

OPERATOR: **Extraction Oil & Gas**
WELL NAME: **AD Fed Dairy 20W-25-16**
FIELD NAME: DJ Basin - Wattenberg
DRILLING RIG: Ensign 147
API #: 05-123-45937

LAT/LONG: 40.38253, -104.67649
SURFACE HOLE: NWSW S21-T5N-R65W, 1876' FSL, 367' FWL
BOTTOM HOLE: S24-T5N-R66W, 545' FSL, 2204' FEL

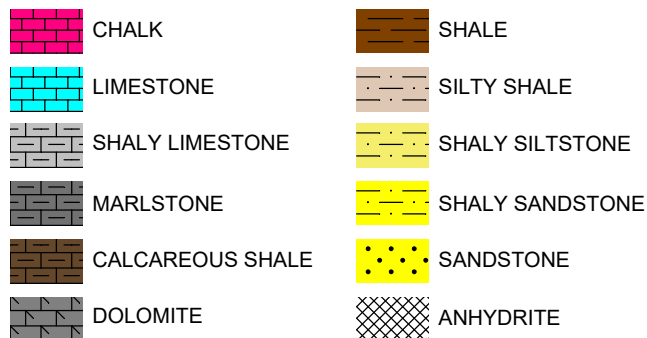


Earth Science Agency, LLC

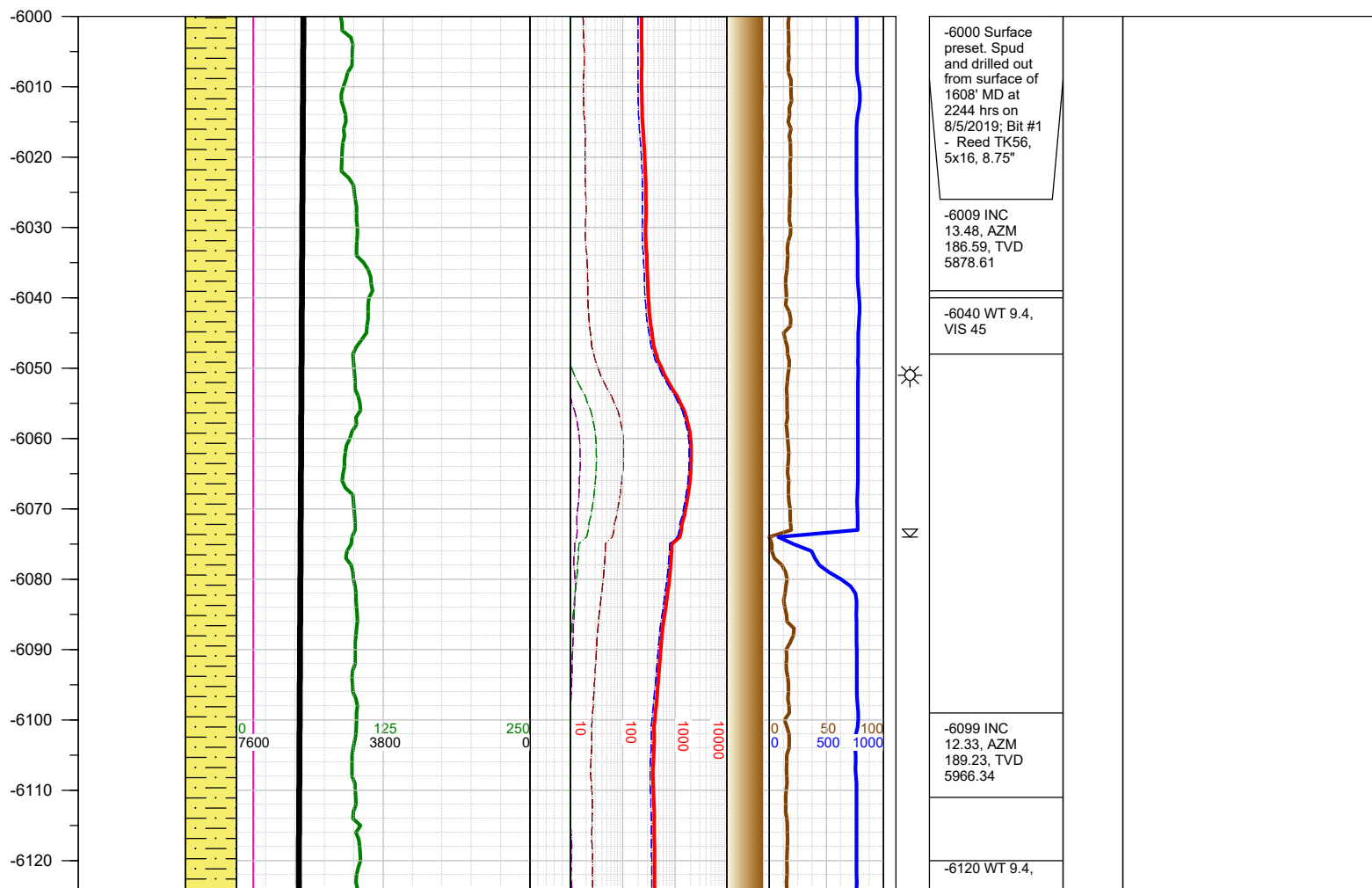
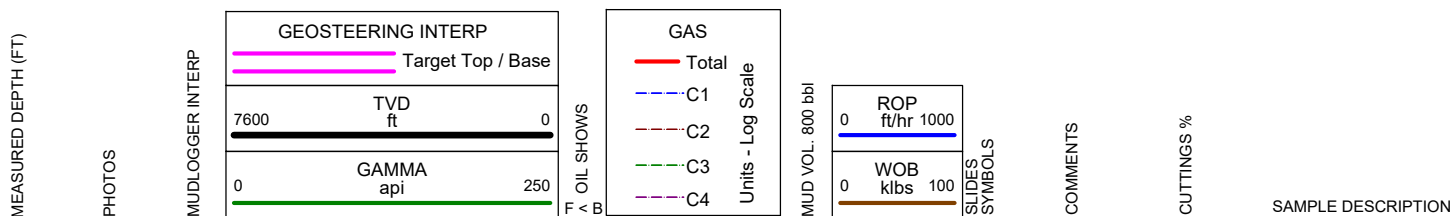
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 4639'
KELLY BUSHING: 4667'
DRILLING FLUID: OBM
TVD VS. MD: 7139' / 19756'
SPUD DATE: August 5, 2019
TD DATE: August 9, 2019

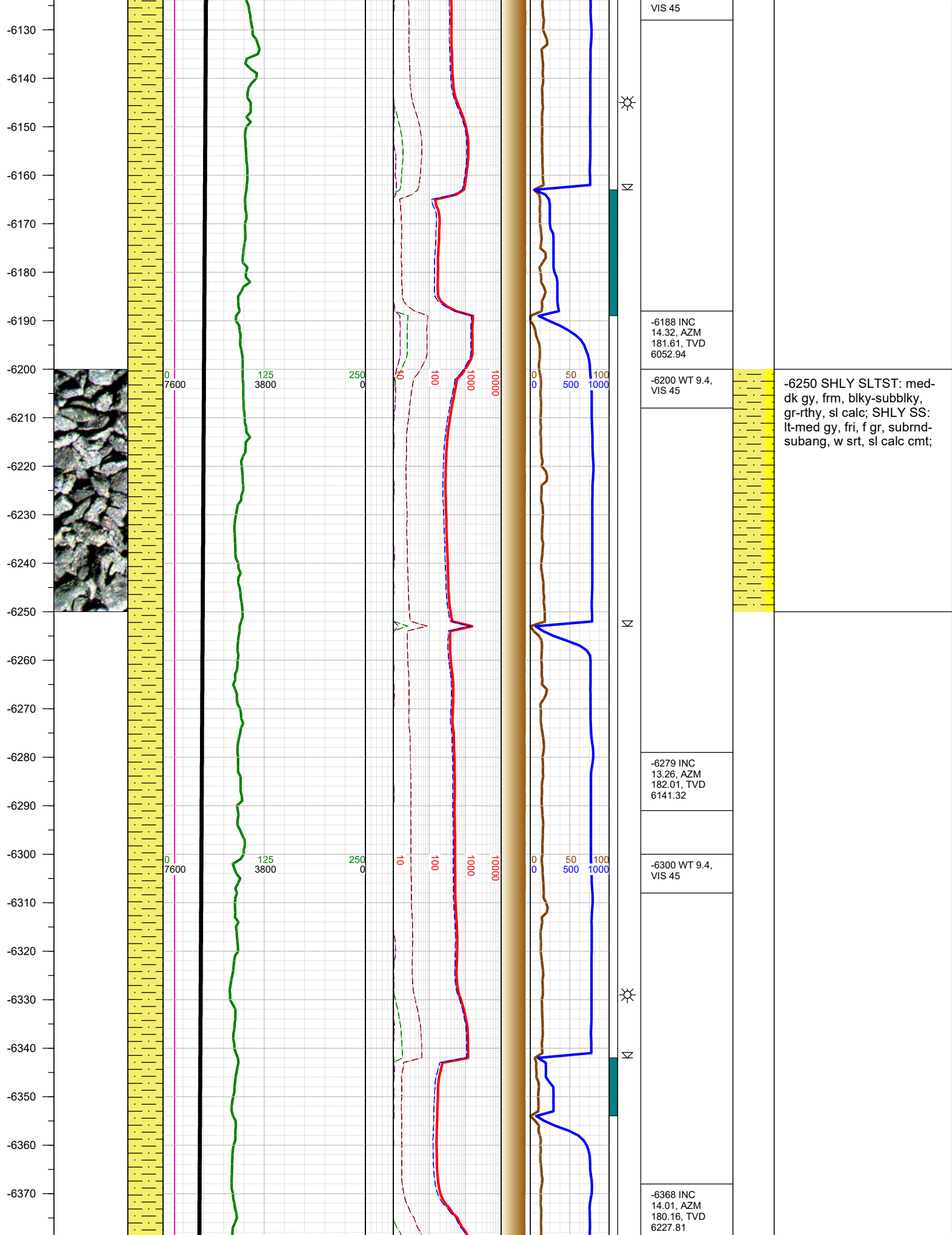
DEPTHS LOGGED: 6000' - 19756'
DATES LOGGED: August 6, 2019 - August 9, 2019
GEOLOGISTS: Dan Jacobs, Nick Damon
SCALE: 5" = 100'

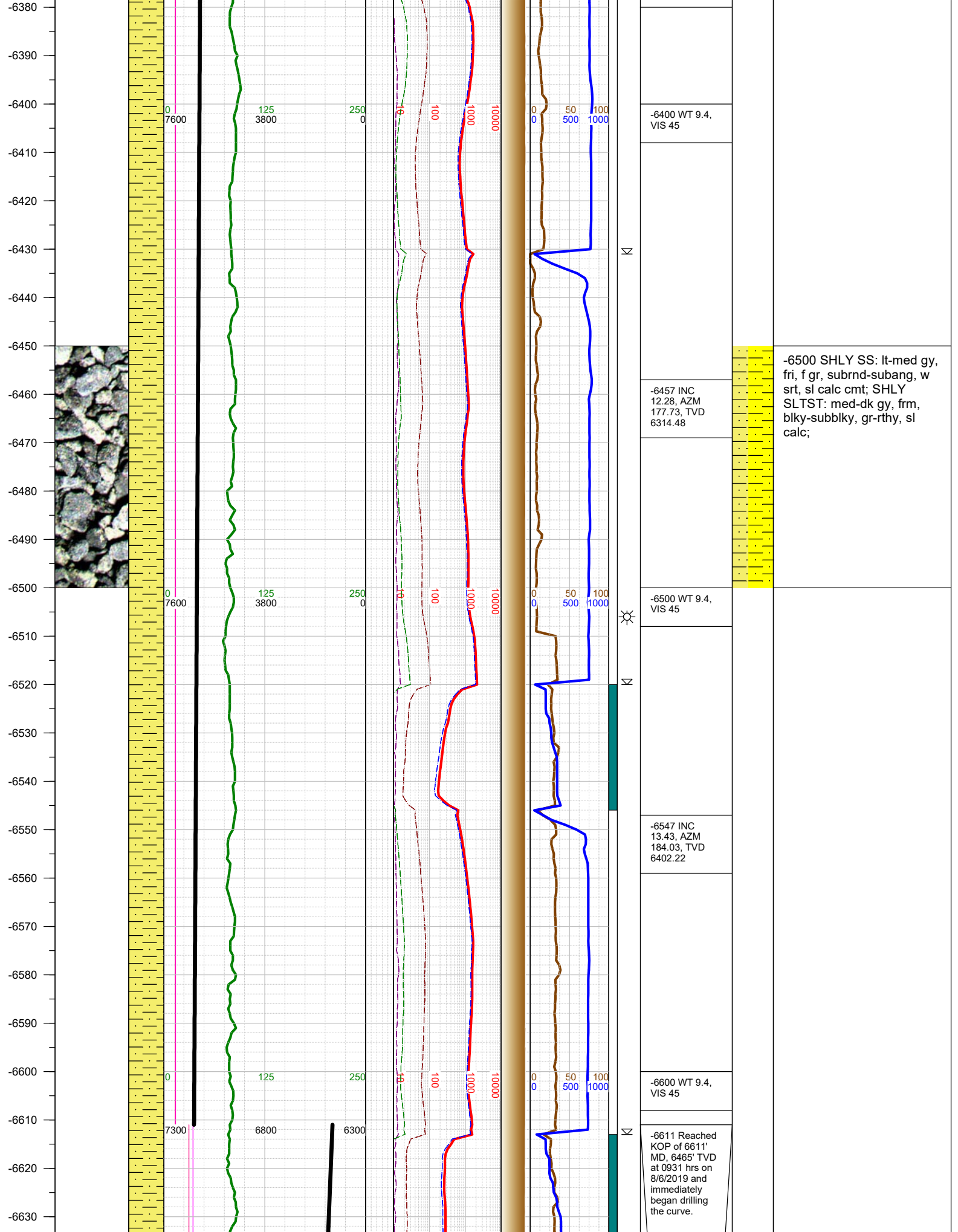
LEGEND

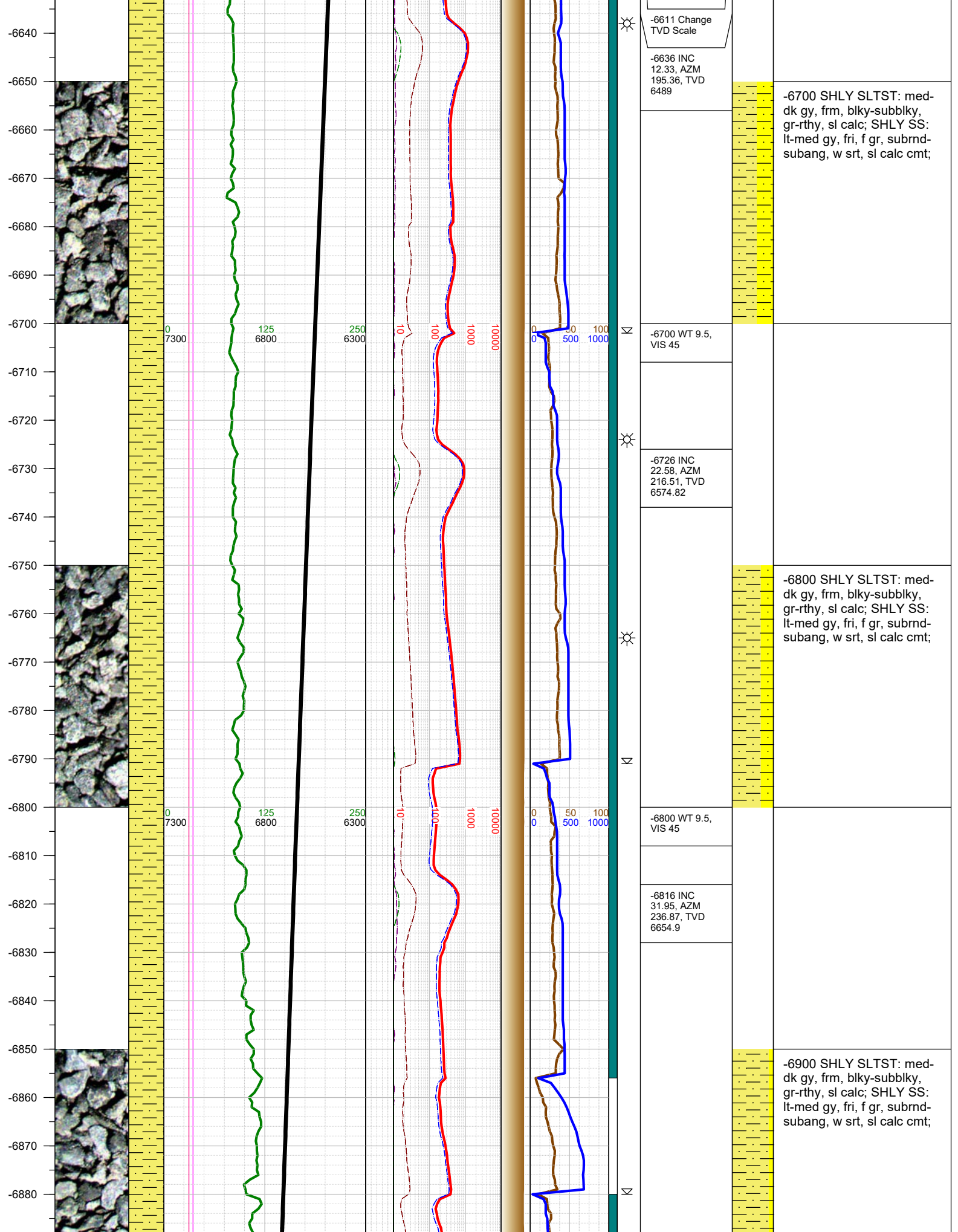


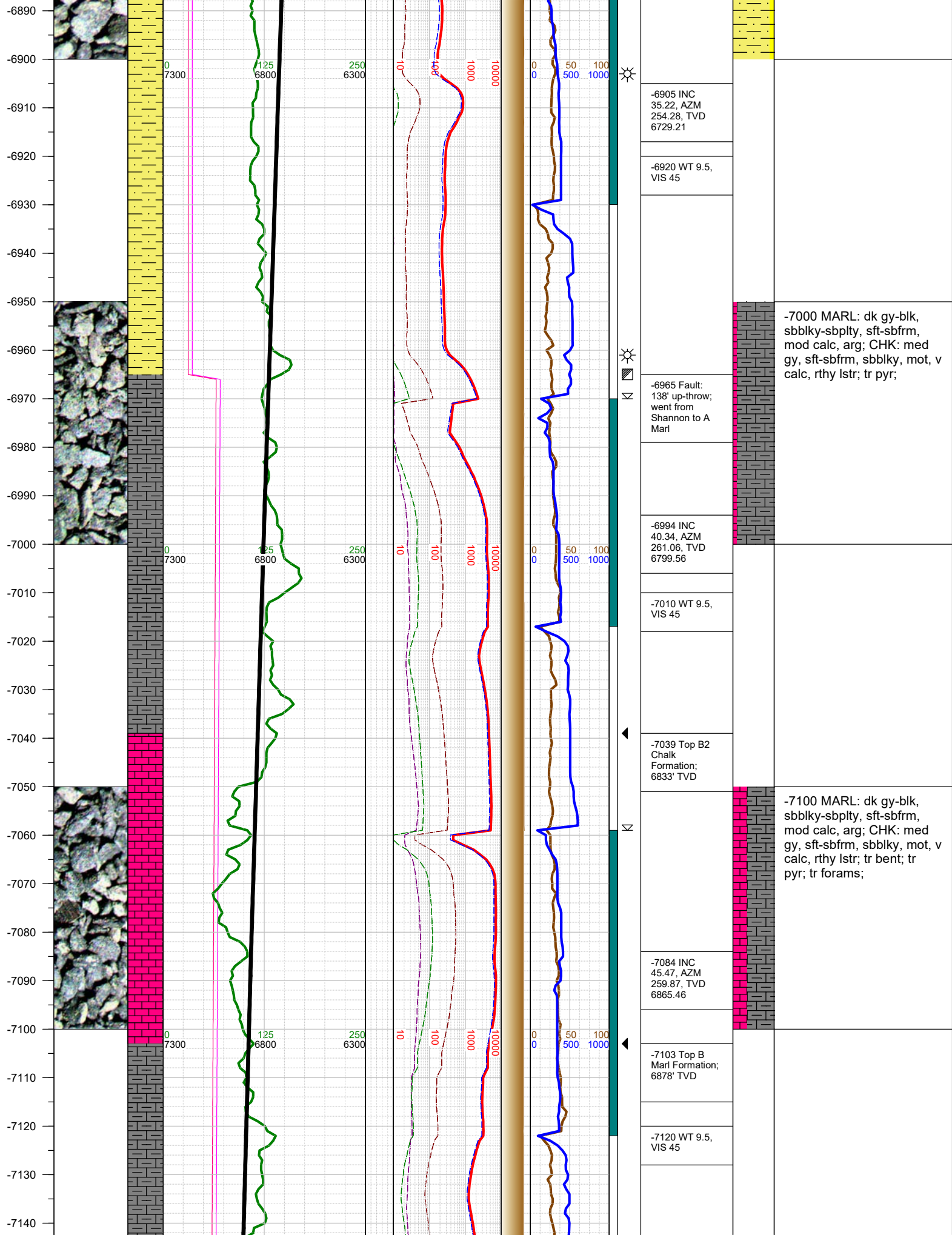
FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT

