



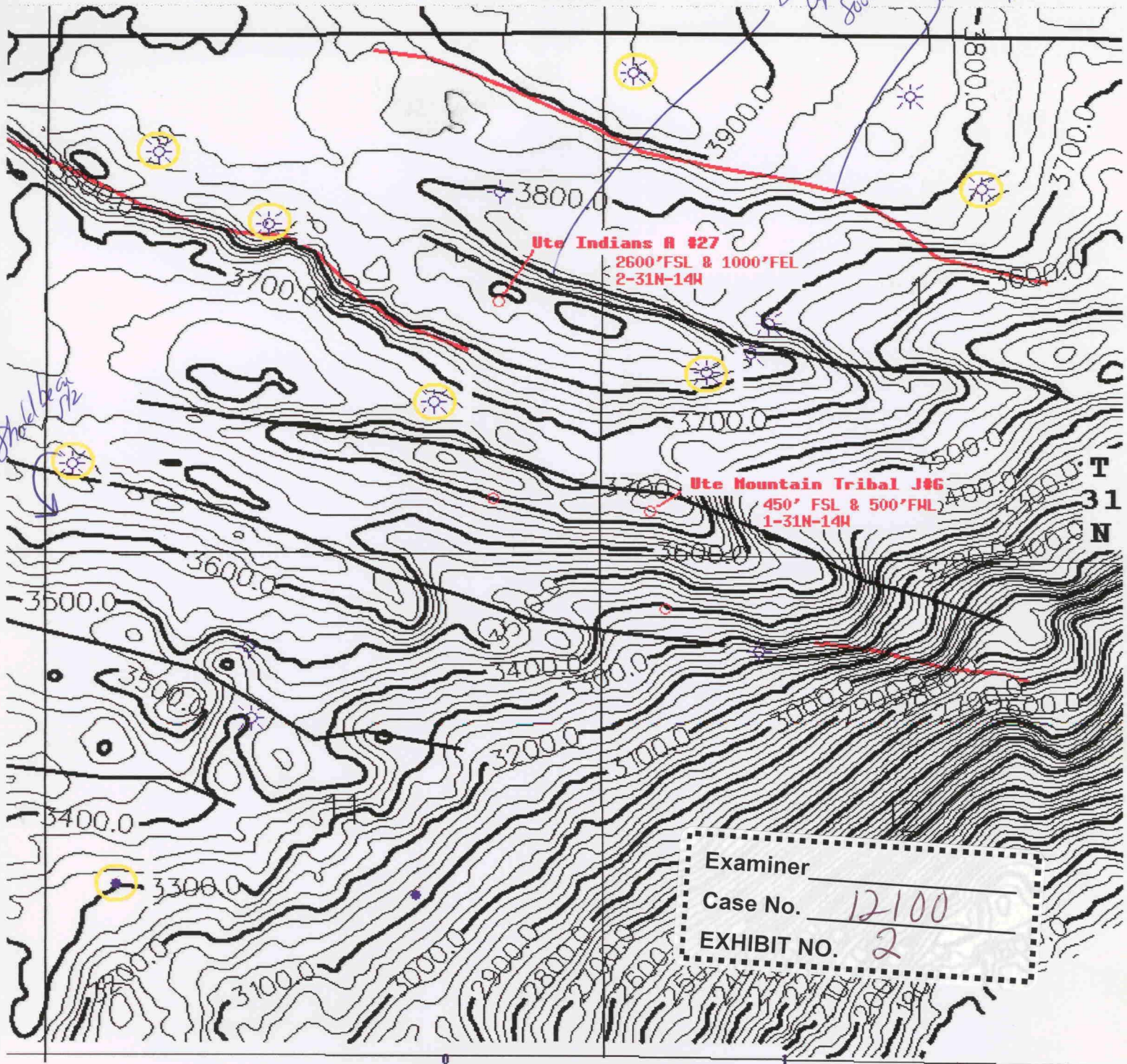
EXHIBIT.

