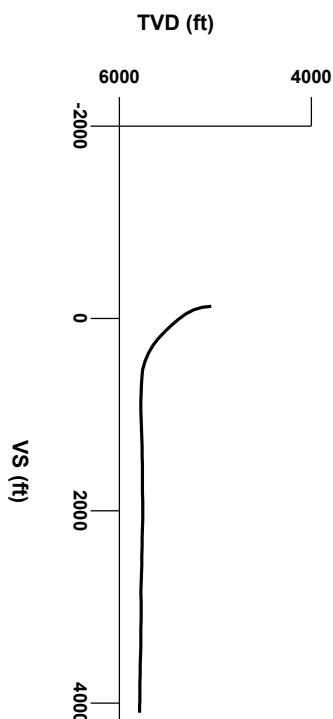


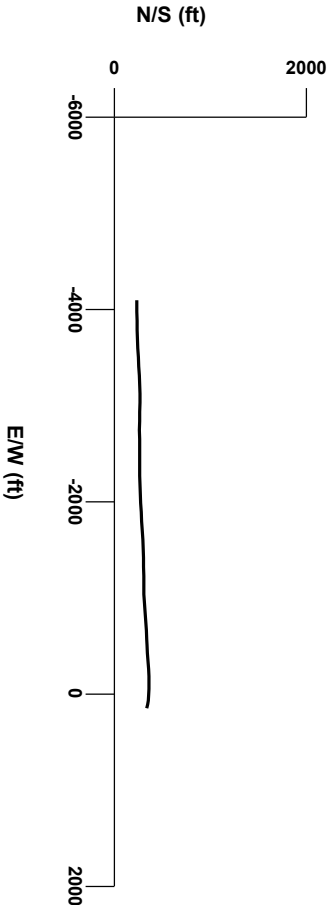
LOG created using LPLOT VH Version 3.0, October 10, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: NOBLE ENERGY INC
WELL: ROHN STATE LD09-67HN
LOCATION: SENE SEC 9 T9N R58W
COUNTY: WELD
STATE: COLORADO
SPOT: 1650' FNL; 480' FEL
ELEVATION: 4729' GL; 4753' KB
FIELD: WILDCAT
SPUD DATE: 10/04/2013
TD DATE: 10/10/2013
DATES LOGGED: 10/06/2013 - 10/10/2013
DEPTHS LOGGED: 4981' - 9687' MD
LOGGERS: LAURA KELLOGG; CONOR PESICKA
DRILLING FLUID: LSND
DRILLING RIG: H&P 273
API: 05-123-37542
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: WELLSITE GEOLOGIC SERVICES
 PROVIDED BY COLUMBINE LOGGING INC.

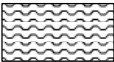


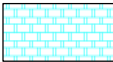
Survey Elevation


Survey Plan




6000


Bentonite


Chalk


Marl


Silty Shale


ENGINEERING SYMBOLS

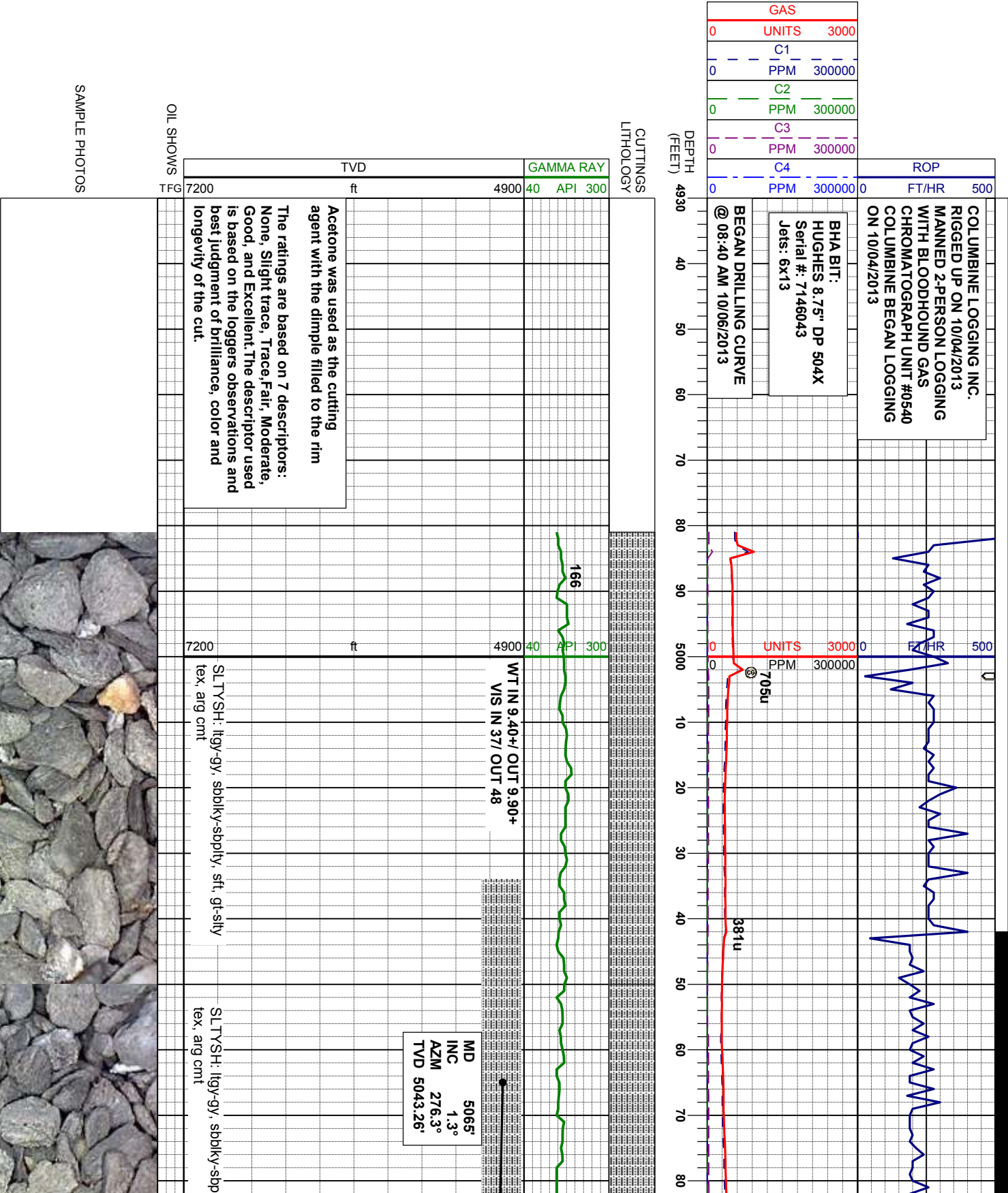
Casing

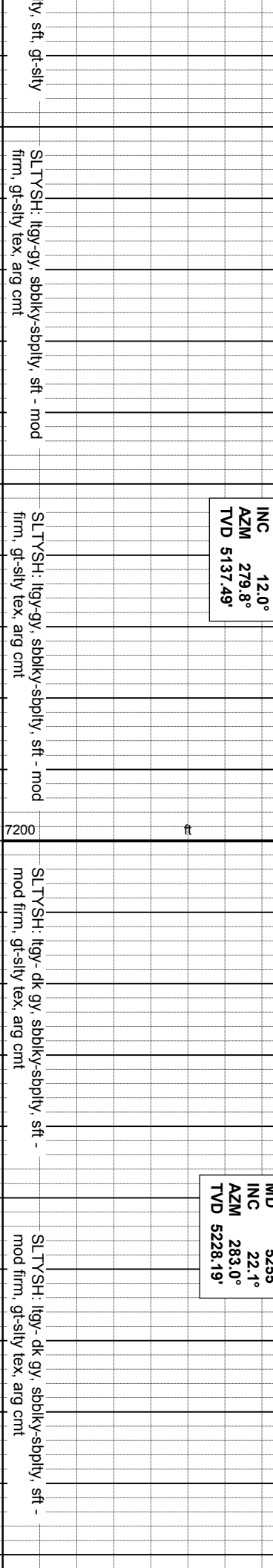
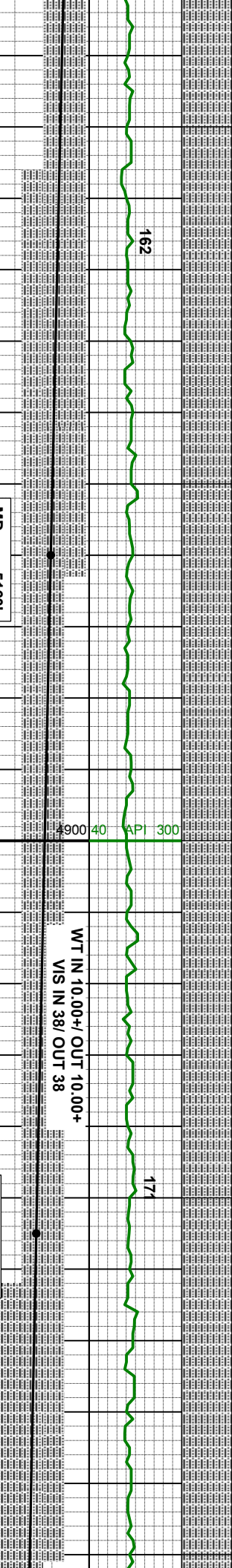
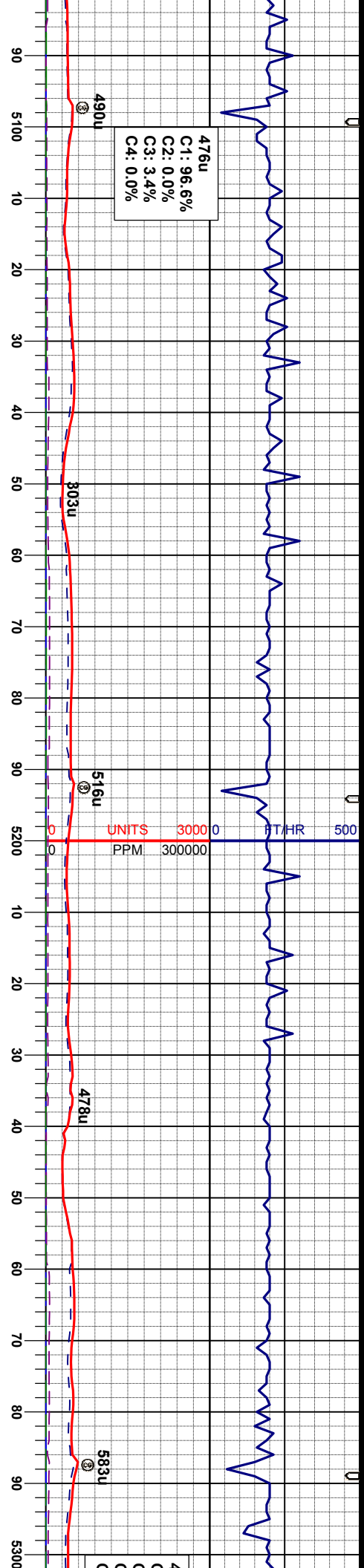
Casing

