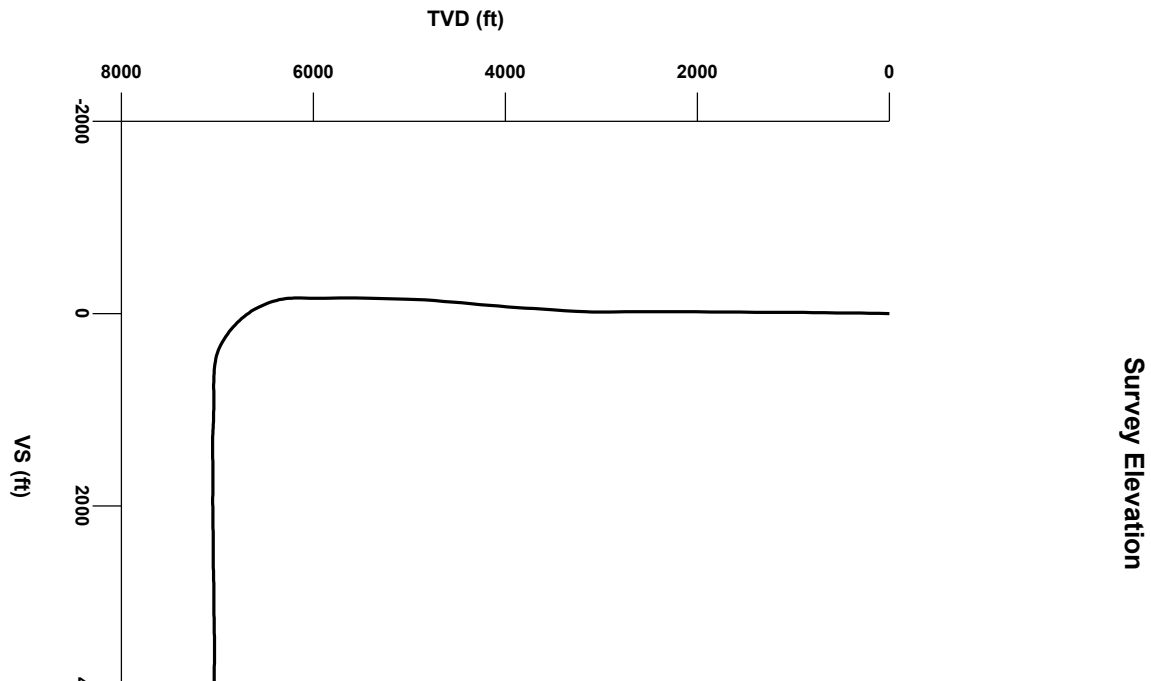
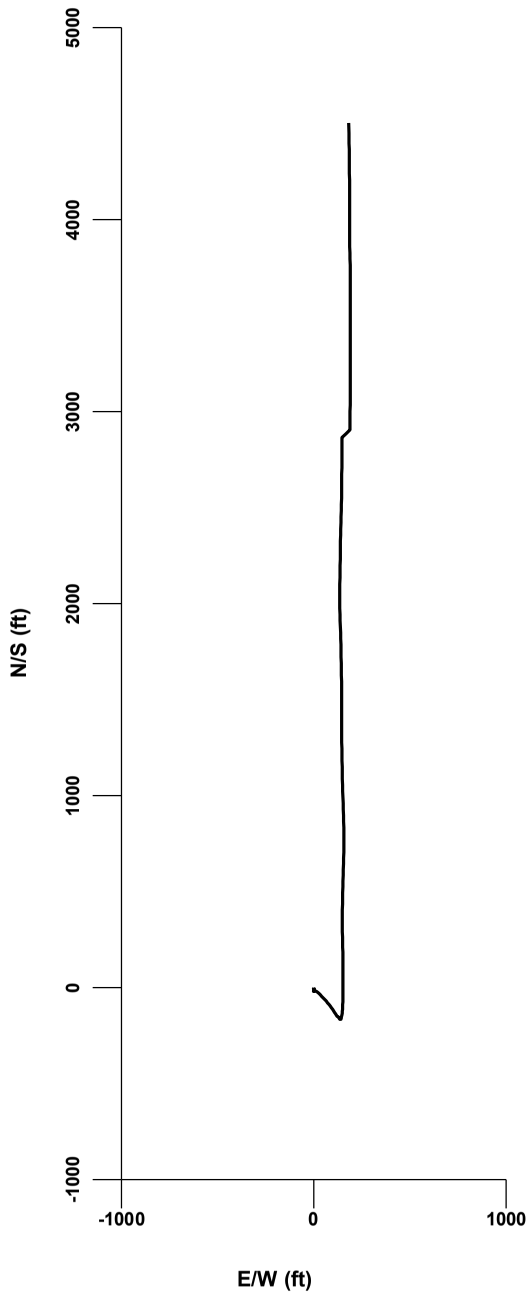
LOG created using LPLOT VH Version 3.0, June 24, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR:	**PDC ENERGY**
WELL:	**WASTE MANAGEMENT 2L-441**
LOCATION:	**SWSW SEC 2, 2N, 64W, 6TH**
COUNTY:	**WELD**
STATE:	**COLORADO**
SPOT:	**230' FSL x 680' FWL**
ELEVATION:	**GL 4,939' KB 4,954'**
FIELD:	**WATTENBERG**
SPUD DATE:	**6/15/2013**
TD DATE:	**6/24/2013**
DATES LOGGED:	**6/18/2013 - 6/24/2013**
DEPTHS LOGGED:	**6,300' - 11,379'**
LOGGERS:	**K. DONAHUE, S. HAMPTON& W. HOWLAND**
DRILLING FLUID:	**LSND**
DRILLING RIG:	**ENSIGN 14**
API:	**05-123-36953-0000**
LOG TYPE:	**BUILD & LATERAL (CODELL)**
SCALE:	**1:240 (5 inches per 100 feet)**
REMARKS:	**WELLSITE GEOLOGICAL SERVICES PROVIDED BY COLUMBINE LOGGING, INC.**



4000
6000

Survey Plan


5000
4000
3000
2000
1000
0
-1000
N/S (ft)
-1000
0
1000
E/W (ft)

LITHOLOGIES

Chalk | Limestone | Marl | Sandstone

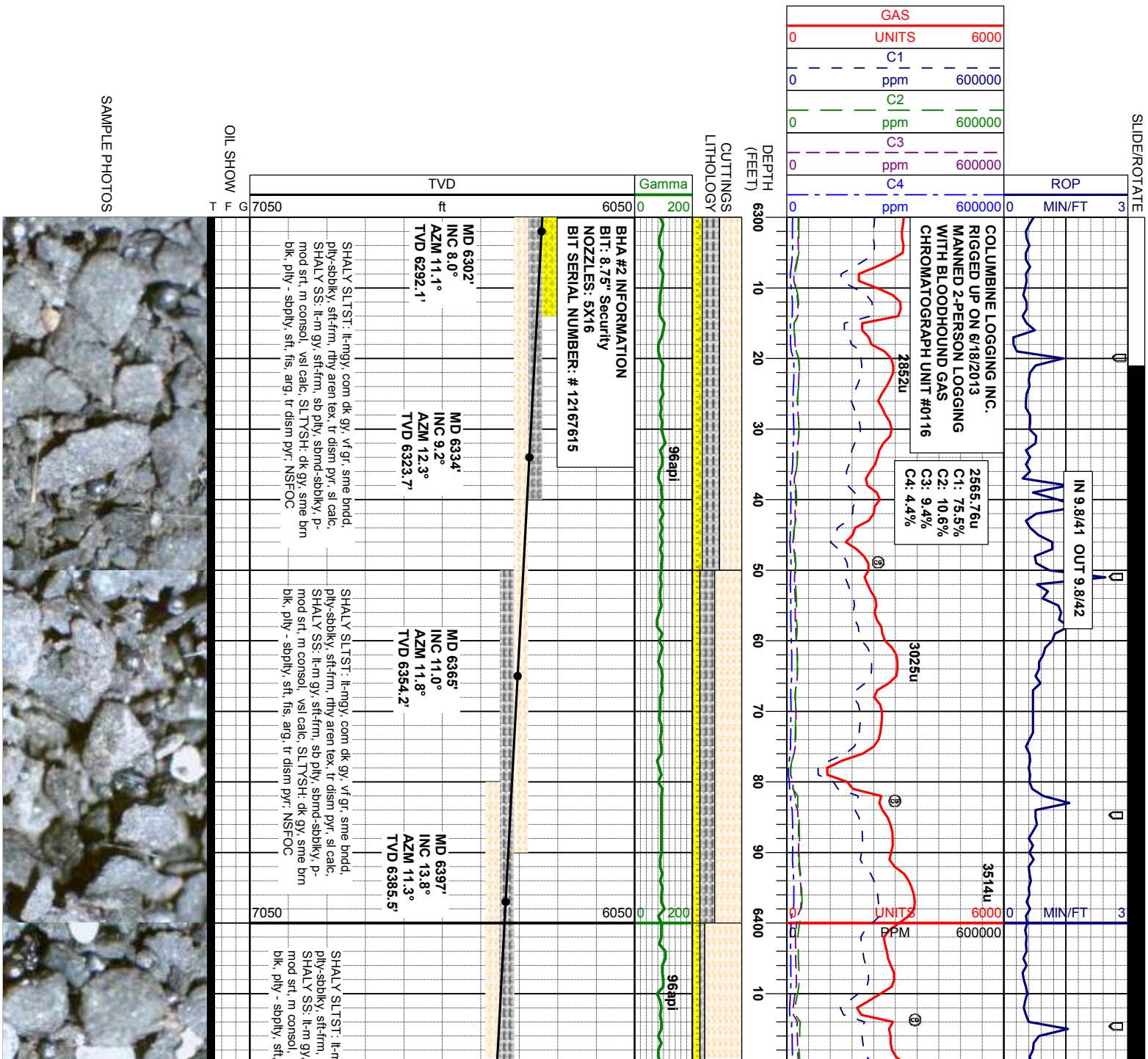
Shaly Sandstone | Shaly Siltstone | Silty Shale

