SUBMIT TRIPLICATE\*

(Other actions on reverse side)

Form Budget	approved. Bureau	No.	42-81	42
-				34

# UNITED STATES DEPARTMENT OF THE INTERIOR

	30-015-26286
	5. LEASE-DESIGNATION AND SERIAL NO.
	LC-062052
7	6. IF INDIAN, ALLOTTEE OR TRIBE NAME

	LC-062052				
APPLICATIO	N FOR PERMIT	TO DRILL, I	DEEPEN, OR PL	UG BACK	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
1a. TYPE OF WORK	RILL 🛛	DEEPEN		G BACK 🗆	7. UNIT AGREDMENT NAME
b. TYPE OF WELL	DAS 🗂		SINGLE F	MULTIPLE	Voluntary S. FARM OR LEASE NAME
OIL WELL X	WELL OTHER		ZONE (L.	ZONE	<u></u>
Marathon 0il	l Company		i	received	Shugart "B"  9. WELL NO.
3. ADDRESS OF OPERATOR				· · · · · · · · · · · · · · · · · · ·	<b>_</b>
P. O. Box 5	2, Midland, T	79702		cco 1 c 100	2 10. FIELD AND FOOL, OR WILDCAT
			th any State requirement	<u>FFB 15 '90</u>	
1800' FSL &	760' FWL	, H. Y		O. C. D.	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
At proposed prod. zo 1800' FSL &		Varia	,	ARTESIA, OFFICE	Sec. 11, T-18-S, R-31-E
14. DISTANCE IN MILES	AND DIRECTION FROM N	EAREST TOWN OR POS	T OFFICE*		12. COUNTY OR PARISH 13. STATE
	E of Loco Hills		)		Eddy NM
15. DISTANCE FROM PROF LOCATION TO NEARES PROPERTY OR LEASE		& 760' FWL	16. NO. OF ACRES IN L	TO 1	OF ACRES ASSIGNED THIS WELL
(Also to nearest dr	lg. unit line, if any)		960.26		O ARY OR CABLE TOOLS
18. DISTANCE FROM PRO TO NEAREST WELL, I OR APPLIED FOR, ON TI	DRILLING, COMPLETED,	1233'	19. PROPOSED DEPTH	_	tary
21. ELEVATIONS (Show wi	nether DF, RT, GR, etc.)				22. APPROX. DATE WORK WILL START*
± 3725' GL					February 1990
23.		PROPOSED CASIN	G AND CEMENTING	PROGRAM	
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER F	OOT SETTING DEP	TH T	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48	750 <b>'</b>	835	Sx - <u>Circulate</u>
11"	8-5/8"	24 & 32	2700 <b>'</b>	1350	Sx - <u>Circulate</u>
7-7/8"	5-1/2"	15.5	9000'	1500	Post ID-1 2-16-90
Propose to o	drill no deepe	than 9000'.	•	***	New In + API
All casing a	and cementing o	perations wi	ill be performe	d in accor	dance to regulations
and by appro	oved methods.				
Blowout prev	vention equipme	ent will be a	applied as outl	ined in add	ditional information.
(See Exhibit	s)				
APPROV	AL SUBJECT TO				· :
	L REQUIREMENTS	IND			
	STIPULATIONS	ILA R.			
·					
ATTACH	בע				-
					ductive sone and proposed new productive and true vertical depths. Give blowout

IN zone. preventer program, if any.

