

OPERATOR: **Extraction Oil & Gas**
WELL NAME: **Rinn Valley East N17-20-15C**
FIELD NAME: DJ Basin - Wattenberg
DRILLING RIG: Patterson 346
API #: 05-123-47175

LAT/LONG: 40.132044, -105.038775
SURFACE HOLE: SESE S18-T2N-R68W, 202' FSL, 589' FEL
BOTTOM HOLE: S8-T2N-R68W, 460' FNL, 480' FWL

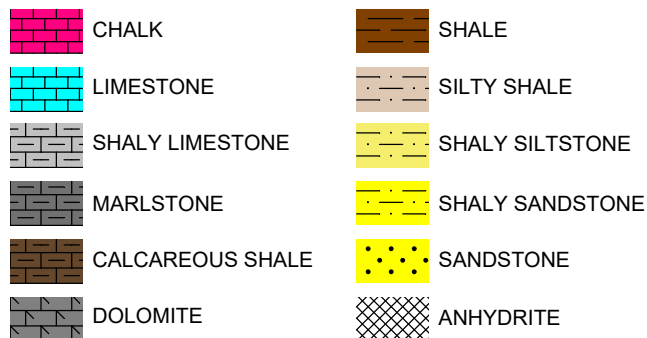


Earth Science Agency, LLC

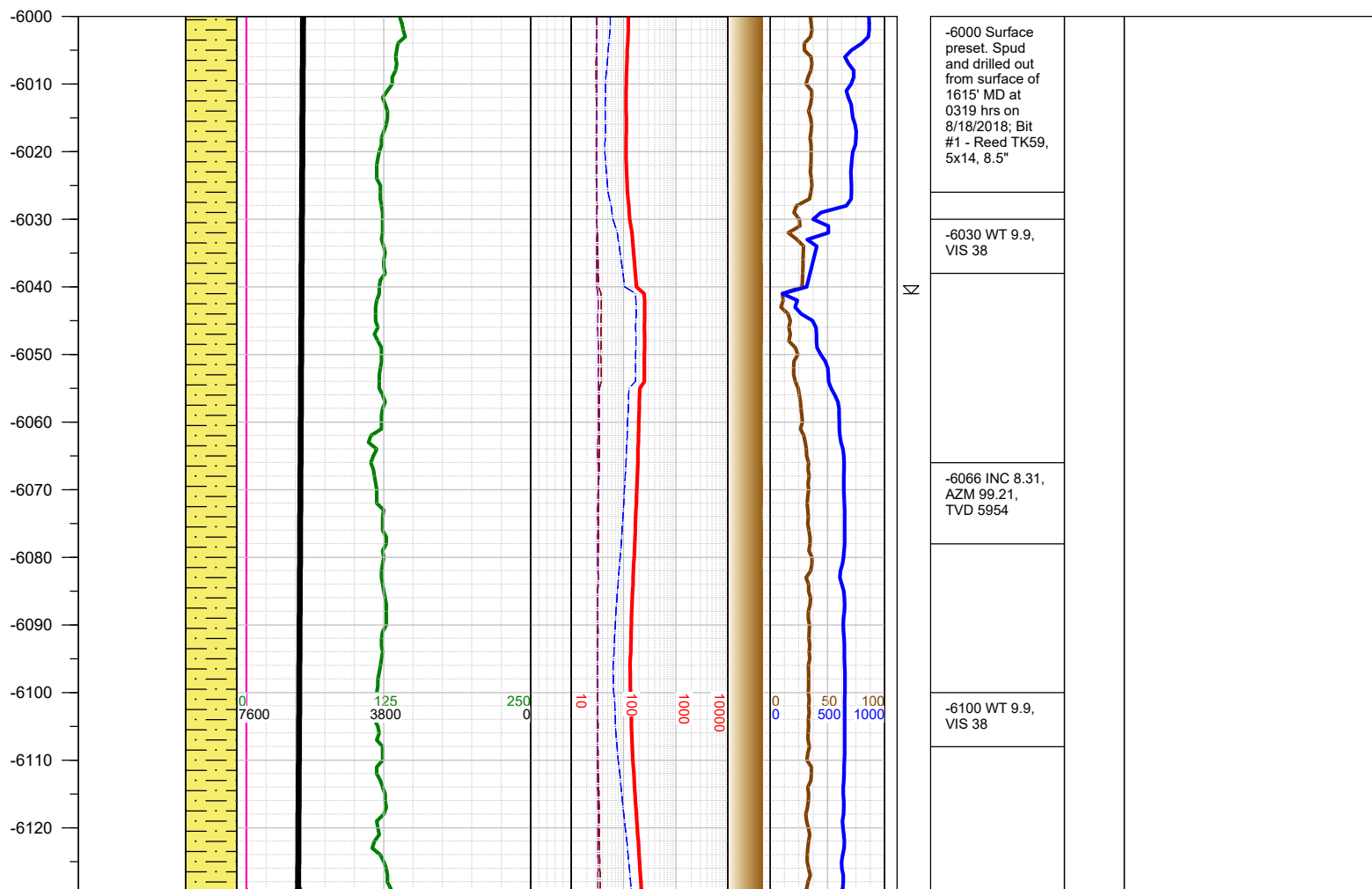
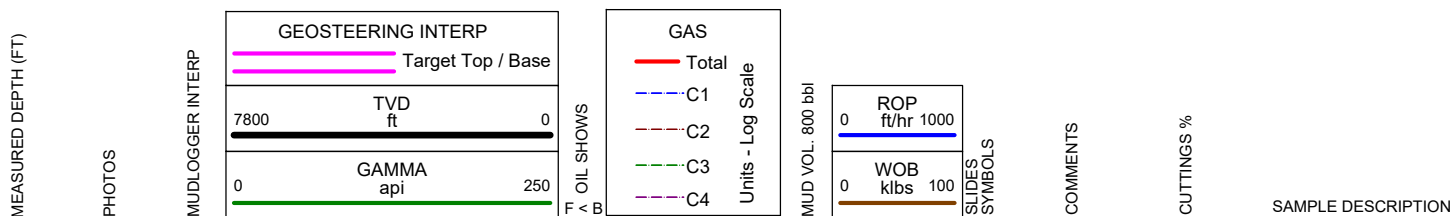
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 4939'
KELLY BUSHING: 4964'
DRILLING FLUID: OBM
TVD VS. MD: 7397' / 17565'
SPUD DATE: August 18, 2018
TD DATE: August 21, 2018

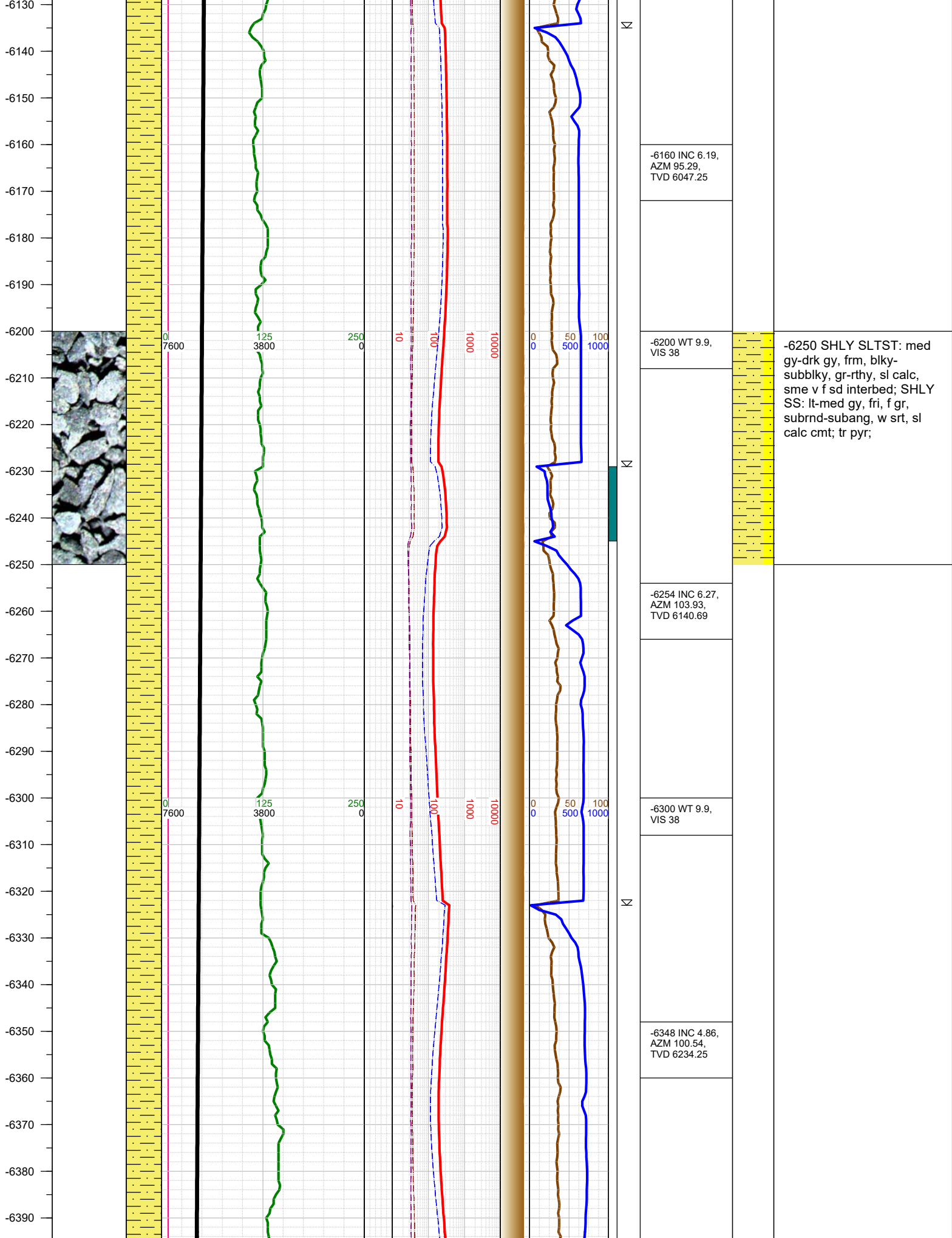
DEPTHS LOGGED: 6000' - 17565'
DATES LOGGED: August 18, 2018 - August 21, 2018
GEOLOGISTS: Ross Apodaca, Zak Lewis
SCALE: 5" = 100'

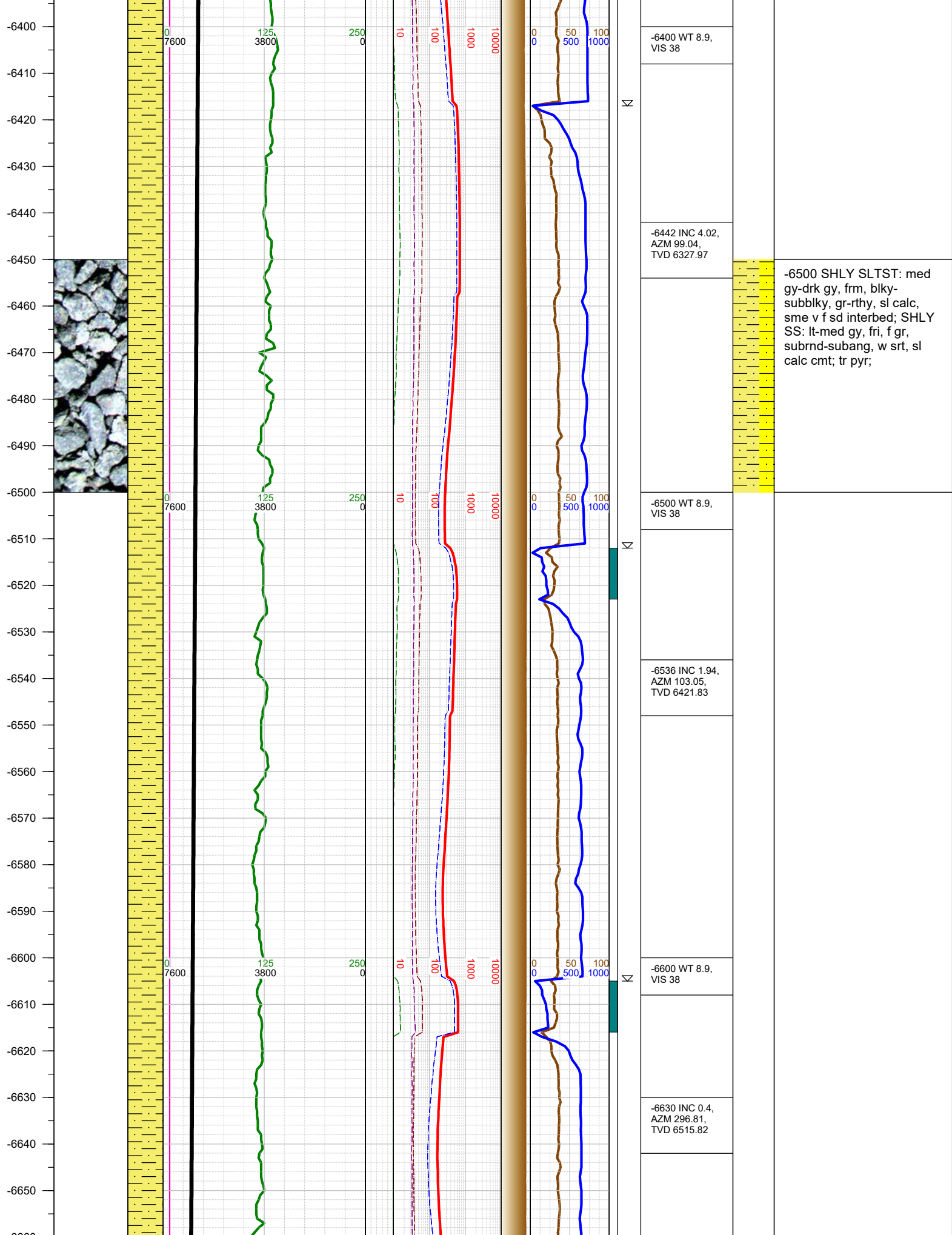
LEGEND

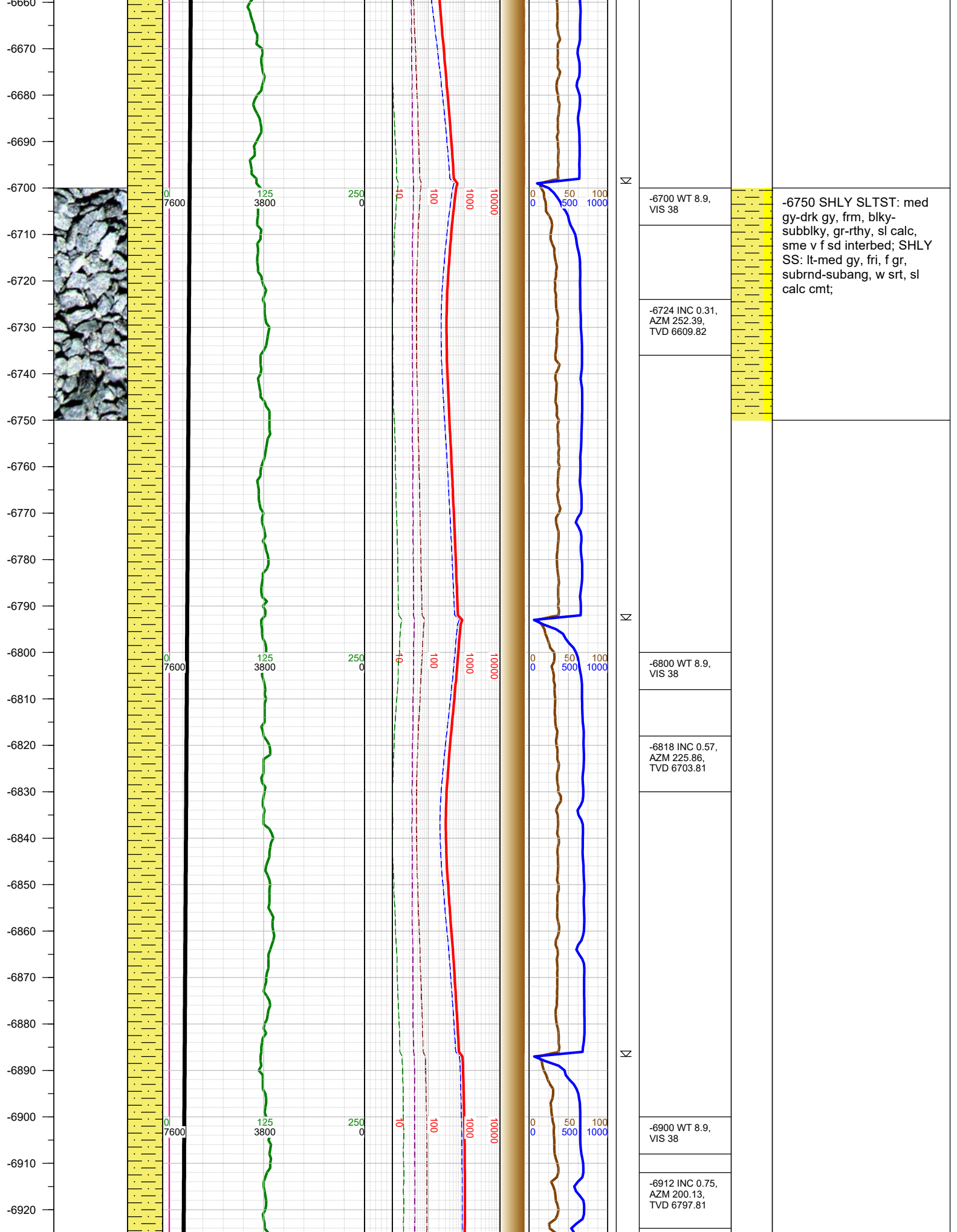


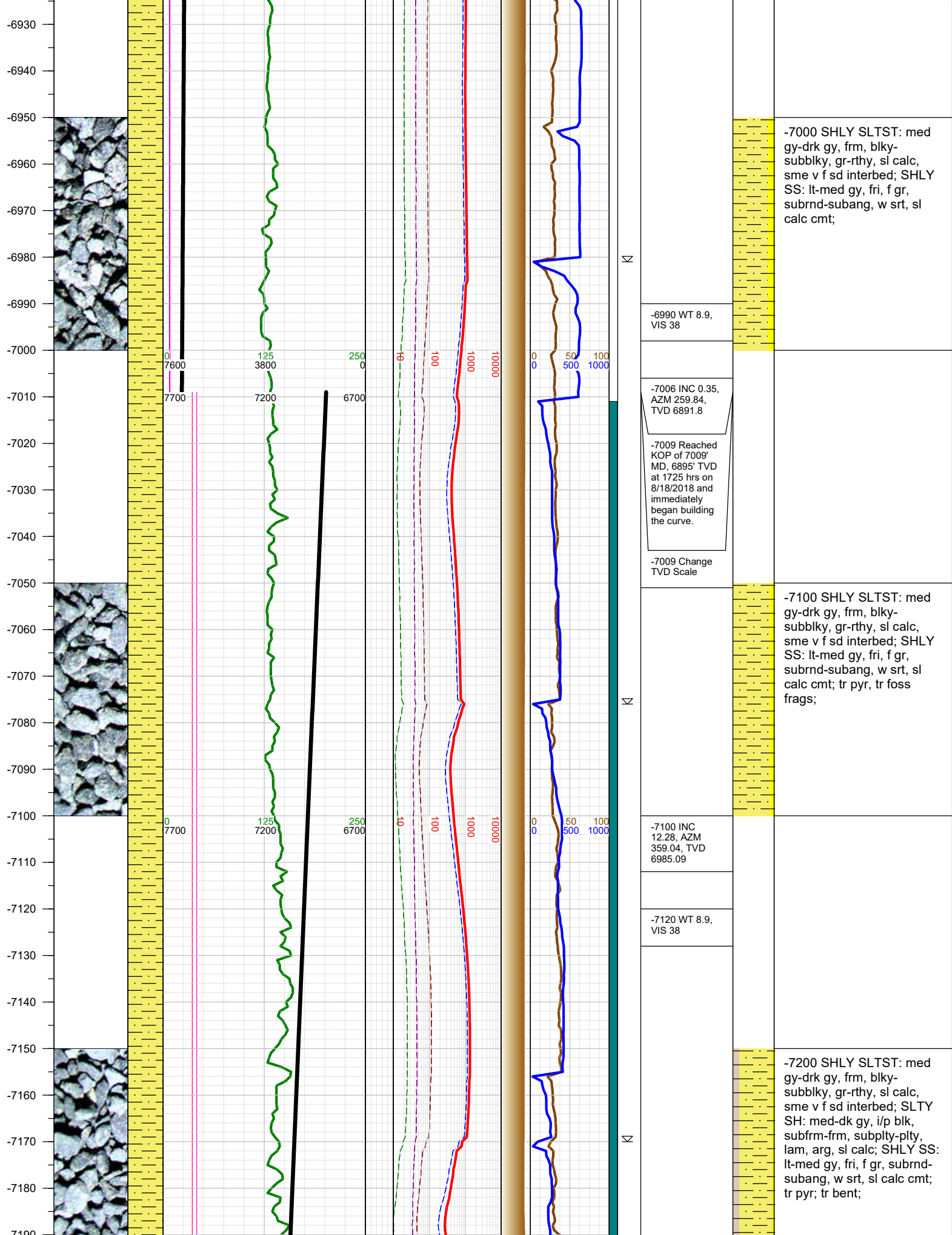
FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT

