

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **Leonard 9C**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Cyclone 37

API #: 05-123-45044

LAT/LONG: 40.121261, -104.903274

SURFACE HOLE: NWSW S21-T2N-R67W, 1740' FSL, 494' FWL

BOTTOM HOLE: S21-T2N-R67W, 560' FSL, 460' FEL



Earth Science Agency, LLC

COUNTY: Weld

STATE: Colorado

GROUND ELEVATION: 5004'

KELLY BUSHING: 5029'

DRILLING FLUID: OBM

TVD VS. MD: 7625' / 12330'

SPUD DATE: September 27, 2017

TD DATE: September 29, 2017

DEPTHS LOGGED: 6000' - 12330'

DATES LOGGED: September 28, 2017 - September 29, 2017

GEOLOGISTS: Levi Heintzelman, Dan Jacobs

SCALE: 5" = 100'

LEGEND

CHALK

LIMESTONE

SHALY LIMESTONE

MARLSTONE

CALCAREOUS SHALE

DOLOMITE

SHALE

SILTY SHALE

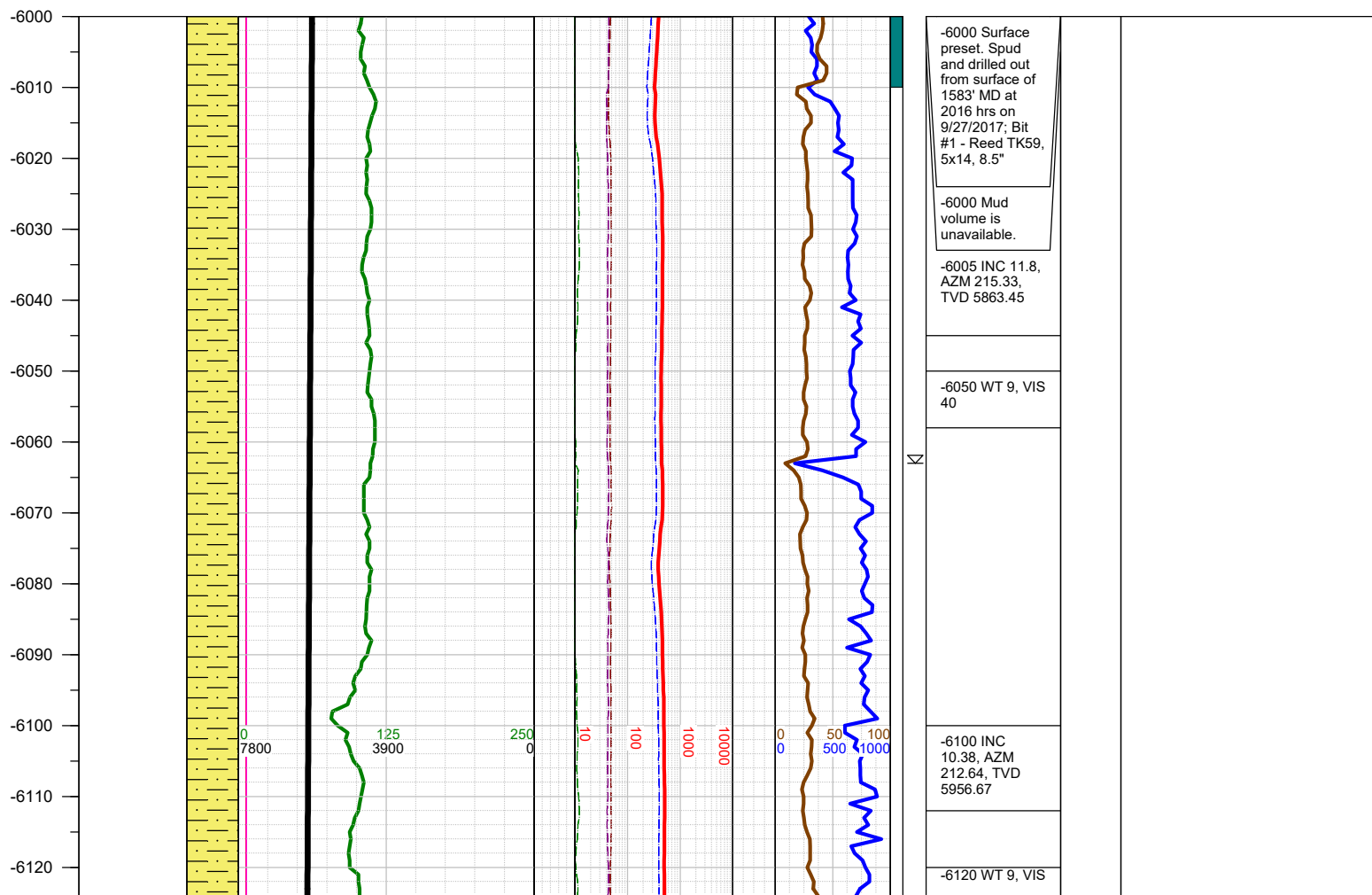
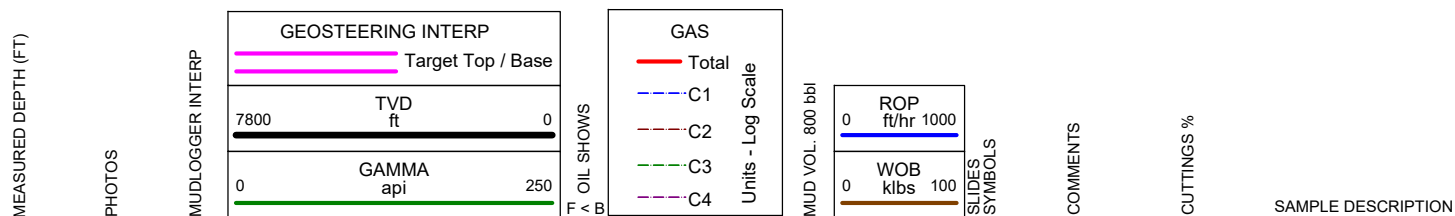
SHALY SILTSTONE

