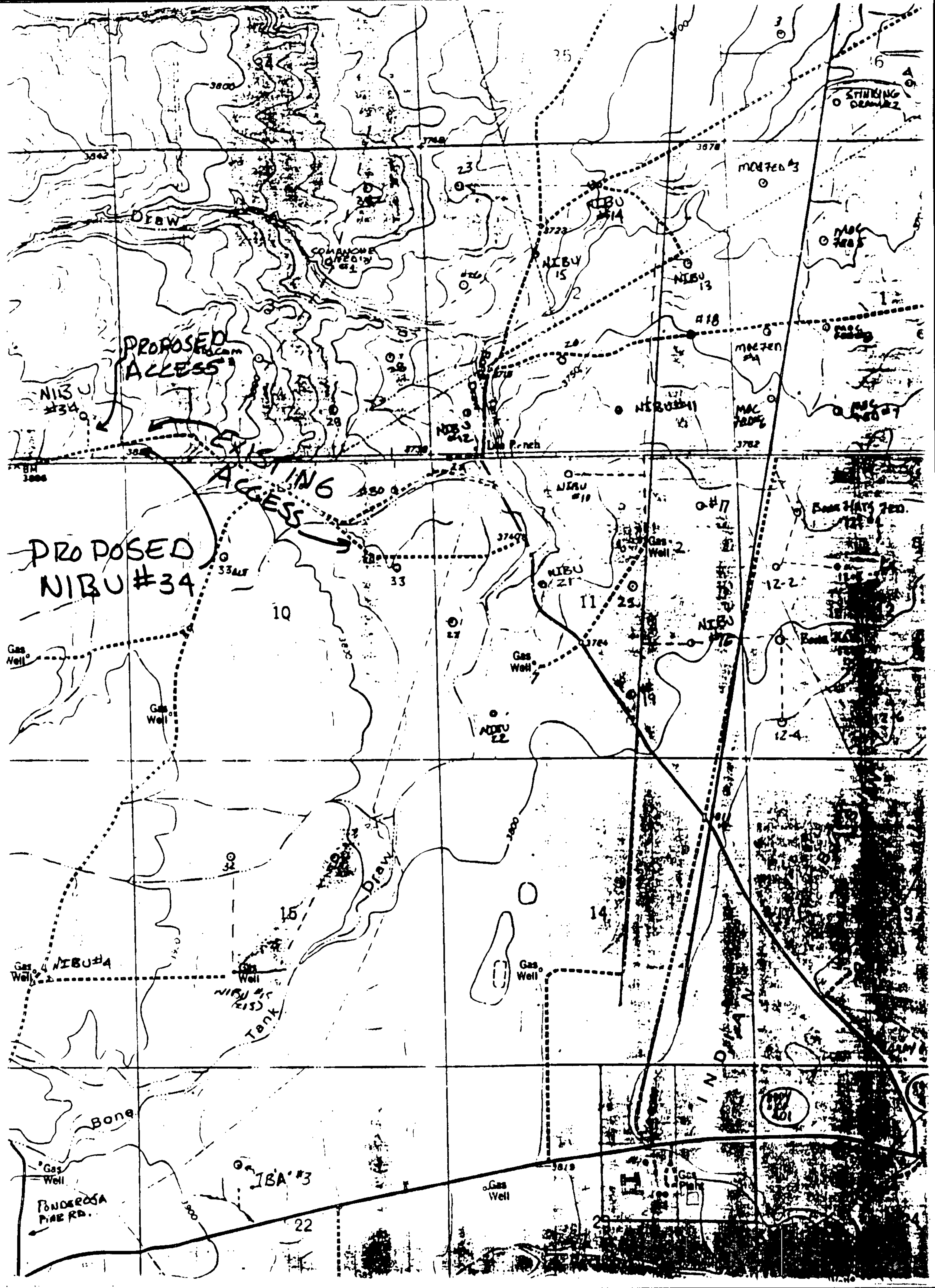
None anticipated. Possible H_2S in Cisco & Upper Penn. See H_2S Drilling Operations Plan.

