1-16-43W

MAR 22 1986

EXO PRODUCTION CORP.
EDSALL "B" #15
C-W/2 NESE SEC. 1
T16S R43W
GREELEY COUNTY
KANSAS

TIGHT HOLE

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STATE CORPORATION COMMISSION

MAR 17 1986

CONSERVATION DIVISION
Wichita, Kansas

SUMMARY AND CONCLUSIONS

THE EDSALL "F" #15 WAS DRILLED TO A DRILLERS DEPTH OF 5250' SUBSEA -1345, LOGGERS TD AT 5246'. THE PRIMARY OBJECTIVE WAS THE JOHANNES SAND. ALSO, JUST ABOVE THE JOHANNES A AS YET UNNAMED SAND, HAD GOOD SECONDARY POTENTIAL.

SAMPLE QUALITY WAS POOR WITH ABUNDANT CAVINGS, NO SAND WAS OBSERVED IN THE CUTTINGS. LOGS PLACED THE UPPER SAND AT 5100' -1195. POROSITY AVERAGED 17%, RESISTIVITY VARIED FROM 7 TO 8 OHMS, YIELDING A Sw OF 35% TO 40%.
THE JOHANNES CAME IN AT 5123' -1218' WITH AN AVERAGE POROSITY OF 17%, RESISITIVITY AVERAGED 6 TO 7 OHMS GIVING A Sw OF 40%.

CALCULATIONS, THUSLY, FAVORED PRODUCTION. PIPE WAS RUN ON THE EDSALL "F" #15 FOR COMPLETION AS A MORROW SAND OIL WELL.

Edsall #15

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LITHOLOGIC TOPS

	EDSALL "F" #15		EDSALL "F" #4		EDSALL "F" #10	
STONE CORRAL	2765	+1140	2756	+1159	2751	+1149
FORAKER	3572	+333	3568	+347	3558	+342
TOPEKA	3920	-15	3916	-1	3900	0
HEEBNER	4140	-235	4138	-223	4122	-222
LANSING	4242	-337	4243	-328	4223	-323
MARMATON	4626	-721	4621	-706	4607	-707
FT. SCOTT	4708	-803	4702	-787	4686	-786
CHEROKEE	4752	-847	4750	-835	4737	-837
ATOKA	4875	-970	4871	-956	4861	-961
MORROW	5042	-1137	5040	-1125	5021	-1121
UPPER SAND	5100	-1195	5071	-1156	5100	-1200
JOHANNES SAND	5123	-1218	5095	-1180	5116	-1216
LOWER LIME	5132	-1227	5121	-1206	5132	-1232
MISSISSIPPIAN	5208	-1303	5196	-1281	5183	-1283

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RESUME

OPERATOR: TXO PRODUCTION CORP.

WELL NAME & NUMBER: EDSALL "F" #15

LOCATION: C-W/2 NESE SEC. 1 T16S R43W

COUNTY: GREELEY

STATE: KANSAS

SPUD DATE: JANUARY 17, 1986 3:00pm

COMPLETION: TD JANUARY 24, 1986 4:30am

ELEVATIONS: GL 3900' KB 3905'

TOTAL DEPTH: DRILLER 5250' LOGGER 5246'

CONTRACTOR: MURFIN DRILLING CO. RIG 21

GEOLOGIST: RICHARD E. BACON

ENGINEER: FRANK TSURU

TOOL PUSHER: TERRY McRAE

DRILLING MUD: CHEMICAL GEL

MUD COMPANY: SERVICE MUD JIM HERNANDEZ ENGINEER

HOLE SIZES: 12 1/4" SURFACE TO 380'
7 7/8" 380' TO 5250'

CASING: 9 JOINTS 8 5/8" K-55 24# 372.91' SET AT 380'

CORES: NONE

DST: NONE

LOGS BY: SCHLUMBERGER (LIBERAL, KS) MICHAEL PHILLIPS ENGINEER

LOG SUITE:

DUAL/SFL/GR	5241'	TO 380'
FDC/CNL/GR/CAL	5244'	TO 3250'
CYBERLOOK	5244'	TO 3250'

BOTTOM FORMATION: STE. GENEVIEVE (MISSISSIPPIAN)

