
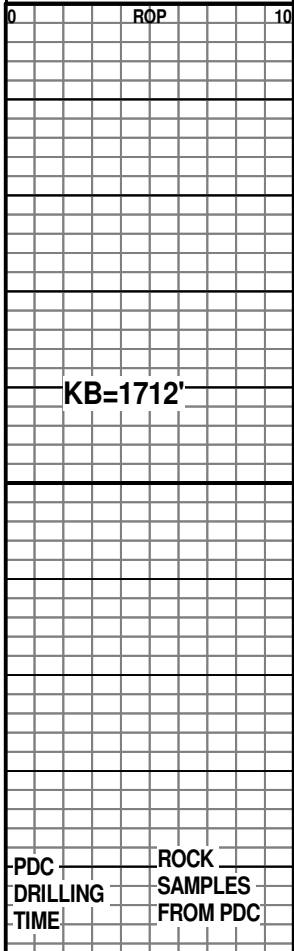
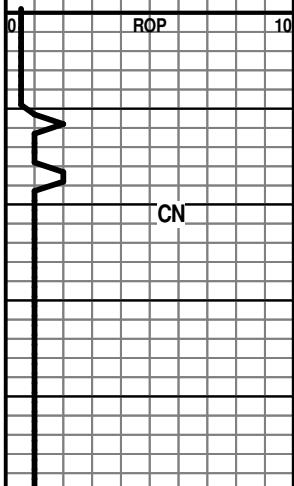
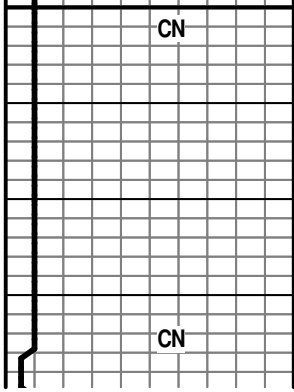
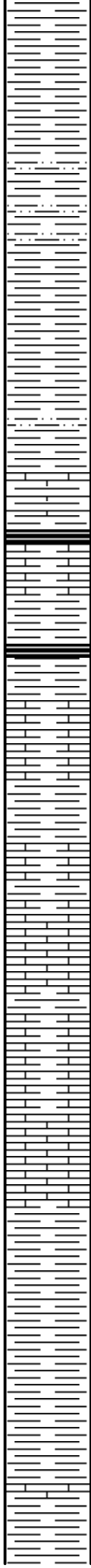
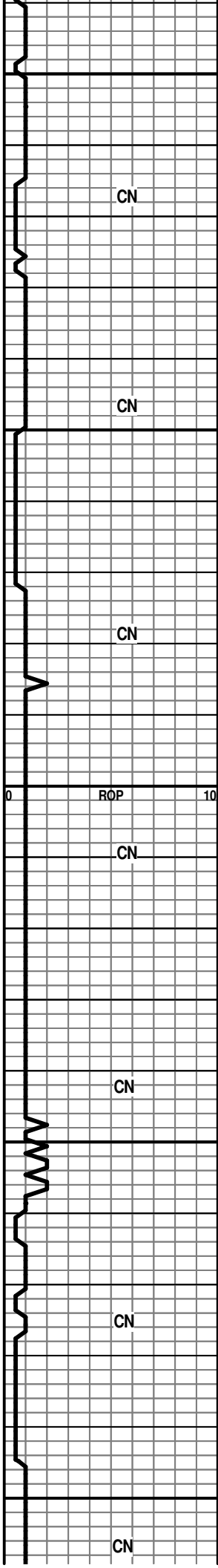


ROP (min/ft) ROP 	DST	Lithology	Porosity and Show Depth	Geological Descriptions	TG, C1-C4 / REMARKS
			39	LOG TOPS HEEBNER 4180' (-2468') DOUGLAS SH 4258' (-2546') LANSING/KC 4357' (-2645') STARK SH 4817' (-3105') MARMATON 4966' (-3254') MISSISSIPPI 5244' (-3532') VIOLA 6258' (-4546') SIMPSON SD 6533' (-4821') ARBUCKLE 6608' (-4896')	SURVEYS 180' 1/2 DEG 473' 1/4 DEG 741' 3/4 DEG 863' 1/4 DEG 1003' 1/2 DEG 1355' 1/4 DEG 1848' 1/4 DEG 2350' 1/4 DEG 2853' 1/4 DEG 3768' 1/2 DEG 3420' 1 DEG 4210' 1/4 DEG 4717' 3/4 DEG 5222' 1 DEG 5255' 1.5DEG 5383' 1.5 DEG 5539' 1.3 DEG 5697' 1 DEG 5853 3/4 DEG 6010 1/2 DEG 6400' 1 DEG 6750' 1/2 DEG MUD DATA @2,110' WT. 9.9 VIS 27 MUD DATA @3,250' WT. 9.4 VIS 28 MUD DATA @3,831' WT. 9.8 VIS 28
			4000	SHALES-RED-GRY-GRN-FRM-BLKY-FOSS SLTSS-FRSTY GRY-F-GRN-TT-HEM-MICA-SHLY LS-GRY-F-XLN-HD-DNS-NO VIS FLOR-NO VIS SHOW POOR SAMPLE	
			4050	POOR SAMPLE-MOSTLY SHALES	



4100
4150
4200
4250
4300

POOR SAMPLE

SAMPLE-MOSTLY SHALES-RED-GRY-BLK-LS-GRY-F-XLN-HD-DNS

SLTSS-FRSTY GRY-F-GRN-TT-TR MICA AND HEM

SHALES-GRY-RED-GRN-FRM-LMY

POOR SAMPLE

HEEBNER 4178' (-2466')
LOG 4180' (-2468')

