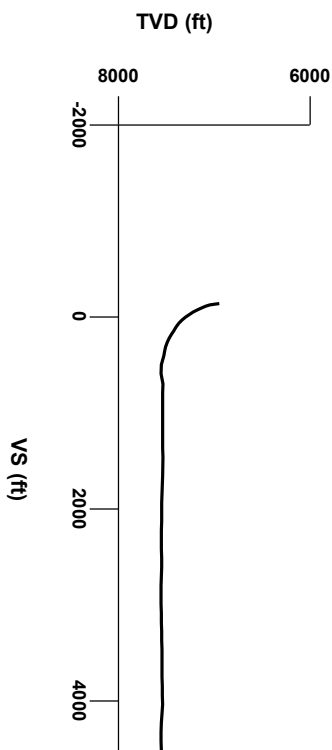




LOG created using LPLOT VH Version 3.0, May 11, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

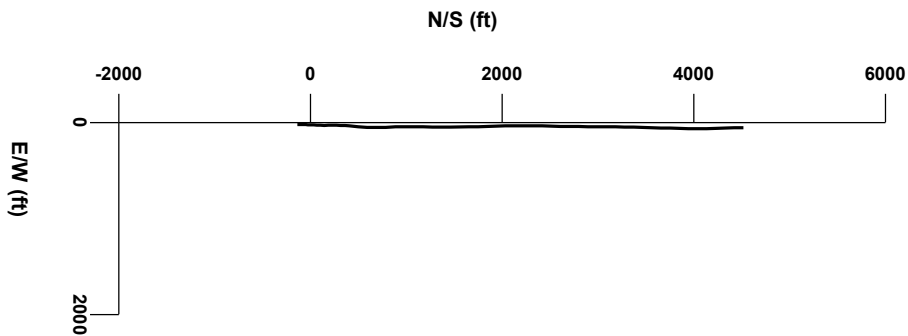
OPERATOR: ANADARKO PETROLEUM
WELL: GOBBLER 2C-23HZ
LOCATION: SEC 23, T2N, R66W
COUNTY: WELD
STATE: COLORADO
SPOT: 240' FSL, 1589' FEL
ELEVATION: GE 5094', KB 5111'
FIELD: WILDCAT
SPUD DATE: 05/04/2013
TD DATE: 05/11/2013
DATES LOGGED: 05/06/13 - 05/11/13
DEPTHS LOGGED: 6973' - 11968'
LOGGERS: MIKE KERSCHEN, MICHAEL ROOK
DRILLING FLUID: LSND
DRILLING RIG: ENSIGN 132
API: 5-123-36816
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: Wellsite Geological Services Provided By Columbine Logging Inc.



Survey Elevation

6000

Survey Plan



LITHOLOGIES

Chalk

Sandstone

Limestone

Shale

Marl

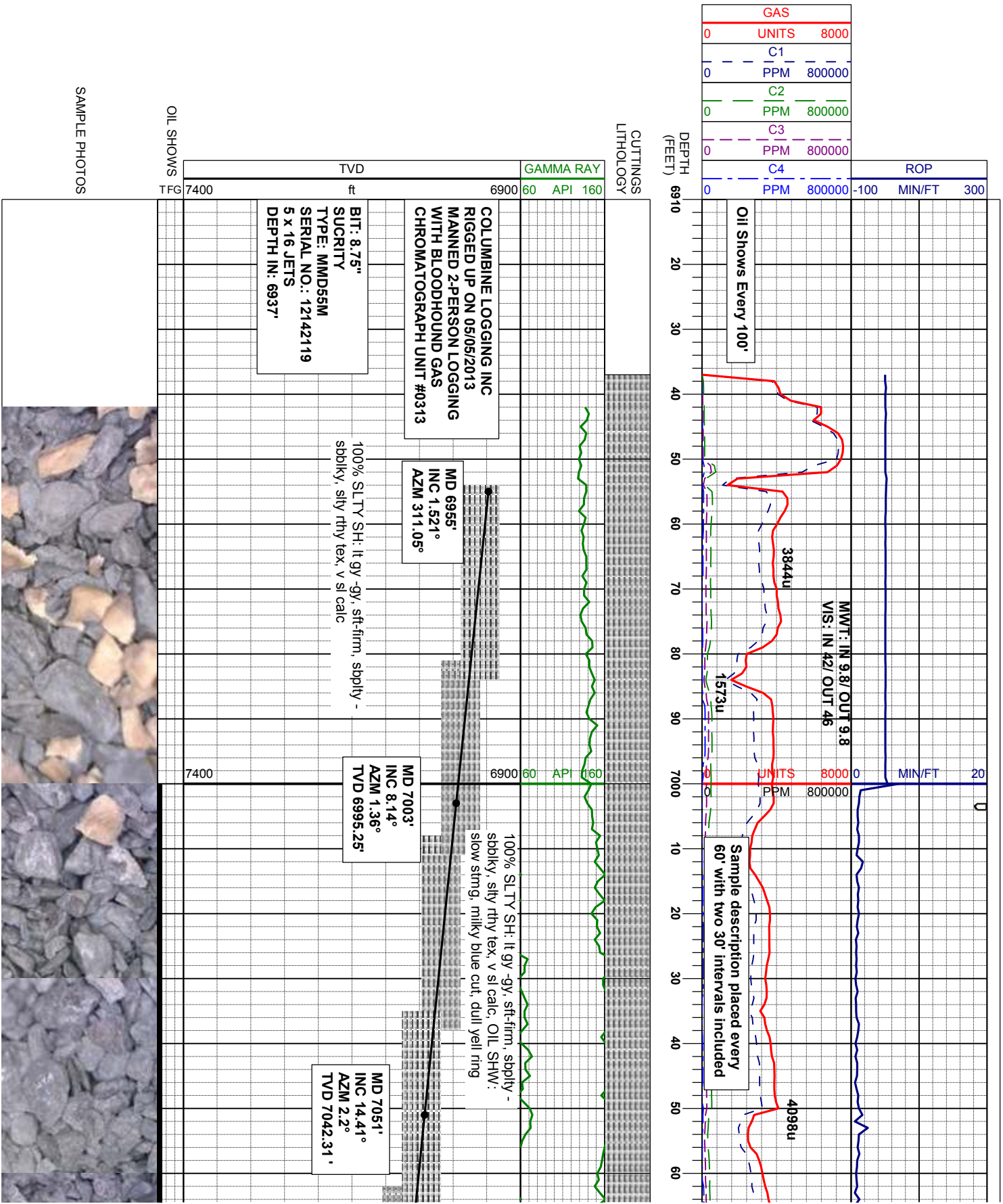
Silty Shale

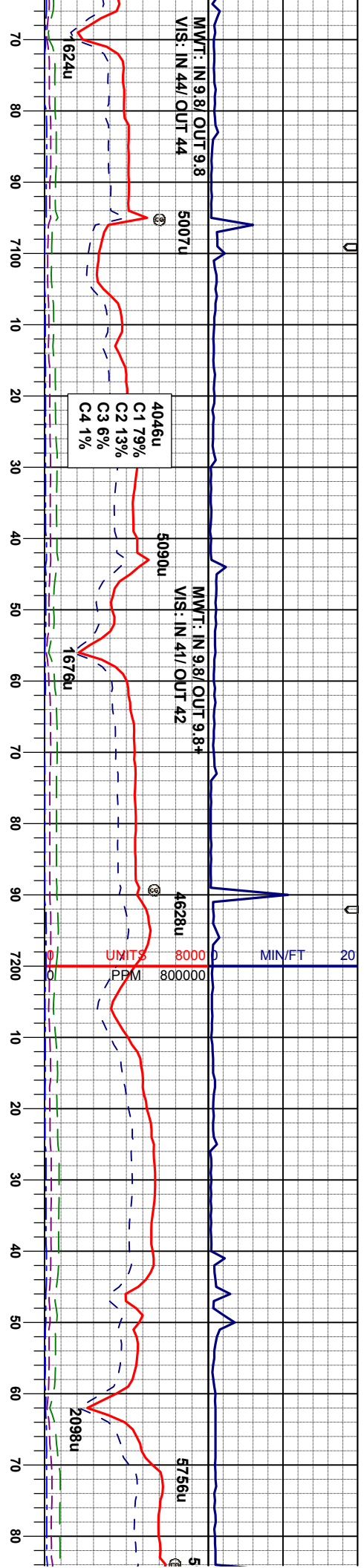
ENGINEERING SYMBOLS

Connection

Connection Gas

Midnight Depth





100% SLTY SH: lt gy -gy, sft-firm, sbply - sbply, stly rthy tex, v sl calc, OIL SHW: slow sting, milky blue cut, dull yell ring

