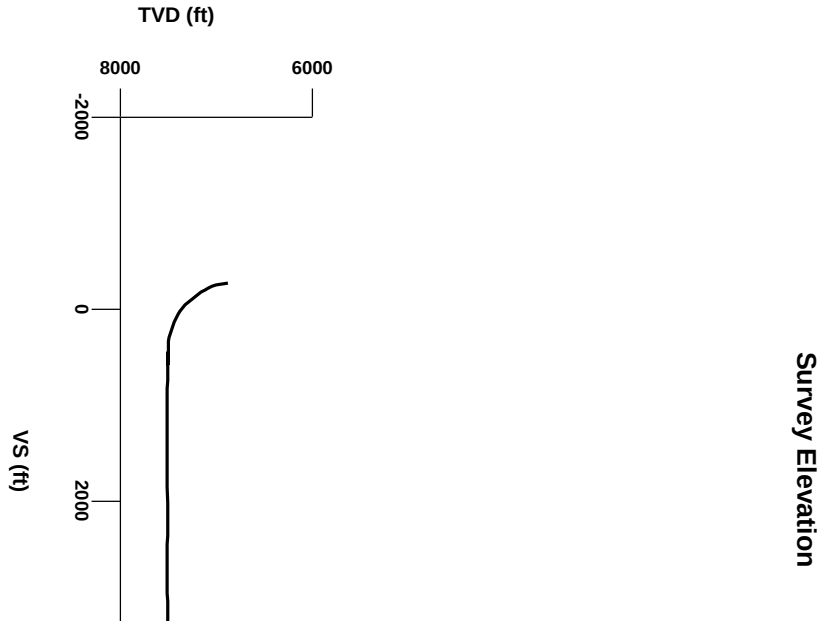
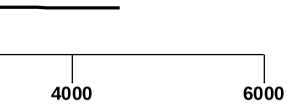
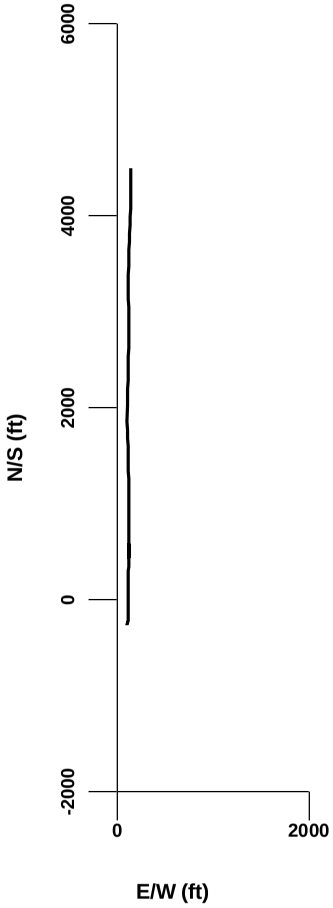
LOG created using LPLOT VH Version 3.0, June 17, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR:	**ANADARKO PETROLEUM INC.**
WELL:	**WISHBONE 29C-24HZ**
LOCATION:	**SEC 24 T2N R66W**
COUNTY:	**WELD**
STATE:	**CO**
SPOT:	**320' FSL, 980' FWL**
ELEVATION:	**GL 5082' / KB 5099'**
FIELD:	**WATTENBERG - 90750**
SPUD DATE:	**6/11/2013**
TD DATE:	**6/17/2013**
DATES LOGGED:	**6/12/2013 - 6/17/2013**
DEPTHS LOGGED:	**6899' - 11999'**
LOGGERS:	**RIKKI WITHERSPOON, ROBERT DAVIS**
DRILLING FLUID:	**FW LSND**
DRILLING RIG:	**XTREME 8**
API:	**05-123-37153**
LOG TYPE:	**HORIZONTAL**
SCALE:	**1:240 (5 inches per 100 feet)**
REMARKS:	**WELLSITE GEOLOGICAL SERVICES PROVIDED BY COLUMBINE LOGGING INC.**
	LOGGING BEGAN AT KOP





Survey Plan

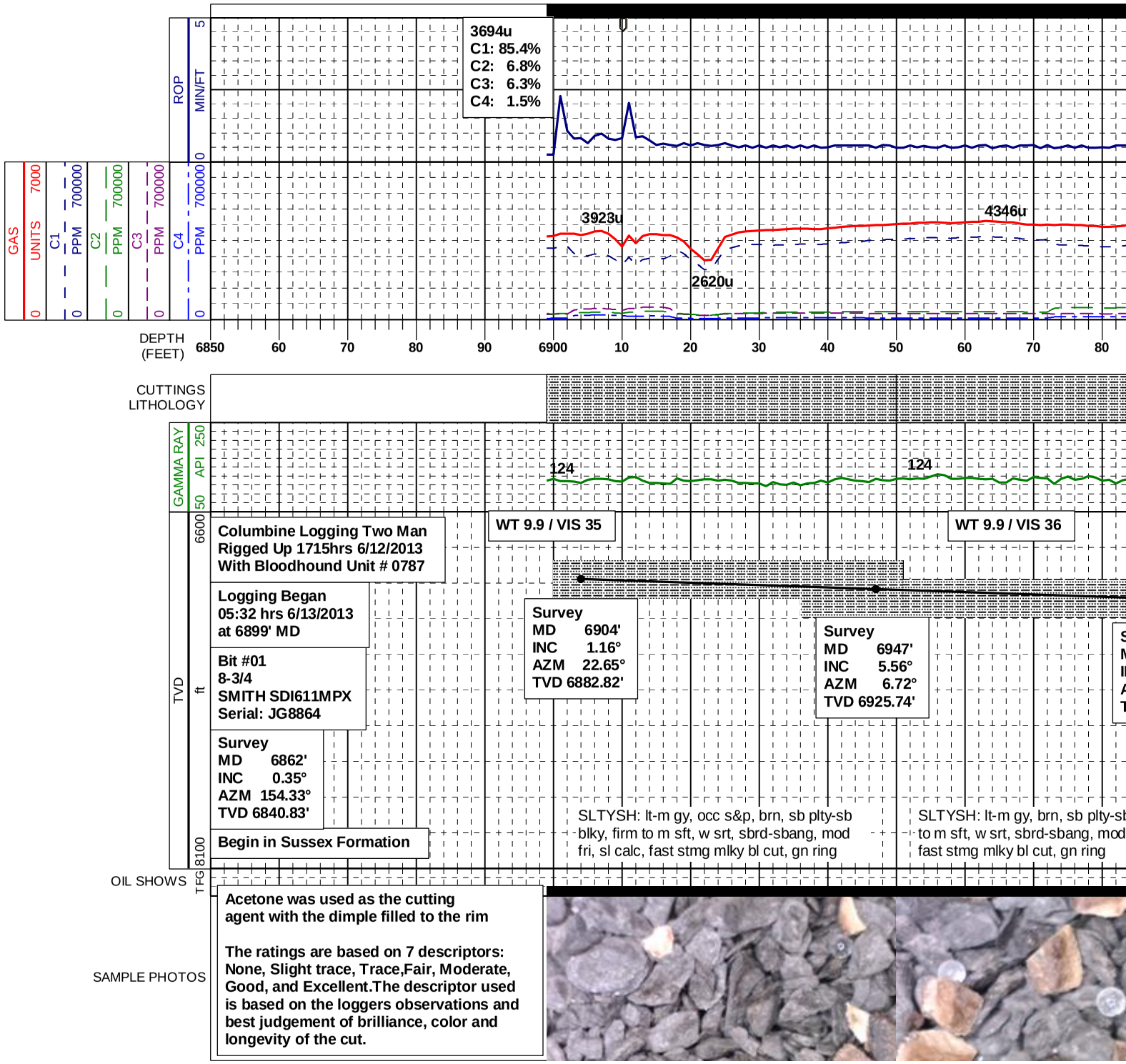


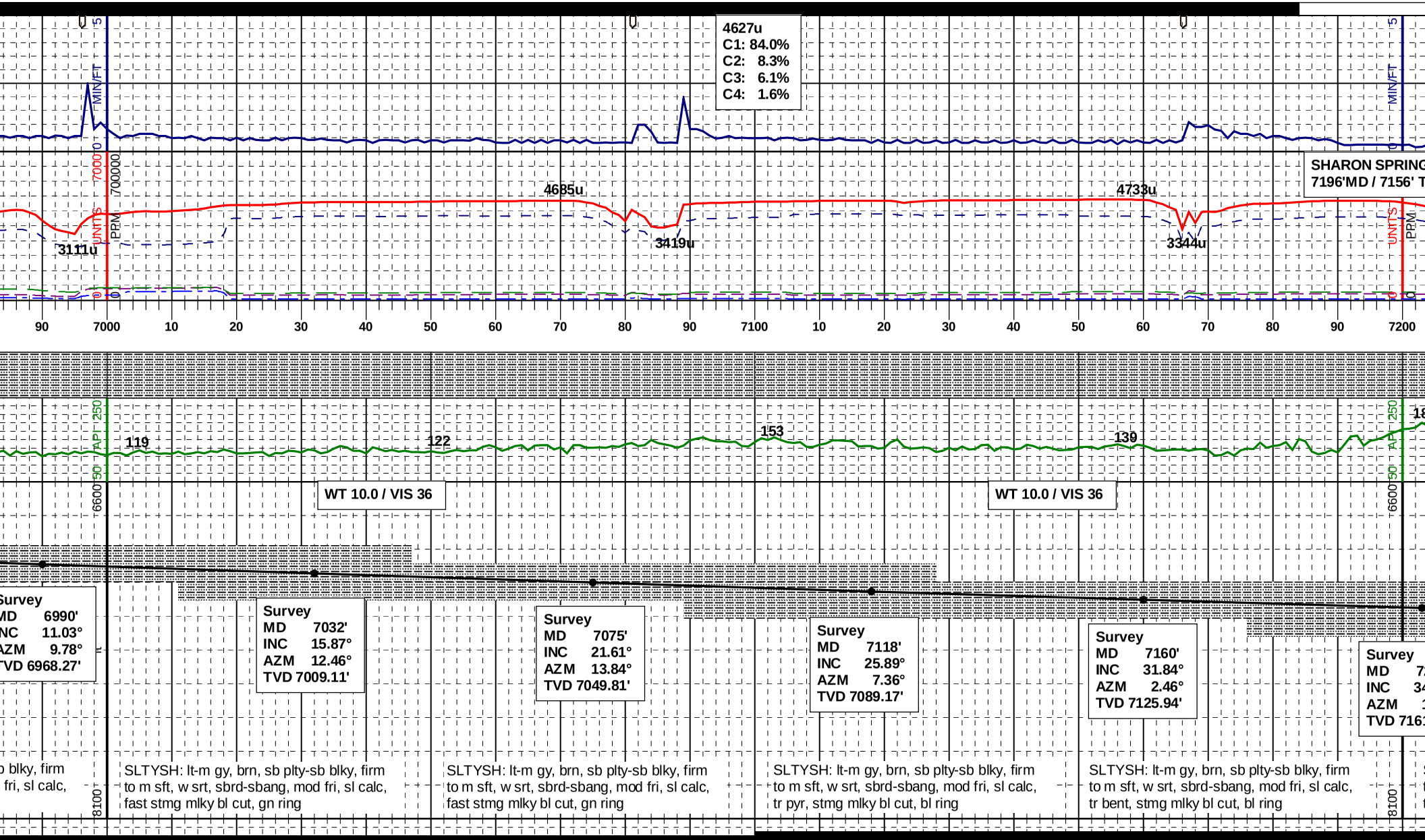
LITHOLOGIES

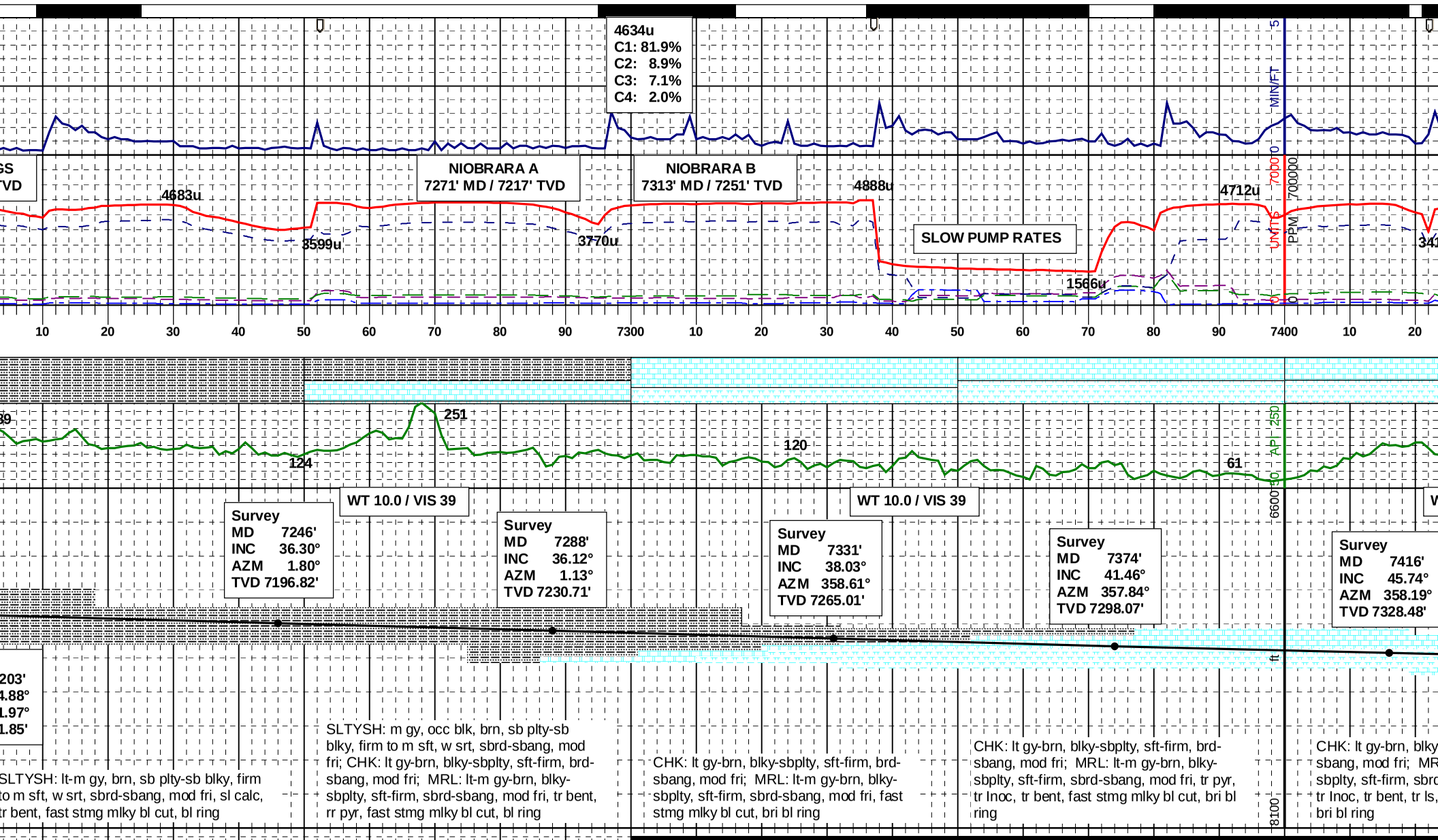
Chalk, Limestone, Marl, Sandstone, Silty Shale

