








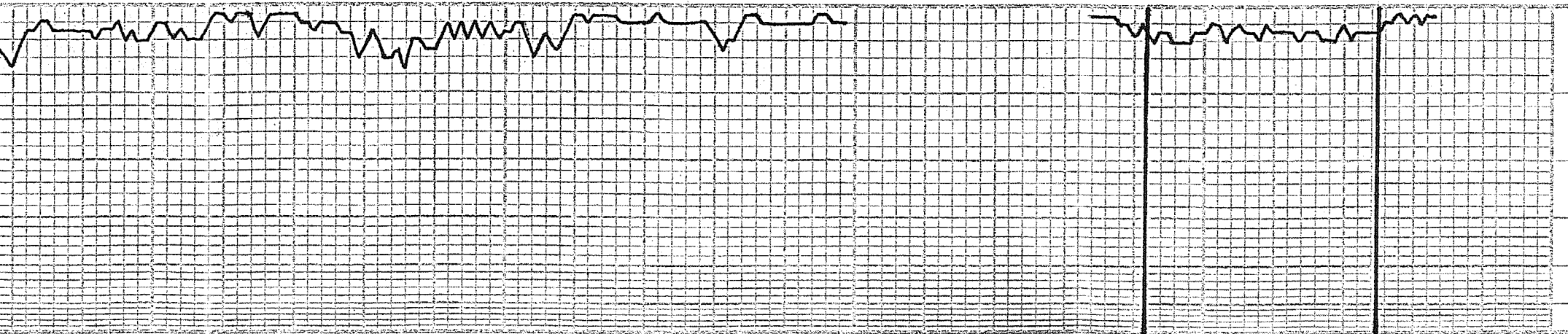
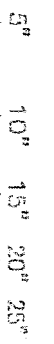


LEGEND

- Anhydrite 
- Salt 
- Sandstone 
- Shale 
- Carb sh 
- Limestones 
- Ool. Lime 
- Chert 
- Dolomite 

DRILLING TIME IN MINUTES
PER FOOT
Rate of Penetration Decreases



DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS
1450		
60		
70		
80		
90		
1500		
10		
25		
10		
2860		
10		
20		
36		
40		
2850		
60		
76		
80		
90		
2900		
10		
20		

OIL SHOWS

REMARKS

ANHYDRITE - TOP
1475 (+615)
ANHYDRITE - BASE
1508 (+612)

sh: grey, dk grey, few ps brown

ls: as above w/ ls: grey, medsh, mottled, no vis δ , no show

ls: brown, brown-grey, med-xsh, sil foss, tr dol, no vis δ , no show

sh: lt grey, grey, micaceous silty siltstone & yfn argined grey ss, well sorted, app. pr. intergrained δ NS

ls: tan, grey, fn-medsh, foss in pt, no vis δ , no show; w/ sh: grey calc

sh: grey, dolomite in part, w/ abo: grey, dk grey, vsh, no vis δ , no show

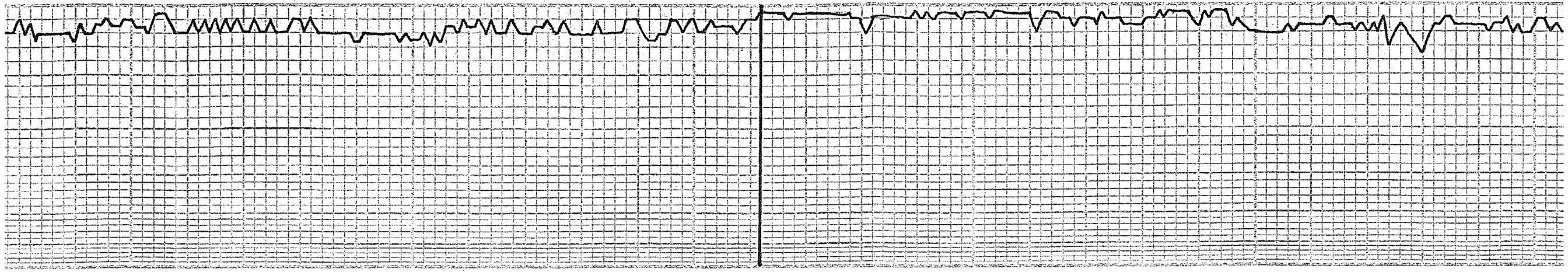
ls: tan, brown, fn-medsh, sil foss, no vis δ , no show

sh & dol as above w/ ls: brown, medsh, foss, fragmental fnsh, dol matrix, foss pr intersh, no show

sh: grey dolomite; dolomite, vsh, dk grey, shaley, no vis δ , no show

sh: as above w/ ls: lt brown, grey, fn-medsh, sil foss, dense

sh: pale grey, grey, some brown



2900

xltn, sil foss, tr dol, no vis \emptyset , no show
 ls: as above w/ ls: grey, med xln,
 mottled, no vis \emptyset , no show