Cross Timbers Oil Company



R14W

Black Lignite to South
Red Lignite to North



Shale base 172

T
31
N

-  Down-to-North Fault
-  Down-to-South Fault
-  Active Dakota Producing Well



Gross Timbers Oil Company

UTE DOME FIELD
San Juan County, New Mexico

STRUCTURE: Top of Dakota

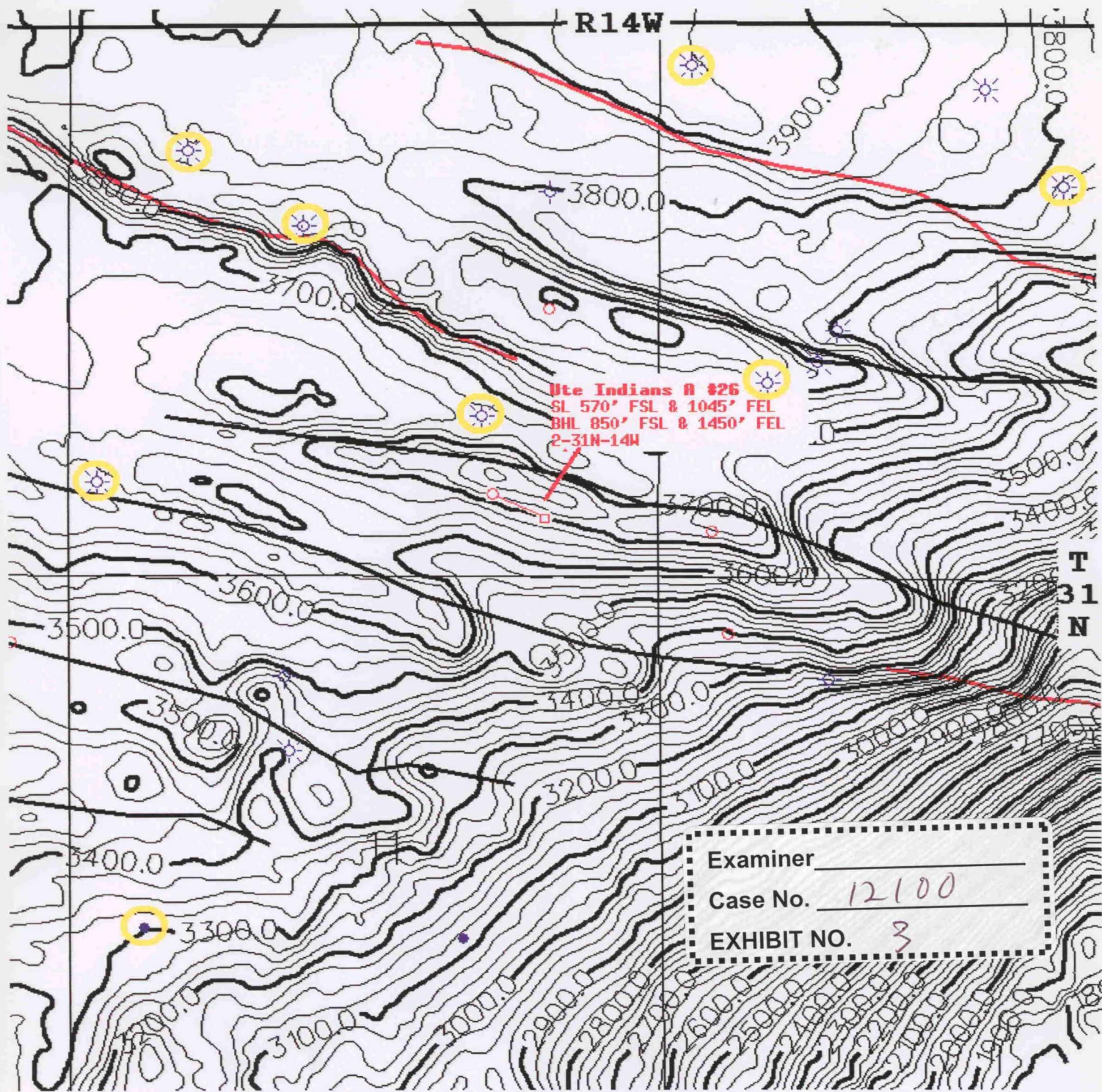
November, 1998

GKB/MSV

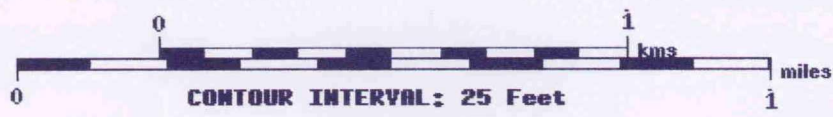
NEW MEXICO
CONSERVATION DIVISION

EXHIBIT **2**

CASE NO. _____



Examiner _____
Case No. 12100
EXHIBIT NO. 3



-  Down-to-North Fault
-  Down-to-South Fault
-  Active Dakota Producing Well
-  BHL
-  Surface

 Cross Timbers Oil Company
UTE DOME FIELD San Juan County, New Mexico
STRUCTURE: Top of Dakota
November, 1998
GKB/MSV

NEW YORK
CONSERVATION DIVISION

EXHIBIT **3**

CASE NO. _____

R14W.