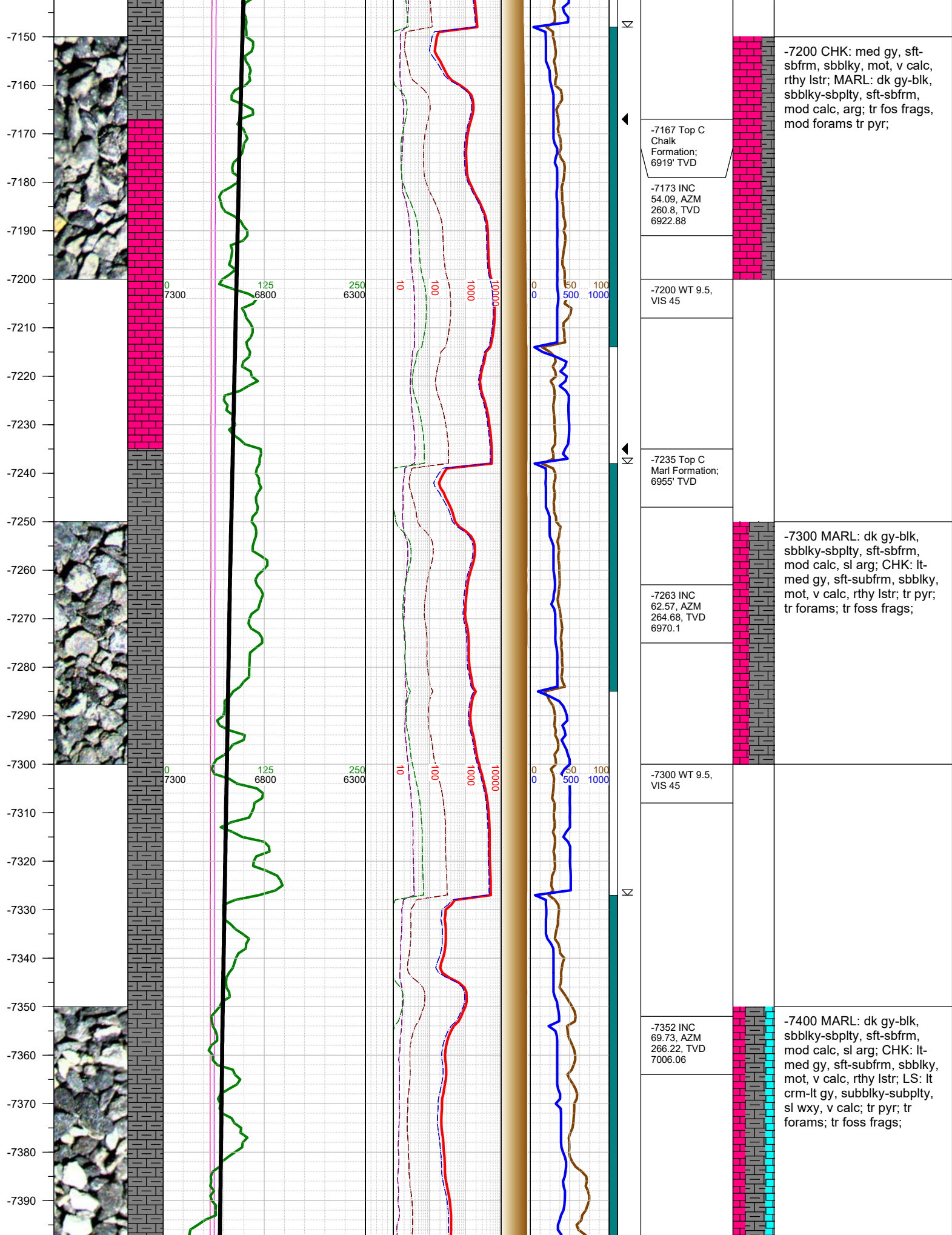


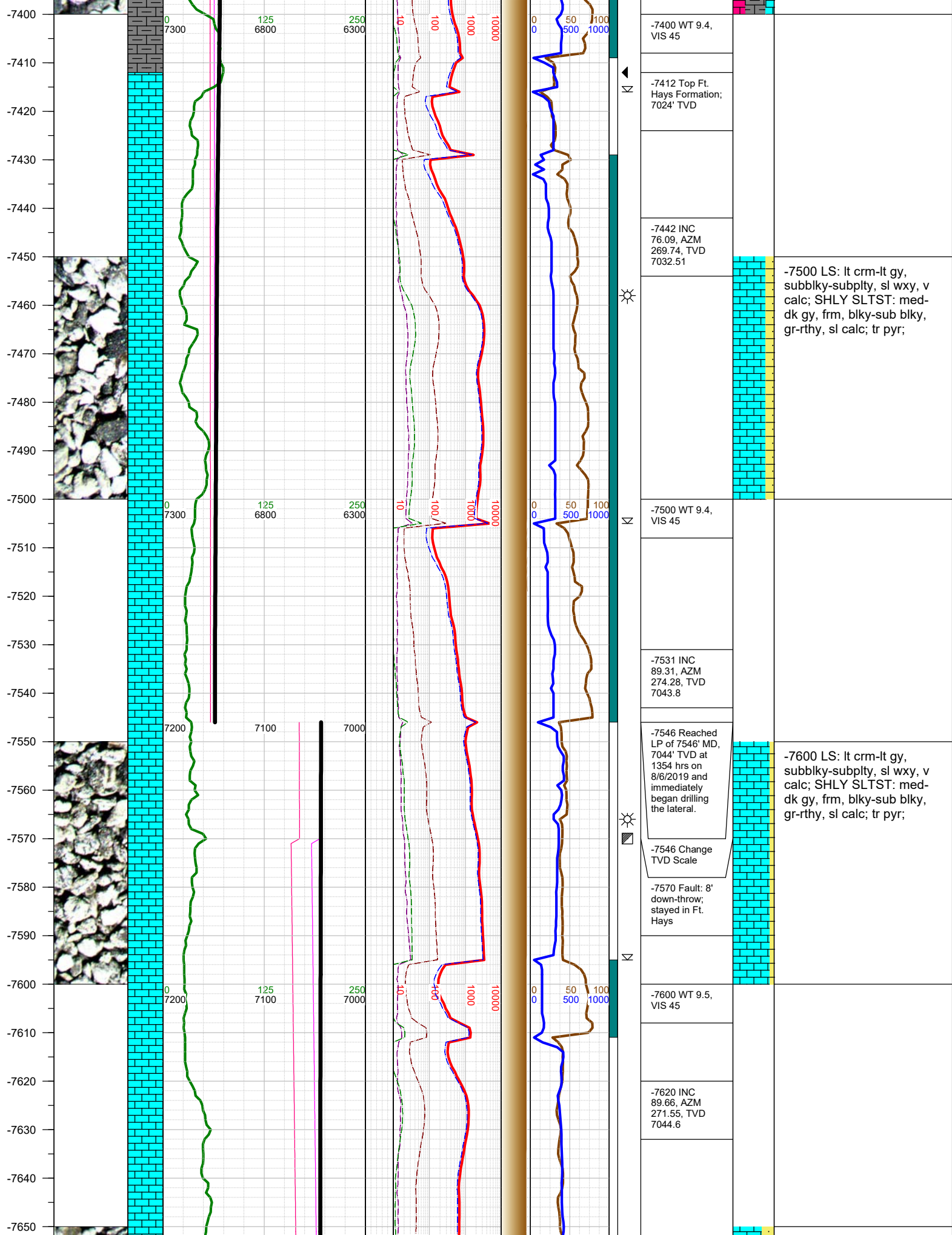


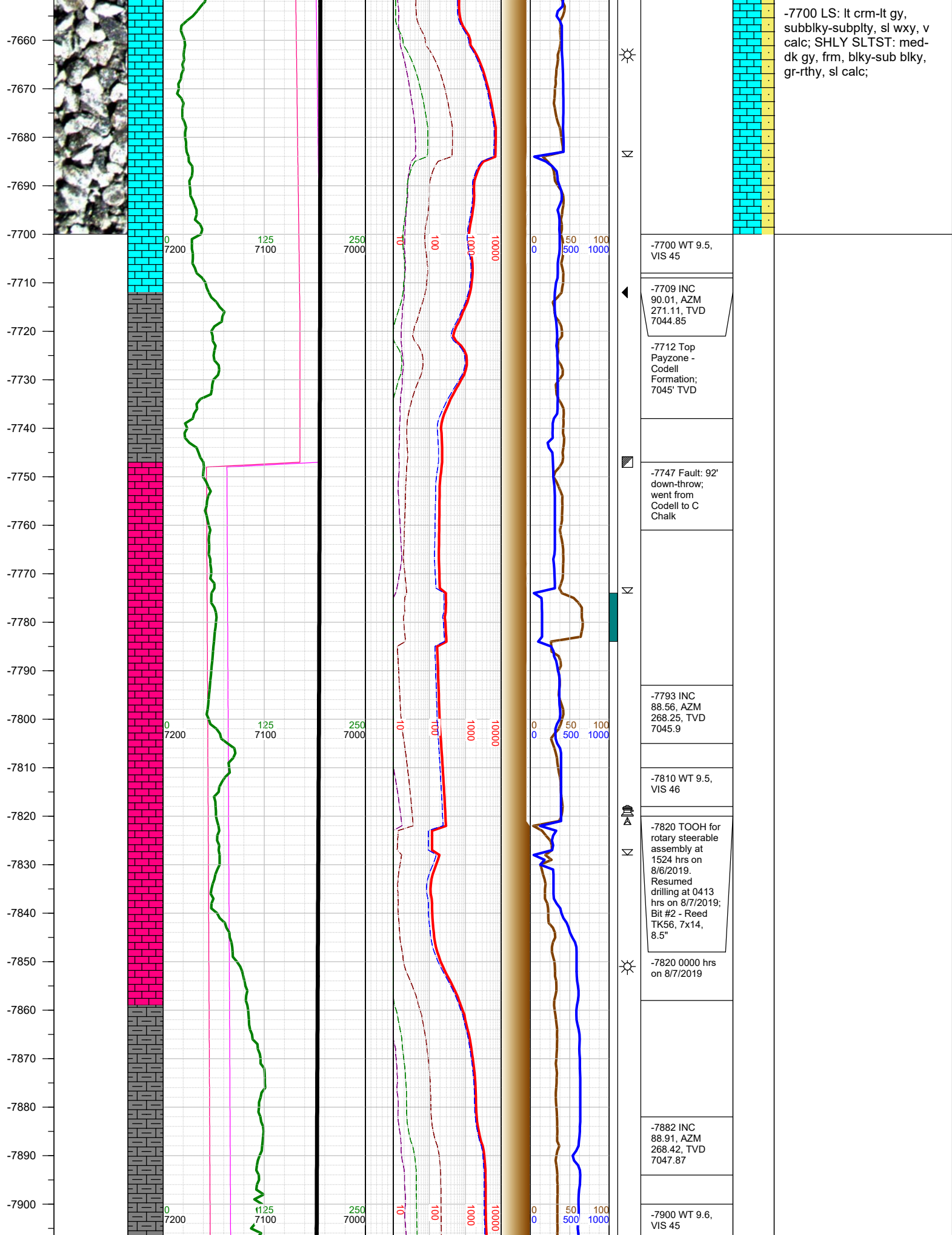




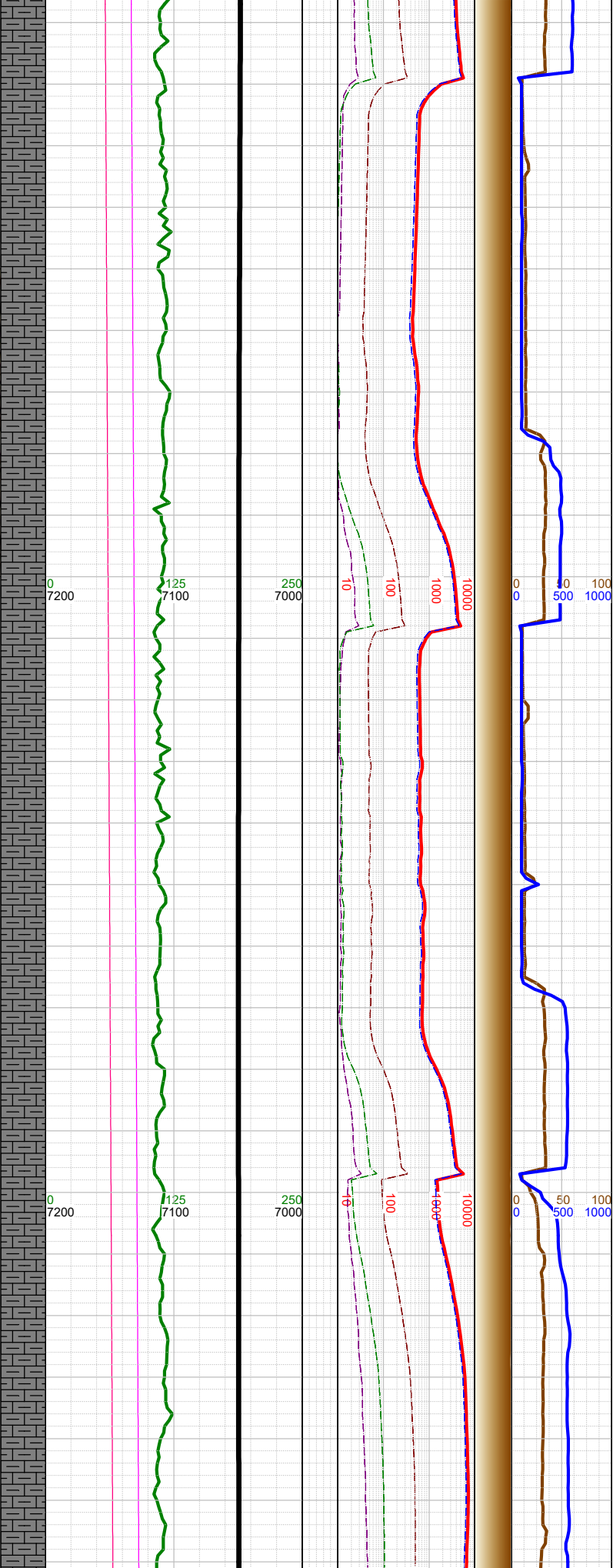
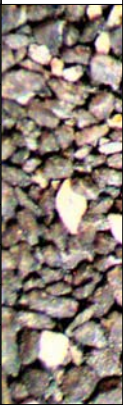


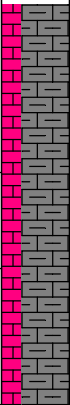


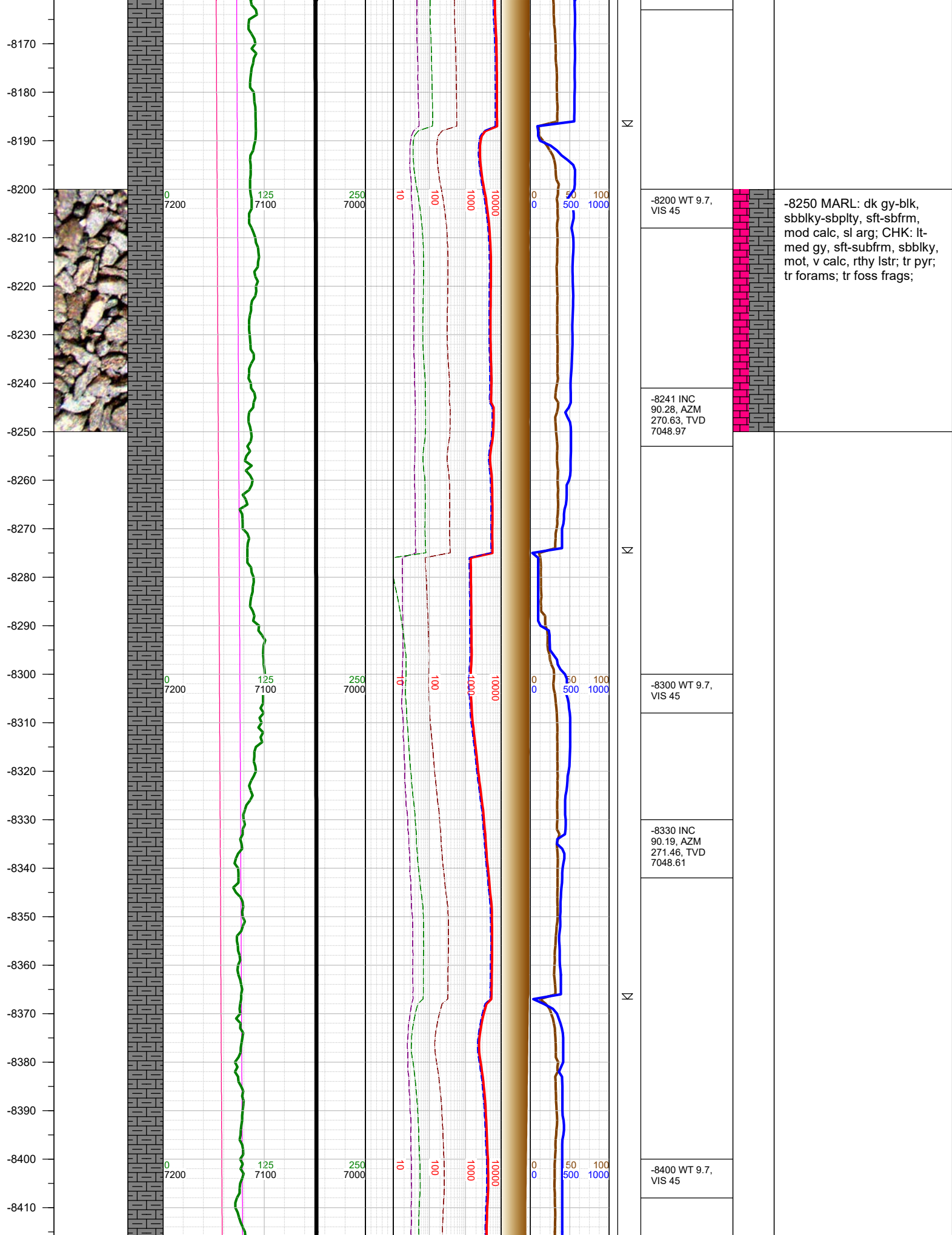




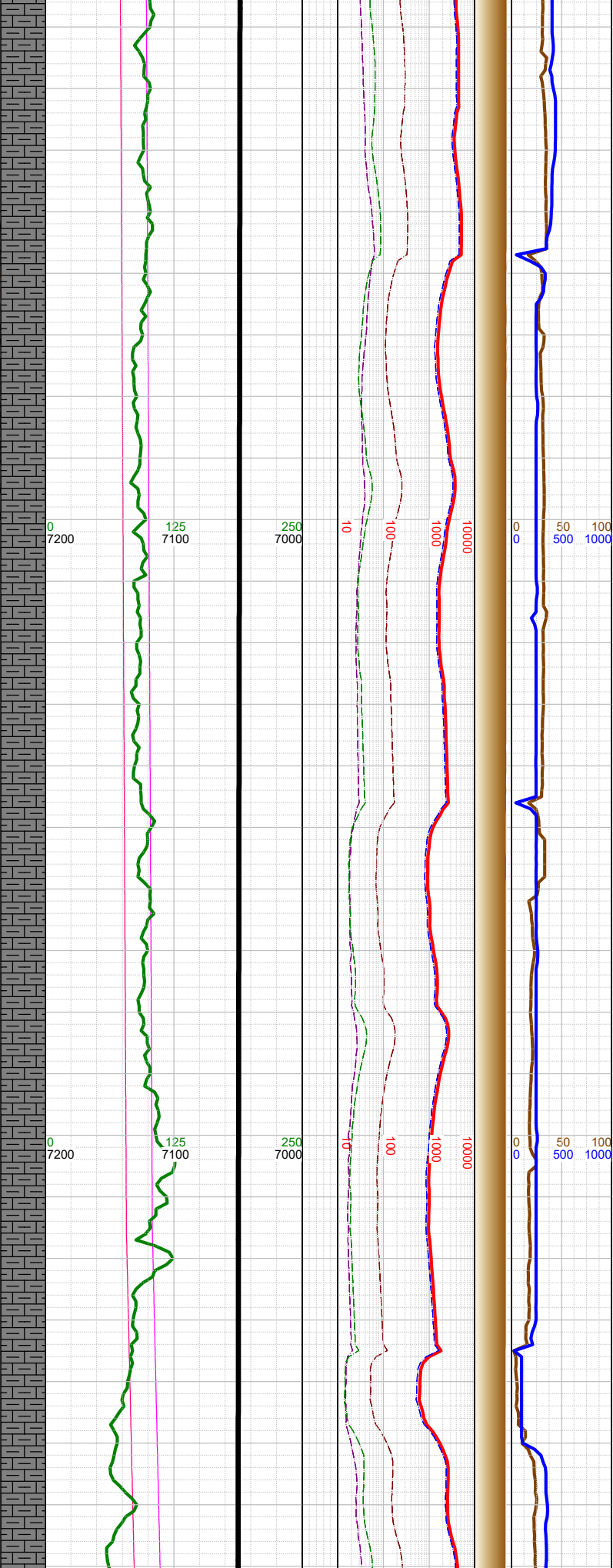
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N				-8000 MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, sl arg; CHK: lt-med gy, sft-subfrm, sbblky, mot, v calc, rthy lstr; tr pyr; tr forams; tr foss frags;
		-7971 INC 89.22, AZM 267.98, TVD 7049.32		
N		-8000 WT 9.6, VIS 45		
N		-8061 INC 90.01, AZM 268.2, TVD 7049.92		
N		-8100 WT 9.7, VIS 45		
		-8151 INC 90.46, AZM 269.04, TVD 7049.55		



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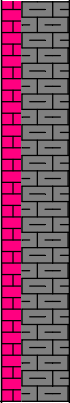
-8420 INC
89.79, AZM
272.34, TVD
7048.62

-8500 WT 9.7,
VIS 45

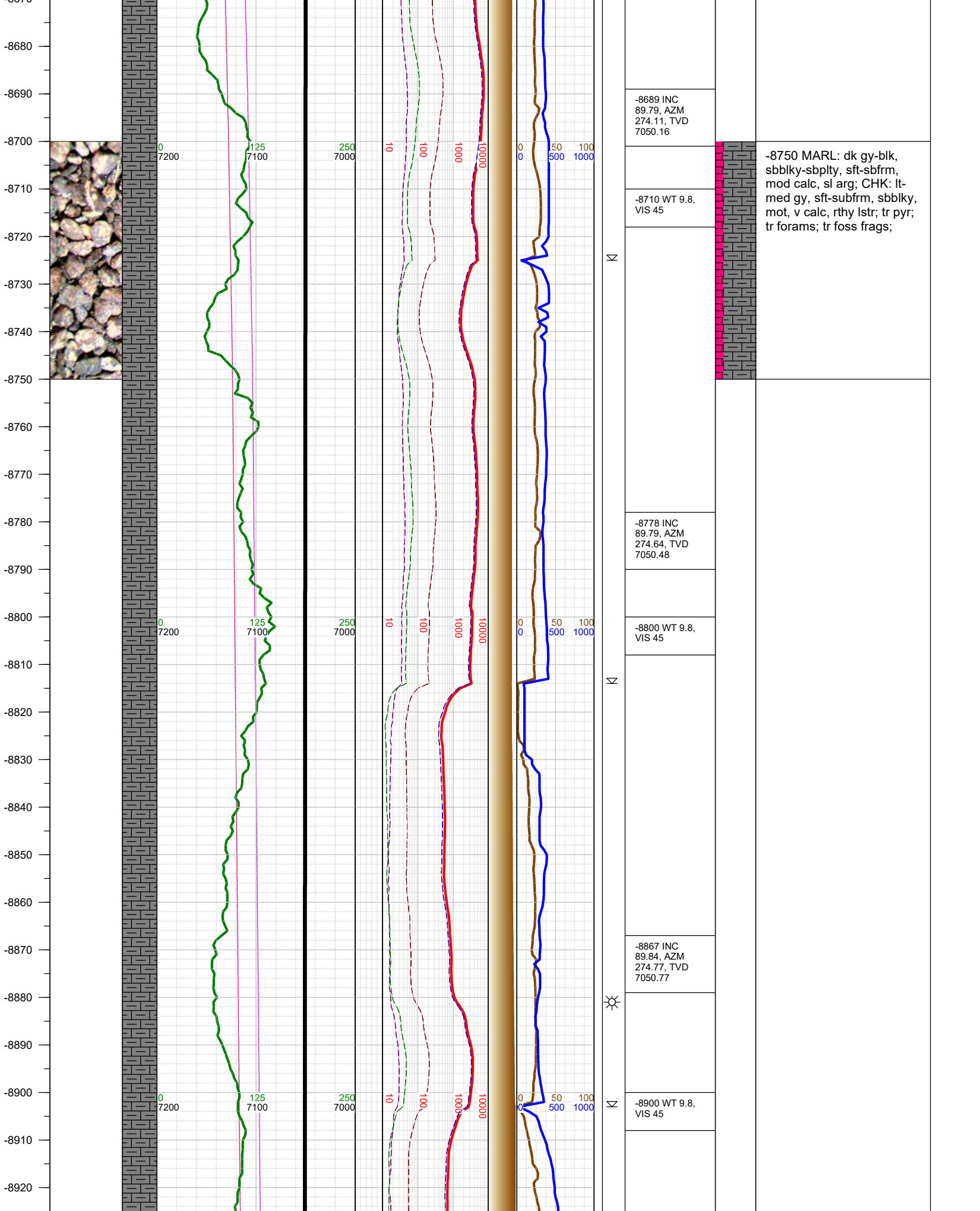
-8509 INC
89.53, AZM
272.7, TVD
7049.15

-8599 INC 89.7,
AZM 273.4,
TVD 7049.76

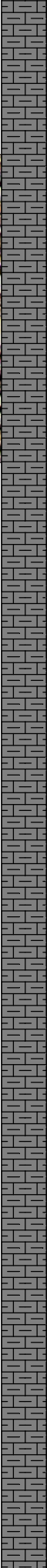
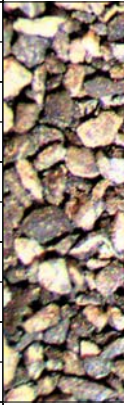
-8620 WT 9.8,
VIS 45



-8500 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg; CHK: lt-
med gy, sft-subfrm, sbbly,
mot, v calc, rthy lstr; tr pyr;
tr forams; tr foss frags;



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-8957 INC
90.06, AZM
275.21, TVD
7050.85

