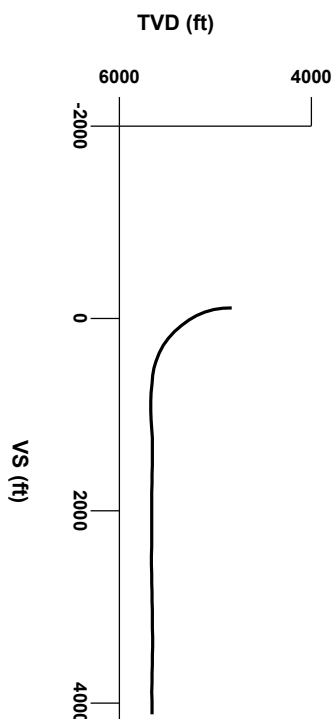


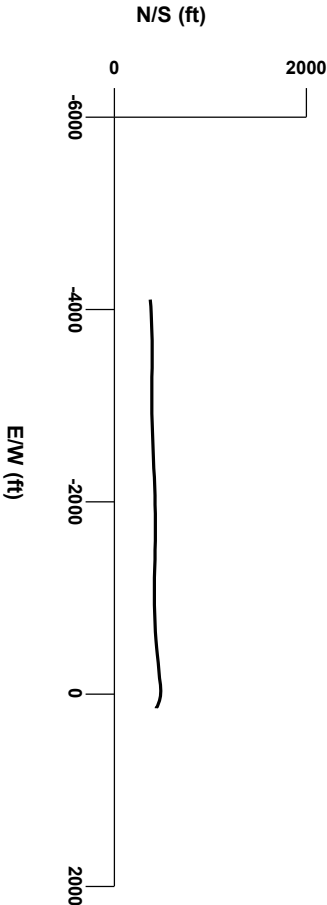


LOG created using Lplot VH Version 3.0, November 13, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: NOBLE ENERGY INC
WELL: ROHN STATE LD09-63HN
LOCATION: SESE SEC 9 T9N R58W
COUNTY: WELD
STATE: COLORADO
SPOT: 885' FSL; 480' FEL
ELEVATION: 4716' GL; 4740' KB
FIELD: WILDCAT
SPUD DATE: 11/07/2013
TD DATE: 11/13/2013
DATES LOGGED: 11/10/2013 - 11/13/2013
DEPTHS LOGGED: 4918' - 9610' MD
LOGGERS: LAURA KELLOGG; CONOR PESICKA
DRILLING FLUID: LSND
DRILLING RIG: H&P 273
API: 05-123-37543
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: WELLSITE GEOLOGIC SERVICES
PROVIDED BY COLUMBINE LOGGING INC.