8. Other Information:

Anticipated Starting Date: As soon as possible.

Duration of Well: drilling - 18 days, completion - 10 days.


125
RESERVE PIT
125'
H2S Detection Equipment
Wind Direction Indicator
Self Contained Breathing Equip.
Briefing Area
MUD LOGGER
PIPE RACKS
CIRCULATING MUD TANKS
PUMPS
SUBSTRUCTURE AND DOGHOUSE
CATWALK
FUEL TANK
WATER TANK
CHEMICAL TOILET
COMPANY TRAILER
PARKING
200
300'
Prevailing Wind Direction
Southwest
Foot-path for emergency egress
PROPOSED ACCESS TO EXISTING LEASE RD
±300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MOEZEN #3
MOEZEN #4
STINKING DRAW #2
NIBU #11
#17
NIBU 21
NIBU 22
NIBU #16
NIBU #4
IBA #3
Gas Well
Gas Plant
Draw
Tank
Bone
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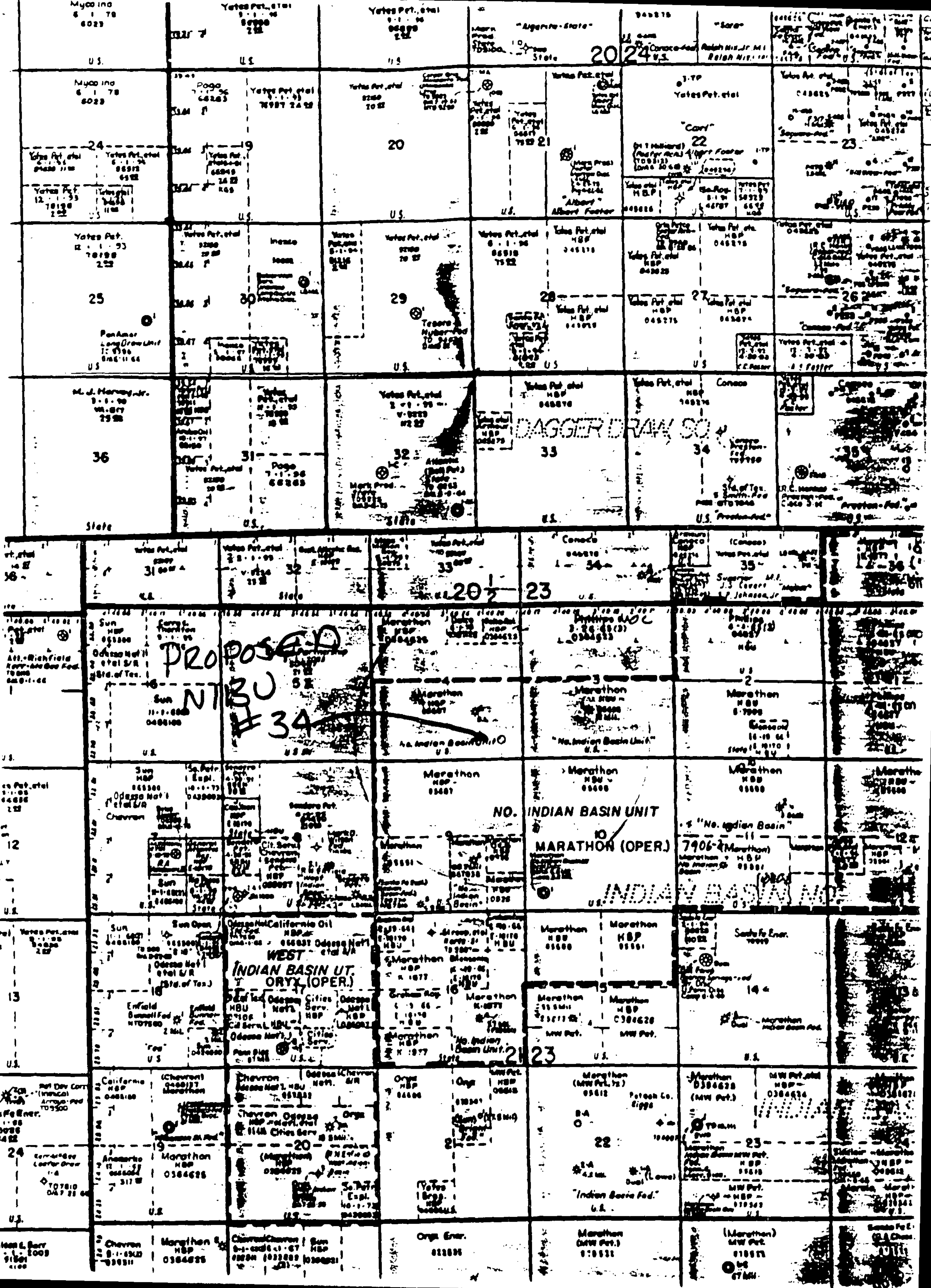

