

OPERATOR: **Cub Creek Energy**

WELL NAME: **Markham 11**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Xtreme 18

API #: 05-123-43275

LAT/LONG: 40.26906, -105.02313

SURFACE HOLE: NWSE S32-T4N-R68W, 2485' FSL, 1517' FEL

BOTTOM HOLE: NWSW S32-T4N-R68W, 2310' FSL, 460' FWL

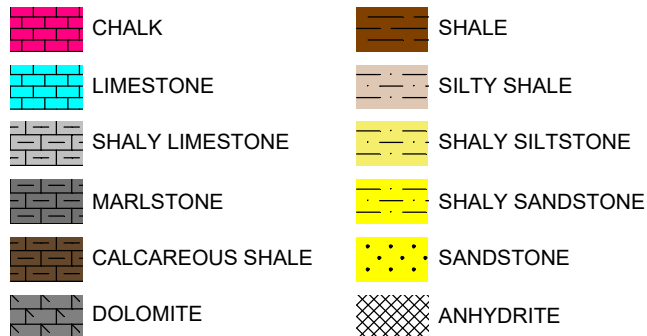


Earth Science Agency, LLC

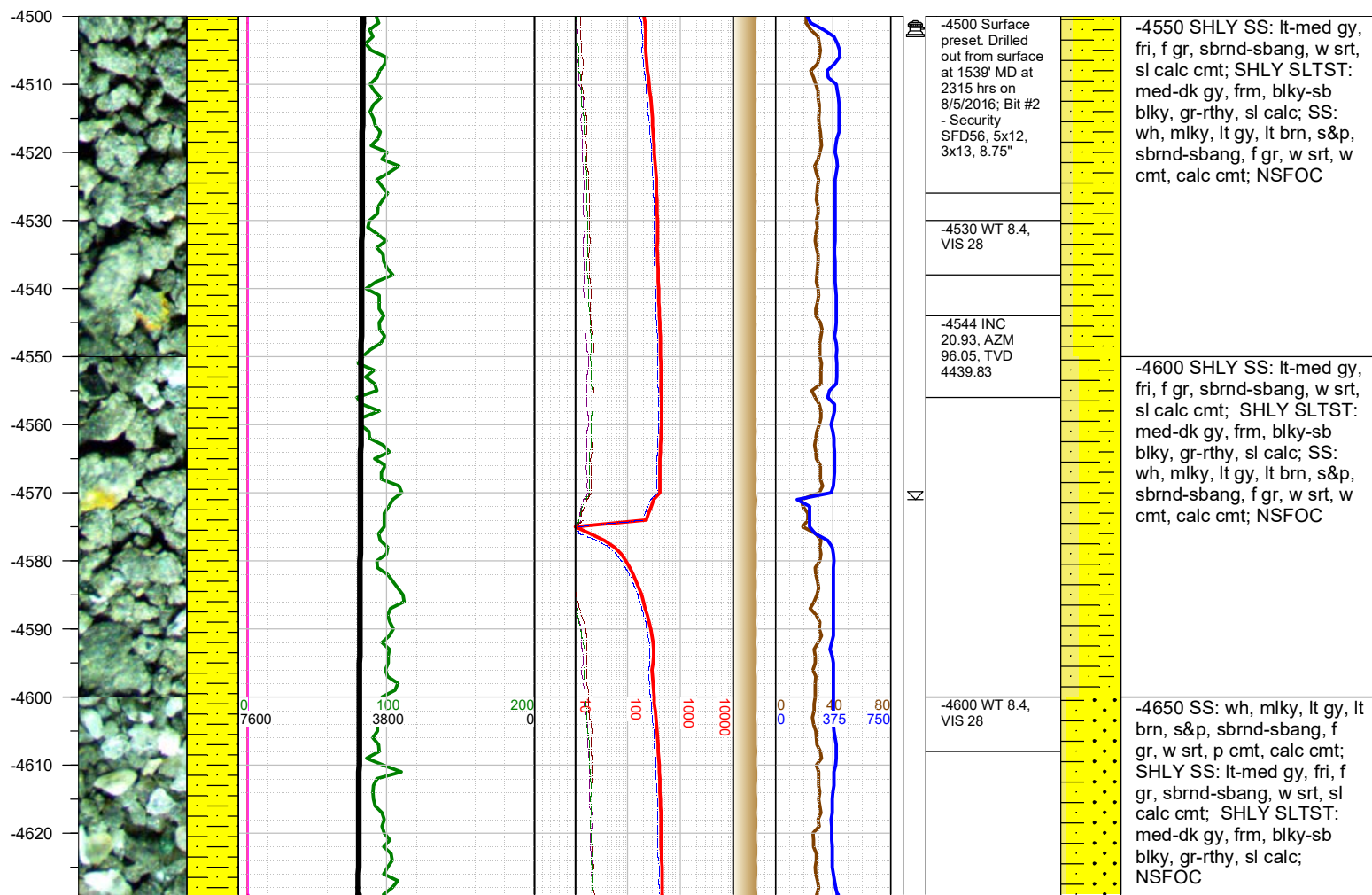
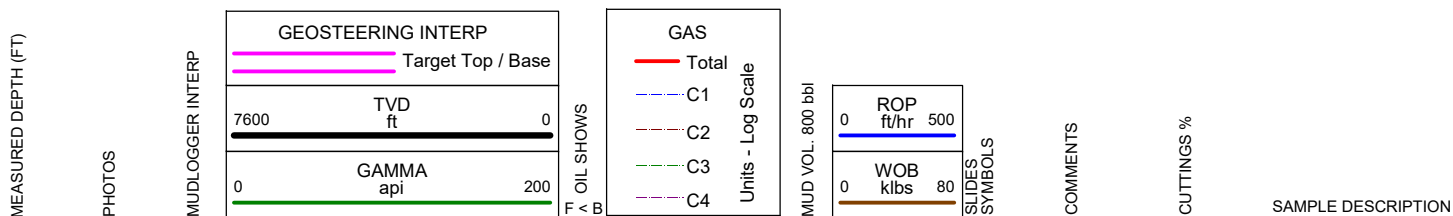
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 5039'
KELLY BUSHING: 5056'
DRILLING FLUID: WBM
TVD VS. MD: 7286' / 12158'
SPUD DATE: August 5, 2016
TD DATE: August 11, 2016

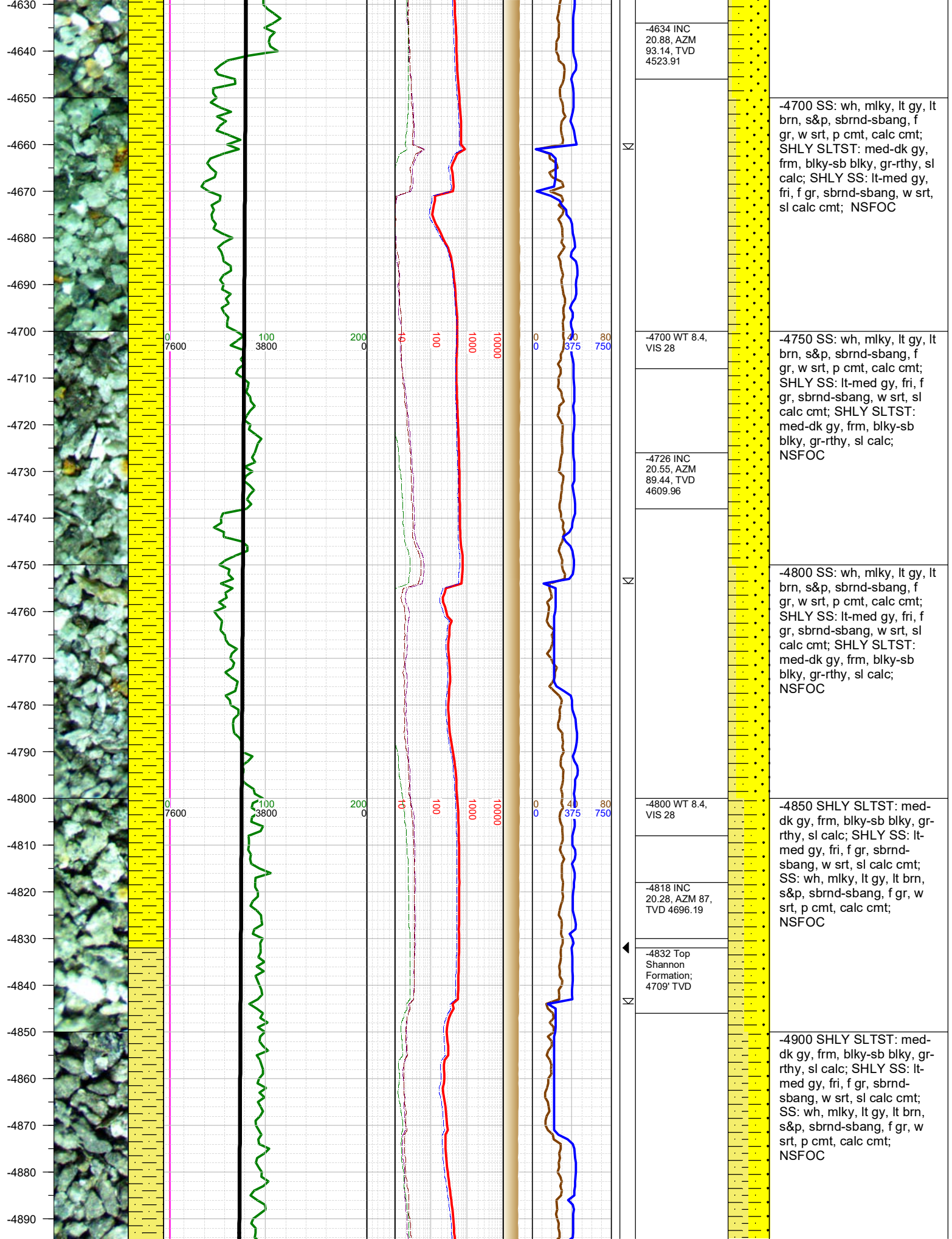
DEPTHS LOGGED: 4500' - 12158'
DATES LOGGED: August 5, 2016 - August 11, 2016
GEOLOGISTS: Blue Spikes, Curtis Magnino
SCALE: 5" = 100'