100% SLTY SH: lt gy -gy, sft-firm, sbply - sbply, stly rthy tex, v sl calc, abnt bent, OIL SHW: slow sting, milky blue cut, dull yell ring

100% SLTY SH: lt gy -gy, sft-firm, sbply - sbply, stly rthy tex, v sl calc, tr bent, pyr, OIL SHW: slow sting, milky blue cut, dull yell ring

95% MRL: m gy - gy brn, firm - sl nd, s - sb biky, rthy lst, stly - arg tex, v calc 5% SLTY SH: lt gy - gy, sme dk gy, m -firm, sb biky - sb ply, hom, stly, calc bent, OIL SHW: slow sting, milky blue dull yell ring

MD 7096' INC 18.91° AZM 3.91° TVD 7085.41'

MD 7146' INC 23.22° AZM 0.34° TVD 7132.06'

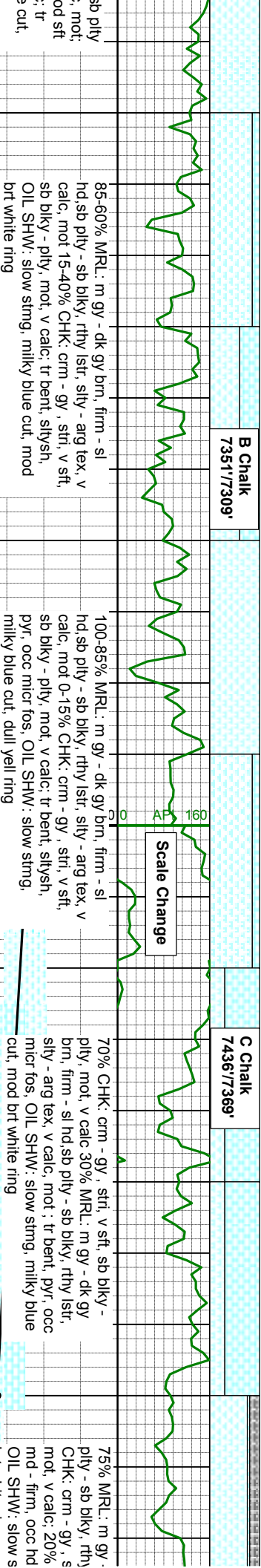
MD 7194' INC 26.12° AZM 1.05° TVD 7175.67'

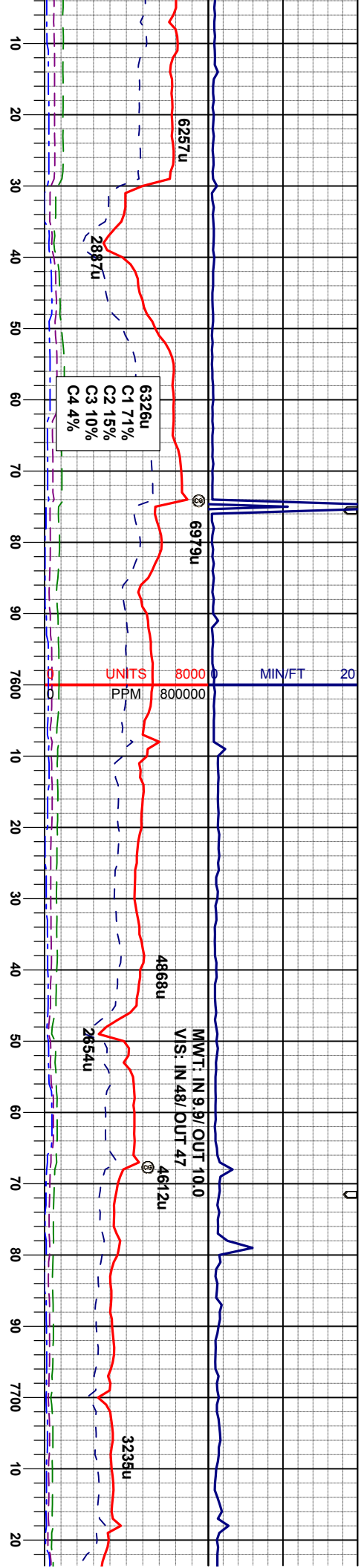
MD 7241' INC 28.73° AZM 1.66° TVD 7217.38'

Sharon Spr. 7189/ 7171'

A Chalk 7239/7233'







dk gy brn, firm - sl hd, sb
/lstr, silty - v calc, mot 5 %
stri, v sft, sb blkly - pily, sl
SLTY SH: lt gy - m gy;
blkly - sb pily, calc, silty;
ting, milky blue cut, mod

85% MRL: m gy - dk gy brn, firm - sl hd, sb
pily - sb blkly, rthy lstr, silty - v calc, mot 15
% CHK: crm - gy, stri, v sft, sb blkly - pily,
sl mot, v calc, OIL SHW: slow sting, milky
blue cut, mod brt white ring

90 % CHK: lt gy - gy, stri, v sft, sb blkly -
pily, sl mot, v calc 5-10% MRL: m gy - dk
gy brn, firm - sl hd, sb pily - sb blkly, rthy
lstr, silty - v calc, mot, 5% SS: m gy - dk gy,
mdd, OIL SHW: v slow non sting milky blue
cut, dull yell ring

75-40 % CHK: lt gy - gy, stri, v sft, sb blkly -
pily, sl mot, v calc 10-30% MRL: m gy - dk
gy brn, firm - sl hd, sb pily - sb blkly, rthy
lstr, silty - v calc, mot, 15-30% SS: m gy - dk
gy, mdd, tr mrl, OIL SHW: v slow non sting
milky blue cut, dull yell ring

MD 7527'
INC 58.90°
AMZ 0.04°
TVD 7421.29'

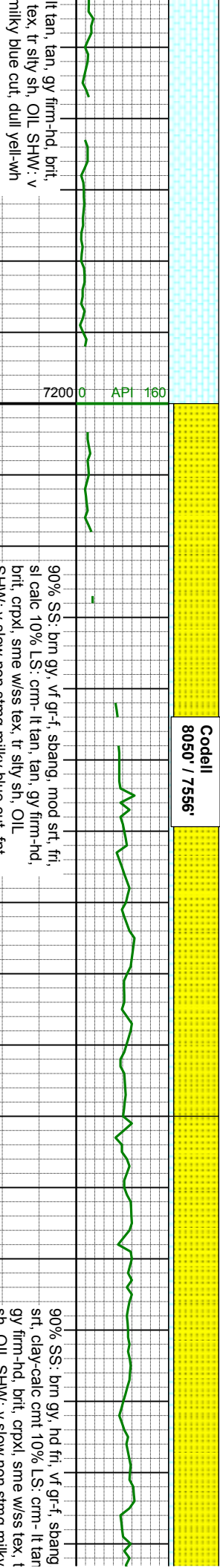
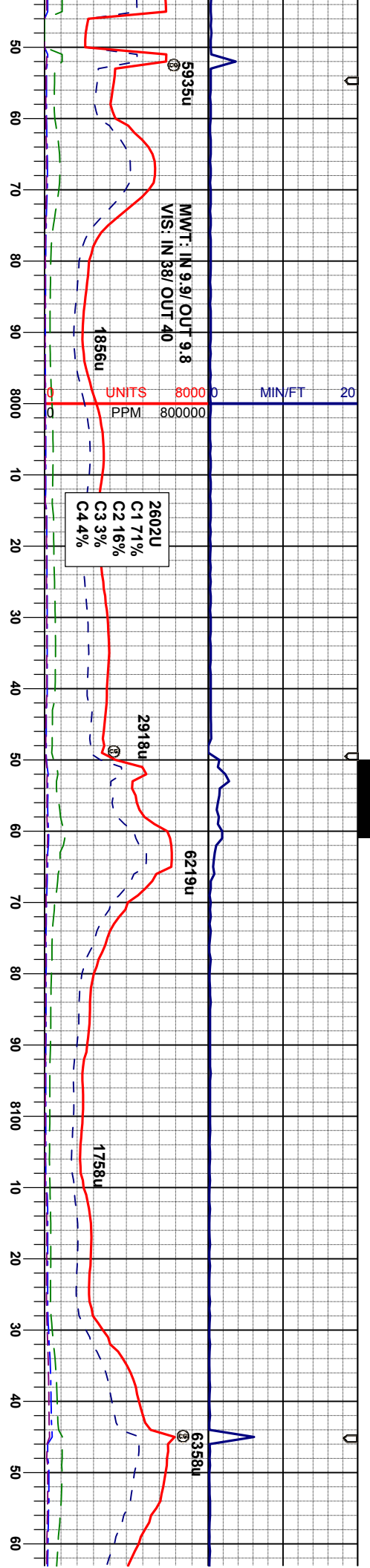
MD 7576'
INC 58.75°
AMZ 358.80°
TVD 7446.66'