Ute Indians R #26
 SL 570' FSL & 1045' FEL
 BHL 850' FSL & 1450' FEL
 2-31N-14W

Ute Mountain Tribal J #7
 575' FNL & 625' FNL
 12-31N-14W

T
 31
 N



CONTOUR INTERVAL: 25 Feet



Paradox Producer



BHL

Surface



Cross Timbers Oil Company

UTE DOME FIELD

San Juan County, New Mexico

STRUCTURE: Top of Akah

November, 1998

GKB/MSV

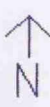
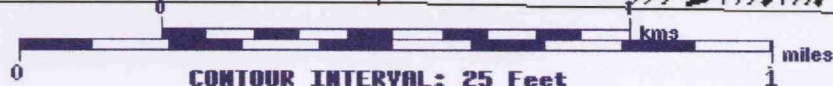
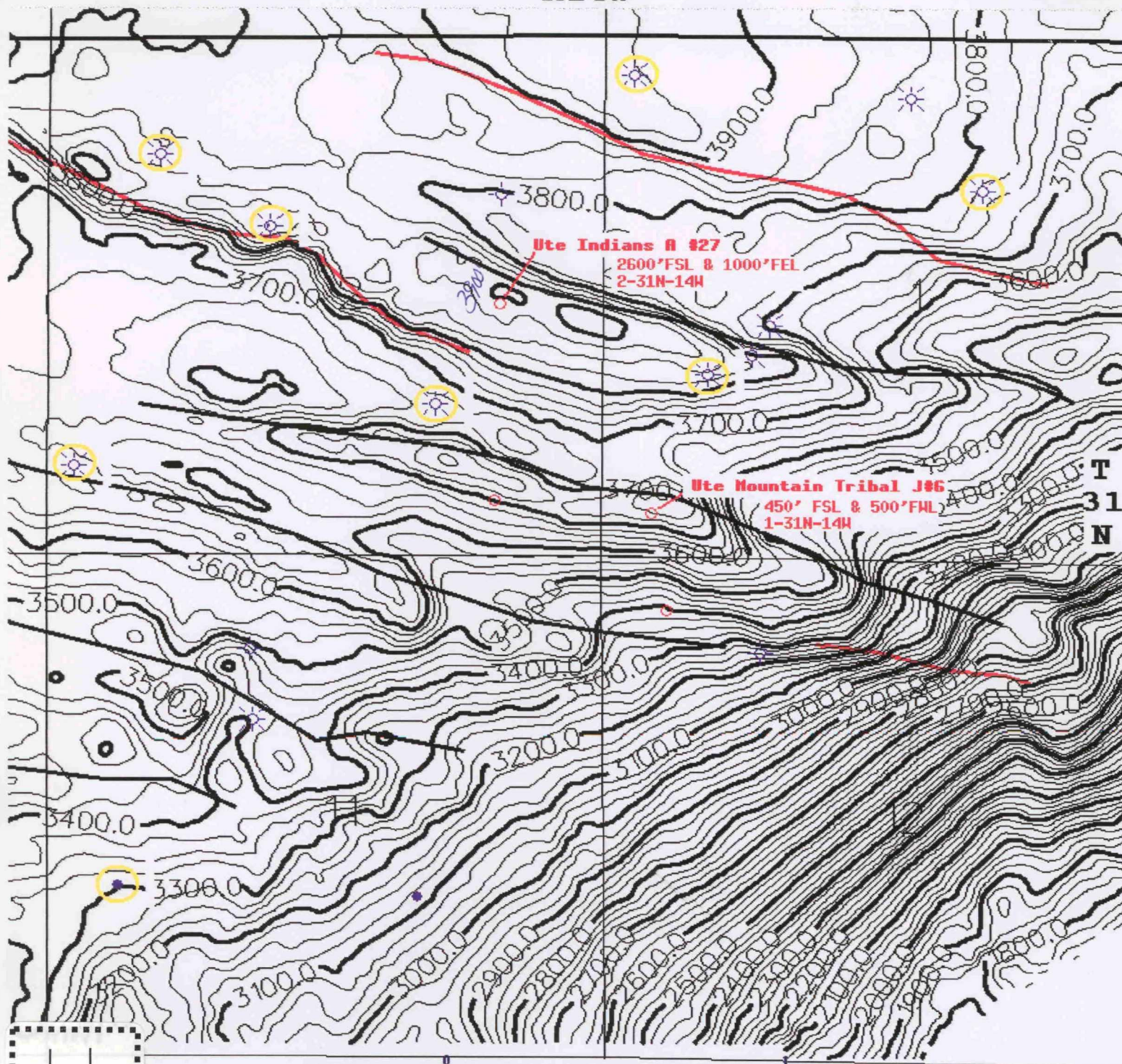
Examiner 12100
 Case No. 3A
 EXHIBIT NO.