SIGNED Latings	TITLE Drilling Supe	erintendent DATE 1/15/90
(This space for Federal or State office use)		
PERMIT NO.	APPROVAL DATE	
APPROVED BY CONDITIONS OF APPROVAL IF ANY:	AREA MANASER TITLE CORRESPONDED	DATE 2-14-90

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

#### 

Form C-102 Revised 1-1-89

CEVIEDER

## OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II P.O. Deswer DD, Artesia, NM 88210

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

DISTRICT I P.O. Box 1980, Hobbs, NM 88240

## WELL LOCATION AND ACREAGE DEDICATION PLAT

or				Loase					Well No.	
MARATHON O	IL CO.				rt "B"					2
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#### MARATHON OIL COMPANY

### MARATHON SHUGART "B" #2 ADDITIONAL INFORMATION Comply with Order 1

In conjunction with Form 9-331C, Application to drill subject well, Marathon Oil Company submits the following items of information in accordance with BLM requirements:

#### 1. Geological Name of Surface Formation

Quaternary Alluvium

#### 2. Estimated Tops of Important Geological Markers

Rustler	810′	Delaware	4710 <i>'</i>
Base of Salt	2120'	Bone Spring	5890 <i>'</i>
Yates	2280′	1st Sand	7580′
Seven Rivers	2650'	2nd Carb	7890 <i>'</i>
Queen	3335 <i>'</i>	2nd Sand	8190′
Grayburg	3900 <i>'</i>	3rd Carb	8840′
San Andres	4430′		

## Estimated Depths of Anticipated Water, Oil or Gas Bearing Formations

Yates (water)	2280′	Bone Spring	5890′
Seven Rivers (water)	2650′	1st Sand (water & oil)	7580 <b>′</b>
Queen (water & oil)	3335′	2nd Carb (water & oil)	7890 <b>'</b>
Grayburg (water & oil)	3900′	2nd Sand (water & oil)	8190′
San Andres (water & oil)	4430'	3rd Carb (water & oil)	8840′
Delaware (water & oil)	4710 <i>'</i>		

#### 4. Casing and Cementing Program

13-3/8" Surface to 750': Cement to surface with 835 sxs Class

"C" with 2%  $CaCl_2$ 

8-5/8" Intermediate to 2700': Cement to surface with 1100 sxs

Modified Lite followed by 250 sxs Class "C" with 2%  $\operatorname{CaCl}_2$ 

5-1/2" Production to 9000': Cement to 2200' with 1500 sxs Class

"H" PozMix. Stage tool @  $\pm$  7400'

#### 5. Pressure Control Equipment (Exhibits A & B)

13-3/8" Surface: 13-5/8" 3000 psi working pressure annular preventer tested to 2000 psi

13-5/8" 3000 psi working pressure pipe

and blind rams tested to 3000 psi

8-5/8" Intermediate: 11" 3000 psi working pressure

annular preventer tested to 2000 psi

11" 3000 psi working pressure pipe rams and blind rams tested to 3000 psi

### Proposed Mud Program

0 - 750	Native; Mud Wt:	8.3 - 9.2	Viscosity 28-34 Sec
750 - 2,700	Brine Water; Mud	Wt: 9.0 -	10.0, Viscosity 28-32 Sec
2,700 - 7,000	Fresh Water; Mud	Wt: 8.6 -	8.8, Viscosity 28-32 Sec
7,000 - 9,000	Fresh Water; Mud	Wt: 8.8 -	9.2, Viscosity 32-44 Sec

### 7. Auxiliary Equipment

A stabbing valve will be kept on the floor to be used when the kelly is not in the string.

## 8. Testing, Logging, and Coring Programs

A. Coring Program:

120' core in 2nd Bone Spring Carbonate

- B. Testing Program:
  - 1 DST in 2nd Bond Spring Carbonate
- C. Logging Program:

 $\mbox{TD-Surface}$  - GR-DIL, GR-LDT-CNL, TD-TOP of Bone Spring, GR-LSS, NGT, DLL-MSFL.

### 9. <u>Abnormal Pressures, Temperatures or Potential Hazards</u>

None anticipated

### 10. Anticipated Starting Date

As soon as possible

#### MULTIPOINT SURFACE USE AND OPERATIONS PLAN

Marathon Oil Company

MARATHON SHUGART "B" #2 760' FWL & 1800' FSL Section 11, T-18-S, R-31-E Eddy County, New Mexico Lease: LC-062052

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedure to be followed in rehabilitating the surface after the completion of all operations so that a complete appraisal can be made of the environmental effects associated with the proposed operations.

