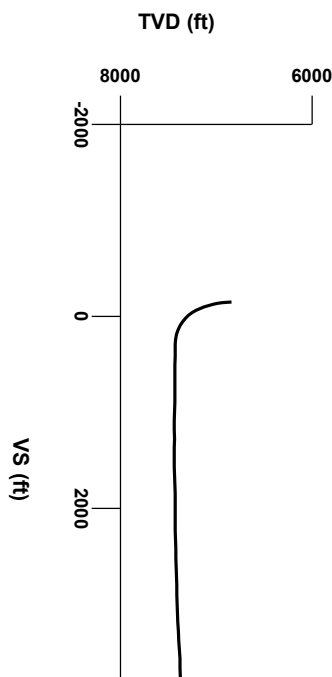


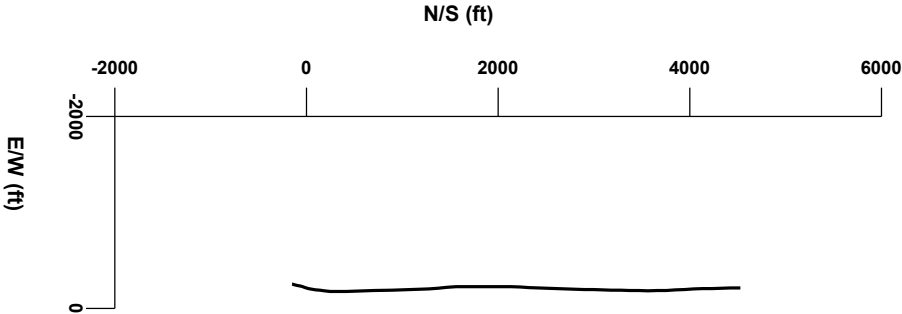
LOG created using LPLOT VH Version 3.0, April 29, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: ANADARKO PETROLEUM
WELL: GOBBLER 2N-23HZ
LOCATION: SEC 23 T2N R66W
COUNTY: WELD Co.
STATE: COLORADO
SPOT: 240'FSL 1619'FEL
ELEVATION: GR 5094' KB 5107'
FIELD: WATTENBURG
SPUD DATE: 4/22/2013
TD DATE: 4/29/2013
DATES LOGGED: 4/22/2013 - 4/29/2013
DEPTHS LOGGED: 6875'MD - 11928'MD
LOGGERS: DANIEL LUNEAU, DAN MEIDEL
DRILLING FLUID: FW LSND
DRILLING RIG: ENSIGN 132
API: 0512336817
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: 2 MAN LOGGING CREW OUT ON LOCATION FOR COLUMBINE LOGGING INC
ON 4/22/2013



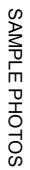
Survey Elevation

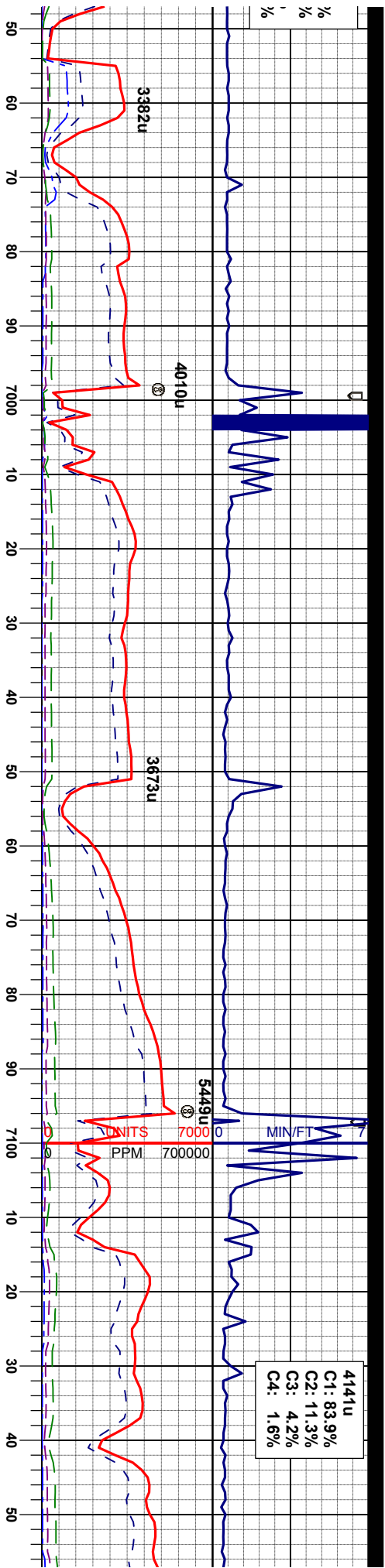
Survey Plan



Silty Shale

Trip Gas





IN : MW 9.4 / VIS 37
OUT: MW 9.3 / VIS 40

Survey
MD 7004'
INC 9.68°
AZM 19.35°
TVD 6983.10'

Survey
MD 7052'
INC 13.42°
AZM 16.33°
TVD 7030.12'

IN : MW 9.7 / VIS 39
OUT: MW 9.7 / VIS 39

Survey
MD 7148'
INC 19.47°
AZM 9.47°
TVD 7122.16'

SLTY SH: It to med gy, sme dk gy, sft to mod firm, sb blk, blk, sb pty, m to rough tex, gt, sily, non to tr calc, slow stmg, dul milky blue cut, dul yel ring

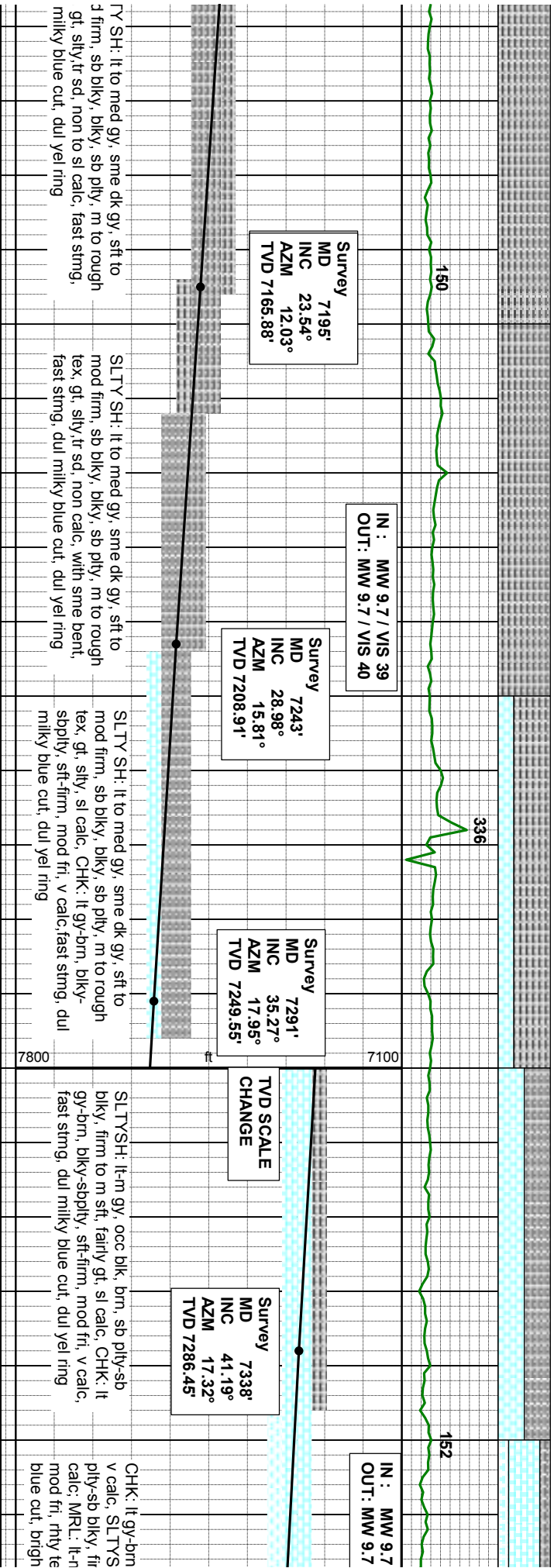
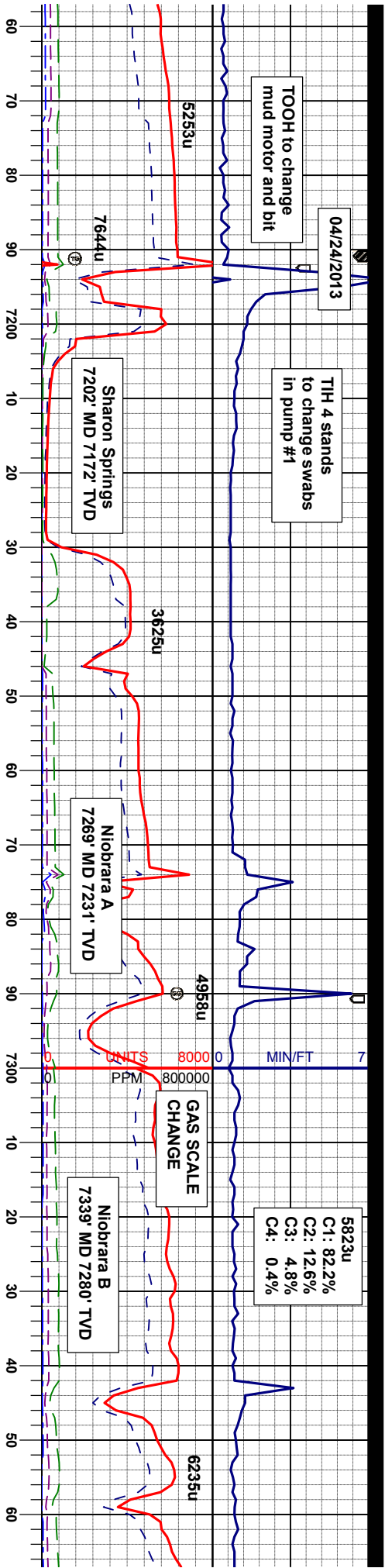
SLTY SH: It to med gy, sme dk gy, sft to mod firm, sb blk, blk, sb pty, m to rough tex, gt, sily, non to tr calc, slow stmg, dul milky blue cut, dul yel ring