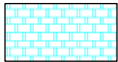


Survey Plan



6000

LITHOLOGIES



Chalk



Marl



Silty Shale

ENGINEERING SYMBOLS



Casing



Casing



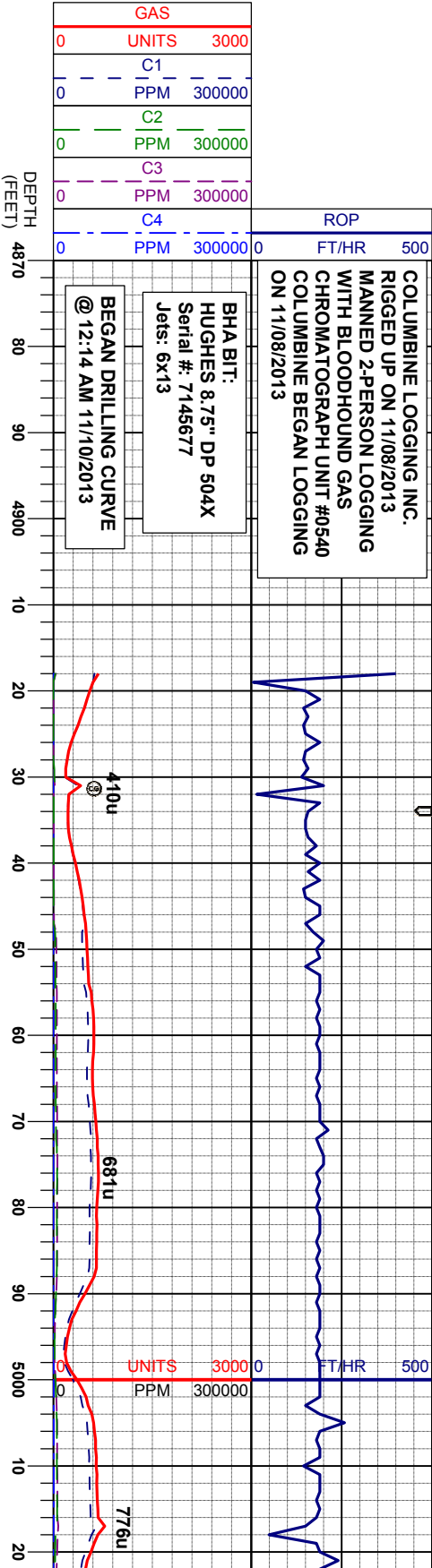
Connection



Connection Gas



Midnight Depth

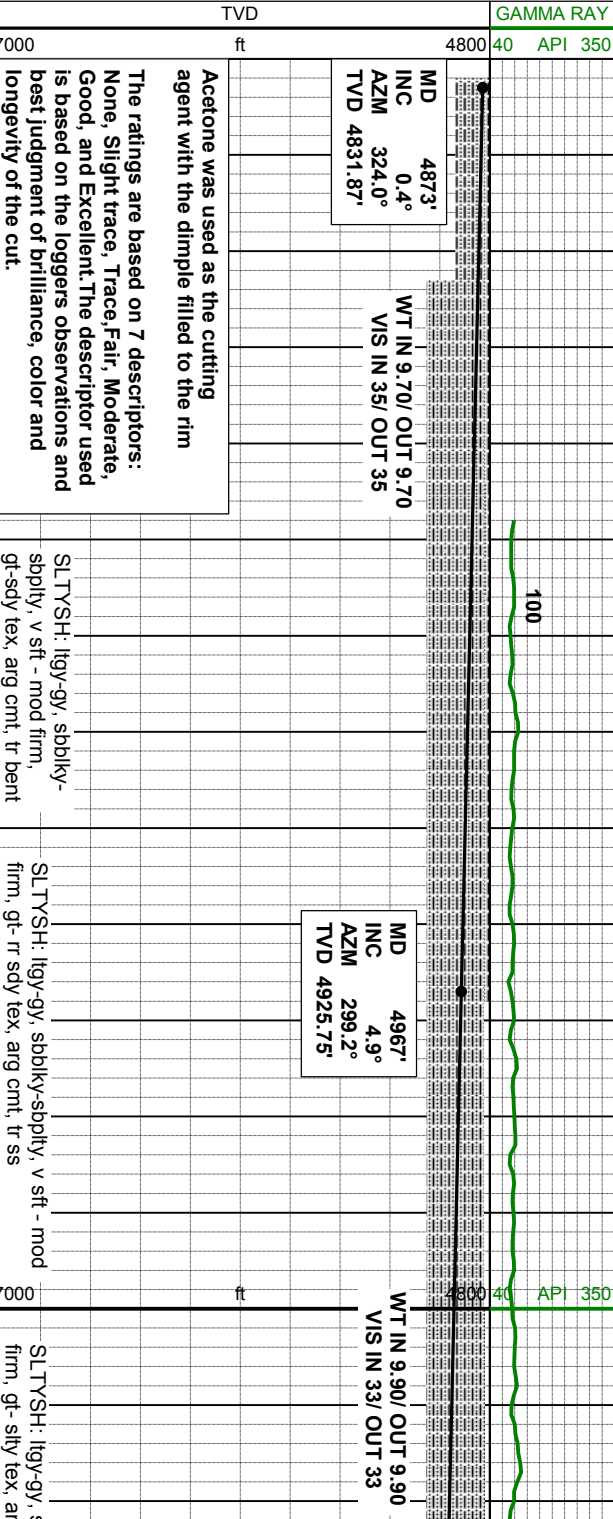


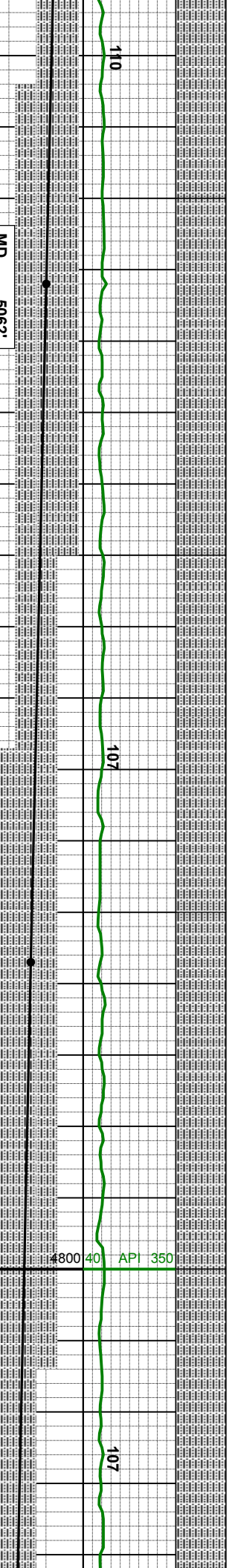
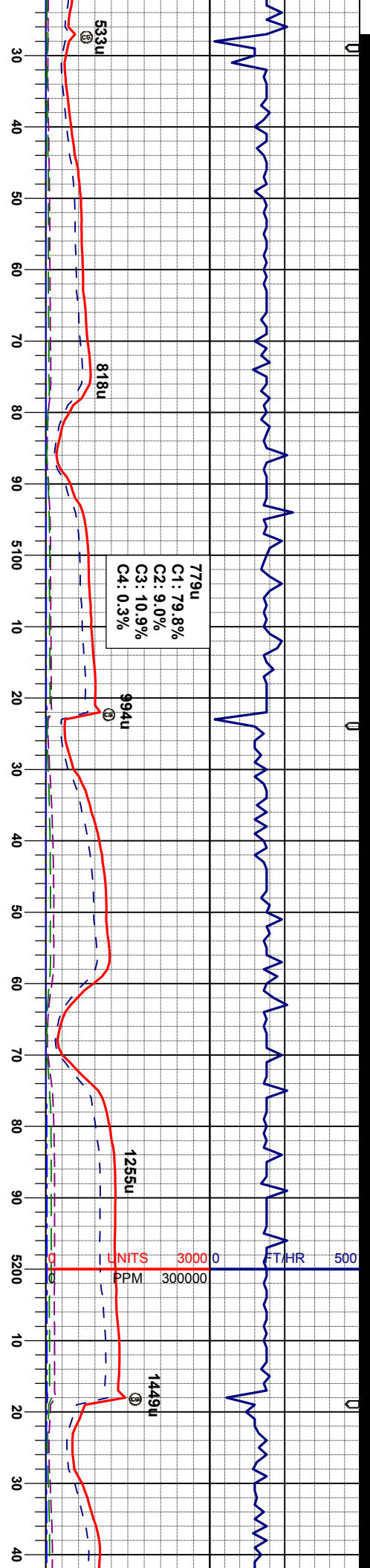
SAMPLE PHOTOS



OIL SHOWS

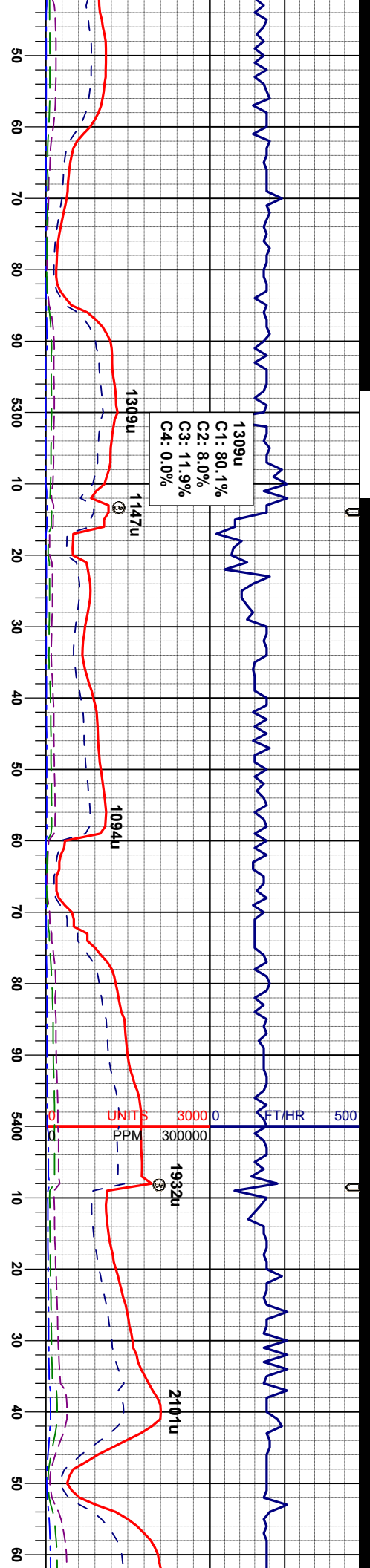
TFG





SLT VSH: lly-gy, sbblky-sbply, v sft - mod firm, gl- rr sdy tex, arg cnt, tr ss	SLT VSH: lly-gy, sbblky-sbply, v sft - mod firm, gl- rr sdy tex, arg cnt, tr ss	SLT VSH: lly-gy, sbblky-sbply, v sft - mod firm, gl- rr sdy tex, arg cnt, tr ss	SLT VSH: lly-gy, sbblky-sbply, v sft - mod firm, gl- rr sdy tex, arg cnt, tr ss
--	--	--	--





WT IN 10.00/ OUT 10.00
VIS IN 36/ OUT 36

MD 5252'
INC 28.5°
AZM 286.3°
TVD 5197.00'

MD 5347'
INC 32.6°
AZM 279.5°
TVD 5278.82'

MD 5442'
INC 38.2°
AZM 267.7°
TVD 5356.32'

SLTYSH: lgy-gy, sbblky-sbply, v sft - mod
firm, gt- rr sdy tex, arg cnt, tr ss

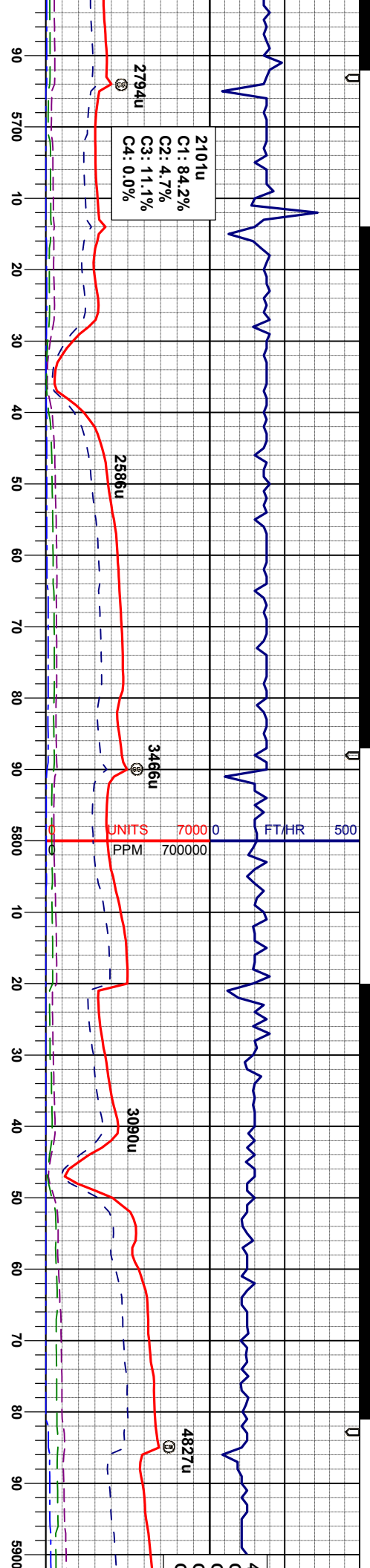
SLTYSH: lgy-gy, sbblky-sbply, v sft - mod
firm, gt- rr sdy tex, arg cnt

SLTYSH: lgy-gy, sbblky-sbply, v sft - mod
firm, gt- rr sdy tex, arg cnt

SLTYSH: lgy-gy, sbblky-sbply, v sft - mod
firm, gt- rr sdy tex, arg cnt

SLTYSH: lgy-gy, sbblky-sbply, v sft - mod
firm, gt-





210'lu
C1: 84.2%
C2: 4.7%
C3: 11.1%
C4: 0.0%

279'lu
③

2566u
③

3466u
③

3090u
③

4827u
③

MD 5727'
INC 58.7°
AZM 265.4°
TVD 5545.05'

SL.TYSH: lly-gy, sbblky-sbply, v sft - mod
firm, gt-rr sdy tex, arg cnt, tr bent

SL.TYSH: lly-gy, sbblky-sbply, v sft - mod
firm, gt-rr sdy tex, arg cnt, occ bent

WT IN 10.90+/- OUT 10.70
VIS IN 43/ OUT 43

SHARON SPRINGS
MARKER BED @
5808' MD/ 5582' TVD

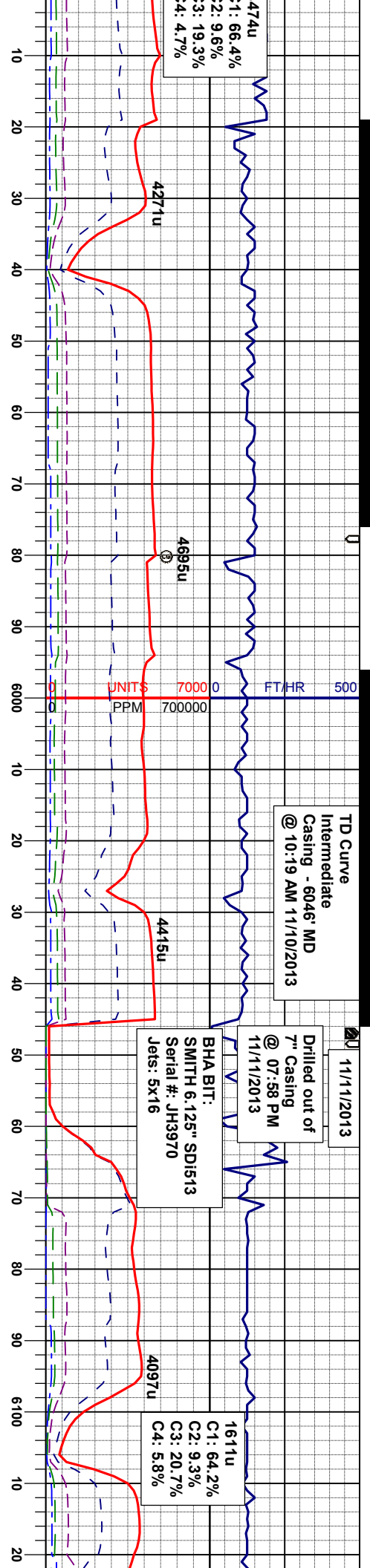
NIOBRARA TOP @
5828' MD/ 5591' TVD

NIO A CHALK @
5862' MD/ 5603' TVD

MD 5821'
INC 66.0°
AZM 264.5°
TVD 5588.60'