DAGGER DRAW, SO.
PROPOSED
NIBU
#34
NO. INDIAN BASIN UNIT
MARATHON (OPER.)
WEST
INDIAN BASIN UT.
ORYX (OPER.)
"No. Indian Basin Unit"
"Indian Basin Fed."
20 24
20 1/2 23
21 23
Yates Pet., etal
Marathon
Conoco
Chevron
Sun
Odessa Nat'l
Santa Fe Ener.
Phillips
Albert Foster
Pan Amer
M. J. Harvey, Jr.
Myco Ind.

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: N/A

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

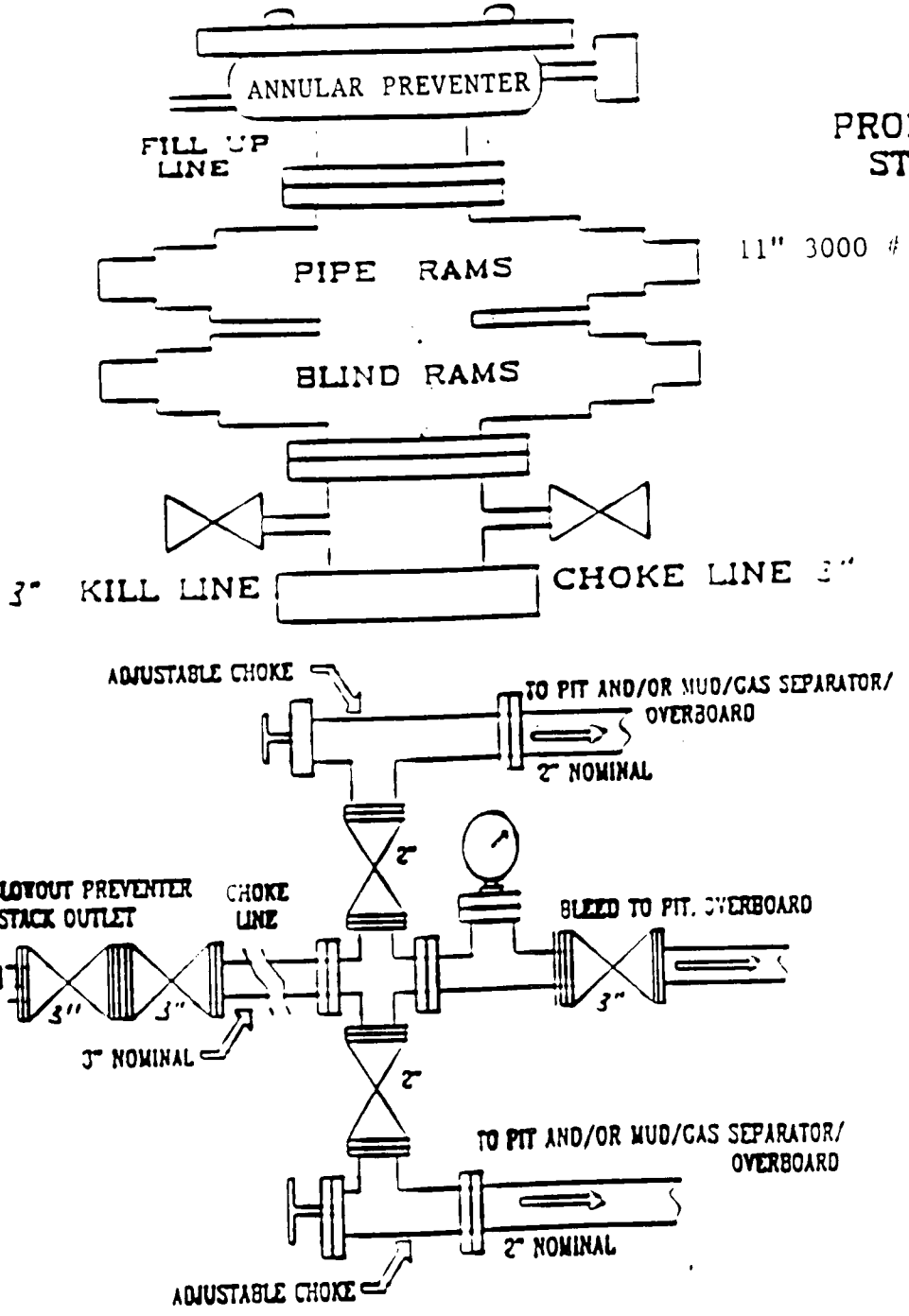
Drill Stem Testing Safety Rules are attached.