DEPARTMENT OF
CONSERVATION DIVISION

EXHIBIT **3A**

DATE NO. _____

R14W



-  Down-to-North Fault
-  Down-to-South Fault
-  Active Dakota Producing Well

Examiner 12100
 Case No. 4
 EXHIBIT NO. 4

 Cross Timbers Oil Company	
UTE DOME FIELD San Juan County, New Mexico	
STRUCTURE: Top of Dakota	
November, 1998	GKB/MSV

Ute Indians A 27
SE/4 Section 2 T31N R14W

Volumetrics - SE/4 Section 2

First Dakota Sand GIP	405	MMCF
Second Dakota Sand GIP	355	MMCF
Third Dakota Sand GIP	189	MMCF
Total GIP	949	MMCF

Ute Indians A 20

Cumulative Production (5/98)	133	MMCF
Decline Curve EUR	133	MMCF
Recovery of GIP	0.14	

For recovery

Remaining Reserves

SE/4 Sec 2 GIP @ 85% RF	807	MMCF
Less Ute Indians A 20 EUR	133	MMCF
Remaining Reserves	674	MMCF

*Now Dakota sands may be
produced in the SE/4
has not been produced yet*

*Now in case, reserves for SE/4
not yet produced*

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UTE DOME DAKOTA
SE/4 SECTION 2-T31N-R14W
1ST SAND

Fluid Properties

Gas Gravity	=	0.616	Gas Analysis
T _c	=	355 °R	Standing's correlation
P _c	=	671 psi	Standing's correlation
T _r	=	110 °F	Log Measurement
P _{ri}	=	843 psi	Calculated (0.32 psi/ft.)
P _{ra}	=	135 psi	Estimate
B _{gi}	=	0.01734 ft ³ /SCF	Standing & Katz's correlation
B _{ga}	=	0.11747 ft ³ /SCF	Standing & Katz's correlation

Calculate Theoretical Recovery Factor

$$RF_i = 1 - \frac{B_{gi}}{B_{ga}}$$

$$RF_i = 1 - \frac{0.01734}{0.11747}$$

$$RF_i = 0.8524 \text{ (fraction)}$$

Rock Properties

Acre - Feet	=	1,833	Planimetered from net pay thickness maps
Average Porosity	=	0.16	(fraction) _{nd} Avg. (Ute Indians A20 Log)
Water Saturation	=	0.45	(fraction) Avg.

Ute Dome Dakota

1st Sand

Page 2

Calculate GIP, Theoretical and Actual EUR

$$GIP = \frac{.04356Ah\phi(1-S_w)}{B_{gi}} MMCF$$

$$GIP = \frac{.04356(1,833)(0.16)(1-0.45)}{0.01734} MMCF$$

$$GIP = 405 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(405)$$

$$EUR_t = 345 \text{ MMCF}$$

CROSS TIMBERS OIL COMPANY

Barry Voigt

12/15/98

**UTE DOME DAKOTA
SE/4 SECTION 2-T31N-R14W
2nd SAND**

Fluid Properties

Gas Gravity	=	0.616	Gas Analysis
T _c	=	355 °R	Standing's correlation
P _c	=	671 psi	Standing's correlation
T _r	=	110 °F	Log Measurement
P _{ri}	=	843 psi	Calculated (0.32 psi/ft.)
P _{ra}	=	135 psi	Estimate
B _{gi}	=	0.01734 ft ³ /SCF	Standing & Katz's correlation
B _{ga}	=	0.11747 ft ³ /SCF	Standing & Katz's correlation

Calculate Theoretical Recovery Factor

$$RF_i = 1 - \frac{B_{gi}}{B_{ga}}$$

$$RF_i = 1 - \frac{0.01734}{0.11747}$$

$$RF_i = 0.8524 \text{ (fraction)}$$

Rock Properties

Acre - Feet	=	1,730	Planimetered from net pay thickness maps
Average Porosity	=	0.16	(fraction) _{nd} Avg. (Ute Indians A20 Log)
Water Saturation	=	0.49	(fraction) Avg.

Ute Dome Dakota
2nd Sand
Page 2

Calculate GIP, Theoretical and Actual EUR

$$GIP = \frac{.04356Ah(1 - S_w)}{B_{gi}} \text{ MMCF}$$

$$GIP = \frac{.04356(1,730)(0.16)(1 - 0.49)}{0.01734} \text{ MMCF}$$

$$GIP = 355 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(355)$$

$$EUR_t = 302 \text{ MMCF}$$

CROSS TIMBERS OIL COMPANY
Barry Voigt
12/15/98

UTE DOME DAKOTA
SE/4 SECTION 2-T31N-R14W
3rd Sand

Fluid Properties

Gas Gravity	=	0.616	Gas Analysis
T _c	=	355 °R	Standing's correlation
P _c	=	671 psi	Standing's correlation
T _r	=	110 °F	Log Measurement
P _{ni}	=	843 psi	Calculated (0.32 psi/ft.)
P _{ra}	=	135 psi	Estimate
B _{gi}	=	0.01734 ft ³ /SCF	Standing & Katz's correlation
B _{ga}	=	0.11747 ft ³ /SCF	Standing & Katz's correlation

Calculate Theoretical Recovery Factor

$$RF_i = 1 - \frac{B_{gi}}{B_{ga}}$$

$$RF_i = 1 - \frac{0.01734}{0.11747}$$

$$RF_i = 0.8524 \text{ (fraction)}$$

Rock Properties

Acre - Feet	=	770	Planimetered from net pay thickness maps
Average Porosity	=	0.15	(fraction) ϕ_{nd} Avg. (Ute Indians A20 Log)
Water Saturation	=	0.35	(fraction) Avg.