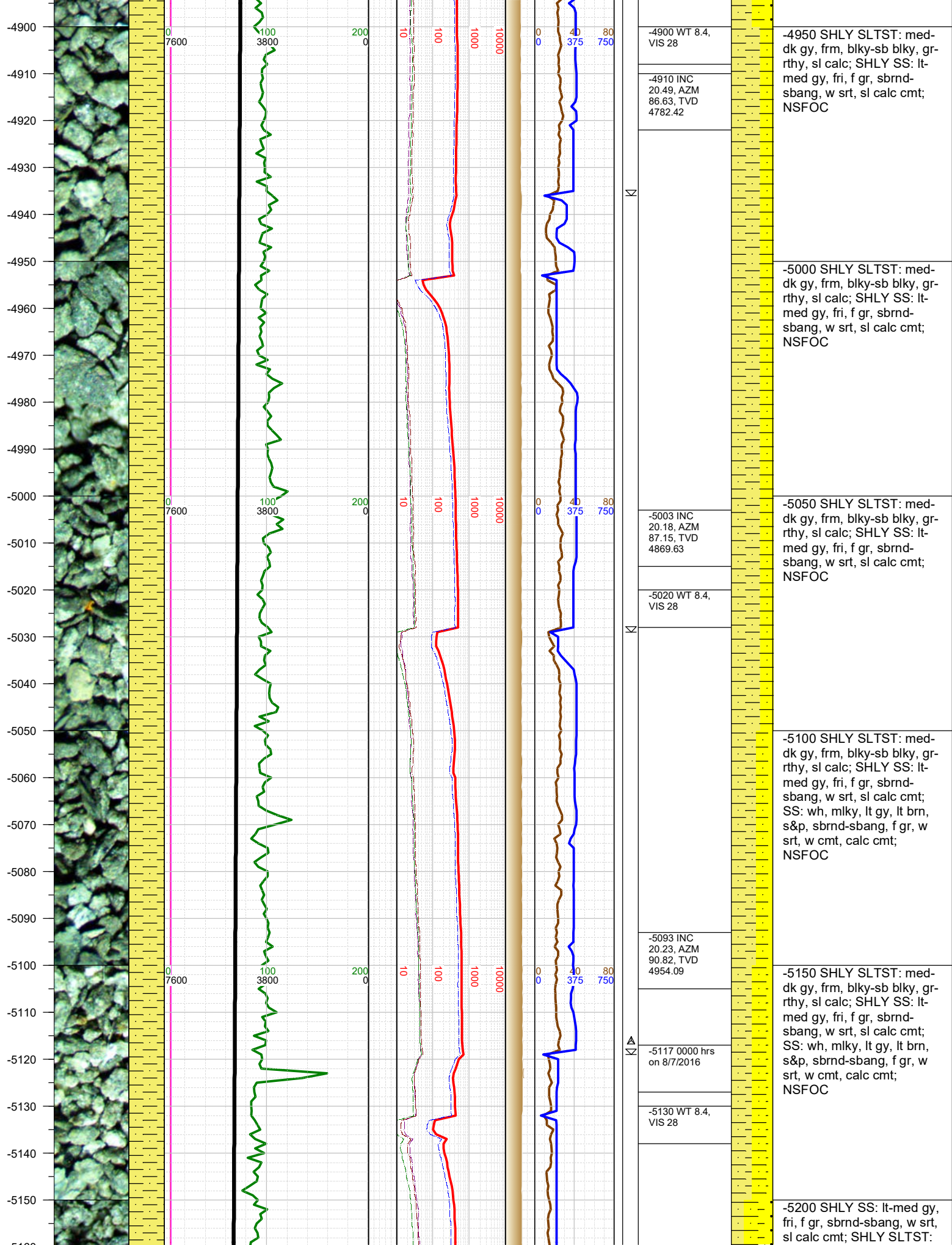
LEGEND

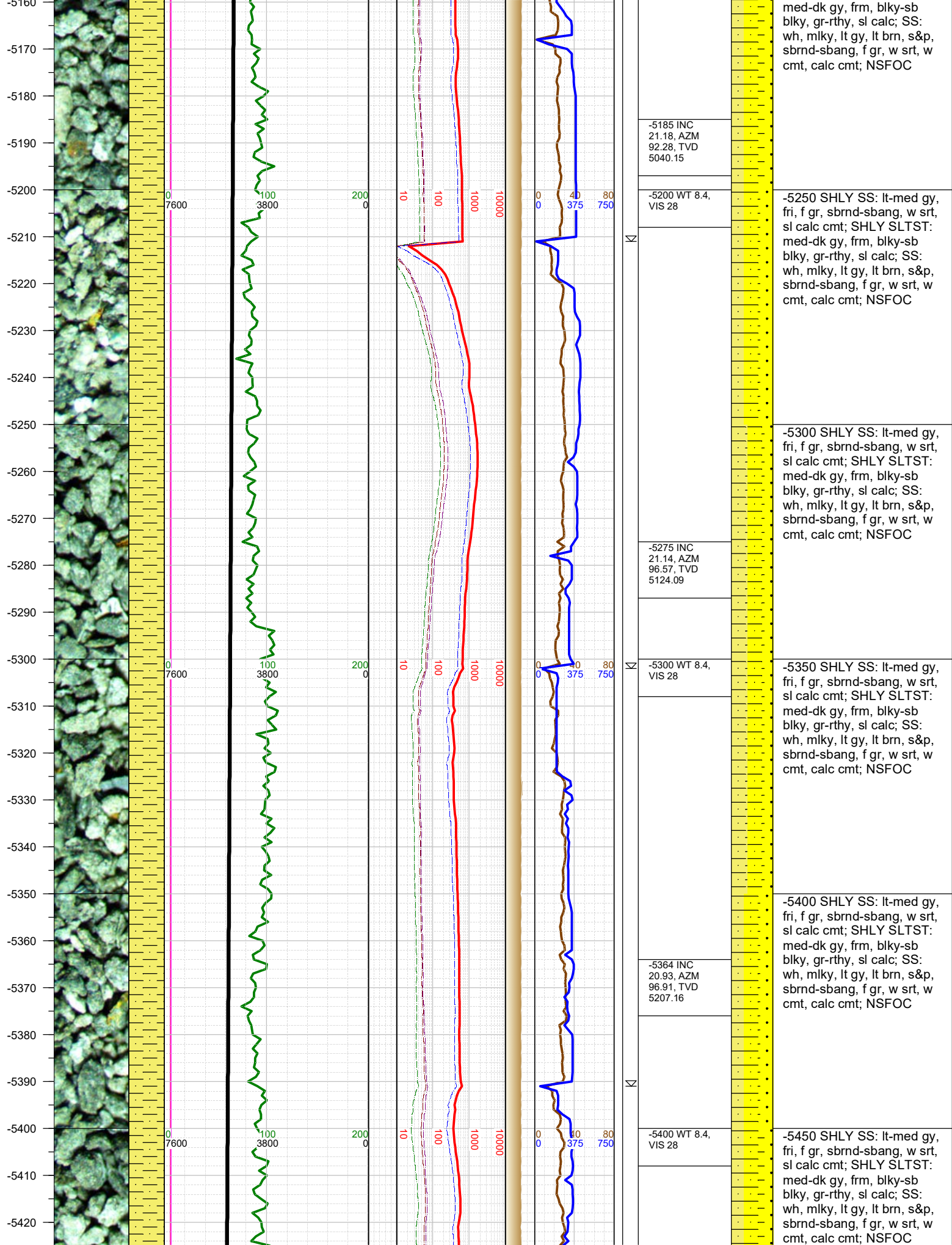


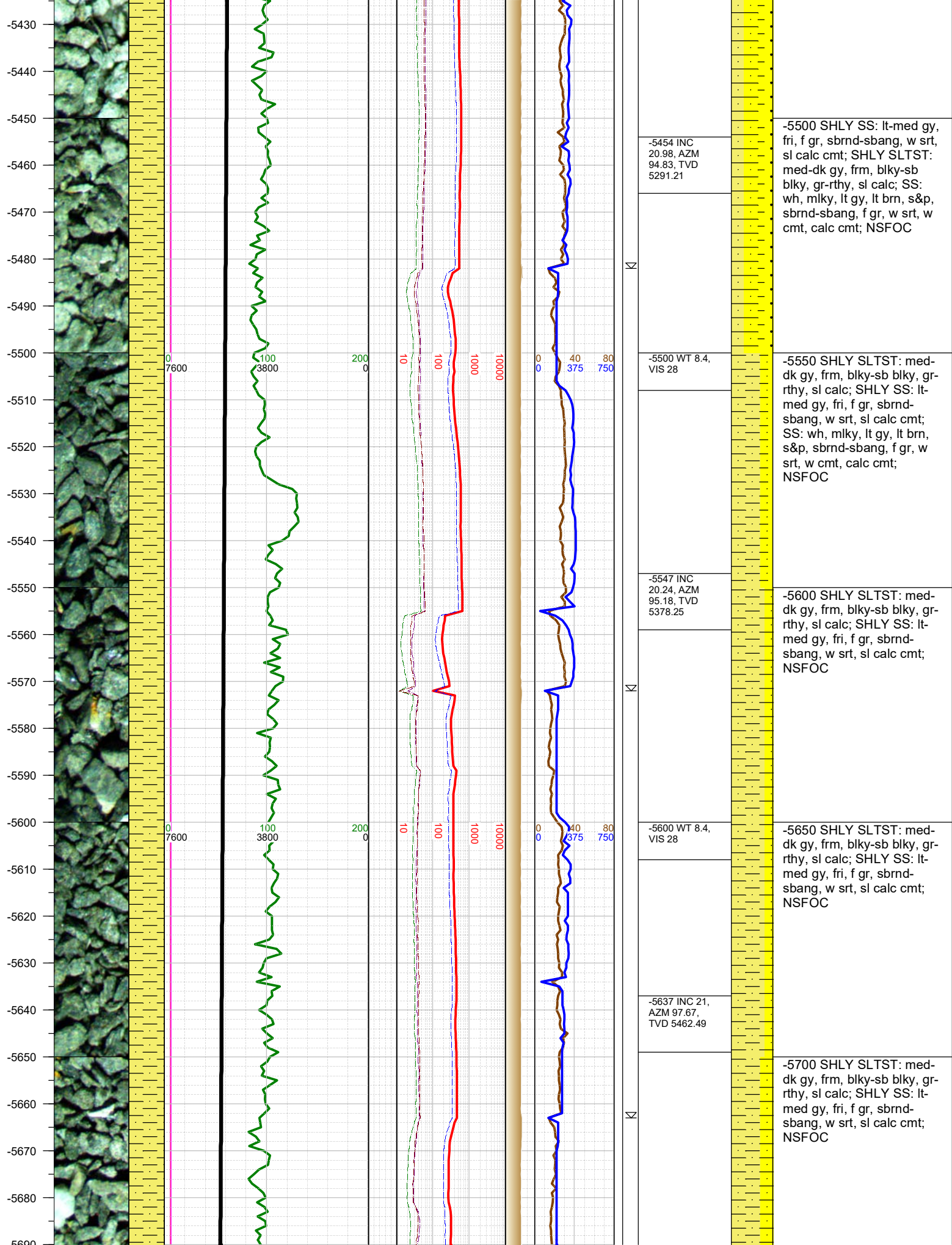
FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT

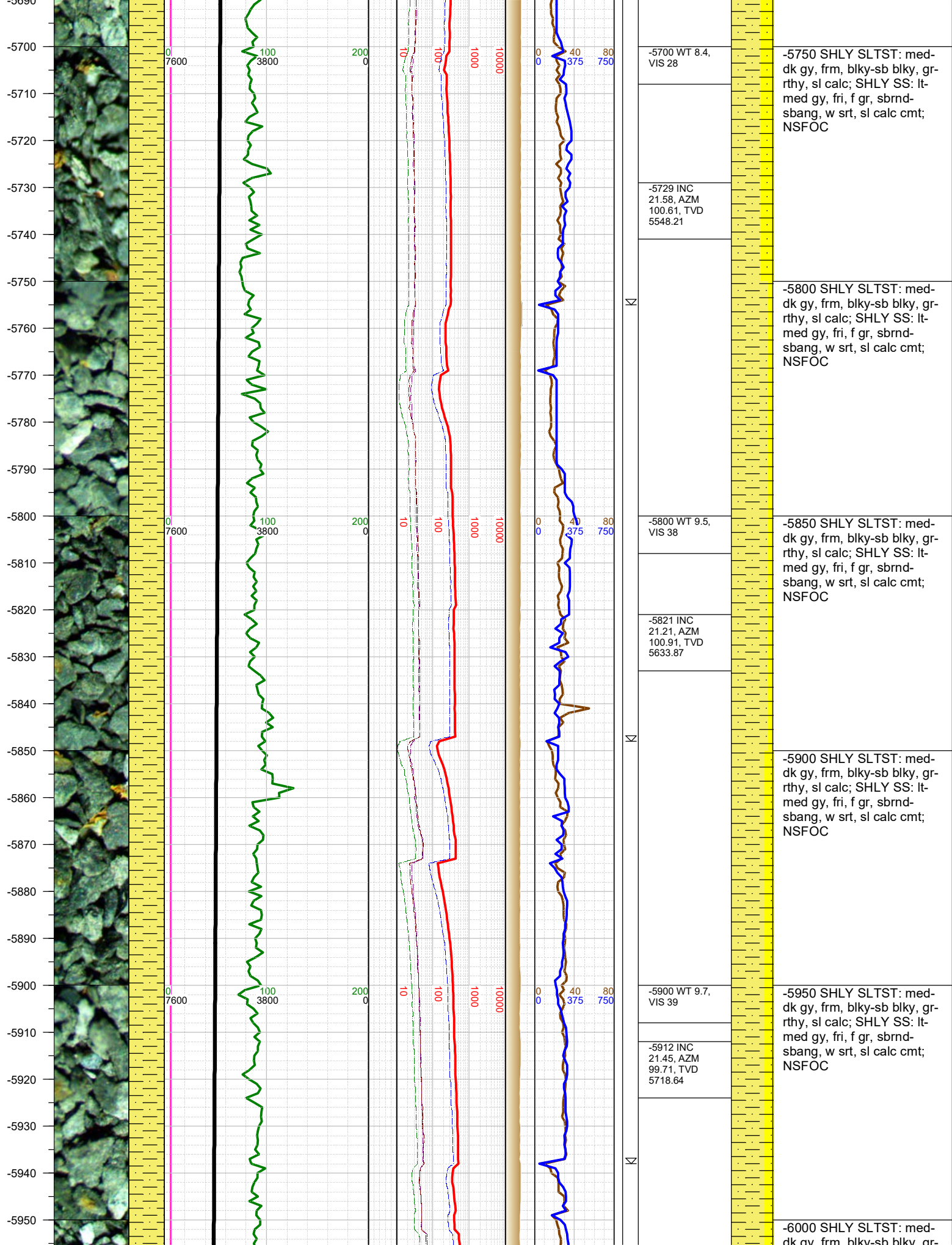


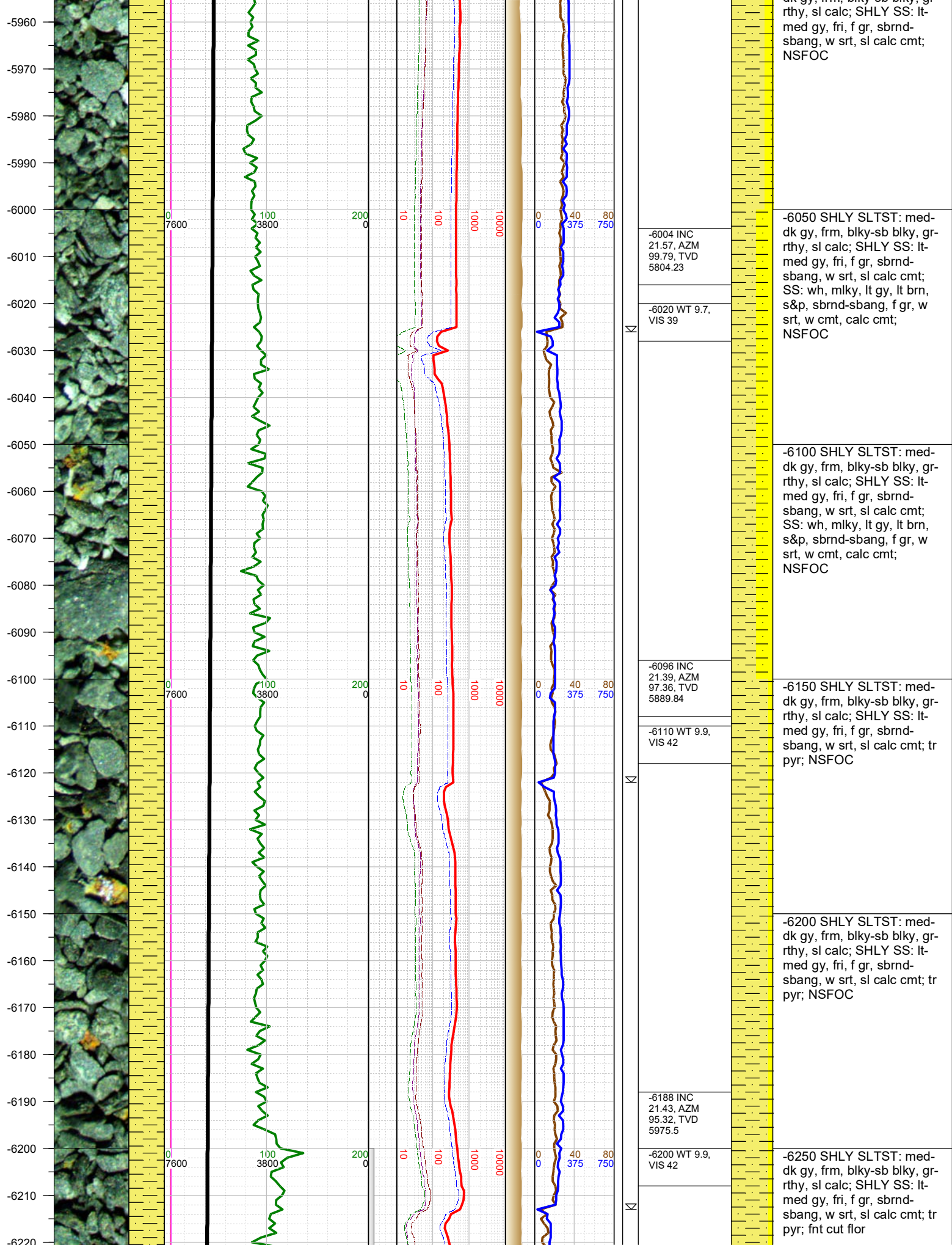












dk gy, frm, blk, sb blk, gr-rthy, sl calc; SHLY SS: lt-med gy, fri, f gr, sbrnd-sbang, w srt, sl calc cmt; NSFOC

-6004 INC
21.57, AZM
99.79, TVD
5804.23

-6020 WT 9.7,
VIS 39

-6050 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; SS: wh, mlky, lt gy, lt brn, s&p, sbrnd-sbang, f gr, w srt, w cmt, calc cmt; NSFOC

-6096 INC
21.39, AZM
97.36, TVD
5889.84

-6110 WT 9.9,
VIS 42

-6100 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; SS: wh, mlky, lt gy, lt brn, s&p, sbrnd-sbang, f gr, w srt, w cmt, calc cmt; NSFOC