SHALES-BLK-CARB

SAMPLE- 90% SHALES-RED-GRY-BLK-GRN W/ TR SLTSS

LS-CRM-FXLN-HD-DNS-NO VIS FLOR TO DULL WHT FLOR-NO VIS SHOW

DOUGLAS SH 4258' (-2546')

SHALES-GRY-GRN-BLK- W/ SLTSS

LS-TN-V-F-XLN-HD-DNS
LS-OFF WHT/GRY-M-XLN-SH-LT GRY
IMBD-FOSS-SNDY

SH-LT GRY-SPLNTY-PYR XLS IMBD

WT. 9.0
VIS 43
FIL 10.8
LCM #1

LS-TN-F-XLN-HD-DNS TR FOSS FRAGS

CN

4350 POOR SAMPLE

LANSING/KC 4367' (-2655')

CN

LS-TN-F-XLN-FOSS/SHELLS-HD-DNS

SH-DK GRY-GRY-RED-SLTSS/TR SS-FRSTY
WHT-F-GRN-TT-RND-WELL SRTE-NO VIS FLOR-NO
VIS SHOW

4400

ROP
CN 10

LS-TN-F-XLN-FOSS-HD-DNS

CN

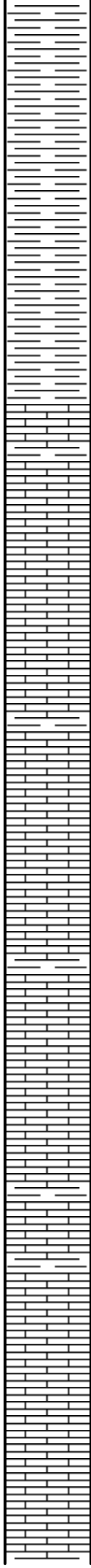
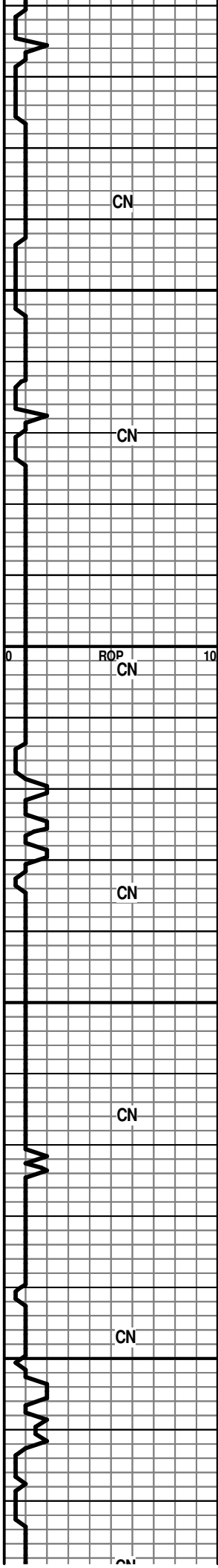
4450 SHALE-RED-GRY-BLKY-PYR XLS