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

PRODUCTION STACK



SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

OPERATOR'S NAME MARATHON OIL COMPANY WELL NO. & NAME # 34 N. INDIAN BASIN U/L F
LOCATION 660' F S L & 660' F E L SEC. 4, T. 21S., R. 23E.
LEASE NO. NM-05607 COUNTY EDDY STATE NM

The special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 and 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( ) Lesser Prairie Chicken (Stips attached)
( ) San Simon Swale (Stips attached)
( ) Floodplain (Stips attached)
( ) Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(✓) The BLM will monitor construction of this drill site. Notify the (✓) Carlsbad Resource Area Office at (505) 887-6544 ( ) Hobbs Office at (505) 393-3612, at least 3 working days prior to commencing construction.

(✓) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately ____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

( ) Other

III. WELL COMPLETION REQUIREMENTS

( ) A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(✓) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at a depth of 1/2 inch) with the following seed mixture, in pounds of Pure Live Side (PLS), per acre.

( ) A. Seed Mixture 1 (Loamy Site)
Lehmanns Lovegrass (Eragrostis lehmannlana) 1.0
Side Oats Grass (Bouteloua curtipendula) 5.0
Sand Dropseed (Sporobolus cryptandrus) 1.0

( ) B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (Sporobolus cryptandrus) 1.0
Sand Lovegrass (Eragrostis trichodes) 1.0
Plains Bristlegrass (Setaria magrostachya) 2.0

(✓) C. Seed Mixture 3 (Shallow Sites)
Sideoats Grama (Boute curtipendula) 1.0
Lehmanns Lovegrass (Eragrostis lenmanniana) 1.0
or Boar Lovegrass (E. chloromalas)

( ) D. Seed Mixture 4 ("Gyp" Sites)
Alkali Sacaton (Sporobolus airoides) 1.0
Four-Wing Saltbush (Atriplex canescens) 5.0

Seeding should be done either late in the fall (September 15 - November 15, before freeze up) or early as possible the following spring to take advantage of available ground moisture.

( ) Other

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

1) Lined as specified above and,

2) A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and is capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to proceed by BLM.

TRASH PIT STIPS

All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Marathon Oil Company
Well No. 34 - North Indian Basin Unit
Location: 660' FSL & 660' FEL sec. 4, T. 21 S., R. 23 E.
Lease: NM-05607

.....

I. DRILLING OPERATIONS REQUIREMENTS:

The Bureau of Land Management (BLM) is to be notified at (505) 887-6544 in sufficient time for a representative to witness:

1. Spudding

2. Cementing casing: 9-5/8 inch 7 inch

3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.