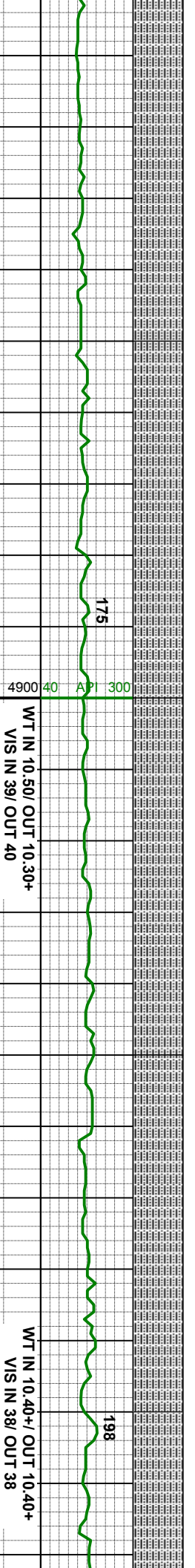
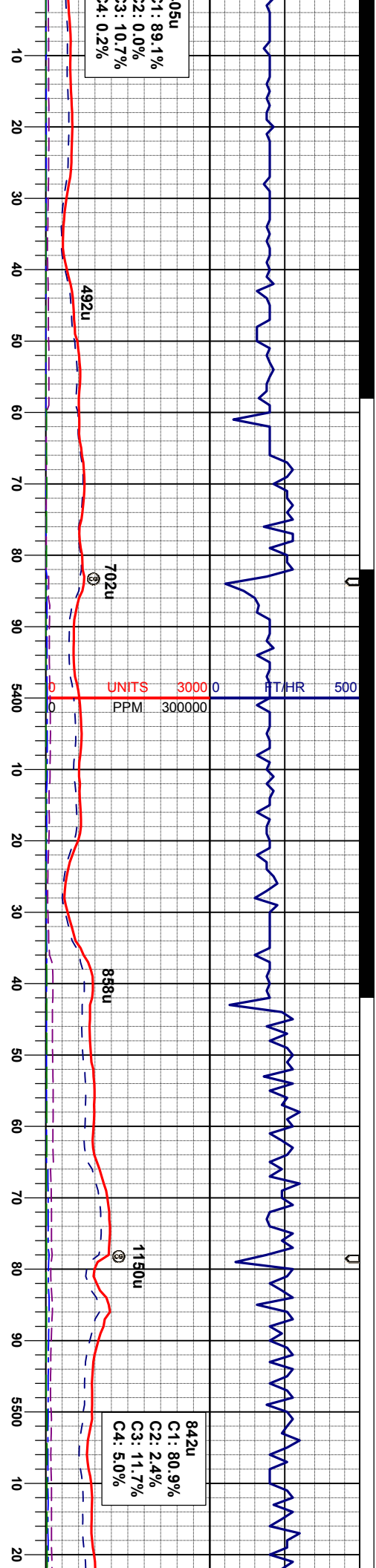
Connection

Connection Gas

Midnight Depth







MD 5349'
INC 32.4°
AZM 278.6°
TVD 5311.66'

MD 5444'
INC 40.3°
AZM 271.4°
TVD 5388.15'

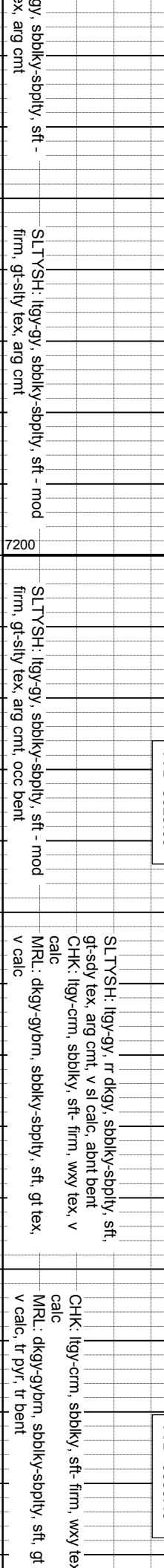
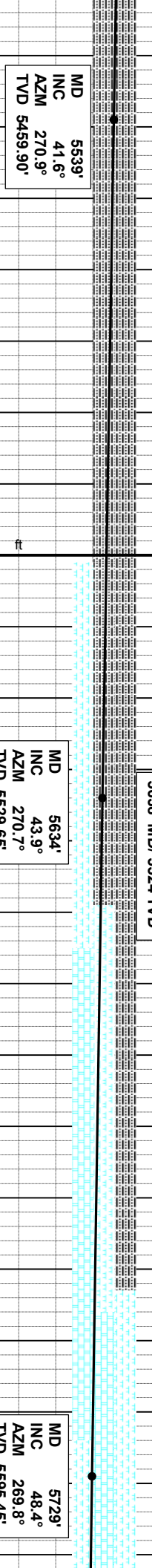
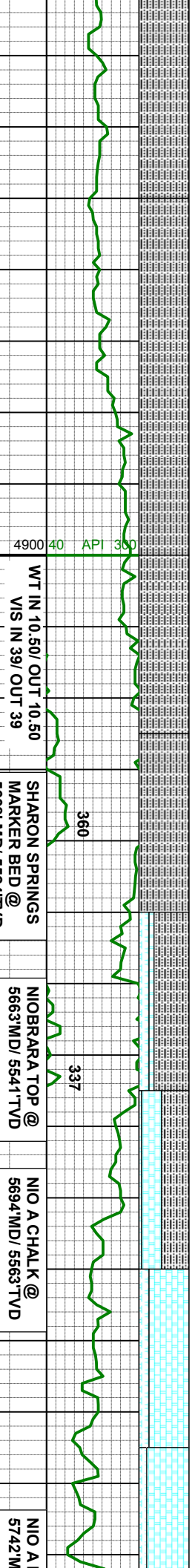
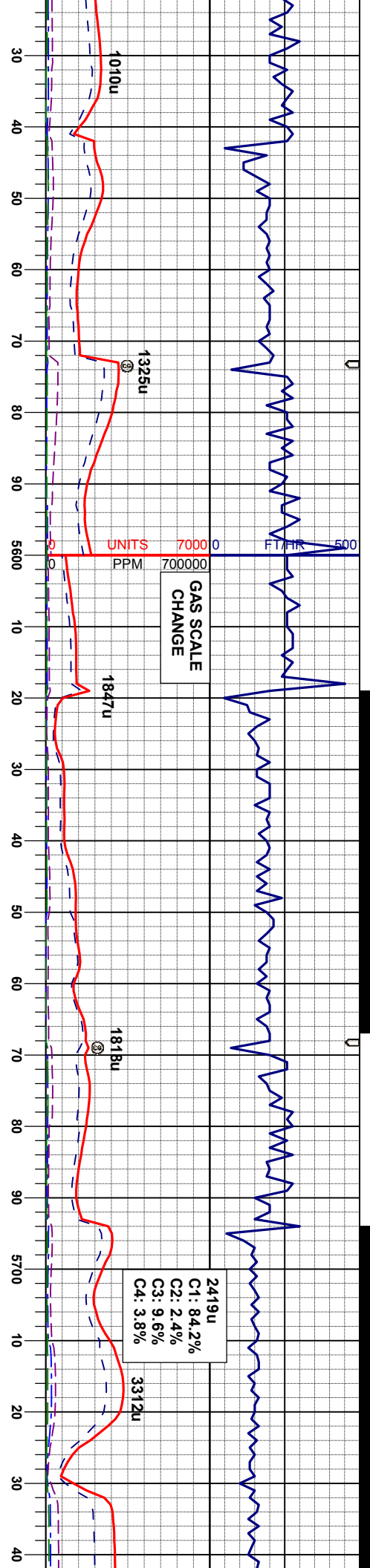
SLTYSH: lgy- dk gy, sbblky-sbply, sft -
mod firm, gt-sily tex, arg cnt

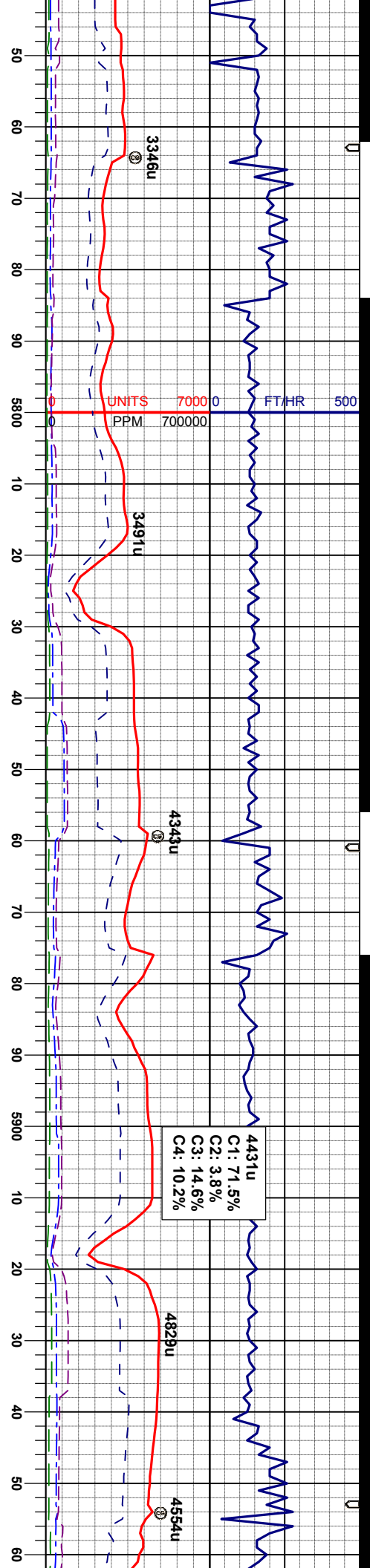
SLTYSH: lgy- dk gy, sbblky-sbply, mod
firm, gt-sily tex, arg cnt

