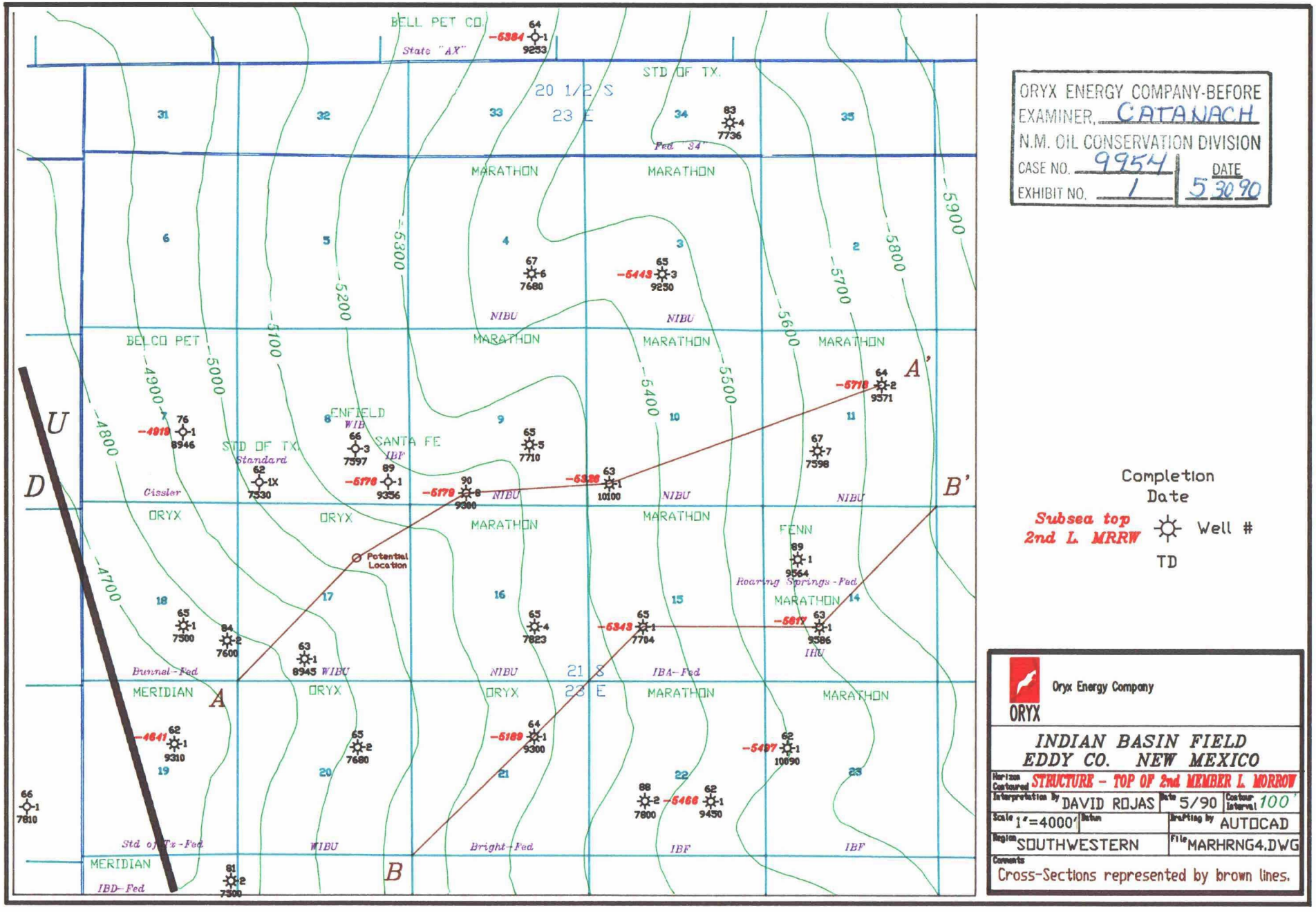


ORYX ENERGY COMPANY-BEFORE
EXAMINER, CATANACH
N.M. OIL CONSERVATION DIVISION
CASE NO. 9954 DATE 5 30 90
EXHIBIT NO. 1

Completion Date

Subsea top 2nd L. MRRW

Well #

TD

Oryx Energy Company

ORYX

INDIAN BASIN FIELD
EDDY CO. NEW MEXICO