SL.TYSH: lly-gy, rr dkgy, sbblky-sbply, sft,
gt-sdy tex, arg cnt, v sl calc, abnt bent
MR.L: dkgy-gybrn, sbblky-sbply, sft, gt tex,
v calc
CHK: lly-crm, occ gy-dkgy, sbblky, sft-
firm, wxy tex, v calc

CHK: lly-crm, occ wh, sbblky, sft-firm,
wxy tex, v calc
MR.L: dkgy-gybrn, sbblky-sbply, sft, gt tex,
v calc



NIO A MARL @ 5966' MD/ 5635' TVD
WT IN 10.90+ OUT 10.90+
VIS IN 44/ OUT 44

MD 5916'
INC 72.1°
AZM 263.1°
TVD 5622.55'

CHK: lgy-crm, occ wh, sbblky, sft- mod
firm, wxy tex, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt tex, v calc

MD 5986'
INC 77.6°
AZM 263.0°
TVD 5640.84'

CHK: lgy-crm, occ wh, sbblky, sft- mod
firm, wxy tex, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft - mod firm, gt tex, v calc

WT IN 10.90+ OUT 10.90+
VIS IN 44/ OUT 44

MD 6064'
INC 83.3°
AZM 266.1°
TVD 5653.78'

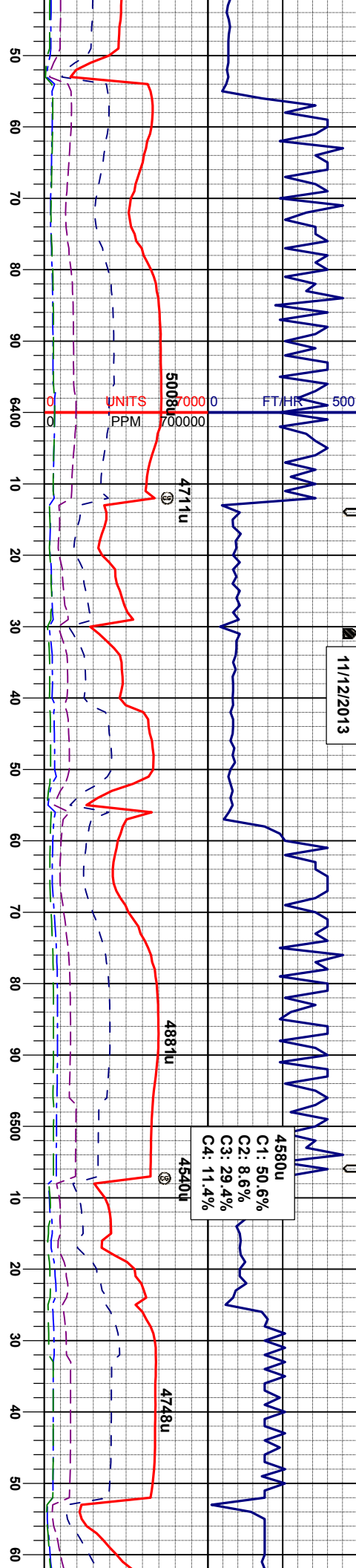
CHK: lgy-crm, occ wh, sbblky, sft, wxy tex, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt tex, v calc

WT IN 10.10/ OUT 10.10
VIS IN 31/ OUT 31

MRL: dkgy-gybrn, sbblky-sbply, sft, gt tex, v chky ip, v calc
CHK: lgy-crm, sbblky, sft, mot-wxy tex, v calc

MRL: dkgy-gybrn, tex, v calc
CHK: lgy-crm, sb

11/12/2013



4580u
C1: 50.6%
C2: 8.6%
C3: 29.4%
C4: 11.4%

WT IN 10.30/ OUT 10.30
VIS IN 35/ OUT 35

MD 6435'
INC 91.0°
AZM 268.4°
TVD 5675.94'

MD 6530'
INC 93.7°
AZM 269.8°
TVD 5672.04'

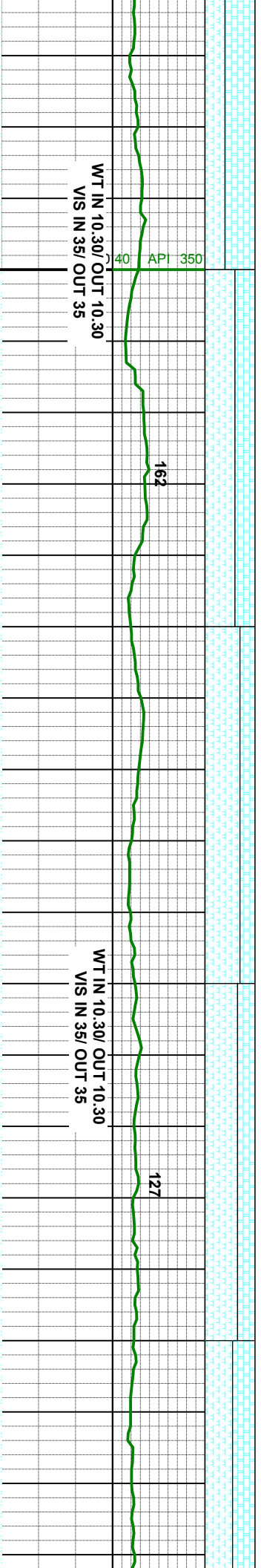
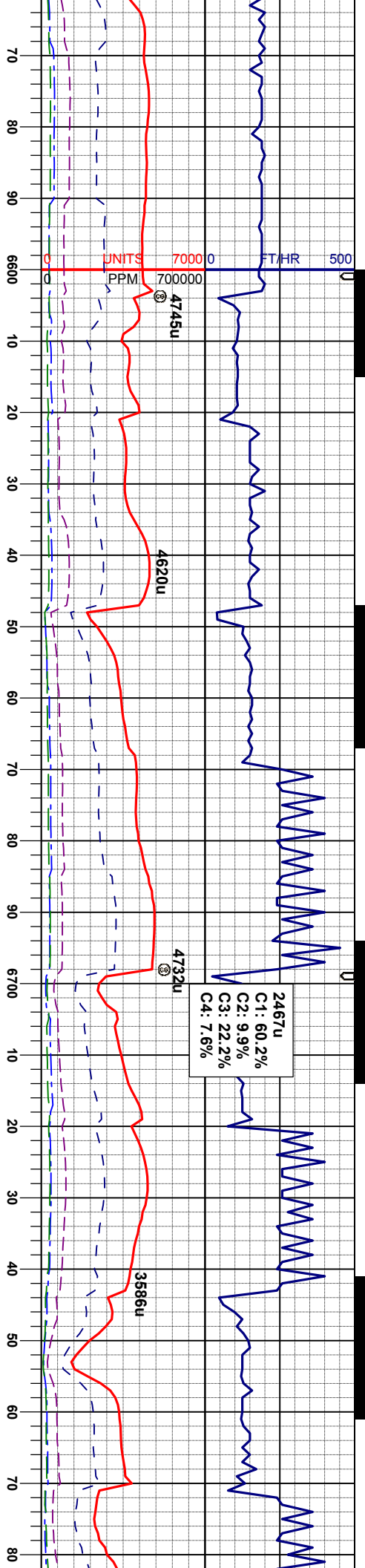
CHK: llyg-crm, sme wh, sbblky, sft, mot-v
wxy tex, sbvit lstr, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, bnd ip, v calc, tr calc incl

CHK: llyg-crm, sme wh, sbblky, sft, mot-v
wxy tex, sbvit lstr, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, bnd ip, v calc, tr calc incl

CHK: llyg-crm, tr wh, sme gy, sbblky, sft,
mot-v wxy tex, occ sbvit lstr, mrrly ip, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, v calc, tr calc incl

CHK: llyg-crm, sme gy, sbblky, sft, mot-v
wxy tex, tr sbvit lstr, mrrly ip, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, v calc, tr calc incl

CHK: llyg-crm, sme gy, sbblky, sft, mot-v
wxy tex, tr sbvit lstr, mrrly ip, v calc
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, v calc, tr calc incl



