

OPERATOR: **Bill Barrett Corp**

WELL NAME: **Anschutz Equus Farms 4-62-09-3340B2** SCALE: 5" = 100'

FIELD NAME: Wattenberg

SURFACE HOLE: 2330 FSL, 250 FWL

DRILLING RIG: Cade 24

LOCATION: NWSW Sec 9, T4N, R62W

API #: 05-123-42153



Earth Science Agency, LLC

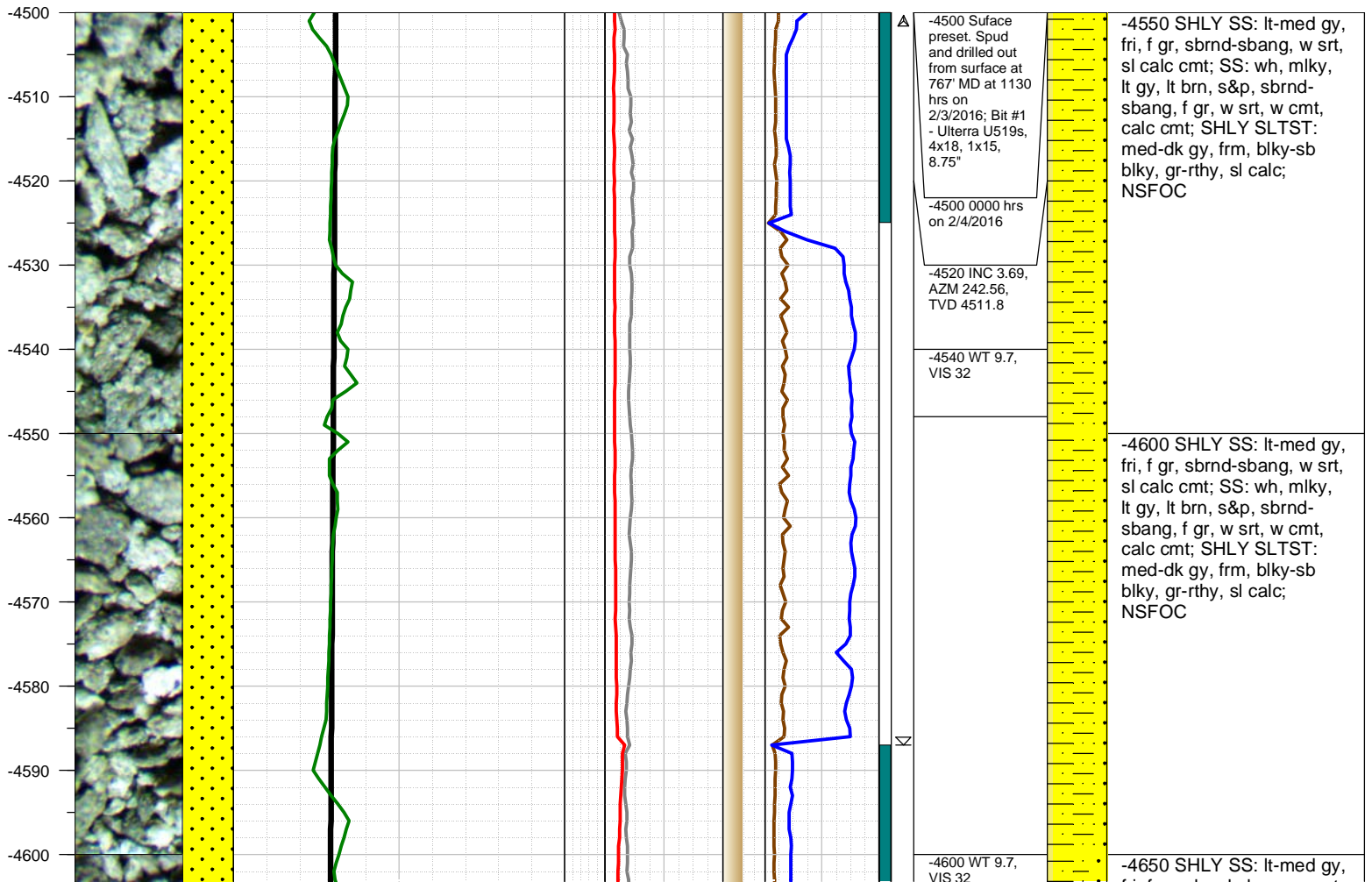
COUNTY: Weld
 STATE: Colorado
 GROUND ELEVATION: 4528'
 KELLY BUSHING: 4544'
 DRILLING FLUID: LSND
 TVD VS. MD: 6119' / 15915'
 SPUD DATE: November 13, 2015
 BEGIN LOGGING: 4500'; February 3, 2016
 TD DATE: February 9, 2016
 DATES LOGGED: February 3, 2016 - February 9, 2016
 DEPTHS LOGGED: 4500' - 15915'
 LOGGER: Blue Spikes

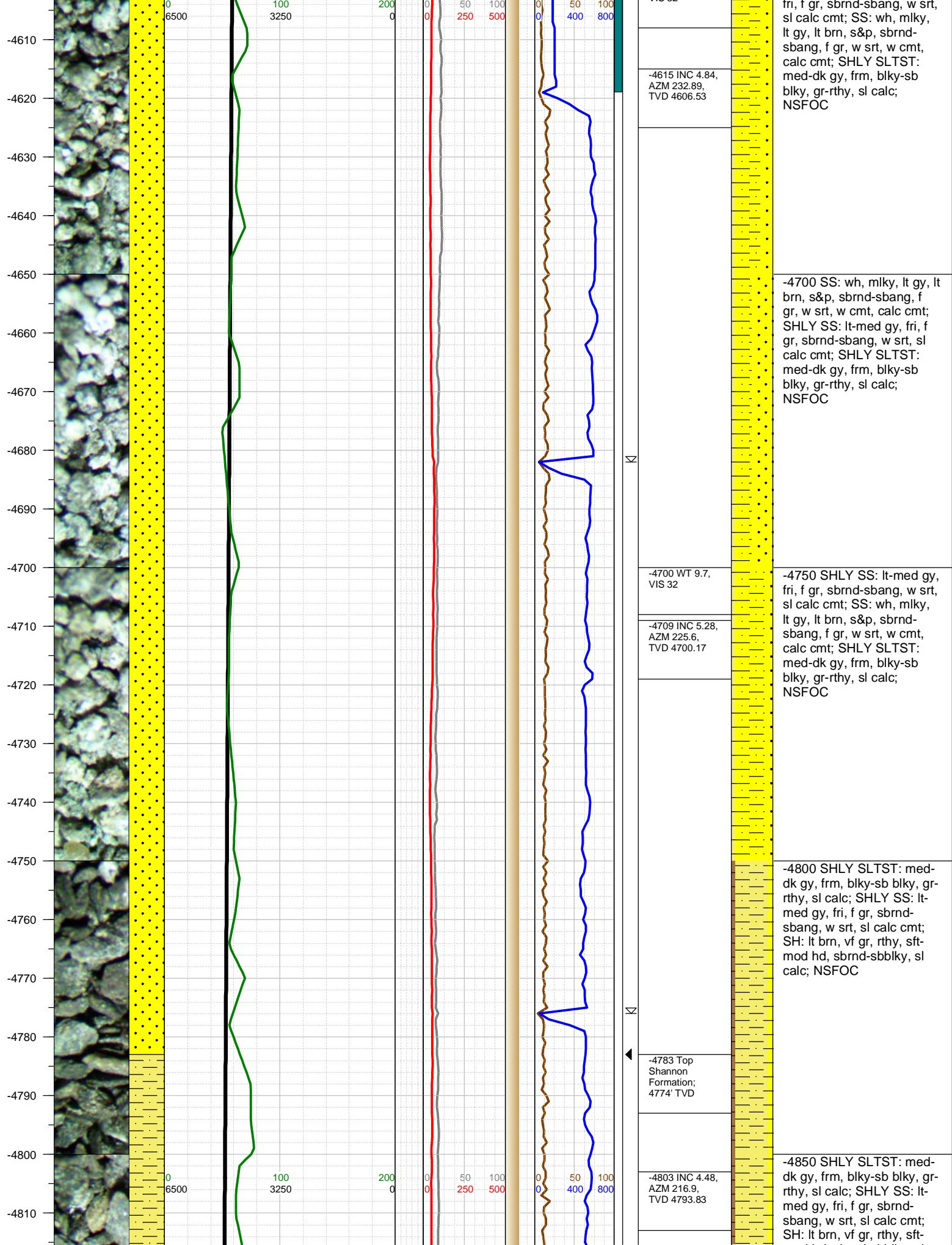
LEGEND

	CHALK		SHALE
	LIMESTONE		SILTY SHALE
	SHALY LIMESTONE		SHALY SILTSTONE
	MARLSTONE		SHALY SANDSTONE
	CALCAREOUS SHALE		SANDSTONE
	DOLOMITE		ANHYDRITE

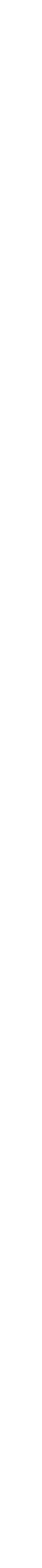
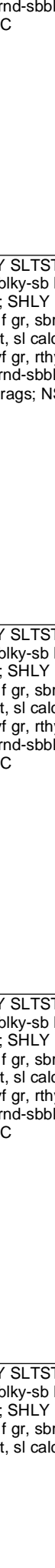
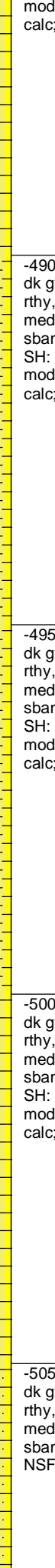
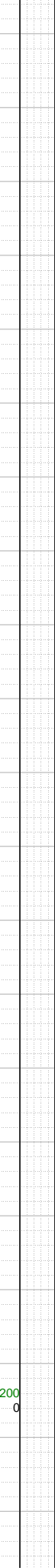
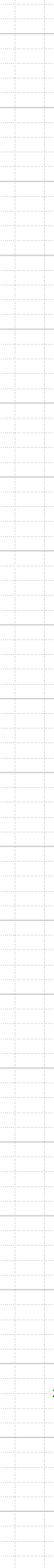
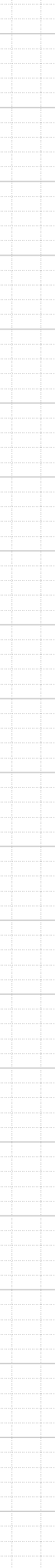
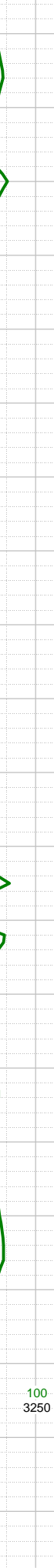
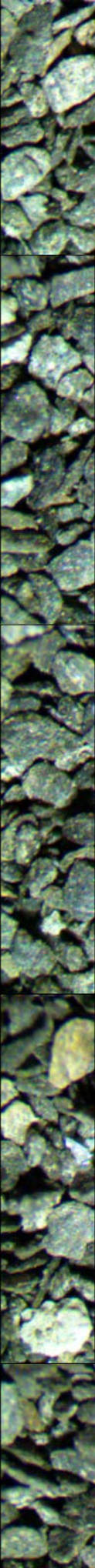
◀ FORMATION ≈ CONNECTION ▲ MIDNIGHT 🏠 NEW BIT ☀ GAS SHOW 🗡 FAULT

MEASURED DEPTH (FT)	GEOSTEERING INTERP		F < B	OIL SHOWS	MUD VOL. 800 bbl	SLIDES SYMBOLS	COMMENTS	CUTTINGS %	SAMPLE DESCRIPTION
	TARGET TOP & BASE								
PHOTOS	MUDLOGGER INTERP	TVD ft	GAS units	WETNESS %	ROP ft/hr	WOB klbs			
		6500 0	0 500	0 100	0 800	0 100			
		GAMMA api							
		0 200							





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-4980
-4990
-5000
-5010
-5020



-4820 WT 9.7,
VIS 32

-4897 INC 4.13,
AZM 214.17,
TVD 4887.56

-4910 WT 9.7,
VIS 32

-4991 INC 2.81,
AZM 215.58,
TVD 4981.39

-5010 WT 9.8,
VIS 32

mod hd, sbrnd-sbblky, sl
calc; NSFOC

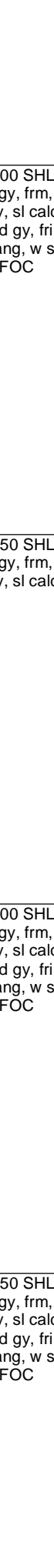
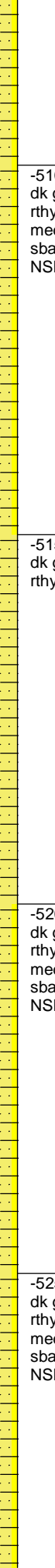
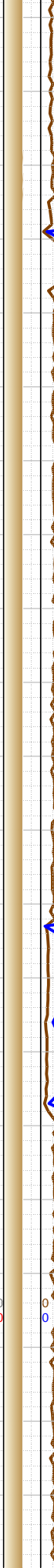
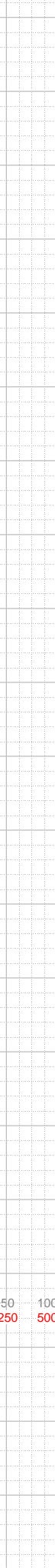
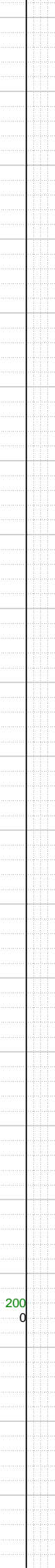
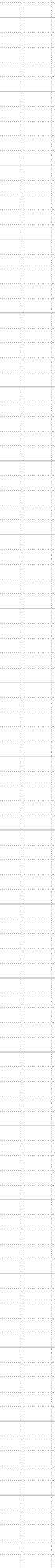
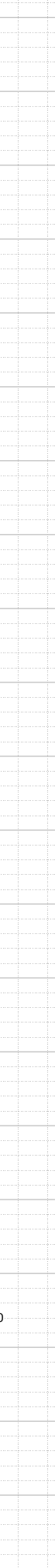
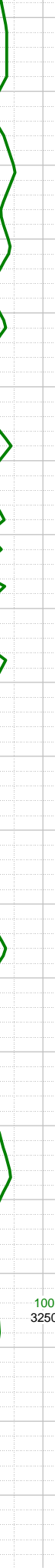
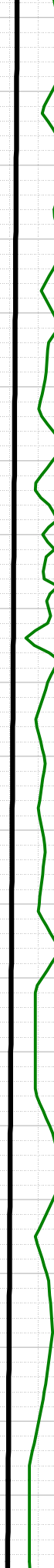
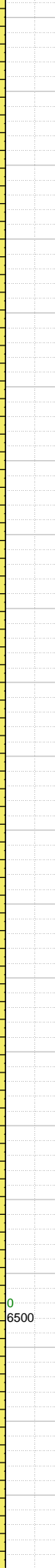
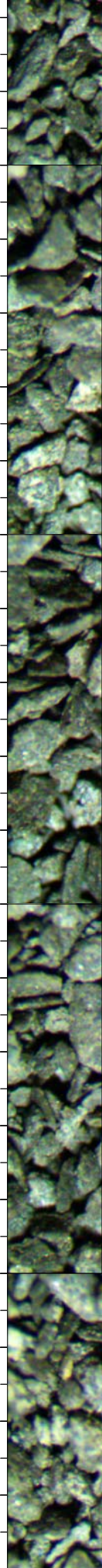
-4900 SHLY SLTST: med-
dk gy, frm, blk-sb blk, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
SH: lt brn, vf gr, rthy, sft-
mod hd, sbrnd-sbblky, sl
calc; tr fos frags; NSFOC

-4950 SHLY SLTST: med-
dk gy, frm, blk-sb blk, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
SH: lt brn, vf gr, rthy, sft-
mod hd, sbrnd-sbblky, sl
calc; NSFOC

-5000 SHLY SLTST: med-
dk gy, frm, blk-sb blk, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
SH: lt brn, vf gr, rthy, sft-
mod hd, sbrnd-sbblky, sl
calc; NSFOC

-5050 SHLY SLTST: med-
dk gy, frm, blk-sb blk, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
NSFOC

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-5190
-5200
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-5220
-5230
-5240



-5086 INC 2.29,
AZM 218.92,
TVD 5076.29

-5100 WT 9.8,
VIS 32

-5181 INC 0.97,
AZM 163.37,
TVD 5171.26

-5200 WT 9.8,
VIS 32

-5100 SHLY SLTST: med-
dk gy, frm, blk-sb blk, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
NSFOC

-5150 SHLY SLTST: med-
dk gy, frm, blk-sb blk, gr-
rthy, sl calc; NSFOC

-5200 SHLY SLTST: med-
dk gy, frm, blk-sb blk, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
NSFOC

-5250 SHLY SLTST: med-
dk gy, frm, blk-sb blk, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
NSFOC

0
6500

100
3250

200
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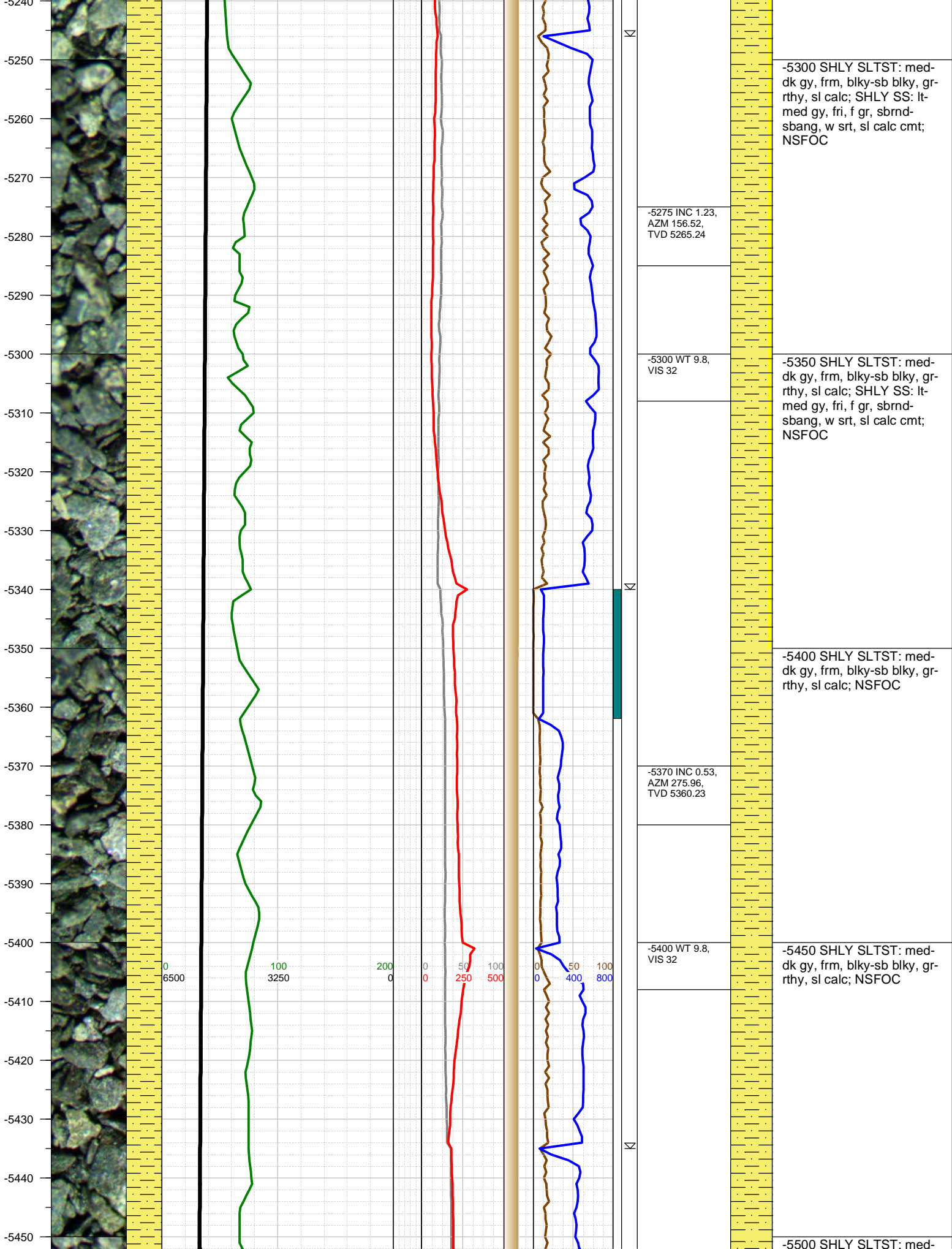
50
250

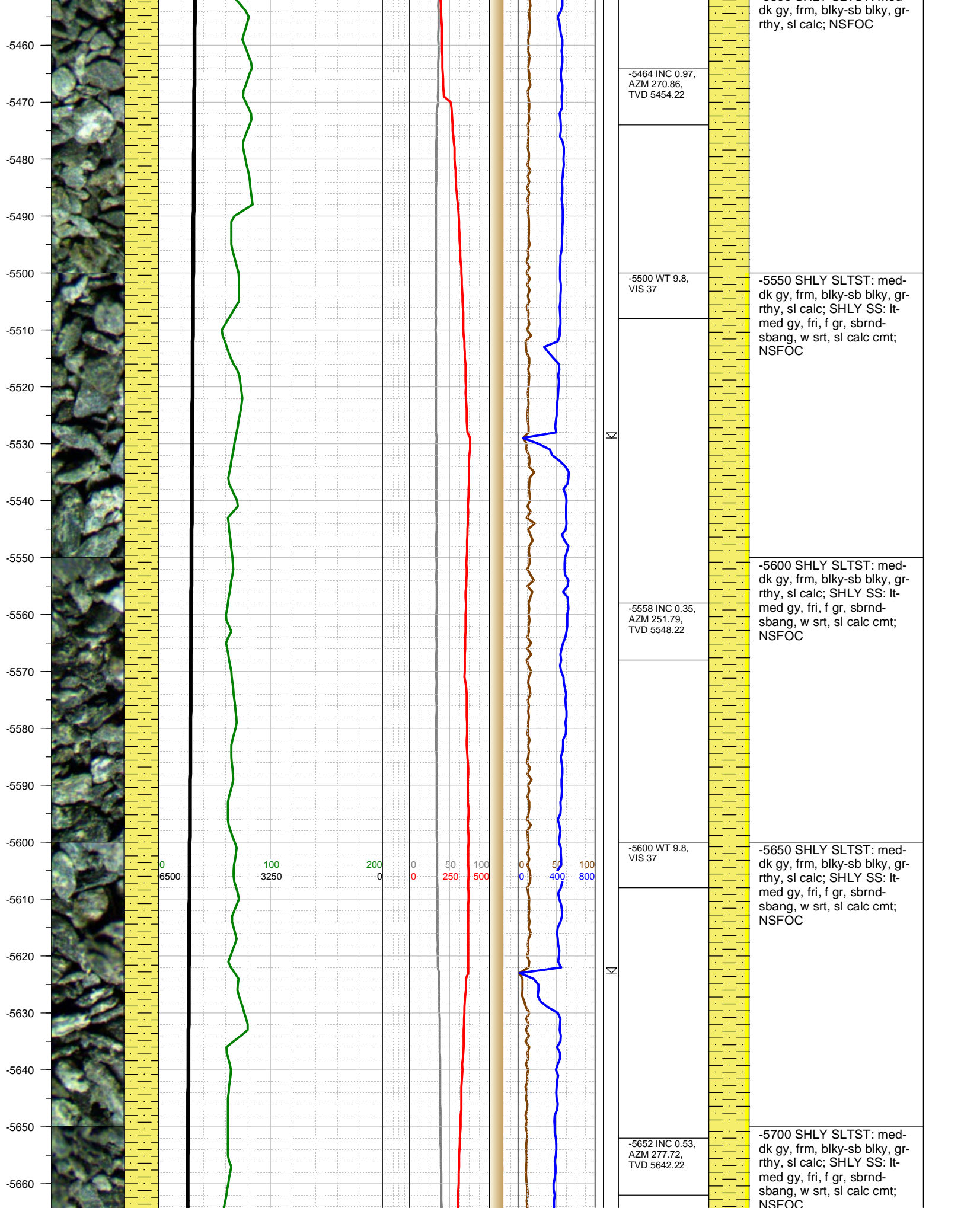
100
500

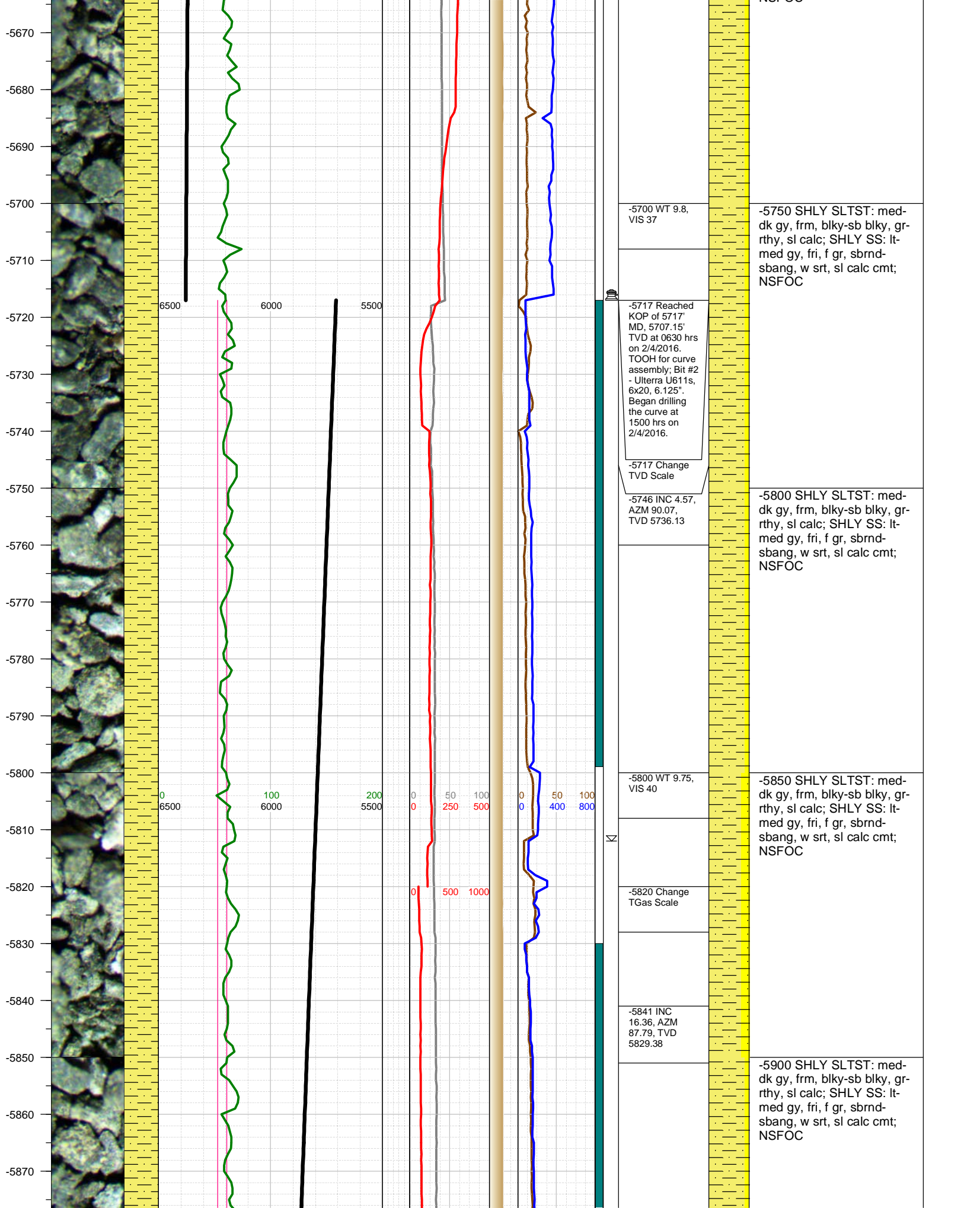
0
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50
400

100
800







-5700 WT 9.8,
VIS 37

-5750 SHLY SLTST: med-dk gy, frm, blk-y-sb blk-y, gr-rthy, sl calc; SHLY SS: lt-med gy, fri, f gr, sbrnd-sbang, w srt, sl calc cmt; NSFOC

-5717 Reached KOP of 5717' MD, 5707.15' TVD at 0630 hrs on 2/4/2016. TOO H for curve assembly; Bit #2 - Ulterra U611s, 6x20, 6.125". Began drilling the curve at 1500 hrs on 2/4/2016.

