

8/28	8/29	8/29	8/29	8/29
3#	3#	3#	3#	3#
1800	2300	1500	3000	

TRAPS:
32 - 1.18 SHDRT

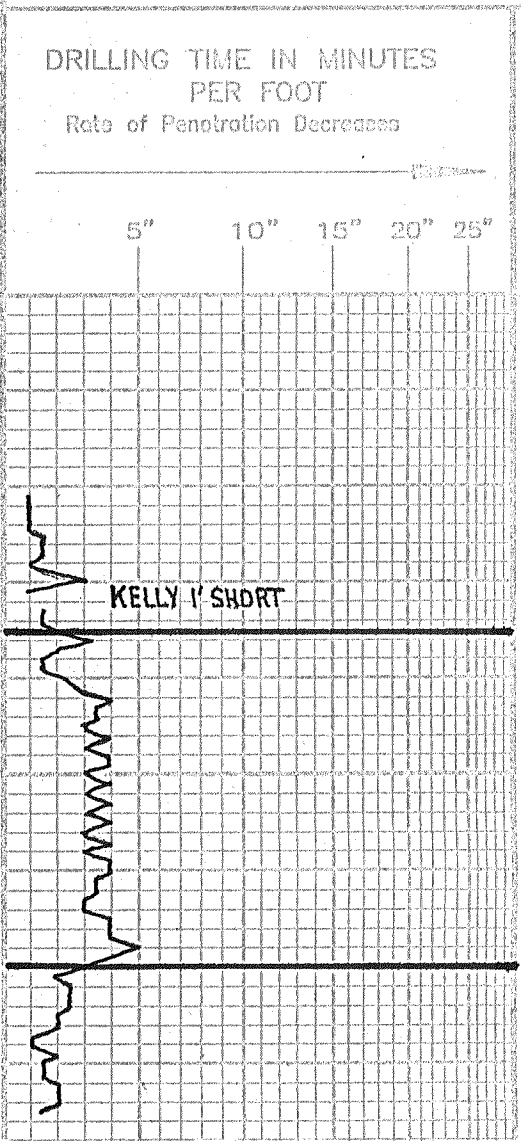
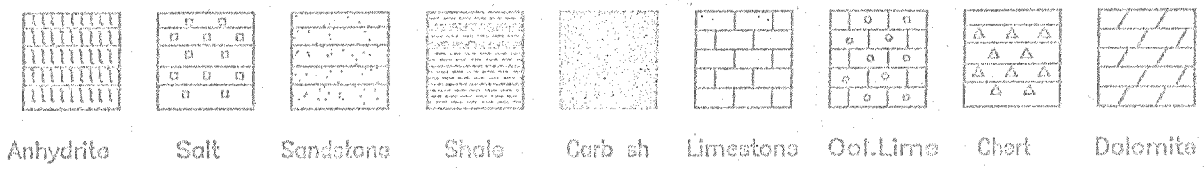
ON SURVEYS:
32 - 1/4°
22 - 1/4°
DD - 1°

WCM w/ OIL SPOTS
CM w/ OIL SPOTS

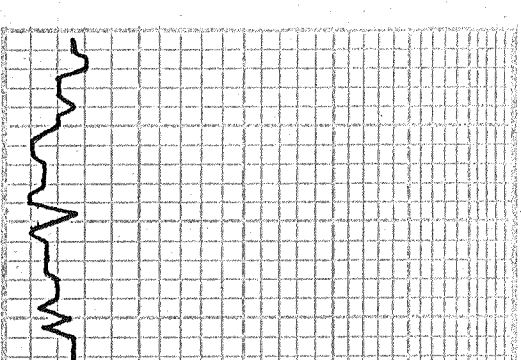
SPOTTED MUD

D (22 GR)
SDCM (5% O, 95% M)