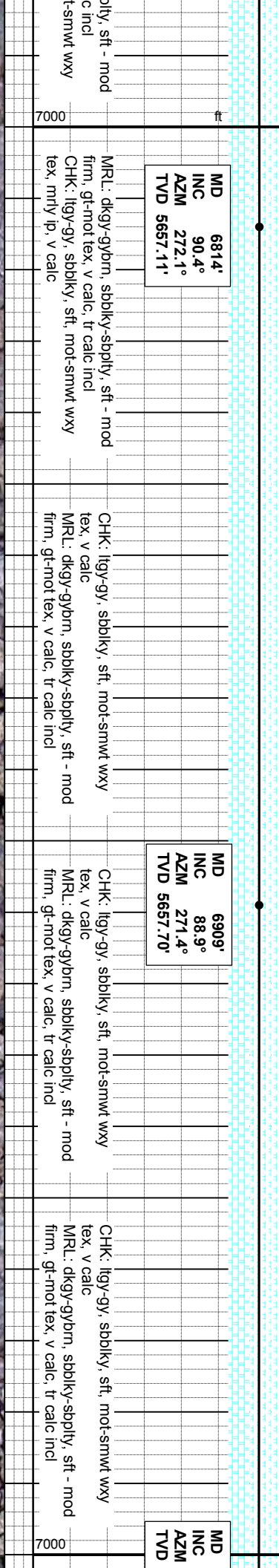
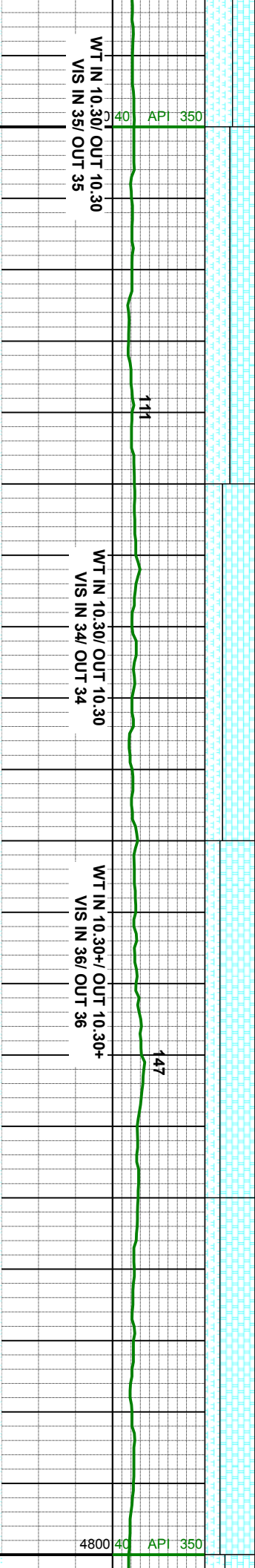
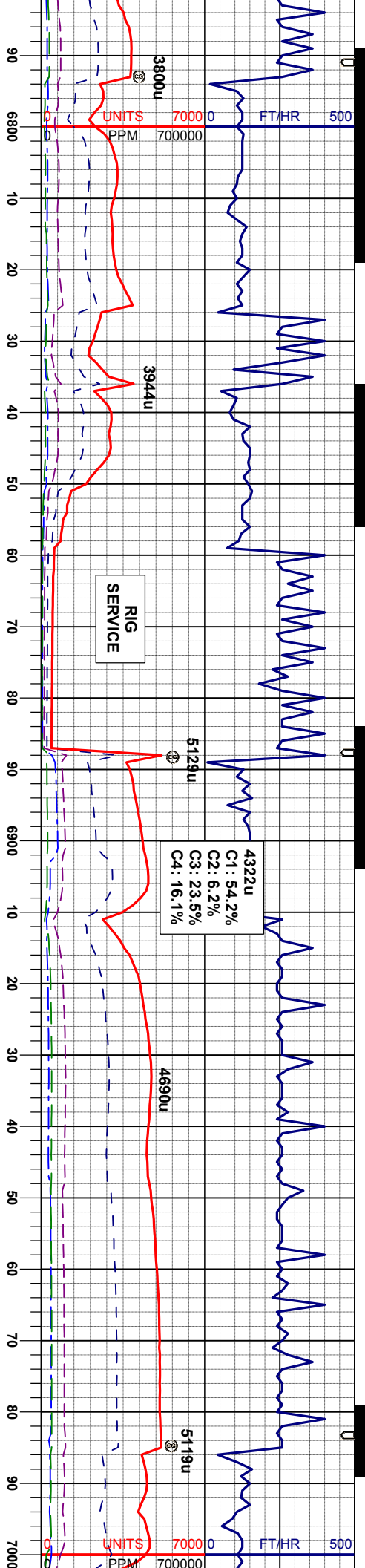
MD 6624'
INC 94.1°
AZM 270.0°
TVD 5665.65'

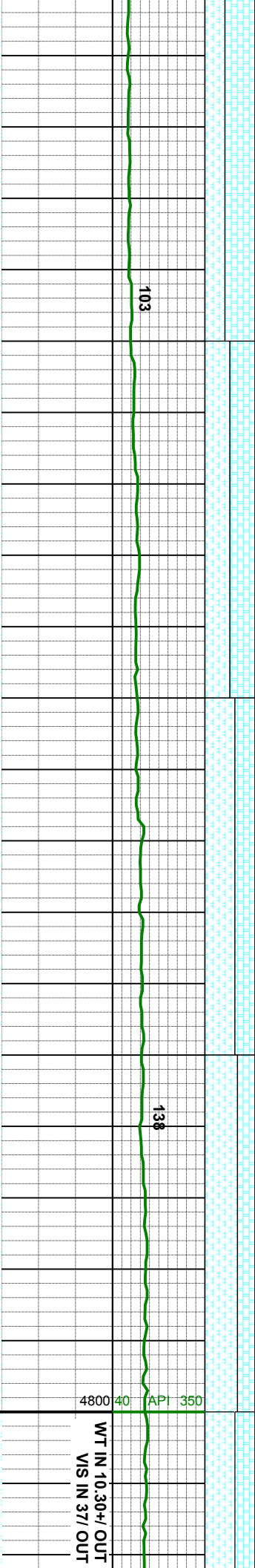
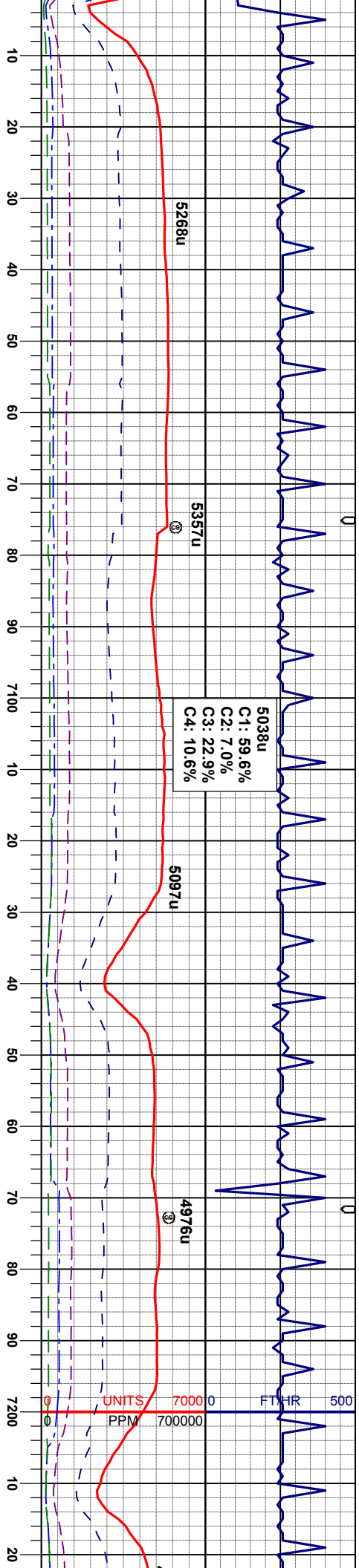
MRL: dkgy-gybrn, sbblky-sbply, sft, gt-mot
tex, v calc, tr calc incl
CHK: lly-gy, sbblky, sft, mot-smwt wxy
tex, mly ip, v calc

MD 6719'
INC 92.9°
AZM 271.6°
TVD 5659.85'

MRL: dkgy-gybrn, sbblky-sbply, sft - mod
firm, gt-mot tex, v calc, tr calc incl
CHK: lly-gy, sbblky, sft, mot-smwt wxy
tex, mly ip, v calc

MRL: dkgy-gybrn, sbblky-sbply, sft - mod
firm, gt-mot tex, v calc, tr calc incl
CHK: lly-gy, sbblky, sft, mot-smwt wxy
tex, mly ip, v calc





7004'
88.6°
270.5°
5659.77'

CHK: lly-gy, occ wh, sbdkly, sft, mot-smwt
wxy tex, v calc
MRL: dkgy-gybrn, dk blk, sbdkly-sbply, sft -
mod firm, gt-mot tex, v calc, tr calc incl

MD 7099'
INC 89.3°
AZM 270.9°
TVD 5661.51'