CN

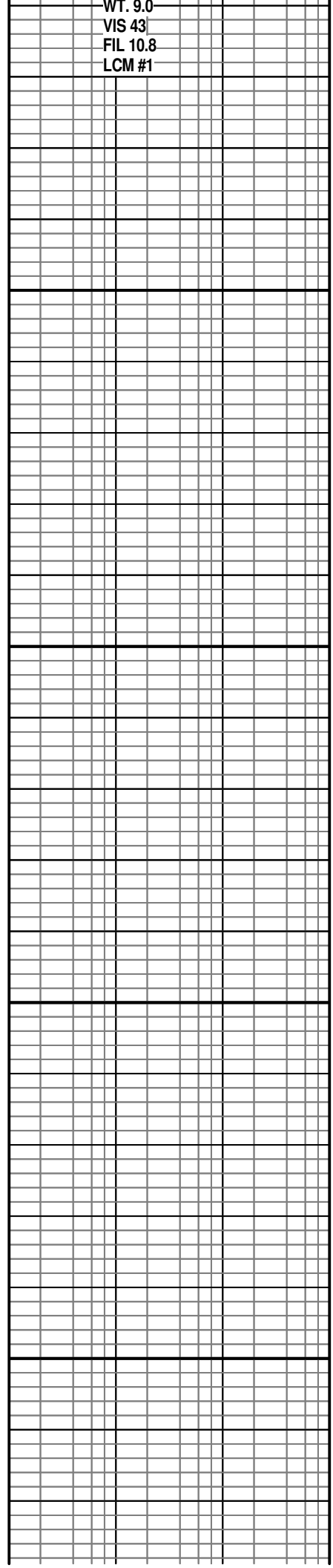
LS-TN-F-XLN-HD-DNS-FOSS

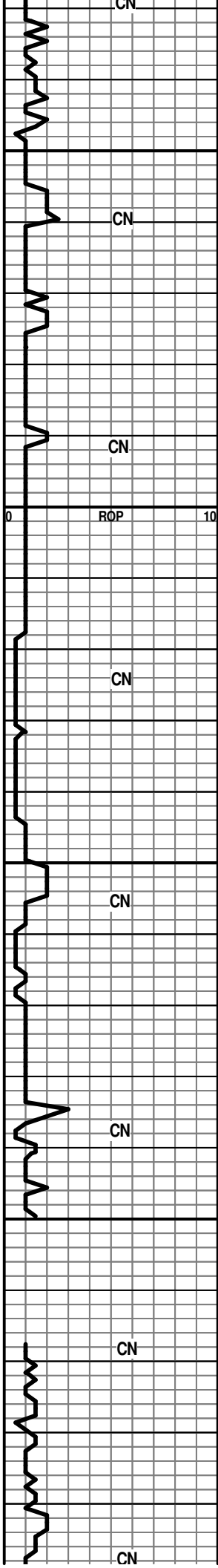
CN

4500 POOR SAMPLE



LS-TN-F-XLN-HD-DNS TR FOSS FRAGS
4350 POOR SAMPLE
LANSING/KC 4367' (-2655')
LS-TN-F-XLN-FOSS/SHELLS-HD-DNS
SH-DK GRY-GRY-RED-SLTSS/TR SS-FRSTY
WHT-F-GRN-TT-RND-WELL SRTE-NO VIS FLOR-NO
VIS SHOW
4400
LS-TN-F-XLN-FOSS-HD-DNS
4450 SHALE-RED-GRY-BLKY-PYR XLS
LS-TN-F-XLN-HD-DNS-FOSS
4500 POOR SAMPLE





POOR SAMPLE

4550

CN

POOR SAMPLE

LS-LT BRN-M-XL-PR INTER-XLN POR-NO VIS SHOW

CN

ROP

4600

LS-TN-V-F-XLN-TR FOSS-HD-DNS

CN

LS-LT BRN-F-XLN-OOL-TR OOL-MOLDIC POR-DULL
YEL FLOR-NO VIS SHOW

4650

CN

LS-LT BRN-V-F-XLN-CHLKY IP-TR FOSS FRAGS-TR
VUG/OOL-MOLDIC POR-NO VIS FLOR-NO VIS SHOW

LS-LT BRN-V-F-XLN-HD-DNS

CN

4700

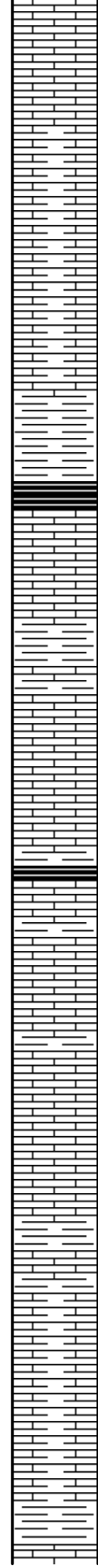
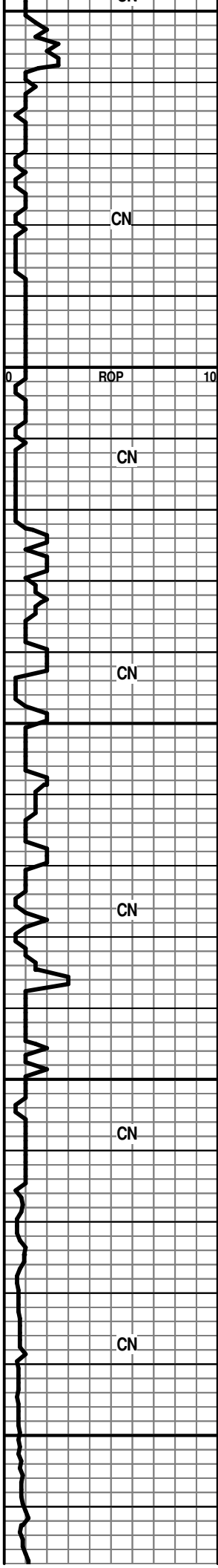
MISSING DRILLING TIME

CN

LS-TN-F-XLN-HD-DNS---SHALES-GRY-FRM-BLKY

CN

LS-GRY-V-F-XLN-TR FOSS-TR OOL-HD-DNS-DULL YEL
FLOR-NO VIS SHOW



4750
4800
4850
4900
4950

LS-TN-V-F-XLN-HD-DNS

LS-OFF WHT-V-F-XLN-CHLKY-NO VIS POR-NO VIS
FLOR-NO VIS SHOW

STARK SH 4816' (-3104')

SH-BLK-CARB

LS-LT BRN-V-F-XLN-OOL-TR OOL-MOLDIC POR-DULL
WHT FLOR-NO VIS SHOW

SHALES-GRY-RED-GRN-DK GRY-LMY

B/KC 4894' (-3182')

.18 UNIT GAS CHROMO
INCRS AT 4891' (NOT
LAGGED)

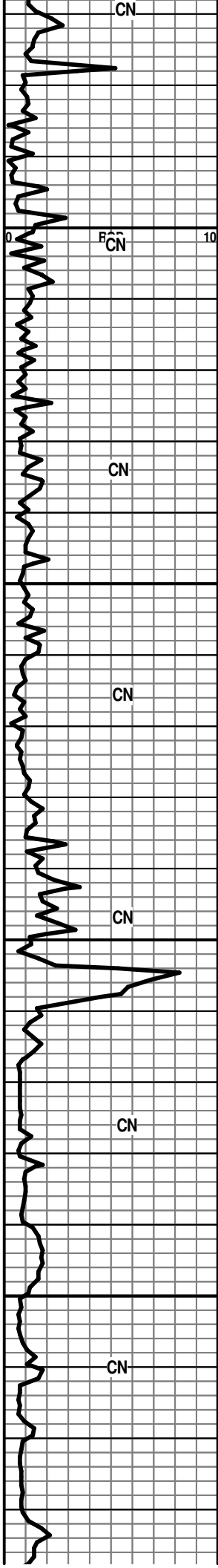
LS-GRY-OFF WHT-V-F-XLN-TR SM VUG POR-DULL
WHT FLOR-NO VIS SHOW

LS-GRY-V-F-XLN-SHLY-W/ SH-GRY-BLKY-LMY

POOR SAMPLE

SHALES-RED-BLK-FRM-BLKY
SH-GRY-BLKY-LMY

MARMATON 4965' (-3253')