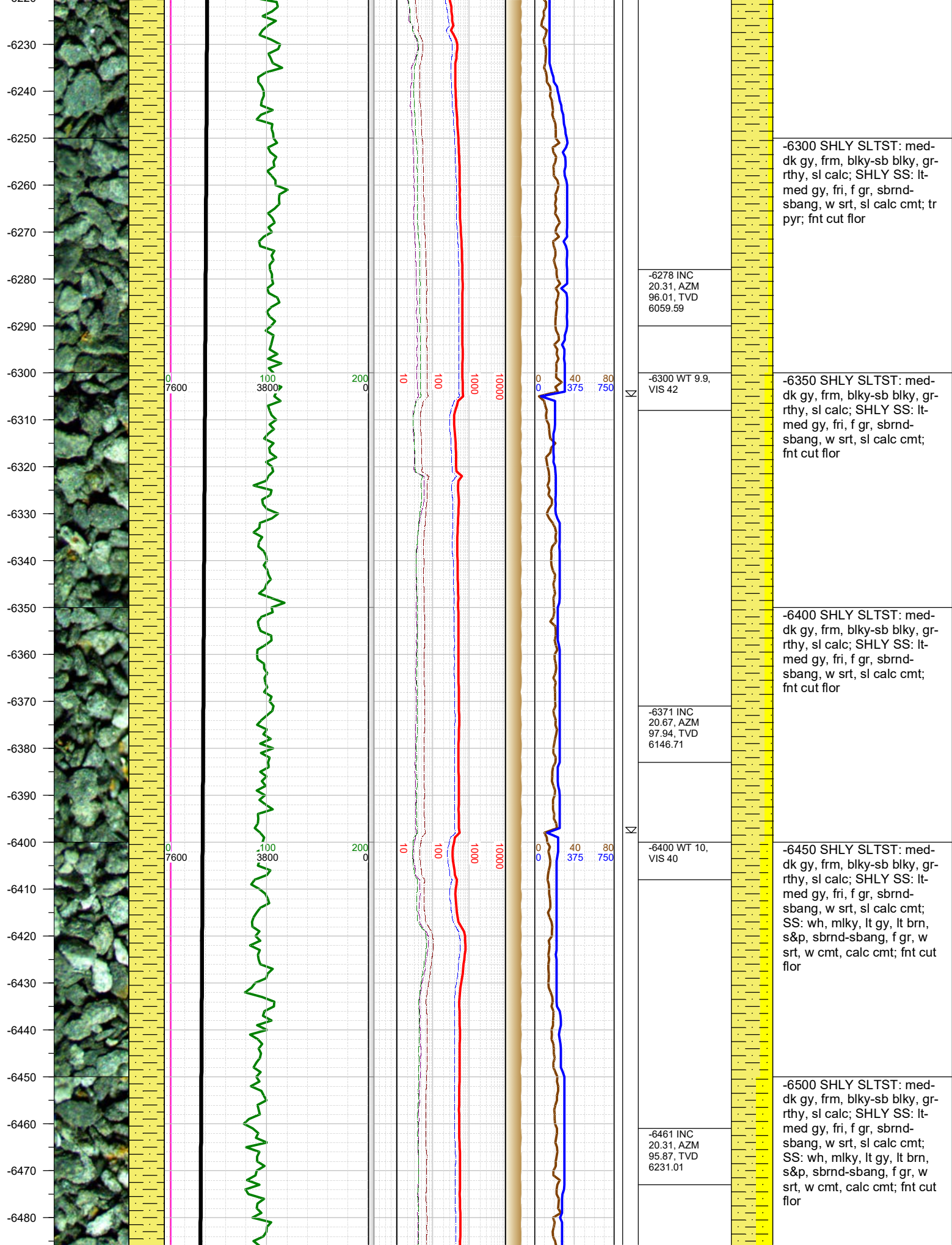
-6150 SHLY SLTST: med-dk gy, frm, blk, sb blk, gr-rthy, sl calc; SHLY SS: lt-med gy, fri, f gr, sbrnd-sbang, w srt, sl calc cmt; tr pyr; NSFOC

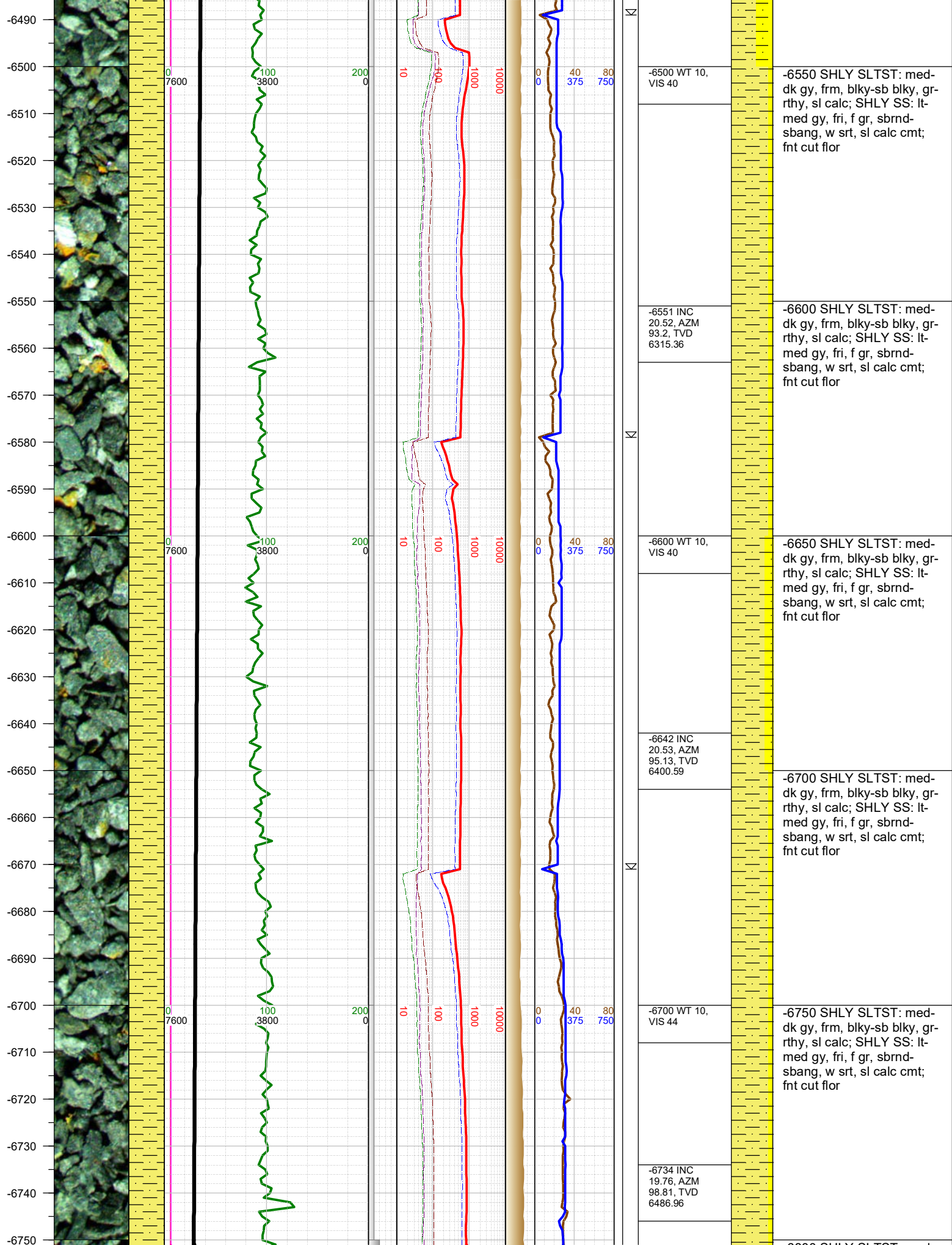
-6188 INC
21.43, AZM
95.32, TVD
5975.5

-6200 WT 9.9,
VIS 42

-6200 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; tr pyr; NSFOC

-6250 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; tr pyr; fnt cut flr





-6500 WT 10,
VIS 40

-6550 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;
fnt cut flor

-6551 INC
20.52, AZM
93.2, TVD
6315.36

-6600 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;
fnt cut flor

-6600 WT 10,
VIS 40

-6650 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;
fnt cut flor

-6642 INC
20.53, AZM
95.13, TVD
6400.59

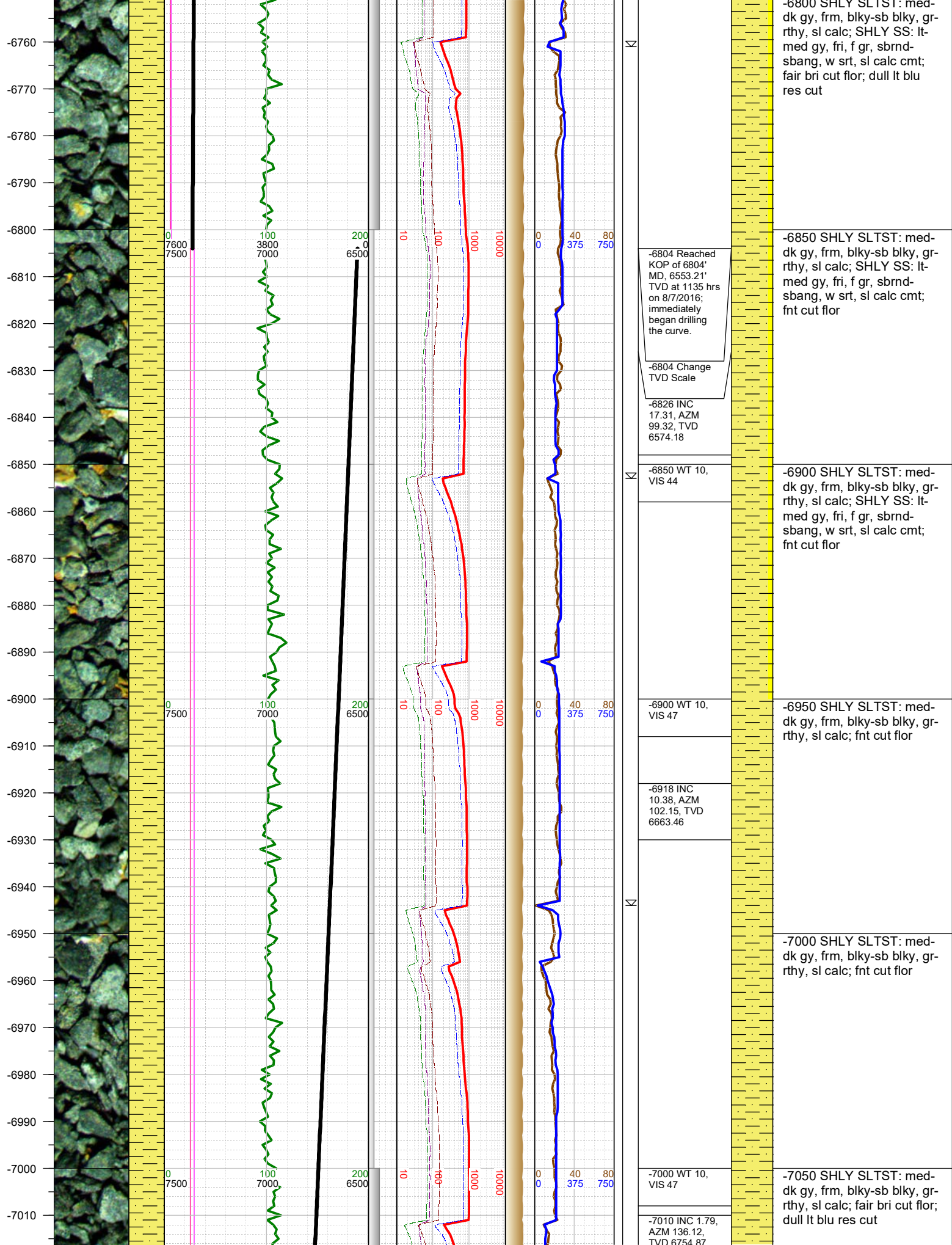
-6700 SHLY SLTST: med-
dk gy, frm, blk-y-sb blk-y, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
fnt cut flor