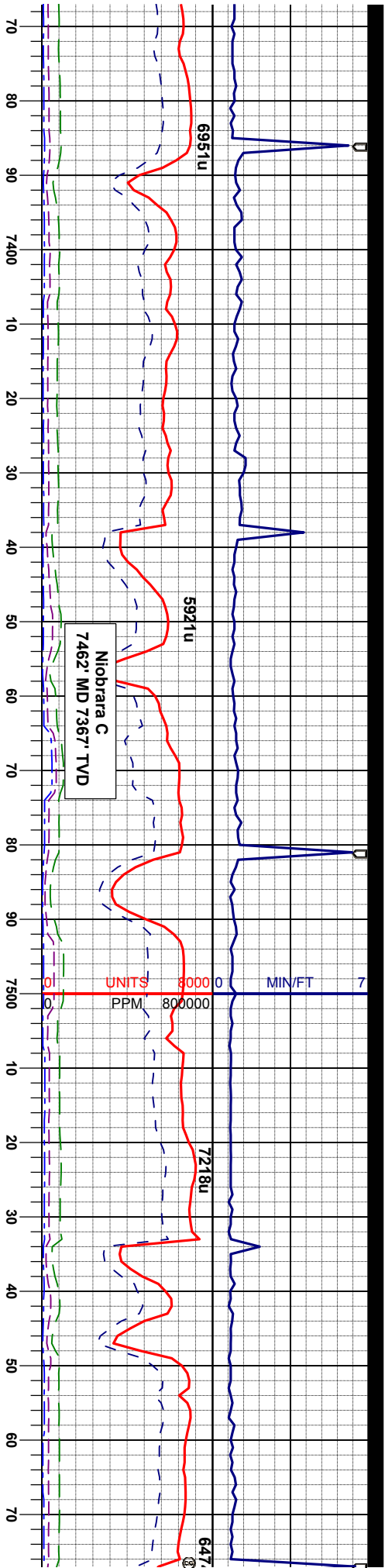
SLTY SH: It to med gy, sme dk gy, sft to mod firm, sb blk, blk, sb pty, m to rough tex, gt, sily, non calc, slow stmg, dul milky blue cut, dul yel ring

SLTY SH: It to med gy, sme dk gy, sft to mod firm, sb blk, blk, sb pty, m to rough tex, gt, sily, non calc, fast stmg, bright milky blue cut, bright yel ring

SLTY SH: It to med gy, sme dk gy, sft to mod firm, sb blk, blk, sb pty, m to rough tex, gt, sily, non calc, fast stmg, bright milky blue cut, bright yel ring







/ VIS 41
/ VIS 42

Survey
MD 7386'
INC 47.85°
AZM 14.3°
TVD 7320.66'

, blkly-sbply, sft-firm, mod fri,
H: lt-m gy, occ blk, brn, sb
m to m sft, w srt, mod fri, sl
n gy-brn, blkly-sbply, sft-firm,
x calc, fast stmg, dul milky
yel ring

Survey
MD 7434'
INC 53.46°
AZM 9.76°
TVD 7351.09'

CHK: lt gy-brn, blkly-sbply, sft-firm, mod fri,
v calc, MRL: lt-m gy-brn, blkly-sbply, sft-
firm, mod fri, rthy tex, sme mot, calc, fast
stmg, dul milky blue cut, bright yel ring

IN : MW 9.9 / VIS 41
OUT: MW 9.8 / VIS 42

Survey
MD 7482'
INC 60.91°
AZM 7.55°
TVD 7377.08'

MRL: m-dk gy-brn, blkly-sbply, sft-firm,
mod fri, rthy tex, calc, CHK: lt gy-brn, blkly-
sbply, sft-firm, mod fri, v calc, fast stmg,
dul milky blue cut, bright yel ring

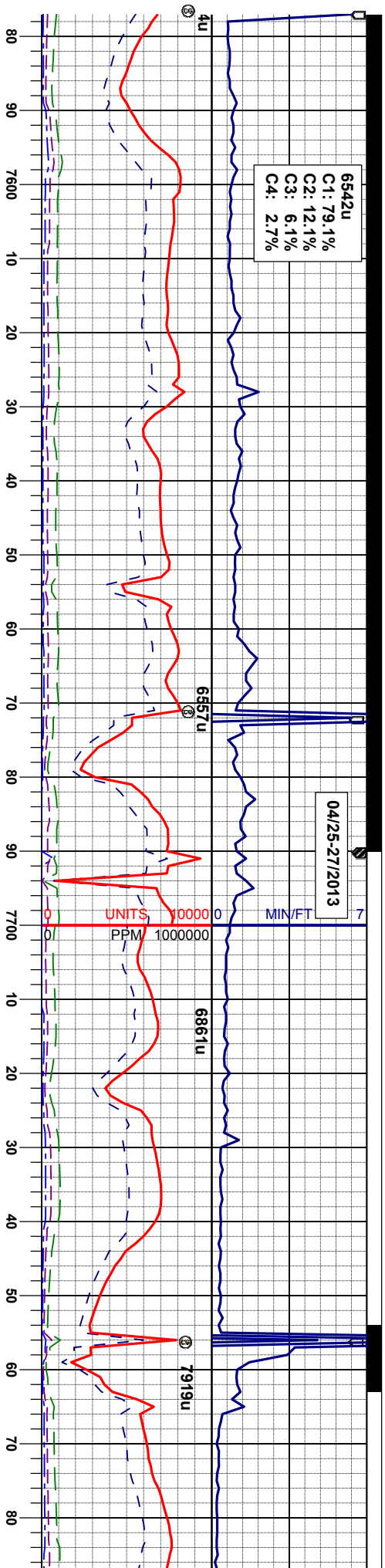
Survey
MD 7530'
INC 67.37°
AZM 7.06°
TVD 7398.01'

MRL: m-dk gy-brn, blkly-sbply, sft-firm,
mod fri, rthy tex, calc, CHK: lt gy-brn, blkly-
sbply, sft-firm, mod fri, v calc, fast stmg,
dul milky blue cut, bright yel ring

Surve
MD
INC
AZM
TVD 7

CHK: lt gy-brn, blkly-sbply
v calc, MRL: lt-m gy-brn, l
firm, mod fri, rthy tex, sme
stmg, dul milky blue cut, c





GAMMA DATA
BECOMES INCOMPLETE

71

IN : MW 10.1 / VIS 42
OUT: MW 10.0 / VIS 43

Survey
MD 7642'
INC 84.35°
AZM 3.58°
TVD 7424.24'

TOOH for
intermediate
casing

Survey
MD 7683'
INC 89.2°
AZM 0.32°
TVD 7426.24'

Survey
MD 7683'
INC 89.2°
AZM 0.32°
TVD 7426.05'

IN : MW 9.6 / VIS 40
OUT: MW 9.5 / VIS 39

Y
75.79'
75.49°
6.34°
413.60'

