

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **MLD 3**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Patterson 346

API #: 05-123-44813

LAT/LONG: 40.303969, -104.996165

SURFACE HOLE: NWNW S22-T4N-R68W, 805' FNL, 744' FWL

BOTTOM HOLE: S22-T4N-R68W, 2490' FNL, 460' FEL



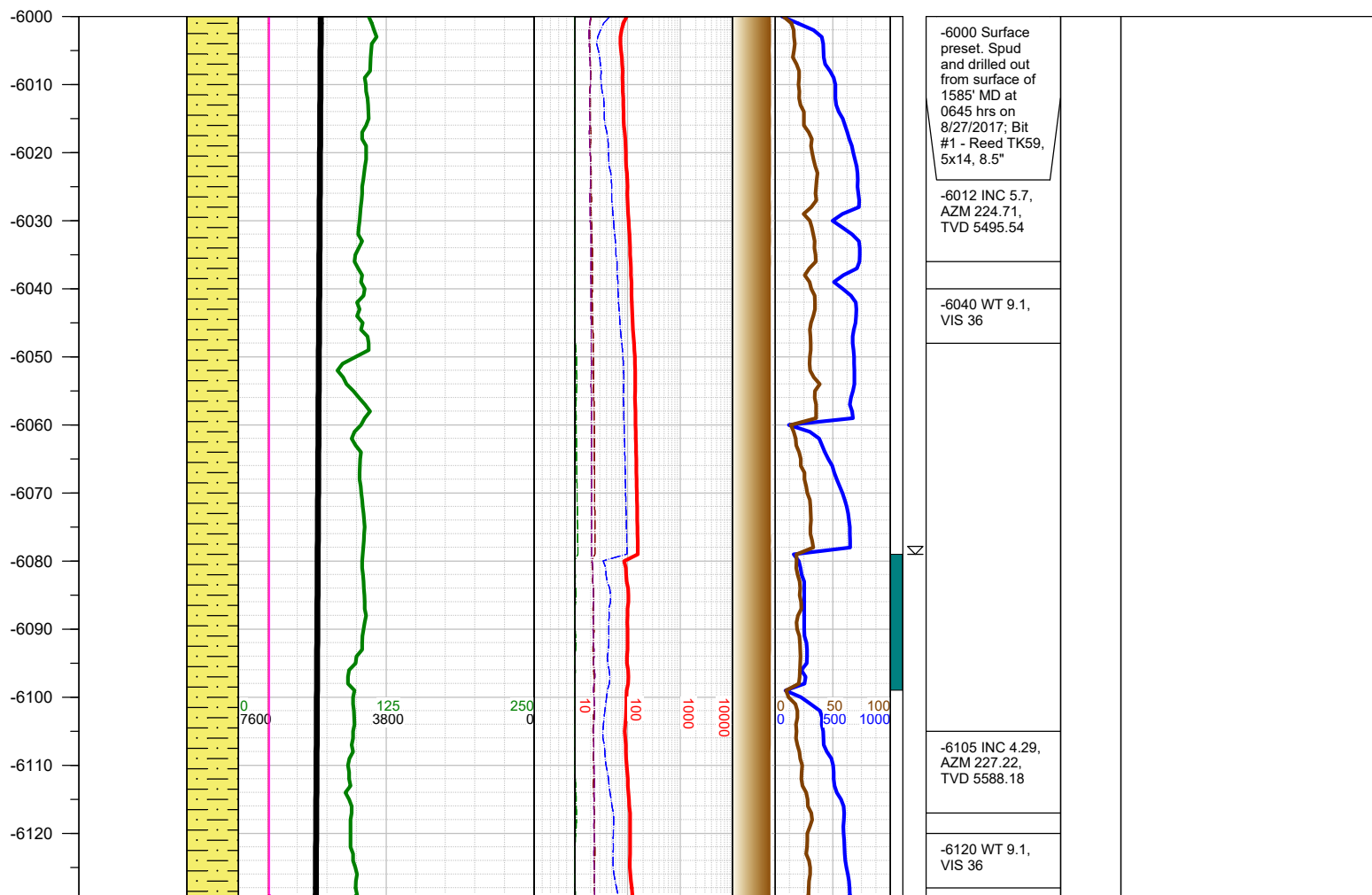
Earth Science Agency, LLC

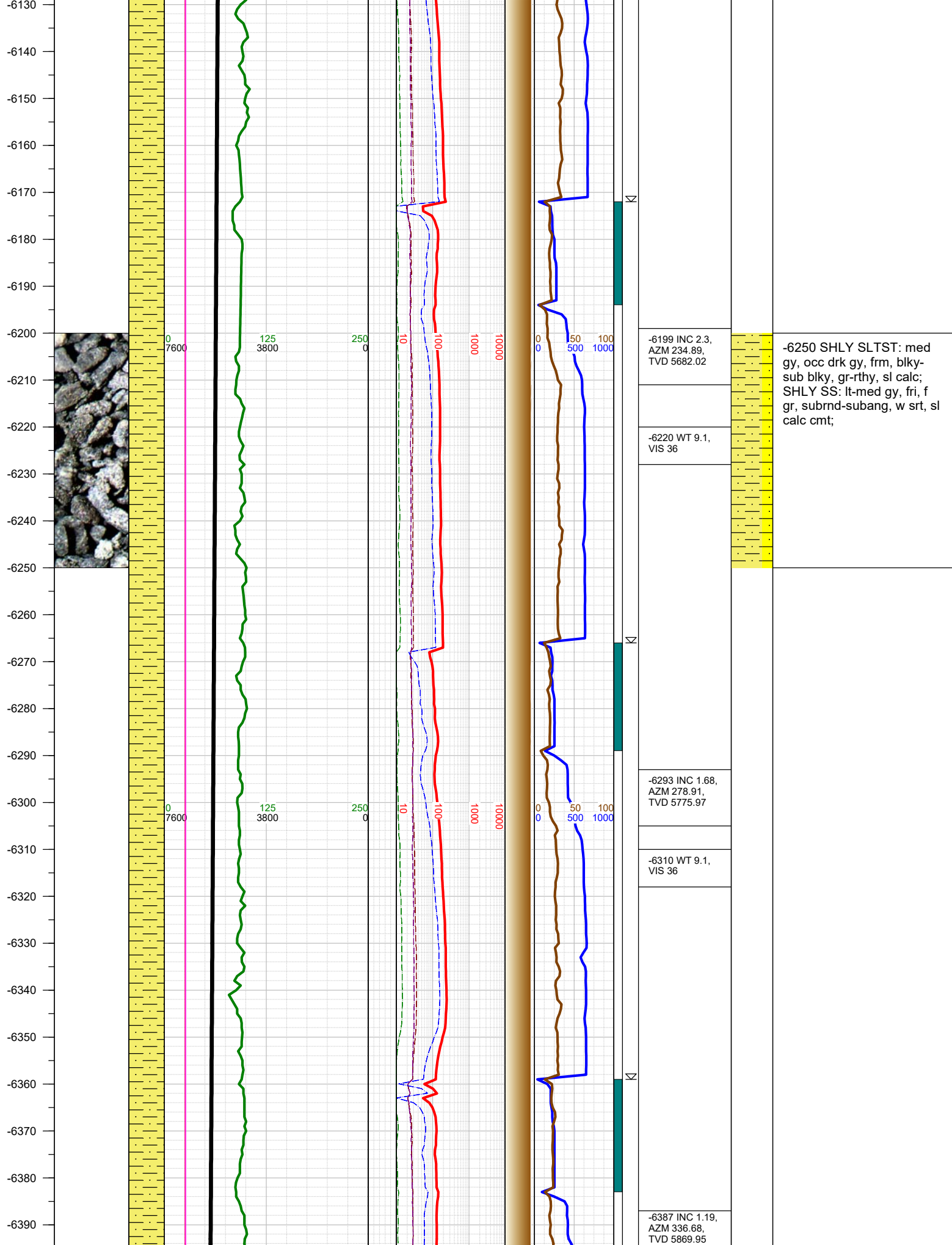
COUNTY: Weld  
STATE: Colorado  
GROUND ELEVATION: 4876'  
KELLY BUSHING: 4901'  
DRILLING FLUID: OBM  
TVD VS. MD: 7116' / 11995'  
SPUD DATE: August 27, 2017  
TD DATE: August 30, 2017  
  
DEPTHS LOGGED: 6000' - 11995'  
DATES LOGGED: August 27, 2017 - August 30, 2017  
GEOLOGISTS: Ross Apodaca, Scott Snoy  
SCALE: 5" = 100'