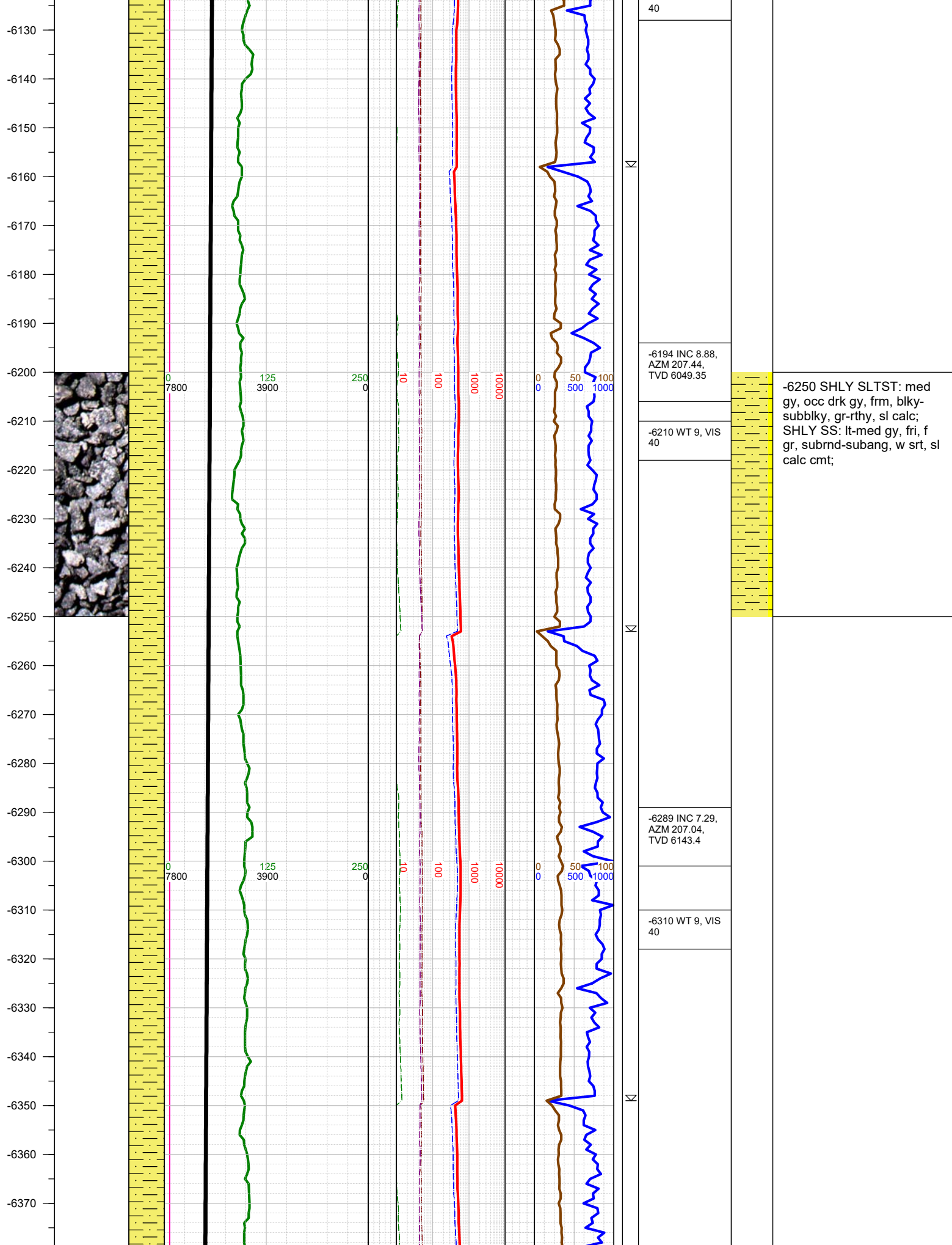
SHALY SANDSTONE

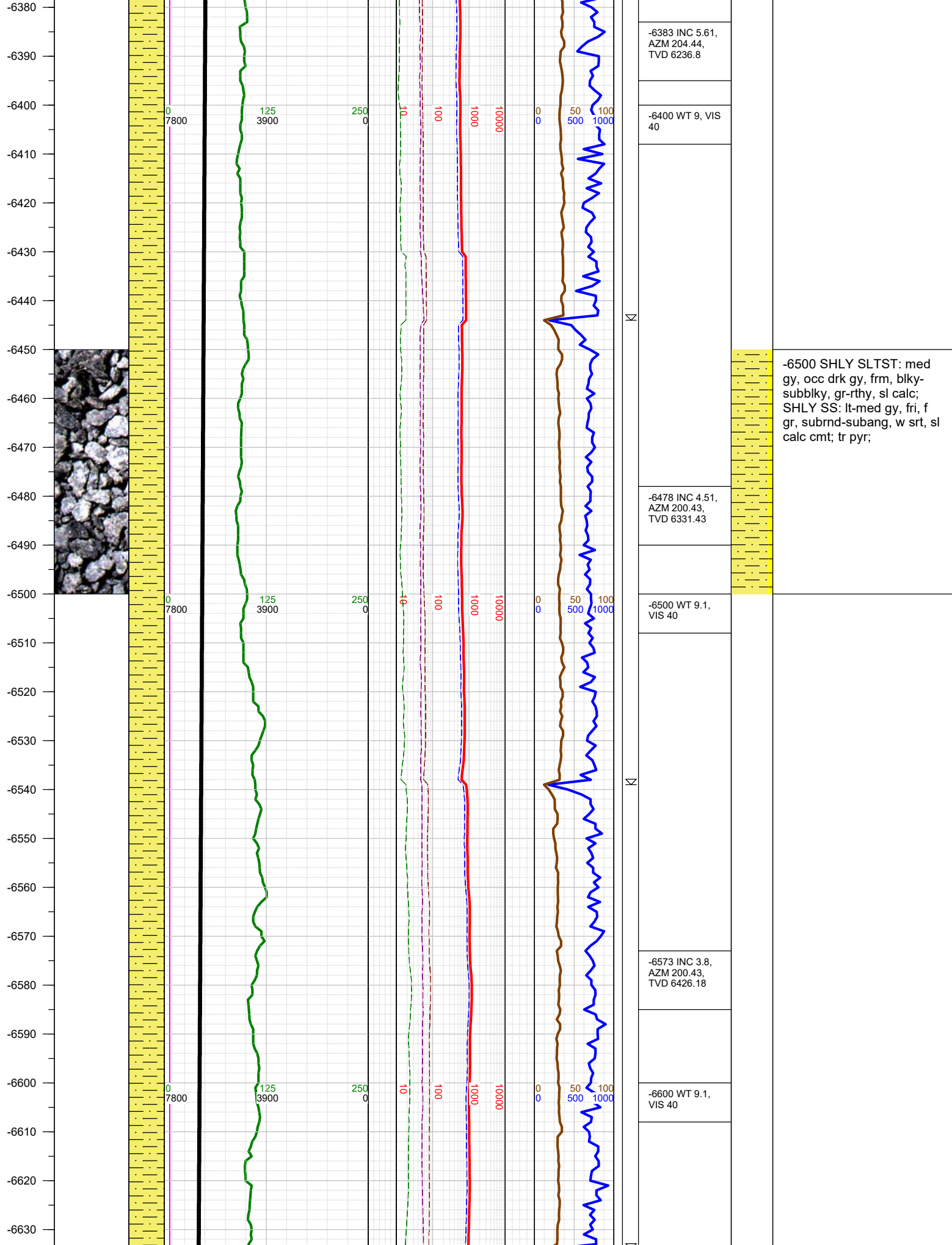
SANDSTONE

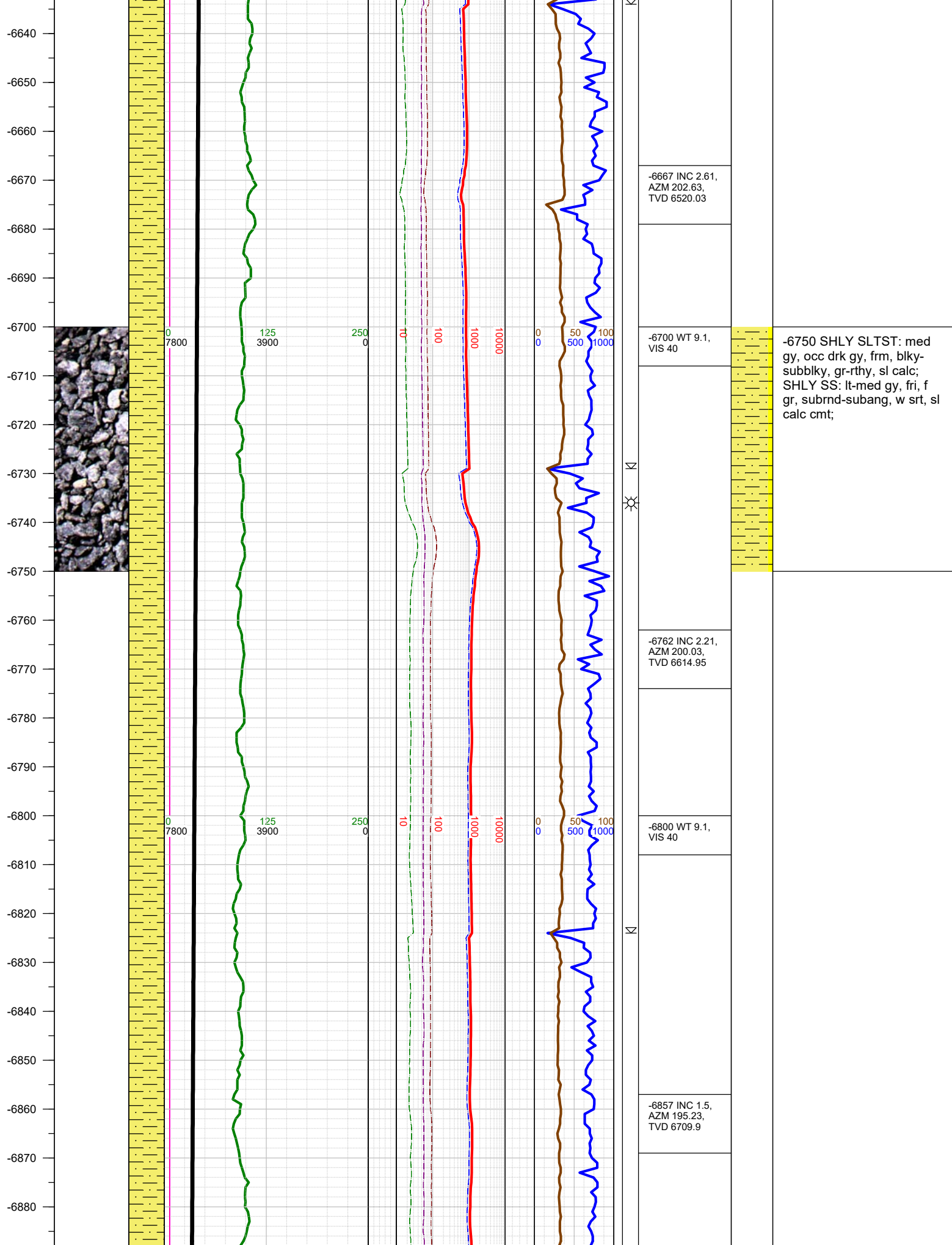
ANHYDRITE

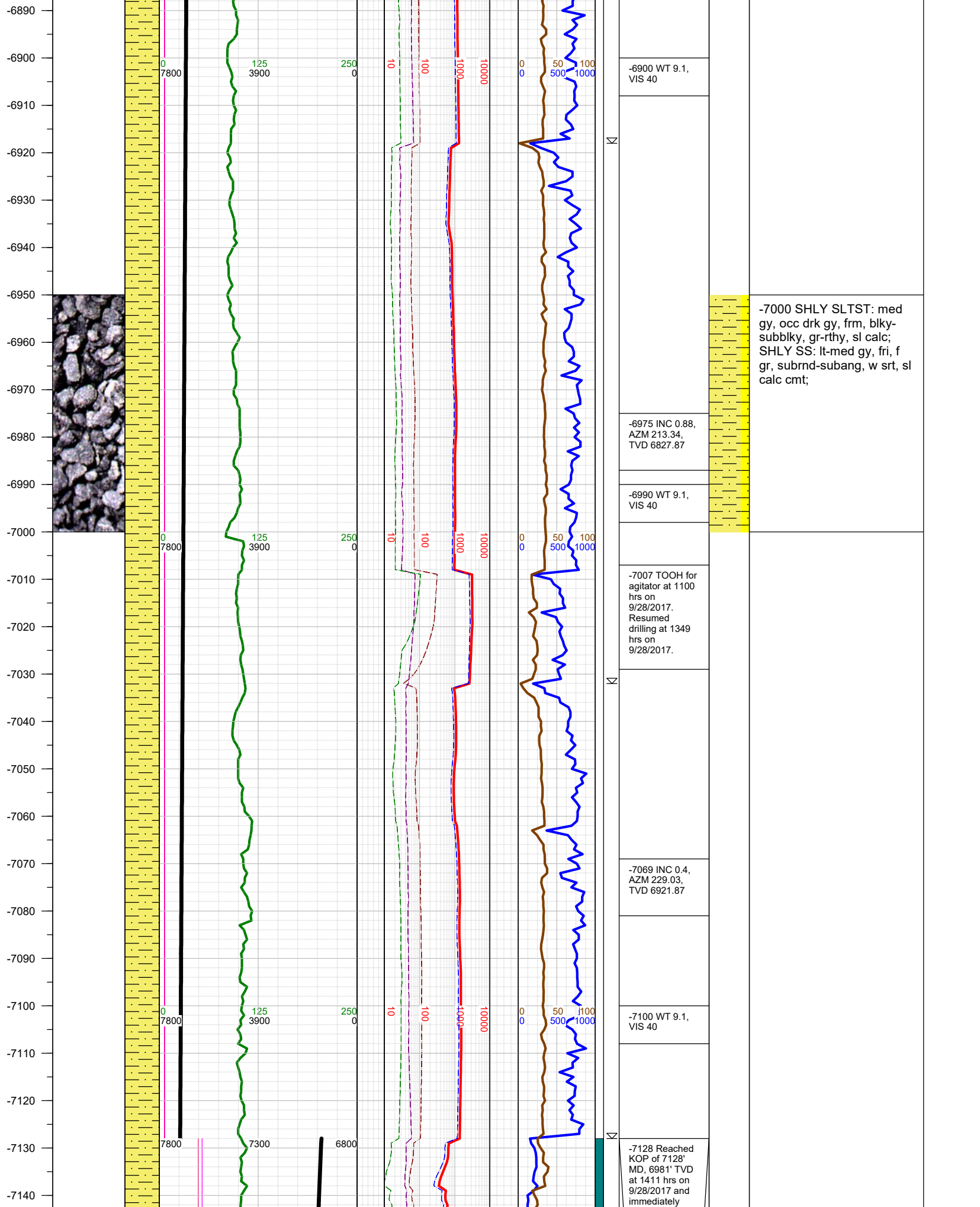
FORMATION \approx CONNECTION Δ MIDNIGHT NEW BIT GAS SHOW FAULT