SLTYSH: lgy- dk gy, sbblky-sbply, mod
firm, gt-sily tex, arg cnt

SLTYSH: lgy- dk
mod firm, gt-sily t







MARL @
D 5593 TVD

WT IN 10.50+/- OUT 10.50+
VIS IN 38/ OUT 38

NIO B CHALK @
5872' MD/ 5664' TVD

NIO B MARL @
5955' MD/ 5698' TVD

MD 5823'
INC 55.8°
AZM 266.3°
TVD 5653.16'

MD 5918'
INC 65.2°
AZM 265.3°
TVD 5699.89'

CHK: lty-crm, sbblky, sft- firm, wxy tex, v
calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt tex,
v calc, tr pyr, tr bent

CHK: lty-crm, sbblky, sft- firm, wxy-mot
tex, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, v calc

CHK: lty-crm, sbblky, sft- firm, wxy-mot
tex, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, v calc

CHK: lty-crm-gy, sbblky, sft- firm, wxy-mot
tex, v mrl, v calc, tr calc incl
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, v calc, abnt fos frag, tr xl pyr, tr bent
w/pyr strg

MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, v calc
CHK: lty-crm, sbblky, sft- firm, wxy-mot
tex, v calc



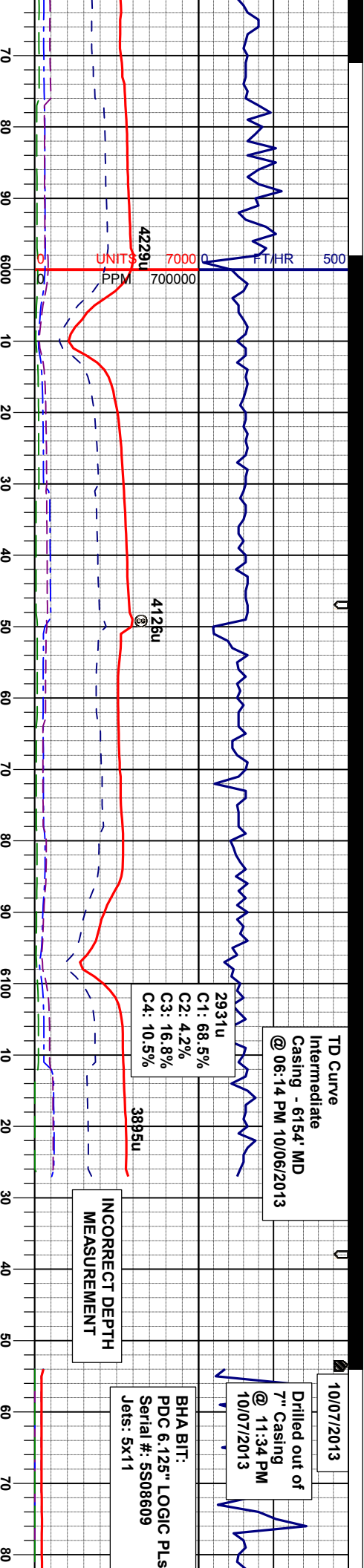
TD Curve
Intermediate
Casing - 6154' MD
@ 06:14 PM 10/06/2013

10/07/2013
Drilled out of
7" Casing
@ 11:34 PM
10/07/2013

BHA BIT:
PDC 6.125" LOGIC PLS
Serial #: 5S08609
Jets: 5x11

2931u
C1: 68.5%
C2: 4.2%
C3: 16.8%
C4: 10.5%

INCORRECT DEPTH
MEASUREMENT



WT IN 10.60/ OUT 10.60
VIS IN 37/ OUT 37

WT IN 10.60/ OUT 10.60
VIS IN 38/ OUT 38

MD 6013'
INC 69.8°
AZM 266.0°
TVD 5736.24'

MD 6094'
INC 79.2°
AZM 266.8°
TVD 5757.86'

MD 6157'
INC 86.2°
AZM 269.6°
TVD 5765.86'

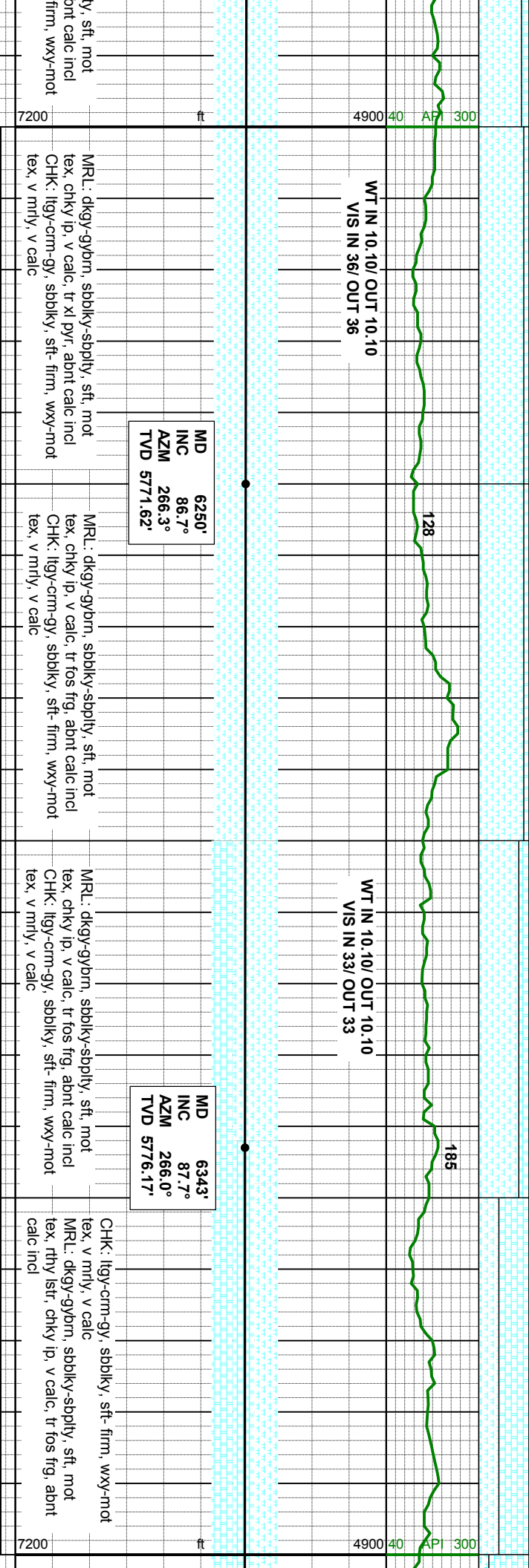
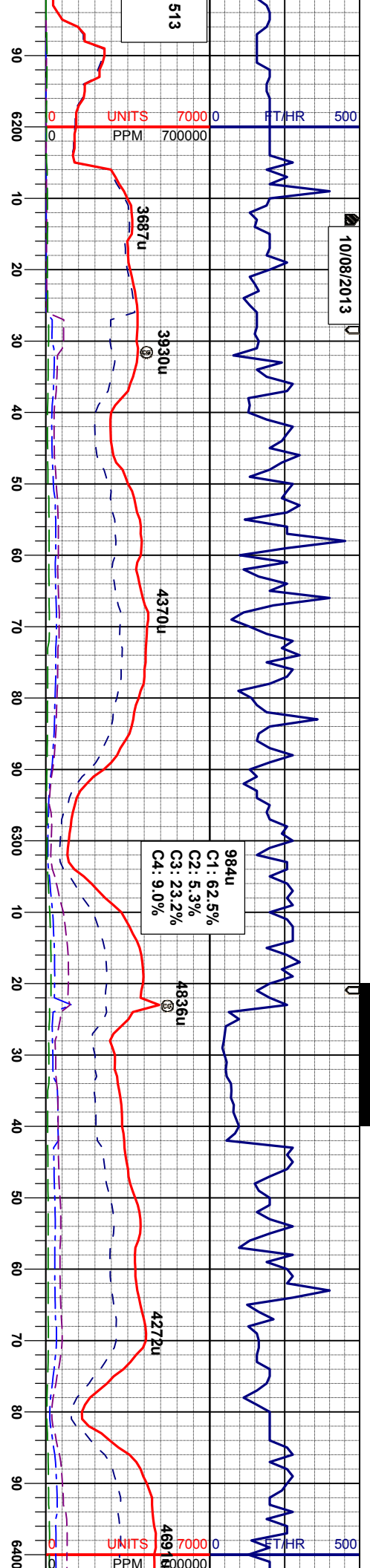
MR.L: dkgy-gybrn, sbblky-sbply, sft, mot
tex, v calc, abnt fos frag, tr bent w/pyr strg,
c incl
CHK: ltgy-crm-gy, sbblky, sft- firm, wxy-mot
tex, v mrlly, v calc, tr calc incl

