



**Marathon
Oil Company**

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

OIL CONSERVATION DIVISION
RECEIVED

28 MAY 25 AM 9 14

March 20, 1992

Mr. David Catanach
Energy and Mineral Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: Request for Exception to Rule 303-A
Downhole Commingling
Marathon Oil Company
State E 744 "15" Well No. 1
Unit I, 2,086' FSL and 554' FEL
Section 15, T-18-S, R-33-E
Delaware and Bone Spring Formations
West Corbin and Mescalero Fields
Lea County, New Mexico

Dear Mr. Catanach,

Marathon Oil Company requests administrative approval for an Exception to Rule 303-A to permit the downhole commingling of production in the above captioned well from the Delaware and Bone Spring Sand pools in Lea County, New Mexico.

Currently, the well is completed in the Delaware Sand pool which is being artificially lifted with rod pump. The Bone Spring has been temporarily abandoned as of August, 1991; however, for the well to be economically operational it is necessary to have the two zones commingled.

Enclosed is pertinent data supporting this application as outlined in Rule 303-C. If additional information is necessary, please contact me at the letterhead address.

Sincerely,

A handwritten signature in cursive script that reads 'R. W. Tracy'.

R. W. Tracy
Operations Engineering Supervisor

xc: S. P. Guidry, Hobbs - w/attachments

MMA/036.274/sk

Offset Operators List
State E 744 "15" Well No. 1

Harvey E. Yates Company
P. O. Box 1933
Roswell, New Mexico 88201-1933

Meridian Oil, Inc.
21 Desta Drive
Midland, Texas 79701

Oryx Energy Company
P. O. Box 2880
Dallas, Texas 75221-2880

Texaco U.S.A.
P. O. Box 3109
Midland, Texas 79702-3109

- (a) Marathon Oil Company
P. O. Box 552
Midland, Texas 79702
- (b) State E 744 "15" No. 1
Unit I, 2,086' FSL and 554' FEL
Section 15, T-18-S, R-33-E
Lea County, New Mexico
Commingled Zones: Bone Spring Sand and Delaware Sand
- (c) Plats (2) dedicated acreage and offset operators attached.
- (d) The Form C-116 for the Bone Spring and Delaware Zones are attached. The allocated production for each pool will be based on the current production decline curve and the latest GOR test.
- (e) Production decline curves for both the Bone Spring and Delaware Pools are attached.
- (f) Estimated bottomhole pressures for each zone:

Bone Spring: 2,300 psi
Delaware: 1,740 psi
- (g) Marathon Oil Company has commingled the fluids from the Bone Spring and Delaware Sand Pools at the surface and has encountered no incompatibility problems.
- (h) Downhole commingling is necessary for the well in order to economically justify the lifting costs and to perform remedial well work.
- (i) Method of allocation based on most recent production data:

<u>ZONE</u>	<u>OIL (BOPD)</u>	<u>GAS (MCFPD)</u>	<u>WATER (BWPD)</u>
Bone Spring	12	--	3
Delaware	<u>13</u>	<u>30</u>	<u>100</u>
	25	30	103

Therefore, the allocated percentages should be:

<u>ZONE</u>	<u>OIL (%)</u>	<u>GAS (%)</u>	<u>WATER (%)</u>
Bone Spring	48	0	3
Delaware	52	100	97

- (j) Ownership of the two pools to be commingled is common and correlative rights will not be violated.
- (k) By copy of this letter, we are notifying all offset operators of the proposed downhole commingling by certified mail.

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

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

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

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

WELL API NO.

5. Indicate Type of Lease

STATE ☐

FEE ☒

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL
WELL ☒

GAS
WELL ☐

OTHER

2. Name of Operator

Marathon Oil Company

3. Address of Operator

P. O. Box 552, Midland, Texas 79702

4. Well Location

Unit Letter I : 2,086 Feet From The South Line and 554 Feet From The East Line

Section 15 Township T-18-S Range R-33-E NMPM Lea County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

11.

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: Downhole Commingle ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Request authorization to downhole commingle the Bone Spring Sand and the Delaware Sand.