-5717 Change TVD Scale

-5746 INC 4.57, AZM 90.07, TVD 5736.13

-5800 SHLY SLTST: med-dk gy, frm, blk-y-sb blk-y, gr-rthy, sl calc; SHLY SS: lt-med gy, fri, f gr, sbrnd-sbang, w srt, sl calc cmt; NSFOC

-5800 WT 9.75,
VIS 40

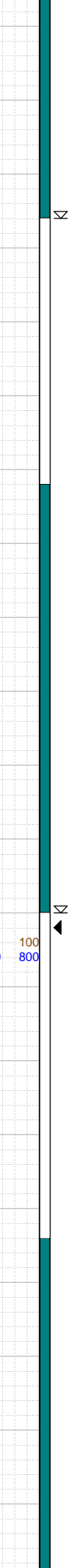
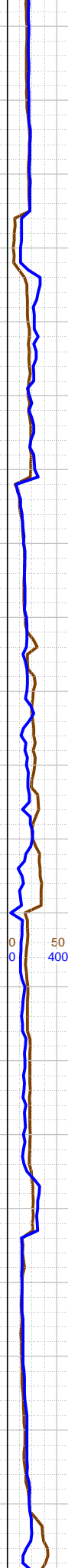
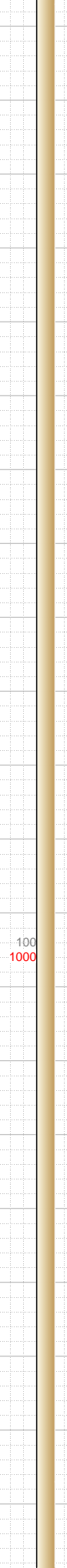
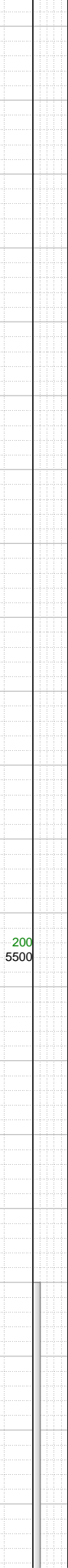
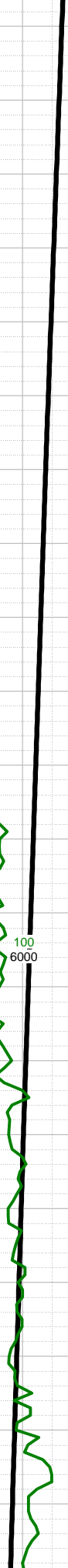
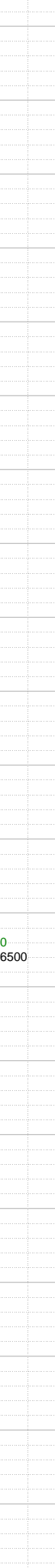
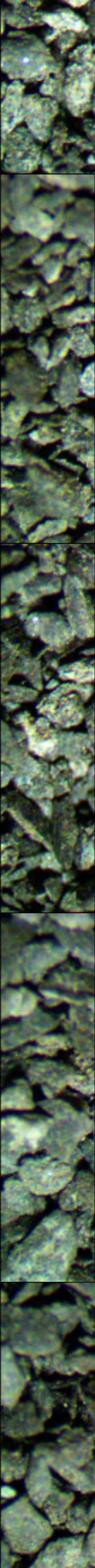
-5850 SHLY SLTST: med-dk gy, frm, blk-y-sb blk-y, gr-rthy, sl calc; SHLY SS: lt-med gy, fri, f gr, sbrnd-sbang, w srt, sl calc cmt; NSFOC

-5820 Change TGas Scale

-5841 INC 16.36, AZM 87.79, TVD 5829.38

-5900 SHLY SLTST: med-dk gy, frm, blk-y-sb blk-y, gr-rthy, sl calc; SHLY SS: lt-med gy, fri, f gr, sbrnd-sbang, w srt, sl calc cmt; NSFOC

-5880
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-5990
-6000
-6010
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-6050
-6060
-6070
-6080



-5900 WT 9.75,
VIS 40

-5935 INC 27,
AZM 89.63,
TVD 5916.61

-6002 Top
Sharon Springs
Formation;
5973' TVD

-6020 WT 10,
VIS 35

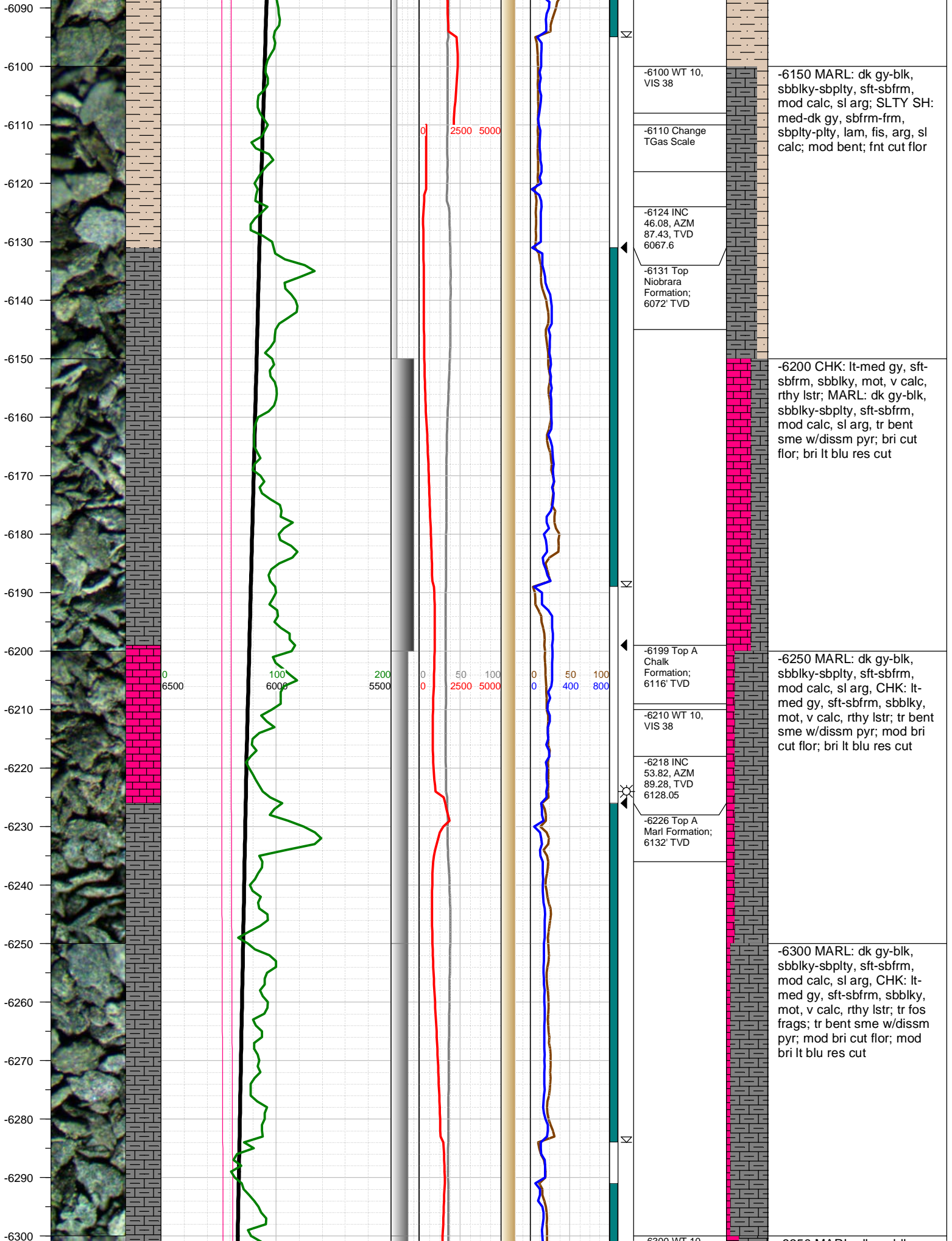
-6030 INC
36.76, AZM
88.05, TVD
5997.19

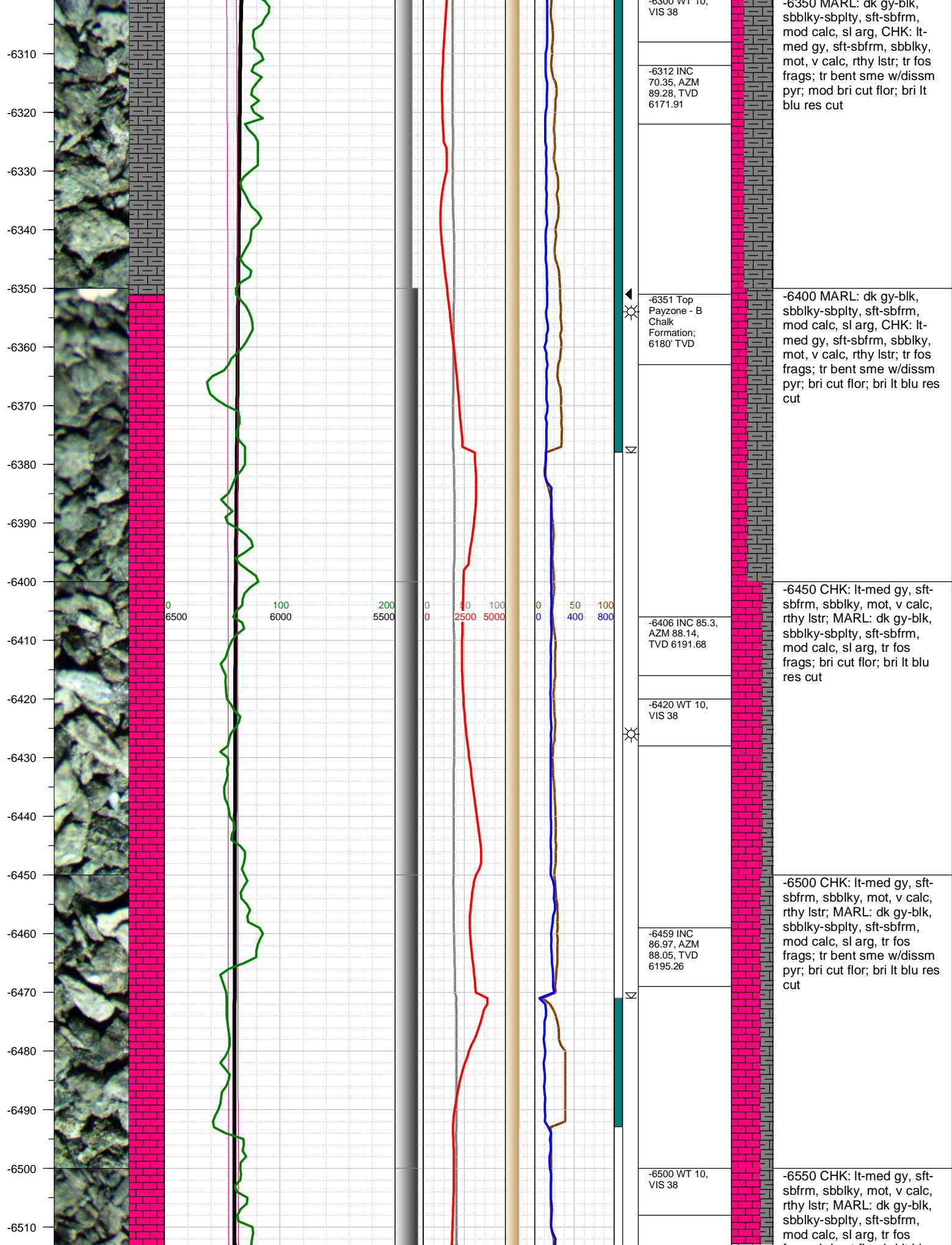
-5950 SHLY SLTST: med-
dk gy, frm, blkly-sb blkly, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
NSFOC

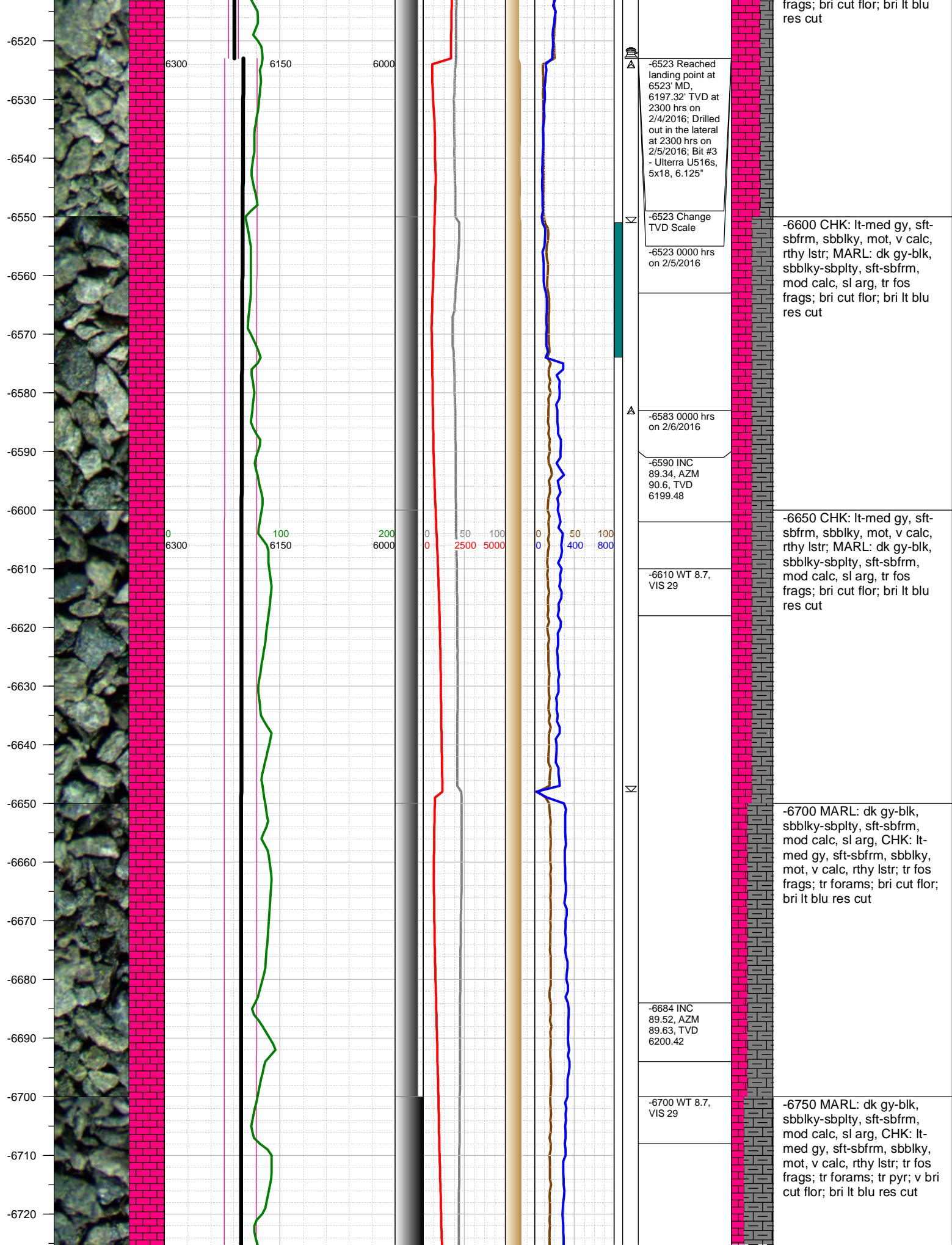
-6000 SHLY SLTST: med
gy, frm, blkly-sb blkly, gr-
rthy, sl calc; SLTY SH:
med-dk gy, sbfrm-frm,
sbply-pty, lam, fis, arg, sl
calc; NSFOC

-6050 SLTY SH: med-dk
gy, sbfrm-frm, sbply-pty,
lam, fis, arg, sl calc; mod
bent; NSFOC

-6100 SLTY SH: med-dk
gy, sbfrm-frm, sbply-pty,
lam, fis, arg, sl calc; tr bent;
fnt cut flor







-6523 Reached landing point at 6523' MD, 6197.32' TVD at 2300 hrs on 2/4/2016; Drilled out in the lateral at 2300 hrs on 2/5/2016; Bit #3 - Ulterra U516s, 5x18, 6.125"

-6523 Change TVD Scale
-6523 0000 hrs on 2/5/2016

-6583 0000 hrs on 2/6/2016

-6590 INC
89.34, AZM
90.6, TVD
6199.48

-6610 WT 8.7,
VIS 29

-6684 INC
89.52, AZM
89.63, TVD
6200.42

-6700 WT 8.7,
VIS 29

frags; bri cut flor; bri lt blu res cut

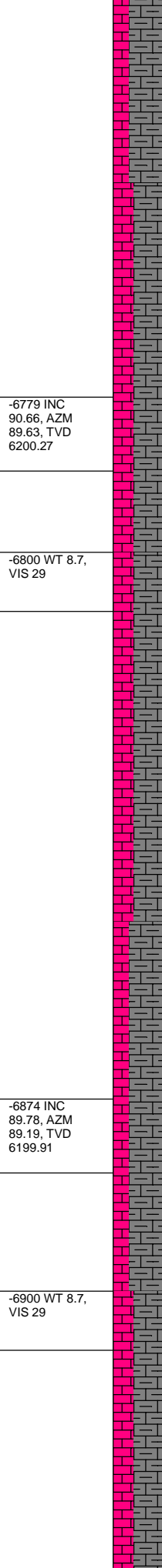
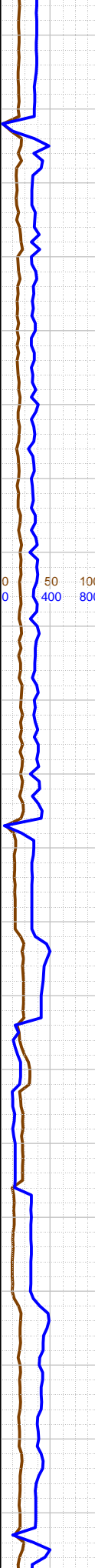
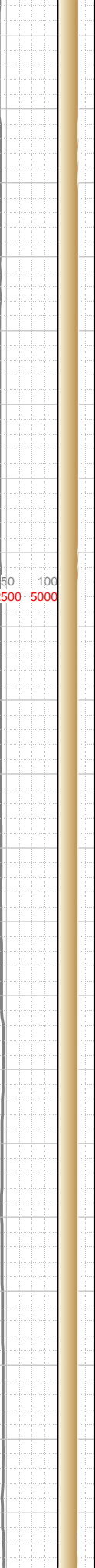
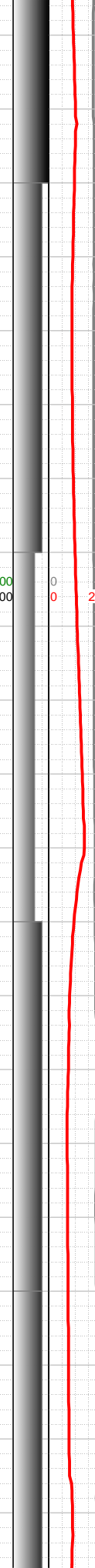
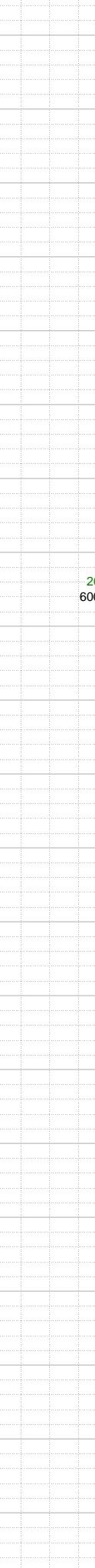
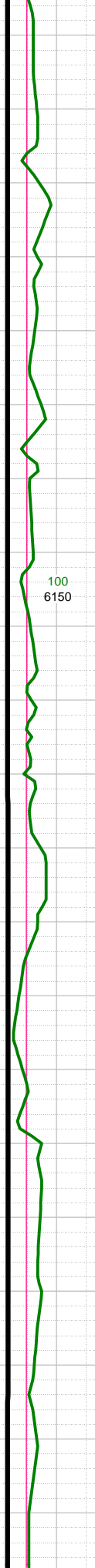
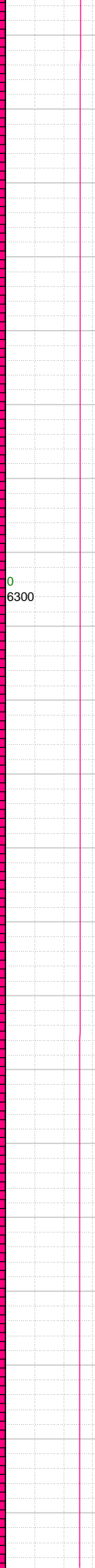
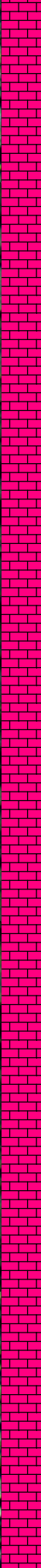
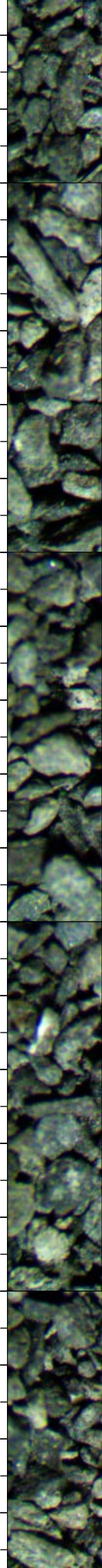
-6600 CHK: lt-med gy, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-6650 CHK: lt-med gy, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-6700 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbly, mot, v calc, rthy lstr; tr fos frags; tr forams; bri cut flor; bri lt blu res cut

-6750 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbly, mot, v calc, rthy lstr; tr fos frags; tr forams; tr pyr; v bri cut flor; bri lt blu res cut

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-6800 MARL: dk gy-blk, sbbiky-sbplty, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbiky, mot, v calc, rthy lstr; tr fos frags; bri cut flor; bri lt blu res cut

-6779 INC
90.66, AZM
89.63, TVD
6200.27

-6800 WT 8.7,
VIS 29

-6850 MARL: dk gy-blk, sbbiky-sbplty, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbiky, mot, v calc, rthy lstr; tr fos frags; tr pyr; mod bri cut flor; bri lt blu res cut

K

-6900 MARL: dk gy-blk, sbbiky-sbplty, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbiky, mot, v calc, rthy lstr; tr fos frags; tr pyr; bri cut flor; bri lt blu res cut