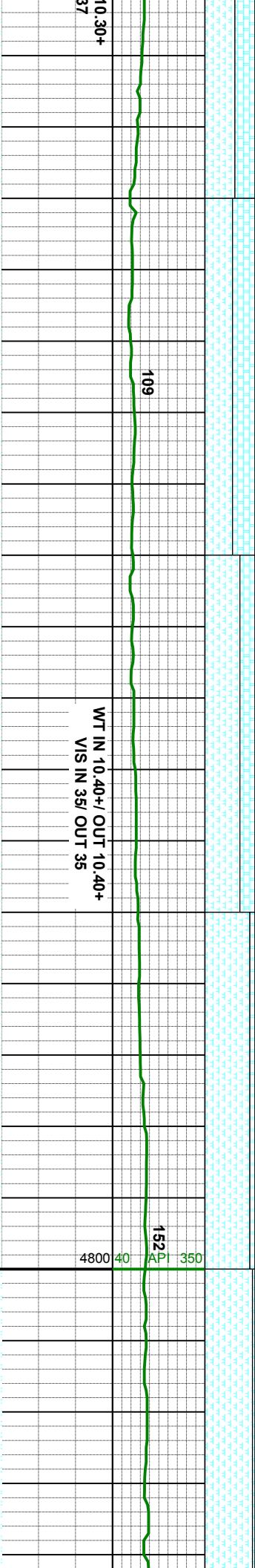
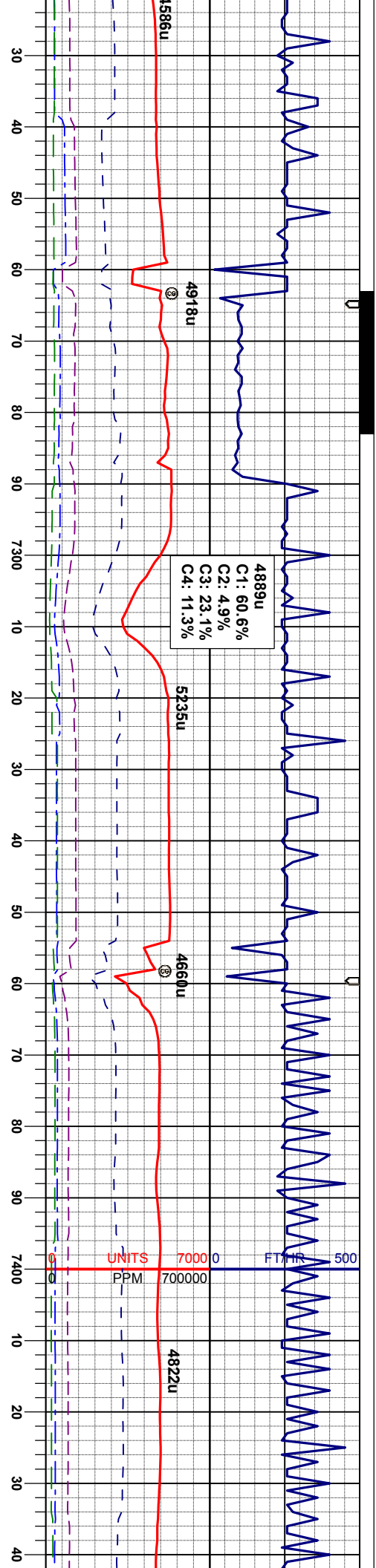
CHK: lly-gy, occ wh, sbdkly, sft, mot-smwt
wxy tex, v calc
MRL: dkgy-gybrn, dk blk, sbdkly-sbply, sft -
mod firm, gt-mot tex, v calc, tr calc incl

MD 7193'
INC 89.4°
AZM 270.7°
TVD 5662.57'

MRL: dkgy-gybrn, dk blk, sbdkly-sbply, sft -
mod firm, gt-mot tex, v calc, tr calc incl
CHK: lly-gy, occ wh, sbdkly, sft, mot-smwt
wxy tex, v calc

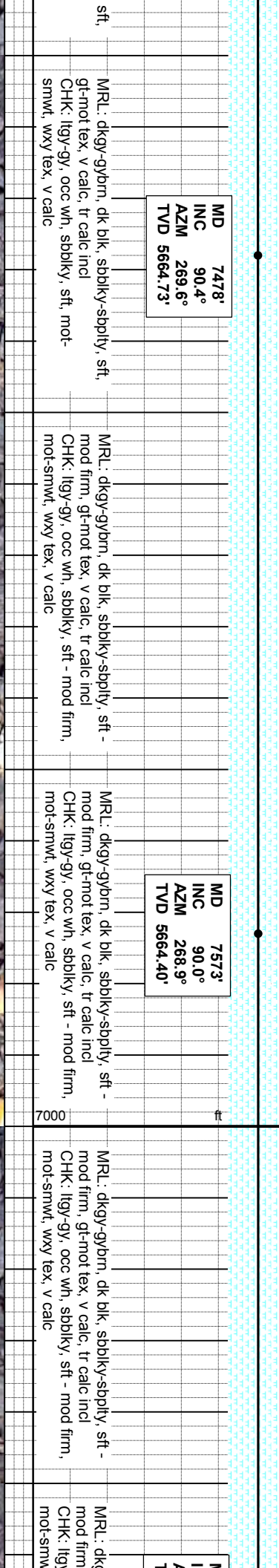
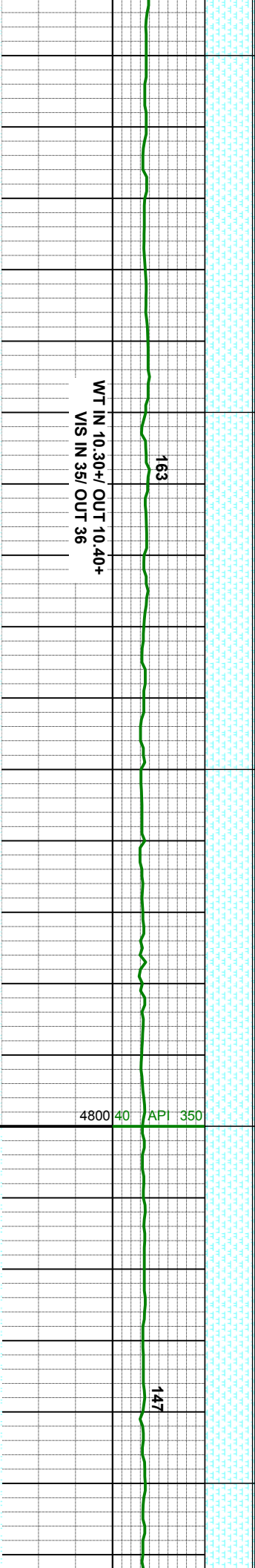
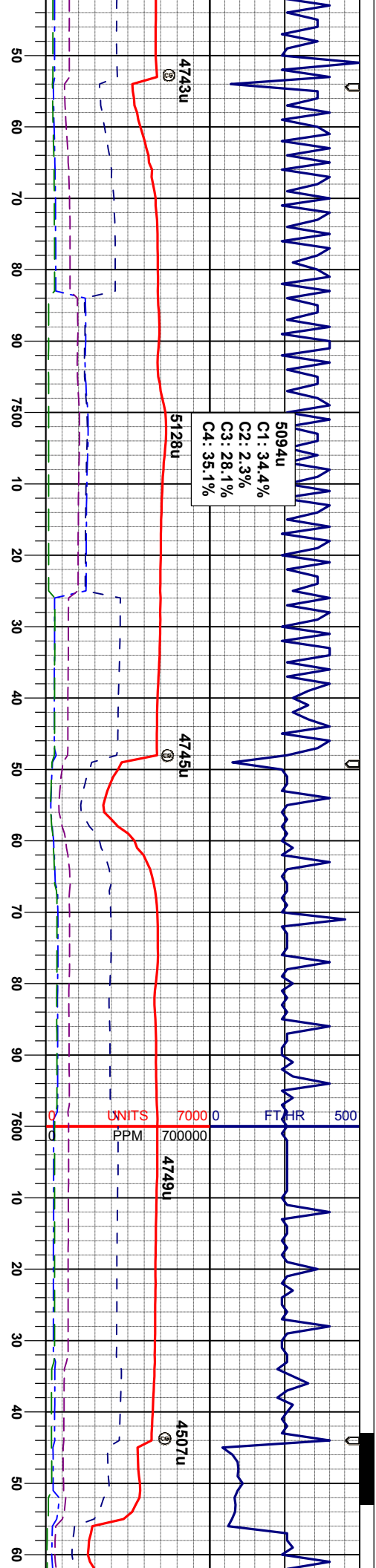
WT IN 10.30+ OUT
VIS IN 37/ OUT

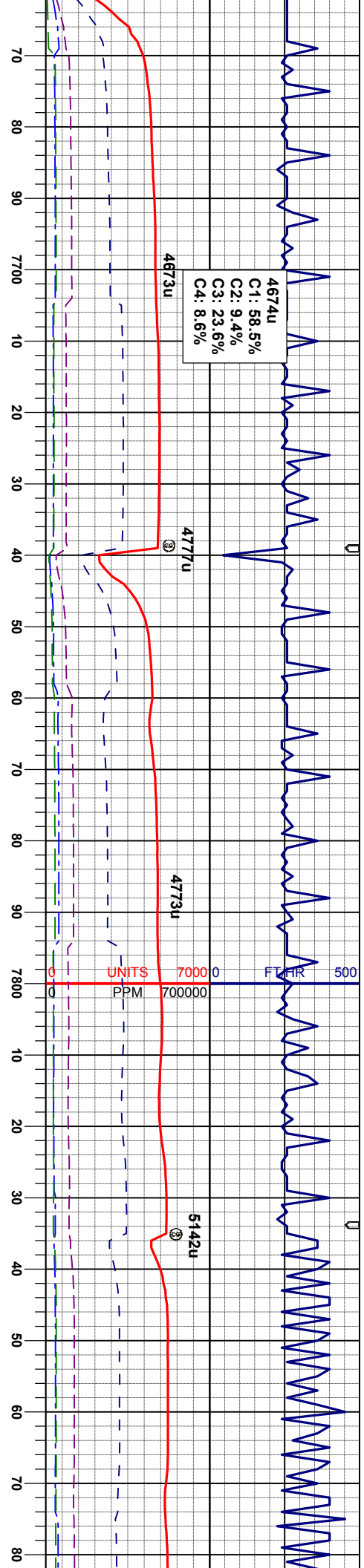




MD INC AZIM TVD	7288' 89.3° 268.9° 5663.65'	MR.L: dkgy-gybrn, dk blk, sbdkly-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: lly-gy, occ wh, sbdkly, sft, mot-smwt, wxy tex, v calc	MR.L: dkgy-gybrn, dk blk, sbdkly-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: lly-gy, occ wh, sbdkly, sft, mot-smwt, wxy tex, v calc	MR.L: dkgy-gybrn, dk blk, sbdkly-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: lly-gy, occ wh, sbdkly, sft, mot-smwt, wxy tex, v calc	MR.L: dkgy-gybrn, dk blk, sbdkly-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: lly-gy, occ wh, sbdkly, sft, mot-smwt, wxy tex, v calc