10

sh: grey, dk grey, few pcs brown

30

ls: brown, grey, fn - med xln, sil foss,
 v sil dol, no vis \emptyset , no show

40

ls: as above w/ lt grey, grey sh

2950

ls: brown, fn - med xln, mottled, sil
 foss, no vis \emptyset , no show; ls: tan,
 fn xln, sil chalky, dense.

60

sh: grey, mica.; ss: grey, vfn grnd
 well sorted v pr intergrnd \emptyset , ns.

70

sh: lt. grey, grey, few pcs brown \emptyset /
 dk grey, dolomitic. few pcs brown,
 dk brown, vfn xln, no vis \emptyset
 ls: tan, dk grey, fn - med xln, v sil
 dol, tr vpr vuggy \emptyset , no show

80

sh: med grey, w/ ls: tan, interbedded,
 green sh

90

sh: lt. grey, grey, calc.; few pcs brown

3000

sh: as above w/ few clusters ss: grey,
 vfn grnd, no vis \emptyset , no show

10

ls: grey, brown, fn - med xln, dense
 w/ sh: grey, calc.

20

sh: grey, some brown, w/ scat grey,
 purple-grey, brown, vfn xln, shaley, dol

30

sh: as above: w/ ss: lt grey, vfn - fn
 grnd, well sorted, fine, no vis \emptyset , ns

40

ls: tan, brown, grey, fn - med xln, sil
 foss, scat vpr interxtn & ppt \emptyset , no show

3050

ls: as above w/ ls: micro - vfn xln, dense
 w/ lt grey, grey sh.

60

ls: brown, grey, med xln, foss, sil
 mottled, dense; ls: tan, fn xln, chalky
 in part

70

ls: brown, grey, fn - med xln, foss,
 mottled, no vis \emptyset , no show

80

ls: tan, brown, fn - med xln, sil foss,
 no vis \emptyset , no show

90

ls: grey, lt. brown, fn - med xln,
 mottled in part, few scat dol, no vis \emptyset ,
 no show

3100

ls: brown, fn - med xln, some coil foss,
 well cemented; ls: grey, med xln,
 mottled; no vis \emptyset , no show

10

ls: as above w/ sh: grey; sh: green
 w/ included ls frags

20

ls: tan, brown, grey, micro - med xln,
 no vis \emptyset , no show; ls: tan, fn xln,
 sil foss, scat pr interxtn & vuggy
 \emptyset , no show

30

sh: grey, dk grey, w/ ls: brown,
 fn xln, tr dol, dense
 sh: lt. grey, sh: grey w/ ls
 frags included

40

ls: tan, lt. brown, fn - med xln, dol
 in part, sil foss, sil chalky, few pcs
 pr interxtn \emptyset , no show

60

ls: tan, brown, grey, fn - some med
 xln, dense

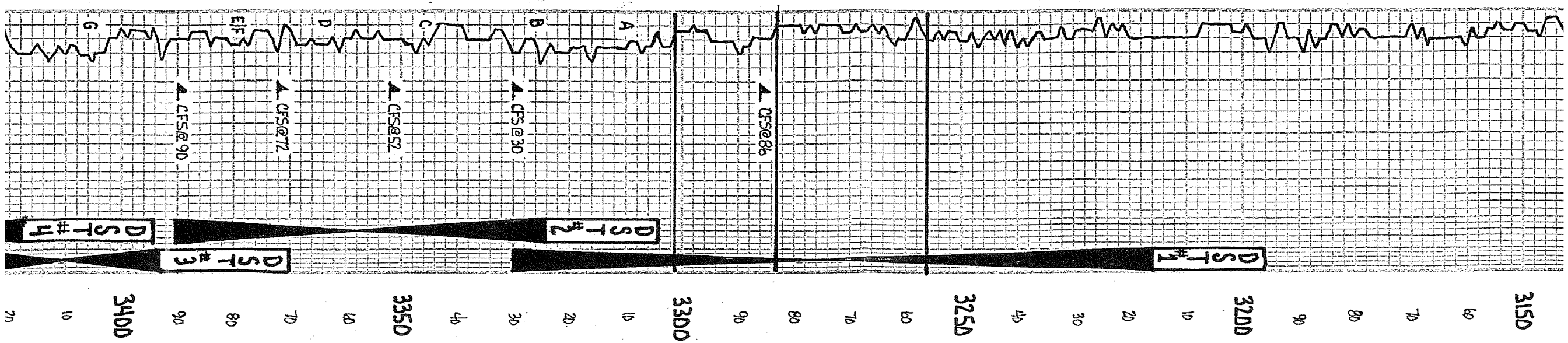
3150

70

TOPEKA

3038

(-918)



