

5809-0003
DKOT

CTOC
FED A 1E
0 52
0 176
9908-0003
DKOT

CTOC
FRED FEASEL L 1
47 4778
0 132
5907-0003
DKOT

CTOC
FRED FEASEL H 1
36 3742
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5906-0003
DKOT

CONOCO
MCLEOD 2E
2 467
0 2
8112-0002
DKOT

CTOC
FRED FEASEL J 1
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0 137
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DKOT

32

33

34

CON
COLI
43
1
6508-
DKOT

CTOC
FED A 1
7/41 158/4496
0/0 0/100
5908-7304/5908-0003
GLLP/DKOT

CTOC
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8201-0003
DKOT

CTOC
KUTZ FED 13
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6011-0003
DKOT

CTOC
FRED FEASEL H 1E
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8201-0003
DKOT

CONOCO
MCLEOD 2
84 6467
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DKOT

CTOC
FRED FEASEL J 1E
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DKOT

CTOC
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5109-0003
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CTOC
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1 99
6404-0003
DKOT

TENNECO OIL
HARGRAVE FED 1
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4711-UNKN
DKOT

CTOC
R P HARGRAVE L 1E
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0 106
8203-0003
DKOT

CTOC
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5902-0003
DKOT

CTOC
MARTIN C FED 1
88 5121
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6001-0003
DKOT

CTOC
R P HARGRAVE J 1E
7 877
0 133
8203-0003
DKOT

3

CTOC
R P HARGRAVE J 1
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DKOT

CTOC
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0 133
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DKOT

CTOC
FEDERAL F 2E

CTOC
R P HARGRAVE H 1
78 3037
0 90
5003-0003
DKOT

CTOC
C M MORRIS COM 1E
12 819
0 124
8012-0003
DKOT

CTOC
PO PIPKIN 2E
6 899
0 134
8312-0003
DKOT

CTOC
PO PIPKIN 1
24 2098
0 71
6406-0003
DKOT

CTOC
MORRIS GAS COM B 1
51 2319
0 59
UNKN-0003
DKOT

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10

CTOC
PO PIPKIN 2
11 1024
0 23
6406-0003
DKOT

CTOC
PO PIPKIN 1E
6 654
0 131
8107-0003
DKOT

CTOC
FED H 1
58 8162
0 154
5902-0003
DKOT

CTOC
R P HARGRAVE H 1E
15 926
2 191
8807-0003
DKOT

CTOC
MORRIS GAS COM B 1E
17 977
2 112
8110-0003
DKOT

CTOC
C M MORRIS COM 1
19 1333
1 66
UNKN-0003
DKOT

BEFORE EXAMINER STOGNER
OIL CONSERVATION DIVISION
CROSS TIMBERS EXHIBIT NO. 1
CASE NO. 12524

WELLS W/PRODUCTION

Operator
Well Name & Number
Cum Oil MBO ● Cum Gas MMCF
Curr Rate Bopd Curr Rate Mcd
Start-End Date
Formation

CROSS TIMBERS OIL COMPANY

SAN JUAN COUNTY, NEW MEXICO
9 SECTION 4-27N-10W
DAKOTA PRODUCERS ONLY

Johnny LeBon	B. Voigt	10/20/2000
Scale 1:24000.	1" = 2000'	4-27-10



Cross Timbers Oil Company

August 11, 2000

CERTIFIED MAIL

Mathias Family Trust Dated 9-9-81
Eugene P. Mathias and Barbara J.
Mathias, Trustees
452 Maidstone Lane
Thousand Oaks, CA 91320

RE: New Drill
Federal F #2E Well
E/2 Unit
SE/4 Section 4-27N-10W
San Juan County, New Mexico

Dear Working Interest Owner:

Cross Timbers Oil Company (CTOC) hereby proposes to drill the above captioned well to a depth of 6,850' to the Dakota Formation. Our proposed location is 1060' FSL and 1,805' FFL of the Section. Our records indicate that Mathias Family Trust dated 9-9-81 has a working interest of .6892%. Enclosed please find a copy of our AFE which provides for a dry hole cost of \$200,300 and a completed well cost of \$413,700.