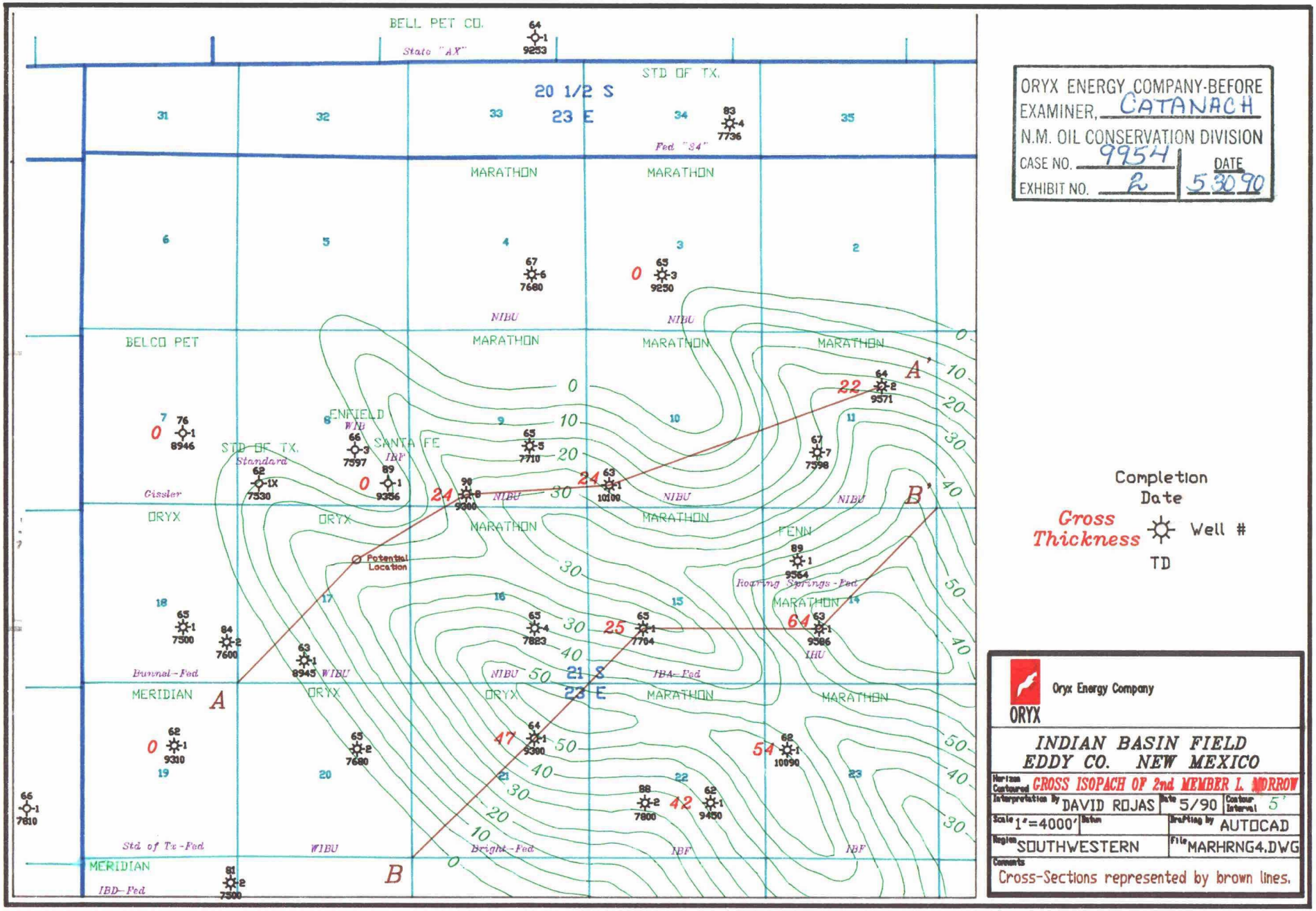
Horizon Contoured: STRUCTURE - TOP OF 2nd MEMBER L. MORROW

Interpretation By: DAVID ROJAS | Date: 5/90 | Contour Interval: 100'

Scale: 1"=4000' | Datum: | Drafting By: AUTOCAD

Region: SOUTHWESTERN | File: MARHRNG4.DWG

Comments: Cross-Sections represented by brown lines.