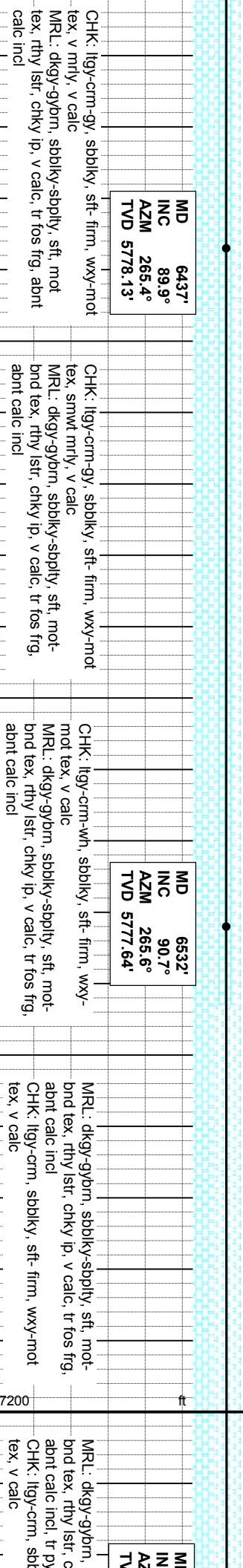
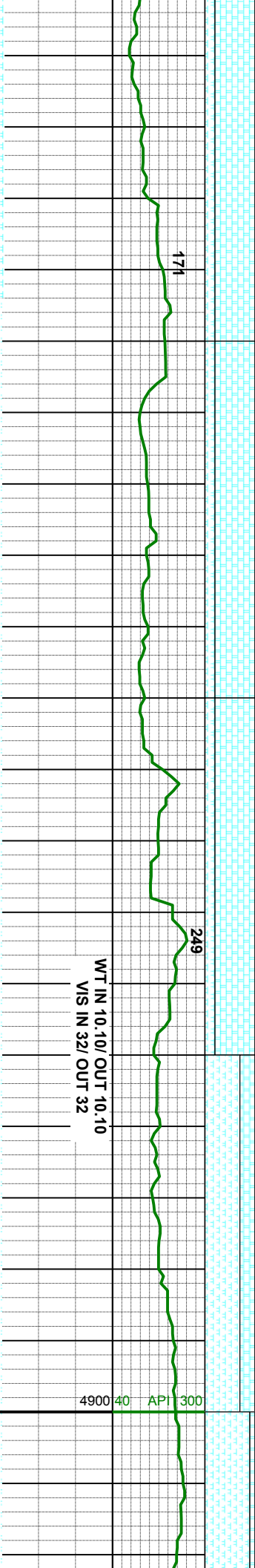
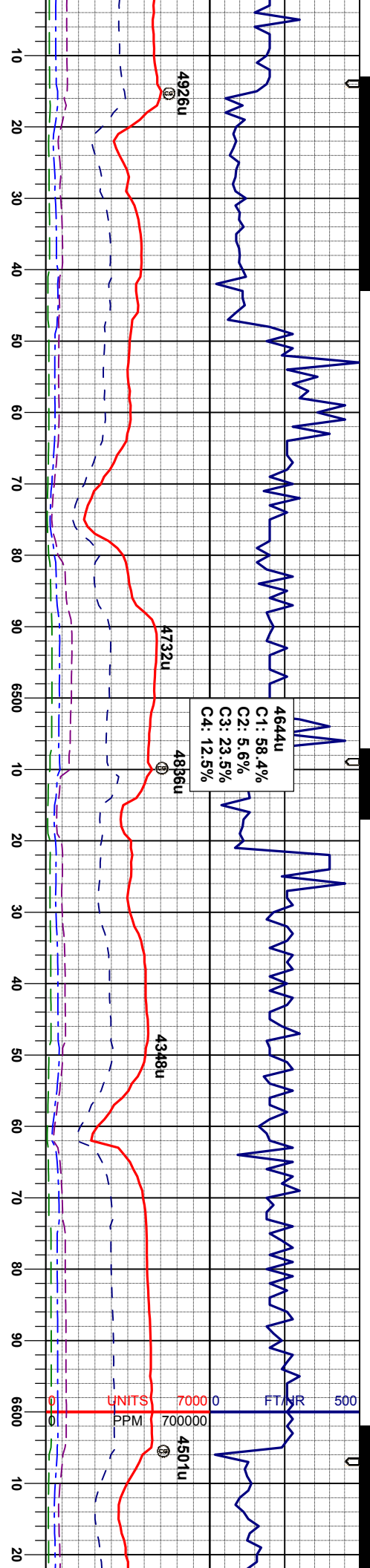
MR.L: dkgy-gybrn, sbblky-sbply, sft, mot
tex, v calc, abnt fos frag, sme bent w/pyr
strg, abnt calc incl
CHK: ltgy-crm-gy, sbblky, sft- firm, wxy-mot
tex, v mrlly, v calc

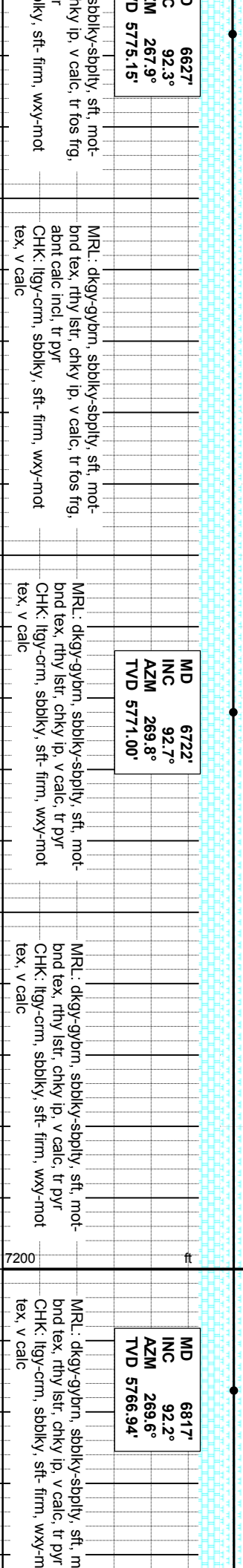
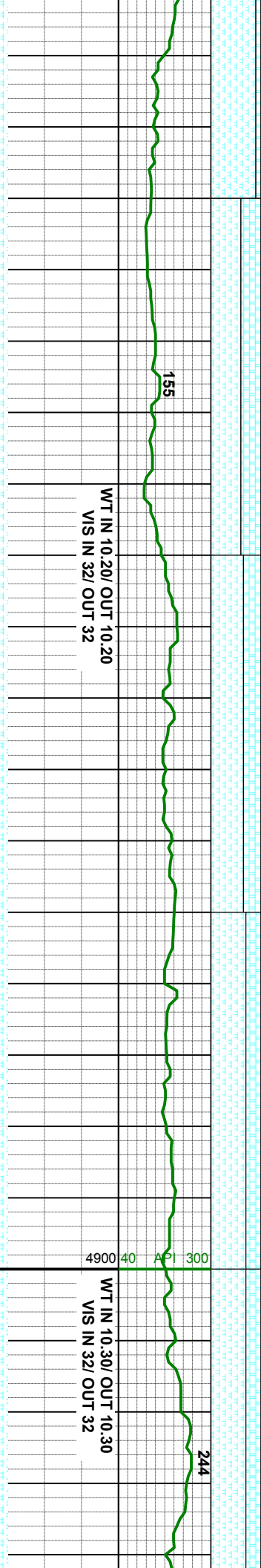
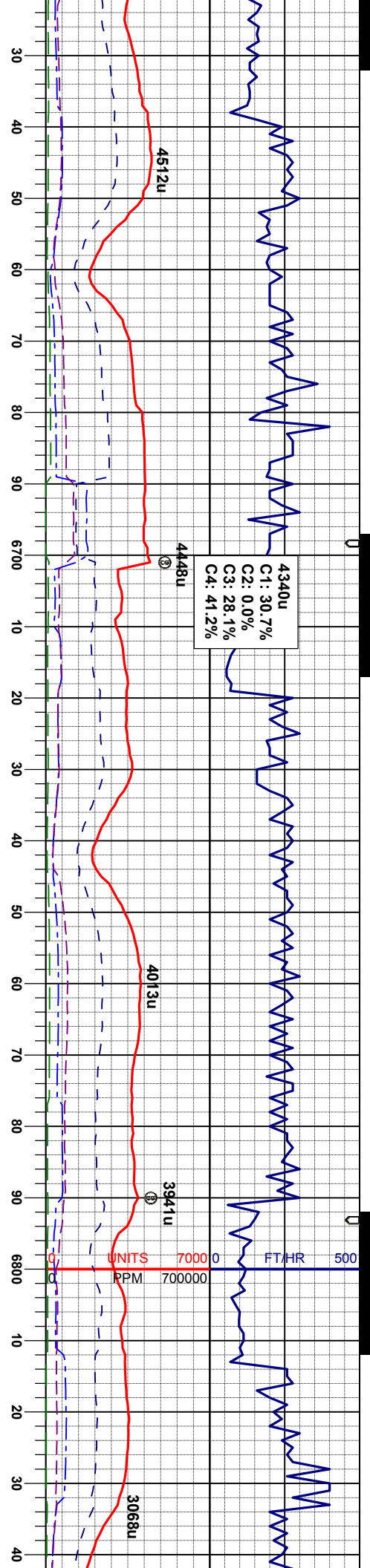
MR.L: dkgy-gybrn, sbblky-sbply, sft, mot
tex, v calc, abnt fos frag, sme bent w/pyr
strg, abnt calc incl
CHK: ltgy-crm-gy, sbblky, sft- firm, wxy-mot
tex, v mrlly, v calc