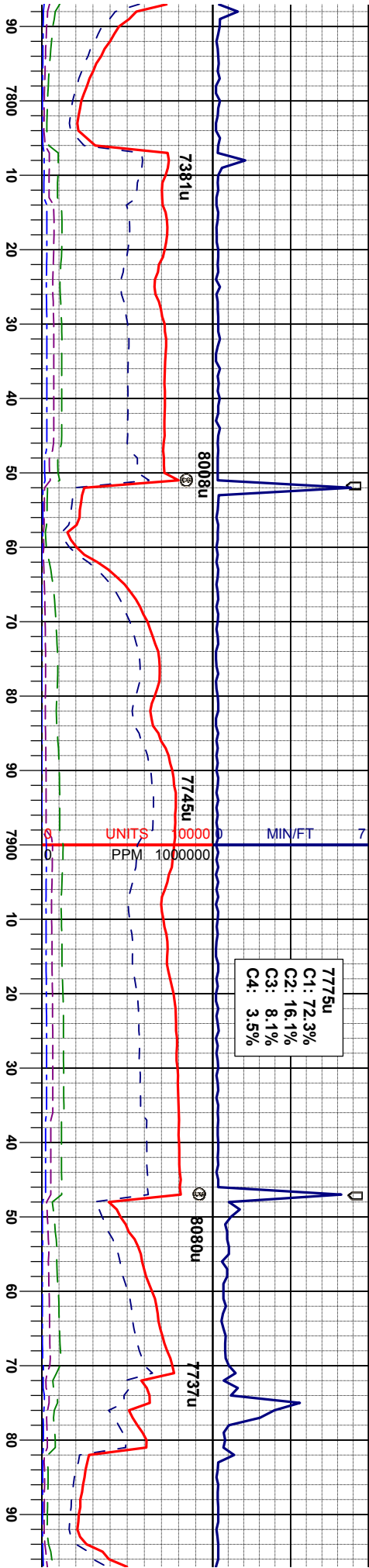
/, sft-firm, mod fri,
dkly-sbply, sft-
a mot, calc, fast
dul yel ring

CHK: lt gy-brn, bkly-sbply, sft-firm, mod fri,
v calc; MRL: lt-m gy-brn, bkly-sbply, sft-
firm, mod fri, rthy tex, sme mot, calc, fast
stmg, dul milky blue cut, dul yel ring

CHK: lt gy-brn, bkly-sbply, sft-firm, mod fri,
v calc; MRL: lt-m gy-brn, bkly-sbply, sft-
firm, mod fri, rthy tex, sme mot, calc, fast
stmg, dul milky blue cut, dul yel ring

CHK: lt gy-brn, bkly-sbply, sft-firm, mod fri,
v calc; MRL: lt-m gy-brn, bkly-sbply, sft-
firm, mod fri, rthy tex, sme mot, calc, fast
stmg, bright milky blue cut, pale gn ring





GAMMA DATA
INCOMPLETE

Survey
MD 7683'
INC 89.2°
AZM 0.32°
TVD 7426.71'

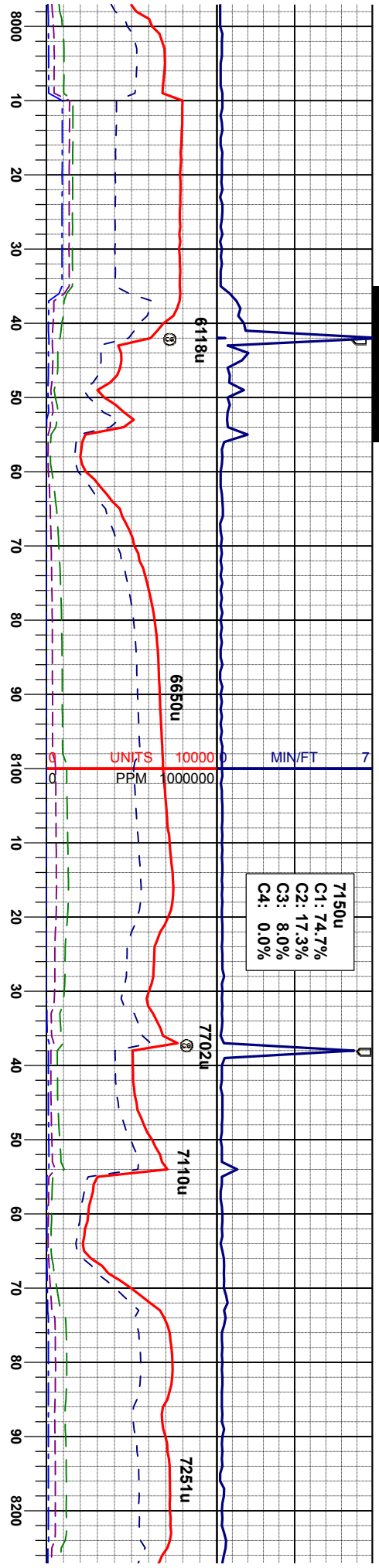
Survey
MD 7683'
INC 89.2°
AZM 0.32°
TVD 7430.49'

Survey
MD 81'
INC 91°
AZM 3°
TVD 7431'

MRU: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast stmg, bright milky
blue cut, bright gn/yel ring

MRU: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast stmg, bright milky
blue cut, milky blue ring





IN : MW 9.6 / VIS 40
OUT: MW 9.5 / VIS 39

100'
.73°
57.37°
.62'

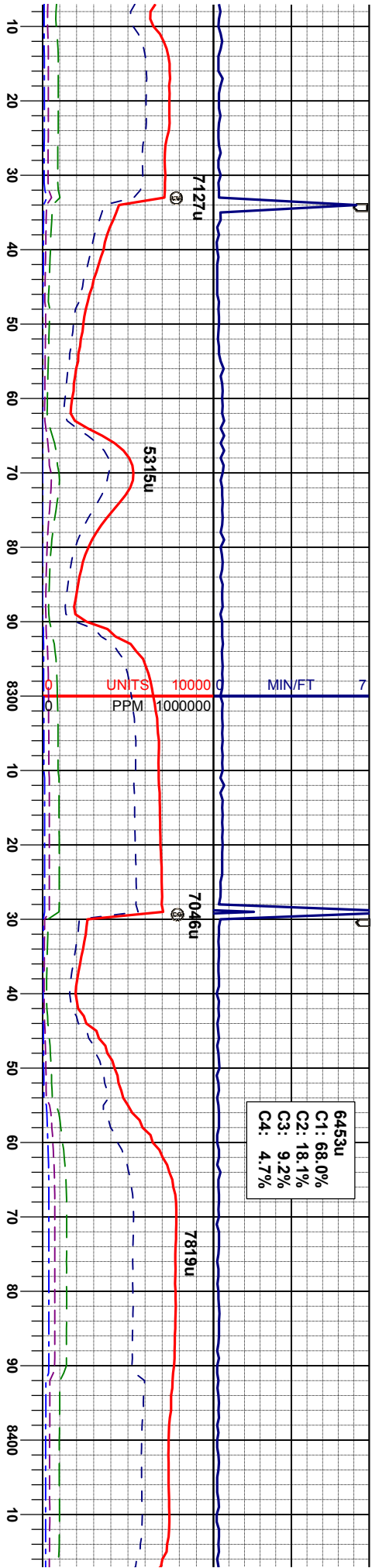
Survey
MD 8096'
INC 89.51°
AZM 359.14°
TVD 7430.58'

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast stmg, bright milky
blue cut, pale gn/yel ring

IN : MW 10.0 / VIS 40
OUT: MW 9.9 / VIS 40

MRL: m-dk gy-brn, blk-y-sbply, firm - hd,
calc; CHK: lt gy-brn, blk-y-sbply, sft-firm,
mod fri, v calc, fast stmg, bright milky blue
cut, pale gn/yel ring





GAMMA DATA
INCOMPLETE

Survey
MD 8288'
INC 89.44°
AZM 358.39°
TVD 7432.34'

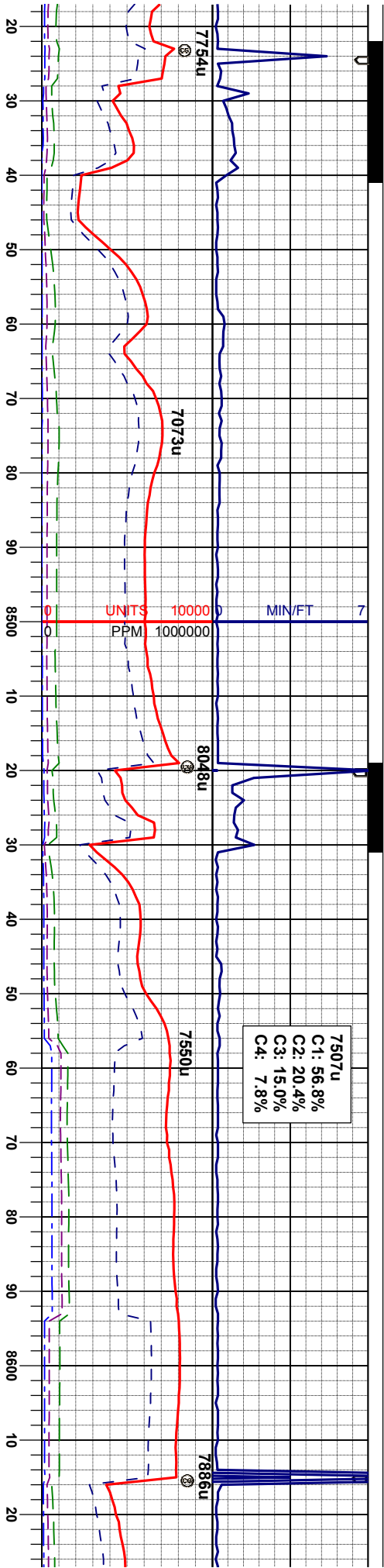
IN : MW 10.0 / VIS 41
OUT: MW 70.0 / VIS 43