-8965 Fault: 5'
down-throw;
stayed in C Marl



-9000 WT 9.8,
VIS 45

-9047 INC
90.15, AZM
275.34, TVD
7050.68



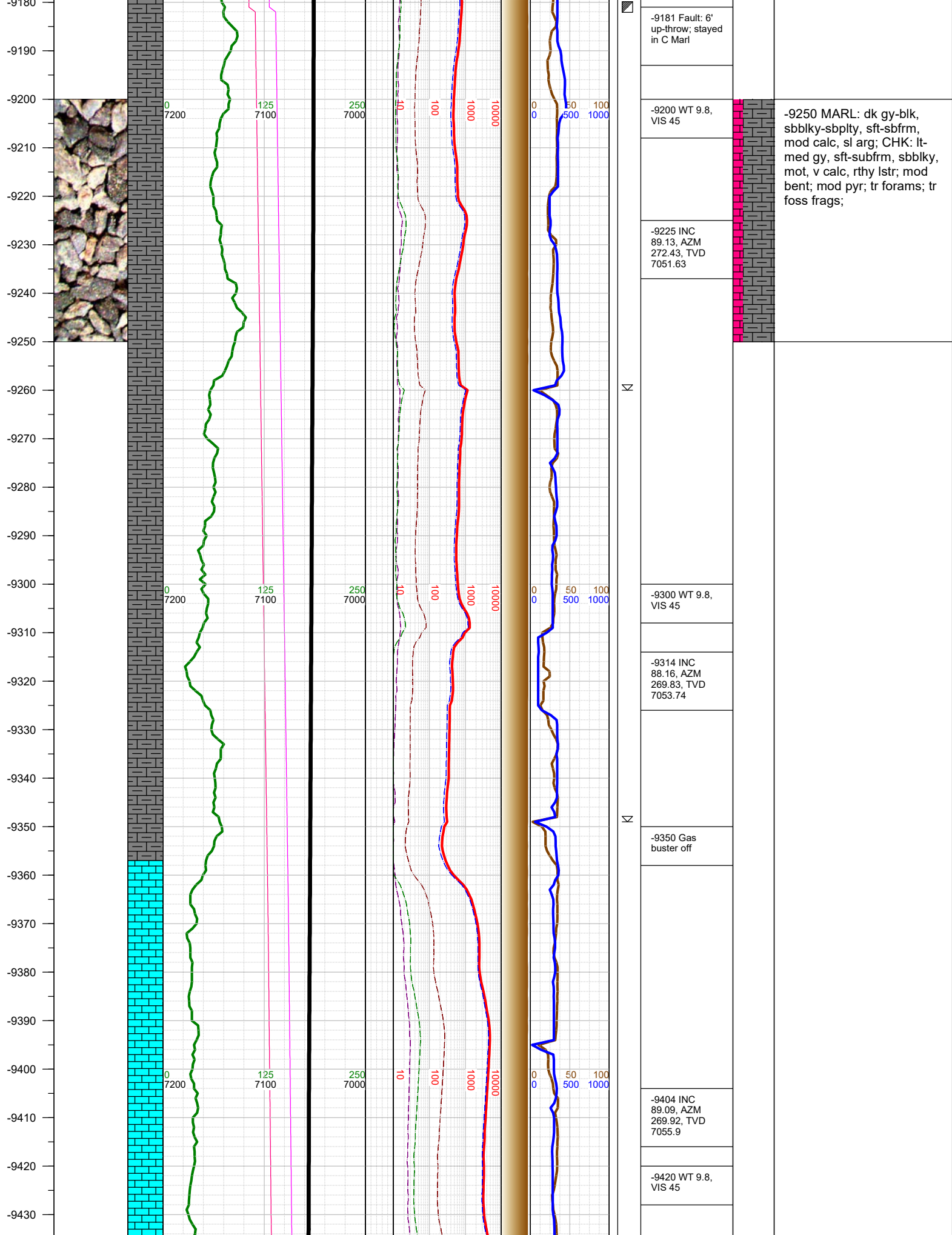
-9100 Gas
buster on

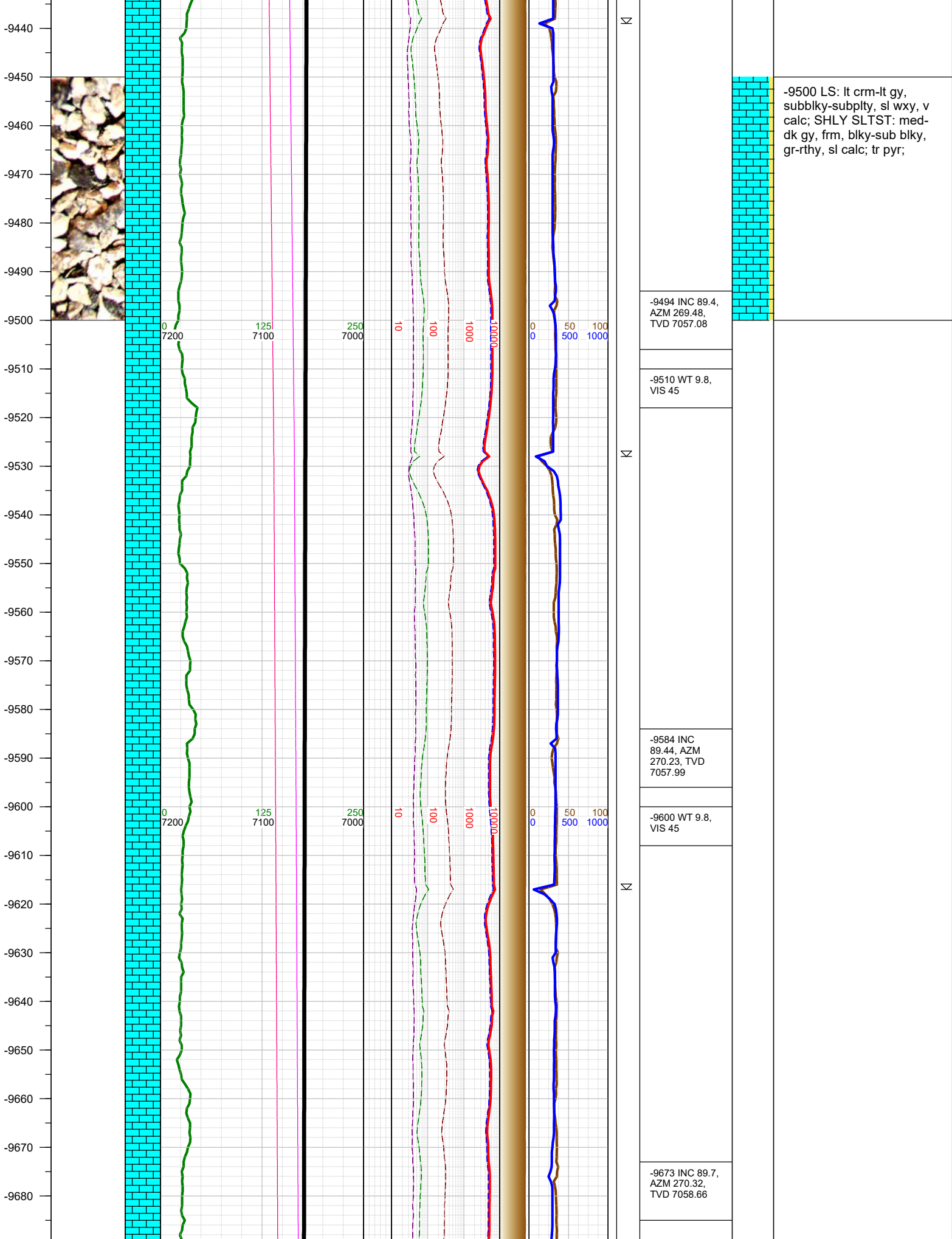
-9110 WT 9.8,
VIS 45

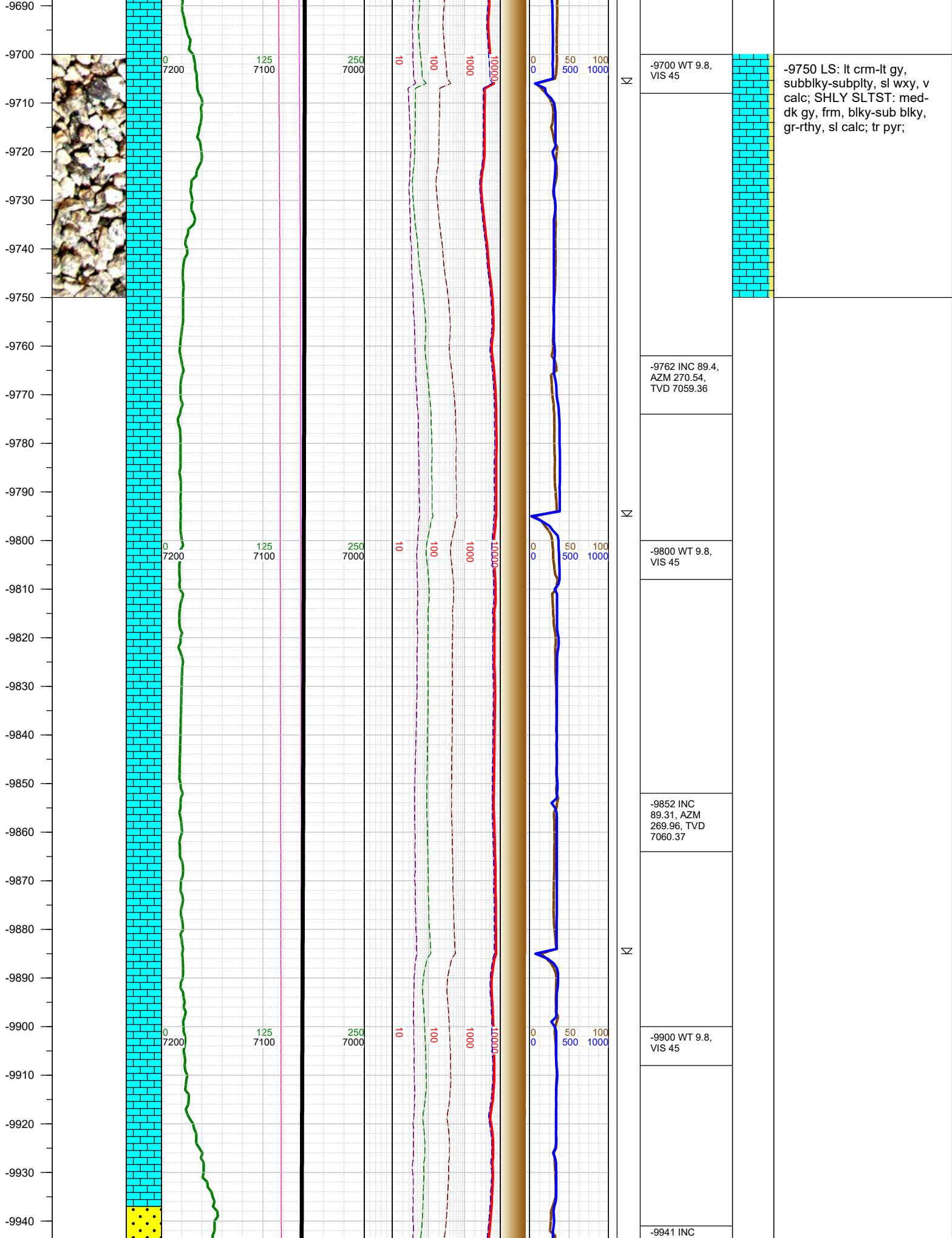
-9136 INC
89.75, AZM
274.59, TVD
7050.76

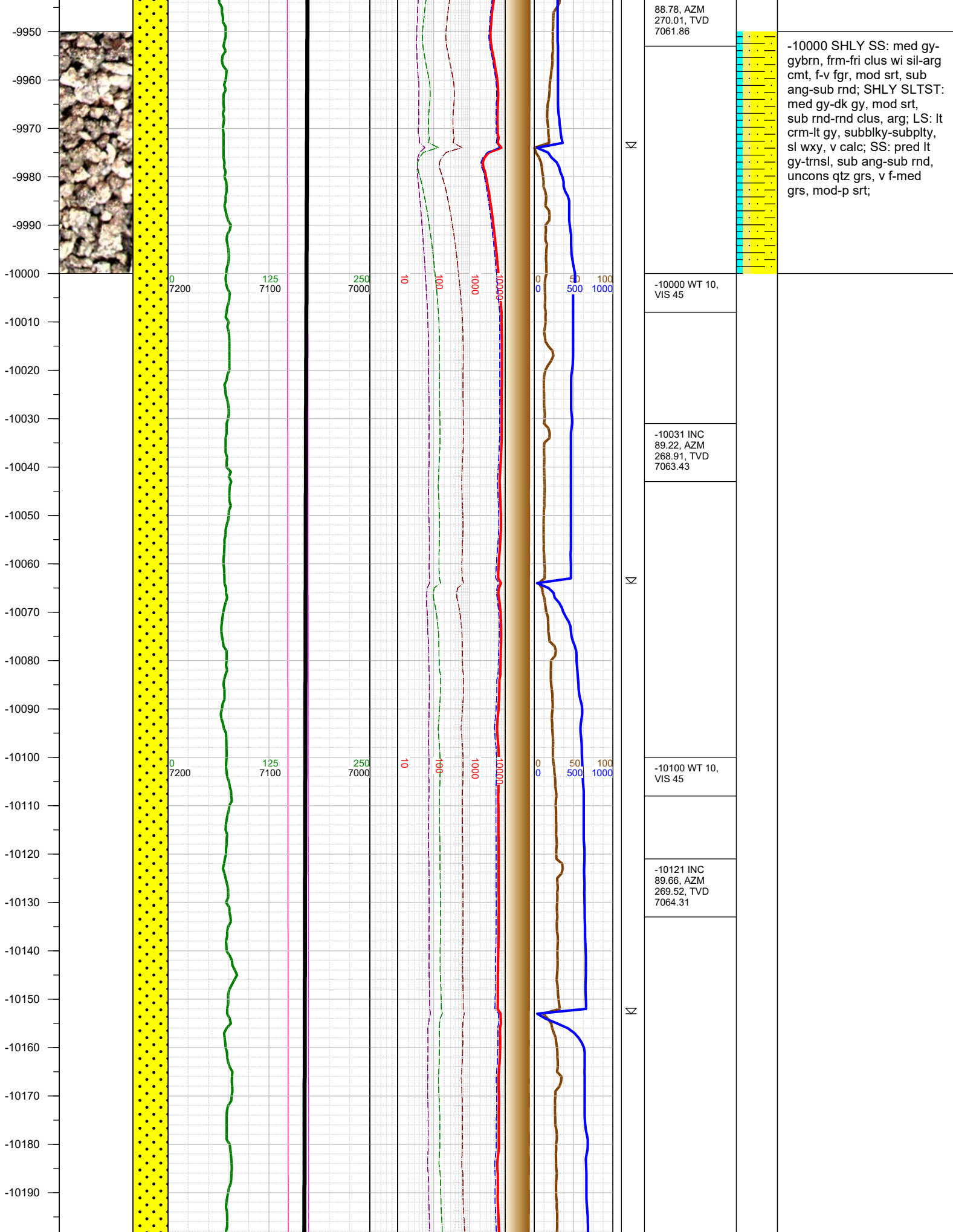


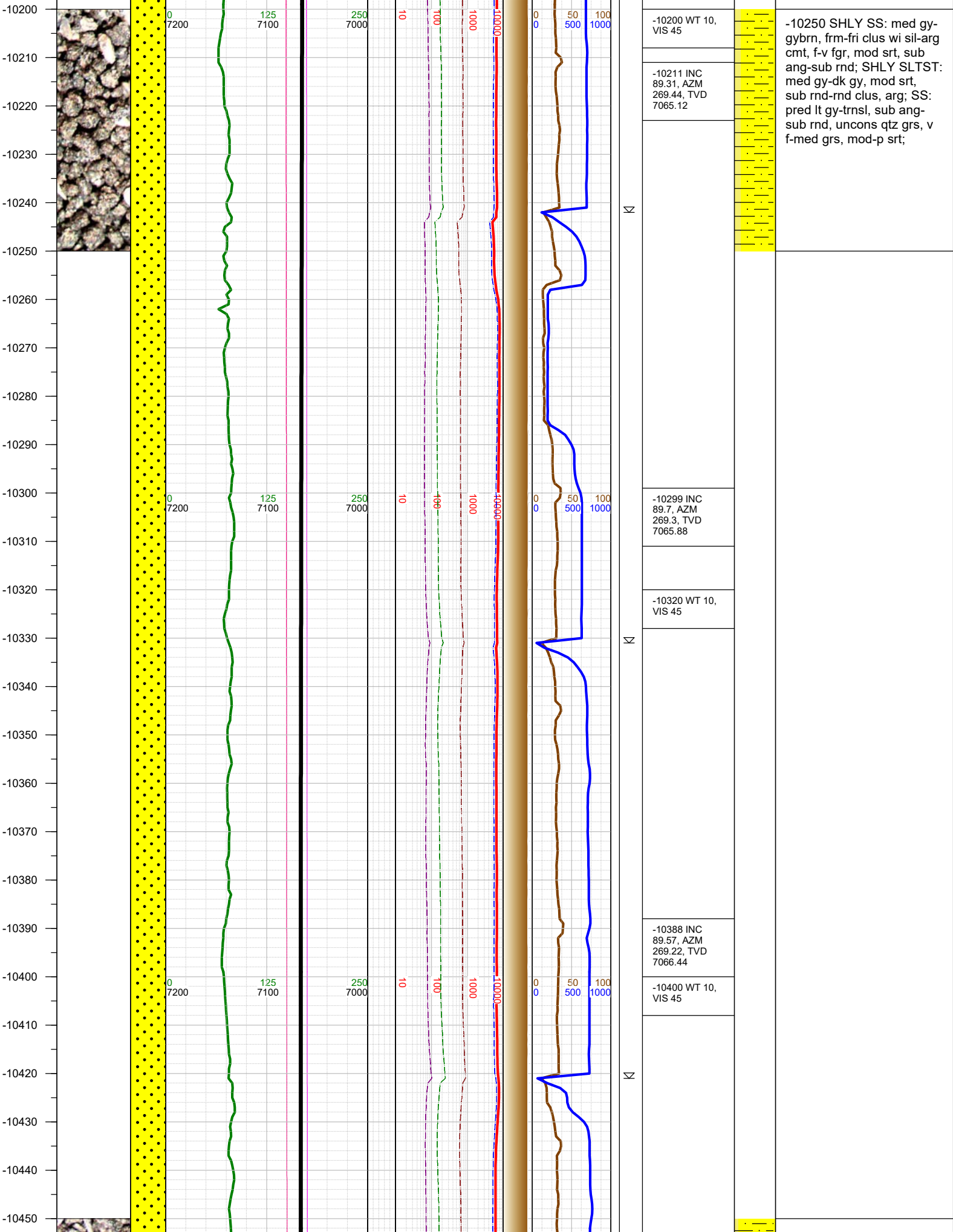
-9000 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
mod calc, sl arg; CHK: lt-
med gy, sft-subfrm, sbbly,
mot, v calc, rthy lstr; tr pyr;
tr forams; tr foss frags;