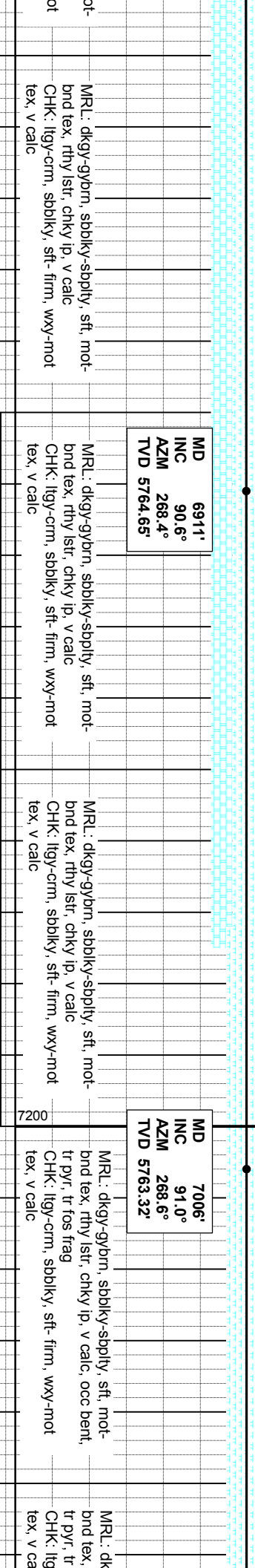
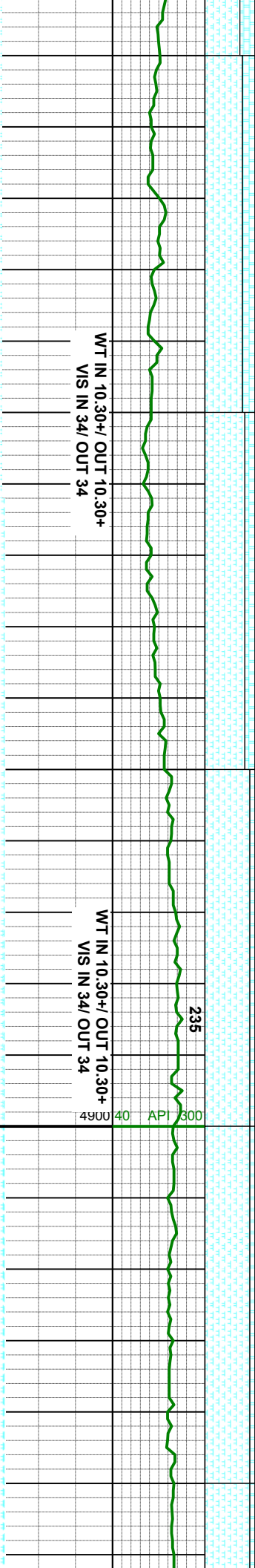
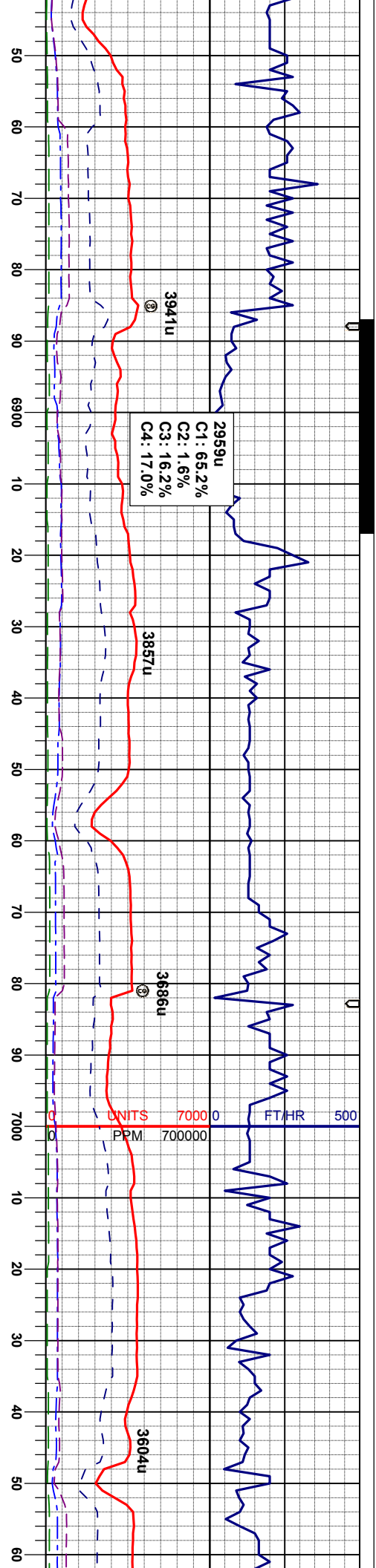
MR.L: dkgy-gybrn, sbblky-sbply,
tex, chky lp, v calc, tr x pyr, a
CHK: ltgy-crm-gy, sbblky, sft-
tex, v mrlly, v calc

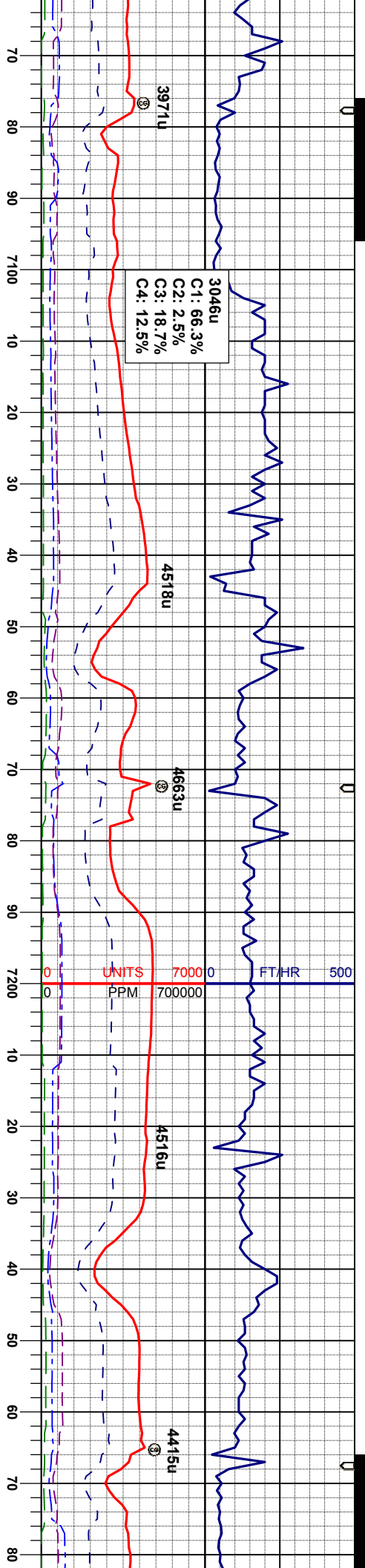












MD 7101'
INC 89.9°
AZM 268.6°
TVD 5762.57'

MR.L: dkgy-gybrn, sbblky-sbply, sft, mot-
brd tex, rthy lstr, chky ip, v calc, occ bent,
tr pyr, tr fos frag
CHK: lgy-crm, sbblky, sft- firm, wxy-mot
tex, v calc

MD 7196'
INC 90.5°
AZM 267.0°
TVD 5762.24'

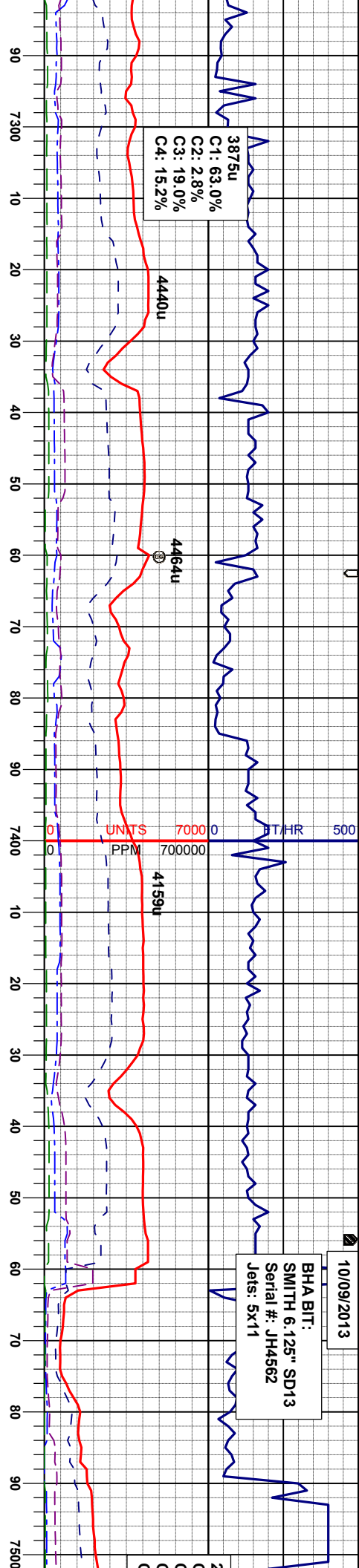
MR.L: dkgy-gybrn, sbblky-sbply, sft, mot-
brd tex, rthy lstr, chky ip, v calc, occ bent
CHK: lgy-crm, sbblky, sft- firm, wxy-mot
tex, v calc

MR.L: dkgy-gybrn, sbblky-sbply, sft, mot-
brd tex, rthy lstr, chky ip, v calc, occ bent
CHK: lgy-crm, sbblky, sft- firm, wxy-mot
tex, v calc



10/09/2013

BHA BIT:
SMITH 6.125" SD13
Serial #: JH4562
Jets: 5x11



N 10.30/ OUT 10.40+
S IN 32/ OUT 34

WT IN 10.30/ OUT 10.30
VIS IN 33/ OUT 33
WT IN 10.30/ OUT 10.30
VIS IN 34/ OUT 34

MD 7291'
INC 90.5°
AZM 265.8°
TVD 5761.41'

MD 7386'
INC 90.6°
AZM 266.5°
TVD 5760.50'

MD 7481'
INC 91.2°
AZM 267.4°
TVD 5759.01'