5000
5050
5100
5150

LS-LT TN-V-F-XLN-HD-DNS (1 PC CHRT-TN-FRSH-OPQ

LS-GRY-F-XLN-OOL-FOSS IP TO LITHO -NO VIS POR

ALTAMONT 5020' (-3308')

LS-TN-V-F-XLN-LITHO-HD-DNS
LS-OFF WHT-F-XLN-HD-TR ISOLATED VUG POR TO NO VIS POR
SH-GRY-FRM-BLKY-LMY

PAWNEE 5067' (-3355')

LS-LT BRN-F-XLN-OOL-FOSS-W/ PR OOL-MOLDIC POR/SM VUG POR-NO VIS SHOW

SH-GRY-V-F-XLN-FOSS
LS-GRY-V-F-XLN W/ M-GRN EDGES-TR INTER-GRN EDGE POR TO NO VIS POR-DULL YEL FLOR-NO VIS CUT

17 UNIT HW GAS INCRS AT 5089' (NOT LAGGED)

FT. SCOTT 5104' (-3392')

LS-TN-F-XLN-TR FOSS-OOL-HD-DNS
SS-FRSTY GRY-F-GRN-TT-RNDED-WELL SRTE-TR
SH IMBD-CALC CMT-GLAU-PYR XLS
SH-GRY-FRM-LMY

25 UNIT HW GAS INCRS AT 5115' (NOT LAGGED)

CHEROKEE 5120' (-3408')

LS-OFF WHT-F-XLN-TR FOSS-OOL-CHLKY IP-NO VIS POR--NO VIS SHOW

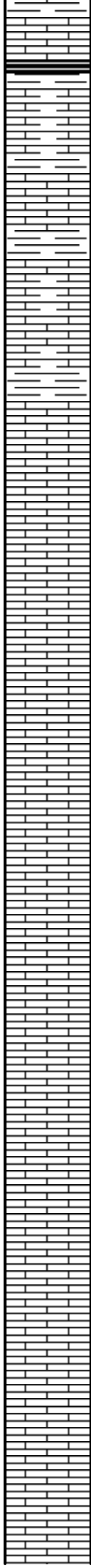
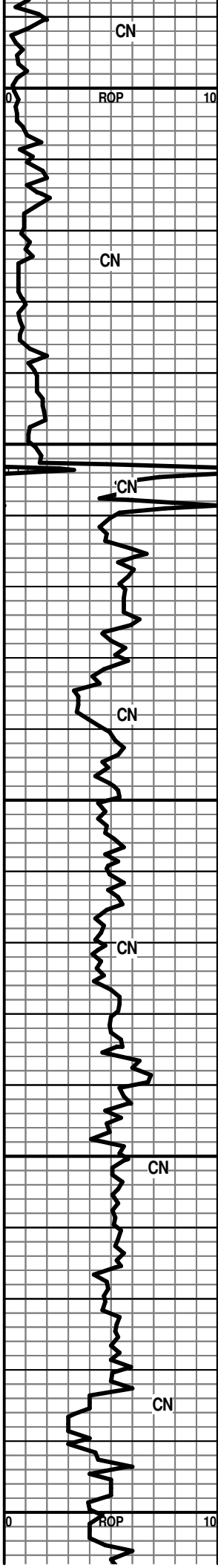
60 UNIT GAS INCRS AT 5137' (NOT LAGGED)

SH-BLK-FRM-WAXY

LS-DK BRN-F-XLN (LITHO) -HD-DNS

LS-OFF WHT/TN-F-XLN-FOSS-OOL-CHLKY IP-NO VIS POR-NO VIS SHOW

SH-DK GRY-FRM-LMY-BLKY



5200
 LS-OFF WHT/GRY MOTT-F-XLN-FOSS-OOL-NO VIS
 POR-DULL YEL FLOR-NO VIS SHOW

SH-BLK-CARB
 SH-LT GRY-BLKY-FRM-LMY

LS-TN-V-F-XLN-HD-DNS

POOR SAMPLE

MISS 5244' (-3532')

5250
 ROCK SAMPLES FROM BUTTON BIT

POOR SAMPLE

CHRT-GRY/BLU-FRSH-OPQ-SHALES-VARIG-BLK-GRY-C
 PYR XLS

LS-OFF WHT-F-XLN-TR FOSS-TR INTER-PRT POR TO
 NO VIS POR-SCATT WHT FLOR-LT BRN STN-W/ FLSH
 CUT WHEN CRSHED

5300
 LS-OFF WHT-V-F-XLN-TR CHLK-BRIT-SCATT WHT
 FLOR-LT BRN SURF STN- W/ CHRT/SH VARIG-CALCITE
 XLS-PYR XLS

LS-TN-V-F-XLN-CHLKY IP-HD-DNS

LS-GRY/WHT-M-XLN/GRN-BRIT-FOSS FRAGS-NO VIS
 POR-NO VIS SHOW

LS-CRM-V-F-XLN-SUCRO-HD-DNS-W/ EDGE PP POR-LT
 BRN EDGE STN-NO VIS FLOR-NO VIS CUT

5350
 LS-OFF WHT/CRM-M-XLN/GRN-BRIT-TR INTER-GRN
 POR-MSTLY HD-DNS-NO VIS FLOR OR SHOW

LS-CRM/GRY-MICRO-XLN-(TRANSLUCENT-OOL-FOSS-F
 VIS POR-NO VIS FLOR-NO VIS SHOW

LS-A.A.