II. CASING:

1. 9-5/8 inch surface casing should be set at 1800 feet, below usable water and circulate cement to the surface. If cement does not circulate to the surface this BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. Minimum required fill of cement behind the 7 inch production casing is sufficient to tie back 200 feet into the 9-5/8 inch surface casing set at 1800 feet.

III. PRESSURE CONTROL:

1. Before drilling below the 9-5/8 inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.

3. After setting the 9-5/8 inch intermediate casing string and before drilling into the Wolfcamp formation, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

4. The results of the test will be reported to the BLM Carlsbad Resource Area office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.

IV. OTHER:

1. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the Cisco formation. A copy of the plan shall be posted at the drilling site.

2. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval of this office.

EXHIBIT A

BLM Serial Number: NM-05607

Company Reference: # 34 N. INDIAN BASIN Unit

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
THE ROSWELL DISTRICT, BLM

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

/__/ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

/✓/ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

/__/ Flat-blading is authorized on segment(s) delineated on the attached map.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

/__/ 400 foot intervals.

/__/ ____ foot intervals.

/__/ locations staked in the field as per spacing intervals above.

/__/ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

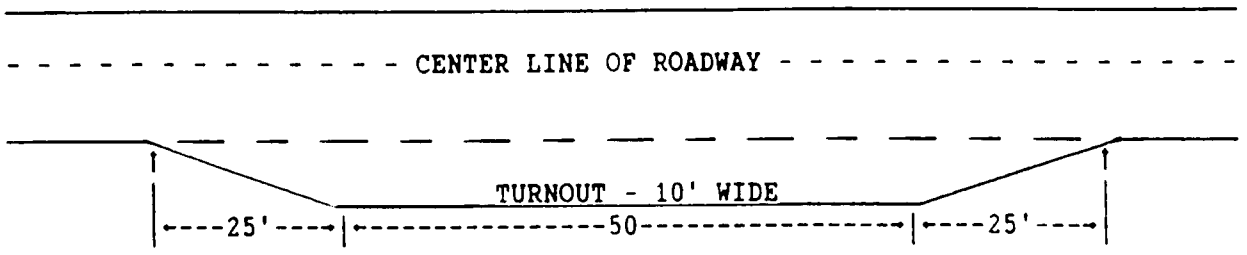
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval = $\frac{400}{4}$ + 100 = 200 feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