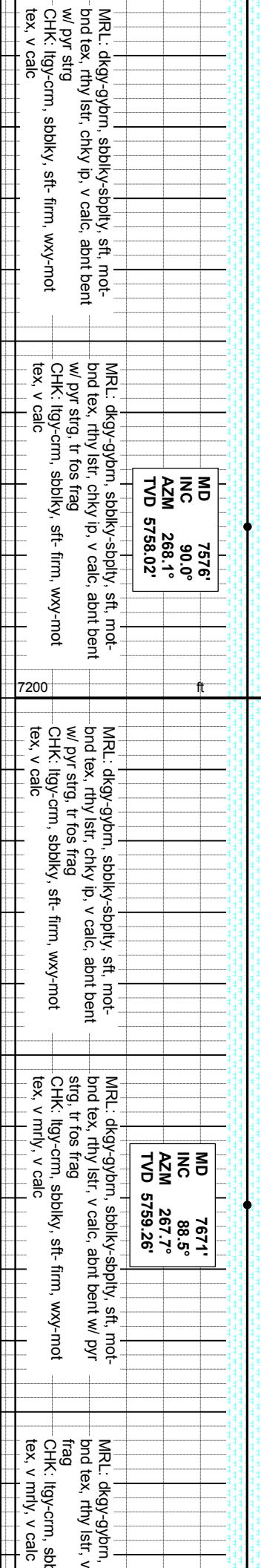
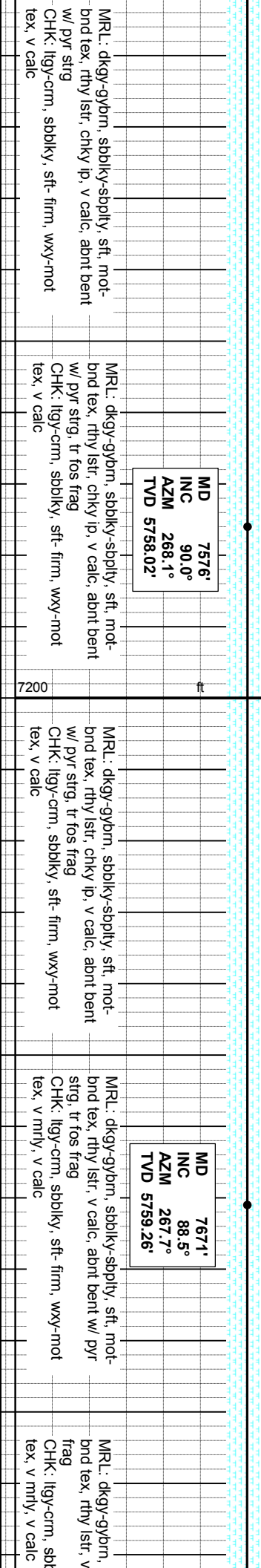
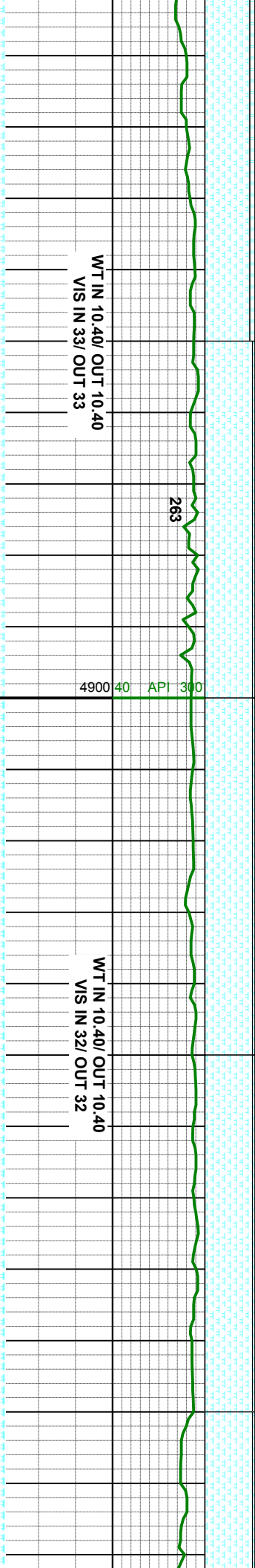
MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lstr, chky ip, v calc, occ bent,
tr dism pyr
CHK: ltgy-crm, sbblky, sft- firm, wxy-mot
tex, v calc

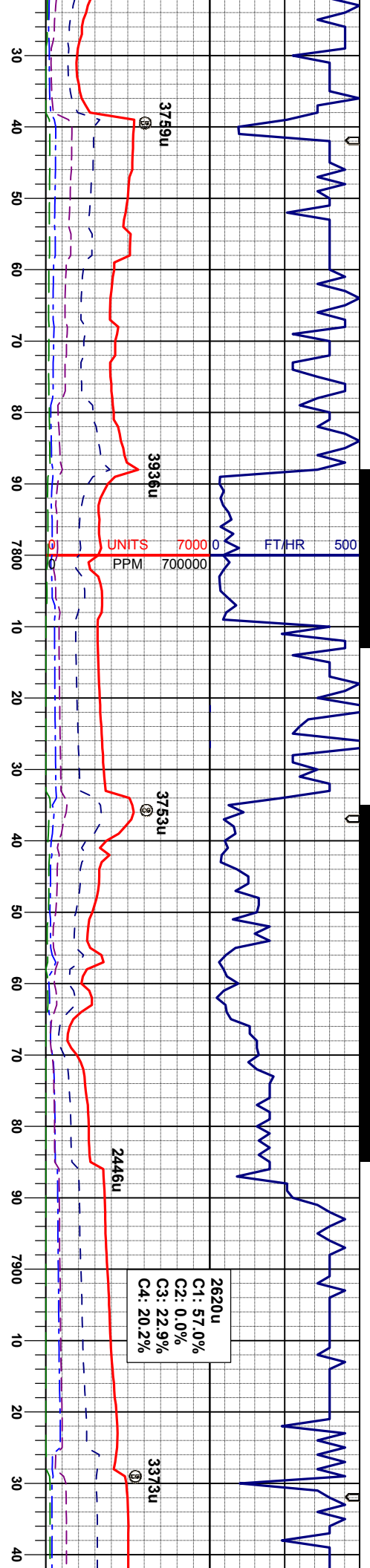
MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lstr, chky ip, v calc, occ bent
CHK: ltgy-crm, sbblky, sft- firm, wxy-mot
tex, v calc

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lstr, chky ip, v calc, occ bent
CHK: ltgy-crm, sbblky, sft- firm, wxy-mot
tex, v calc

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lstr, chky ip, v calc, abnt bent
w/ pyr strg
CHK: ltgy-crm, sbblky, sft- firm, wxy-mot
tex, v calc







WT IN 10.30/ OUT 10.30
VIS IN 33/ OUT 33

MD 7765'
INC 87.8°
AZM 267.5°
TVD 5762.29'

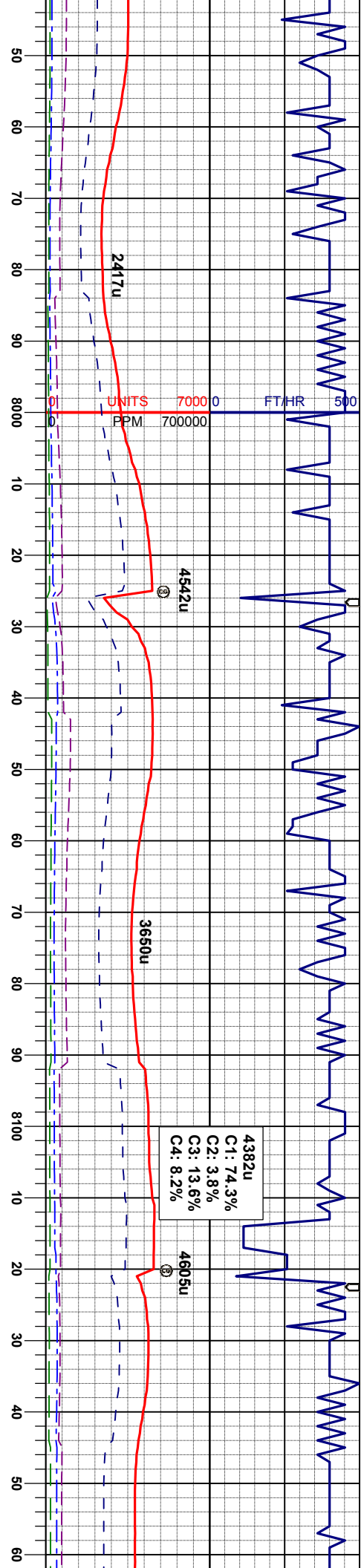
MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy istr, v calc, occ bent, r fos
frag
CHK: llyg-crm, sbblky, sft- firm, wxy-mot
tex, v mrlly, v calc

MD 7860'
INC 88.8°
AZM 269.3°
TVD 5765.11'

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy istr, v calc, occ bent, r fos
frag
CHK: llyg-crm, sbblky, sft- firm, wxy-mot
tex, v mrlly, v calc

MRL: dkgy-gybrn, sbblky-sbply, sft, r
bnd tex, rthy istr, v calc, occ bent
CHK: llyg-crm, sbblky, sft- firm, wxy-r
tex, v mrlly, v calc





WT IN 10.40/ OUT 10.40
VIS IN 32/ OUT 32

MD 7955'
INC 89.5°
AZM 269.8°
TVD 5766.52'

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lstr, v calc, occ bent
CHK: lgy-crm, sbblky, sft- firm, wxy-mot
tex, v mrlly, v calc

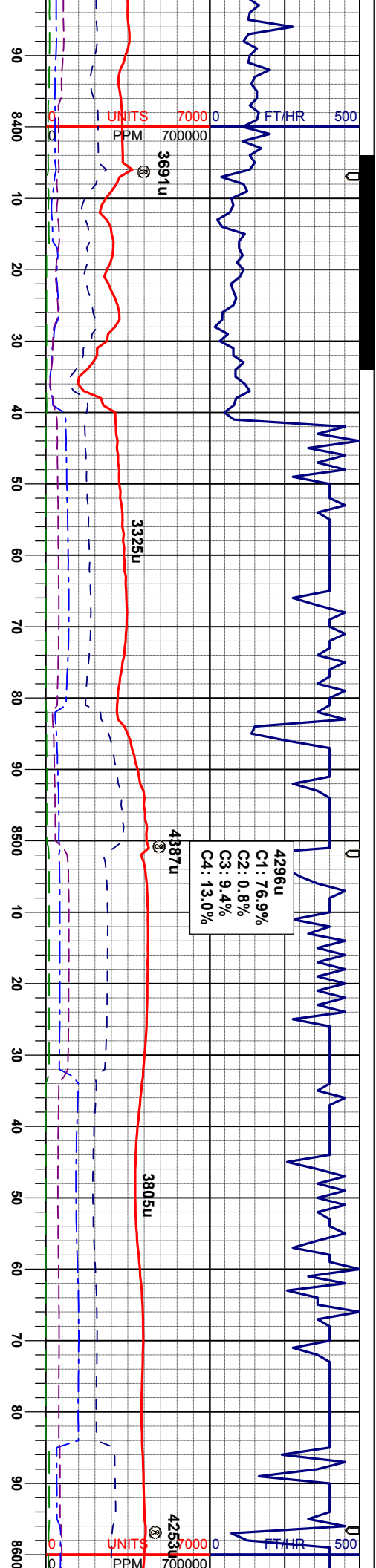
MD 8051'
INC 89.0°
AZM 269.8°
TVD 5767.78'

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lstr, v calc, occ bent
CHK: lgy-crm, sbblky, sft- firm, wxy-mot
tex, v mrlly, v calc

MD 8146'
INC 88.5°
AZM 269.8°
TVD 5769.85'

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lstr, v calc, occ bent, tr fos frag
CHK: lgy-crm, sbblky, sft- firm, wxy-mot
tex, v mrlly, v calc





WT IN 10.50/ OUT 10.50+
VIS IN 36/ OUT 35

MD 8429'
INC 90.7°
AZM 271.6°
TVD 5776.77'

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lst, v calc
CHK: lgy-crm, sbblky, sft- firm, wxy-mot
tex, v mrl, v calc

WT IN 10.50/ OUT 10.50
VIS IN 35/ OUT 35

MD 8525'
INC 90.8°
AZM 271.1°
TVD 5775.51'