ORYX ENERGY COMPANY-BEFORE
EXAMINER, CATANACH
N.M. OIL CONSERVATION DIVISION
CASE NO. 9954 DATE 5 30 90
EXHIBIT NO. 2

Completion Date

Gross Thickness ☼ Well #

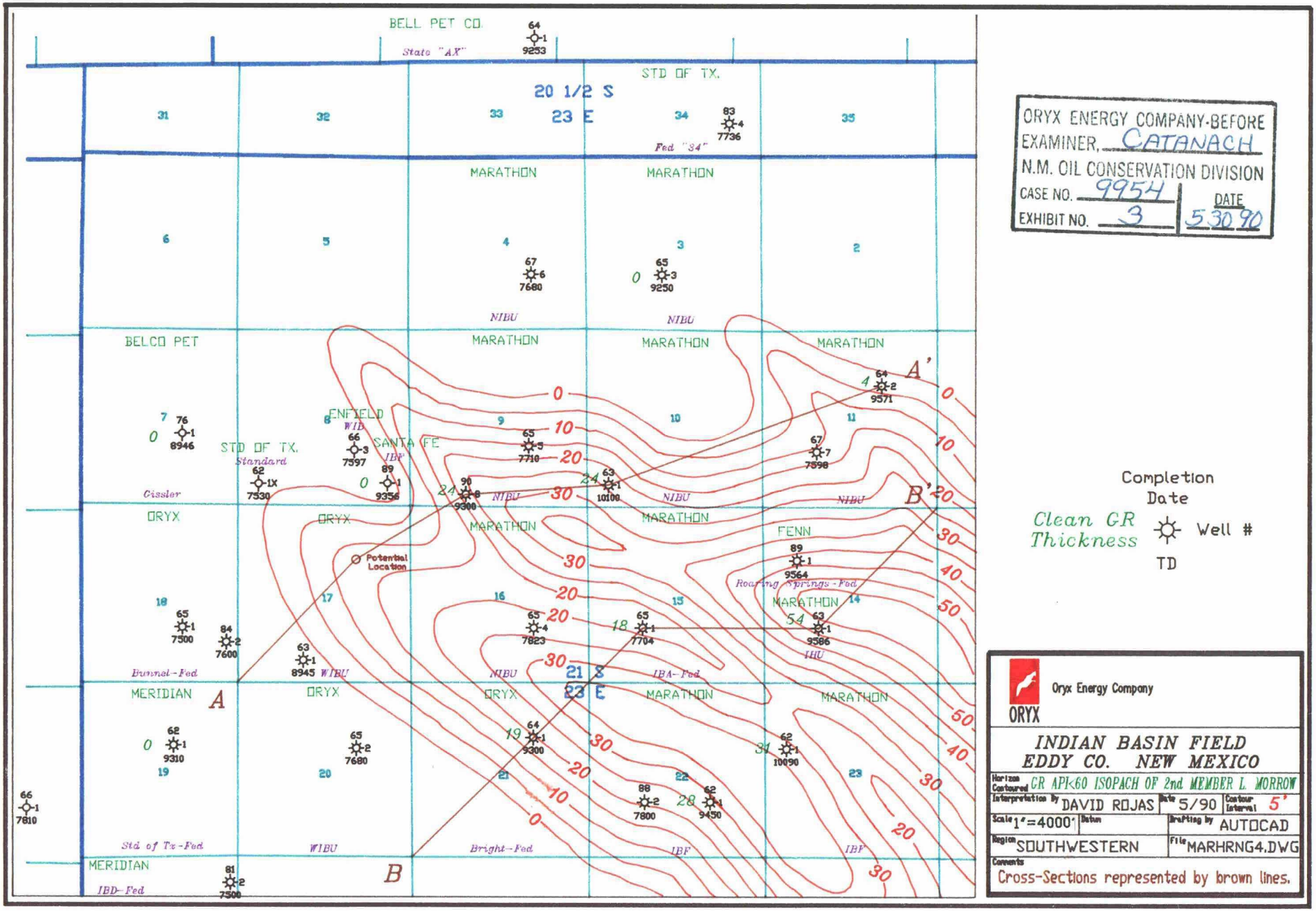
TD

Oryx Energy Company

ORYX

INDIAN BASIN FIELD
EDDY CO. NEW MEXICO

Horizon Contoured: GROSS ISOPACH OF 2nd MEMBER L. MORROW
Interpretation By: DAVID ROJAS | Date: 5/90 | Contour Interval: 5'
Scale: 1"=4000' | Datum | Drafting by: AUTOCAD
Region: SOUTHWESTERN | File: MARHRNG4.DWG
Comments: Cross-Sections represented by brown lines.