Survey
MD 8384'
INC 88.39°
AZM 357.52°
TVD 7434.70'

MRL: m-dk gy-brn, bkly-sbply, firm - hd,
calc; CHK: lt gy-brn, bkly-sbply, sft-firm,
mod fri, v calc, fast stmg, bright milky blue
cut, pale grayel ring

MRL: m-dk gy-brn, bkly-sbply, firm - hd,
sm tex, calc, sme chk, fast stmg, bright
milky blue cut, pale grayel ring





GAMMA DATA
INCOMPLETE

IN : MW 10.0 / VIS 42
OUT: MW 10.0 / VIS 43

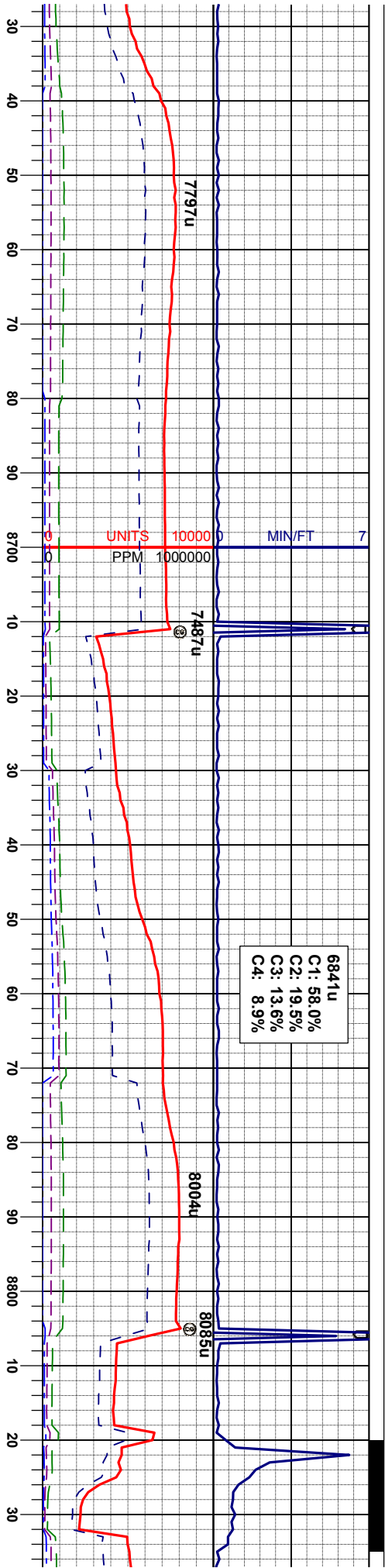
Survey
MD 8480'
INC 89.38°
AZM 358.19°
TVD 7436.57'

Survey
MD 8576'
INC 90.80°
AZM 358.67°
TVD 7436.36'

MRL: m-dk gy-brn, blk-y-sbply, firm - hd,
sm tex, calc, sme chk, fast strng, bright
milky blue cut, pale gnl/yel ring

MRL: m-dk gy-brn, blk-y-sbply, firm - hd,
sm tex, calc; CHK: lt gy-brn, blk-y-sbply, sft-
firm, mod fri, v calc, fast strng, bright milky
blue cut, pale gnl/yel ring





GAMMA DATA
INCOMPLETE

Survey
MD 8671'
INC 90.06°
AZM 357.04°
TVD 7435.60'

IN : MW 10.0 / VIS 43
OUT: MW 10.1 / VIS 43

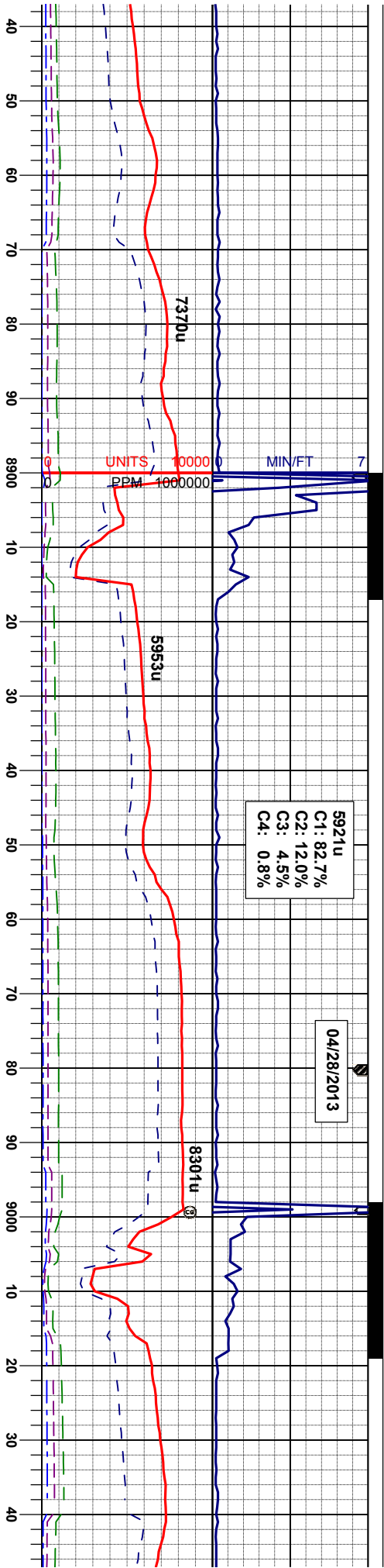
Survey
MD 8766'
INC 89.63°
AZM 354.26°
TVD 7435.86'

MR.L: m-dk gy-brn, biky-splty, firm - hd,
sm tex, calc, sme chk, sme stmg, dul milky
blue cut, dul gnyel ring

MR.L: m-dk gy-brn, biky-splty, firm - hd,
sm tex, calc, sme chk, sme stmg, dul milky
blue cut, dul gnyel ring

MR.L: m
sm tex,
blue cut





Survey
MD 8862'
INC 90.06°
AZM 355.38°
TVD 7436.12'

IN : MW 10.0 / VIS 40
OUT: MW 10.0 / VIS 42

Survey
MD 8958'
INC 90.06°
AZM 357.76°
TVD 7436.02'

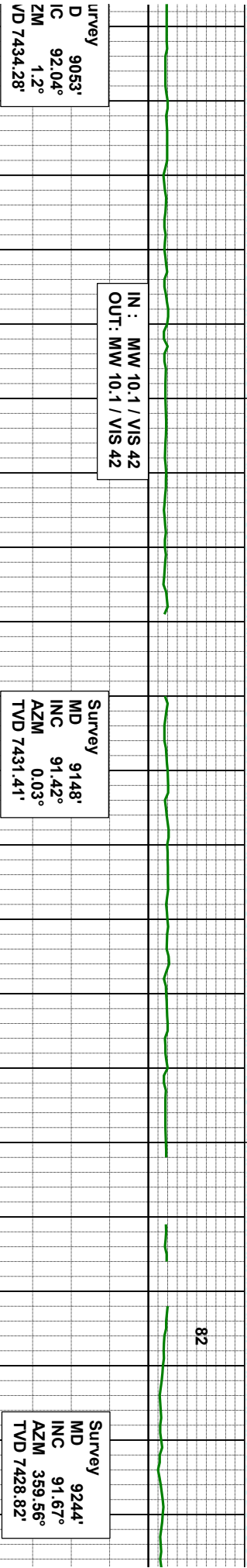
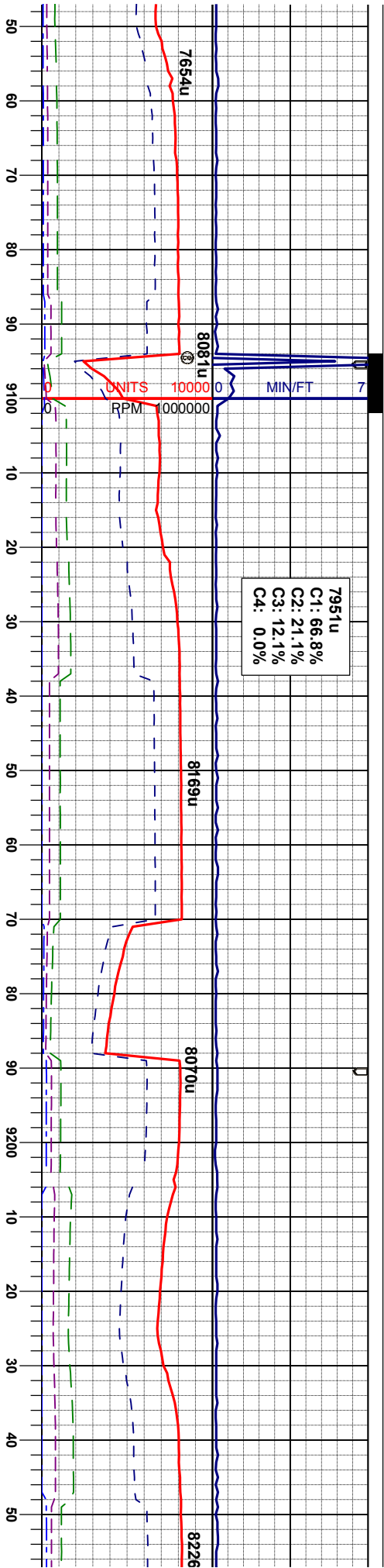
Si M
IN
A. T