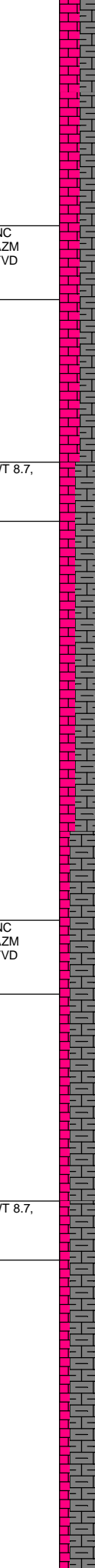
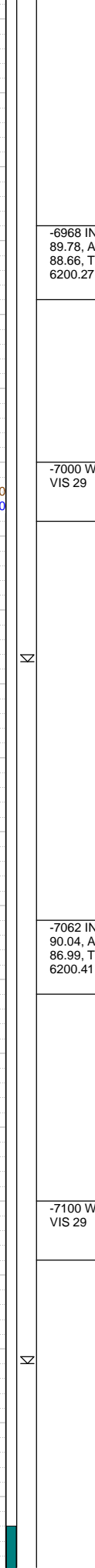
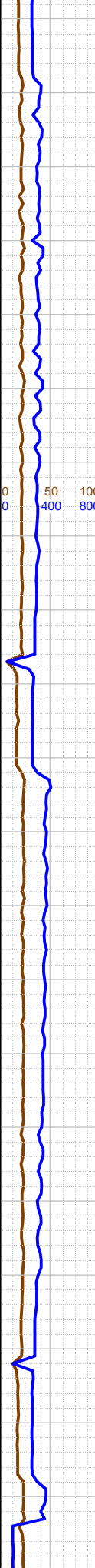
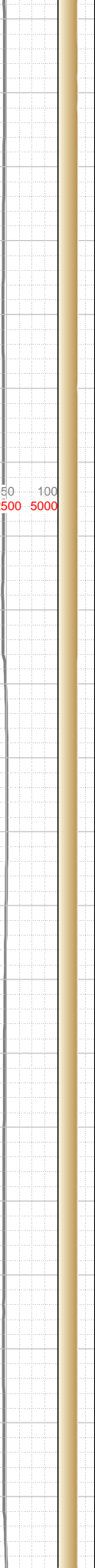
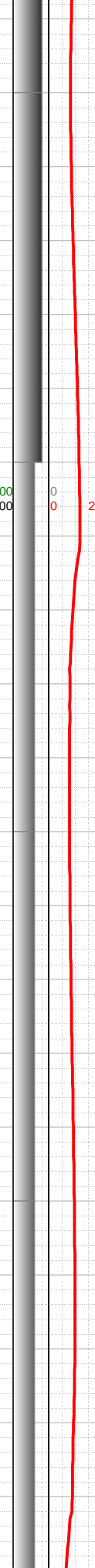
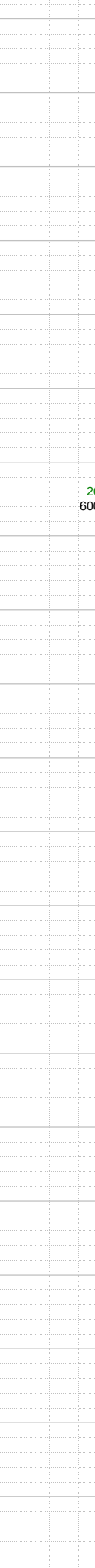
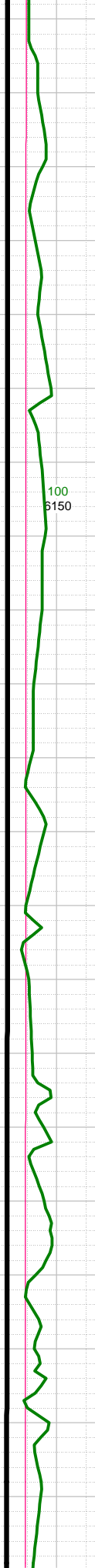
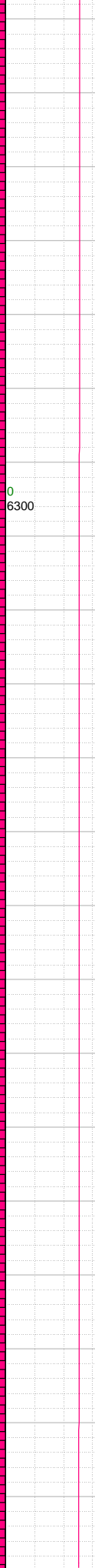
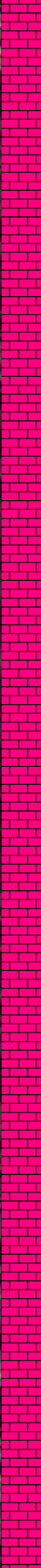
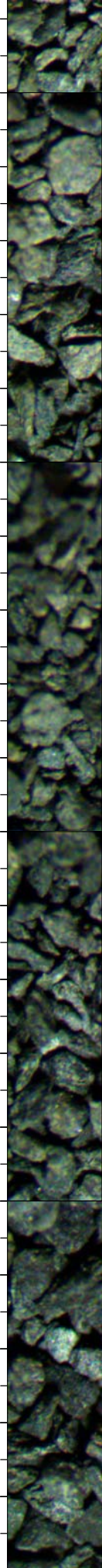
-6874 INC
89.78, AZM
89.19, TVD
6199.91

-6900 WT 8.7,
VIS 29

-6950 MARL: dk gy-blk, sbbiky-sbplty, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbiky, mot, v calc, rthy lstr; tr fos frags; tr forams; bri cut flor; bri lt blu res cut

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-6968 INC
89.78, AZM
88.66, TVD
6200.27

-7000 WT 8.7,
VIS 29

-7062 INC
90.04, AZM
86.99, TVD
6200.41

-7100 WT 8.7,
VIS 29

-7000 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbly, mot, v calc, rthy lstr; tr fos frags; bri lt blu res cut

-7050 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbly, mot, v calc, rthy lstr; tr fos frags; tr pyr; mod bri cut flor; mod bri lt blu res cut

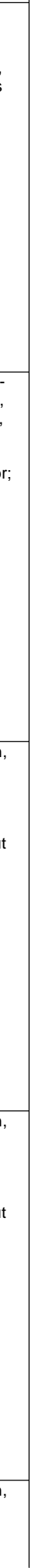
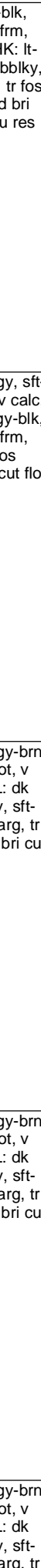
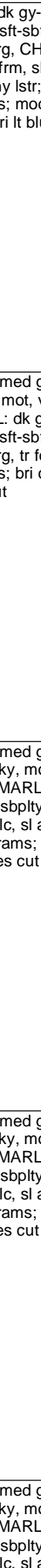
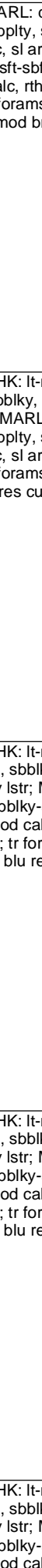
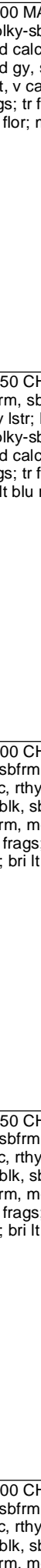
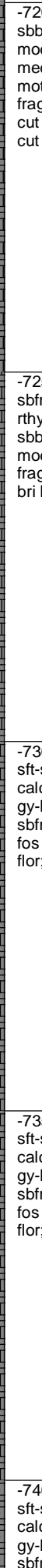
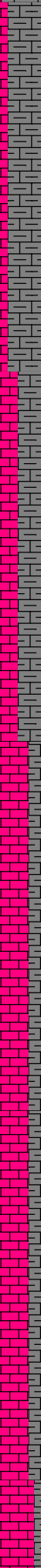
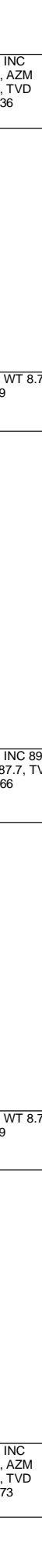
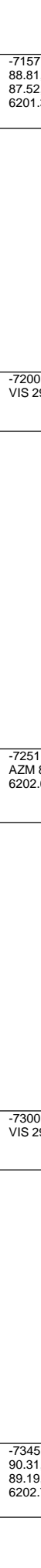
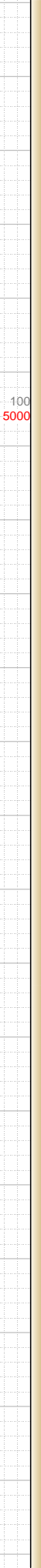
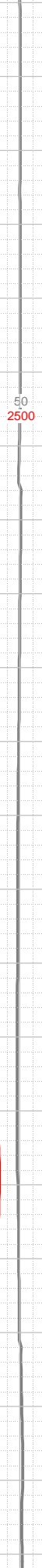
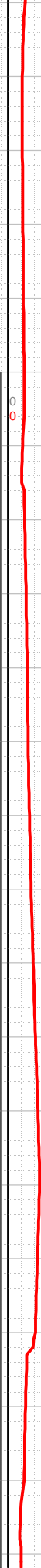
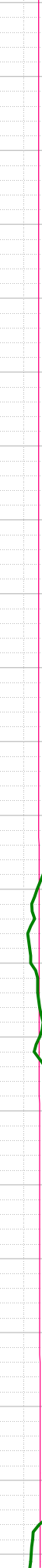
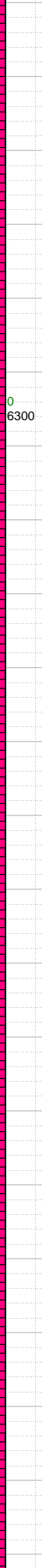
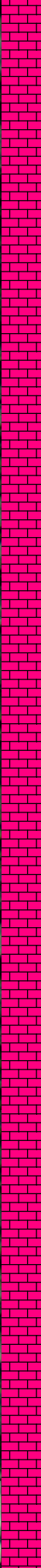
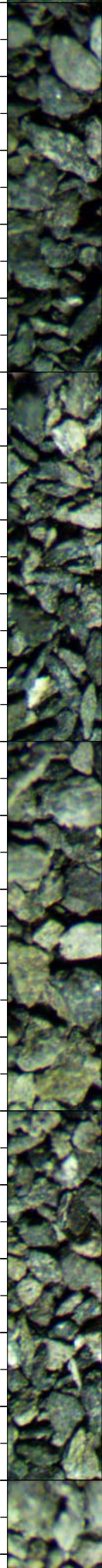
-7100 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbly, mot, v calc, rthy lstr; tr fos frags; mod bri cut flor; mod bri lt blu res cut

-7150 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy, sft-sbfrm, sbbly, mot, v calc, rthy lstr; tr fos frags; mod bri cut flor; mod bri lt blu res cut

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-7157 INC
88.81, AZM
87.52, TVD
6201.36

-7200 WT 8.7,
VIS 29

-7251 INC 89.6,
AZM 87.7, TVD
6202.66

-7300 WT 8.7,
VIS 29

-7345 INC
90.31, AZM
89.19, TVD
6202.73

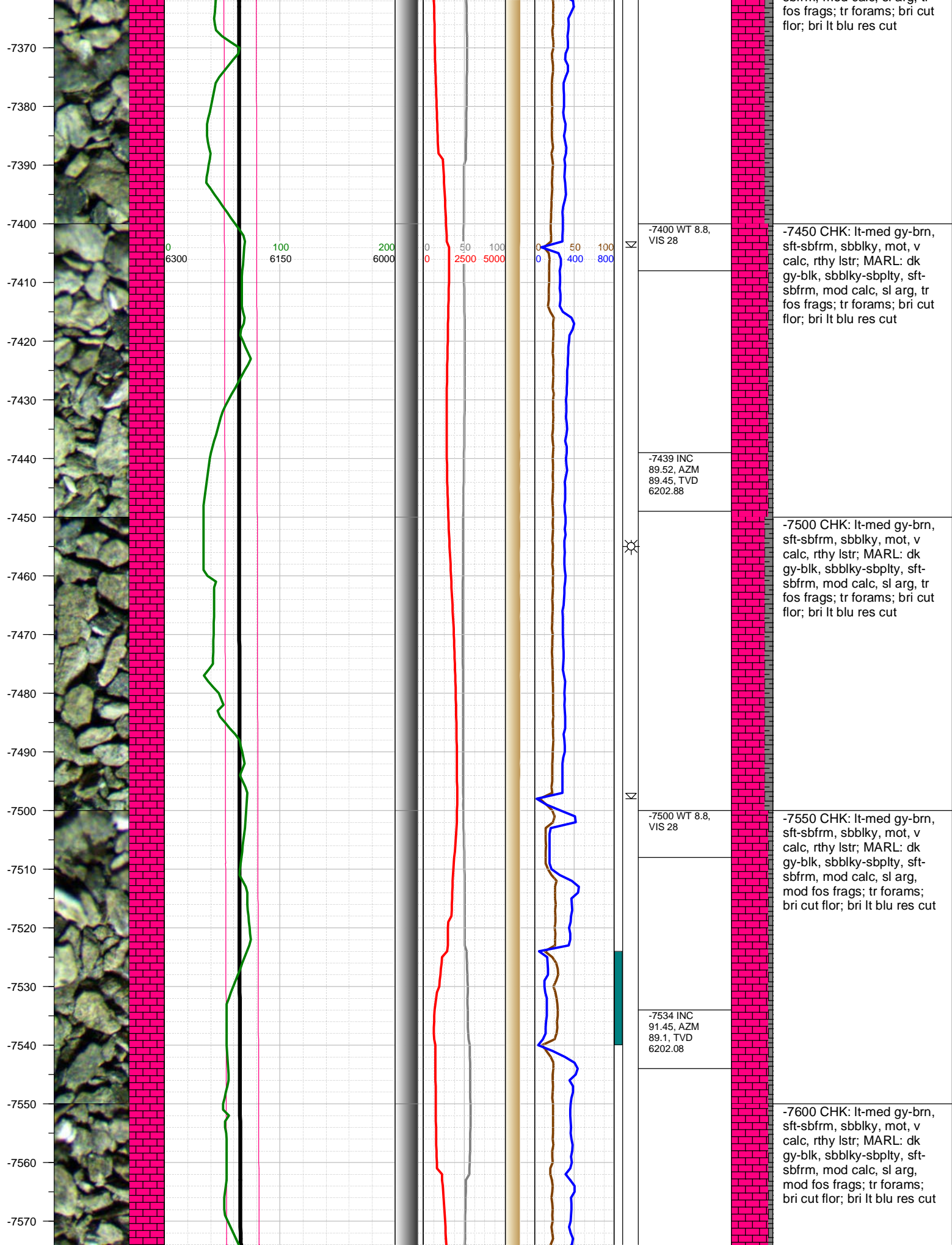
-7200 MARL: dk gy-blk,
sbbkly-sbplty, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy, sft-sbfrm, sbbkly,
mot, v calc, rthy lstr; tr fos
frags; tr forams; mod bri
cut flor; mod bri lt blu res
cut

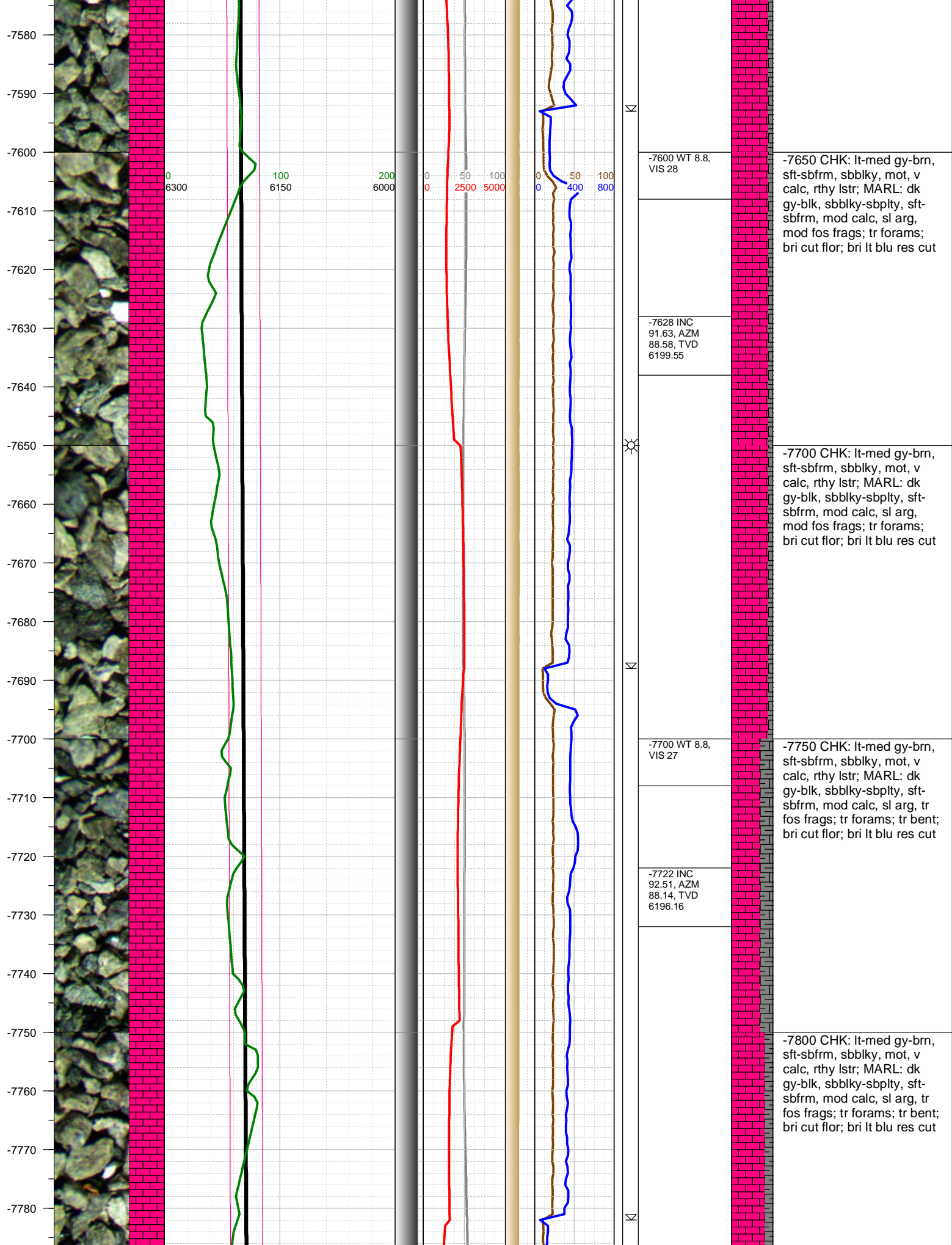
-7250 CHK: lt-med gy, sft-
sbfrm, sbbkly, mot, v calc,
rthy lstr; MARL: dk gy-blk,
sbbkly-sbplty, sft-sbfrm,
mod calc, sl arg, tr fos
frags; tr forams; bri cut flor;
bri lt blu res cut

-7300 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; bri cut
flor; bri lt blu res cut

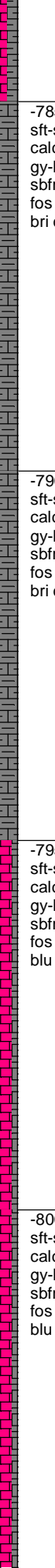
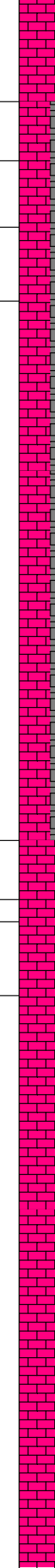
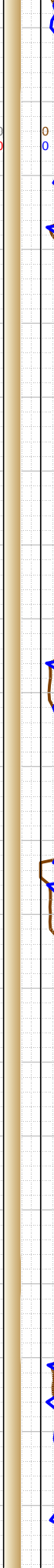
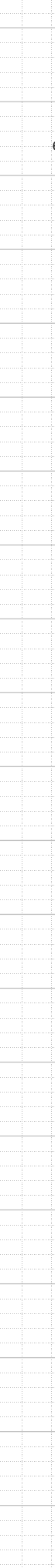
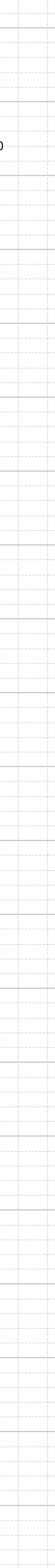
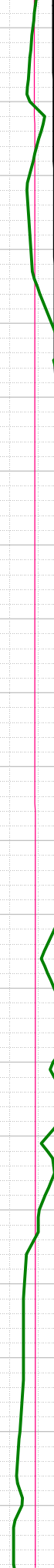
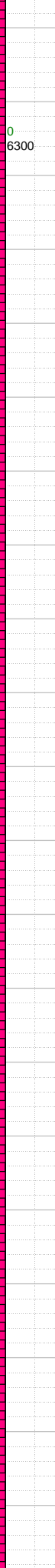
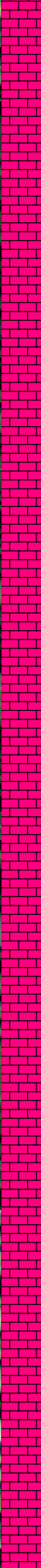
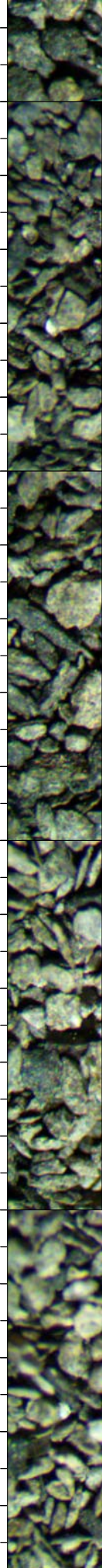
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calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; bri cut
flor; bri lt blu res cut

-7400 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr





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-7800 WT 8.8,
VIS 27

-7817 INC
92.42, AZM
90.51, TVD
6192.08

-7900 WT 8.8,
VIS 27

-7911 INC
91.36, AZM
90.16, TVD
6188.98

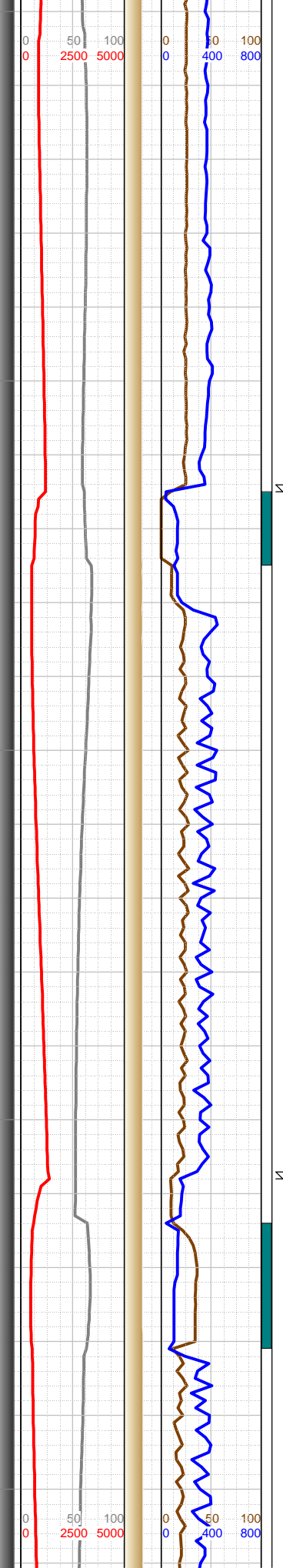
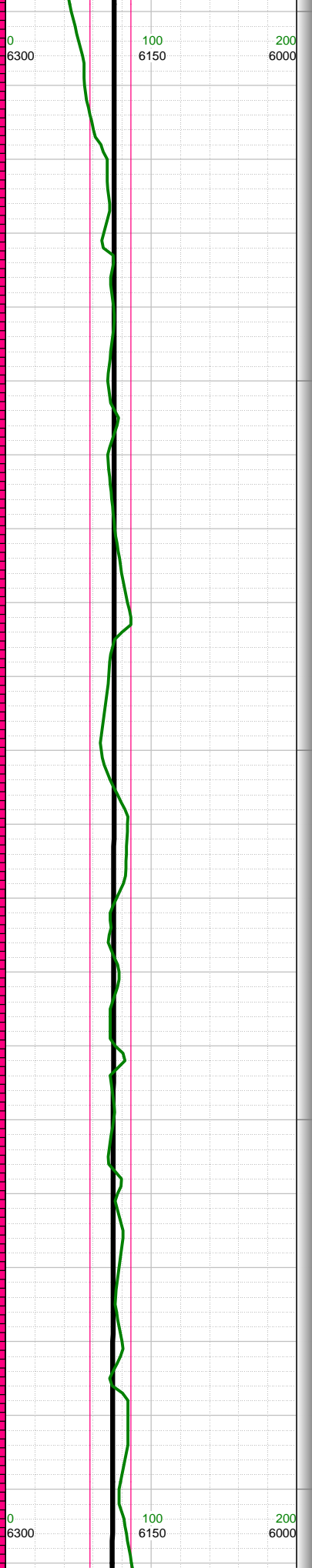
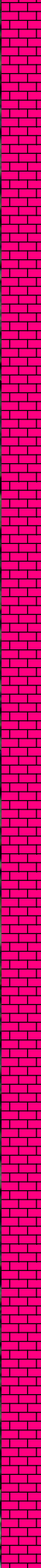
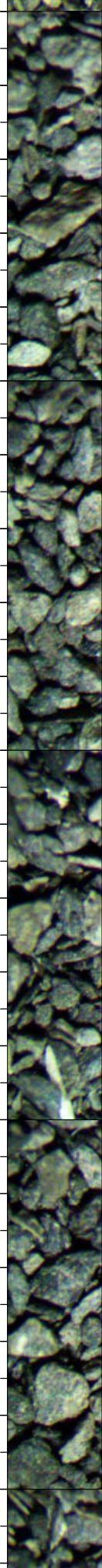
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calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; tr bent;
bri cut flor; bri lt blu res cut

-7900 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; tr bent;
bri cut flor; bri lt blu res cut

-7950 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; bri cut flor; bri lt
blu res cut

-8000 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; bri cut flor; bri lt
blu res cut

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-8005 INC 89.43, AZM 90.25, TVD 6188.33
-8020 WT 8.8, VIS 27
-8100 INC 90.75, AZM 90.86, TVD 6188.18
-8110 WT 8.8, VIS 29
-8194 INC 87.49, AZM 90.33, TVD 6189.63