MD 7668'
INC 90.0°
AZM 268.1°
TVD 5664.40'

MRL: dkgy-gybrn, dk blk, sbblky-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: ltgy-gy, occ wh, sbblky, sft - mod firm, t, wxy tex, v calc

MRL: dkgy-gybrn, dk blk, sbblky-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: ltgy-gy, occ wh, sbblky, sft, mot-smwt, wxy tex, v calc

MD 7762'
INC 89.3°
AZM 267.2°
TVD 5664.97'

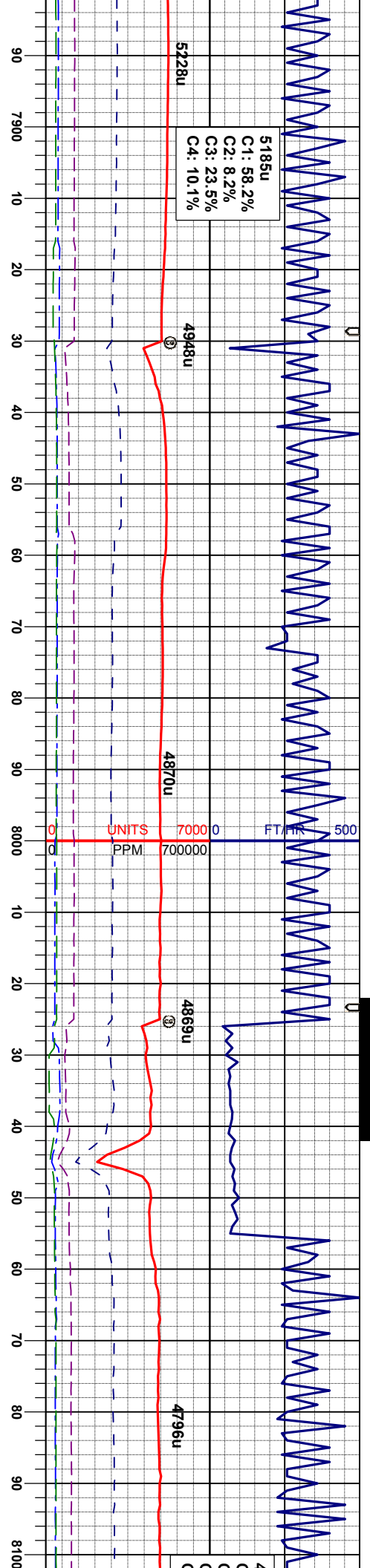
MRL: dkgy-gybrn, dk blk, sbblky-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: ltgy-gy, occ wh, sbblky, sft, mot-smwt, wxy tex, v calc

MRL: dkgy-gybrn, dk blk, sbblky-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: ltgy-gy, occ wh, sbblky, sft, mot-smwt, wxy tex, v calc

MD 7857'
INC 89.3°
AZM 266.7°
TVD 5666.13'

MRL: dkgy-gybrn, dk blk, sbblky-sbply, sft, gt-mot tex, v calc, tr calc incl CHK: ltgy-gy, occ wh, sbblky, sft, mot-smwt, wxy tex, v calc





5185u
C1: 58.2%
C2: 8.2%
C3: 23.5%
C4: 10.1%

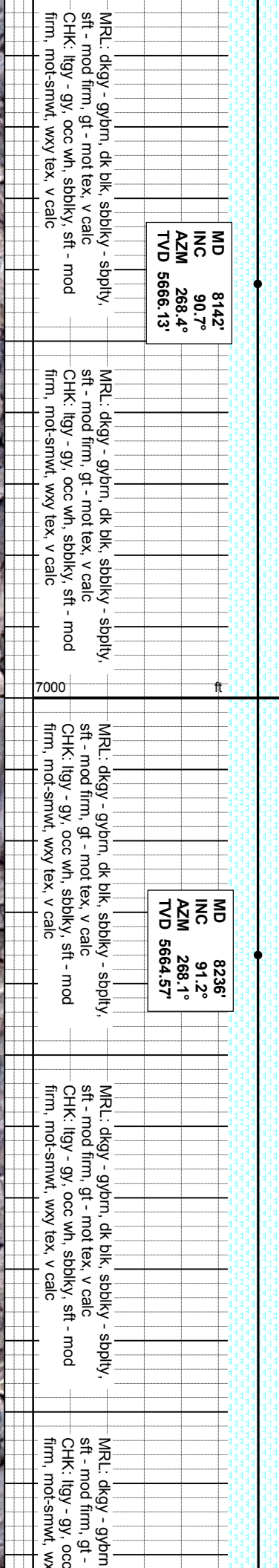
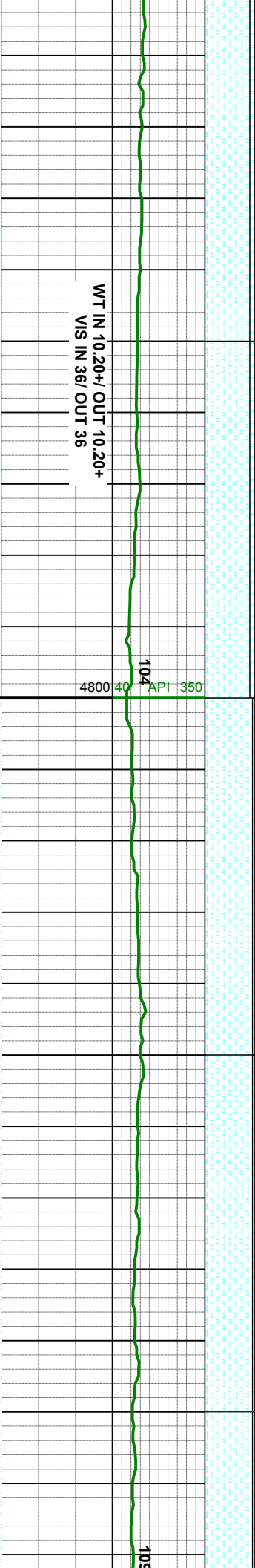
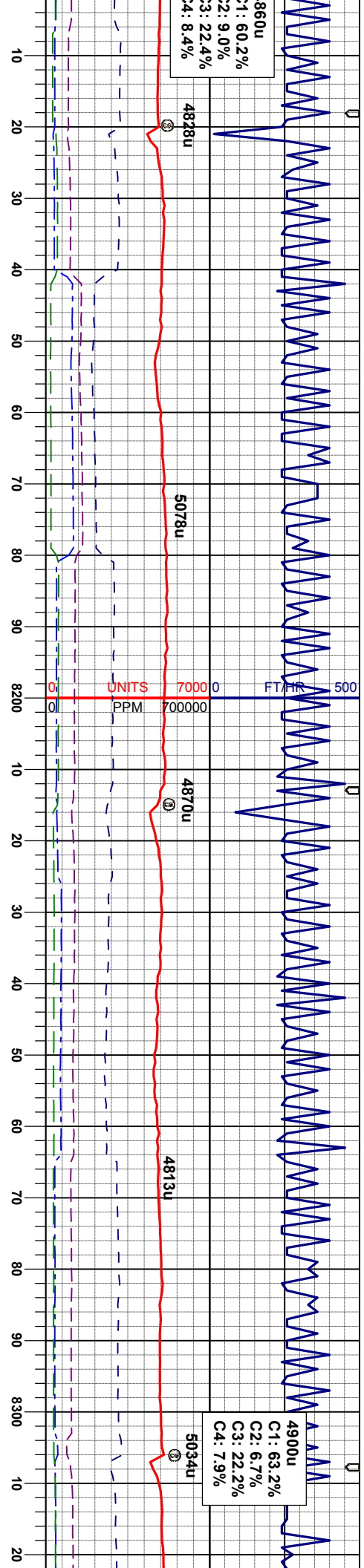
MD 7952'
INC 89.5°
AZM 266.7°
TVD 5667.13'