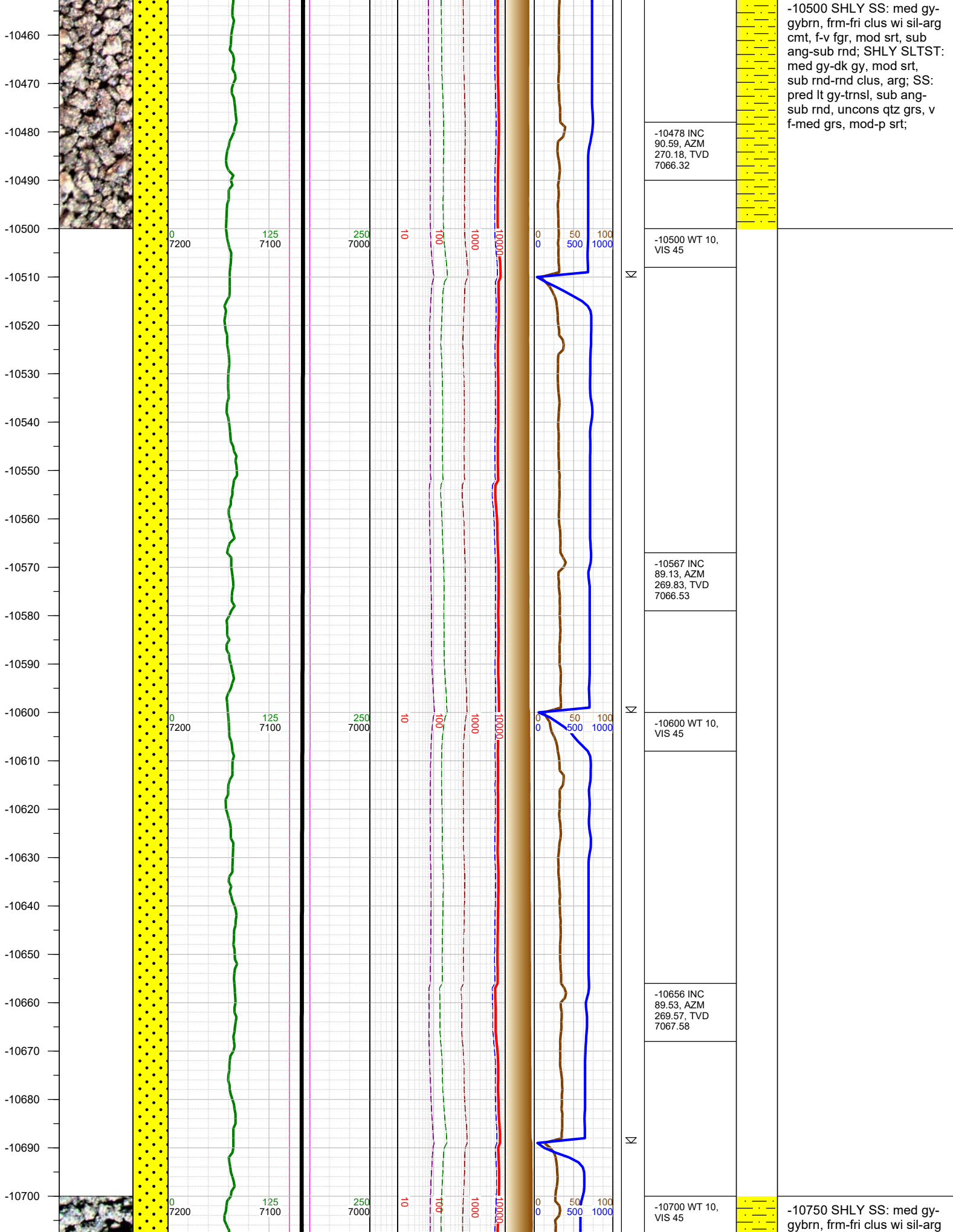


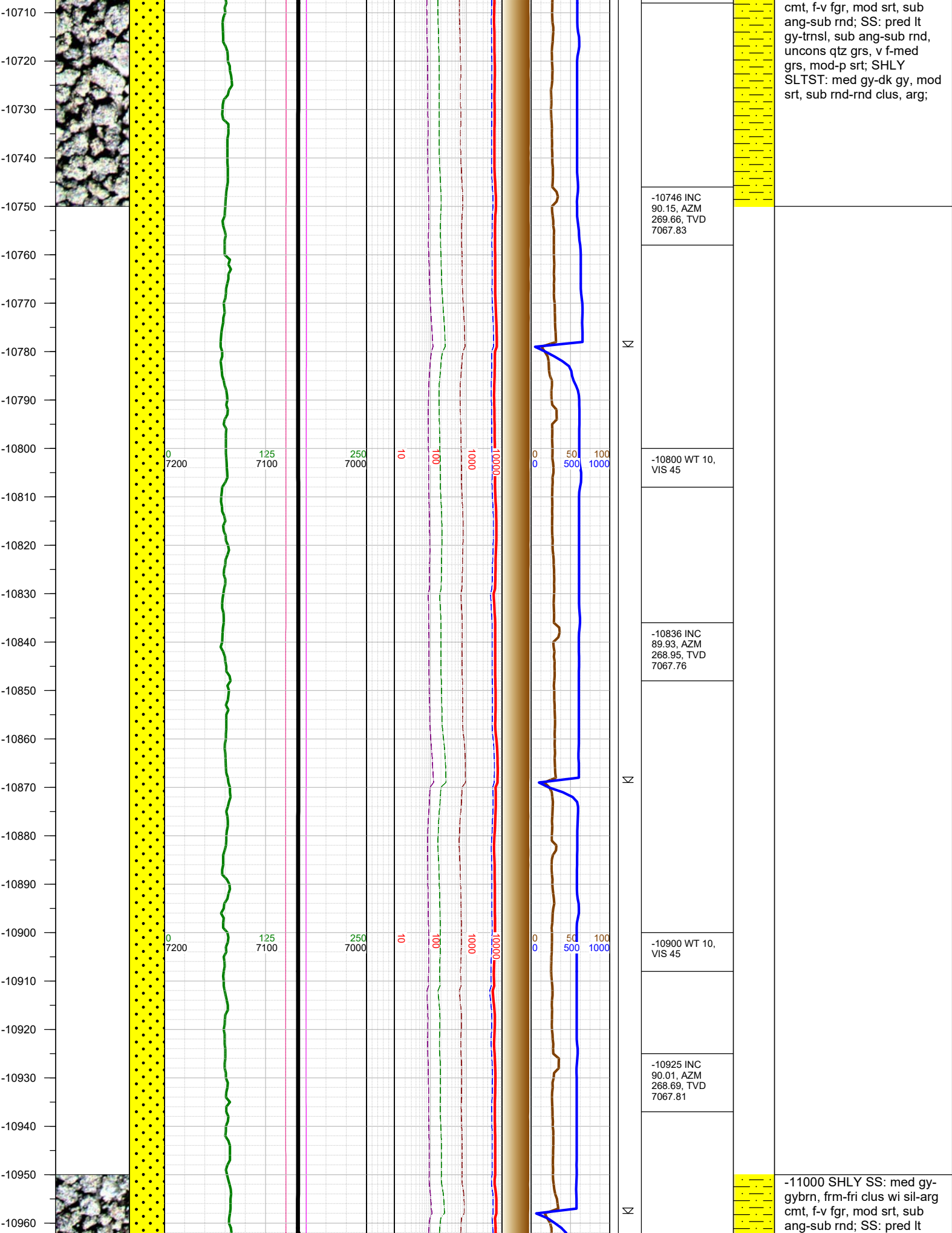


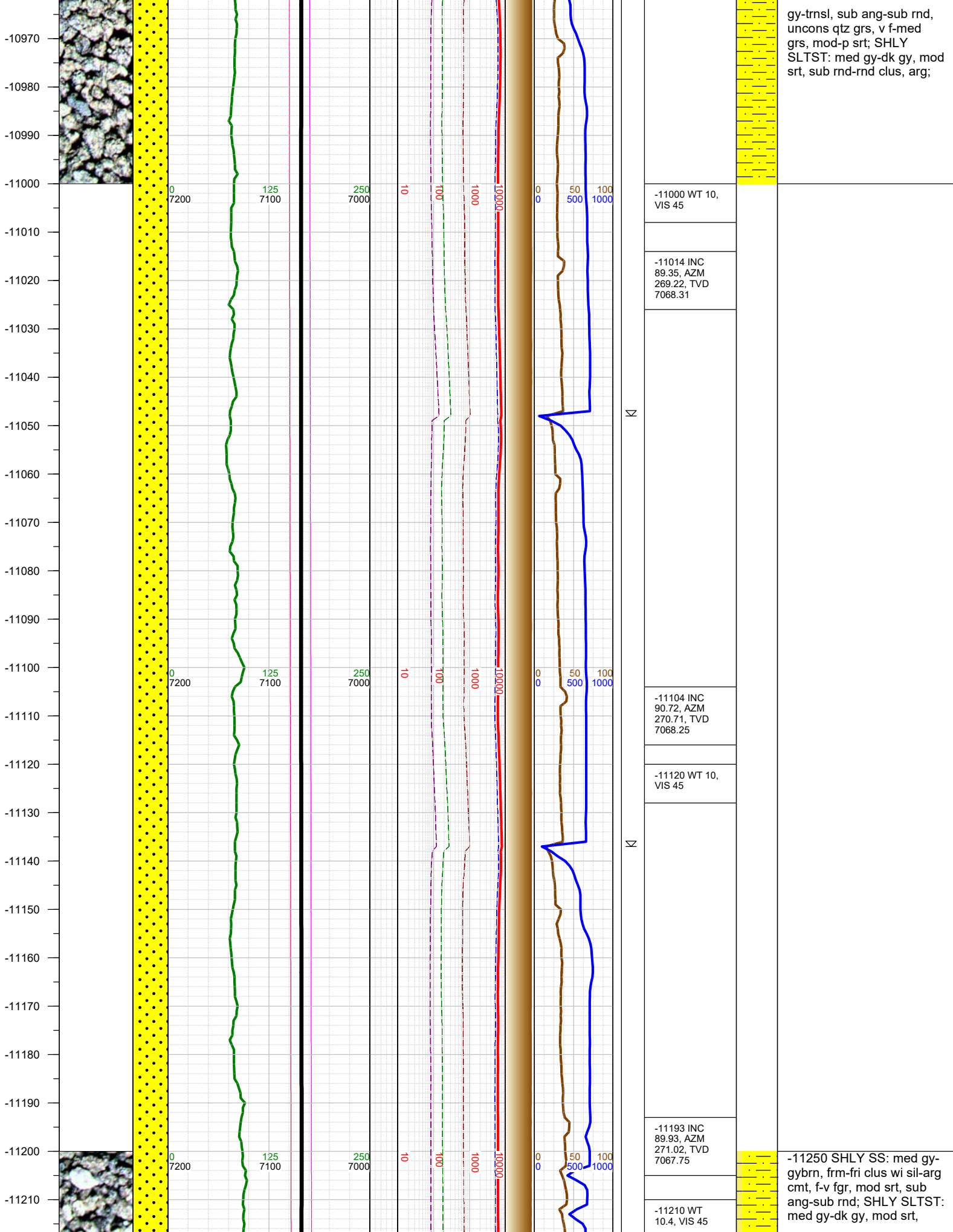


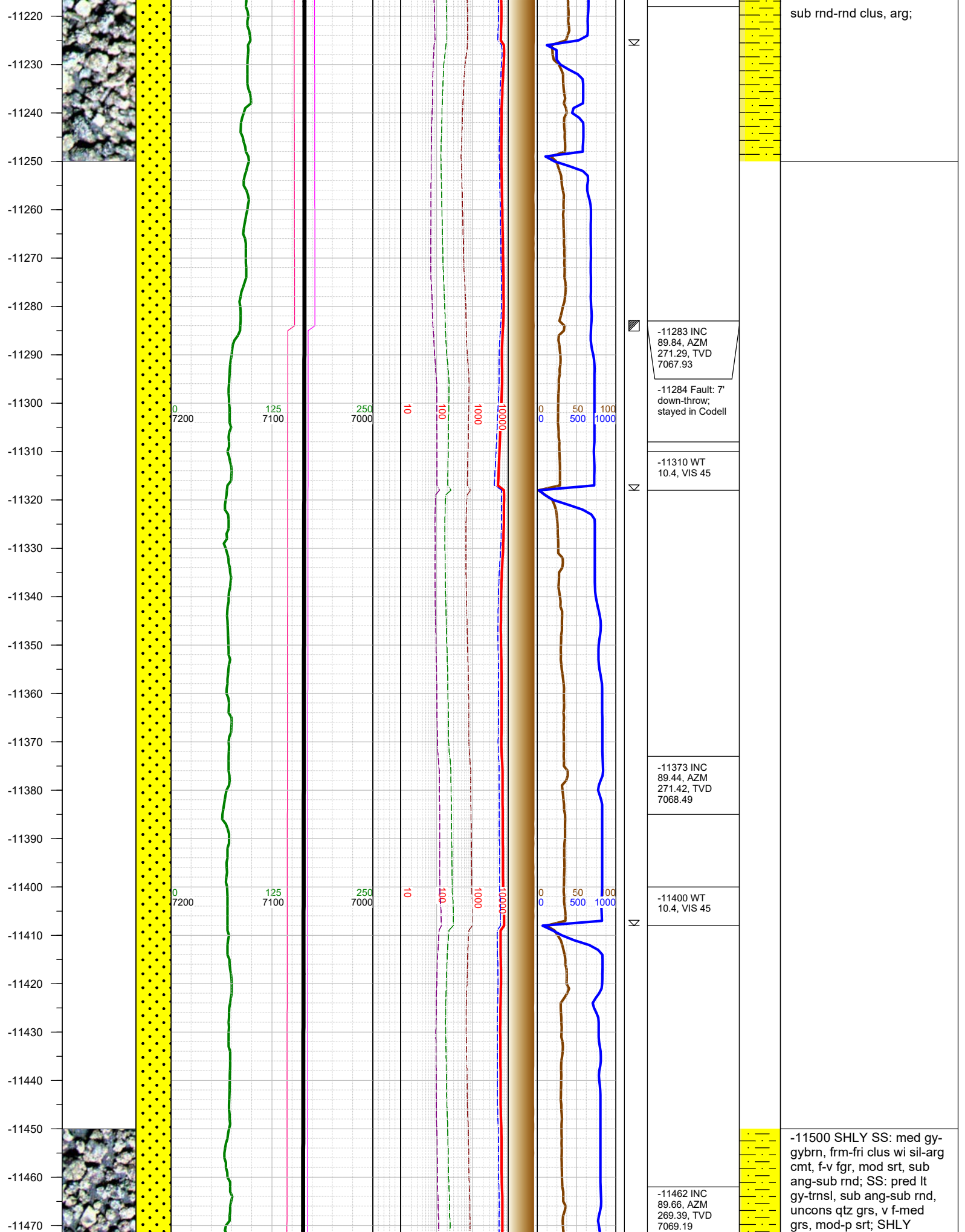


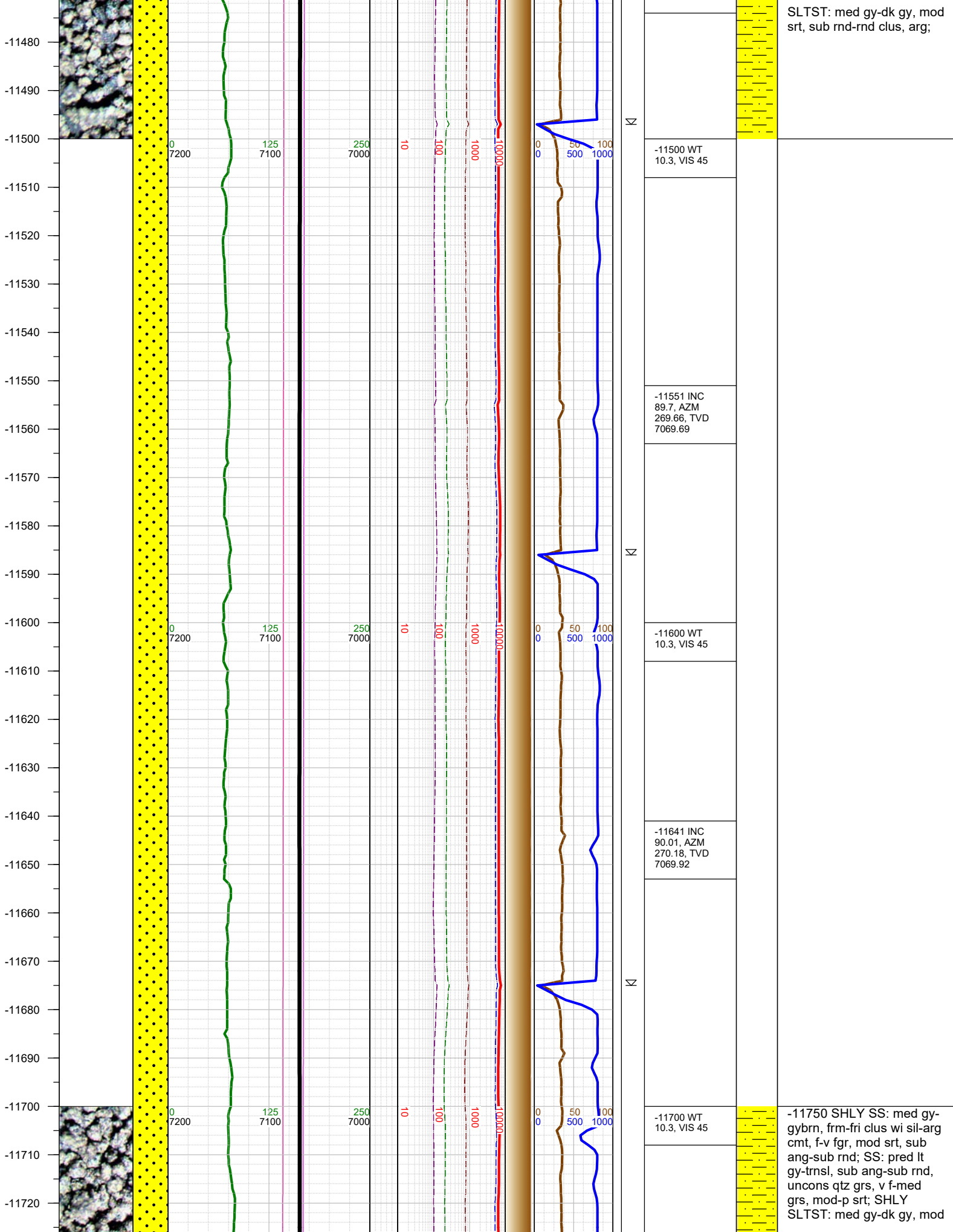












SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;

-11500 WT 10.3, VIS 45

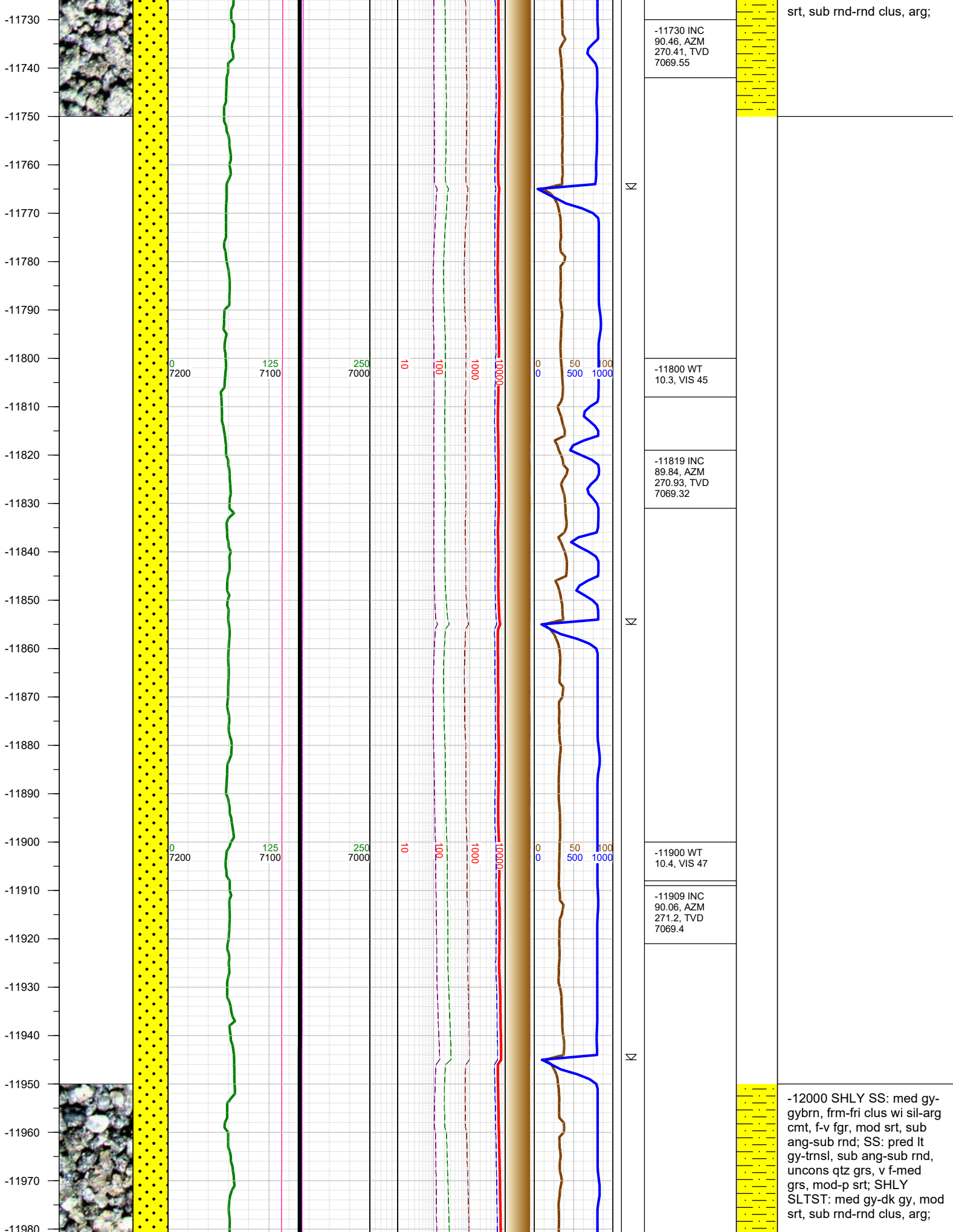
-11551 INC 89.7, AZM 269.66, TVD 7069.69

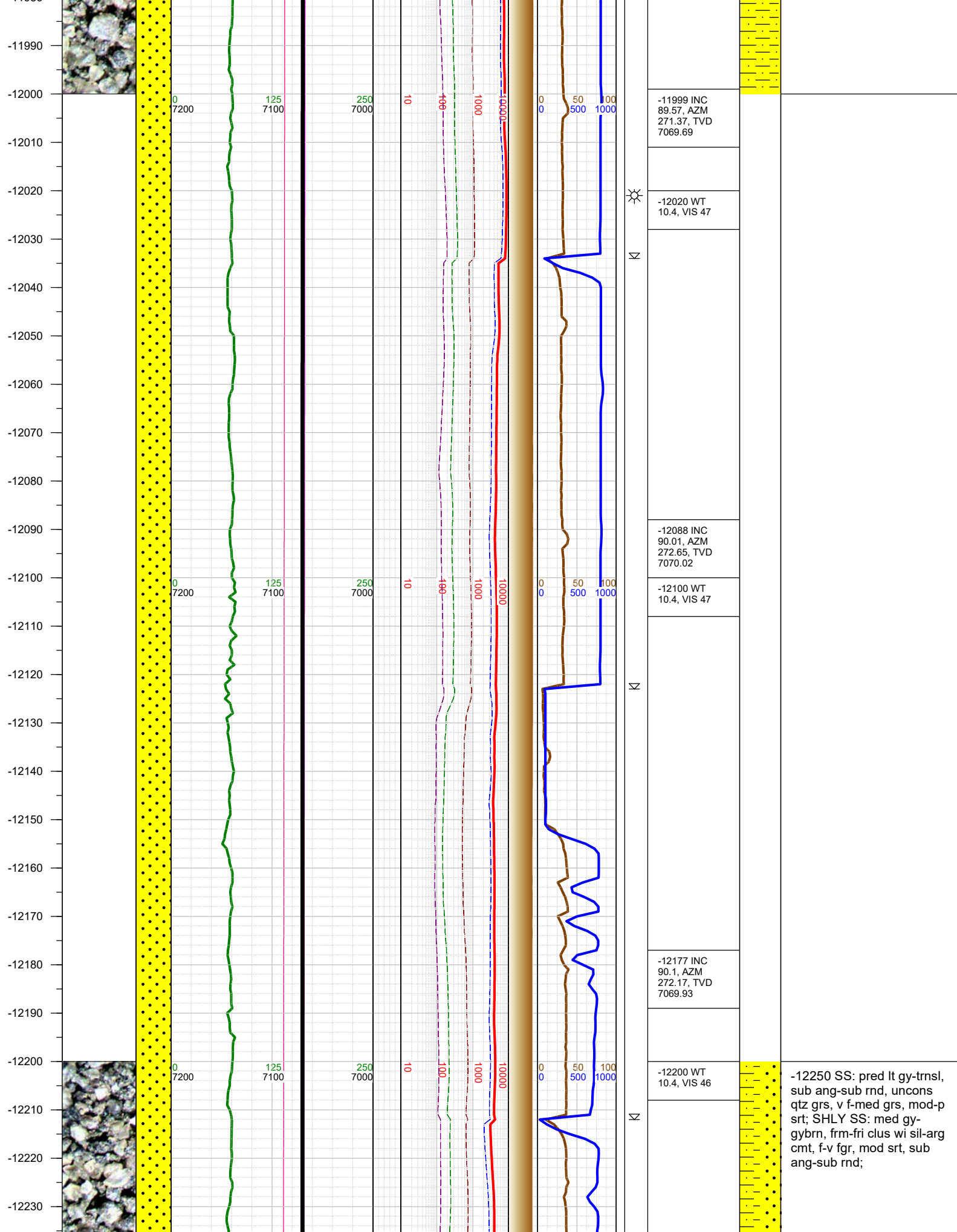
-11600 WT 10.3, VIS 45

-11641 INC 90.01, AZM 270.18, TVD 7069.92

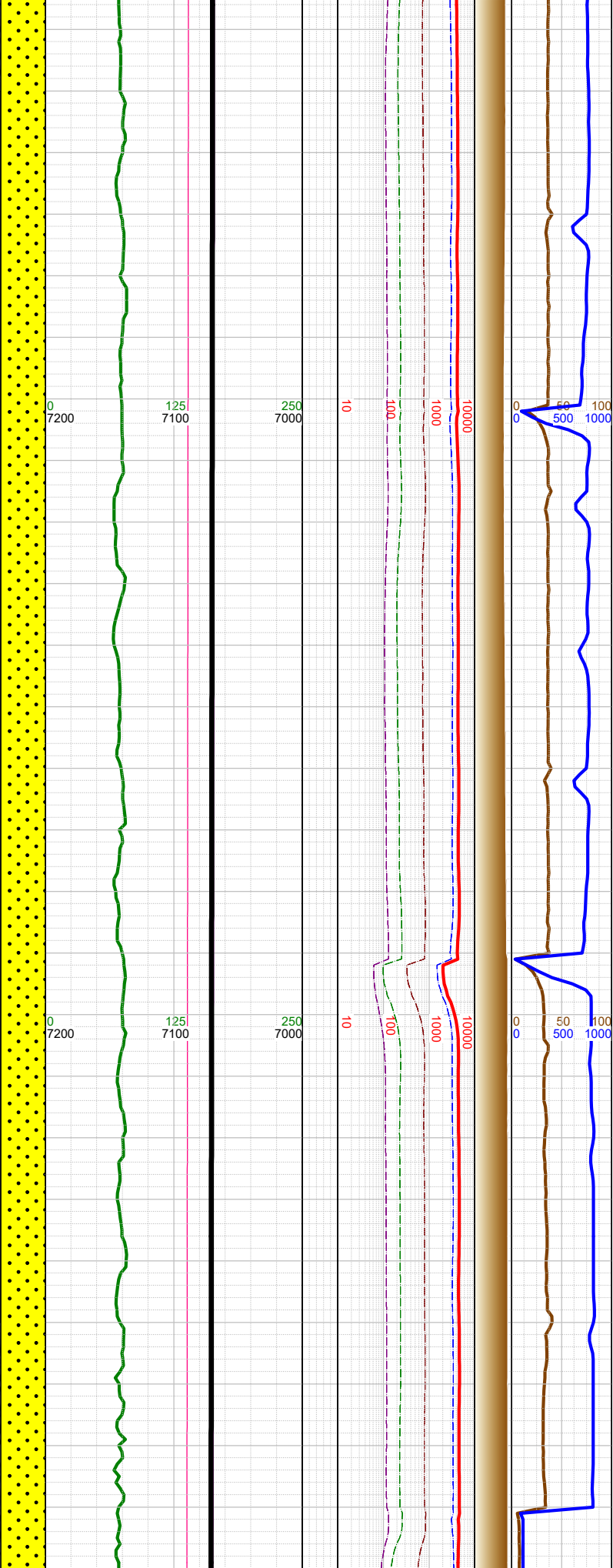
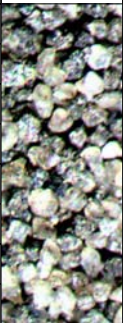
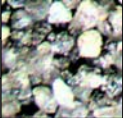
-11700 WT 10.3, VIS 45

-11750 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SS: pred lt gy-trnsl, sub ang-sub rnd, uncons qtz grs, v f-med grs, mod-p srt; SHLY SLTST: med gy-dk gy, mod





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-12267 INC
89.75, AZM
270.49, TVD
7070.05

-12280 Gas
reading of
8685u at 12280'
MD. The gas
corresponded
with a lag depth
of 12021' MD.
We turned on
the gas buster
shortly after.

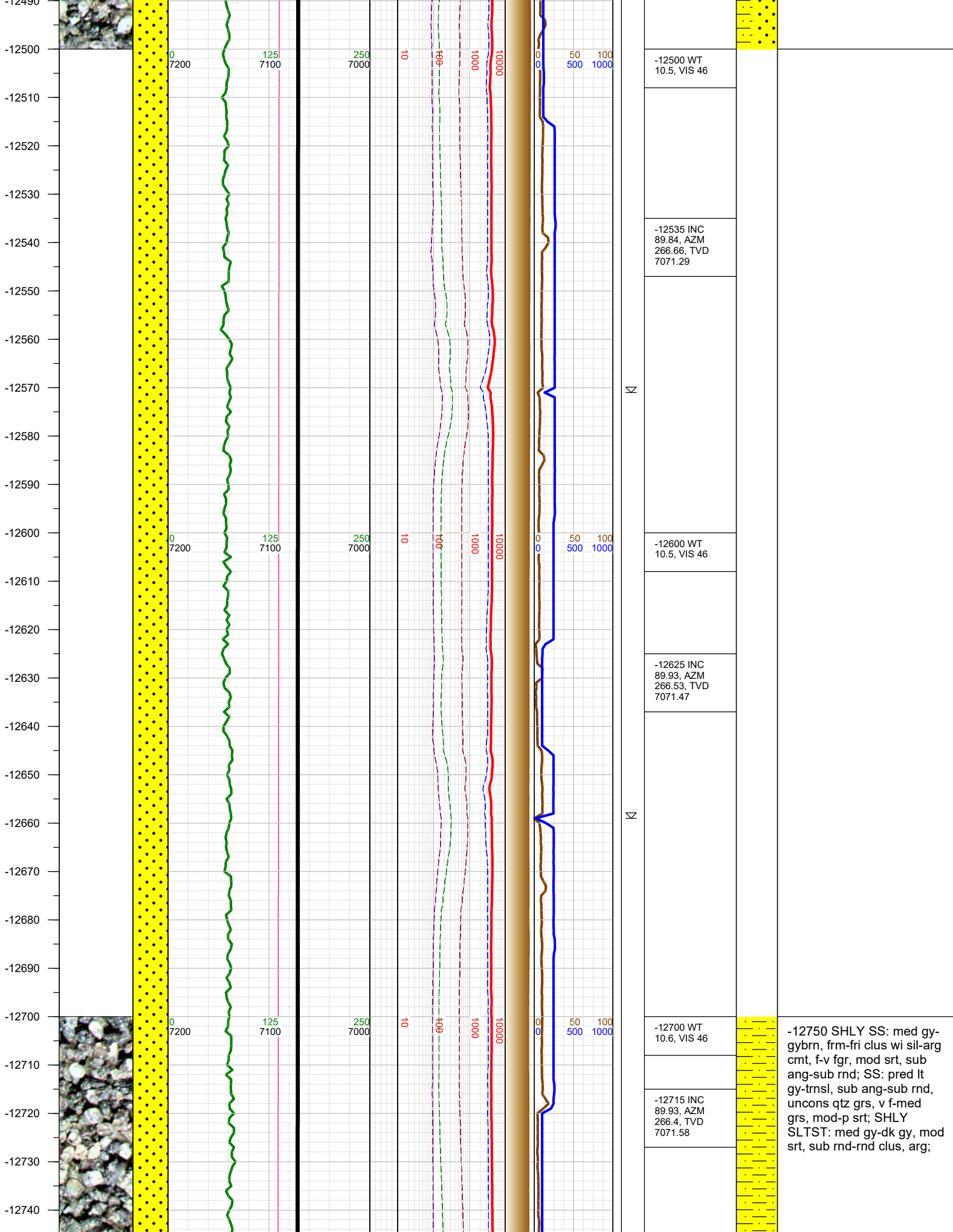
-12310 WT
10.4, VIS 46

-12356 INC
89.66, AZM
269.52, TVD
7070.51

-12400 WT
10.4, VIS 46

-12446 INC
89.75, AZM
267.72, TVD
7070.97

-12500 SS: pred lt gy-trnsf,
sub ang-sub rnd, uncons
qtz grs, v f-med grs, mod-p
srt; SHLY SS: med gy-
gybrn, frm- fri clus wi sil-
arg cmt, f-v fgr, mod srt,
sub ang-sub rnd;