Ute Dome Dakota

3rd Sand

Page 2

Calculate GIP, Theoretical and Actual EUR

$$GIP = \frac{.04356Ah(1 - S_w)}{B_{gi}} \text{ MMCF}$$

$$GIP = \frac{.04356(770)(0.15)(1 - 0.35)}{0.01734} \text{ MMCF}$$

$$GIP = 189 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(189)$$

$$EUR_t = 161 \text{ MMCF}$$

CROSS TIMBERS OIL COMPANY

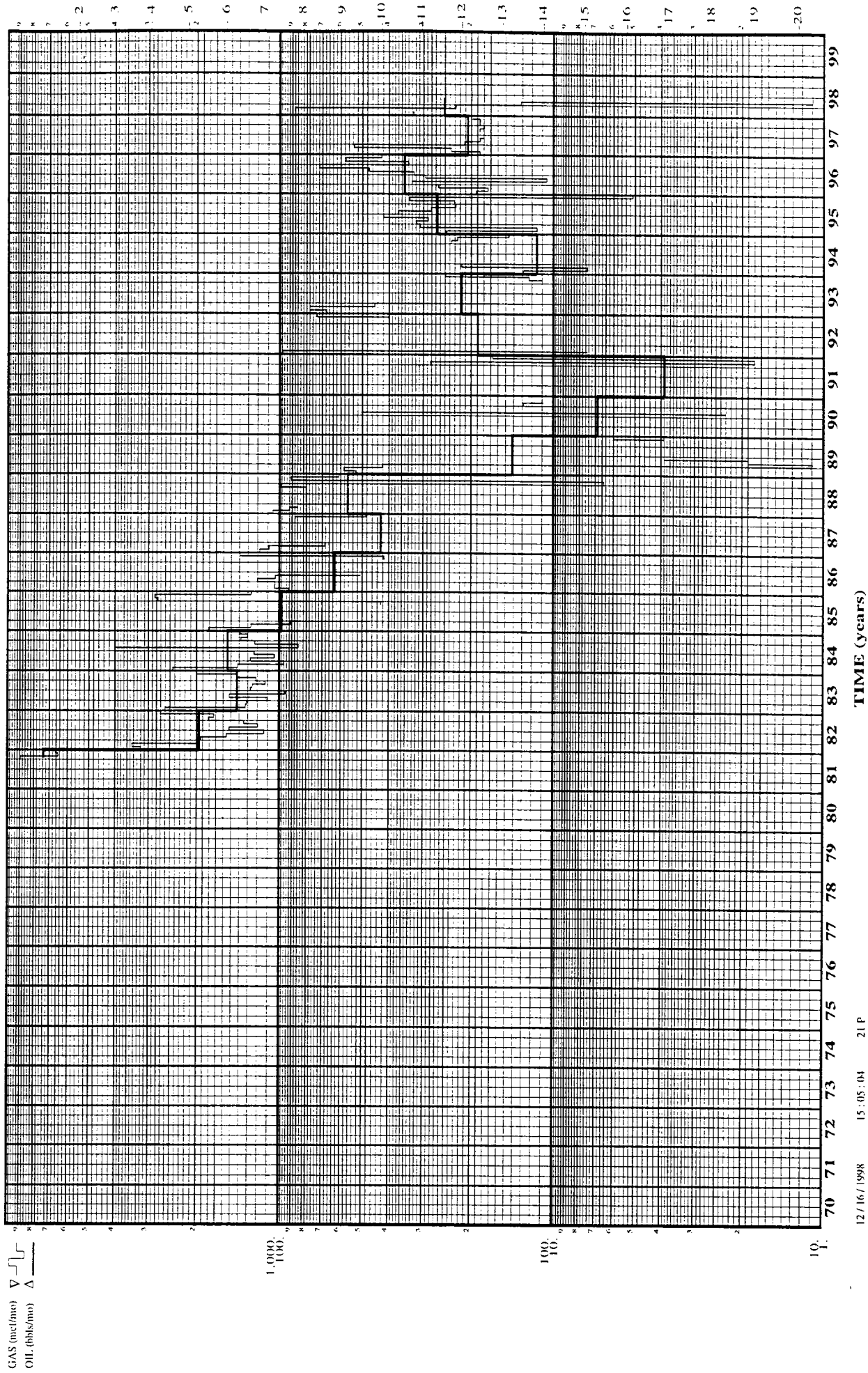
Barry Voigt

12/15/98