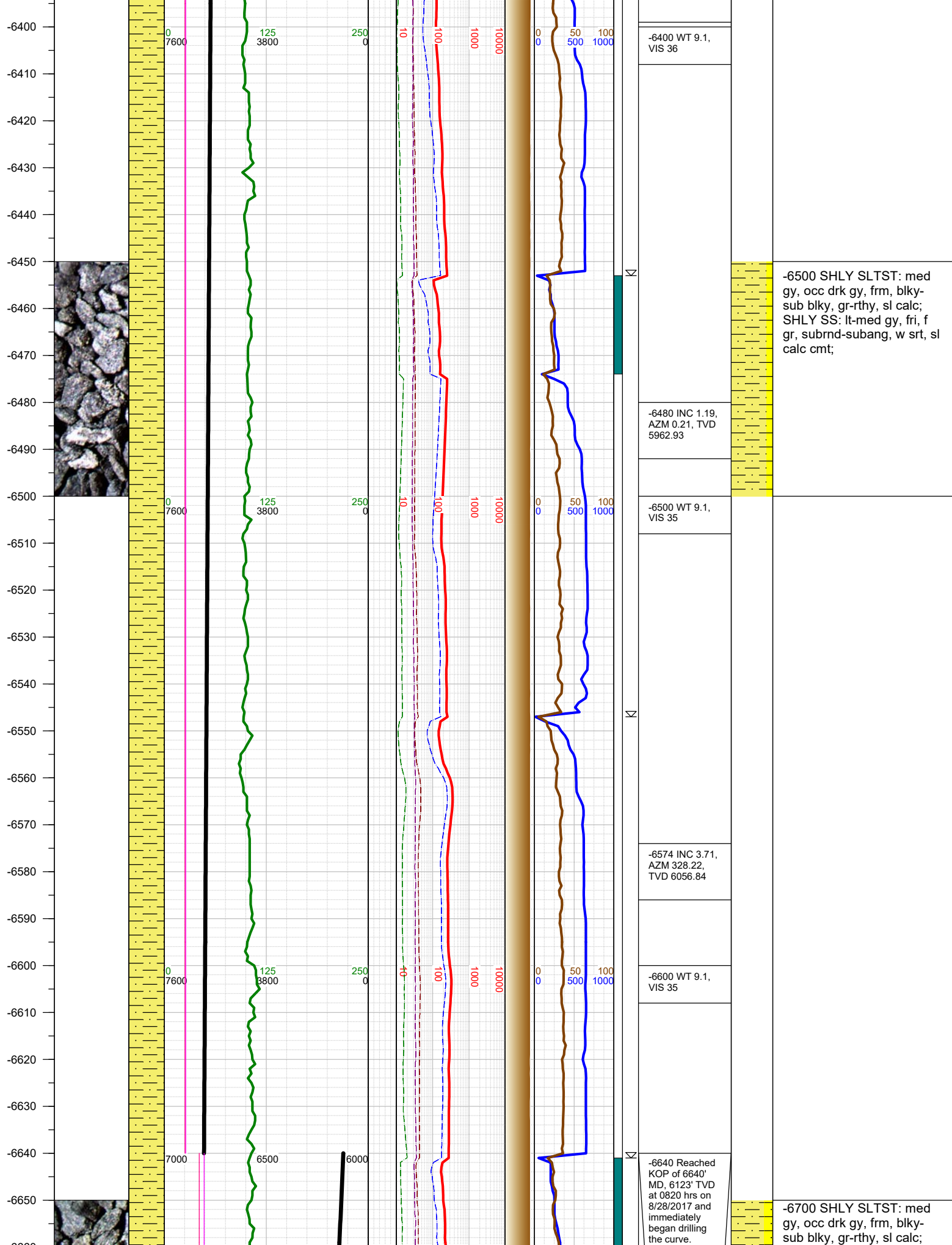
#### LEGEND



FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT



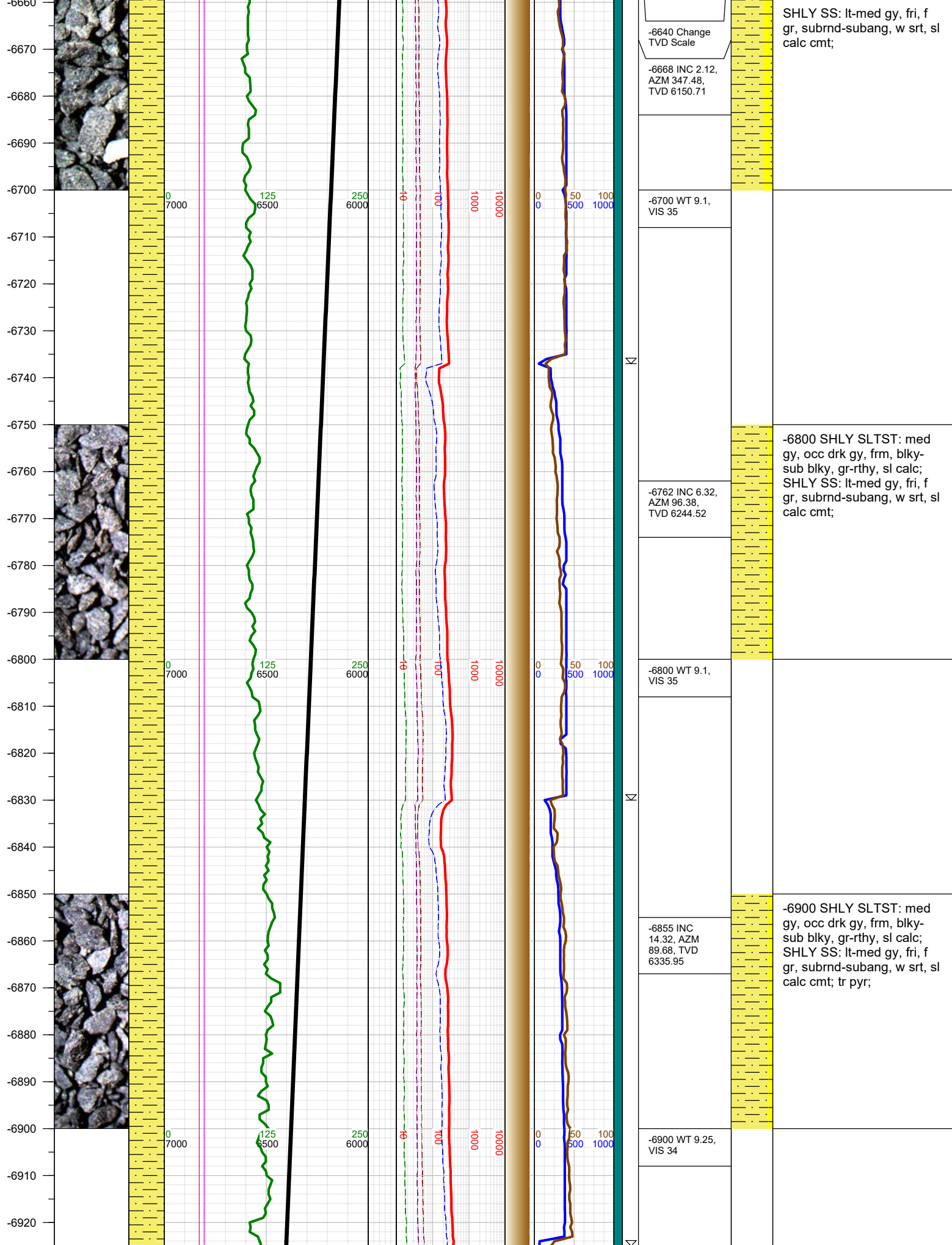


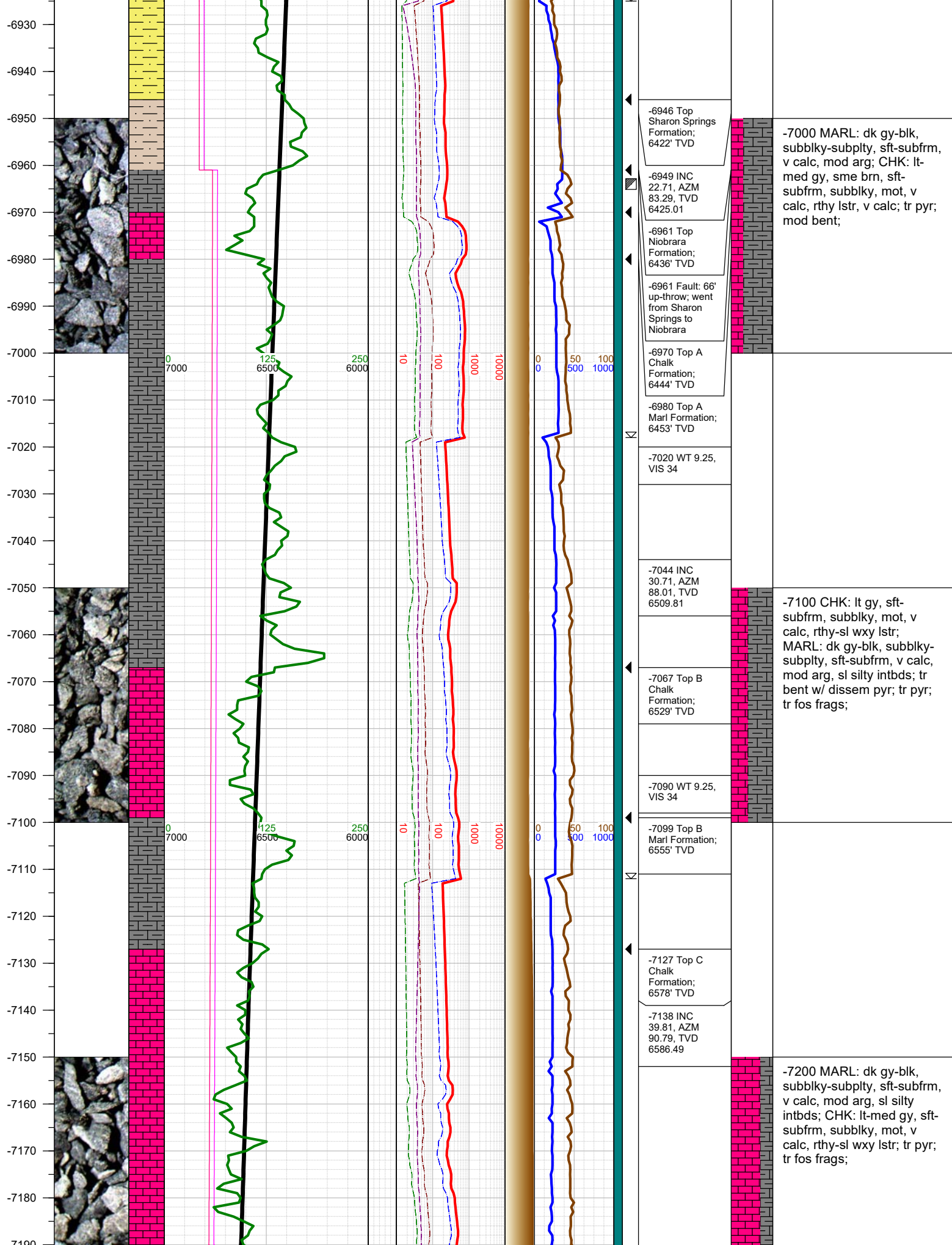


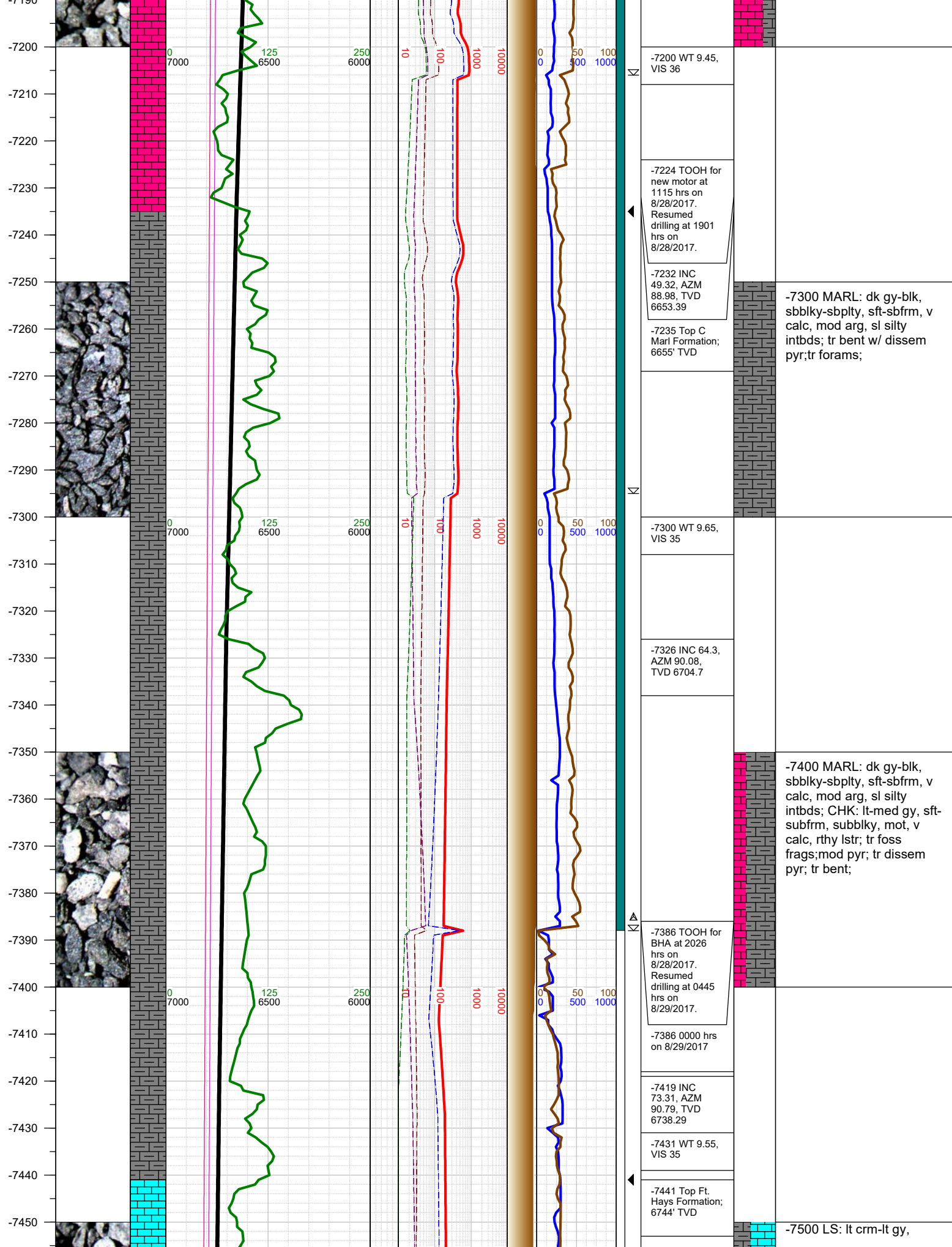
-6500 SHLY SLTST: med gy, occ drk gy, frm, blk-sub blk, gr-rthy, sl calc; SHLY SS: lt-med gy, fri, f gr, subrnd-subang, w srt, sl calc cmt;