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

SIGNATURE

M. Mobin Ahmad

TITLE Petroleum Engineer

DATE 3/4/92

TYPE OR PRINT NAME

M. Mobin Ahmad

TELEPHONE NO. (915) 682-1626

(This space for State Use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Submit 2 copies to Appropriate District Office.

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-116
Revised 1/1/89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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

OIL CONSERVATION DIVISION

GAS - OIL RATIO TEST

Operator Marathon Oil Company		Pool Mescalero Escarpe (Delaware)		County Lea	
Address P. O. Box 552, Midland, Texas 79701		<i>Lea</i>		TYPE OF TEST - (X)	
LEASE NAME State "E" - 744 - 15		WELL NO. 1	LOCATION U S T R I 15 183 33E	DATE OF TEST 2-15-92	SCHEDULED <input checked="" type="checkbox"/> X
					CHOKE SIZE --
					TBG. PRESS. 35
					DAILY ALLOW-ABLE
					LENGTH OF TEST HOURS 24
					WATER BBL.S.
					PROD. DURING TEST GRAV. OIL
					OIL BBL.S.
					GAS M.C.F.
					GAS - OIL RATIO CU FT/BBL 2,500

Instructions:

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

(See Rule 301, Rule 1116 & appropriate pool rules.)

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

Signature
M. Mobin Ahmad

M. Mobin Ahmad - Petroleum Engineer

Printed name and title

March 4, 1992 (915) 682-1626

Date Telephone No.

**P.O. Box 2088
Santa Fe, New Mexico 87504-2088**

OIL CONSERVATION DIVISION

GAS-OIL RATIO TEST

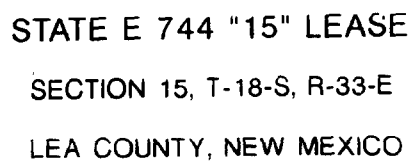
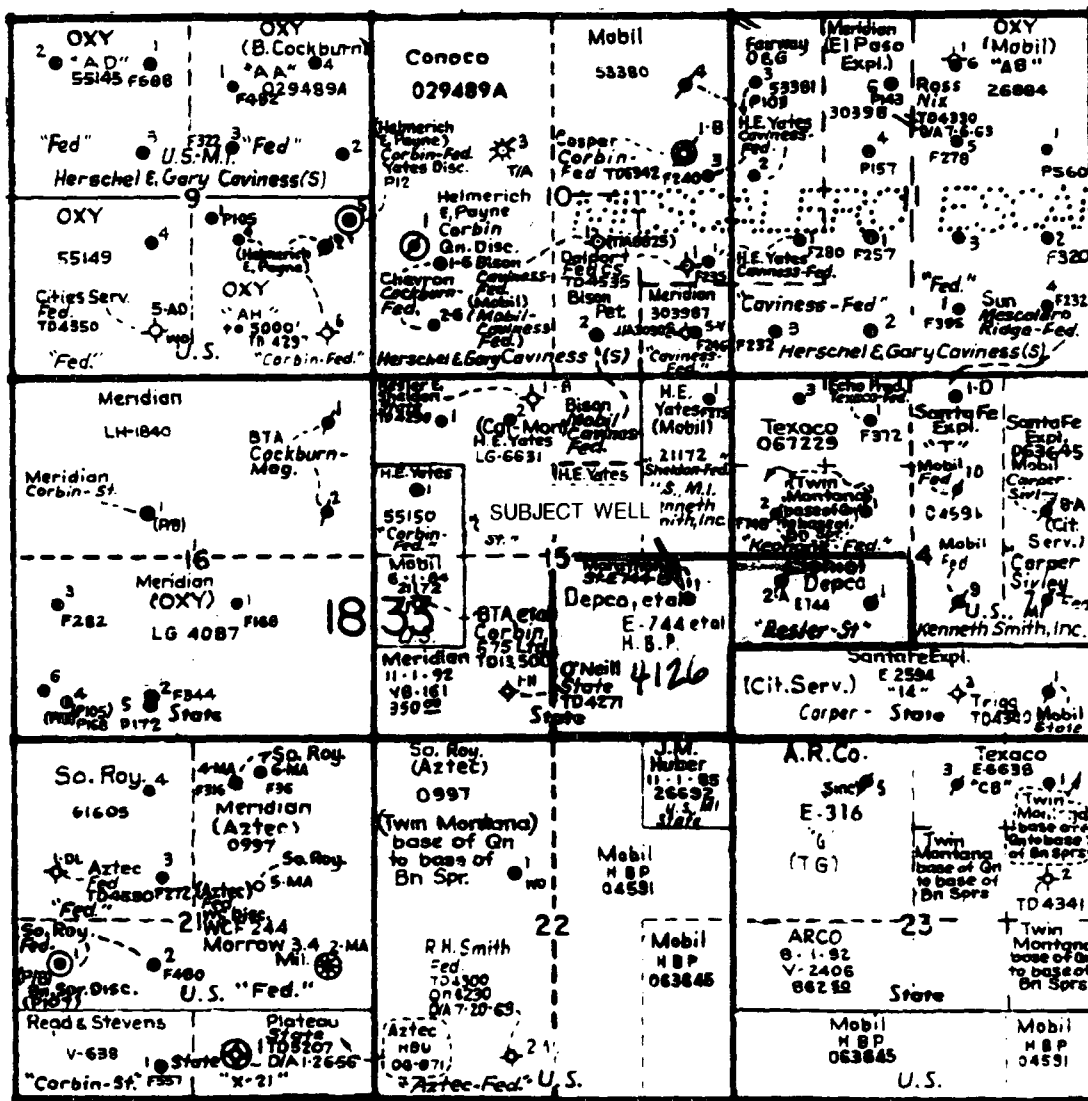
2

