

OPERATOR: **Extraction Oil & Gas**
WELL NAME: **CS Longmeadow 1-1-13**

FIELD NAME: DJ Basin - Wattenberg
DRILLING RIG: Patterson 341
API #: 05-123-42476

LAT/LONG: 40.43837, -104.72248
SURFACE HOLE: SESW S36-T6N-R66W, 338' FSL, 1840' FEL
BOTTOM HOLE: S13-T5N-R66W, 2203' FNL, 358' FEL

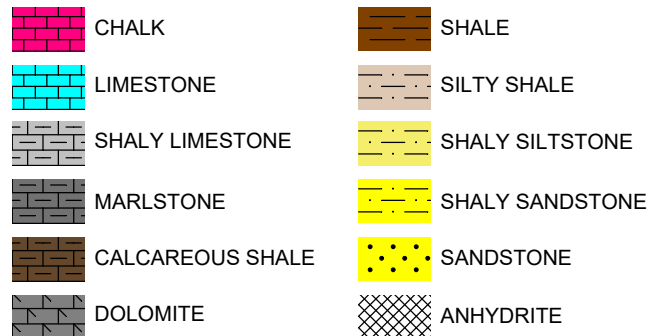


Earth Science Agency, LLC

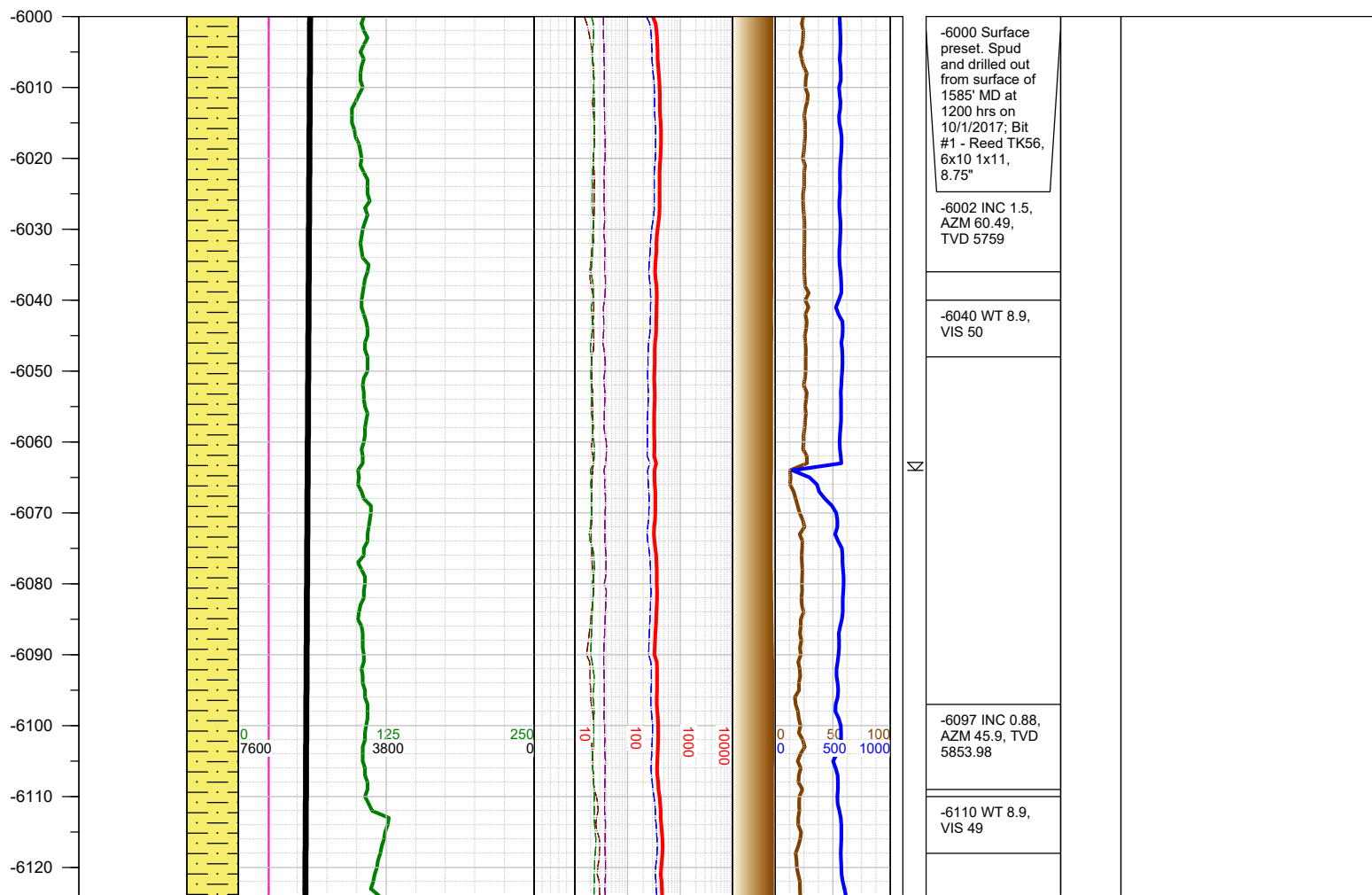
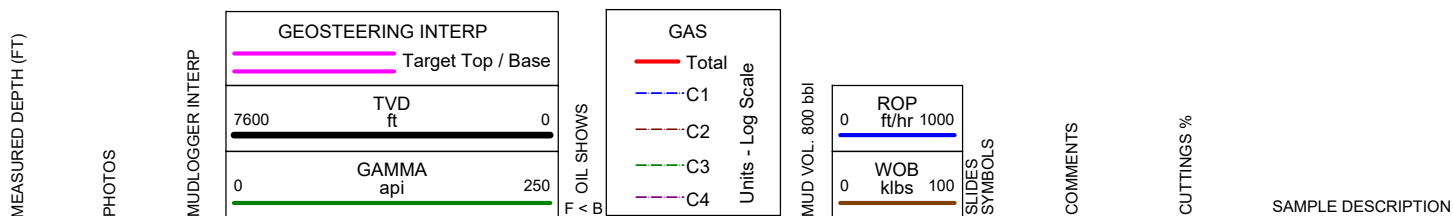
COUNTY: Weld
STATE: Colorado
GROUND ELEVATION: 4664'
KELLY BUSHING: 4689'
DRILLING FLUID: OBM
TVD VS. MD: 6832' / 20308'
SPUD DATE: October 1, 2017
TD DATE: October 5, 2017

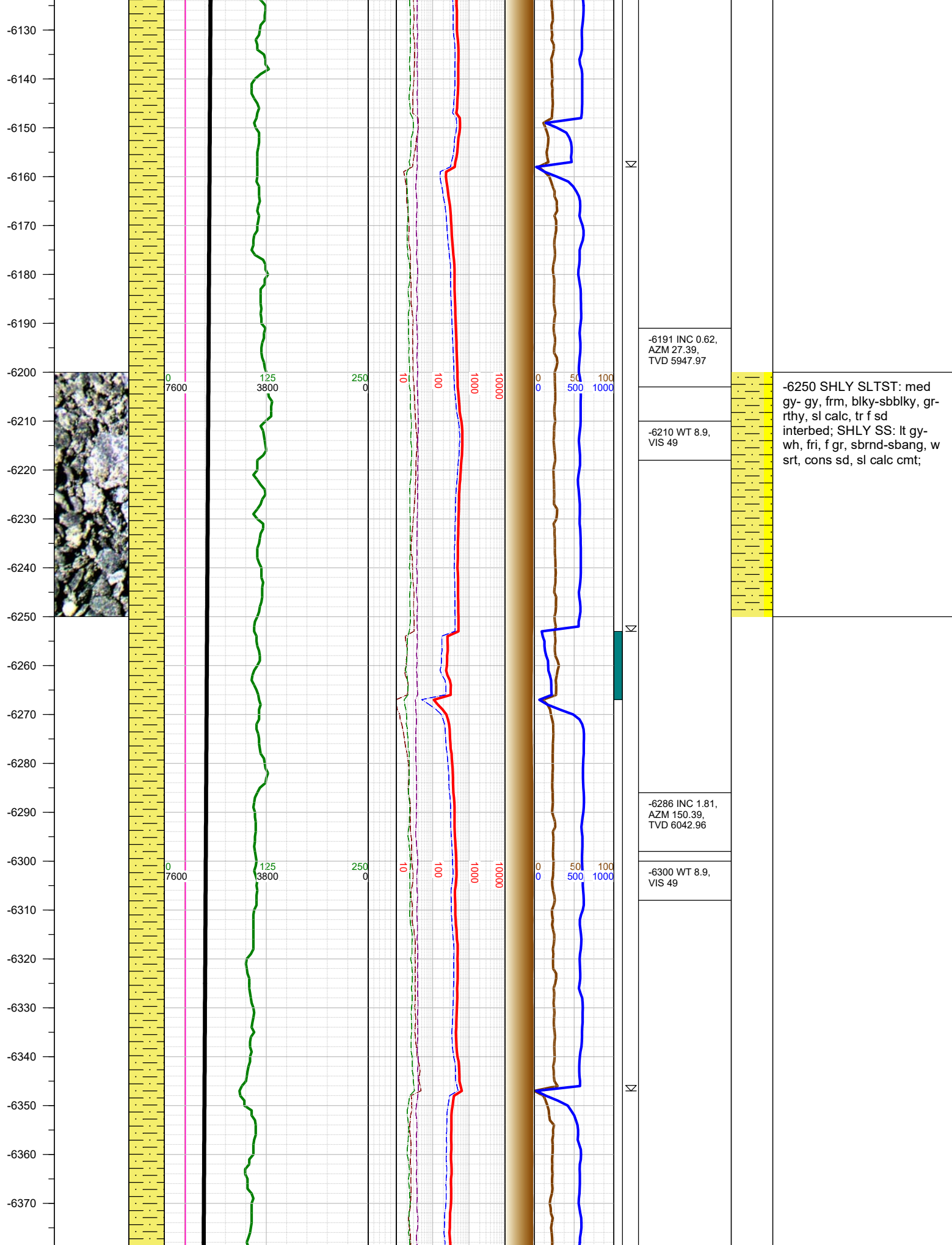
DEPTHS LOGGED: 6000' - 20308'
DATES LOGGED: October 1, 2017 - October 5, 2017
GEOLOGISTS: Blake Eatherton, Dominic Pitre
SCALE: 5" = 100'