Enclosed also please find a Joint Operating Agreement for this E2 Unit that covers the Dakota Formation. Please review the Agreement and should you elect to participate, forward a signed signature page along with an executed AFE to the undersigned. CTOC is prepared to drill this well as soon as possible, so your immediate response would be greatly appreciated. Should you have any questions, please feel free to contact me at (817) 885-2454.

Sincerely,
CROSS TIMBERS OIL COMPANY


George A. Cox, CPL
Landman

Enclosures

*Cross Timbers
12-5-24*



Cross Timbers Oil Company

August 24, 2000

Working Interest Owners
(See attached list)

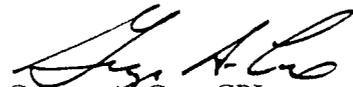
RE: Federal F #2E Well
E/2 Section 4-27N-10W
San Juan County, New Mexico

Dear Working Interest Owners:

On August 11, 2000 I sent you a well proposal along with an AFE and Joint Operating Agreement for the above captioned well. As of the date of this letter I have not received a signed Joint Operating Agreement and your election to join or go non-consent under the Joint Operating Agreement. Cross Timbers Oil Company is making plans to drill this well in the near future and we need to know your election pertaining to your interest in this well.

Please let me know if you have any questions concerning our proposal as soon as possible. I will need to make application with the NMOCD for a force pooling hearing and I will need to list any party who has not signed the Joint Operating Agreement and responded to our proposal. Please contact me as soon as possible.

Sincerely,
CROSS TIMBERS OIL COMPANY


George A. Cox, CPL
Landman

Cross Timbers
10524 3

WORKING INTEREST OWNERS
FEDERAL F #2E

Mathias Family Trust dtd 9-9-81
452 Maidstone Lane
Thousand Oaks, CA 91320

Virginia L. Mullin
1 Churchill Drive
Englewood, CO 80110

William L. Floyd, Jr.
16 East 77th Street, #5A
New York, New York 10021-1723

Richard P. Shooshan, Trustee
of the Shooshan Family Trust
686 E. Union St.
Pasadena, CA 91101-1820

Leon M. DuCharme Marital Trust
2617 South Wadsworth Circle
Lakewood, CO 80277-3220