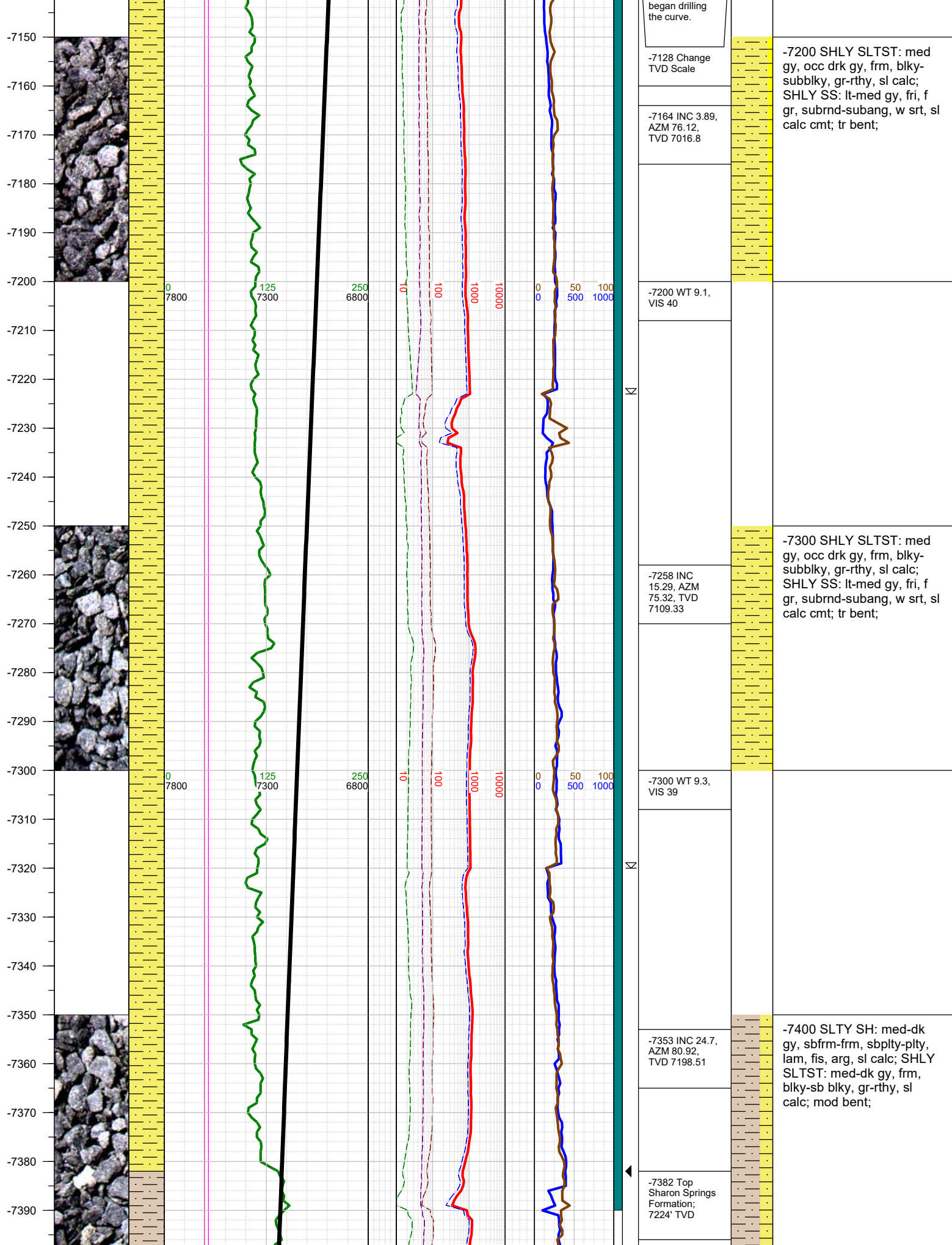


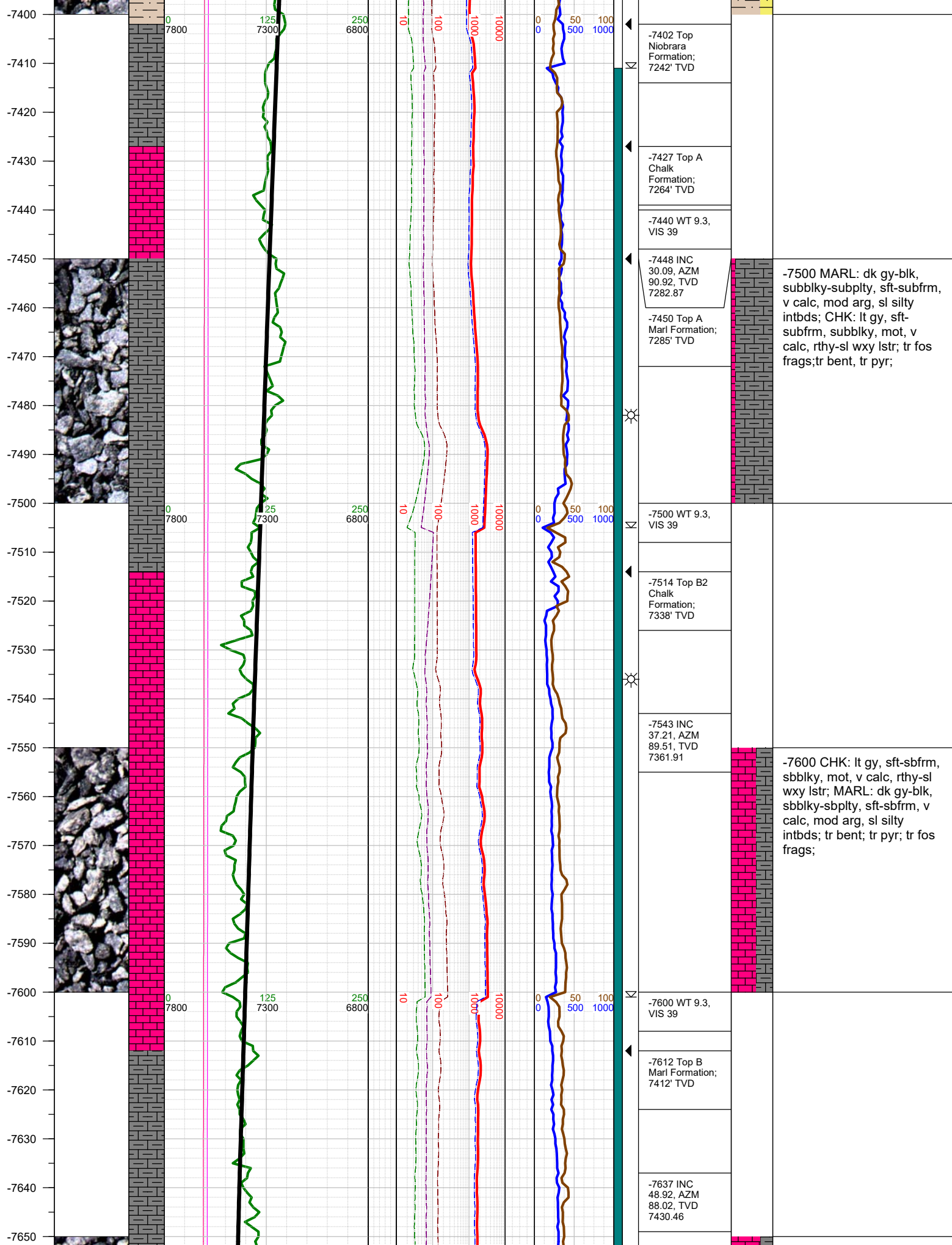


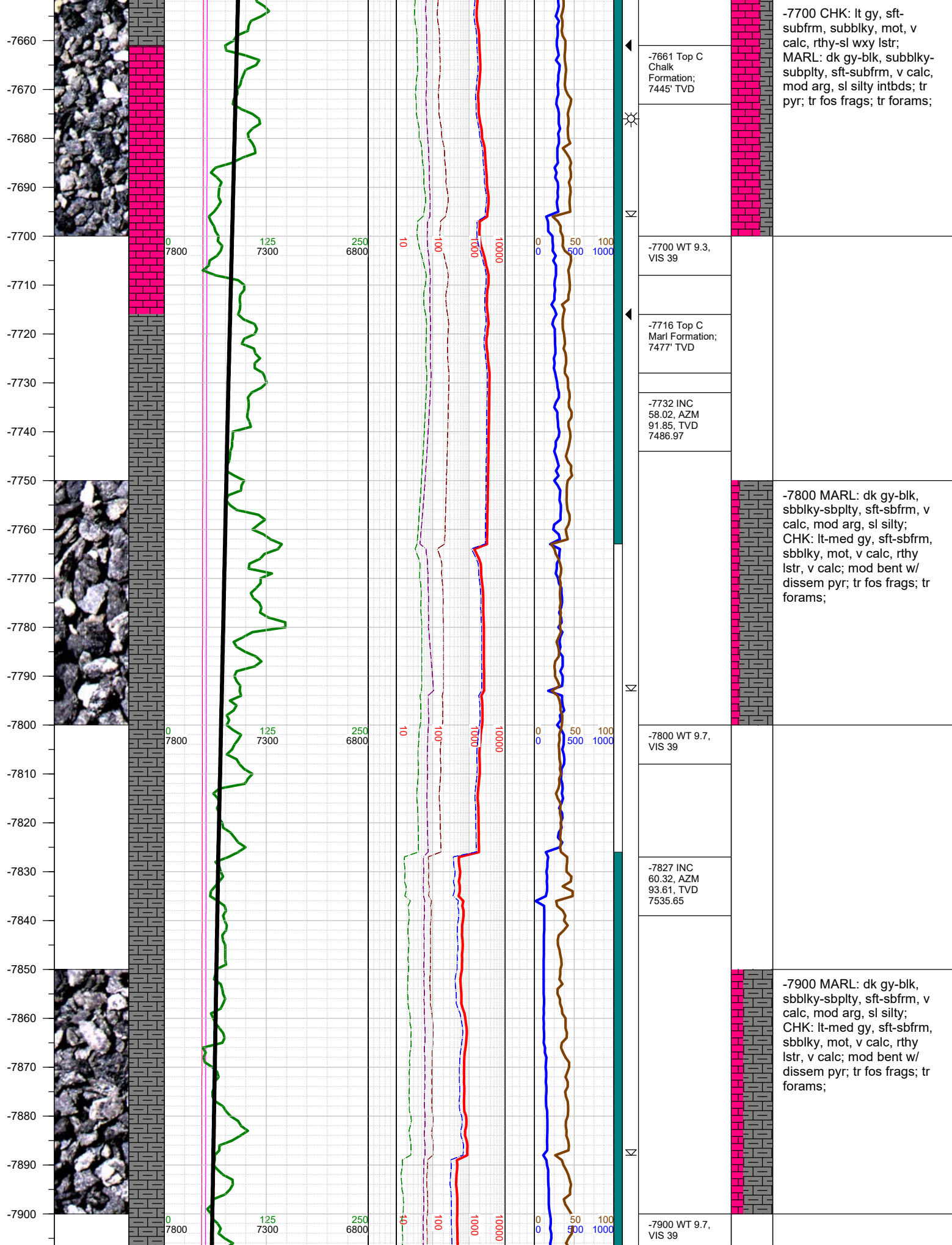


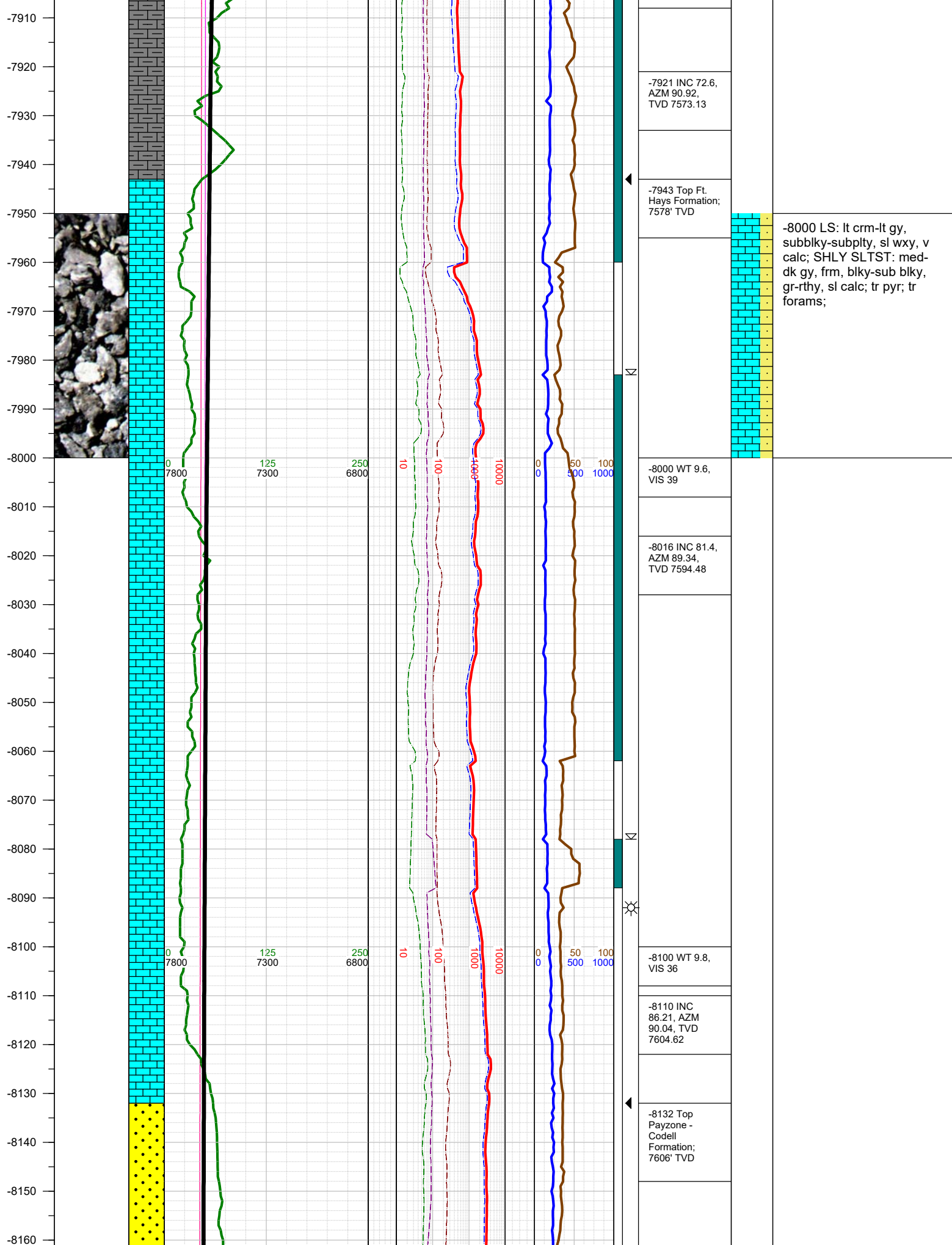


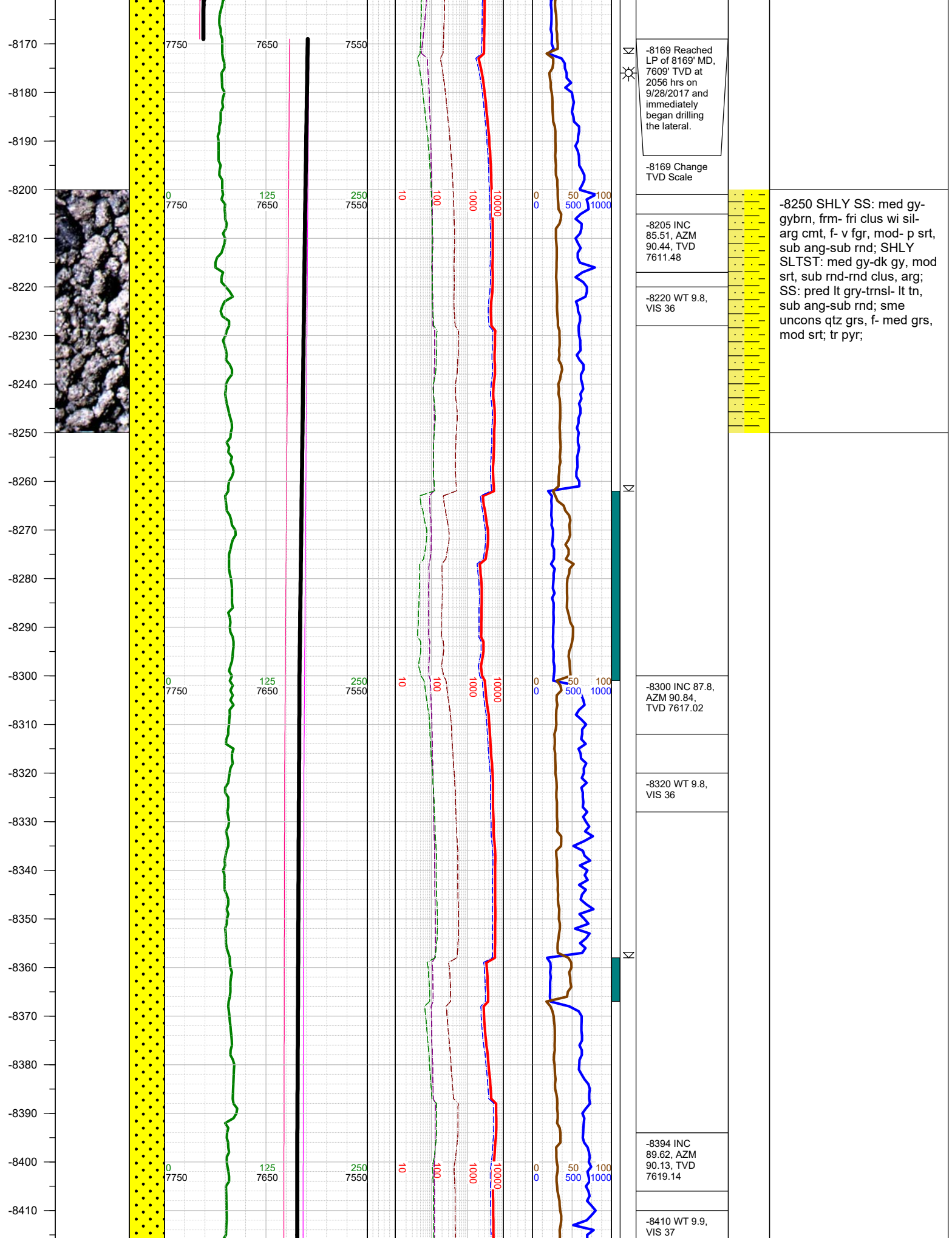
-7000 SHLY SLTST: med gy, occ drk gy, frm, blk-subblky, gr-rthy, sl calc; SHLY SS: lt-med gy, fri, f gr, subrnd-subang, w srt, sl calc cmt;



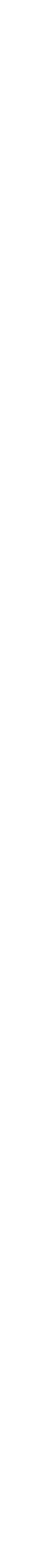
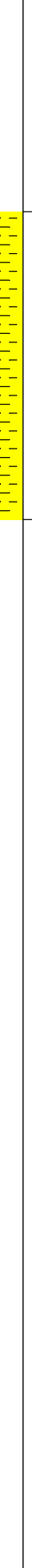
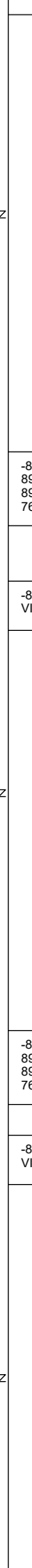
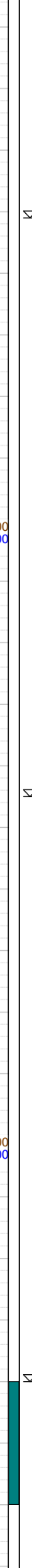
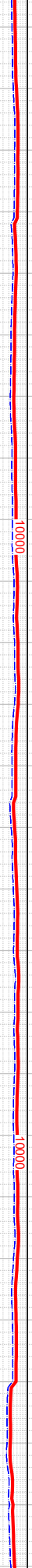