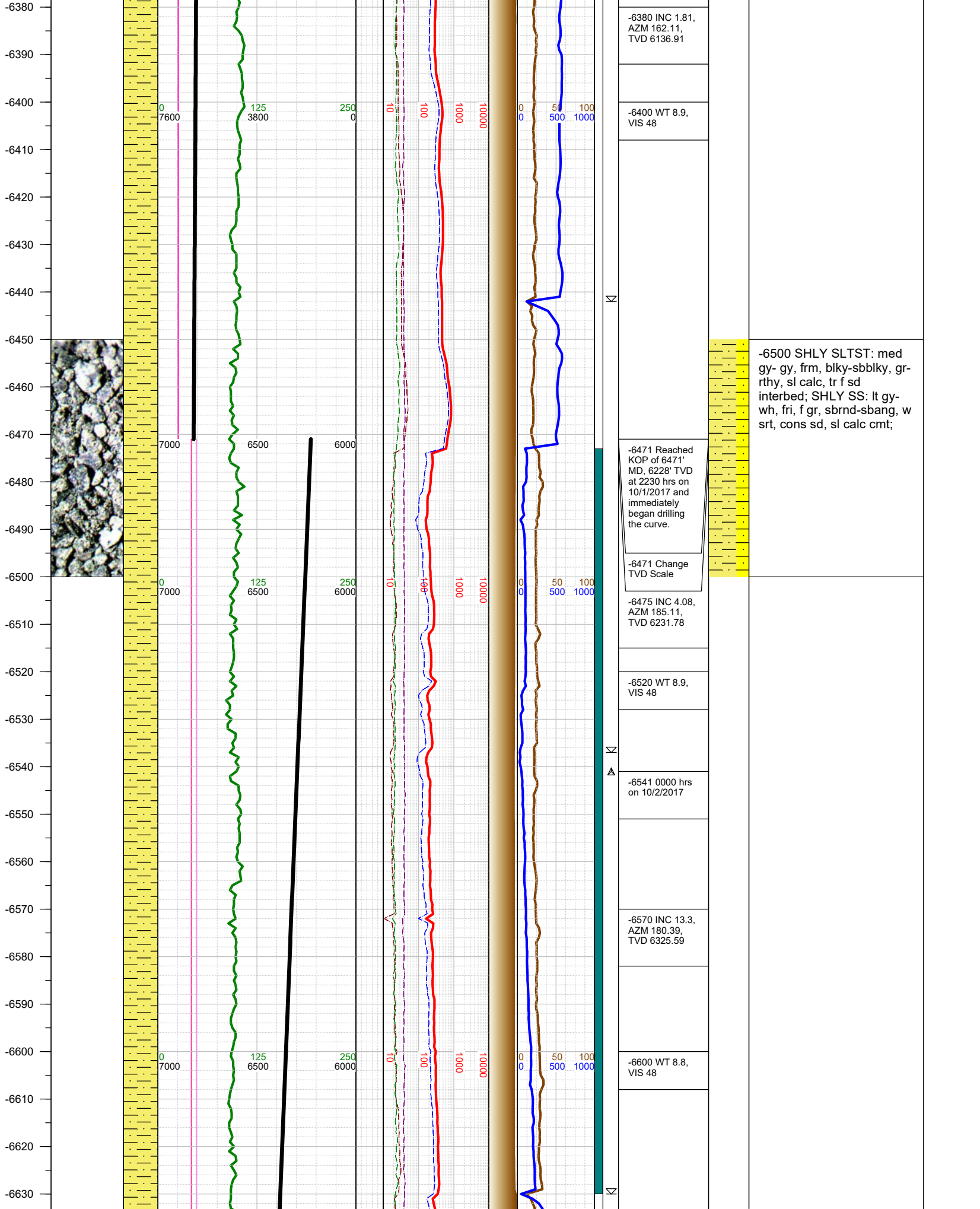
LEGEND

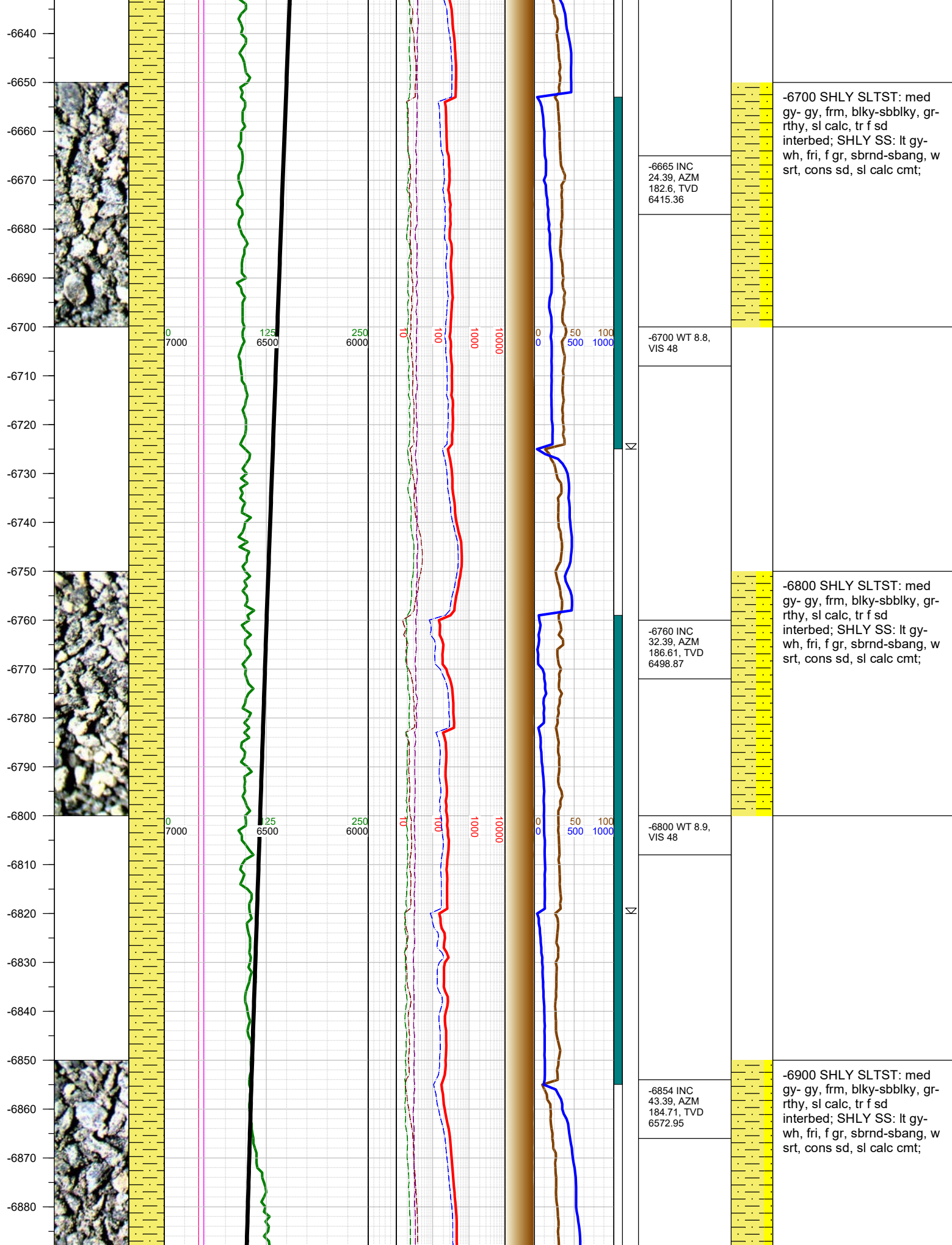


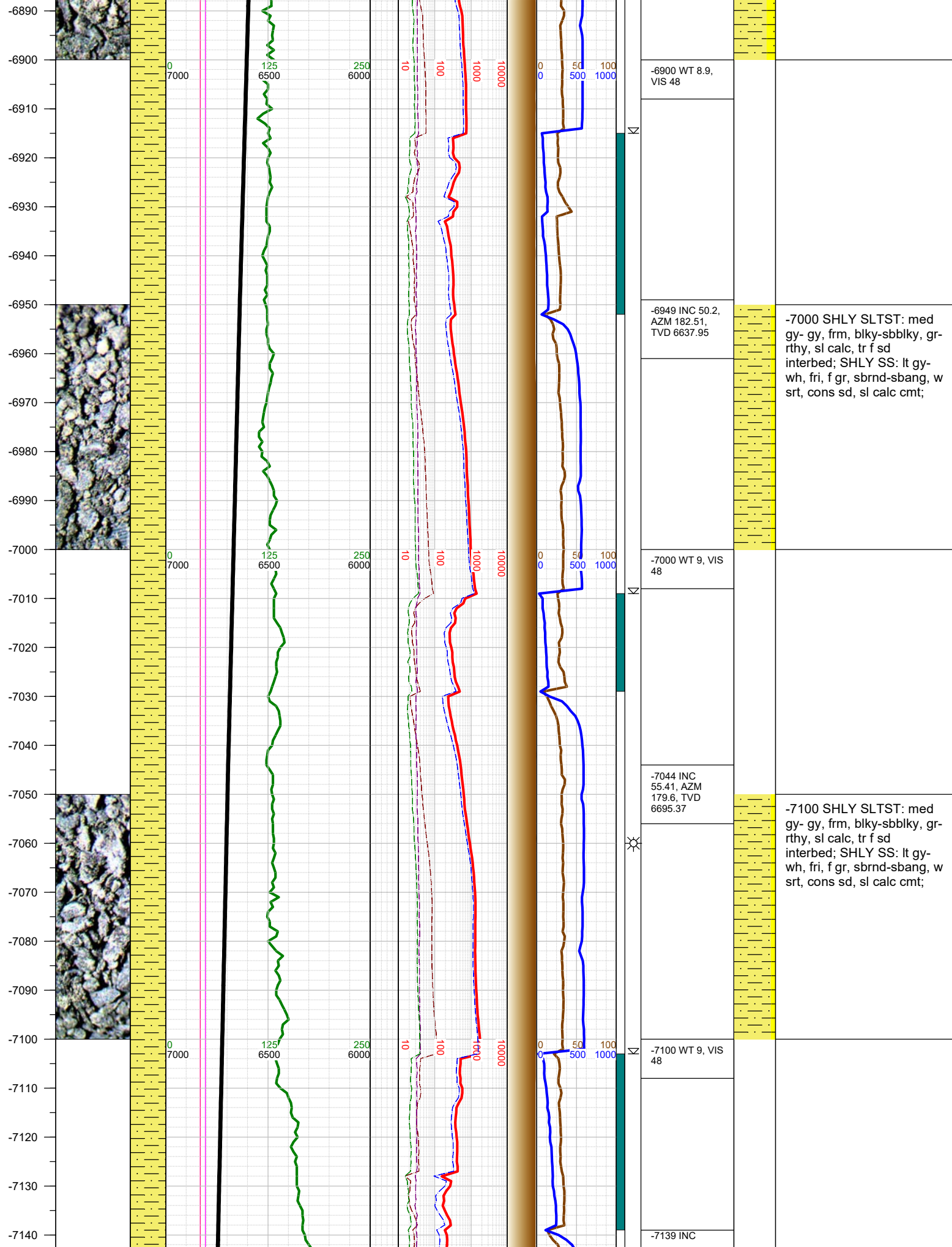
FORMATION \approx CONNECTION Δ MIDNIGHT NEW BIT GAS SHOW FAULT