Cross Timbers Oil Company

UTE INDIANS A 20
CROSS TIMBERS OPERATING COMPANY
UTE DOME (DAKOTA)
SAN JUAN, NEW MEXICO
2 31 N14 W
J

CTOC -

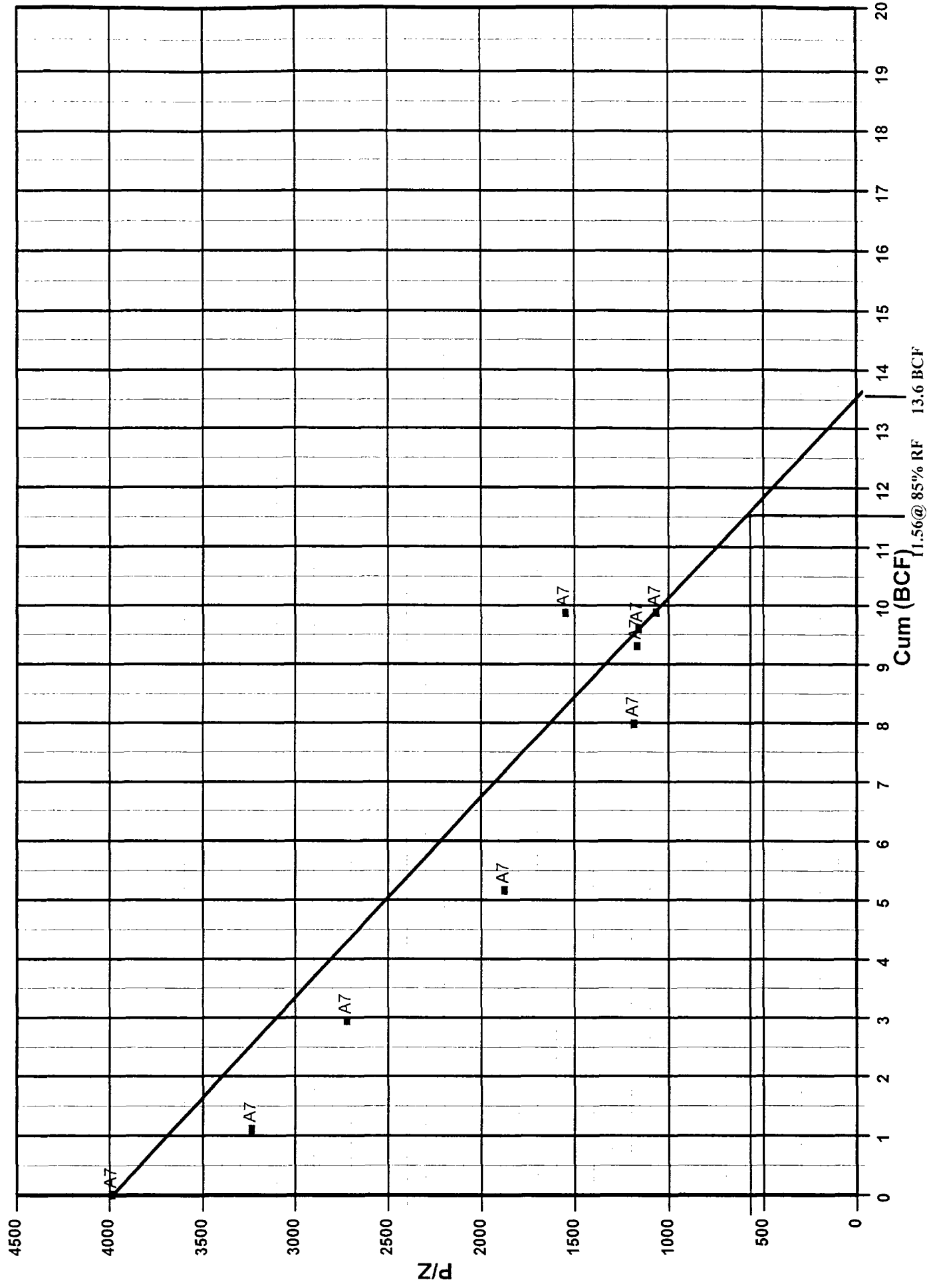
[illegible]Run Date :
Run Time:

Ute Indians A 7
Sec 2 T31N R14W

Cumulative Production (5/98)	10,022	MMCF
Decline Curve EUR	10,119	MMCF
P/Z GIP	13,600	MMCF
P/Z @ 85% RF	11,560	MMCF
Unrecovered Reserves	1,441	MMCF