#### 1. Existing Roads

Exhibit "C" is a portion of a topographic map showing the location of the proposed well as staked. Proceed west from Hobbs, NM, on U.S. Highway 180. Turn west on NM Highway 529. After 31 miles, turn west on U.S. Highway 82. Proceed 0.25 miles southeast on a caliche road. Pass cattleguard and turn northeast after 1.1 miles. After 1.3 miles turn north for 0.2 mile to location.

### 2. Planned Access Roads

A. Length and Width

No access road will be needed as the location falls beside an existing resource road.

- B. Surfacing Material
  - 6 inches of caliche watered, compacted & graded.
- C. Maximum Grade

Three Percent (3%)

D. Turnouts

None Required

E. Drainage Design

Natural drainage.

F. Culverts

None required.

G. Cuts and Fills

None required.

H. Gates, Cattlegaurds and Fences

None Required.

#### 3. Location of Existing Wells

Exhibit "D" is a map showing the location of all the wells within a one mile radius of the proposed well.

#### Location of Existing and Proposed Facilities

- A. Exhibit "C" is a map of the existing roads with the proposed well location.
- B. In the event of a producible oil well, oil will be stored at the battery location on the Marathon Shugart "B" #2 pad with production metered at the location. The gas will be piped to existing flow lines in a manner to be determined at a later date.

#### Location and Type of Water Supply

Water will be furnished and trucked by a Contractor.

### 6. Source of Construction Materials

Caliche for surfacing the road and the pad will be obtained from a pit to be opened  $\pm~200'$  west of the proposed location. The pit is on land owned by the Federal Government.

#### 7. Methods of Handling Waste Disposal

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be vacuumed from the reserve pit and hauled to an approved disposal well. Reserve pit contents will be allowed to dry and pitwalls backfilled. All areas of the pad and reserve pit not necessary to production will be re-contoured. Top soil will be redistributed and reseeded with the recommended seed mixture.
- C. Water produced during tests will be disposed of in the drilling pits and hauled to an approved salt water disposal well.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, waste paper, garbage, and junk will be stored in a trailer on location and hauled to an approved disposal site.
- F. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and completion operations.

### 8. Ancillary Facilities

None required.

### 9. Wellsite Layout

Exhibit "E" shows the relative location of the rig components and reserve pits.

#### 10. Plans for Restoration of Surface

- A. After finishing drilling and completion operations all equipment and other materials not necessary for operations will be removed. Pits will be filled and leveled and the location cleaned of all trash and junk to leave the wellsite in an aesthetically pleasing condition as is possible.
- B. Any unguarded pits containing fluids or trash will be fenced until they are filled or leveled.

- C. After abandonment of well, equipment will be removed, the location will be cleaned, and the pad and access road will be ripped and returned to as near the original appearance as is possible.
- D. Wellsite is on land owned by the Federal Government.

#### 11. Other Information:

#### A. Topography

The location is situated on a duned landform.

#### B. Soil

Typic Torripsamment subgroup.

#### C. Flora and Fauna

The vegetation cover consists of native range grasses with yucca plants, cactus and mesquite. Wild life in the area includes rabbits, dove, quail, and other inhabitants typical of semi-arid climate.

#### D. Ponds and Streams

Local drainage in this area is internal.

#### E. Residence and Structures

None.

### F. Archaeological, Historical and Cultural Sites

None observed in the area. The Archaeological Inspection Report is being forwarded by Archaeological Consultants, Inc.

### G. <u>Land Use</u>

Grazing with hunting in season.

### H. Surface Ownership

. The Federal Government.

#### 12. Operators Representative

Stanley L. Atnipp P. O. Box 552 Midland, TX 79702 (915) 682-1626

#### 13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist, that the statements made in this place are, to the best of my knowledge 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.