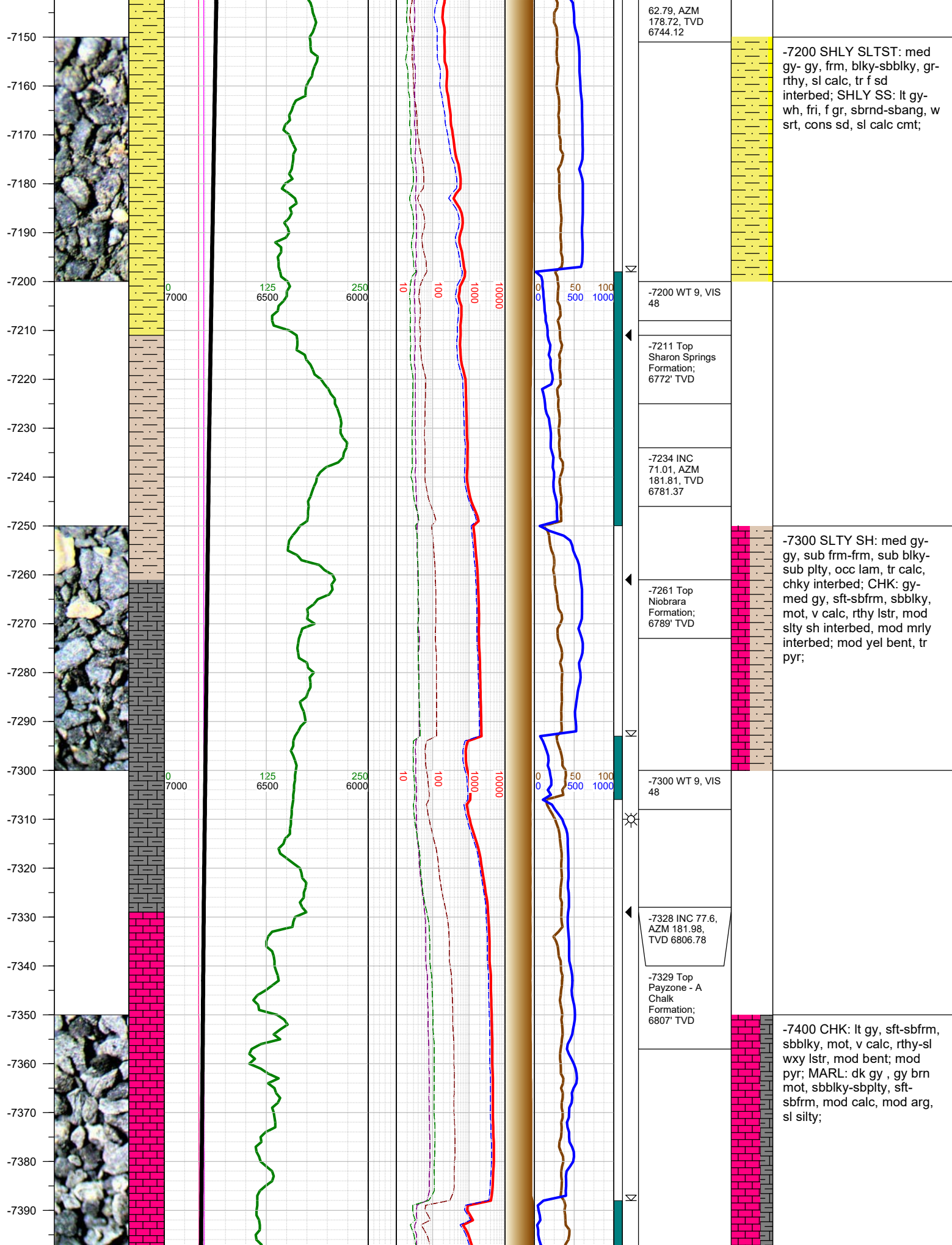


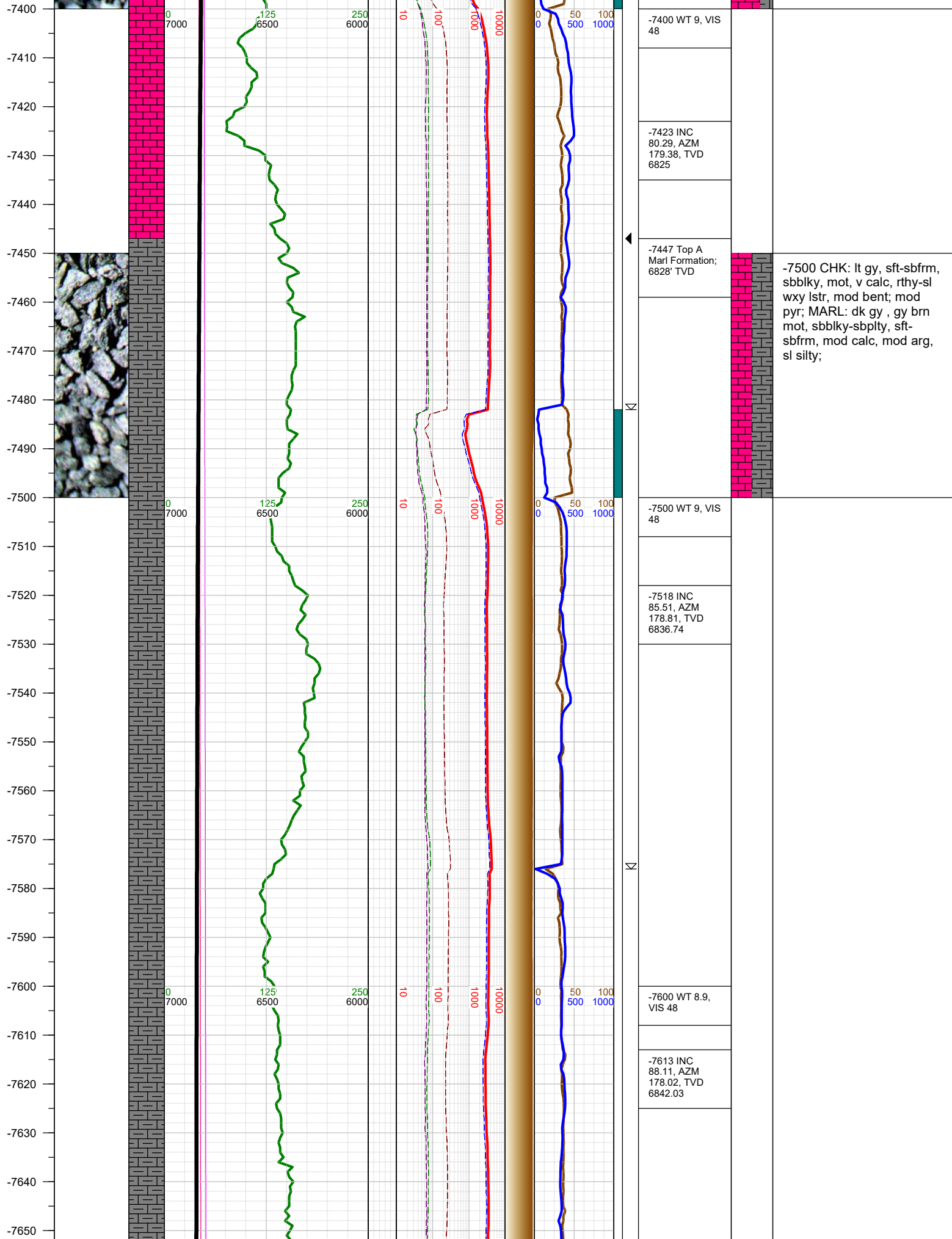


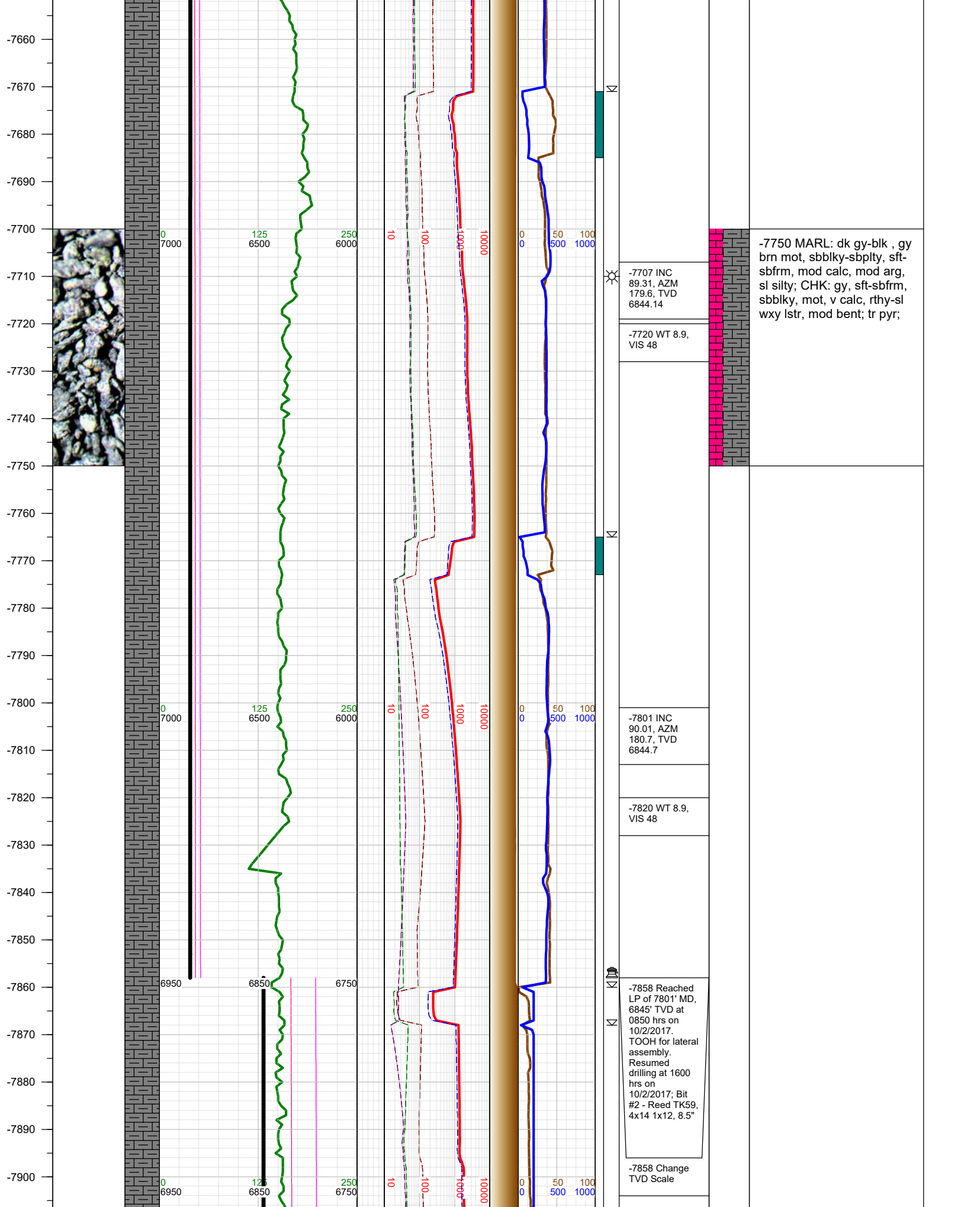