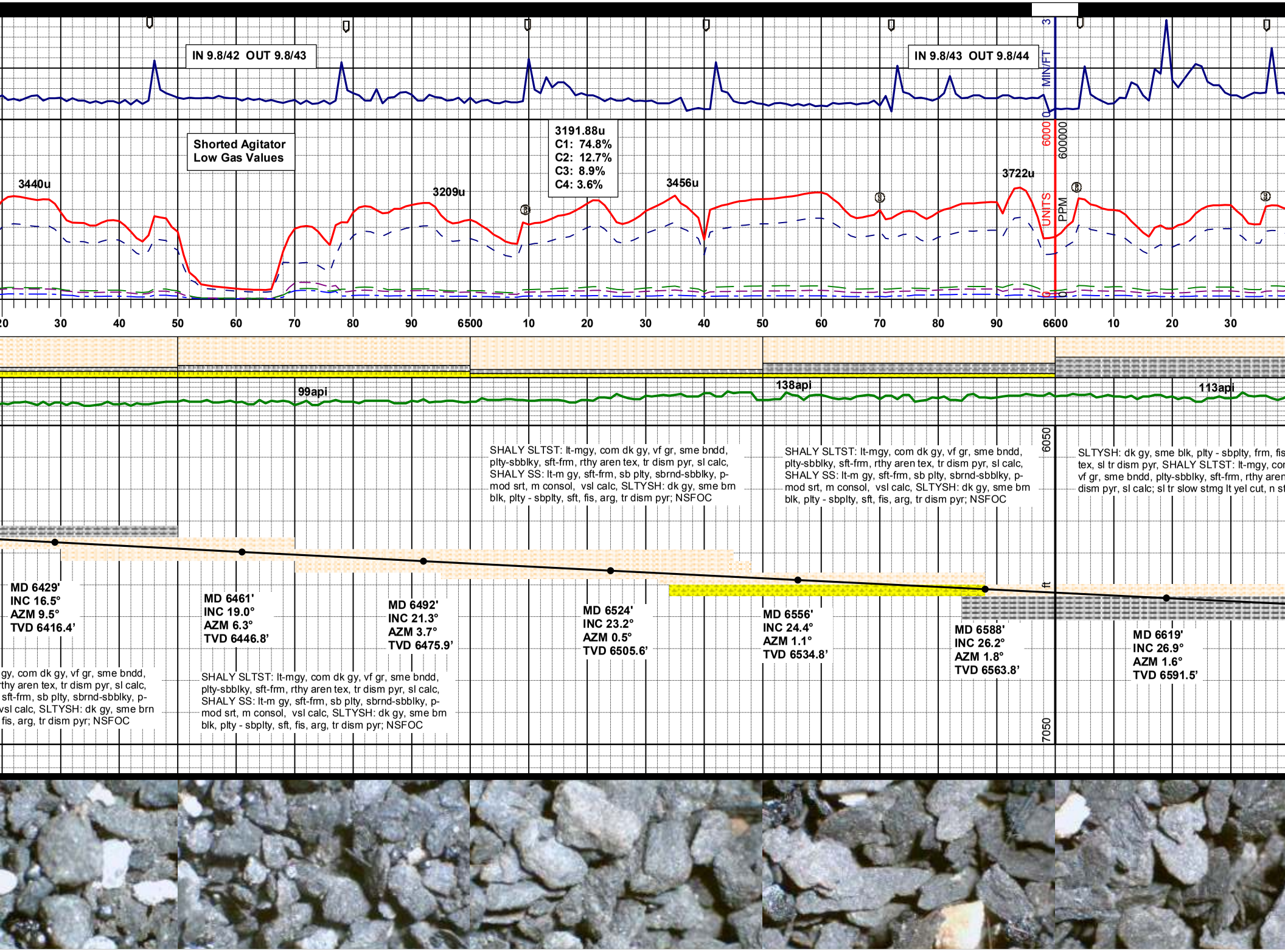
ENGINEERING SYMBOLS

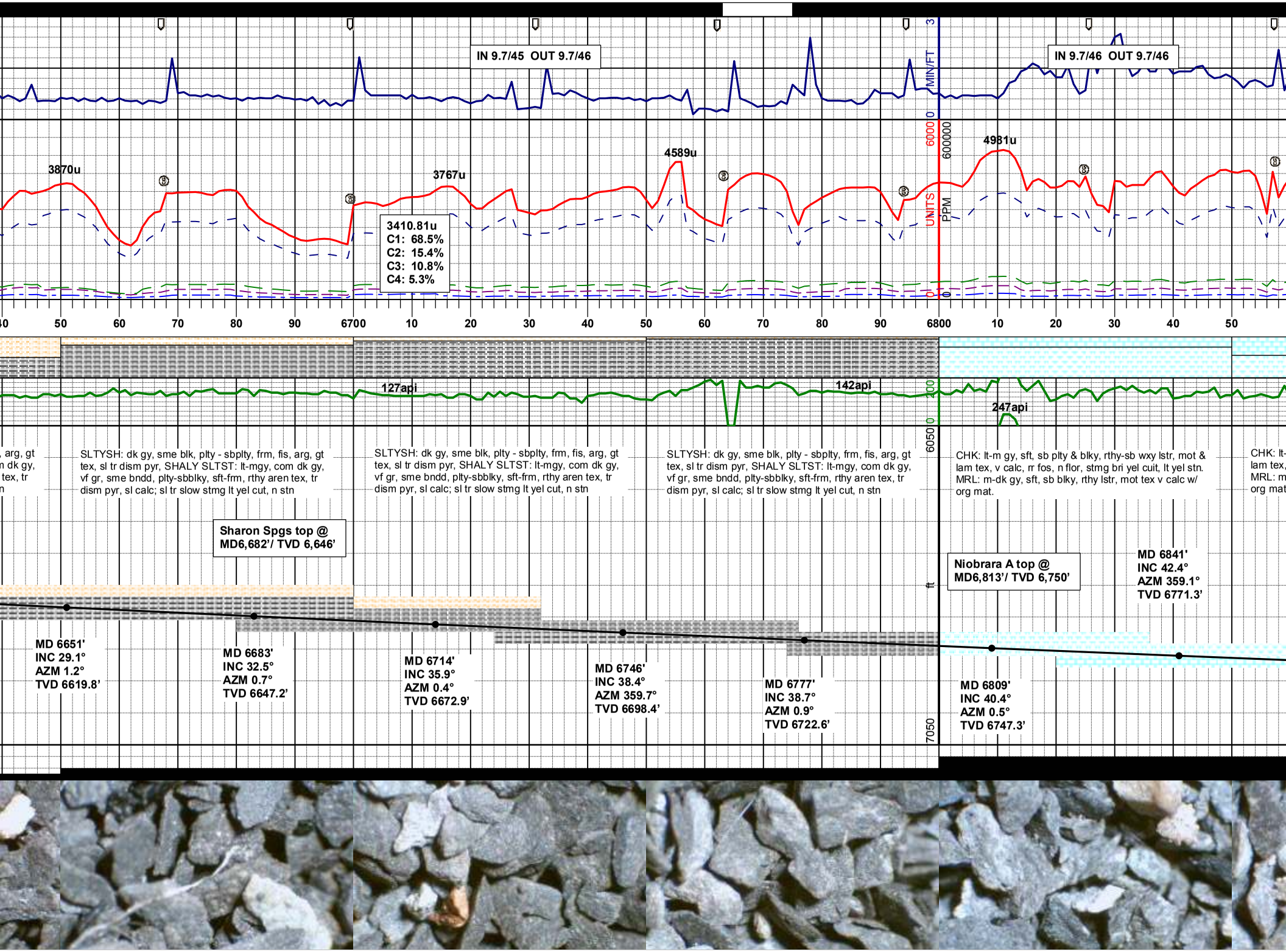
Casing | Casing | Connection

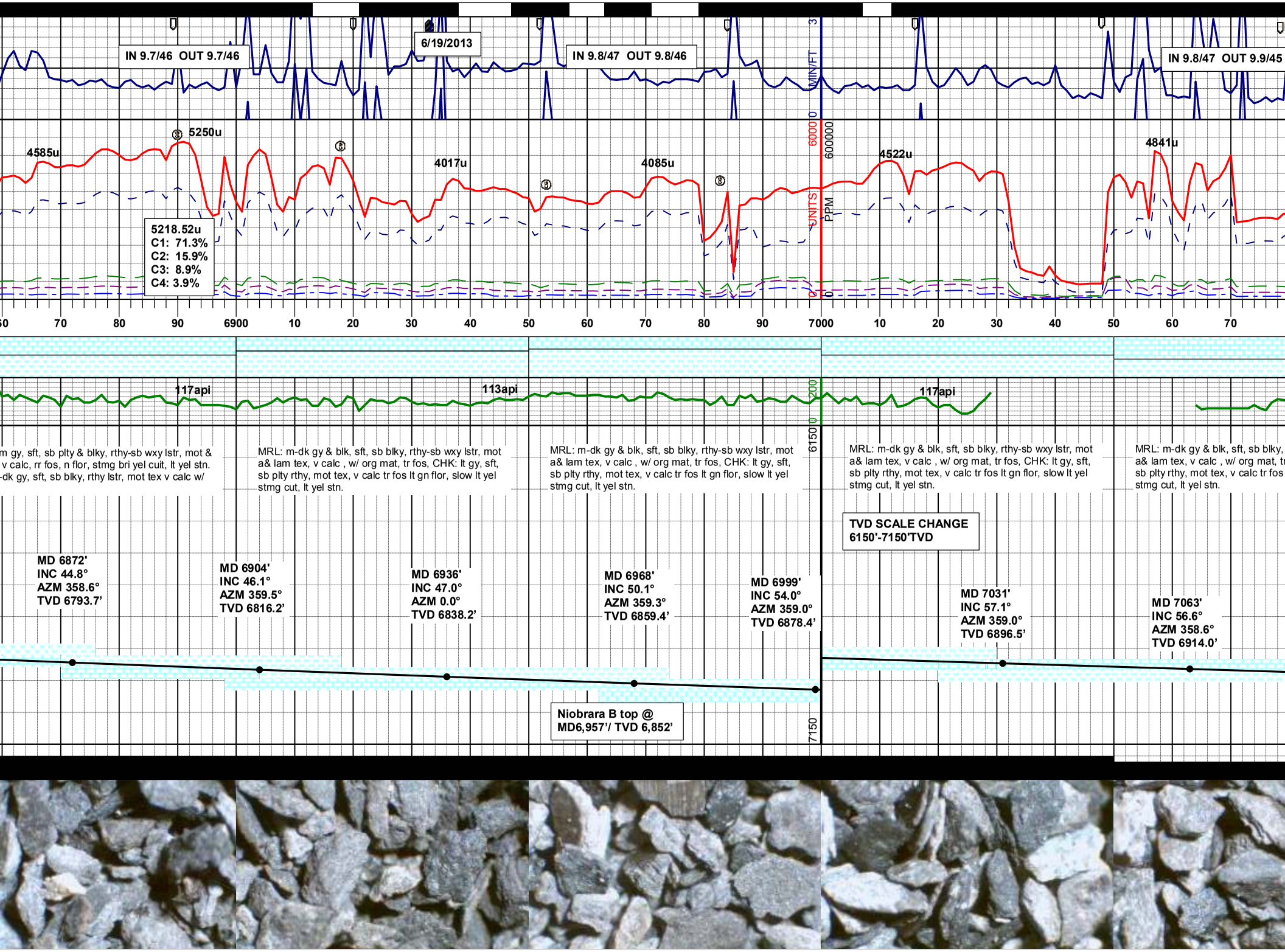
Connection Gas | Arrow | Midnight Depth

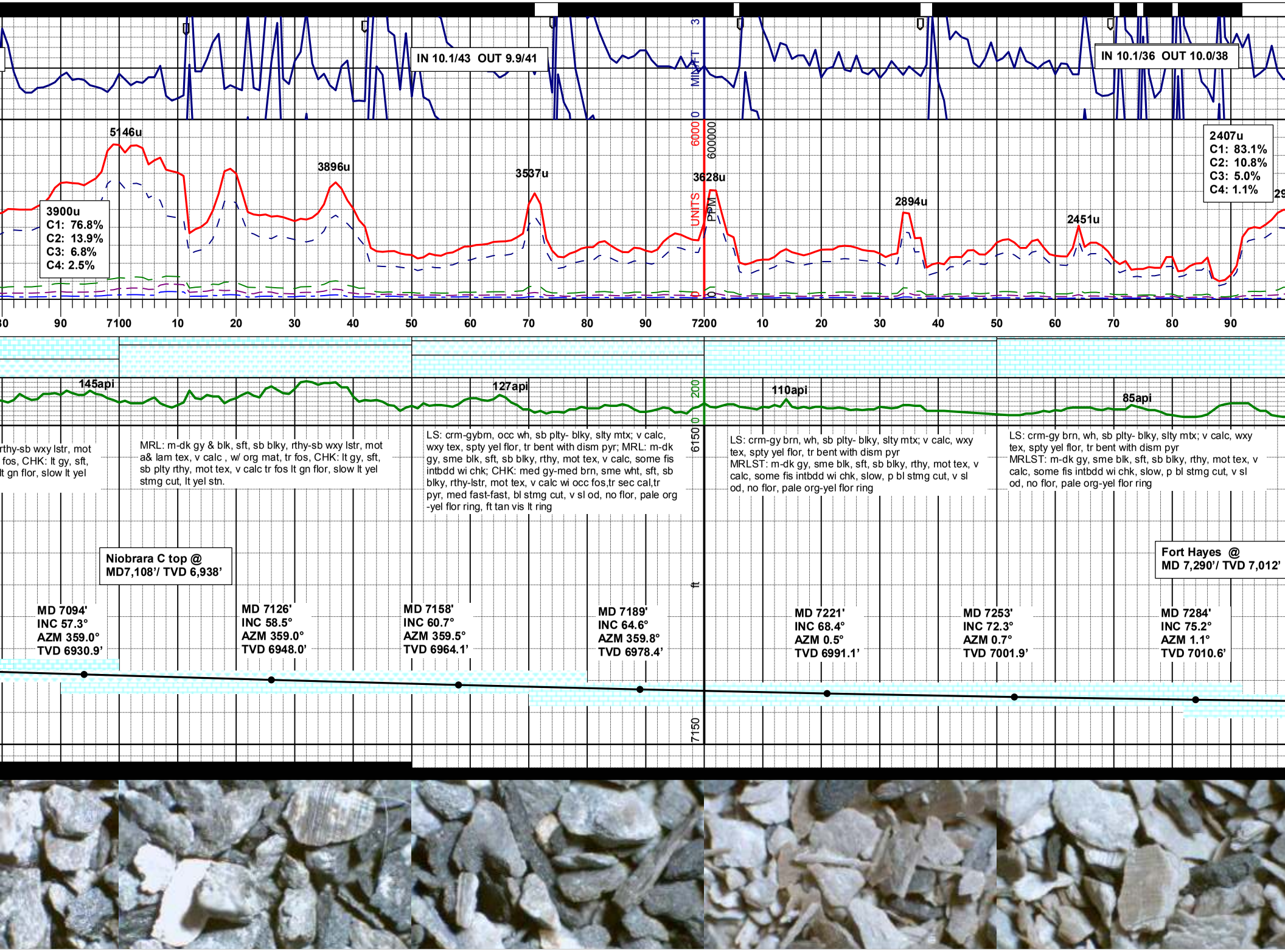
Midnight Depth | Reverse Fault | Arrow

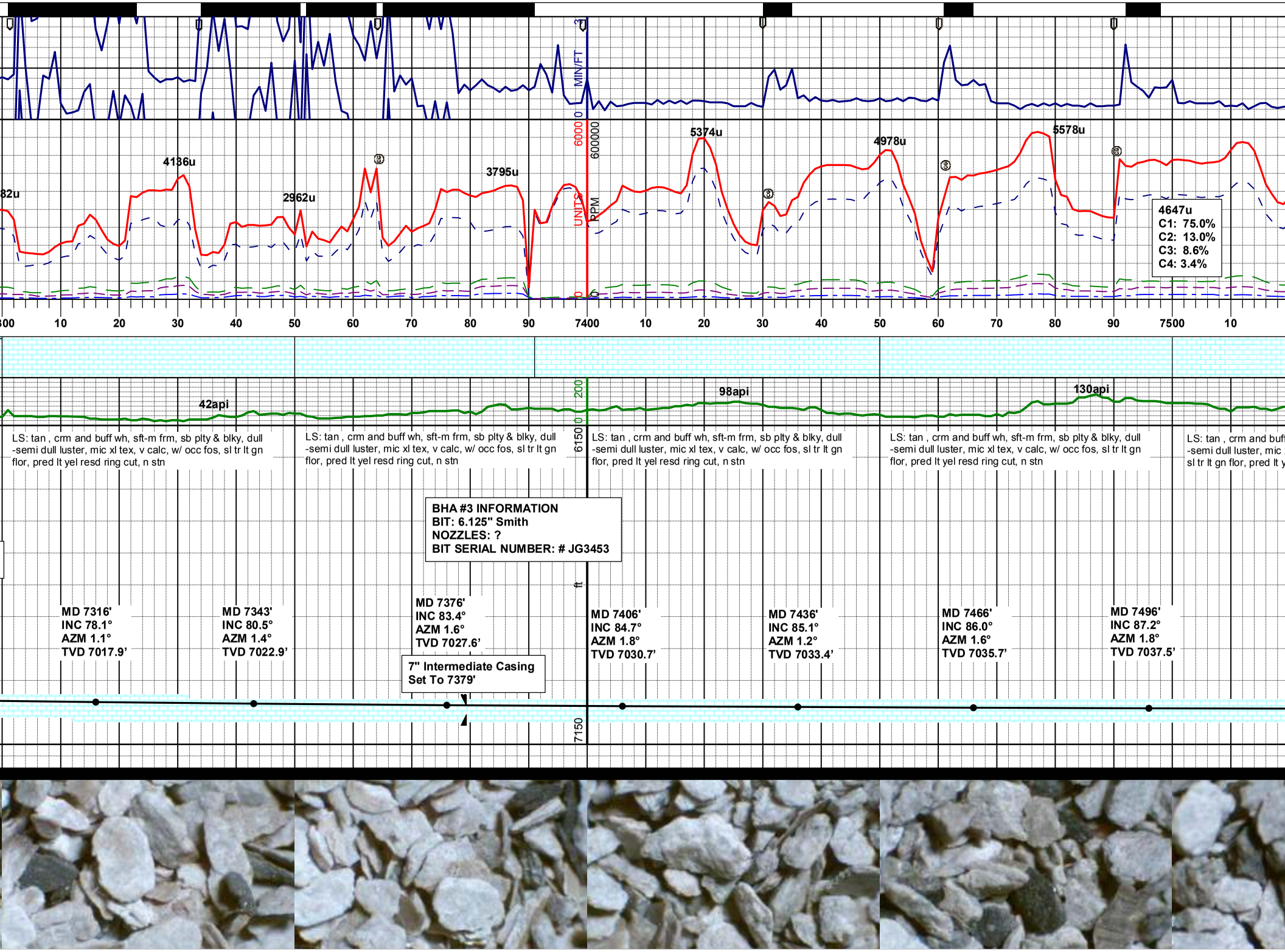


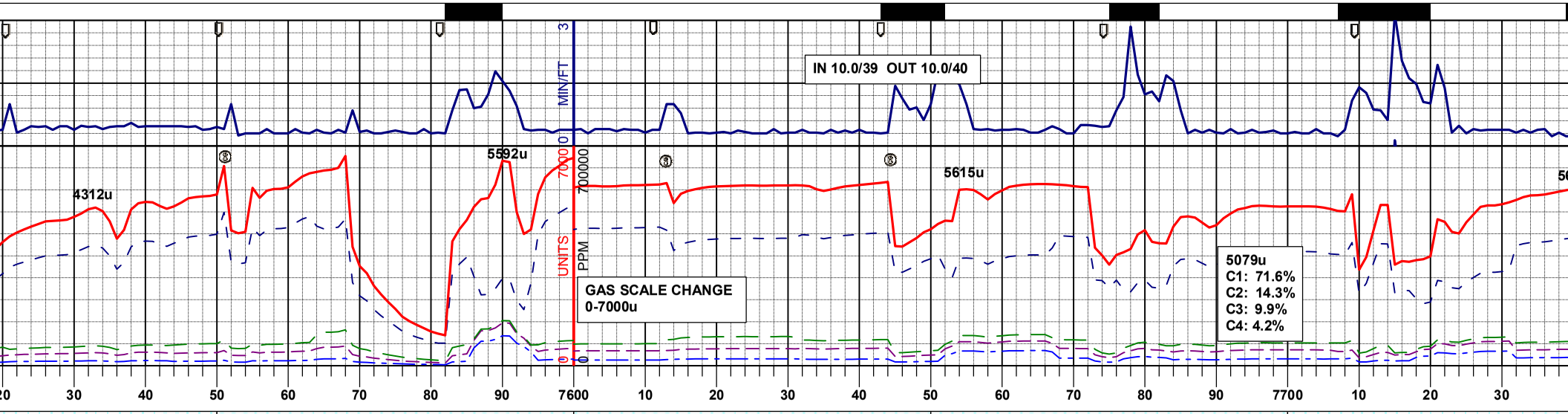

IN 9.8/42 OUT 9.8/43
IN 9.8/43 OUT 9.8/44
MIN/FT
Shorted Agitator
Low Gas Values
3191.88u
C1: 74.8%
C2: 12.7%
C3: 8.9%
C4: 3.6%
3440u
3209u
3456u
3722u
UNITS
PPM
6000
600000
20
30
40
50
60
70
80
90
6500
10
20
30
40
50
60
70
80
90
6600
10
20
30
99api
138api
113api
6050
7050
ft
SHALY SLTST: lt-mgy, com dk gy, vf gr, sme bndd, plty-sbblky, sft-frm, rthy aren tex, tr dism pyr, sl calc, SHALY SS: lt-m gy, sft-frm, sb plty, sbrnd-sbblky, p-mod srt, m consol, vsl calc, SLTYSH: dk gy, sme brn blk, plty - sbplty, sft, fis, arg, tr dism pyr; NSFOC
SHALY SLTST: lt-mgy, com dk gy, vf gr, sme bndd, plty-sbblky, sft-frm, rthy aren tex, tr dism pyr, sl calc, SHALY SS: lt-m gy, sft-frm, sb plty, sbrnd-sbblky, p-mod srt, m consol, vsl calc, SLTYSH: dk gy, sme brn blk, plty - sbplty, sft, fis, arg, tr dism pyr; NSFOC
SLTYSH: dk gy, sme blk, plty - sbplty, frm, fis
tex, sl tr dism pyr, SHALY SLTST: lt-mgy, cor
vf gr, sme bndd, plty-sbblky, sft-frm, rthy aren
dism pyr, sl calc; sl tr slow stmg lt yel cut, n st
MD 6429'
INC 16.5°
AZM 9.5°
TVD 6416.4'
MD 6461'
INC 19.0°
AZM 6.3°
TVD 6446.8'
MD 6492'
INC 21.3°
AZM 3.7°
TVD 6475.9'
MD 6524'
INC 23.2°
AZM 0.5°
TVD 6505.6'
MD 6556'
INC 24.4°
AZM 1.1°
TVD 6534.8'
MD 6588'
INC 26.2°
AZM 1.8°
TVD 6563.8'
MD 6619'
INC 26.9°
AZM 1.6°
TVD 6591.5'
gy, com dk gy, vf gr, sme bndd,
rthy aren tex, tr dism pyr, sl calc,
sft-frm, sb plty, sbrnd-sbblky, p-
vsl calc, SLTYSH: dk gy, sme brn
fis, arg, tr dism pyr; NSFOC
SHALY SLTST: lt-mgy, com dk gy, vf gr, sme bndd, plty-sbblky, sft-frm, rthy aren tex, tr dism pyr, sl calc, SHALY SS: lt-m gy, sft-frm, sb plty, sbrnd-sbblky, p-mod srt, m consol, vsl calc, SLTYSH: dk gy, sme brn blk, plty - sbplty, sft, fis, arg, tr dism pyr; NSFOC