MD 7623'
INC 61.09°
AMZ 358.68°
TVD 7470.21'

MD 7671'
INC 67.65°
AMZ 0.91°
TVD 7490.96'

MD 7719'
INC 74.27°
AMZ 2.48°
TVD 7506.6'



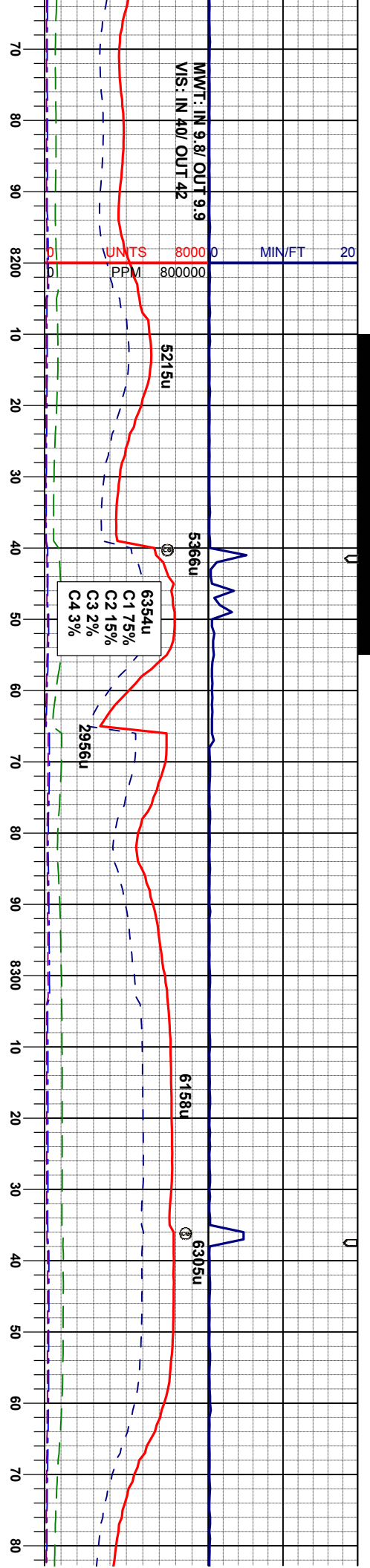


MD 8007'
INC 88.02°
AMZ 2.20°
TVD 7554.49'

MD 8103'
INC 88.89°
AMZ 0.66°
TVD 7557.08'

90% SS: brn gy, vf gr-f, sbang, mod srt, fri,
sl calc 10% LS: crm- lt tan, tan, gy firm-hd,
brit, crpxl, sme wss tex, tr sily sn, OIL
SHW: v slow non string milky blue cut, frt
yell-wh ring

90% SS: brn gy, hd fri, vf gr-f, sbang
srt, clay-calc cnt, 10% LS: crm- lt tan
gy firm-hd, brit, crpxl, sme wss tex, t
sh, OIL SHW: v slow non string milky
cut, mod brit yell-wh ring



mod
tan,
r silty
blue

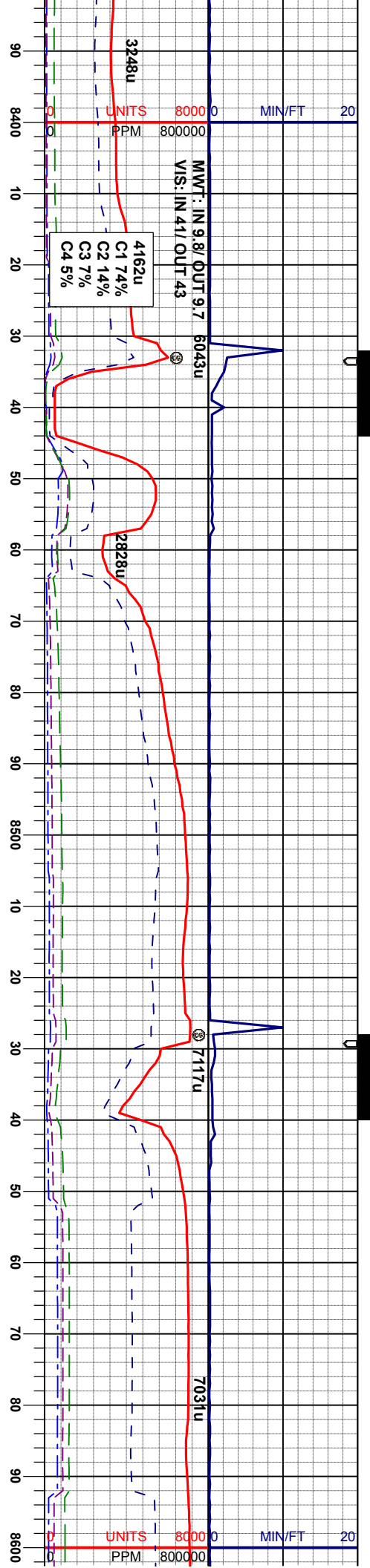
MD 8199'
INC 88.46°
AMZ 359.92°
TVD 7559.30'

7800

95% SS: brn gy, hd fri, v f gr-f, sbang, mod
sft, clay-calc cnt 5% LS: cm- lt tan, tan, gy
firm-hd, brt, crpxl, sme w/ss tex, tr silty sh,
OIL SHW: v slow non sting milky blue cut,
mod brt yell-wh ring

100% SS: brn gy, hd fri, v f gr-f, sbang, mod
sft, clay-calc cnt, tr ls, OIL SHW: v slow
non sting milky blue cut, brt yell ring