WELL STATUS: TO COMPLETE AS A LOWER MORROW SAND OIL WELL

Edsall
F #5
1-16-43W

WELL CHRONOLOGY

DATE	7:00am DEPTH	FOOTAGE	ACTIVITY
1-17-86	-	-	SPUD 3:00pm DRILLED TO 380', DEV. 3/4° RUN CASING, 9 JOINTS 24# K-55 8 5/8 " 372.91' SET AT 380" CEMENT WITH 100 SACKS BJ LITE 3% $CaCl_2$ & 100 SACKS COMM. 3% $CaCl_2$ WOC
1-18-86	380'	380'	LOST CIRCULATION AT 1450', 1482', 1793', BIT TRIP AT 1805' DEV. 1/2°
1-19-86	2226'	1846'	LOST CIRCULATION AT 2018, TOTAL BARRELS LOST 360
1-20-86	3352'	1126'	TRIP OUT FOR CRACK IN DRILL PIPE
1-21-86	3940'	588'	DRILLING
1-22-86	4558'	618'	DRILLING
1-23-86	5008'	450'	TRIP OUT FOR CRACK IN DRILL PIPE AT 5061'
1-24-86	5250'	242'	TD 5250' AT 4:30am CIRCULATE 1 1/2 HOURS, SHORT TRIP 10 STANDS, CIRCULATE 2 HOURS, PULL OUT OF HOLE, RUN LOGS DEV. MISRUN

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SAMPLE DESCRIPTIONS
(NOT LAGGED)

3090-4020 SH-60% red orange, maroon, medium grey, blue green, firm, waxy, mass, blocky, flakey, calcareous & micromicaceous in part, some silty
LS-40% off white, white, buff, light grey, crypto-very fine xln, firm-hard, dense, lithic, chalky, some with imbedded quartz grains

4020-4050 SH-70% red orange, maroon, medium grey, blue green, as above
LS-30% off white, white, buff, light grey, crypto-very fine xln, firm-hard, dense, lithic, chalky

4050-4080 SH-80% red orange, maroon, medium-dark grey, blue green, firm, waxy, massive, blocky, flakey, calcareous & micromicaceous in part, some silty
LS-20% off white, white, buff, light grey, crypto-very fine xln, firm-hard, dense, lithic, chalky

4080-4110 SH-100% red orange, maroon, medium-dark grey, firm, massive, blocky, flakey, calcareous & micromicaceous in part, some silty, largely cavings

4110-4140 SH-80% red orange, maroon, medium-dark grey, as above
LS-20% off white, white, light-medium grey, buff, crypto-very fine xln, firm-hard, dense, lithic, chalky, trace arenaceous

4140-4170 SH-50% red orange, maroon, medium-dark grey, as above
LS-50% off white, white, light-medium grey, buff, crypto-very fine xln, firm-hard, dense, lithic, chalky, trace pyritic, trace oolimoldic good Ø

4170-4200 SH-60% red orange, maroon, medium-dark grey, as above
LS-40% off white, white, light-medium grey, buff, pale pink, crypto-microxln, frim-hard, dense, lithic, chalky, trace dolomitic

4200-4230 LS-80% off white, white, buff, light-medium grey, firm-hard, dense, lithic, chalky, trace dolomitic
SH-20% red orange, maroon, medium-dark grey, as above

4230-4260 LS-70% off white, white, buff, light-medium grey, light tan, crypto-fine xln, firm-hard, dense, lithic, chalky, trace dolomitic
SH-30% red orange, maroon, medium-dark grey, as above

4260-4290 SH-60% red orange, maroon, medium-dark grey, as above
LS-40% off white, white, light-medium grey, crypto-very fine xln, firm-hard, dense, lithic, chalky

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4290-4320 SH-60% red orange, medium-dark grey, firm, massive, blocky, calcareous & micromicaceous in part
LS-40% off white, white, buff, crypto-very fine xln, firm-hard, dense, lithic, chalky, trace oolimoldic good Ø

4320-4350 LS-70% off white, white, buff, crypto-very fine xln, firm-hard, dense, lithic, chalky
SH-30% red orange, medium-dark grey, black, firm, massive, blocky, calcareous & micromicaceous in part, carbonaceous in part

4380-4410 LS-70% off white, white, buff, light grey, crypto-microxln, firm-hard, dense, lithic, chalky
SH-30% red orange, medium-dark grey, black, as above

4410-4440 LS-80% off white, white, buff, light-medium grey, crypto-very fine xln, firm-hard, dense, lithic, chalky, trace oolimoldic good Ø
SH-20% red orange, medium-dark grey, black, as above