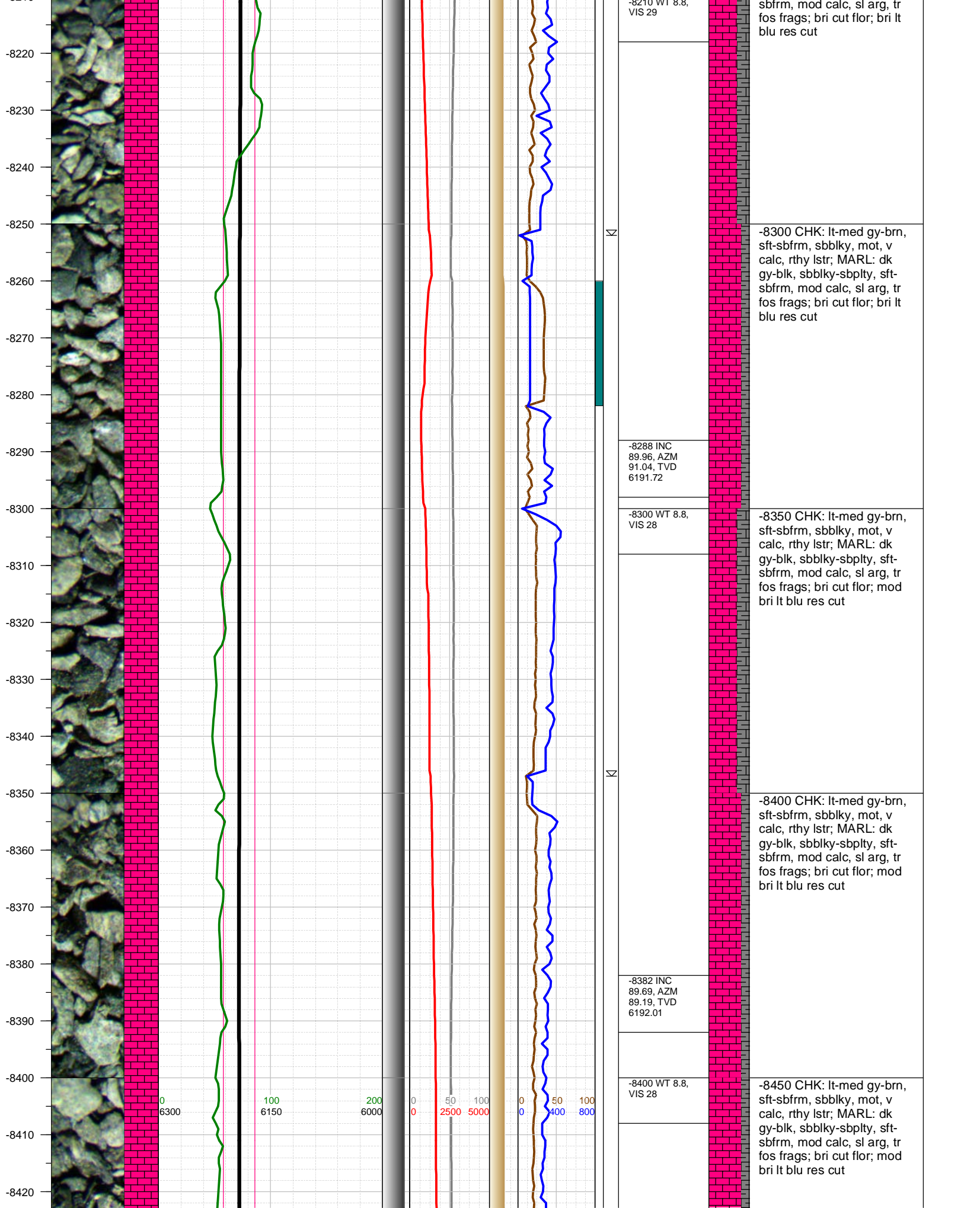
-8050 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-8100 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-8150 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-8200 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-8250 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-



-8210 WT 8.8, VIS 29

sbfm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-8288 INC 89.96, AZM 91.04, TVD 6191.72

-8300 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-8300 WT 8.8, VIS 28

-8350 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; mod bri lt blu res cut

-8382 INC 89.69, AZM 89.19, TVD 6192.01

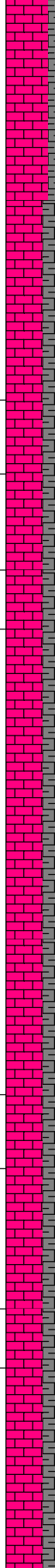
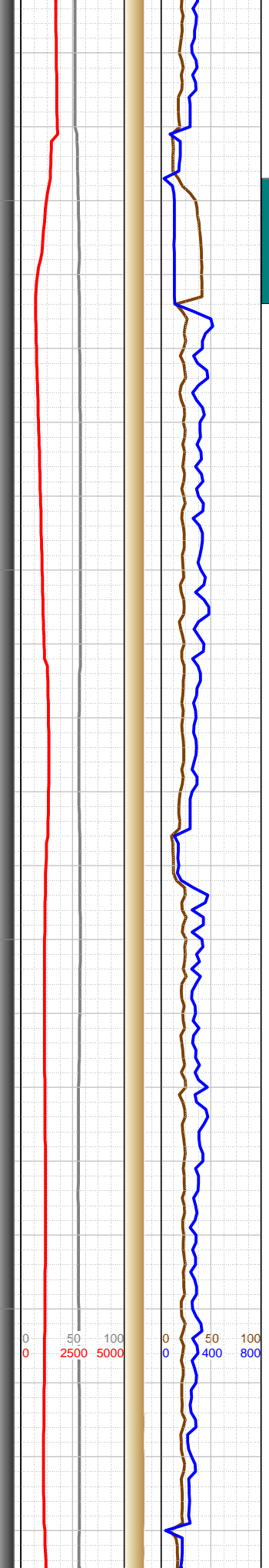
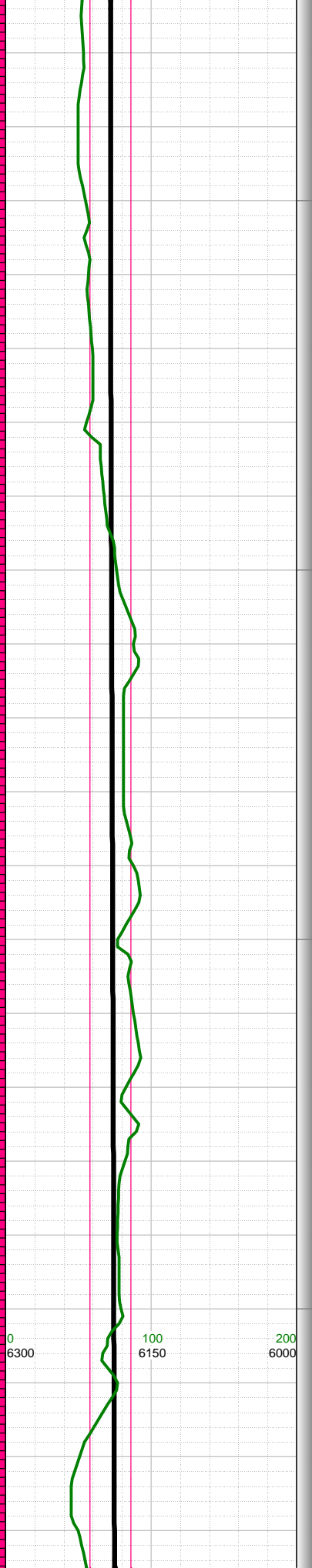
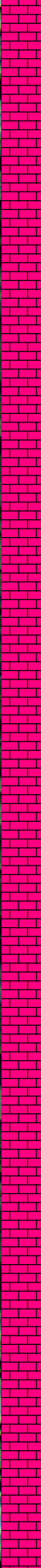
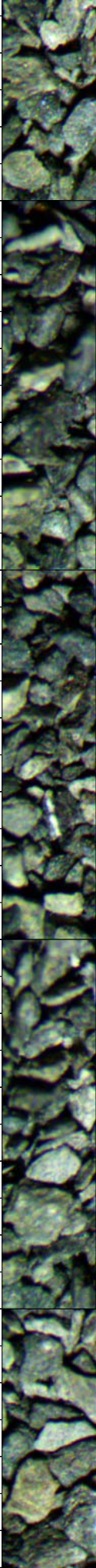
-8400 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; mod bri lt blu res cut

-8400 WT 8.8, VIS 28

-8450 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; mod bri lt blu res cut

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-8500 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; bri cut flor; mod bri lt blu res cut

-8477 INC
91.01, AZM
92.53, TVD
6191.42

-8500 WT 8.8,
VIS 28

-8550 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

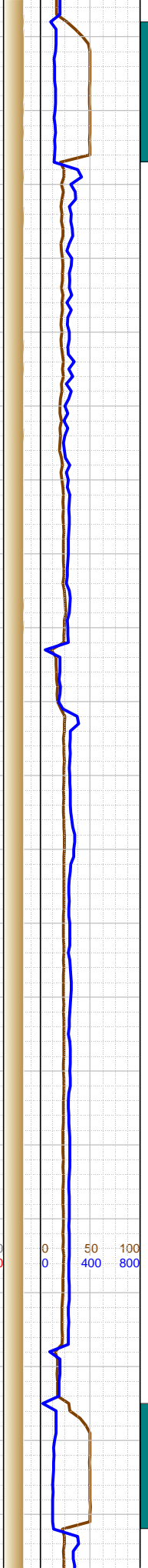
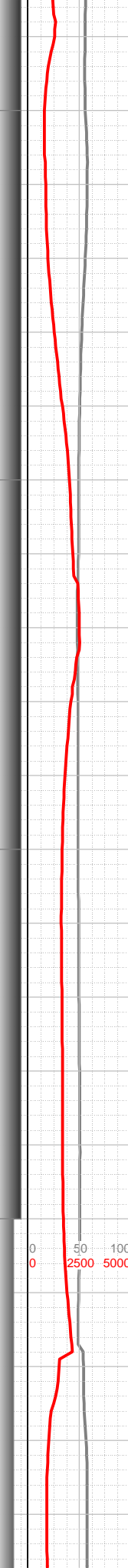
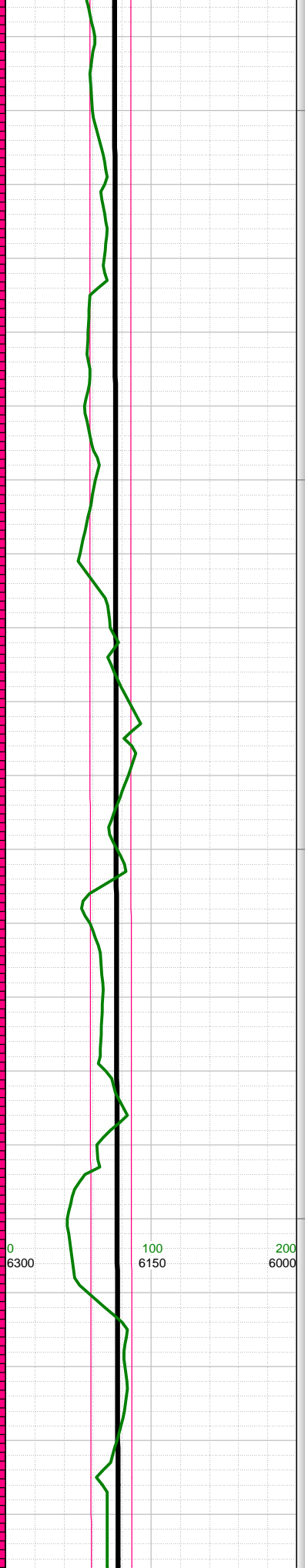
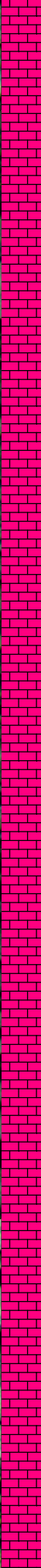
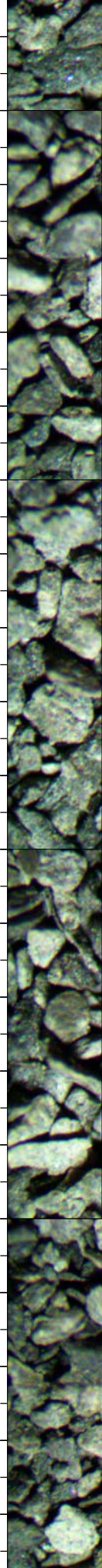
-8600 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

-8571 INC
91.89, AZM
92.36, TVD
6189.04

-8600 WT 8.8,
VIS 28

-8650 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; bri cut flor; bri lt blu res cut

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-8665 INC 90.4,
AZM 90.42,
TVD 6187.17

-8700 WT 8.8,
VIS 28

-8760 INC
91.28, AZM
89.63, TVD
6185.78

-8800 WT 8.8,
VIS 28

-8700 CHK: lt-med gy-brn,
sft-sbfrm, sbbiky, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbiky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr pyr; bri cut flor;
bri lt blu res cut

-8750 CHK: lt-med gy-brn,
sft-sbfrm, sbbiky, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbiky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr pyr; bri cut flor;
bri lt blu res cut

-8800 CHK: lt-med gy-brn,
sft-sbfrm, sbbiky, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbiky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; bri cut flor; bri lt
blu res cut

-8850 CHK: lt-med gy, sft-
sbfrm, sbbiky, mot, v calc,
rthy lstr; MARL: dk gy-blk,
sbbiky-sbplty, sft-sbfrm,
mod calc, sl arg, tr fos
frags; mod bri cut flor; mod
bri lt blu res cut

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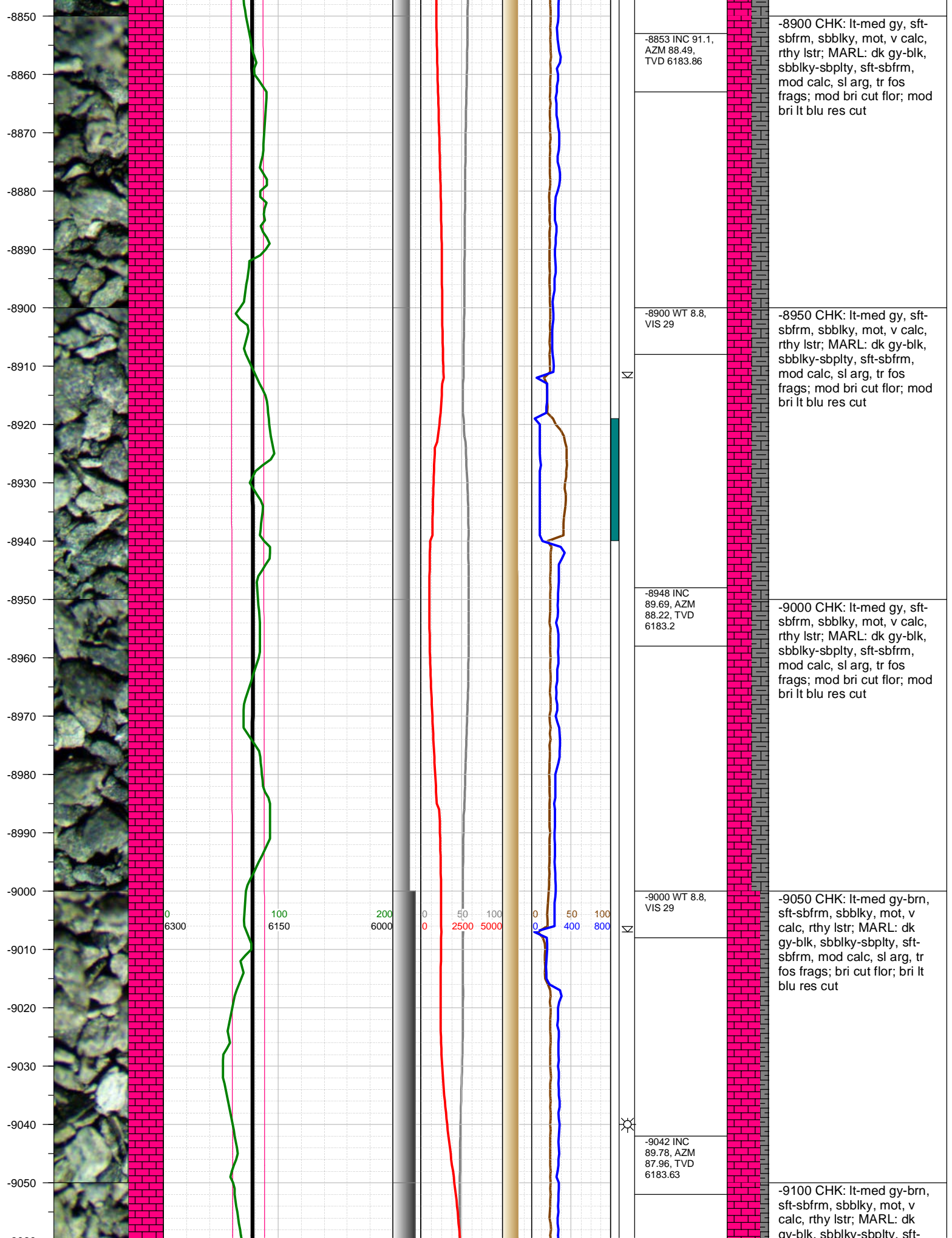
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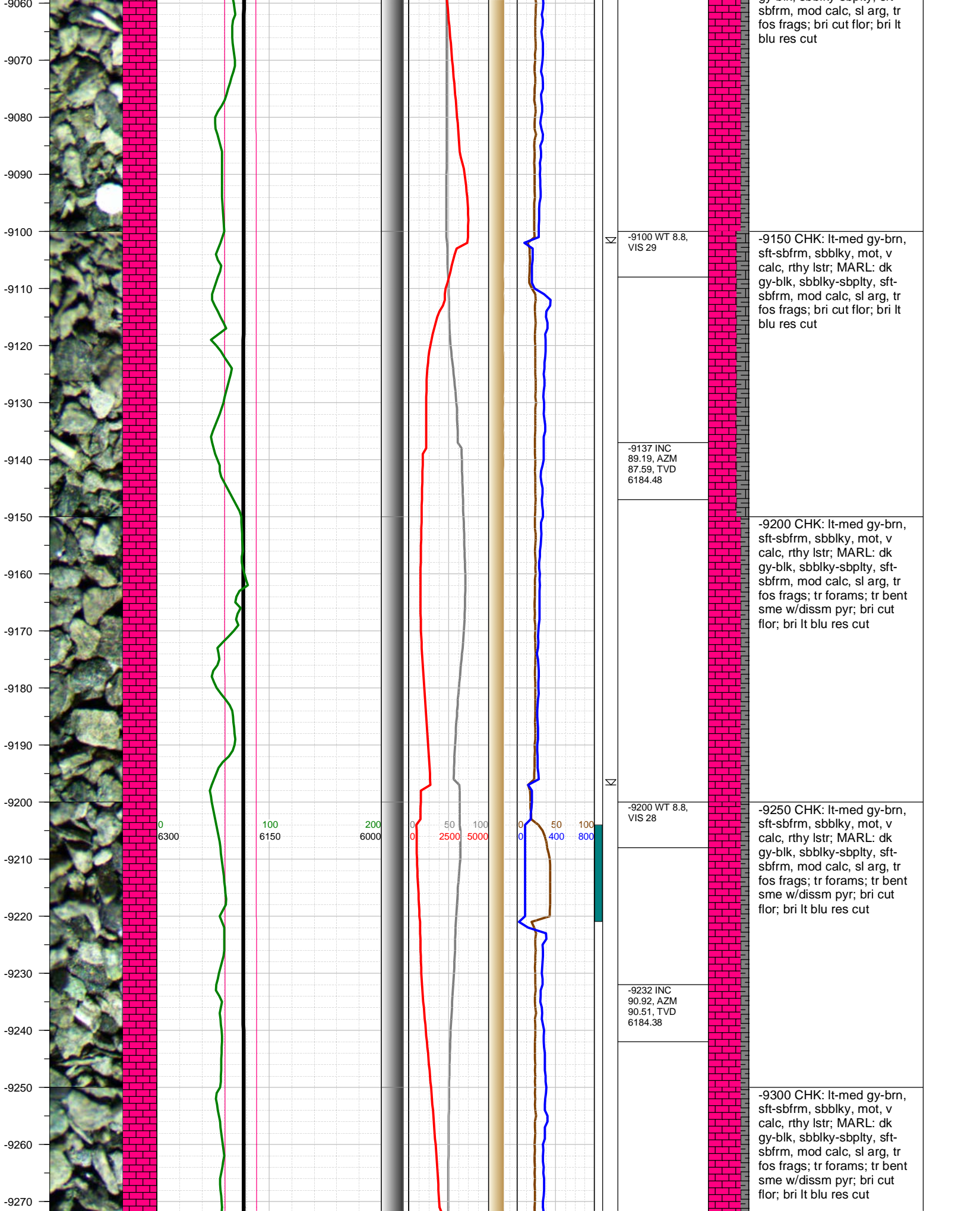
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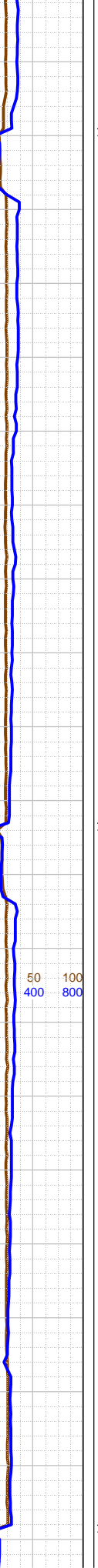
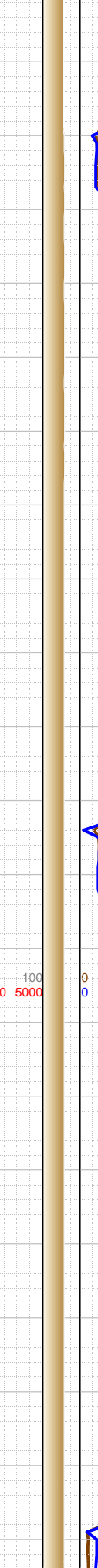
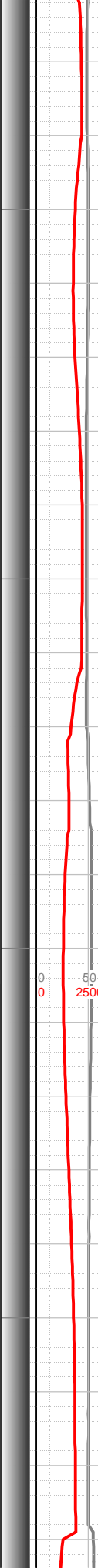
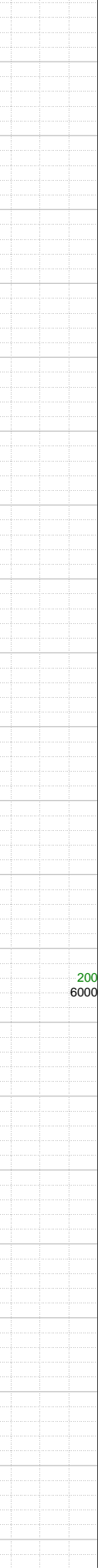
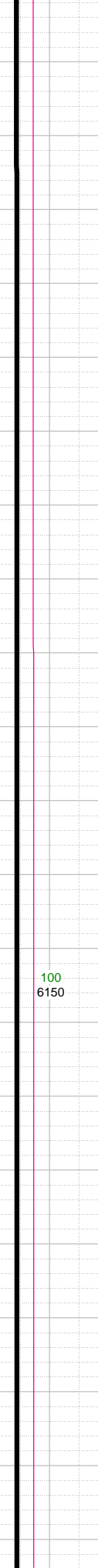
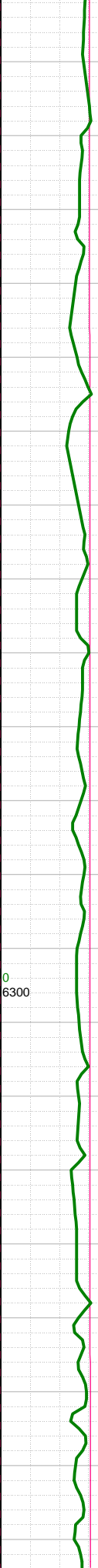
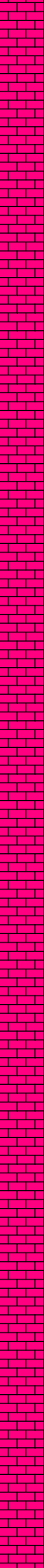
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-9300 WT 8.8,
VIS 28

-9325 INC
90.13, AZM
91.21, TVD
6183.53

-9400 WT 8.8,
VIS 28

-9420 INC
89.87, AZM
94.99, TVD
6183.53

-9350 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; tr bent
sme w/dissm pyr; bri cut
flor; bri lt blu res cut

-9400 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; mod
bent sme w/dissm pyr; bri
cut flor; bri lt blu res cut

-9450 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; mod
bent sme w/dissm pyr; bri
cut flor; bri lt blu res cut

-9500 CHK: lt-med gy-brn,
sft-sbfrm, sbbkly, mot, v
calc, rthy lstr; MARL: dk
gy-blk, sbbkly-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; frq
bent sme w/dissm pyr; bri
cut flor; bri lt blu res cut