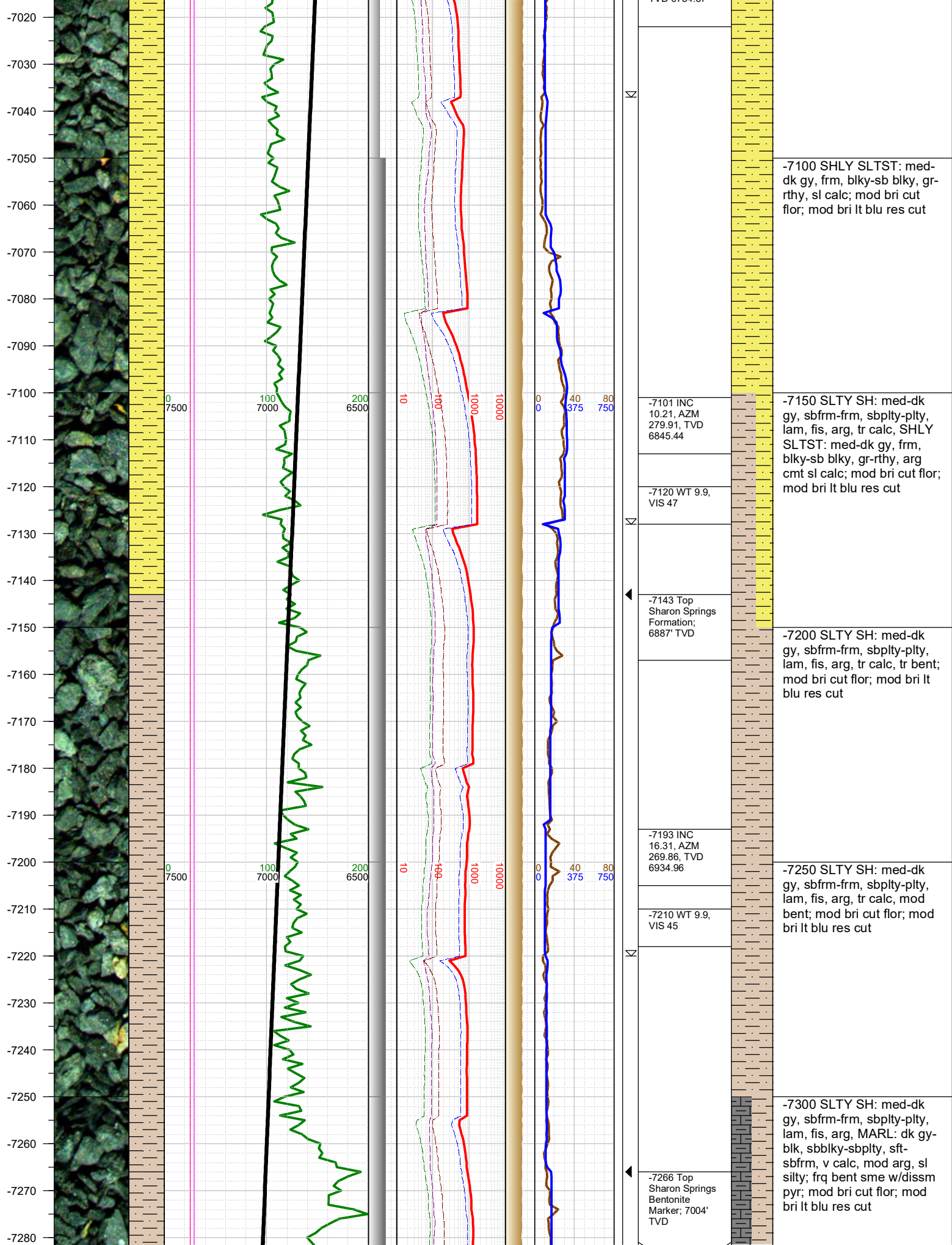
-6700 WT 10,
VIS 44

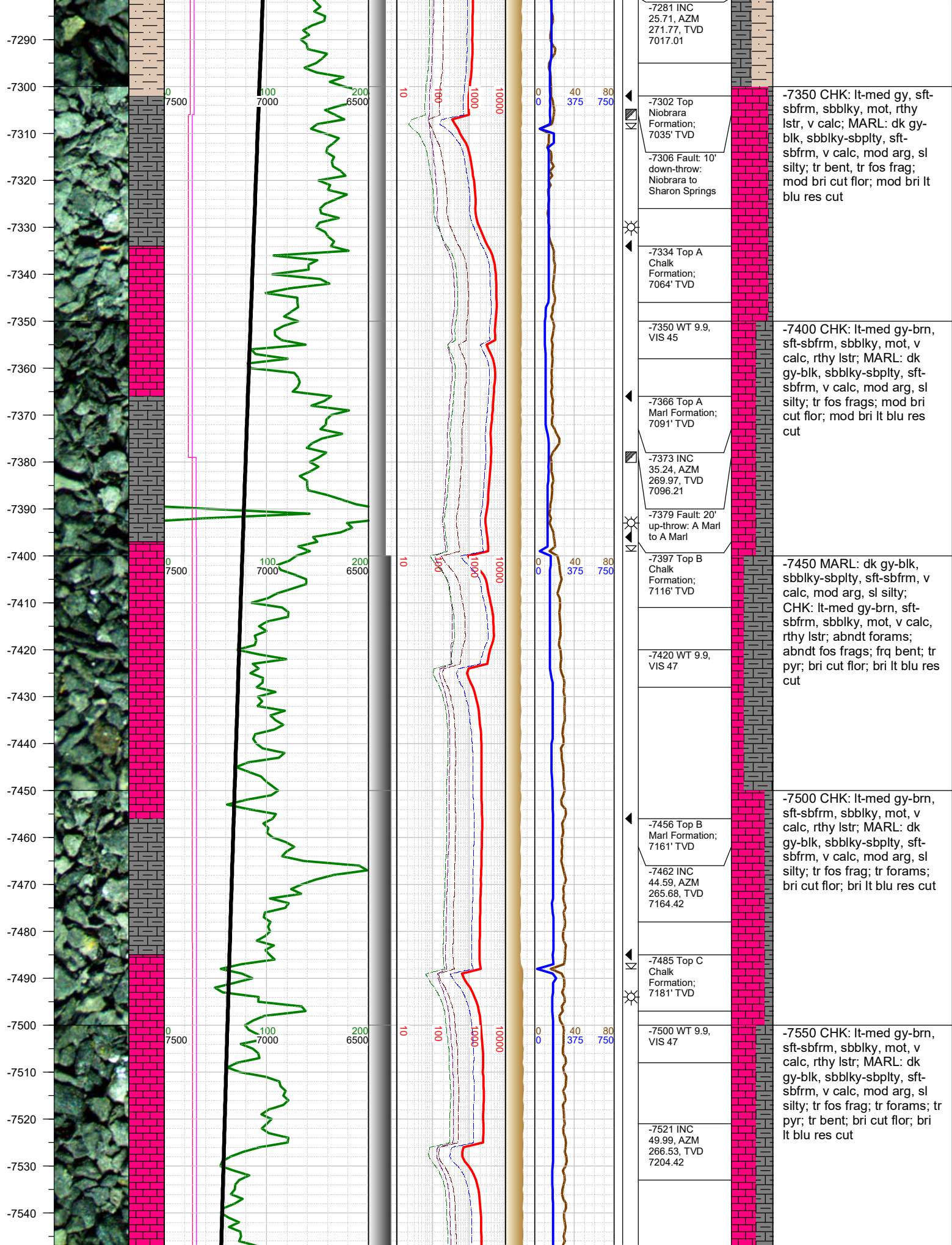
-6750 SHLY SLTST: med-
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rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
fnt cut flor

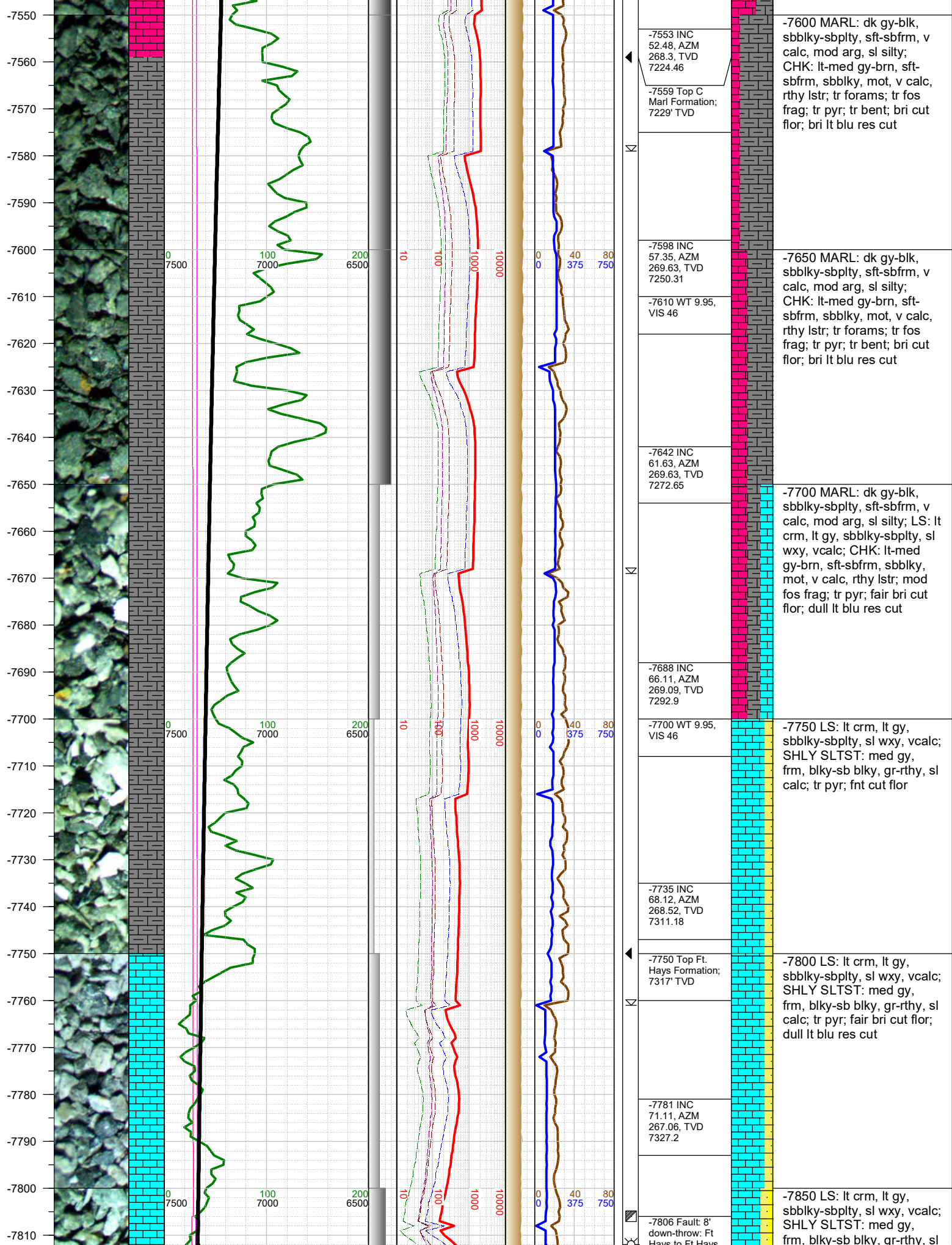
-6734 INC
19.76, AZM
98.81, TVD
6486.96

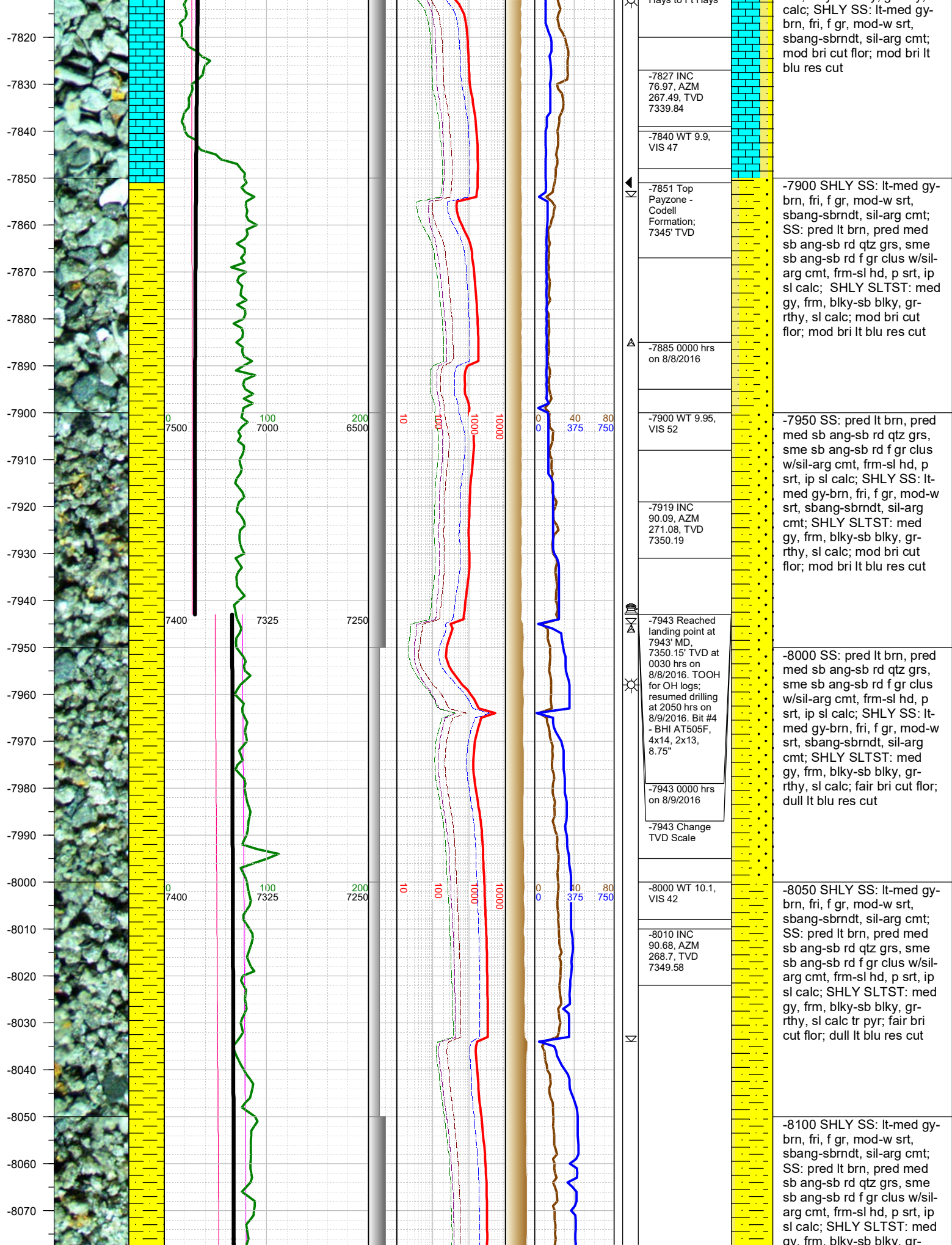
-6800 SHLY SLTST: med-
dk gy, frm, blk-y-sb blk-y, gr-
rthy, sl calc; SHLY SS: lt-
med gy, fri, f gr, sbrnd-
sbang, w srt, sl calc cmt;
fnt cut flor