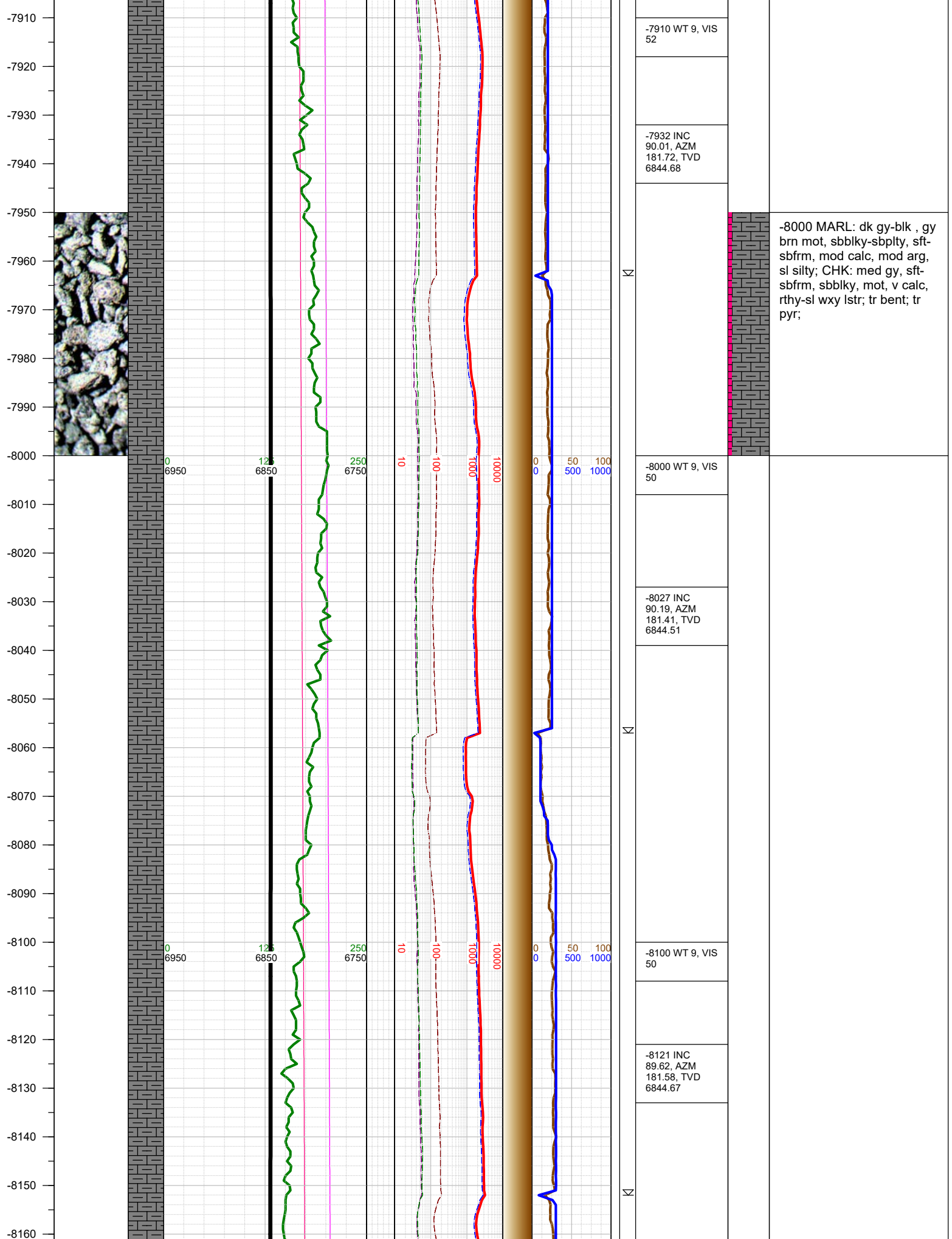




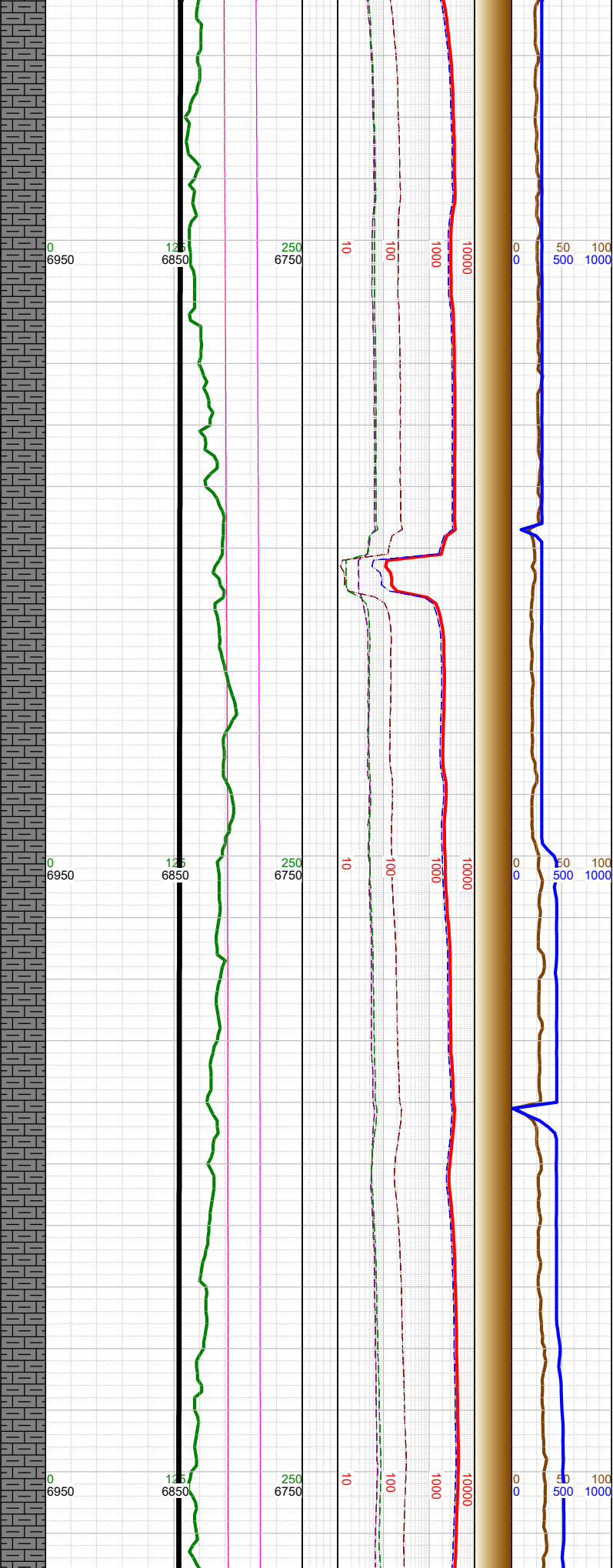
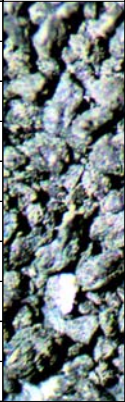