-6700 SHLY SLTST: med gy, occ drk gy, frm, blk-sub blk, gr-rthy, sl calc;

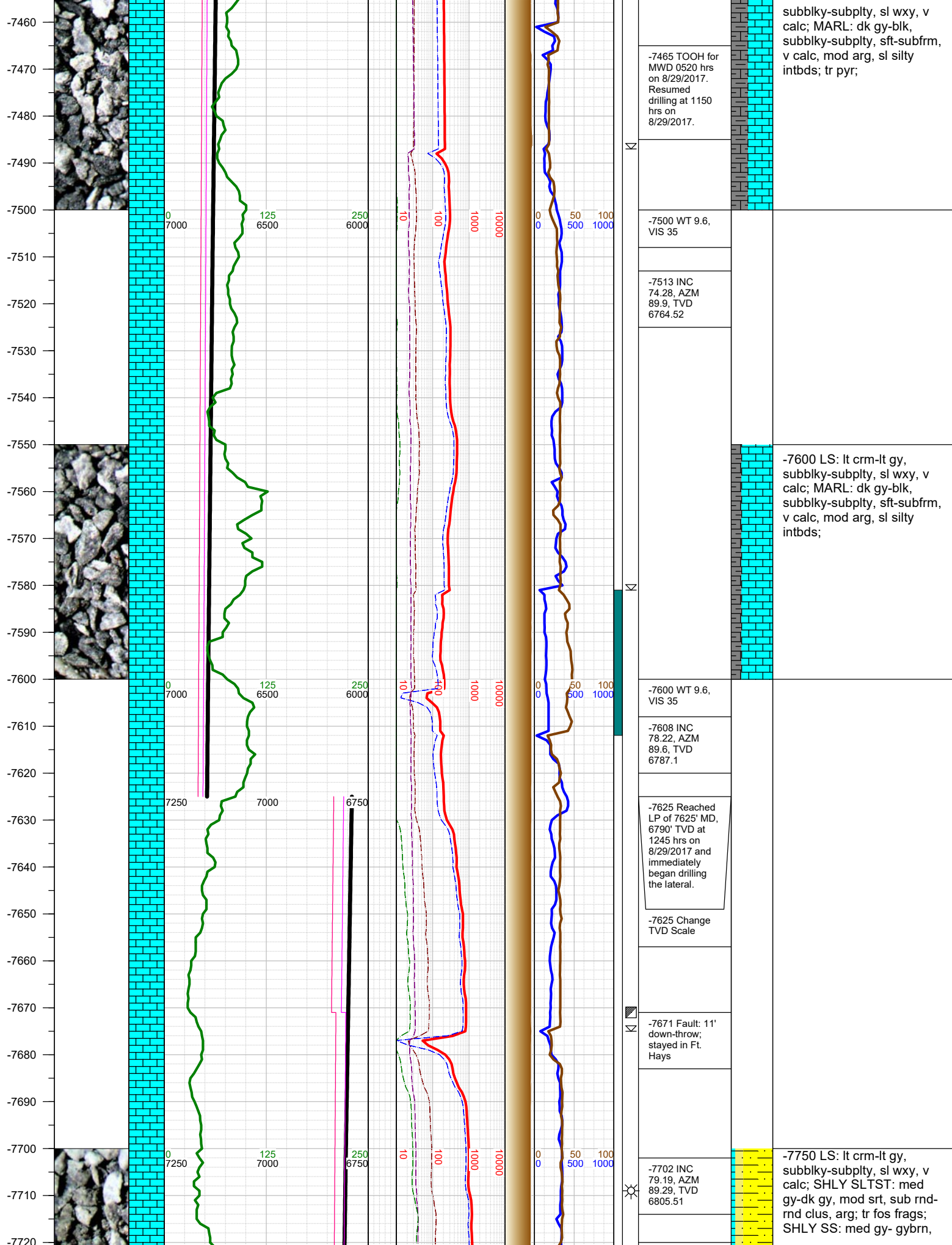


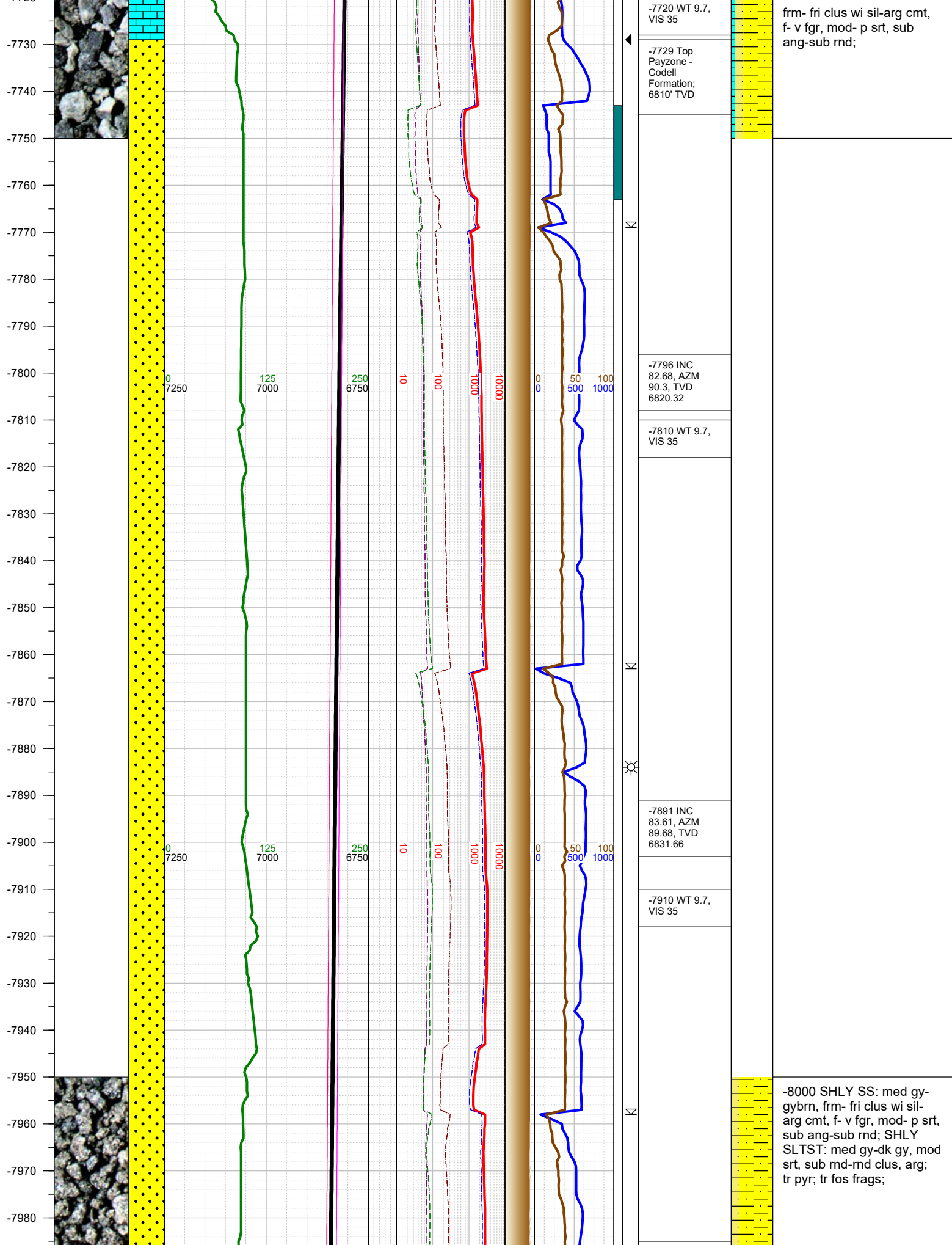












-7720 WT 9.7, VIS 35

-7729 Top Payzone - Codell Formation; 6810' TVD

-7796 INC 82.68, AZM 90.3, TVD 6820.32

-7810 WT 9.7, VIS 35

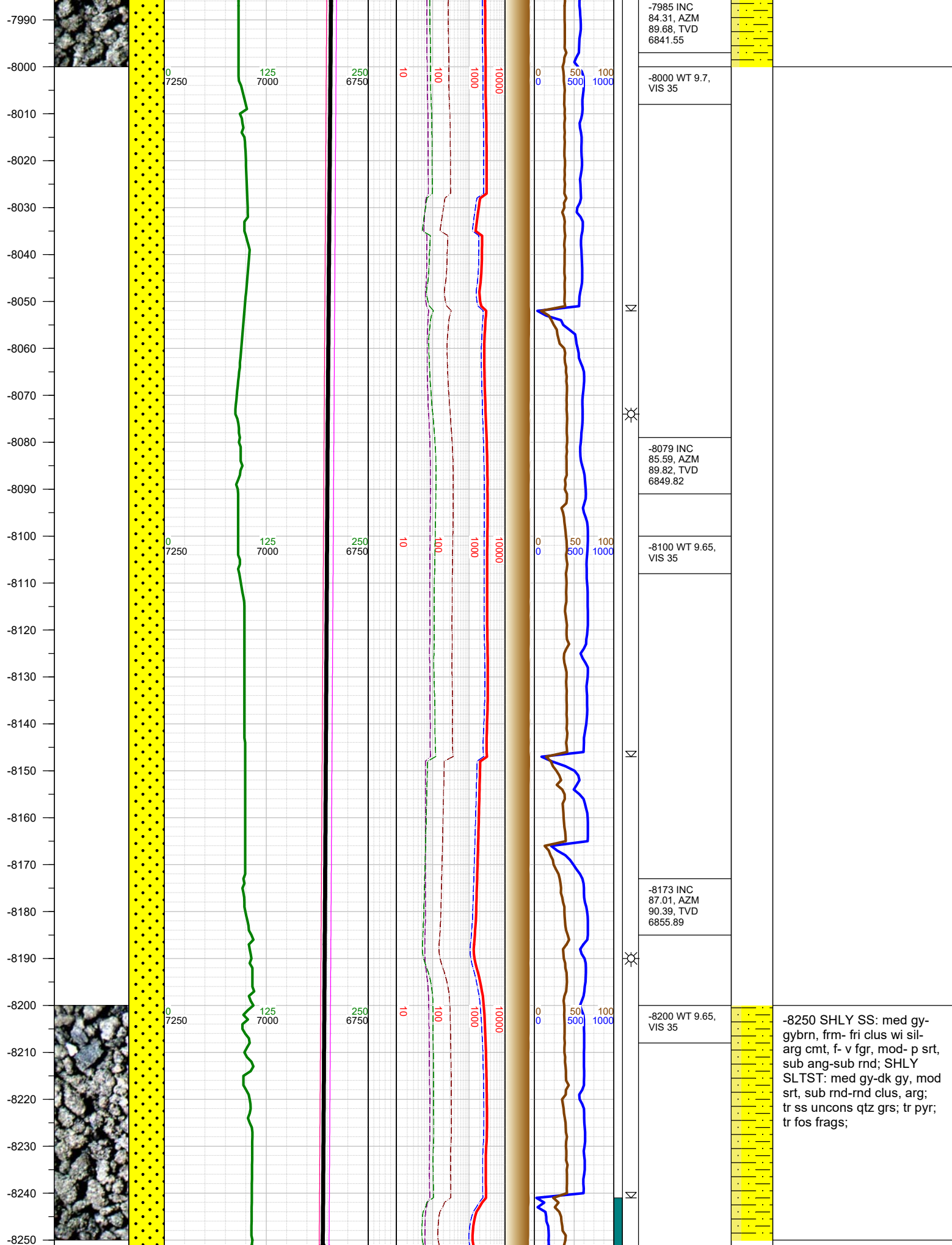
-7891 INC 83.61, AZM 89.68, TVD 6831.66

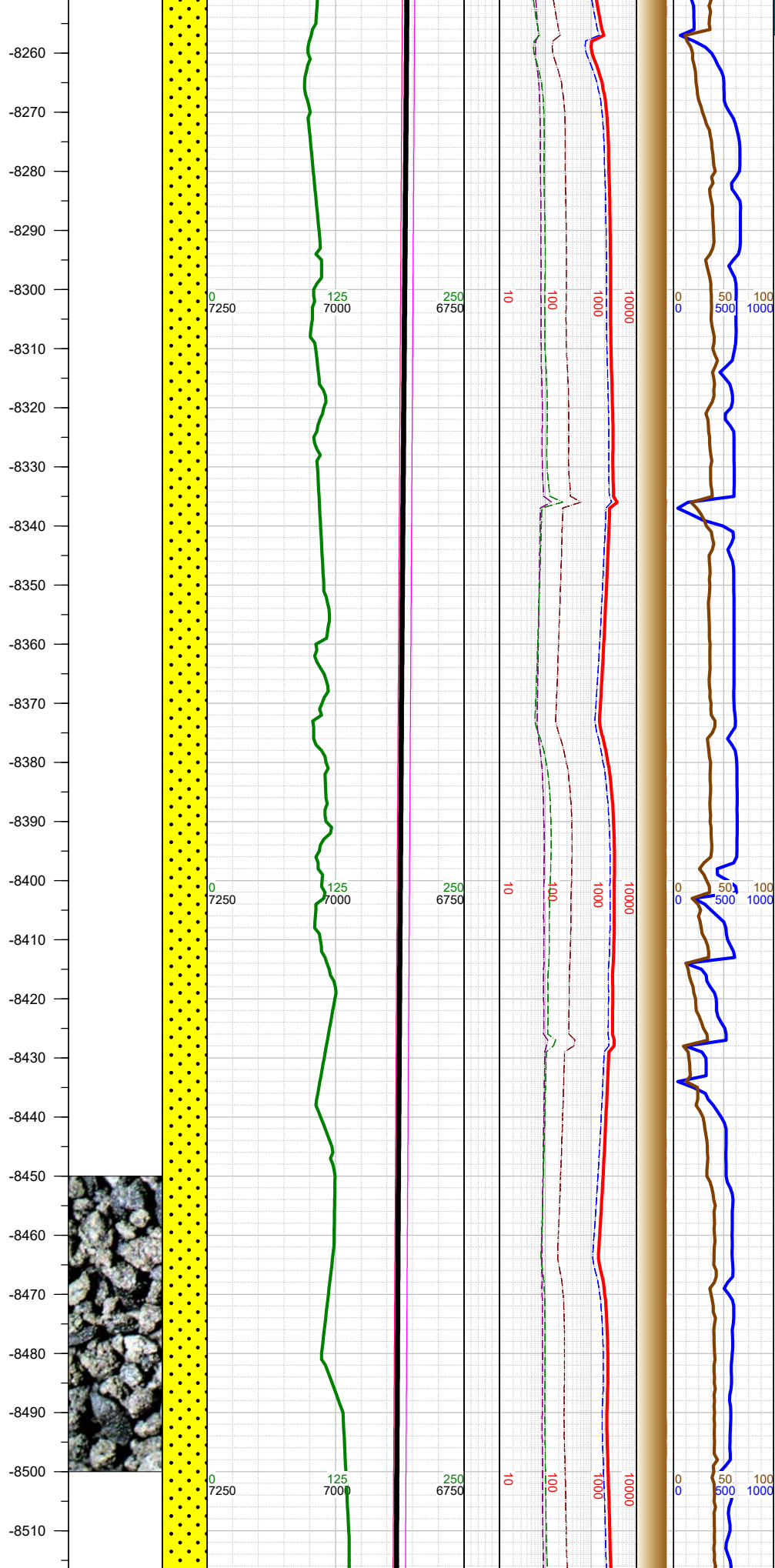
-7910 WT 9.7, VIS 35

frm- fri clus wi sil-arg cmt, f- v fgr, mod- p srt, sub ang-sub rnd;

-8000 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; tr pyr; tr fos frags;



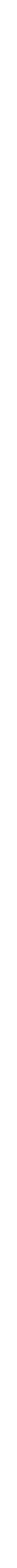