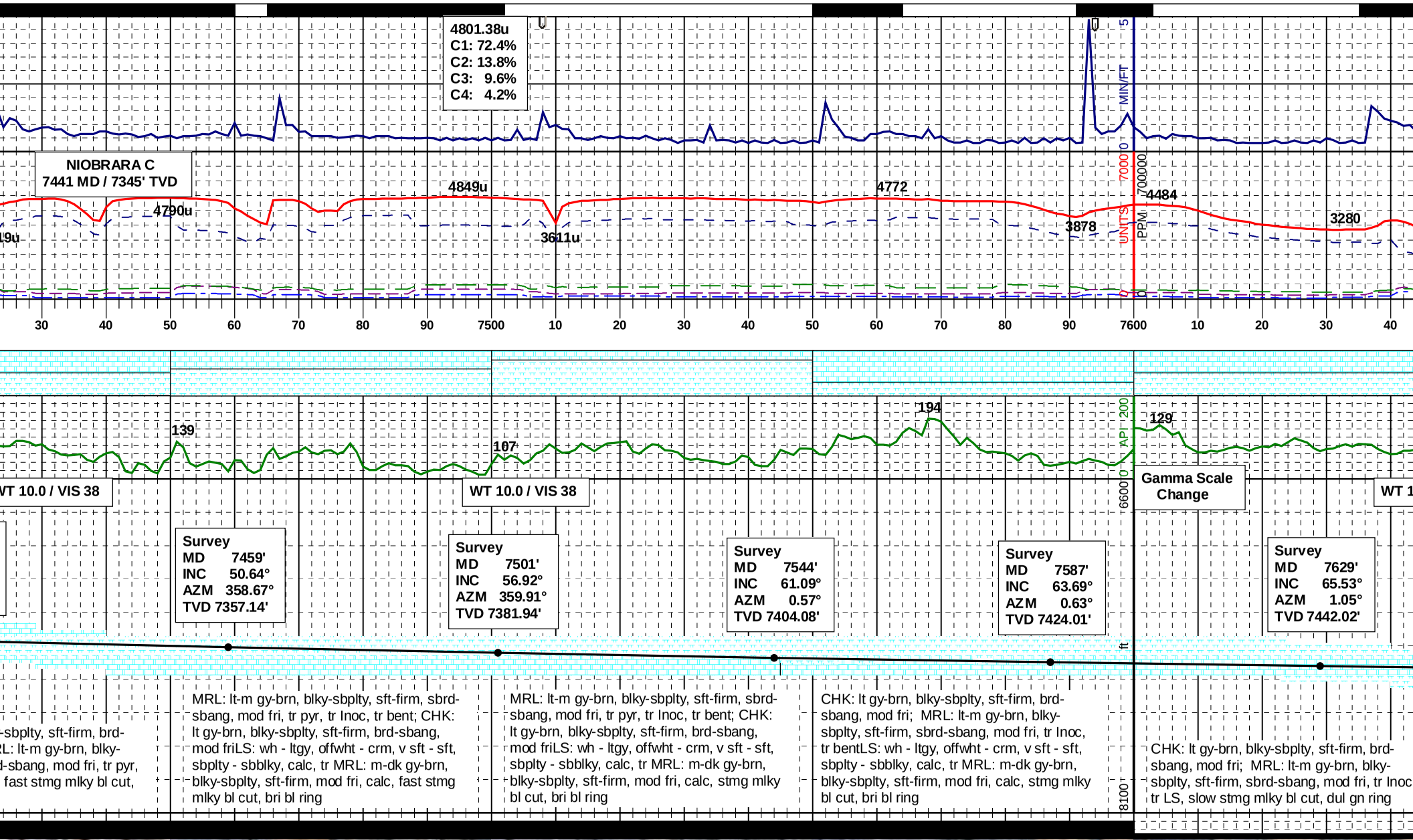
ENGINEERING SYMBOLS

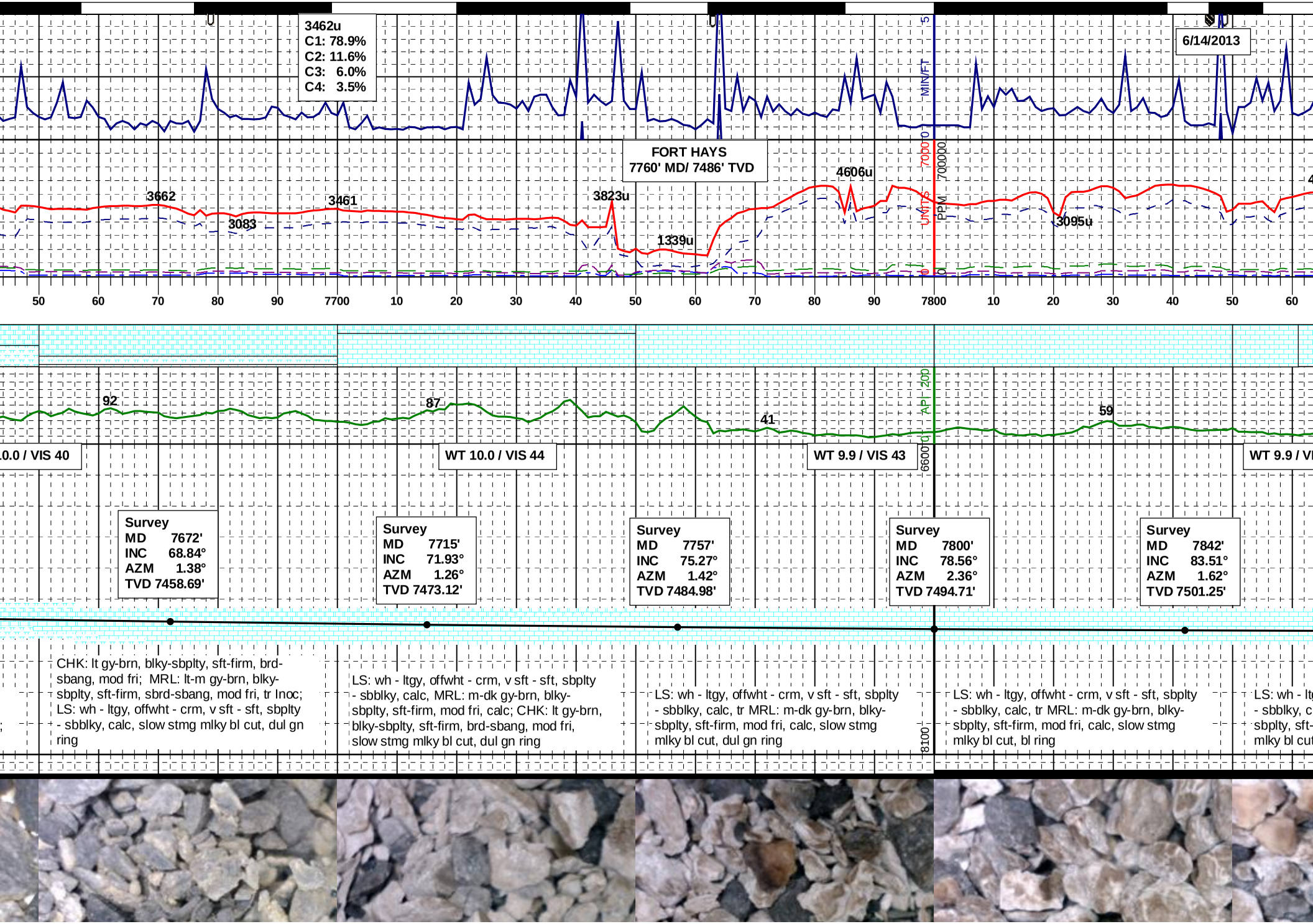
Casing, Connection, Trip Gas, Casing, Normal Fault, Midnight Depth




4627u
C1: 84.0%
C2: 8.3%
C3: 6.1%
C4: 1.6%
SHARON SPRING
7196'MD / 7156' T
4685u
4733u
3111u
3419u
3344u
MIN/FT
UNITS
PPM
90
7000
10
20
30
40
50
60
70
80
90
7100
10
20
30
40
50
60
70
80
90
7200
119
122
153
139
WT 10.0 / VIS 36
WT 10.0 / VIS 36
Survey
MD 6990'
INC 11.03°
AZM 9.78°
TVD 6968.27'
Survey
MD 7032'
INC 15.87°
AZM 12.46°
TVD 7009.11'
Survey
MD 7075'
INC 21.61°
AZM 13.84°
TVD 7049.81'
Survey
MD 7118'
INC 25.89°
AZM 7.36°
TVD 7089.17'
Survey
MD 7160'
INC 31.84°
AZM 2.46°
TVD 7125.94'
Survey
MD 7
INC 34
AZM
TVD 716
b blky, firm
fri, sl calc,
SLTYSH: lt-m gy, brn, sb plty-sb blky, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, fast stmg mlky bl cut, gn ring
SLTYSH: lt-m gy, brn, sb plty-sb blky, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, fast stmg mlky bl cut, gn ring
SLTYSH: lt-m gy, brn, sb plty-sb blky, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, tr pyr, stmg mlky bl cut, bl ring
SLTYSH: lt-m gy, brn, sb plty-sb blky, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, tr bent, stmg mlky bl cut, bl ring


4634u
C1: 81.9%
C2: 8.9%
C3: 7.1%
C4: 2.0%
NIOBRARA A
7271' MD / 7217' TVD
NIOBRARA B
7313' MD / 7251' TVD
4683u
3599u
3770u
4888u
SLOW PUMP RATES
1566u
4712u
MIN/FT
UNITS
PPM
10 20 30 40 50 60 70 80 90 7300 10 20 30 40 50 60 70 80 90 7400 10 20
124
251
120
61
API
WT 10.0 / VIS 39
WT 10.0 / VIS 39
Survey
MD 7246'
INC 36.30°
AZM 1.80°
TVD 7196.82'
Survey
MD 7288'
INC 36.12°
AZM 1.13°
TVD 7230.71'
Survey
MD 7331'
INC 38.03°
AZM 358.61°
TVD 7265.01'
Survey
MD 7374'
INC 41.46°
AZM 357.84°
TVD 7298.07'
Survey
MD 7416'
INC 45.74°
AZM 358.19°
TVD 7328.48'
ft
SLTYSH: lt-m gy, brn, sb plty-sb blky, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, tr bent, fast stmg mlky bl cut, bl ring
SLTYSH: m gy, occ blk, brn, sb plty-sb blky, firm to m sft, w srt, sbrd-sbang, mod fri; CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod fri; MRL: lt-m gy-brn, blky-sbplty, sft-firm, sbrd-sbang, mod fri, tr bent, rr pyr, fast stmg mlky bl cut, bl ring
CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod fri; MRL: lt-m gy-brn, blky-sbplty, sft-firm, sbrd-sbang, mod fri, fast stmg mlky bl cut, bri bl ring
CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod fri; MRL: lt-m gy-brn, blky-sbplty, sft-firm, sbrd-sbang, mod fri, tr pyr, tr Inoc, tr bent, fast stmg mlky bl cut, bri bl ring
CHK: lt gy-brn, blky
sbang, mod fri; MR
sbplty, sft-firm, sbrd
tr Inoc, tr bent, tr ls,
bri bl ring


4801.38u
C1: 72.4%
C2: 13.8%
C3: 9.6%
C4: 4.2%
NIOBRARA C
7441 MD / 7345' TVD
4790u
4849u
3611u
4772
3878
4484
3280
UNITS
PPM
MIN/FT
30
40
50
60
70
80
90
7500
10
20
30
40
50
60
70
80
90
7600
10
20
30
40
139
107
194
129
API
ft
WT 10.0 / VIS 38
WT 10.0 / VIS 38
Gamma Scale Change
Survey
MD 7459'
INC 50.64°
AZM 358.67°
TVD 7357.14'
Survey
MD 7501'
INC 56.92°
AZM 359.91°
TVD 7381.94'
Survey
MD 7544'
INC 61.09°
AZM 0.57°
TVD 7404.08'
Survey
MD 7587'
INC 63.69°
AZM 0.63°
TVD 7424.01'
Survey
MD 7629'
INC 65.53°
AZM 1.05°
TVD 7442.02'
-sbplty, sft-firm, brd-
L: lt-m gy-brn, blky-
d-sbang, mod fri, tr pyr,
fast stmg mlky bl cut,
MRL: lt-m gy-brn, blky-sbplty, sft-firm, sbrd-sbang, mod fri, tr pyr, tr Inoc, tr bent; CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod friLS: wh - ltgy, offwht - crm, v sft - sft, sbplty - sbblky, calc, tr MRL: m-dk gy-brn, blky-sbplty, sft-firm, mod fri, calc, fast stmg mlky bl cut, bri bl ring
MRL: lt-m gy-brn, blky-sbplty, sft-firm, sbrd-sbang, mod fri, tr pyr, tr Inoc, tr bent; CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod friLS: wh - ltgy, offwht - crm, v sft - sft, sbplty - sbblky, calc, tr MRL: m-dk gy-brn, blky-sbplty, sft-firm, mod fri, calc, stmg mlky bl cut, bri bl ring
CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod fri; MRL: lt-m gy-brn, blky-sbplty, sft-firm, sbrd-sbang, mod fri, tr Inoc, tr bentLS: wh - ltgy, offwht - crm, v sft - sft, sbplty - sbblky, calc, tr MRL: m-dk gy-brn, blky-sbplty, sft-firm, mod fri, calc, stmg mlky bl cut, bri bl ring
CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod fri; MRL: lt-m gy-brn, blky-sbplty, sft-firm, sbrd-sbang, mod fri, tr Inoc tr LS, slow stmg mlky bl cut, dul gn ring