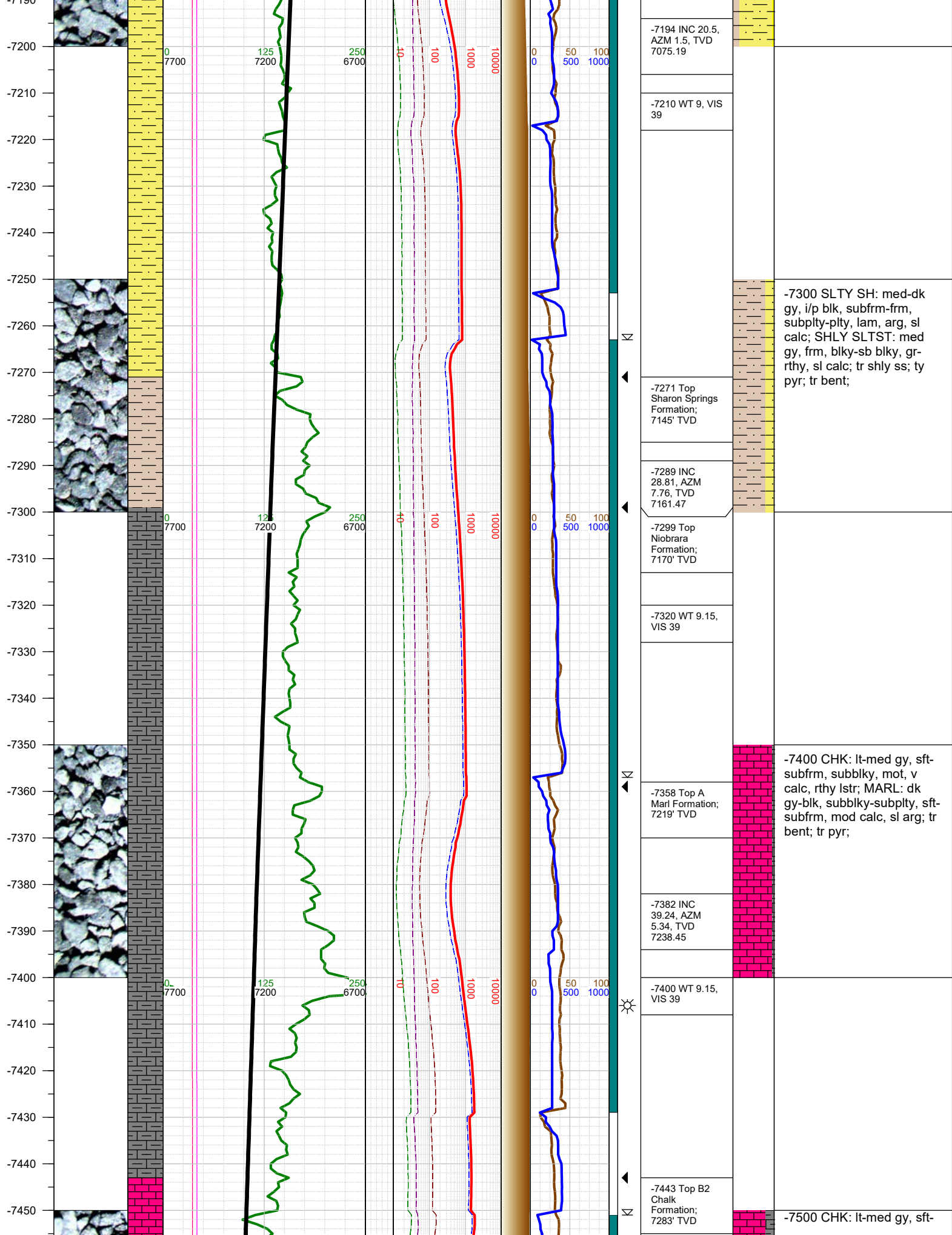


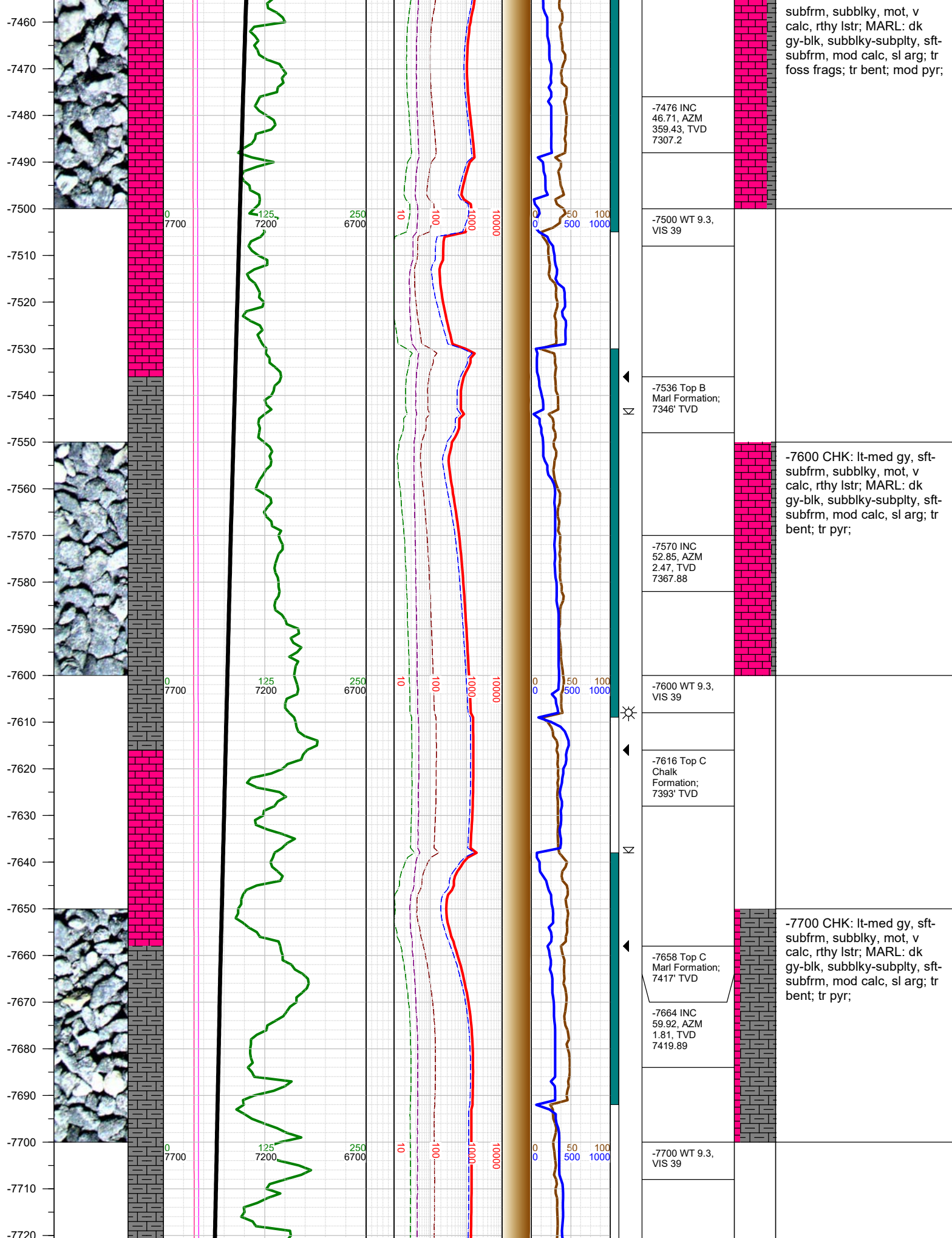


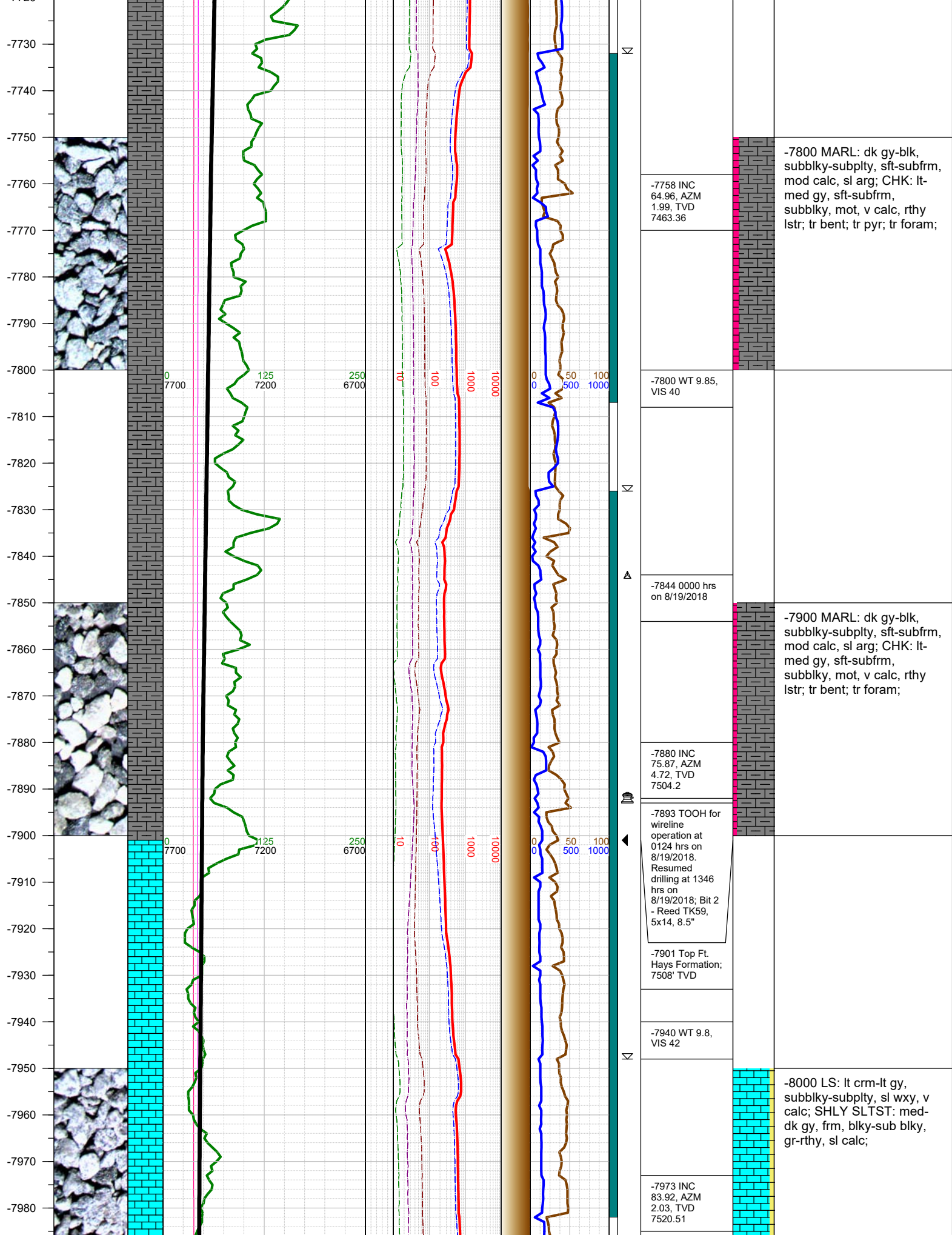


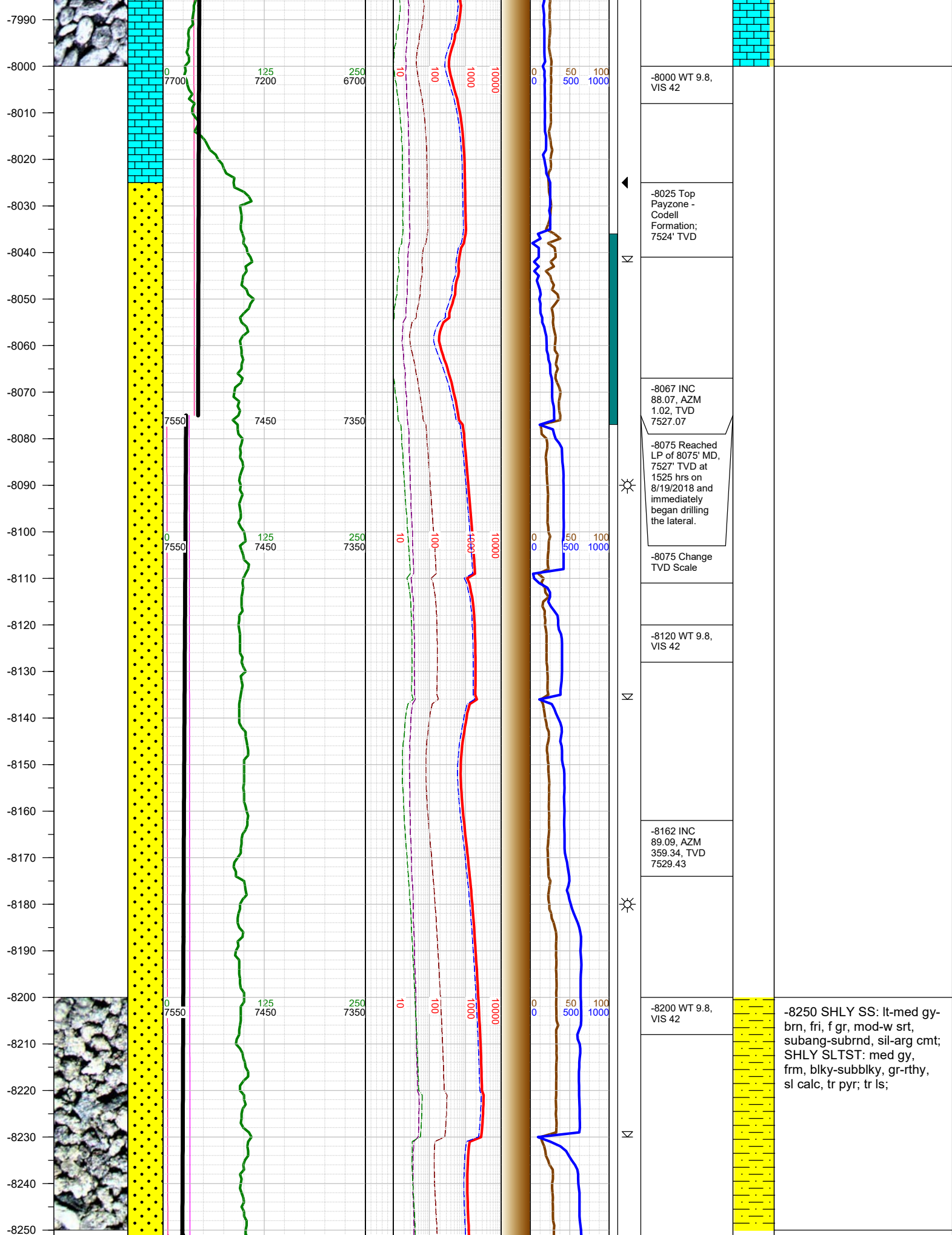


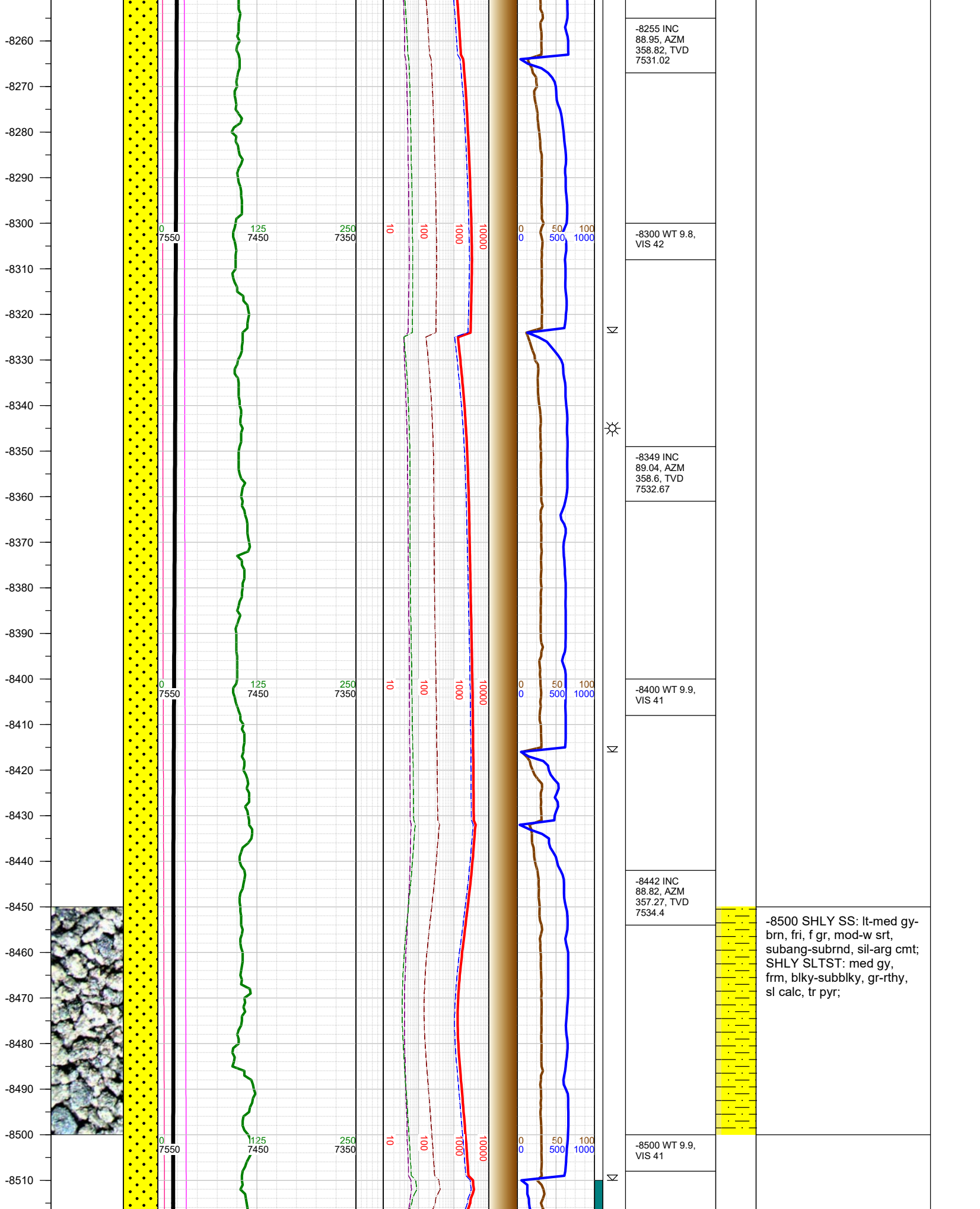




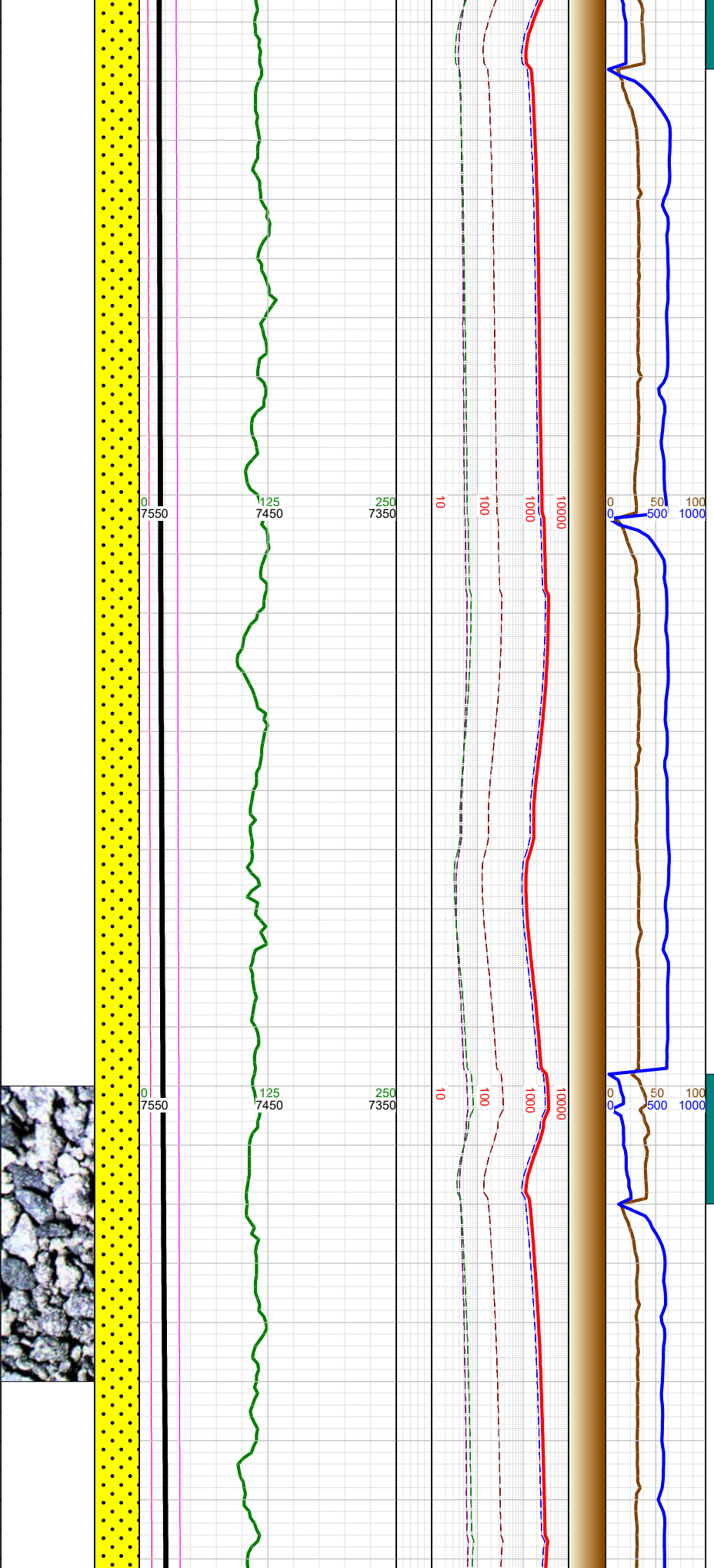




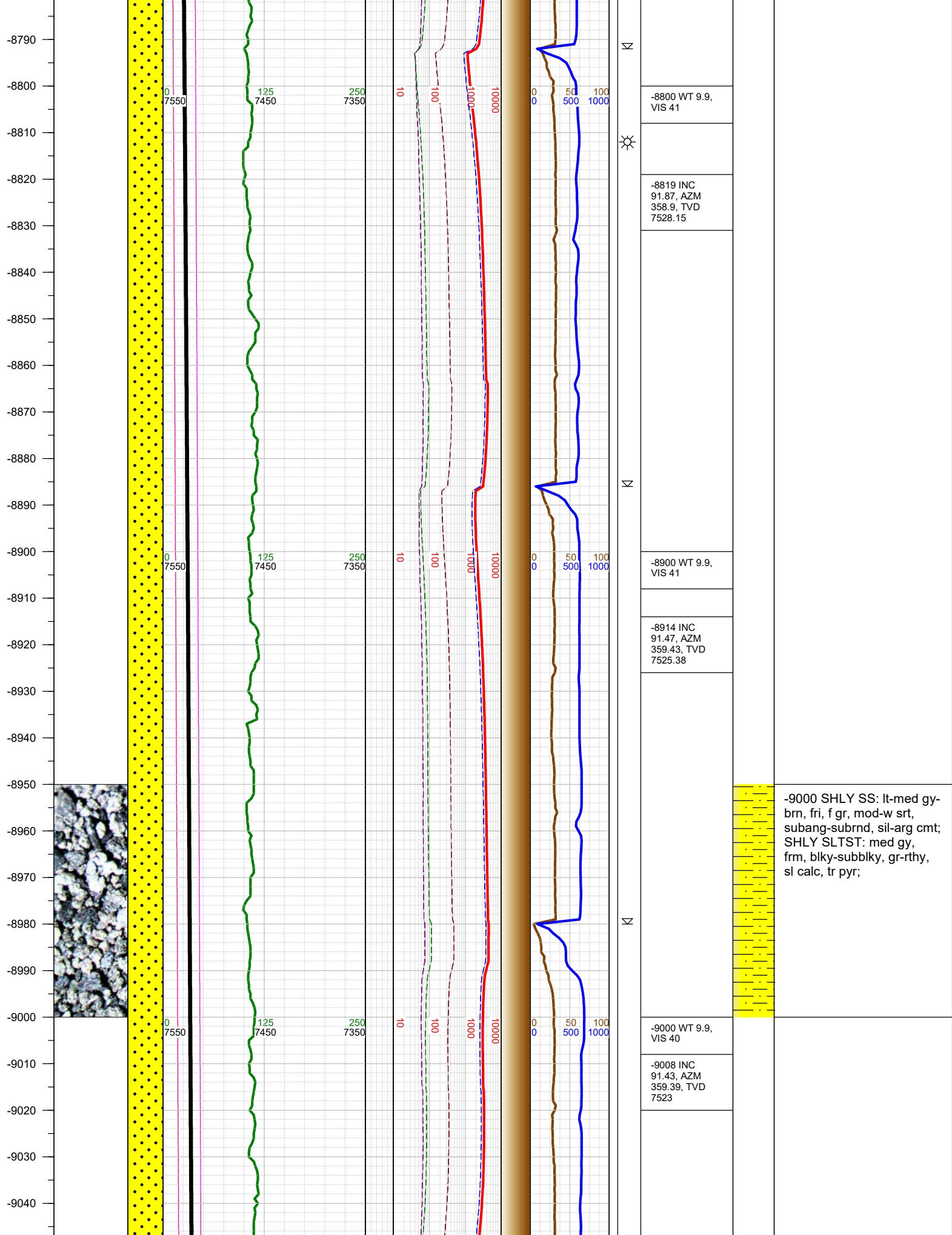




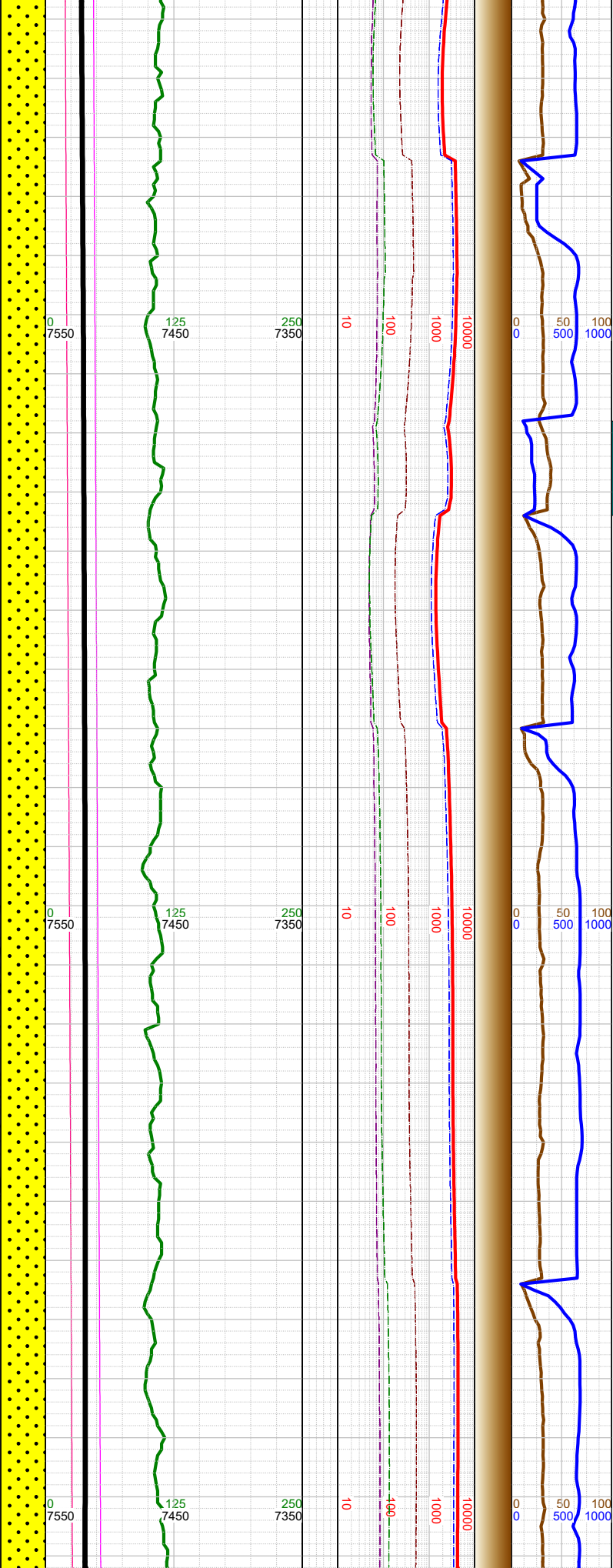
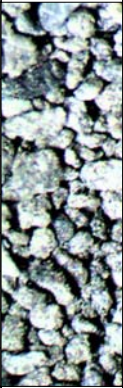
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		-8536 INC 91.03, AZM 357.89, TVD 7534.53		
		-8600 WT 9.9, VIS 41		
		-8630 INC 90.68, AZM 356.83, TVD 7533.12		