ORYX ENERGY COMPANY-BEFORE
EXAMINER, CATANACH
N.M. OIL CONSERVATION DIVISION
CASE NO. 9954 DATE 5.30.90
EXHIBIT NO. 3

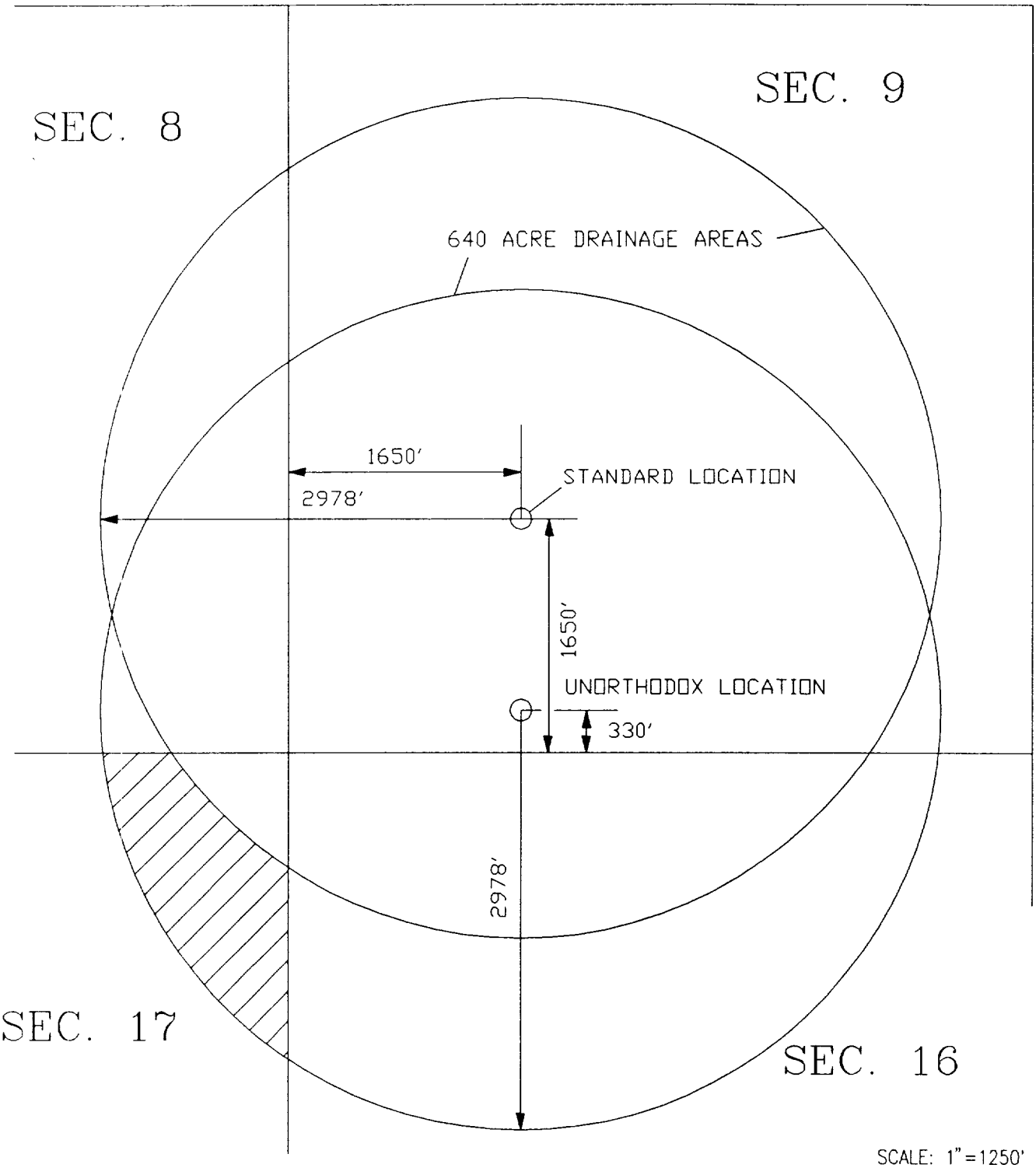
Completion Date
Clean GR Thickness ☼ Well #
TD

Oryx Energy Company
ORYX

INDIAN BASIN FIELD
EDDY CO. NEW MEXICO

Horizon Contoured	GR API<60 ISOPACH OF 2nd MEMBER L. MORROW		
Interpretation by	DAVID ROJAS	Date 5/90	Contour Interval 5'
Scale 1"=4000'	Datum	Drafting by	AUTOCAD
Region SOUTHWESTERN		File	MARHRNG4.DWG

Comments
Cross-Sections represented by brown lines.