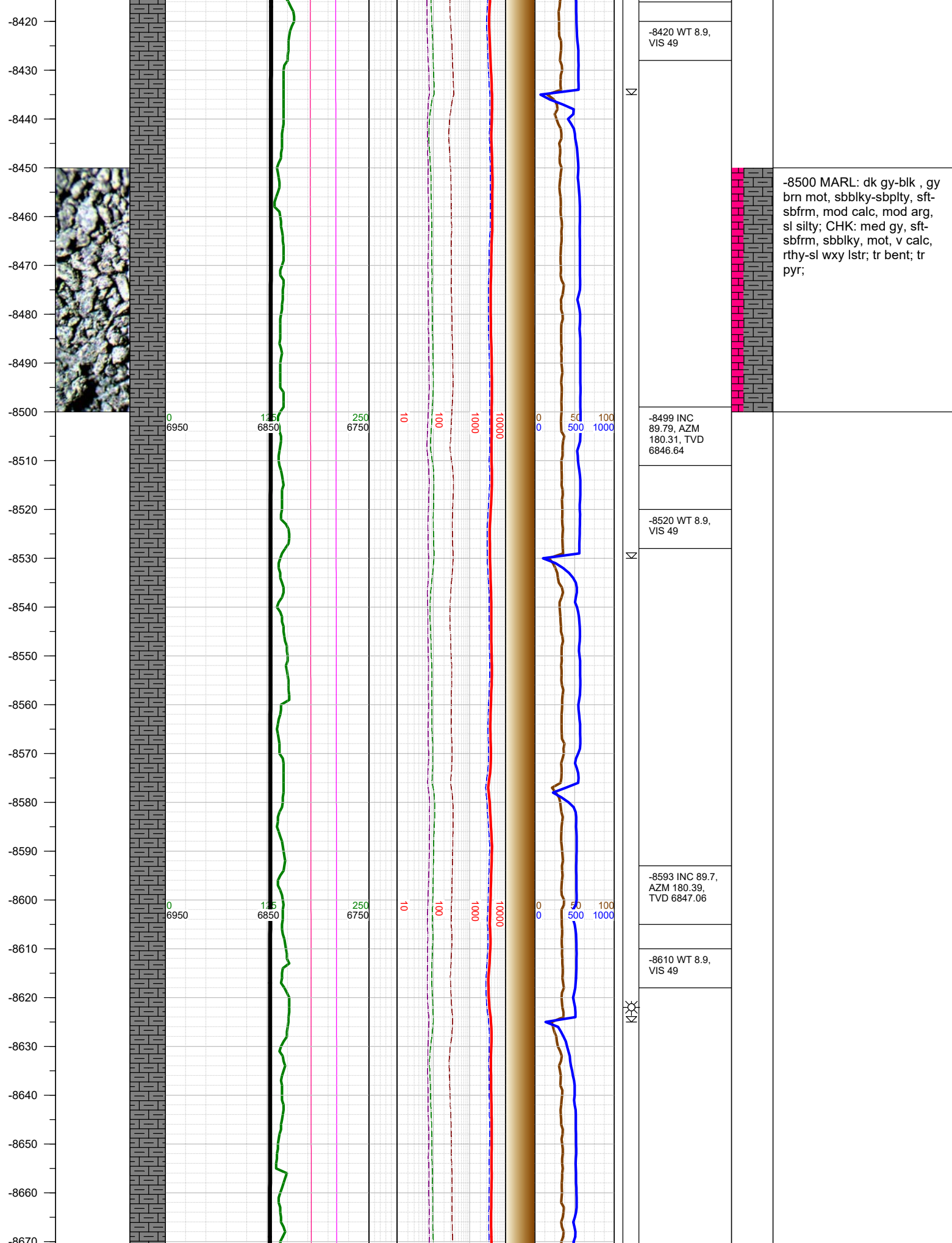


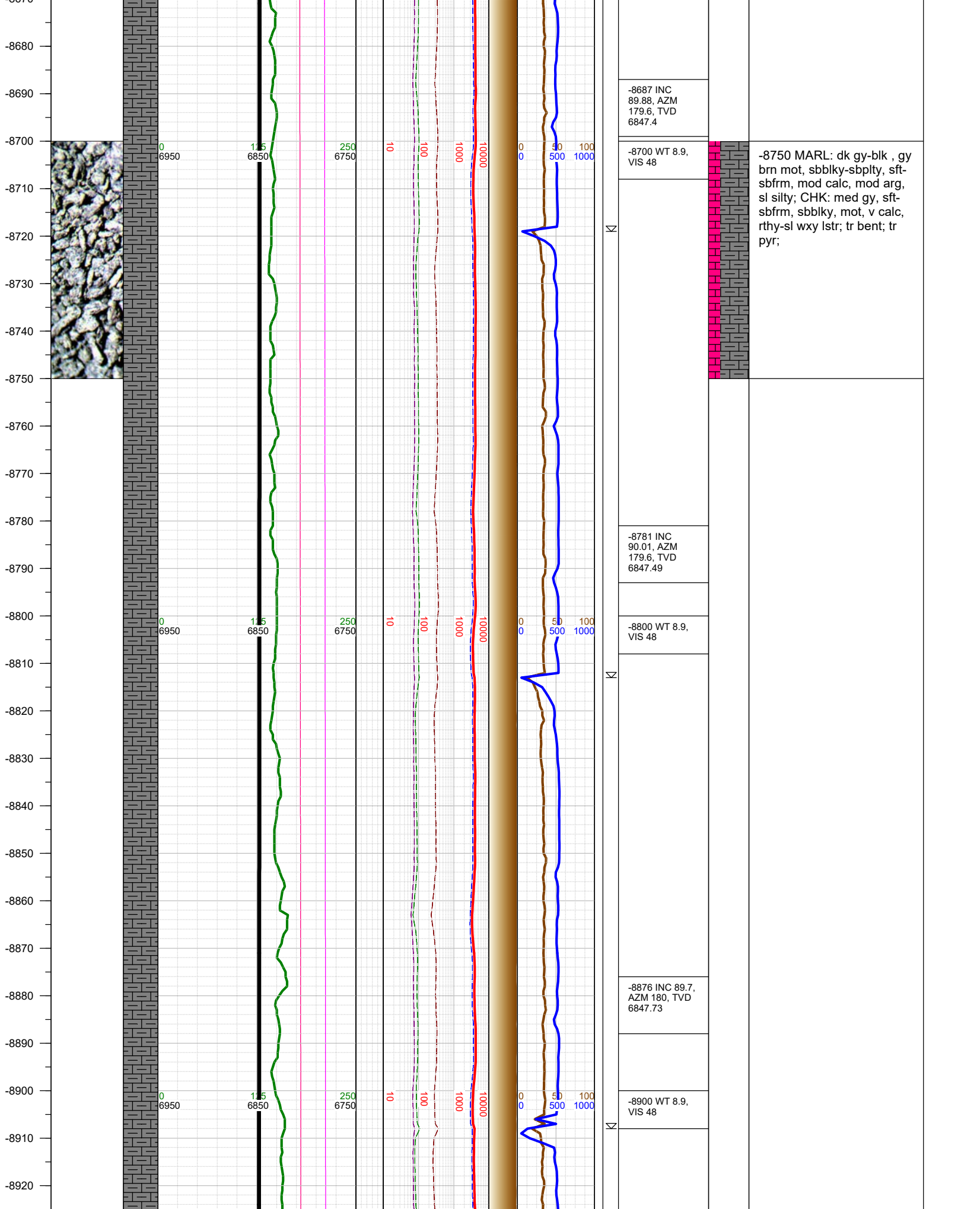


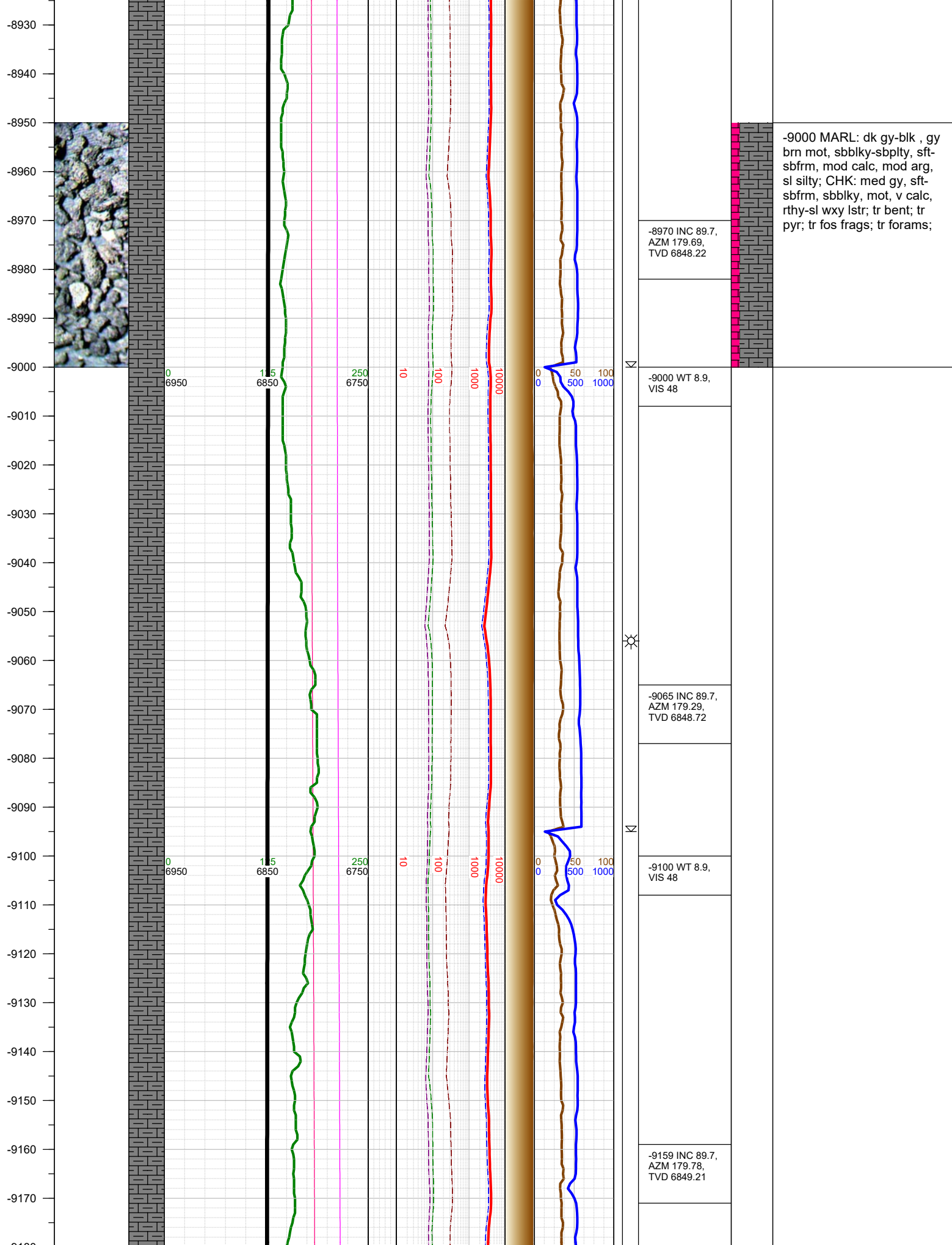
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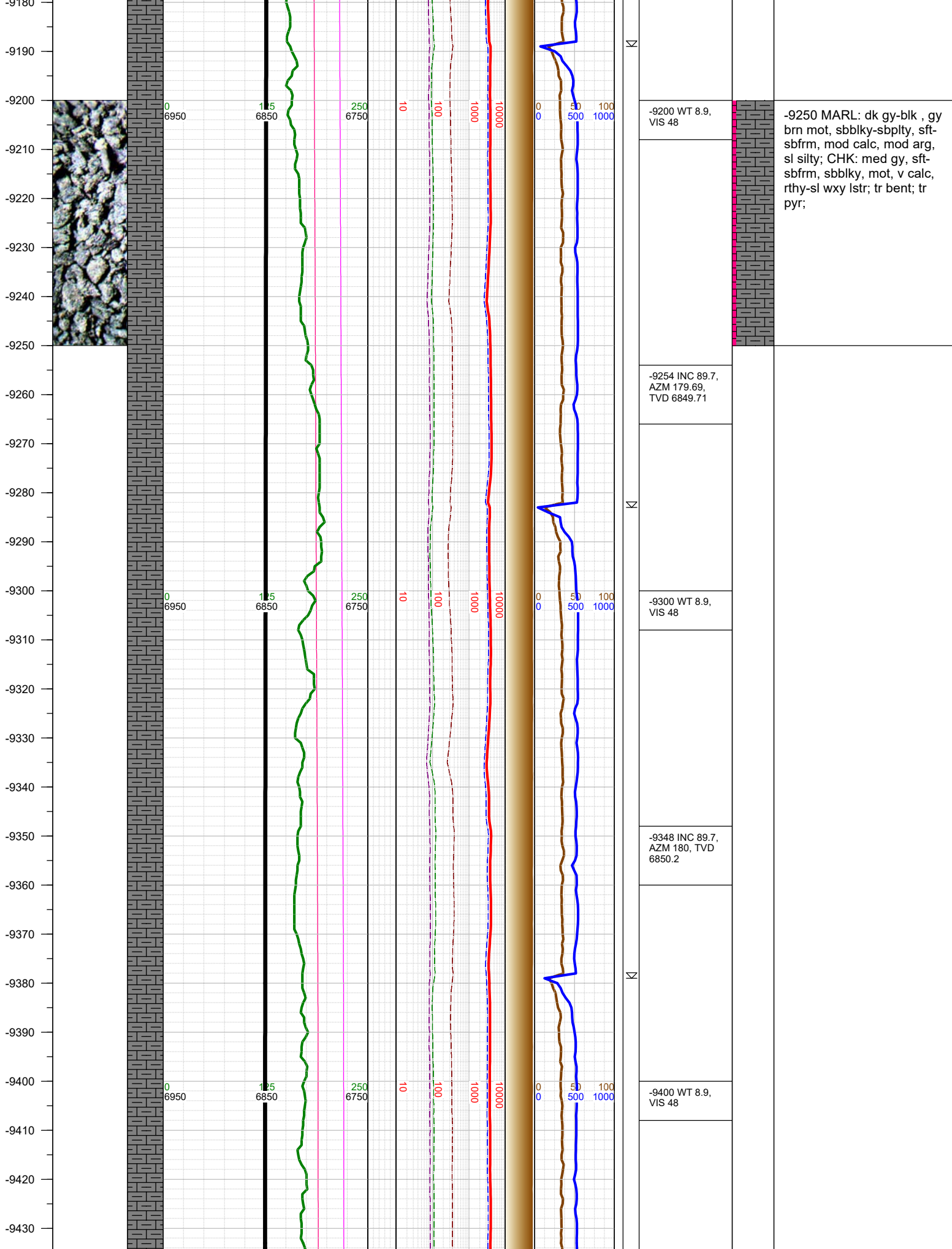