Rita Mae DuCharme
2617 South Wadsworth Circle
Lakewood, CO 80277-3220

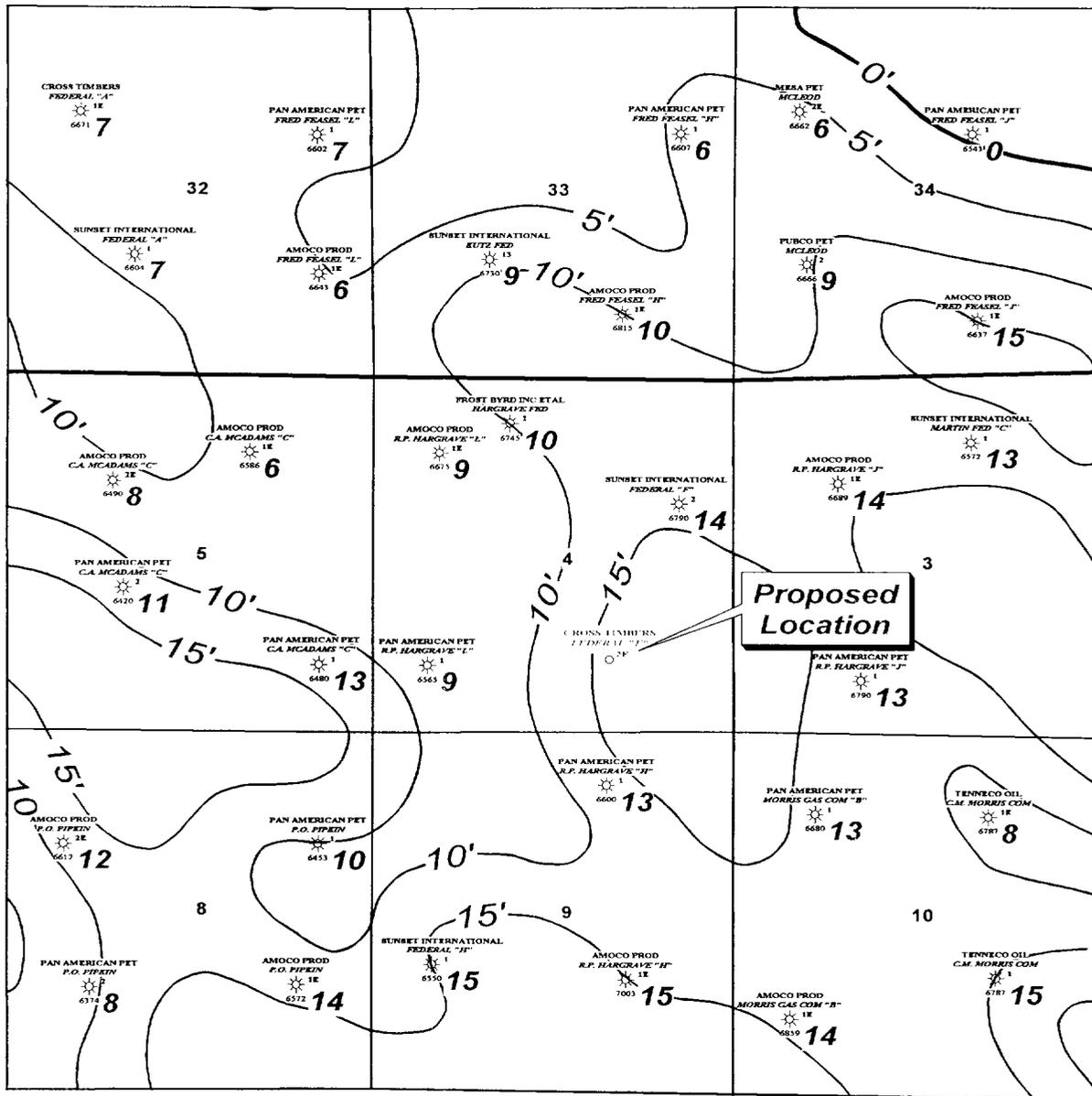
Rita Treasa Floyd, Jr.
8 Admiral Drive #236
Emeryville, CA 94608

Chateau Energy, Inc.
5950 Berkshire Ln #275
Dallas, TX 75225-5846

R 10 W

T
28
N

T
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N



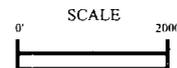
BEFORE EXAMINER SIGNATURE
 OIL CONSERVATION DIVISION
Cross Timbers DEED NO. *9*
 12524



Federal "F" #2E
 SAN JUAN COUNTY, NEW MEXICO
1st. DAKOTA SANDSTONE
NET SANDSTONE ISOPACH

CONTOUR INTERVAL: 5'