SCALE: 1"=1250'

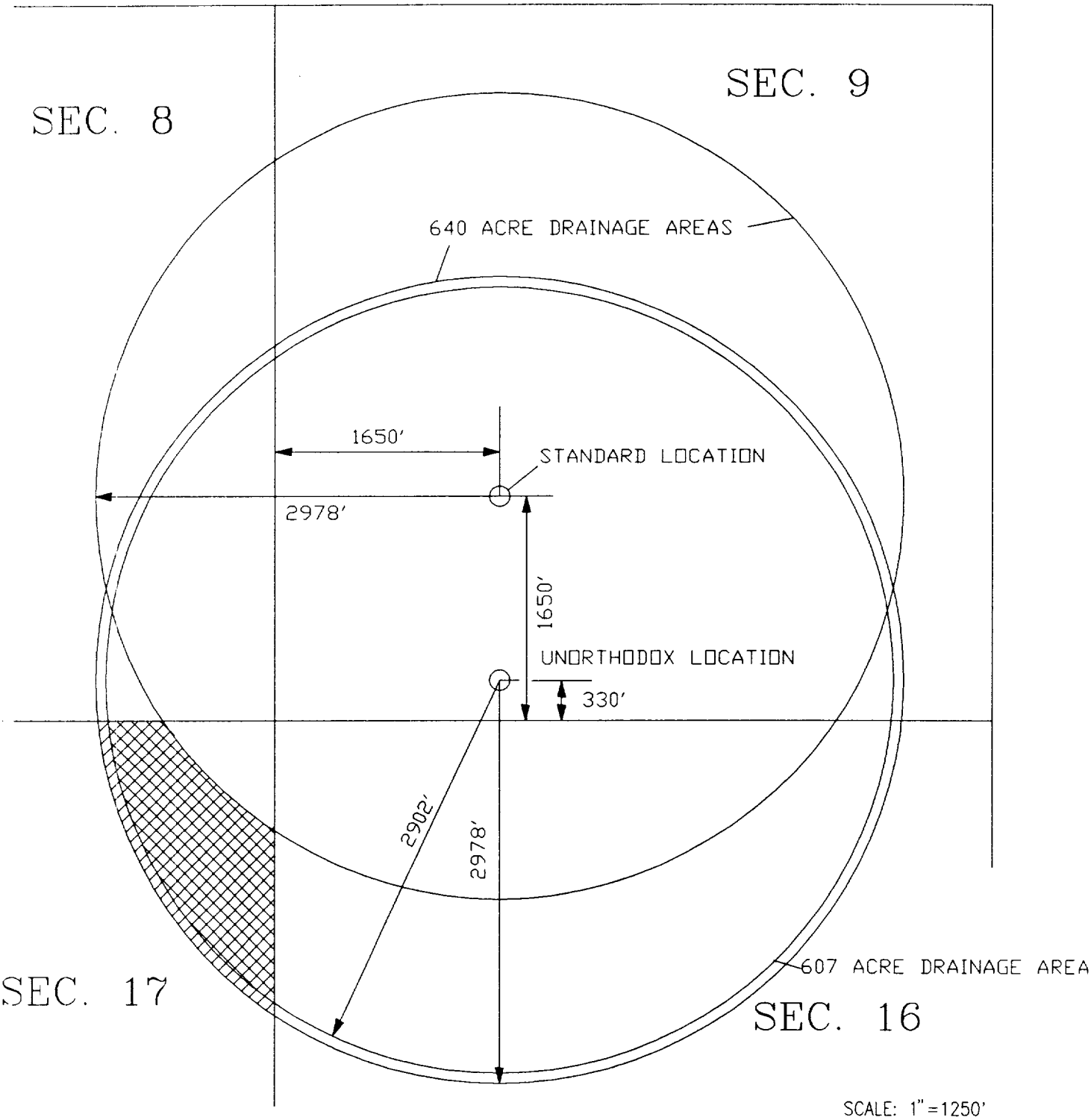
AREA IN SECTION 17 THAT WOULD BE DRAINED BY MOVING FROM A STANDARD LOCATION TO THE UNORTHODOX LOCATION WITH NO PENALTY

ORYX

Oryx Energy Company

NMOCD CASE NO. 9954
BEFORE EXAMINER CATANACH
MAY 30 1990
EXHIBIT NO. 5

ACAD MISC BWILSON4 B-3



SCALE: 1" = 1250'