Instructions:

(See Rule 301, Rule 1116 & appropriate pool rules.)

Telephone No.

T-18-S



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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

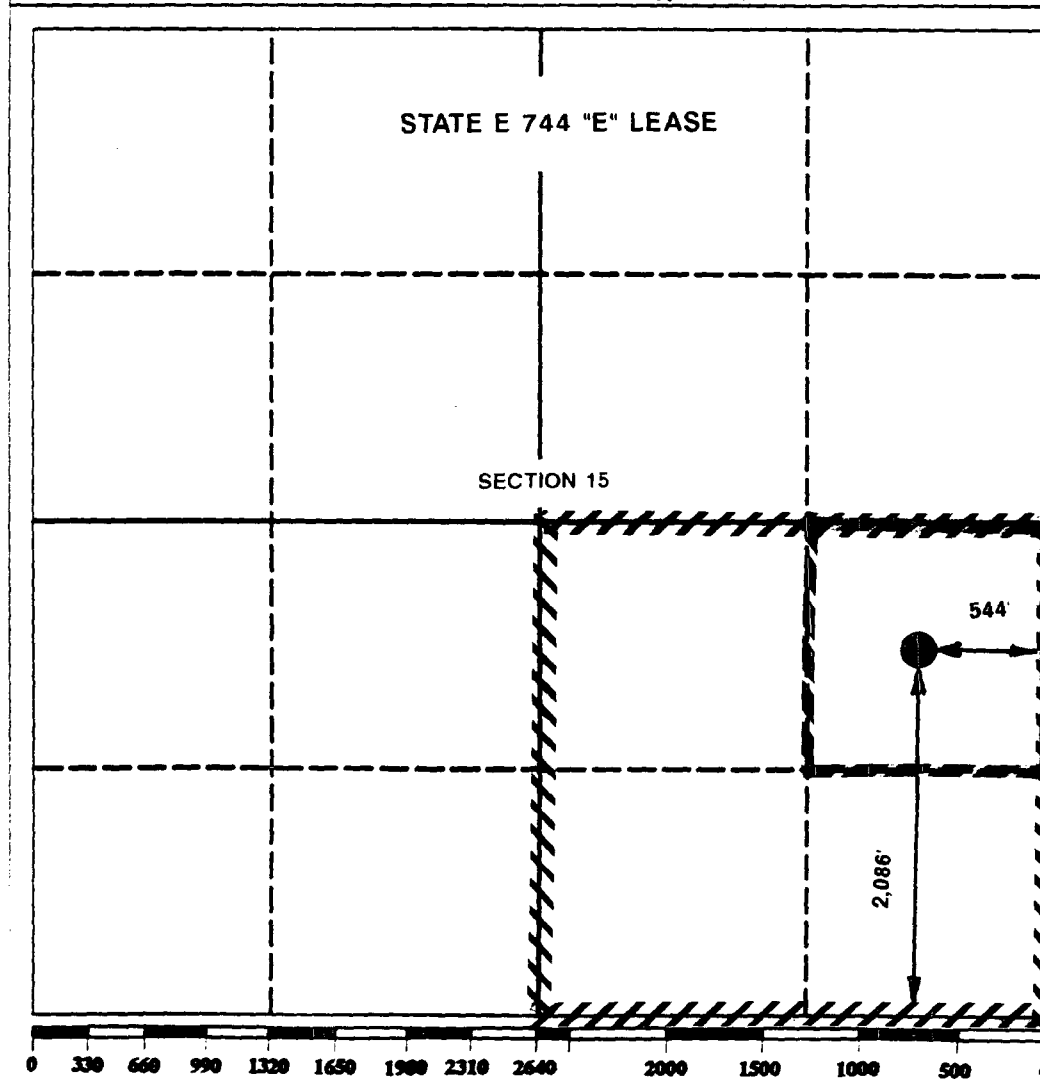
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