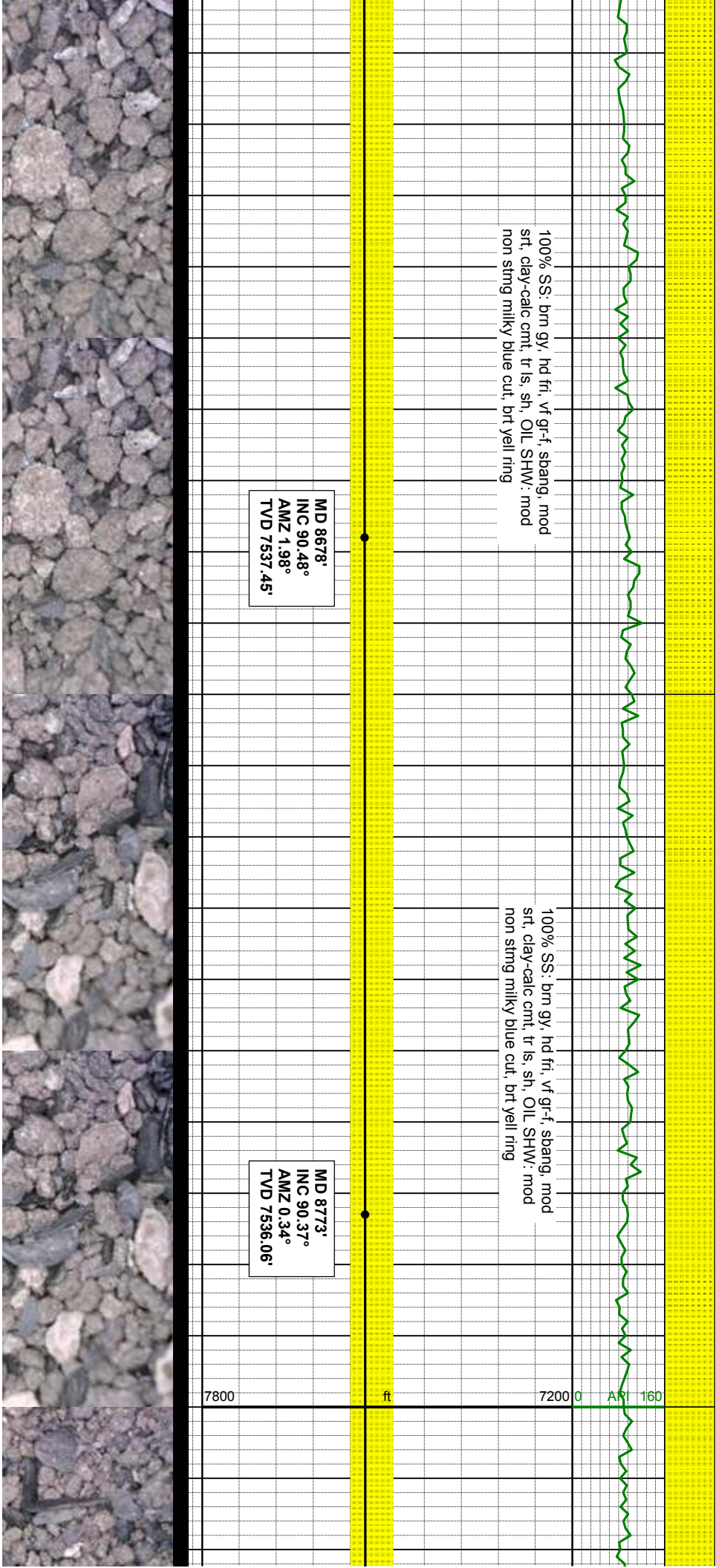
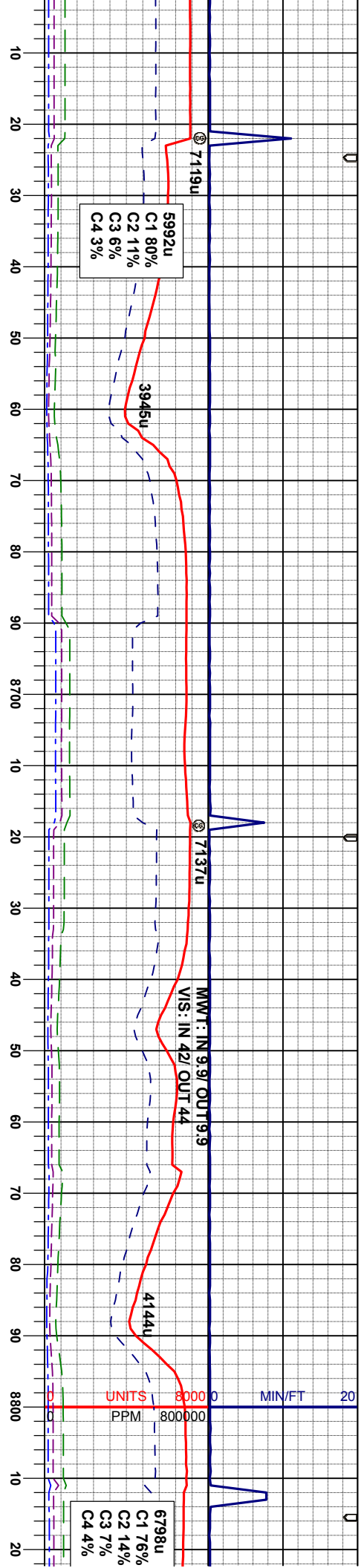
100% SS: brn gy, hd fri, vf gr-f, sbang, mod srt, clay-calc cnt, tr ls, OIL SHW: mod non string milky blue cut, brt wh

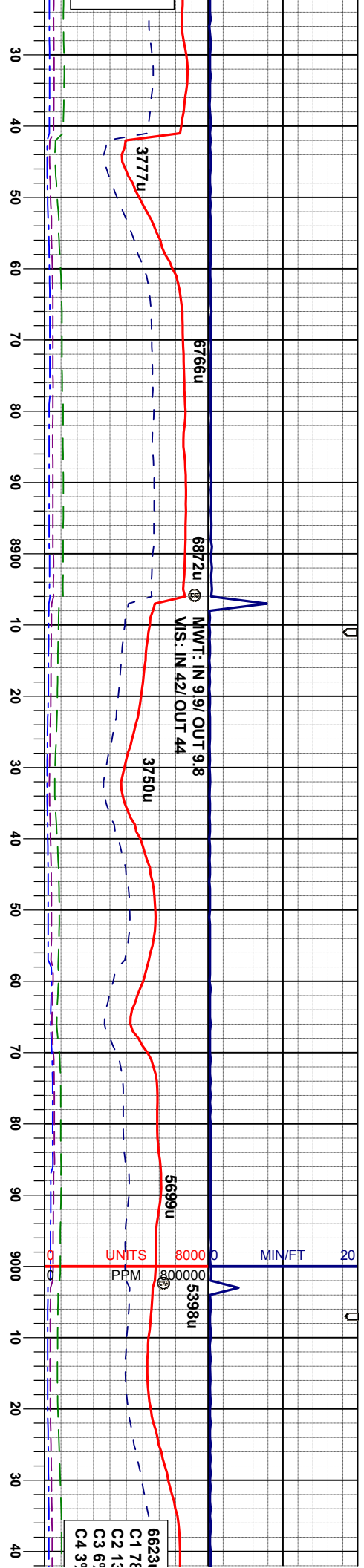
100% SS: brn gy, hd fri, vf gr-f, sbang, mod srt, clay-calc cnt, tr ls, sh, OIL SHW: mod non string milky blue cut, brt yell ring

MD 8391'
INC 90.56°
AMZ 359.04°
TVD 7559.30'

MD 8487'
INC 89.07°
AMZ 1.65°
TVD 7536.62'

MD 8582'
INC 90.31°
AMZ 1.01°
TVD 7536.93'





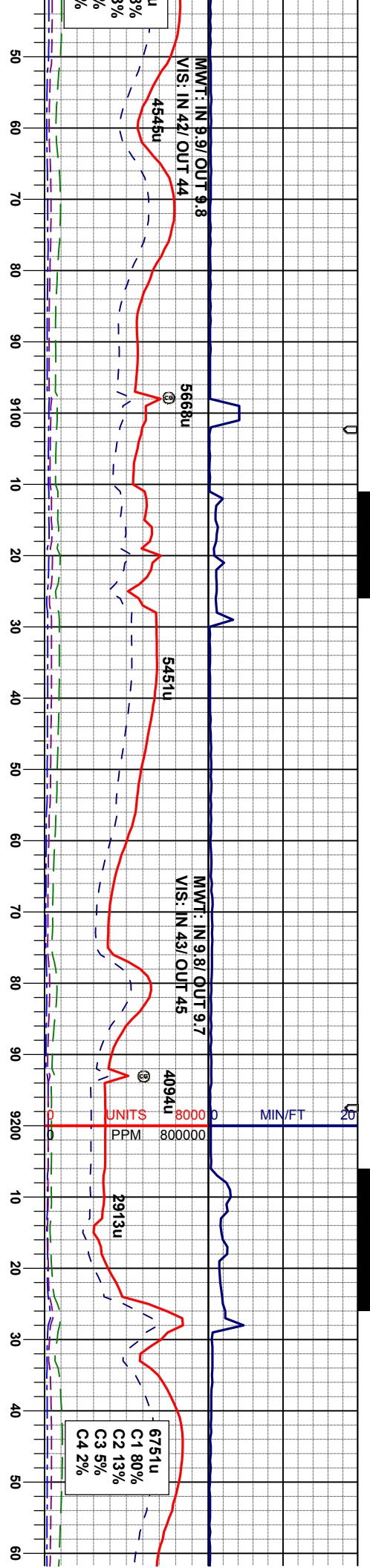
100% SS: brn gy, hd fr, vf gr-f, sbang, mod
srt, clay-calc cmt, tr ls, sh, OIL SHW: mod
non string milky blue cut, brt yell ring

95% SS: brn gy, hd fr, vf gr-f, sbang, mod
srt, clay-calc cmt 5% LS: crn- lt tan, tan, gy
firm-hd, brt, crpxl, sme w/ss tex, tr silty sh,
OIL SHW: mod non string milky blue cut, brt
yell ring