3462u
C1: 78.9%
C2: 11.6%
C3: 6.0%
C4: 3.5%
6/14/2013
MIN/FT
FORT HAYS
7760' MD/ 7486' TVD
4606u
3662
3461
3823u
3083
1339u
3095u
UNITS
PPM
700000
50 60 70 80 90 7700 10 20 30 40 50 60 70 80 90 7800 10 20 30 40 50 60
92
87
41
59
API
200
6600
8100
WT 10.0 / VIS 40
WT 10.0 / VIS 44
WT 9.9 / VIS 43
WT 9.9 / VI
Survey
MD 7672'
INC 68.84°
AZM 1.38°
TVD 7458.69'
Survey
MD 7715'
INC 71.93°
AZM 1.26°
TVD 7473.12'
Survey
MD 7757'
INC 75.27°
AZM 1.42°
TVD 7484.98'
Survey
MD 7800'
INC 78.56°
AZM 2.36°
TVD 7494.71'
Survey
MD 7842'
INC 83.51°
AZM 1.62°
TVD 7501.25'
CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod fri; MRL: lt-m gy-brn, blky-sbplty, sft-firm, sbrd-sbang, mod fri, tr Inoc; LS: wh - ltgy, offwht - crm, v sft - sft, sbplty - sbblky, calc, slow stmg mlky bl cut, dul gn ring
LS: wh - ltgy, offwht - crm, v sft - sft, sbplty - sbblky, calc, MRL: m-dk gy-brn, blky-sbplty, sft-firm, mod fri, calc; CHK: lt gy-brn, blky-sbplty, sft-firm, brd-sbang, mod fri, slow stmg mlky bl cut, dul gn ring
LS: wh - ltgy, offwht - crm, v sft - sft, sbplty - sbblky, calc, tr MRL: m-dk gy-brn, blky-sbplty, sft-firm, mod fri, calc, slow stmg mlky bl cut, dul gn ring
LS: wh - ltgy, offwht - crm, v sft - sft, sbplty - sbblky, calc, tr MRL: m-dk gy-brn, blky-sbplty, sft-firm, mod fri, calc, slow stmg mlky bl cut, bl ring

4682u
C1: 80.5%
C2: 10.9%
C3: 6.9%
C4: 1.6%

6/15-16/2013

MIN/FT 5

4325u 4681u 4488u 4653u 4813u

SLOW PUMP RATES

2011u 3202u 3861u

UNITS 7000000 PPM 100000

70 80 90 7900 10 20 30 40 50 60 70 80 90 8000 10 20 30 40 50 60 70 80

API 200

40 9 10 20 23

IS 42

Bit #02
6-1/8
VER A09209
Serial: 4005718

6600

Survey
MD 7878'
INC 87.41°
AZM 0.98°
TVD 7504.15'

Survey
MD 7950'
INC 89.02°
AZM 0.42°
TVD 7506.35'

Survey
MD 7992'
INC 88.92°
AZM 0.62°
TVD 7507.10'

Survey
MD 8078'
INC 89.02°
AZM 0.64°
TVD 7508.65'

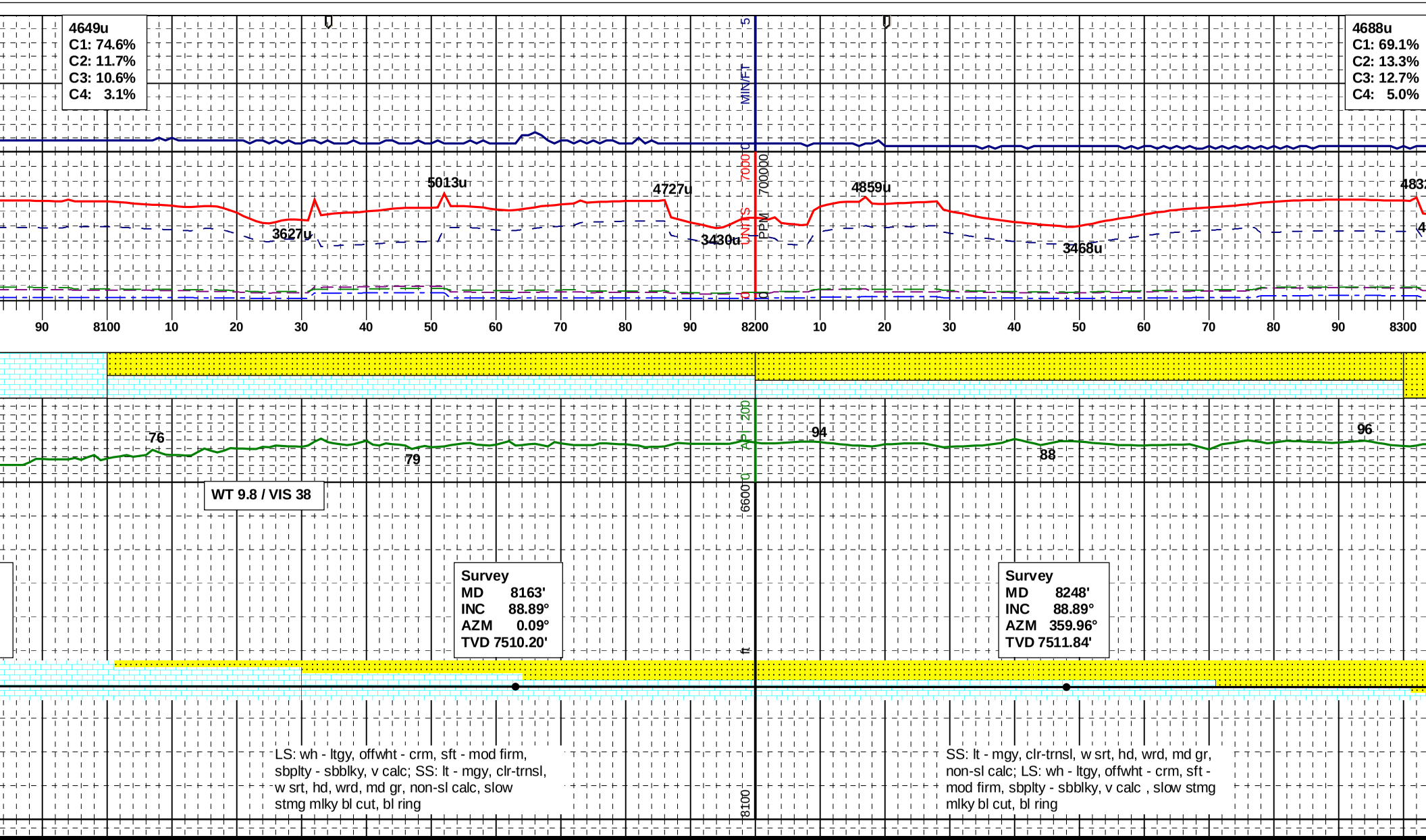
gy, offwht - crm, v sft - sft, sbplty
alc, tr MRL: m-dk gy-brn, blky-
firm, mod fri, calc, slow stmg
t, bl ring

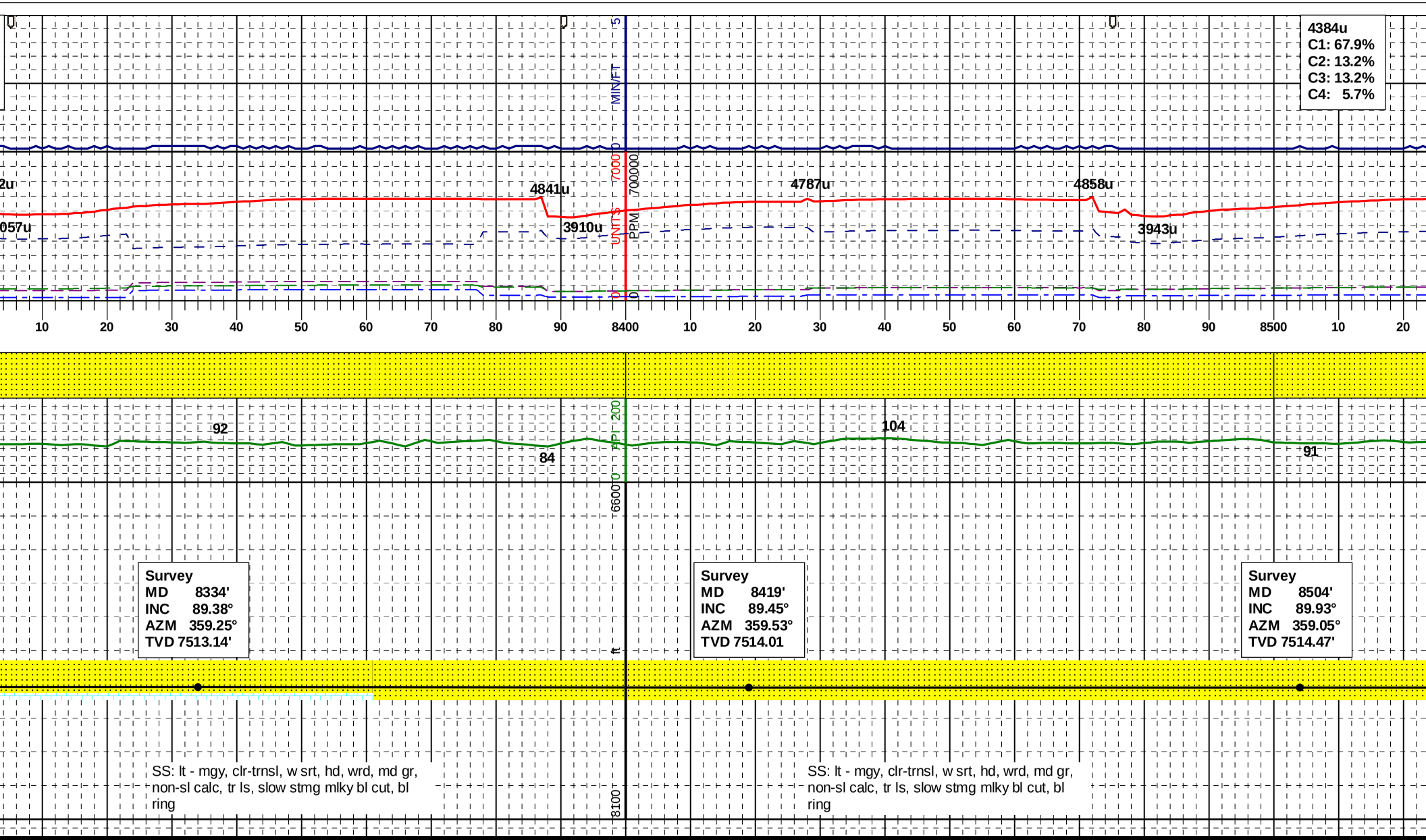
LS: wh - ltgy, offwht - crm, v sft - sft, sbplty
- sbblky, calc, tr MRL: m-dk gy-brn, blky-
sbplty, sft-firm, mod fri, calc, slow stmg
mlky bl cut, bl ring