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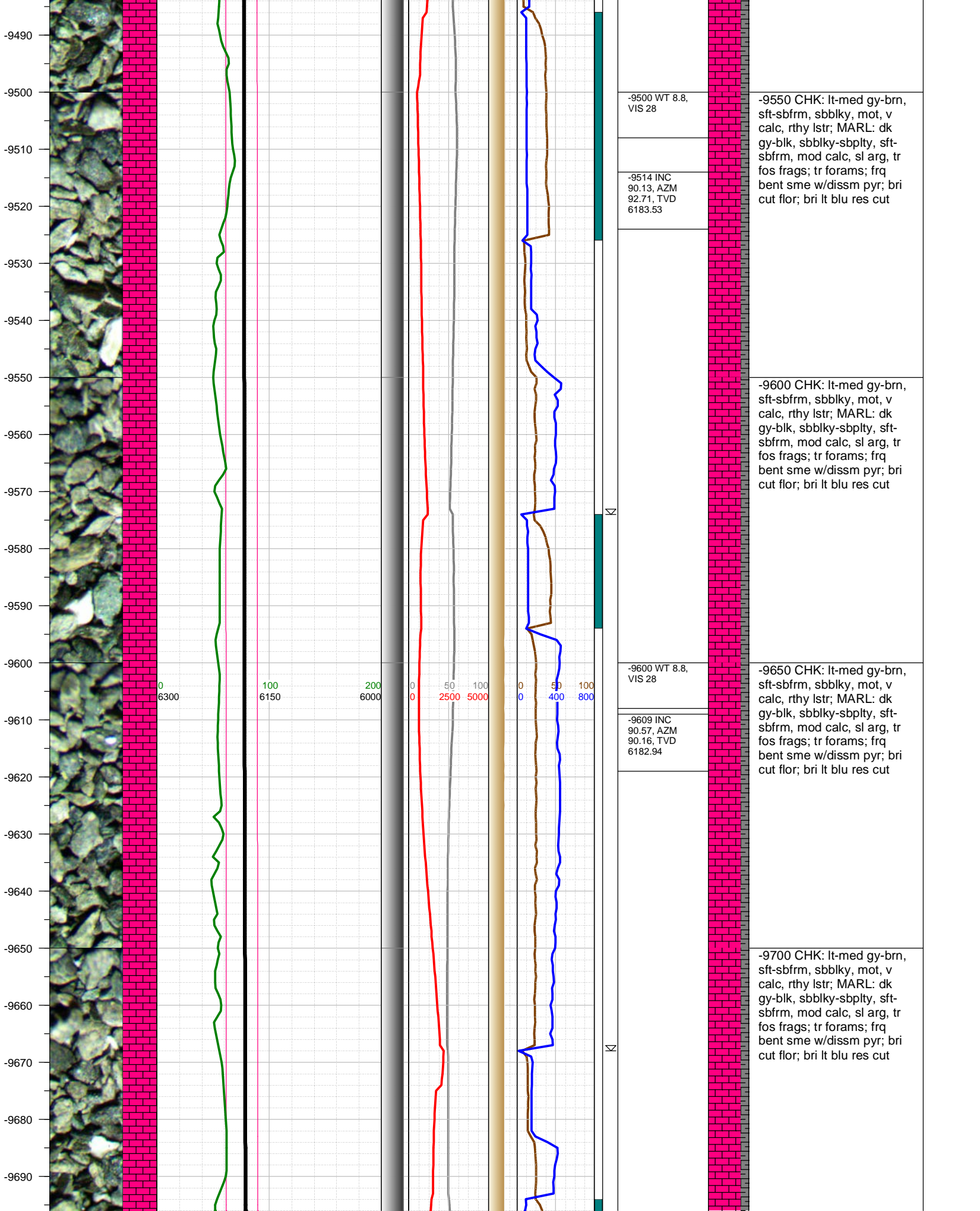
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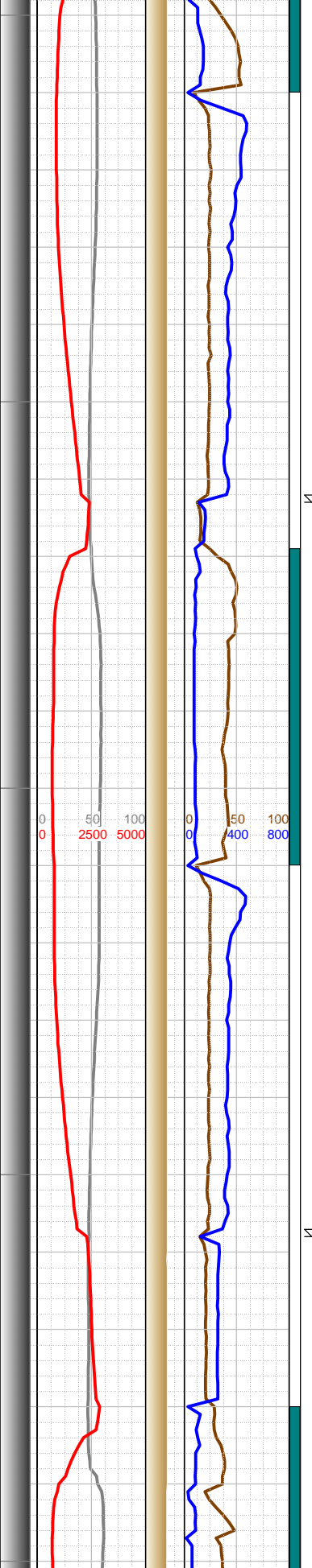
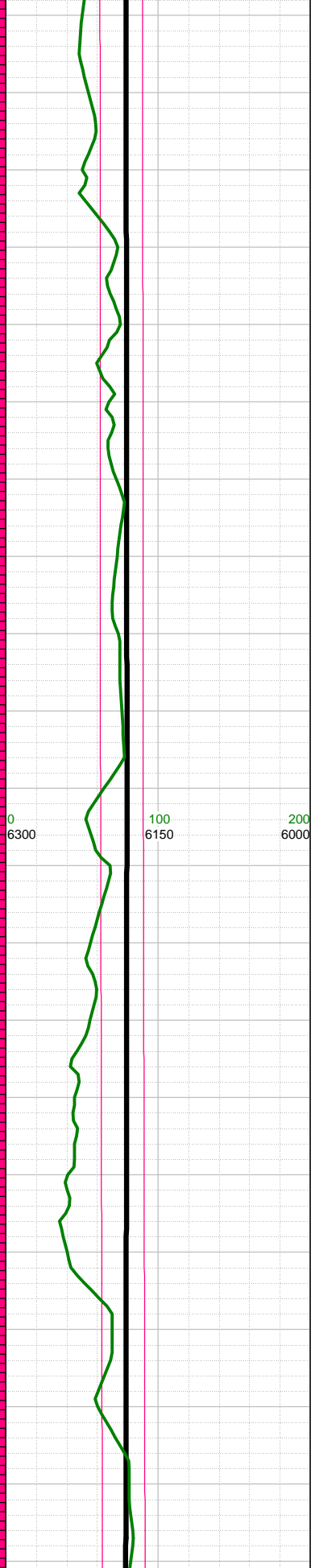
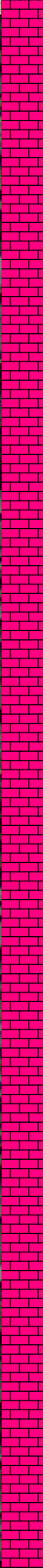
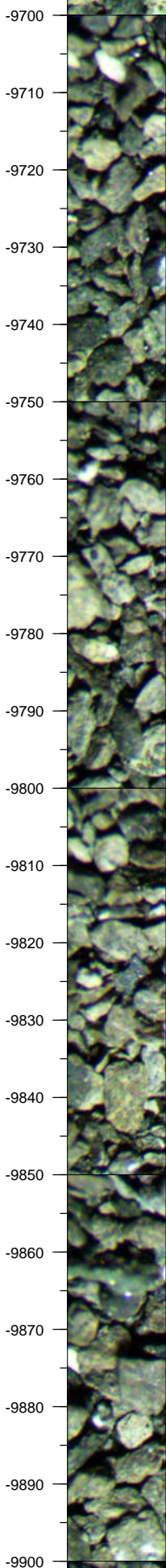
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-9703 INC 91.19, AZM 93.06, TVD 6181.5
-9720 WT 8.8, VIS 28
-9798 INC 89.87, AZM 89.02, TVD 6180.63
-9810 WT 8.8, VIS 28
-9892 INC 88.9, AZM 87.61, TVD 6181.64

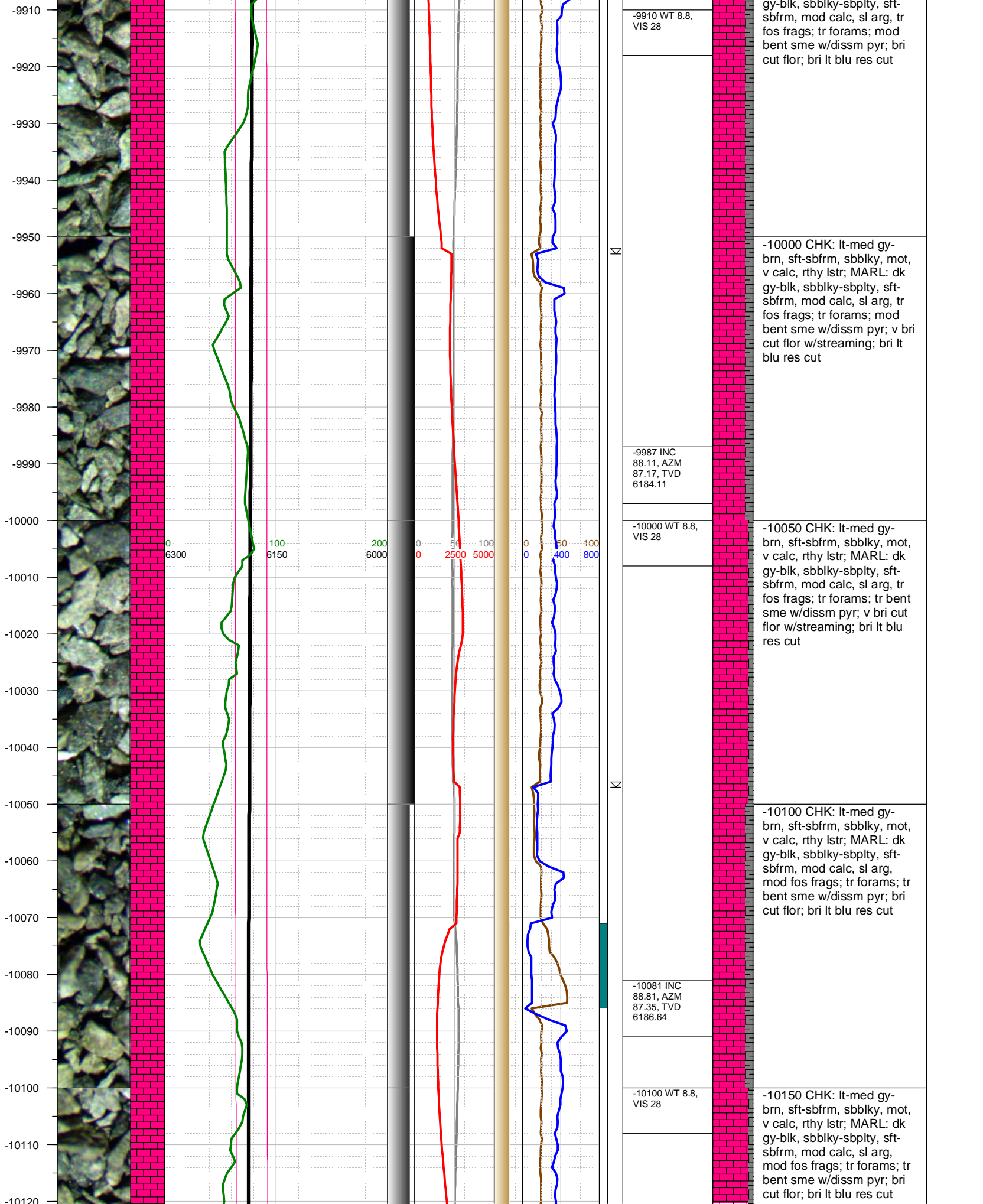
-9750 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, mod fos frags; mod forams; frq bent sme w/dissm pyr; bri cut flr; bri lt blu res cut

-9800 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, mod fos frags; mod forams; frq bent sme w/dissm pyr; bri cut flr; bri lt blu res cut

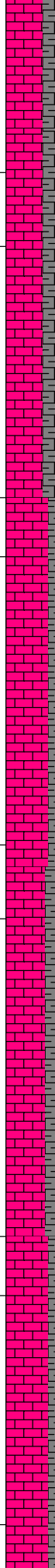
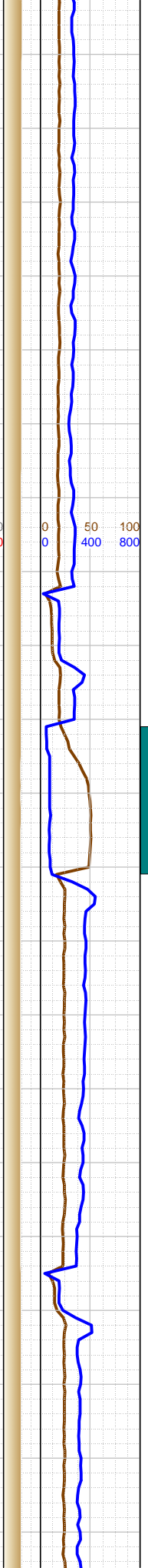
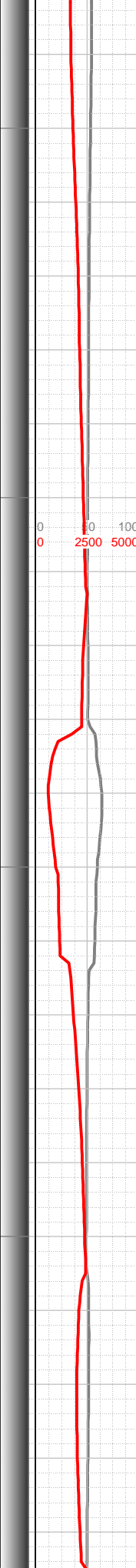
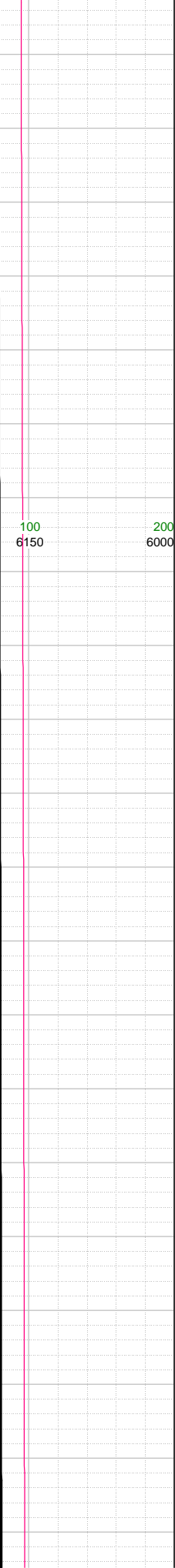
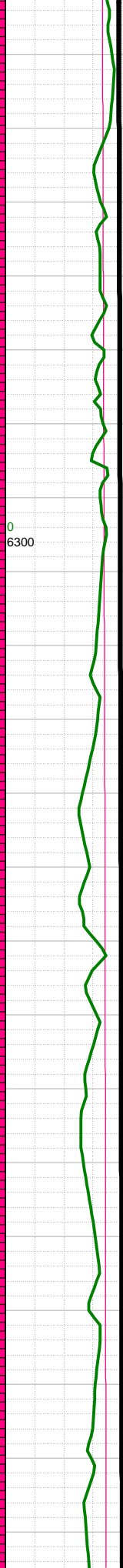
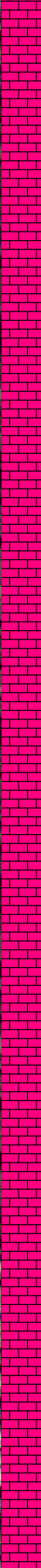
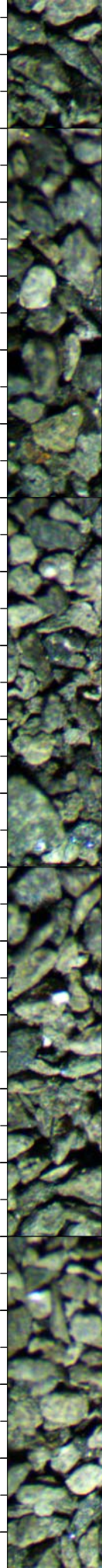
-9850 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; bri cut flr; bri lt grn res cut

-9900 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; frq bent sme w/dissm pyr; bri cut flr; bri lt blu res cut

-9950 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk



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-10356 INC
91.98, AZM
87.7, TVD
6182.61

-10400 WT 8.9,
VIS 28

-10447 INC
90.31, AZM
88.75, TVD
6180.8

-10500 WT 8.9,
VIS 28

-10539 INC
91.1, AZM
89.02, TVD

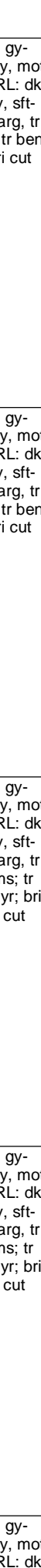
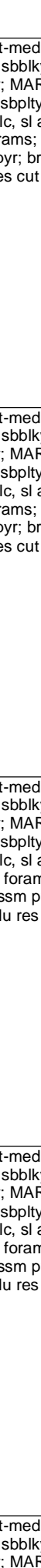
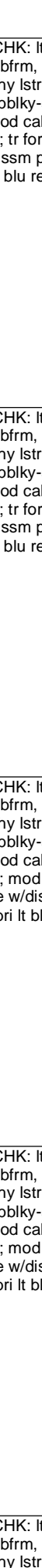
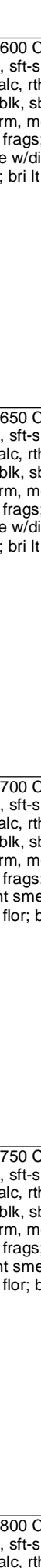
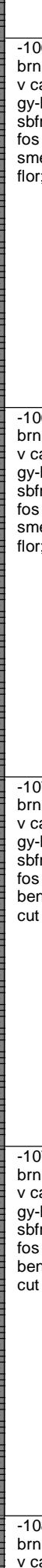
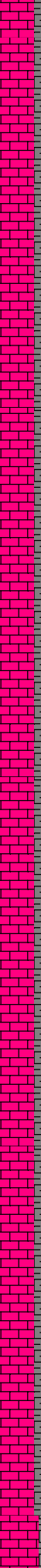
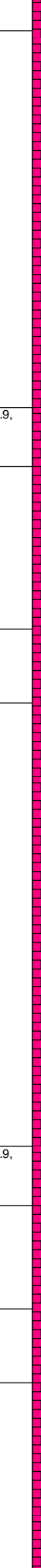
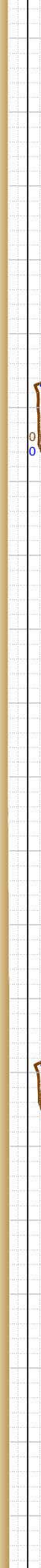
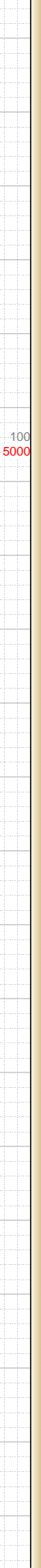
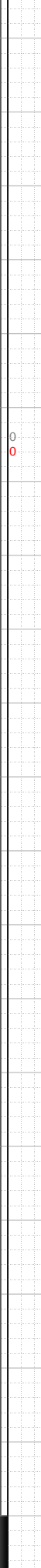
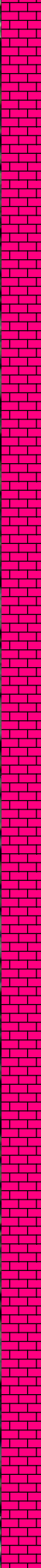
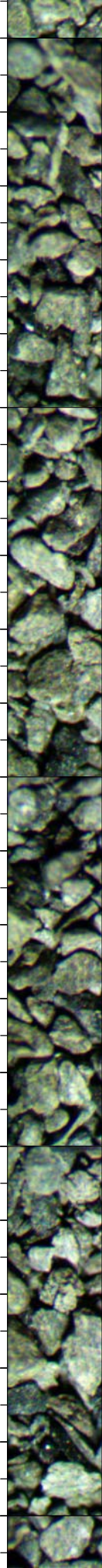
-10400 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; mod forams; mod bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-10450 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; mod forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-10500 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; mod forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-10550 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

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-10600 WT 8.9, VIS 28

-10630 INC 90.48, AZM 88.66, TVD 6178.41

-10700 WT 8.9, VIS 28

-10722 INC 90.13, AZM 88.58, TVD 6177.92

-10600 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

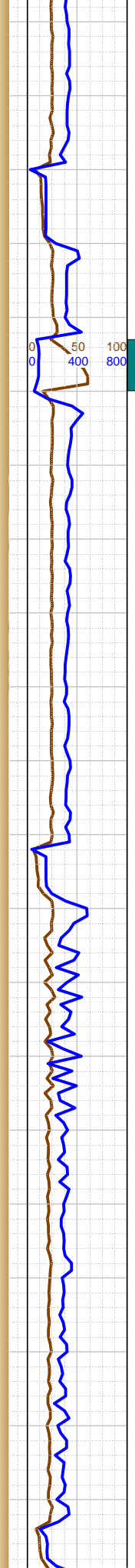
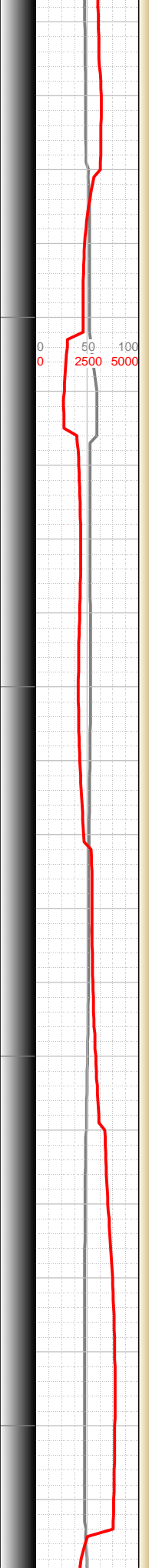
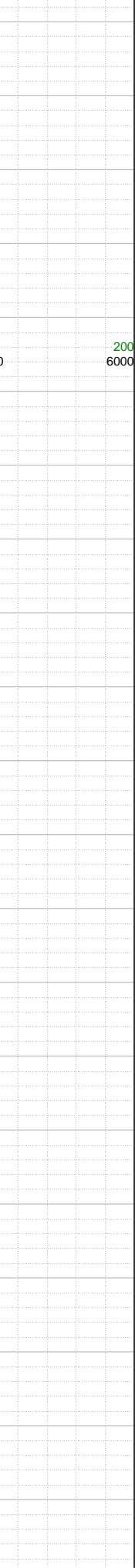
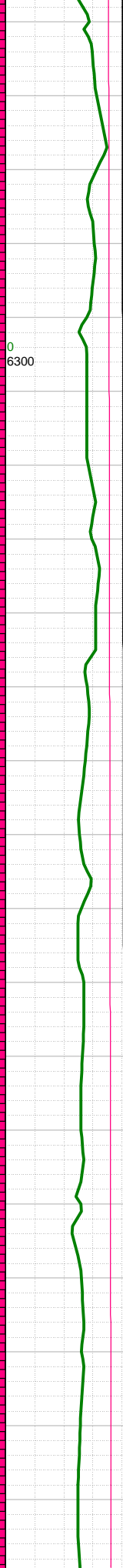
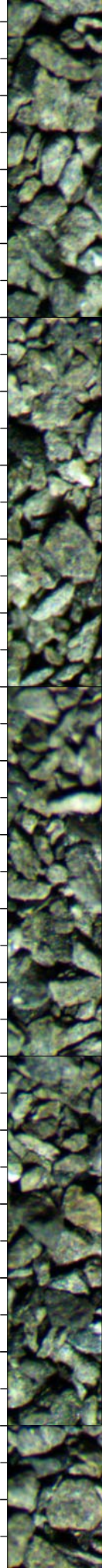
-10650 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-10700 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; mod forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-10750 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; mod forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-10800 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk

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gy-blk, sbbly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; mod forams; tr bent sme w/dissm pyr; v bri cut flr w/streaming; bri lt blu res cut

-10800 WT 8.9, VIS 29

-10813 INC 90.92, AZM 89.19, TVD 6177.08

-10850 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; v bri cut flr w/streaming; bri lt blu res cut

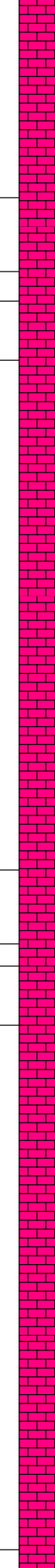
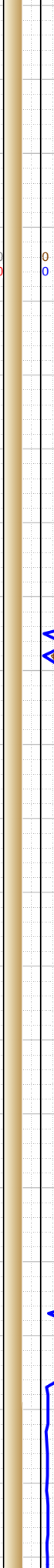
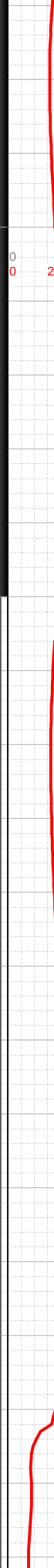
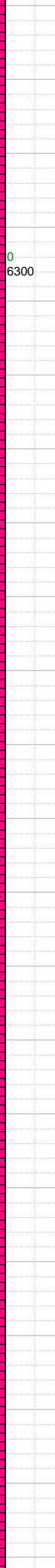
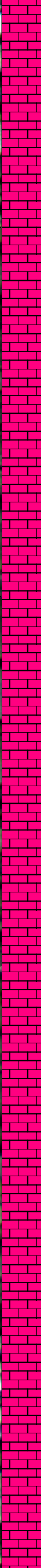
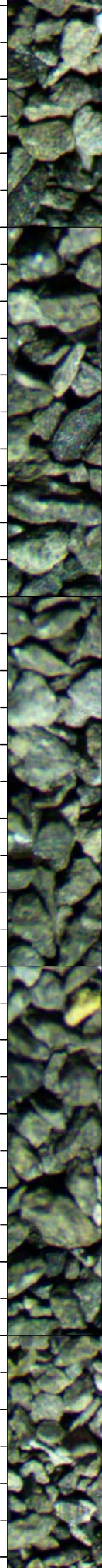
-10900 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; v bri cut flr w/streaming; bri lt blu res cut

-10904 INC 90.48, AZM 88.84, TVD 6175.96

-10920 WT 8.9, VIS 29

-11000 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; v bri cut flr w/streaming; bri lt blu res cut

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-10996 INC
90.66, AZM
87.08, TVD
6175.04

-11010 WT 8.9,
VIS 29

-11087 INC
90.84, AZM
84.71, TVD
6173.86

-11100 WT 8.9,
VIS 29

-11179 INC

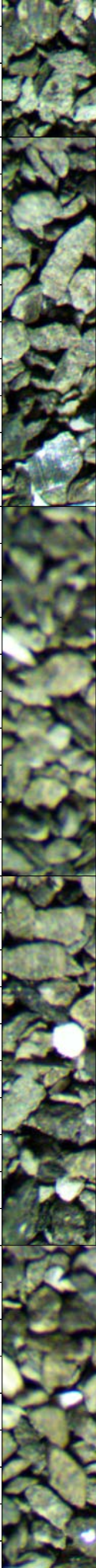
-11050 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; tr forams; v bri cut flor w/streaming; bri lt blu res cut

-11100 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; tr forams; bri cut flor; bri lt blu res cut

-11150 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; tr forams; bri cut flor; bri lt blu res cut

-11200 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; tr forams; bri cut flor; bri lt blu res cut

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91.54, AZM
86.29, TVD
6171.95

-11200 WT 9,
VIS 28

-11250 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; tr forams; v bri cut flor; bri lt blu res cut

-11271 INC
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88.84, TVD
6169.13