		-8700 WT 9.9, VIS 41	-8750 SHLY SS: lt-med gy- brn, fri, f gr, mod-w srt, subang-subrnd, sil-arg cmt; SHLY SLTST: med gy, frm, blkly-subblky, gr-rthy, sl calc, tr pyr;	
		-8724 INC 91.74, AZM 359.34, TVD 7531.14		

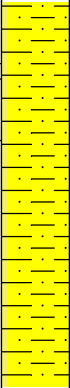


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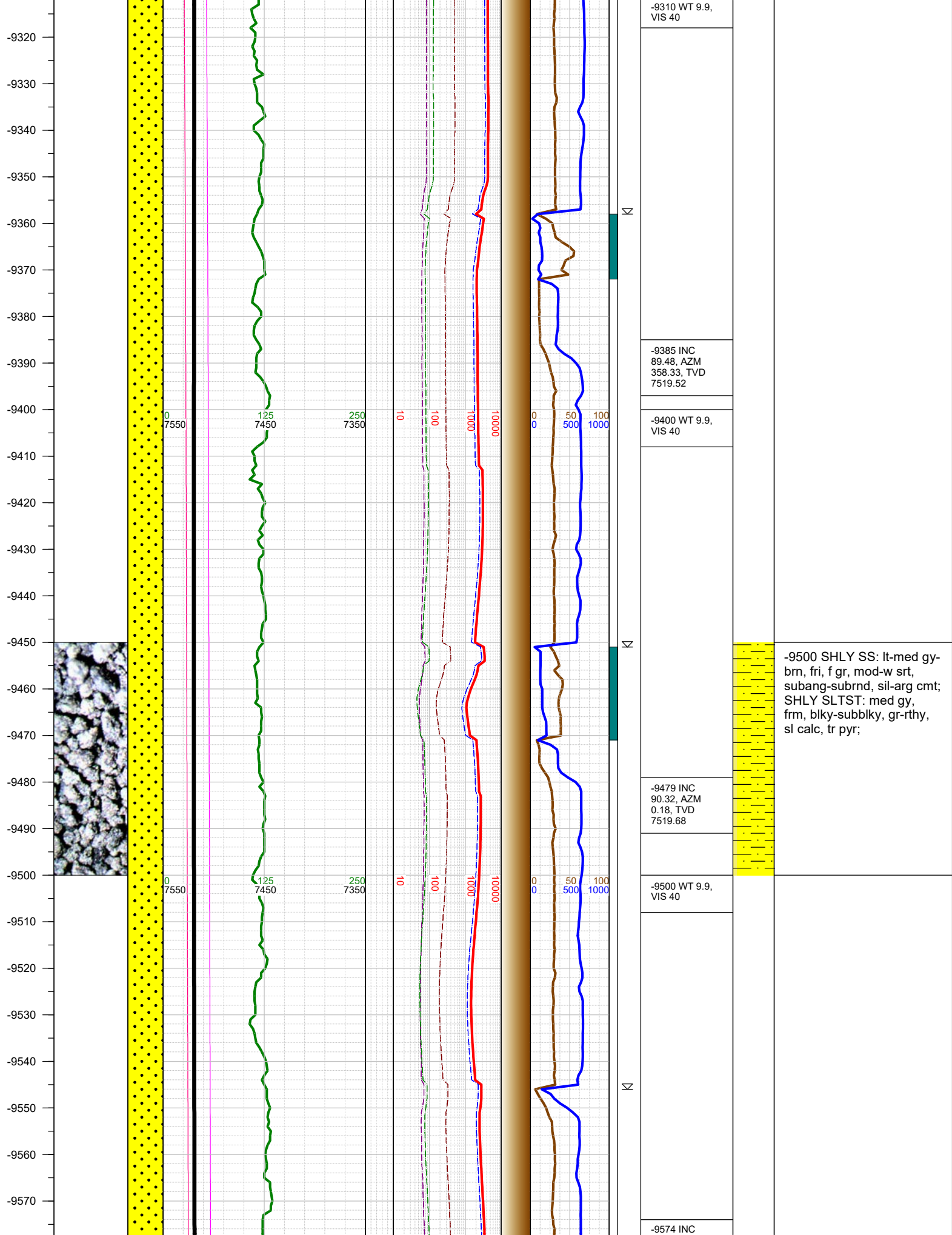


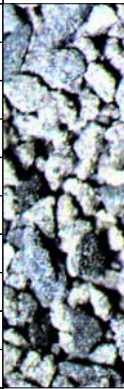
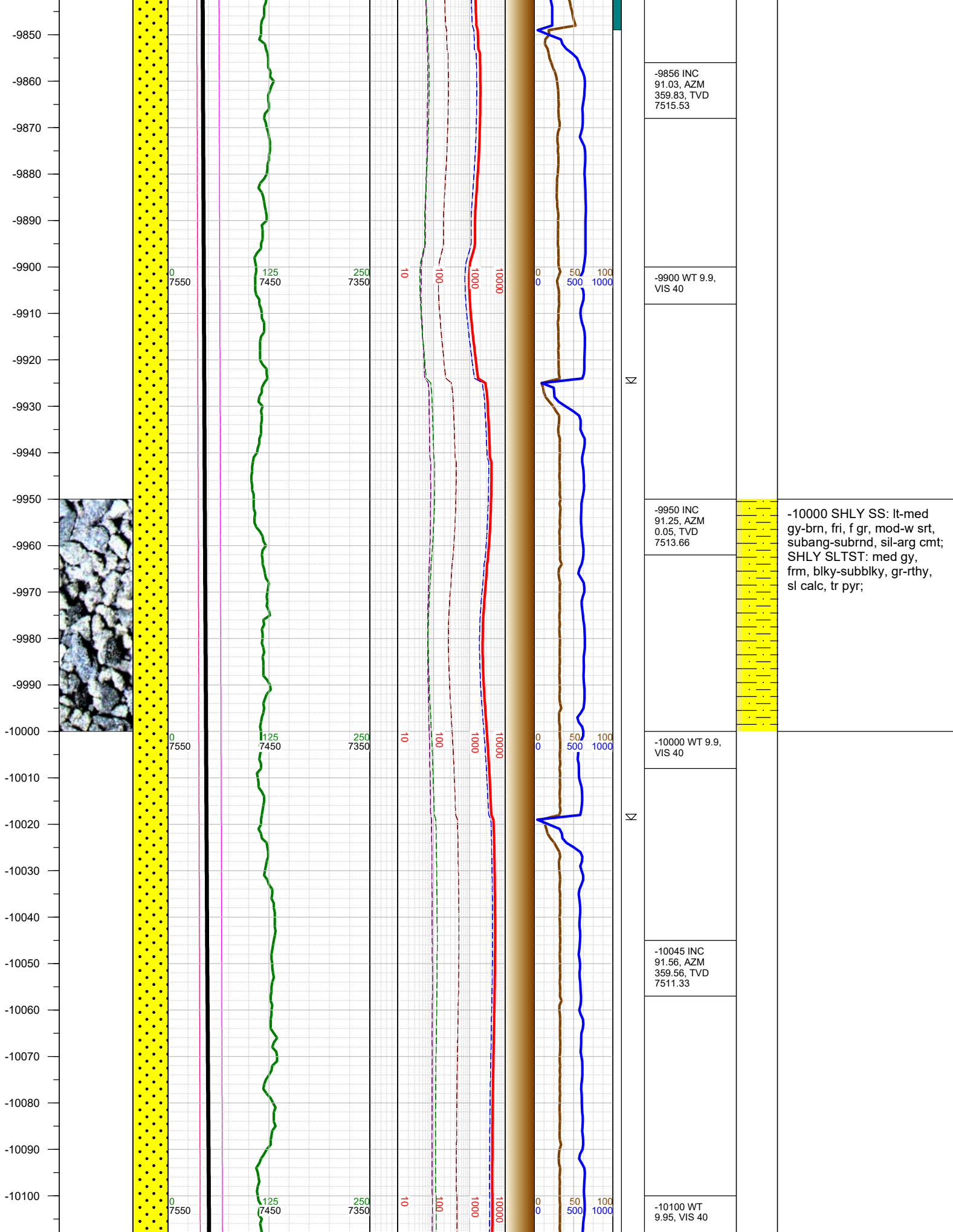
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-9102 INC 91.6, AZM 359.61, TVD 7520.51
-9120 WT 9.9, VIS 40
-9196 INC 90.06, AZM 359.39, TVD 7519.15
-9210 WT 9.9, VIS 40
-9290 INC 90.01, AZM 358.11, TVD 7519.1