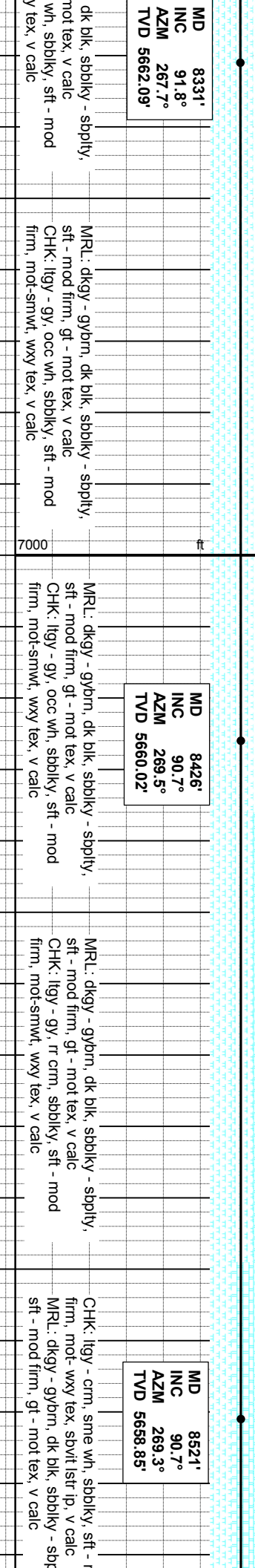
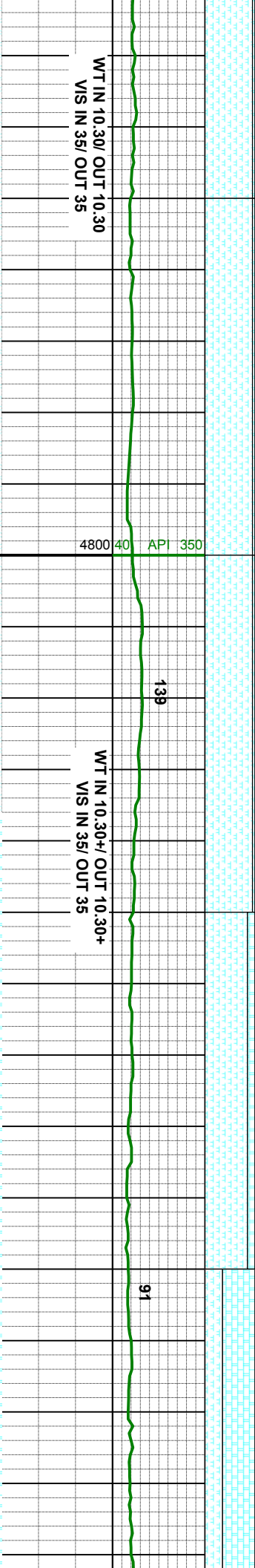
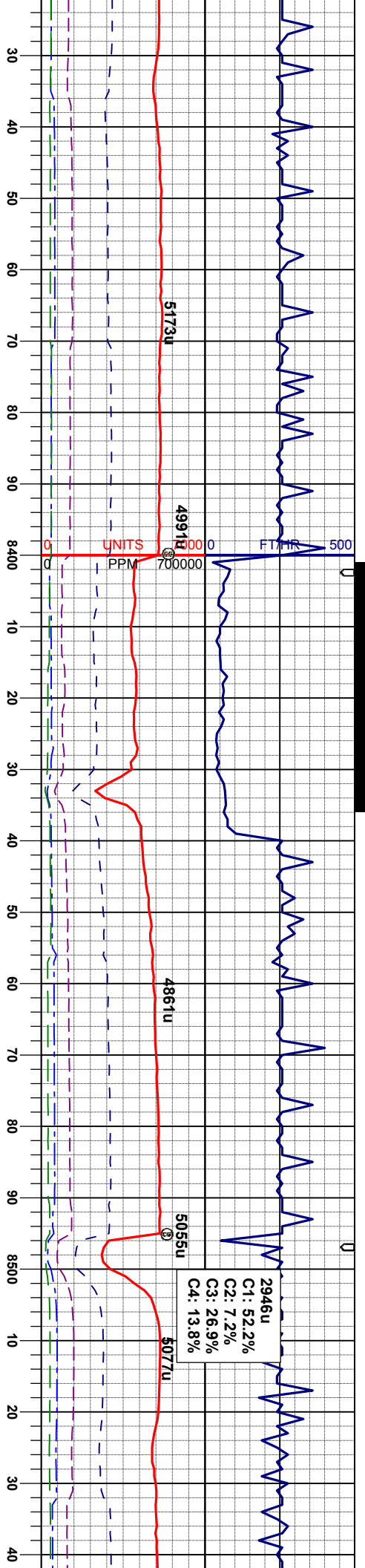
MD 8047'
INC 90.5°
AZM 268.6°
TVD 5667.13'

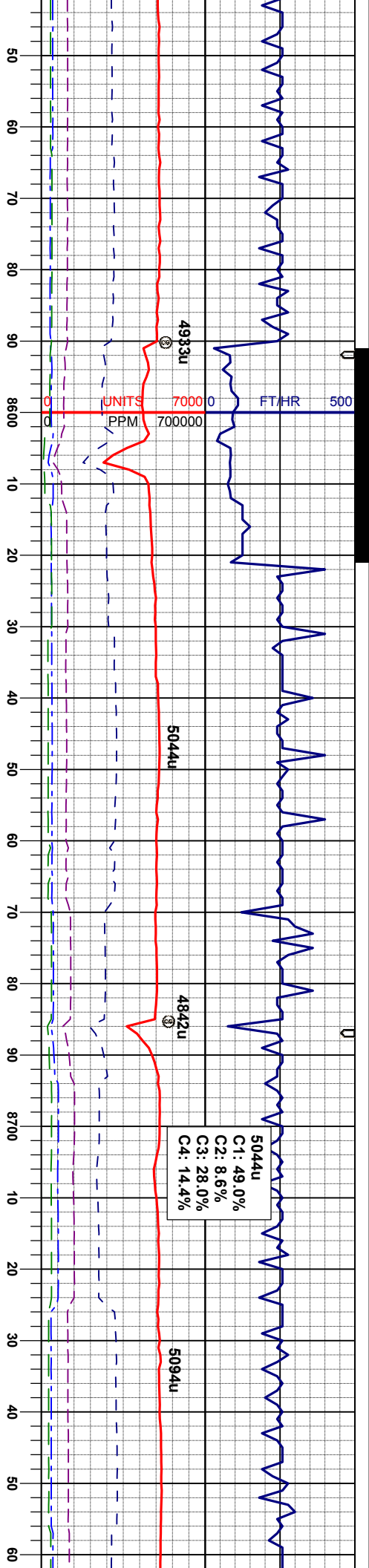
MR.L: dkgy-gybrn, dk blk, sbblky-sbply, sft, gt-mot tex, v calc, tr calc incl
CHK: ltgy-gy, occ wh, sbblky, sft, mot-smwt, wxy tex, v calc

WT IN 10.20/ OUT 10.20
VIS IN 36/ OUT 36









WT IN 10.40/ OUT 10.40
VIS IN 35/ OUT 35

110

WT IN 10.40/ OUT 10.40
VIS IN 35/ OUT 35

MID 8615'
INC 90.0°
AZM 270.4°
TVD 5658.28'

MID 8710'
INC 90.6°
AZM 270.4°
TVD 5657.78'

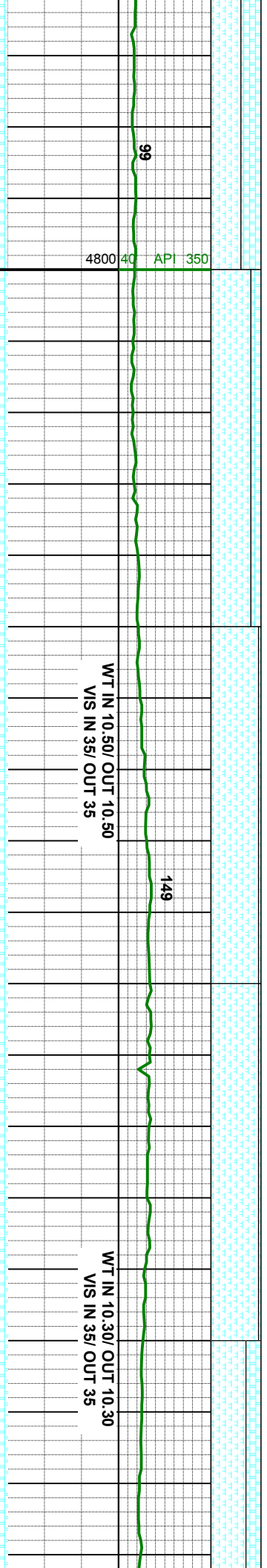
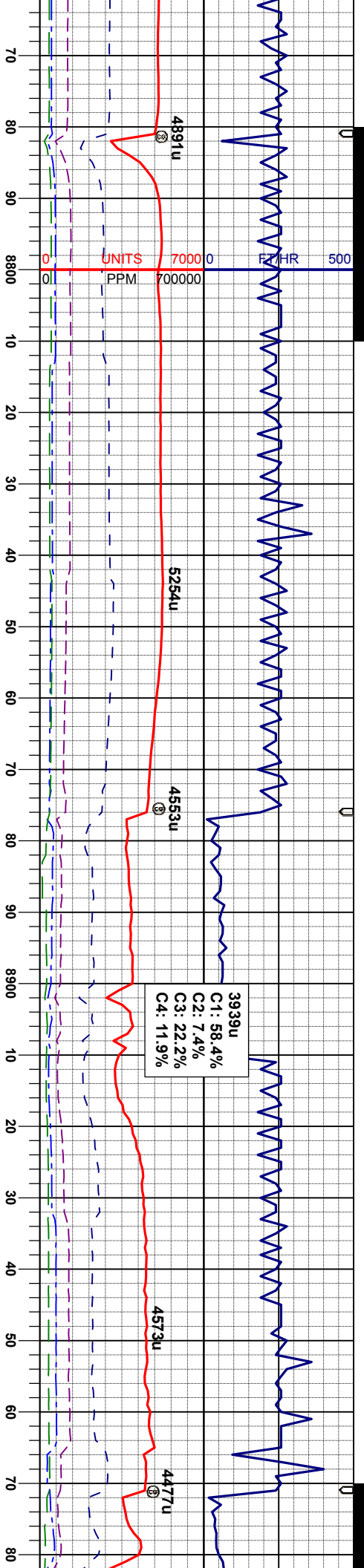
MRL: dkgy - gybrn, dk blk, sbblky - sbply,
sft - mod firm, gt - mot tex, v chky, v calc
CHK: lgy - crm, r wh, sbblky, sft - mod
firm, mot- wxy tex, sbvit lstr ip, v calc

MRL: dkgy - gybrn, dk blk, sbblky - sbply,
sft - mod firm, gt - mot tex, v chky, v calc
CHK: lgy - crm, r wh, sbblky, sft - mod
firm, mot- wxy tex, sbvit lstr ip, v calc