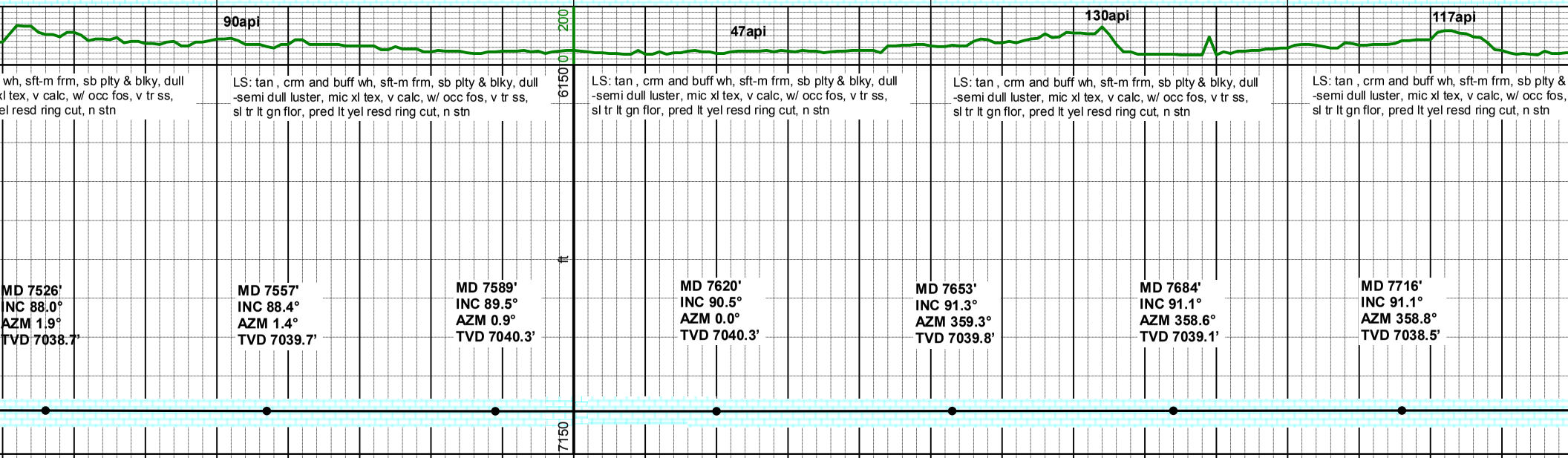

IN 9.7/45 OUT 9.7/46
IN 9.7/46 OUT 9.7/46
MIN/FT
3
0
3870u
3767u
4589u
4981u
3410.81u
C1: 68.5%
C2: 15.4%
C3: 10.8%
C4: 5.3%
UNITS
PPM
6000
600000
0
40
50
60
70
80
90
6700
10
20
30
40
50
60
70
80
90
6800
10
20
30
40
50
127api
142api
247api
100
0
6050
7050
ft
, arg, gt
n dk gy,
tex, tr
n
SLTYSH: dk gy, sme blk, plty - sbplty, frm, fis, arg, gt tex, sl tr dism pyr, SHALY SLTST: lt-mgy, com dk gy, vf gr, sme bndd, plty-sbblky, sft-frm, rthy aren tex, tr dism pyr, sl calc; sl tr slow stmg lt yel cut, n stn
SLTYSH: dk gy, sme blk, plty - sbplty, frm, fis, arg, gt tex, sl tr dism pyr, SHALY SLTST: lt-mgy, com dk gy, vf gr, sme bndd, plty-sbblky, sft-frm, rthy aren tex, tr dism pyr, sl calc; sl tr slow stmg lt yel cut, n stn
SLTYSH: dk gy, sme blk, plty - sbplty, frm, fis, arg, gt tex, sl tr dism pyr, SHALY SLTST: lt-mgy, com dk gy, vf gr, sme bndd, plty-sbblky, sft-frm, rthy aren tex, tr dism pyr, sl calc; sl tr slow stmg lt yel cut, n stn
CHK: lt-m gy, sft, sb plty & blky, rthy-sb wxy lstr, mot & lam tex, v calc, rr fos, n flor, stmg bri yel cuit, lt yel stn. MRL: m-dk gy, sft, sb blky, rthy lstr, mot tex v calc w/ org mat.
CHK: lt-
lam tex,
MRL: m
org mat
Sharon Spgs top @ MD6,682'/ TVD 6,646'
Niobrara A top @ MD6,813'/ TVD 6,750'
MD 6651'
INC 29.1°
AZM 1.2°
TVD 6619.8'
MD 6683'
INC 32.5°
AZM 0.7°
TVD 6647.2'
MD 6714'
INC 35.9°
AZM 0.4°
TVD 6672.9'
MD 6746'
INC 38.4°
AZM 359.7°
TVD 6698.4'
MD 6777'
INC 38.7°
AZM 0.9°
TVD 6722.6'
MD 6809'
INC 40.4°
AZM 0.5°
TVD 6747.3'
MD 6841'
INC 42.4°
AZM 359.1°
TVD 6771.3'

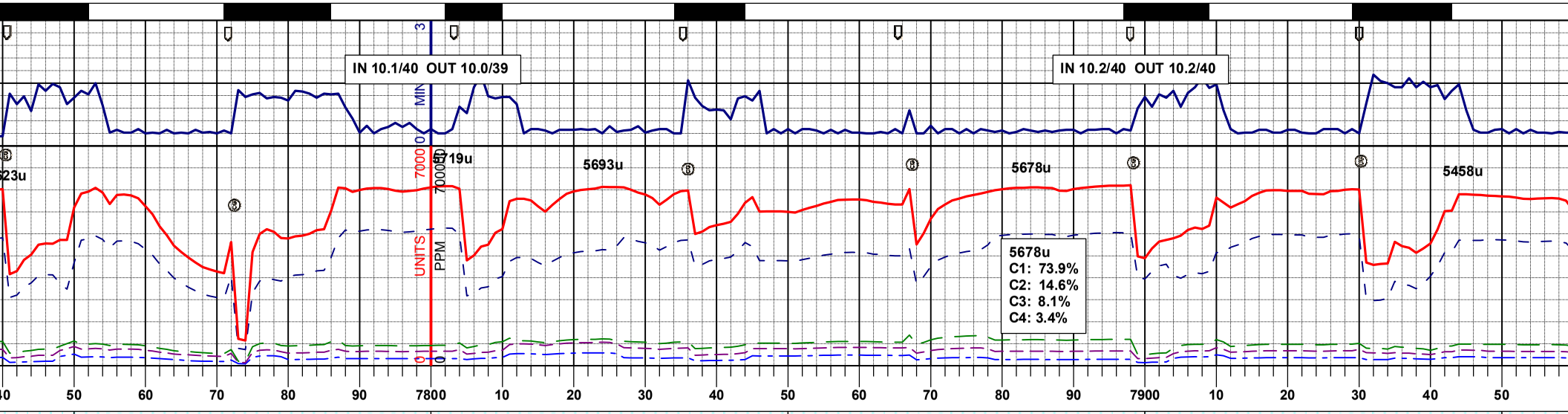

IN 9.7/46 OUT 9.7/46
6/19/2013
IN 9.8/47 OUT 9.8/46
IN 9.8/47 OUT 9.9/45
MIN/FT
3
0
4585u
5250u
4017u
4085u
4522u
4841u
6000
600000
UNITS
PPM
0
5218.52u
C1: 71.3%
C2: 15.9%
C3: 8.9%
C4: 3.9%
50
70
80
90
6900
10
20
30
40
50
60
70
80
90
7000
10
20
30
40
50
60
70
117api
113api
117api
200
0
6150
m gy, sft, sb plty & blky, rthy-sb wxy lstr, mot &
v calc, rr fos, n flor, stmg bri yel cuit, lt yel stn.
-dk gy, sft, sb blky, rthy lstr, mot tex v calc w/
MRL: m-dk gy & blk, sft, sb blky, rthy-sb wxy lstr, mot a& lam tex, v calc , w/ org mat, tr fos, CHK: lt gy, sft, sb plty rthy, mot tex, v calc tr fos lt gn flor, slow lt yel stmg cut, lt yel stn.
MRL: m-dk gy & blk, sft, sb blky, rthy-sb wxy lstr, mot a& lam tex, v calc , w/ org mat, tr fos, CHK: lt gy, sft, sb plty rthy, mot tex, v calc tr fos lt gn flor, slow lt yel stmg cut, lt yel stn.
MRL: m-dk gy & blk, sft, sb blky, rthy-sb wxy lstr, mot a& lam tex, v calc , w/ org mat, tr fos, CHK: lt gy, sft, sb plty rthy, mot tex, v calc tr fos lt gn flor, slow lt yel stmg cut, lt yel stn.
MRL: m-dk gy & blk, sft, sb blky,
a& lam tex, v calc , w/ org mat, tr
sb plty rthy, mot tex, v calc tr fos
stmg cut, lt yel stn.
TVD SCALE CHANGE
6150'-7150'TVD
MD 6872'
INC 44.8°
AZM 358.6°
TVD 6793.7'
MD 6904'
INC 46.1°
AZM 359.5°
TVD 6816.2'
MD 6936'
INC 47.0°
AZM 0.0°
TVD 6838.2'
MD 6968'
INC 50.1°
AZM 359.3°
TVD 6859.4'
MD 6999'
INC 54.0°
AZM 359.0°
TVD 6878.4'
MD 7031'
INC 57.1°
AZM 359.0°
TVD 6896.5'
MD 7063'
INC 56.6°
AZM 358.6°
TVD 6914.0'
Niobrara B top @
MD6,957'/ TVD 6,852'
7150

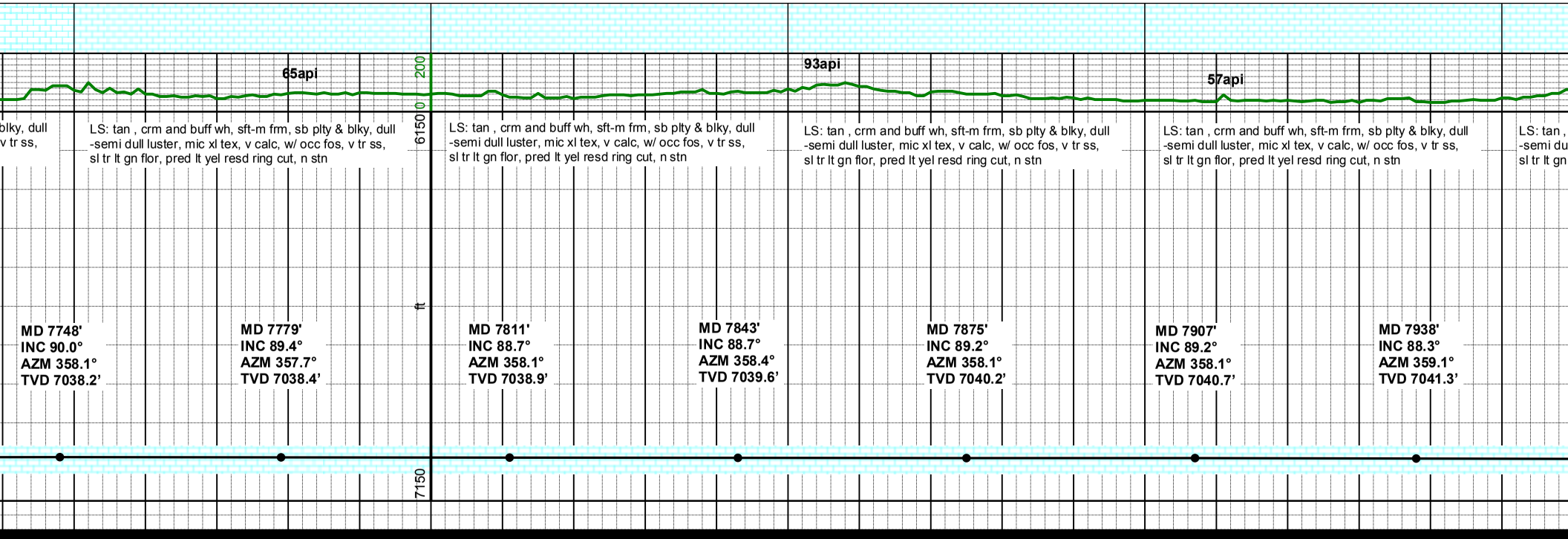

IN 10.1/43 OUT 9.9/41
IN 10.1/36 OUT 10.0/38
MINUTES
UNITS
PPM
5146u
3896u
3537u
3628u
2894u
2451u
3900u
C1: 76.8%
C2: 13.9%
C3: 6.8%
C4: 2.5%
2407u
C1: 83.1%
C2: 10.8%
C3: 5.0%
C4: 1.1%
145api
127api
110api
85api
MRL: m-dk gy & blk, sft, sb blky, rthy-sb wxy lstr, mot a& lam tex, v calc , w/ org mat, tr fos, CHK: lt gy, sft, sb plty rthy, mot tex, v calc tr fos lt gn flor, slow lt yel stmg cut, lt yel stn.
LS: crm-gybrn, occ wh, sb plty- blky, slty mtx; v calc, wxy tex, spty yel flor, tr bent with dism pyr; MRL: m-dk gy, sme blk, sft, sb blky, rthy, mot tex, v calc, some fis intbdd wi chk; CHK: med gy-med brn, sme wht, sft, sb blky, rthy-lstr, mot tex, v calc wi occ fos,tr sec cal,tr pyr, med fast-fast, bl stmg cut, v sl od, no flor, pale org -yel flor ring, ft tan vis lt ring
LS: crm-gy brn, wh, sb plty- blky, slty mtx; v calc, wxy tex, spty yel flor, tr bent with dism pyr
MRLST: m-dk gy, sme blk, sft, sb blky, rthy, mot tex, v calc, some fis intbdd wi chk, slow, p bl stmg cut, v sl od, no flor, pale org-yel flor ring
LS: crm-gy brn, wh, sb plty- blky, slty mtx; v calc, wxy tex, spty yel flor, tr bent with dism pyr
MRLST: m-dk gy, sme blk, sft, sb blky, rthy, mot tex, v calc, some fis intbdd wi chk, slow, p bl stmg cut, v sl od, no flor, pale org-yel flor ring
Niobrara C top @
MD7,108'/ TVD 6,938'
Fort Hayes @
MD 7,290'/ TVD 7,012'
MD 7094'
INC 57.3°
AZM 359.0°
TVD 6930.9'
MD 7126'
INC 58.5°
AZM 359.0°
TVD 6948.0'
MD 7158'
INC 60.7°
AZM 359.5°
TVD 6964.1'
MD 7189'
INC 64.6°
AZM 359.8°
TVD 6978.4'
MD 7221'
INC 68.4°
AZM 0.5°
TVD 6991.1'
MD 7253'
INC 72.3°
AZM 0.7°
TVD 7001.9'
MD 7284'
INC 75.2°
AZM 1.1°
TVD 7010.6'
ft

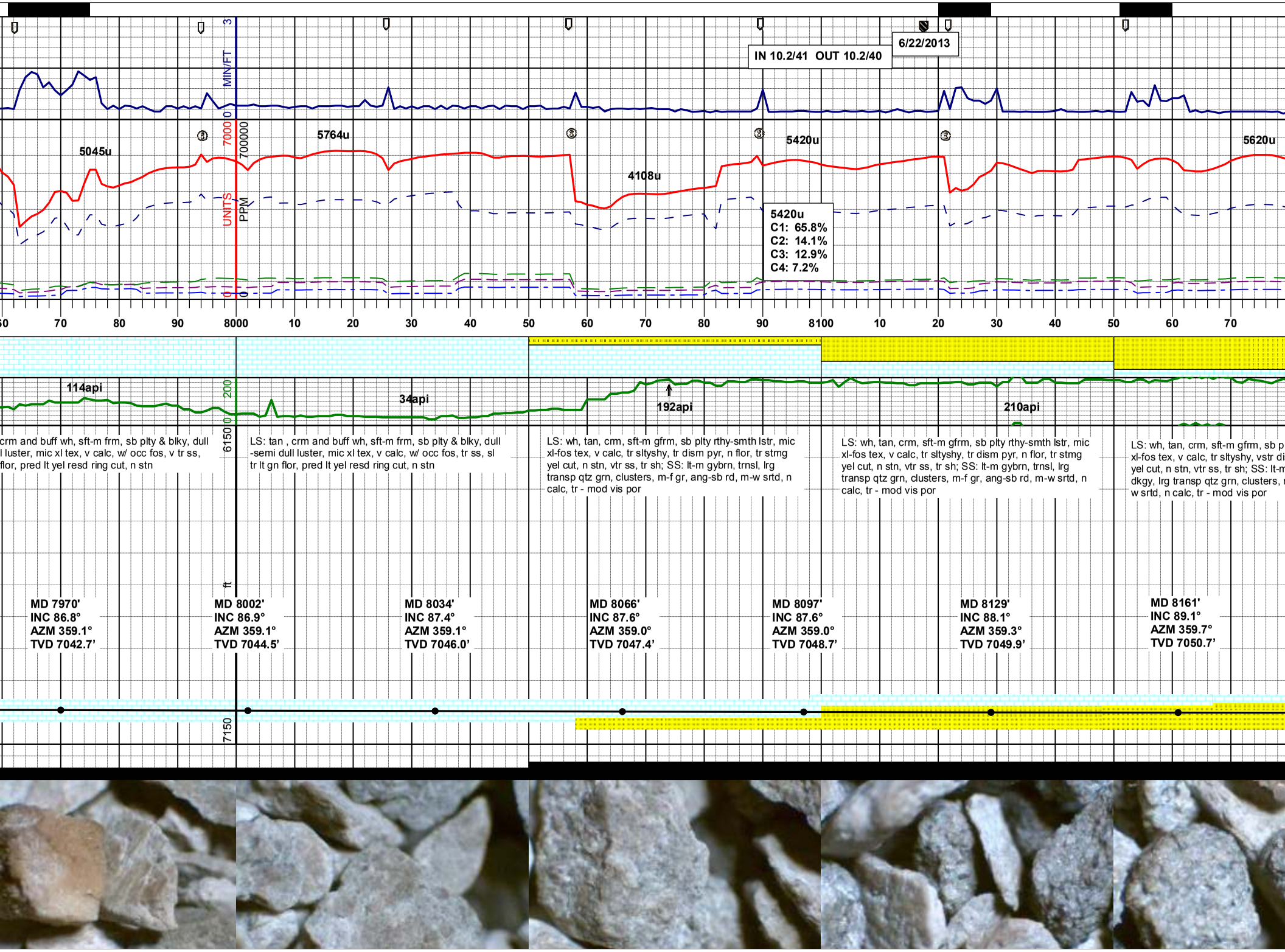

MIN/FT
3
0
6000
600000
UNITS
RPM
0
4136u
2962u
3795u
5374u
4978u
5578u
4647u
C1: 75.0%
C2: 13.0%
C3: 8.6%
C4: 3.4%
10
20
30
40
50
60
70
80
90
7400
7500
42api
98api
130api
200
0
6150
7150
ft
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull -semi dull luster, mic xl tex, v calc, w/ occ fos, sl tr lt gn flor, pred lt yel resd ring cut, n stn
BHA #3 INFORMATION
BIT: 6.125" Smith
NOZZLES: ?
BIT SERIAL NUMBER: # JG3453
MD 7316'
INC 78.1°
AZM 1.1°
TVD 7017.9'
MD 7343'
INC 80.5°
AZM 1.4°
TVD 7022.9'
MD 7376'
INC 83.4°
AZM 1.6°
TVD 7027.6'
7" Intermediate Casing
Set To 7379'
MD 7406'
INC 84.7°
AZM 1.8°
TVD 7030.7'
MD 7436'
INC 85.1°
AZM 1.2°
TVD 7033.4'
MD 7466'
INC 86.0°
AZM 1.6°
TVD 7035.7'
MD 7496'
INC 87.2°
AZM 1.8°
TVD 7037.5'