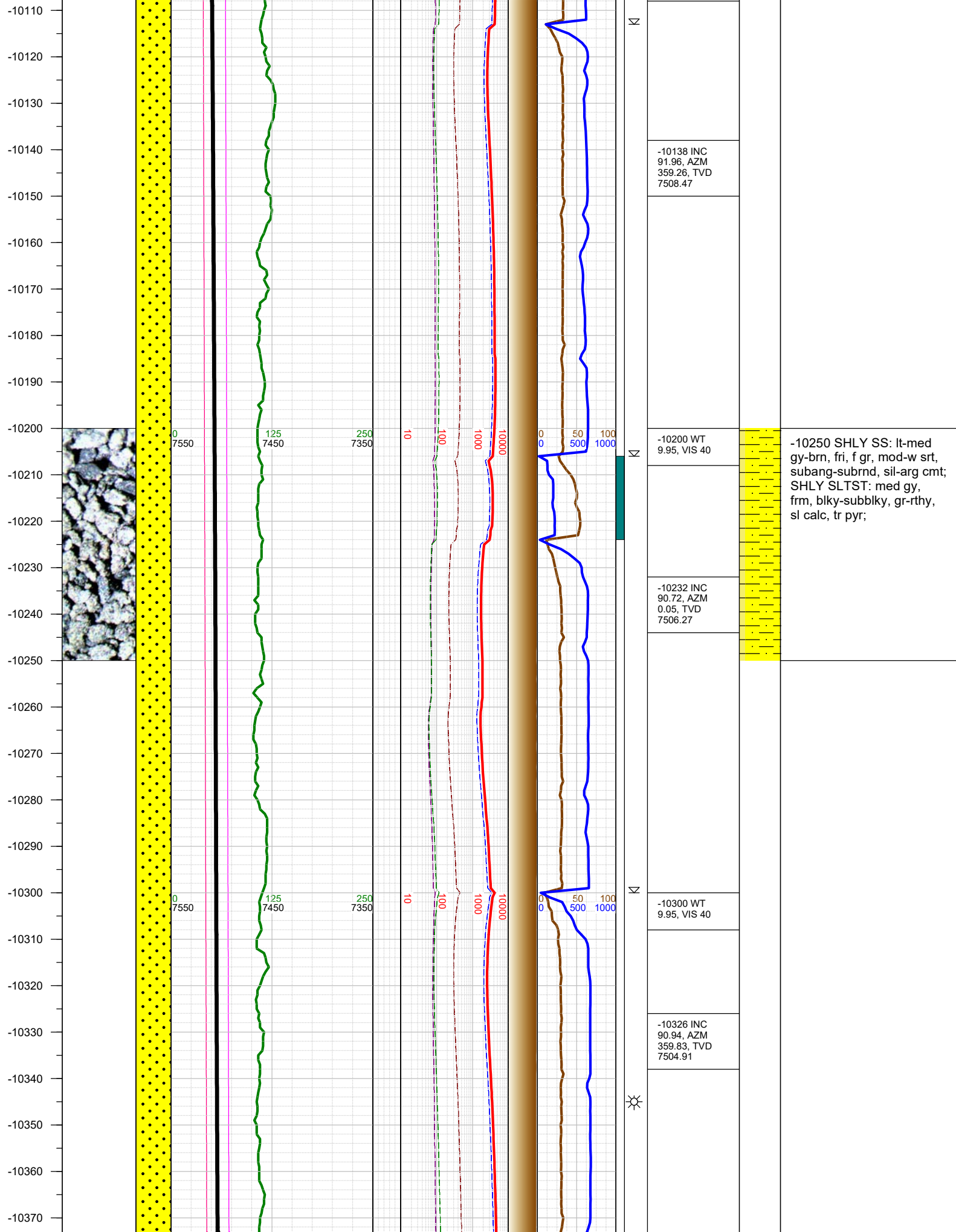


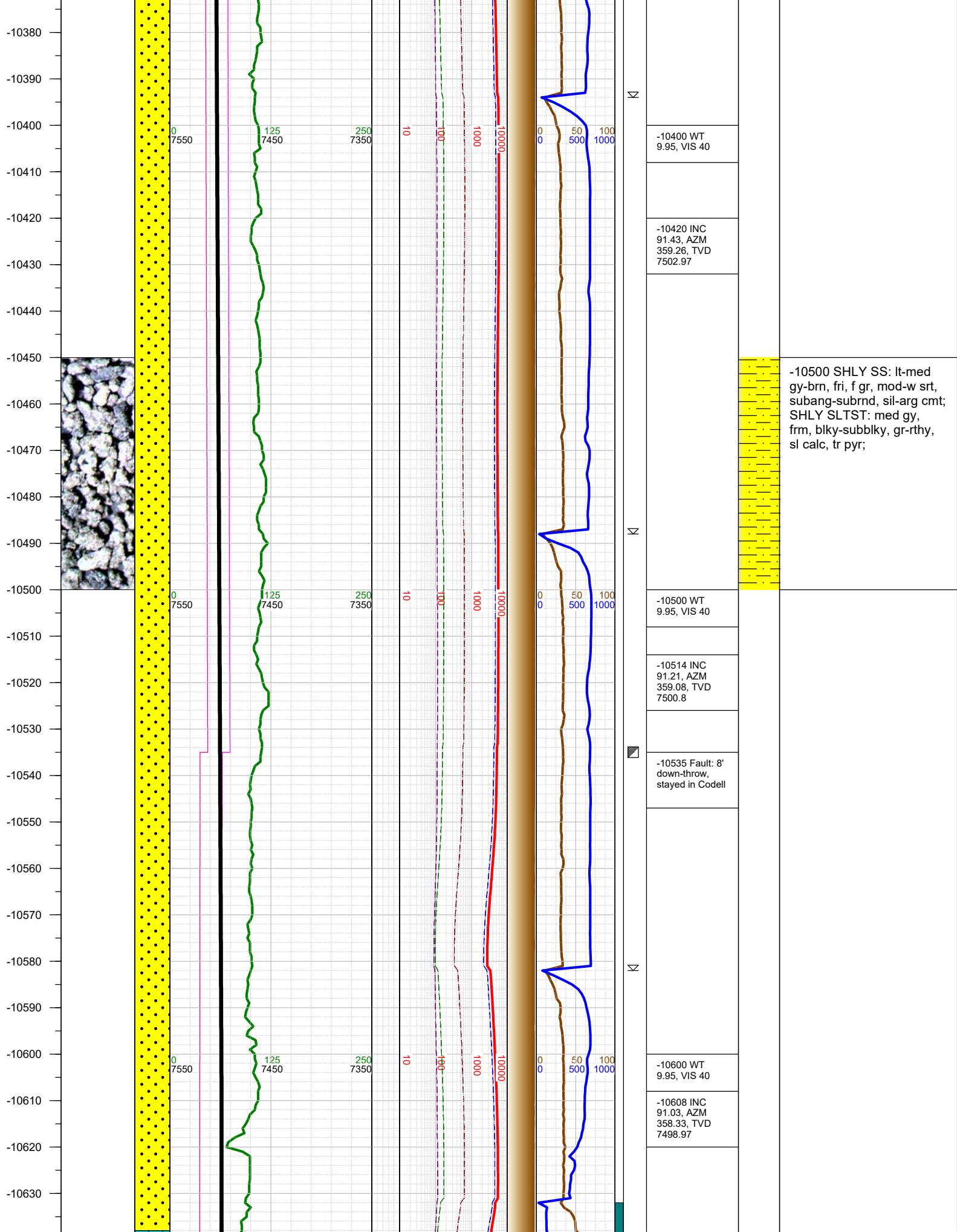
-9250 SHLY SS: lt-med gy-
bm, fri, f gr, mod-w srt,
subang-subrnd, sil-arg cmt;
SHLY SLTST: med gy,
frm, blk-y-subblky, gr-rthy,
sl calc, tr pyr;

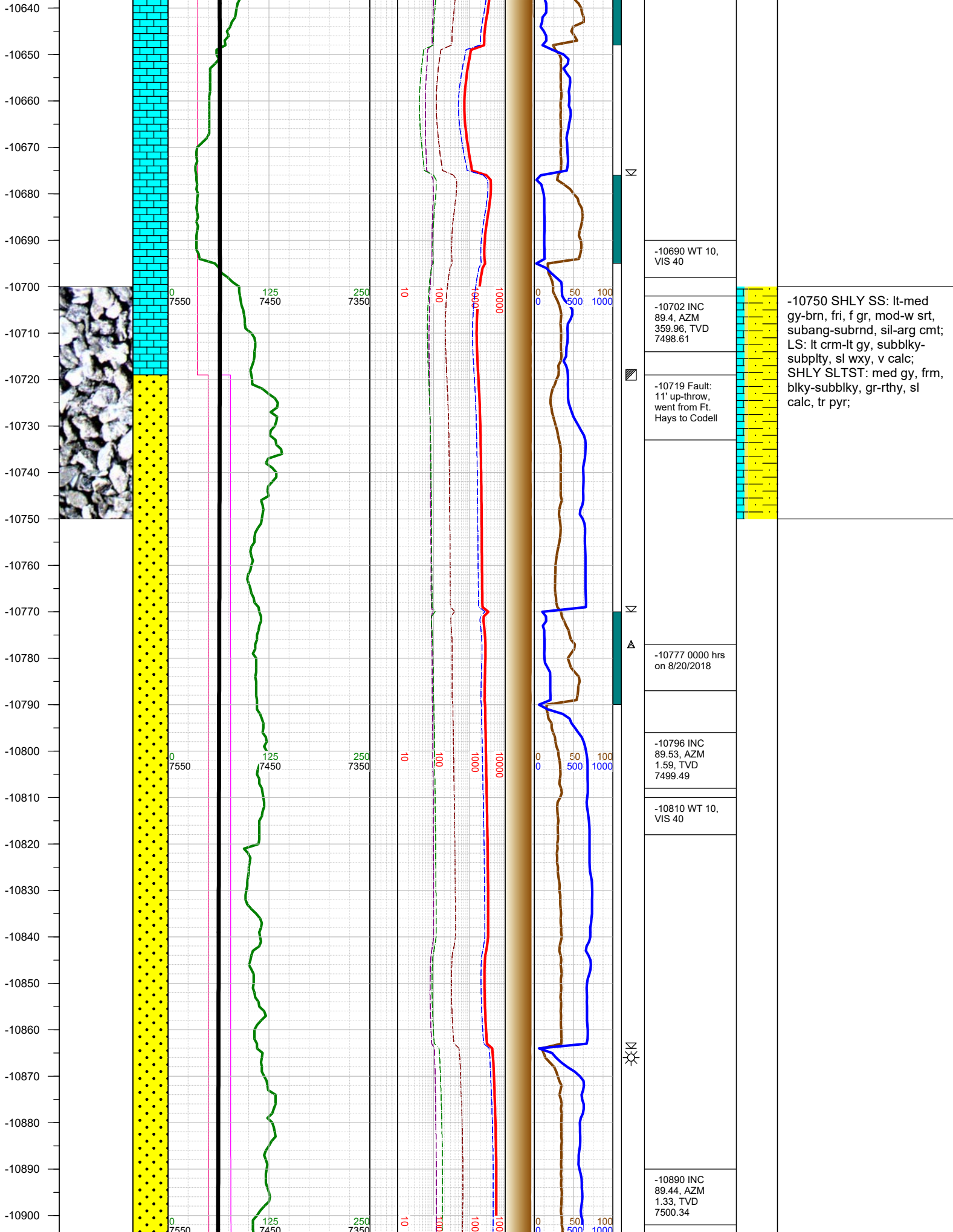


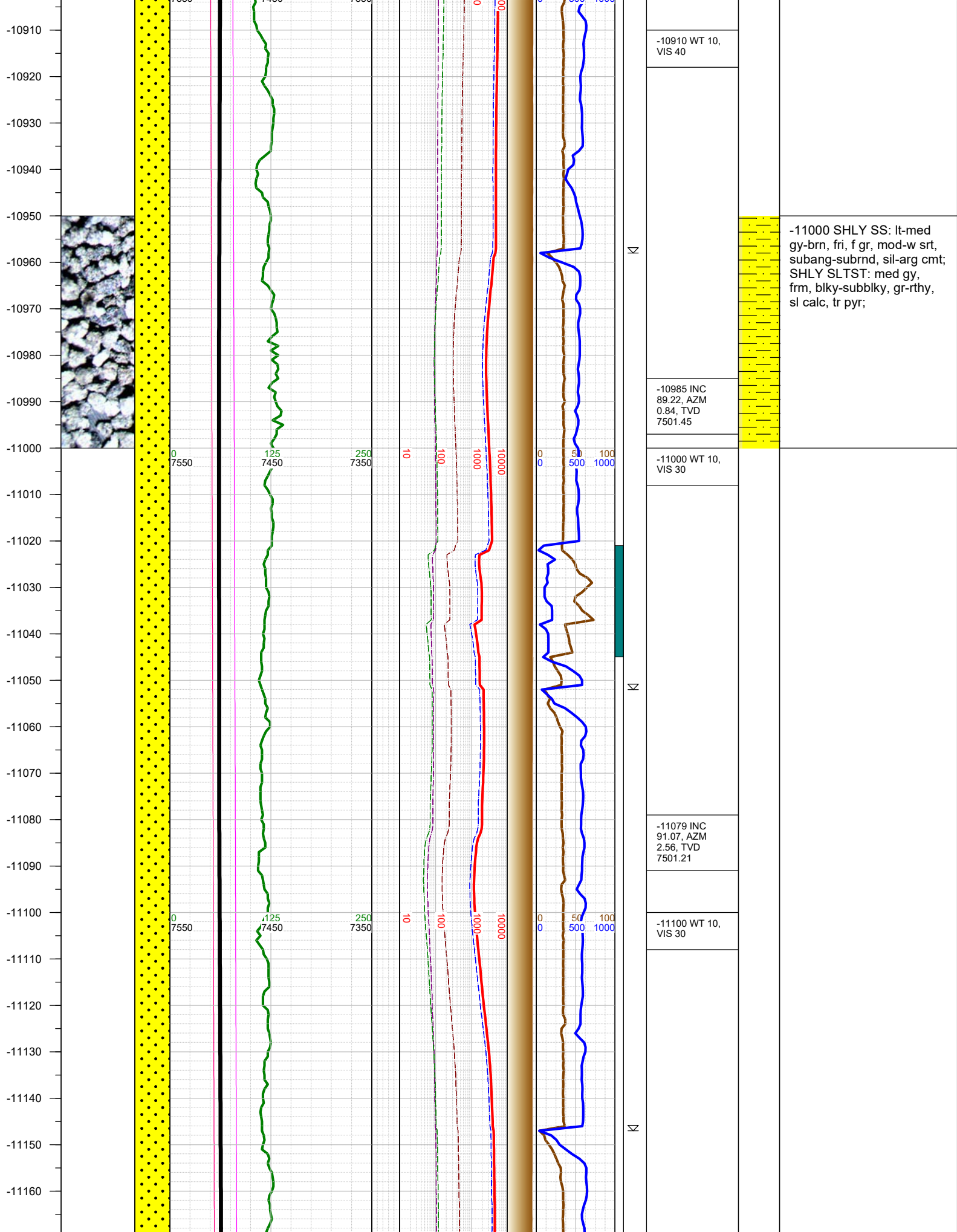


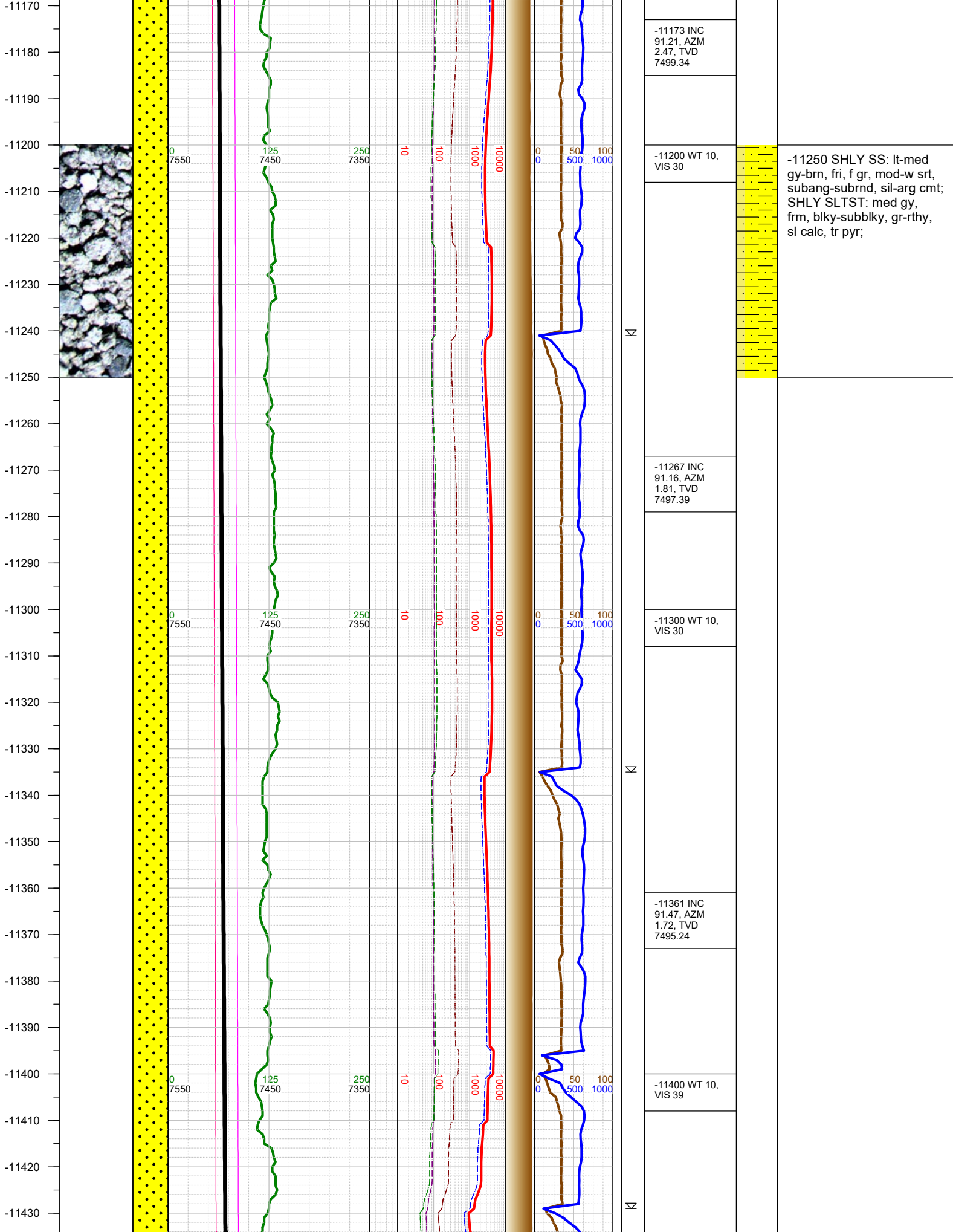
-10000 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt, subang-subrnd, sil-arg cmt; SHLY SLTST: med gy, frm, blkly-subblky, gr-rthy, sl calc, tr pyr;