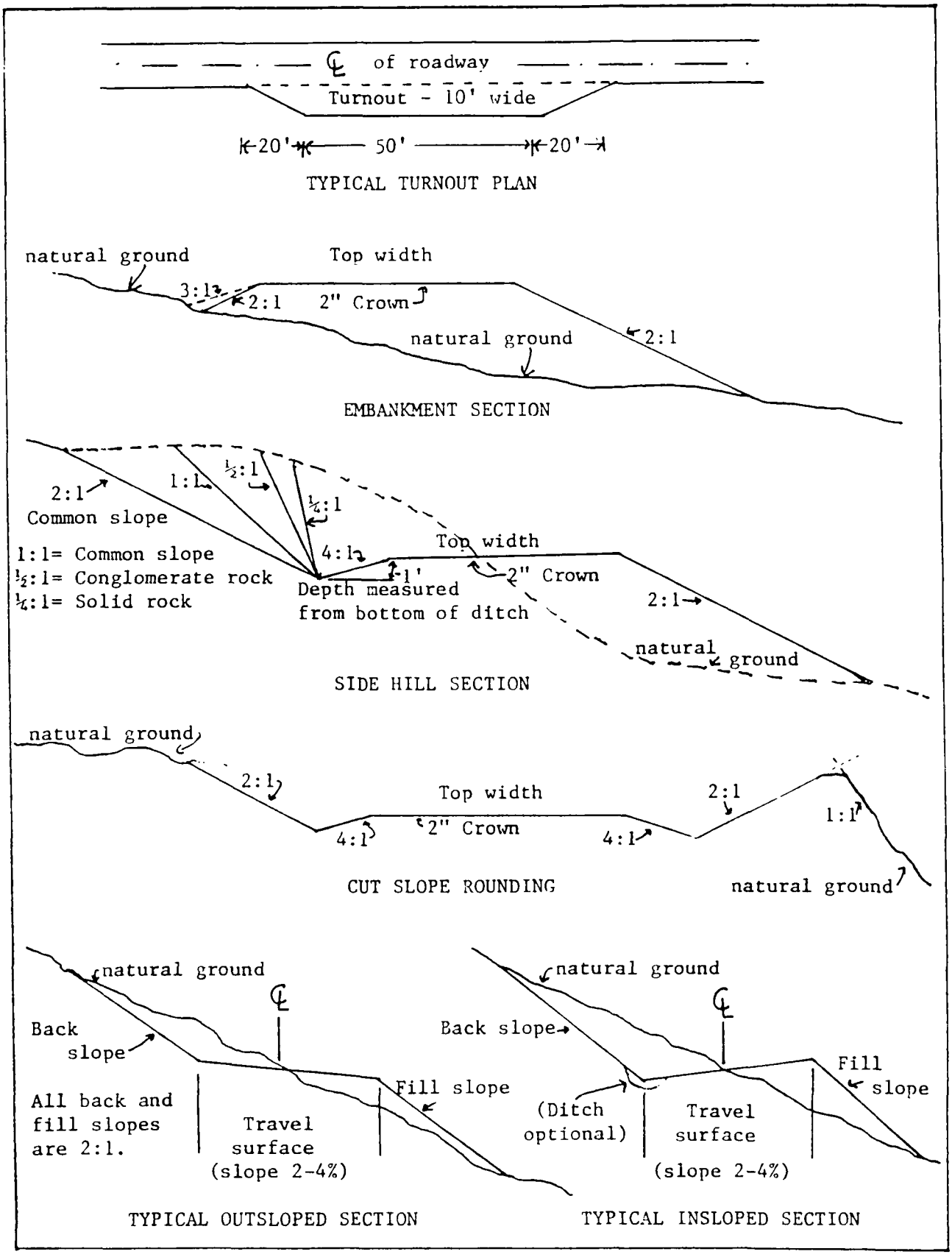
9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS: None.

FIGURE 1: CROSS-SECTIONS AND PLANS FOR TYPICAL ROAD CONSTRUCTION REPRESENTATIVE OF BLM RESOURCE, AND HIGHER CLASS, ROADS.

(Travel way, top width, driving surface, and travel surface are synonomous.)



CMD : ONGARD 01/17/97 16:06:43
OG6C101 C101-APPLICATION FOR PERMIT TO DRILL OGOMES -EMFK

OGRID Idn : 14021 API Well No: 30 15 29296 APD Status(A/C/P): A
Opr Name, Addr: MARATHON OIL CO Aprvl/Cncl Date : 12-12-1996
PO BOX 552
MIDLAND,TX 79702

Prop Idn: 6411 NORTH INDIAN BASIN UNIT Well No: 34

	U/L	Sec	Township	Range	Lot Idn	North/South	East/West
Surface Locn :	P	4	21S	23E		FTG 660 F S	FTG 660 F E
OCD U/L :	P	API County :	15				

Work typ(N/E/D/P/A) : N Well typ(O/G/M/I/S/W/C): G Cable/Rotary (C/R) : R
Lease typ(F/S/P/N/J/U/I): F Ground Level Elevation : 3862

State Lease No: Multiple Comp (Y/N) : N
Prpsd Depth : 9600 Prpsd Frmtn : MORROW

E0009: Enter data to modify record
PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM
PF07 PF08 PF09 PRINT PF10 C102 PF11 HISTORY PF12

CMD : ONGARD 01/17/97 16:06:59
OG6IWCM INQUIRE WELL COMPLETIONS OGOMES -EMFK

API Well No : 30 15 29296 Eff Date : 01-17-1997 WC Status :
Pool Idn :
OGRID Idn :
Prop Idn :

Well No :
GL Elevation:

	U/L	Sec	Township	Range	North/South		East/West		Prop/Act(P/A)
B.H. Locn :					FTG	F	FTG	F	

Lot Identifier:
Dedicated Acre:
Lease Type : F
Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