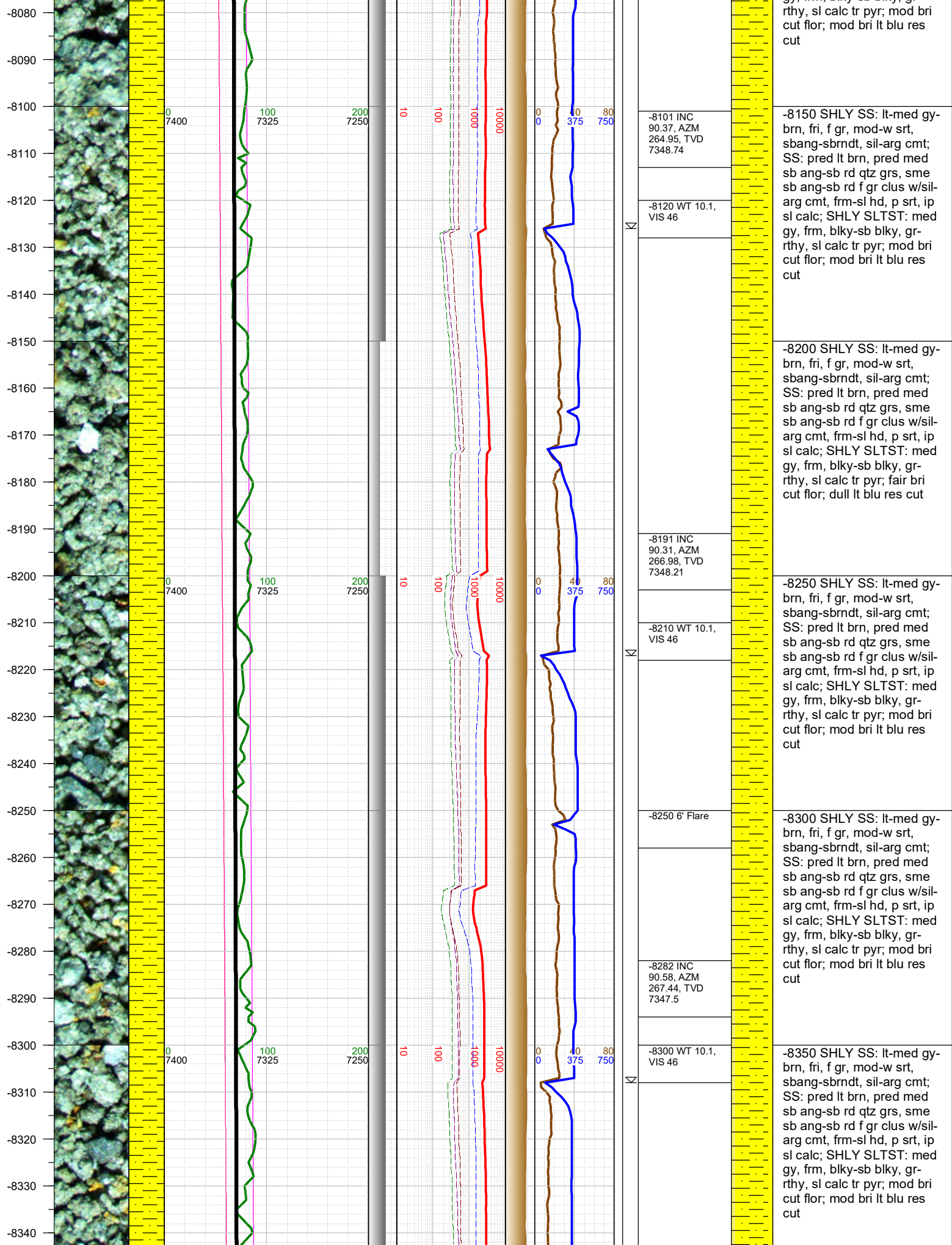


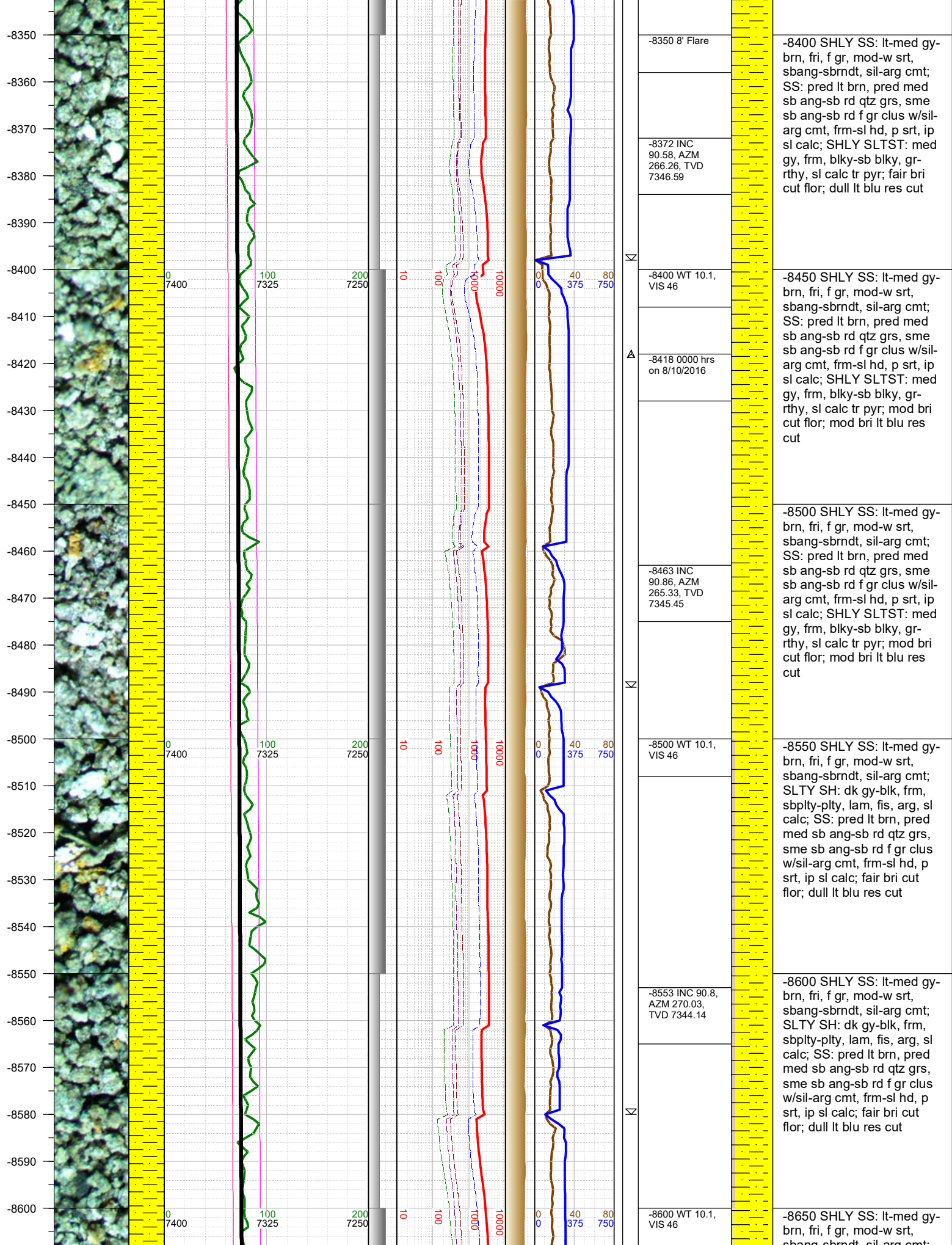


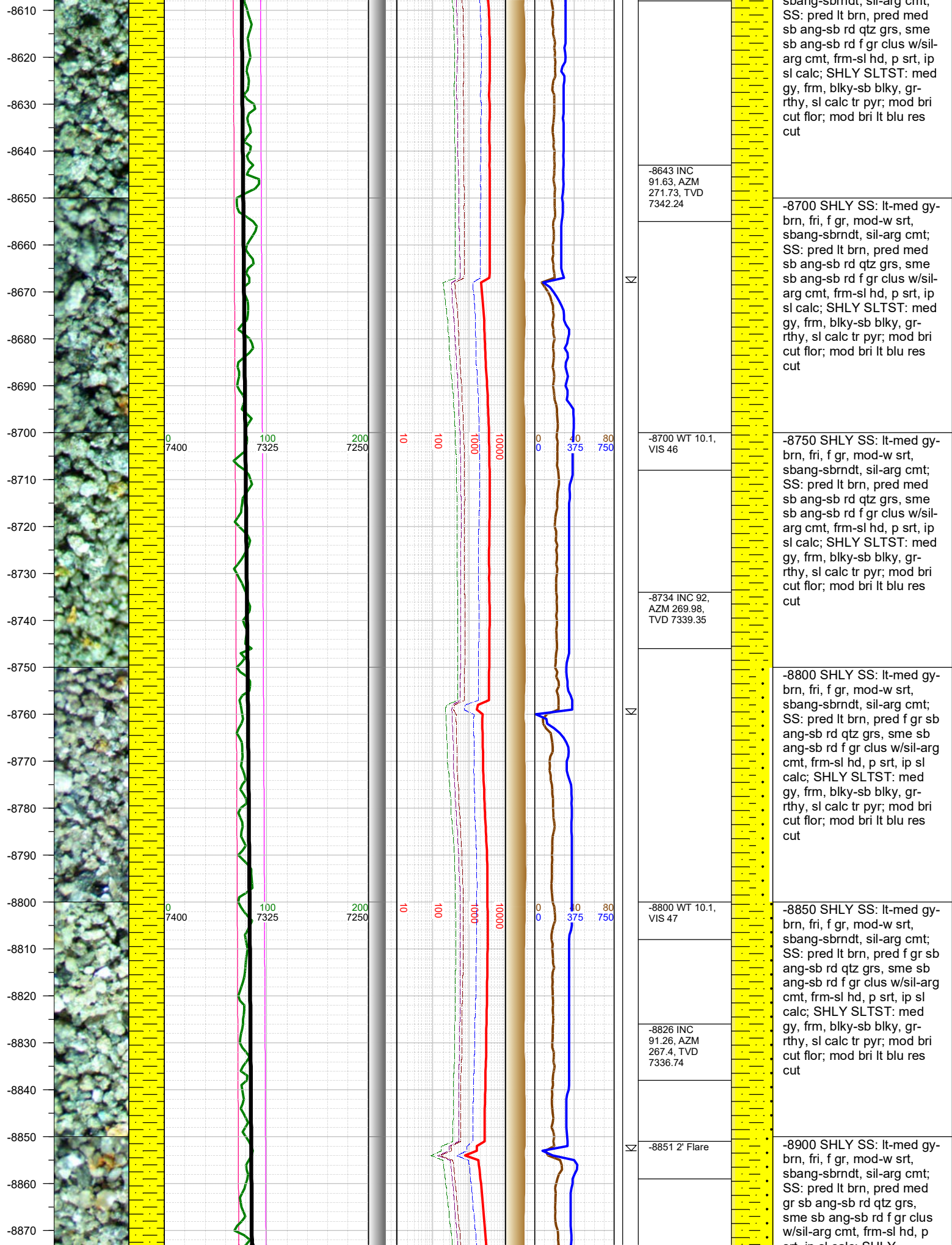


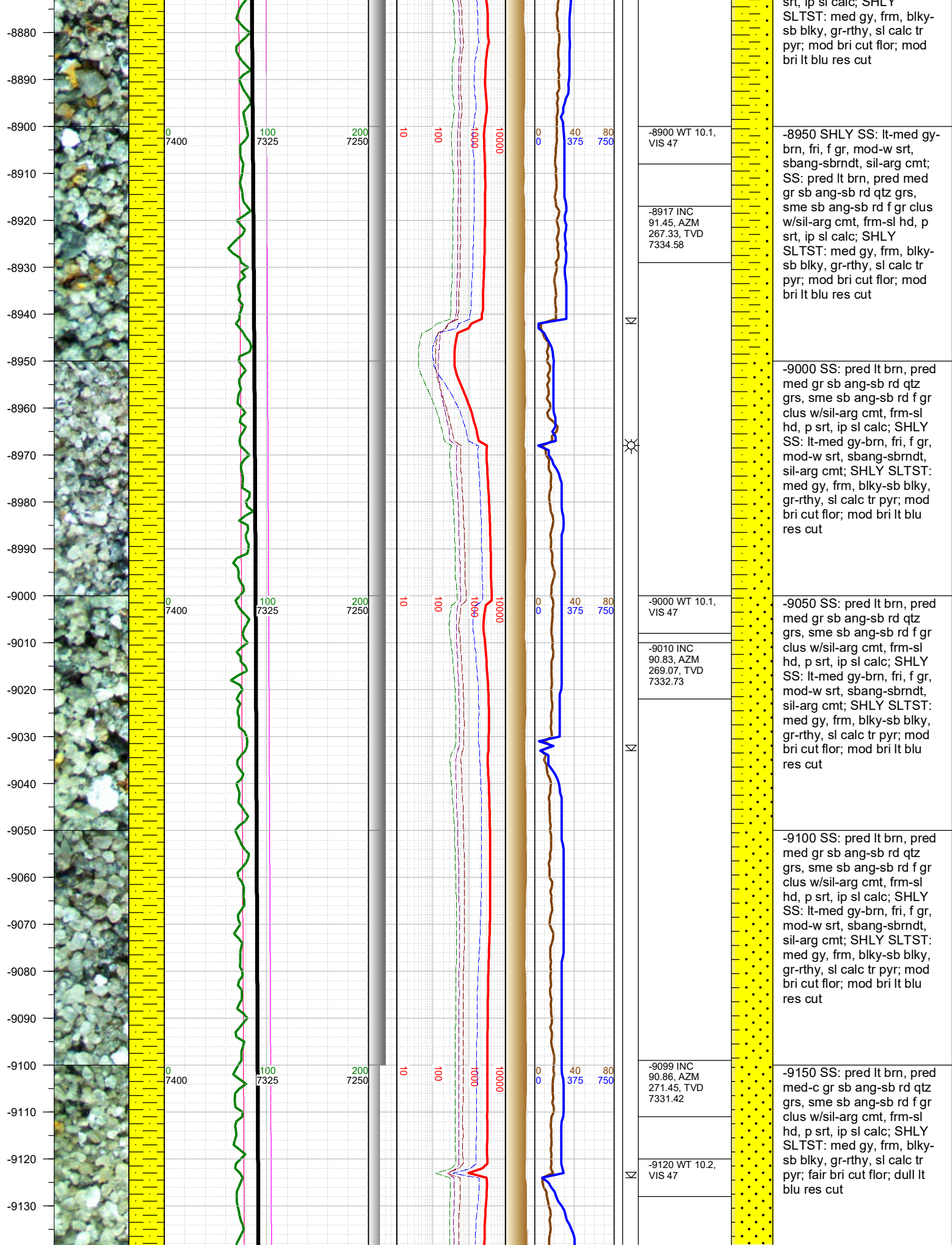


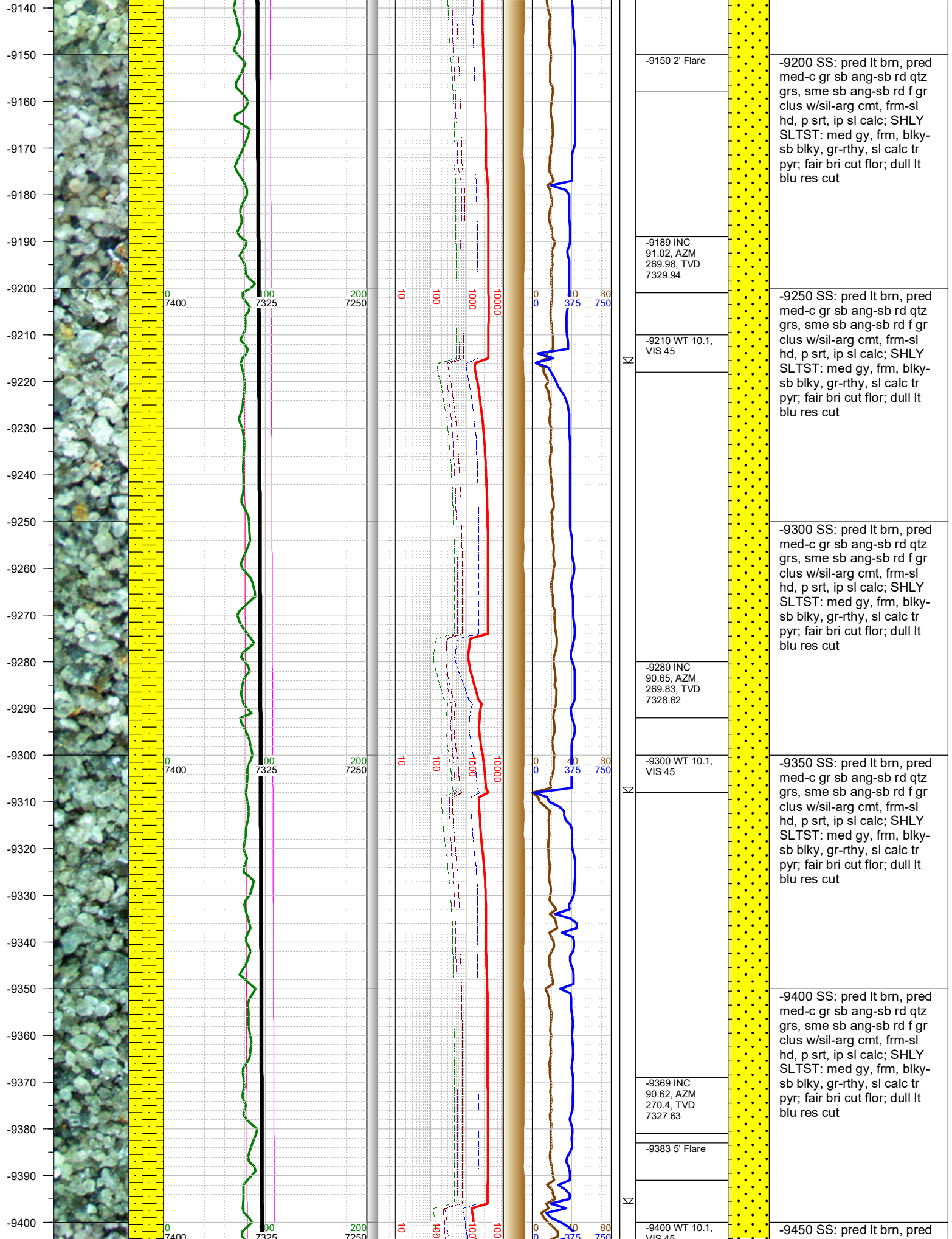


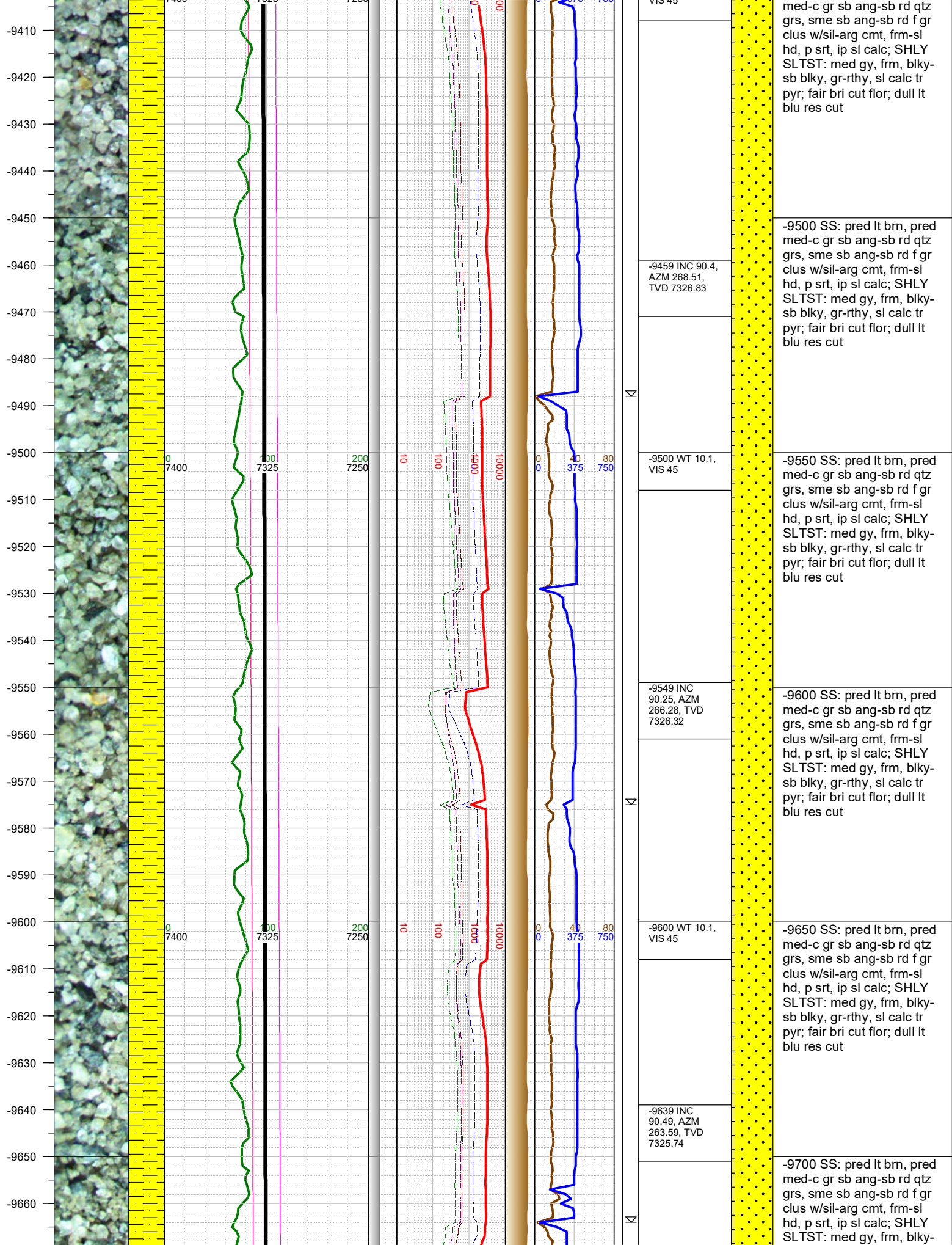


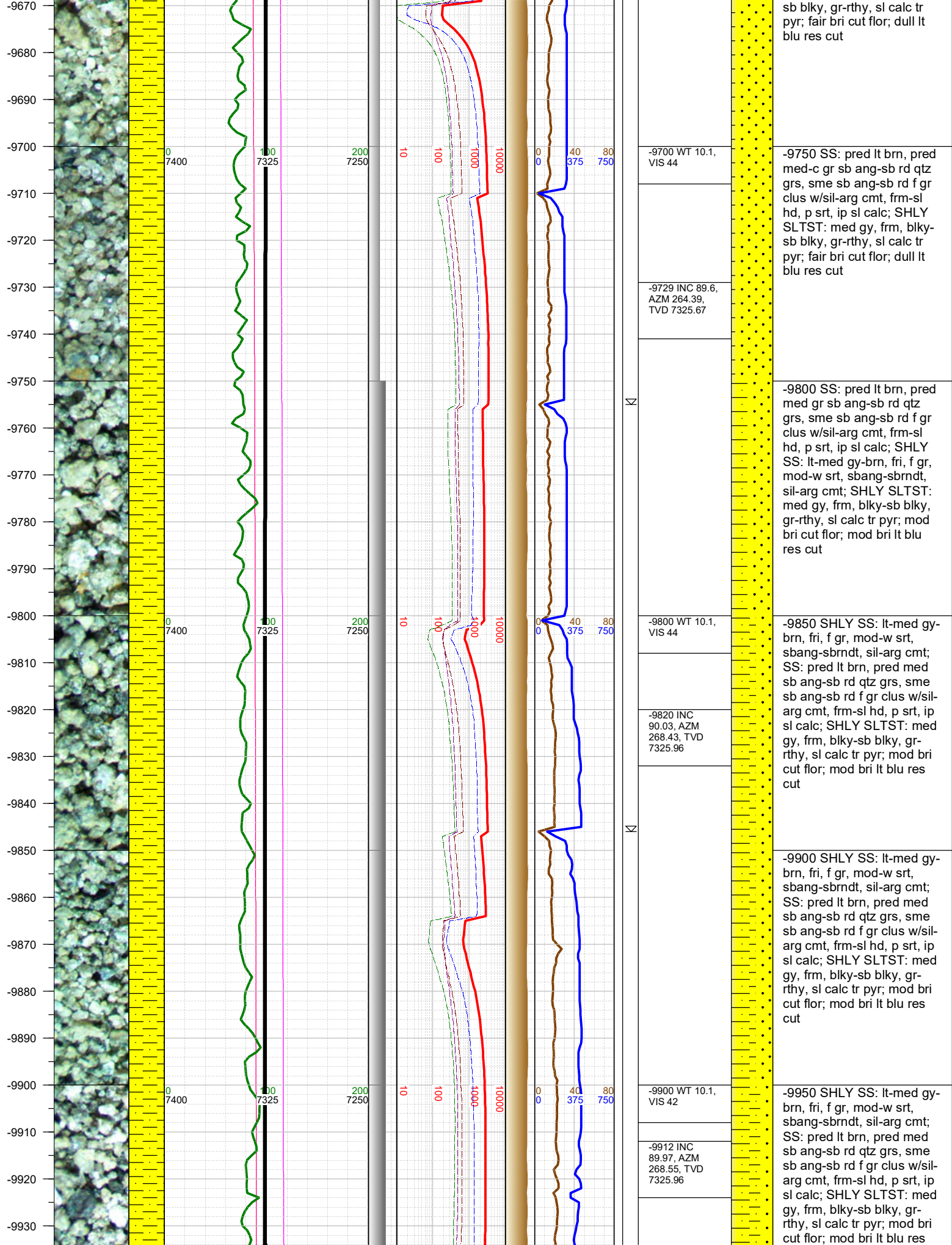


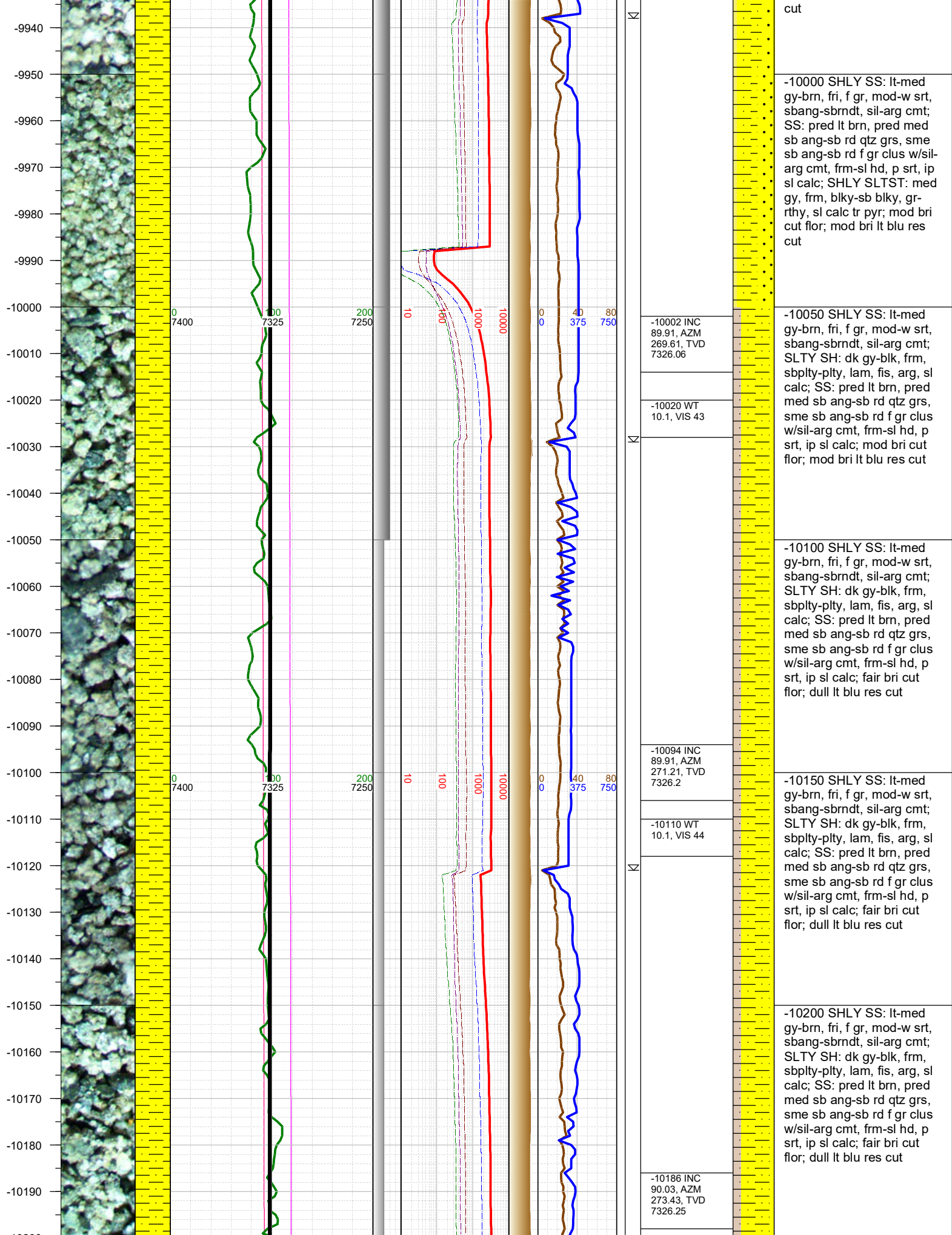












cut

-10000 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt, sbang-sbrndt, sil-arg cmt; SS: pred lt brn, pred med sb ang-sb rd qtz grs, sme sb ang-sb rd f gr clus w/sil-arg cmt, frm-sl hd, p srt, ip sl calc; SHLY SLTST: med gy, frm, blk-y-sb blk-y, gr-rthy, sl calc tr pyr; mod bri cut flor; mod bri lt blu res cut

-10050 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt, sbang-sbrndt, sil-arg cmt; SLTY SH: dk gy-blk, frm, sbplty-plty, lam, fis, arg, sl calc; SS: pred lt brn, pred med sb ang-sb rd qtz grs, sme sb ang-sb rd f gr clus w/sil-arg cmt, frm-sl hd, p srt, ip sl calc; mod bri cut flor; mod bri lt blu res cut

-10100 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt, sbang-sbrndt, sil-arg cmt; SLTY SH: dk gy-blk, frm, sbplty-plty, lam, fis, arg, sl calc; SS: pred lt brn, pred med sb ang-sb rd qtz grs, sme sb ang-sb rd f gr clus w/sil-arg cmt, frm-sl hd, p srt, ip sl calc; fair bri cut flor; dull lt blu res cut

-10150 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt, sbang-sbrndt, sil-arg cmt; SLTY SH: dk gy-blk, frm, sbplty-plty, lam, fis, arg, sl calc; SS: pred lt brn, pred med sb ang-sb rd qtz grs, sme sb ang-sb rd f gr clus w/sil-arg cmt, frm-sl hd, p srt, ip sl calc; fair bri cut flor; dull lt blu res cut

-10200 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt, sbang-sbrndt, sil-arg cmt; SLTY SH: dk gy-blk, frm, sbplty-plty, lam, fis, arg, sl calc; SS: pred lt brn, pred med sb ang-sb rd qtz grs, sme sb ang-sb rd f gr clus w/sil-arg cmt, frm-sl hd, p srt, ip sl calc; fair bri cut flor; dull lt blu res cut