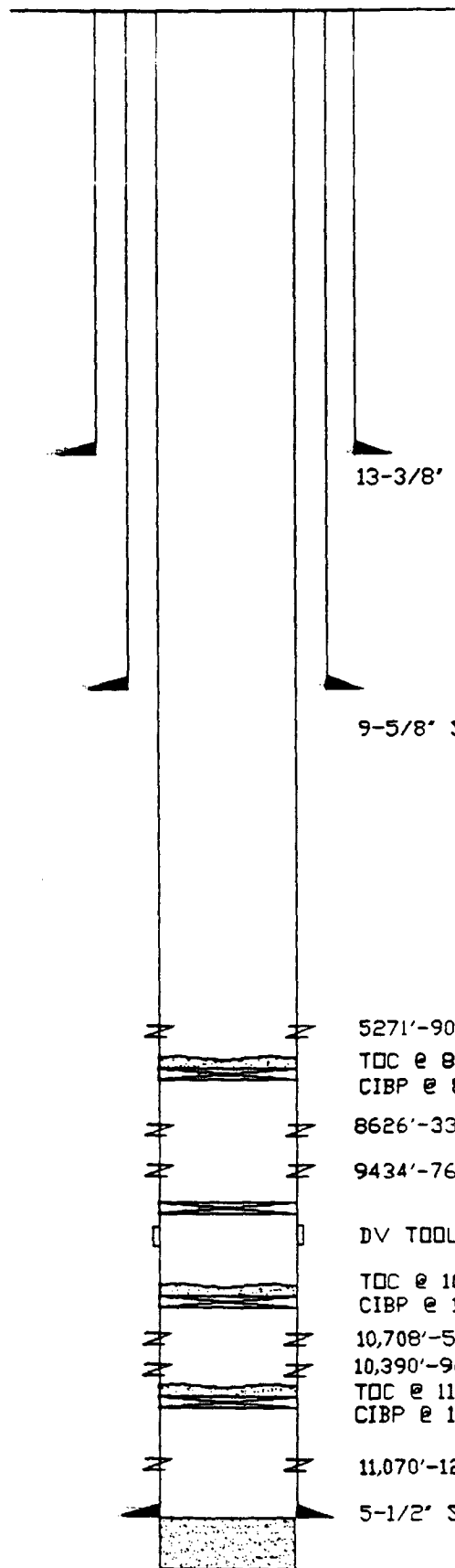
All Distances must be from the outer boundaries of the section