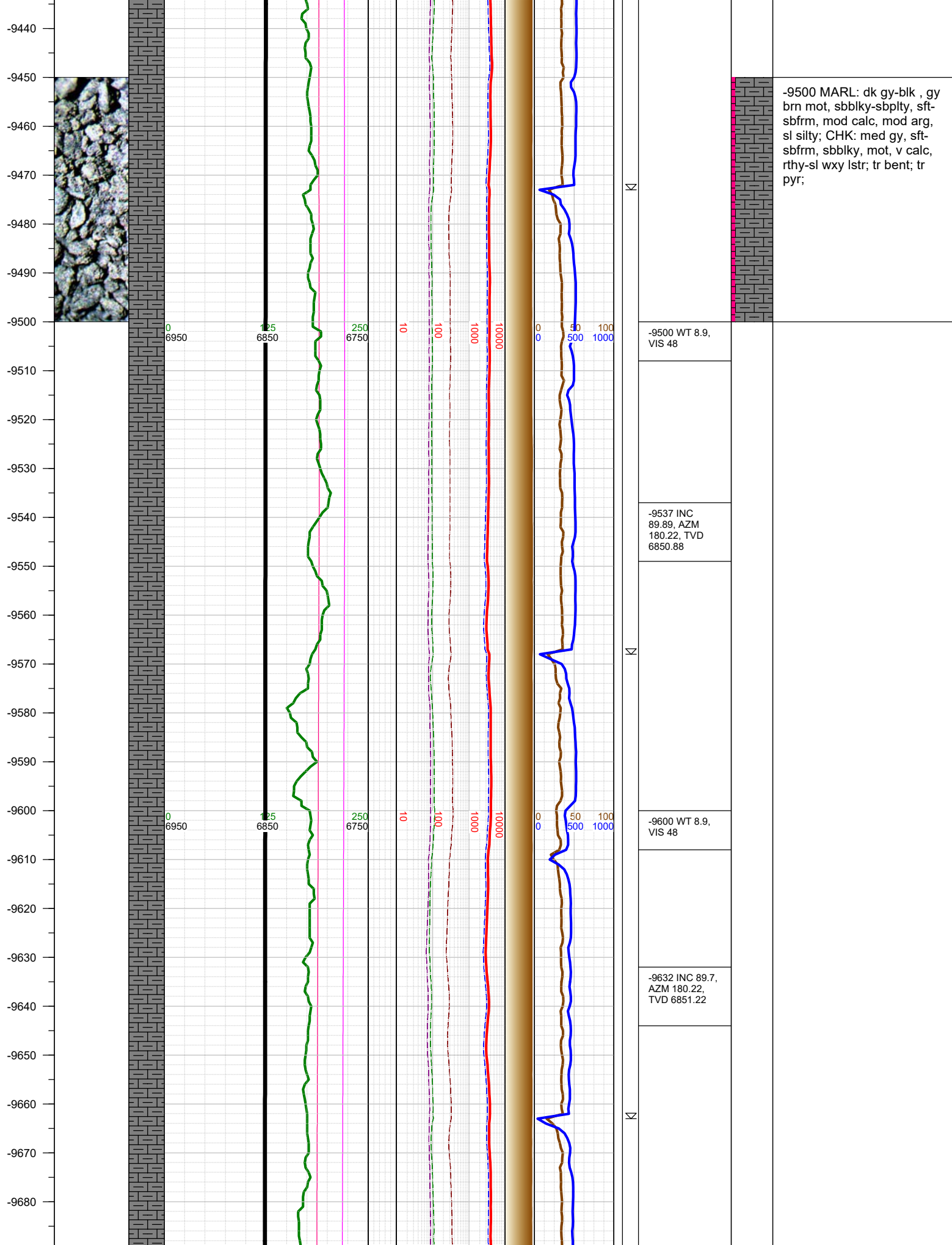
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<div>-8300 WT 9, VIS 50</div> <div>-8310 INC 89.7, AZM 181.58, TVD 6845.72</div>		
<div>-8404 INC 89.7, AZM 181.41, TVD 6846.21</div>		