95% SS: brn gy, hd fr, vf gr-f, sbang, mod
srt, clay-calc cmt 5% LS: crn- lt tan, tan, gy
firm-hd, brt, crpxl, sme w/ss tex, tr silty sh,
OIL SHW: mod non string milky blue cut, brt
yell ring

MD 8869'
INC 90.43°
AMZ 0.12°
TVD 7535.39'

7800 ft 7200 160



gy, hd fri, vf gr-f, sbang, mod
ent 5% LS: crm- lt tan, tan, gy
rpxl, sme wss tex, tr silty sn,
d non string milky blue cut, brt

100% SS: brn gy, hd fri, vf gr-f, sbang, mod
srt, clay-calc cnt, tr ls, sh, OIL SHW: mod
non string milky blue cut, brt yell ring

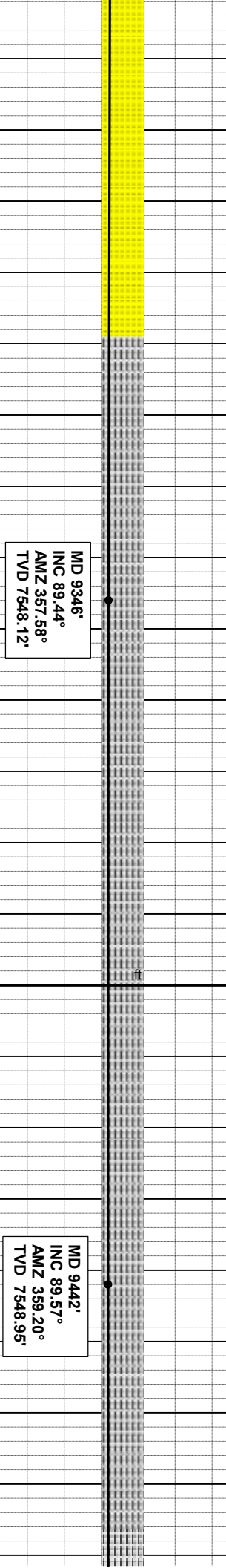
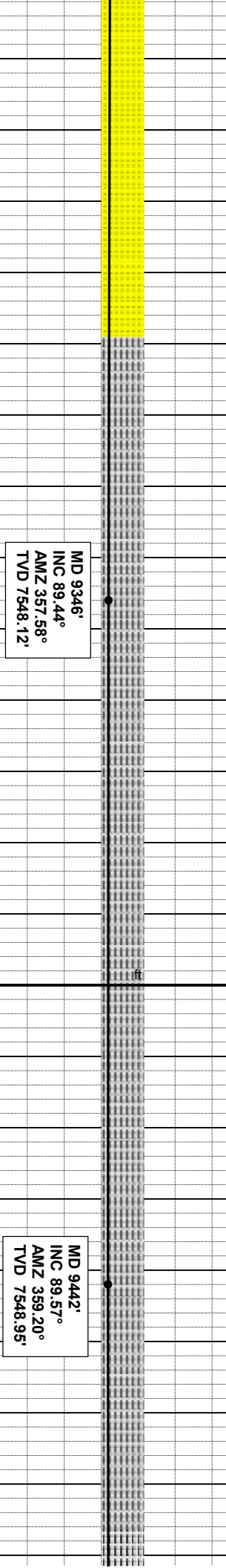
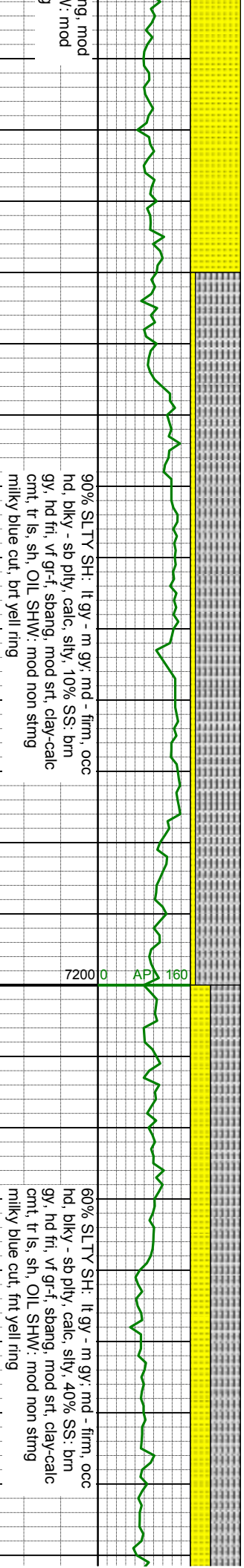
100% SS: brn gy, hd fri, vf gr-f, sbang, mod
srt, clay-calc cnt, tr ls, sh, OIL SHW: mod
non string milky blue cut, brt yell ring

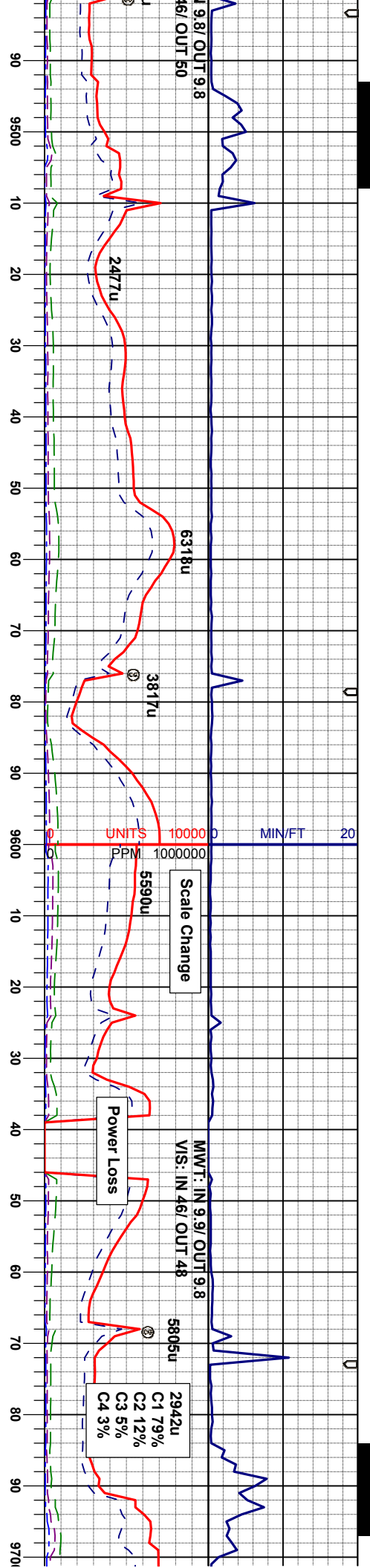
MD 9060'
INC 87.77°
AMZ 358.03°
TVD 7538.39'

MD 9155'
INC 88.08°
AMZ 359.04°
TVD 7541.83'

MD 9251'
INC 87.47°
AMZ 358.38°
TVD 7545.56'







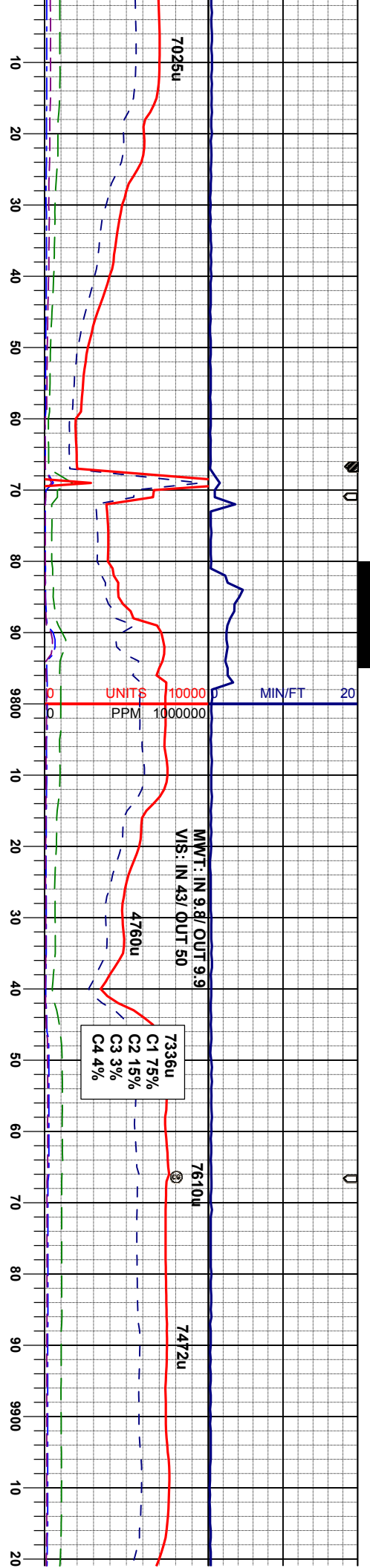
90% LS: crm- lt tan, tan, gy firm-hd, brt, cpxl, sme w/ss tex, 5% SS: bn gy, vf gr-f, sbang, mod srt, frt, sl calc, 5% SLTY SH: lt gy - m gy, md - firm, occ hd, biky - sb pily, calc, silty, OIL SHW: mod non sting milky blue cut, mod brt yell ring