Operator Marathon Oil Company		Lease State E 744 "15"		Well No. 1
Unit Letter I	Section 15	Township 18-S	Range 33-E	County Lea
Actual Footage Location of Well: 2,086 feet from the South line and 554 feet from the East line				
Ground level Elev. 3,912	Producing Formation Delaware Sand	Pool Bone Spring/Delaware	Dedicated Acreage: 40 Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.? <input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>				



OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <i>M. Mobin Ahmad</i> Printed Name: M. Mobin Ahmad Position: Petroleum Engineer Company: Marathon Oil Company Date: March 4, 1992	
SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. Date Surveyed: _____ Signature & Seal of Professional Surveyor: _____ Certificate No.: _____	

WELL DATA SHEET



STATE 'E 744-15' WELL NO. 1
WEST CORBIN (DELEWARE) FIELD
LEA COUNTY, NEW MEXICO
SEC. 15, T-18-S, R-33-E
2086' FSL & 554' FEL

TD: 11,552' PBD: 8,550' KB: 3,932' GL: 3,912'

SURFACE CSG: 13-3/8", 48#, H-40, ST&C, 8 RD, SET @ 450'.
CIRCULATED CEMENT.

INTERM CSG: 9-5/8", 40#, N-80, L&TC, 36#, K-55, S&TC, 8RD
SET @ 3099'. CIRCULATED CEMENT.

PROD CSG: 5-1/2" 15.5#/17#, N-80/K-55, LT&C, SET @ 11,401'.
80% BURST PRESSURE-3848 PSIG. TDC @ 4910'.

TBG: MUD ANCHOR, SN, 4 JTS 2-3/8" TBG, 2-3/8" x 5-1/2" T/
AND 164 JTS 2-3/8", 4.7#, N-80, EUE TUBING. BOTTOM OF
TUBING @ 5200', SN @ 5180' AND TAC @ 5054'.

RODS: 81 7/8" x 25' GRADE "D" STEEL RODS, 82 0.98 x 37.5'
FIBERGLASS RODS, 2' x 1-1/2" PUMP.

PUMPING UNIT: LUFKIN 320-C-256-120

PRESENT COMPLETION: DELAWARE 5271'-5290'.

HISTORY: DV TOOL @ 9587'. PERF'D WOLFCAMP @ 11,070'-120'.
2 STAGE ACID 8000 GALS 15%. SWABBED DRY. SET CIBP @
11,050' DUMPED CMNT. NEW PBD @ 11,015'. PERF'D MIDDLE
WOLFCAMP @ 10,930'-966'. ACIDIZE W/ 3000 GALS 15%.
SWABBED DRY. PERF'D MIDDLE WOLFCAMP @ 10,708'-754'.
ACIDIZED W/500 GALS. SWABBED 100% WATER. SET CIBP
@ 10,658' & DUMPED CMNT. SET CIBP @ 9537'. PERF'D 2ND
BONE SPRING SAND @ 9434'-76'. ACIDIZE W/ 2000 GALS
7-1/2%. FRACED W/26,746 GALS & 37,000# 20/40 SD.
PERF'D 8626'-33'. ACIDIZED W/1000 GALS 7-1/2%. FRACED W/
15,200 GALS, 33,000# 20/40 SD. & 24,500# RESIN COATED SI
IP ON 8/16/89 WAS 55 BOPD, 7 BW AND 30 MCFD.
8/91 SET CIBP @ 8575' AND DUMPED 50' CMT. PERF'D
DELAWARE @ 5271'-90' W/2 SPF. ACIDIZED W/2000 GALS
7-1/2%. FRAC'D W/27,322 GALS AND 43,700# 20/40 SD.
FINALED 9/23/91 @ 23 BOPD, 246 BWPD, AND 40 MCFD.