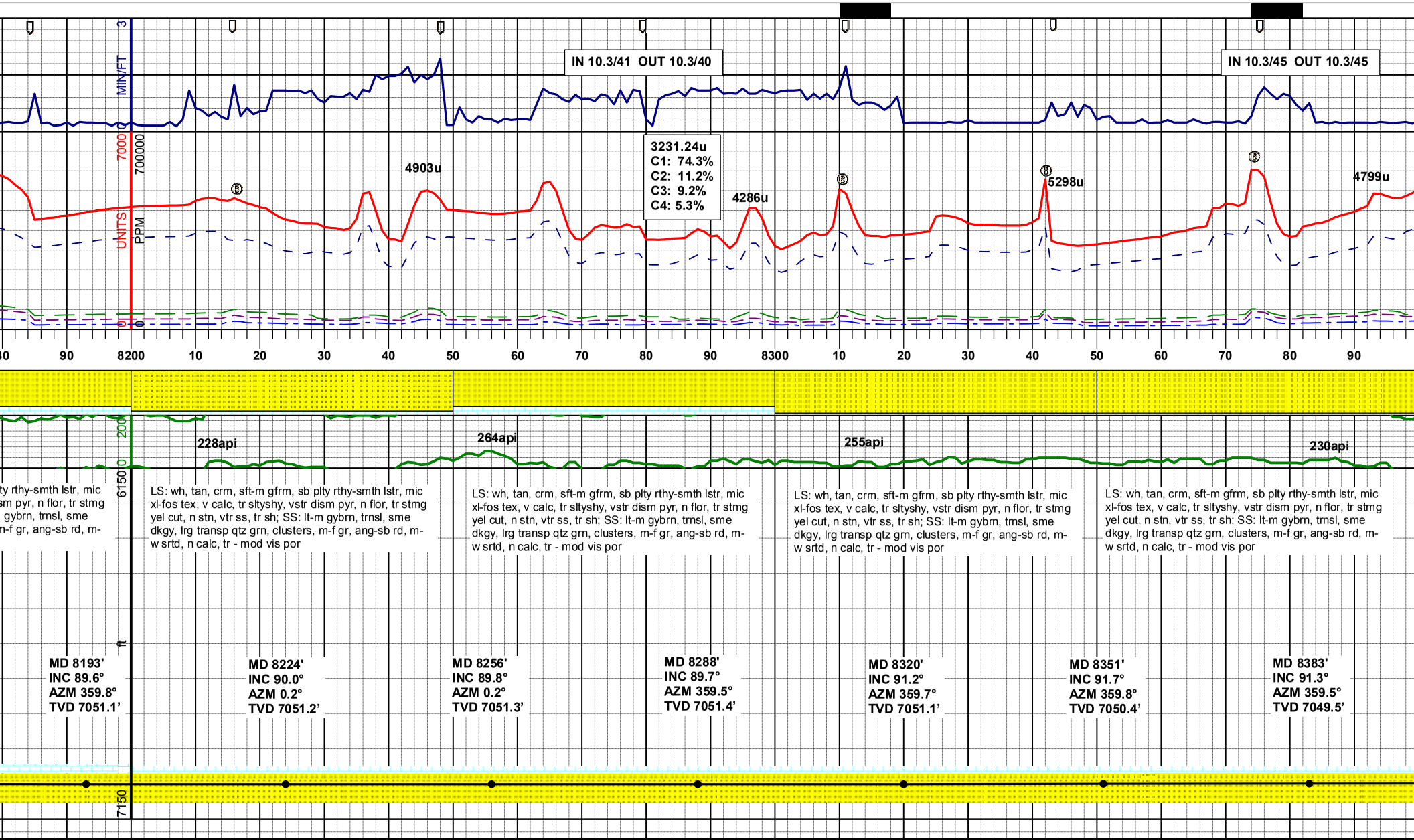

IN 10.0/39 OUT 10.0/40
MIN/FT
3
0
4312u
5592u
5615u
5079u
C1: 71.6%
C2: 14.3%
C3: 9.9%
C4: 4.2%
UNITS
PPM
7000
0
700000
0
GAS SCALE CHANGE
0-7000u
20
30
40
50
60
70
80
90
7600
10
20
30
40
50
60
70
80
90
7700
10
20
30

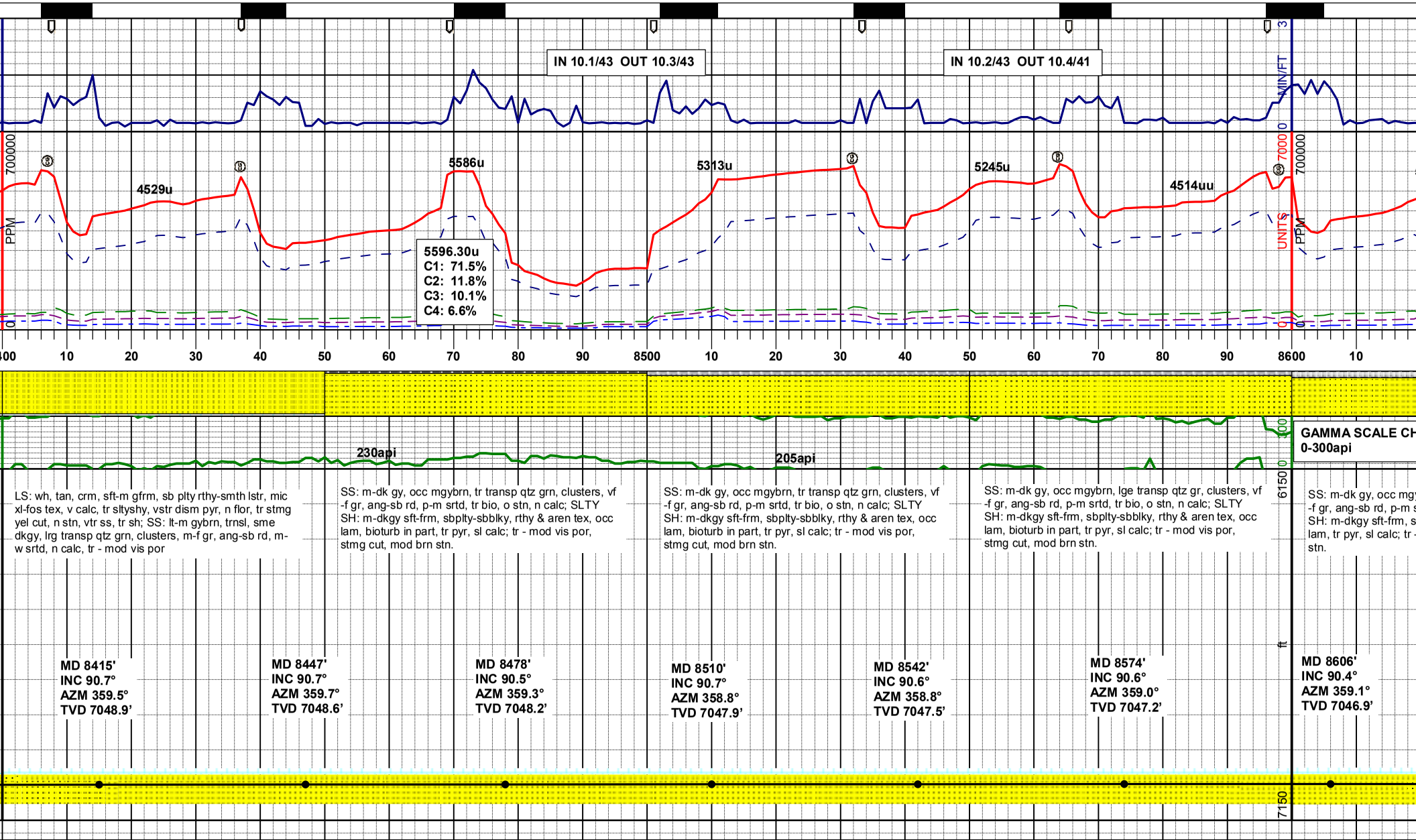

90api
47api
130api
117api
200
0
6150
7150
ft
wh, sft-m frm, sb plty & blky, dull
xl tex, v calc, w/ occ fos, v tr ss,
el resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr ss,
sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr ss,
sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr ss,
sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty &
-semi dull luster, mic xl tex, v calc, w/ occ fos,
sl tr lt gn flor, pred lt yel resd ring cut, n stn
MD 7526'
INC 88.0°
AZM 1.9°
TVD 7038.7'
MD 7557'
INC 88.4°
AZM 1.4°
TVD 7039.7'
MD 7589'
INC 89.5°
AZM 0.9°
TVD 7040.3'
MD 7620'
INC 90.5°
AZM 0.0°
TVD 7040.3'
MD 7653'
INC 91.3°
AZM 359.3°
TVD 7039.8'
MD 7684'
INC 91.1°
AZM 358.6°
TVD 7039.1'
MD 7716'
INC 91.1°
AZM 358.8°
TVD 7038.5'

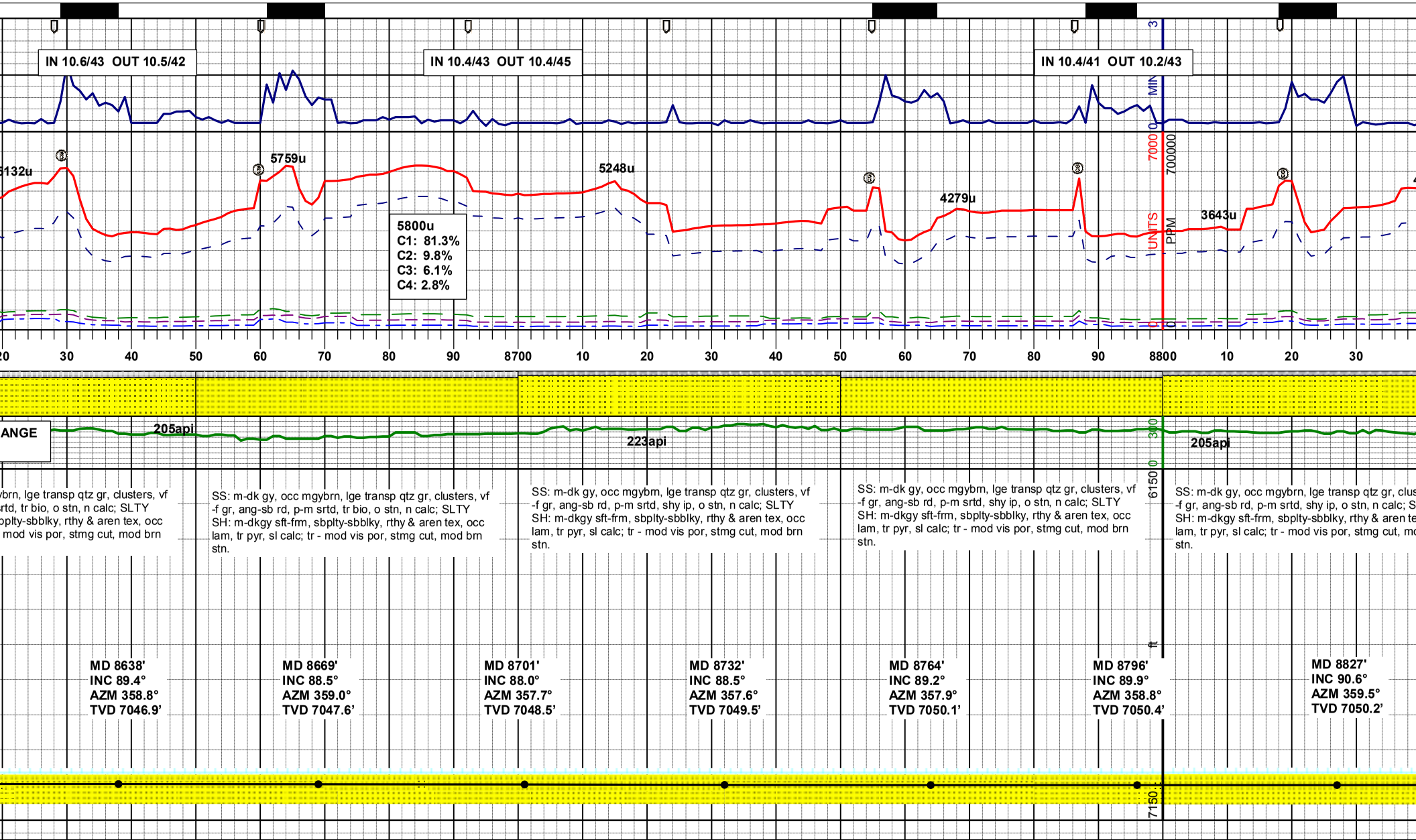

IN 10.1/40 OUT 10.0/39
IN 10.2/40 OUT 10.2/40
MIN
3
0
UNITS
PPM
7000
0
5719u
5693u
5678u
5458u
5678u
C1: 73.9%
C2: 14.6%
C3: 8.1%
C4: 3.4%
40
50
60
70
80
90
7800
10
20
30
40
50
60
70
80
90
7900
10
20
30
40
50

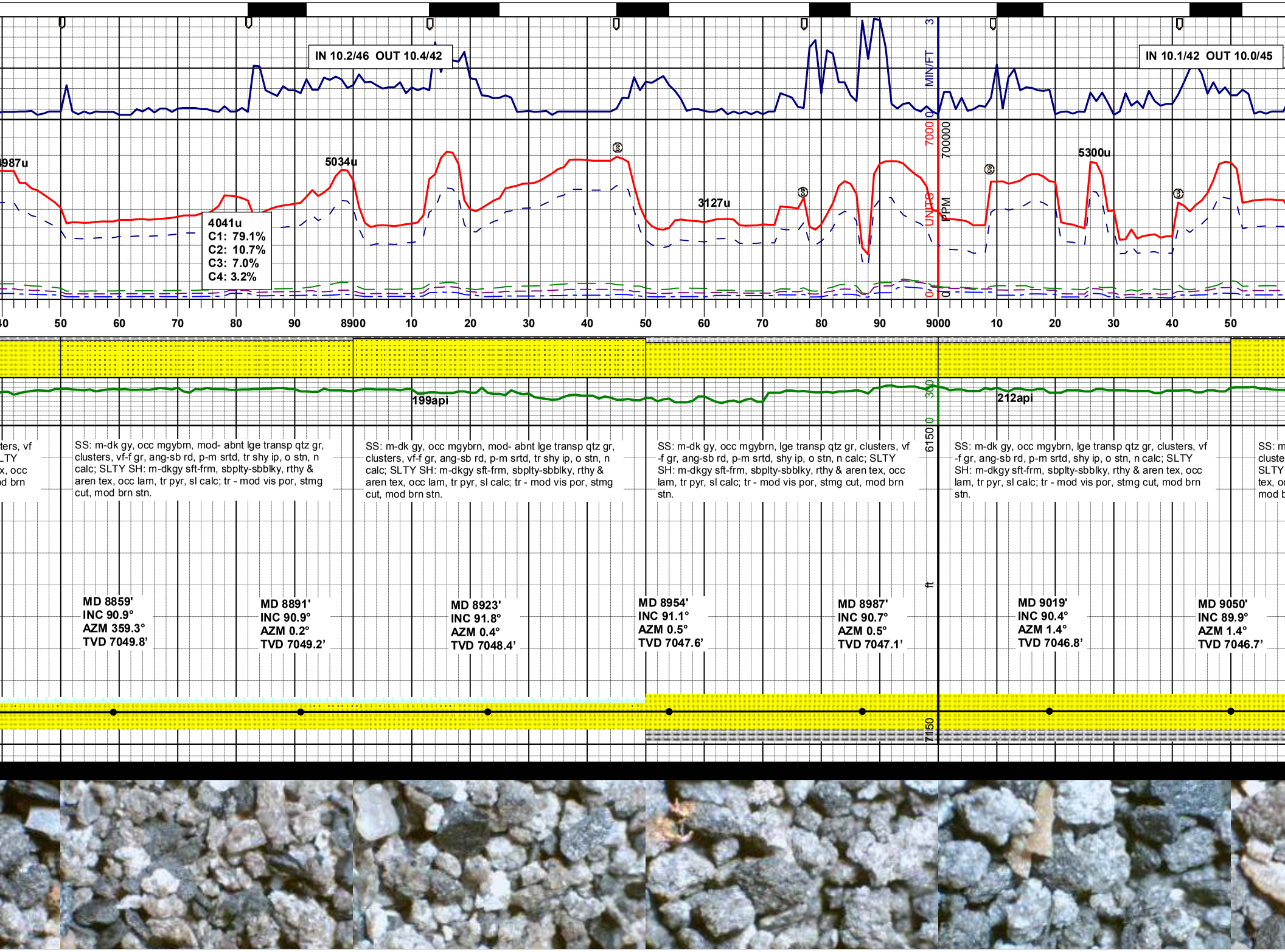

65api
93api
57api
200
0
6150
ft
7150
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr ss,
sl tr lt gn flor, pred lt yel resd ring cut, n stn
MD 7748'
INC 90.0°
AZM 358.1°
TVD 7038.2'
MD 7779'
INC 89.4°
AZM 357.7°
TVD 7038.4'
MD 7811'
INC 88.7°
AZM 358.1°
TVD 7038.9'
MD 7843'
INC 88.7°
AZM 358.4°
TVD 7039.6'
MD 7875'
INC 89.2°
AZM 358.1°
TVD 7040.2'
MD 7907'
INC 89.2°
AZM 358.1°
TVD 7040.7'
MD 7938'
INC 88.3°
AZM 359.1°
TVD 7041.3'