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Ute Dome Paradox P/Z Plot



UTE INDIANS A 7
CROSS TIMBERS OPERATING COMPANY
UTE DOME (PARADOX /SH/)
SAN JUAN, NEW MEXICO
2 31 N14 W
F

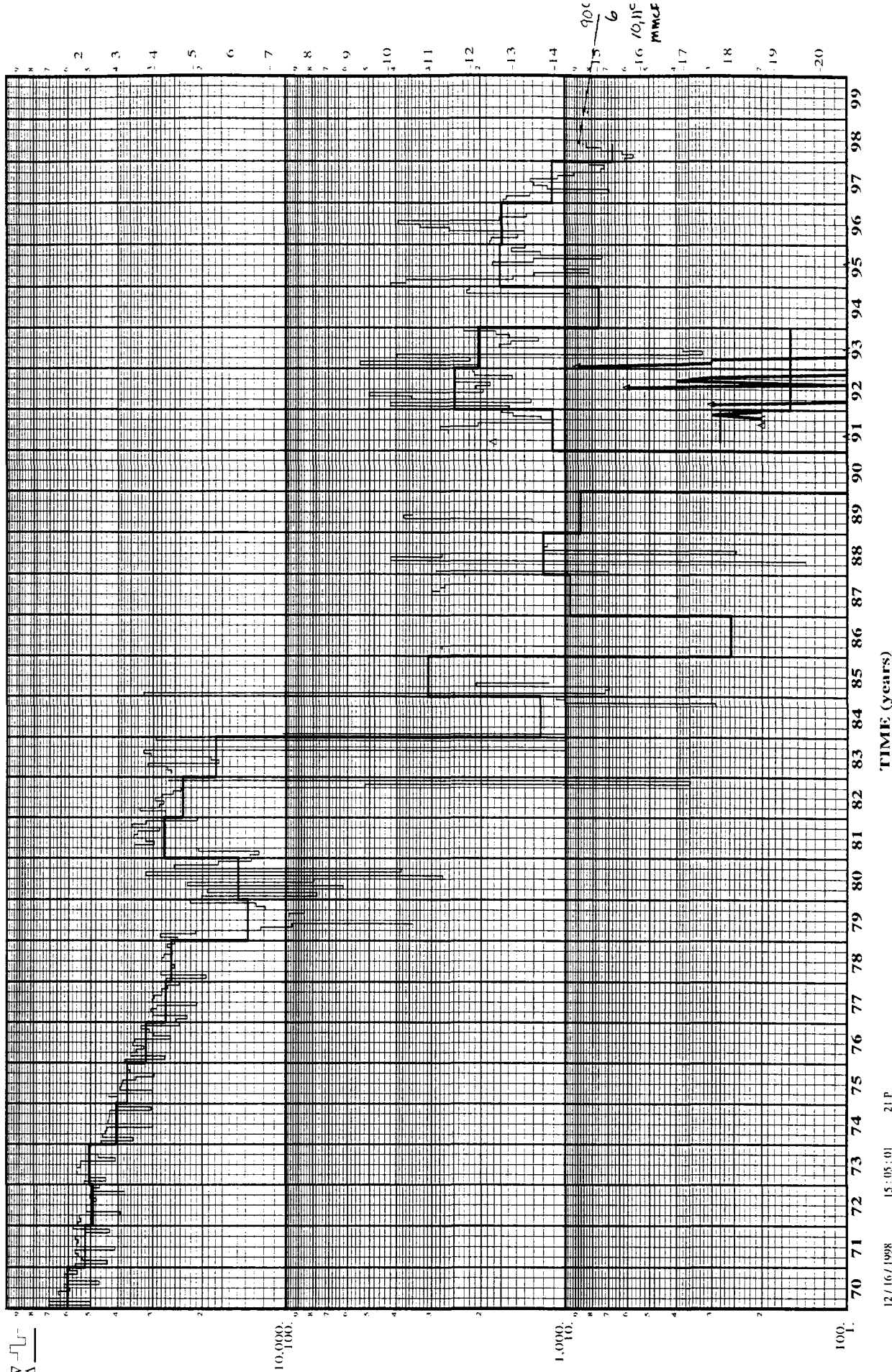
30045110490000

CTOC -

Oil		Gas		Oil		Gas		Rev. Cal.	
(bbls/mo)	(mc/mo)	(bbls)	(mc)	(bbls)	(mc)	(bbls)	(mc)	Life	Ass'd Date
Q1	0	0	0	67	10,022,087	0	0	Setup	10/02/2007
Q2	0	0	0	0	0	0	0	Q Prod	
Decline	0.0 %	0.0 %	0.0 %	67	10,022,087	0	0	Q Owner	
				0	0	0	0	Q Other	
Gross Cum 0**/**		Gross Remaining		Gross Ultimate		Net Remaining			
W1 - 0.00000 %	Oil Price (\$/bbl)	Gas Price (\$/mc)	OPC (\$/bbl)	Flat Life (years)	Last Production	Cash Flow	Net Cash Flow	P.W. @ 0.0 %	0
NRI - 0.00000 %	0.00	0.00	0.00	0.0	05/98	\$	\$	\$	0