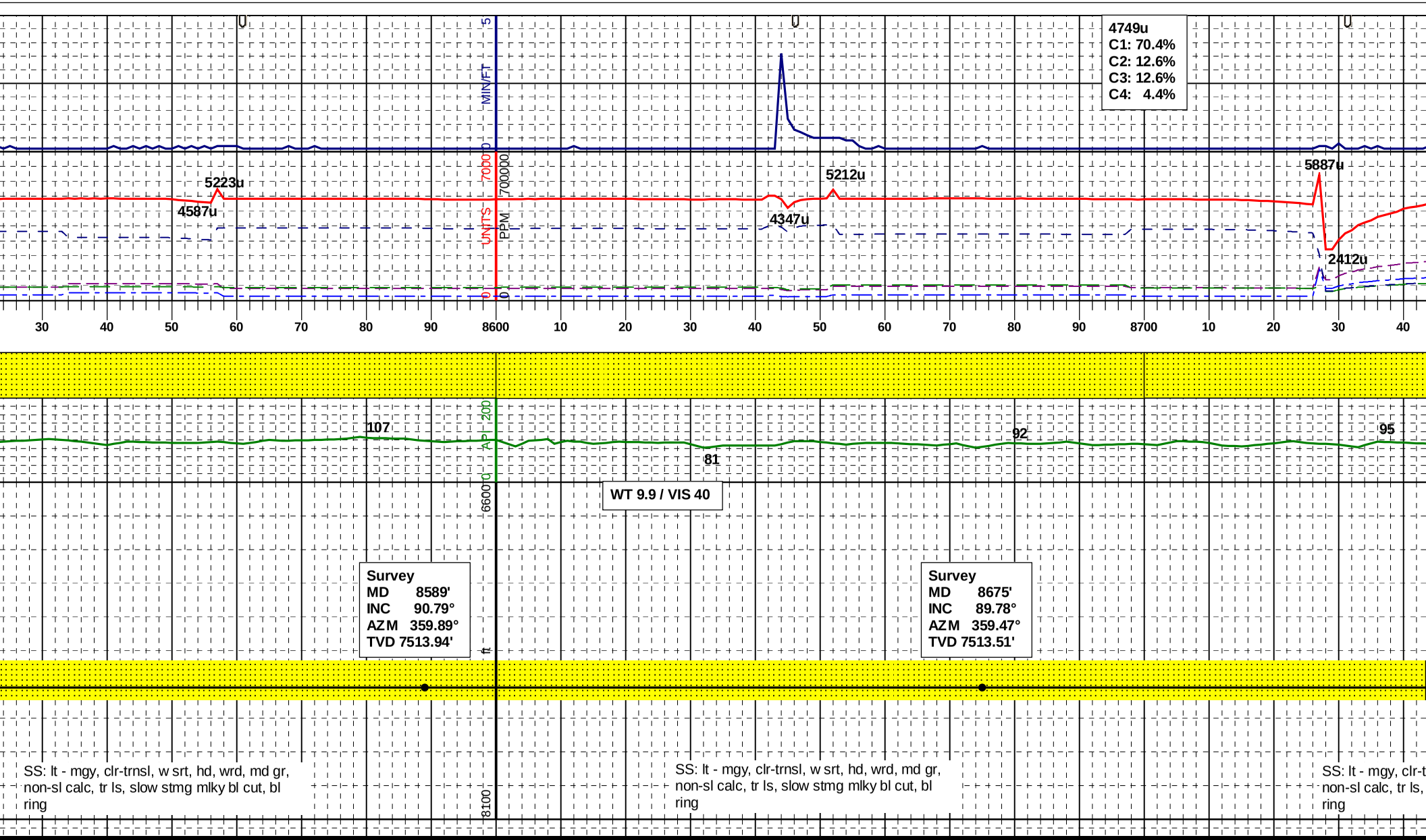
LS: wh - ltgy, offwht - crm, v sft - sft, sbplty
- sbblky, calc, slow stmg mlky bl cut, bl ring

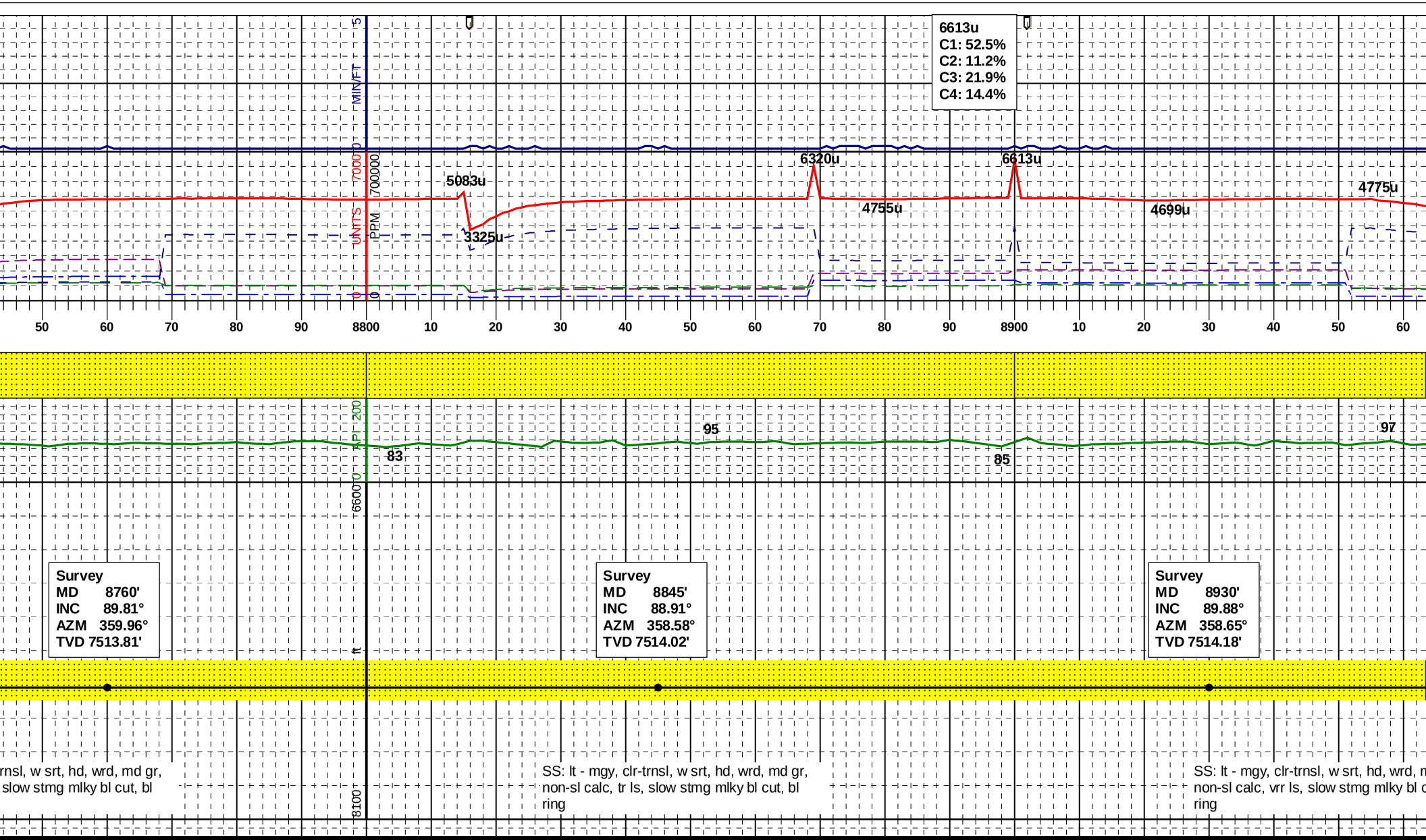
8100

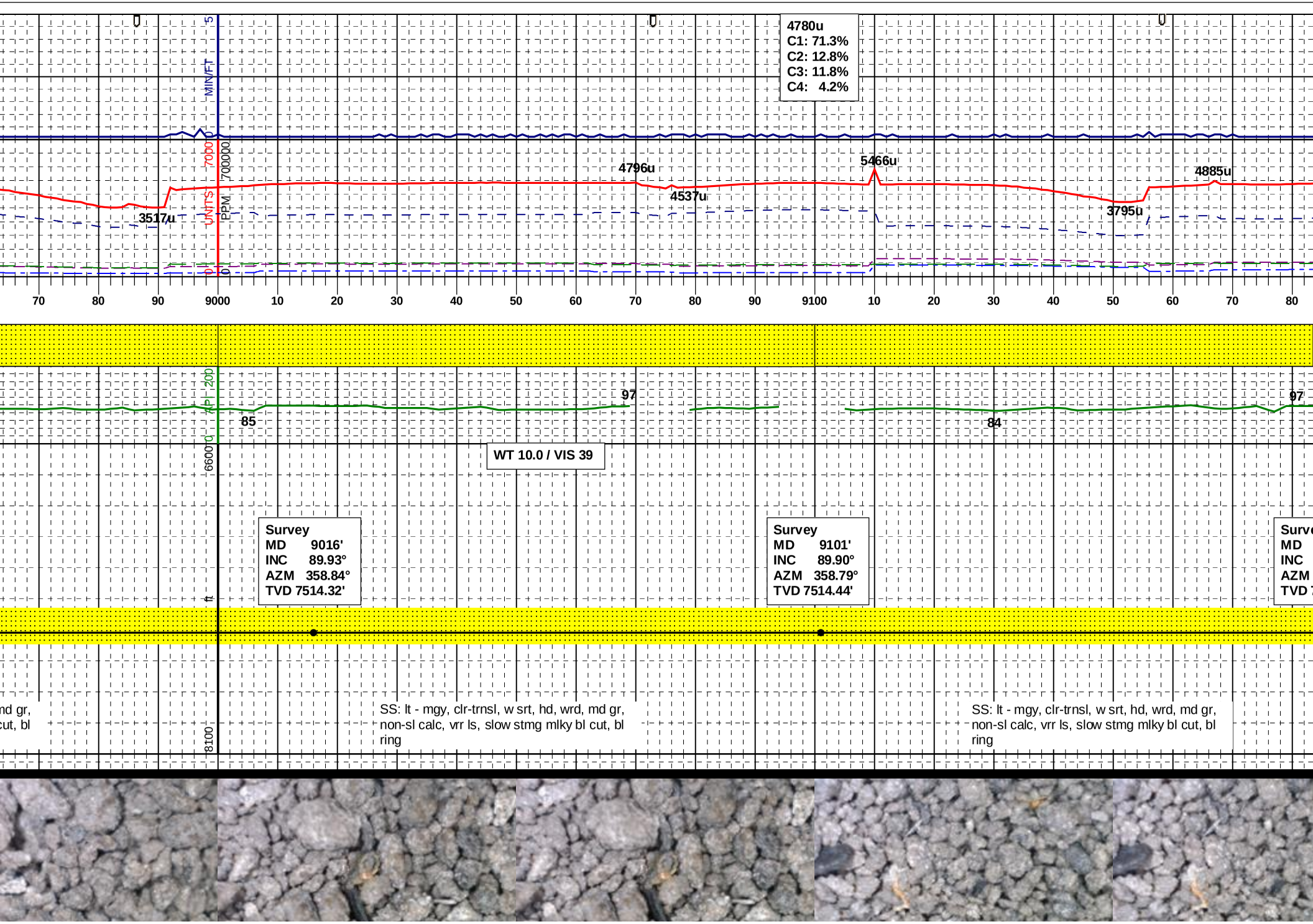
LS: ltgy, offwht - crm, v sft - sft, sbplty -
sbblky, calc, slow stmg mlky bl cut, bl ring

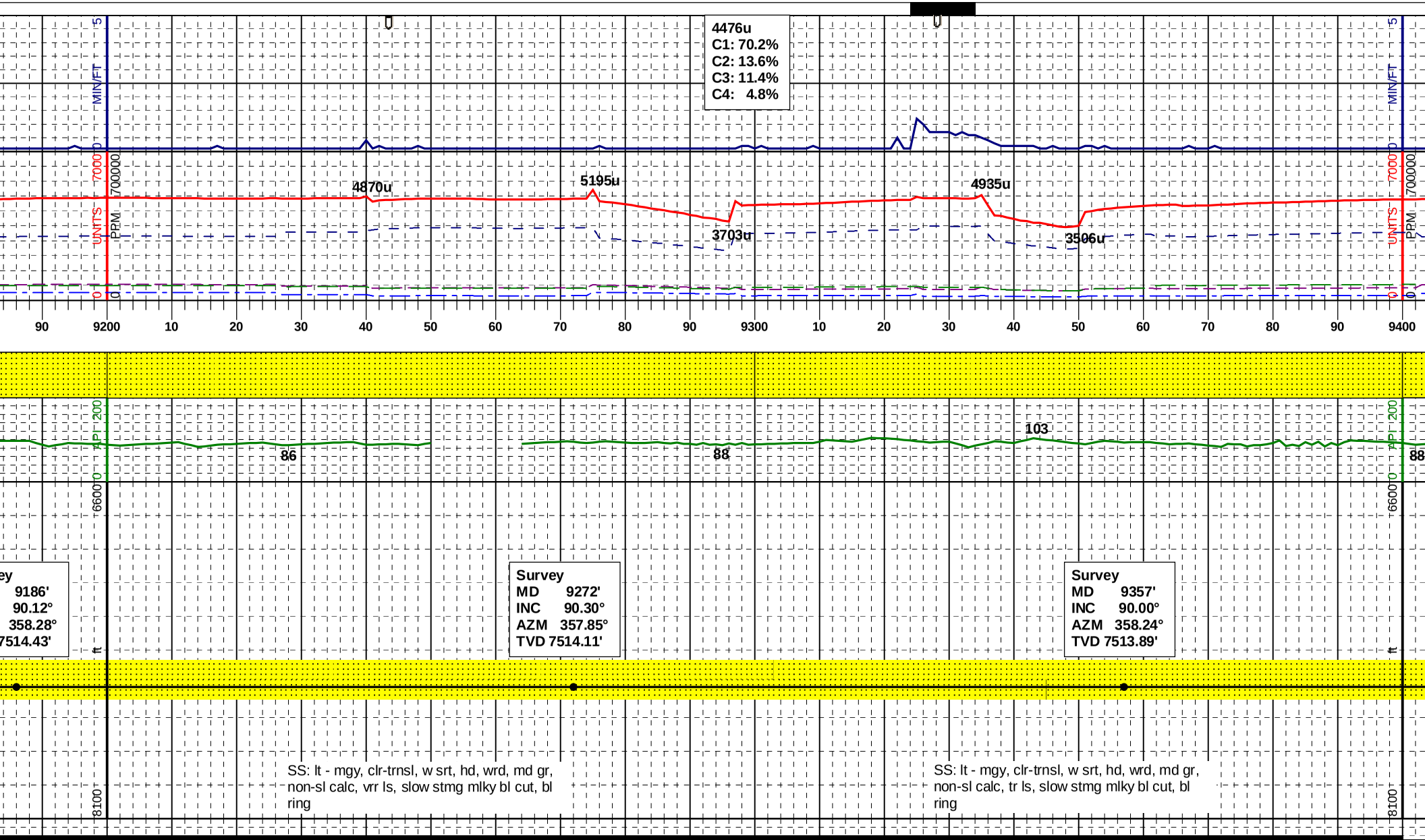

4649u
C1: 74.6%
C2: 11.7%
C3: 10.6%
C4: 3.1%
4688u
C1: 69.1%
C2: 13.3%
C3: 12.7%
C4: 5.0%
MIN/FT
UNITS
PPM
3627u
5013u
4727u
3430u
4859u
3468u
90
8100
10
20
30
40
50
60
70
80
90
8200
10
20
30
40
50
60
70
80
90
8300
API
76
79
94
88
96
WT 9.8 / VIS 38
Survey
MD 8163'
INC 88.89°
AZM 0.09°
TVD 7510.20'
Survey
MD 8248'
INC 88.89°
AZM 359.96°
TVD 7511.84'
ft
8100
LS: wh - ltgy, offwht - crm, sft - mod firm, sbplty - sbblky, v calc; SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc; LS: wh - ltgy, offwht - crm, sft - mod firm, sbplty - sbblky, v calc , slow stmg mlky bl cut, bl ring