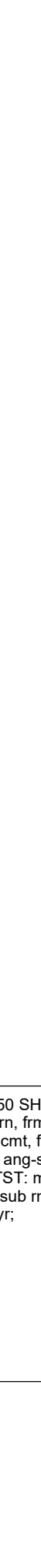
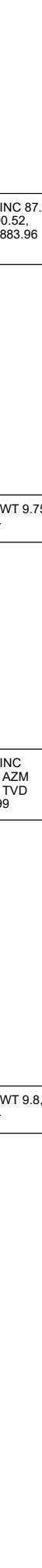
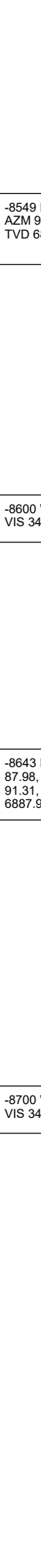
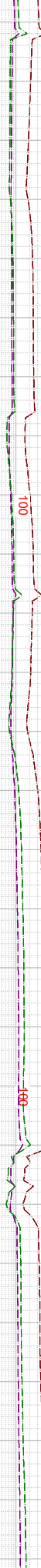
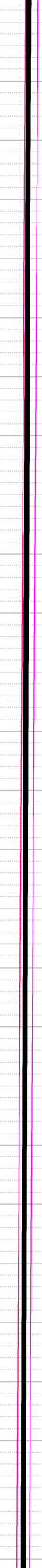
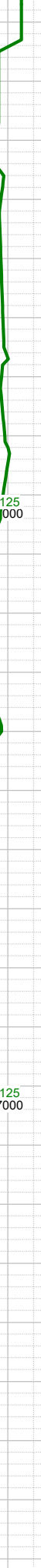
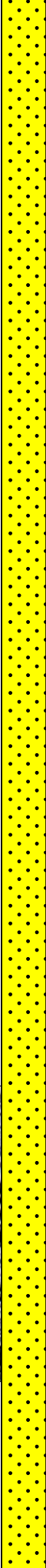




-8267 INC 84.49, AZM 88.49, TVD 6862.86
-8300 WT 9.65, VIS 35
-8360 INC 85.11, AZM 88.98, TVD 6871.28
-8400 WT 9.65, VIS 35
-8455 INC 86.21, AZM 89.82, TVD 6878.47
-8500 WT 9.75, VIS 34

-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;

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-8690  
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-8780