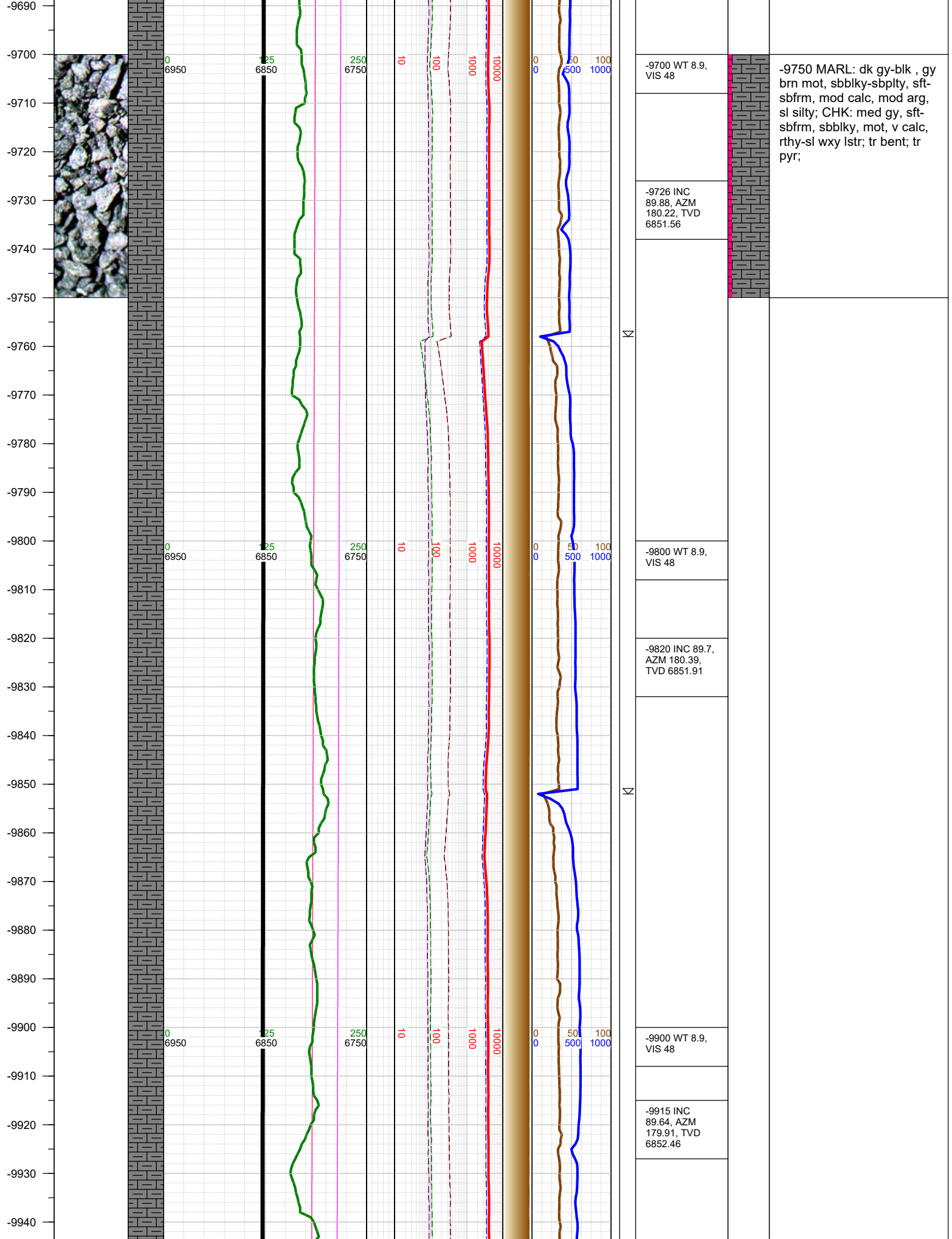


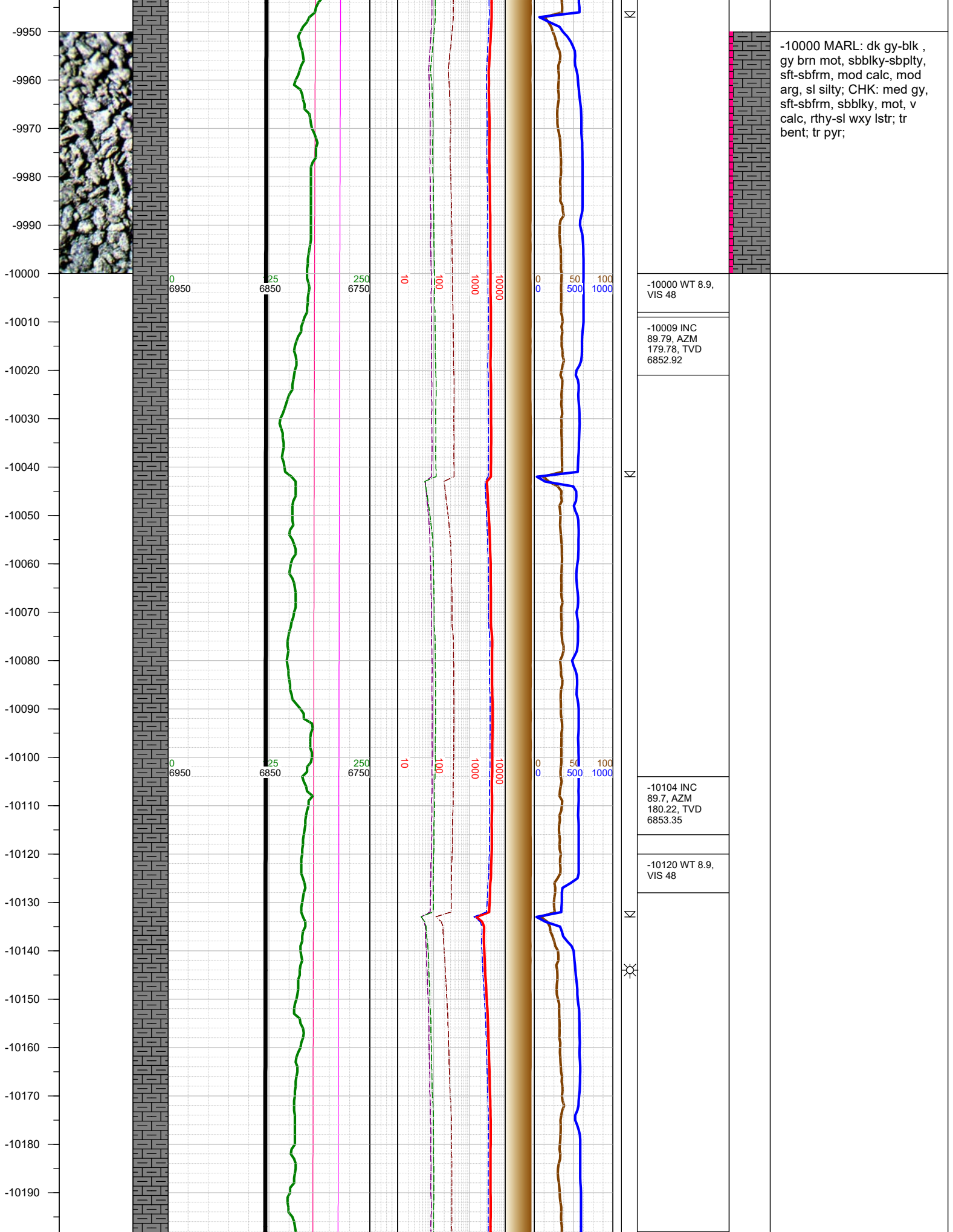










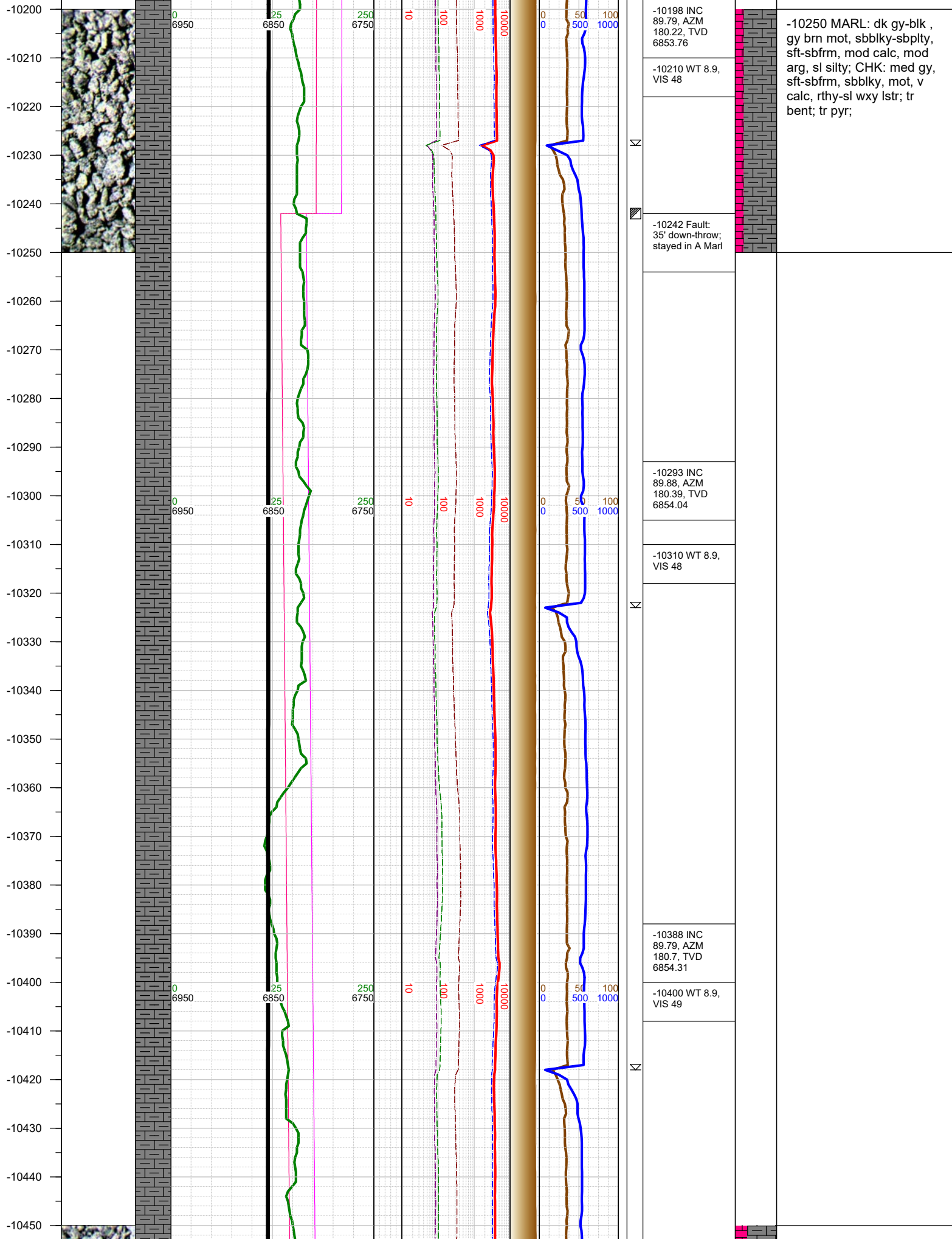