sh: lt grey, sh: grey w/ ls
Foss. included

ls: tan, lt brown, fr-med xth, oil
in part; sil foss, sil chally, few pcs
pr. interxth @, no show

ls: tan brown, grey, fr. some med
xth, dense

ls: tan, grey, dk grey, fr-med xth,
dense

sh: grey, dk grey

ls: tan, lt brown, fr-med xth, w/
interbedded grey shale

ls: off wh, tan, fr xth, granular
in part, sil foss, sil chally, scat
pr. interxth, intergranular @, no st,
sliver, odor, aut, no show, FD

ls: tan, lt brown, vfr. fr xth, sil
foss, dense

ls: tan, lt grey, fr xth, oil in part,
4-5 pcs fr xth w/ pr. interxth, interool
@, 55 FD & few gas bubbles, pr. spotty,
to gd even st & sat, no odor

ls: tan, lt brown, lt grey, fr-med xth,
dense

ls: tan brown, fr-med xth, sil foss,
sil chally, few pcs pr. interxth @,
no show; ls: grey, med xth, mottled, dense

sh: black, dk grey

ls: tan, vfr xth, dense

sh: grey, green, considerable brown rust
cpl. pcs grey, fr xth, shaley, dolomite;
few clinkers grey ss: vfr granular, shly

sh: as above w/ few pcs tan, fr xth
ls w/ lt. rust shale, st.

ls: off wh, tan, fr-med xth, chally
in part, no vis @, no show

sh: grey, green, some brown

ls: tan fr-med xth, scat pcs oil
w/ pr. fr interool @ few ppts FD
& cpl gas on break, scat pr. lt st
w/ tr sat, few pcs oil Δ w/ weathered
edges & scat lt stain no odor

ls: as above, dec in show, mostly
tan fr xth dense ls w/ grey, grey-
green

sh: grey, green, brown, rust

ls: off wh, tan, fr-med xth, oil in part,
pr. fr interool & vuggy @, s. EFSD, pr.
fr st w/ patchy sat; dol: brown,
fr xth, pr. fr inter xth @, 55 FD, gd
even st & full sat, fr-gd odor

sh: grey, green, some brown

ls: tan, fr xth, dense, some w/
interbedded grey shale

ls: tan, brown, fr xth, scat pr. fr-
dot & vuggy @, v. 55 FD, scat pr. fr-
st w/ scat patchy sat, Δ w/ fr gpm,
fresh, opaque, scat weathered edges
secondary quartz along veins & on
faces w/ lime oil sl, gd odor; @ CFS-90

ls: tan, fr xth, oil & dol. in part, scat
pr. ool & vuggy @, 55 FD, pr. spotty st,
fr pr sat, gd odor.

ls: tan, lt. brown, fr-med xth, sil
ool, cpl. pcs w/ pr. spotty st, N5 FD

DST #1
(3216 - 3330)
30" - 60" - 30" - 60"
LFP: BK 1/2" BLDW
FPP: NO BLDW
RECOVERED:
45' 5" MCW
(10% M, 90% W)
CHL: 73000 PPM, SYS: 1600 PPM
HSP: 1553# - 1520#
FP: 17-31# / 30-40#
SIP: 981# - 973#
BHT: 99°F

HEEBNER
3256 (-1136)

TORONTO
3283 (-1163)

LANSING
3301 (-1181)

DST #2
(3324 - 3390)
30" - 60" - 60" - 90"
LFP: BLDW IN 3"
LSP: BLDW BLDG TO 1"
FPP: BOB IN 10"
FSP: BLDW BLDG TO 1/4"
RECOVERED:
490' GIP
180' 2D - Gr 29°
130' 5GCMO
(5% GAS, 30% MUD, 65% OIL)
175' 5GM & WCD
(5% GAS, 5% MUD, 15% WTR, 75% OIL)
76' 5D & MCW
(4% OIL, 5% MUD, 91% WTR)
CHL: 96000 PPM, SYS: 2000 PPM
HSP: 1603# - 1582#
FP: 50-138 / 46-219#
SIP: 833# - 812#
BHT: 101°F