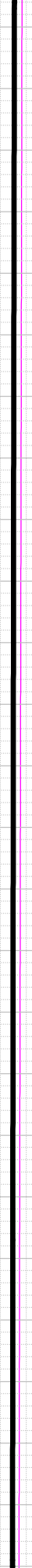








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-8489 INC
89.48, AZM
89.43, TVD
7619.88

-8510 WT 9.9,
VIS 37

-8583 INC
89.88, AZM
89.25, TVD
7620.41

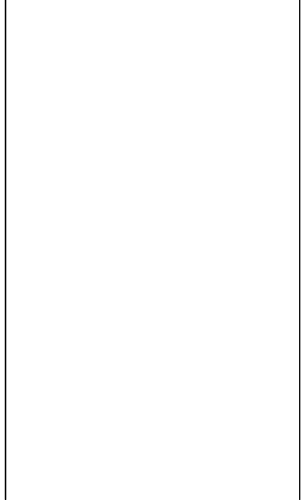
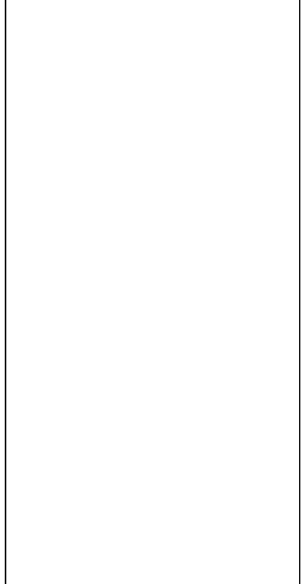
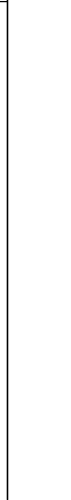
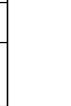
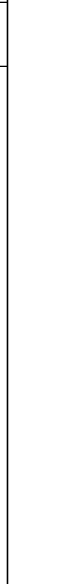
-8600 WT 9.9,
VIS 37

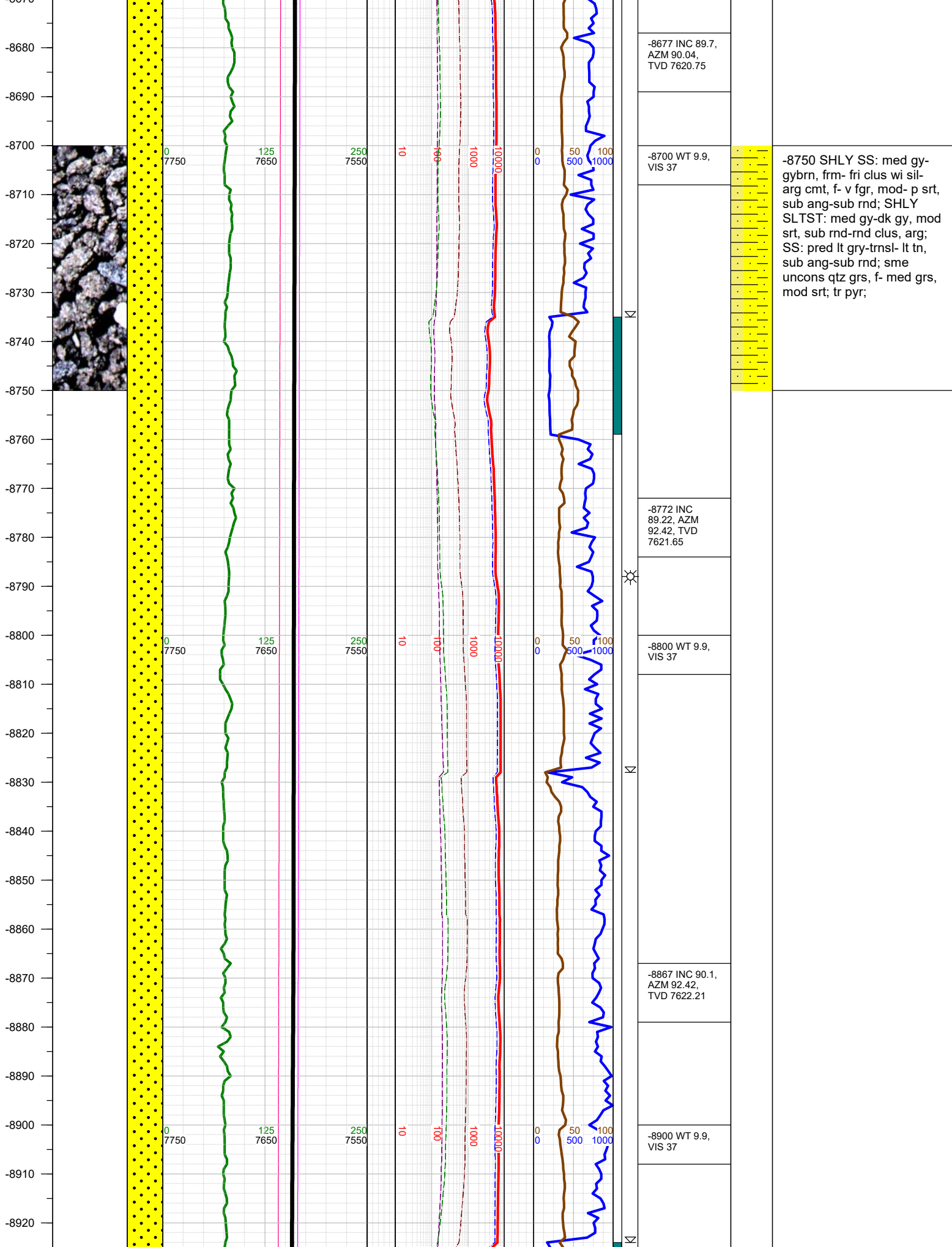
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VIS 37