-8549 INC 87.1,  
AZM 90.52,  
TVD 6883.96

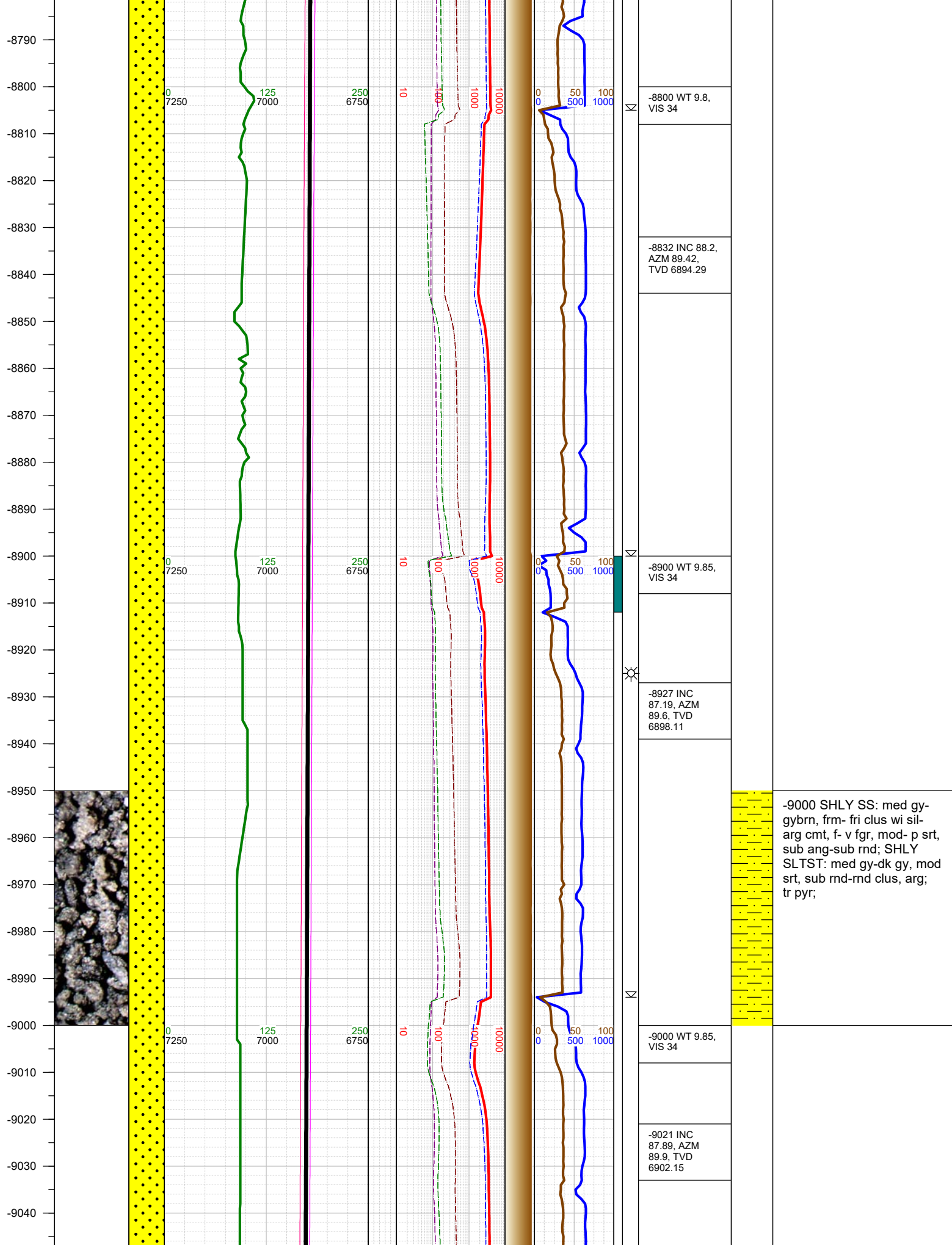
-8600 WT 9.75,  
VIS 34

-8643 INC  
87.98, AZM  
91.31, TVD  
6887.99

-8700 WT 9.8,  
VIS 34

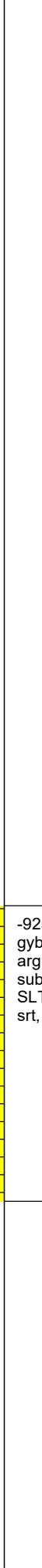
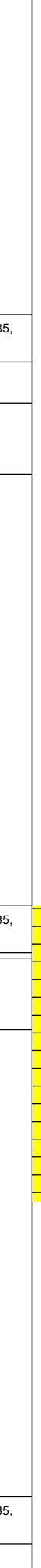
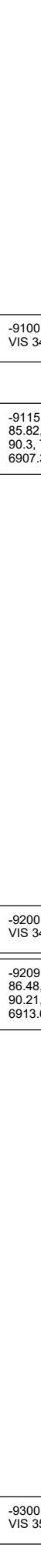
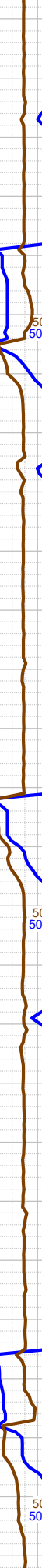
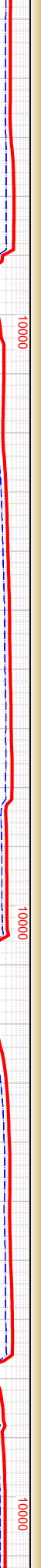
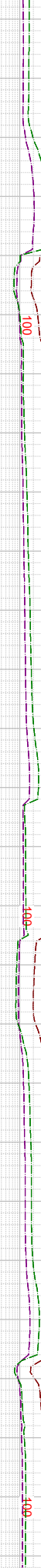
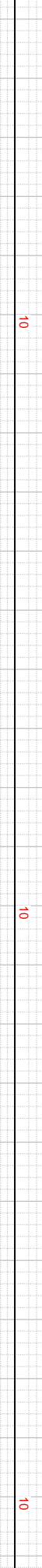
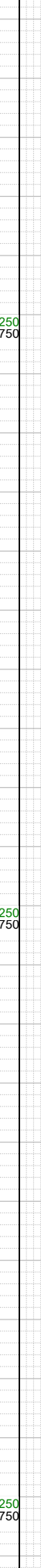
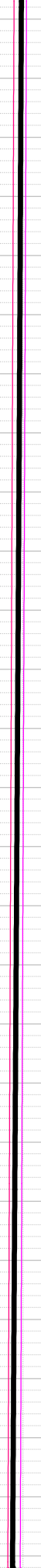
-8750 SHLY SS: med gy-  
gybrn, frm- fri clus wi sil-  
arg cmt, f- v fgr, mod- p srt,  
sub ang-sub rnd; SHLY  
SLTST: med gy-dk gy, mod  
srt, sub rnd-rnd clus, arg;  
tr pyr;





-9000 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; tr pyr;

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-9290  
-9300  
-9310



-9100 WT 9.85,  
VIS 34

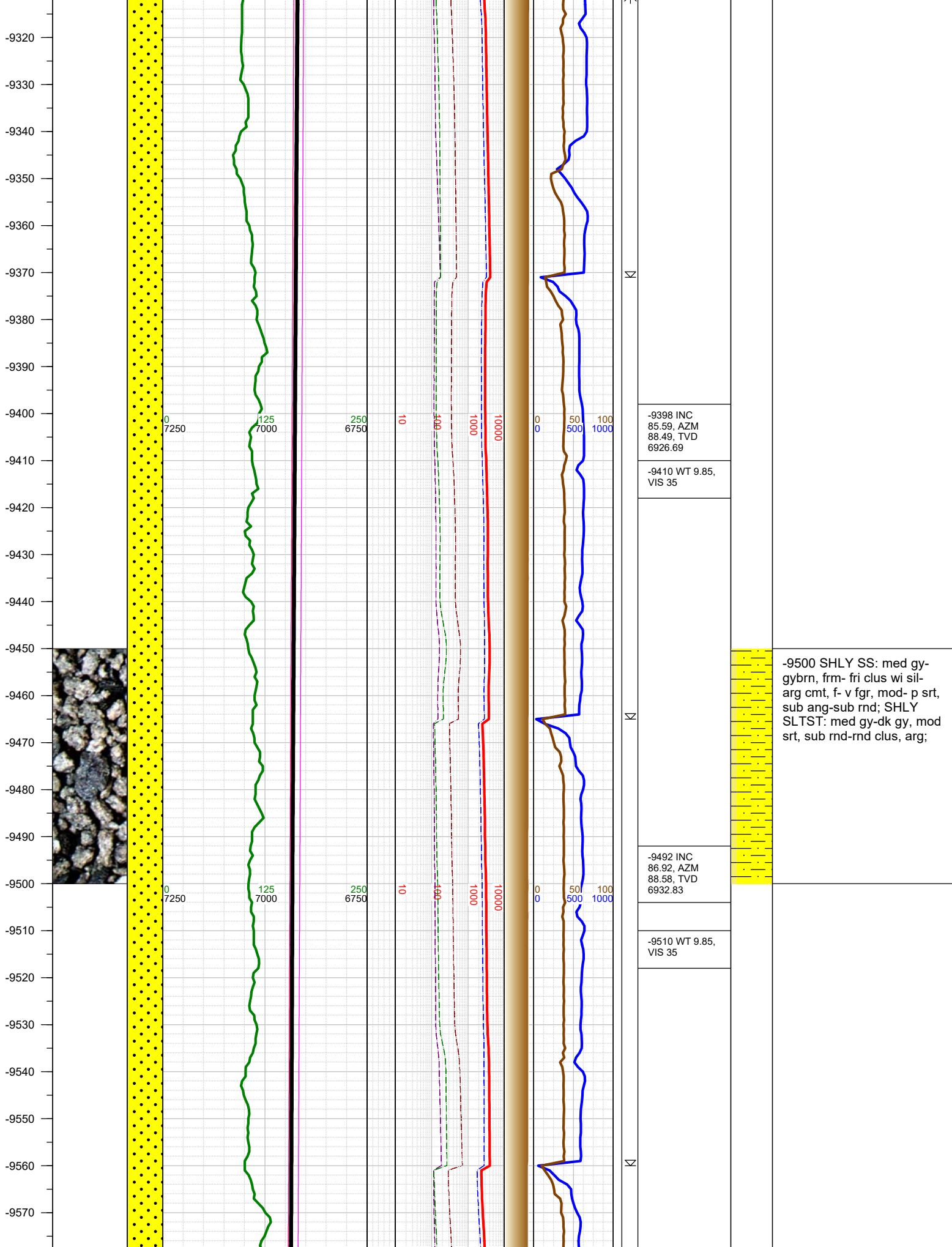
-9115 INC  
85.82, AZM  
90.3, TVD  
6907.3

-9200 WT 9.85,  
VIS 34

-9209 INC  
86.48, AZM  
90.21, TVD  
6913.62

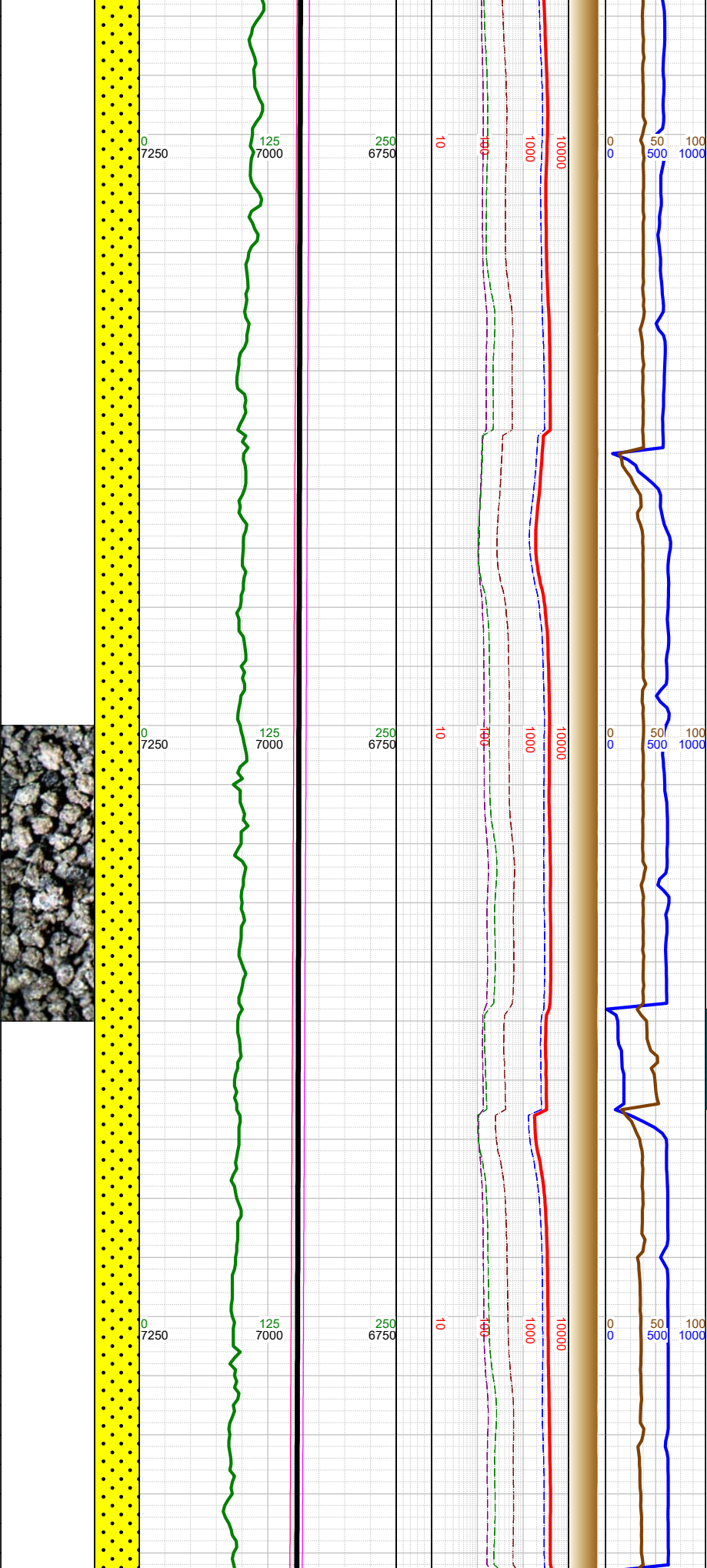
-9300 WT 9.85,  
VIS 35

-9250 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;





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-9586 INC  
88.11, AZM  
87.61, TVD  
6936.9