4440-4470 LS-70% off white, white, buff, light-medium grey, crypto-very fine xln, firm-hard, dense, lithic, chalky, some cherty
SH-30% red orange, medium-dark grey, black, as above

4470-4500 LS-70% off white, white, buff, light grey, crypto-very fine xln, firm-hard, dense, lithic, chalky, trace oolitic round-white
SH-30% red orange, medium-dark grey, black, as above

4500-4530 LS-60% off white, white, buff, light grey, crypto-very fine xln, firm-hard, dense, lithic, chalky
SH-40% red orange, medium-dark grey, black, firm, massive, blocky, flakey, calcareous & micromicaceous in part, carbonaceous in part

4530-4560 LS-80% off white, white, buff, mottled, crypto-microxln, firm-hard, dense, lithic, chalky
SH-20% red orange, medium-dark grey, black, as above

4560-4590 LS-60% off white, white, light-medium grey, buff, crypto-very fine xln, firm-hard, dense, lithic, chalky, trace oolimoldic fair Ø
SH-40% red orange, medium-dark grey, black, as above

4590-4620 LS-70% off white, white, buff, light-medium grey, crypto-very fine xln, firm-hard, dense, lithic, chalky
SH-30% red orange, medium-dark grey, black, as above

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4620-4650 LS-80% light-medium grey, off white, buff, light tan, crypto-microxln, firm-hard, dense, lithic, some argillaceous
SH-20%red orange, medium-dark grey, black, firm, massive, blocky, flakey, calcareous & micro-micaceous in part, carbonaceous in part

4650-4680 LS-80% light-medium grey, off white, buff, light tan, crypto-microxln, firm-hard, dense, lithic, some argillaceous, trace oolimoldic good Ø
SH-20% red orange, medium-dark grey, black, as above

4680-4710 LS-70% off white, buff, white, light-medium grey, crypto-microxln, firm-hard, dense, lithic, chalky, some argillaceous
SH-30% red orange, medium-dark grey, black, as above
FOSS-gastropod

4710-4740 LS-70% buff, light-medium grey, off white, crypto-microxln, firm-hard, dense, lithic, some argillaceous
SH-30% red orange, medium-dark grey, black, as above

4740-4770 LS-95% light-dark grey, buff, off white, crypto-microxln, firm-very hard, dense, lithic, becoming argillaceous
SH-5% medium-dark grey, black, firm, blocky, calcareous & micromicaceous in part, carbonaceous in part
CHT-dark grey

4770-4800 LS-90% light-dark grey, buff, off white, buff, crypto-microxln, firm-very hard, dense, lithic, argillaceous in part
SH-10% medium-dark grey, black, firm, blocky, fissile, calcareous & micromicaceous in part, carbonaceous in part

4800-4830 LS-85% light-dark grey, off white, buff, tan, crypto-very fine xln, firm-very hard, dense, lithic, argillaceous-very argillaceous in part
SH-15% medium-dark grey, black, as above

4830-4860 LS-80% light-dark grey, off white, buff, tan, crypto-very fine xln, firm-very hard, dense, lithic, argillaceous-very argillaceous in part
SH-20% medium-dark grey, black, as above

4860-4890 LS-75% off white, light-medium grey, buff, tan, crypto-microxln, firm-very hard, dense, lithic, argillaceous in part
SH-25% medium-dark grey, black, as above
CHT-buff, opaque

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5090-5100 SH-70% medium-dark grey, black, flakey, blocky, firm, micromicaceous in part, carbonaceous in part
LS-30% buff, light-medium grey, off white, tan, crypto-microxln, firm-very hard, dense, lithic, some argillaceous

5100-5110 SH-90% medium-dark grey, black, as above
LS-10% buff, tan, crypto-microxln, firm-very hard, dense, lithic

5110-5120 SH-80% medium-dark grey, black, as above
LS-20% buff, light-medium grey, off white, tan, crypto-microxln, firm-very hard, dense, lithic, some argillaceous

5120-5130 SH-90% medium-dark grey, black, grey green, firm, waxy, flakey, blocky, micromicaceous in part, carbonaceous in part, trace pyritic
LS-10% buff, light-medium grey, off white, tan, crypto-very fine xln, firm-hard, dense, lithic, some argillaceous

5130-5140 SH-100% medium-dark grey, black, grey green, as above abundant cavings

5140-5150 SH-90% medium-dark grey, black, grey green, as above
LS-10% buff, light-medium grey, off white, tan, crypto-microxln, firm-hard, dense, lithic, argillaceous in part