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-12500 WT
10.5, VIS 46

-12535 INC
89.84, AZM
266.66, TVD
7071.29

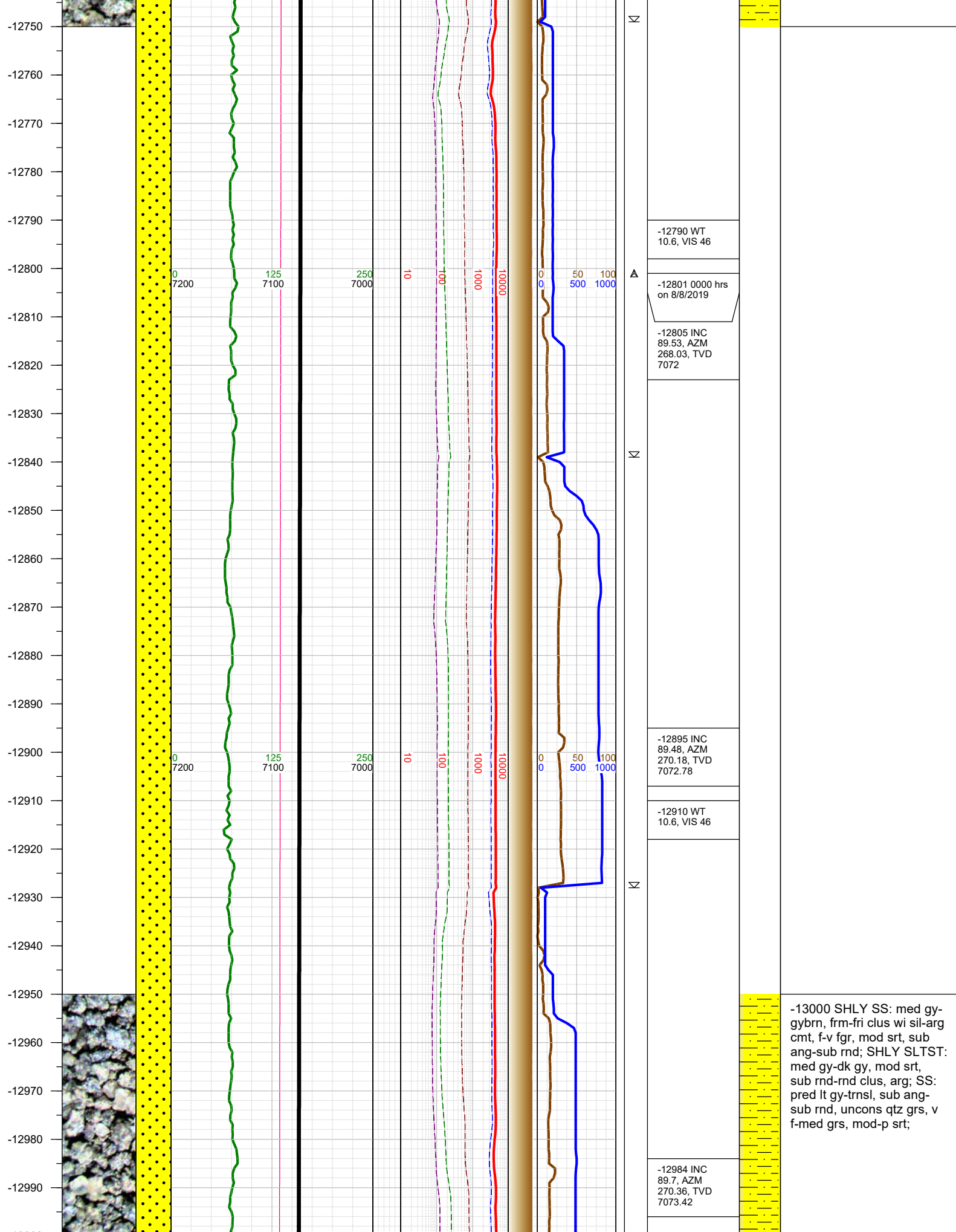
-12600 WT
10.5, VIS 46

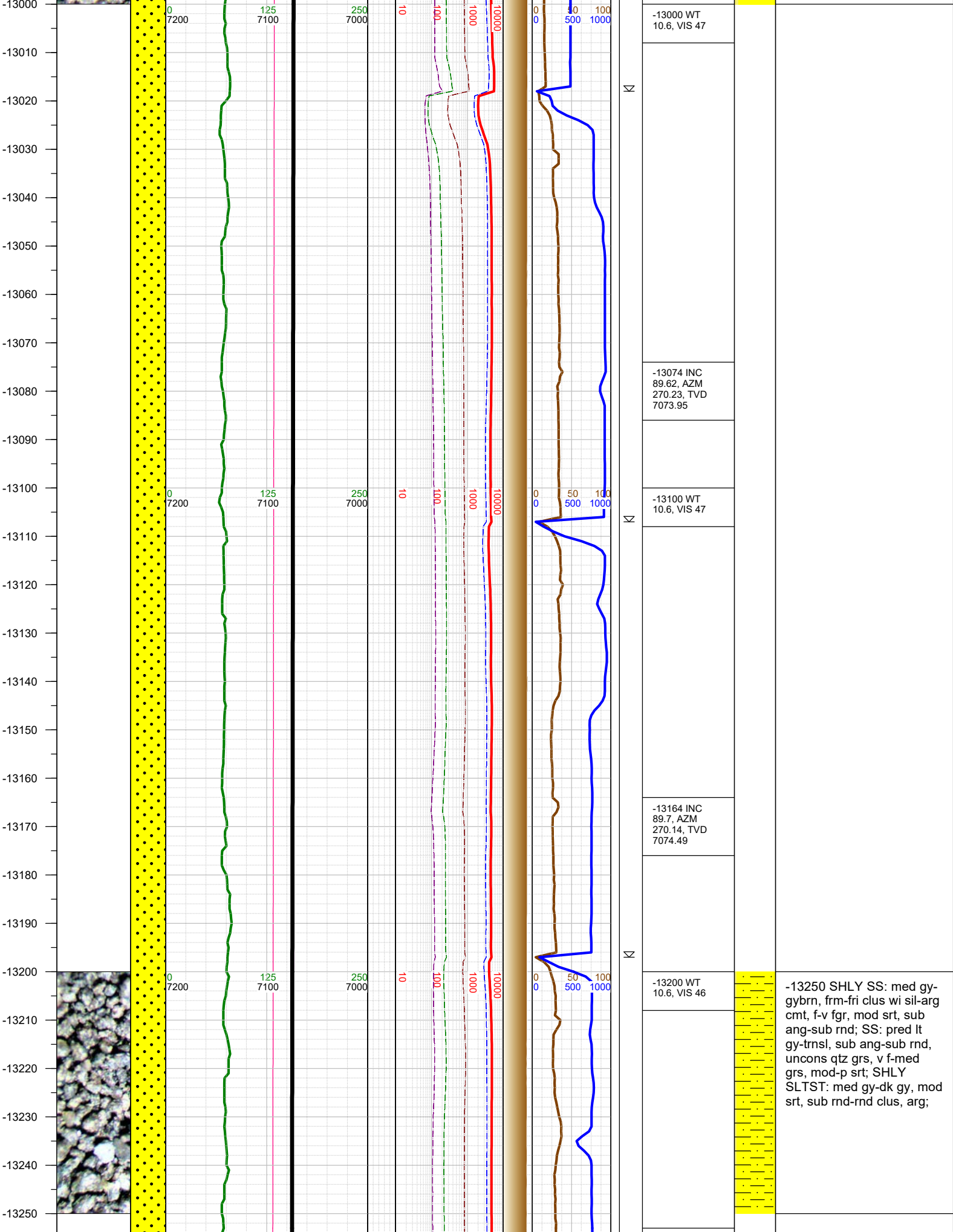
-12625 INC
89.93, AZM
266.53, TVD
7071.47

-12700 WT
10.6, VIS 46

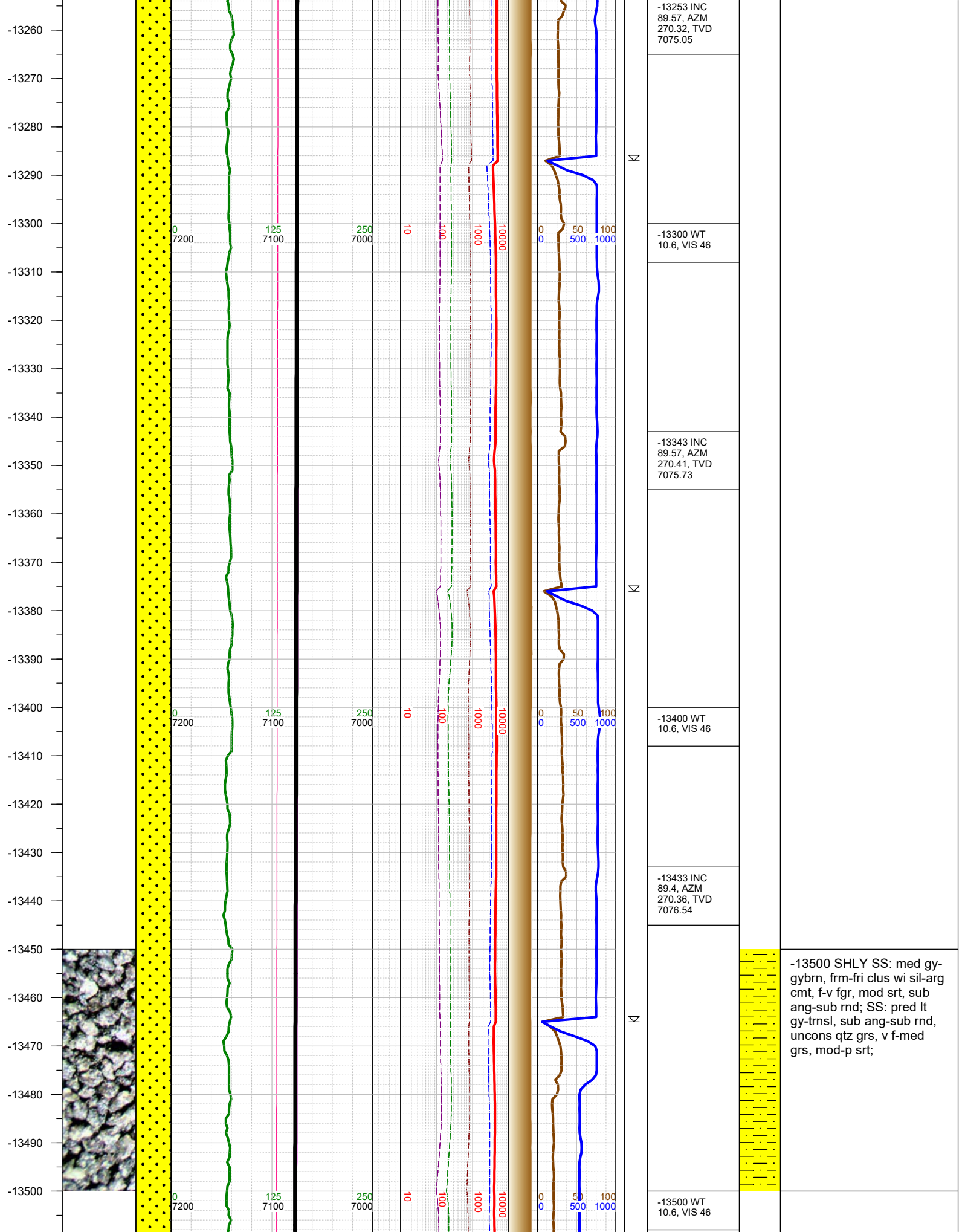
-12715 INC
89.93, AZM
266.4, TVD
7071.58

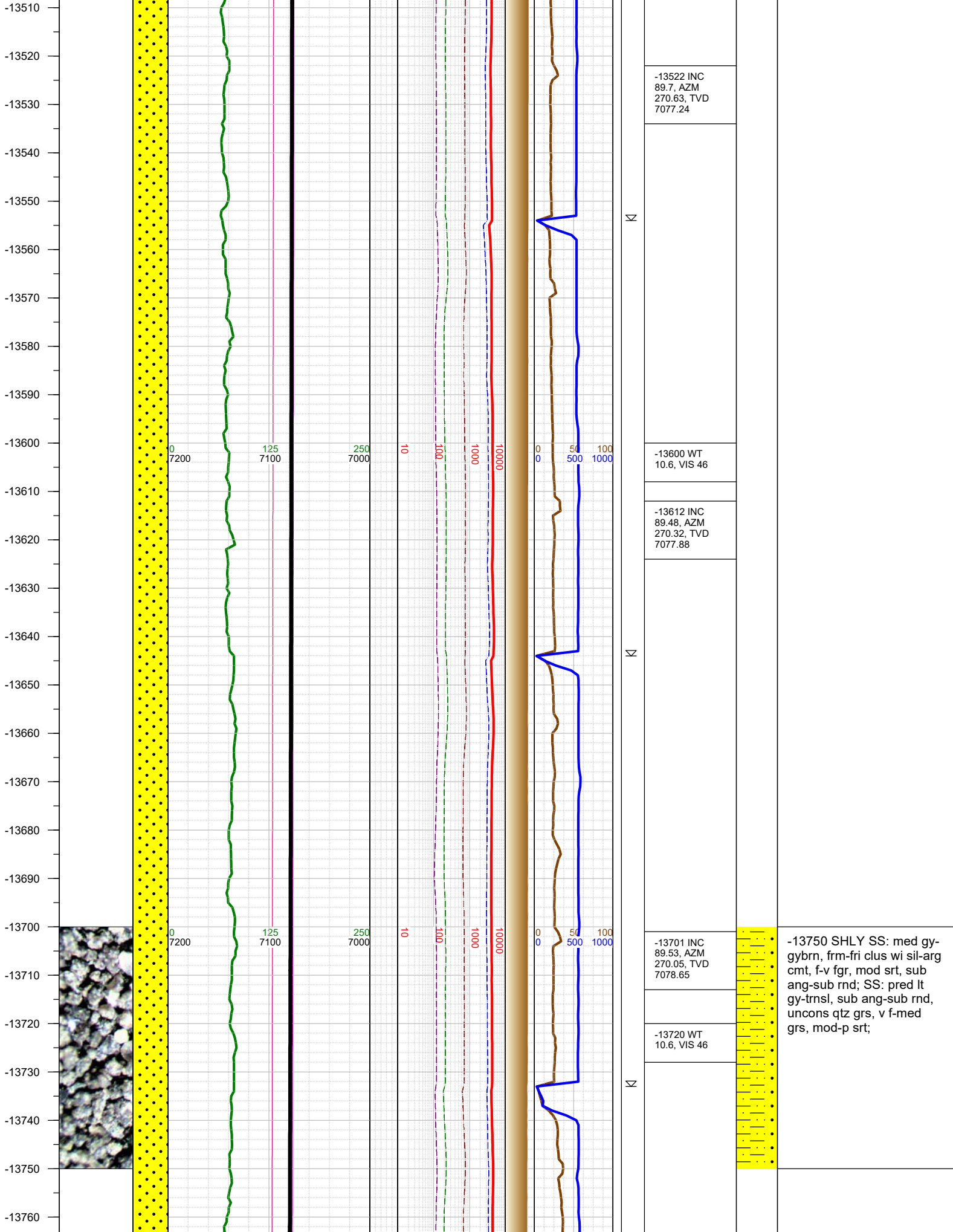
-12750 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SS: pred lt gy-trnsl, sub ang-sub rnd, uncons qtz grs, v f-med grs, mod-p srt; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;

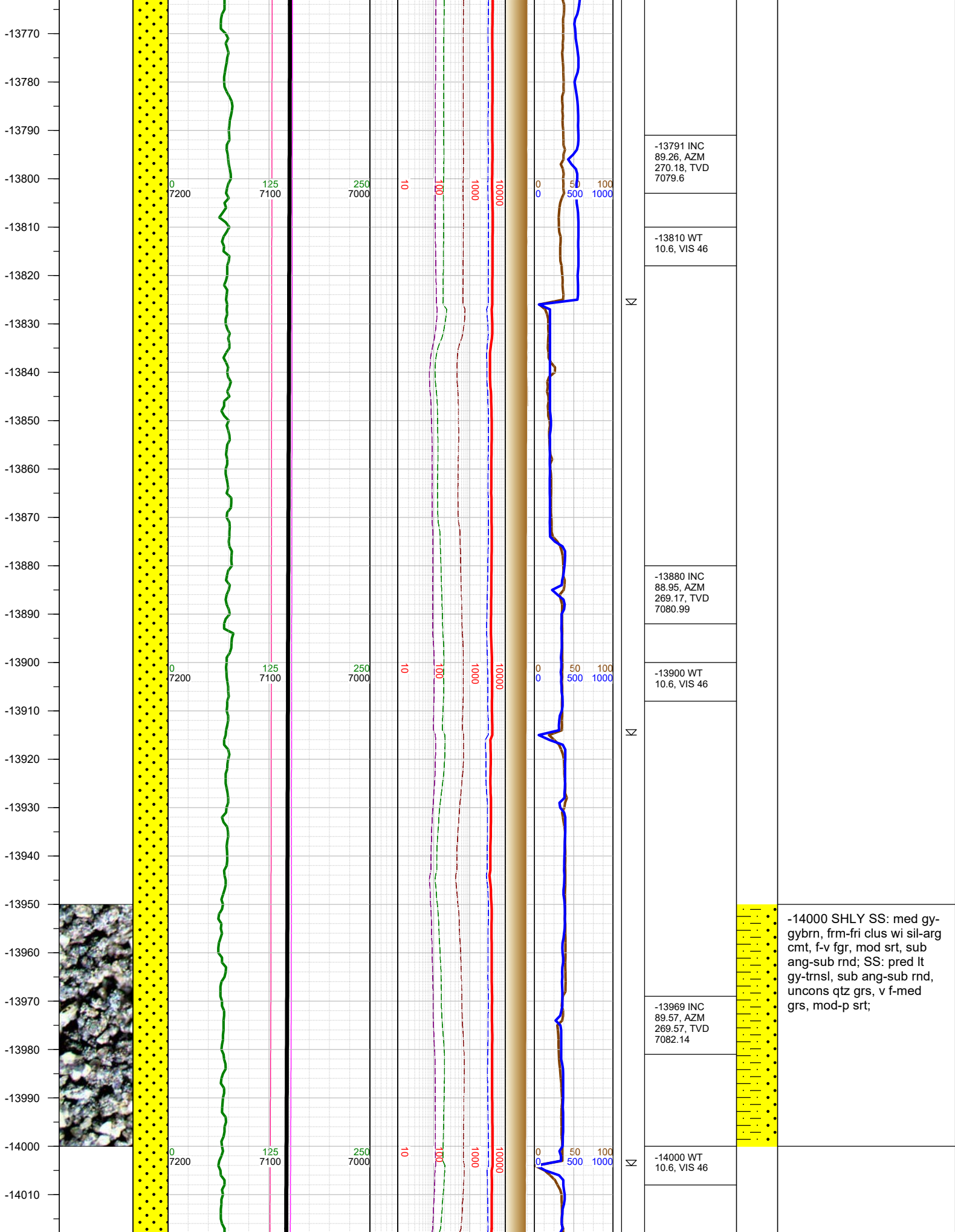


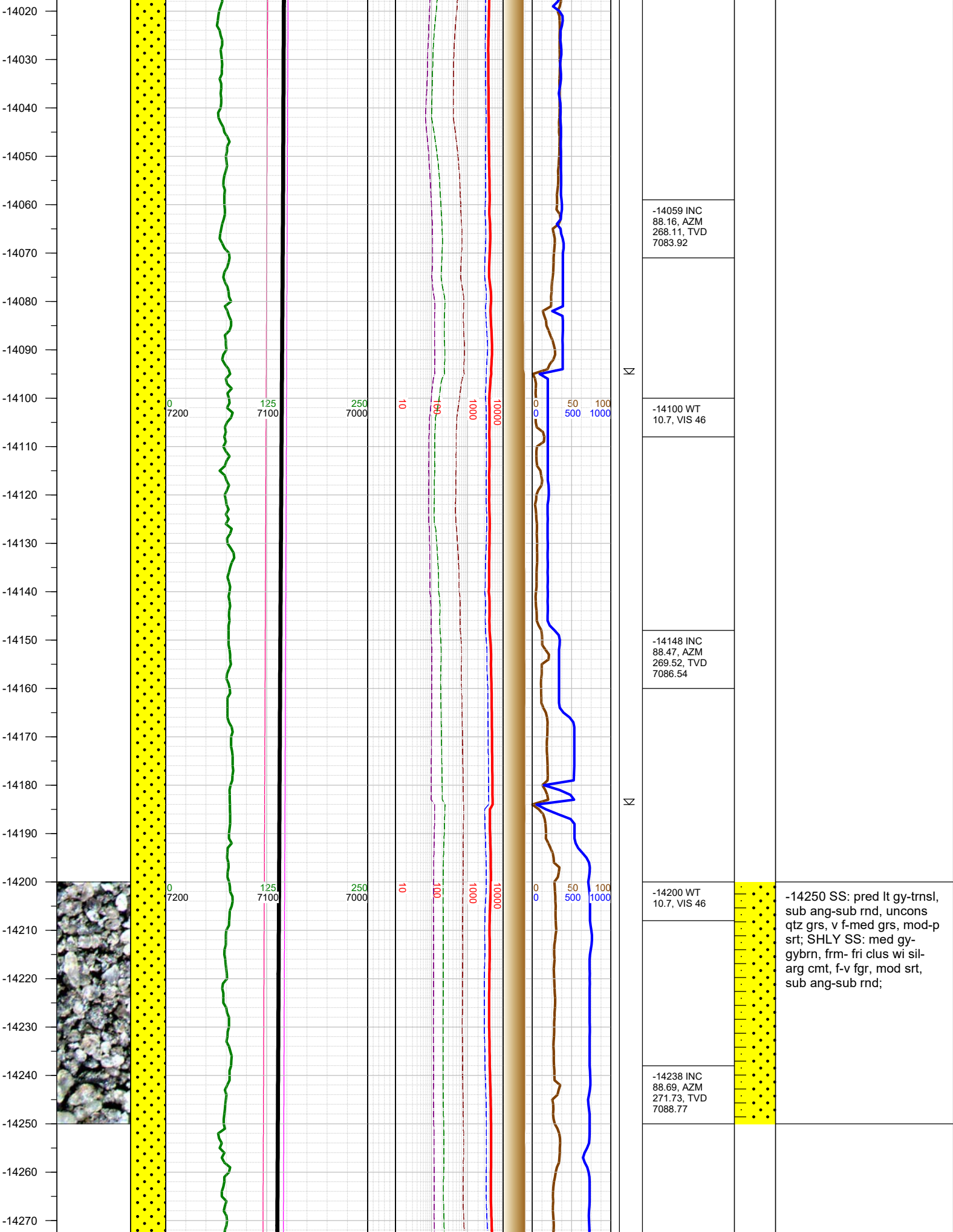


-13250 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SS: pred lt gy-trnsl, sub ang-sub rnd, uncons qtz grs, v f-med grs, mod-p srt; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;