MRL: dkgy - gybrn, dk blk, sbblky - sbply,
sft - mod firm, gt - mot tex, v chky, v calc
CHK: lgy - crm, r wh, sbblky, sft - mod
firm, mot- wxy tex, sbvit lstr ip, v calc

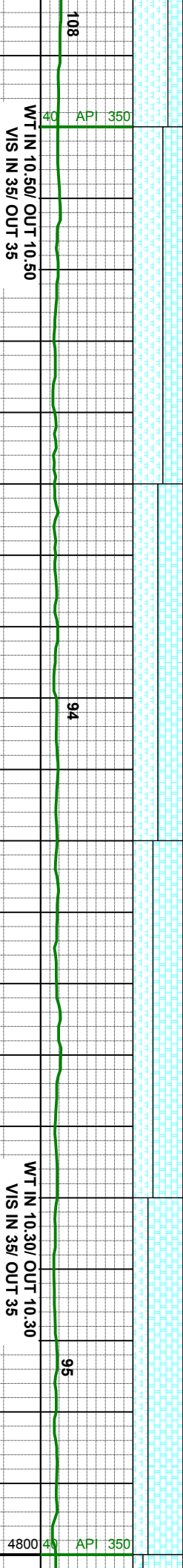
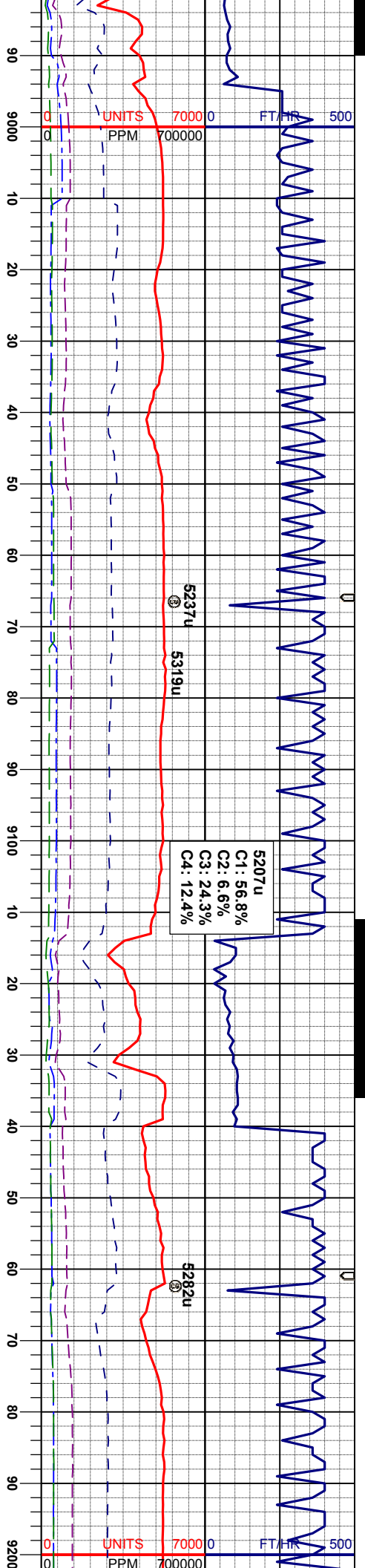
MRL: dkgy - gybrn, dk blk, sbblky - sbply,
sft - mod firm, gt - mot tex, v chky, v calc
CHK: lgy - crm, r wh, sbblky, sft - mod
firm, mot- wxy tex, sbvit lstr ip, v calc

MRL: dkgy - gybrn, dk blk, sbblky - sbply,
sft - mod firm, gt - mot tex, v chky, v calc
CHK: lgy - crm, r wh, sbblky, sft - mod
firm, mot- wxy tex, sbvit lstr ip, v calc



<p>MD 8805' INC 91.0° AZM 270.4° TVD 5656.46'</p> <p>MRL: dkgy - gybrn, dk blk, sbblky - sbply, sft - mod firm, gt - mot tex, bnd ip, occ chky, v calc CHK: lgy - gy, sbblky, sft - mod firm, mot- wxy tex, v calc</p>	<p>MD 8900' INC 89.8° AZM 270.9° TVD 5655.79'</p> <p>MRL: dkgy - gybrn, dk blk, sbblky - sbply, sft - mod firm, gt - mot tex, bnd ip, occ chky, v calc CHK: lgy - gy, sme crm, sbblky, sft - mod firm, mot- wxy tex, sbvlt lstr ip, v calc</p>	<p>MD 8900' INC 89.8° AZM 270.9° TVD 5655.79'</p> <p>MRL: dkgy - gybrn, dk blk, sbblky - sbply, sft - mod firm, gt - mot tex, bnd ip, occ chky, v calc CHK: lgy - gy, sme crm, sbblky, sft - mod firm, mot- wxy tex, sbvlt lstr ip, v calc</p>	<p>MD 8900' INC 89.8° AZM 270.9° TVD 5655.79'</p> <p>MRL: dkgy - gybrn, dk blk, sbblky - sbply, sft - mod firm, gt - mot tex, bnd ip, occ chky, v calc CHK: lgy - gy, sme crm, sbblky, sft - mod firm, mot- wxy tex, sbvlt lstr ip, v calc</p>	<p>MD 8900' INC 89.8° AZM 270.9° TVD 5655.79'</p> <p>MRL: dkgy - gybrn, dk blk, sbblky - sbply, sft - mod firm, gt - mot tex, bnd ip, occ chky, v calc CHK: lgy - gy, sme crm, sbblky, sft - mod firm, mot- wxy tex, sbvlt lstr ip, v calc</p>
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MD 8994'
INC 88.8°
AZM 270.2°
TVD 5655.74'

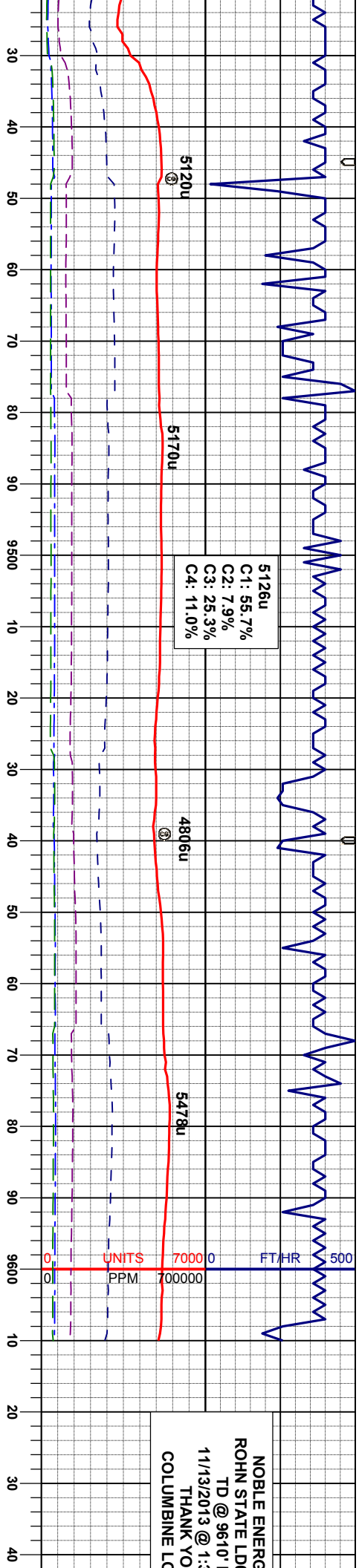
MR.L: dkgy - gybrn, dk blk, sbblky - spbly, sft - mod firm, gt - mot tex, bnd ip, occ chky, v calc
CHK: llyy - gy, sme crm, sbblky, sft - mod firm, mot- wxy tex, sbvit lstr ip, v calc

MD 9089'
INC 89.3°
AZM 270.2°
TVD 5658.52'

MR.L: dkgy - gybrn, sbblky - spbly, sft - mod firm, gt - mot tex, bnd ip, occ chky, v calc
CHK: llyy - gy, sme crm, sbblky, sft - mod firm, mot- wxy tex, sbvit lstr ip, v calc

MD 9184'
INC 88.2°
AZM 268.6°
TVD 5660.59'

MR.L: dkgy - gy, rr crm, sbblky, sft - mod firm, mot- wxy tex, rr sbvit lstr, v calc
CHK: llyy - gy, rr crm, sbblky, sft - mod firm, mot- wxy tex, rr sbvit lstr, v calc



C1: 55.7%
C2: 7.9%
C3: 25.3%
C4: 11.0%

NOBLE ENERGY
ROHN STATE LTD
TD @ 9610'
11/13/2013 @ 1:10
THANK YOU
COLUMBINE LC

MD 9468'
INC 90.9°
AZM 267.2°
TVD 5662.51'

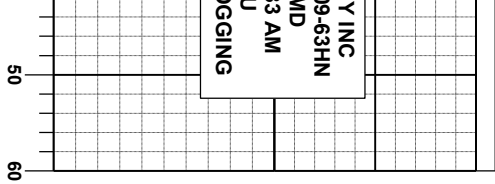
MD 9540'
INC 90.9°
AZM 266.8°
TVD 5661.38'

PROJ TO BIT
MD 9610'
INC 90.9°
AZM 266.8°
TVD 5660.28'

WT IN 10.30/ OUT 10.30
VIS IN 35/ OUT 35

NOBLE ENERGY
ROHN STATE LTD
TD @ 9610'
11/13/2013 @ 1:10





Y INC
09-63HN
MD
3 AM