-11300 WT 8.9,
VIS 27

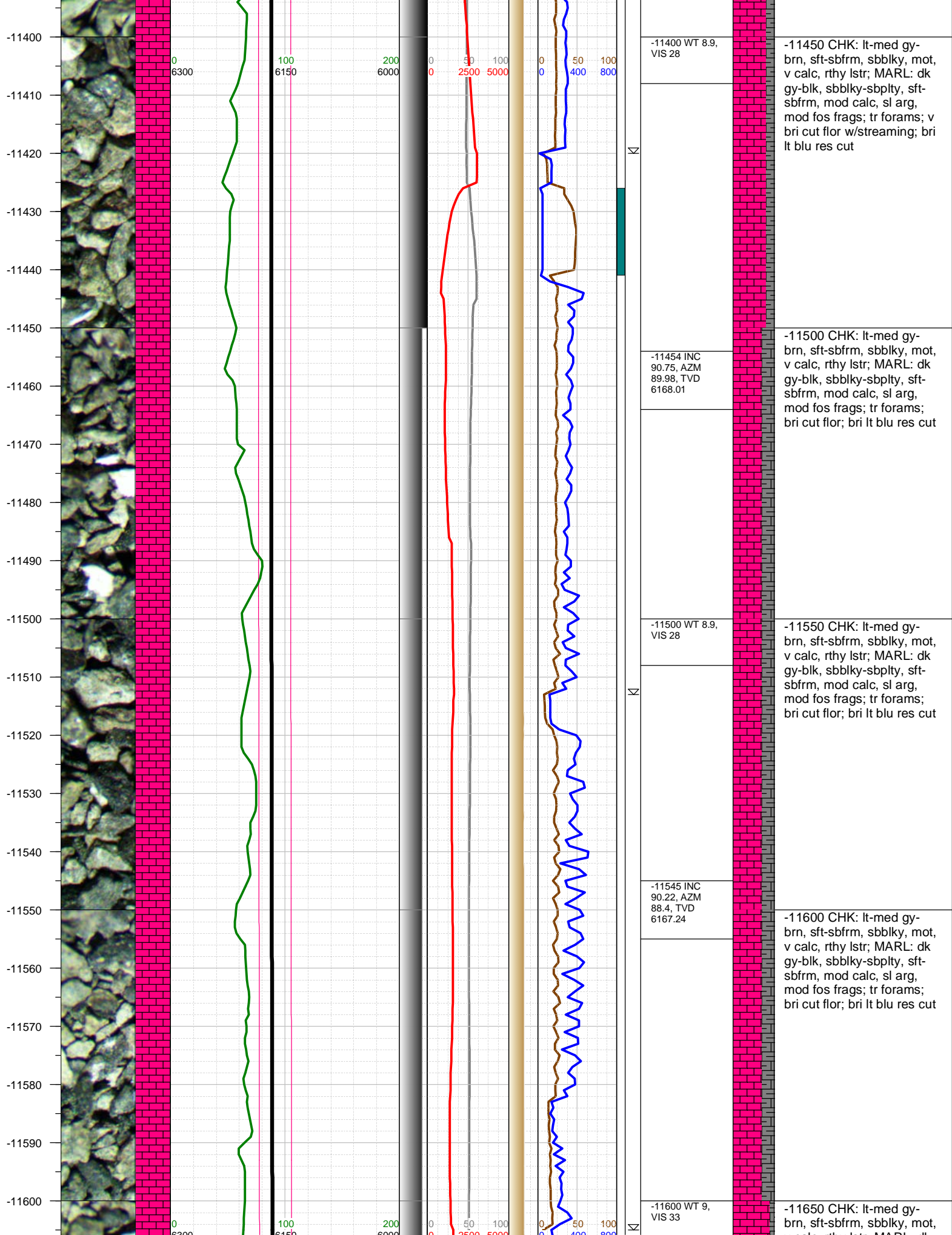
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-11362 INC
89.34, AZM
89.02, TVD
6168.08

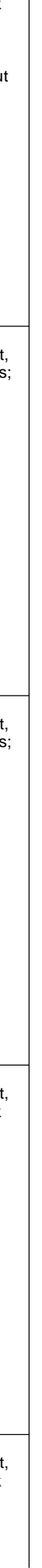
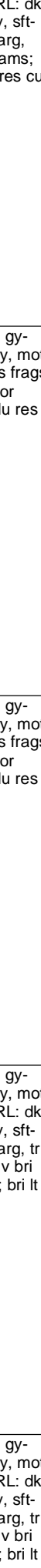
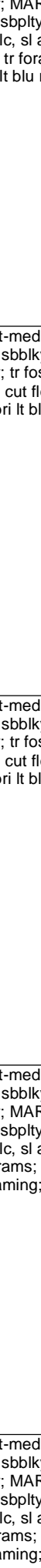
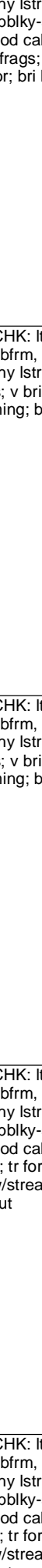
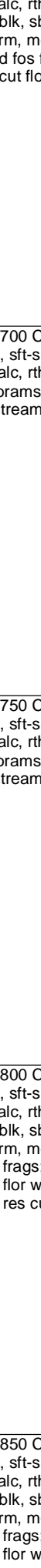
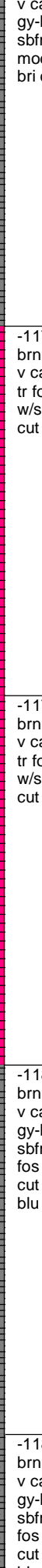
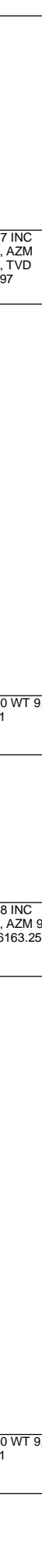
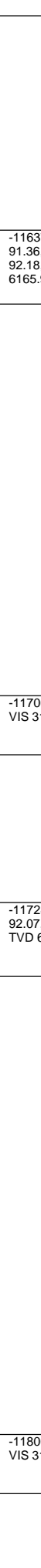
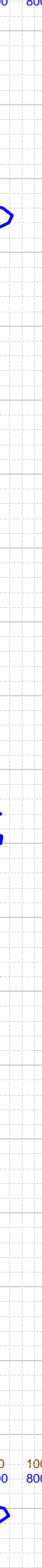
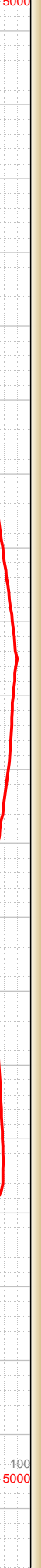
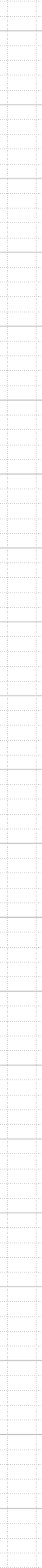
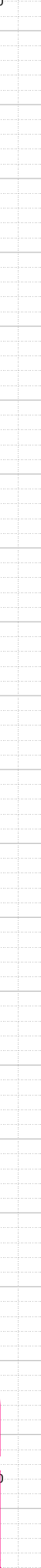
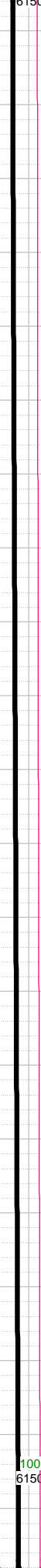
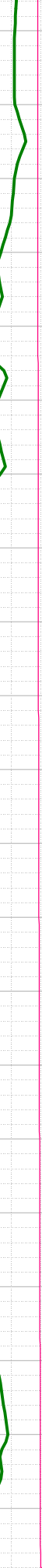
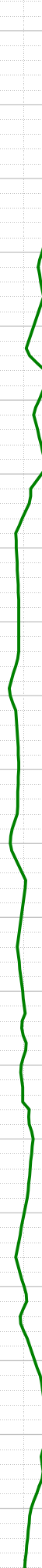
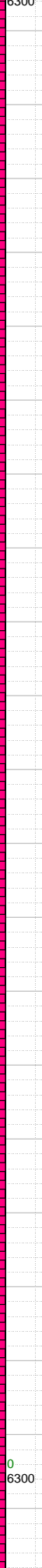
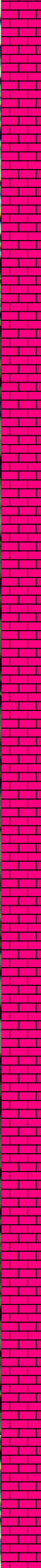
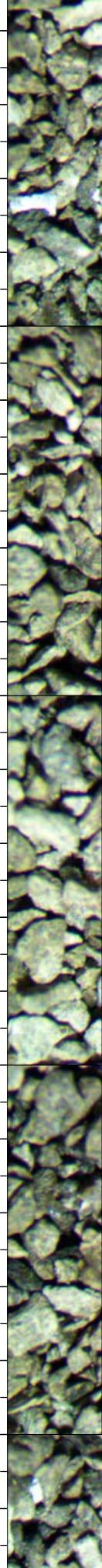
-11400 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; tr forams; v bri cut flor w/streaming; bri lt blu res cut

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-11637 INC
91.36, AZM
92.18, TVD
6165.97



-11700 WT 9,
VIS 31

-11728 INC
92.07, AZM 92,
TVD 6163.25



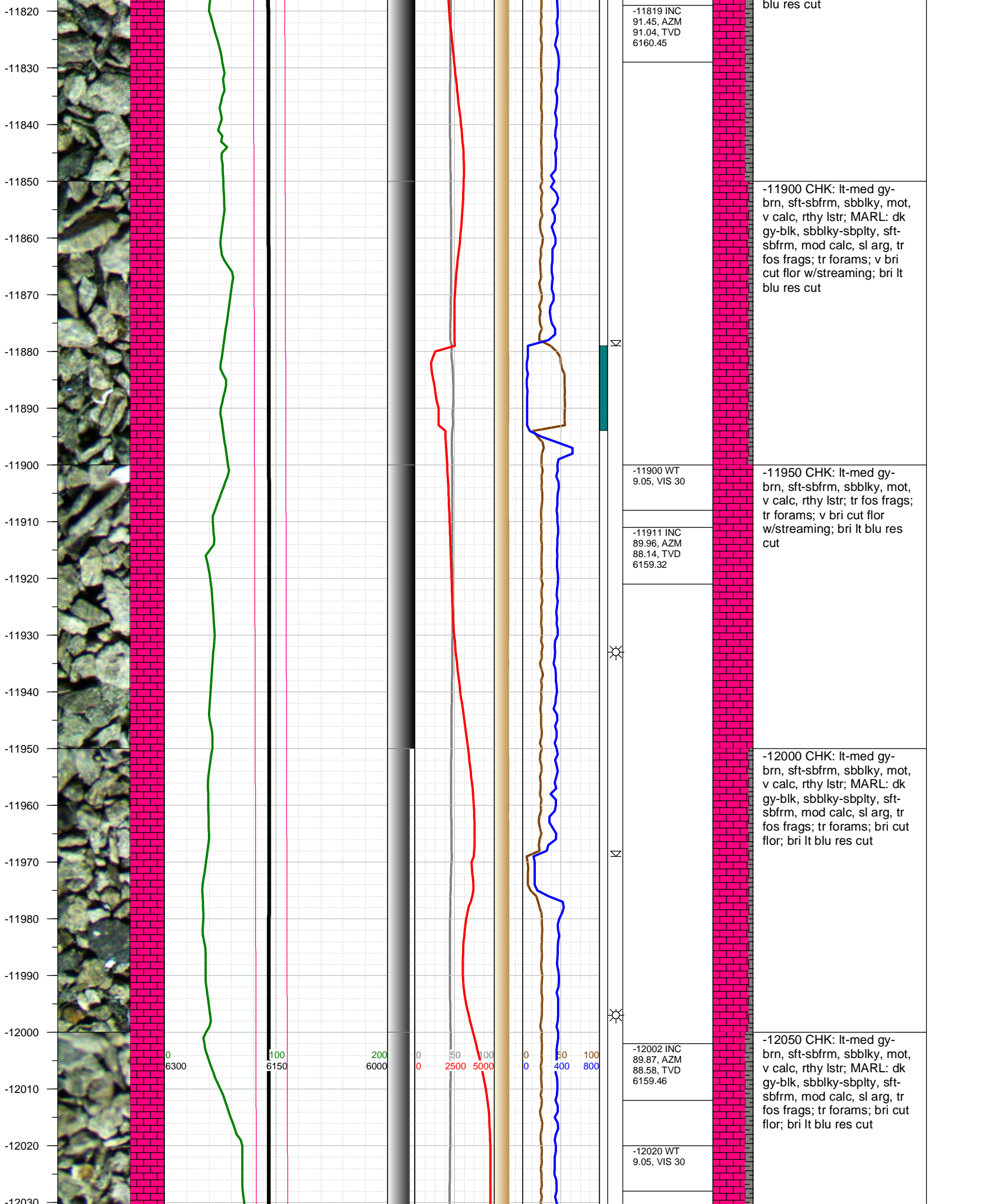
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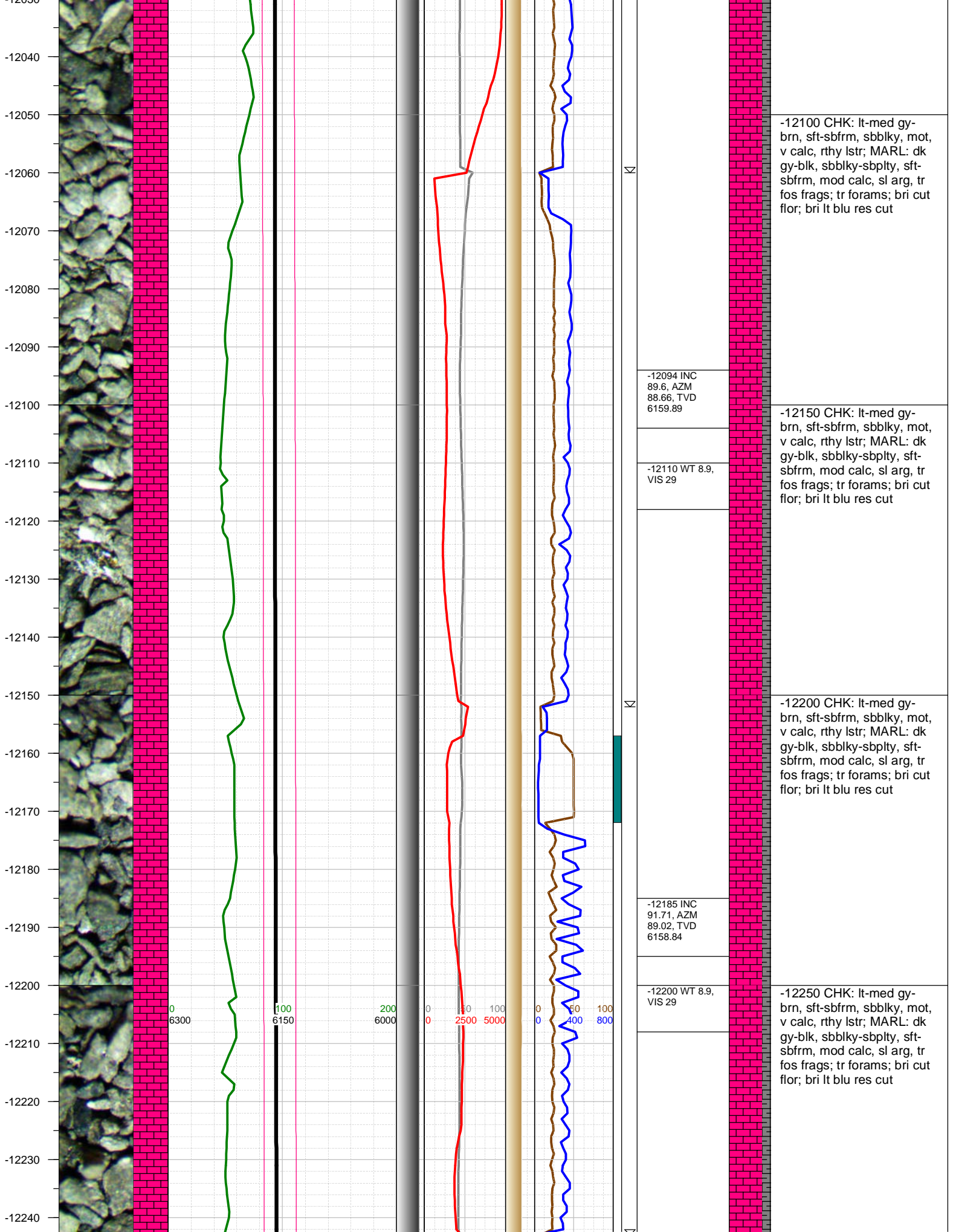
-11700 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; tr fos frags; tr forams; v bri cut flor w/streaming; bri lt blu res cut

-11750 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; tr fos frags; tr forams; v bri cut flor w/streaming; bri lt blu res cut

-11800 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; v bri cut flor w/streaming; bri lt blu res cut

-11850 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; v bri cut flor w/streaming; bri lt





-12100 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; bri cut flor; bri lt blu res cut

-12094 INC
89.6, AZM
88.66, TVD
6159.89

-12150 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; bri cut flor; bri lt blu res cut

-12110 WT 8.9,
VIS 29

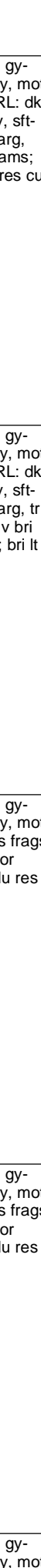
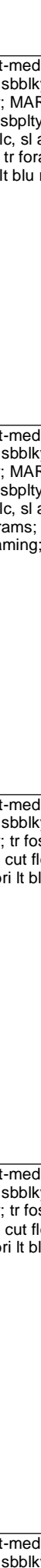
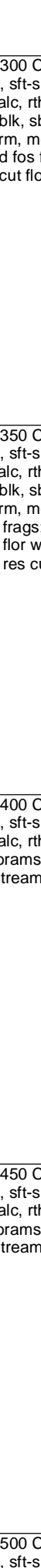
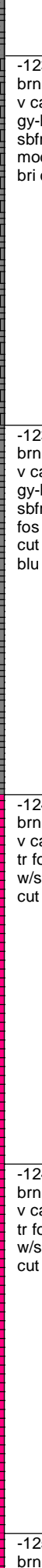
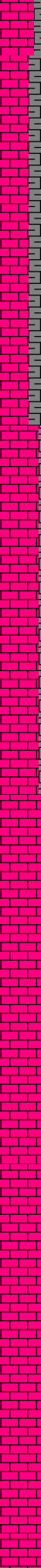
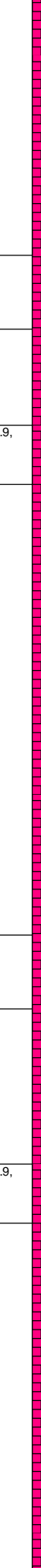
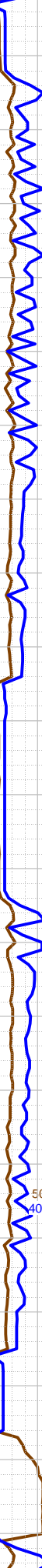
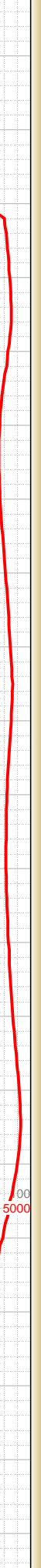
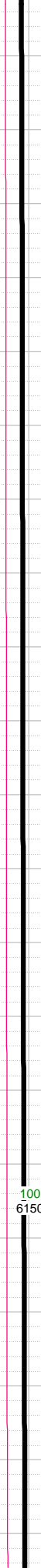
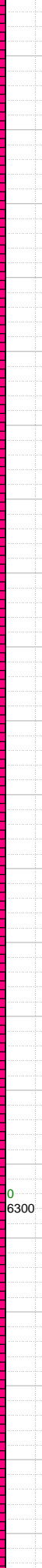
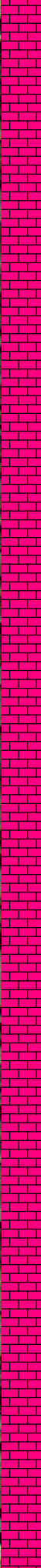
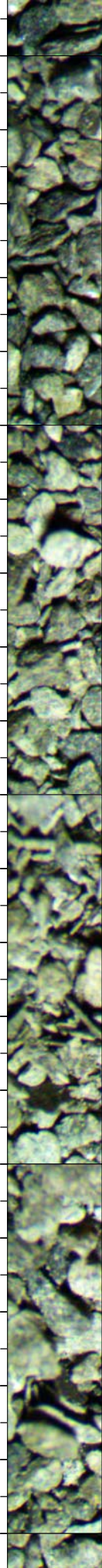
-12200 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; bri cut flor; bri lt blu res cut

-12185 INC
91.71, AZM
89.02, TVD
6158.84

-12250 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; bri cut flor; bri lt blu res cut

-12200 WT 8.9,
VIS 29

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-12277 INC
90.84, AZM
88.31, TVD
6156.79

-12300 WT 8.9,
VIS 29

-12369 INC
90.48, AZM
88.66, TVD
6155.73

-12400 WT 8.9,
VIS 29

-12300 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; tr forams; bri cut flor; bri lt blu res cut

-12350 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; v bri cut flor w/streaming; bri lt blu res cut

-12400 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; tr fos frags; tr forams; v bri cut flor w/streaming; bri lt blu res cut

-12450 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; tr fos frags; tr forams; v bri cut flor w/streaming; bri lt blu res cut

-12500 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot,

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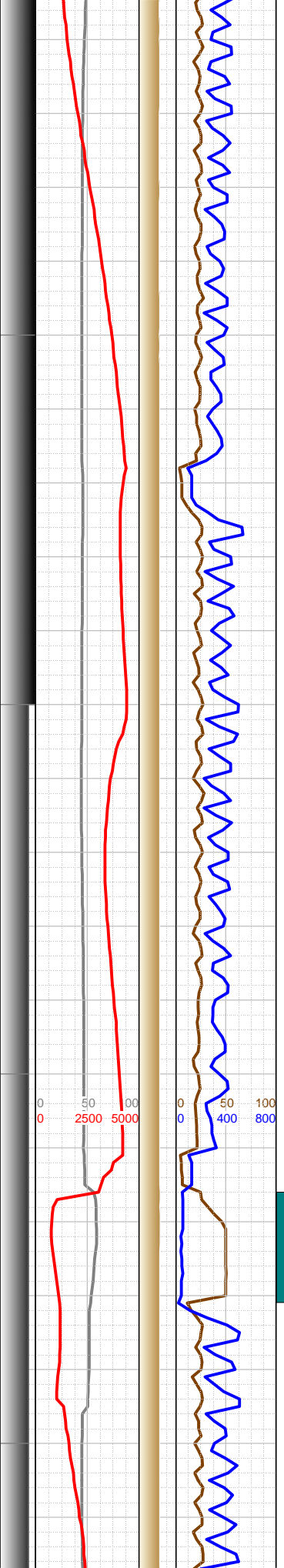
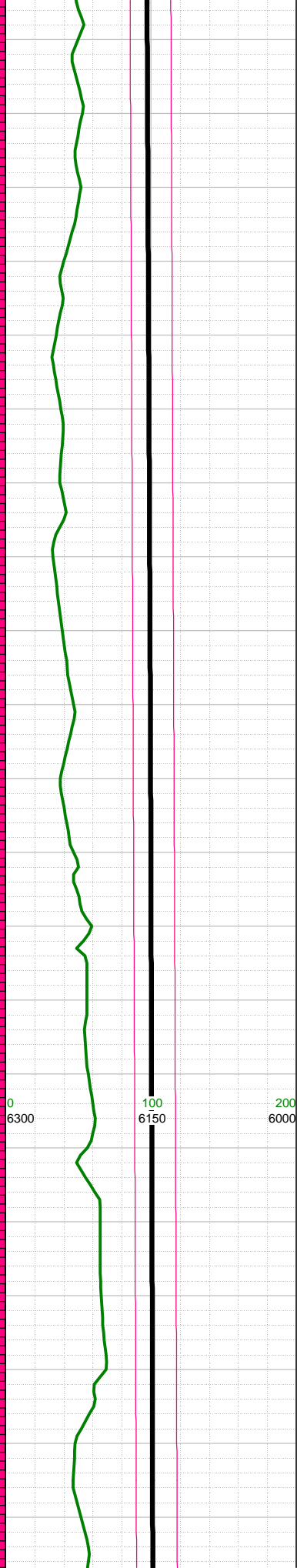
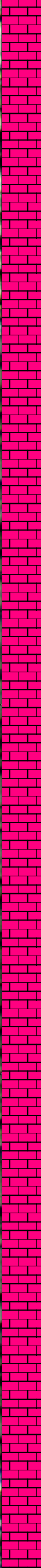
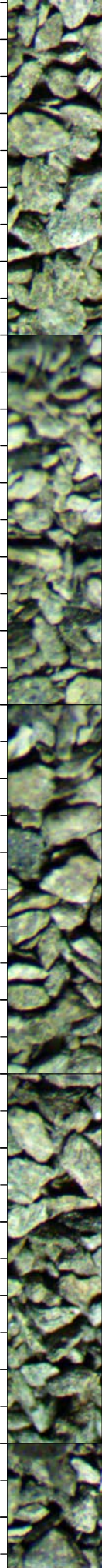
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-12461 INC 91.89, AZM 89.54, TVD 6153.83
-12500 WT 8.9, VIS 29
-12553 INC 92.24, AZM 89.81, TVD 6150.51
-12600 WT 8.9, VIS 29
-12644 INC 90.4, AZM 89.81, TVD 6148.42

v calc, rthy lstr; tr fos frags;
tr forams; v bri cut flor
w/streaming; bri lt blu res
cut

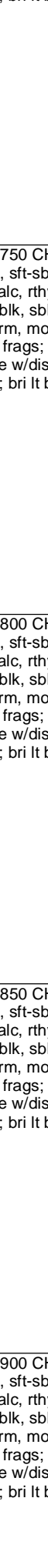
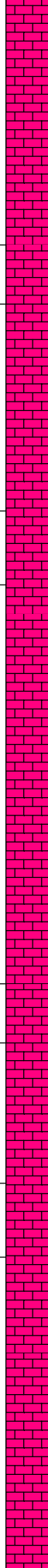
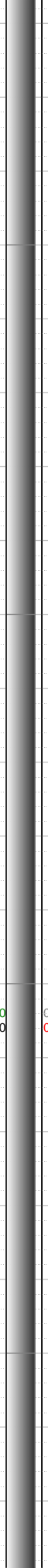
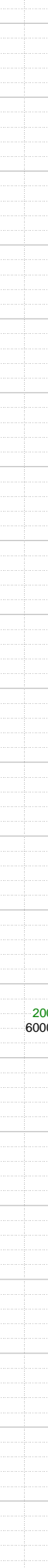
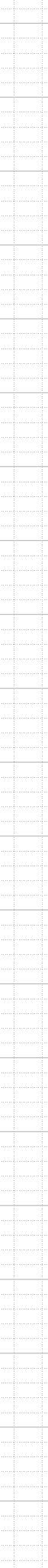
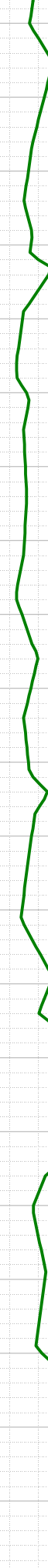
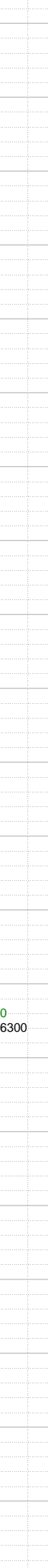
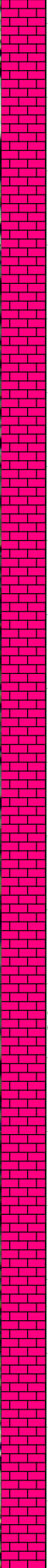
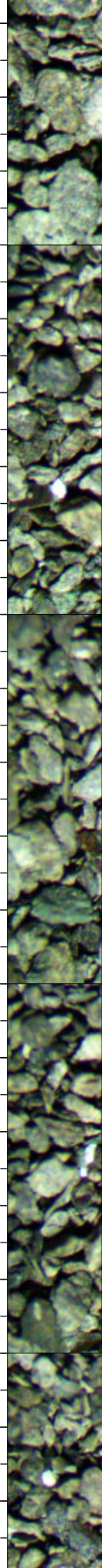
-12550 CHK: lt-med gy-
brn, sft-sbfrm, sbblky, mot,
v calc, rthy lstr; tr fos frags;
tr forams; v bri cut flor
w/streaming; bri lt blu res
cut