-dk gy-brn, blk-y-sbply, firm - hd,
calc, sme chk, sme string, dul milky
l, dul gn/yel ring

MRL: m-dk gy, sme m-dk brn, blk-y-sbply,
firm - hd, sm tex, calc, sme chk, fast string,
milky blue cut, bright gn/yel ring

MRL: m-dk gy,
firm - hd, sm te
milky blue cut,



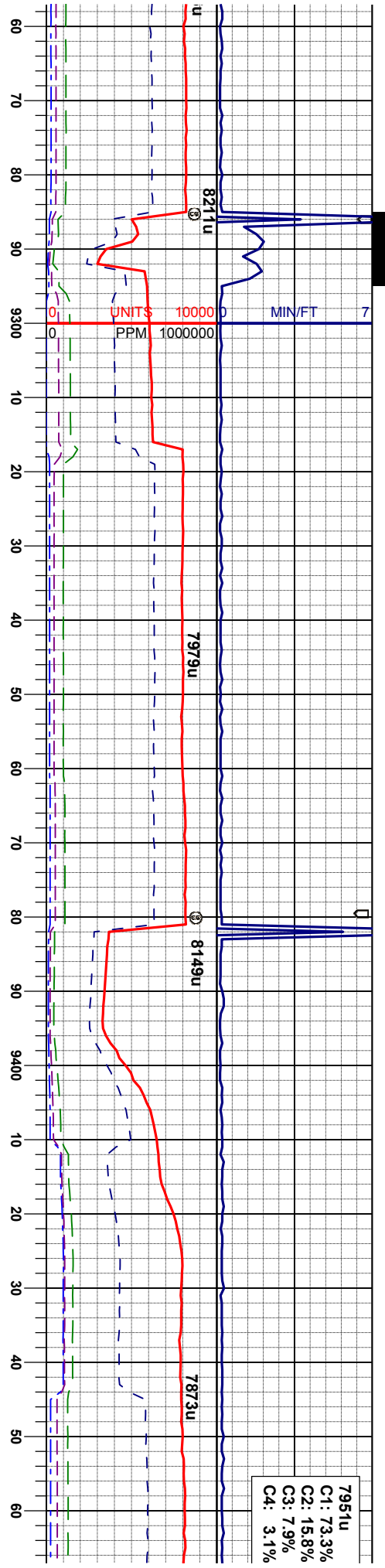


sme m-dk brn, biky-sbply,
x, calc, sme chk, fast string,
bright gnyel ring

MR: m-dk gy, sme m-dk brn, biky-sbply,
firm - hd, sm tex, calc, sme chk, fast string,
milky blue cut, bright gnyel ring

MR: m-dk gy, sme m-dk
firm - hd, sm tex, calc, sr
milky blue cut, bright gny





GAMMA DATA
INCOMPLETE

IN : MW 10.1 / VIS 42
OUT: MW 10.1 / VIS 43

Survey
MD 9339'
INC 90.62°
AZM 0.97°
TVD 7426.92'

130

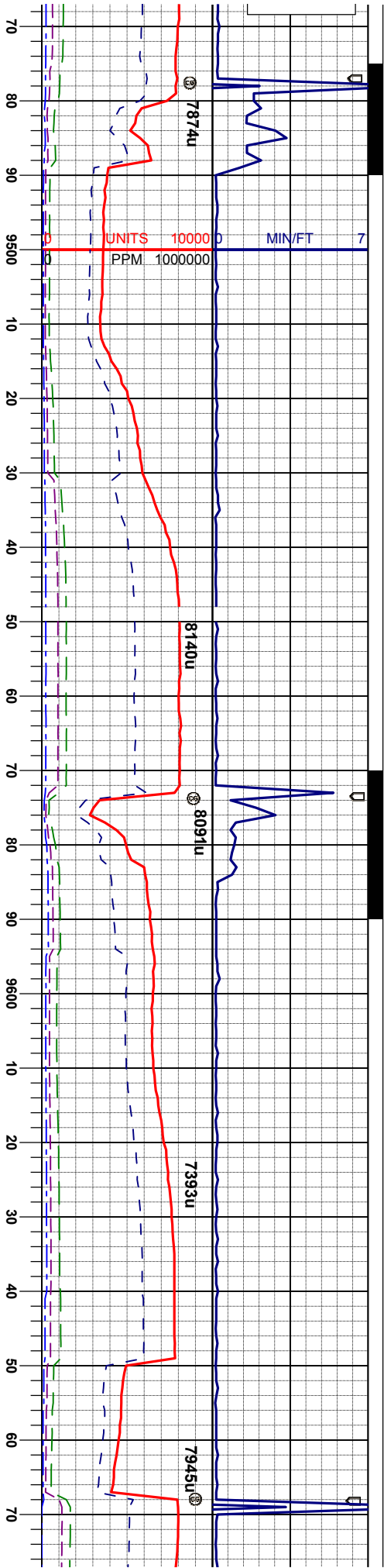
Survey
MD 9435'
INC 89.57°
AZM 359.83°
TVD 7426.76'

brn, blk-y-sbply,
e chk, fast sting,
el ring

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast sting, milky blue
cut, bright gnyel ring

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, s
-firm, mod fri, v calc, fast sting, milky blue
cut, bright gnyel ring





Survey
MD 9530'
INC 89.81°
AZM 1.7°
TVD 7427.28'

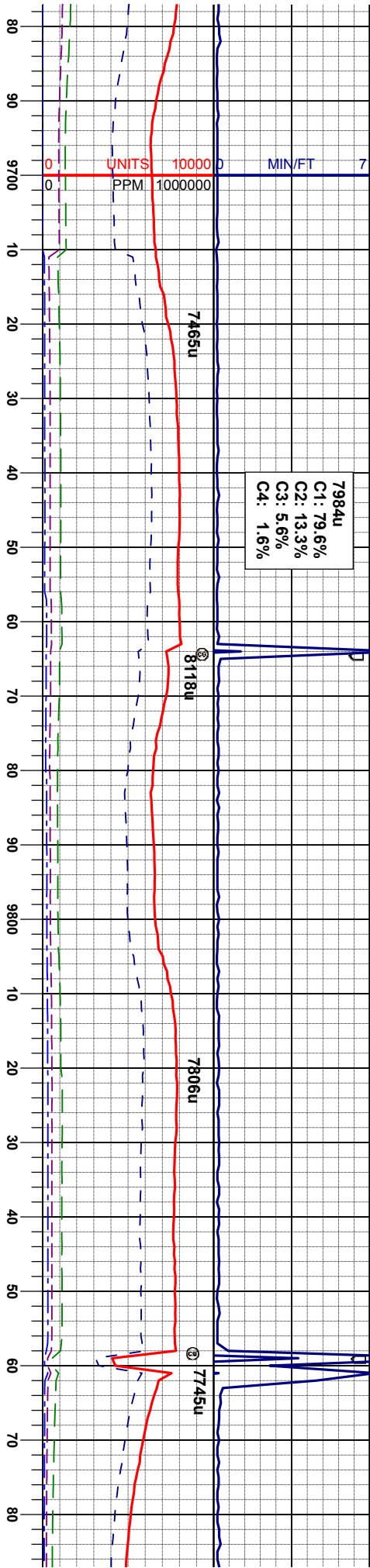
GAMMA DATA
INCOMPLETE

Survey
MD 9626'
INC 91.67°
AZM 2.94°
TVD 7426.04'

MRU: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc. CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast stmg, dul milky
blue cut, dul gnl/yel ring

MRU: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc. CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, SLTY SH: lt gy, med
gy, occ dk gy, sb blk-y, blk-y, sb ply, firm to
m sft, m to rough tex, fast stmg, dul milky
blue cut, dul gnl/yel ring





IN : MW 10.0 / VIS 42
OUT: MW 10.0 / VIS 43

Survey
MD 9722'
INC 91.42°
AZM 3.29°
TVD 7423.45'

MRL: m-dk gy-brn, blkly-sbply, sft-firm,
mod fri, calc: CHK: lt gy-brn, blkly-sbply, sft
-firm, mod fri, v calc, SLTY SH: lt gy, med
gy, occ dk gy, sb blkly, blkly, sb pty, firm to
m sft, m to rough tex, fast stmg, dul milky
blue cut, dul gnyel ring