5150-5160 SH-85% medium-dark grey, black, grey green, as above
LS-15% buff, light-medium grey, off white, tan, crypto-microxln, firm-hard, dense, lithic, some argillaceous

5160-5180 SH-80% medium-dark grey, black, grey green, firm, waxy, flakey, blocky, calcareous & micromicaceous in part, carbonaceous in part
LS-20% buff, light-medium grey, off white, tan, crypto-microxln, firm-hard, dense, lithic, some argillaceous

5180-5200 SH-60% medium-dark grey, black, grey green, as above
LS-40% buff, light-medium grey, off white, tan, crypto-microxln, firm-hard, dense, lithic, some argillaceous

5200-5210 LS-60% off white, buff, mottled, crypto-microxln, firm-very hard, dense, lithic
SH-40% medium-dark grey, black, grey green, as above

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4890-4920 LS-80% off white, light-medium grey, buff, tan, crypto-microxln, firm-very hard, dense, lithic, argillaceous in part
SH-20% medium-dark grey, black, firm, blocky, fissile, calcareous & micromicaceous in part, carbonaceous in part

4920-4950 LS-85% off white, light-medium grey, buff, tan, brown grey, crypto-microxln, firm-very hard, dense, lithic, argillaceous in part, trace oolitic round-white
SH-15% medium-dark grey, black, as above

4950-4980 LS-80% off white, light-medium grey, buff, tan, brown grey, crypto-microxln, firm-very hard, dense, lithic, argillaceous in part
SH-20% medium-dark grey, black, as above

4980-5010 LS-70% off white, light-medium grey, buff, tan, crypto-very fine xln, firm-very hard, dense, lithic, argillaceous in part
SH-30% medium-dark grey, black, firm, blocky, fissile, flakey, calcareous & micromicaceous in part, carbonaceous in part
CHT-buff

5010-5040 LS-80% off white, light-dark grey, buff, tan, crypto-very fine xln, firm-very hard, dense, lithic, argillaceous in part, trace cherty
SH-20% medium-dark grey, black, as above

5040-5070 LS-50% off white, buff, light-medium grey, crypto-microxln, firm-hard, dense, lithic, argillaceous ip
SH-50% medium-dark grey, black, as above, abundant cavings, caught after trip

5070-5080 LS-50% off white, light-medium grey, buff, tan, mottled, crypto-microxln, firm-very hard, dense, lithic, argillaceous in part, trace pyritic
SH-50% medium-dark grey, black, as above, abundant cavings
Traces QTZ-clear, opaque, coarse-very coarse grain, subround-round, unconsolidated NO SHOW

5080-5090 LS-60% buff, light-medium grey, off white, tan, crypto-microxln, firm-very hard, dense, lithic, some argillaceous
SH-40% medium-dark grey, black, as above, abundant cavings
Traces QTZ-clear, opaque, coarse-very coarse grain, subround-round, unconsolidated NO SHOW

Edsall #1

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5210-5230 LS-70% off white, buff, mottled, tan, crypto-microxln, firm-very hard, dense, lithic
SH-30% medium-dark grey, black, grey green, firm, waxy, flakey, blocky, calcareous & micromicaceous in part, carbonaceous in part

5230-5250 LS-70% off white, buff, mottled, tan, crypto-microxln, firm-very hard, dense, lithic, also white, cryptoxln, firm, dense, very arenaceous
SH-30% medium-dark grey, black, grey green, as above

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MUD RECORD

DEPTH	WEIGHT	VISCOSITY	pH	WATER LOSS	CHLORIDES
3960	9.3	27	-	-	72,000
4584	9.2	29	-	-	37,000
5008	9.3	38	11.5	7.5	27,000
5250	9.3	53	11.5	7.5	27,000

BIT RECORD

NO	SIZE	MAKE	TYPE	DEPTH OUT	FOOTAGE	HOURS
1	12 1/4	SEC	S33S	380	380	3 1/4
1	7 7/8	HTC	R-1	1805	1470	7 1/4
2	7 7/8	HTC	J-22	5250	3445	108 1/4

DRILLING PARAMETERS

DEPTH	REVOLUTIONS	WEIGHT	PRESSURE	SPM
3500	75	40K	1000	64
4000	75	40K	1000	64
4500	65/75	40K	1000	64
5000	75	35K	800	58
5250	75	35K	800	58