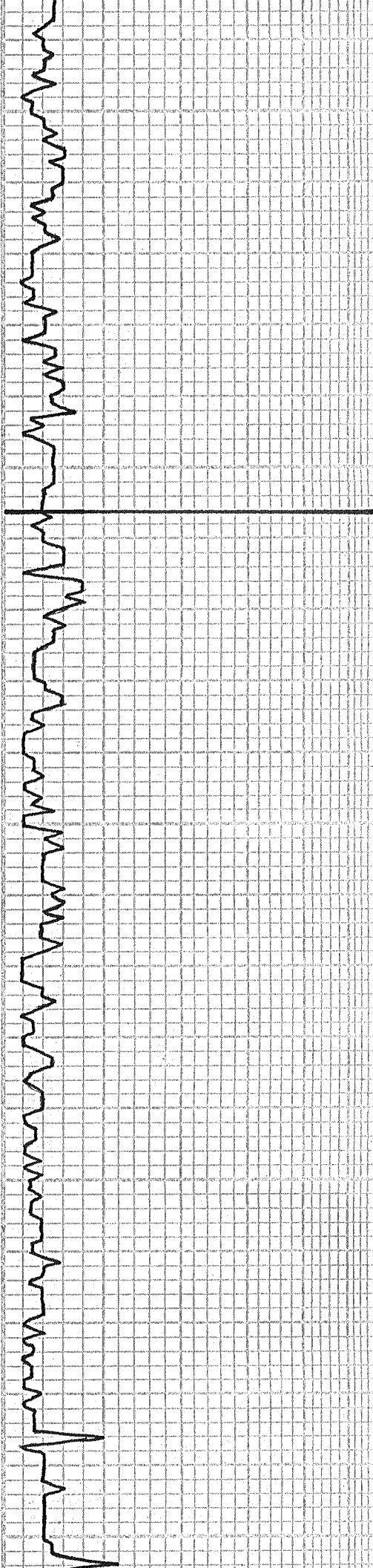
LEGEND



DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
2250				
60				
70				
80				
90				ANHYDRITE - TOP
2300				2285 (+417)
10				
20				ANHYDRITE - BASE
30				2320 (+382)



3500				
10		ls: brown lt, grey fn. med xtn, sli foss scat pr interxtln & no show w/ considerable grey, grey-green sh		
20		ls: tan, brown, grey, fn. med xtn sli foss, scat pr interxtln & vuggy &, no show		
30		ls: as above; w/ sh: grey, green; some brown rust		
		ls: tan, lt brown, fn. med xtn, foss		



40

3550

60

70

80

90

3600

10

20

30

40

3650

60

70

80

90

3700

10

20

30

40

3750



granular in part, scat pr inter-
xtn & vuggy ϕ , no show

ls: tan, lt. brown, fn-med xtn no vis ϕ
w/ ls: grey, brown, fn-med xtn, shaley
to shale; grey, calc in pt.

ls: beige, tan, fn-med xtn, sli foss,
tr. col scat pr interxtn & foss ϕ
no show; ls: grey, fn-med xtn, dense

sh: grey, green; w/ ls: brown,
grey, fn-med xtn, mottled in part,
no vis ϕ , no show

ls: grey, fn-med xtn, sli foss, shaley
mottled in part; considerable
grey shale; some calc.; few pcs
silty to sli sandy

ls: brown, dk brown, dk grey, vfn-
med xtn, no vis ϕ , no show

ls: as above w/ sh: grey dk grey

ls: dk grey, fn-med xtn, shaley
sandy in part, some mottled, no
vis ϕ , NS; shale: grey, calc, mica

ls: tan, lt. grey, fn-med xtn, sli foss,
few pcs pr interxtn ϕ , no show; sh:
grey, few pcs dk grey

ls: tan, brown, fn-med xtn, sli foss,
scat pr interxtn & ppt vuggy ϕ NS
some w/ interbedded green sh;
few pcs wh, fxtln, chalky ls.

ls: tan, lt brown, fn-med xtn, sli
foss, granular, pr. fr interxtn/
intergranular ϕ ; no show; few
pcs Δ , beige, fresh, opaque

ls: tan, brown, fn-med xtn, no vis ϕ
no show; ls: grey, vfn-fn xtn, dense

ls: grey, fn-med xtn, sli foss,
shaley in part; sh: grey, calc,
some interbedded ls frags

ls: brown, fn-med xtn, oolitic
most w/ calcite cement, scat
pr fr interoolitic ϕ , no show,
fr amount wh chalk

ls: tan, brown, fn-med xtn, tr foss,
v sli col, scat pr interxtn ϕ , no sh
wh, fxtln, chalky, ls