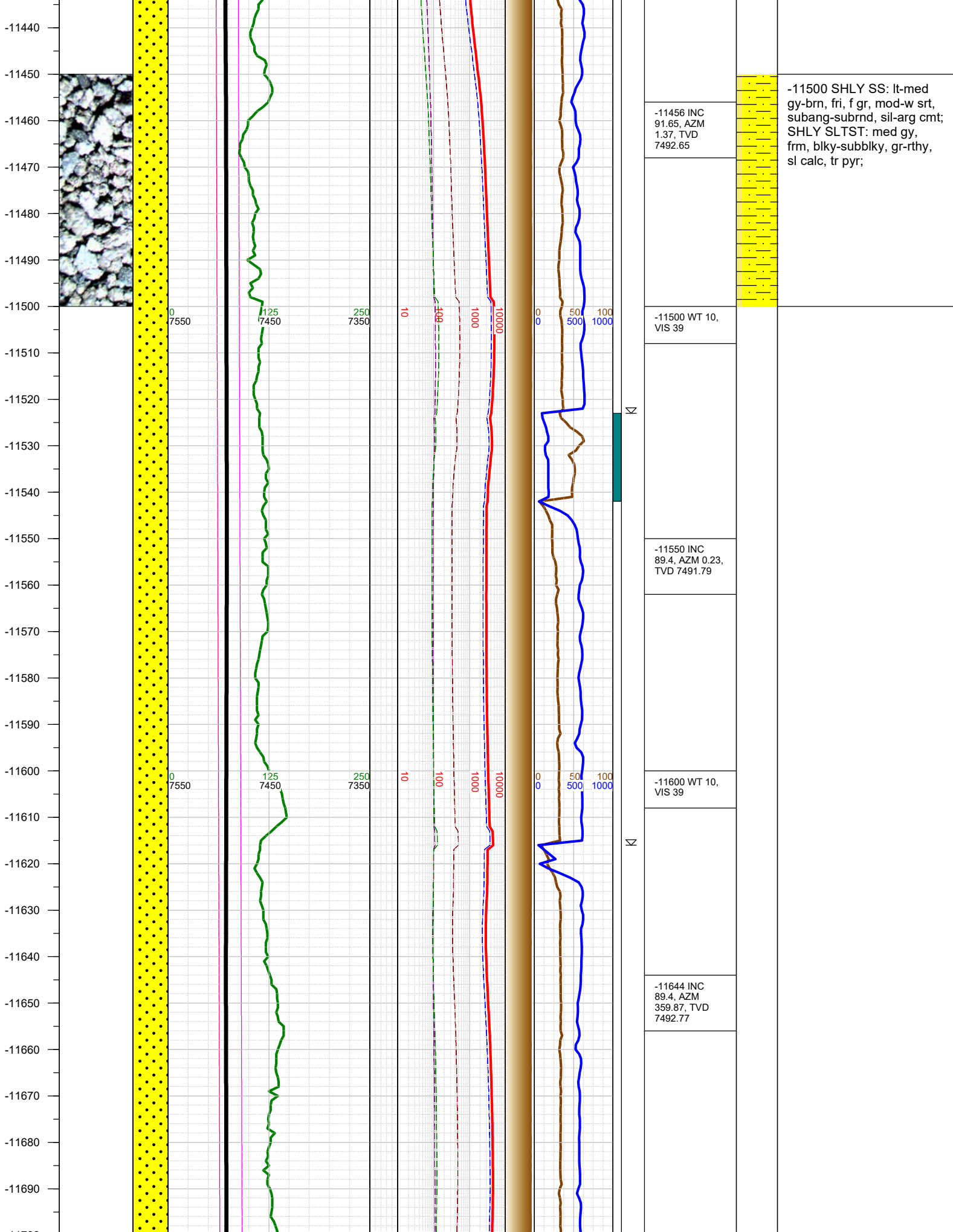


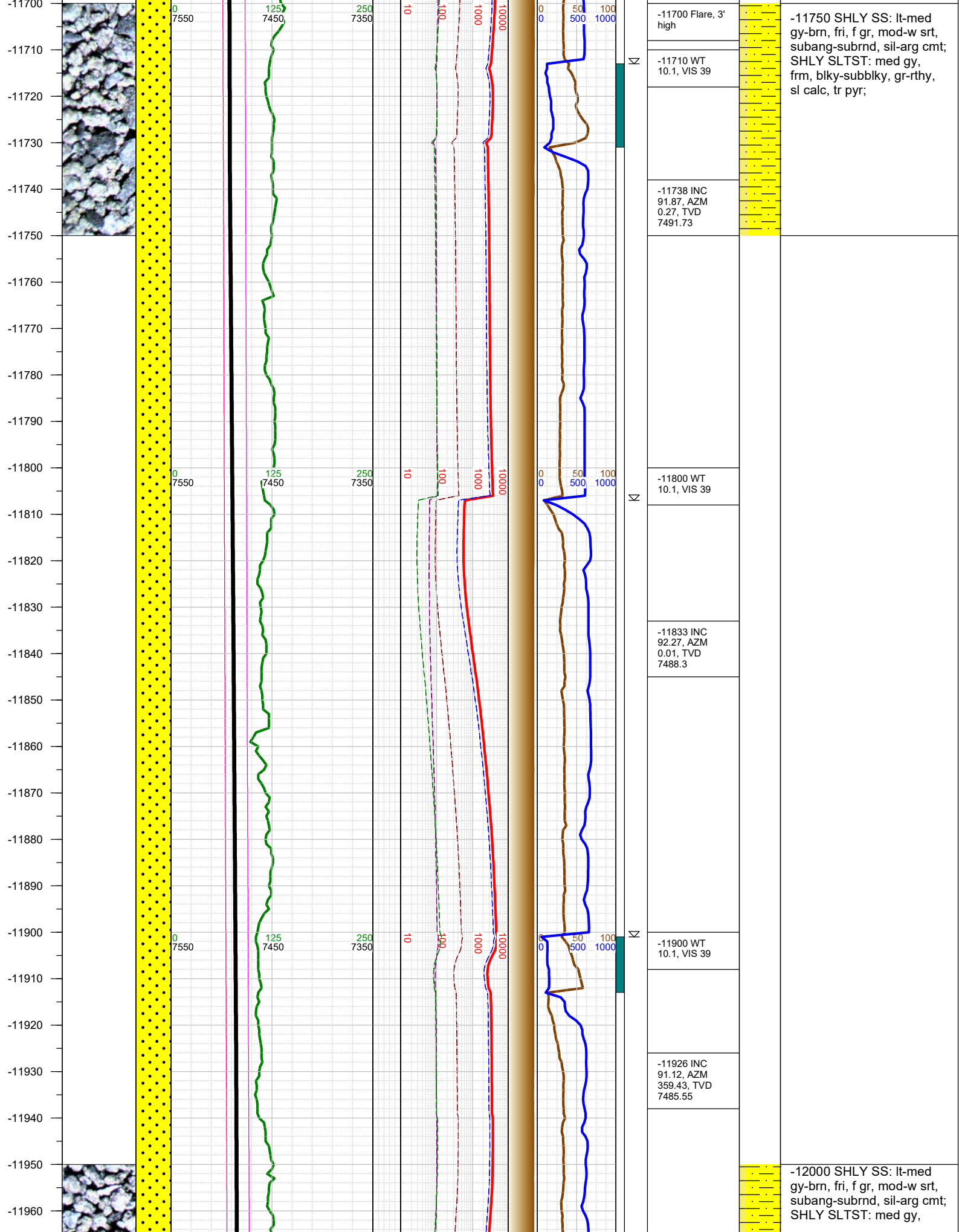


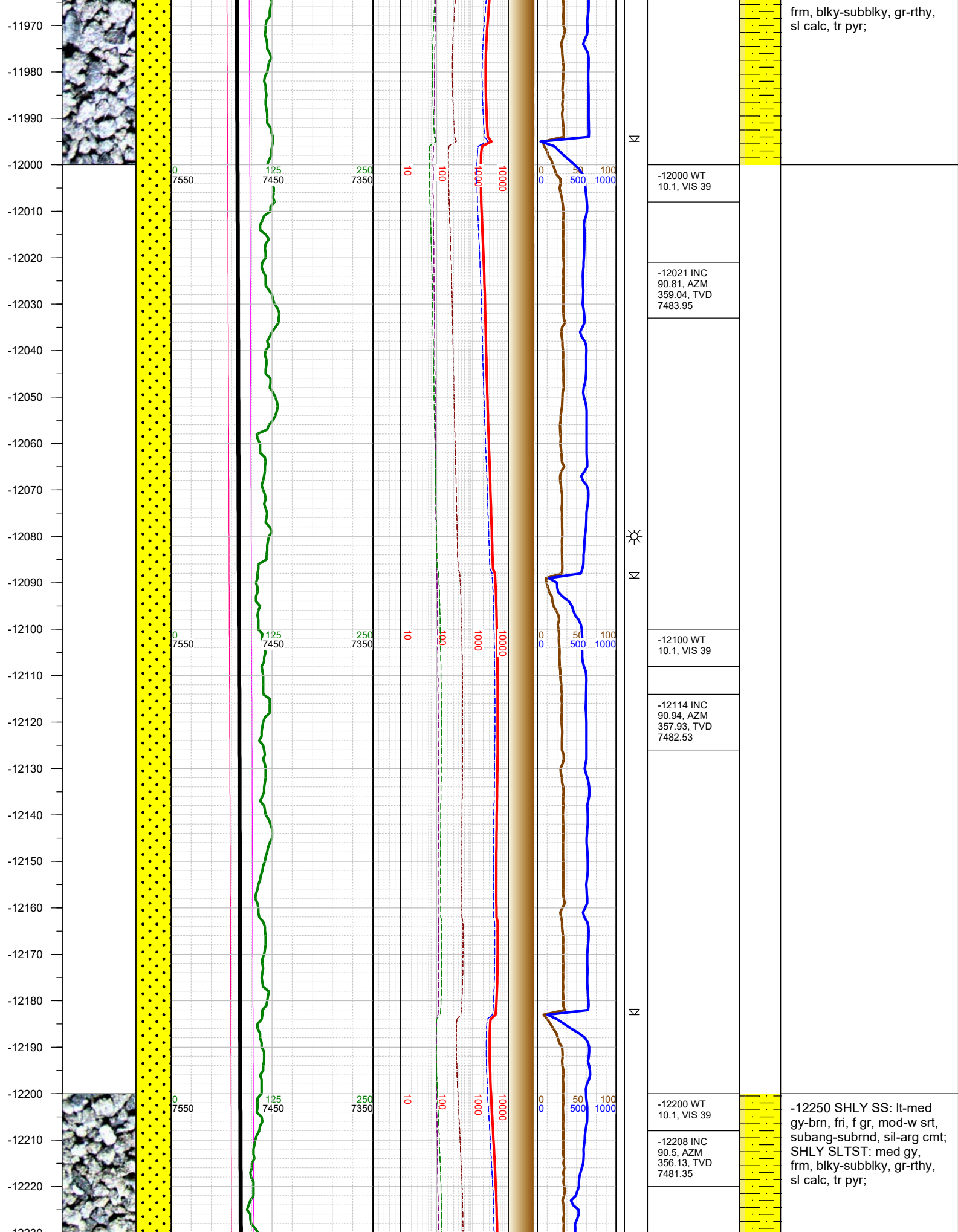


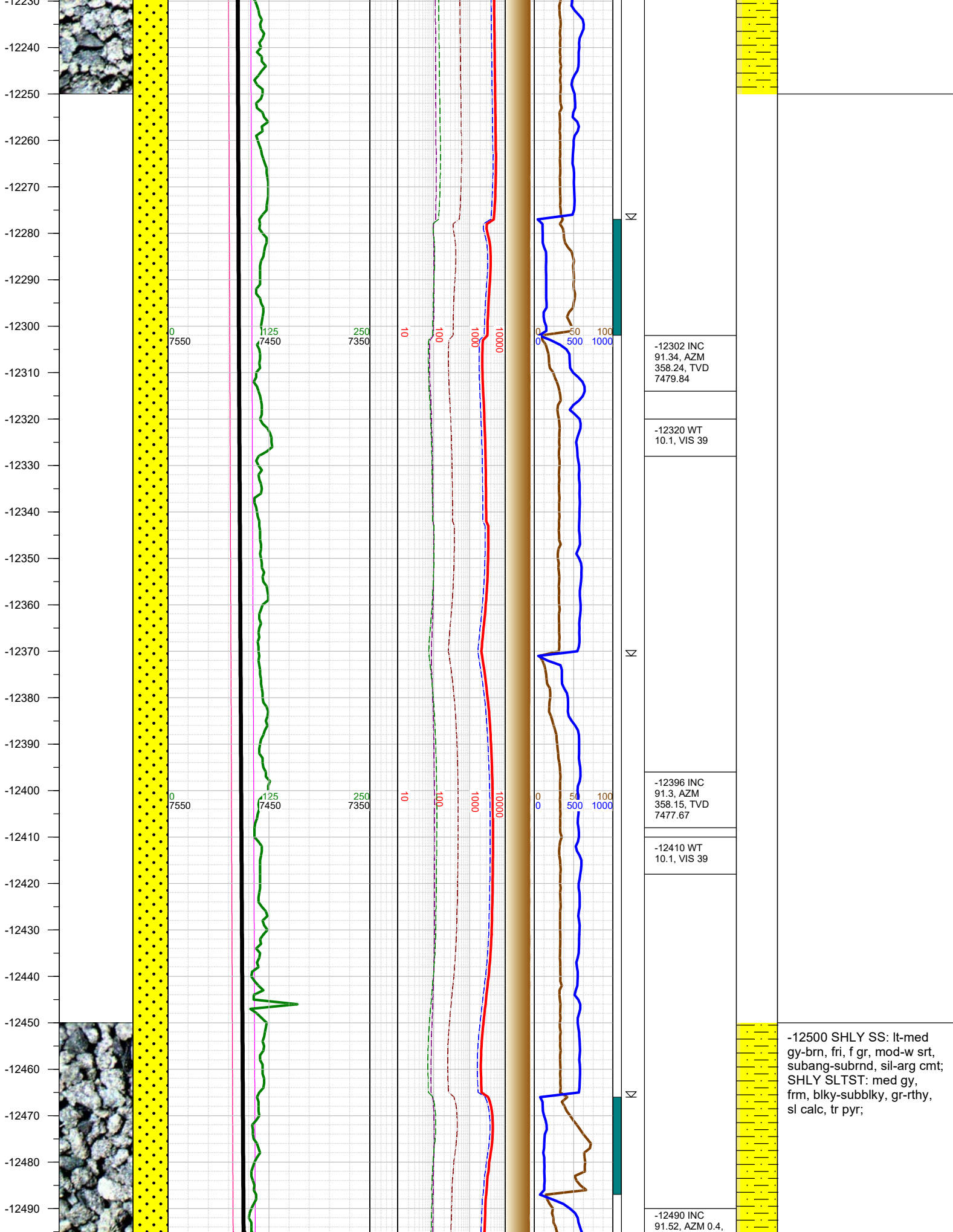


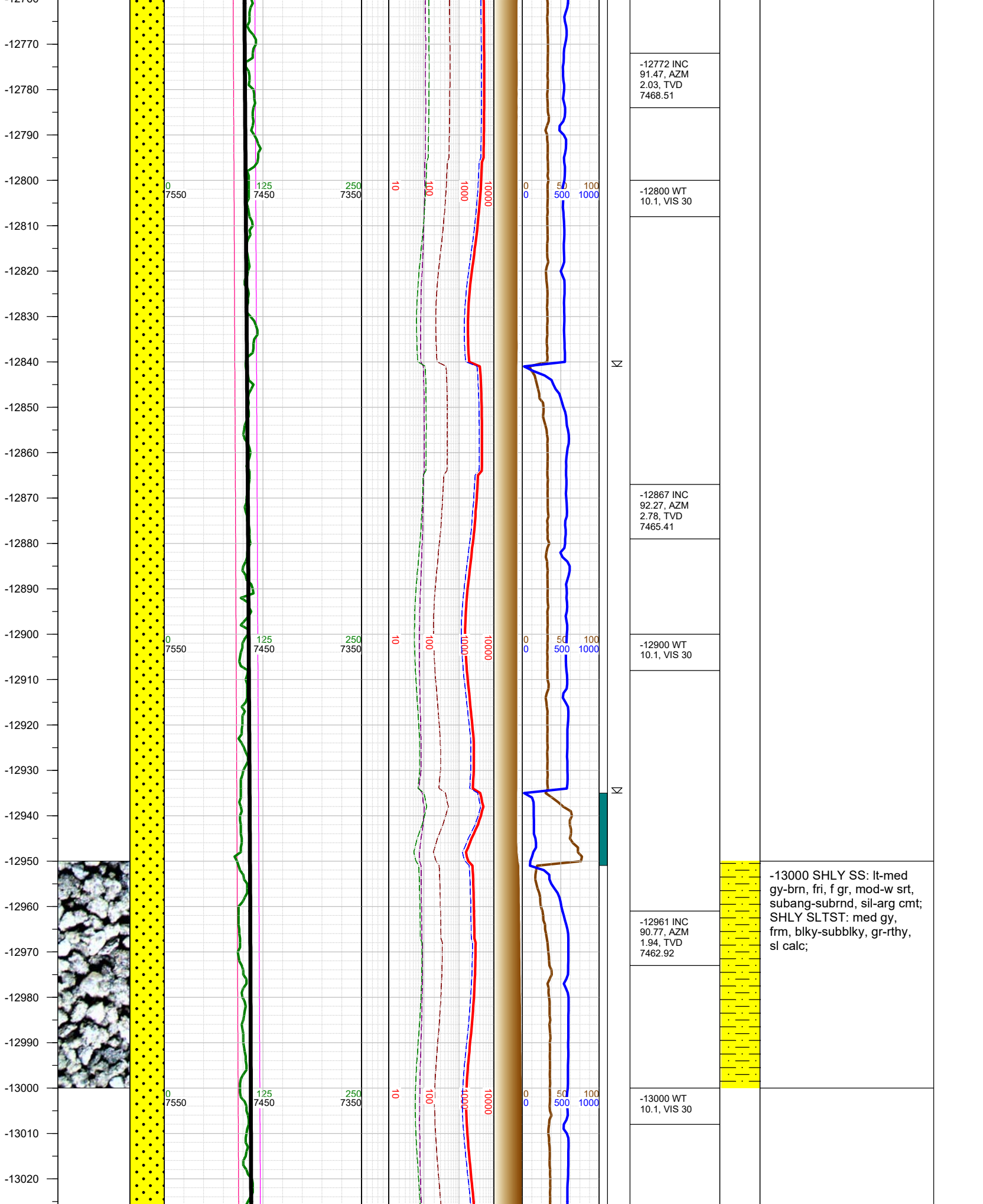




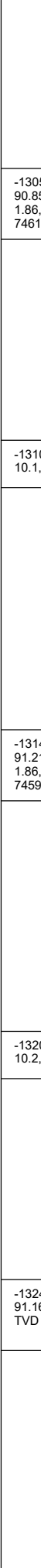
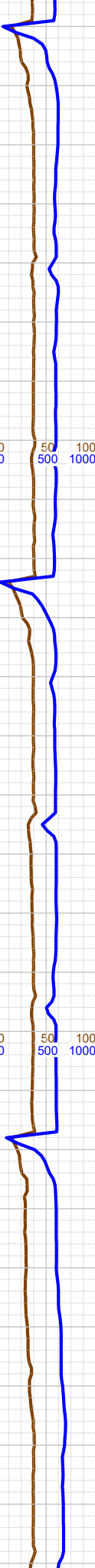
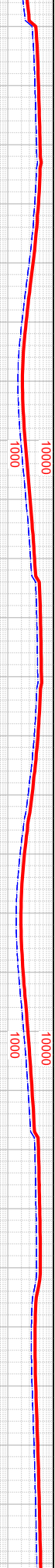
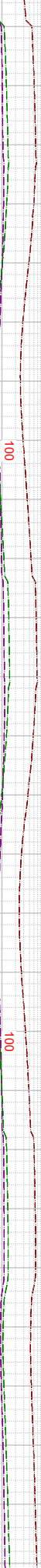
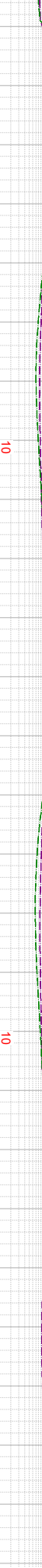
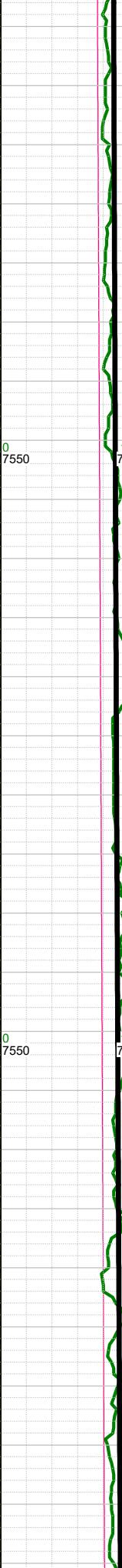
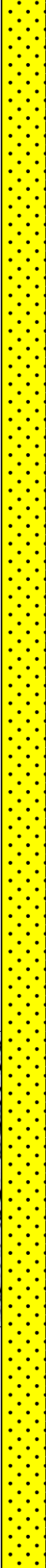
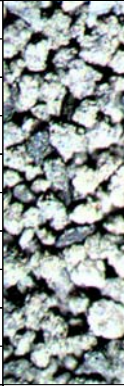