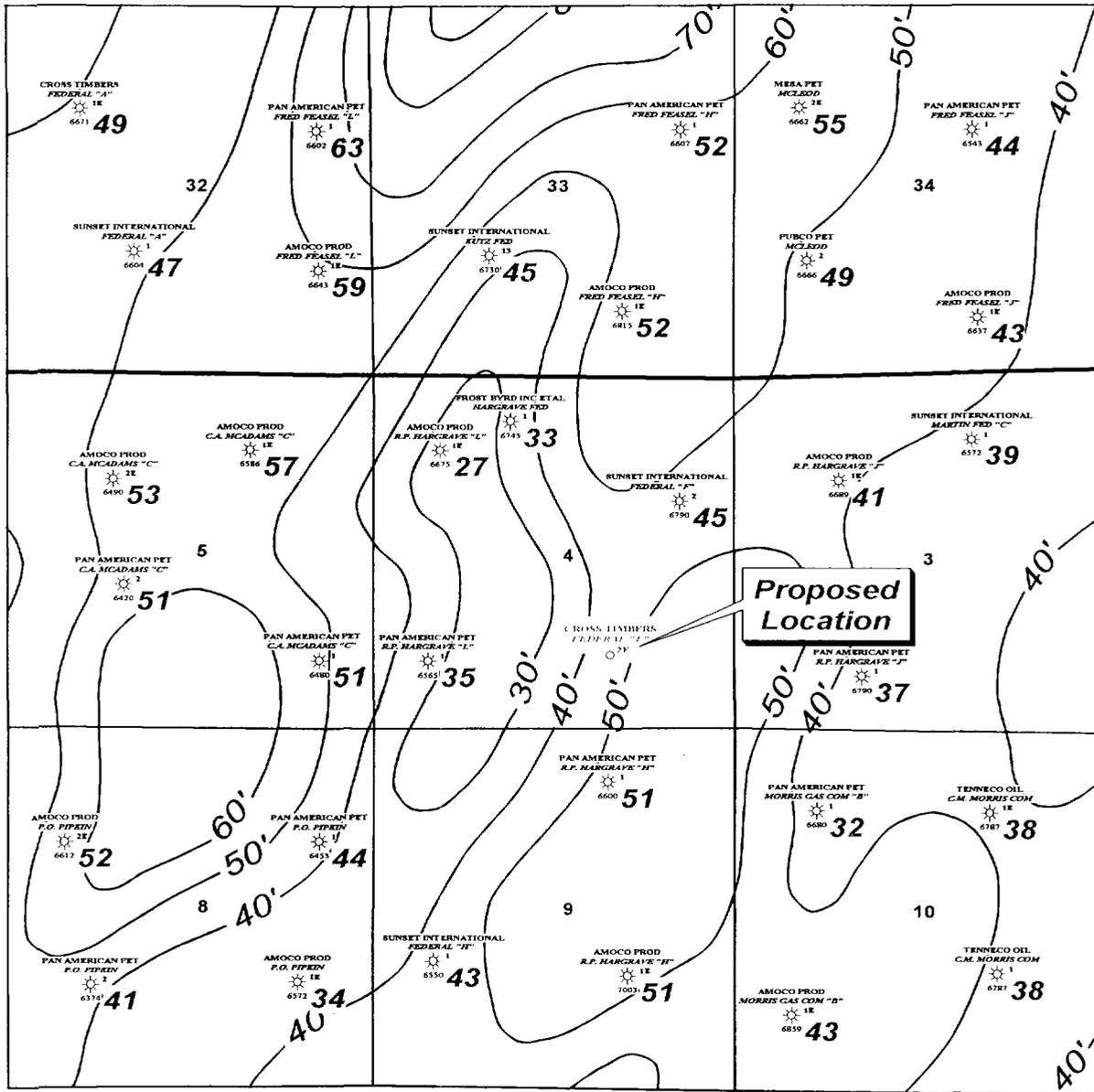
DATE: NOVEMBER, 2000



Cross Timbers Oil Company

R 10 W

T
28
N



T
27
N

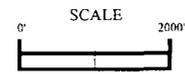
Proposed Location

Cross Timbers
12524



Federal "F" #2E
SAN JUAN COUNTY, NEW MEXICO
3rd. DAKOTA SANDSTONE