ls: as above w/ considerable
wh chalky ls & wh chalk

ls: tan, fn-med xtn, no vis ϕ , no
show; w/ chalk & chalky ls

few pcs blk carb sh

ls: dk grey fn-med xtn dense

sh: grey, some mica, calc
some lt grey siltstone: dolo
fxtln, mottled, shaley

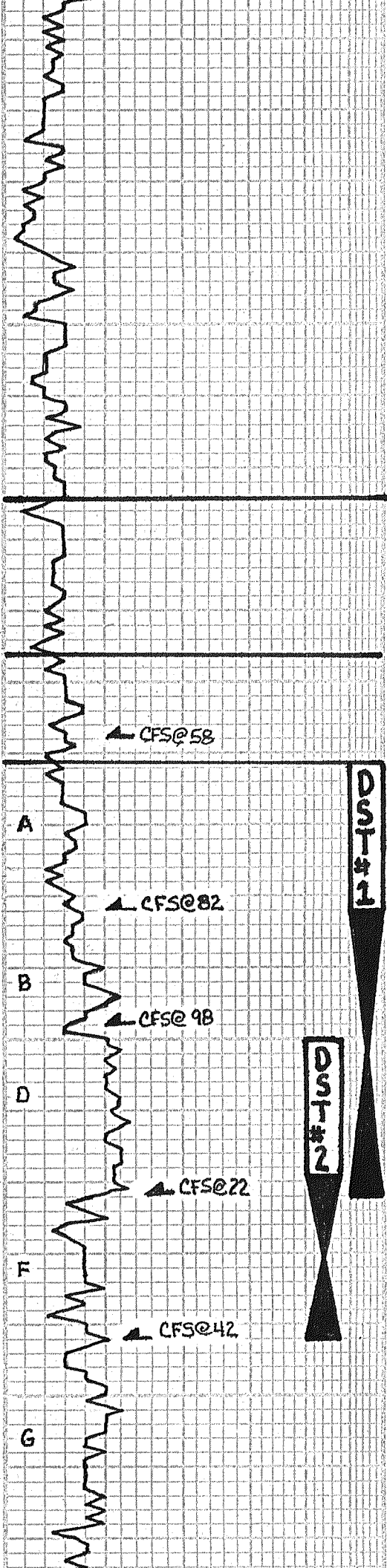
sh: grey, silty; lt. grey siltstone;
few clusters grey, vfn grained ss,
friable, shaley; no show: dolo; as
above

ls: tan, fn-med xtn, granular, sli
foss; few pcs w/ v. pr interxtn ϕ
N.S.

sh: grey, mica; brown, silty

TOPEKA
3606

(-904)



60
70
80
90
3800
10
20
30
40
3850
60
70
80
90
3900
10
20
30
40
3950
60
70

ls: tan lt. brwn some grey fn-xtln, few pcs sli oolitic, no vis ⌀ no show

ls: as above w/ few pcs grey green sh

ls: tan, lt brown, fn-medxtln, sli foss, granular, scat app pr inter-granular/interxtln, no show

ls: tan, grey, fn-medxtln, dense w/ sh: grey

ls: tan, lt. brown, grey, fn-medxtln, sli foss, chalky in part some mottled, no vis ⌀, no show

ls: tan, brown, grey, fn-medxtln, no vis ⌀, no show; ls: grey fnxtln, sli foss, mottled, chalky in part; no vis ⌀; no show

sh: black carb
ls: tan, fnxtln, dense

sh: grey, pale grey, mica, sli silty, few pcs sandy

sh: as above w/ few pcs grey, shaley, fnxtln ls

ls: tan fn-medxtln, oolitic/pellets calcite cement, poss v pr interool no show; ls: most lt grey, grey, vfn-fnxtln dense: few pcs tan, fnxtln ls. Sh: mostly grey, some green, brown

ls: tan, grey, tan, fn-medxtln, sli foss, few pcs ool in part, pr interool por, most calcite filled, app pr interxtln ⌀, no st, cut pad, no show live oil.

ls: as above, becoming chalky in part

sh: grey, sli calc, mica.