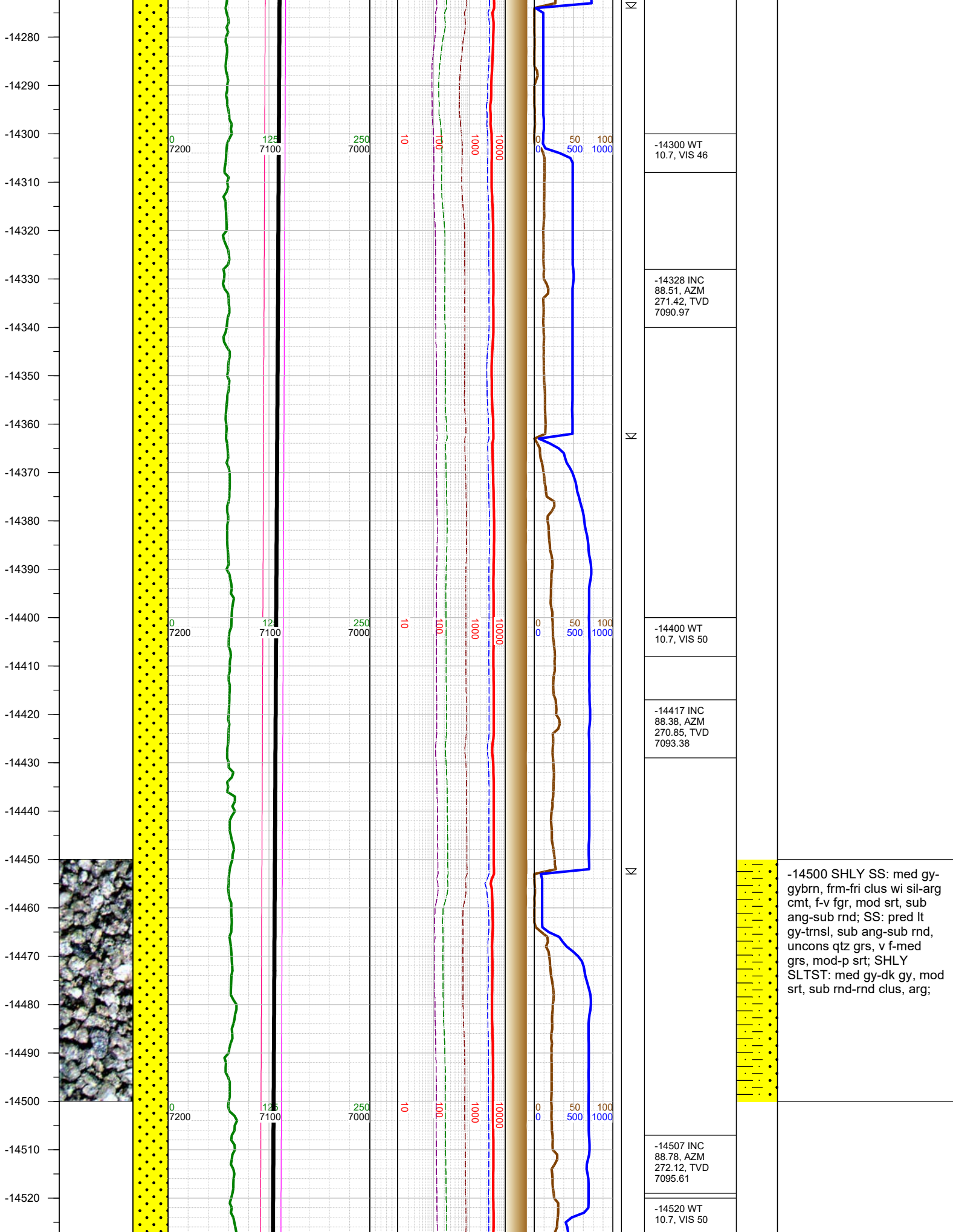




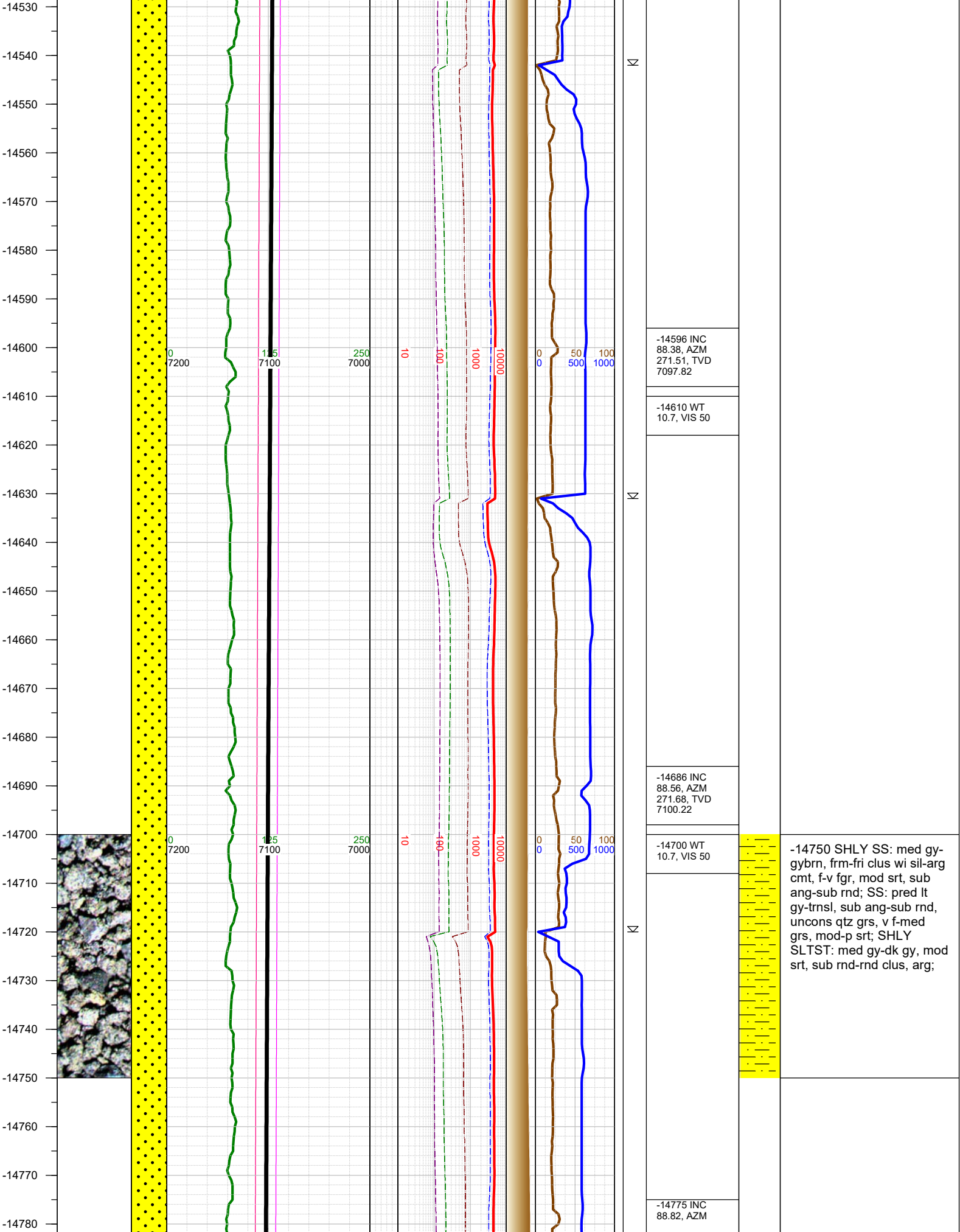


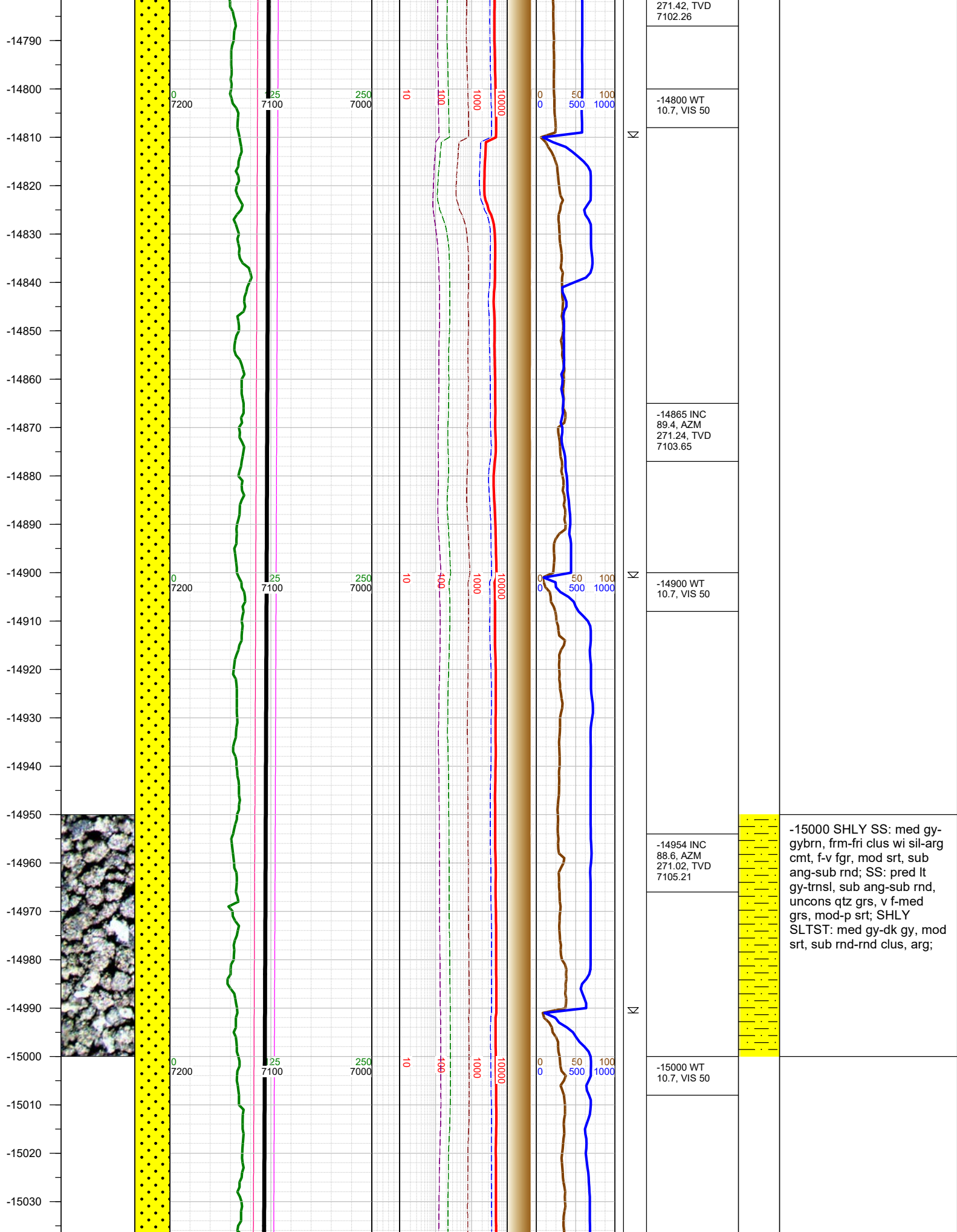


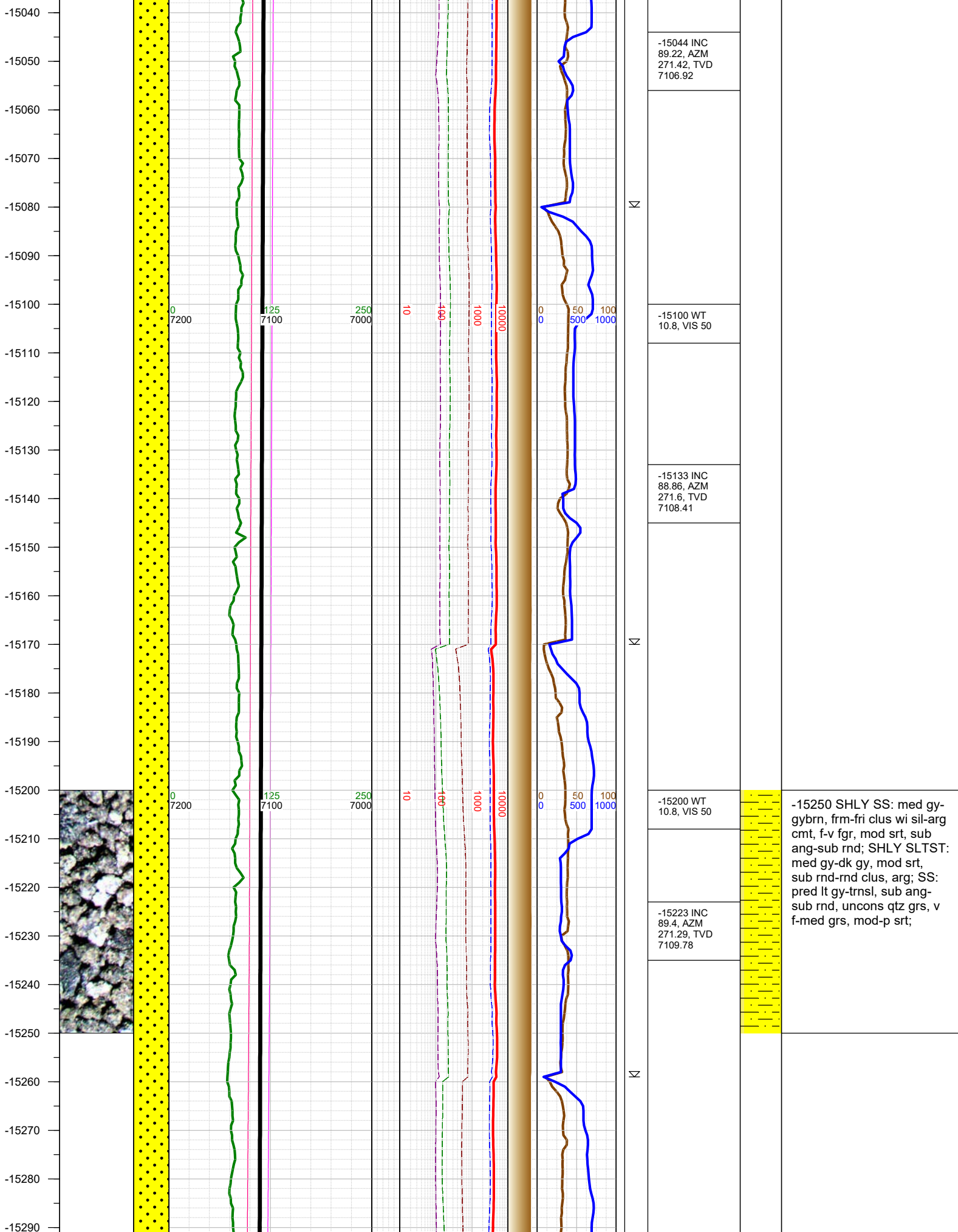
-14250 SS: pred lt gy-trnsl, sub ang-sub rnd, uncons qtz grs, v f-med grs, mod-p srt; SHLY SS: med gy-gybrn, frm- fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd;

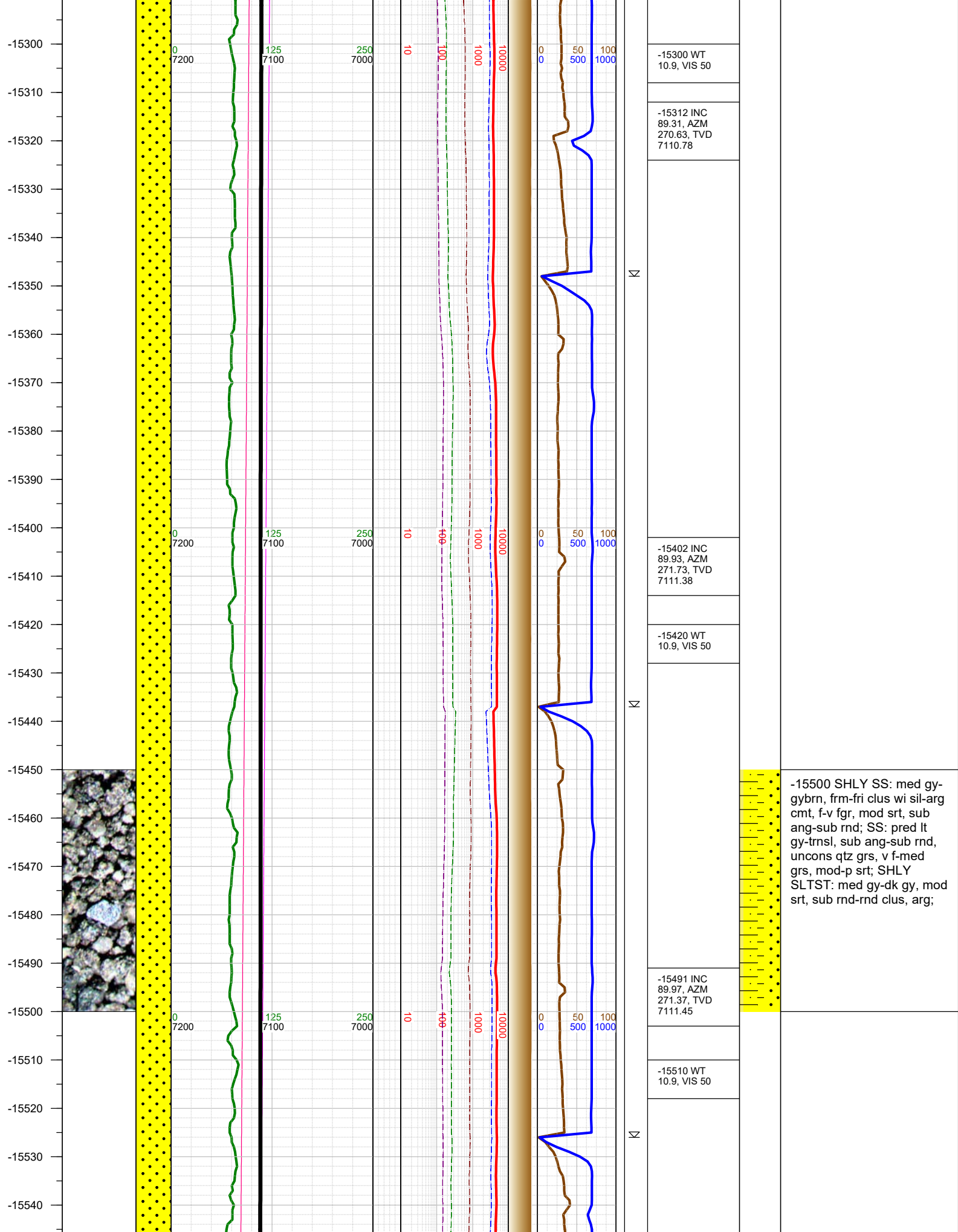


-14500 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SS: pred lt gy-trnsl, sub ang-sub rnd, uncons qtz grs, v f-med grs, mod-p srt; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;

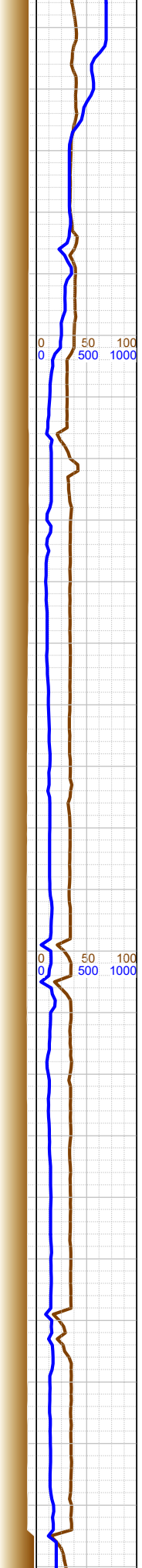
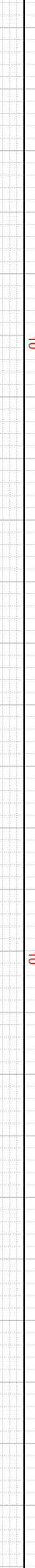
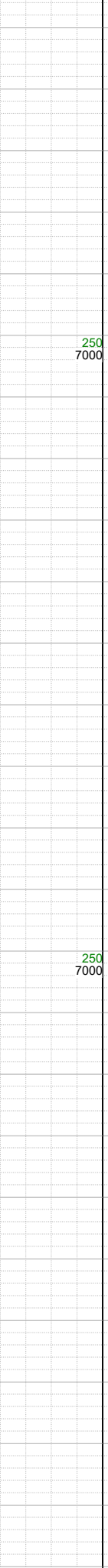
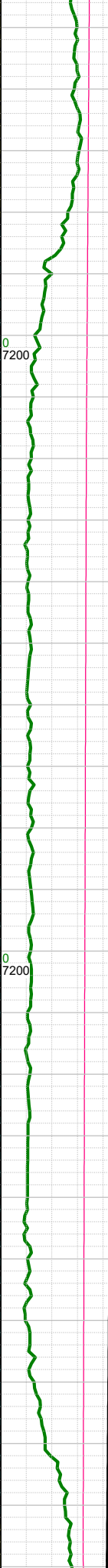
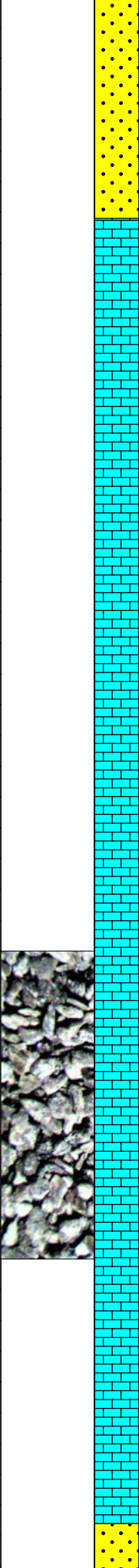








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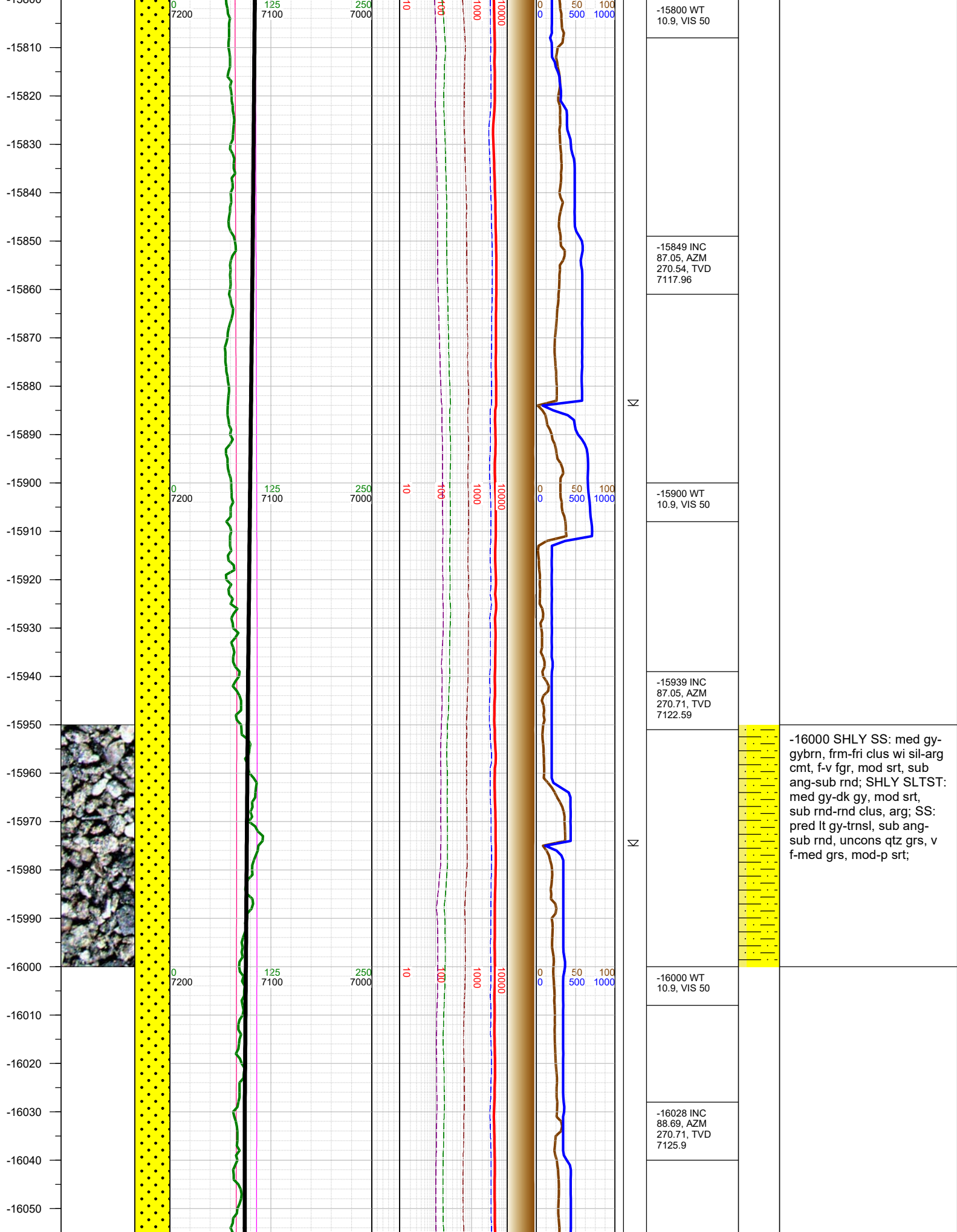


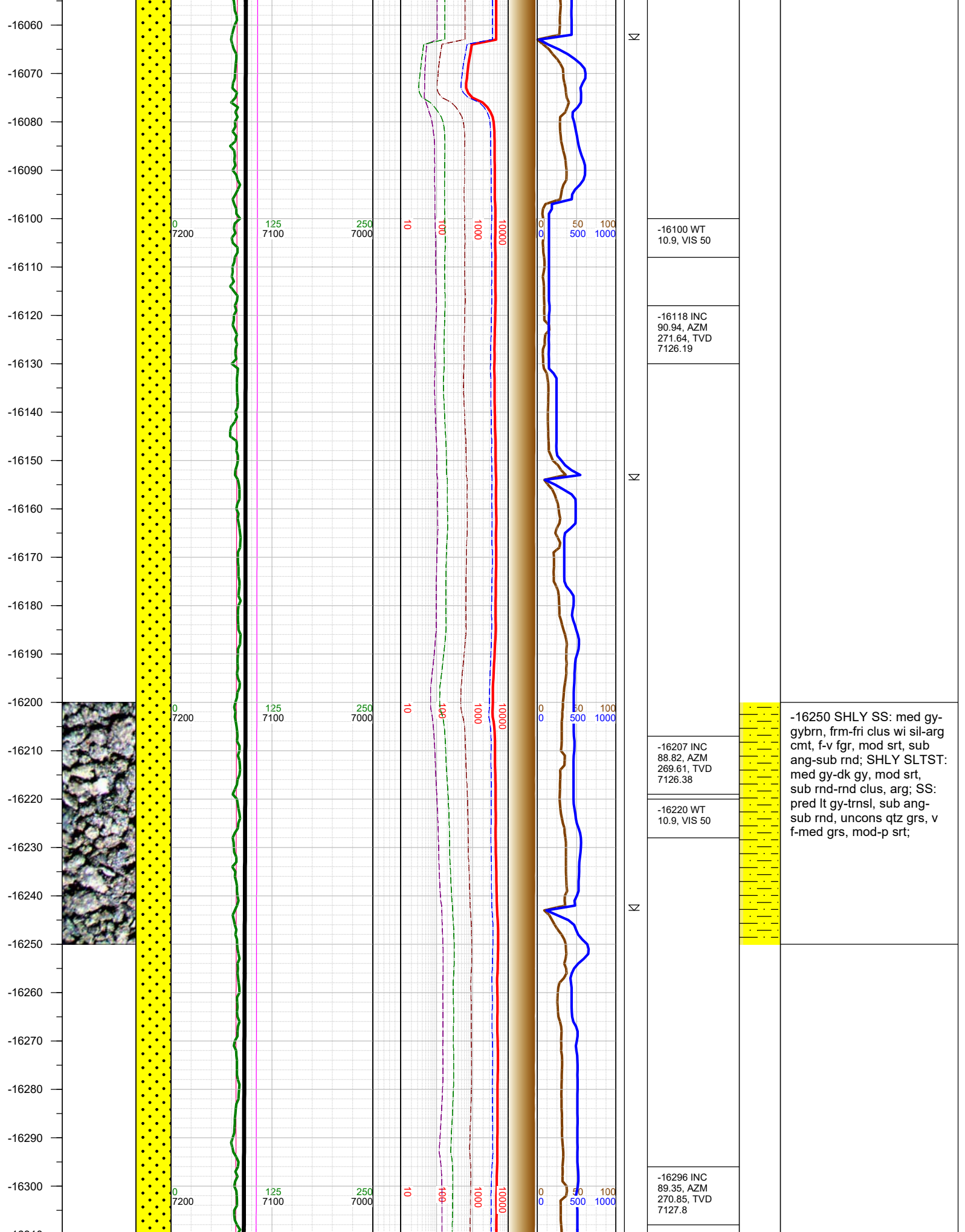
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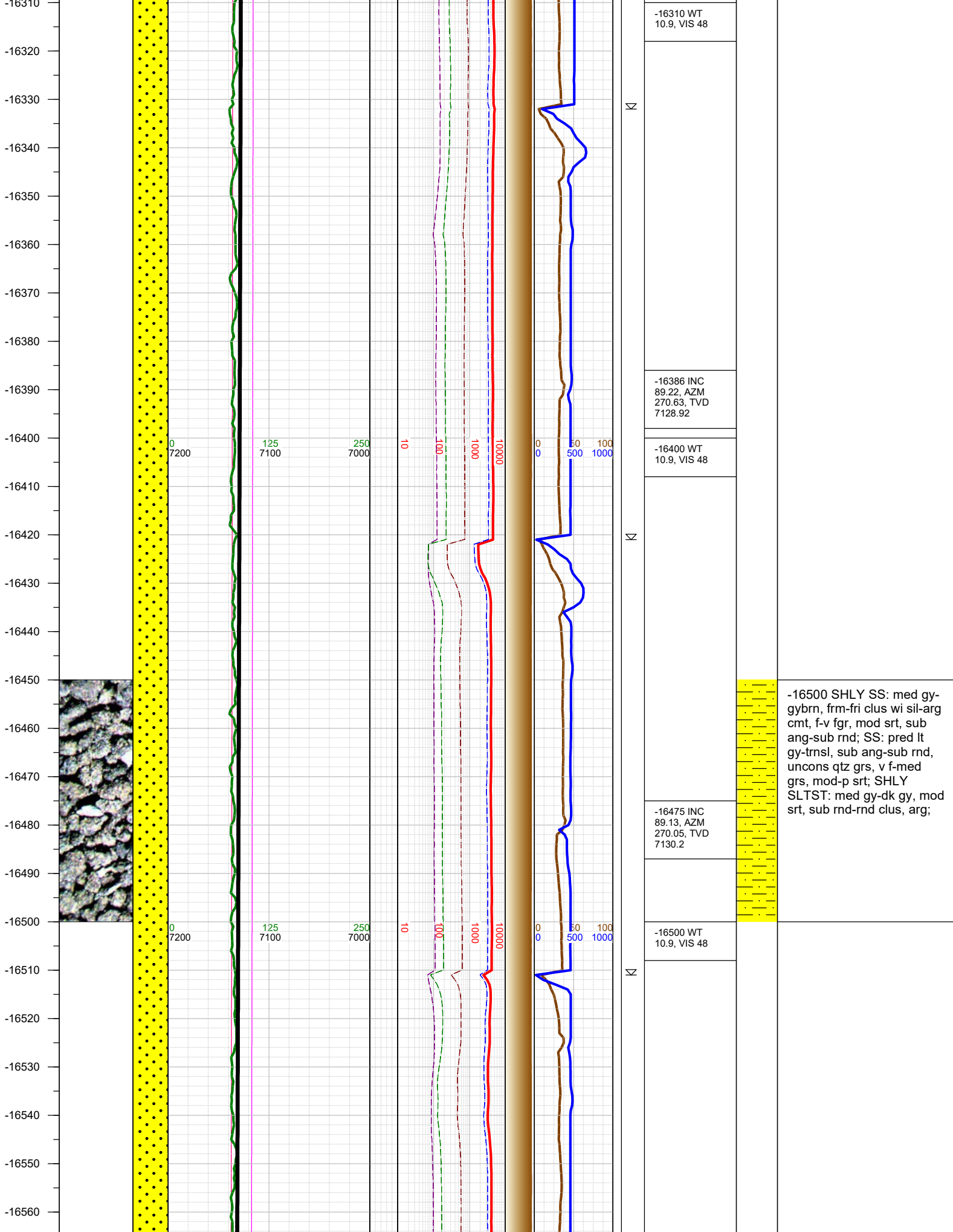
	-15580 INC 89.53, AZM 271.33, TVD 7111.84
	-15600 WT 10.9, VIS 50
	-15669 INC 89.48, AZM 270.58, TVD 7112.61
	-15700 WT 10.9, VIS 50
	-15759 INC 88.33, AZM 271.9, TVD 7114.33