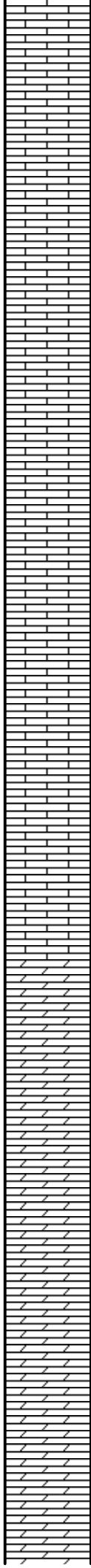
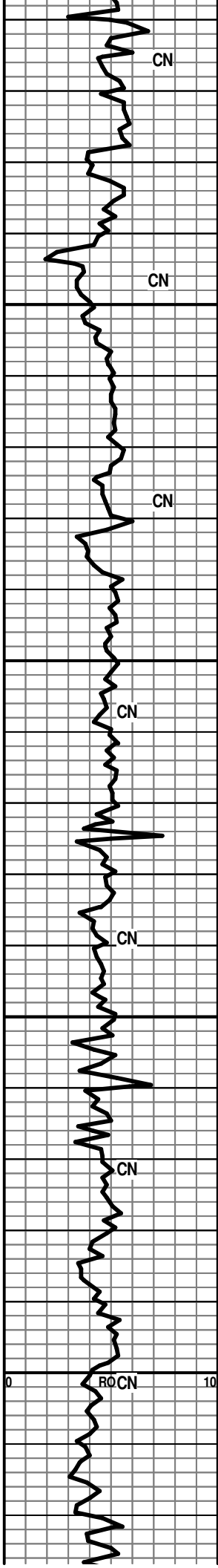
LS-CRM-F-XLN/GRN-BRIT-V-SM OOL-TR CHLK-TR
 INTER-GRN/ VUG POR- (1 PC BRITE YEL FLOR W/
 FLSH CUT WHEN CRSHED

5400
 LS-CRM-F-XLN-TR OOL-FOSS-CHLKY IP-BRIT TO
 HD-DNS-TR EDGE FLOR-NO VIS CUT

CHANGED PDC BIT TO
 BUTTON BIT @ 5255'

MUD DATA @5,255'
 WT. 9.3
 VIS 44
 FIL 11.2
 LCM #4.5

MUD DATA @5,307'
 WT. 9.1
 VIS 42
 FIL 12.0
 LCM #6



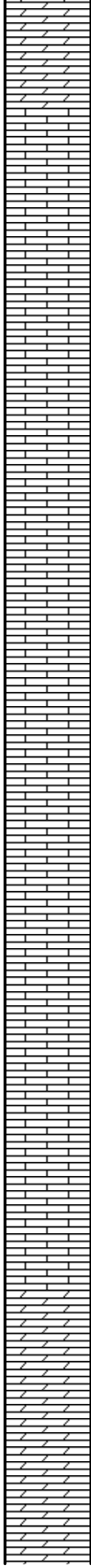
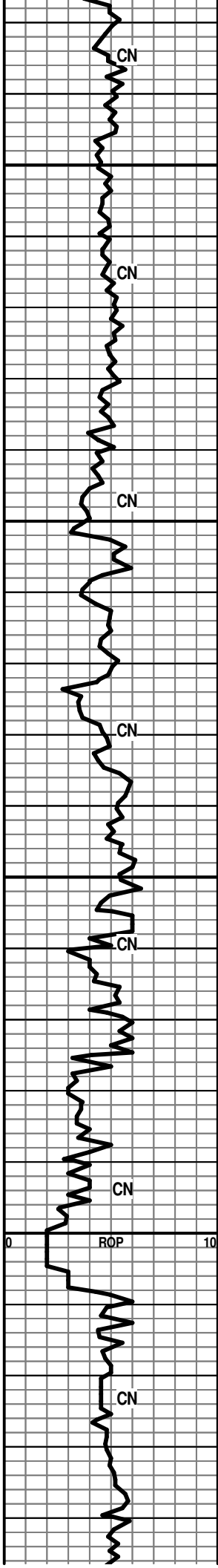
5450
 LS-CRM-M-GRN-V-OOL-TR INTER/GRN/PP POR-NO VIS FLOR
 LS-CRM/LT BRN-F-XLN-OOL-FOSS FRAGS-PR FOSS VUG POR-NO VIS FLOR OR SHOW
 SH/CHRT-OFF WHT-FRSH-OPQ-FOSS
 SH AND CHRT A.A.
 LS-OFF WHT/LR BRN MOTT-F-GRN SUCRO-CHLKY--TR PP POR TO NO VIS POR-NO VIS FLOR-NO VIS SHOW
 LS-TN-MICRO-XLN-V-HD-V-DNS-BLKY
 LS-CRM-F-XLN-BRIT-CHLKY-OOL-FOSS FRAGS-NO VIS FLOR-NO VIS SHOW
 LS-CRM-F-XLN-TR FRAC POR-DK BRN STN-NO VIS FLOR-NO VIS SHOW
 5500
 LS-DK TN-F-XLN-FOSS-SHELLS PLUS FOSS FRAGS-HD-DNS
 LS-GRY-F-XLN-BLKY-HD-DNS
 LS-OFF WHT-V-F-XLN-OOL-TR PYR XLS IMBD-TR GLAU-CHLK IN TRAY-DULL YEL FLOR--NO VIS CUT
 5550
 DOLO-DK TN-W/GRN SPECS-F-GRN-SNDY TEX-W GLAU IMBD-NO VIS POR-DULL GLD FLOR-NO VIS CUT
 DOLO-LT BRN-F-GRN-TR FOSS-TR GLAU-DULL YEL/GLD FLOR-NO VIS CUT
 DOLO A.A. W/ PYR XLS
 5600
 DOLO-TN-F-GRN-FOSS-HD-DNS-SCATT YEL FLOR-NO SHOW