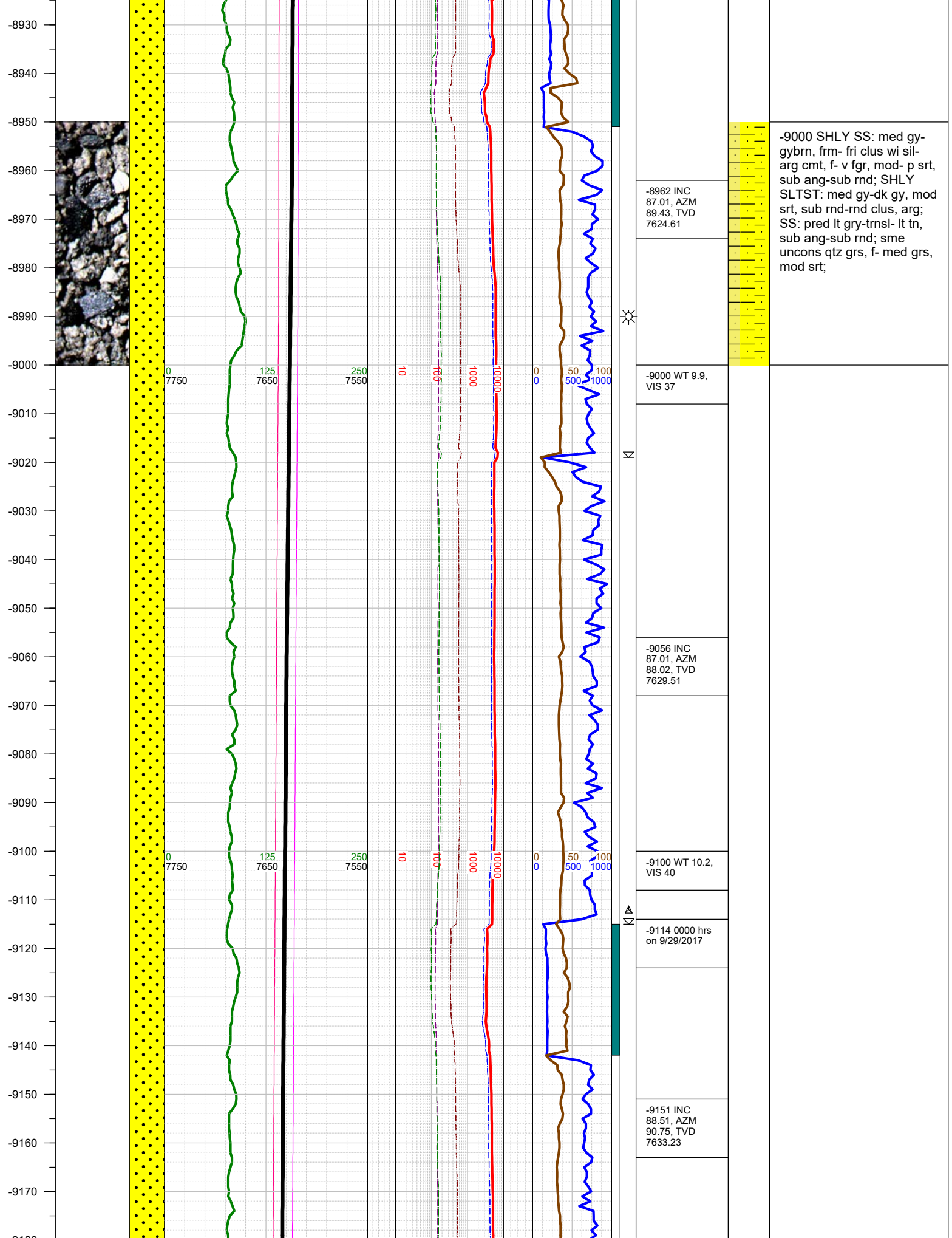
-8600 WT 9.9,
VIS 37

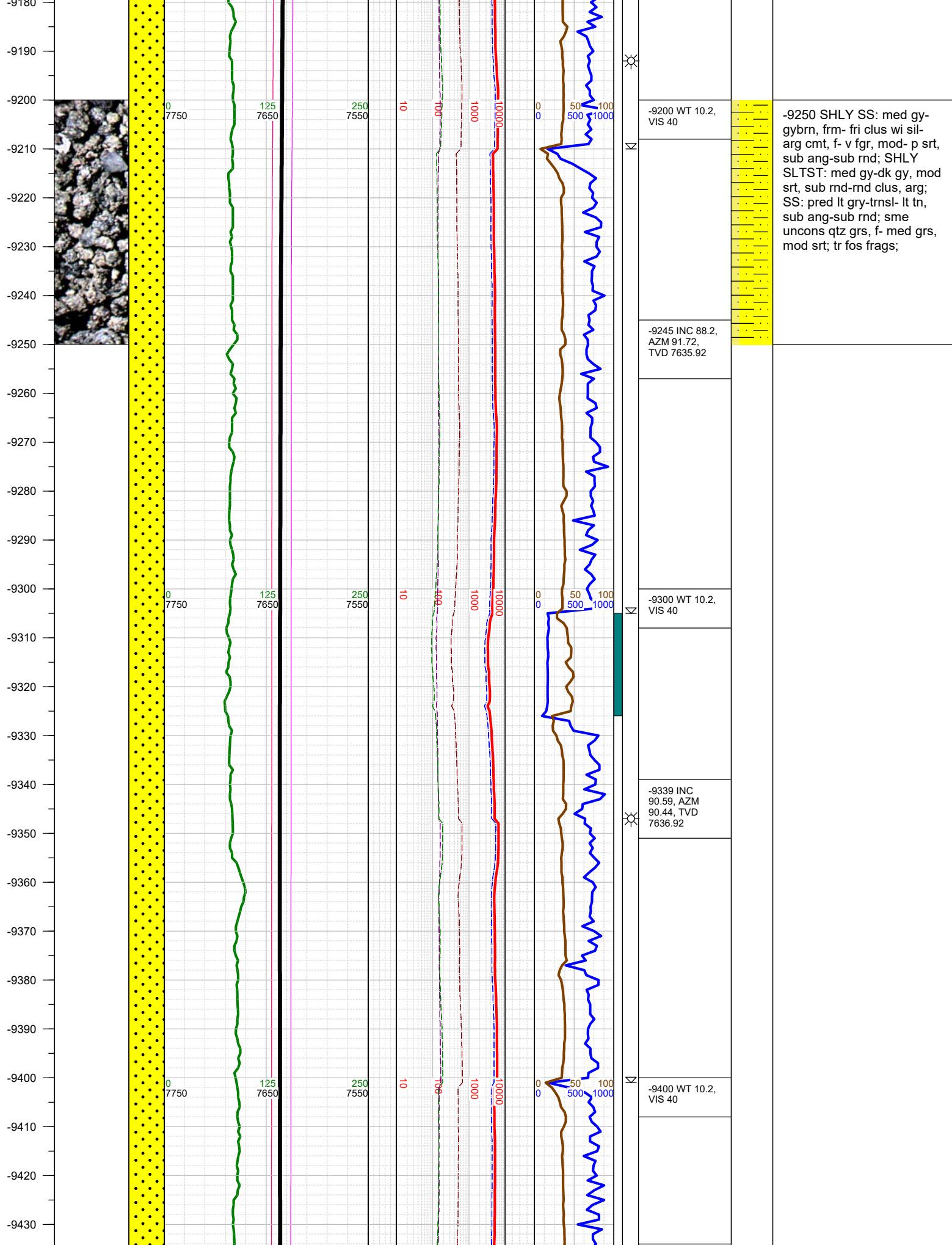


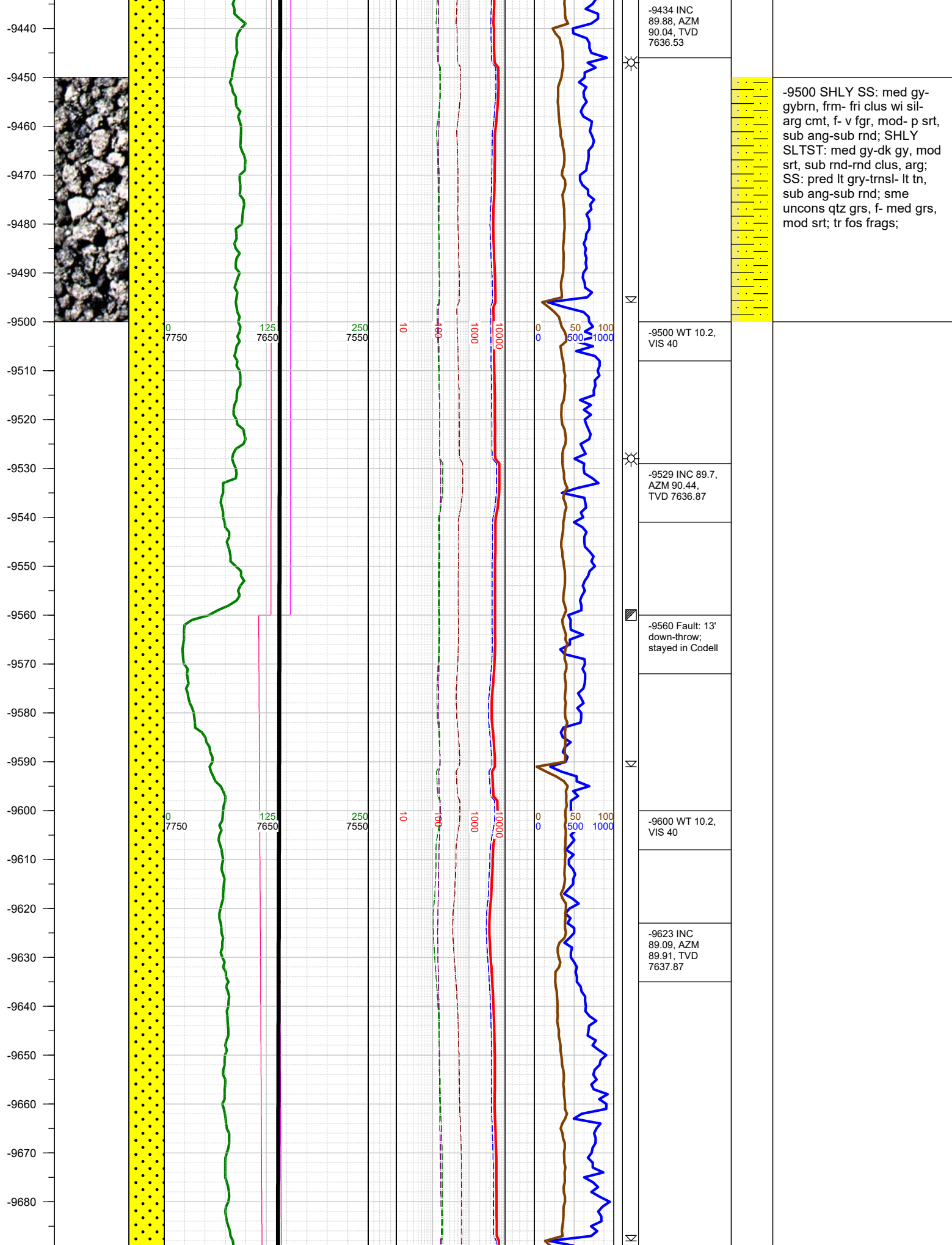
-8500 SHLY SS: med gy-
gybrn, frm- fri clus wi sil-
arg cmt, f- v fgr, mod- p srt,
sub ang-sub rnd; SHLY
SLTST: med gy-dk gy, mod
srt, sub rnd-rnd clus, arg;
SS: pred lt gry-trnsl- lt tn,
sub ang-sub rnd; sme
uncons qtz grs, f- med grs,
mod srt; tr pyr;