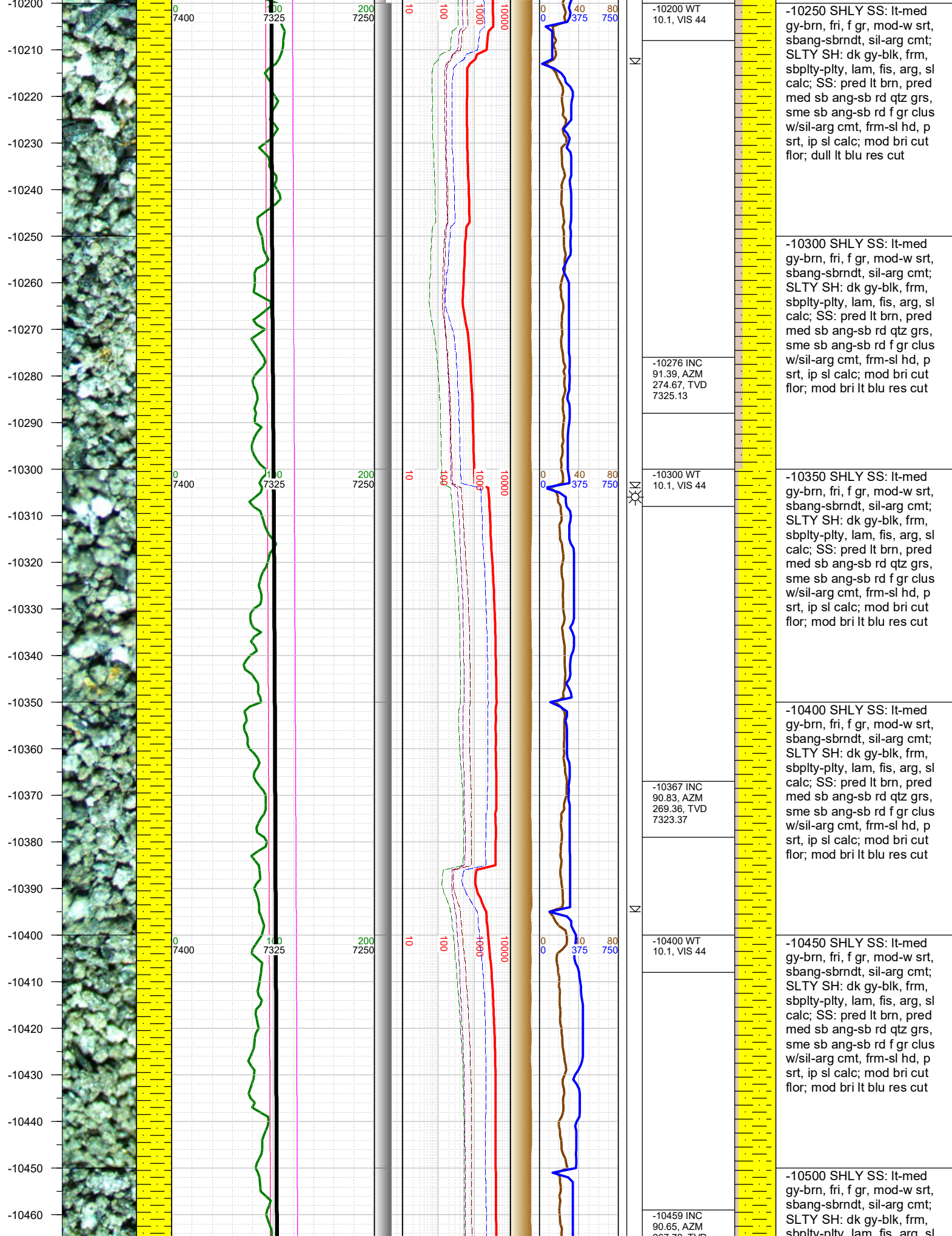
-10002 INC
89.91, AZM
269.61, TVD
7326.06

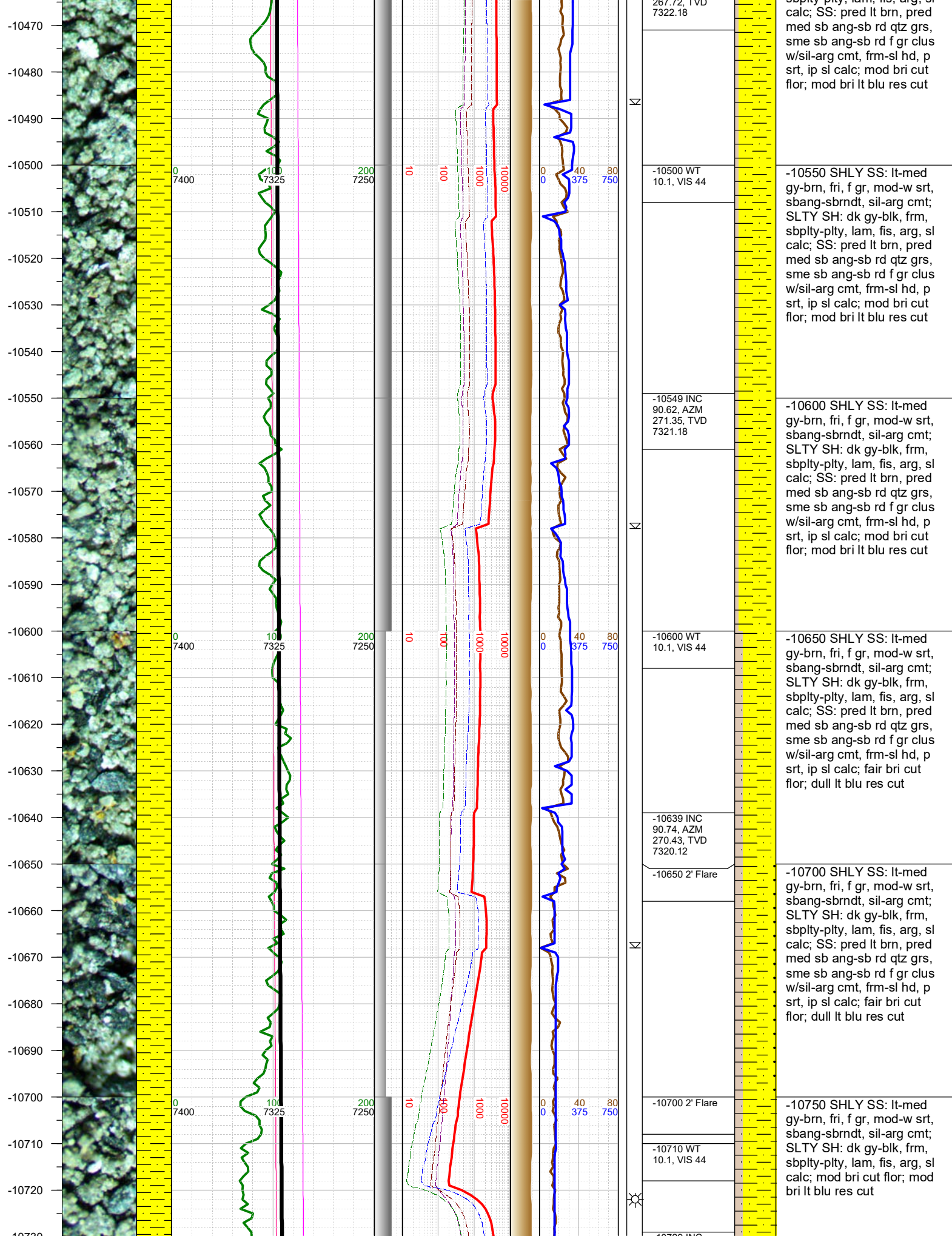
-10020 WT
10.1, VIS 43

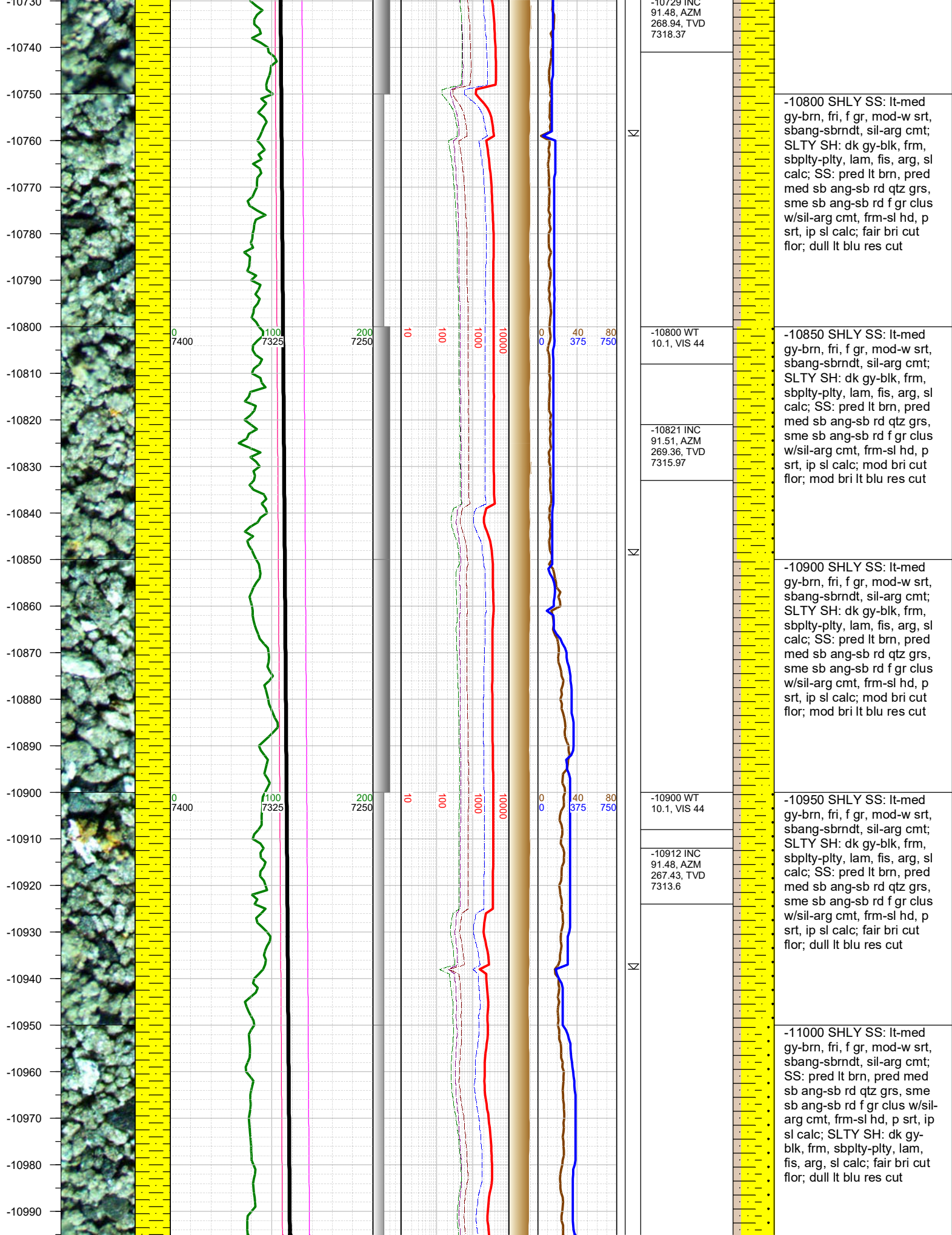
-10094 INC
89.91, AZM
271.21, TVD
7326.2