MUD DATA @ 5446'
 WT. 9.1
 VIS 54

MUD DATA @ 5490'
 WT. 9.0
 VIS 54

WT 9.1
 VIS 55
 LCM #5

MUD DATA@ 5,602'
 WT. 9.2
 VIS 52
 FIL 8.8
 LCM #6



DOLO-DK TN-F-GRN-HD-DNS

5650

LS-LT GRY-M-XLN-TR GLAU-W/DOLO-OFF
WHT-F-GRN-CHLKY IN TRAY

LS-TN-GRY-F-M-XLN-HD-DNS-TR GLAU

5700

LS A.A. CHLKY IP

LS-CRM-F-XLN-SHELLS-HD-DNS-W TR DOLO W/ PYR
XLS

LS-CRM-F-XLN-FOSS-FRAGS-OOL-TR
INTER-XLN-POR-DULL YEL FLOR-NO VIS SHOW

5750

LS-GRY-F-XLN-TR FOSS-SHELLS-HD-DNS-PYR
XLS-GLAU

DOLO-TN-M-GRN-GLAU IMBD-TR INTER-GRN
POR-DULL YEL FLOR-NO VIS SHOW

LS-CRM-F-GRN-BRIT-FOSS FRAGS-OOL-SH-LT GRY
IMBD-TR GLAU

5800

WARSAW

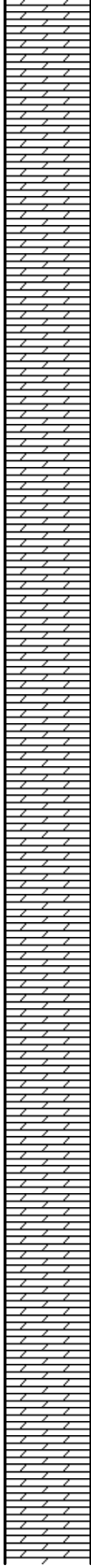
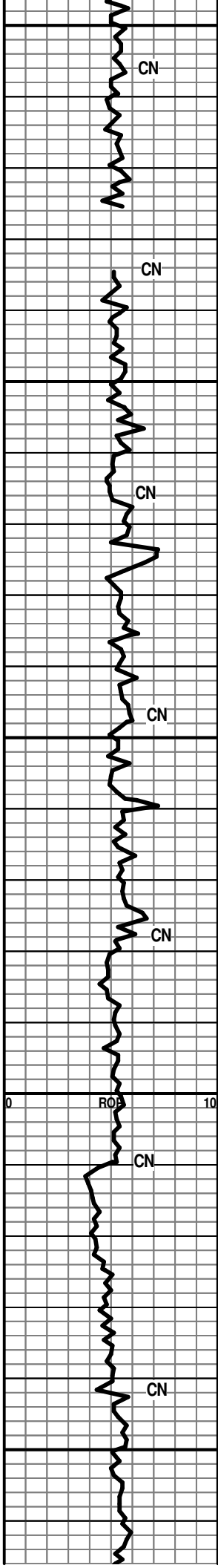
DOLO/LS-GRY-OFF WHT MOTT-W/ GRN
SPECS-M-XLN-SHLY-TR OOL-ABUNDT GLAU XLS-TR
CHLKY-
NO APPARENT POR-DULL YEL FLOR-NO VIS SHOW
CHRT-CLR-TRANS-FRSH-OOL

DOLO/LS-GRY/OFF WHT-M TO CRS
XLN-SHLY-GLAU-DULL YEL-NO VIS SHOW

DOLO-TN-F-GRN-GLAU-TR INTER-XLN POR-TR FOSS

WT. 9.1
VIS 63
LCM #6

MUD DATA
WT 9.1
VIS 63
LCM #8



5850 VUG POR-DULL YEL FLOR-NO VIS SHOW

DOLO-GRY-F-GRN-SHLY LT GRY-HD-DNS RARE GLAU XLS

DOLO A.A.

5900 POOR SAMPLE

POOR SAMPLE

5950 POOR SAMPLE

DOLO-GRY-M-GRN-SHLY-HD-DNS

DOLO-DK GRY-V-F-XLN-SHLY-HD-DNS-W/ CHRT

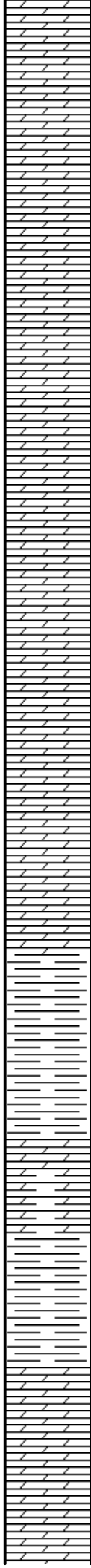
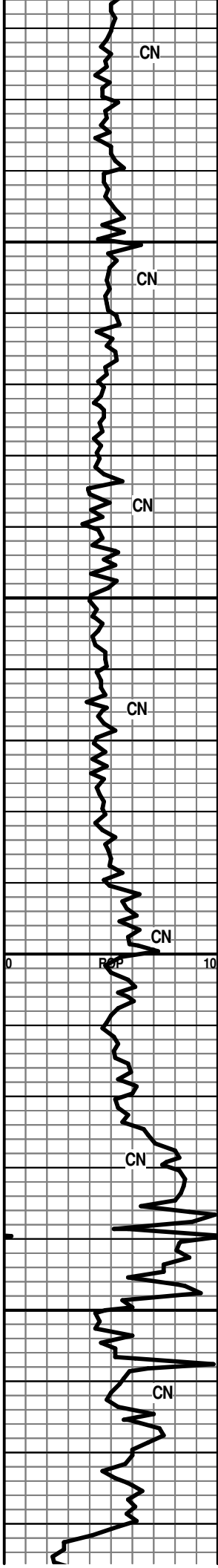
6000 DOLO-GRY-F-GRN-SHLY-HD-DNS W/ CHRT-GRY-OPQ-FRSH