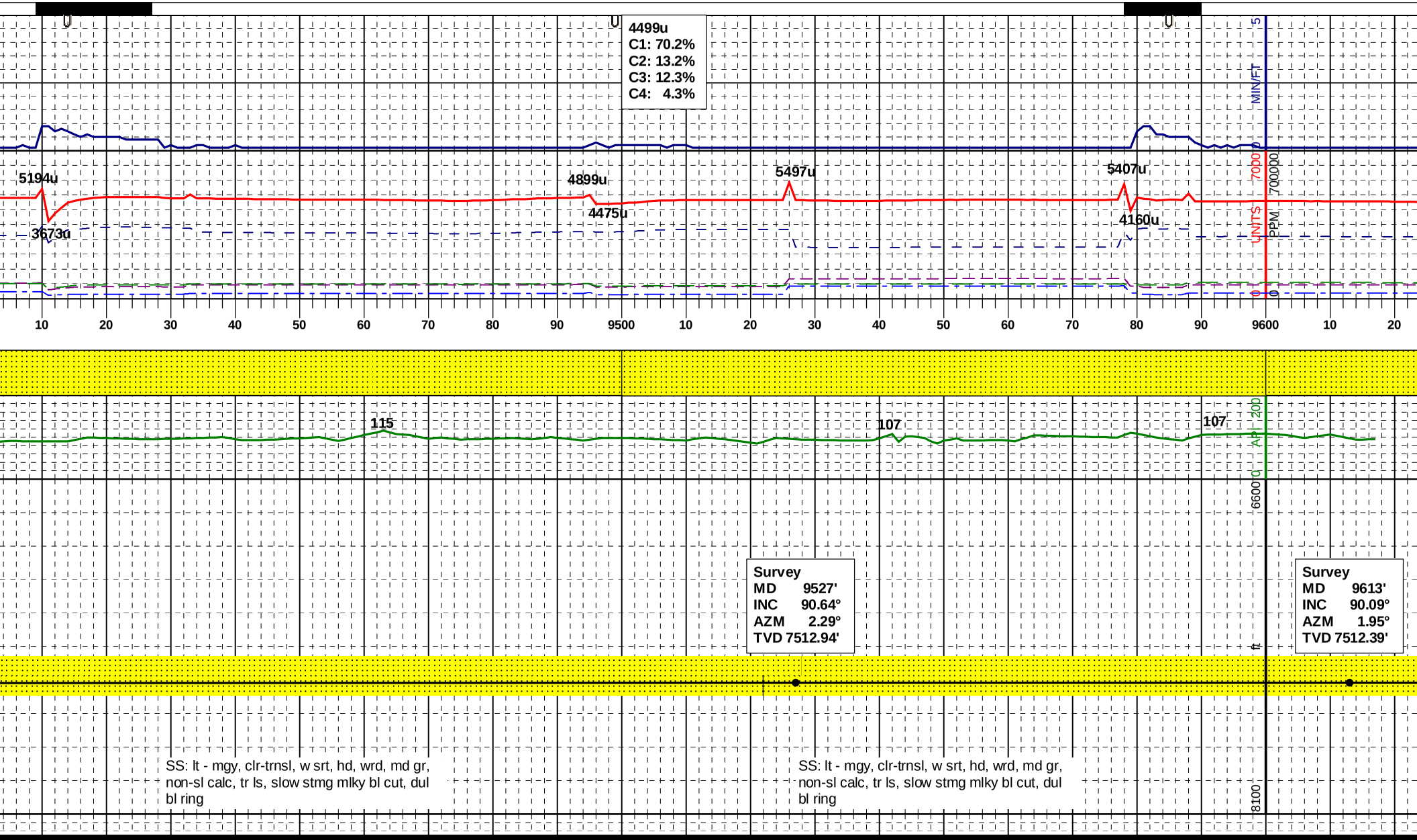

4384u
C1: 67.9%
C2: 13.2%
C3: 13.2%
C4: 5.7%
MIN/FT
UNITS
RPM
4841u
3910u
4787u
4858u
3943u
API
92
84
104
91
Survey
MD 8334'
INC 89.38°
AZM 359.25°
TVD 7513.14'
Survey
MD 8419'
INC 89.45°
AZM 359.53°
TVD 7514.01
Survey
MD 8504'
INC 89.93°
AZM 359.05°
TVD 7514.47'
ft
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, bl ring

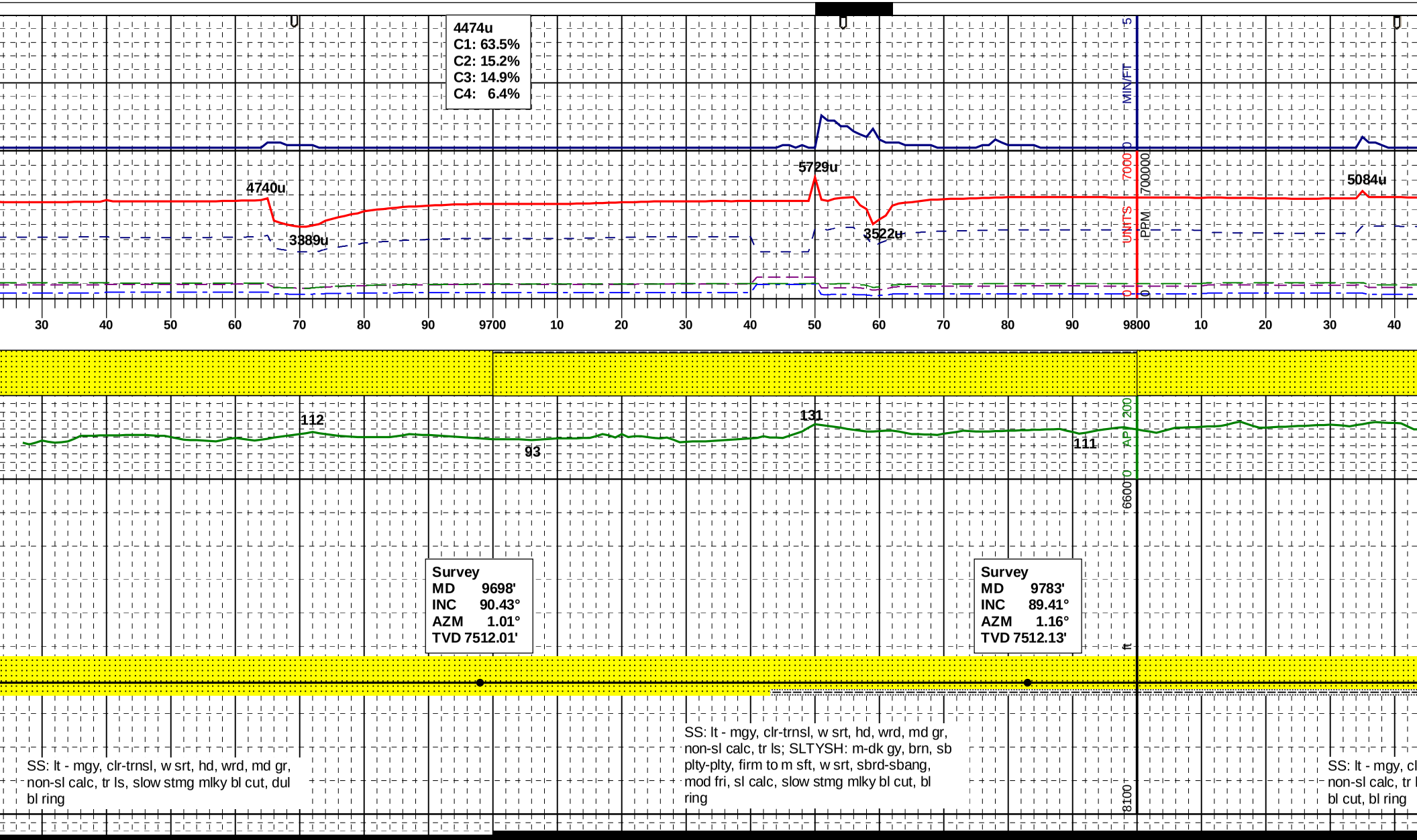

4749u
C1: 70.4%
C2: 12.6%
C3: 12.6%
C4: 4.4%
MIN/FT
UNITS
PPM
5223u
4587u
4347u
5212u
5887u
2412u
30 40 50 60 70 80 90 8600 10 20 30 40 50 60 70 80 90 8700 10 20 30 40
API
107
81
92
95
WT 9.9 / VIS 40
Survey
MD 8589'
INC 90.79°
AZM 359.89°
TVD 7513.94'
Survey
MD 8675'
INC 89.78°
AZM 359.47°
TVD 7513.51'
ft
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-t non-sl calc, tr ls, ring

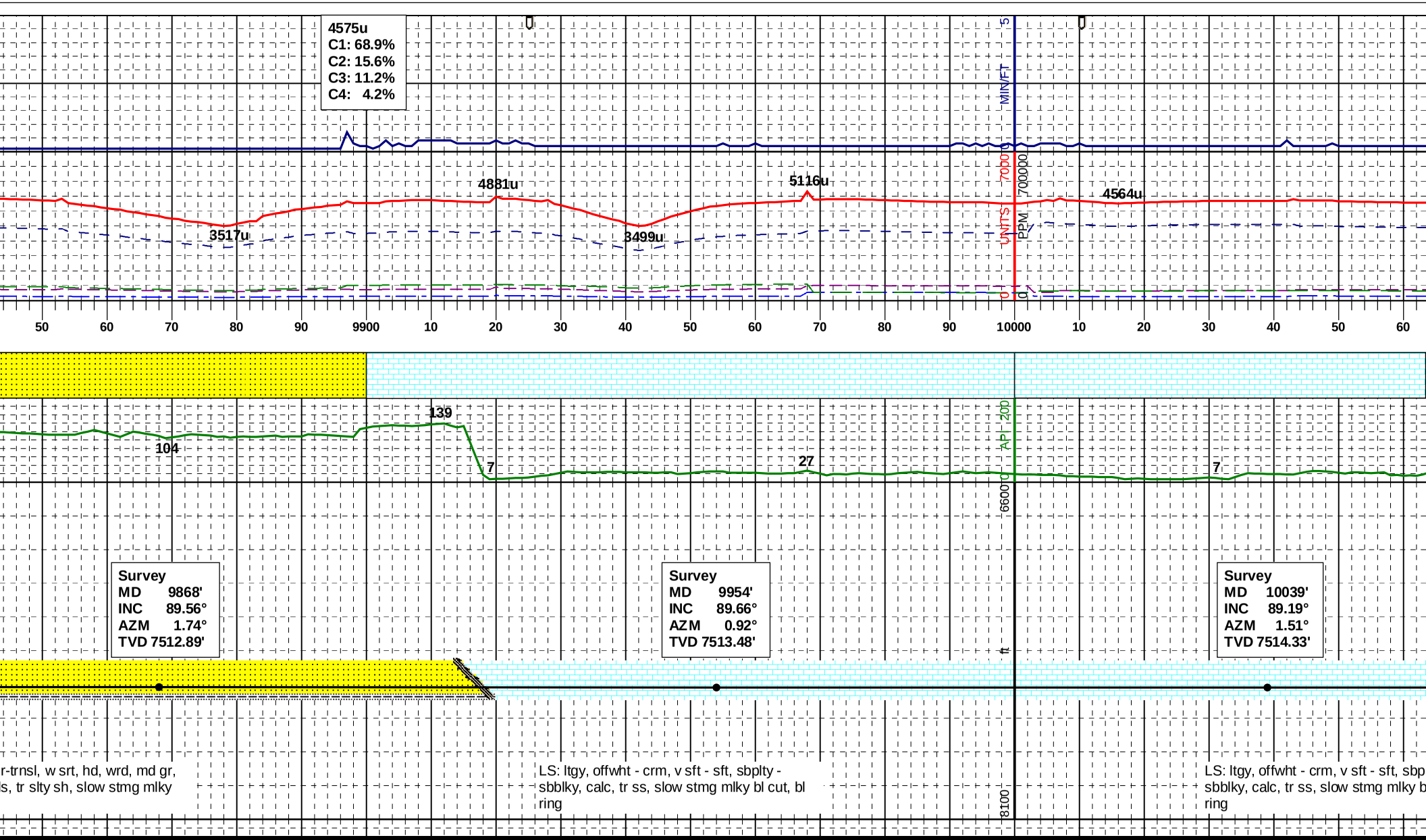

6613u
C1: 52.5%
C2: 11.2%
C3: 21.9%
C4: 14.4%
5083u
3325u
6320u
4755u
6613u
4699u
4775u
MIN/FT
UNITS
PPM
API
ft
83
95
85
97
Survey
MD 8760'
INC 89.81°
AZM 359.96°
TVD 7513.81'
Survey
MD 8845'
INC 88.91°
AZM 358.58°
TVD 7514.02'
Survey
MD 8930'
INC 89.88°
AZM 358.65°
TVD 7514.18'
rnsl, w srt, hd, wrd, md gr,
slow stmg mlky bl cut, bl
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr,
non-sl calc, tr ls, slow stmg mlky bl cut, bl
ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd,
non-sl calc, vrr ls, slow stmg mlky bl
ring