-9600 WT 9.85,  
VIS 35

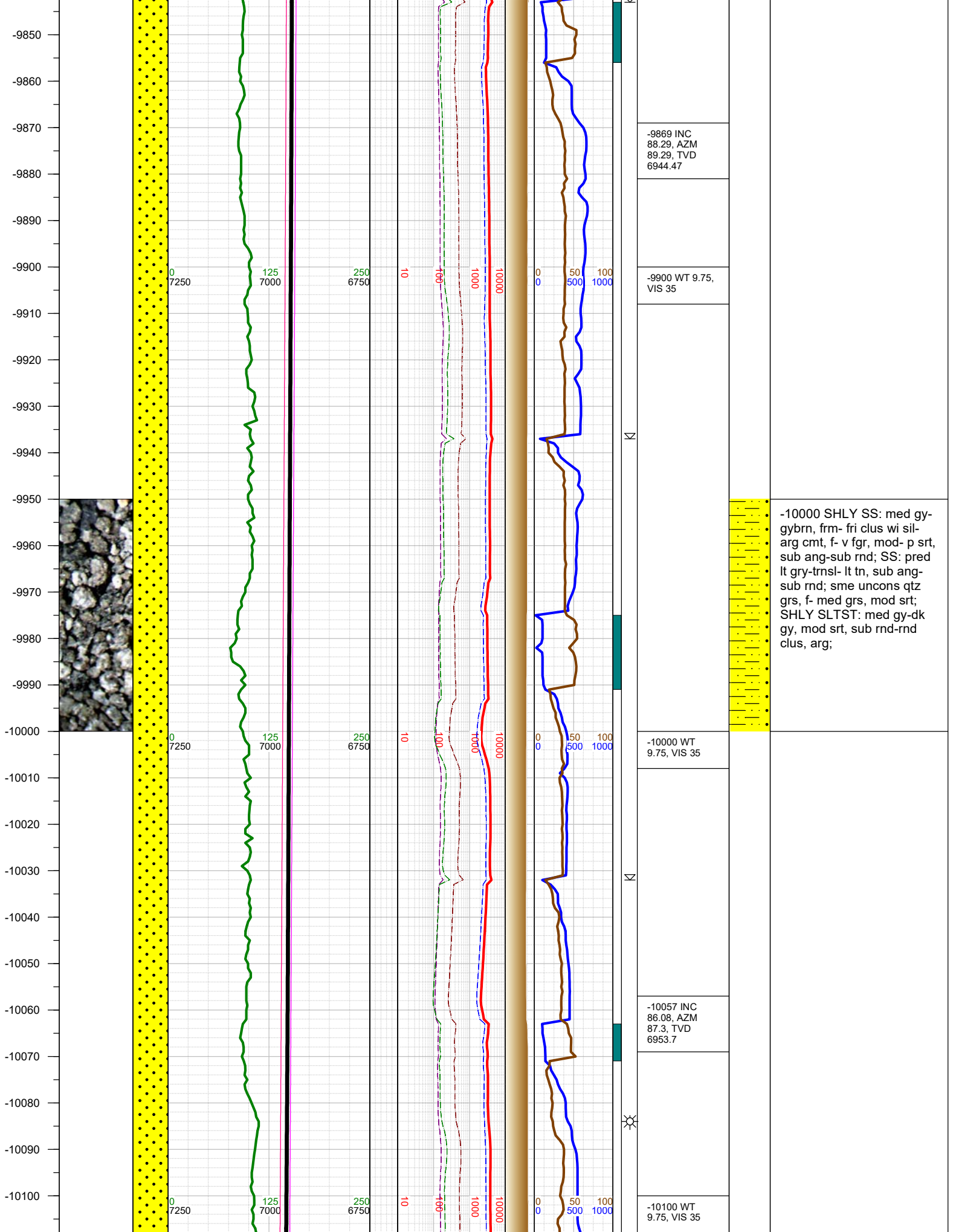
-9681 INC  
89.22, AZM  
87.22, TVD  
6939.11

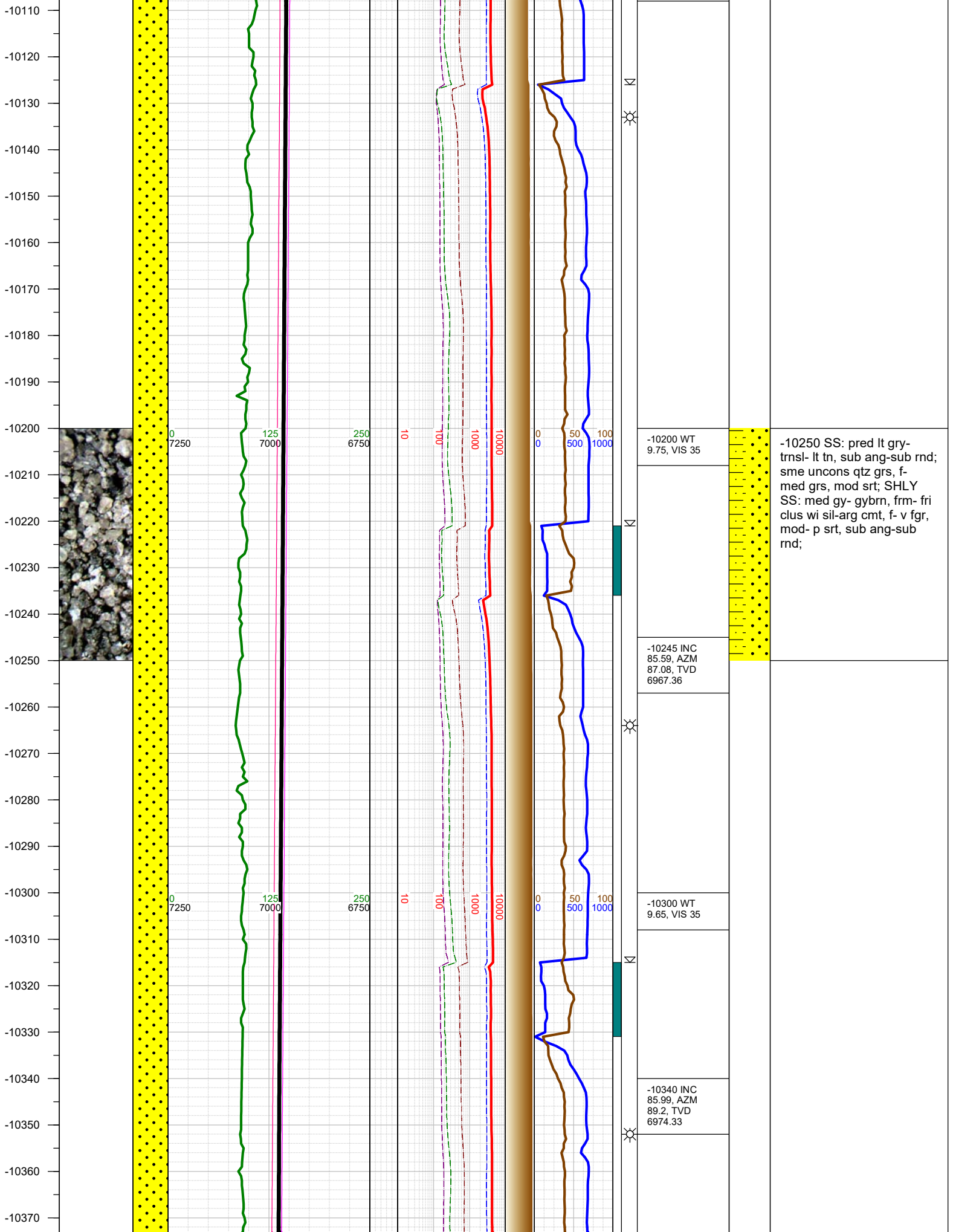
-9700 WT 9.85,  
VIS 35

-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;