6050 DOLO A.A.

25 UNIT HW GAS INCRS

MUD DATA @5,914'
WT. 9.0
VIS 50
FIL 9.2
LCM #10

WT. 9.0
VIS 67
LCM #8



DOLO-LT GRY-F-GRN-SHELLS-FR INTER-GRN
 POR-DULL YEL MIN FLOR-NO VIS CUT

6100 DOLO-LT GRY-F-XLN-HD-DNS CHRTY

DOLO A.A.

6150 DOLO-GRY-V-F-GRN SUCRO-HD-DNS SHLY (1 PC
 CHRT-OFF WHT-OPQ-FRSH

DOLO A.A. NO CHERT IN TRAY

DOLO A.A.W/ CHRT-GRY-OPQ-FRSH

DOLO A.A.

6200 DOLO-GRY-V-F-GRN SUCRO-CHRT-OFF WHT W/ BLK
 SPECS

DOLO-GRY-W/ CHRT A.A.

LS-OFF WHT/BRN W/ GRN SPECS-M-XLN-ABUNDT
 GLAU-NO VIS POR-NO VIS SHOW

SH-GRN-BLKY-WAXY

6250 **VIOLA 6258' (-4546')**

DOLO/LS-RDISH BRN-V-F-XLN/GRN-BRIT TO
 HD-BLOCKY-HD-DNS

DOLO-LT BRN-F-M-XLN/GRN SUCRO-BRIT-TR PYR-TR
 GLAU- (1 PC- DK BLK STN-NO VIS FLOR-NO VIS CUT

LS-OFF WHT-F-XLN-FOSS FRAGS-SM PYR XLS

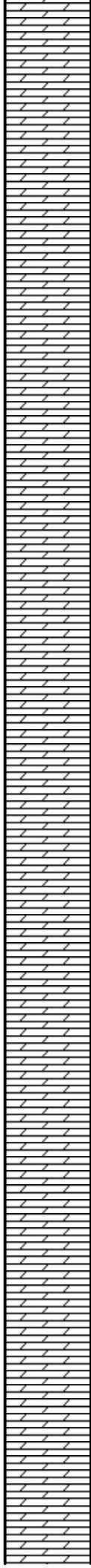
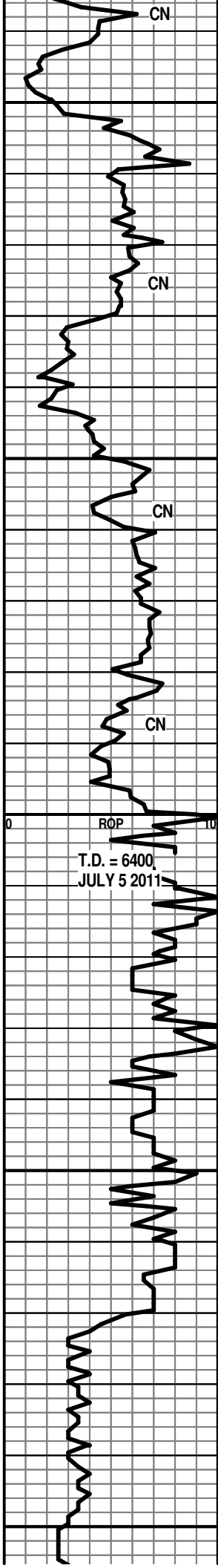
15 UNIT HW GAS KICK

MUD DATA @ 6,125'
 WT. 9.0
 VIS 52
 FIL 8.8
 LCM #8

CFS

36 UNIT HW GAS KICK

100 PLUS HOTWIRE



IMBD-HD-DNS

6300 DOLO-LT BRN-M-CRS GRN-YEL GLD FLOR-IMMED
FLSH CUT WHEN CRSHED-FNT ODOR-(1 PC W/ SM
PYR XLS IMBD

DOLO-GRY-F-XLN/GRN-HD-DNS-W/ CHRT-OFF
WHT-OPQ-FRSH

DOLO-DK BRN-F-XLN-HD-DNS-CHRT-GRY W/ BRN
SPECS

DOLO-OFF WHT-CRS-GRN-GD INTER-GRN-W/ LG VUG
POR-NO VIS FLOR- NO VIS CUT (1 PC EDGE FLOR-NO
VIS CUT

6350 DOLO-BRN-F-M-XLN SUCRO-FR INTER-GRN
POR-BRITE YEL FLOR-IMMED FLSH CUT-FNT
ODOR-W/ CHRT-MILKY WHT-OPQ-DK BLK FOSS

DOLO-DK BRN-F-XLN-BLOCKY-HD-DNS-W/
CHRT-TRANS-FOSS-FRSH

DOLO-LT GRY-F-M-GRN-SUCRO-TR CHLKY-PR TO FR
INTER-GRN POR-TR BRITE YEL FLOR-IMMED FLSH
CUT-NO ODOR

6400 DOLO-LT GRY-F-GRN-HD-DNS

DOLO-LT GRY-F-GRN-TR SNDY TEX-HD-DNS

6450 DOLO-OFF WHT-F-M-GRN-TR SND IMBD-HD-DNS

DOLO/LS-OFF WHT-M-CRS GRN-SNDY-SM PYR XLS
IMBD-FR TO GD INTER-GRN POR-IP-NO VIS FLOR-NO
VIS CUT

DOLO A.A.