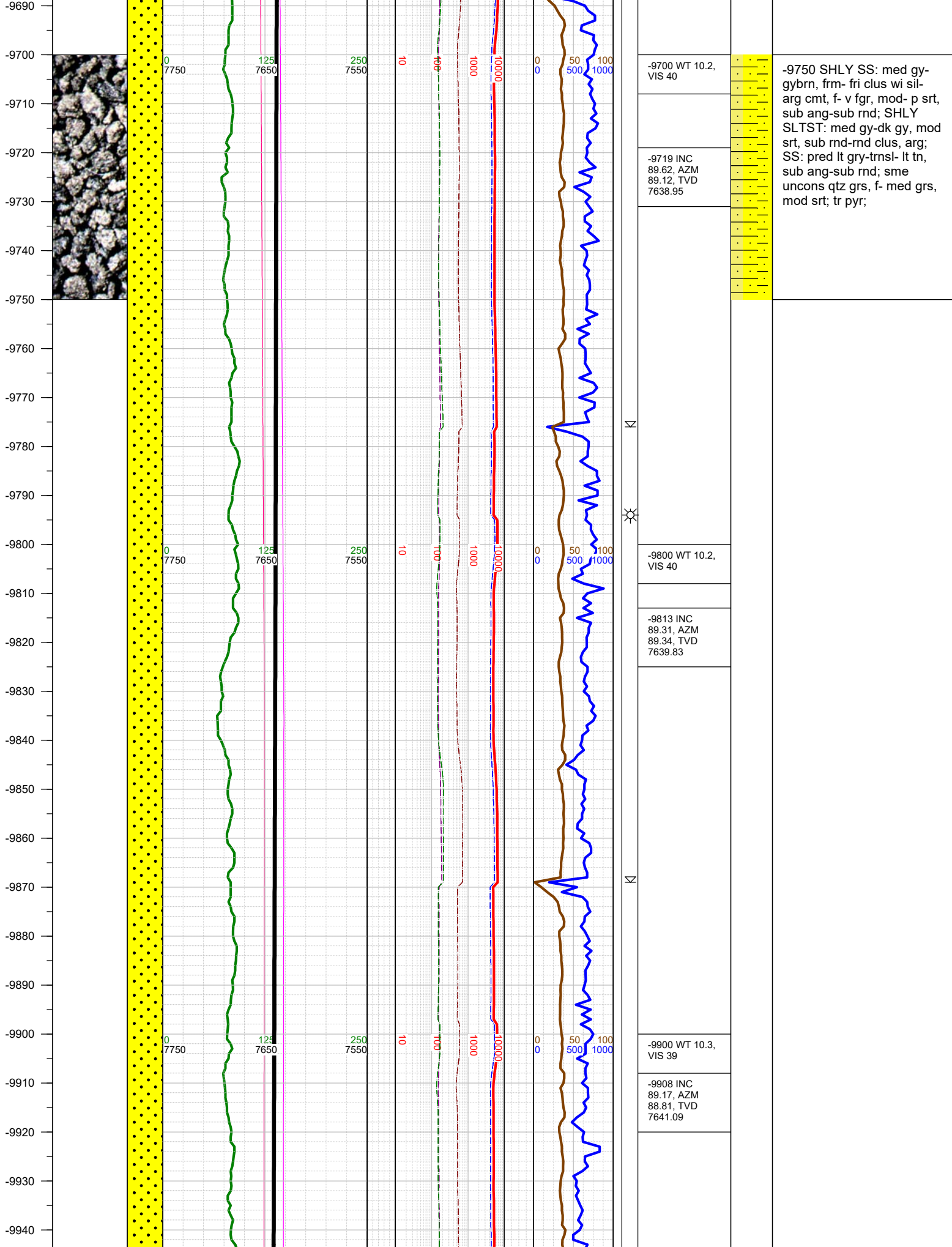












-9700 WT 10.2,
VIS 40

-9719 INC
89.62, AZM
89.12, TVD
7638.95

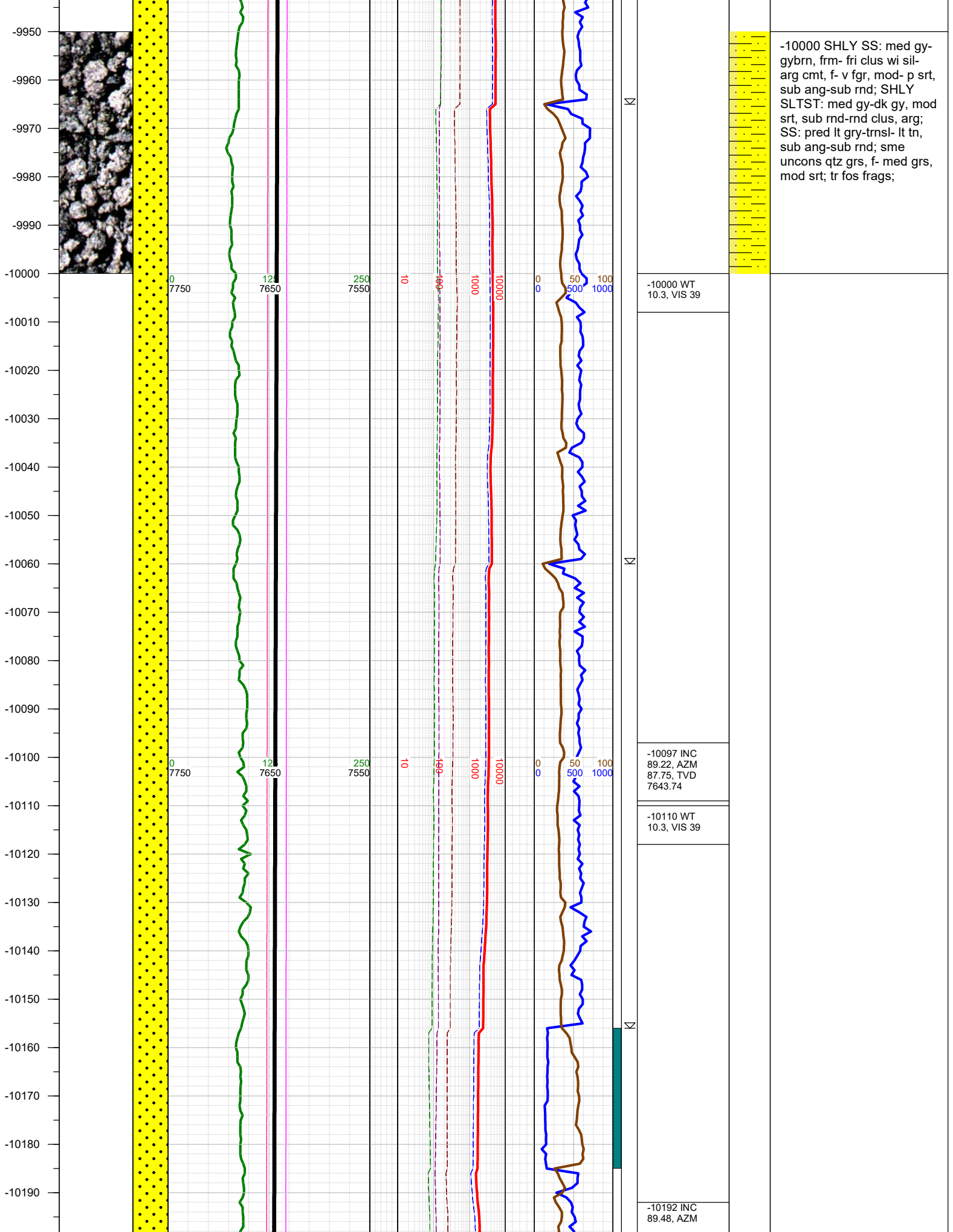
-9800 WT 10.2,
VIS 40

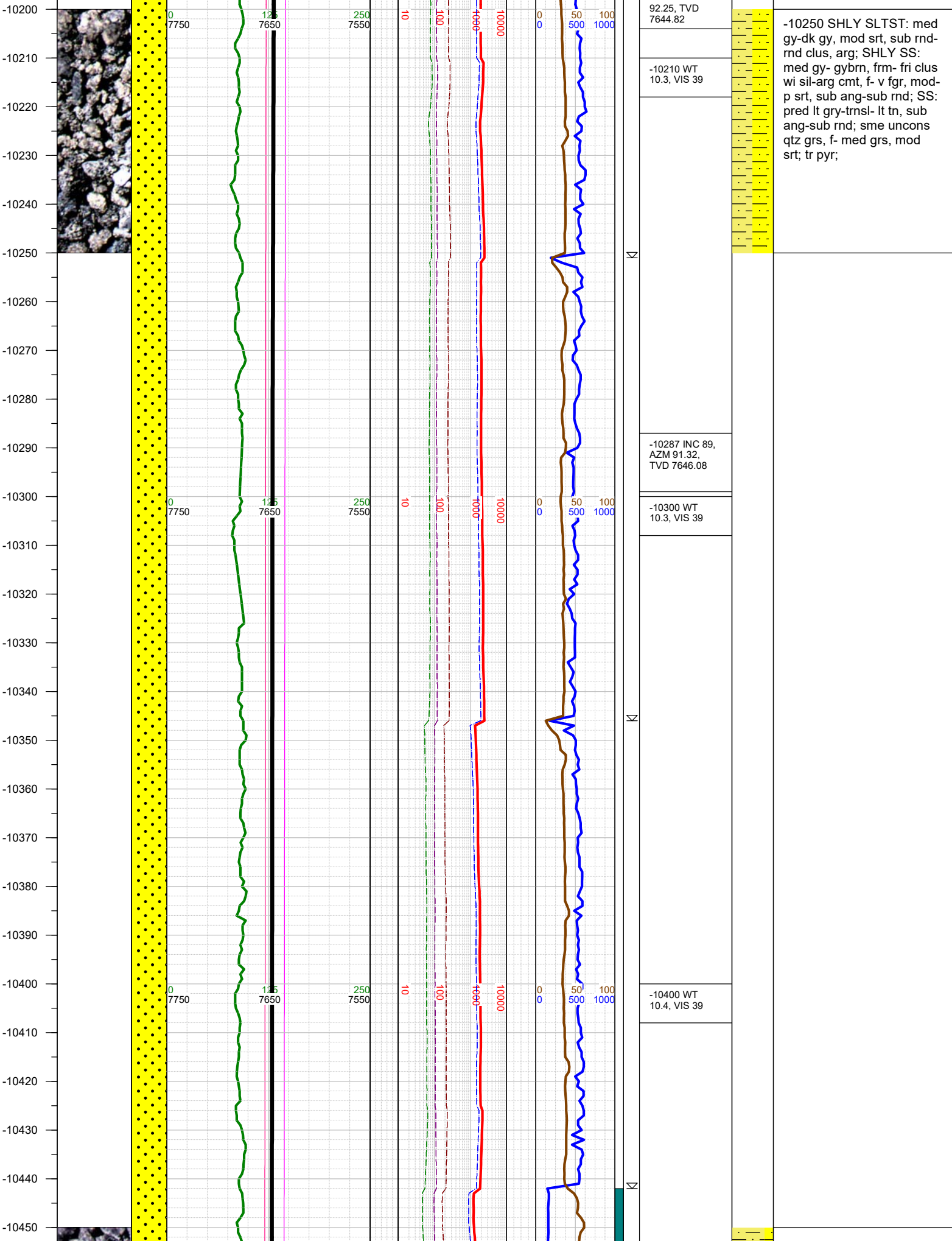
-9813 INC
89.31, AZM
89.34, TVD
7639.83

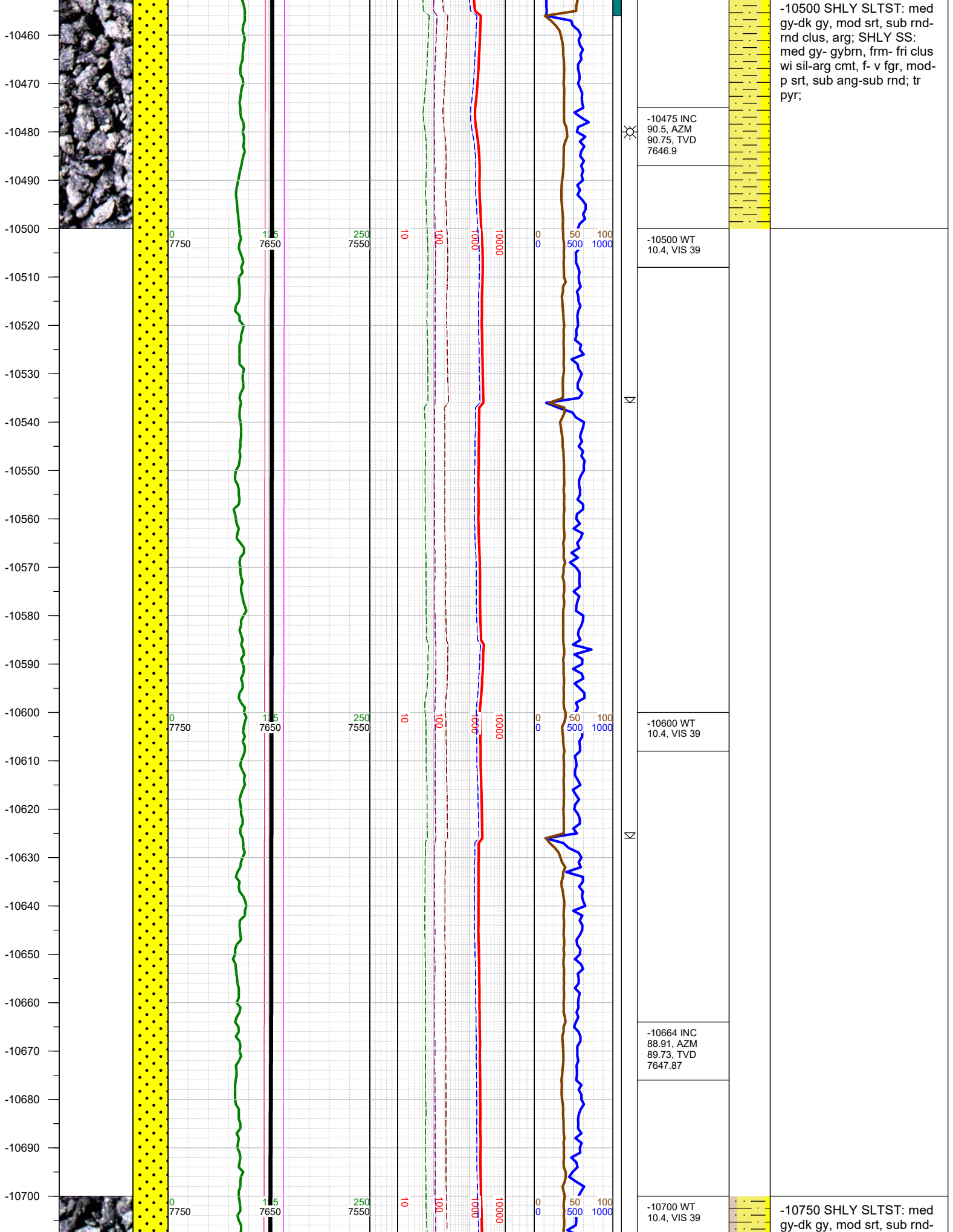
-9900 WT 10.3,
VIS 39

-9908 INC
89.17, AZM
88.81, TVD
7641.09

-9750 SHLY SS: med gy-
gybrn, frm- fri clus wi sil-
arg cmt, f- v fgr, mod- p srt,
sub ang-sub rnd; SHLY
SLTST: med gy-dk gy, mod
srt, sub rnd-rnd clus, arg;
SS: pred lt gry-trnsl- lt tn,
sub ang-sub rnd; sme
uncons qtz grs, f- med grs,
mod srt; tr pyr;