Run Date :
Run Time :

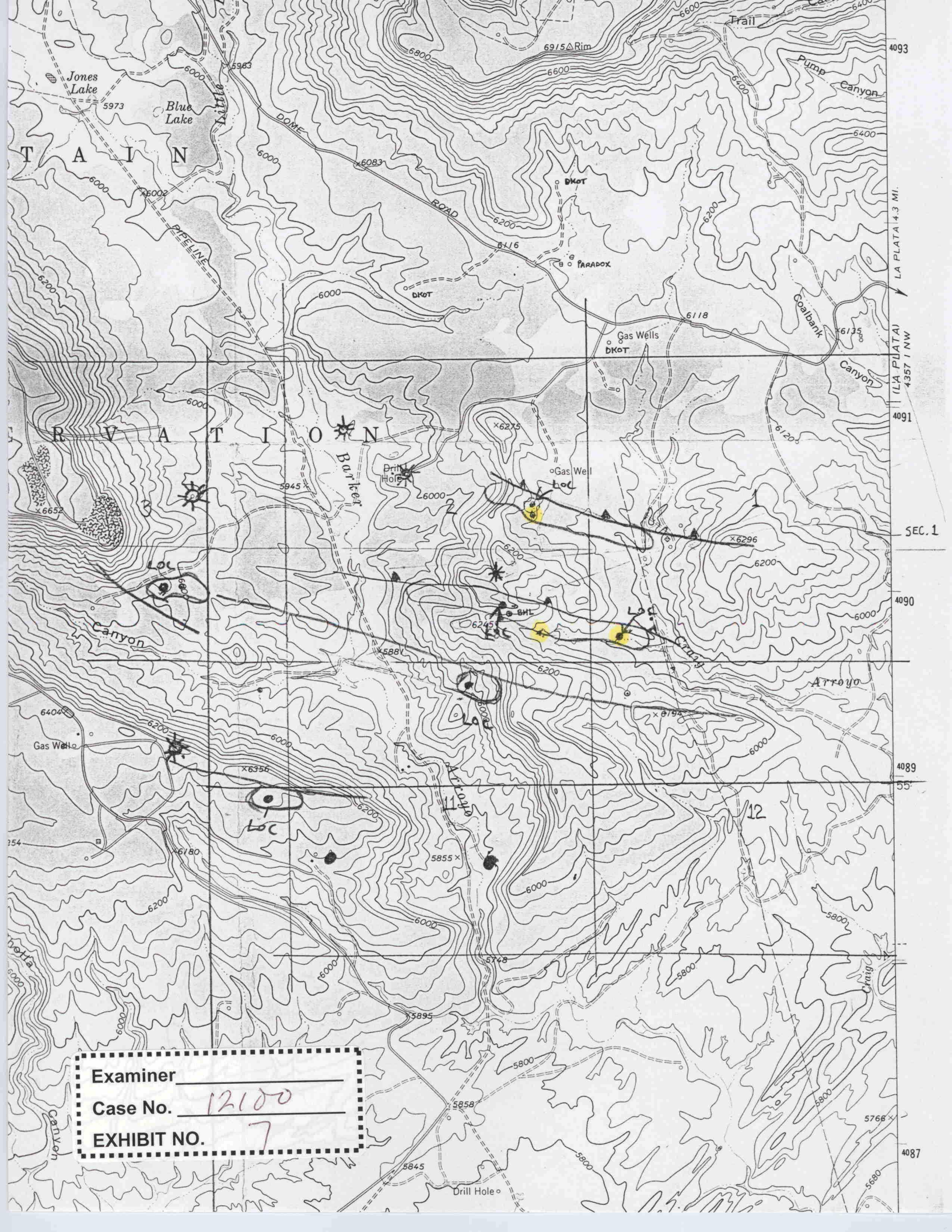
GAS (mc/mo) ▽
OIL (bbls/mo) Δ



TIME (years)

Ute Indians A 7 Production History

Nov-55 - Perforate Paradox and acidize with 11,000 gallons
Nov-61 Repair casing leak at 3815 feet
May-84 Perforate Honnacker Trail
Jun-84 Squeeze casing leak 377-439 feet
May-85 Pump solvent/acid job
Jun-93 Squeeze Honnacker Trail and acidize Paradox



Examiner _____

Case No. 12100

EXHIBIT NO. 7

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

EXHIBIT 7

CASE NO. _____