-12600 CHK: lt-med gy-
brn, sft-sbfrm, sbblky, mot,
v calc, rthy lstr; MARL: dk
gy-blk, sbblky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; bri cut
flor; bri lt blu res cut

-12650 CHK: lt-med gy-
brn, sft-sbfrm, sbblky, mot,
v calc, rthy lstr; MARL: dk
gy-blk, sbblky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; bri cut
flor; bri lt blu res cut

-12700 CHK: lt-med gy-
brn, sft-sbfrm, sbblky, mot,
v calc, rthy lstr; MARL: dk
gy-blk, sbblky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; bri cut
flor; bri lt blu res cut

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-12700 WT 8.9,
VIS 29

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-12800 WT 8.9,
VIS 29

-12827 INC
91.63, AZM
89.45, TVD
6145.75

-12750 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-12800 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-12850 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-12900 CHK: lt-med gy-brn, sft-sbfrm, sbblky, mot, v calc, rthy lstr; MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

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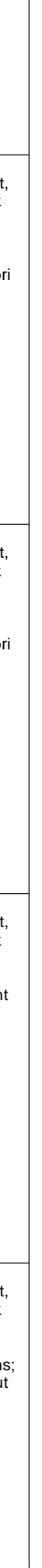
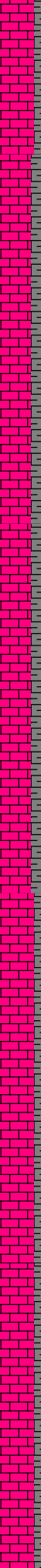
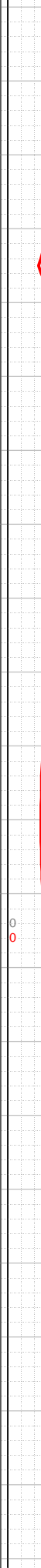
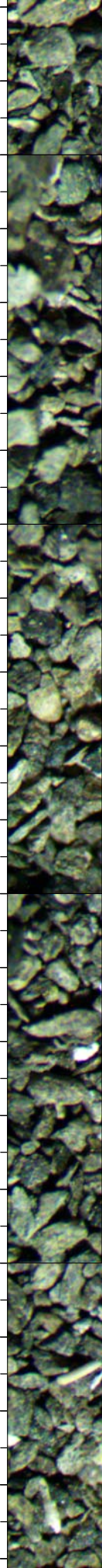
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-13090



-12900 WT 8.9,
VIS 29

-12919 INC
90.57, AZM
89.72, TVD
6143.99

-13000 WT 8.9,
VIS 29

-13010 INC
91.19, AZM
89.37, TVD
6142.59

-12950 CHK: lt-med gy-
brn, sft-sbfrm, sbblky, mot,
v calc, rthy lstr; MARL: dk
gy-blk, sbblky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr bent sme
w/dissm pyr; bri cut flor; bri
lt blu res cut

-13000 CHK: lt-med gy-
brn, sft-sbfrm, sbblky, mot,
v calc, rthy lstr; MARL: dk
gy-blk, sbblky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr bent sme
w/dissm pyr; bri cut flor; bri
lt blu res cut

-13050 CHK: lt-med gy-
brn, sft-sbfrm, sbblky, mot,
v calc, rthy lstr; MARL: dk
gy-blk, sbblky-sbplty, sft-
sbfrm, mod calc, sl arg, tr
fos frags; tr forams; tr bent
sme w/dissm pyr; bri cut
flor; bri lt blu res cut

-13100 CHK: lt-med gy-
brn, sft-sbfrm, sbblky, mot,
v calc, rthy lstr; MARL: dk
gy-blk, sbblky-sbplty, sft-
sbfrm, mod calc, sl arg,
mod fos frags; mod forams;
bri cut flor; bri lt blu res cut

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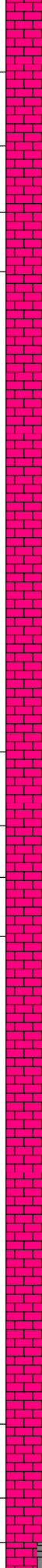
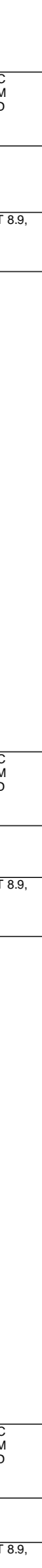
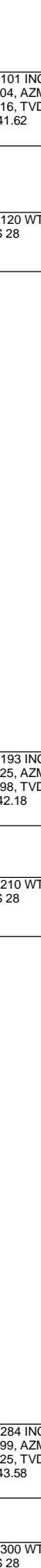
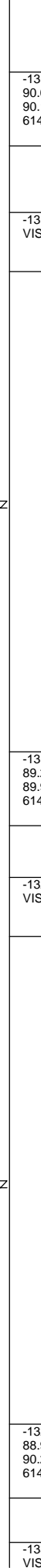
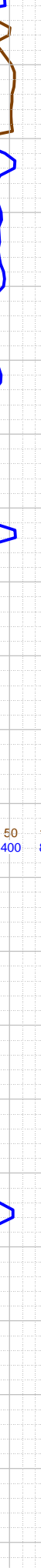
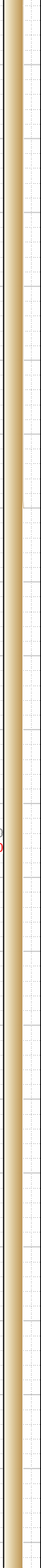
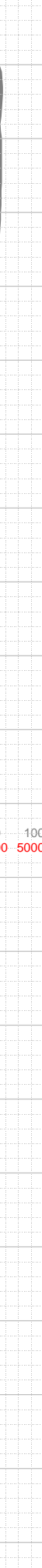
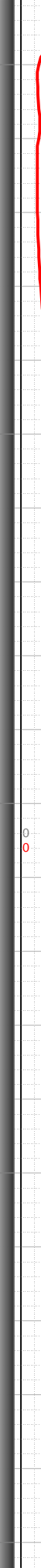
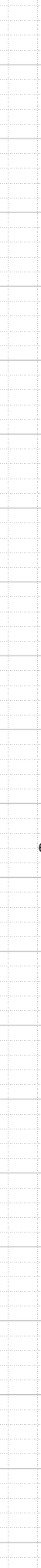
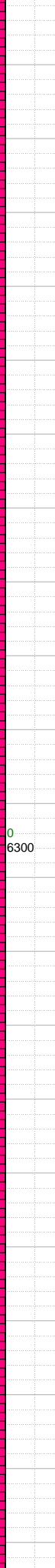
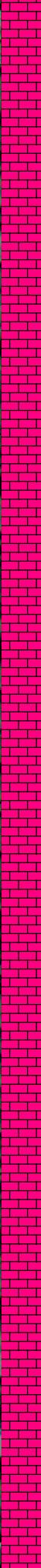
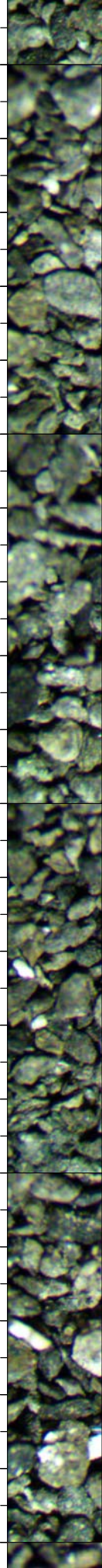
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-13290
-13300



-13101 INC
90.04, AZM
90.16, TVD
6141.62

-13120 WT 8.9,
VIS 28

-13193 INC
89.25, AZM
89.98, TVD
6142.18

-13210 WT 8.9,
VIS 28

-13284 INC
88.99, AZM
90.25, TVD
6143.58

-13300 WT 8.9,
VIS 28

-13150 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; mod forams; bri cut flor; bri lt blu res cut

-13200 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; mod forams; bri cut flor; bri lt blu res cut

-13250 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, mod fos frags; mod forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-13300 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, frq fos frags; mod forams; bri cut flor; bri lt blu res cut

-13350 CHK: lt-med gy-brn, sft-sbfrm, sbbkly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbkly-sbplty, sft-sbfrm, mod calc, sl arg, frq fos frags; mod forams; bri cut flor; bri lt blu res cut

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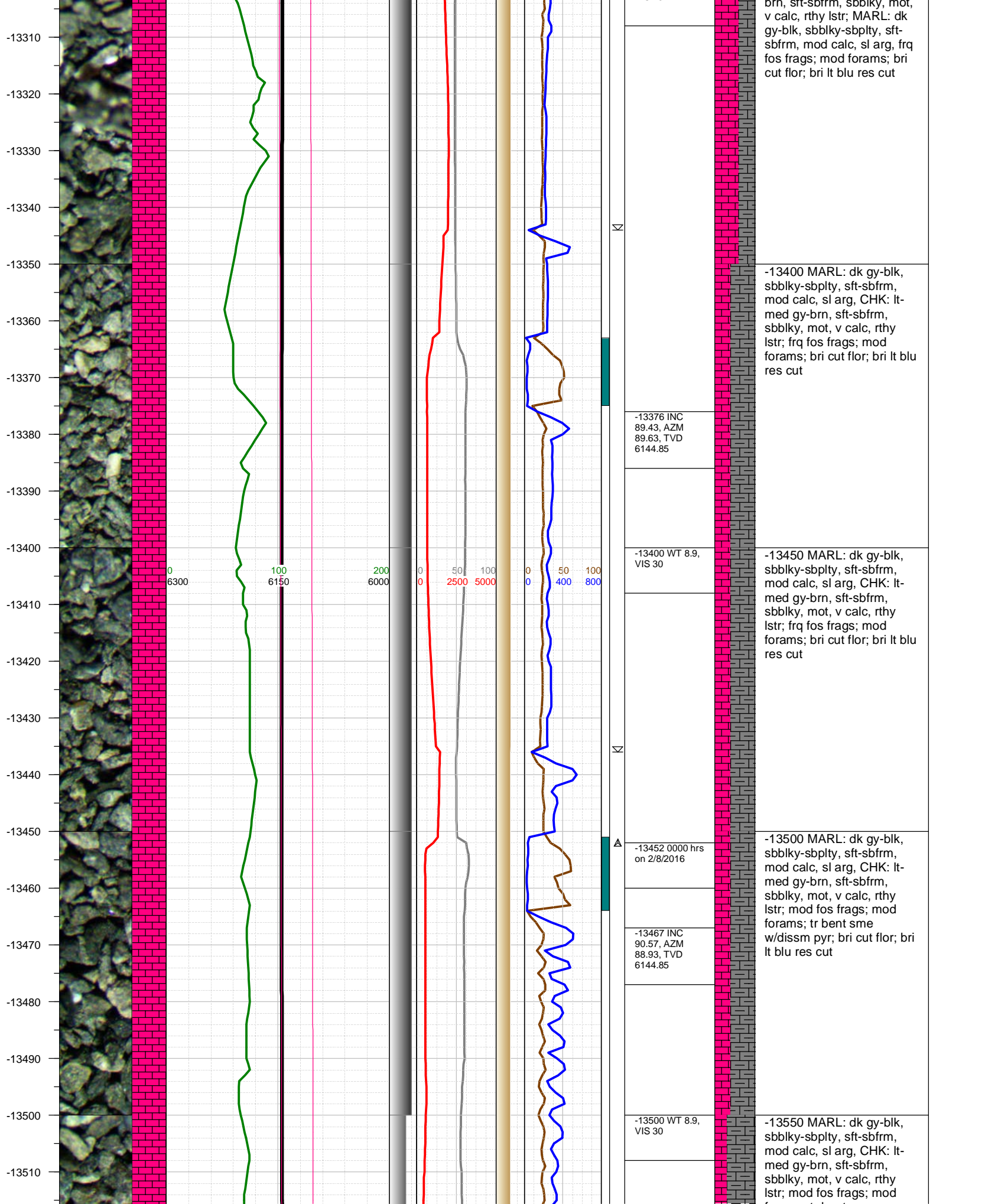
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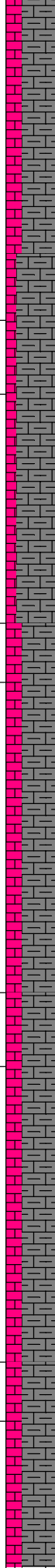
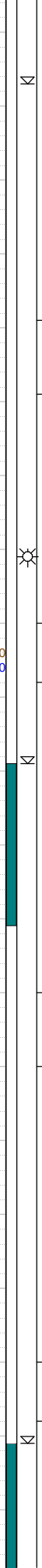
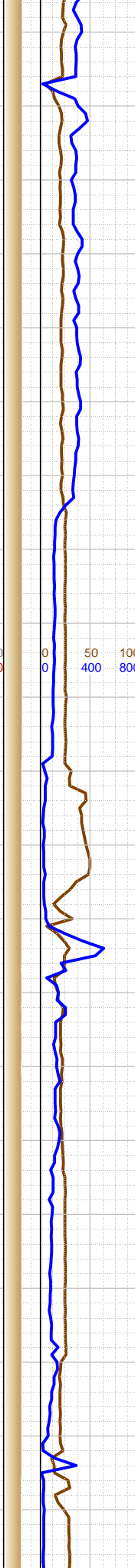
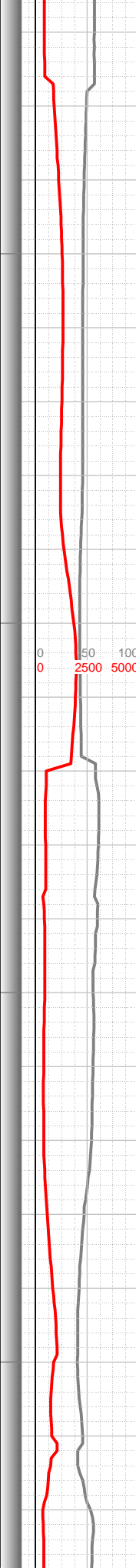
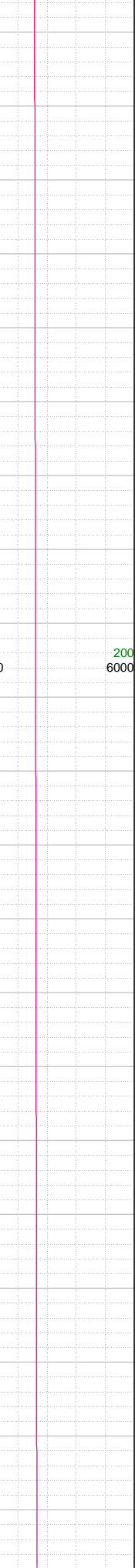
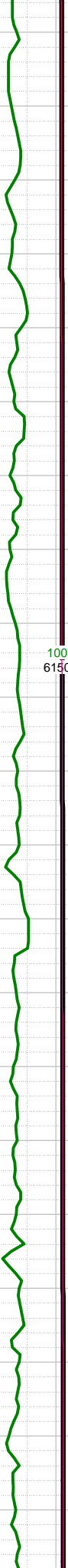
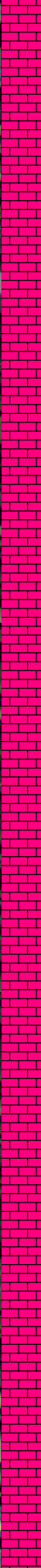
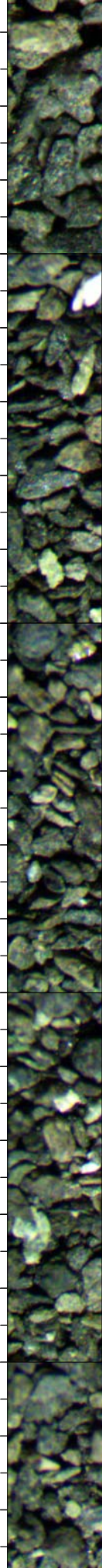
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forams; tr bent sme
w/dissm pyr; mod bri cut
flor; dull lt blu res cut

-13559 INC
90.97, AZM
92.54, TVD
6143.61

-13600 WT 8.9,
VIS 30

-13650 INC
89.78, AZM
90.77, TVD
6143.01

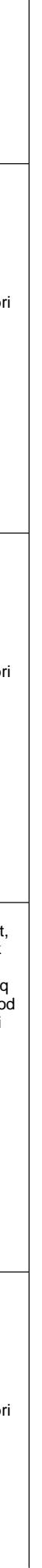
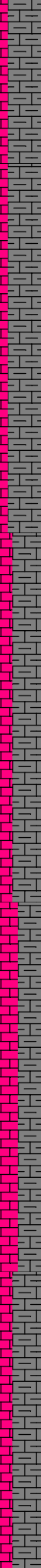
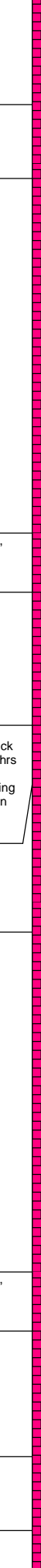
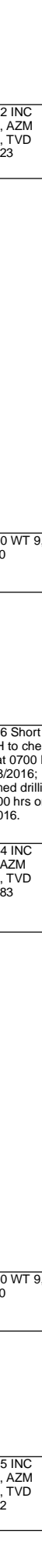
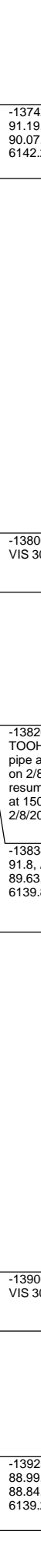
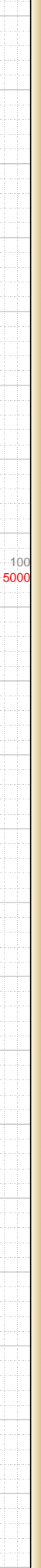
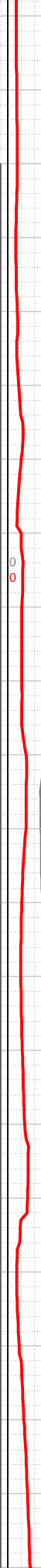
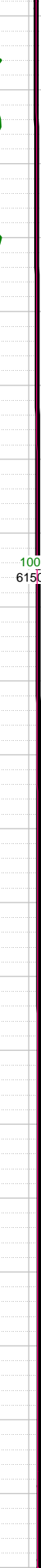
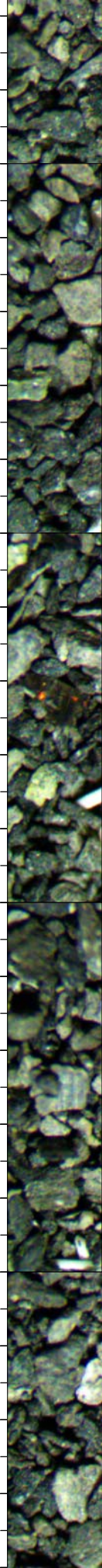
-13700 WT 9,
VIS 30

-13600 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy-brn, sft-sbfrm,
sbbly, mot, v calc, rthy
lstr; mod fos frags; mod
forams; mod bent sme
w/dissm pyr; mod bri cut
flor; dull lt blu res cut

-13650 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy-brn, sft-sbfrm,
sbbly, mot, v calc, rthy
lstr; mod fos frags; mod
forams; tr bent sme
w/dissm pyr; mod bri cut
flor; dull lt blu res cut

-13700 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy-brn, sft-sbfrm,
sbbly, mot, v calc, rthy
lstr; mod fos frags; mod
forams; tr bent sme
w/dissm pyr; mod bri cut
flor; dull lt blu res cut

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-13742 INC
91.19, AZM
90.07, TVD
6142.23

-13800 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; mod forams; mod bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-13800 WT 9,
VIS 30

-13850 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; frq forams; mod bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-13826 Short
TOOH to check
pipe at 0700 hrs
on 2/8/2016;
resumed drilling
at 1500 hrs on
2/8/2016.

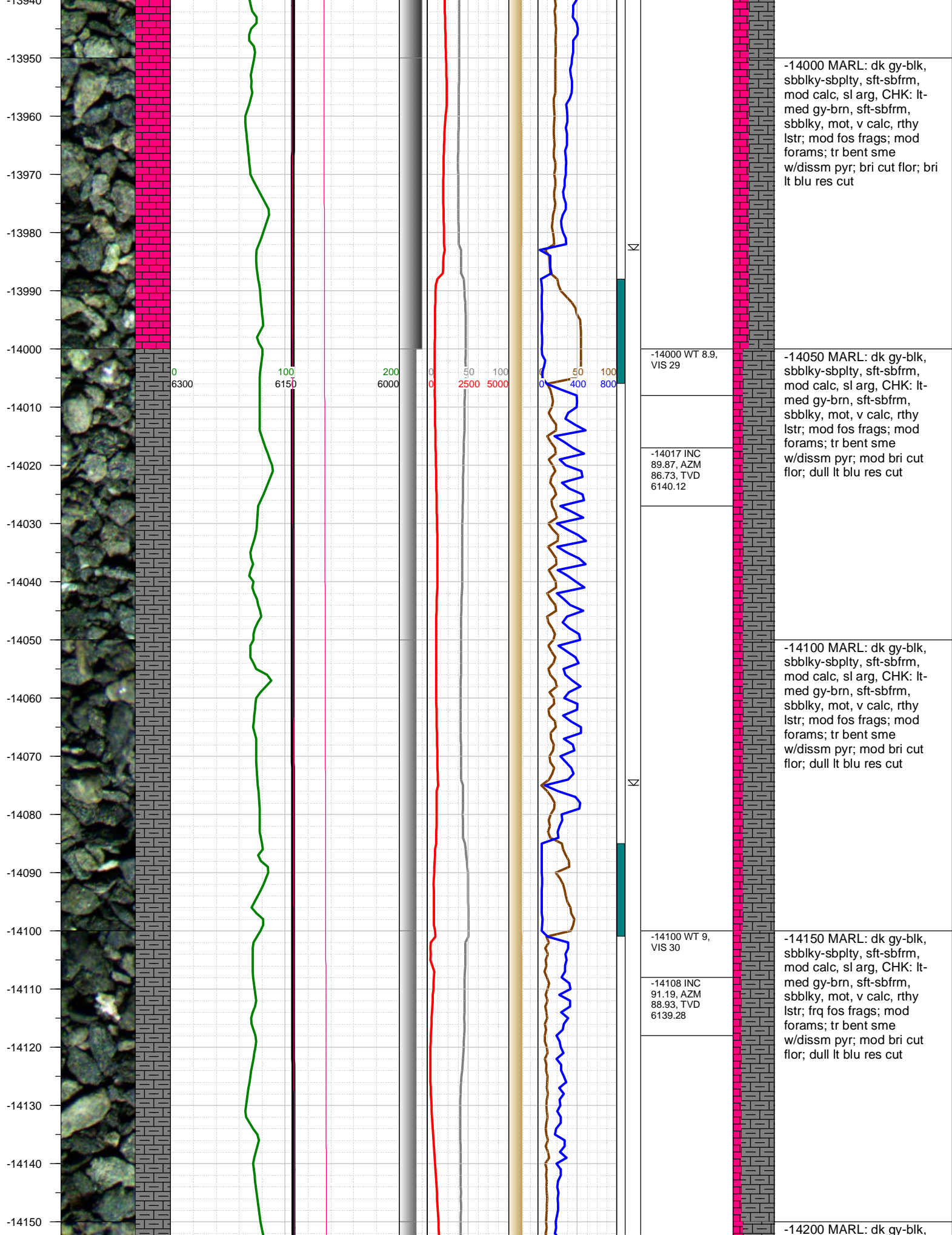
-13834 INC
91.8, AZM
89.63, TVD
6139.83

-13900 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, frq fos frags; mod forams; mod bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

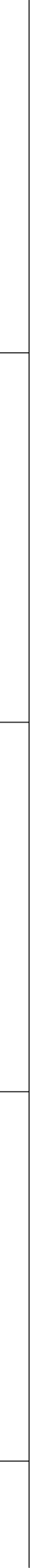
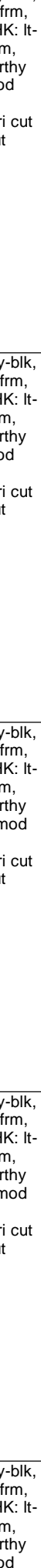
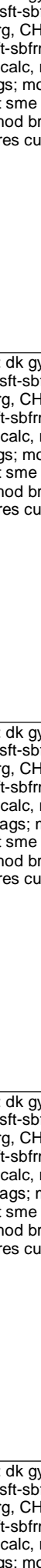
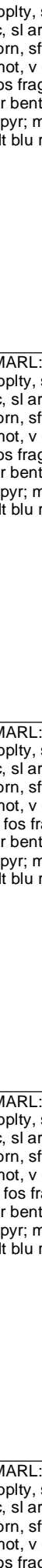
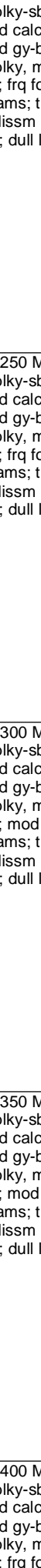
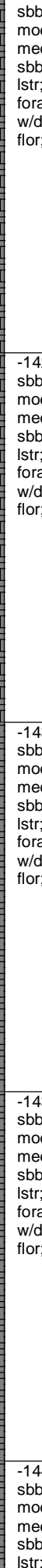
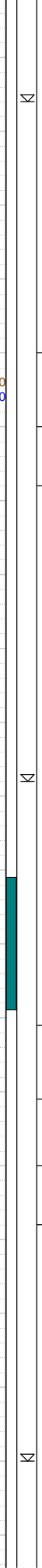
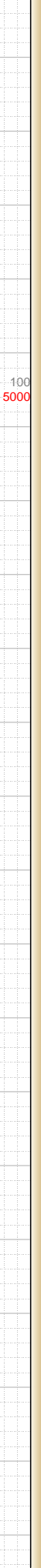
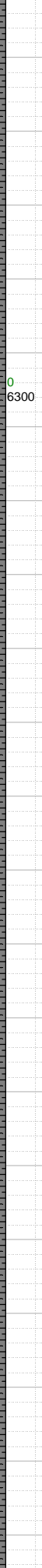
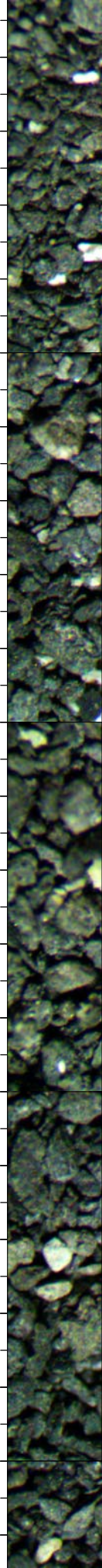
-13900 WT 9,
VIS 30