5271'-90' (DELAWARE)

TDC @ 8525'

CIBP @ 8575'

8626'-33' (1ST BS SD)

9434'-76' (2ND BS SD)

DV TOOL @ 9587'

TDC @ 10,622'

CIBP @ 10,658'

10,708'-54' (M. WOLFCAMP)

10,390'-966' (M. WOLFCAMP)

TDC @ 11,015'

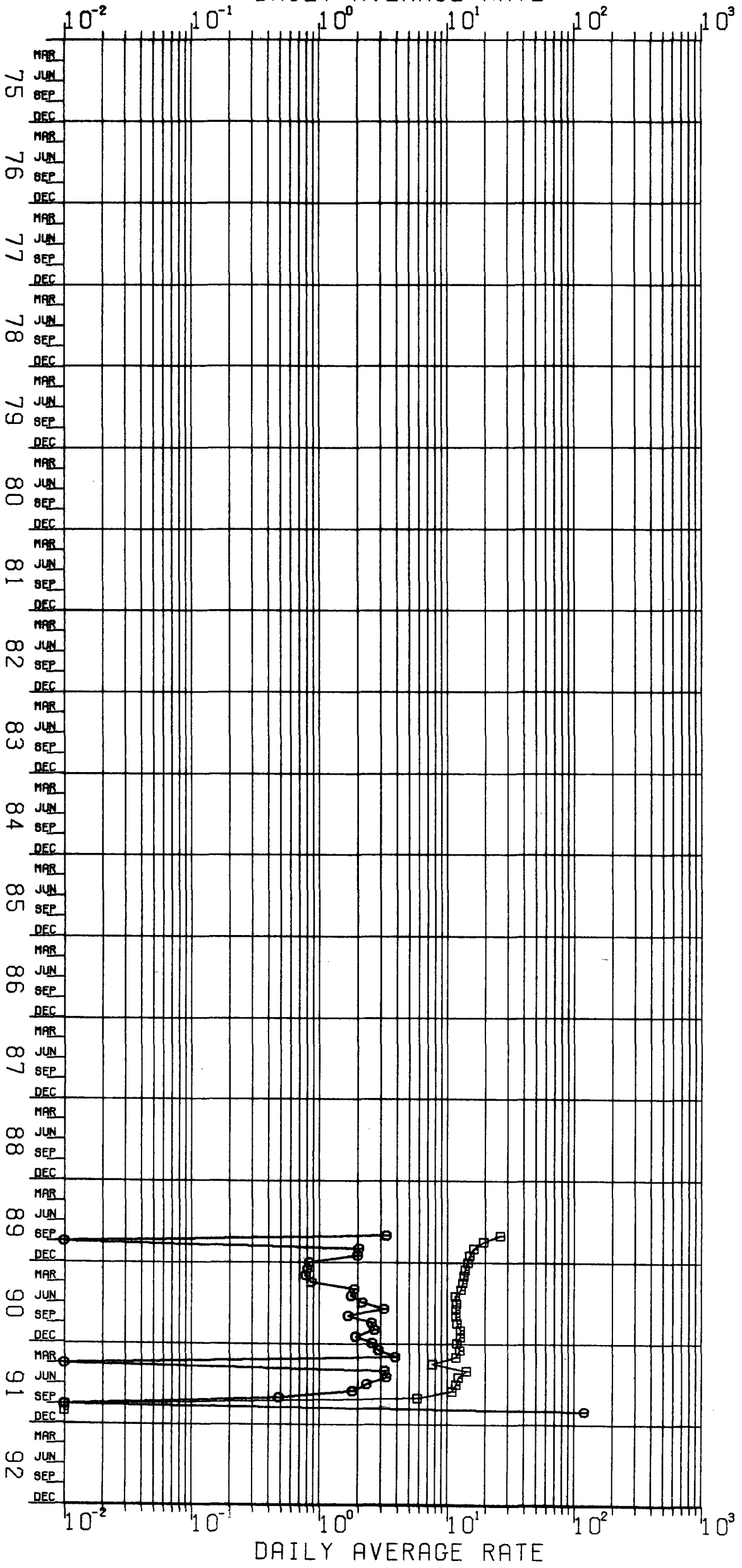
CIBP @ 11,050'

11,070'-120'

5-1/2" SET @ 11,401'