-9775 INC  
87.98, AZM  
87.48, TVD  
6941.41

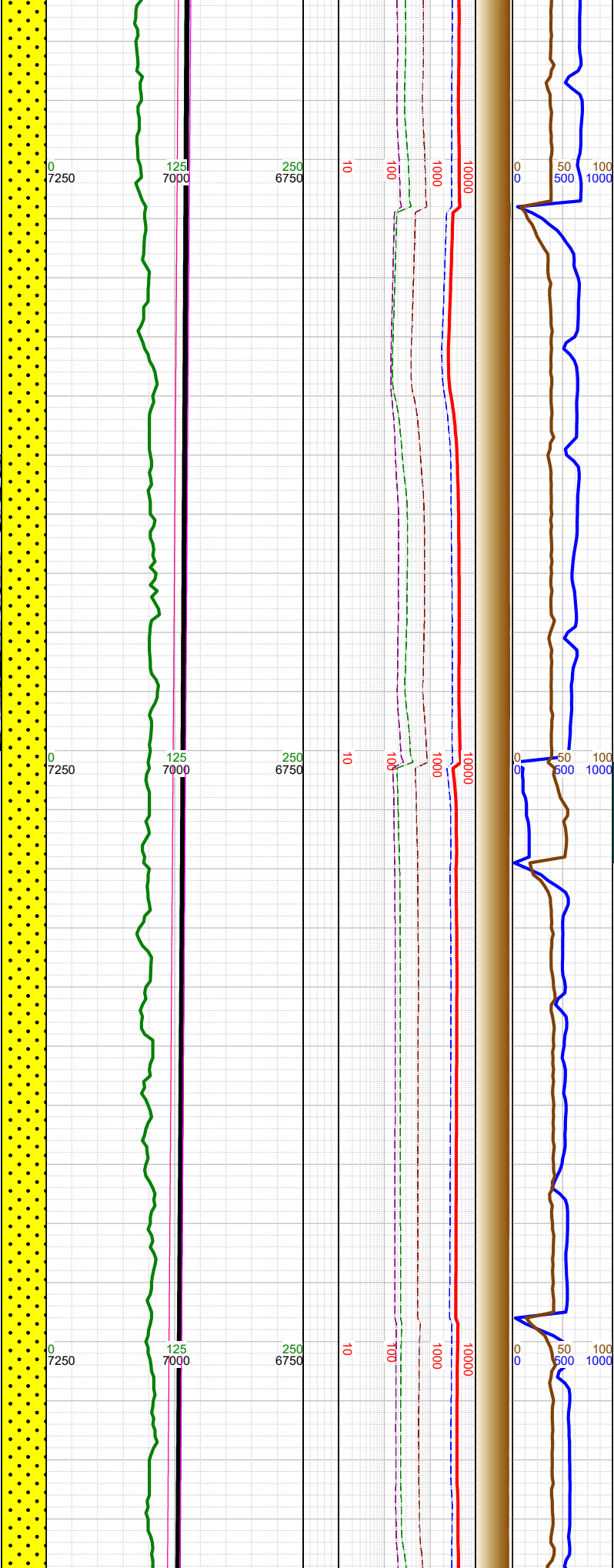
-9800 WT 9.85,  
VIS 35



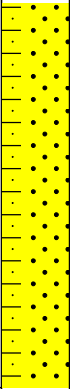




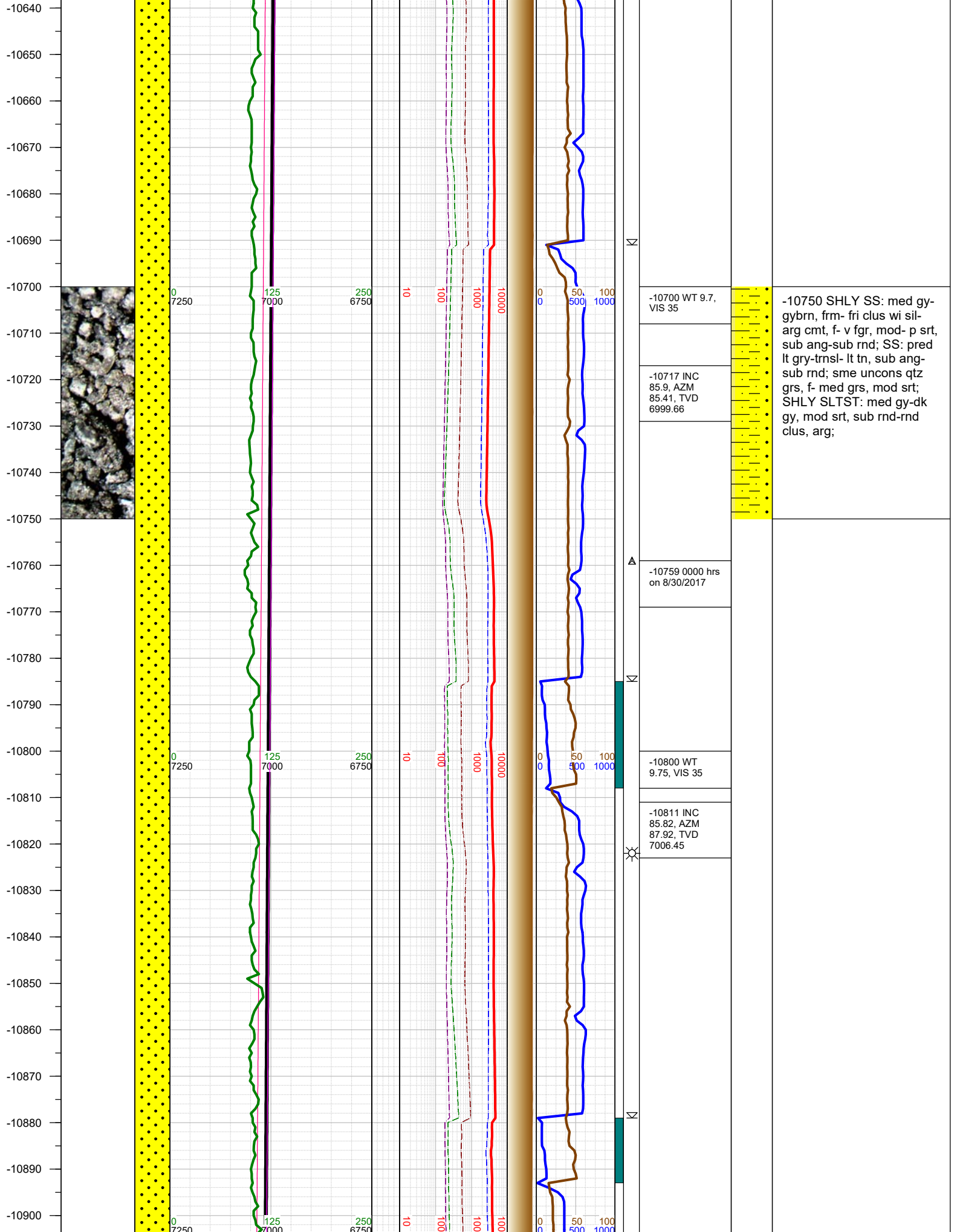
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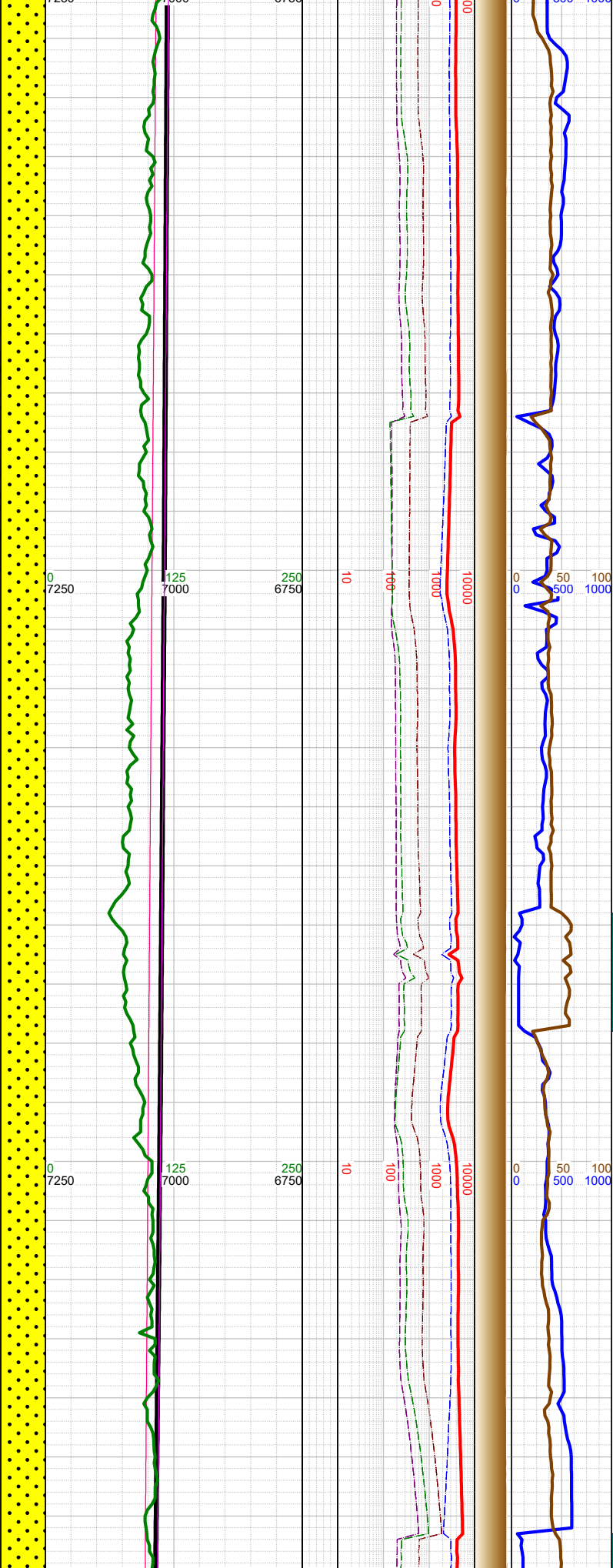
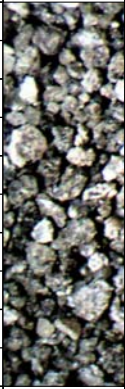
X	-10400 WT 9.65, VIS 35
☀	-10433 INC 87.32, AZM 89.11, TVD 6979.76
X	-10500 WT 9.65, VIS 35
	-10528 INC 85.59, AZM 89.2, TVD 6985.63
X	-10600 WT 9.7, VIS 35



-10500 SS: pred lt gry-  
trnsI- lt tn, sub ang-sub rnd;  
sme unconsl qtz grs, f-  
med grs, mod srt; SHLY  
SS: med gy- gybrn, frm- fri  
clus wi sil-arg cmt, f- v fgr,  
mod- p srt, sub ang-sub  
rnd;



-10910  
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-11000  
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-11080  
-11090  
-11100  
-11110  
-11120  
-11130  
-11140  
-11150  
-11160



-10906 INC  
86.21, AZM  
89.99, TVD  
7013.05

-10920 WT  
9.75, VIS 35

-11000 INC  
86.61, AZM  
88.32, TVD  
7018.94

-11020 WT  
9.75, VIS 35

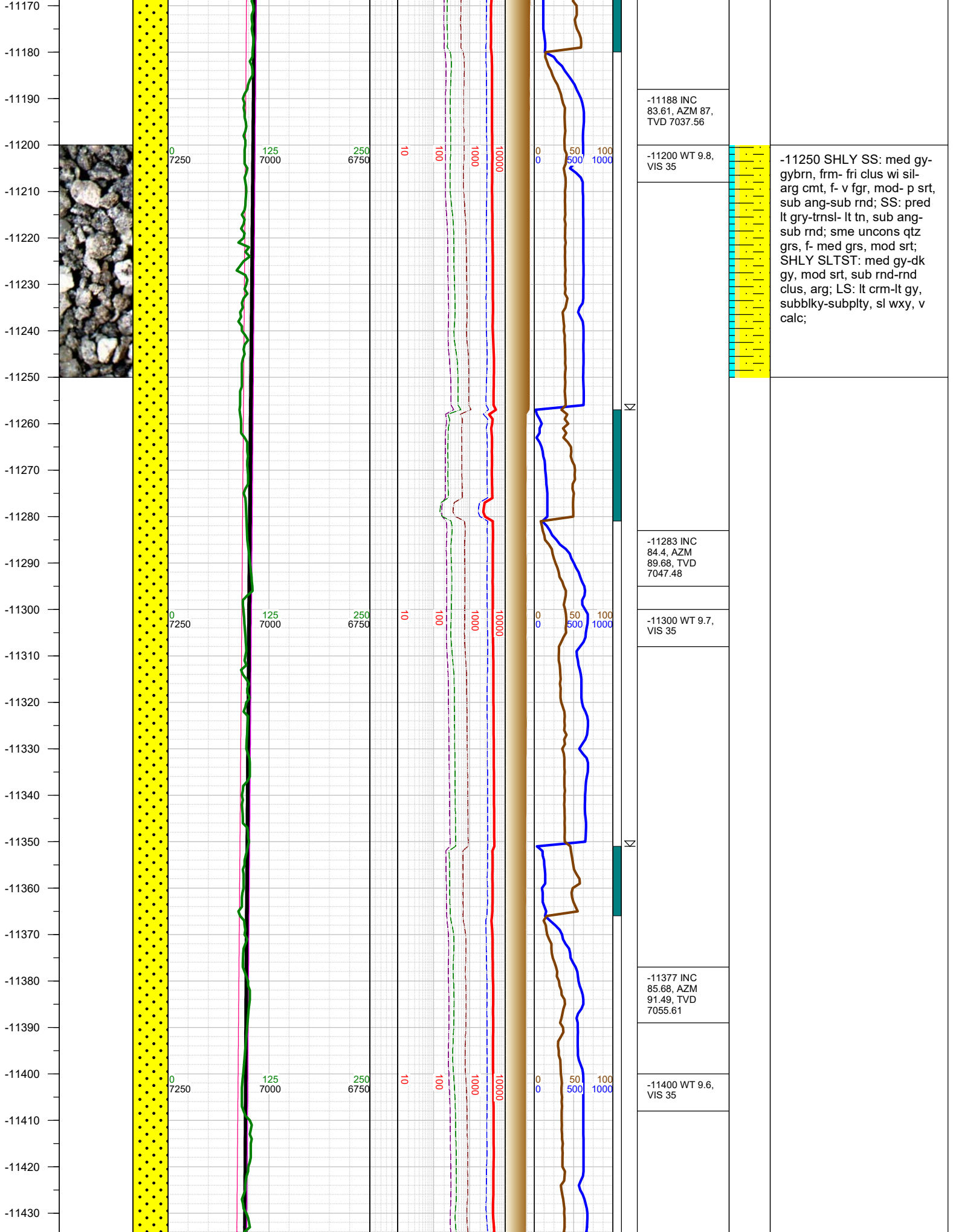
-11094 INC  
83.52, AZM  
87.08, TVD  
7027.02

-11110 WT 9.8,  
VIS 35



-11000 SHLY SS: med gy-  
gybrn, frm- fri clus wi sil-  
arg cmt, f- v fgr, mod- p srt,  
sub ang-sub rnd; SS: pred  
lt gry-trnsl- lt tn, sub ang-  
sub rnd; sme uncons qtz  
grs, f- med grs, mod srt;  
SHLY SLTST: med gy-dk  
gy, mod srt, sub rnd-rnd  
clus, arg;