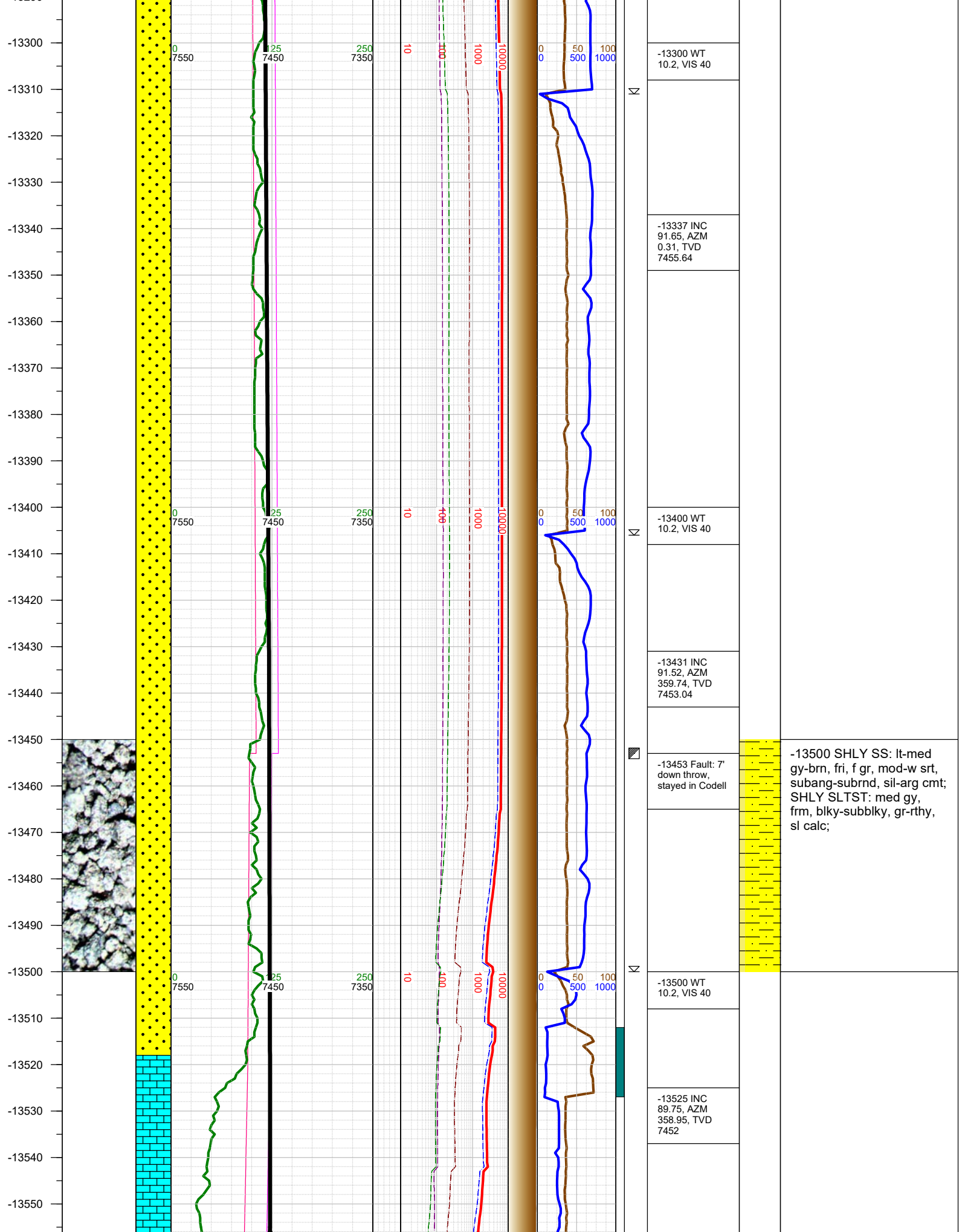
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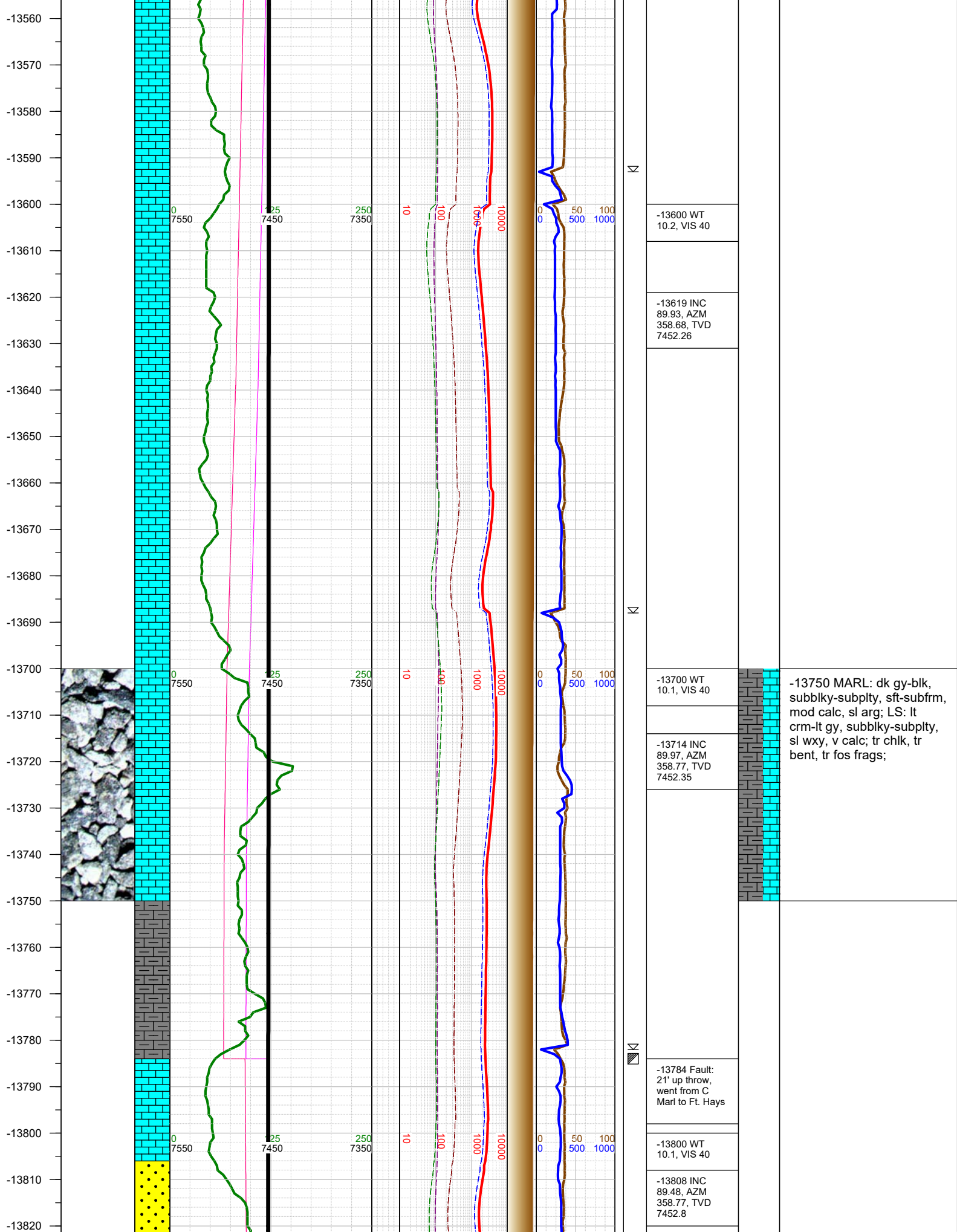


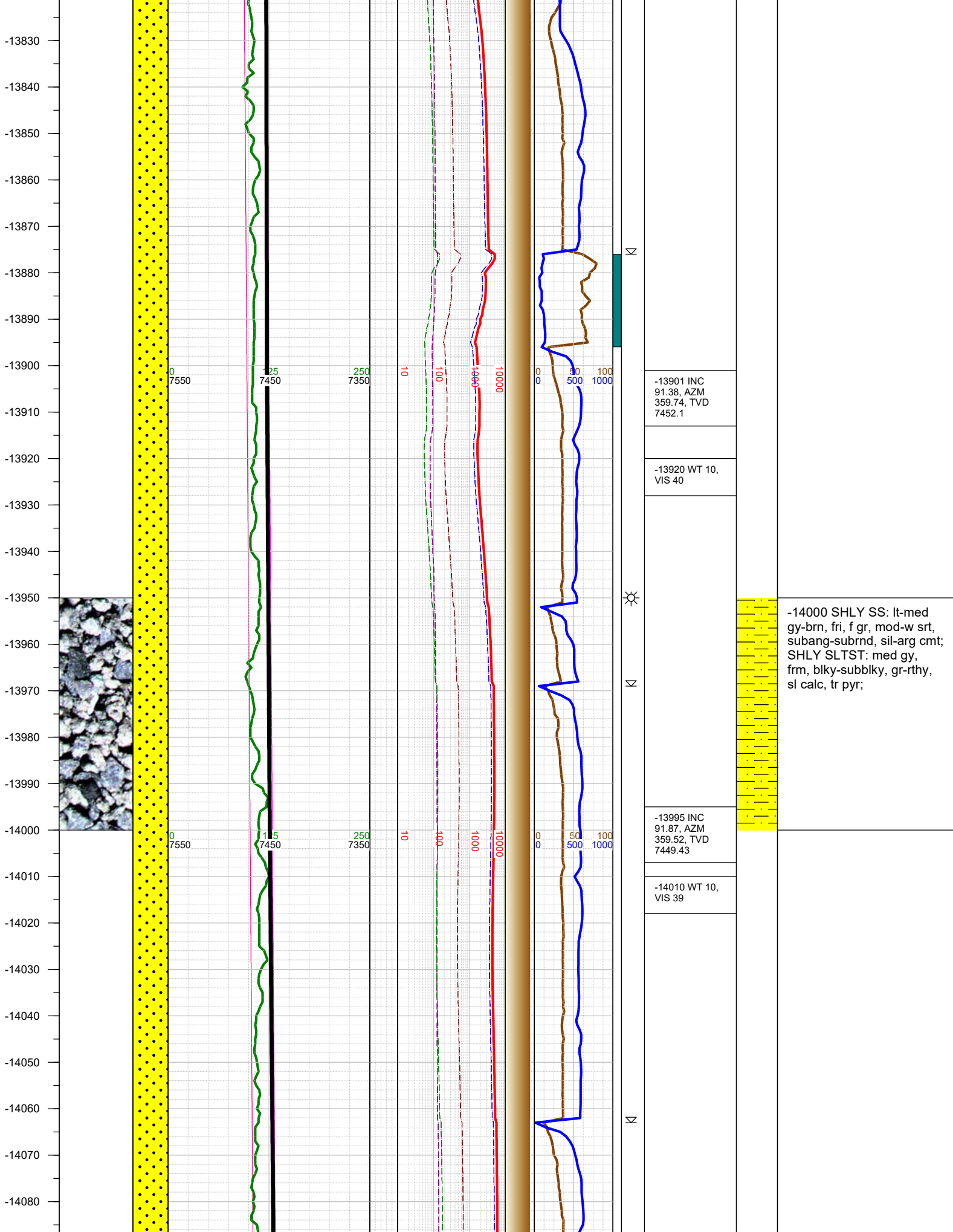
-13054 INC 90.85, AZM 1.86, TVD 7461.6	
-13100 WT 10.1, VIS 30	
-13149 INC 91.21, AZM 1.86, TVD 7459.9	
-13200 WT 10.2, VIS 40	
-13242 INC 91.16, AZM 1.2, TVD 7457.97	



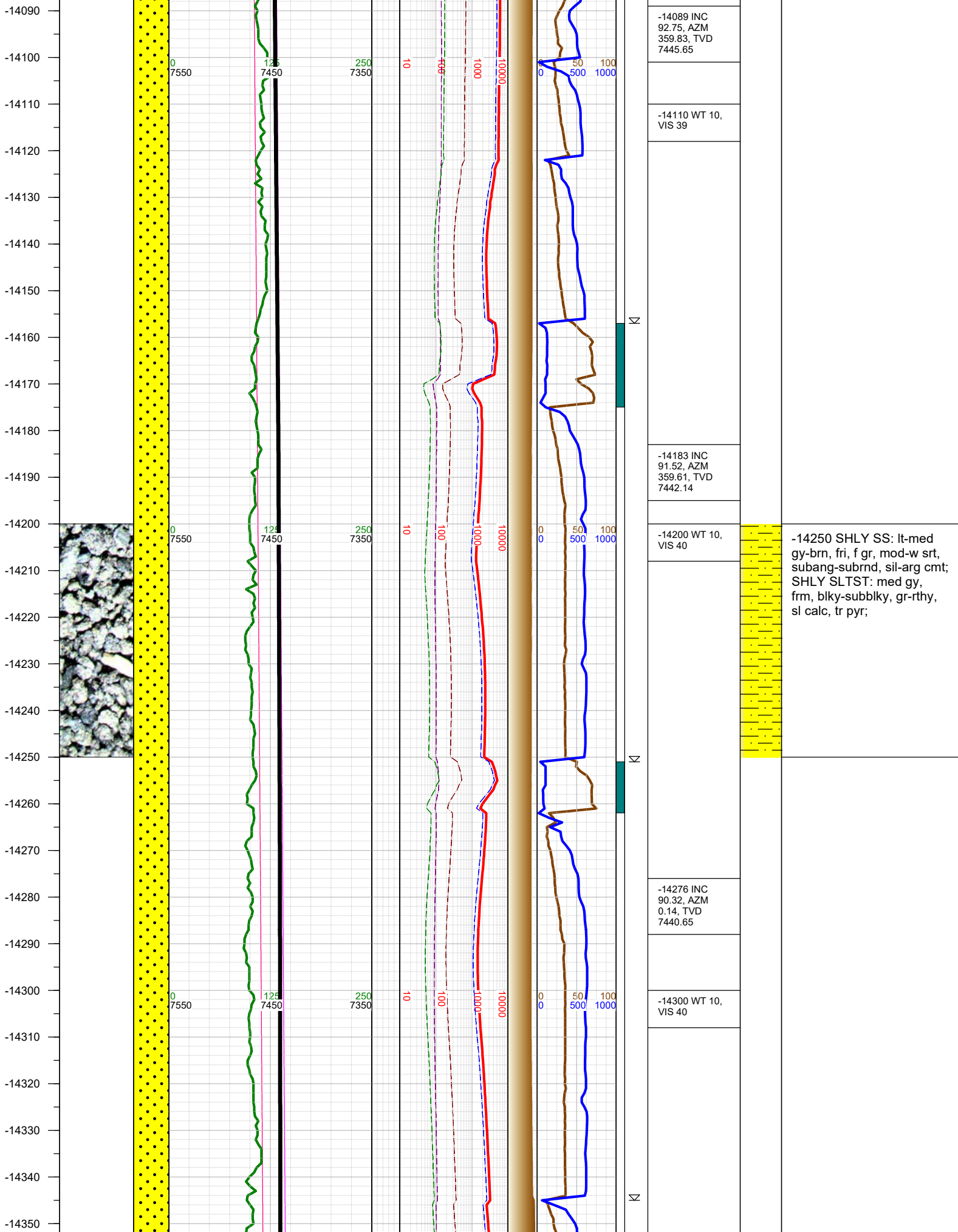
-13250 SHLY SS: lt-med
gy-brn, fri, f gr, mod-w srt,
subang-subrnd, sil-arg cmt;
SHLY SLTST: med gy,
frm, blkly-subblky, gr-rthy,
sl calc, try pyr;

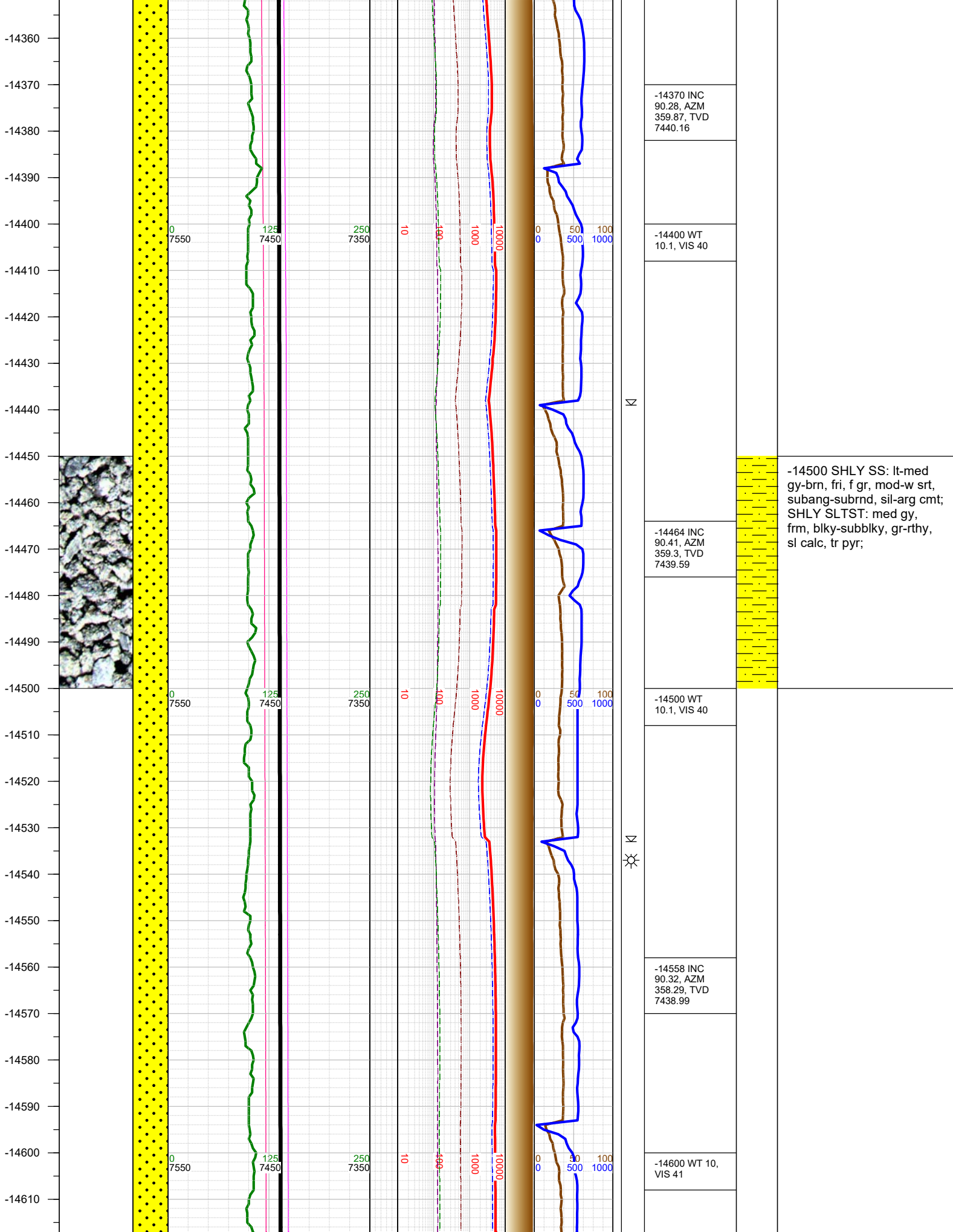






-14000 SHLY SS: lt-med
gy-brn, fri, f gr, mod-w srt,
subang-subrnd, sil-arg cmt;
SHLY SLTST: med gy,
frm, blkyy-subblky, gr-rthy,
sl calc, tr pyr;