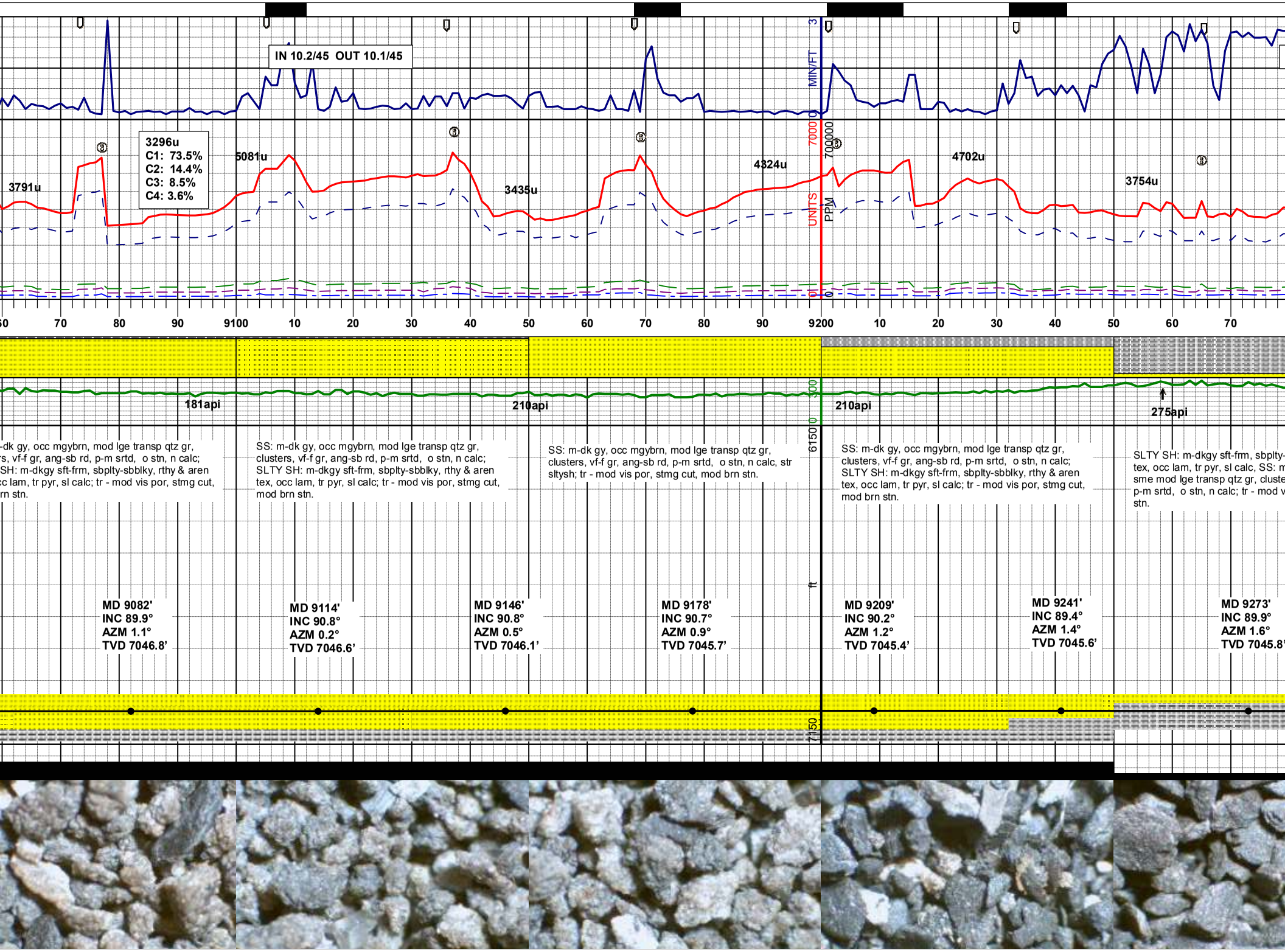

IN 10.2/41 OUT 10.2/40
6/22/2013
MIN/FT
3
0
5045u
5764u
4108u
5420u
5620u
7000
0
700000
0
UNITS
PPM
5420u
C1: 65.8%
C2: 14.1%
C3: 12.9%
C4: 7.2%
70
80
90
8000
10
20
30
40
50
60
70
80
90
8100
10
20
30
40
50
60
70
114api
34api
192api
210api
200
0
6150
ft
7150
crm and buff wh, sft-m frm, sb plty & blky, dull
l luster, mic xl tex, v calc, w/ occ fos, v tr ss,
flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, tr ss, sl
tr lt gn flor, pred lt yel resd ring cut, n stn
LS: wh, tan, crm, sft-m gfrm, sb plty rthy-smth lstr, mic
xl-fos tex, v calc, tr sltyshy, tr dism pyr, n flor, tr stmg
yel cut, n stn, vtr ss, tr sh; SS: lt-m gybrn, trnsl, lrg
transp qtz grn, clusters, m-f gr, ang-sb rd, m-w srtd, n
calc, tr - mod vis por
LS: wh, tan, crm, sft-m gfrm, sb plty rthy-smth lstr, mic
xl-fos tex, v calc, tr sltyshy, tr dism pyr, n flor, tr stmg
yel cut, n stn, vtr ss, tr sh; SS: lt-m gybrn, trnsl, lrg
transp qtz grn, clusters, m-f gr, ang-sb rd, m-w srtd, n
calc, tr - mod vis por
LS: wh, tan, crm, sft-m gfrm, sb p
xl-fos tex, v calc, tr sltyshy, vstr di
yel cut, n stn, vtr ss, tr sh; SS: lt-m
dkgy, lrg transp qtz grn, clusters,
w srtd, n calc, tr - mod vis por
MD 7970'
INC 86.8°
AZM 359.1°
TVD 7042.7'
MD 8002'
INC 86.9°
AZM 359.1°
TVD 7044.5'
MD 8034'
INC 87.4°
AZM 359.1°
TVD 7046.0'
MD 8066'
INC 87.6°
AZM 359.0°
TVD 7047.4'
MD 8097'
INC 87.6°
AZM 359.0°
TVD 7048.7'
MD 8129'
INC 88.1°
AZM 359.3°
TVD 7049.9'
MD 8161'
INC 89.1°
AZM 359.7°
TVD 7050.7'

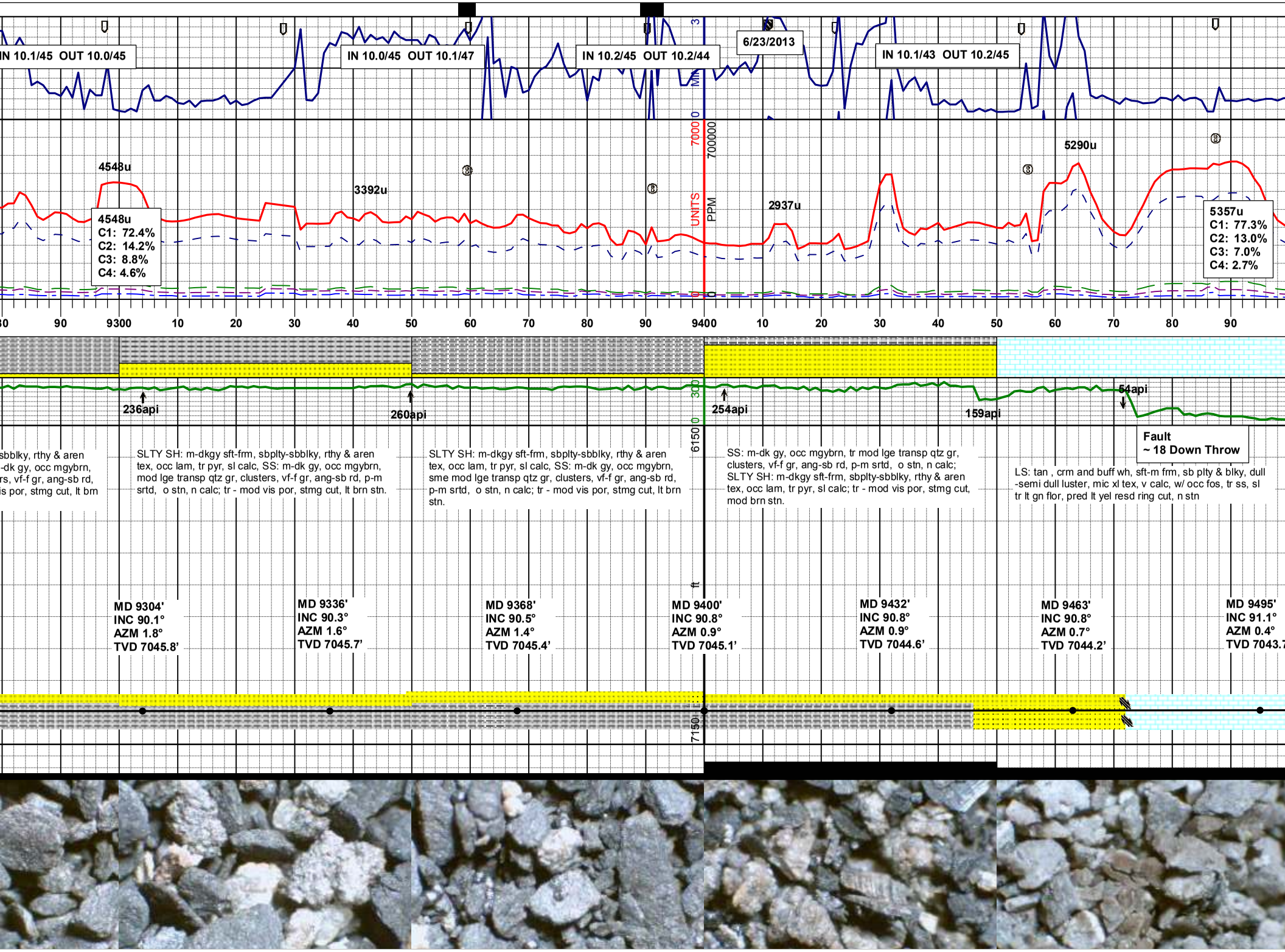

IN 10.3/41 OUT 10.3/40
IN 10.3/45 OUT 10.3/45
MIN/FT
3
0
UNITS
PPM
7000
700000
0
4903u
3231.24u
C1: 74.3%
C2: 11.2%
C3: 9.2%
C4: 5.3%
4286u
5298u
4799u
90
8200
10
20
30
40
50
60
70
80
90
8300
10
20
30
40
50
60
70
80
90
200
0
228api
264api
255api
230api
6150
7150
ft
LS: wh, tan, crm, sft-m gfrm, sb plty rthy-smth lstr, mic xl-fos tex, v calc, tr sltyshy, vstr dism pyr, n flor, tr stmg yel cut, n stn, vtr ss, tr sh; SS: lt-m gybrn, trnsl, sme dkgy, lrg transp qtz grn, clusters, m-f gr, ang-sb rd, m-w srtd, n calc, tr - mod vis por
MD 8193'
INC 89.6°
AZM 359.8°
TVD 7051.1'
MD 8224'
INC 90.0°
AZM 0.2°
TVD 7051.2'
MD 8256'
INC 89.8°
AZM 0.2°
TVD 7051.3'
MD 8288'
INC 89.7°
AZM 359.5°
TVD 7051.4'
MD 8320'
INC 91.2°
AZM 359.7°
TVD 7051.1'
MD 8351'
INC 91.7°
AZM 359.8°
TVD 7050.4'
MD 8383'
INC 91.3°
AZM 359.5°
TVD 7049.5'

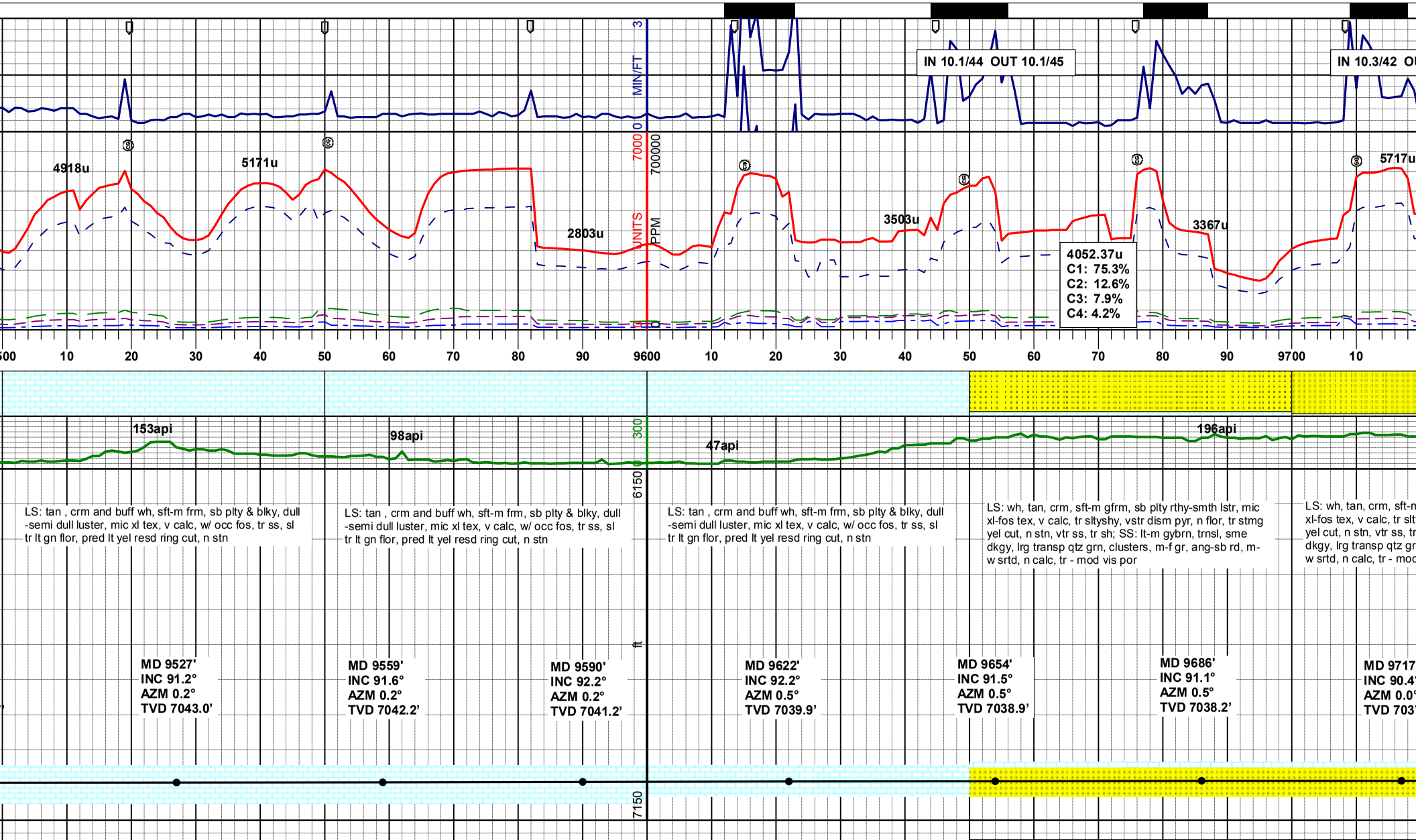

IN 10.1/43 OUT 10.3/43
IN 10.2/43 OUT 10.4/41
MIN/FT
3
0
700000
PPM
4529u
5586u
5313u
5245u
4514uu
5596.30u
C1: 71.5%
C2: 11.8%
C3: 10.1%
C4: 6.6%
UNITS
8400
10
20
30
40
50
60
70
80
90
8500
8600
GAMMA SCALE CH
0-300api
230api
205api
6150
7150
ft
LS: wh, tan, crm, sft-m gfrm, sb plty rthy-smth lstr, mic xl-fos tex, v calc, tr sltyshy, vstr dism pyr, n flor, tr stmg yel cut, n stn, vtr ss, tr sh; SS: lt-m gybrn, trnsl, sme dkgy, lrg transp qtz grn, clusters, m-f gr, ang-sb rd, m-w srtd, n calc, tr - mod vis por
SS: m-dk gy, occ mgybrn, tr transp qtz grn, clusters, vf -f gr, ang-sb rd, p-m srtd, tr bio, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, bioturb in part, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, tr transp qtz grn, clusters, vf -f gr, ang-sb rd, p-m srtd, tr bio, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, bioturb in part, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, lge transp qtz gr, clusters, vf -f gr, ang-sb rd, p-m srtd, tr bio, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, bioturb in part, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mg
-f gr, ang-sb rd, p-m s
SH: m-dkgy sft-frm, s
lam, tr pyr, sl calc; tr -
stn.
MD 8415'
INC 90.7°
AZM 359.5°
TVD 7048.9'
MD 8447'
INC 90.7°
AZM 359.7°
TVD 7048.6'
MD 8478'
INC 90.5°
AZM 359.3°
TVD 7048.2'
MD 8510'
INC 90.7°
AZM 358.8°
TVD 7047.9'
MD 8542'
INC 90.6°
AZM 358.8°
TVD 7047.5'
MD 8574'
INC 90.6°
AZM 359.0°
TVD 7047.2'
MD 8606'
INC 90.4°
AZM 359.1°
TVD 7046.9'