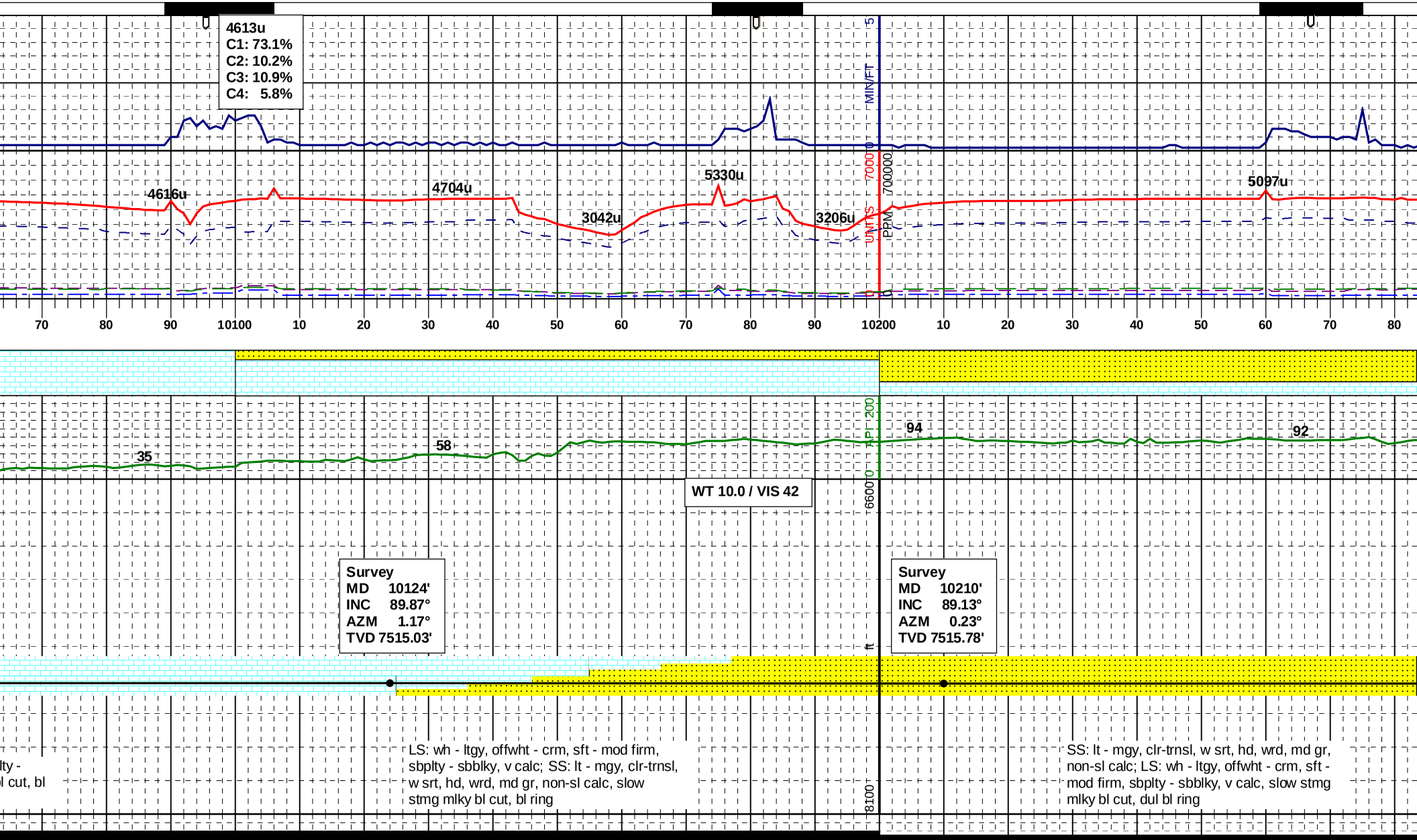

4780u
C1: 71.3%
C2: 12.8%
C3: 11.8%
C4: 4.2%
MIN/FT
UNITS
PPM
3517u
4796u
4537u
5466u
3795u
4885u
70
80
90
9000
10
20
30
40
50
60
70
80
90
9100
10
20
30
40
50
60
70
80
API
85
97
84
97
WT 10.0 / VIS 39
Survey
MD 9016'
INC 89.93°
AZM 358.84°
TVD 7514.32'
Survey
MD 9101'
INC 89.90°
AZM 358.79°
TVD 7514.44'
ft
md gr,
cut, bl
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, vrr ls, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, vrr ls, slow stmg mlky bl cut, bl ring


4476u
C1: 70.2%
C2: 13.6%
C3: 11.4%
C4: 4.8%
4870u
5195u
3703u
4935u
3506u
MIN/FT
UNITS
PPM
90
9200
10
20
30
40
50
60
70
80
90
9300
10
20
30
40
50
60
70
80
90
9400
API
86
88
103
88
ey
9186'
90.12°
358.28°
7514.43'
Survey
MD 9272'
INC 90.30°
AZM 357.85°
TVD 7514.11'
Survey
MD 9357'
INC 90.00°
AZM 358.24°
TVD 7513.89'
ft
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, vrr ls, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, bl ring


4499u
C1: 70.2%
C2: 13.2%
C3: 12.3%
C4: 4.3%
5194u
3673u
4899u
4475u
5497u
5407u
4160u
MIN/FT
UNITS
PPM
API
ft
115
107
107
Survey
MD 9527'
INC 90.64°
AZM 2.29°
TVD 7512.94'
Survey
MD 9613'
INC 90.09°
AZM 1.95°
TVD 7512.39'
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, dul bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, dul bl ring


4474u
C1: 63.5%
C2: 15.2%
C3: 14.9%
C4: 6.4%
4740u
3389u
5729u
3522u
5084u
MIN/FT
UNITS
PPM
30
40
50
60
70
80
90
9700
10
20
30
40
50
60
70
80
90
9800
10
20
30
40
112
93
131
111
AP
ft
Survey
MD 9698'
INC 90.43°
AZM 1.01°
TVD 7512.01'
Survey
MD 9783'
INC 89.41°
AZM 1.16°
TVD 7512.13'
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, dul bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls; SLTYSH: m-dk gy, brn, sb plty-plty, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, slow stmg mlky bl cut, bl ring
SS: lt - mgy, cl
non-sl calc, tr l
bl cut, bl ring


4575u
C1: 68.9%
C2: 15.6%
C3: 11.2%
C4: 4.2%
MIN/FT
5
0
4881u
5116u
4564u
3517u
3499u
UNITS
700000
PPM
700000
0
50
60
70
80
90
9900
10
20
30
40
50
60
70
80
90
10000
10
20
30
40
50
60
139
104
7
27
7
API
200
6600
Survey
MD 9868'
INC 89.56°
AZM 1.74°
TVD 7512.89'
Survey
MD 9954'
INC 89.66°
AZM 0.92°
TVD 7513.48'
Survey
MD 10039'
INC 89.19°
AZM 1.51°
TVD 7514.33'
ft
8100
r-trnsl, w srt, hd, wrd, md gr,
s, tr slty sh, slow stmg mlky
LS: ltgy, offwht - crm, v sft - sft, sbplty -
sbblky, calc, tr ss, slow stmg mlky bl cut, bl
ring
LS: ltgy, offwht - crm, v sft - sft, sbp
sbblky, calc, tr ss, slow stmg mlky b
ring


4613u
C1: 73.1%
C2: 10.2%
C3: 10.9%
C4: 5.8%
MIN/FT
UNITS
PPM
4616u
4704u
3042u
5330u
3206u
5097u
70 80 90 10100 10 20 30 40 50 60 70 80 90 10200 10 20 30 40 50 60 70 80
API
35
58
94
92
WT 10.0 / VIS 42
ft
Survey
MD 10124'
INC 89.87°
AZM 1.17°
TVD 7515.03'
Survey
MD 10210'
INC 89.13°
AZM 0.23°
TVD 7515.78'
lty -
l cut, bl
LS: wh - ltgy, offwht - crm, sft - mod firm, sbplty - sbblky, v calc; SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc; LS: wh - ltgy, offwht - crm, sft - mod firm, sbplty - sbblky, v calc, slow stmg mlky bl cut, dul bl ring

4720u
C1: 76.3%
C2: 10.6%
C3: 9.7%
C4: 3.4%

6/17/2013

4780u
C1: 79.1
C2: 9.6
C3: 8.3
C4: 3.0

4869u

4998u

MIN/FT 5

UNITS 70000

PPM 700000

90 10300 10 20 30 40 50 60 70 80 90 10400 10 20 30 40 50 60 70 80 90 10500

84

97

94

API 200

WT 10.0 / VIS 40

Survey
MD 10295'
INC 90.73°
AZM 0.30°
TVD 7515.88'

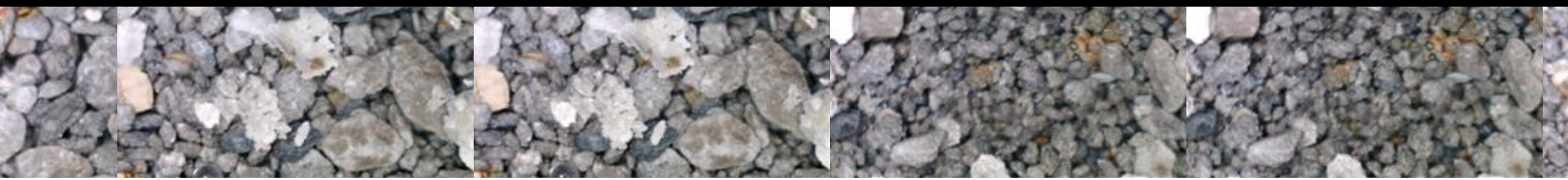
Survey
MD 10380'
INC 90.95°
AZM 0.15°
TVD 7514.64'

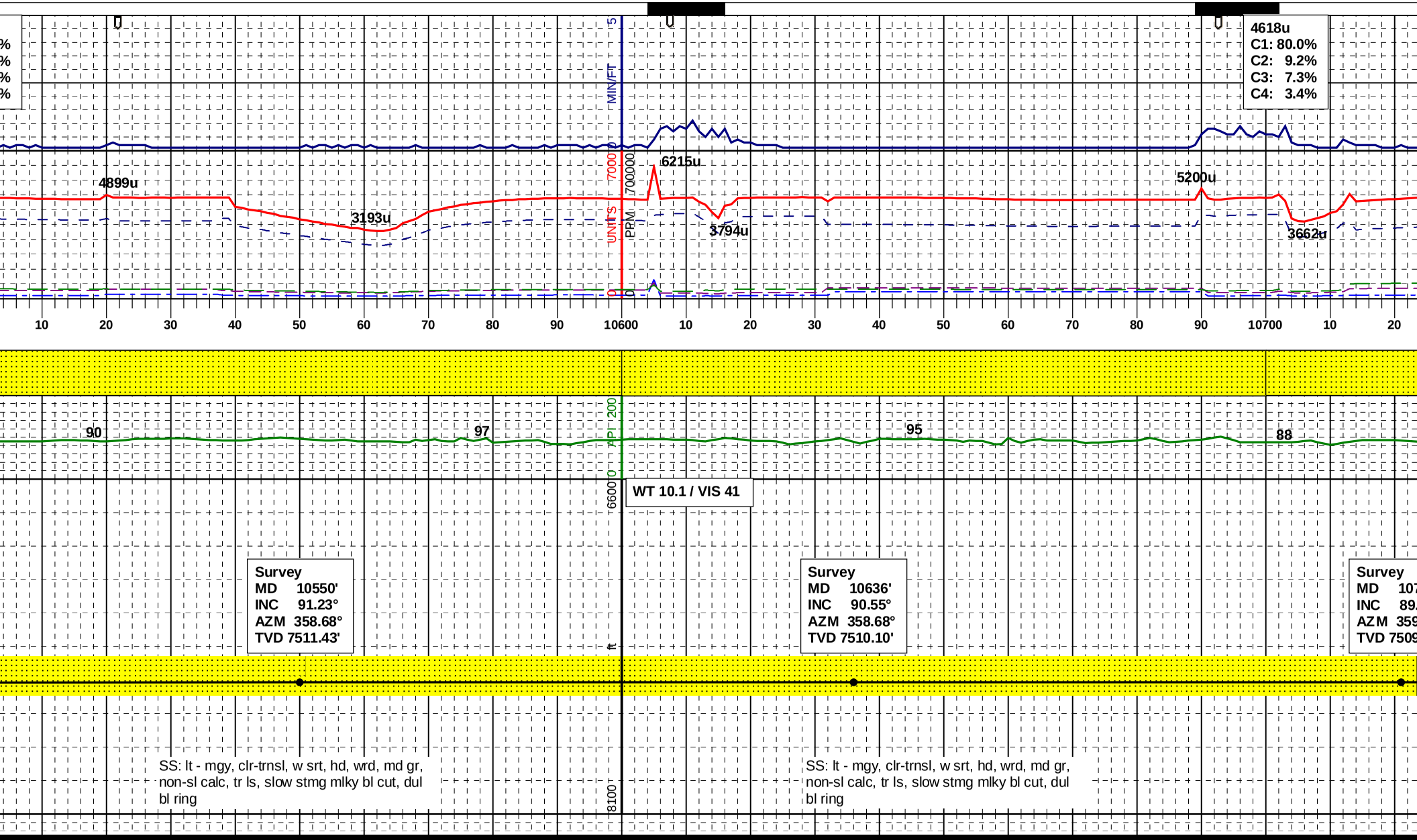
Survey
MD 10465'
INC 91.07°
AZM 359.39°
TVD 7513.14'