MD 9633'
INC 89.26°
AMZ 0.21°
TVD 7548.09'

100% LS: crm- lt tan, tan, gy firm-hd, brt, cpxl, sme w/ss tex, OIL SHW: mod non sting milky blue cut, mod yell ring

MD 9633'
INC 89.07°
AMZ 359.13°
TVD 7549.49'





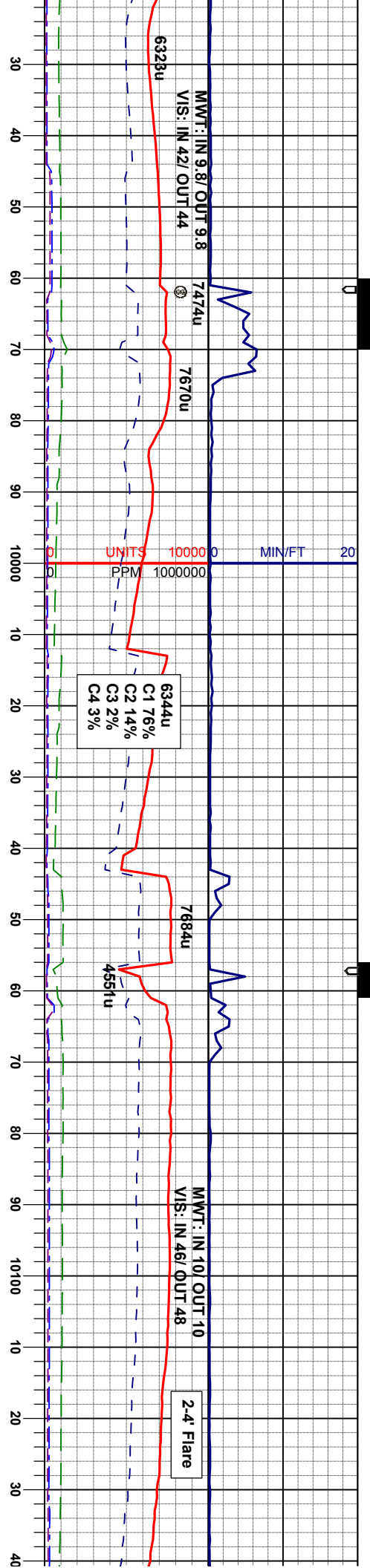
95% L.S. crm- lt tan, tan, gy firm-hd, brt.
cipxl, 5% SLTY SH: lt gy - m gy; md - firm,
occ hd, blkly - sb plty, calc, silty, OIL SHW:
mod non stmg milky blue cut, mod yell ring

MD 9729'
INC 89.63°
AMZ 359.89°
TVD 7550.58'

95% L.S. crm- lt tan, tan, gy firm-hd, brt.
cipxl, 5% SLTY SH: lt gy - m gy; md - firm,
occ hd, blkly - sb plty, calc, silty, abnt walnut
hulls, OIL SHW: mod non stmg milky blue
cut, mod yell ring

MD 9824'
INC 90.74°
AMZ 1.44°
TVD 7550.27'

MD 9913'
INC 91.0°
AMZ 1.7°
TVD 754



90% LS: crm- lt tan, tan, gy firm-hd, brt, crpxl, 10% SLTY SH: lt gy - m gy: md - firm, occ hd, blkly - sb ply, calc, silty, abnt walnut hulls, OIL SHW: mod non sting milky blue cut, mod yell ring

70% SS: brn gy, hd fri, v' gr-f, shang, mod srt, clay-calc cmt 30% LS: crm- lt tan, tan, gy firm-hd, brt, crpxl, sme w/ss tex, tr silty sh, OIL SHW: mod non sting milky blue cut, mod yell ring

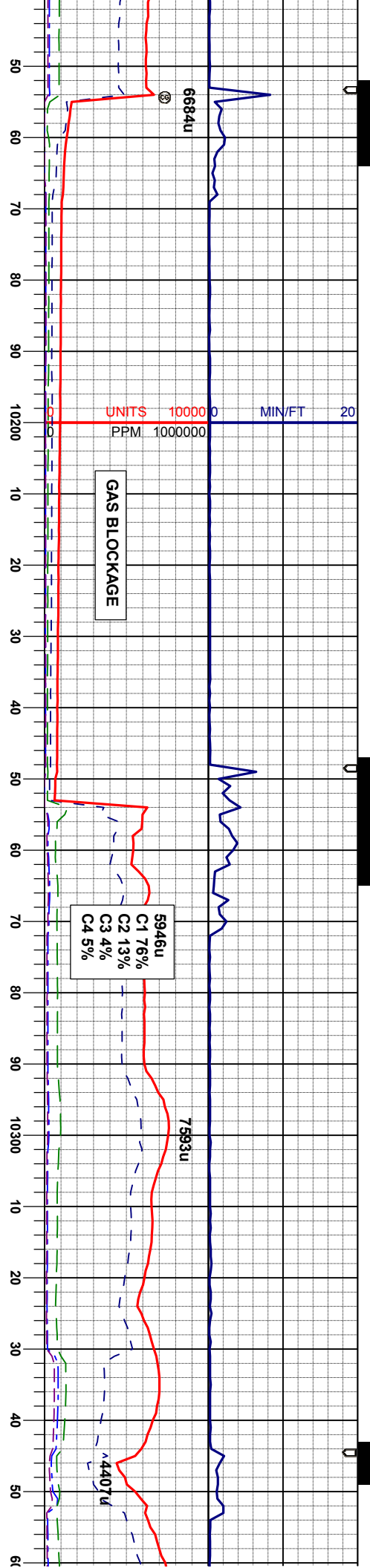
95% SS: srt, clay-c firm-hd, b OIL SHW mod yell l

3°
1°
8.58'

MD 10015'
INC 89.88°
AMZ 1.51°
TVD 7608.73'

MD 10111'
INC 87.28°
AMZ 0.16°
TVD 7549.97'





bm gy, hd fri, vf gr-f, sbang, mod
calc cmt 5% LS, crm - lt tan, tan, gy
rit, crpxl, sme w/ss tex, tr silty sh,
mod non stng milky blue cut,