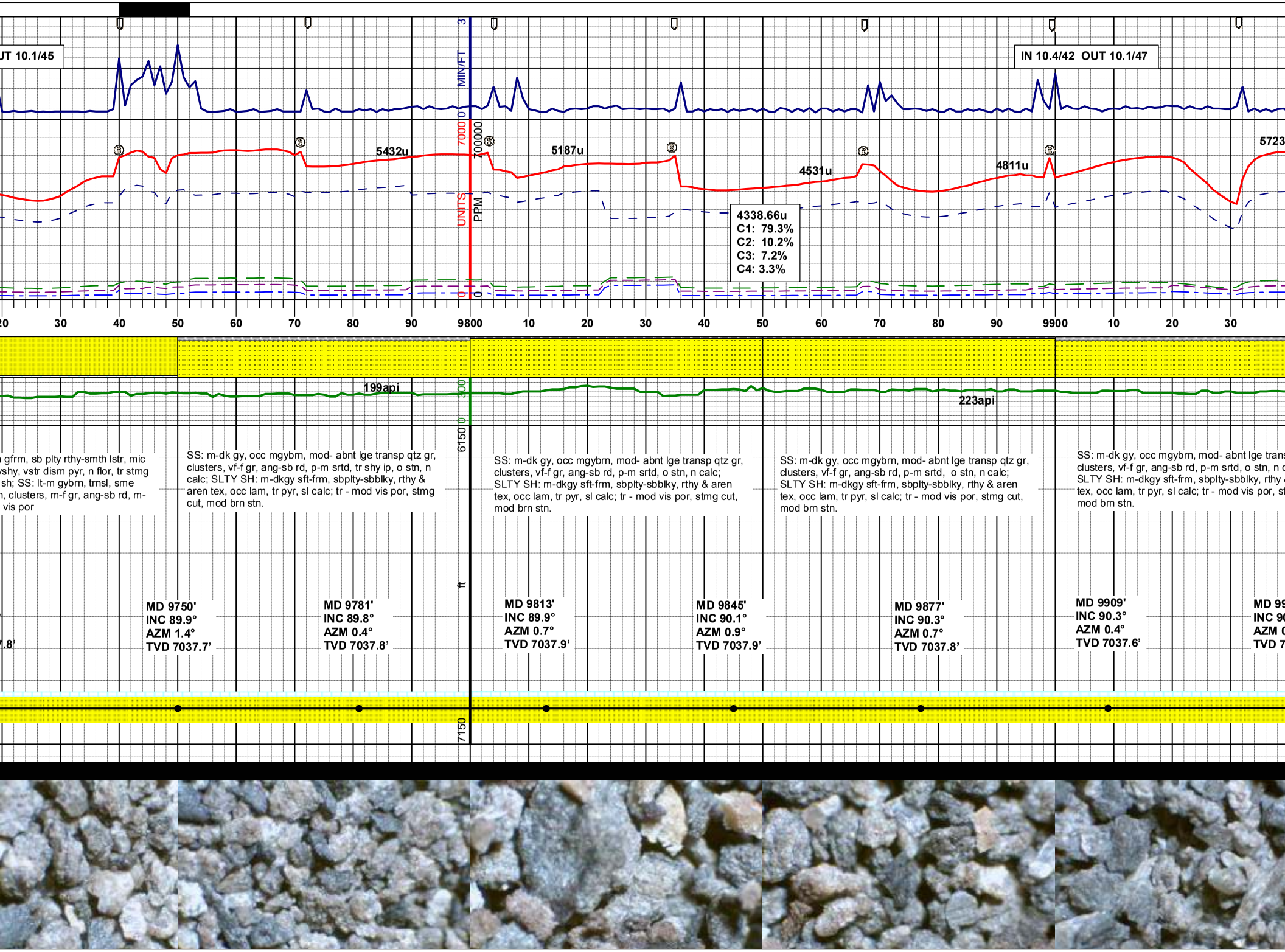

IN 10.6/43 OUT 10.5/42
IN 10.4/43 OUT 10.4/45
IN 10.4/41 OUT 10.2/43
MIN
3
0
7000
700000
UNITS
PPM
0
6132u
5759u
5248u
4279u
3643u
5800u
C1: 81.3%
C2: 9.8%
C3: 6.1%
C4: 2.8%
20
30
40
50
60
70
80
90
8700
10
20
30
40
50
60
70
80
90
8800
10
20
30
ANGE
205api
223api
205api
300
0
6150
ft
7150
ybrn, lge transp qtz gr, clusters, vf
srtd, tr bio, o stn, n calc; SLTY
bplty-sbblky, rthy & aren tex, occ
mod vis por, stmg cut, mod brn
SS: m-dk gy, occ mgybrn, lge transp qtz gr, clusters, vf
-f gr, ang-sb rd, p-m srtd, tr bio, o stn, n calc; SLTY
SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ
lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn
stn.
SS: m-dk gy, occ mgybrn, lge transp qtz gr, clusters, vf
-f gr, ang-sb rd, p-m srtd, shy ip, o stn, n calc; SLTY
SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ
lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn
stn.
SS: m-dk gy, occ mgybrn, lge transp qtz gr, clusters, vf
-f gr, ang-sb rd, p-m srtd, shy ip, o stn, n calc; SLTY
SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ
lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn
stn.
SS: m-dk gy, occ mgybrn, lge transp qtz gr, clus
-f gr, ang-sb rd, p-m srtd, shy ip, o stn, n calc; S
SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren te
lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mo
stn.
MD 8638'
INC 89.4°
AZM 358.8°
TVD 7046.9'
MD 8669'
INC 88.5°
AZM 359.0°
TVD 7047.6'
MD 8701'
INC 88.0°
AZM 357.7°
TVD 7048.5'
MD 8732'
INC 88.5°
AZM 357.6°
TVD 7049.5'
MD 8764'
INC 89.2°
AZM 357.9°
TVD 7050.1'
MD 8796'
INC 89.9°
AZM 358.8°
TVD 7050.4'
MD 8827'
INC 90.6°
AZM 359.5°
TVD 7050.2'

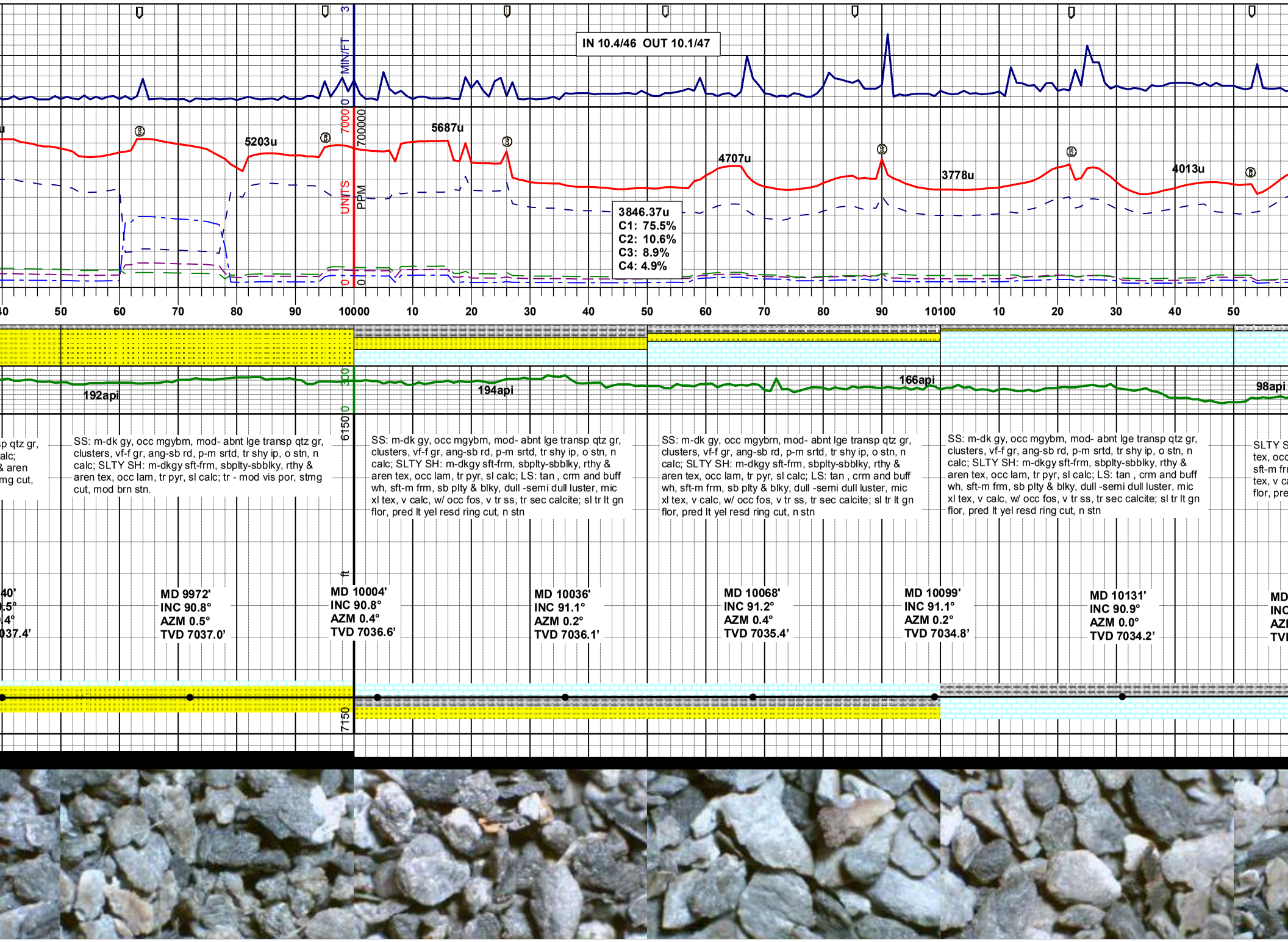

IN 10.2/46 OUT 10.4/42
IN 10.1/42 OUT 10.0/45
MIN/FT
3
0
7000
700000
UNITS
PPM
0
0
987u
5034u
3127u
5300u
4041u
C1: 79.1%
C2: 10.7%
C3: 7.0%
C4: 3.2%
40
50
60
70
80
90
8900
10
20
30
40
50
60
70
80
90
9000
10
20
30
40
50
199api
212api
300
0
6150
7150
ft
ters, vf
LTY
x, occ
od brn
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, tr shy ip, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, tr shy ip, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, lge transp qtz gr, clusters, vf -f gr, ang-sb rd, p-m srtd, shy ip, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, lge transp qtz gr, clusters, vf -f gr, ang-sb rd, p-m srtd, shy ip, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m
cluste
SLTY
tex, oc
mod b
MD 8859'
INC 90.9°
AZM 359.3°
TVD 7049.8'
MD 8891'
INC 90.9°
AZM 0.2°
TVD 7049.2'
MD 8923'
INC 91.8°
AZM 0.4°
TVD 7048.4'
MD 8954'
INC 91.1°
AZM 0.5°
TVD 7047.6'
MD 8987'
INC 90.7°
AZM 0.5°
TVD 7047.1'
MD 9019'
INC 90.4°
AZM 1.4°
TVD 7046.8'
MD 9050'
INC 89.9°
AZM 1.4°
TVD 7046.7'

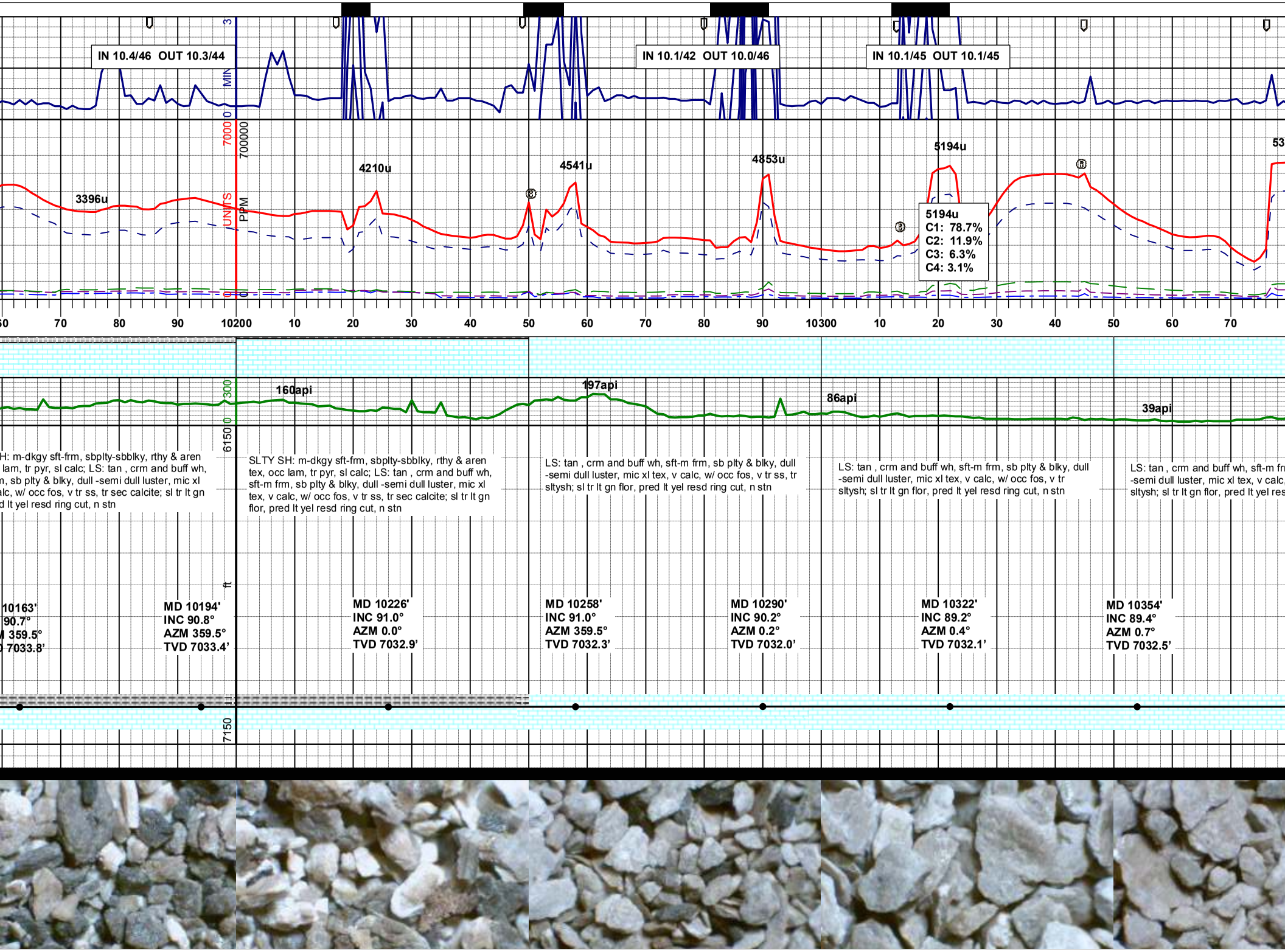

IN 10.2/45 OUT 10.1/45
MIN/FT
3
0
3296u
C1: 73.5%
C2: 14.4%
C3: 8.5%
C4: 3.6%
3791u
5081u
3435u
4324u
4702u
3754u
7000
700000
UNITS
PPM
0
70
80
90
9100
10
20
30
40
50
60
70
80
90
9200
10
20
30
40
50
60
70
181api
210api
210api
275api
300
0
6150
7150
ft
-dk gy, occ mgybrn, mod lge transp qtz gr,
rs, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc;
SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren
cc lam, tr pyr, sl calc; tr - mod vis por, stmg cut,
rn stn.
SS: m-dk gy, occ mgybrn, mod lge transp qtz gr,
clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc;
SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren
tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut,
mod brn stn.
SS: m-dk gy, occ mgybrn, mod lge transp qtz gr,
clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc, str
sltysh; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod lge transp qtz gr,
clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc;
SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren
tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut,
mod brn stn.
SLTY SH: m-dkgy sft-frm, sbplty-
tex, occ lam, tr pyr, sl calc, SS: m
sme mod lge transp qtz gr, cluste
p-m srtd, o stn, n calc; tr - mod v
stn.
MD 9082'
INC 89.9°
AZM 1.1°
TVD 7046.8'
MD 9114'
INC 90.8°
AZM 0.2°
TVD 7046.6'
MD 9146'
INC 90.8°
AZM 0.5°
TVD 7046.1'
MD 9178'
INC 90.7°
AZM 0.9°
TVD 7045.7'
MD 9209'
INC 90.2°
AZM 1.2°
TVD 7045.4'
MD 9241'
INC 89.4°
AZM 1.4°
TVD 7045.6'
MD 9273'
INC 89.9°
AZM 1.6°
TVD 7045.8'