NET SANDSTONE ISOPACH

CONTOUR INTERVAL: 10' DATE: NOVEMBER, 2000



Cross Timbers Oil Company

TYPE LOG
CROSS TIMBERS OIL COMPANY

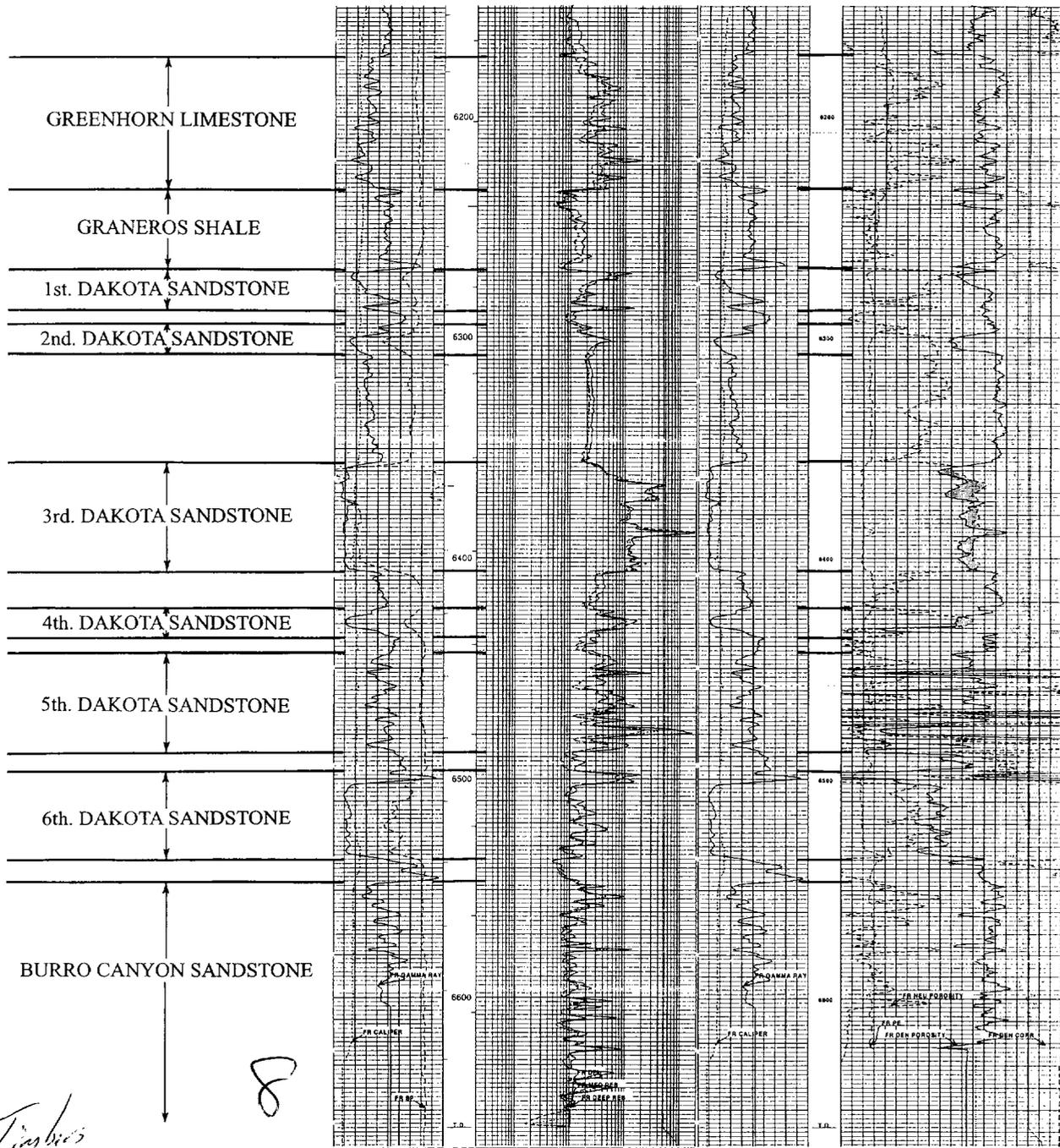
Federal "A" #1E

1535' FNL & 1055' FWL

Section 32 T28N - R10W

San Juan County, New Mexico

KB: 5,895'