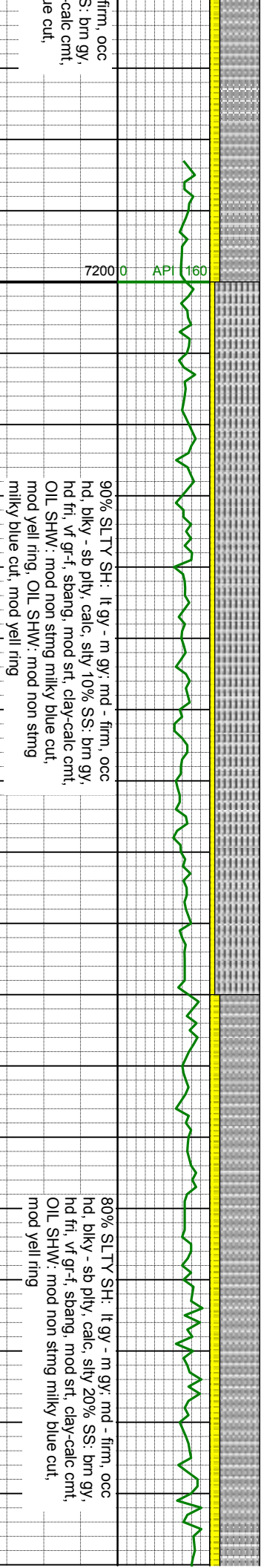
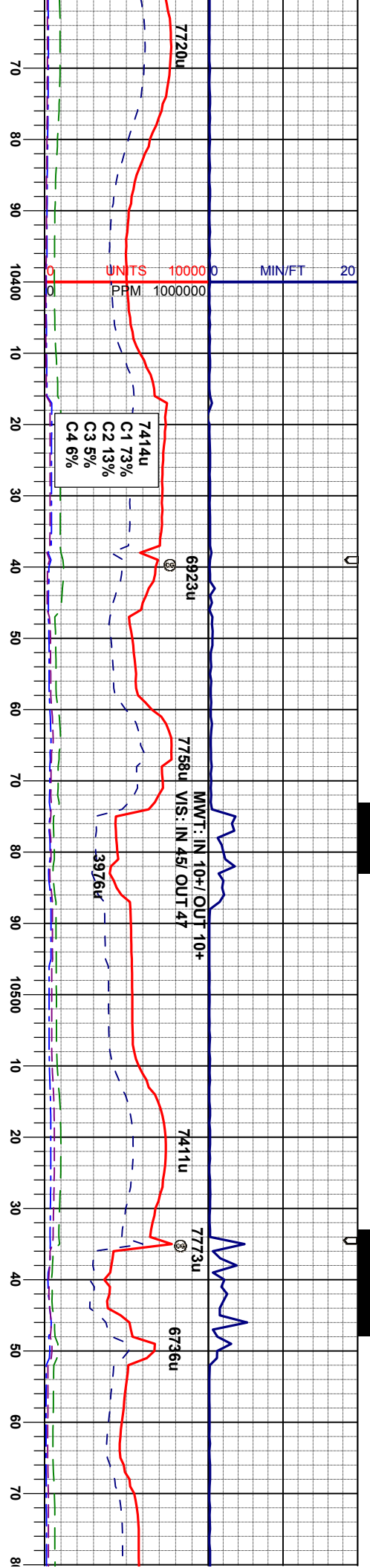
MD 10206'
INC 88.33°
AMZ 1.35°
TVD 7553.61'

95% SS: bm gy, hd fri, vf gr-f, sbang, mod
srt, clay-calc cmt 5% LS: crm - lt tan, tan, gy
firm-hd, brlt, crpxl, sme w/ss tex, tr silty sh,
OIL SHW: mod non stng milky blue cut,
mod yell ring

MD 10302'
INC 90.31°
AMZ 0.57°
TVD 7554.75'

80% SLTY SH: lt gy - m gy, md -
hd, blkly - sb pily, calc, silty 20% SS
hd fri, vf gr-f, sbang, mod srt, clay-
OIL SHW: mod non stng milky blue cut,
mod yell ring





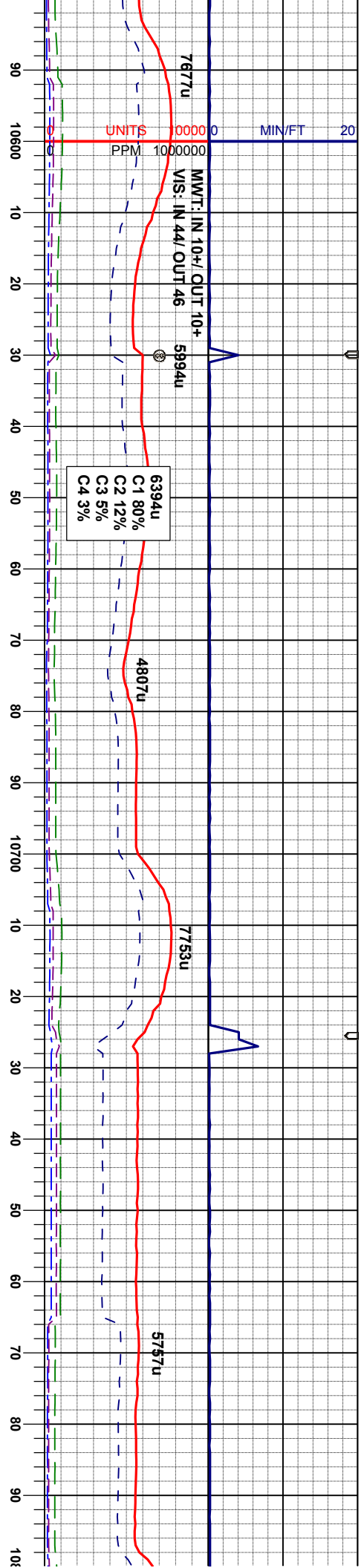
MD 10397'
INC 90.49°
AMZ 1.32°
TVD 7554.09'

MD 10497'
INC 91.36°
AMZ 359.62°
TVD 7552.55'

90% SLTY SH: lt gy - m gy; md - firm, occ
hd, blk - sb pty, calc, silty 10% SS: brn gy,
hd fr, v gr-f, sbang, mod srt, clay-calc cnt,
OIL SHW: mod non sting milky blue cut,
mod yell ring, OIL SHW: mod non sting
milky blue cut, mod yell ring

80% SLTY SH: lt gy - m gy; md - firm, occ
hd, blk - sb pty, calc, silty 20% SS: brn gy,
hd fr, v gr-f, sbang, mod srt, clay-calc cnt,
OIL SHW: mod non sting milky blue cut,
mod yell ring





100% SLTY SH: lt gy - m gy; md - firm, occ
hd, blkly - sb plty, calc, silty, OIL SHW: mod
non string milky blue cut, mod yell ring

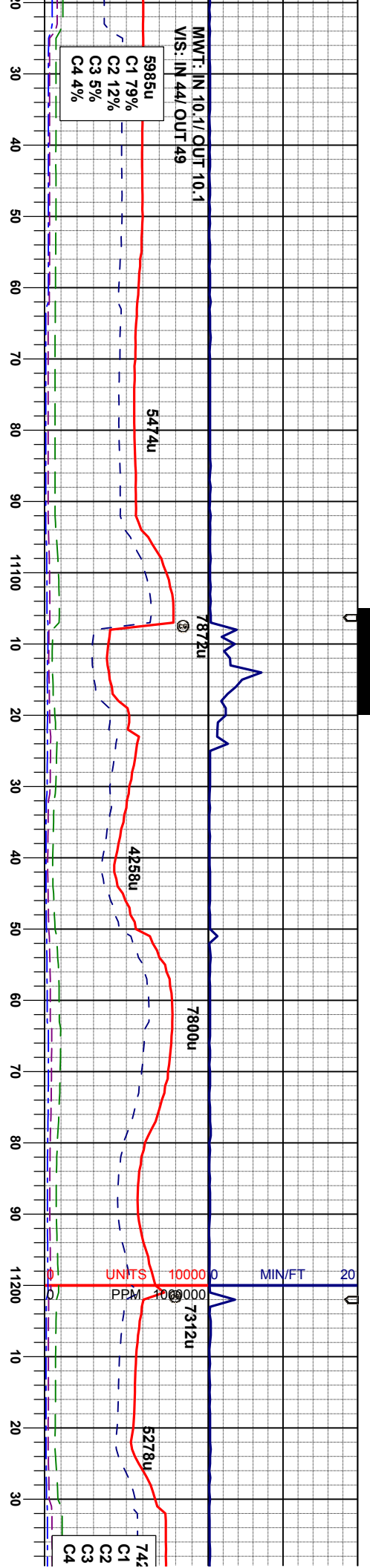
100% SLTY SH: lt gy - m gy; md - firm, occ
hd, blkly - sb plty, calc, silty, OIL SHW: mod
non string milky blue cut, brt yell ring

MD 10588'
INC 91.61°
AMZ 0.97°
TVD 7550.07'

MD 10683'
INC 90.93°
AMZ 0.49°
TVD 7547.96'

MD 10778'
INC 90.87°
AMZ 0.71°
TVD 7546.47'





85% SLTY SH: lt gy - m gy; md - firm, occ
hd, blk - sb pty, calc, silty 15% SS; brn gy,
hd fr, vt gr-f, sbang, mod srt, clay-calc cntl,
OIL SHW: mod non stmg milky blue cut,
dull yell ring