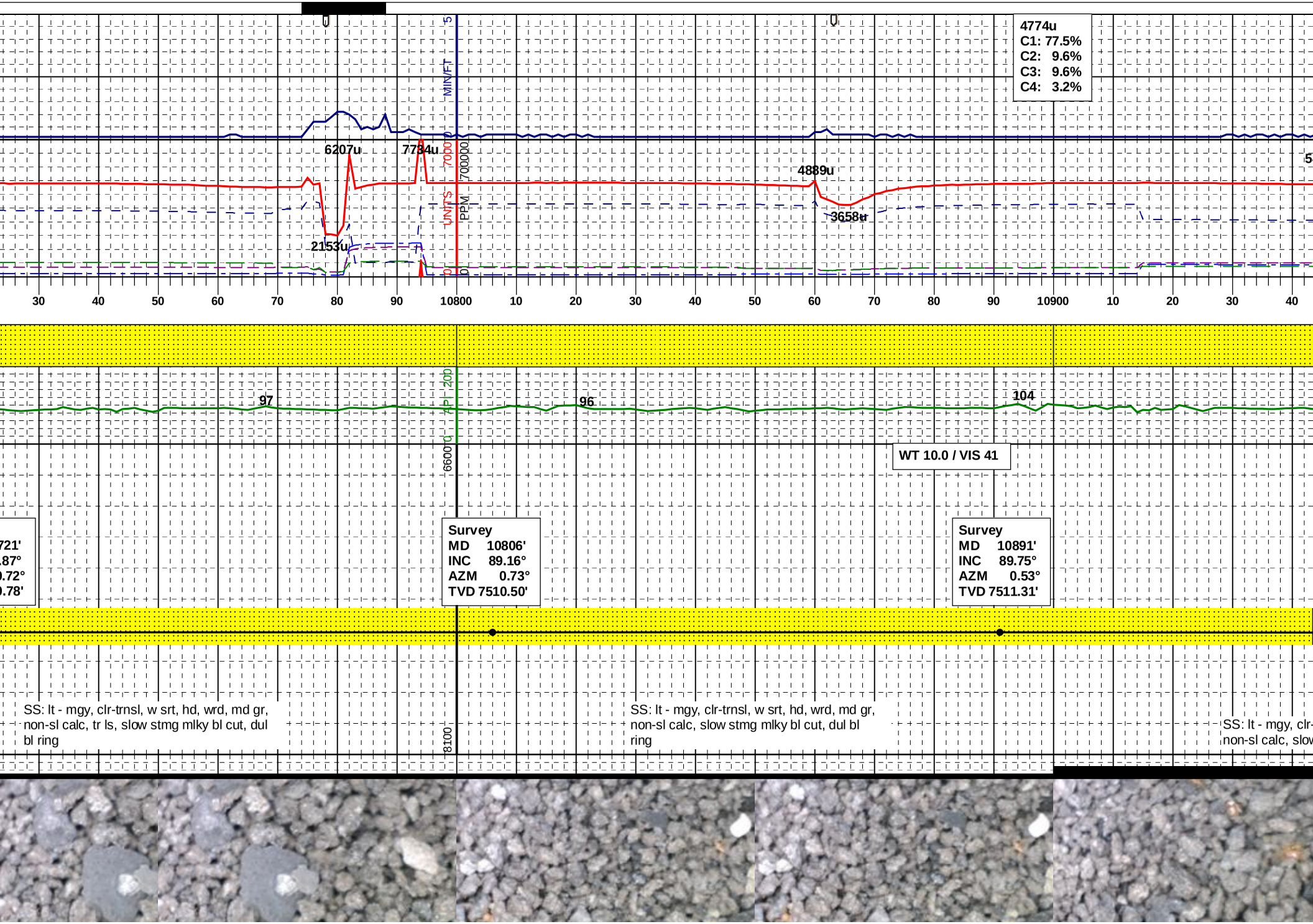
ft 6600 8100

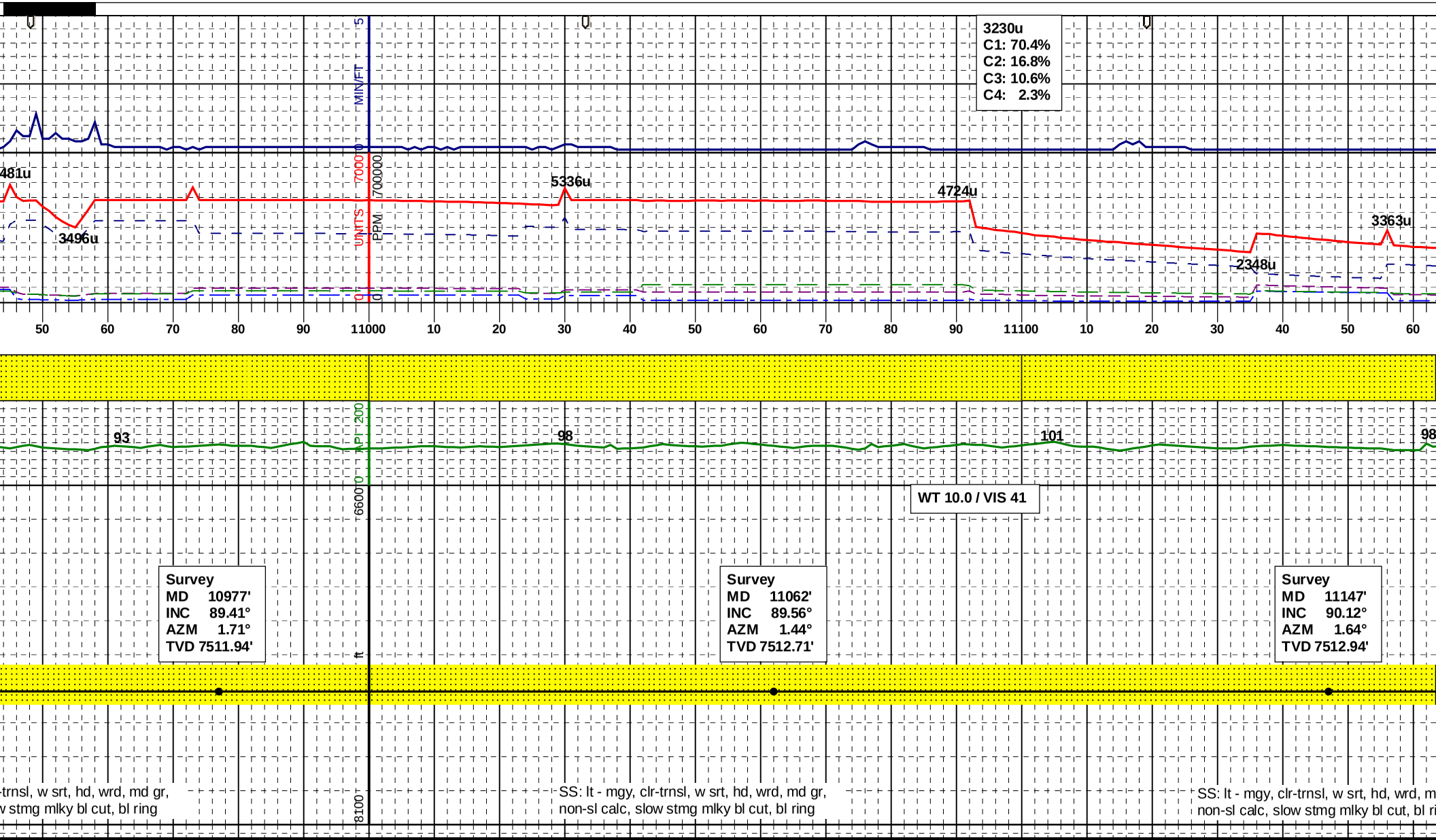
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc; LS: wh - ltgy, offwht - crm, sft - mod firm, sbplty - sbblky, v calc, slow stmg mlky bl cut, dul bl ring

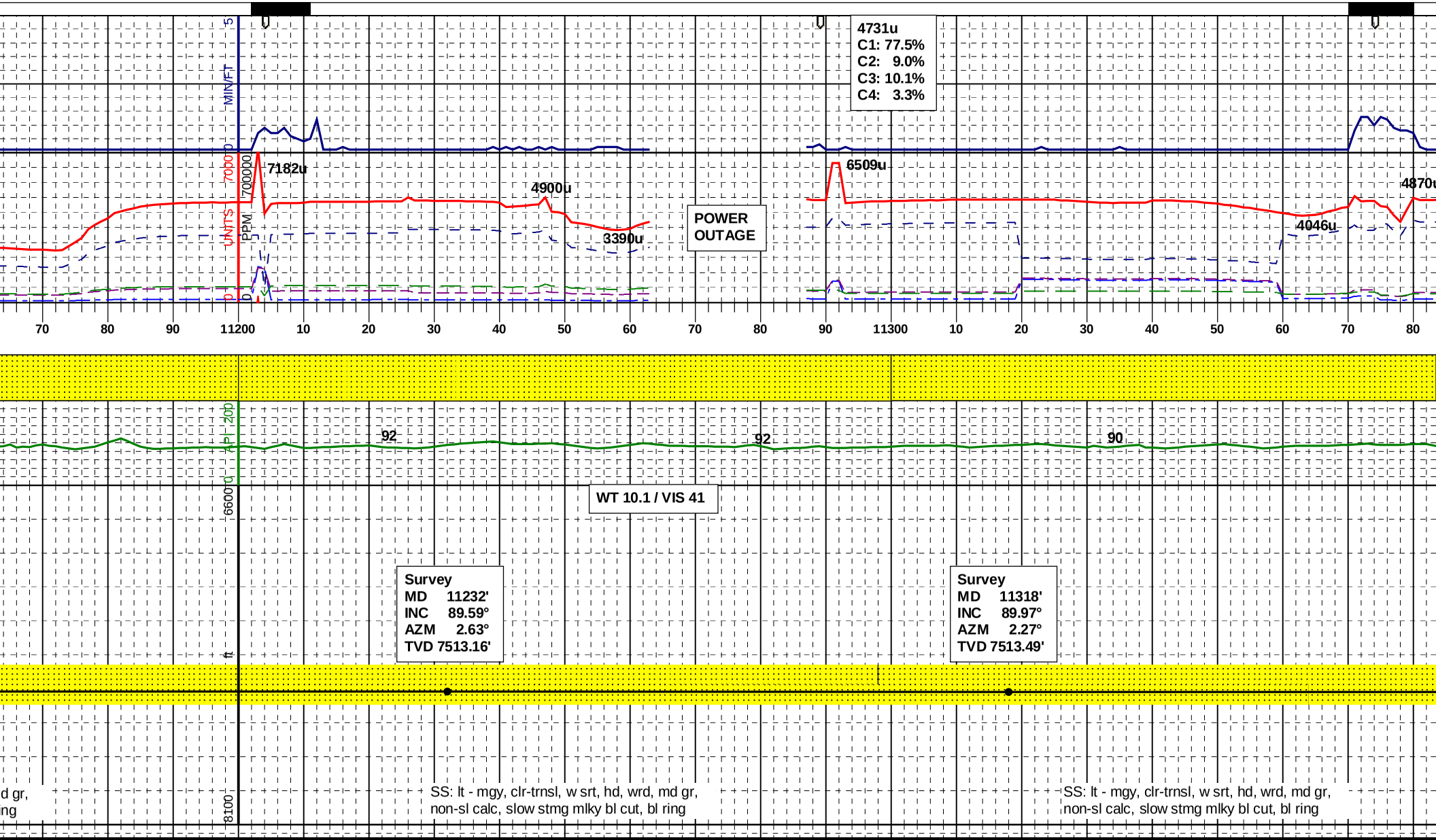
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, dul bl ring