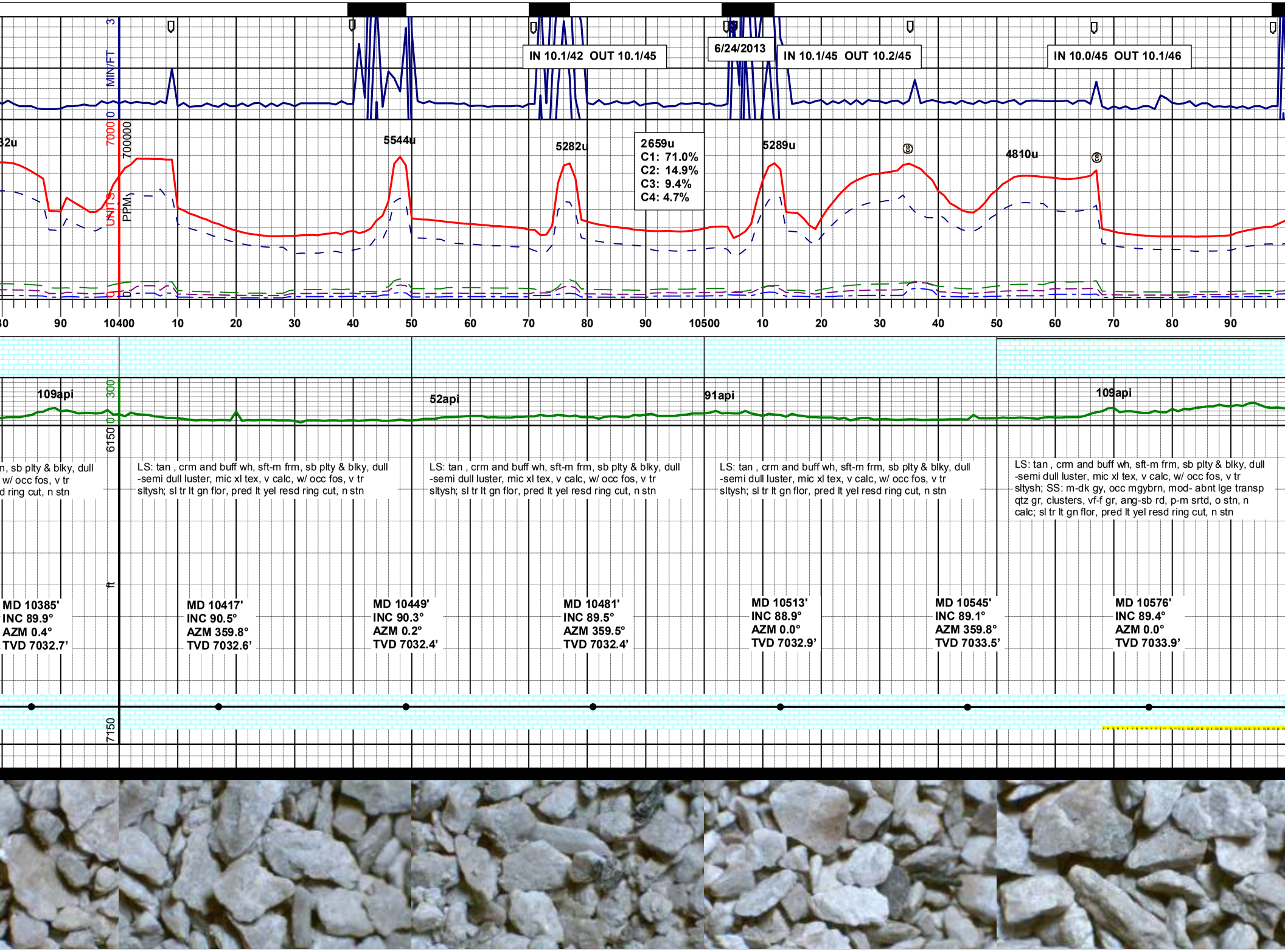

IN 10.1/45 OUT 10.0/45
IN 10.0/45 OUT 10.1/47
IN 10.2/45 OUT 10.2/44
6/23/2013
IN 10.1/43 OUT 10.2/45
MV
3
0
UNITS
PPM
7000
0
700000
0
4548u
3392u
2937u
5290u
4548u
C1: 72.4%
C2: 14.2%
C3: 8.8%
C4: 4.6%
5357u
C1: 77.3%
C2: 13.0%
C3: 7.0%
C4: 2.7%
90
9300
10
20
30
40
50
60
70
80
90
9400
10
20
30
40
50
60
70
80
90
236api
260api
254api
159api
54api
300
0
6150
0
Fault
~ 18 Down Throw
sbblky, rthy & aren
-dk gy, occ mgybrn,
rs, vf-f gr, ang-sb rd,
is por, stmg cut, lt brn
SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc, SS: m-dk gy, occ mgybrn, mod lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; tr - mod vis por, stmg cut, lt brn stn.
SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc, SS: m-dk gy, occ mgybrn, sme mod lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; tr - mod vis por, stmg cut, lt brn stn.
SS: m-dk gy, occ mgybrn, tr mod lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull -semi dull luster, mic xl tex, v calc, w/ occ fos, tr ss, sl tr lt gn flor, pred lt yel resd ring cut, n stn
ft
7150
MD 9304'
INC 90.1°
AZM 1.8°
TVD 7045.8'
MD 9336'
INC 90.3°
AZM 1.6°
TVD 7045.7'
MD 9368'
INC 90.5°
AZM 1.4°
TVD 7045.4'
MD 9400'
INC 90.8°
AZM 0.9°
TVD 7045.1'
MD 9432'
INC 90.8°
AZM 0.9°
TVD 7044.6'
MD 9463'
INC 90.8°
AZM 0.7°
TVD 7044.2'
MD 9495'
INC 91.1°
AZM 0.4°
TVD 7043.7

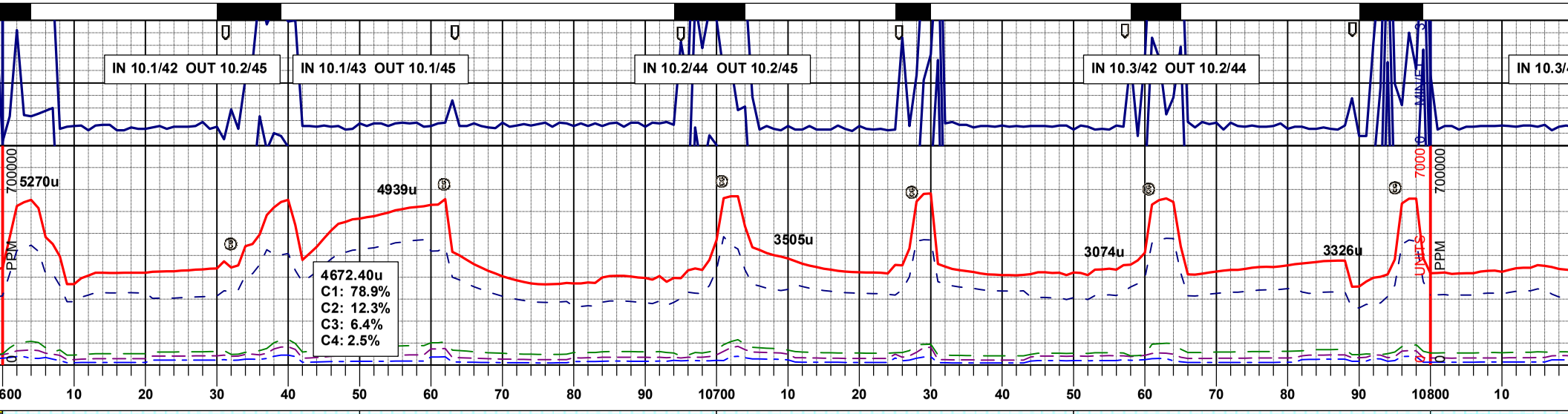

IN 10.1/44 OUT 10.1/45
IN 10.3/42 OU
MIN/FT
3
0
UNITS
7000
0
PPM
700000
0
4918u
5171u
2803u
3503u
3367u
5717u
4052.37u
C1: 75.3%
C2: 12.6%
C3: 7.9%
C4: 4.2%
500
10
20
30
40
50
60
70
80
90
9600
10
20
30
40
50
60
70
80
90
9700
10
153api
98api
47api
196api
300
6150
7150
ft
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull -semi dull luster, mic xl tex, v calc, w/ occ fos, tr ss, sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull -semi dull luster, mic xl tex, v calc, w/ occ fos, tr ss, sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull -semi dull luster, mic xl tex, v calc, w/ occ fos, tr ss, sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: wh, tan, crm, sft-m gfrm, sb plty rthy-smth lstr, mic xl-fos tex, v calc, tr sltyshy, vstr dism pyr, n flor, tr stmg yel cut, n stn, vtr ss, tr sh; SS: lt-m gybrn, trnsl, sme dkgy, lrg transp qtz grn, clusters, m-f gr, ang-sb rd, m-w srtd, n calc, tr - mod vis por
LS: wh, tan, crm, sft-m
xl-fos tex, v calc, tr slt
yel cut, n stn, vtr ss, tr
dkgy, lrg transp qtz gr
w srtd, n calc, tr - moc
MD 9527'
INC 91.2°
AZM 0.2°
TVD 7043.0'
MD 9559'
INC 91.6°
AZM 0.2°
TVD 7042.2'
MD 9590'
INC 92.2°
AZM 0.2°
TVD 7041.2'
MD 9622'
INC 92.2°
AZM 0.5°
TVD 7039.9'
MD 9654'
INC 91.5°
AZM 0.5°
TVD 7038.9'
MD 9686'
INC 91.1°
AZM 0.5°
TVD 7038.2'
MD 9717
INC 90.4
AZM 0.0
TVD 703

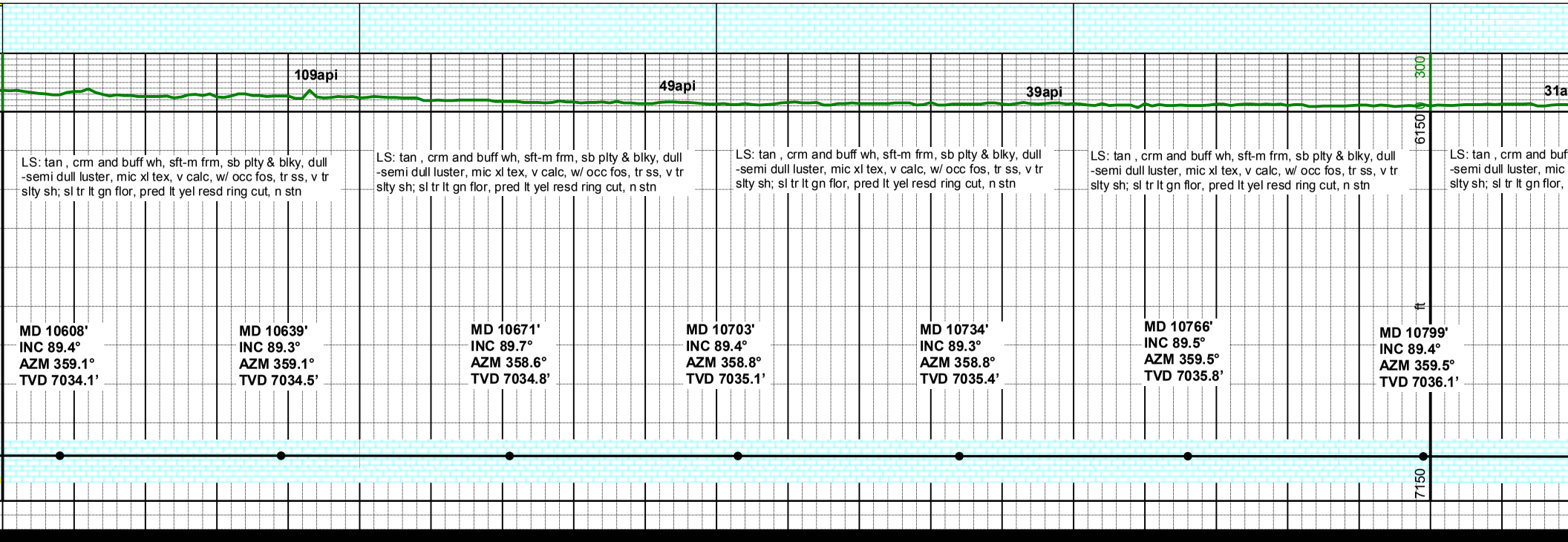

UT 10.1/45
IN 10.4/42 OUT 10.1/47
MIN/FT
3
0
UNITS
PPM
7000
0
100000
0
5432u
5187u
4531u
4811u
5723
4338.66u
C1: 79.3%
C2: 10.2%
C3: 7.2%
C4: 3.3%
20
30
40
50
60
70
80
90
9800
10
20
30
40
50
60
70
80
90
9900
10
20
30
199api
223api
300
0
6150
7150
ft
gfrm, sb plty rthy-smth lstr, mic
vshy, vstr dism pyr, n flor, tr stmg
sh; SS: lt-m gybrn, trnsl, sme
n, clusters, m-f gr, ang-sb rd, m-
vis por
SS: m-dk gy, occ mgybm, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, tr shy ip, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge trans
clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n c
SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy
tex, occ lam, tr pyr, sl calc; tr - mod vis por, st
mod brn stn.
.8'
MD 9750'
INC 89.9°
AZM 1.4°
TVD 7037.7'
MD 9781'
INC 89.8°
AZM 0.4°
TVD 7037.8'
MD 9813'
INC 89.9°
AZM 0.7°
TVD 7037.9'
MD 9845'
INC 90.1°
AZM 0.9°
TVD 7037.9'
MD 9877'
INC 90.3°
AZM 0.7°
TVD 7037.8'
MD 9909'
INC 90.3°
AZM 0.4°
TVD 7037.6'
MD 99
INC 90
AZM 0
TVD 7

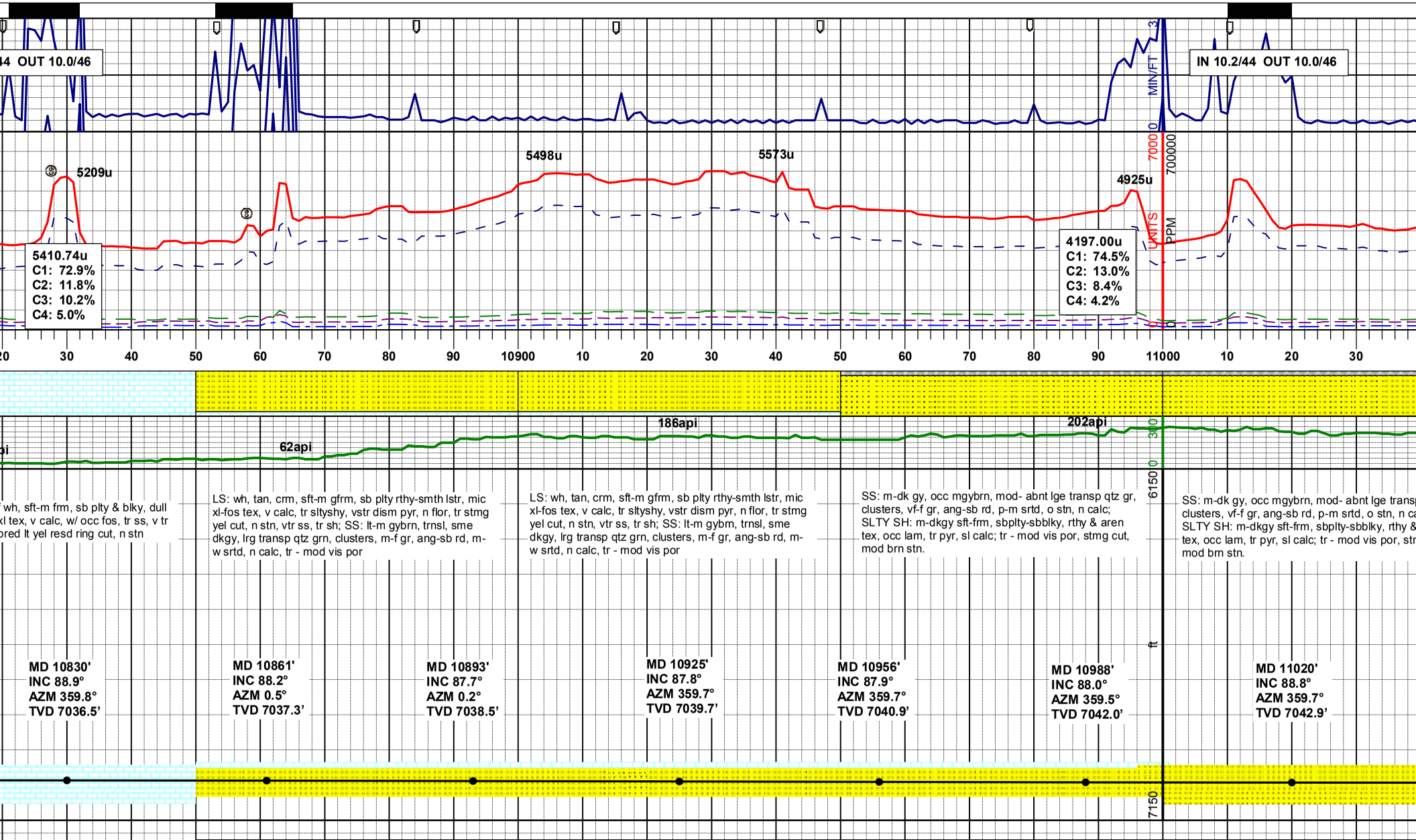

IN 10.4/46 OUT 10.1/47
MIN/FT
UNITS
PPM
5203u
5687u
4707u
3778u
4013u
3846.37u
C1: 75.5%
C2: 10.6%
C3: 8.9%
C4: 4.9%
192api
194api
166api
98api
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, tr shy ip, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, tr shy ip, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull -semi dull luster, mic xl tex, v calc, w/ occ fos, v tr ss, tr sec calcite; sl tr lt gn flor, pred lt yel resd ring cut, n stn
MD 9972'
INC 90.8°
AZM 0.5°
TVD 7037.0'
MD 10004'
INC 90.8°
AZM 0.4°
TVD 7036.6'
MD 10036'
INC 91.1°
AZM 0.2°
TVD 7036.1'
MD 10068'
INC 91.2°
AZM 0.4°
TVD 7035.4'
MD 10099'
INC 91.1°
AZM 0.2°
TVD 7034.8'
MD 10131'
INC 90.9°
AZM 0.0°
TVD 7034.2'