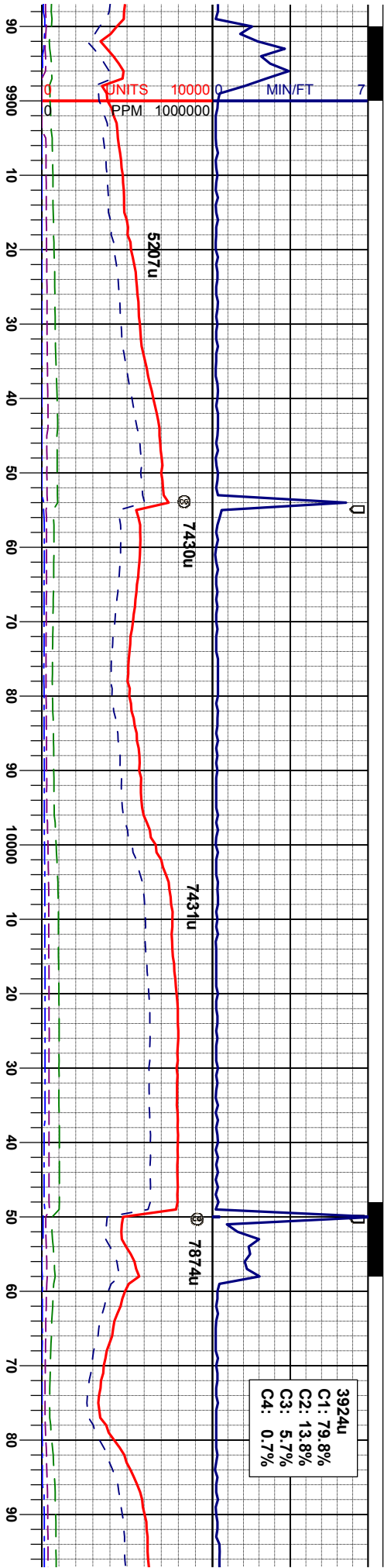
Survey
MD 9817'
INC 90.49°
AZM 2.02°
TVD 7421.87'

GAMMA DATA
INCOMPLETE

IN : MW 10.0 / VIS 42
OUT: MW 10.0 / VIS 43

MRL: m-dk gy-brn, blkly-sbply, sft-firm,
mod fri, calc: CHK: lt gy-brn, blkly-sbply, sft
-firm, mod fri, v calc, SLTY SH: lt gy, med
gy, occ dk gy, sb blkly, blkly, sb pty, firm to
m sft, m to rough tex





Survey
MD 9912'
INC 91.91°
AZM 2.5°
TVD 7419.88'

Survey
MD 10008'
INC 90.99°
AZM 1.39°
TVD 7417.45'

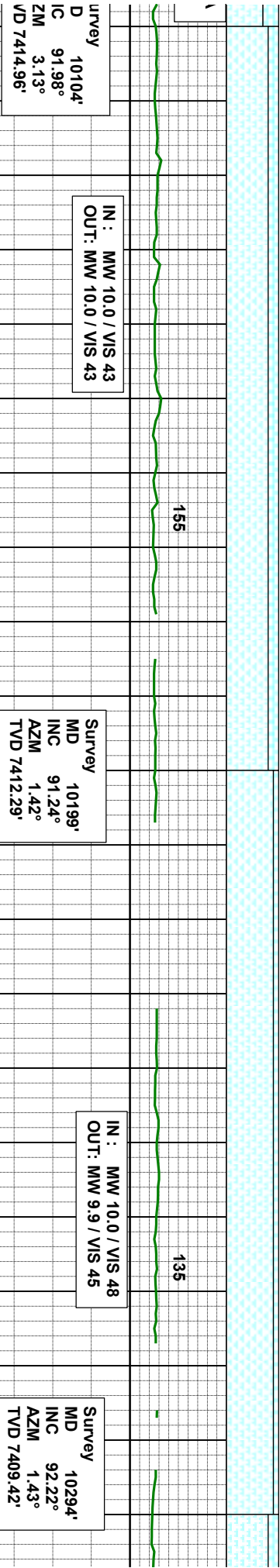
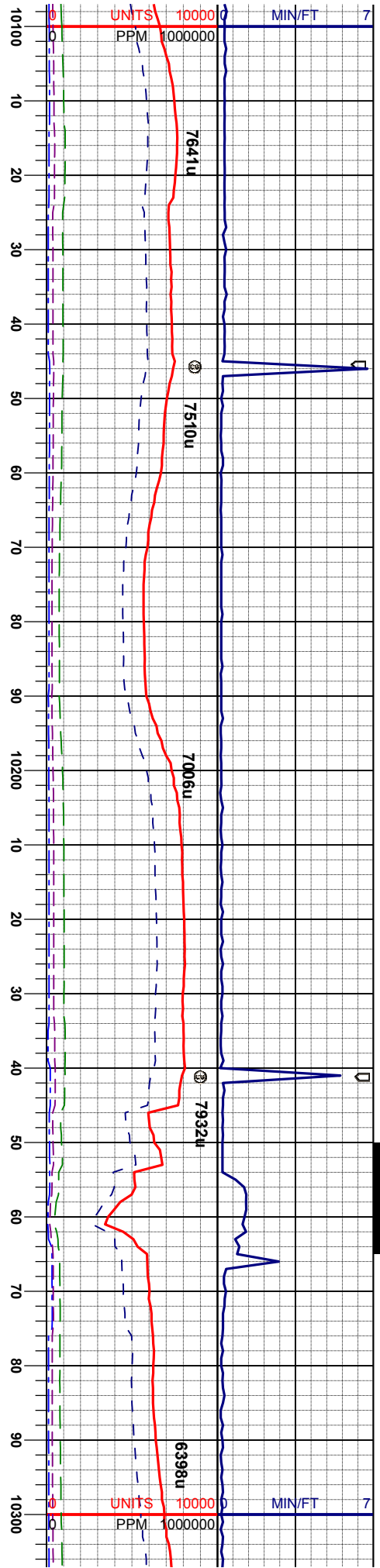
GAMMA DATA
INCOMPLETE

SI
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T

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc
blue cut, dul gnl/vl ring

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast strng, dul milky
blue cut, dul gnl/vl ring

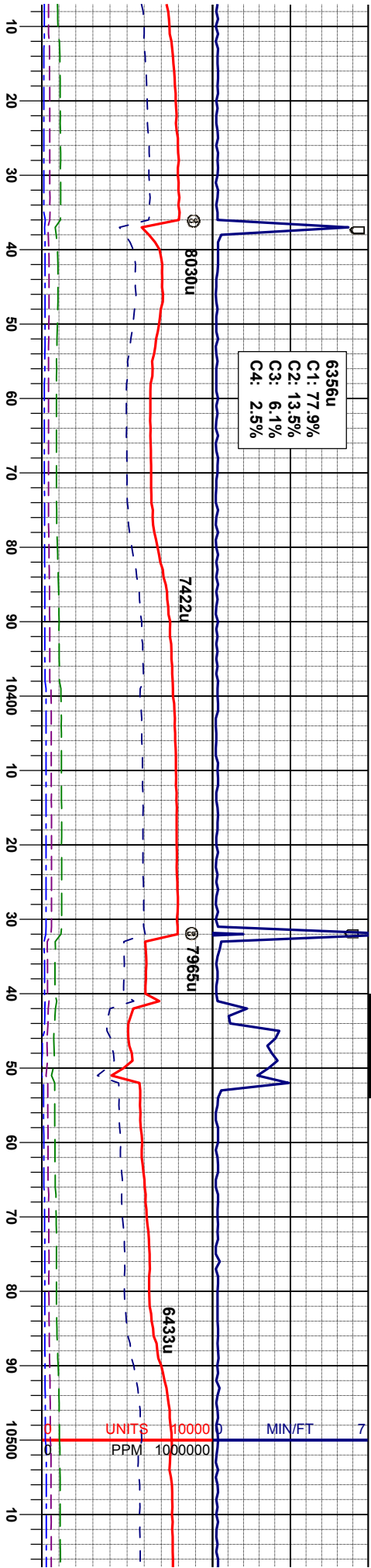




MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast strng, mod milky
blue cut, pale gnyel ring

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast strng, mod milky
blue cut, pale gnyel ring





GAMMA DATA
INCOMPLETE

Survey
MD 10389'
INC 91.6°
AZM 1.32°
TVD 7406.26'