6500 DOLO-OFF WHT-M-CRS-GRN-SNDY-SM FOSS
FRAGS-PYR XLS IMBD-FR INTER-GRN/VUG POR-NO
VIS FLOR-NO VIS CUT

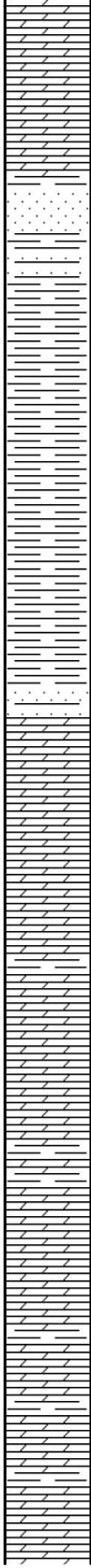
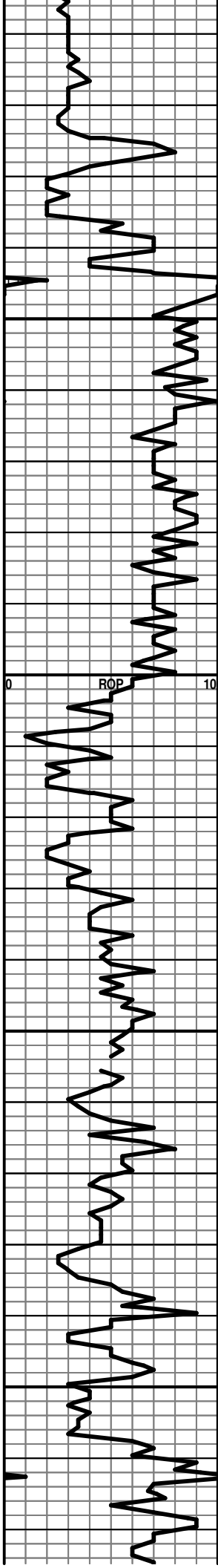
100 UNIT HW GAS KICK

MUD DATA @ 6305'
WT. 9.1
VIS 54
FIL 8.8
LCM #8

10 UNIT HW INCRS
CHROMO NOT
WORKING

MUD DATA @ 6,487'
WT. 8.8
VIS 51
FIL 8.8
LCM #10

13 UNIT HW GAS
INCRS-CHROMO-5
UNITS



DOLO-OFF WHT-M-CRS-XLN-TR
 SND-GD-INTER-GRN/VUG POR-NO VIS FLOR-NO VIS CUT

SIMPSON 6528' (-4816')
LOG 6532' (-4820')

SS-FRSTY WHT-M-GRN-FRI-RNDED-WELL SRTE-TR DOLO CMT-TR
 SH RED IMBD-NO VIS FLOR-NO VIS CUT

6550 SH-DK GRY-BLKY

SH-TURQ-SPLNTY-TR PYR XLS

SH-DK GRY-TURQ-W/ SM PYR XLS IMBD-SPLNTY

SS-TRANS-F-M-GRN-FRI TO TT-RND TO SUB RND-PR SRTE-DOLO
 CMT-OFF BRTE YEL FLOR-LT FLSH CUT WHEN CRSHD

6600 **ARBUCKLE 6600' (-4888')**
LOG 6606' (-4894')

DOLO-TN-F-XLN-W/ PRLY SRTE SND GRNS IMBD-NO VIS POR TO
 FR INTER-GRN POR IP-NO VIS FLOR-NO VIS CUT WITH CHRT-DK
 BRN-OPQ-FRSH

DOLO-OFF WHT-CRS XLN-SNDY-GD INTER-XLN /VUG
 POR-NO VIS FLOR-NO VIS CUT

DOLO-TN-F-XLN-SUCRO-SNDY-NO VIS POR-DULL YEL
 FLOR-NO VIS CUT

DOLO-DK TN-F-XLN-SUCRO-HD-DNS-DULL YEL FLOR
 IP-NO VIS CUT

6650 DOLO A.A W/ FRAC POR-DULL YEL FLOR-NO VIS CUT

DOLO-TN-F-XLN-V-FOSS-CHRTY-HD-DNS

DOLO-OFF WHT-CRS XLN-BRIT-NO VIS FLOR-NO VIS
 CUT-GD INTER-XLN/VUG

6700 POOR SAMPLE

DOLO-DK BRN-F-GRN-HD-DNS

DOLO-DK BRN-F-GRN-SURCO-TR PR INTER-GRN

NO GAS KICK

10 UNIT HW GAS KICK

10 UNIT HW GAS KICK

MUD DATA @6,648'
 WT. 9.0
 VIS 54
 FIL 8.8
 LCM #8

9 UNIT HW GAS KICK

POR-YEL FLOR-NO VIS CUT

DOLO-DK BRN-V-F-GRN-HD-DNS-W/
CHRT-GRY-OPQ-SM PYR XLS SCATT YEL FLOR-NO
VIS CUT

RTD=6750'
LTD=6755'

6750

6800

6850

6900

0 ROP 10