50% SLTY SH: lt gy - m gy; md - firm, occ
hd, blk - sb pty, calc, silty 50% SS; brn gy,
hd fr, vt gr-f, sbang, mod srt, clay-calc cntl,
OIL SHW: mod non stmg milky blue cut,
dull yell ring

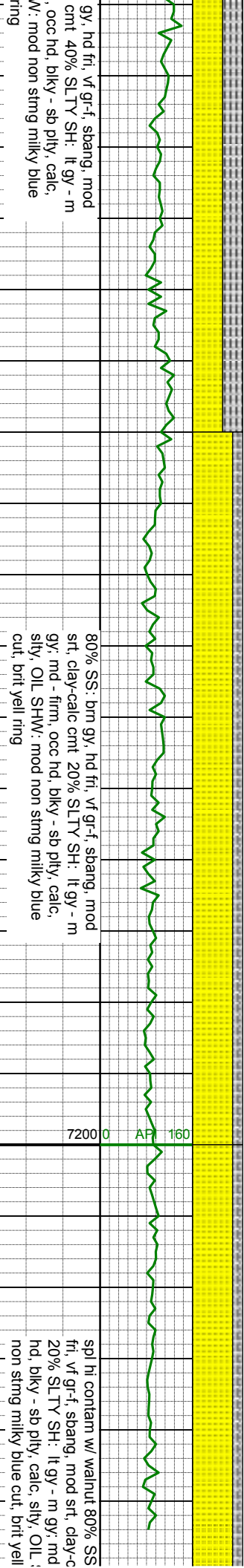
60% SS: brn
srt, clay-calc
gy; md - firm
silty, OIL SH
cut, dull yell

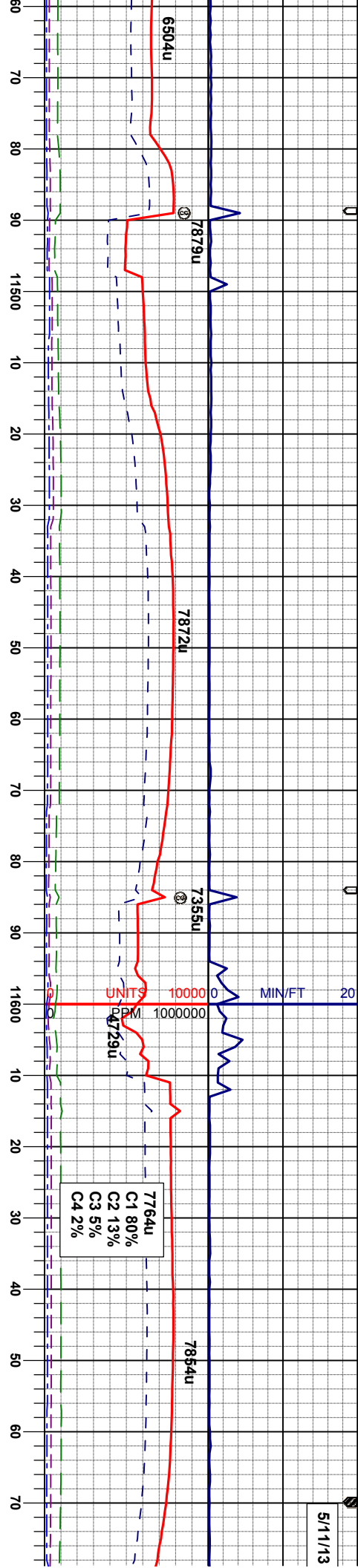
MD 11064'
INC 89.57°
AMZ 1.65°
TVD 7543.64'

MD 11160'
INC 91.11°
AMZ 1.56°
TVD 7543.07'

7800 7200 160 API 0







brn gy, hd
calc cmt
- firm, occ
SHW: mod
ring

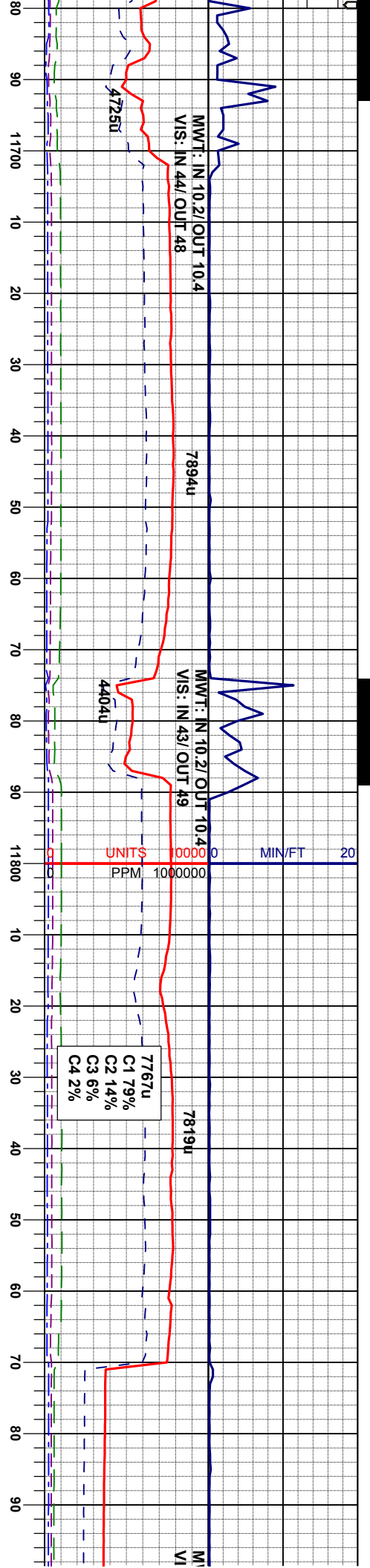
spl hi contam w/ walnut 90% SS; brn gy, hd
fri, vf gr-f, sbang, mod st, clay-calc cmt
10% SLTY SH: lt gy - m gy; md - firm, occ
hd, blkly - sb ply, calc, silty, OIL SHW: mod
non string milky blue cut, brt yell ring

95% SS: brn gy, hd fri, vf gr-f, sbang, mod
srt, clay-calc cmt 5% SLTY SH: lt gy - m
gy; md - firm, occ hd, blkly - sb ply, calc,
silty, OIL SHW: mod non string milky blue
cut, brt yell ring

MD 11542'
INC 85.42°
AMZ 358.21°
TVD 7543.70'

MD 11637'
INC 87.03°
AMZ 357.87°
TVD 7549.95'





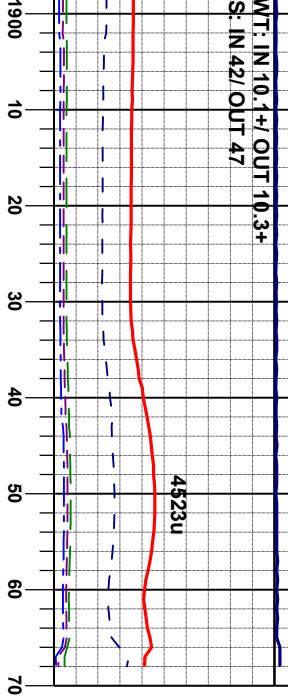
95% SS: brn gy, hd fr, vf gr-f, sbang, mod srt, clay-calc cnt 5% SLTY SH: lt gy - m gy: md - firm, occ hd, blkly - sb plty, calc, silty, OIL SHW: mod non string milky blue cut, brt yell ring

MD 11733'
INC 88.33°
AMZ 358.15°
TVD 7553.84'

90% SS: brn gy, hd fr, vf gr-f, sbang, mod srt, clay-calc cnt, 10% SLTY SH: lt gy - m gy: md - firm, occ hd, blkly - sb plty, calc, silty, OIL SHW: mod non string milky blue cut, brt yell ring

MD 11829'
INC 91.42°
AMZ 359.61°
TVD 7'

WT: IN 10.1+ OUT 10.3+
S: IN 42/ OUT 47



90% SS: brn gy, hd fri, v'f gr-f, shang, mod
srt, clay-calc cnt, 10% SLTY SH: lt gy - m
gy; md - firm, occ hd, blkly - sb plty, calc,
silty, OIL SHW: mod non stmg milky blue
cut, brt yell ring

TD WELL at 11968'
on 5/11/13 @ 4: 30 am

MD 11927'
INC 91.85°
AMZ 358.5°
TVD 7'

THANK YOU FOR USING
COLUMBINE LOGGING INC.