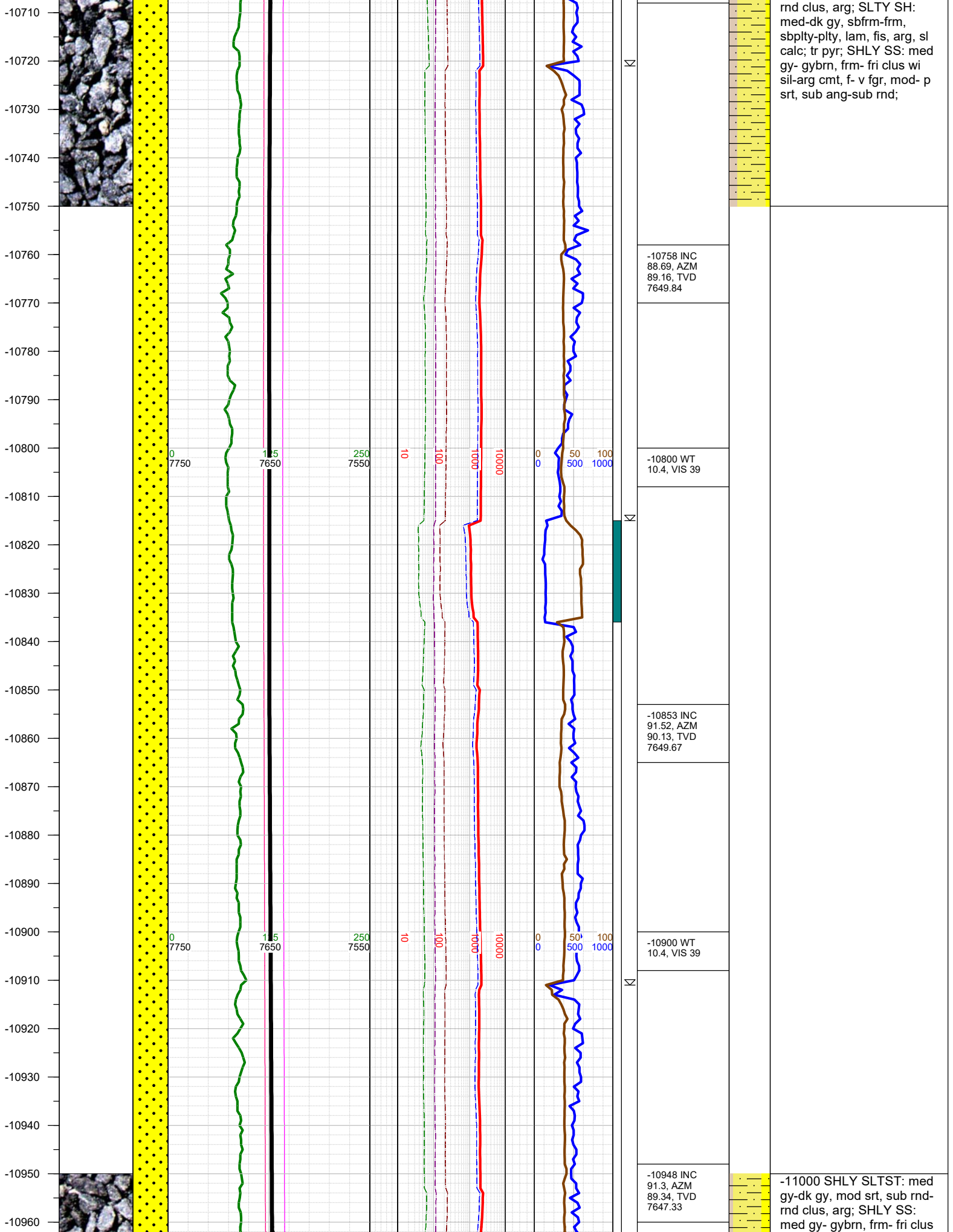


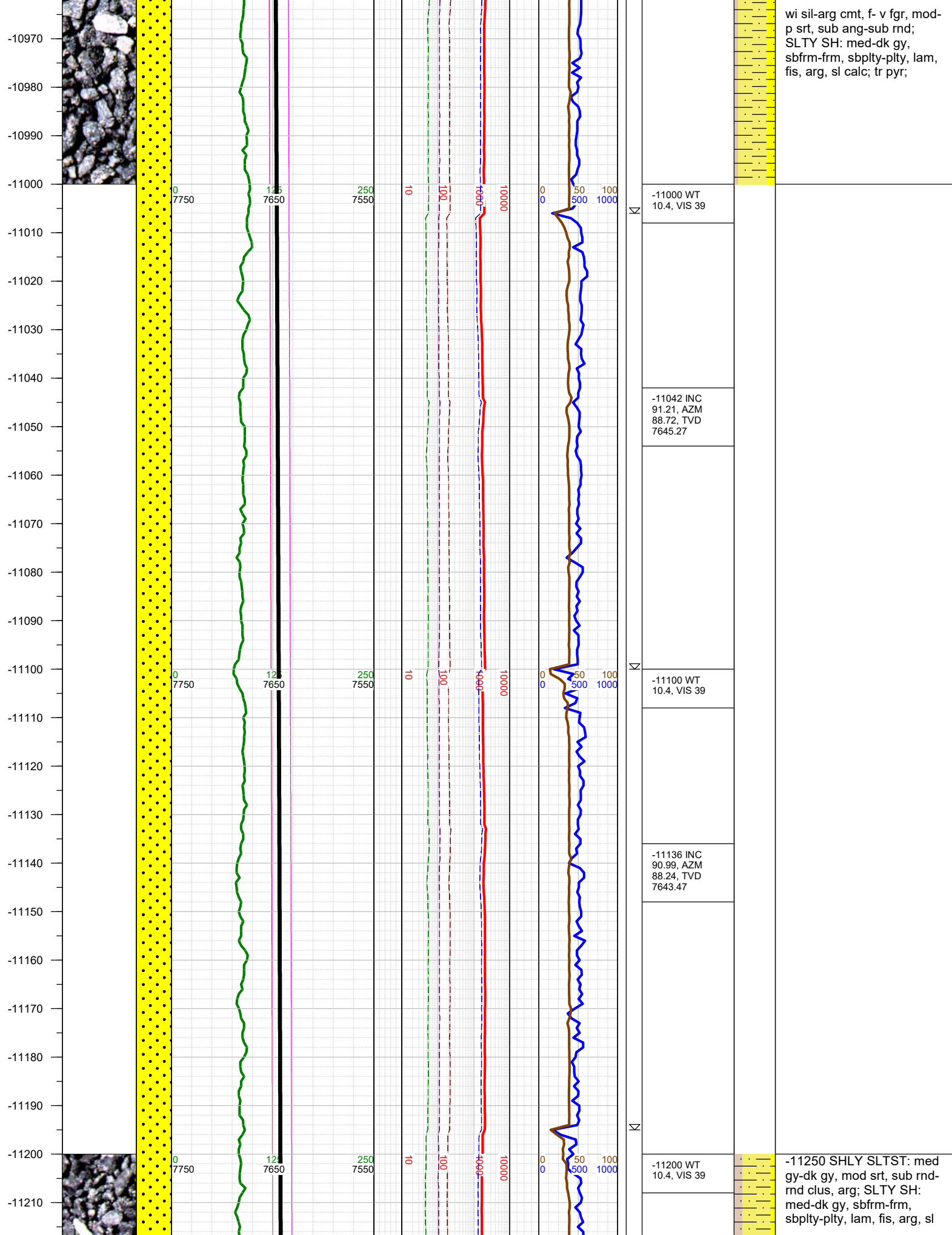




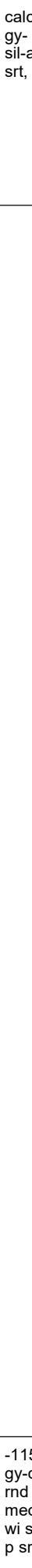
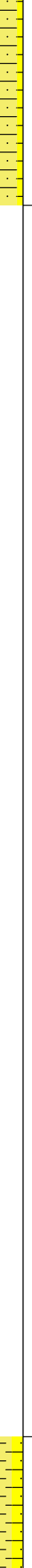
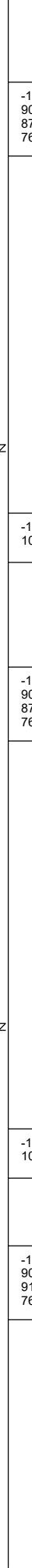
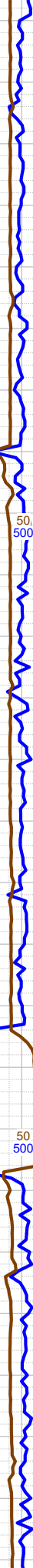
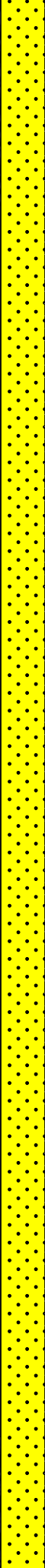
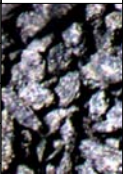
-10500 SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg; SHLY SS: med gy- gybrn, frm- fri clus wi sil-arg cmt, f- v fgr, mod-p srt, sub ang-sub rnd; tr pyr;

-10750 SHLY SLTST: med gy-dk gy, mod srt, sub rnd-





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-11470



-11230 INC
90.72, AZM
87.84, TVD
7642.06

-11300 WT
10.4, VIS 39

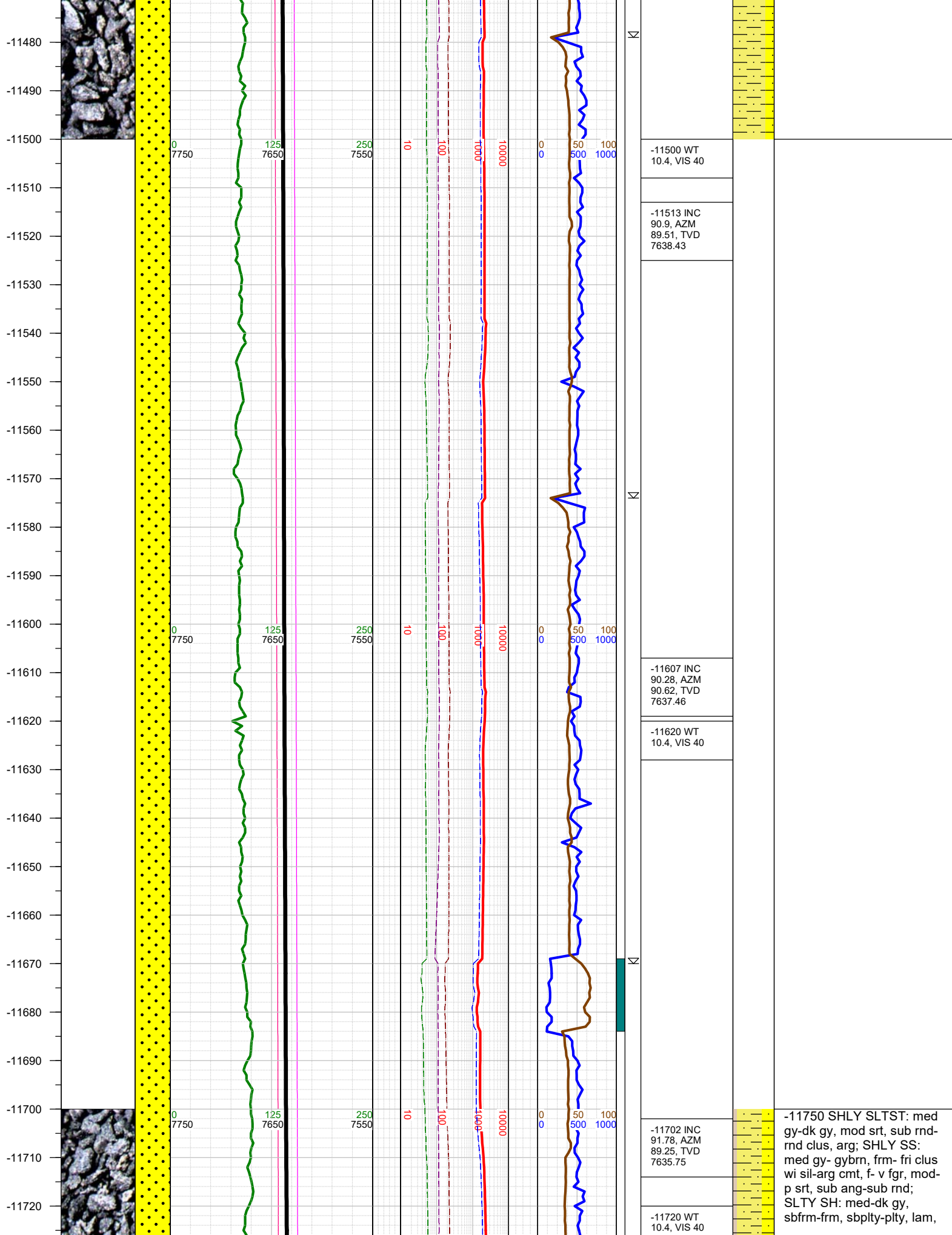
-11325 INC
90.41, AZM
87.75, TVD
7641.13

-11400 WT
10.4, VIS 39

-11419 INC
90.99, AZM
91.32, TVD
7639.98

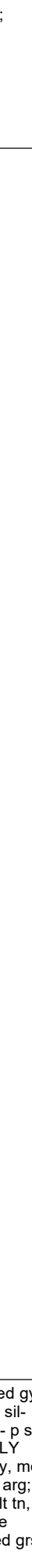
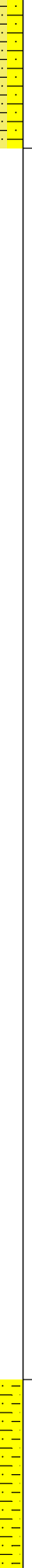
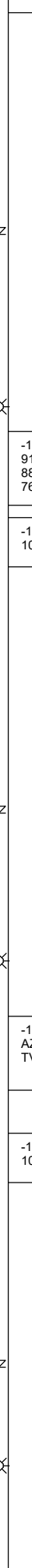
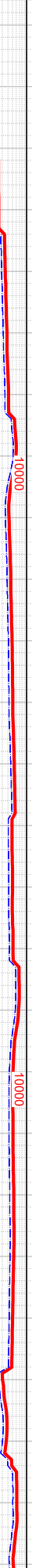
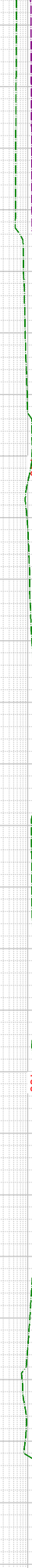