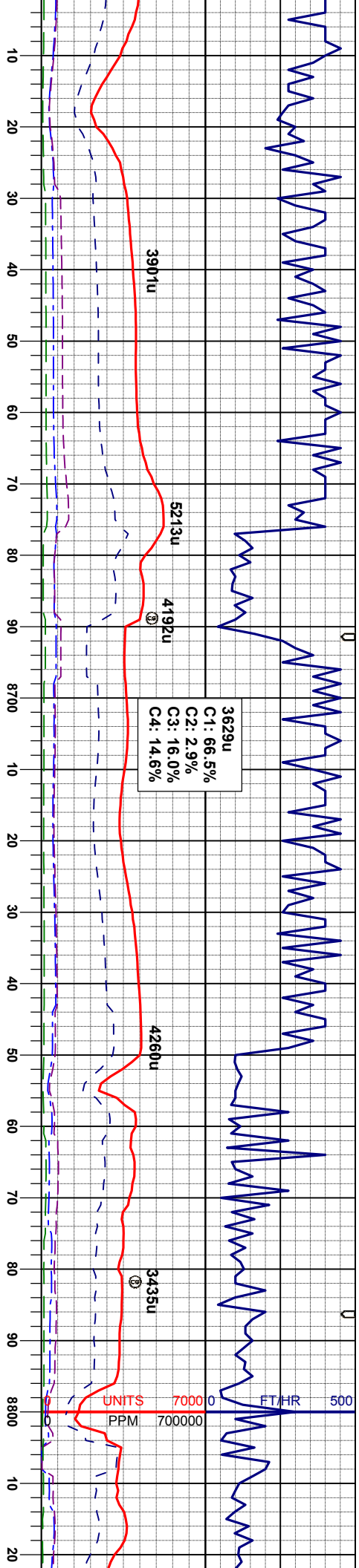
MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
bnd tex, rthy lst, v calc
CHK: lgy-crm, sbblky, sft- firm, wxy-mot
tex, v mrl, v calc

7200

ft

4900 40 API 300





MD 8620'
INC 90.2°
AZM 270.5°
TVD 5774.68'

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
brd tex, rthy lstr, v calc, tr bent
CHK: lly-crm, sbblky, sft- firm, wxy-mot
tex, v mrl, v calc

MD 8715'
INC 88.9°
AZM 268.9°
TVD 5775.43'

MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
brd tex, rthy lstr, v calc, tr bent
CHK: lly-crm, sbblky, sft- firm, wxy-mot
tex, v mrl, v calc

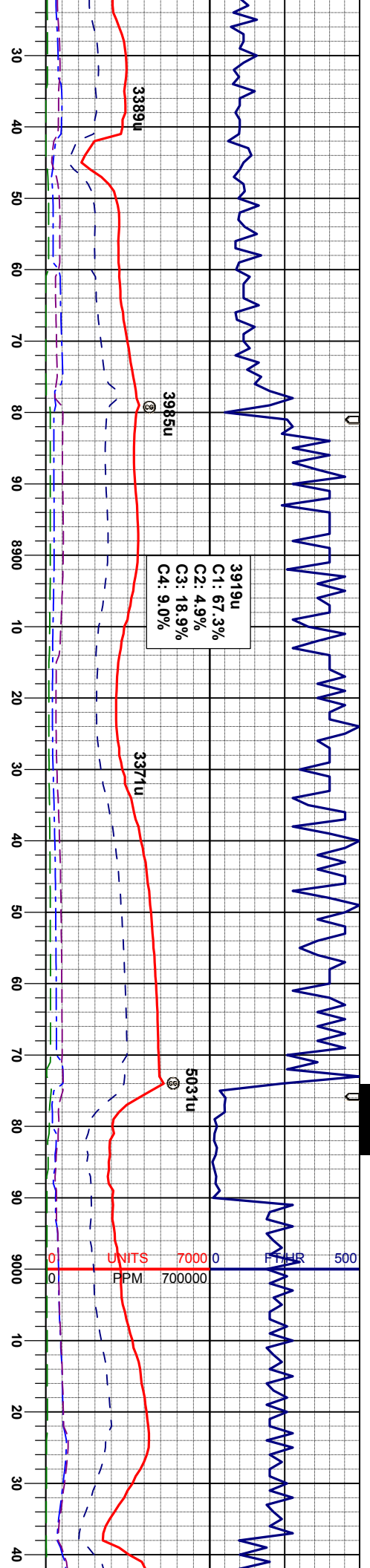
WT IN 10.60/ OUT 10.70
VIS IN 36/ OUT 37

MD 8810'
INC 89.4°
AZM 267.9°
TVD 5776.84'

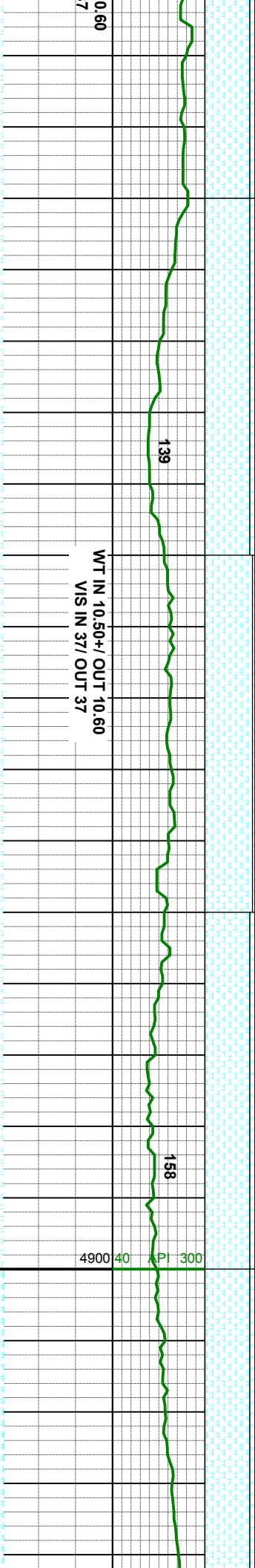
MRL: dkgy-gybrn, sbblky-sbply, sft, mot-
brd tex, rthy lstr, v calc, tr bent
CHK: lly-crm, sbblky, sft- firm, wxy-mot
tex, v mrl, v calc

WT IN 10.60/ OUT 10.70
VIS IN 37/ OUT 37





3919u
C1: 67.3%
C2: 4.9%
C3: 18.9%
C4: 9.0%



WT IN 10.50+ / OUT 10.60
VIS IN 37 / OUT 37

MD 8904'
INC 90.8°
AZM 267.9°
TVD 5776.67'

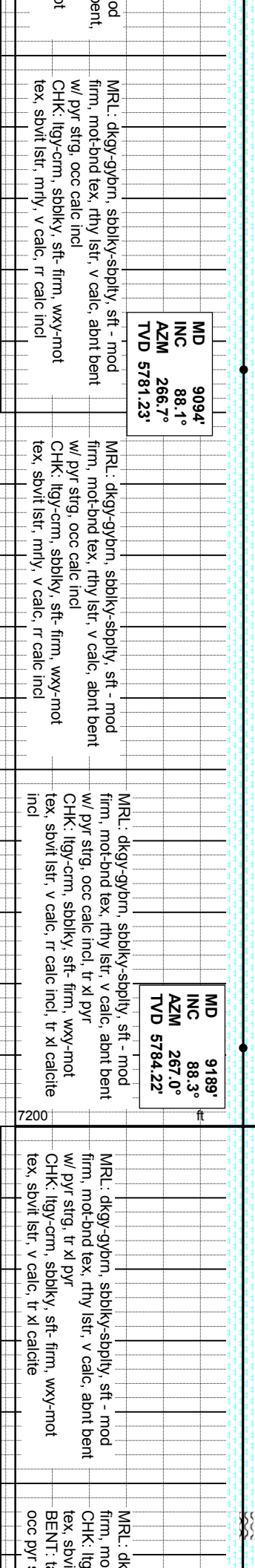
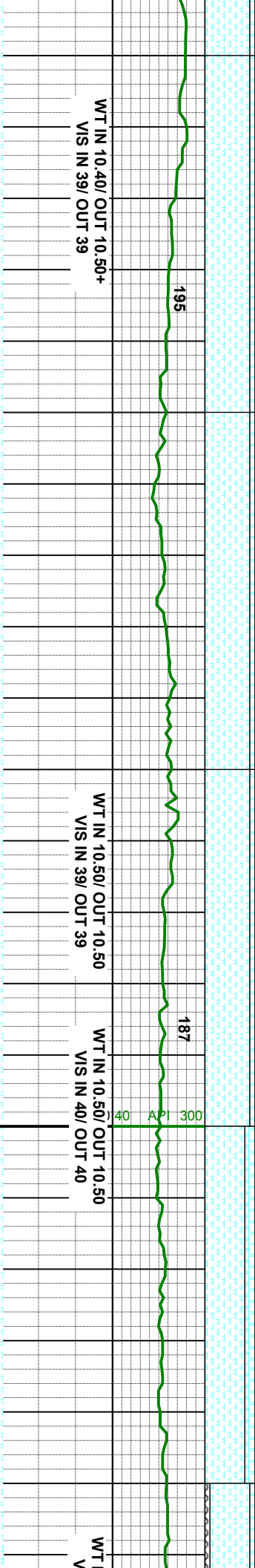
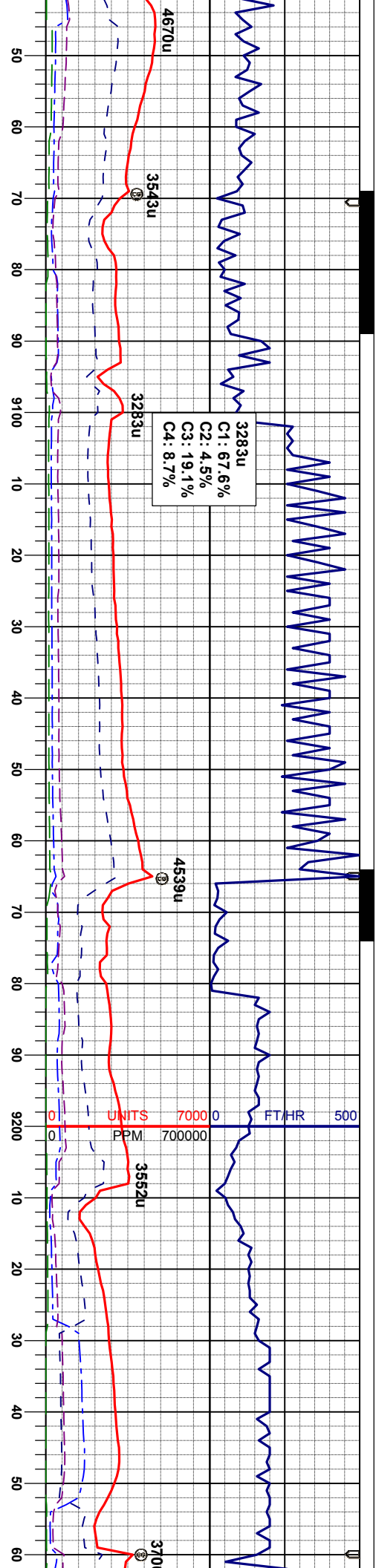
MR.L: dkgy-gybrn, sbblky-spolty, sft, mot-
calc, occ bent, abnt fos
CHK: llyg-crm, sbblky, sft- firm, wxy-mot
tex, v mntly, v calc