-14370 INC
90.28, AZM
359.87, TVD
7440.16

-14400 WT
10.1, VIS 40

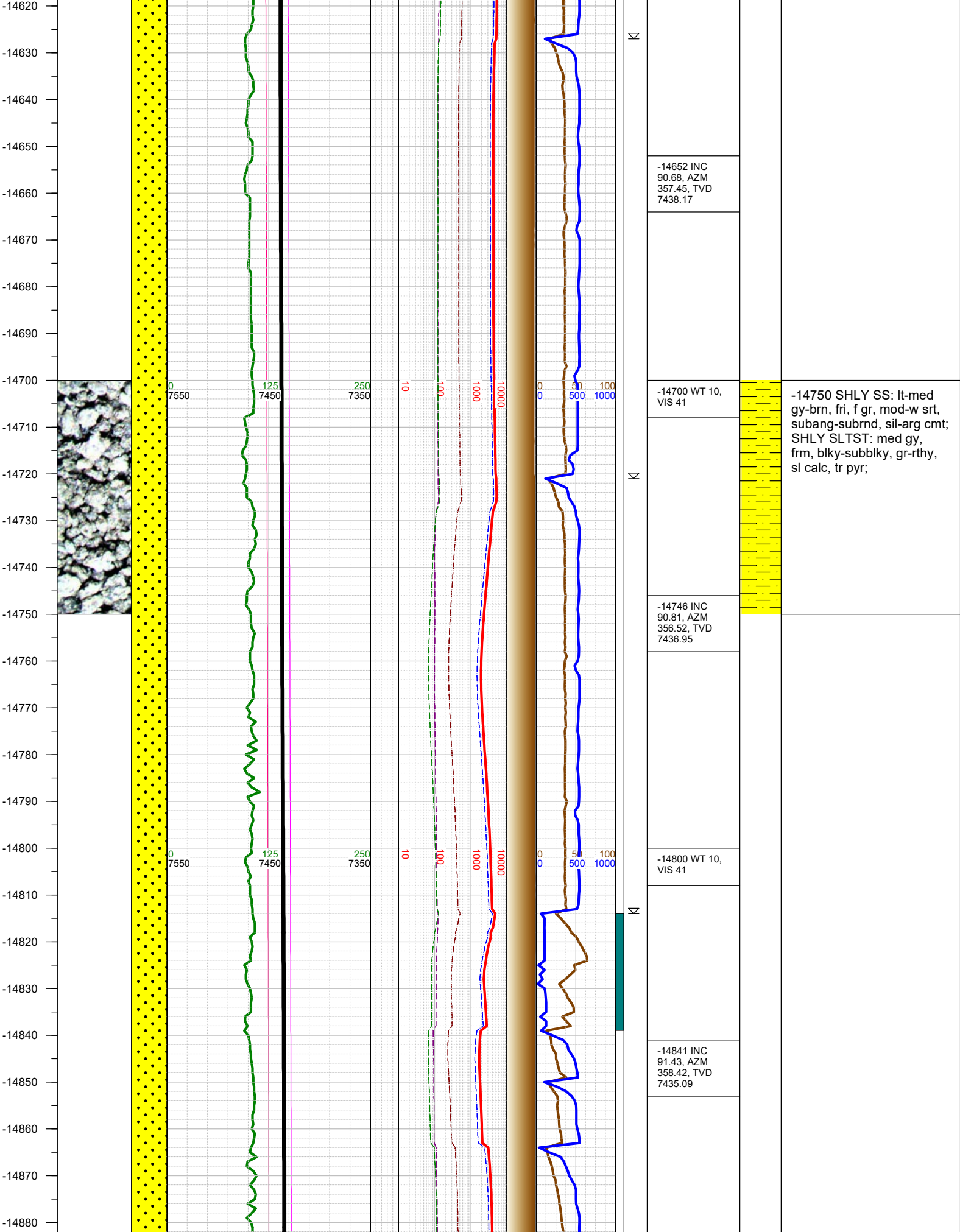
-14464 INC
90.41, AZM
359.3, TVD
7439.59

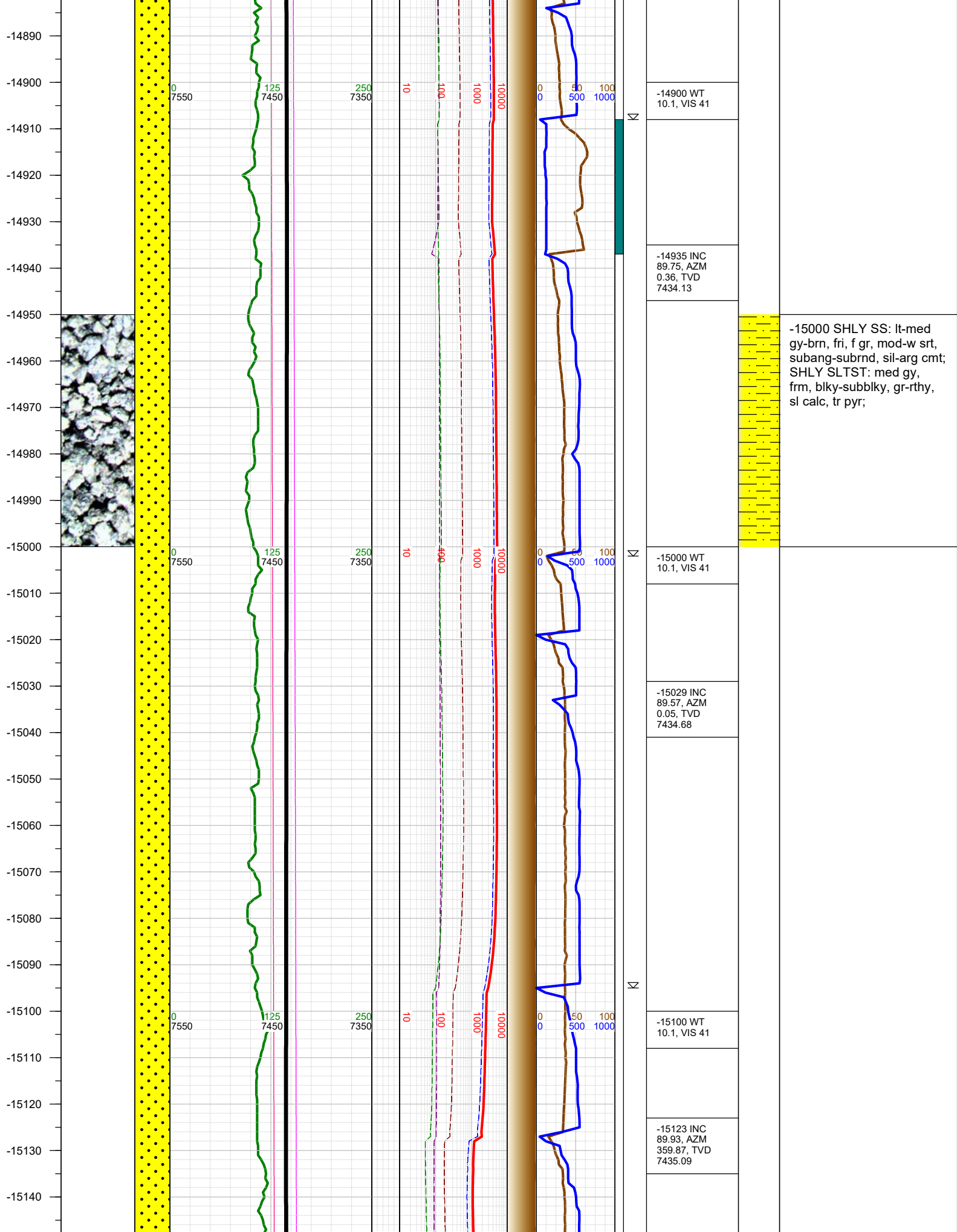
-14500 WT
10.1, VIS 40

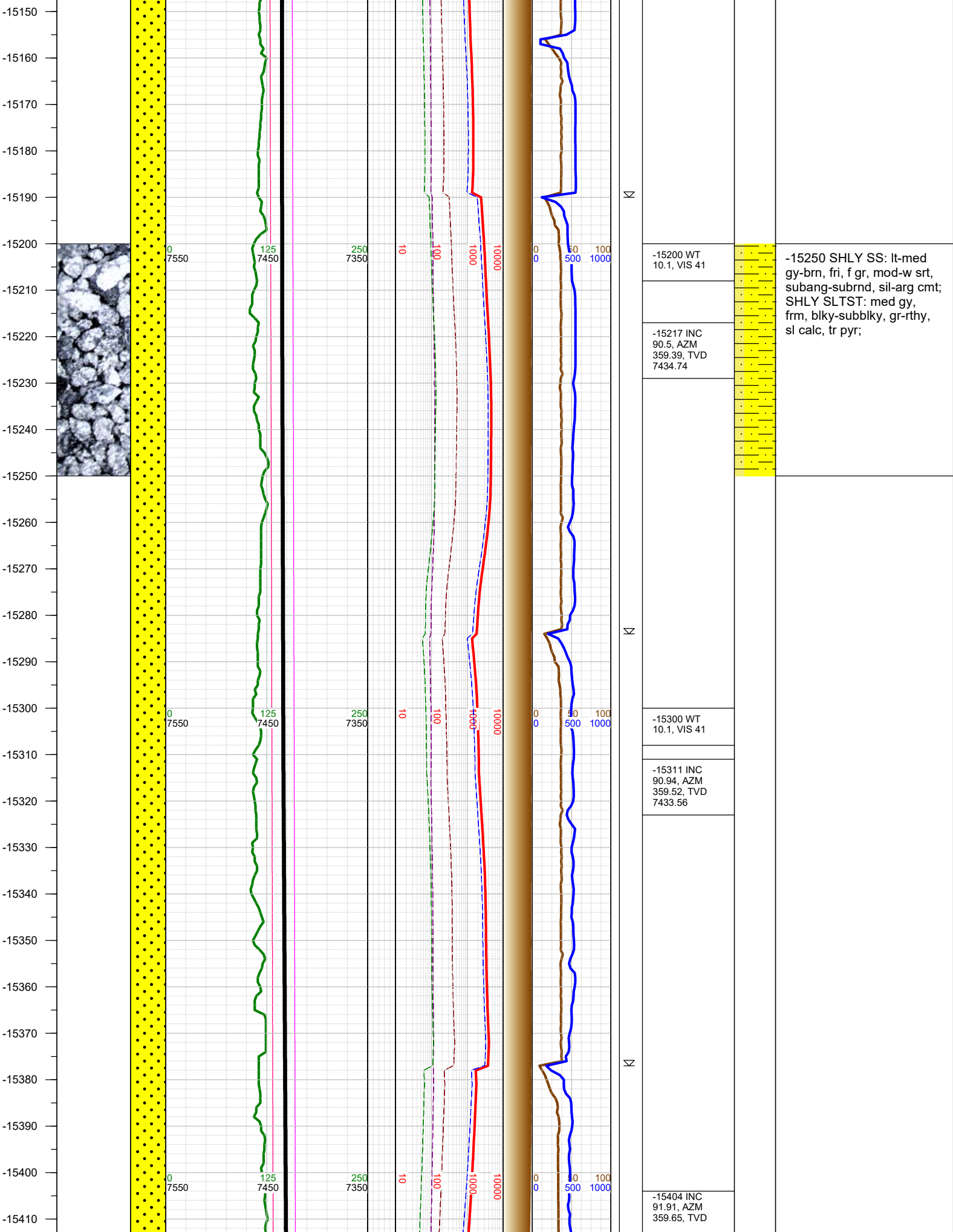
-14558 INC
90.32, AZM
358.29, TVD
7438.99

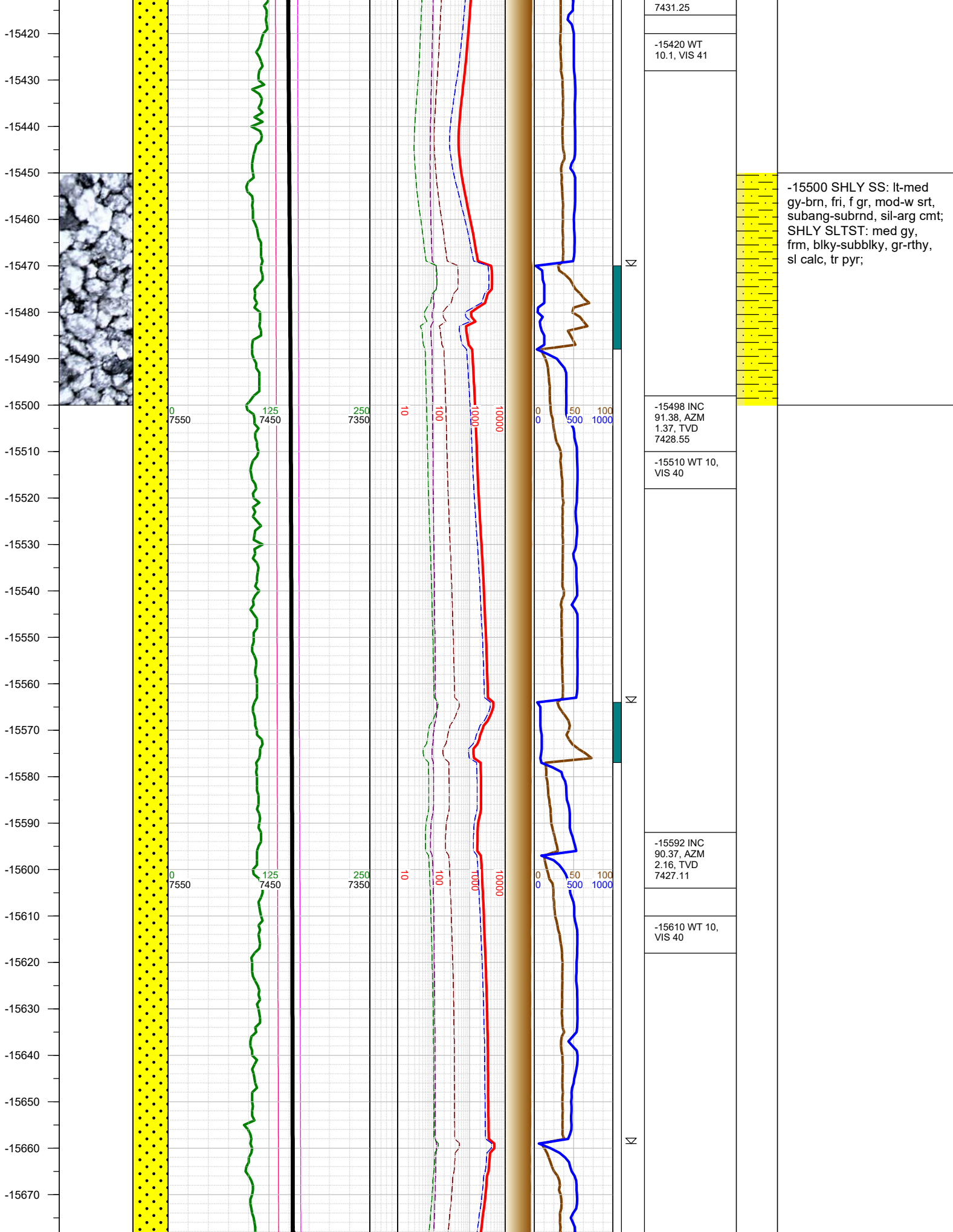
-14600 WT 10,
VIS 41

-14500 SHLY SS: lt-med
gy-brn, fri, f gr, mod-w srt,
subang-subrnd, sil-arg cmt;
SHLY SLTST: med gy,
frm, blk-subblky, gr-rthy,
sl calc, tr pyr;