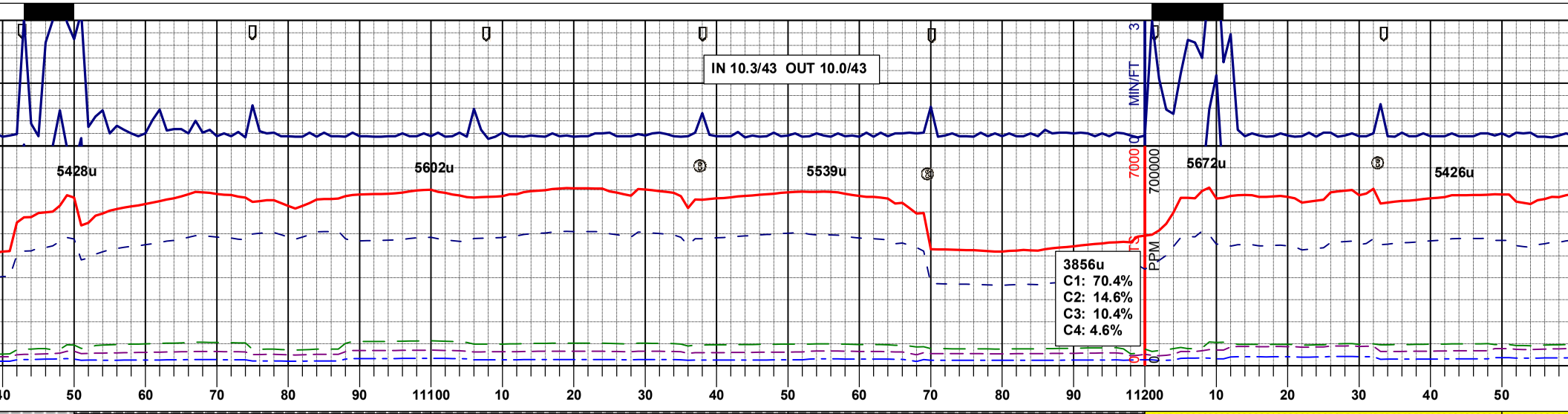

IN 10.4/46 OUT 10.3/44
IN 10.1/42 OUT 10.0/46
IN 10.1/45 OUT 10.1/45
MIN
3
0
7000
0
700000
UNITS
PPM
3396u
4210u
4541u
4853u
5194u
5194u
C1: 78.7%
C2: 11.9%
C3: 6.3%
C4: 3.1%
50
70
80
90
10200
10
20
30
40
50
60
70
80
90
10300
10
20
30
40
50
60
70
300
0
6150
160api
197api
86api
39api
ft
7150
H: m-dkgy sft-frm, sbplty-sbblky, rthy & aren
lam, tr pyr, sl calc; LS: tan , crm and buff wh,
n, sb plty & blky, dull -semi dull luster, mic xl
alc, w/ occ fos, v tr ss, tr sec calcite; sl tr lt gn
d lt yel resd ring cut, n stn
SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren
tex, occ lam, tr pyr, sl calc; LS: tan , crm and buff wh,
sft-m frm, sb plty & blky, dull -semi dull luster, mic xl
tex, v calc, w/ occ fos, v tr ss, tr sec calcite; sl tr lt gn
flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr ss, tr
sltysh; sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr
sltysh; sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m fr
-semi dull luster, mic xl tex, v calc
sltysh; sl tr lt gn flor, pred lt yel res
10163'
90.7°
359.5°
7033.8'
MD 10194'
INC 90.8°
AZM 359.5°
TVD 7033.4'
MD 10226'
INC 91.0°
AZM 0.0°
TVD 7032.9'
MD 10258'
INC 91.0°
AZM 359.5°
TVD 7032.3'
MD 10290'
INC 90.2°
AZM 0.2°
TVD 7032.0'
MD 10322'
INC 89.2°
AZM 0.4°
TVD 7032.1'
MD 10354'
INC 89.4°
AZM 0.7°
TVD 7032.5'

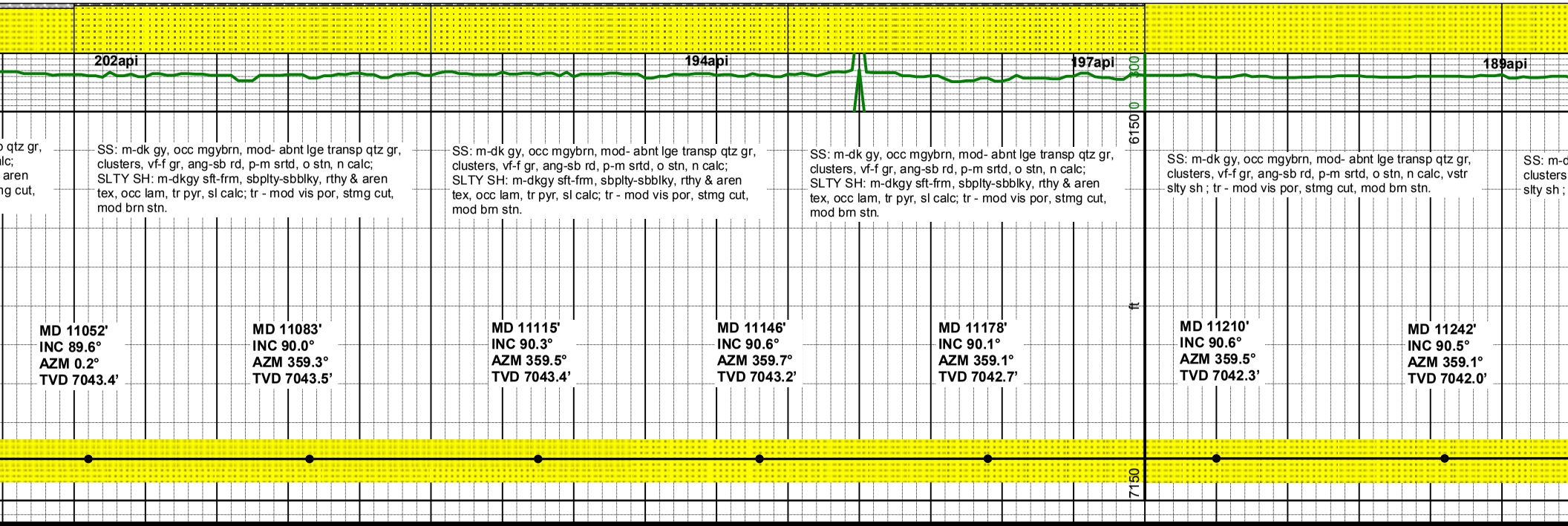

MIN/FT
3
0
IN 10.1/42 OUT 10.1/45
6/24/2013
IN 10.1/45 OUT 10.2/45
IN 10.0/45 OUT 10.1/46
UNITS
7000
0
700000
PPM
5544u
5282u
2659u
C1: 71.0%
C2: 14.9%
C3: 9.4%
C4: 4.7%
5289u
4810u
90
10400
10
20
30
40
50
60
70
80
90
10500
10
20
30
40
50
60
70
80
90
109api
300
0
52api
91api
109api
6150
ft
7150
n, sb plty & blky, dull
w/ occ fos, v tr
d ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr
sltysh; sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr
sltysh; sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr
sltysh; sl tr lt gn flor, pred lt yel resd ring cut, n stn
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull
-semi dull luster, mic xl tex, v calc, w/ occ fos, v tr
sltysh; SS: m-dk gy, occ mgybrn, mod- abnt lge transp
qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n
calc; sl tr lt gn flor, pred lt yel resd ring cut, n stn
MD 10385'
INC 89.9°
AZM 0.4°
TVD 7032.7'
MD 10417'
INC 90.5°
AZM 359.8°
TVD 7032.6'
MD 10449'
INC 90.3°
AZM 0.2°
TVD 7032.4'
MD 10481'
INC 89.5°
AZM 359.5°
TVD 7032.4'
MD 10513'
INC 88.9°
AZM 0.0°
TVD 7032.9'
MD 10545'
INC 89.1°
AZM 359.8°
TVD 7033.5'
MD 10576'
INC 89.4°
AZM 0.0°
TVD 7033.9'

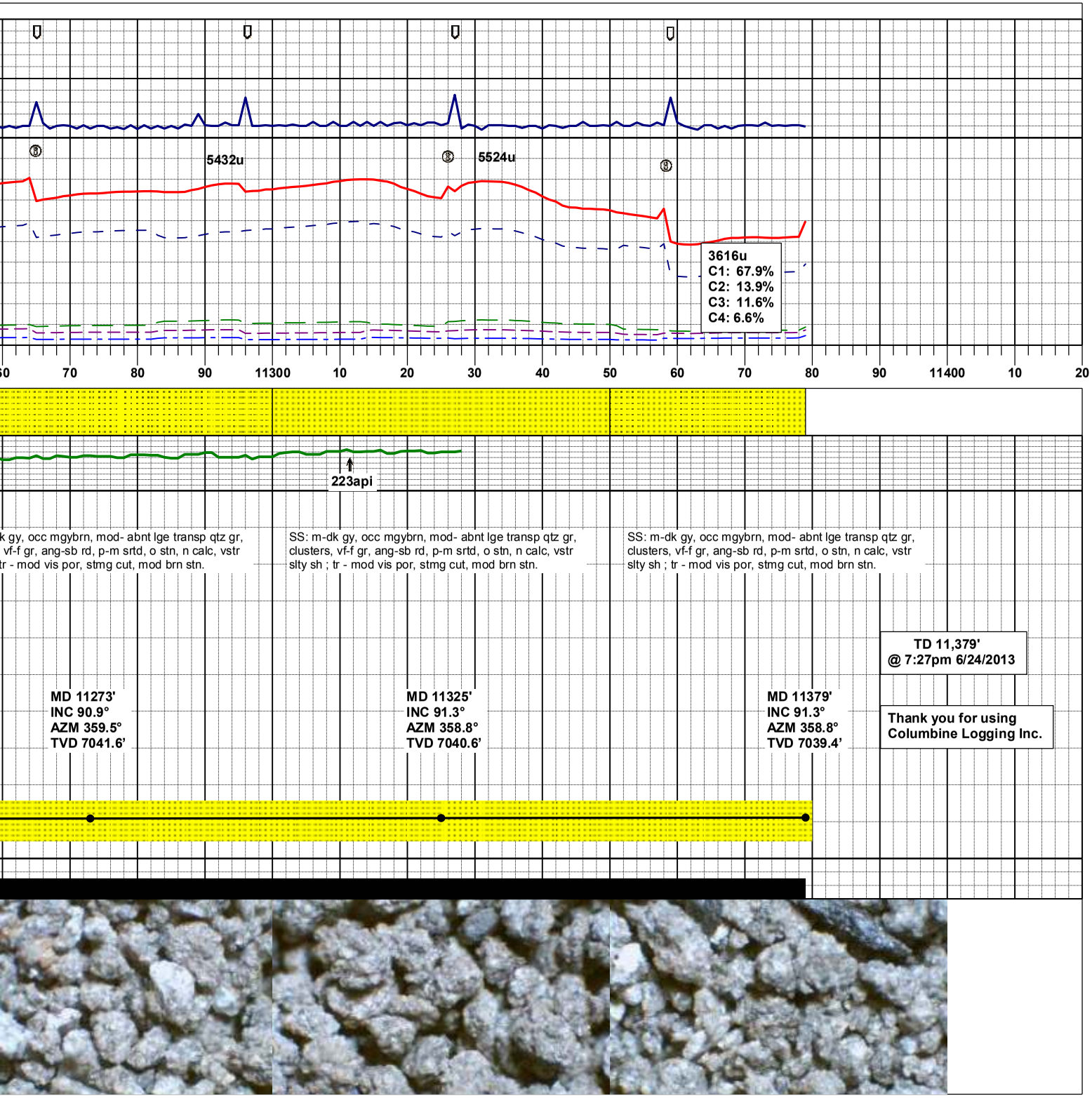

IN 10.1/42 OUT 10.2/45
IN 10.1/43 OUT 10.1/45
IN 10.2/44 OUT 10.2/45
IN 10.3/42 OUT 10.2/44
IN 10.3/
MINES
700000
5270u
4939u
3505u
3074u
3326u
4672.40u
C1: 78.9%
C2: 12.3%
C3: 6.4%
C4: 2.5%
PPM
UNITS
600
10
20
30
40
50
60
70
80
90
10700
10800


109api
49api
39api
31a
300
6150
7150
ft
LS: tan , crm and buff wh, sft-m frm, sb plty & blky, dull -semi dull luster, mic xl tex, v calc, w/ occ fos, tr ss, v tr slty sh; sl tr lt gn flor, pred lt yel resd ring cut, n stn
MD 10608'
INC 89.4°
AZM 359.1°
TVD 7034.1'
MD 10639'
INC 89.3°
AZM 359.1°
TVD 7034.5'
MD 10671'
INC 89.7°
AZM 358.6°
TVD 7034.8'
MD 10703'
INC 89.4°
AZM 358.8°
TVD 7035.1'
MD 10734'
INC 89.3°
AZM 358.8°
TVD 7035.4'
MD 10766'
INC 89.5°
AZM 359.5°
TVD 7035.8'
MD 10799'
INC 89.4°
AZM 359.5°
TVD 7036.1'


44 OUT 10.0/46
IN 10.2/44 OUT 10.0/46
MIN/FT
3
0
7000
700000
UNITS
PPM
5209u
5498u
5573u
4925u
5410.74u
C1: 72.9%
C2: 11.8%
C3: 10.2%
C4: 5.0%
4197.00u
C1: 74.5%
C2: 13.0%
C3: 8.4%
C4: 4.2%
20
30
40
50
60
70
80
90
10900
10
20
30
40
50
60
70
80
90
11000
10
20
30
62api
186api
202api
300
0
6150
ft
wh, sft-m frm, sb plty & blky, dull
xl tex, v calc, w/ occ fos, tr ss, v tr
ored lt yel resd ring cut, n stn
LS: wh, tan, crm, sft-m gfrm, sb plty rthy-smth lstr, mic xl-fos tex, v calc, tr sltyshy, vstr dism pyr, n flor, tr stmg yel cut, n stn, vtr ss, tr sh; SS: lt-m gybrn, trnsl, sme dkgy, lrg transp qtz grn, clusters, m-f gr, ang-sb rd, m-w srtd, n calc, tr - mod vis por
LS: wh, tan, crm, sft-m gfrm, sb plty rthy-smth lstr, mic xl-fos tex, v calc, tr sltyshy, vstr dism pyr, n flor, tr stmg yel cut, n stn, vtr ss, tr sh; SS: lt-m gybrn, trnsl, sme dkgy, lrg transp qtz grn, clusters, m-f gr, ang-sb rd, m-w srtd, n calc, tr - mod vis por
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n ca SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & tex, occ lam, tr pyr, sl calc; tr - mod vis por, str mod brn stn.
MD 10830'
INC 88.9°
AZM 359.8°
TVD 7036.5'
MD 10861'
INC 88.2°
AZM 0.5°
TVD 7037.3'
MD 10893'
INC 87.7°
AZM 0.2°
TVD 7038.5'
MD 10925'
INC 87.8°
AZM 359.7°
TVD 7039.7'
MD 10956'
INC 87.9°
AZM 359.7°
TVD 7040.9'
MD 10988'
INC 88.0°
AZM 359.5°
TVD 7042.0'
MD 11020'
INC 88.8°
AZM 359.7°
TVD 7042.9'
7150


IN 10.3/43 OUT 10.0/43
MIN/FT
3
0
5428u
5602u
5539u
5672u
5426u
7000
700000
0
PPM
3856u
C1: 70.4%
C2: 14.6%
C3: 10.4%
C4: 4.6%
40
50
60
70
80
90
11100
10
20
30
40
50
60
70
80
90
11200
10
20
30
40
50


202api
194api
197api
189api
200
0
6150
ft
7150
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc; SLTY SH: m-dkgy sft-frm, sbplty-sbblky, rthy & aren tex, occ lam, tr pyr, sl calc; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr, clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc, vstr slty sh ; tr - mod vis por, stmg cut, mod brn stn.
MD 11052'
INC 89.6°
AZM 0.2°
TVD 7043.4'
MD 11083'
INC 90.0°
AZM 359.3°
TVD 7043.5'
MD 11115'
INC 90.3°
AZM 359.5°
TVD 7043.4'
MD 11146'
INC 90.6°
AZM 359.7°
TVD 7043.2'
MD 11178'
INC 90.1°
AZM 359.1°
TVD 7042.7'
MD 11210'
INC 90.6°
AZM 359.5°
TVD 7042.3'
MD 11242'
INC 90.5°
AZM 359.1°
TVD 7042.0'


5432u
5524u
3616u
C1: 67.9%
C2: 13.9%
C3: 11.6%
C4: 6.6%
70
80
90
11300
10
20
30
40
50
60
70
80
90
11400
10
20
223api
k gy, occ mgybrn, mod- abnt lge transp qtz gr,
vf-f gr, ang-sb rd, p-m srtd, o stn, n calc, vstr
tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr,
clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc, vstr
slty sh ; tr - mod vis por, stmg cut, mod brn stn.
SS: m-dk gy, occ mgybrn, mod- abnt lge transp qtz gr,
clusters, vf-f gr, ang-sb rd, p-m srtd, o stn, n calc, vstr
slty sh ; tr - mod vis por, stmg cut, mod brn stn.
TD 11,379'
@ 7:27pm 6/24/2013
MD 11273'
INC 90.9°
AZM 359.5°
TVD 7041.6'
MD 11325'
INC 91.3°
AZM 358.8°
TVD 7040.6'
MD 11379'
INC 91.3°
AZM 358.8°
TVD 7039.4'
Thank you for using
Columbine Logging Inc.