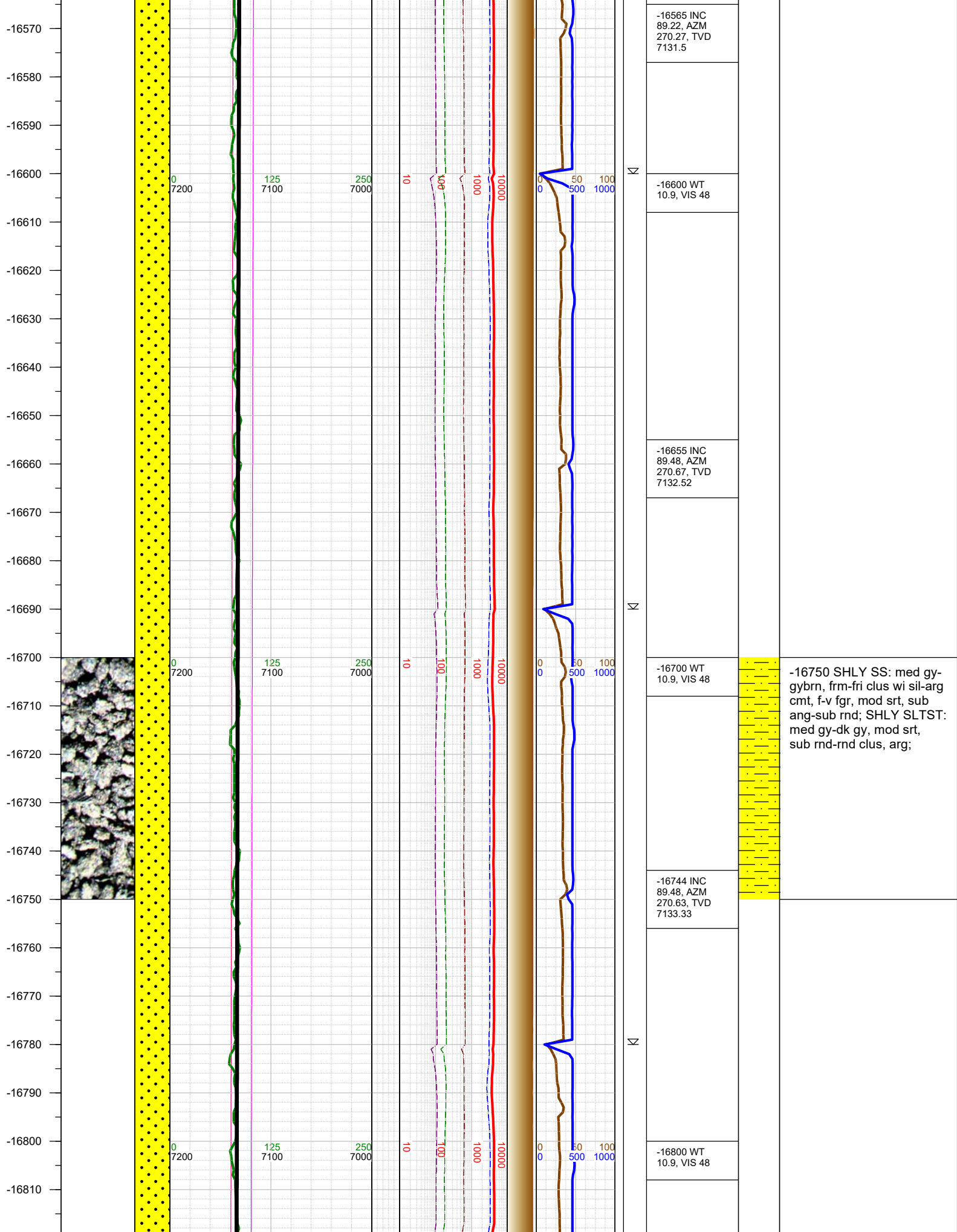


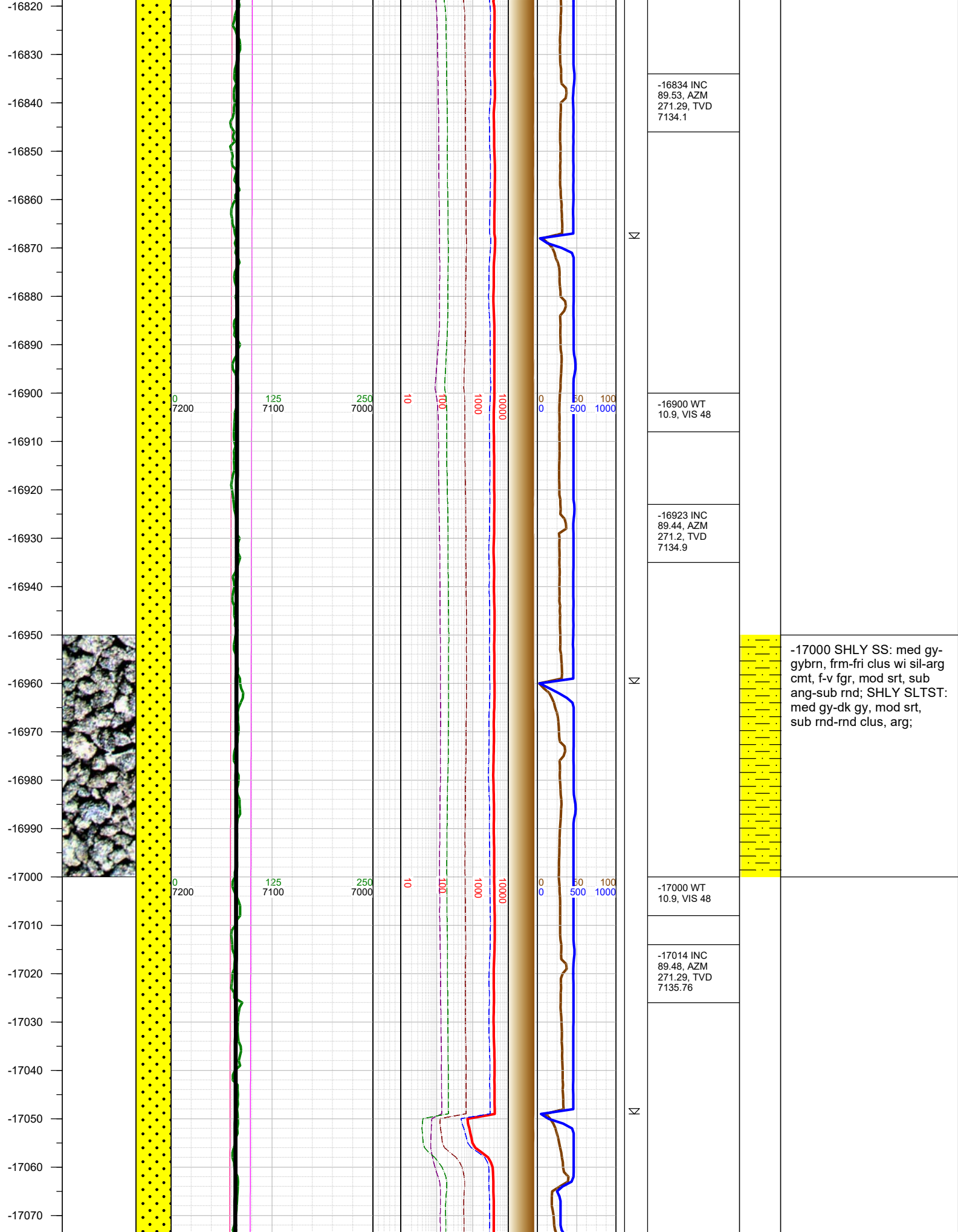
-15750 LS: lt crm-lt gy, subblky-subplty, sl wxy, v calc; SHLY SLTST: med-dk gy, frm, blk-sub blk, gr-rthy, sl calc; tr pyr;

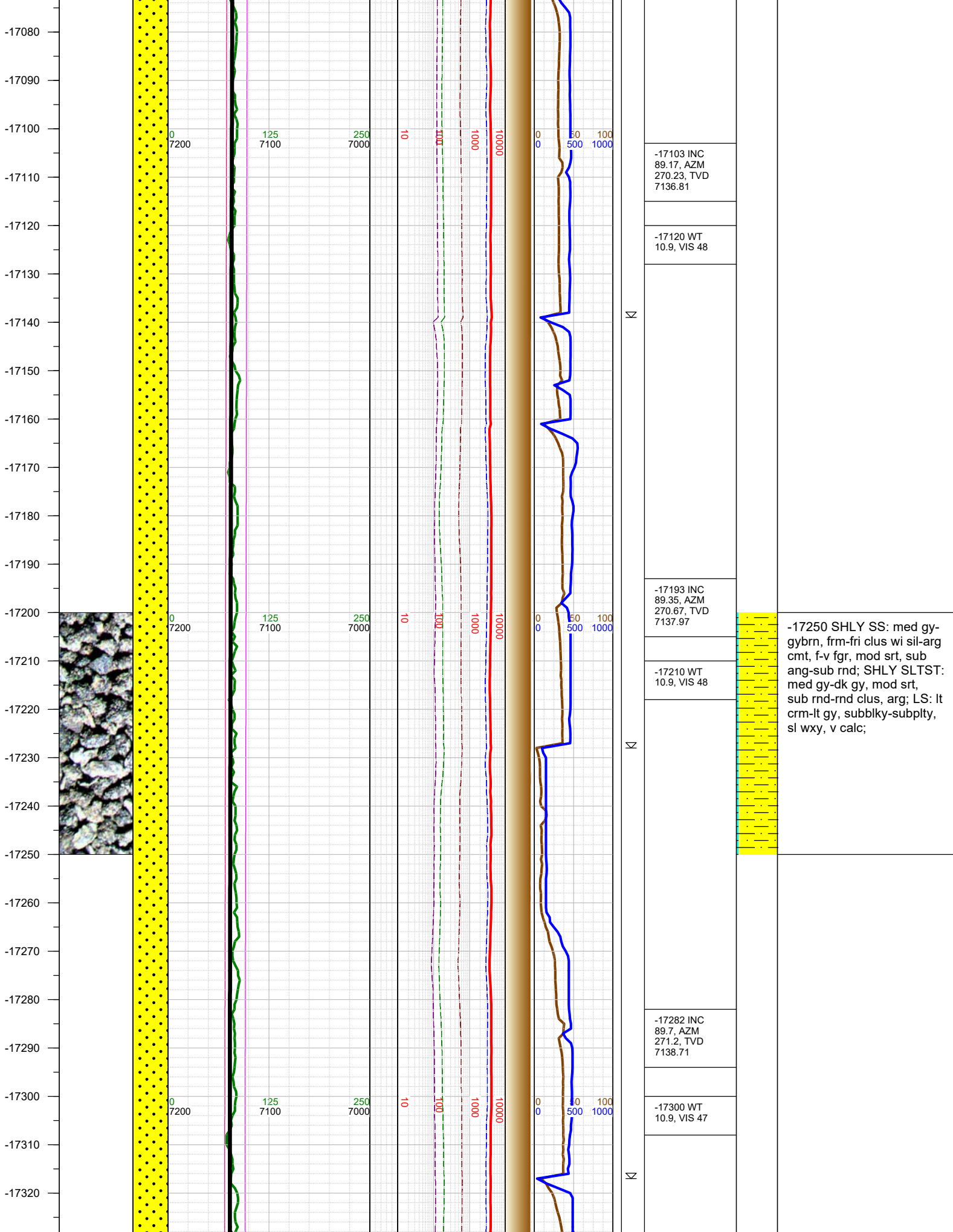


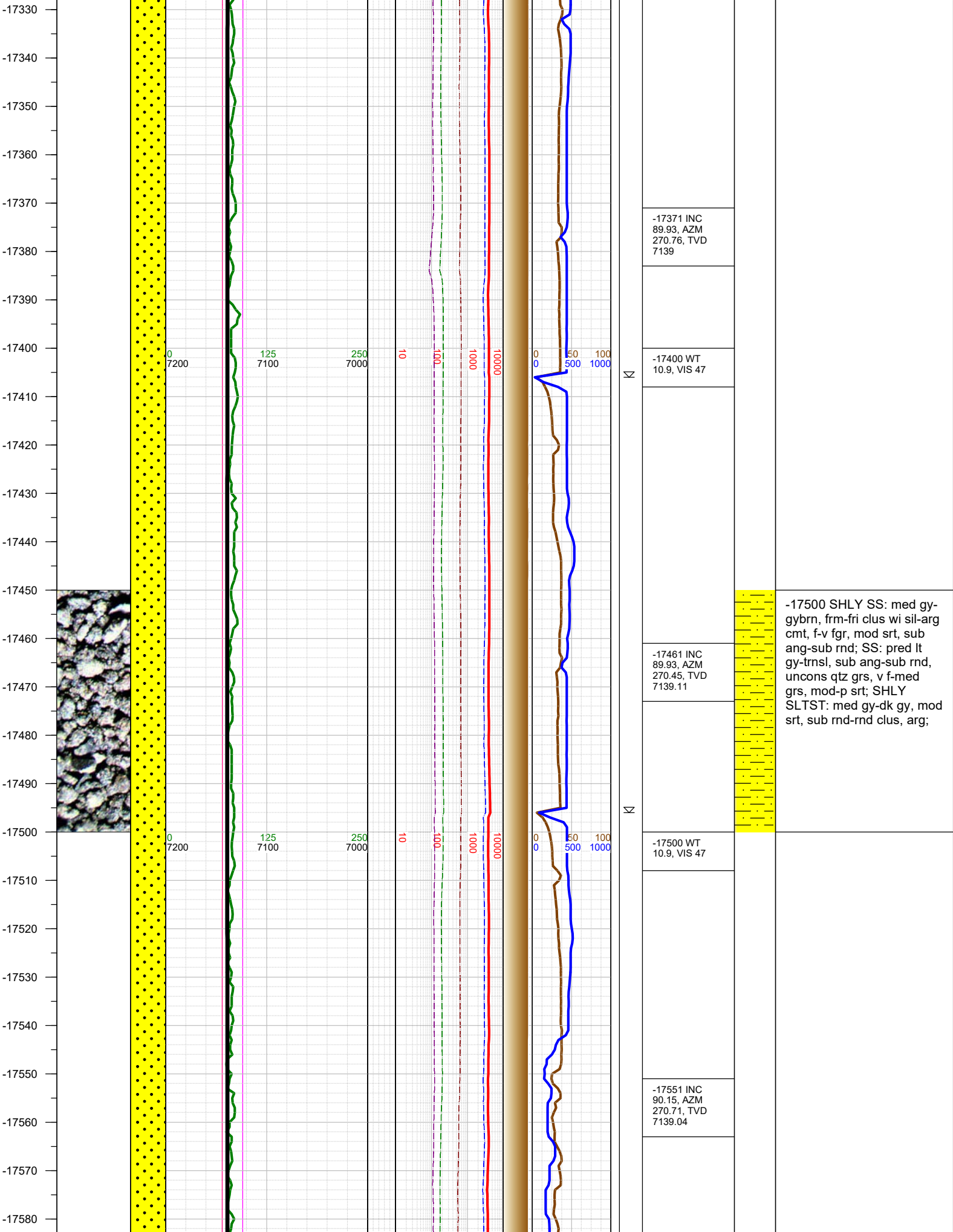




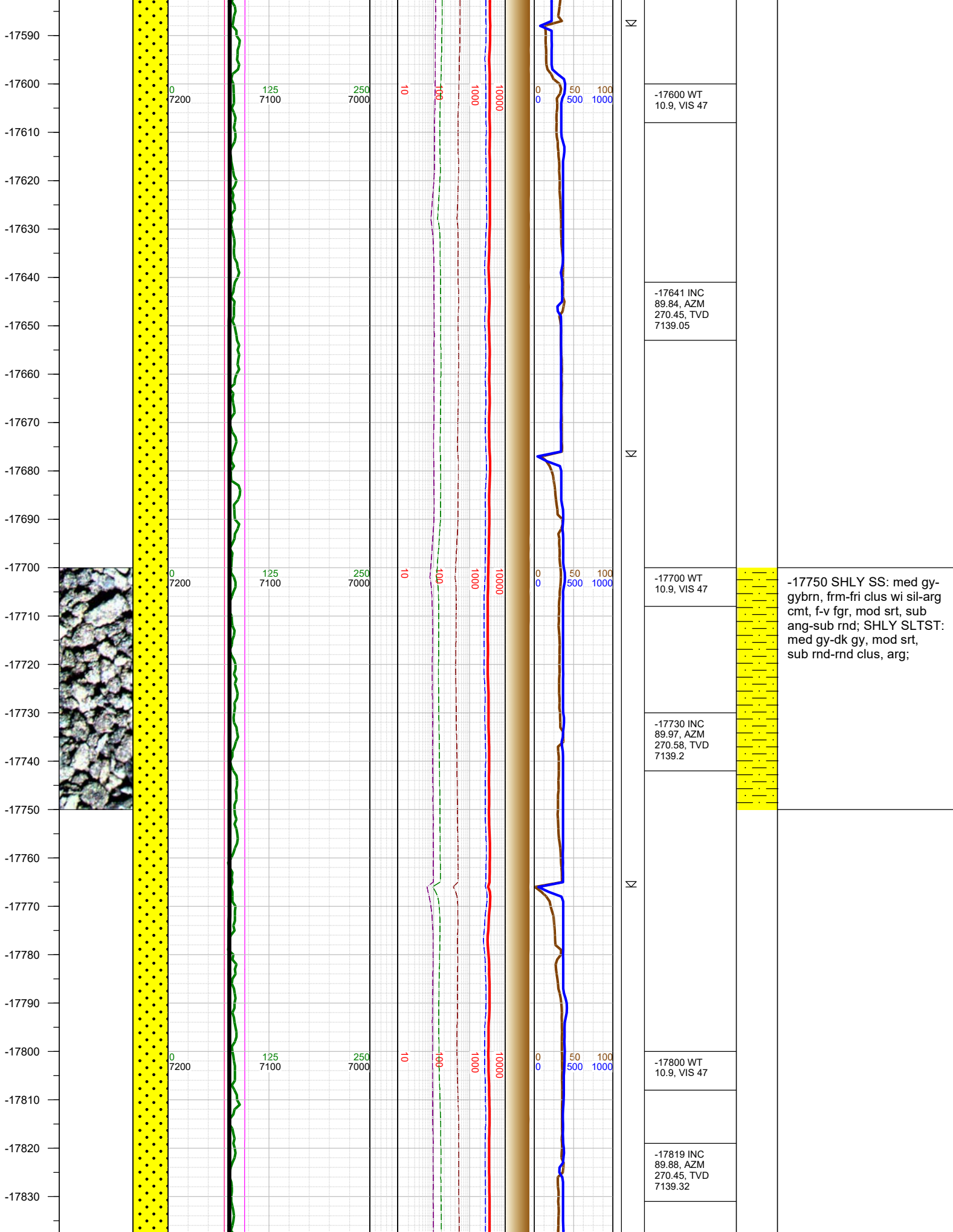




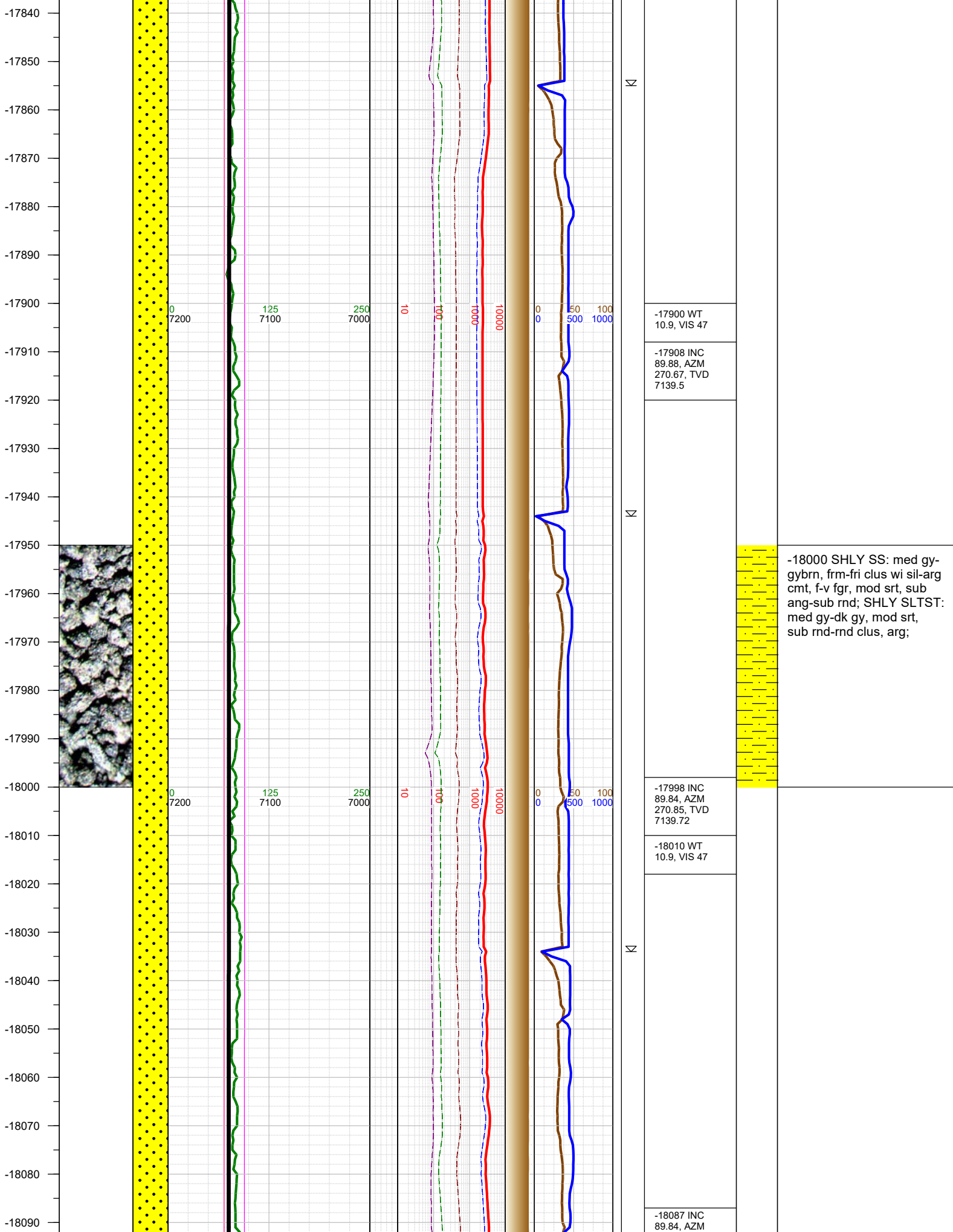




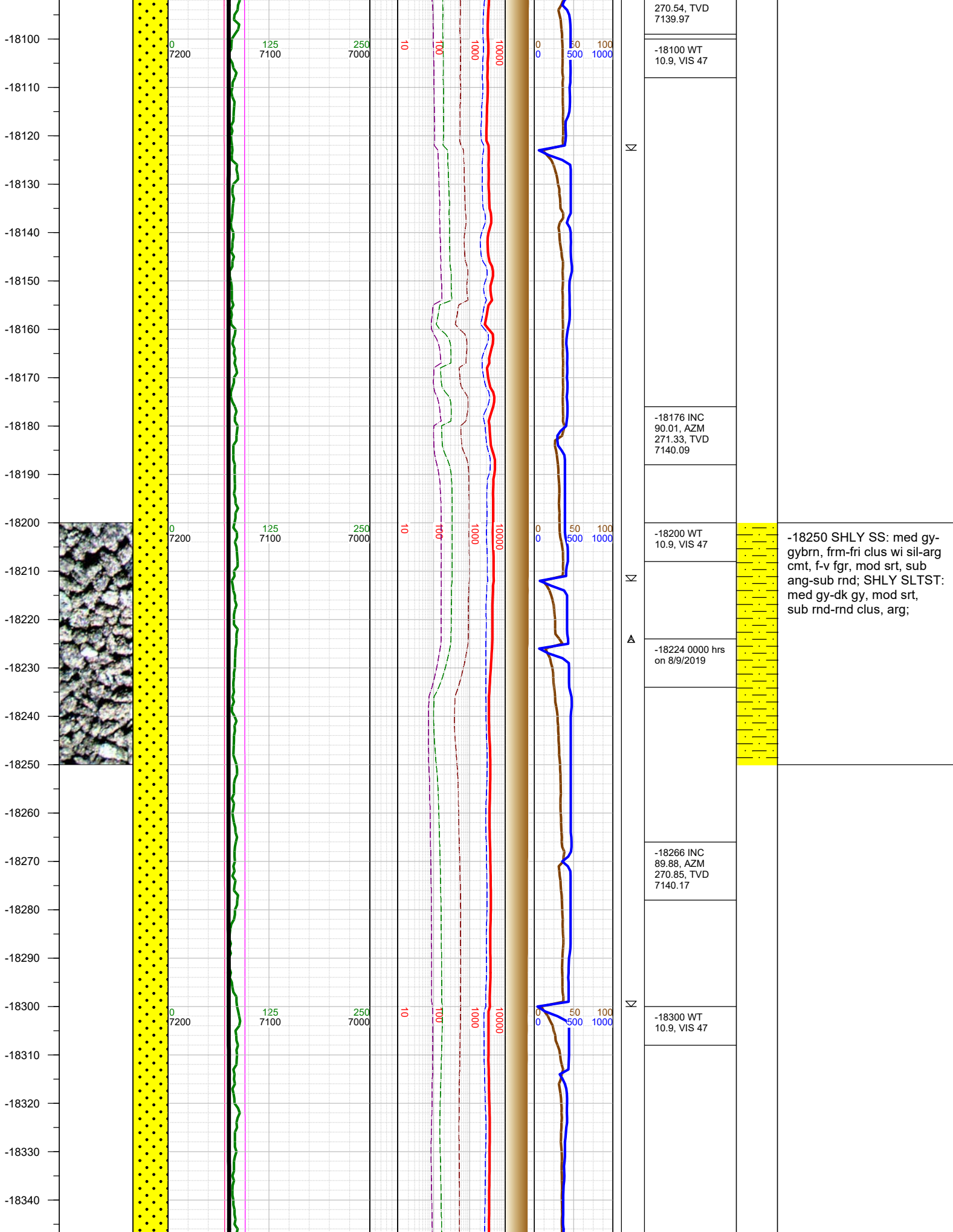
-17500 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SS: pred lt gy-trnsl, sub ang-sub rnd, uncons qtz grs, v f-med grs, mod-p srt; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;