DST #3
(3393 - 3425)
30" - 60" - 60" - 90"
LFP: BOB IN 15"
LSP: NO BLDW
CHL: 10000 PPM, SYS: 200 PPM

DST#3
 (3393-3425)
 30"-60"-60"-90"
 IFP: 60B IN 15"
 15IP: NO BLDW
 FFP: 90B IN 35"
 F5IP: NO BLDW
RECOVERED:
53D WTR
 CHL: 98DD PPM SVS: 31DD PPM
HSP: 1641#-16DD#
FP: 21#-67#-93#-206#
SIP: 851#-841#
BHT: 98°F

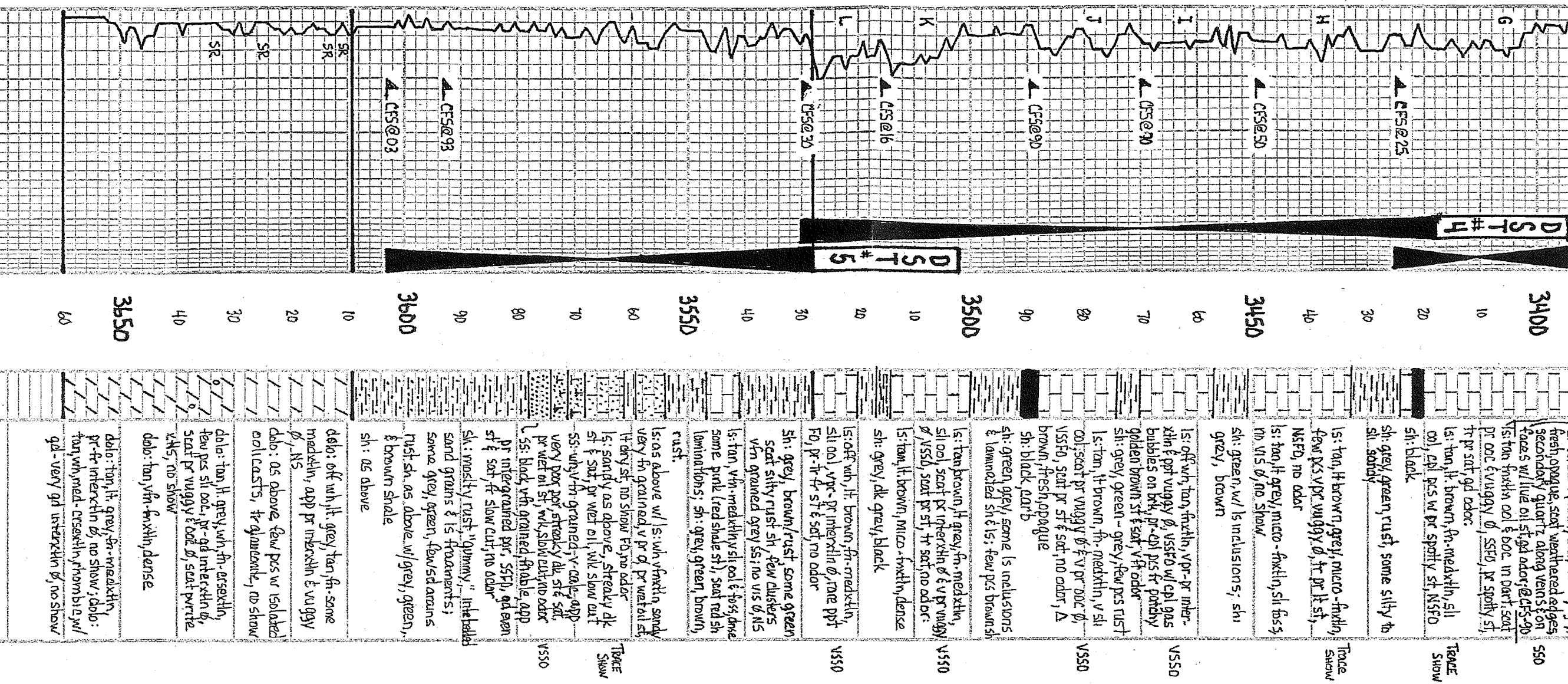
DST#4
 (3418-353D)
 30"-60"-30"-60"
 IFP: 1/4" BLDW
 FFP: NO BLDW
RECOVERED:
10' MUD
HSP: 1662#-1634#
FP: 22#-26#-25#-27#
SIP: 794#-689#
BHT: 99°F

BKC
3528 (-1408)