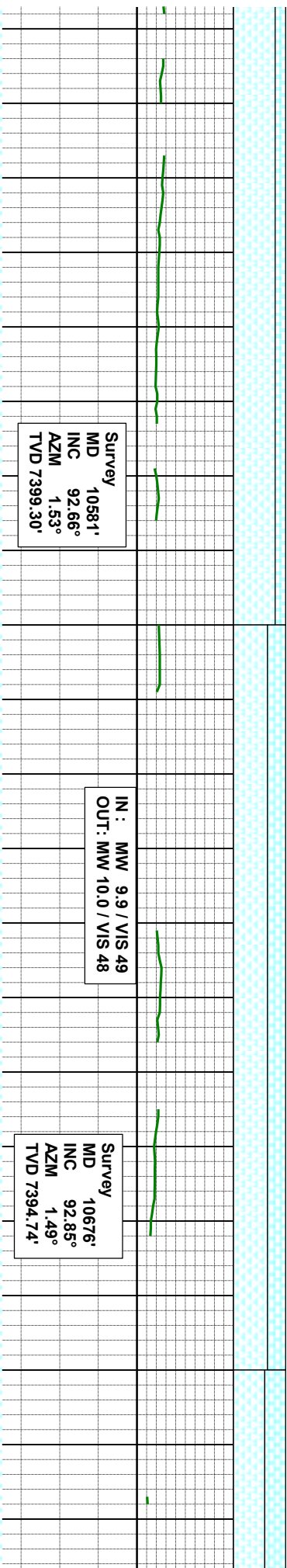
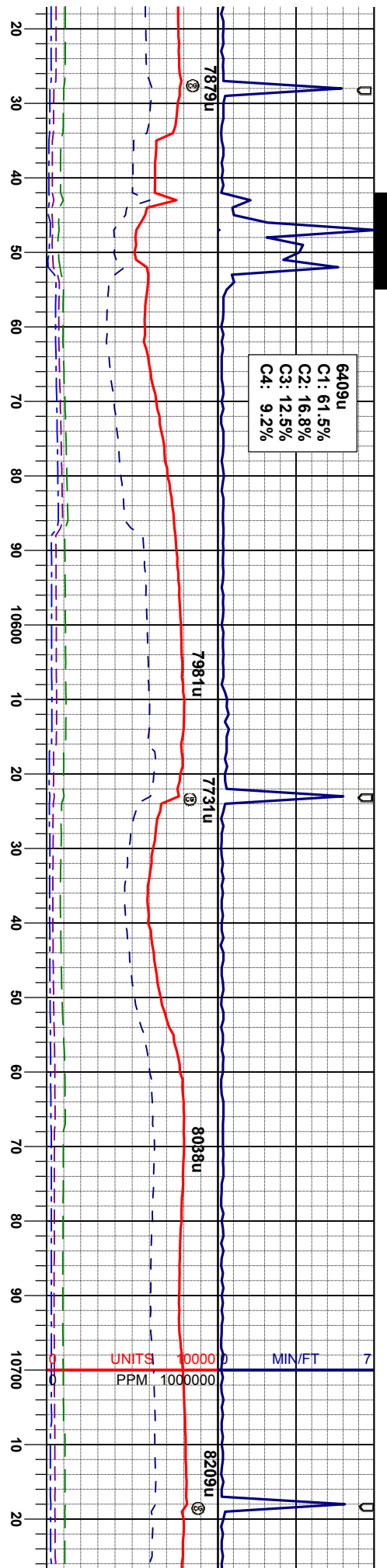
IN : MW 10.0 / VIS 45
OUT: MW 10.0 / VIS 50

Survey
MD 10485'
INC 92.04°
AZM 1.15°
TVD 7403.22'

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast stimg, mod milky
blue cut, pale gnyel ring

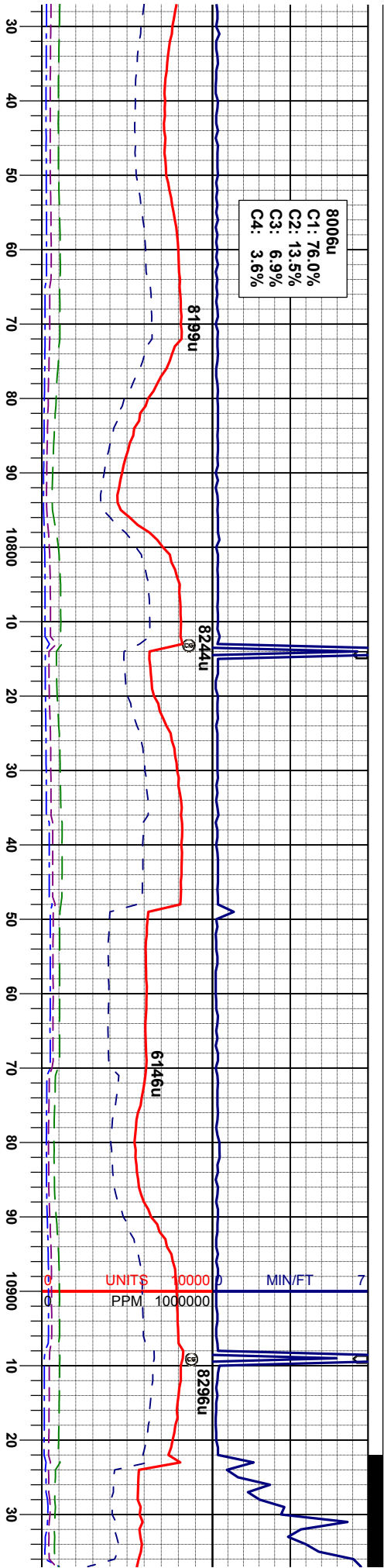
MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast stimg, mod milky
blue cut, pale gnyel ring





MRL: m-dk gy-bm, bkly-sbply, sft-firm, mod fri, calc; CHK: lt gy-bm, bkly-sbply, sft firm, mod fri, v calc, fast slmg, mod milky blue cut, pale gm/yel ring

MRL: m-dk gy-brn, blk-y-spldy, sft-firm, mod fri, calc; CHK: lt gy-brn, blk-y-spldy, sft-firm, mod fri, v calc, fast strng, mod milky blue cut, pale gnyel ring



GAMMA DATA
INCOMPLETE

Survey
MD 10771'
INC 92.40°
AZM 1.17°
TVD 7389.54'

IN : MW 10.0 / VIS 43
OUT: MW 10.1 / VIS 44

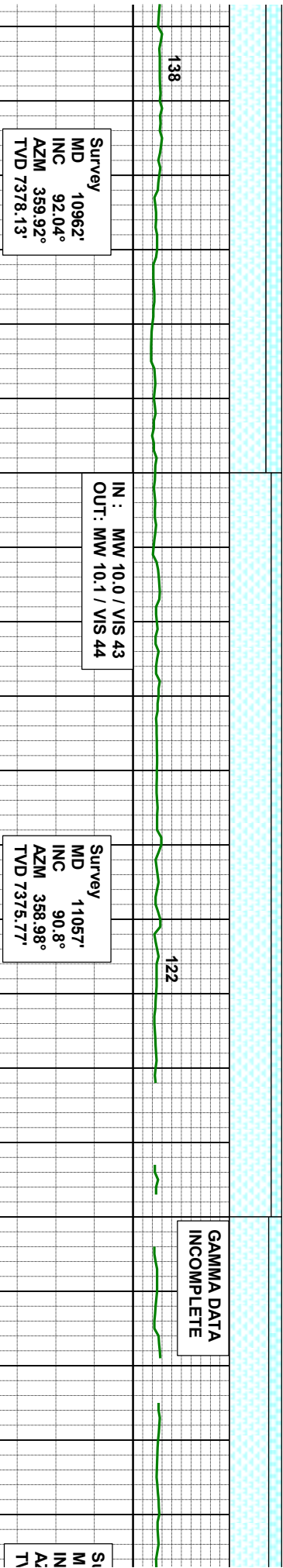
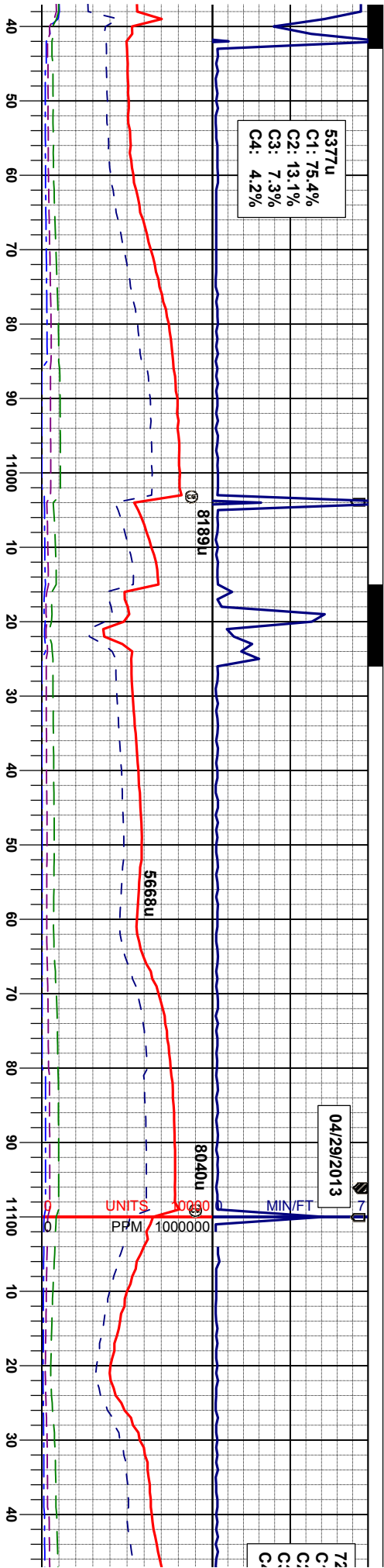
Survey
MD 10867'
INC 94.14°
AZM 1.40°
TVD 7383.25'