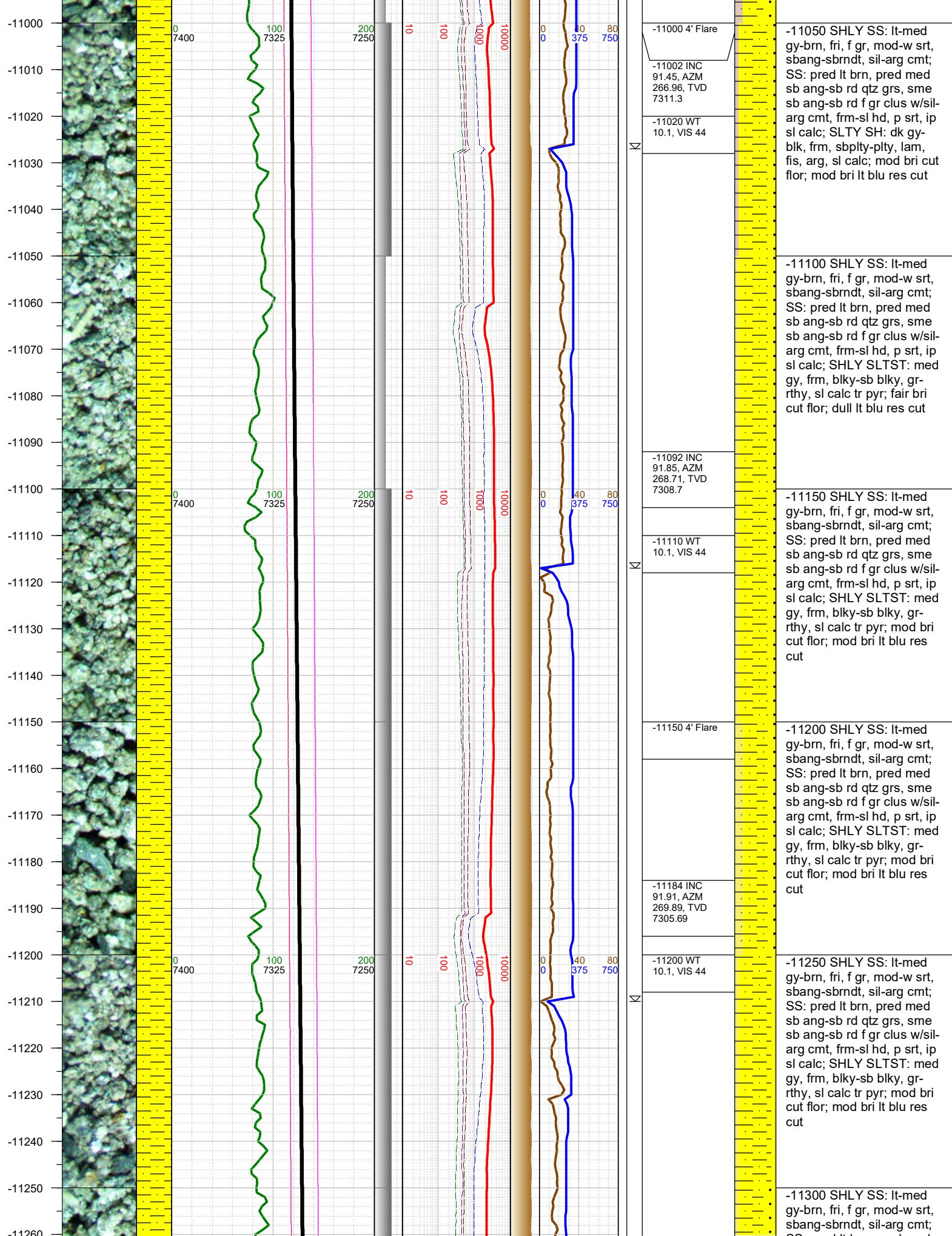
-10110 WT
10.1, VIS 44

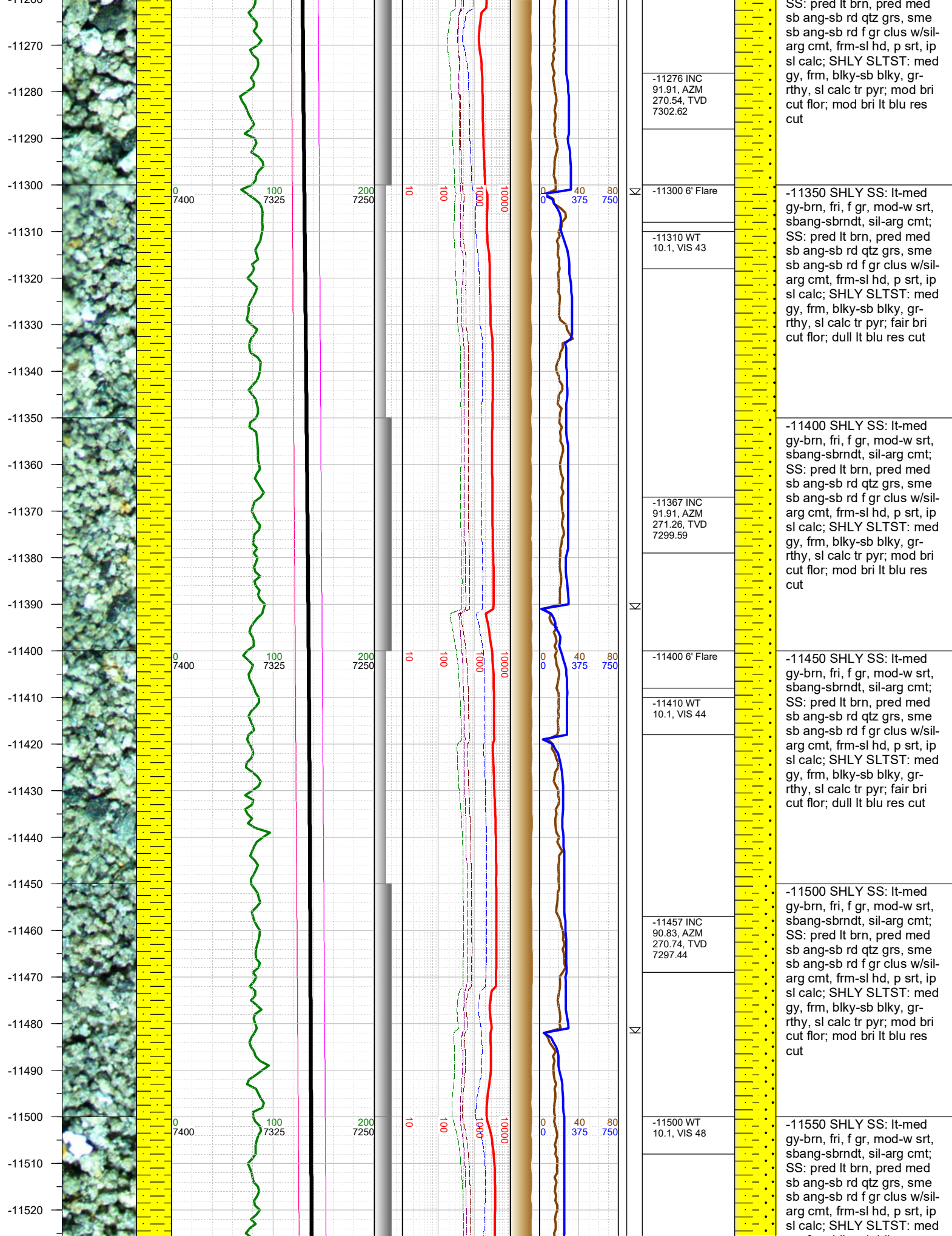
-10186 INC
90.03, AZM
273.43, TVD
7326.25

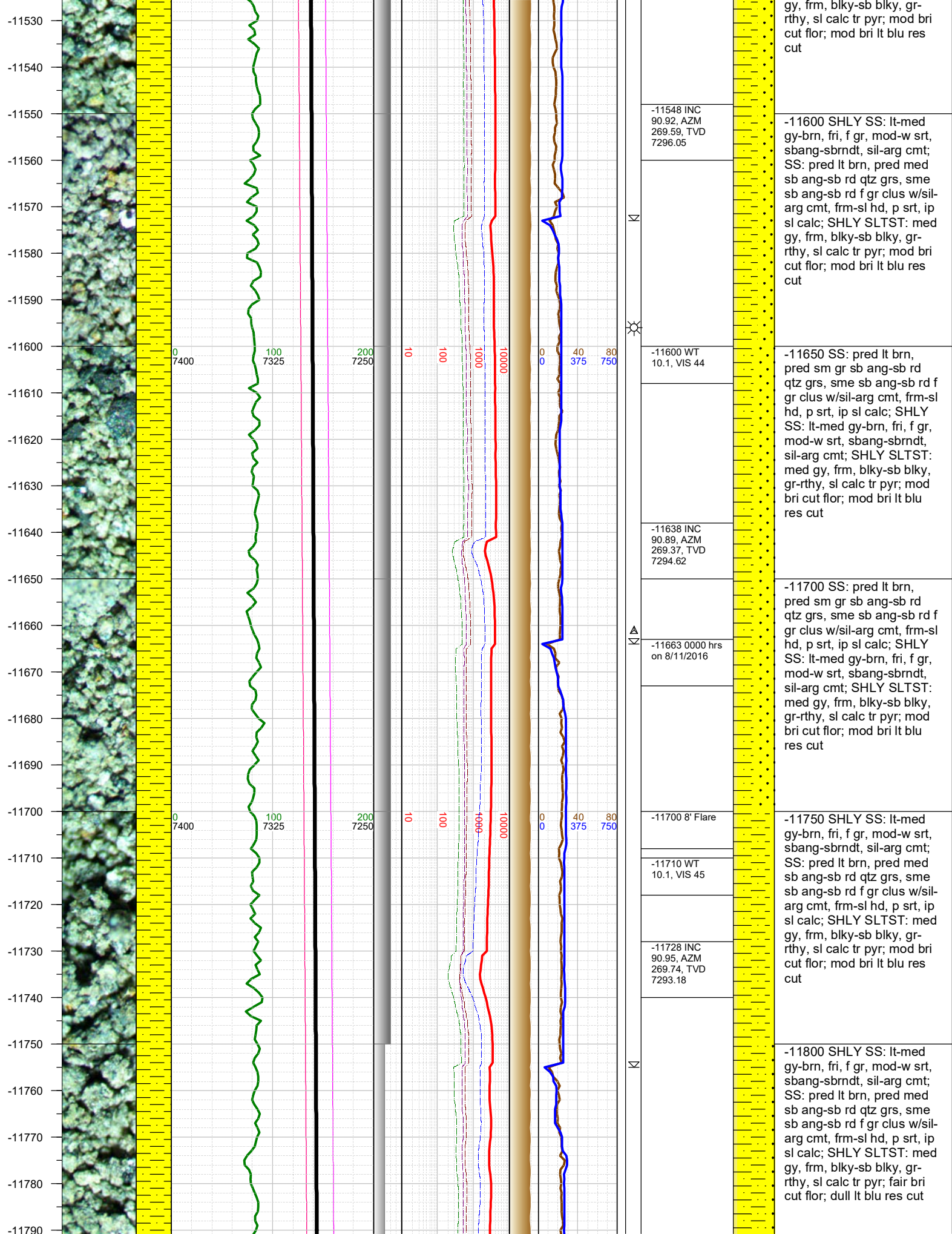


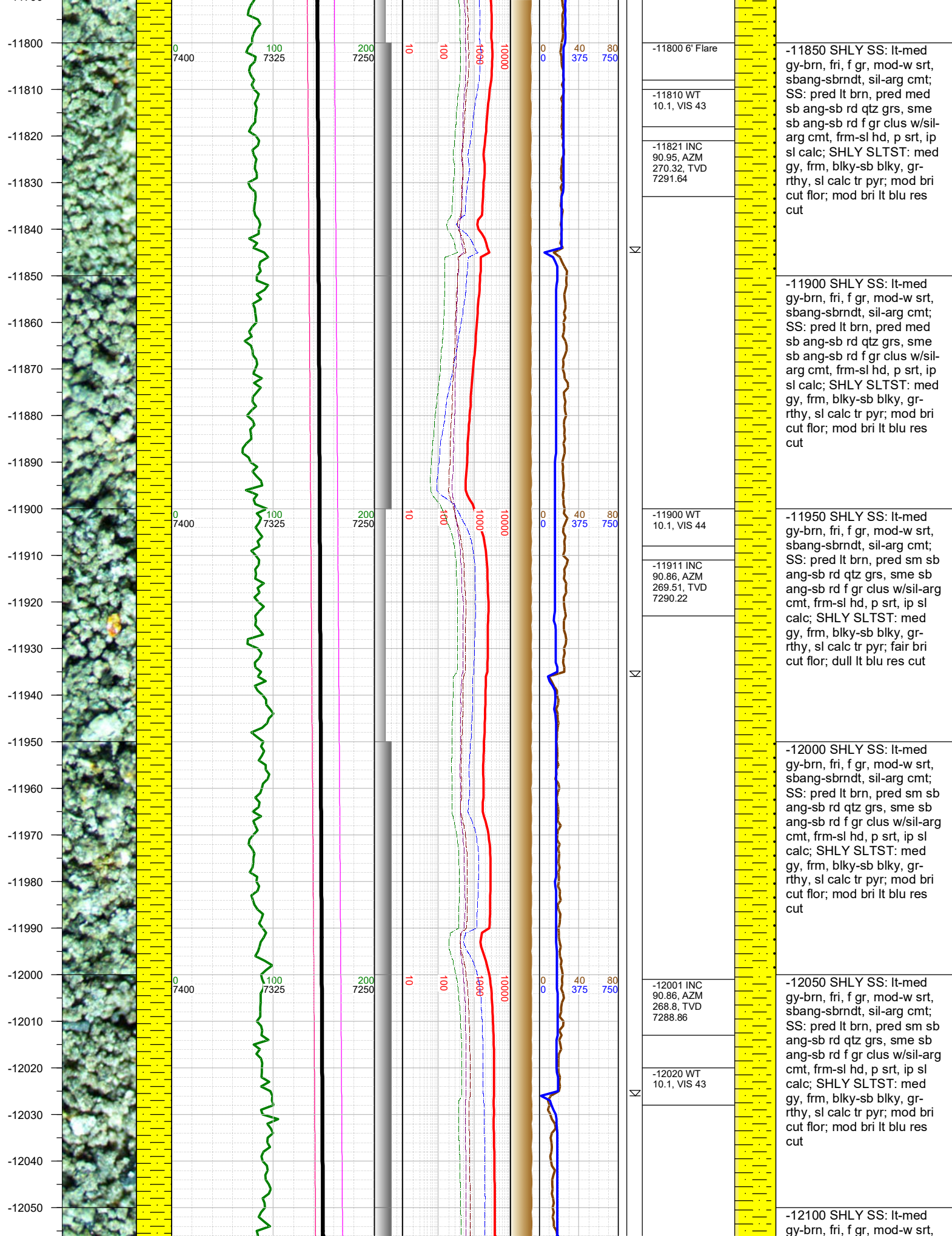


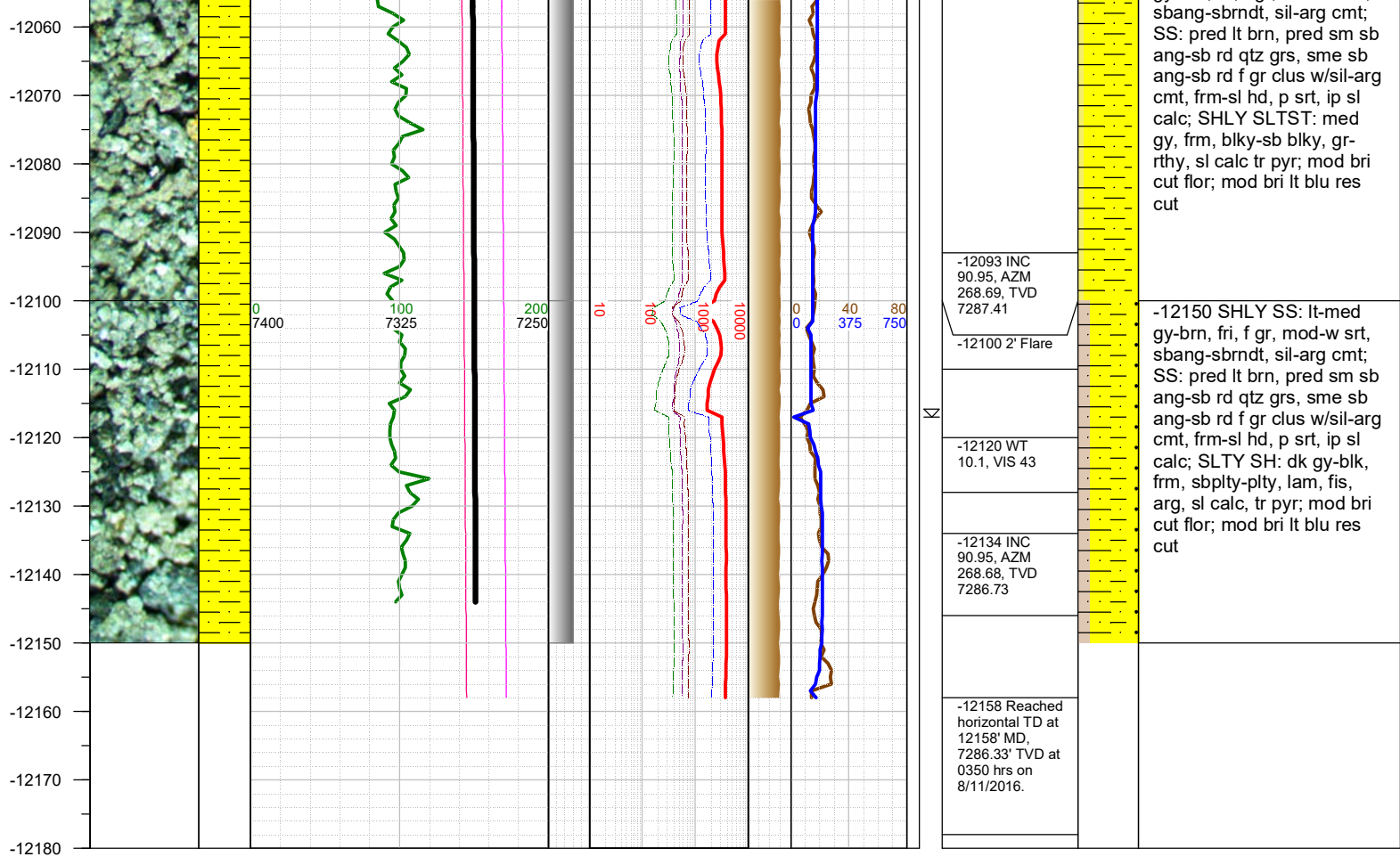












TOTAL DEPTH = 12158'

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