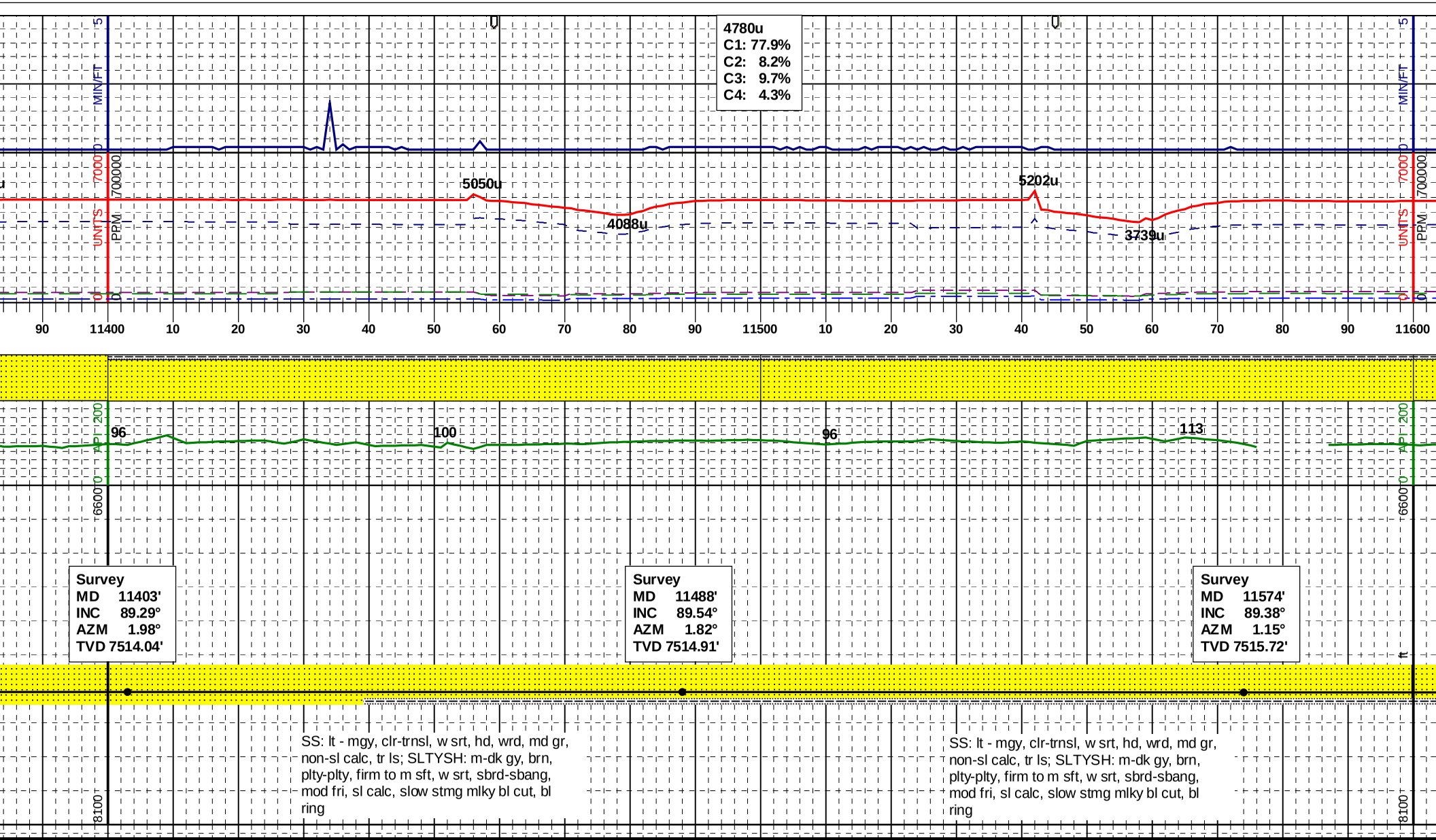


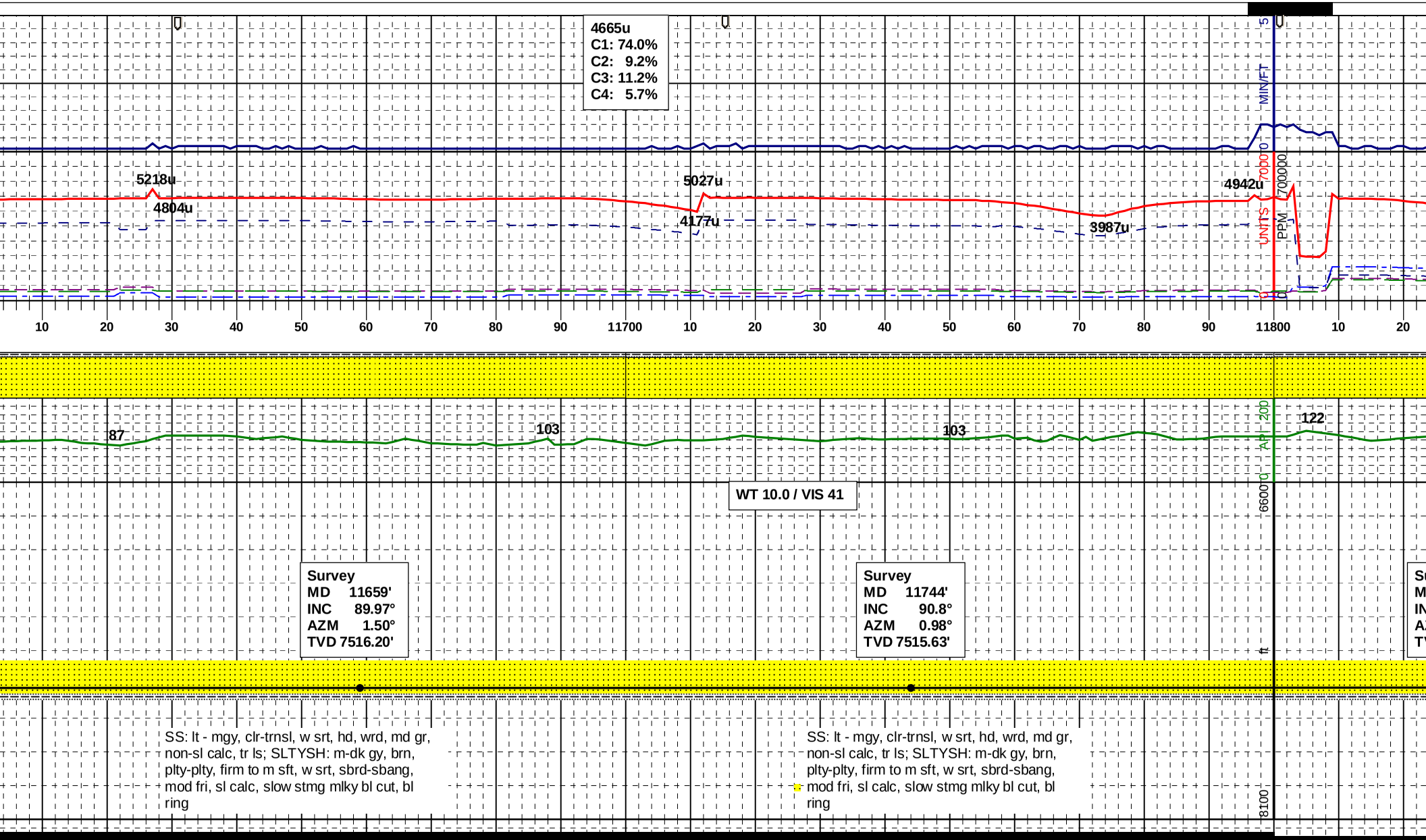

4618u
C1: 80.0%
C2: 9.2%
C3: 7.3%
C4: 3.4%
MIN/FT
UNITS
PPM
4899u
3193u
6215u
3794u
5200u
3662u
10600
10700
API
90
97
95
88
WT 10.1 / VIS 41
Survey
MD 10550'
INC 91.23°
AZM 358.68°
TVD 7511.43'
Survey
MD 10636'
INC 90.55°
AZM 358.68°
TVD 7510.10'
ft
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, dul bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, dul bl ring

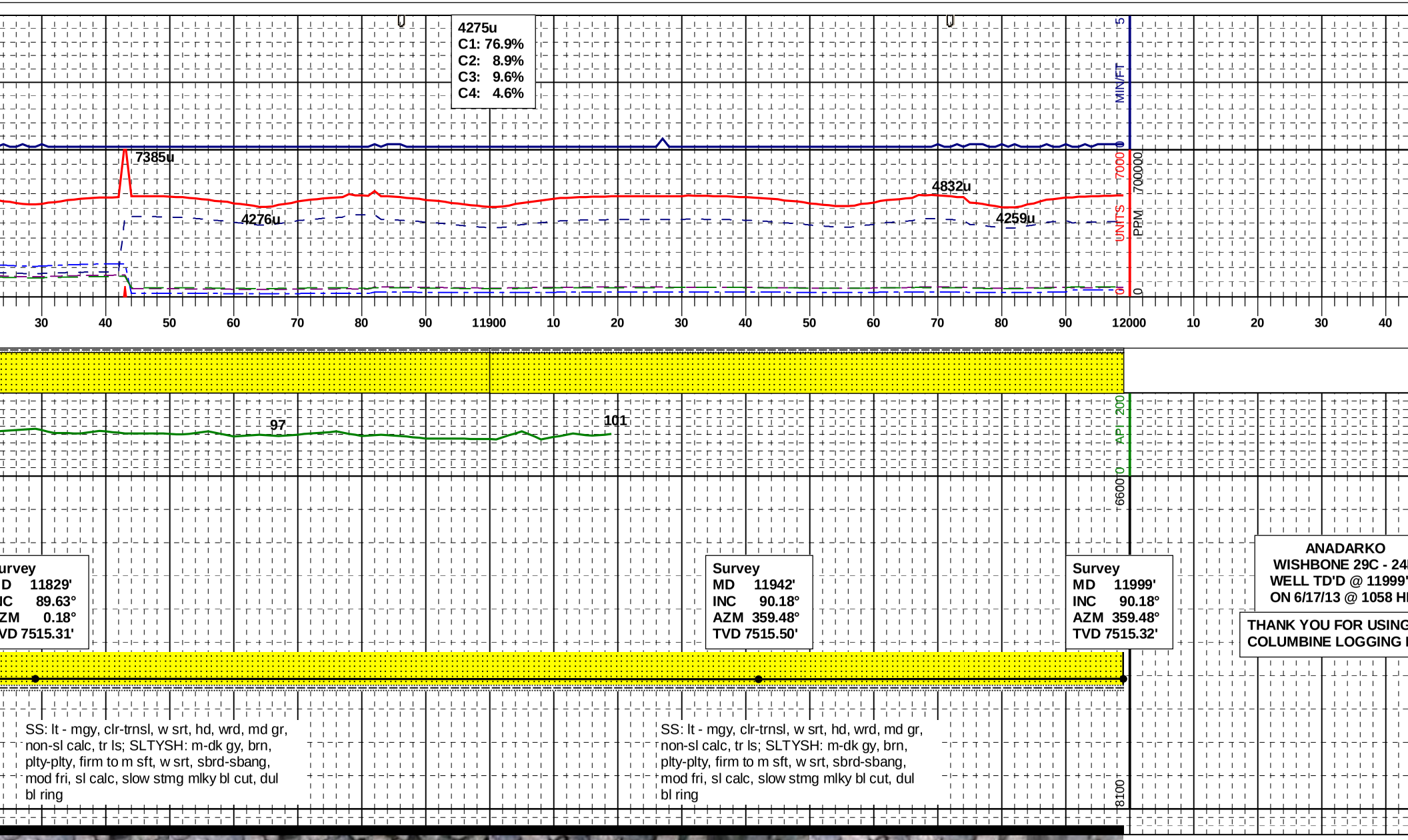
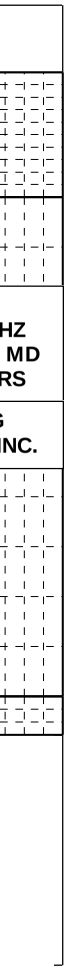

4774u
C1: 77.5%
C2: 9.6%
C3: 9.6%
C4: 3.2%
MIN/FT
6207u
7784u
4889u
3658u
2153u
UNITS
PPM
30
40
50
60
70
80
90
10800
10
20
30
40
50
60
70
80
90
10900
10
20
30
40
97
96
104
API
WT 10.0 / VIS 41
Survey
MD 10806'
INC 89.16°
AZM 0.73°
TVD 7510.50'
Survey
MD 10891'
INC 89.75°
AZM 0.53°
TVD 7511.31'
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls, slow stmg mlky bl cut, dul bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, slow stmg mlky bl cut, dul bl ring


3230u
C1: 70.4%
C2: 16.8%
C3: 10.6%
C4: 2.3%
481u
3496u
5336u
4724u
2348u
3363u
MIN/FT
UNITS
PPM
700000
50
60
70
80
90
11000
10
20
30
40
50
60
70
80
90
11100
10
20
30
40
50
60
93
98
101
98
API
WT 10.0 / VIS 41
Survey
MD 10977'
INC 89.41°
AZM 1.71°
TVD 7511.94'
Survey
MD 11062'
INC 89.56°
AZM 1.44°
TVD 7512.71'
Survey
MD 11147'
INC 90.12°
AZM 1.64°
TVD 7512.94'
ft
-trnsl, w srt, hd, wrd, md gr,
v stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr,
non-sl calc, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, m
non-sl calc, slow stmg mlky bl cut, bl ri


MIN/FT
5
0
UNITS
700000
PPM
0
7182u
4900u
3390u
POWER OUTAGE
4731u
C1: 77.5%
C2: 9.0%
C3: 10.1%
C4: 3.3%
6509u
4046u
4870u
70
80
90
11200
10
20
30
40
50
60
70
80
90
11300
10
20
30
40
50
60
70
80
API 200
92
92
90
660000
WT 10.1 / VIS 41
Survey
MD 11232'
INC 89.59°
AZM 2.63°
TVD 7513.16'
Survey
MD 11318'
INC 89.97°
AZM 2.27°
TVD 7513.49'
ft
8100
d gr,
ng
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr,
non-sl calc, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr,
non-sl calc, slow stmg mlky bl cut, bl ring


4780u
C1: 77.9%
C2: 8.2%
C3: 9.7%
C4: 4.3%
5050u
4088u
5202u
3739u
MIN/FT
UNITS
PPM
7000
700000
API 200
6600
8100
ft
90
11400
10
20
30
40
50
60
70
80
90
11500
10
20
30
40
50
60
70
80
90
11600
96
100
96
113
Survey
MD 11403'
INC 89.29°
AZM 1.98°
TVD 7514.04'
Survey
MD 11488'
INC 89.54°
AZM 1.82°
TVD 7514.91'
Survey
MD 11574'
INC 89.38°
AZM 1.15°
TVD 7515.72'
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls; SLTYSH: m-dk gy, brn, plty-plty, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls; SLTYSH: m-dk gy, brn, plty-plty, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, slow stmg mlky bl cut, bl ring


4665u
C1: 74.0%
C2: 9.2%
C3: 11.2%
C4: 5.7%
MIN/FT
UNITS
PPM
5218u
4804u
5027u
4177u
3987u
4942u
10 20 30 40 50 60 70 80 90 11700 10 20 30 40 50 60 70 80 90 11800 10 20
87
103
103
122
API
WT 10.0 / VIS 41
Survey
MD 11659'
INC 89.97°
AZM 1.50°
TVD 7516.20'
Survey
MD 11744'
INC 90.8°
AZM 0.98°
TVD 7515.63'
ft
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls; SLTYSH: m-dk gy, brn, plty-plty, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, slow stmg mlky bl cut, bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls; SLTYSH: m-dk gy, brn, plty-plty, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, slow stmg mlky bl cut, bl ring


4275u
C1: 76.9%
C2: 8.9%
C3: 9.6%
C4: 4.6%
7385u
4276u
4832u
4259u
97
101
MIN/FT
UNITS
PPM
API
Survey
MD 11829'
INC 89.63°
AZM 0.18°
TVD 7515.31'
Survey
MD 11942'
INC 90.18°
AZM 359.48°
TVD 7515.50'
Survey
MD 11999'
INC 90.18°
AZM 359.48°
TVD 7515.32'
ANADARKO
WISHBONE 29C - 24
WELL TD'D @ 11999'
ON 6/17/13 @ 1058 H
THANK YOU FOR USING
COLUMBINE LOGGING
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls; SLTYSH: m-dk gy, brn, plty-plty, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, slow stmg mlky bl cut, dul bl ring
SS: lt - mgy, clr-trnsl, w srt, hd, wrd, md gr, non-sl calc, tr ls; SLTYSH: m-dk gy, brn, plty-plty, firm to m sft, w srt, sbrd-sbang, mod fri, sl calc, slow stmg mlky bl cut, dul bl ring

50