7431.25

-15420 WT
10.1, VIS 41

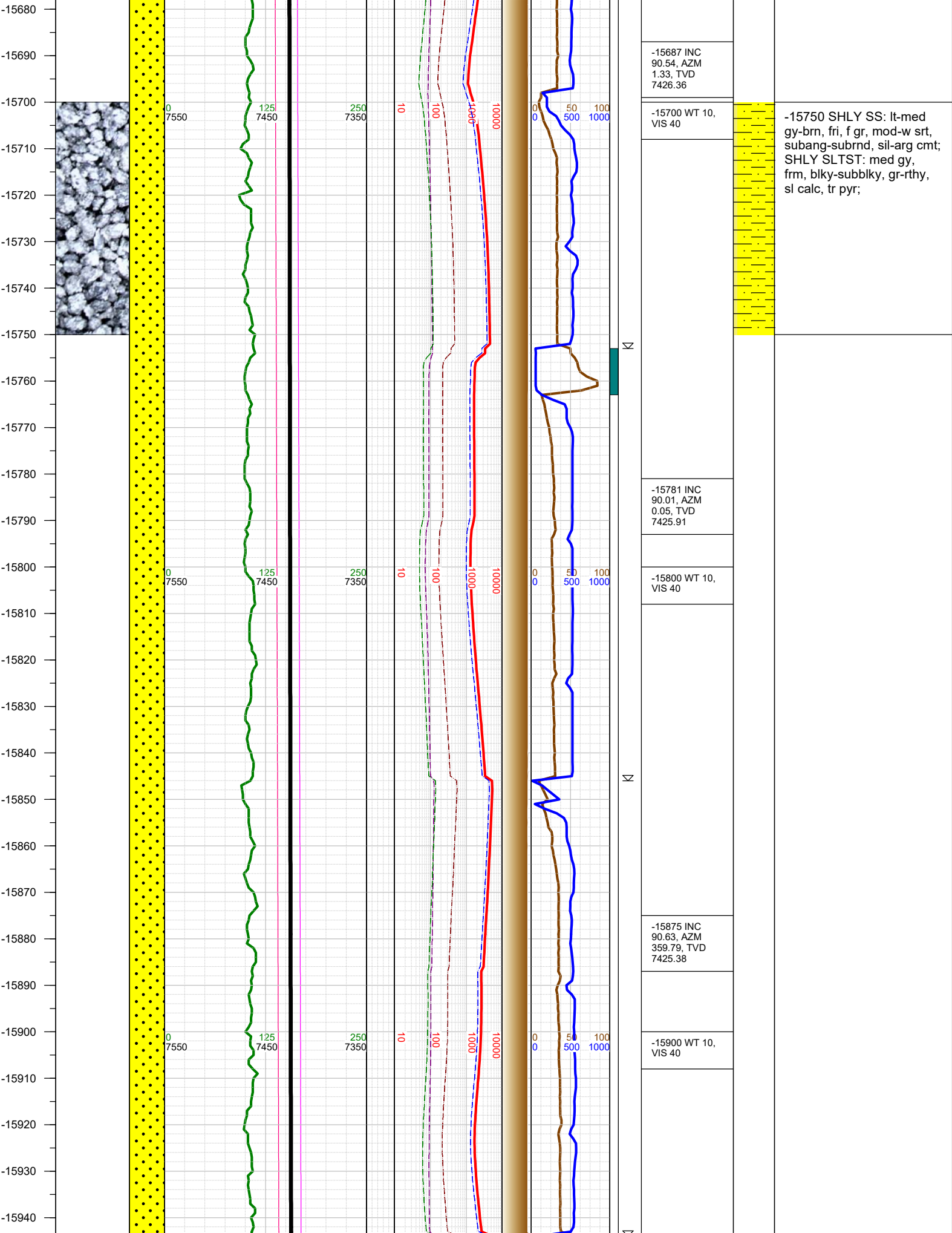
-15498 INC
91.38, AZM
1.37, TVD
7428.55

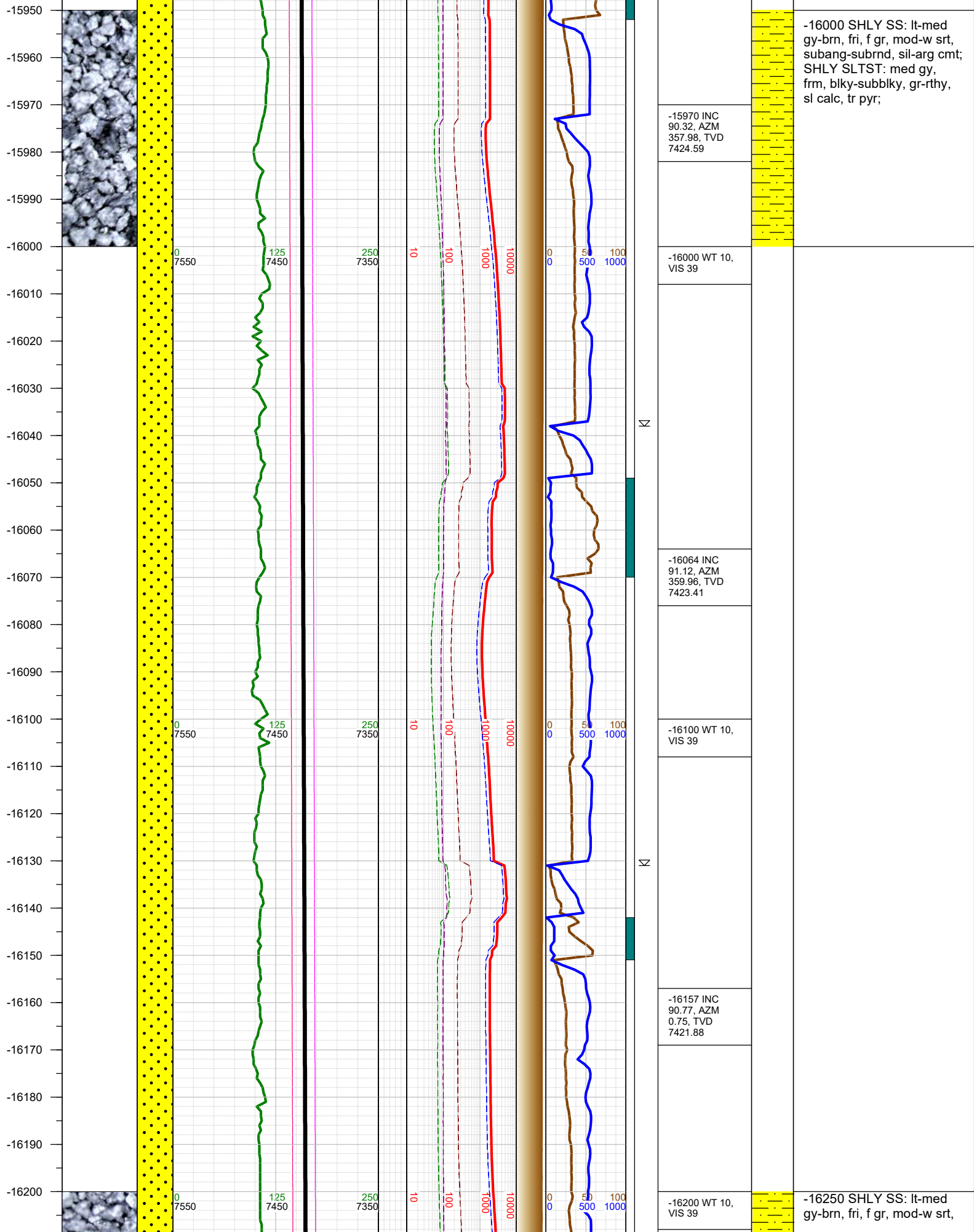
-15510 WT 10,
VIS 40

-15592 INC
90.37, AZM
2.16, TVD
7427.11

-15610 WT 10,
VIS 40

-15500 SHLY SS: lt-med
gy-brn, fri, f gr, mod-w srt,
subang-subrnd, sil-arg cmt;
SHLY SLTST: med gy,
frm, blkly-subblkly, gr-rthy,
sl calc, tr pyr;





-16000 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt, subang-subrnd, sil-arg cmt; SHLY SLTST: med gy, frm, blk-subblky, gr-rthy, sl calc, tr pyr;

-15970 INC
90.32, AZM
357.98, TVD
7424.59

-16000 WT 10,
VIS 39

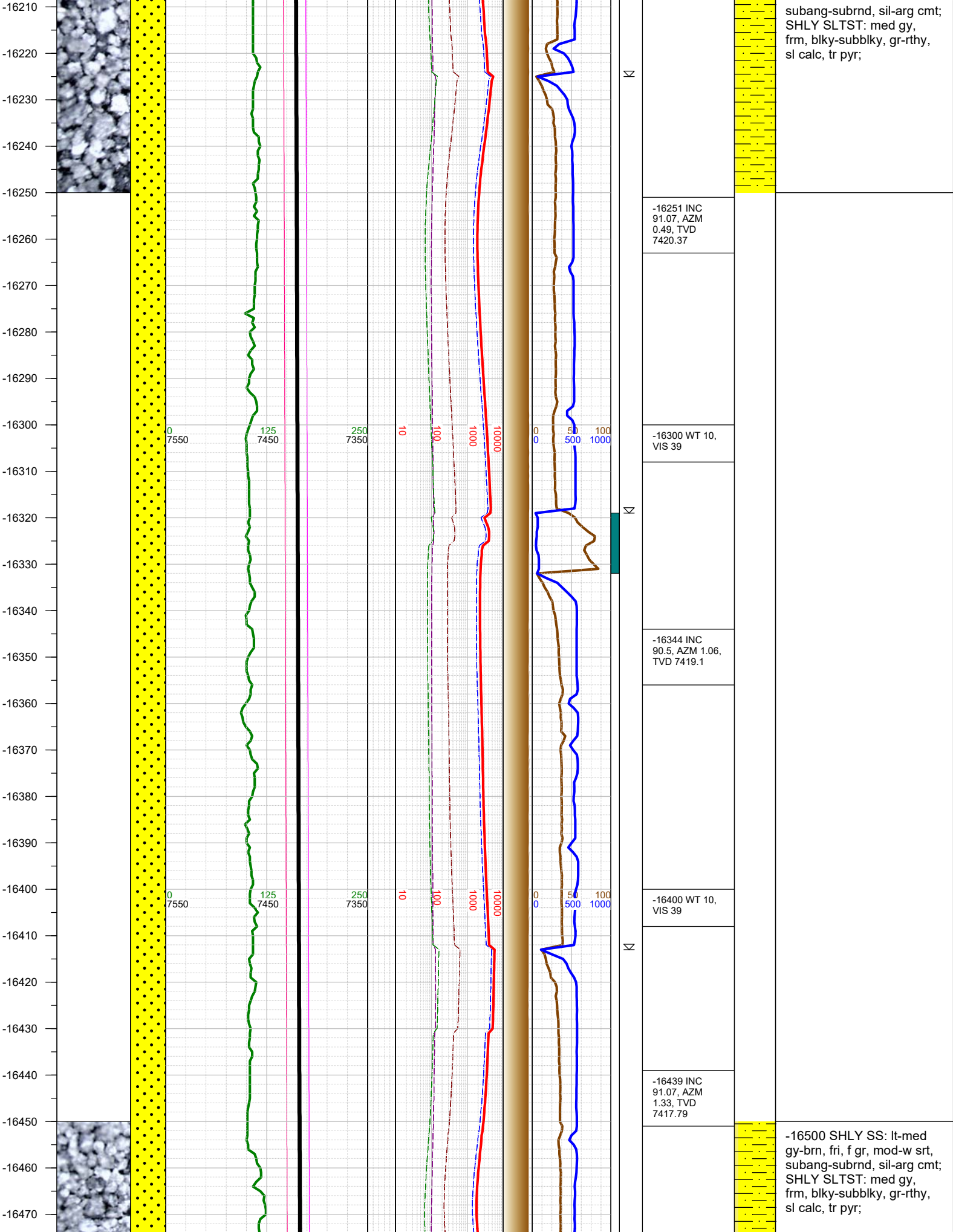
-16064 INC
91.12, AZM
359.96, TVD
7423.41

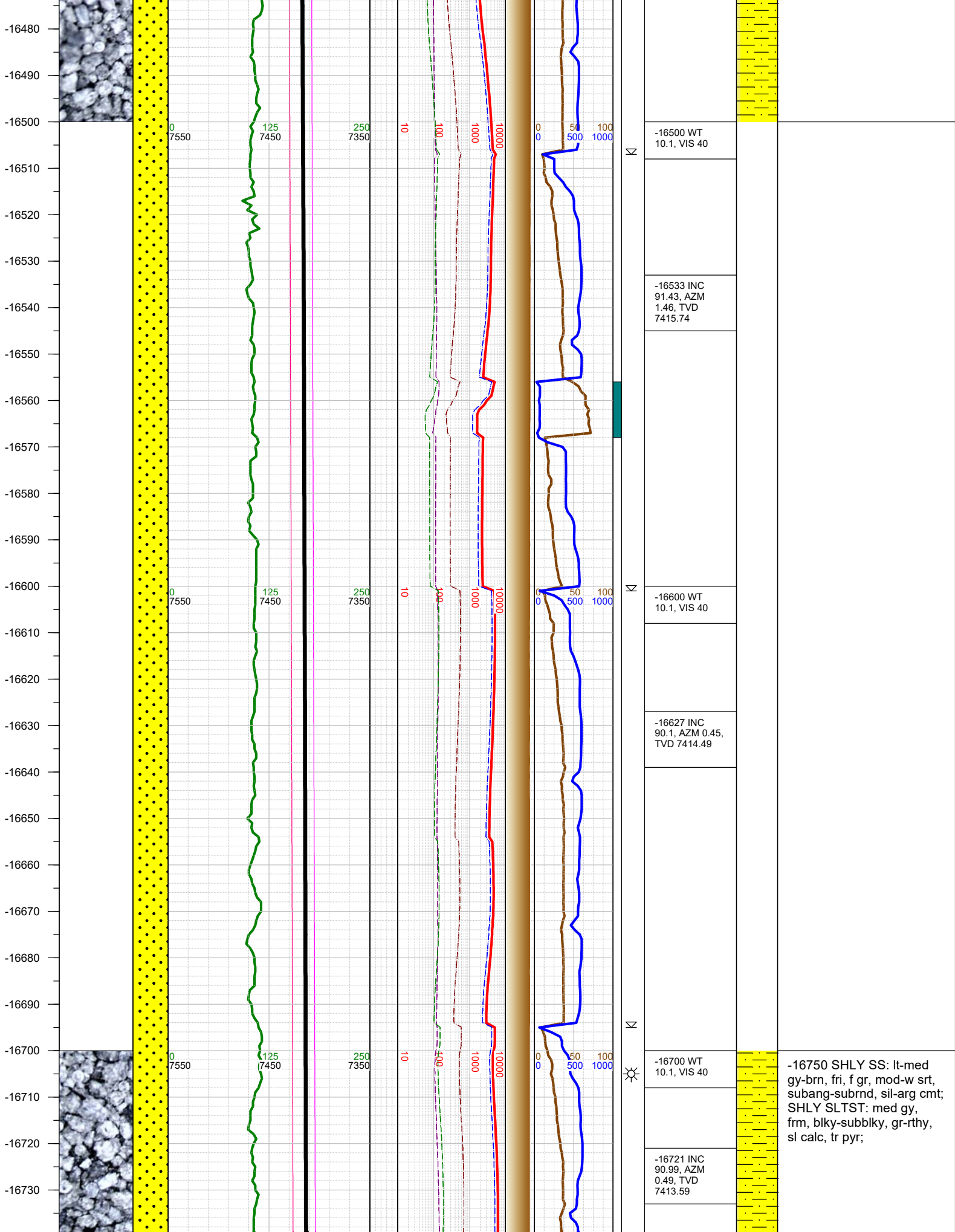
-16100 WT 10,
VIS 39

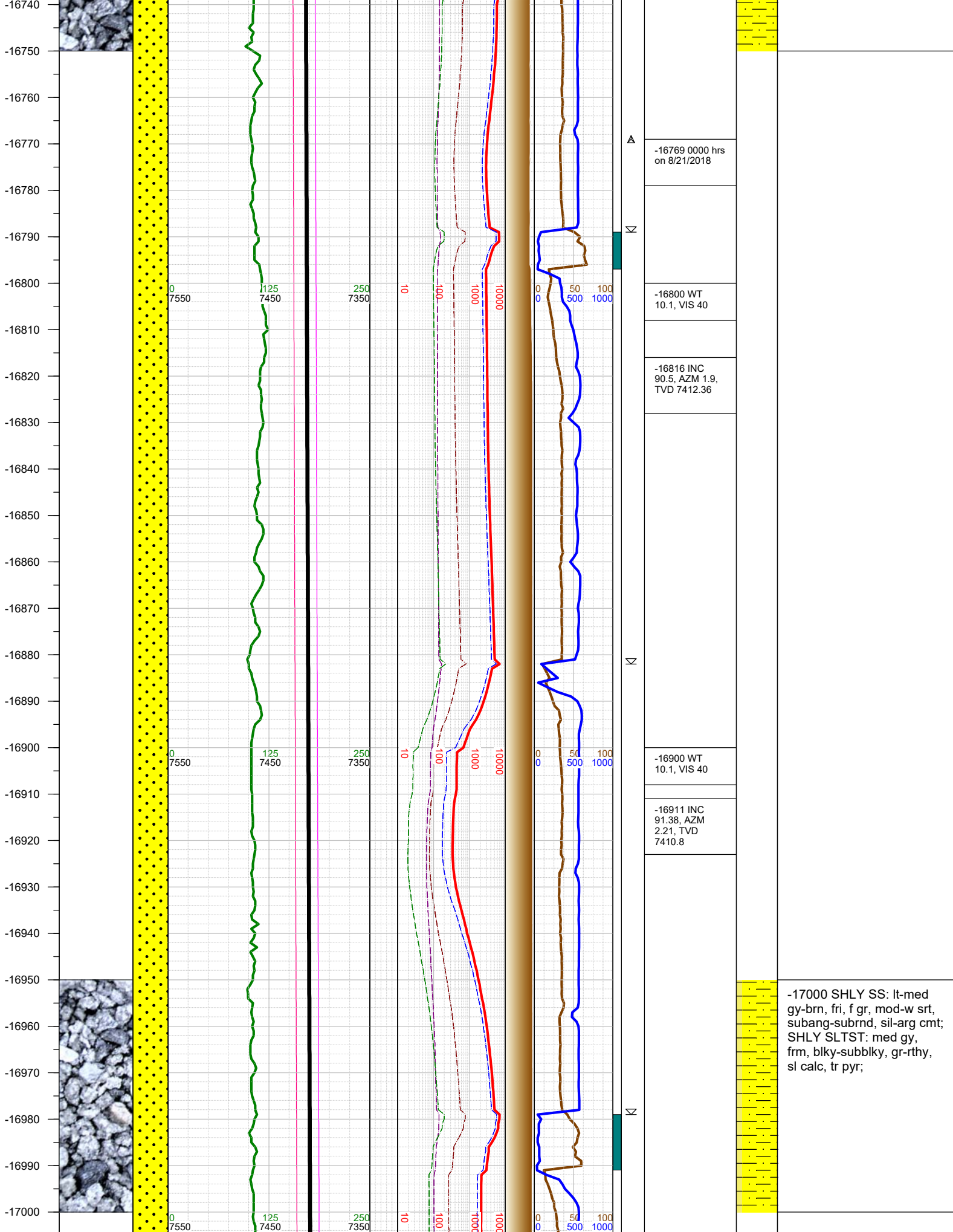
-16157 INC
90.77, AZM
0.75, TVD
7421.88

-16200 WT 10,
VIS 39

-16250 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt,







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-16769 0000 hrs
on 8/21/2018

Σ

-16800 WT
10.1, VIS 40

-16816 INC
90.5, AZM 1.9,
TVD 7412.36

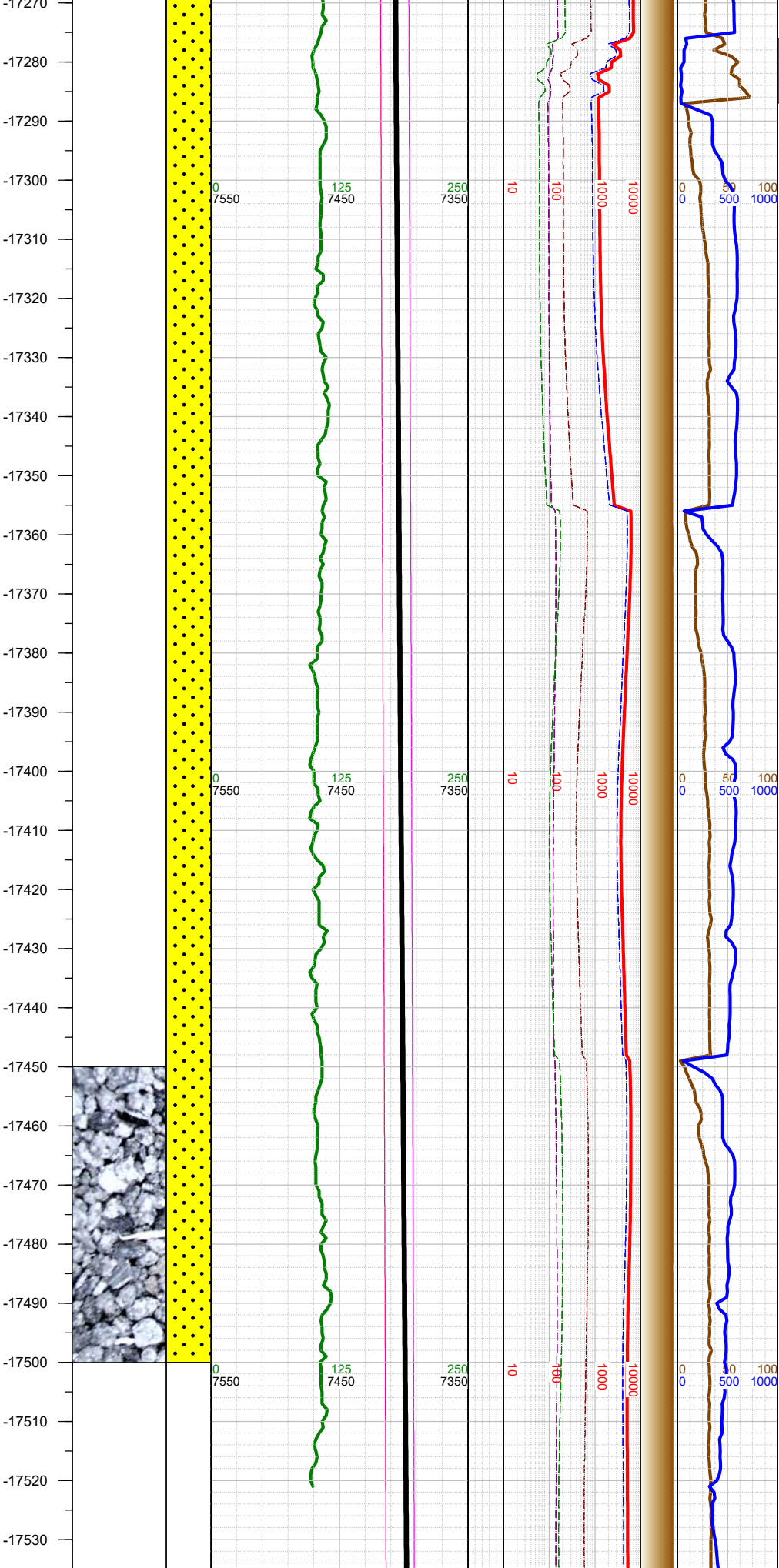
Σ

-16900 WT
10.1, VIS 40

-16911 INC
91.38, AZM
2.21, TVD
7410.8

Σ

-17000 SHLY SS: lt-med
gy-brn, fri, f gr, mod-w srt,
subang-subrnd, sil-arg cmt;
SHLY SLTST: med gy,
frm, blkyl-subblky, gr-rthy,
sl calc, tr pyr;



-17287 INC 91.6, AZM 1.77, TVD 7406.02
-17300 WT 10.2, VIS 40
-17381 INC 91.91, AZM 1.2, TVD 7403.15
-17400 WT 10.2, VIS 40
-17475 INC 91.96, AZM 0.14, TVD 7399.97
-17500 WT 10.2, VIS 40

-17500 SHLY SS: lt-med gy-brn, fri, f gr, mod-w srt, subang-subrnd, sil-arg cmt; SHLY SLTST: med gy, frm, blkly-subblky, gr-rthy, sl calc, tr pyr;