-11188 INC  
83.61, AZM 87,  
TVD 7037.56

-11200 WT 9.8,  
VIS 35

-11283 INC  
84.4, AZM  
89.68, TVD  
7047.48

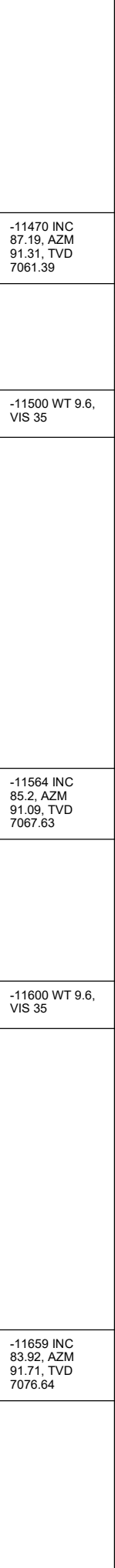
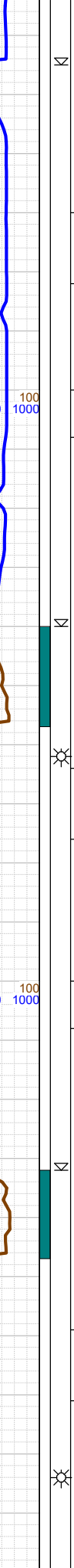
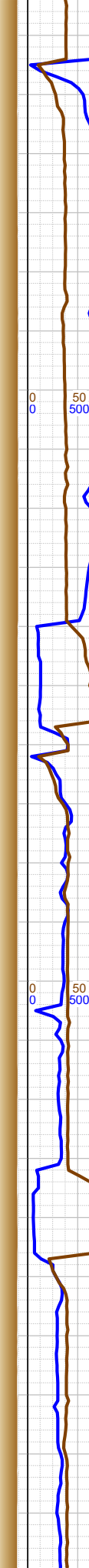
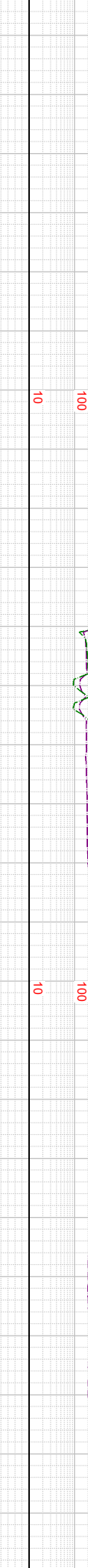
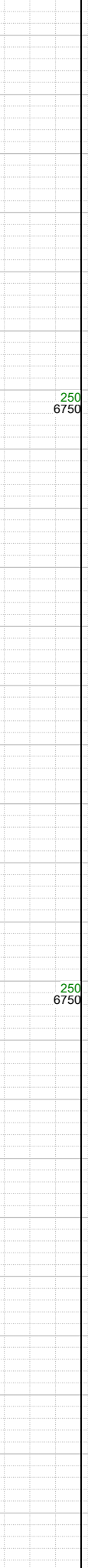
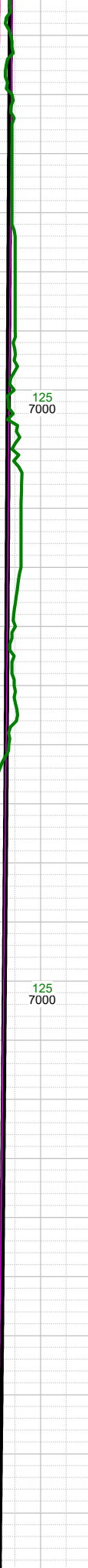
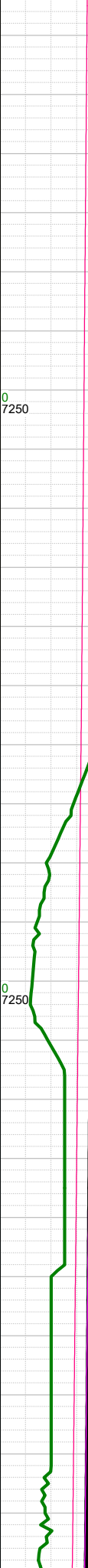
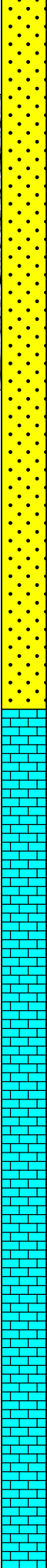
-11300 WT 9.7,  
VIS 35

-11377 INC  
85.68, AZM  
91.49, TVD  
7055.61

-11400 WT 9.6,  
VIS 35

-11250 SHLY SS: med gy-gybrn, frm- fri clus wi sil-arg cmt, f- v fgr, mod- p srt, sub ang-sub rnd; SS: pred lt gry-trnsl- lt tn, sub ang-sub rnd; sme unconsl- lt tn, sub ang-sub rnd; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg; LS: lt crm-lt gy, subblky-subply, sl wxy, v calc;

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-11500  
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-11600  
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-11680  
-11690



-11470 INC  
87.19, AZM  
91.31, TVD  
7061.39

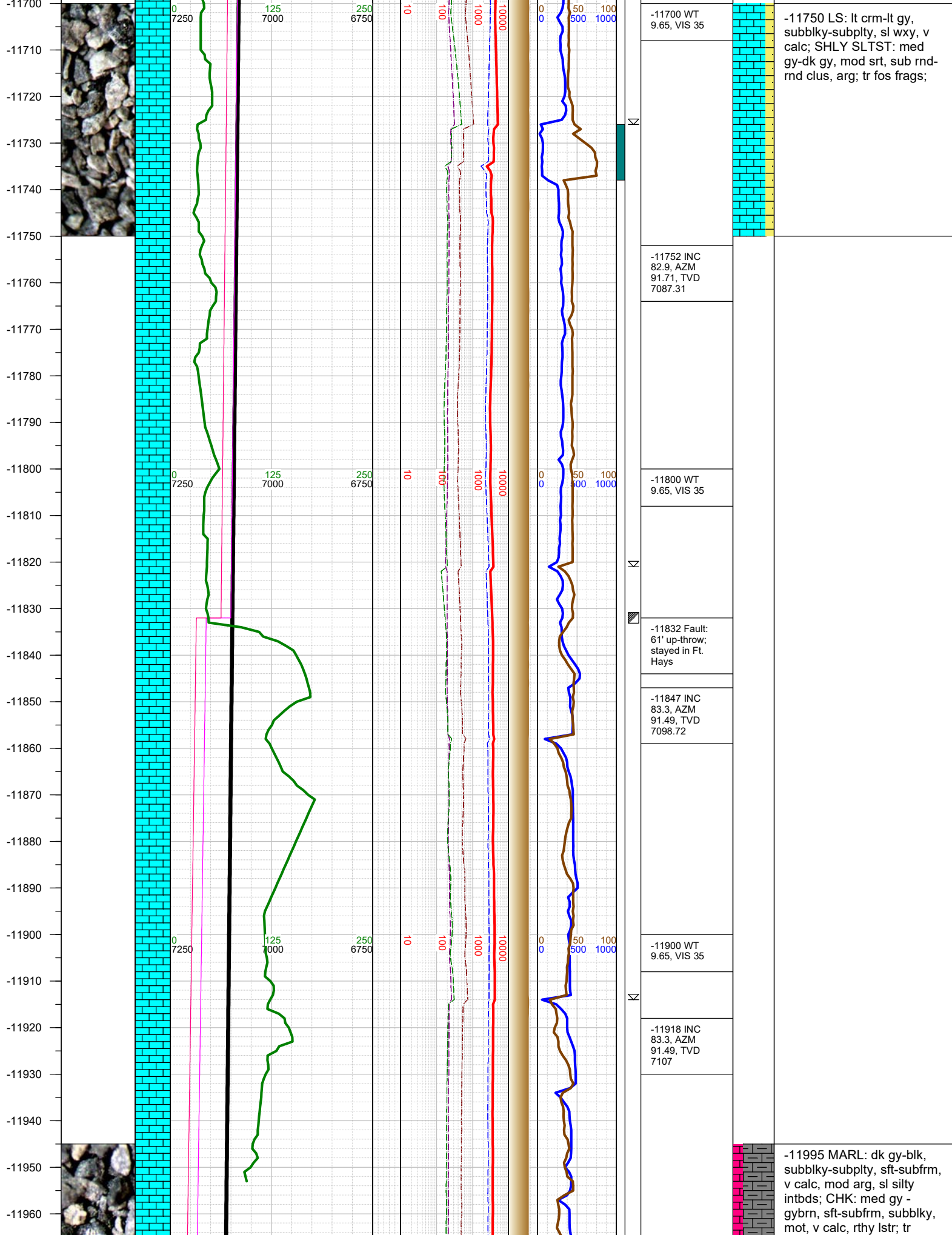
-11500 WT 9.6,  
VIS 35

-11564 INC  
85.2, AZM  
91.09, TVD  
7067.63

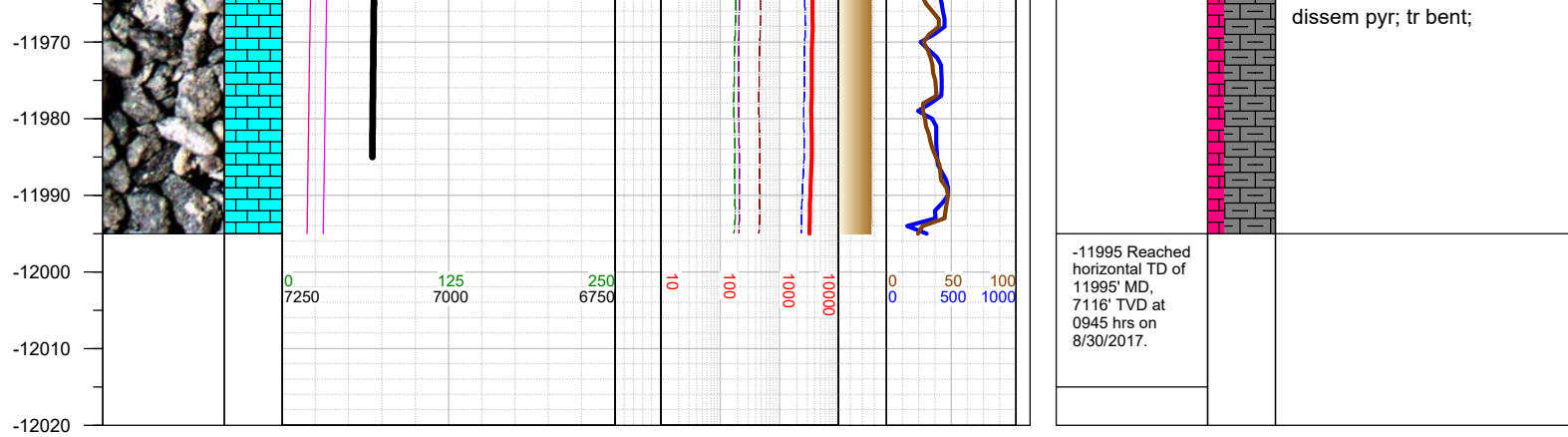
-11600 WT 9.6,  
VIS 35

-11659 INC  
83.92, AZM  
91.71, TVD  
7076.64

-11500 SS: pred lt gry-  
trns-lt tn, sub ang-sub rnd;  
mod uncons qtz grs, f-  
med grs, mod srt; 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;







TOTAL DEPTH = 11995'

Thank you for using Earth Science Agency