ls: tan, lt grey, fn-medxtln, dol in part, scat pr fr interool ⌀, fr same gd interxtln ⌀ & vuggy ⌀, P-F (few pcs G) SFO on break pr-gd med-dk st w/ sat, no odor

sh: grey, lt. grey

ls: lt grey, fnxtln, scat pr ppt & vuggy ⌀, (most dense), vss ppts FO on break vpr-pr spotty med-dk st, vpr sat, scat live & od oil st on few faces/fracs, no odor

ls: lt grey, some tan, fnxtln, no vis ⌀, no show

sh: grey, dk grey, few pcs black w/ ls: tan, vfn-fnxtln, dense w/ sh grey, mica

ls: off wh, lt grey fnxtln, few pcs ool, w/ pr interool por, scat pr-vpr interxtln & vuggy por, 3-4 pcs/tray w/ few ppts FO on break scat pr spotty dkst, no odor

sh: lt grey, grey, some brown

ls: wh, v. lt. grey, lt. tan, vfn-fnxtln sli calcitic, chalky in pt, v scat, vpr interxtln por, no show

ls: as above, no show

ls: tan lt grey vfn-fnxtln, no vis ⌀ no show w/ Δ blue-grey, tan-grey, fresh, opaque

ls: brown, grey, fn-medxtln, mottled in part, dense

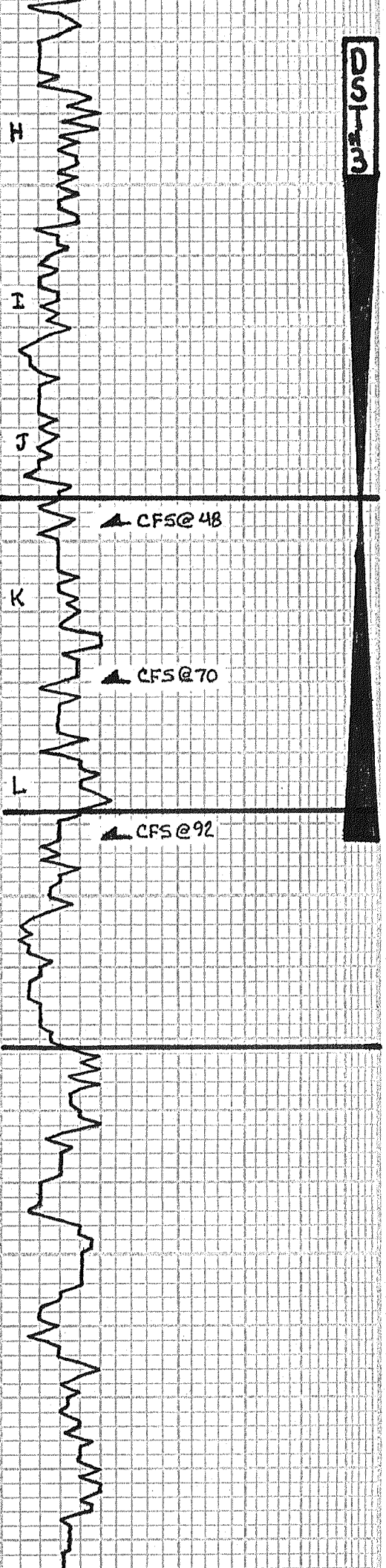
HEEBNER
3824 (-1122)

TORONTO
3846 (-1144)

LANSING
3861 (-1159)

DST # 1
(3882 - 3922)
30"-60"-60"-90"
IFP: 1/4" BLOW DEC TO ("
FFP: SURF BLOW THRU OUT
RECOVERY:
8' CO (GR 22°)
55' VSOCM (5%O, 95%M)
HSP: 1908* - 1898*
FP: 30* - 37* / 39* - 46*
SIP: 1091* - 1037*
BHT: 115° F

DST # 2 (*)
(3919 - 3942)
30"-60"-30"-60"
IFP: STEADY 1/4" BLOW
FFP: NO BLOW
RECOVERY:
10' OIL SPOTTED MUD
HSP: 1914* - 1826*
FP: 29* - 29* / 31* - 33*
SIP: 1597* - 1372*
BHT: 115° F