-13950 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; mod forams; tr bent sme w/dissm pyr; bri cut flor; bri lt blu res cut

-13925 INC
88.99, AZM
88.84, TVD
6139.2



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-14200 INC
90.13, AZM
86.82, TVD
6138.22

-14210 WT 9,
VIS 30

-14291 INC
91.71, AZM
88.49, TVD
6136.76

-14310 WT 9,
VIS 30

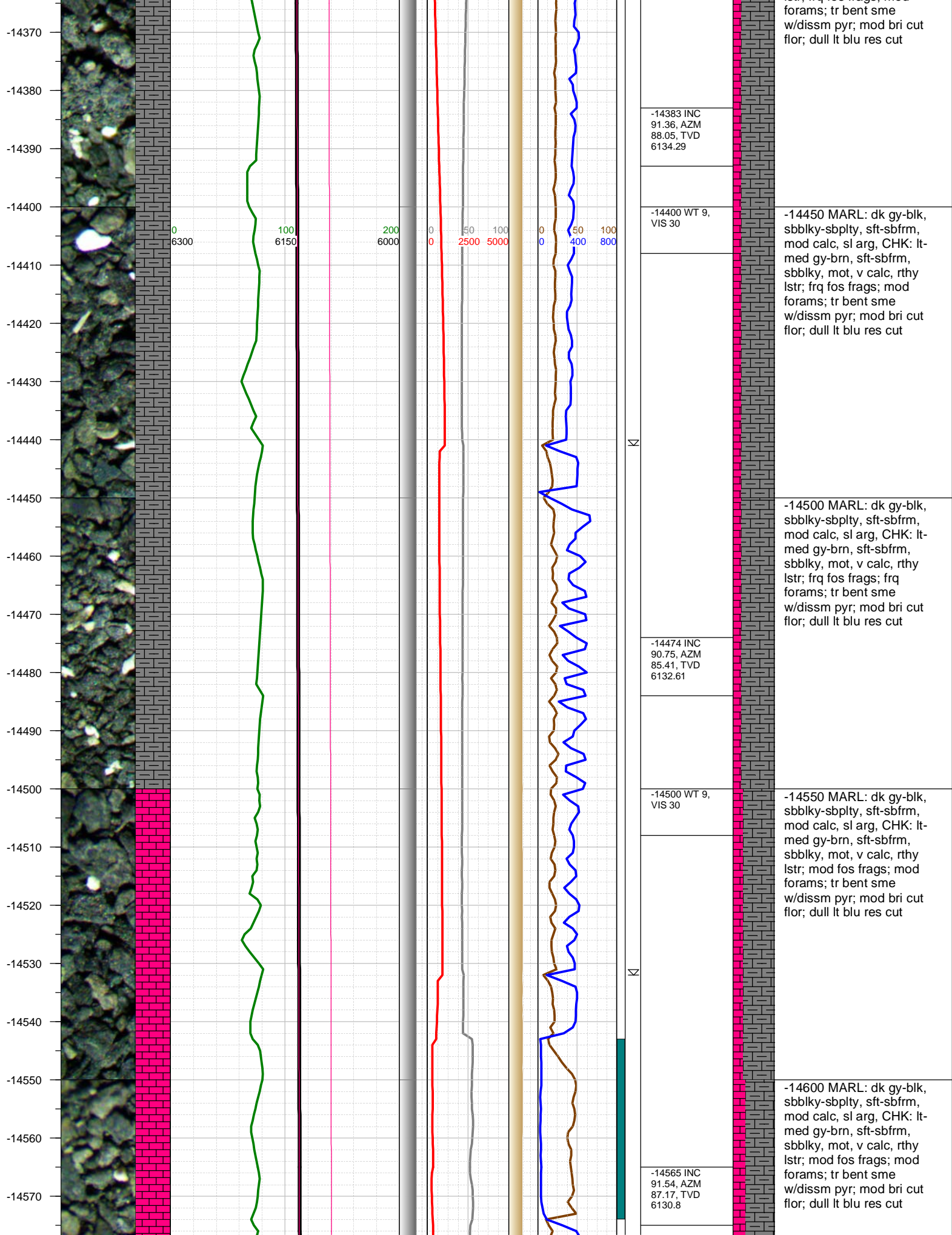
sbblky-sbplty, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy-brn, sft-sbfrm,
sbblky, mot, v calc, rthy
lstr; frq fos frags; mod
forams; tr bent sme
w/dissm pyr; mod bri cut
flor; dull lt blu res cut

-14250 MARL: dk gy-blk,
sbblky-sbplty, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy-brn, sft-sbfrm,
sbblky, mot, v calc, rthy
lstr; frq fos frags; mod
forams; tr bent sme
w/dissm pyr; mod bri cut
flor; dull lt blu res cut

-14300 MARL: dk gy-blk,
sbblky-sbplty, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy-brn, sft-sbfrm,
sbblky, mot, v calc, rthy
lstr; mod fos frags; mod
forams; tr bent sme
w/dissm pyr; mod bri cut
flor; dull lt blu res cut

-14350 MARL: dk gy-blk,
sbblky-sbplty, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy-brn, sft-sbfrm,
sbblky, mot, v calc, rthy
lstr; mod fos frags; mod
forams; tr bent sme
w/dissm pyr; mod bri cut
flor; dull lt blu res cut

-14400 MARL: dk gy-blk,
sbblky-sbplty, sft-sbfrm,
mod calc, sl arg, CHK: lt-
med gy-brn, sft-sbfrm,
sbblky, mot, v calc, rthy
lstr; frq fos frags; mod



forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

-14383 INC
91.36, AZM
88.05, TVD
6134.29

-14400 WT 9,
VIS 30

-14450 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; frq fos frags; mod forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

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-14500 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; frq fos frags; frq forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

-14474 INC
90.75, AZM
85.41, TVD
6132.61

-14500 WT 9,
VIS 30

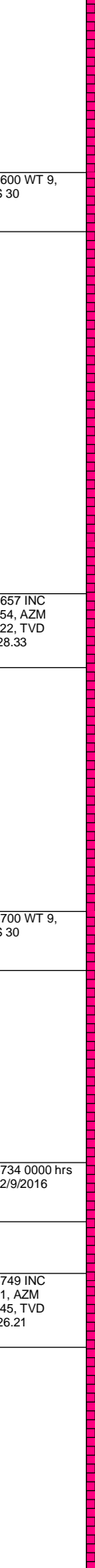
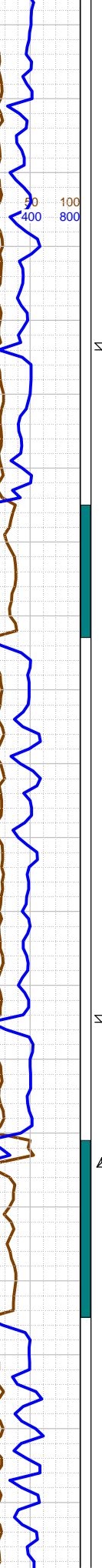
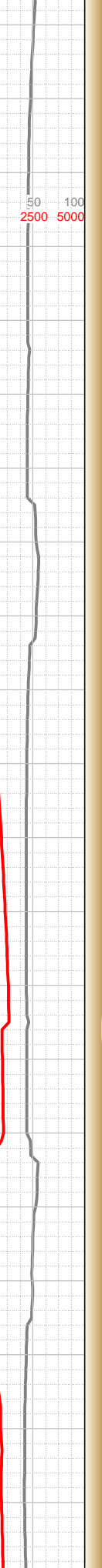
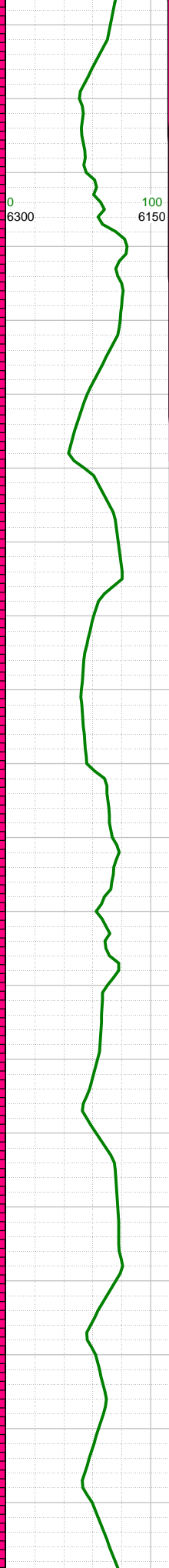
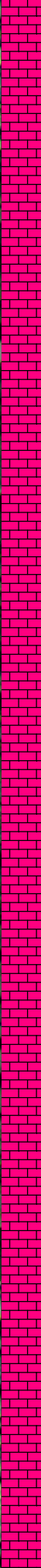
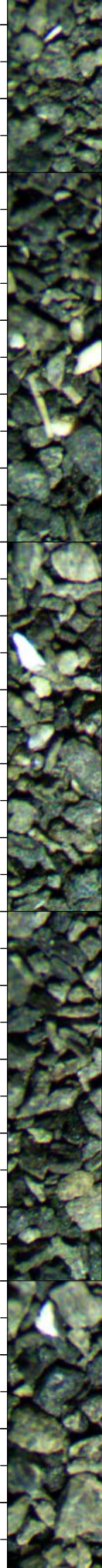
-14550 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; mod forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

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-14565 INC
91.54, AZM
87.17, TVD
6130.8

-14600 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; mod forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

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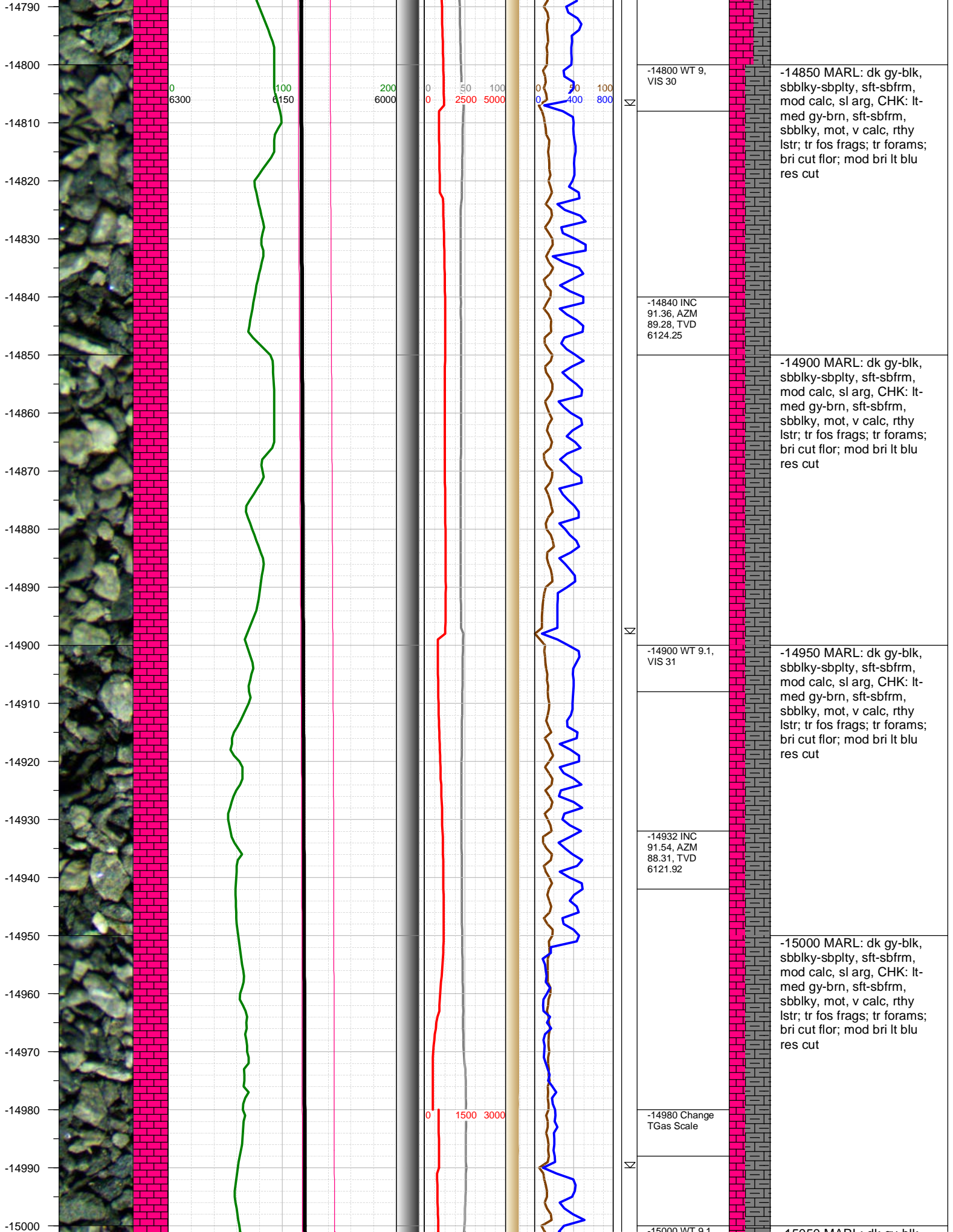
-14600 WT 9, VIS 30
-14650 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; mod forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

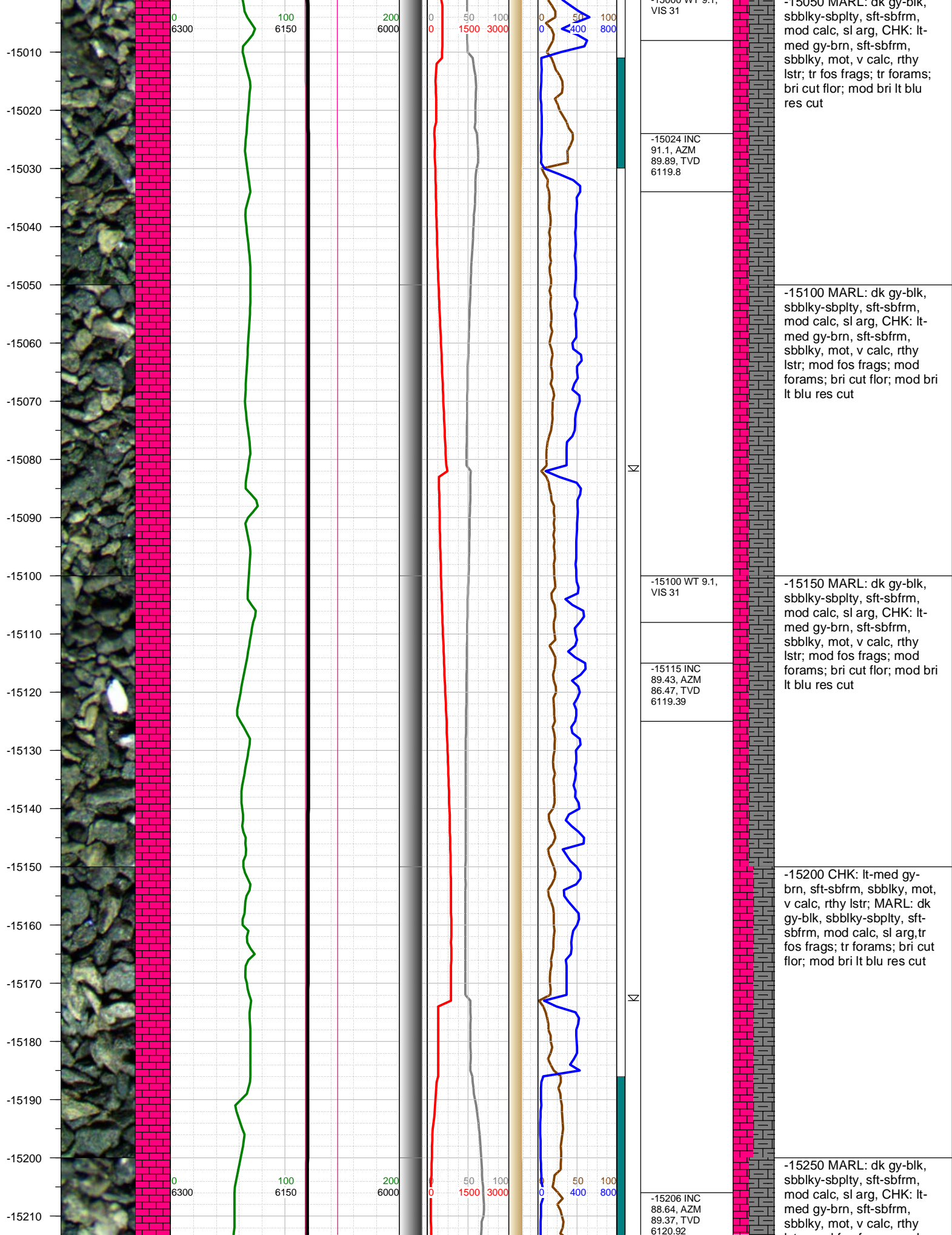
-14657 INC 91.54, AZM 88.22, TVD 6128.33
-14700 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, mod fos frags; mod forams; tr bent sme w/dissm pyr; bri cut flor; mod bri lt blu res cut

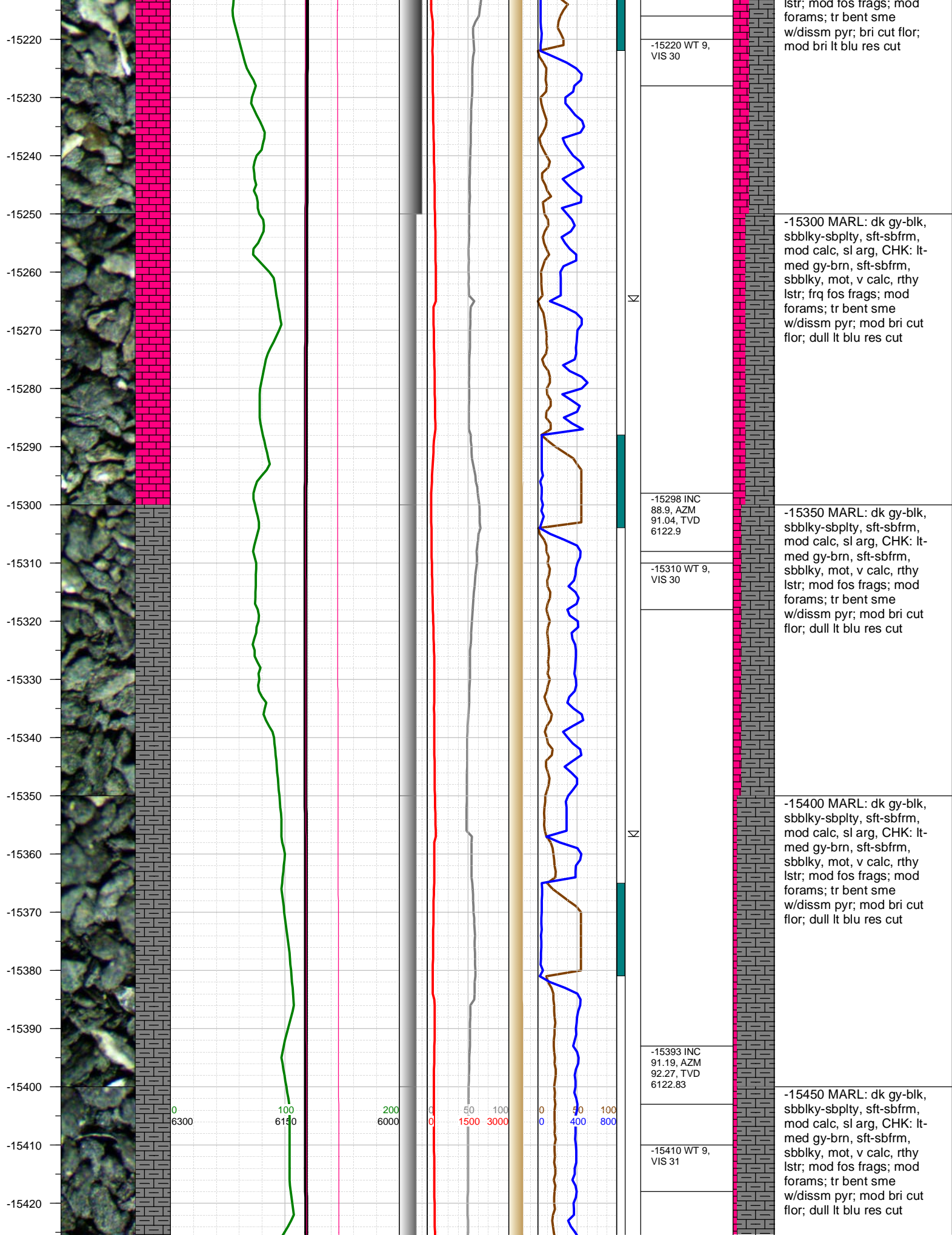
-14700 WT 9, VIS 30
-14750 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; bri cut flor; mod bri pale grn res cut

-14734 0000 hrs on 2/9/2016

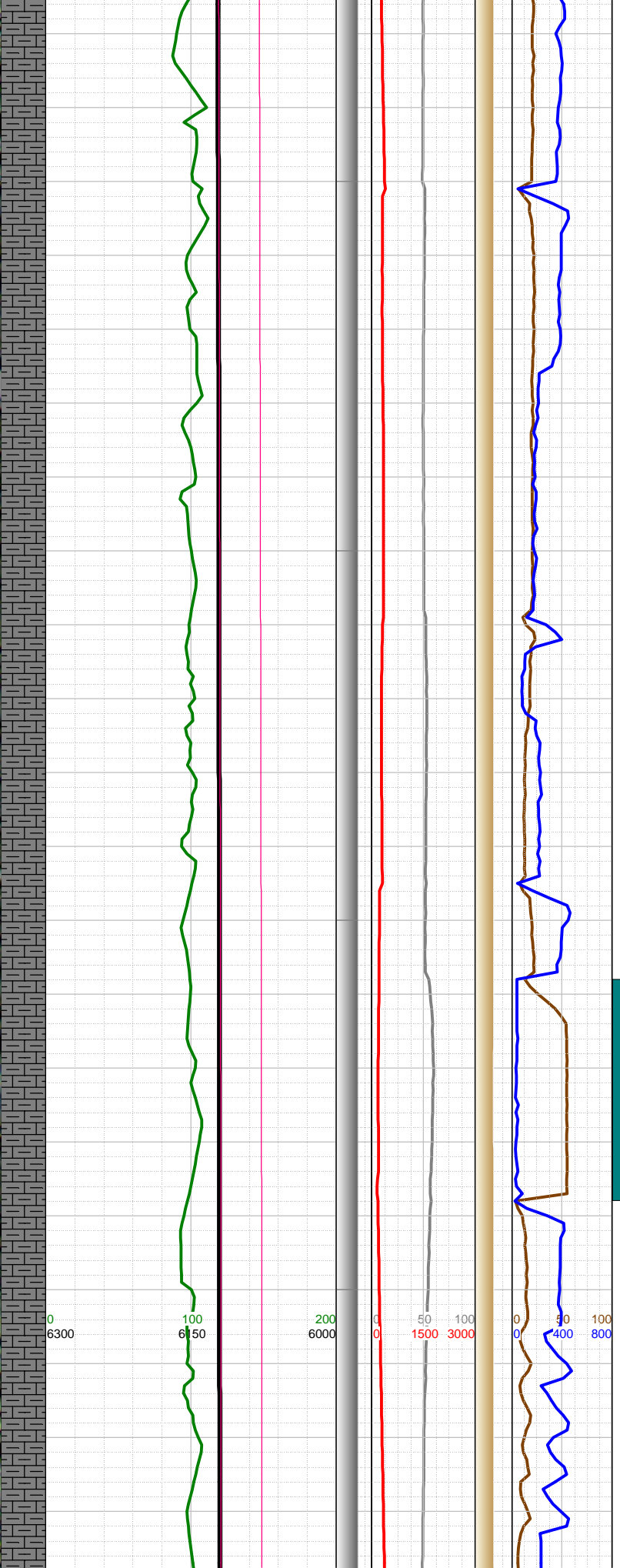
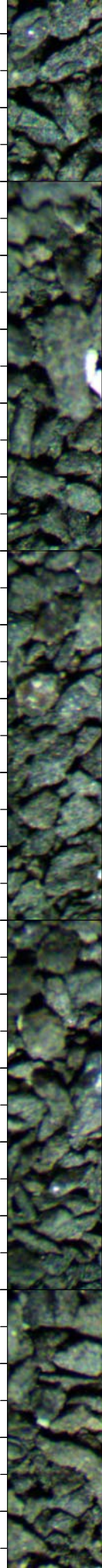
-14749 INC 91.1, AZM 89.45, TVD 6126.21
-14800 CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, tr fos frags; tr forams; bri cut flor; mod bri pale grn res cut







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KL

KL

-15487 INC
90.92, AZM
94.82, TVD
6121.09

-15500 WT 9,
VIS 31

-15582 INC
89.78, AZM
92.79, TVD
6120.51

-15600 WT 9,
VIS 31

-15500 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; frq forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

-15550 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; frq forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

-15600 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; frq forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

-15650 MARL: dk gy-blk, sbbly-sbply, sft-sbfrm, mod calc, sl arg, CHK: lt-med gy-brn, sft-sbfrm, sbbly, mot, v calc, rthy lstr; mod fos frags; frq forams; tr bent sme w/dissm pyr; mod bri cut flor; dull lt blu res cut

0
6300

100
6150

200
6000

0
0

50
1500

100
3000

0
0

50
400

100
800