AREA IN SECTION 17 THAT WOULD BE DRAINED BY MOVING FROM A STANDARD LOCATION TO THE UNORTHODOX LOCATION WITH NO PENALTY

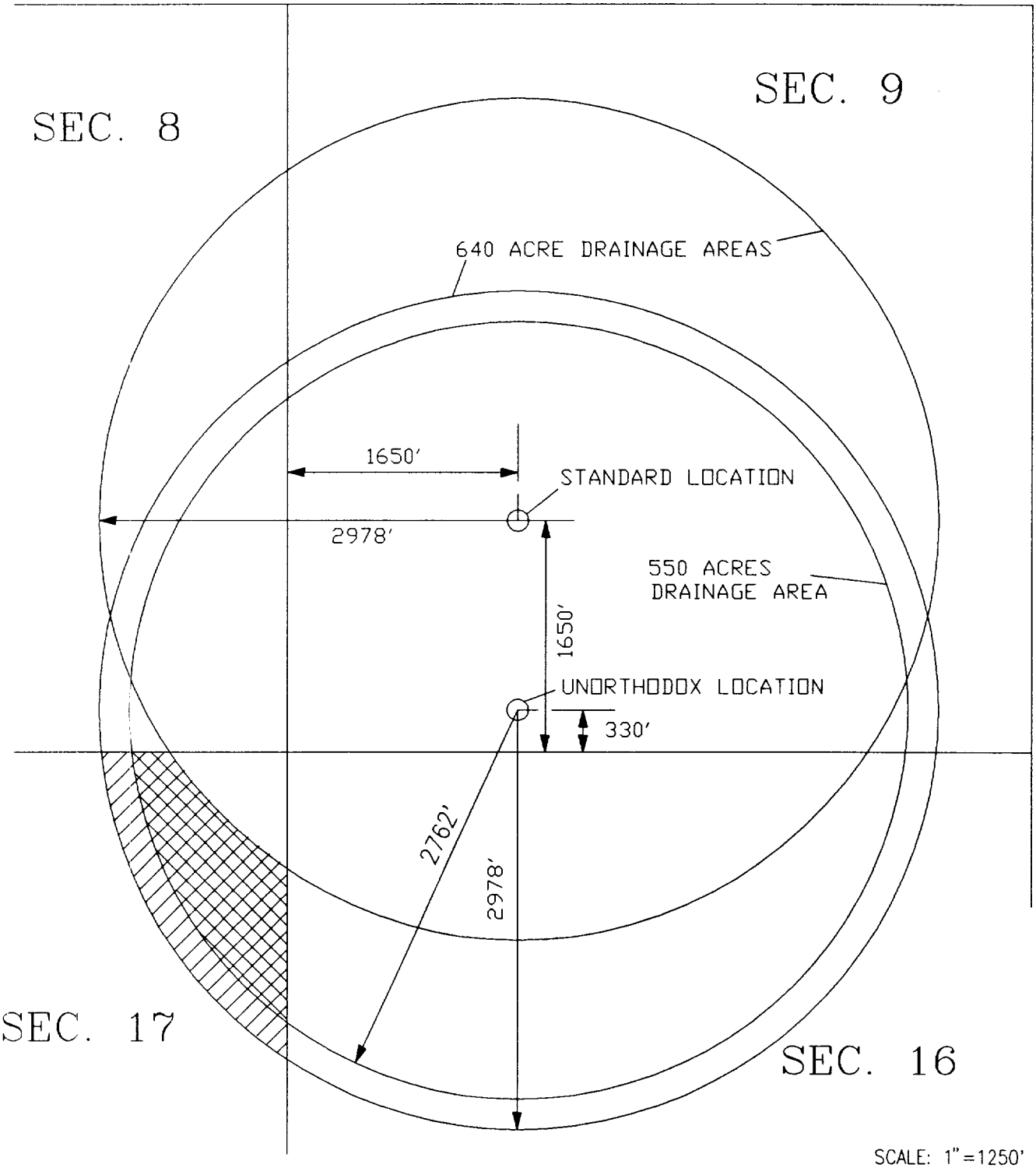
AREA IN SECTION 17 THAT WOULD BE DRAINED BY MOVING FROM A STANDARD LOCATION TO THE UNORTHODOX LOCATION WITH A **5% PENALTY**

ACAD BWILSON3 B-3

Oryx Energy Company

ORYX

NMOCD CASE NO. 9954
BEFORE EXAMINER CATANACH
MAY 30 1990
EXHIBIT NO. 6



SCALE: 1" = 1250'