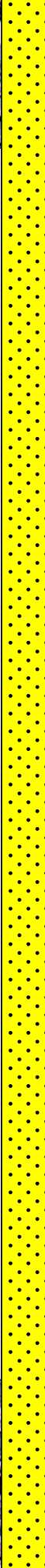
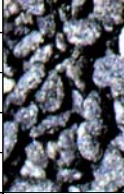
calc; tr pyr; SHLY SS: med
gy- gybrn, frm- fri clus wi
sil-arg cmt, f- v fgr, mod- p
srt, sub ang-sub rnd;

-11500 SHLY SLTST: med
gy-dk gy, mod srt, sub rnd-
rnd clus, arg; SHLY SS:
med gy- gybrn, frm- fri clus
wi sil-arg cmt, f- v fgr, mod-
p srt, sub ang-sub rnd;



-11750 SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg; SHLY SS: med gy- gybrn, frm- fri clus wi sil-arg cmt, f- v fgr, mod- p srt, sub ang-sub rnd; SLTY SH: med-dk gy, sbfrm-frm, sbply-pty, lam,

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-11796 INC 91.91, AZM 88.81, TVD 7632.73
-11810 WT 10.4, VIS 40
-11891 INC 92, AZM 88.72, TVD 7629.48
-11910 WT 10.4, VIS 39



fis, arg, sl calc; tr pyr;

-12000 SHLY SS: med gy-gybrn, frm- fri clus wi sil-arg cmt, f- v fgr, mod- p srt, sub ang-sub rnd; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg; SS: pred lt gry-trnsl- lt tn, sub ang-sub rnd; sme uncons qtz grs, f- med grs, mod srt; tr pyr;