Stanley L. Estings

Marathon Oil Company

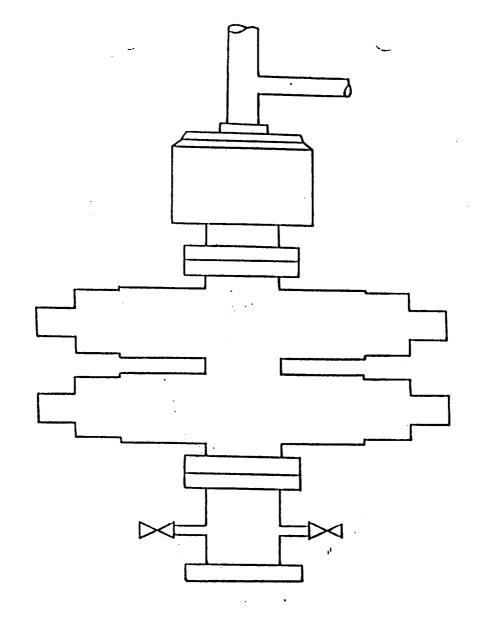


EXHIBIT "A"

MARATHON SHUGART "B" #2

BOP STACK ARRANGEMENT

13 3/8" Surface Casing

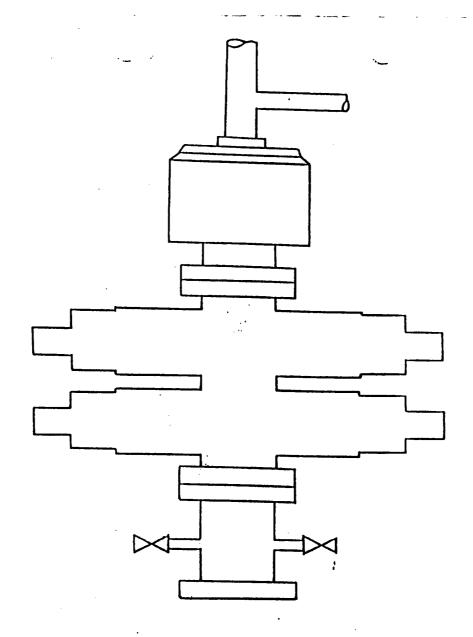
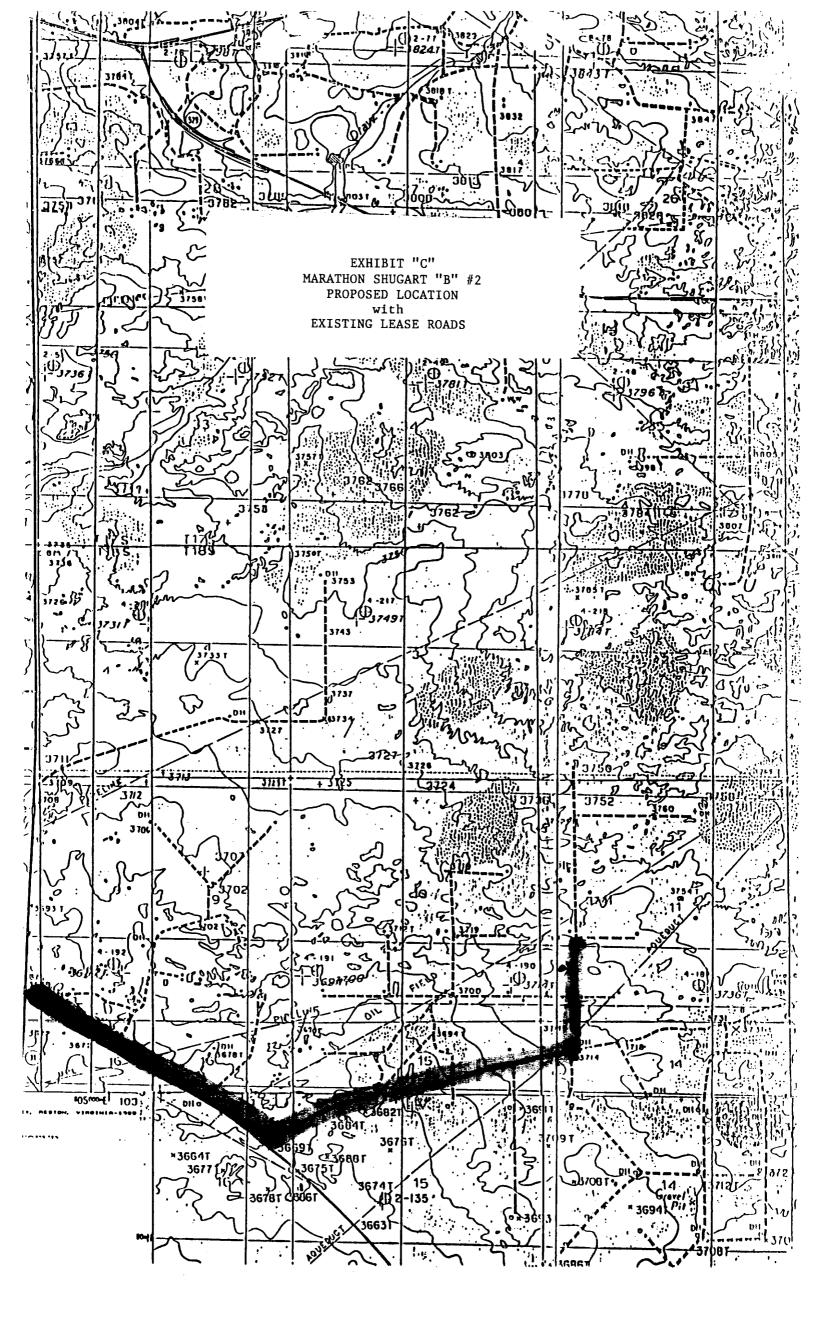