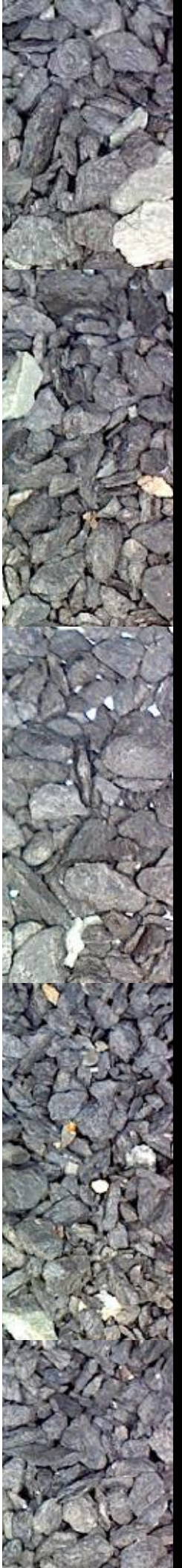
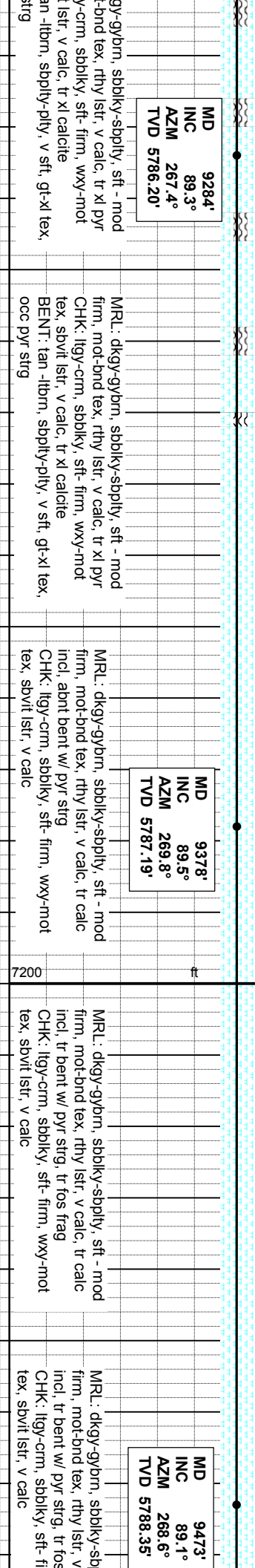
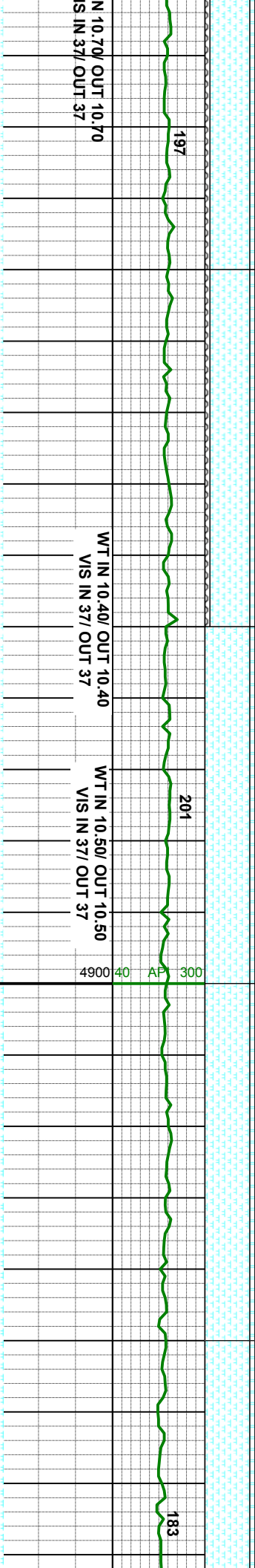
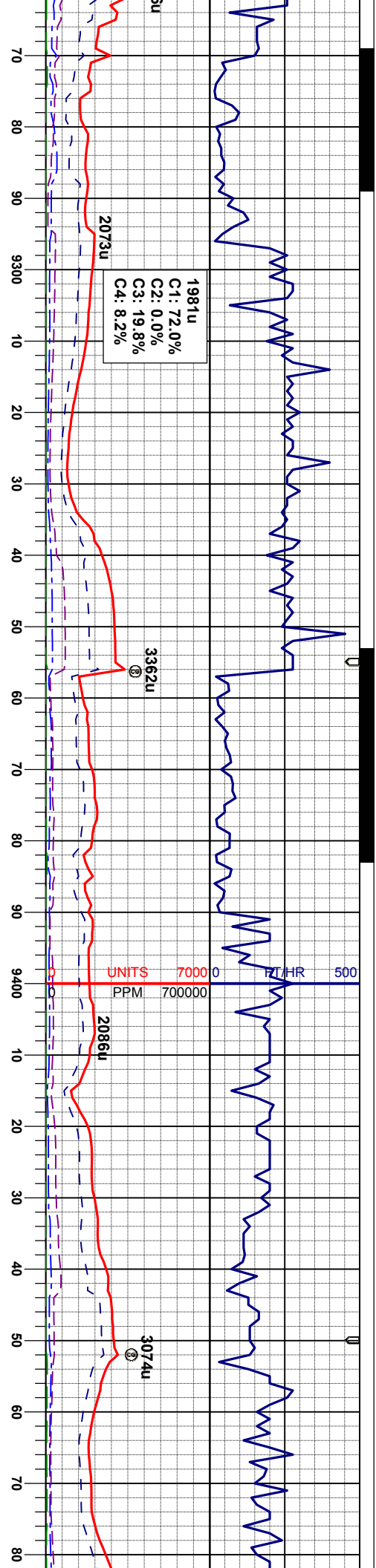
MR.L: dkgy-gybrn, sbblky-spolty, sft - mod
firm, mot-bnd tex, rthy lstr, v calc, occ bent,
abnt fos frag
CHK: llyg-crm, sbblky, sft- firm, wxy-mot
tex, v mntly, v calc

MD 8999'
INC 87.8°
AZM 267.0°
TVD 5777.83'

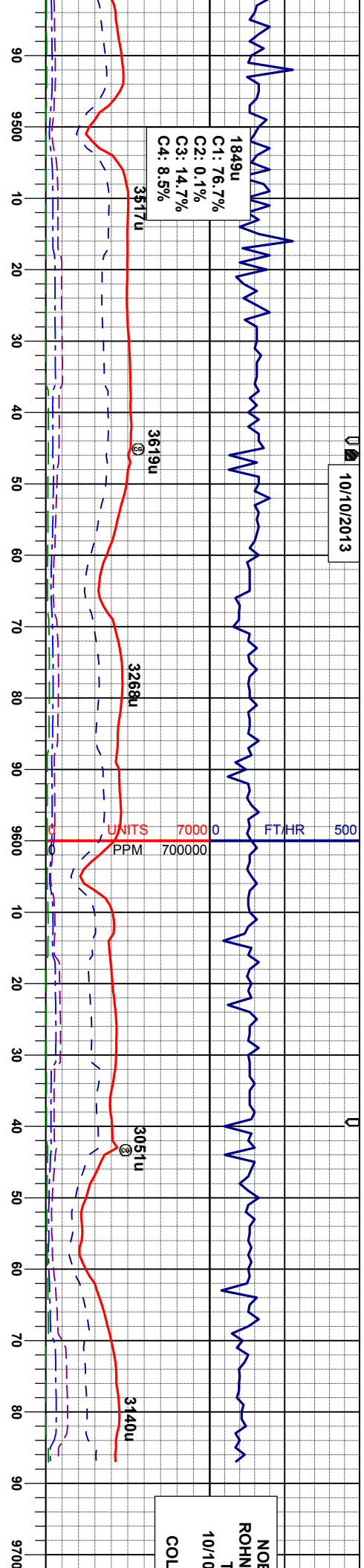
MR.L: dkgy-gybrn, sbblky-spolty, sft - r
firm, mot-bnd tex, rthy lstr, v calc, occ
abnt fos frag
CHK: llyg-crm, sbblky, sft- firm, wxy-m
tex, sbvt lstr, mntly, v calc







10/10/2013



WT IN 10.50/ OUT 10.50
VIS IN 43/ OUT 43

MD 9568'	INC 89.1°	AZM 268.9°	TVD 5789.84'	MR.L: dkgy-gybrn, sbblky-sbply, sft - mod firm, mot-bnd tex, rthy lstr, v calc, tr calc incl, sme bent w/ pyr strg CHK: llyg-crm, sbblky, sft- firm, wxy-mot tex, sbvit lstr, v calc
MD 9617'	INC 88.9°	AZM 269.1°	TVD 5790.70'	MR.L: dkgy-gybrn, sbblky-sbply, sft - mod firm, mot-bnd tex, rthy lstr, v calc, sme bent w/ pyr strg CHK: llyg-crm, sbblky, sft- firm, wxy-mot tex, sbvit lstr, v calc
PROJ TO BIT MD 9687'	INC 88.9°	AZM 269.1°	TVD 5792.04'	MR.L: dkgy-gybrn, sbblky-sbply, sft - mod firm, mot-bnd tex, rthy lstr, v calc, sme bent w/ pyr strg CHK: llyg-crm, sbblky, sft- firm, wxy-mot tex, sbvit lstr, v calc