AREA IN SECTION 17 THAT WOULD BE DRAINED BY MOVING FROM A STANDARD LOCATION TO THE UNORTHODOX LOCATION WITH NO PENALTY

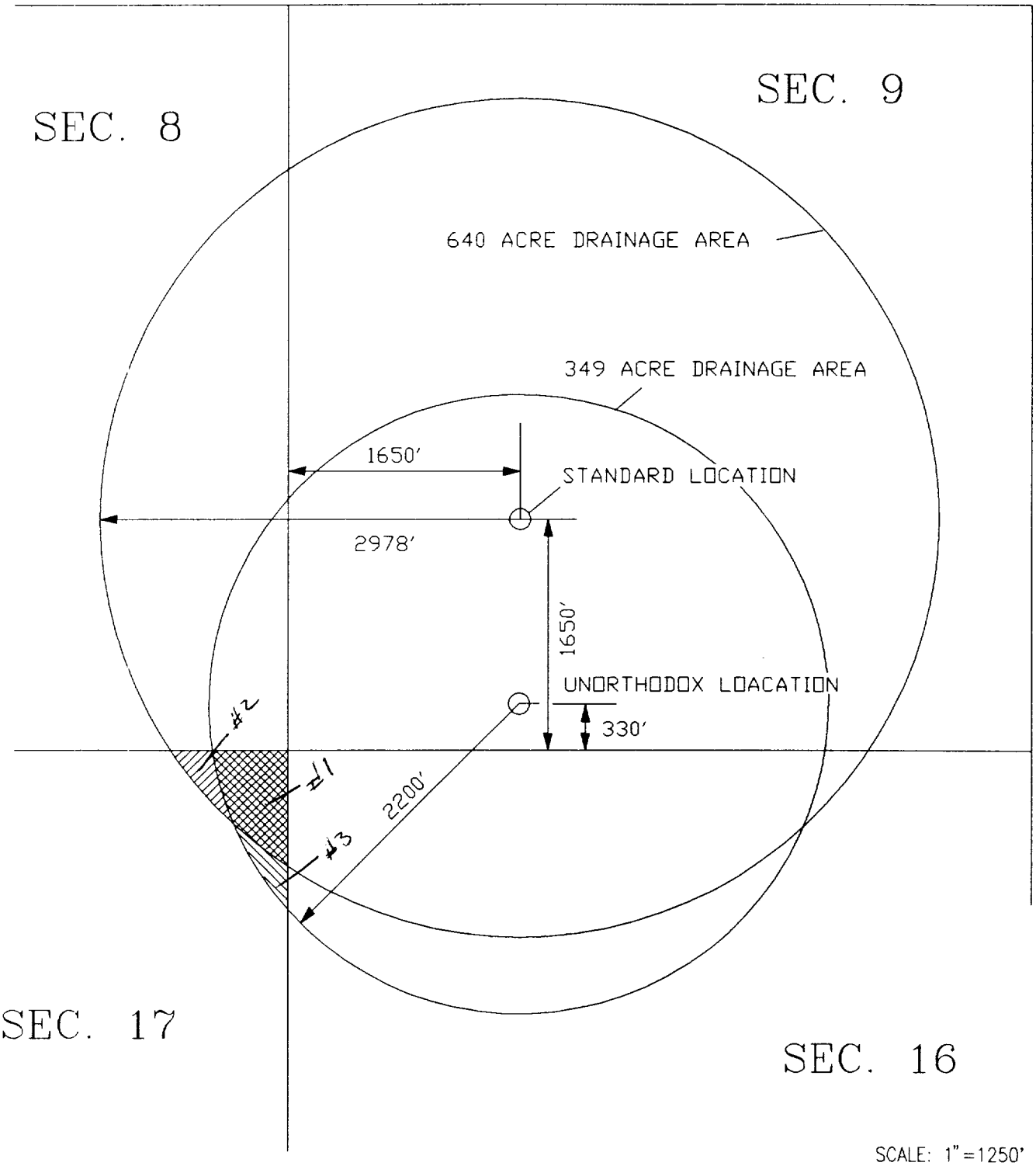
AREA IN SECTION 17 THAT WOULD BE DRAINED BY MOVING FROM A STANDARD LOCATION TO THE UNORTHODOX LOCATION WITH A **14% PENALTY**

Oryx Energy Company

ORYX

NMOCD CASE NO. 9954
BEFORE EXAMINER CATANACH
MAY 30 1990
EXHIBIT NO. 7

ACAD MISC BWILSON1 B-3



SCALE: 1"=1250'