EXHIBIT "B"

MARATHON SHUGART "B" #2

BOP STACK ARRANGEMENT

8 5/8" Intermediate Casing



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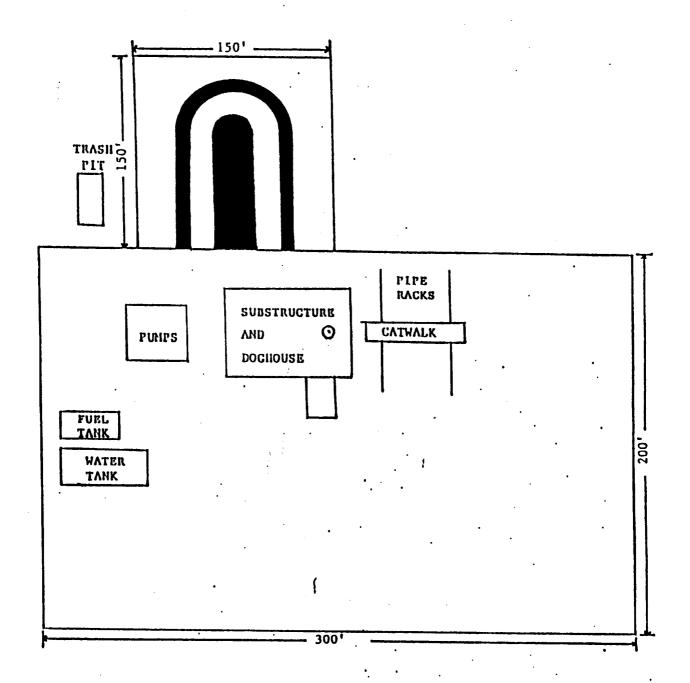


EXHIBIT "E"

MARATHON SHUGART "B" #2

RELATIVE LOCATION

of

RIG COMPONENTS