Cross Timbers
12524

5809-0003
DKOT

81

CTOC
FED A 1E
0 52
0 176
9908-0003
DKOT

CTOC
FRED FEASEL L 1
47 4778
0 132
5907-0003
DKOT

CTOC
FRED FEASEL H 1
38 3742
0 34
5906-0003
DKOT

CONOCO
MCLEOD 2E
2 467
0 2
8112-0002
DKOT

CTOC
FRED FEASEL J 1
76 4091
0 137
5809-0003
DKOT

CTOC
FED A 1
7/41 158/4496
0/0 0/100
5908-7304/5908-0003
GLLP/DKOT

CTOC
KUTZ FED 13
26 2686
0 86
5011-0003
DKOT

CONOCO
MCLEOD 2
84 5467
0 161
6003-0003
DKOT

CON
COL
43
1
6508-
DKOT

CTOC
FRED FEASEL L 1E
6 946
0 113
8201-0003
DKOT

CTOC
FRED FEASEL H 1E
8 982
0 136
8201-0003
DKOT

CTOC
FRED FEASEL J 1E
7 879
0 78
8104-0003
DKOT

CTOC
C A MCADAMS C 1E
9 1031
1 86
8106-0003
DKOT

TENNECO OIL
HARGRAVE FED 1
26 1076
0 0
4711-UNKN
DKOT

CTOC
MARTIN C FED 1
88 5121
0 186
6001-0003
DKOT

CTOC
C A MCADAMS C 2E
8 731
1 74
8106-0003
DKOT

CTOC
R P HARGRAVE L 1E
7 861
0 106
8203-0003
DKOT

CTOC
FED F 2
84 5629
0 143
5902-0003
DKOT

CTOC
R P HARGRAVE J 1E
7 877
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8203-0003
DKOT

CTOC
C A MCADAMS C 2
18 2432
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5109-0003
DKOT

CTOC
C A MCADAMS C 1
33 2072
1 99
6404-0003
DKOT

CTOC
R P HARGRAVE L 1
30 2577
0 133
8102-0003
DKOT

CTOC
FEDERAL F 2E

CTOC
R P HARGRAVE J 1
64 2880
0 150
5908-0003
DKOT

CTOC
PO PIPKIN 2E
6 899
0 134
8312-0003
DKOT

CTOC
R P HARGRAVE H 1
79 3037
0 90
5003-0003
DKOT

CTOC
C M MORRIS COM 1E
12 819
0 124
8012-0003
DKOT

CTOC
PO PIPKIN 1
24 2098
0 71
6406-0003
DKOT

CTOC
MORRIS GAS COM B 1
51 2318
0 59
UNKN-0003
DKOT

CTOC
PO PIPKIN 2
11 1024
0 23
6406-0003
DKOT

CTOC
PO PIPKIN 1E
6 654
0 131
8107-0003
DKOT

CTOC
FED H 1
58 8162
0 154
5902-0003
DKOT

CTOC
R P HARGRAVE H 1E
15 928
2 191
8607-0003
DKOT

CTOC
MORRIS GAS COM B 1E
17 977
2 112
8110-0003
DKOT

CTOC
C M MORRIS COM 1
19 1333
1 86
UNKN-0003
DKOT

Cross Timbers
12524

WELLS W/PRODUCTION

Operator
Well Name & Number
Cum Oil MBO ● Cum Gas MMCF
Curr Rate Bopd ● Curr Rate Mcfd
Start-End Date
Formation