E6426: No well completions exist for this API Well nbr

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06
PF07 PF08 PF09 PF10 NEXT-WC PF11 HISTORY PF12 NXTREC

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

01/21/97 09:04:32
OGOMES -EMDO
PAGE NO: 1

Sec : 04 Twp : 21S Rng : 23E Section Type : NORMAL

4	3	2	1
40.32 Federal owned	40.28 Federal owned	40.24 Federal owned	40.20 Federal owned
E	F	G	H
40.00 Federal owned	40.00 Federal owned	40.00 Federal owned	40.00 Federal owned

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06
PF07 BKWD PF08 FWD PF09 PRINT PF10 SDIV PF11 PF12

1
.32
.28
.24
.20
~~1.04~~
1.04

$41.04

Sec : 04 Twp : 21S Rng : 23E Section Type : NORMAL

L 40.00 Federal owned U	K 40.00 Federal owned U	J 40.00 Federal owned U A	I 40.00 Federal owned U
M 40.00 Federal owned U	N 40.00 Federal owned U	O 40.00 Federal owned U	P 40.00 Federal owned U A

CMD : ONGARD 01/21/97 09:05:02
OG6CLOG C105-WELL COMPLETION OR RECOMP CASING LOG OGOMES -EMDO

OGRID Identifier : 14021 MARATHON OIL CO
Prop Identifier : 6413 NORTH INDIAN BASIN UNIT GAS COM A
API Well Identifier : 30 15 20061 Well No : 006
Surface Locn - UL : J Sec : 4 Twp : 21S Range : 23E Lot Idn :
Multple comp (S/M/C): S TVD Depth (Feet) : 99999 MVD Depth (Feet):
Spud Date : P/A Date :
Casing/Linear Record:

S	Size (inches)	Grade	Weight (lb/ft)	Depth(ft) Top-Liner	Depth(ft) Bot-Liner	Hole Size (inches)	Cement (Sacks)	TOC (feet)	Code
	99.000		99.0	99999.0	99999.0	99.000	9999	99999	C

E0009: Enter data to modify record

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM
PF07 PF08 PF09 COMMENT PF10 TLOG PF11 PF12

CMD :
OG6IWCM

ONGARD
INQUIRE WELL COMPLETIONS

01/21/97 09:05:09
OGOMES -EMDO

API Well No : 30 15 20061 Eff Date : 04-30-1991 WC Status : P
Pool Idn : 79040 INDIAN BASIN;UPPER PENN (PRO GAS)
OGRID Idn : 14021 MARATHON OIL CO
Prop Idn : 6413 NORTH INDIAN BASIN UNIT GAS COM A

Well No : 006
GL Elevation: 3843

	U/L	Sec	Township	Range	North/South	East/West	Prop/Act(P/A)
B.H. Locn :	J	4	21S	23E	FTG 999 F S	FTG 999 F E	P

Lot Identifier:
Dedicated Acre:
Lease Type : F
Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O) :

M0025: Enter PF keys to scroll

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06
PF07 PF08 PF09 PF10 NEXT-WC PF11 HISTORY PF12 NXTREC

CMD : ONGARD 01/17/97 16:06:34
OG6CLOG C105-WELL COMPLETION OR RECOMP CASING LOG OGOMES -EMFK

OGRID Identifier : 14021 MARATHON OIL CO
Prop Identifier : 6411 NORTH INDIAN BASIN UNIT
API Well Identifier : 30 15 29296 Well No : 34
Surface Locn - UL : P Sec : 4 Twp : 21S Range : 23E Lot Idn :
Multple comp (S/M/C): N TVD Depth (Feet) : MVD Depth (Feet):
Spud Date : P/A Date :
Casing/Linear Record:

S	Size (inches)	Grade	Weight (lb/ft)	Depth(ft) Top-Liner	Depth(ft) Bot-Liner	Hole Size (inches)	Cement (Sacks)	TOC (feet)	Code

E0004: No matching record found. Enter data to create.

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM
PF07 PF08 PF09 COMMENT PF10 TLOG PF11 PF12