FIELD - MESCALERO ESCARPE
RESERVOIR - BONE SPRING
LEASE - STATE E-744 15 NO. 1
WELL - STATE E-744-15-NO. 1

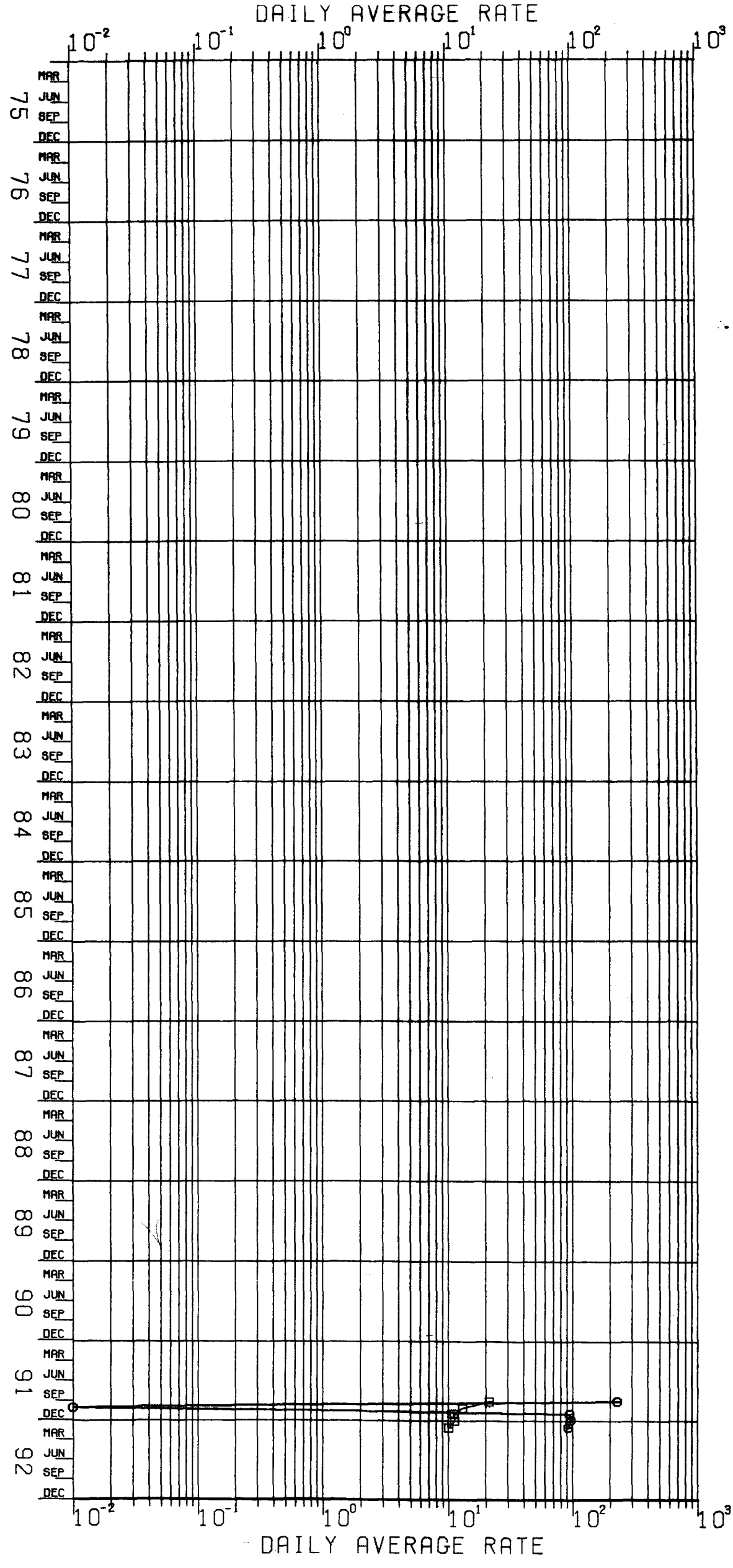
DAILY AVERAGE RATE



DAILY AVERAGE RATE

O+C CALENDAR DLY AVG _____
MTR CALENDAR DLY AVG _____

FIELD - MESCALERO ESCARPE
RESERVOIR - DELAMARE
LEASE - STATE E-744 15 NO. 1
WELL - STATE E-744-15-NO. 1



O+C CALENDAR DLY AVG _____
WTR CALENDAR DLY AVG _____