80
90
4000
10
20
30
40
4050
60
70
80
90
4100
10
20
30
40
4150
60
70
80
90

mottled in pt, dense, considerable black sh

sh: lt grey, grey, some brown

ls: tan, brown lt. grey, fn-medxtln, sli foss, no vis Ø, no show

ls: tan, lt grey, vfn-fnxtln, dense

ls: brown, medxtln, sli calcitic & foss, cpl pcs w/pr interxtln Ø, NS, cpl pcs wh, fnxtln, ls w/ vpr interxtln Ø, few spots dd oil residue, no show live oil

sh: lt. grey, green-grey, some w/ interbedded ls frags → shaley ls

ls: grey, brown, fn-medxtln, sli foss mottled in pt, no vis Ø, no show

sh: lt. grey, grey, some brown, w/ ls: tan-grey, medxtln, foss, interbedded green sh: no vis Ø NS

ls: wh, tan, fnxtln, few pcs sli cal, app vpr-pr interxtln Ø, cpl pcs w/ pr spotty hvy inert oil/tar & hvy blk st, no show live oil

sh: blk carb

ls: tan, brown, lt. grey, fnxtln, sli cal, scat pr interxtln Ø, vpr-pr ppt Ø, few pcs w/ PS hvy dk oil, some fatty, 2-3 pcs/tray w/ few minute ppt's. Fd on break, pr spotty dk st, vss dd oil residue: becoming chalky & more dense toward base

ls: grey, brown, fn-medxtln some interbedded grey, brown sh → sh: grey, calc, some included ls frags

ls: offwh, tan, fnxtln, chalky in part, cpl pcs w/tr pr interxtln Ø (most dense) & vss dk brown hvy inert oil, tr spots blk st, no show live oil

sh: grey, green, some brown purple calc in part

sh: mostly brown grey, some green, purple, few pcs lt. grey siltstone

sh: as above w/ considerable ss: (red from shale) fn grained.

well-sorted, firm-friable, no vis Ø no show

sh: brown, grey, few pcs green

ls: tan, brown, grey, mostly micro-fnxtln dense, few pcs brown, medxtln, dense

sh: grey, calc; rust-brown; ls: grey, fn-medxtln, mottled, dense

sh: as above

ls: grey, micro-fnxtln, dense w/ ls: tan, lt. brown, fn-medxtln, sli sandy, interbedded & porosity filled red shale

sh: mostly grey, calc, some brown

ls: tan, brown, fn-medxtln, tr cal, sli sandy in pt, no vis Ø, no show

sh: mostly brown, rust, silty → sandy, in part; sh: grey, purple-grey, dolomitic → few pcs fnxtln purple/grey, shaley, dolomite

as above

sh: pale pinkish-brown, very

BHT: 113 F
(*) SLID TOOL 6' TO BOTTOM

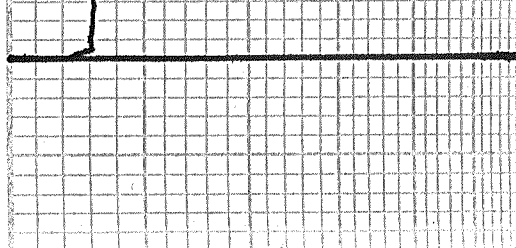
DST# 3
(3999 - 4092)
30"-60"-60"-90"
IFP: 1" BLOW BLDG TO 3/4"
ISIP: NO BLOW
FFP: SURF BLOW BLDG TO 1/2"
FSIP: NO BLOW

RECOVERY:
45' SWCM w/ OIL SPOTS (5% W, 95% M)
115' WCM w/ OIL SPOTS (40% W, 60% M)
CWL: 55000 PPM, SVS: 2300 PPM
HSP: 1989# - 1908#
FP: 19#-58/63#-97#
SIP: 1245# - 1222#
BHT: 118° F

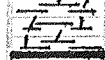
STARK
4044 (-1342)

BKC
4088 (-1386)

MARMATON
4121 (-1419)



4200



gummy, sh. brown & grey, few vls
brown fn. med xtn & grey, vfn xtn,
dense ls: few pcs grey, purple-
grey, shaley, dolomite

RTD 4200 (-1498)
LTD 4198 (-1496)

5" 10" 15" 20" 25"
DRILLING TIME Minutes/Foot

Rate of Penetration Decreases

DEPTH

LITHOLOGY

SAMPLE DESCRIPTIONS

SAOHS TIO

REMARKS