AREA IN SECTION 17 DRAINED BY A STANDARD LOCATION WITH A FULL ALLOWABLE

AREA IN SECTION 17 DRAINED BY THE UNORTHODOX LOCATION WITH A **45% PENALTY**

Oryx Energy Company

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NMOCD CASE NO. 9954
BEFORE EXAMINER CATANACH
MAY 30 1990
EXHIBIT NO. 8

ACAD MISC DWILSON2 B-3

VOLUMETRIC CALCULATIONS FOR A PRORATED GAS RESERVOIR

$$A = \pi r^2 / 43560$$

$$\text{ULTIMATE RECOVERY} = QL = 43560\ \phi\ (1\text{-}SW)\ (Bgi\text{-}Bga)\ HA$$

$$\frac{Q_1\ L = 43560\ \phi\ (1\text{-}SW)\ (Bgi\text{-}Bga)\ HA_1}{Q_2\ L = 43560\ \phi\ (1\text{-}SW)\ (Bgi\text{-}Bga)\ HA_2}$$

$$\frac{Q_1}{Q_2} = \frac{A_1}{A_2} = \frac{\pi r_1^2}{\pi r_2^2} = \frac{r_1^2}{r_2^2}$$

$$Q_2 = Q_1 \frac{r_2^2}{r_1^2}$$

$$Q_2 = \frac{(2200)^2 Q_1}{(2978)^2}$$

$$\boxed{Q_2 = .55\ Q_1}$$

WHERE: A = DRAINAGE AREA (ACRES)
r = DRAINAGE RADIUS (FT.)
Q = PRODUCTION RATE (MCFPD)
L = LIFE (DAYS)
ϕ = POROSITY
SW = WATER SATURATION
Bgi = INITIAL GAS VOLUME FACTOR (SCF/CF)
Bga = GAS VOLUME FACTOR AT ABANDONMENT (SCF/CF)
H = FORMATION THICKNESS (FT)

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NMOCD CASE NO. 9954
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MAY 30 1990
EXHIBIT NO. 9

RECOMMENDED PENALTY

BASIS: EQUAL DRAINAGE OF OFFSETTING LEASE

$$1 - \frac{(2200)^2}{(2978)^2} = .45$$

PENALTY = 45%

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Oryx Energy Company

NMOCD CASE NO. 9954
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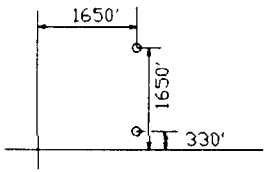
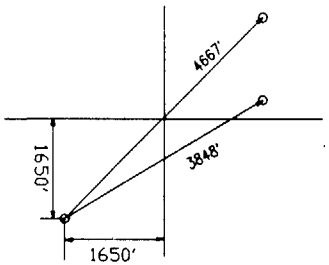
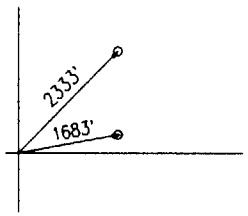
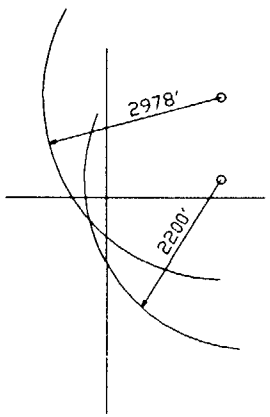
MAY 30 1990
EXHIBIT NO. 10

GEOMETRIC CONFIGURATION	BASIS FOR PENALTITY METHOD	CALCULATION	PENALTY	COMMENTS
	VARIANCE FROM STANDARD SETBACKS	$\frac{(1650-330) + (1650-0)}{1650 + 1650} = .40$	40%	STRAIGHTFORWARD AND UNIVERSALLY APPLICABLE
	WELL-TO-WELL DISTANCE	$1 - \frac{3848}{4667} = .175$	17.5%	INVALID BOUNDARY CONDITIONS- WELL DRILLED AT INTERSECTION OF LEASE LINES WOULD SUFFER ONLY A 50% PENALTY
	LEASE-TO-WELL DISTANCE	$1 - \frac{1683}{2333} = .279$	27.9%	ALREADY ADDRESSES DIAGONAL OFFSET WITHOUT NECESSITATING FURTHUR ADJUSTMENT
	EQUAL DRAINAGE OF OFFSETING LEASE	$1 - \frac{(2200)^2}{(2978)^2} = .45$	45%	MOST ACCURATE

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NMOCD CASE NO. 9954
BEFORE EXAMINER CATANACH
MAY 30 1990

EXHIBIT NO. 11