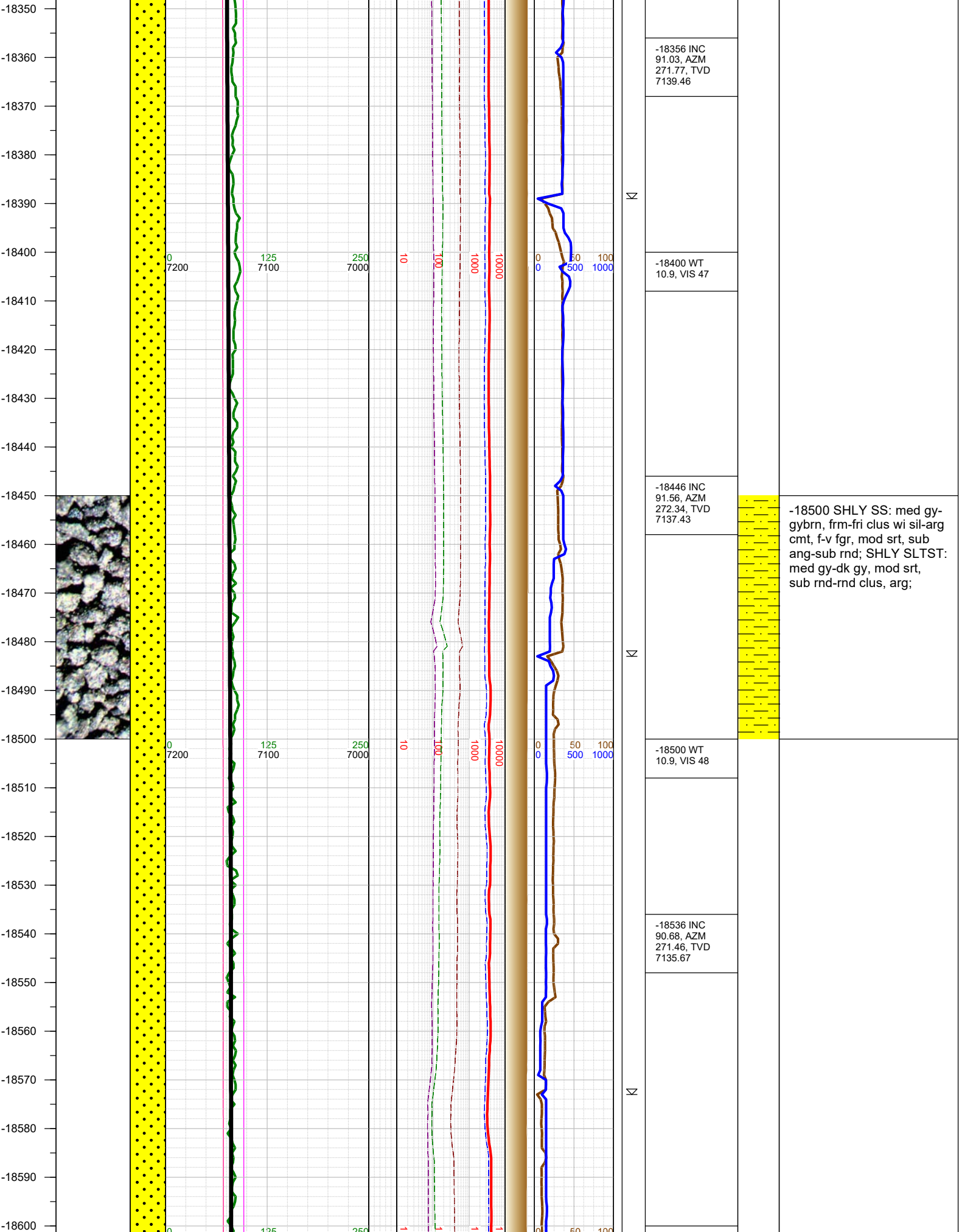


-17750 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;

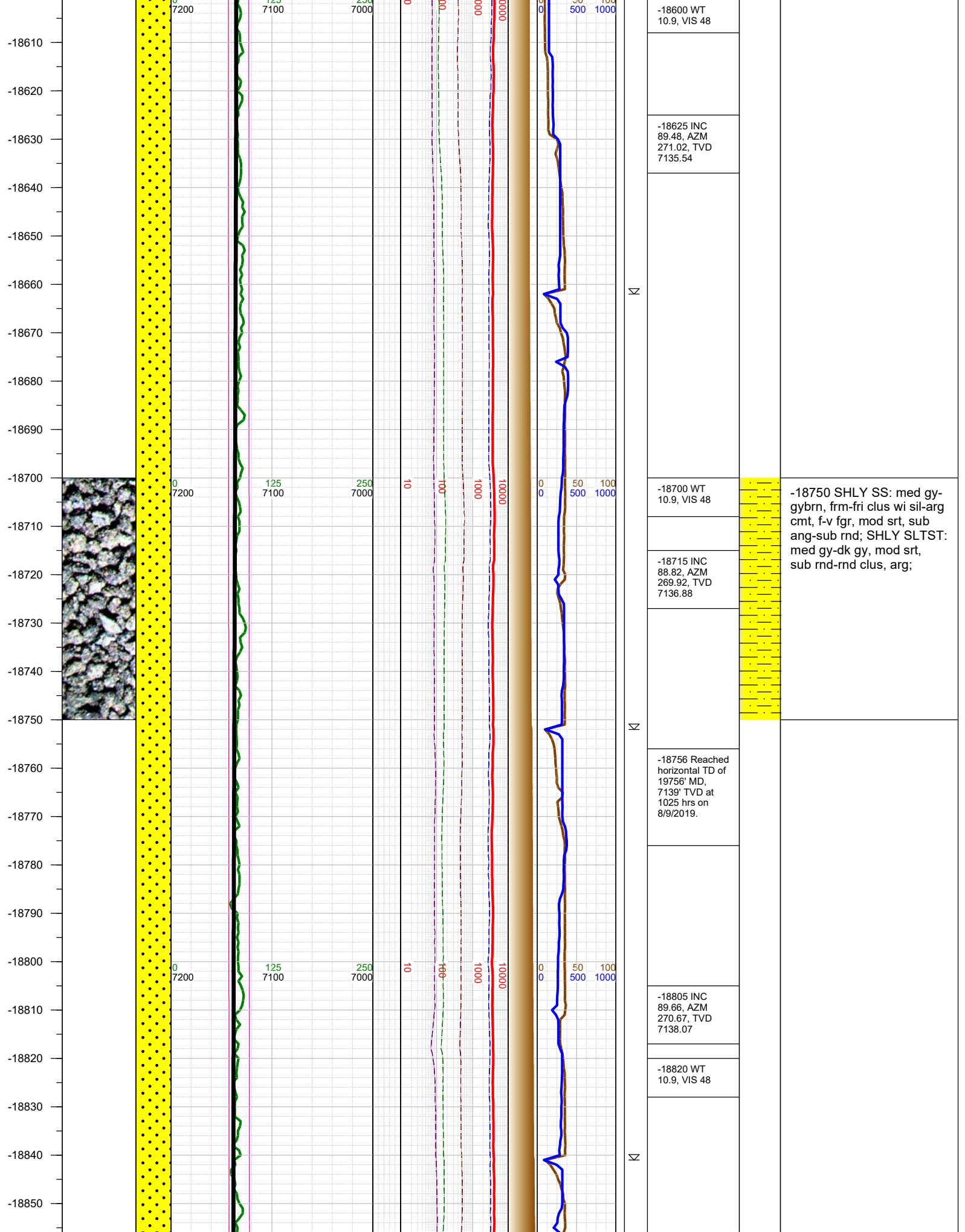


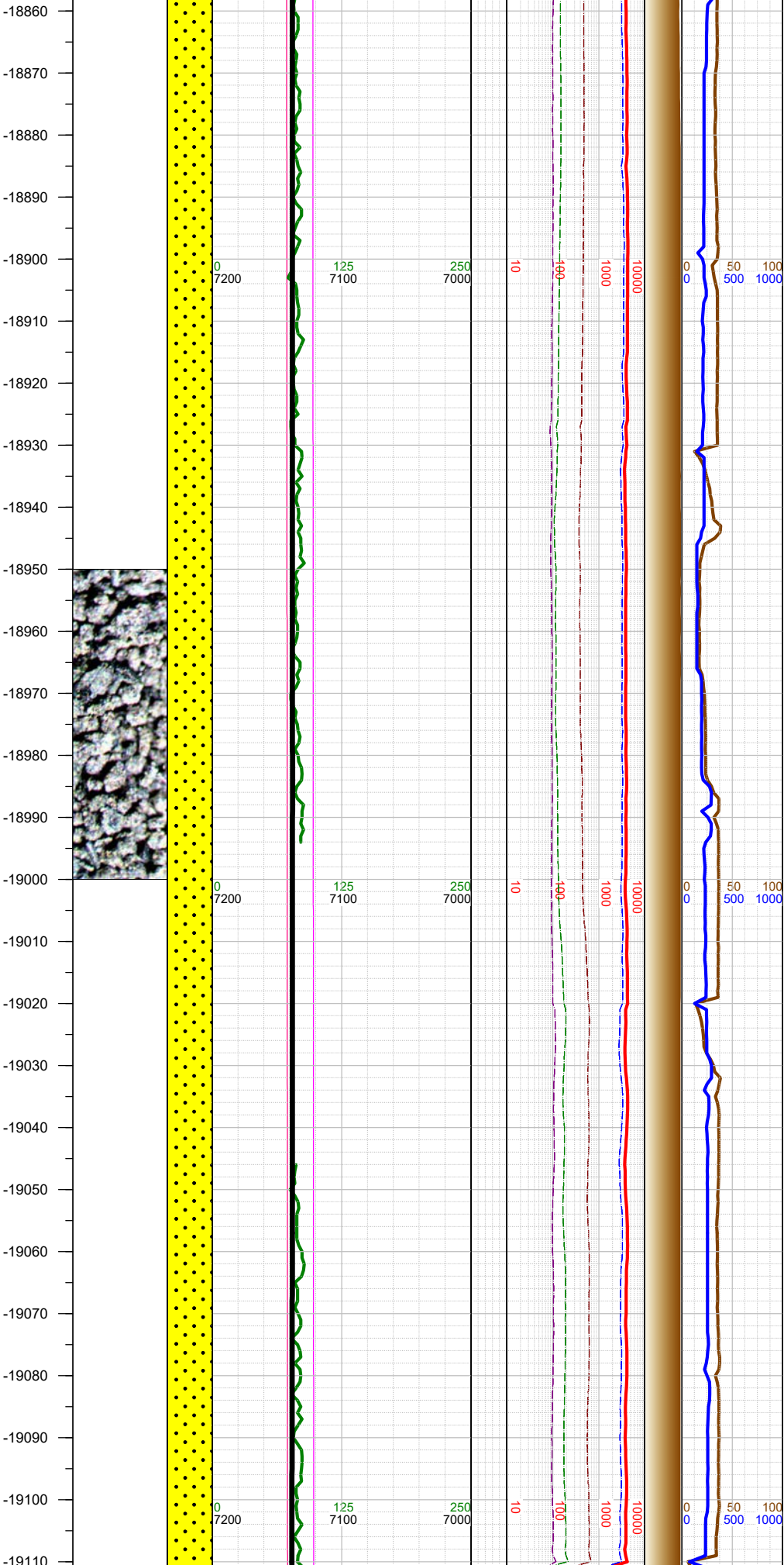
-18000 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;



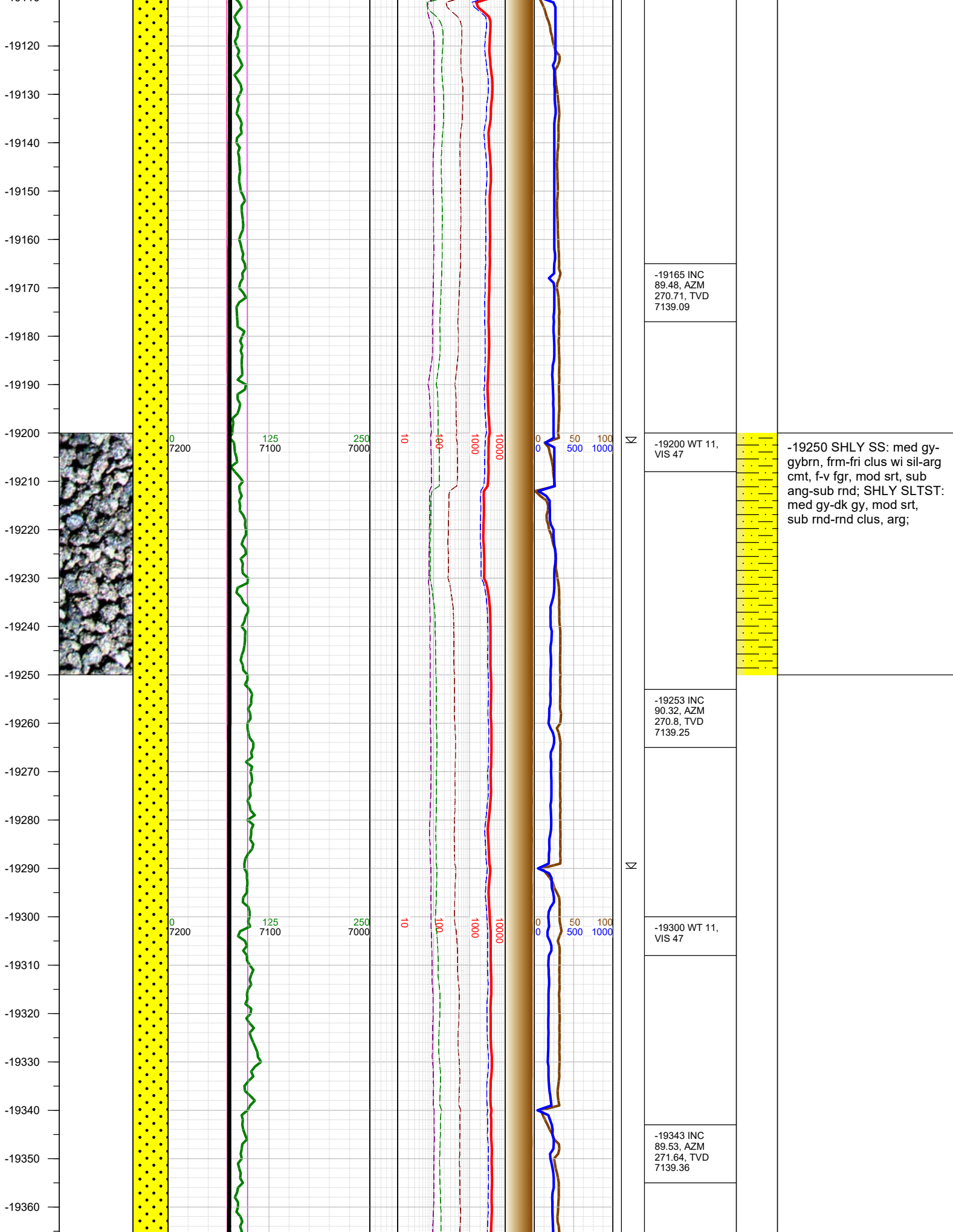


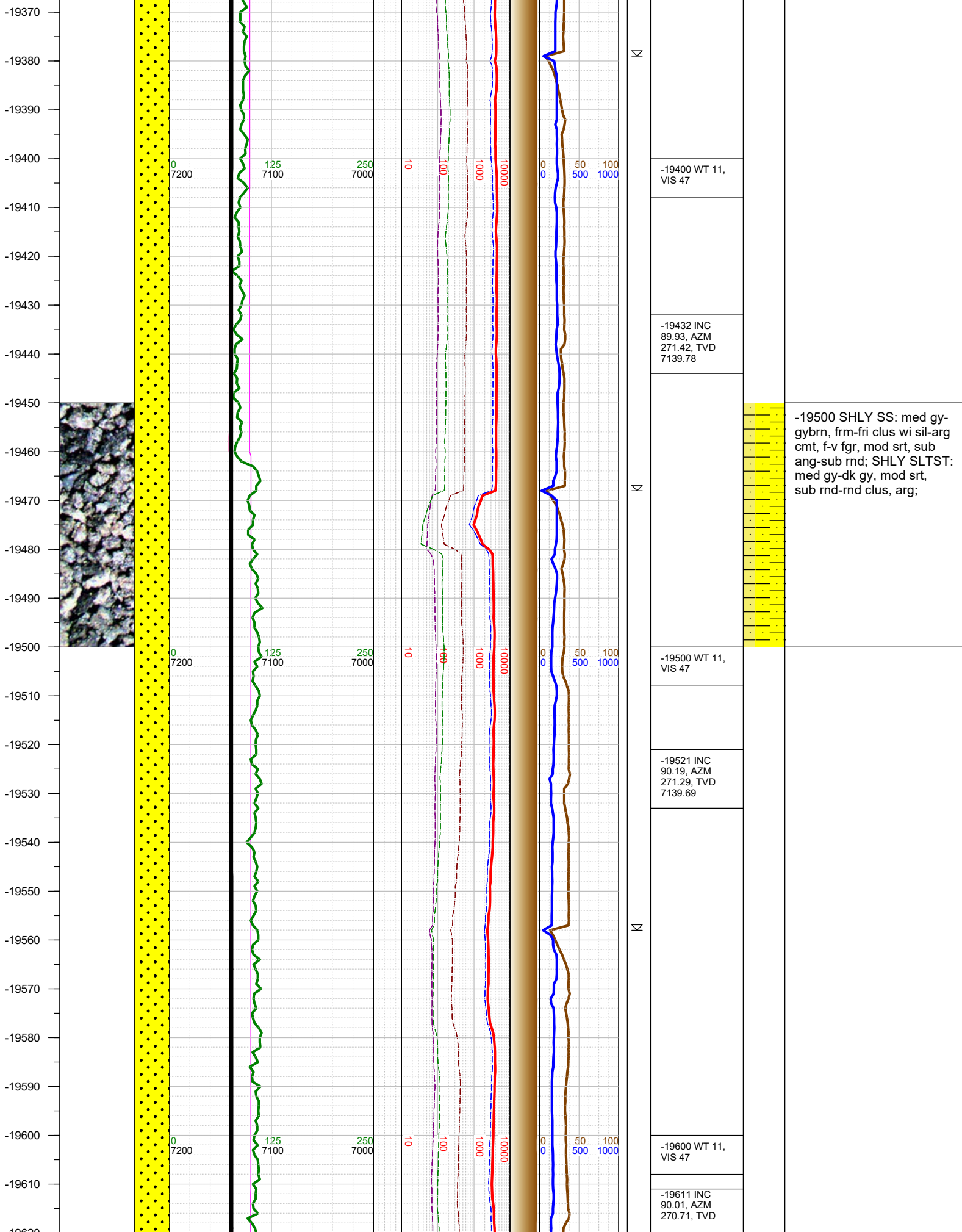
-18500 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;



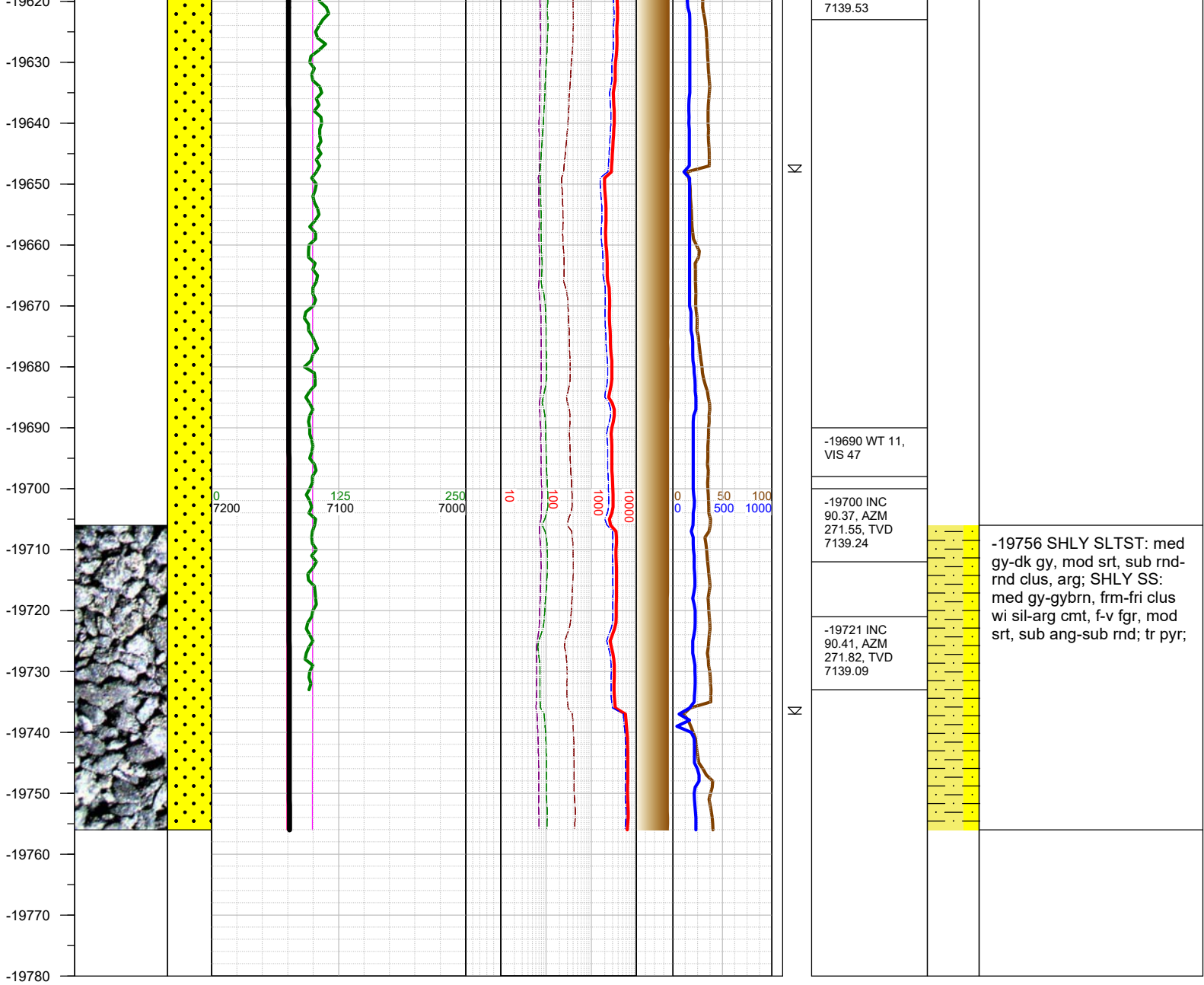


N	-18895 INC 90.06, AZM 270.8, TVD 7138.29		
	-18910 WT 11, VIS 48		
N	-18985 INC 90.19, AZM 271.68, TVD 7138.09	-19000 SHLY SS: med gy- gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;	
	-19000 WT 11, VIS 47		
N	-19075 INC 89.53, AZM 270.54, TVD 7138.31		
	-19100 WT 11, VIS 47		





-19500 SHLY SS: med gy-gybrn, frm-fri clus wi sil-arg cmt, f-v fgr, mod srt, sub ang-sub rnd; SHLY SLTST: med gy-dk gy, mod srt, sub rnd-rnd clus, arg;



TOTAL DEPTH = 19756'

Thank you for using Earth Science Agency