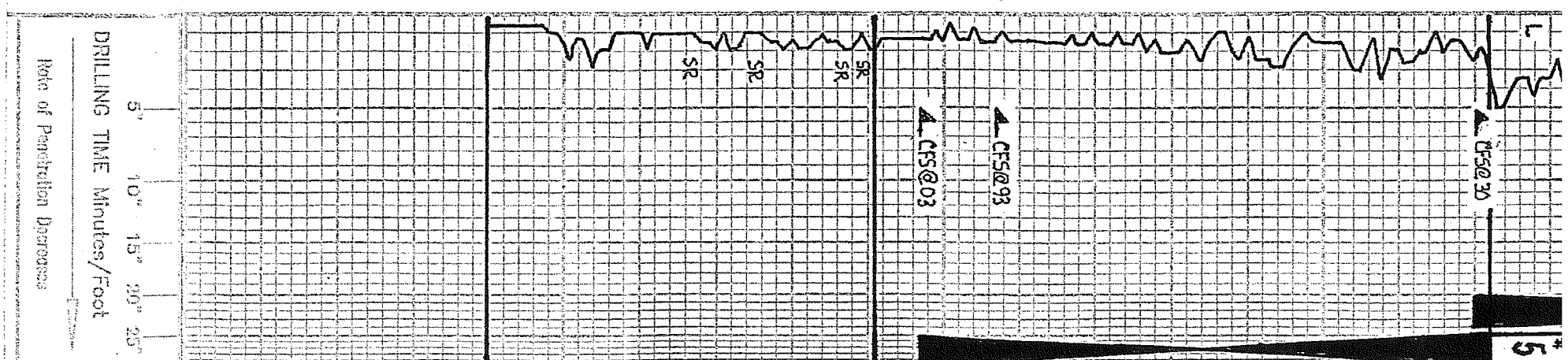
DST#5
 (3528-36D3)
 30"-60"-30"-60"
 IFP: 1/2" BLDW DEL TO 1/4"
 FFP: NO BLDW
RECOVERED:
15' MUD
HSP: 1739#-1699#
FP: 23#-25#-26#-28#
SIP: 111#-153#
BHT: 102°F

ARBUCKLE
3609 (-1489)

RTD 366D (-154D)
LTD 3658 (-1538)



DRILLING TIME Minutes/Foot	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
5"	3528			BKC (-1408)
10"	3550			DST # 5 (3528 - 3603) 30" 60" - 30" 60" 1FP: 1/2" BLDW DEL TD 1/4" EFP: NO BLDW
15"	3550			RECOVERED: 15' MUD HSP: 1739# - 1699# FP: 23# 25# 26# 28# SIP: 111# - 153# BHT: 102° F
20"	3600			ARBUCKLE
25"	3609			3609 (-1489)
30"	3650			RTD 3650 (-1540)
35"	3658			LTD 3658 (-1538)



15: off wh, lt. brown fn. med. xthn, sil. ool, v. pr. interstn of, trace ppt FD, pr. fr. st & sat, no odor
 5h: grey, brown/rust, some green scat silty rust sh, few clusts vfn grained grey ss, no vis of NS
 1s: tan, vfn. med. xthn sil. ool & foss, some pink (red shale st), scat red sh laminations; sh: grey, green, brown, rust.
 1s: as above w/ 1s. wh. vfn. xthn sandy very fn grained, v. pr. q. pr. wet oil st, dry st, no show FD, no odor
 1s: sandy as above, streaky dk st & sat, pr. wet oil, wk, slow cut, very poor por, streaky dk st & sat, pr. wet oil st, wk, slow cut, no odor
 5s: wh. vfn. grained, v. calc. app. L 5s: black vfn. grained, friable, app. dr. intergrained por, SSFD, gd even st & sat, fr. slow cut, no odor
 sh: mostly rust "quimby", interbedded sand grains & 1s fragments; some grey, green, few sd arans rust sh. as above w/ grey, green, & brown shale
 sh: as above

dol: off wh. lt. grey, tan, fn. some med. xthn, app. pr. interstn & v. v. gy of, NS
 dol: as above, few pcs w/ isolated ool. casts, fr. granular, no show
 dol: tan, lt. grey, wh. fn. cr. xthn, few pcs sil. ool., pr. -gd interstn of, scat pr. v. v. gy & ool. of, scat pr. v. v. xthn, no show
 dol: tan, vfn. fr. xthn, dense
 dol: tan, lt. grey, fr. med. xthn, pr. fr. interstn of, no show; dol: tan, wh. med. cr. xthn, fr. om. b. 12, w/ gd - very gd interstn of, no show

OIL SHOWS
 1530
 TRACE
 SLOW
 1530