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast stmg, mod milky
blue cut, pale gn/yel ring

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast stmg, mod milky
blue cut, pale gn/yel ring

MRL: m-c
mod fri, c
-firm, moc
blue cut, l



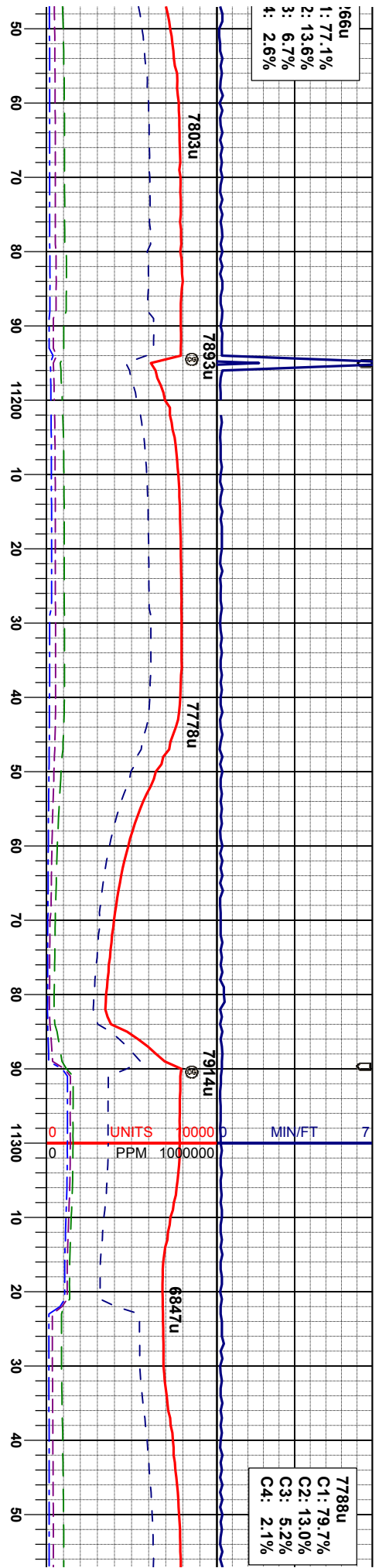


lk gy-brn, blk-y-sbply, sft-firm,
alc; CHK: lt gy-brn, blk-y-sbply, sft
d fri, v calc, fast string, mod milky
pale gnyel ring

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast string, mod milky
blue cut, pale gnyel ring

MRL: m-dk gy-brn,
mod fri, calc; CHK:
-firm, mod fri, v calc
blue cut, pale gnyel





1: 77.1%
2: 13.6%
3: 6.7%
4: 2.6%

7788u
C1: 79.7%
C2: 13.0%
C3: 5.2%
C4: 2.1%

Survey
D 11153'
C 91.05°
ZM 358.49°
ID 7374.22'

IN : MW 10.0 / VIS 42
OUT: MW 10.1 / VIS 43

Survey
MD 11249'
INC 90.56°
AZM 357.41°
TVD 7372.87'

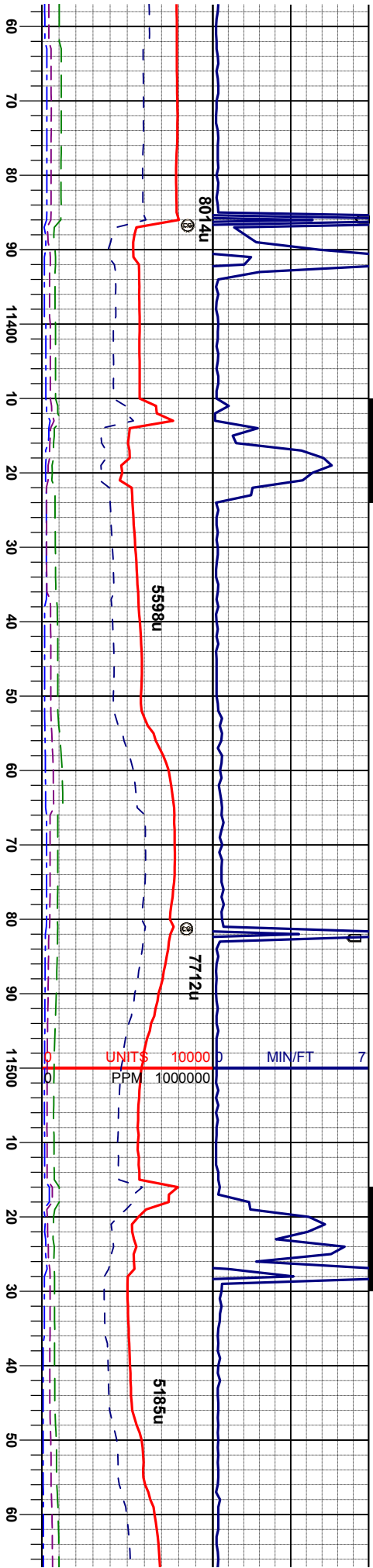
Survey
MD 11344'
INC 89.57°
AZM 355.88°
TVD 7372.73'

blky-sbply, sft-firm,
lt gy-brn, blky-sbply, sft
sme stng, mod milky
sl ring

MRL: m-dk gy-brn, blky-sbply, sft-firm,
mod fri, calc, CHK: lt gy-brn, blky-sbply, sft
-firm, mod fri, v calc, sme fos, sme stng,
mod milky blue cut, pale gnyel ring

MRL: m-dk gy-brn, blky
mod fri, calc, CHK: lt gy
-firm, mod fri, v calc, fe
blue cut, gnyel ring





IN : MW 10.0 / VIS 42
OUT: MW 10.1 / VIS 43

Survey
MD 11439'
INC 90.43°
AZM 357.67°
TVD 7372.73'

IN : MW 10.1 / VIS 43
OUT: MW 10.1 / VIS 44

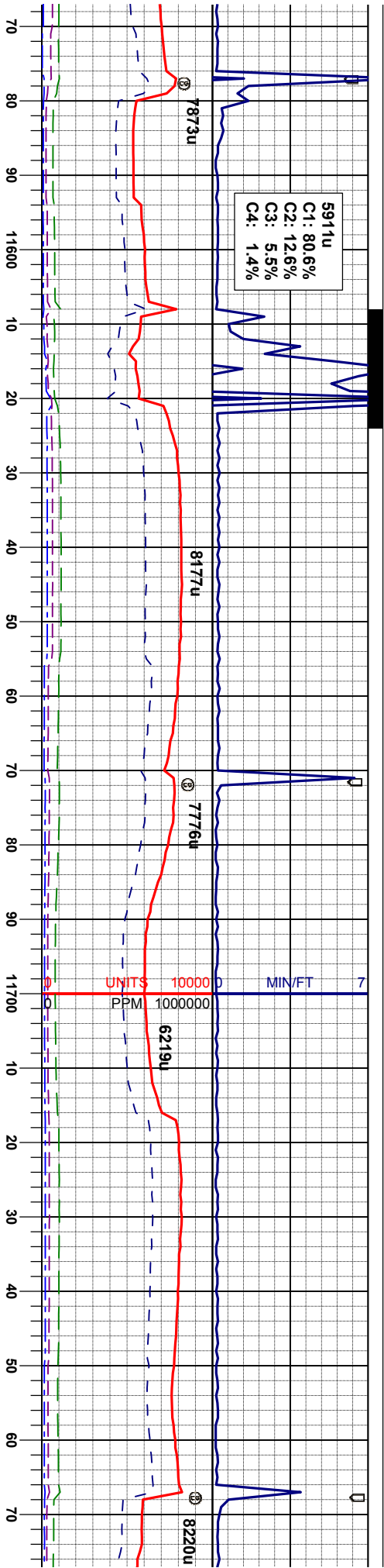
Survey
MD 11534'
INC 90.19°
AZM 359.83°
TVD 7372.22'

-sbply, sft-firm,
/-brn, bkly-sbply, sft
st stmng, mod milky

MRL: m-dk gy-brn, bkly-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, bkly-sbply, sft
-firm, mod fri, v calc, fast stmng, mod milky
blue cut, gnyel ring

MRL: m-dk gy-brn, bkly-sbply, sft-
mod fri, calc; CHK: lt gy-brn, bkly-
-firm, mod fri, v calc, fast stmng, mc
blue cut, gnyel ring





GAMMA DATA
INCOMPLETE

Survey
MD 11673'
INC 91.24°
AZM 358.67°
TVD 7371.02'

Survey
MD 11727'
INC 91.85°
AZM 358.40°
TVD 7368.40'

IN : MW 10.1 / V
OUT : MW 10.1 / V

firm,
sbply, sft
d milky

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast string, mod milky
blue cut, gnyel ring

MRL: m-dk gy-brn, blk-y-sbply, sft-firm,
mod fri, calc; CHK: lt gy-brn, blk-y-sbply, sft
-firm, mod fri, v calc, fast string, mod milky
blue cut, gnyel ring