CROSS TIMBERS OIL COMPANY

SAN JUAN COUNTY, NEW MEXICO
9 SECTION 4-27N-10W
DAKOTA PRODUCERS ONLY

Johnny LeBen	B. Voigt	10-20-2000
Scale 1/24000	1" = 2000'	4-27-10

BASIN DAKOTA
SECTION 4-T27N-R10W
1st SAND

Fluid Properties

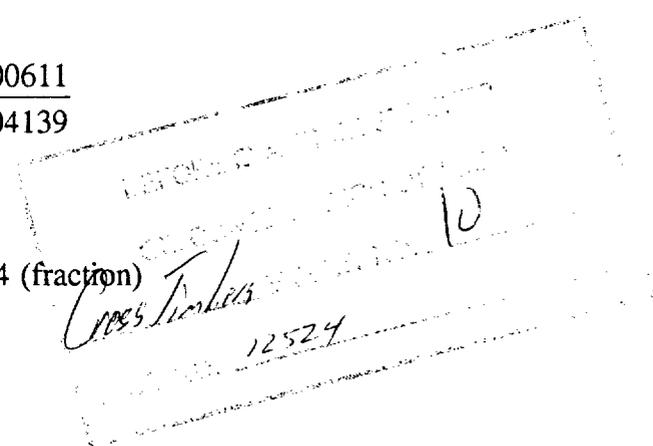
Gas Gravity	=	0.646	Gas Analysis
T_c	=	365°R	Standing's Correlation
P_c	=	678 psi	Standing's Correlation
T_r	=	150 °F	Log Measurement
P_{ri}	=	2,400 psi	Public Data
P_{ra}	=	400 psi	Estimate
B_{gi}	=	0.00611 ft ³ /SCF	Standing & Katz's Correlation
B_{ga}	=	0.04139 ft ³ /SCF	Standing & Katz's Correlation

Calculate Theoretical Recovery Factor:

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

$$RF_t = 1 - \frac{0.00611}{0.04139}$$

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



Rock Properties

Acre - Feet	=	6,722	Planimetered from net sand thickness maps
Average Porosity	=	0.09	(Fraction) ϕ_{dn} Avg. of offsets
Water Saturation	=	0.44	(Fraction) Avg. of offsets

Calculate GIP, Theoretical and Actual EUR:

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

$$GIP = \frac{.04356(6,722)(0.09)(1-0.44)}{0.00611} MMCF$$

$$GIP = 2,415 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(2,415)$$

$$EUR_t = 2,059 \text{ MMCF}$$

BASIN DAKOTA
SECTION 4-T27N-R10W
2nd SAND

Fluid Properties

Gas Gravity	=	0.646	Gas Analysis
T _c	=	365°R	Standing's Correlation
P _c	=	678 psi	Standing's Correlation
T _r	=	150 °F	Log Measurement
P _{ri}	=	2,400 psi	Public Data
P _{ra}	=	400 psi	Estimate
B _{gi}	=	0.00611 ft ³ /SCF	Standing & Katz's Correlation
B _{ga}	=	0.04139 ft ³ /SCF	Standing & Katz's Correlation

Calculate Theoretical Recovery Factor:

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

$$RF_t = 1 - \frac{0.00611}{0.04139}$$

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

Rock Properties

Acre - Feet	=	5,533	Planimetered from net sand thickness maps
Average Porosity	=	0.15	(Fraction) ϕ_{dn} Avg. of offsets
Water Saturation	=	0.35	(Fraction) Avg. of offsets

Calculate GIP, Theoretical and Actual EUR:

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

$$GIP = \frac{.04356(5,533)(0.15)(1-0.35)}{0.00611} MMCF$$

$$GIP = 3,846 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(3,846)$$

$$EUR_t = 3,278 \text{ MMCF}$$

BASIN DAKOTA
SECTION 4-T27N-R10W
3rd SAND

Fluid Properties

Gas Gravity	=	0.646	Gas Analysis
T_c	=	365°R	Standing's Correlation
P_c	=	678 psi	Standing's Correlation
T_r	=	150 °F	Log Measurement
P_{ri}	=	2,400 psi	Public Data
P_{ra}	=	400 psi	Estimate
B_{gi}	=	0.00611 ft ³ /SCF	Standing & Katz's Correlation
B_{ga}	=	0.04139 ft ³ /SCF	Standing & Katz's Correlation

Calculate Theoretical Recovery Factor:

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

$$RF_i = 1 - \frac{0.00611}{0.04139}$$

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

Rock Properties

Acre - Feet	=	24,451	Planimetered from net sand thickness maps
Average Porosity	=	0.09	(Fraction) ϕ_{an} Avg. of offsets
Water Saturation	=	0.35	(Fraction) Avg. of offsets

Calculate GIP, Theoretical and Actual EUR:

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

$$GIP = \frac{.04356(24,451)(0.09)(1-0.35)}{0.00611} MMCF$$

$$GIP = 10,198 \text{ MMCF}$$

$$EUR_t = RF_t \times GIP$$

$$EUR_t = (0.8524)(10,198)$$

$$EUR_t = 8,692 \text{ MMCF}$$