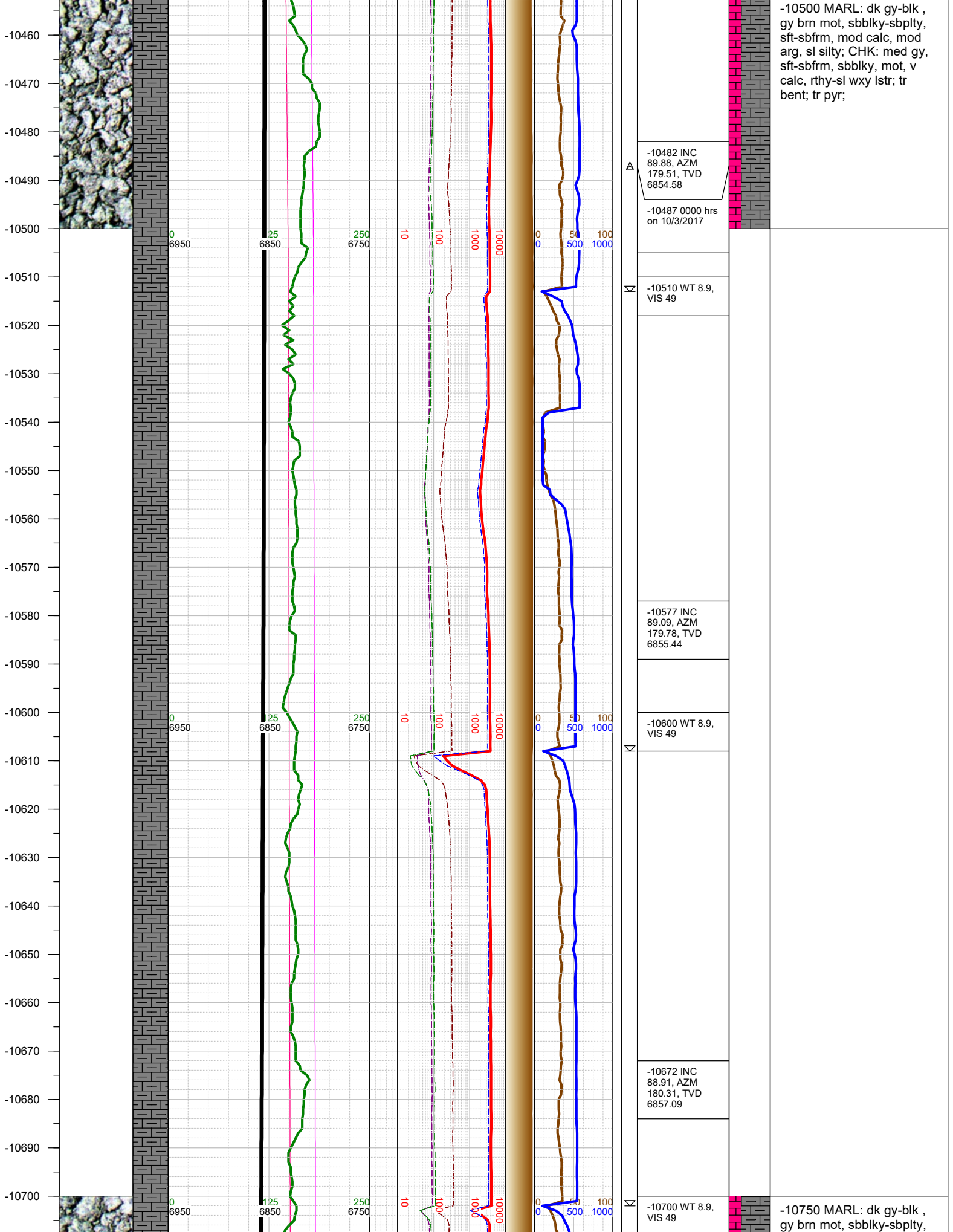
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VIS 48

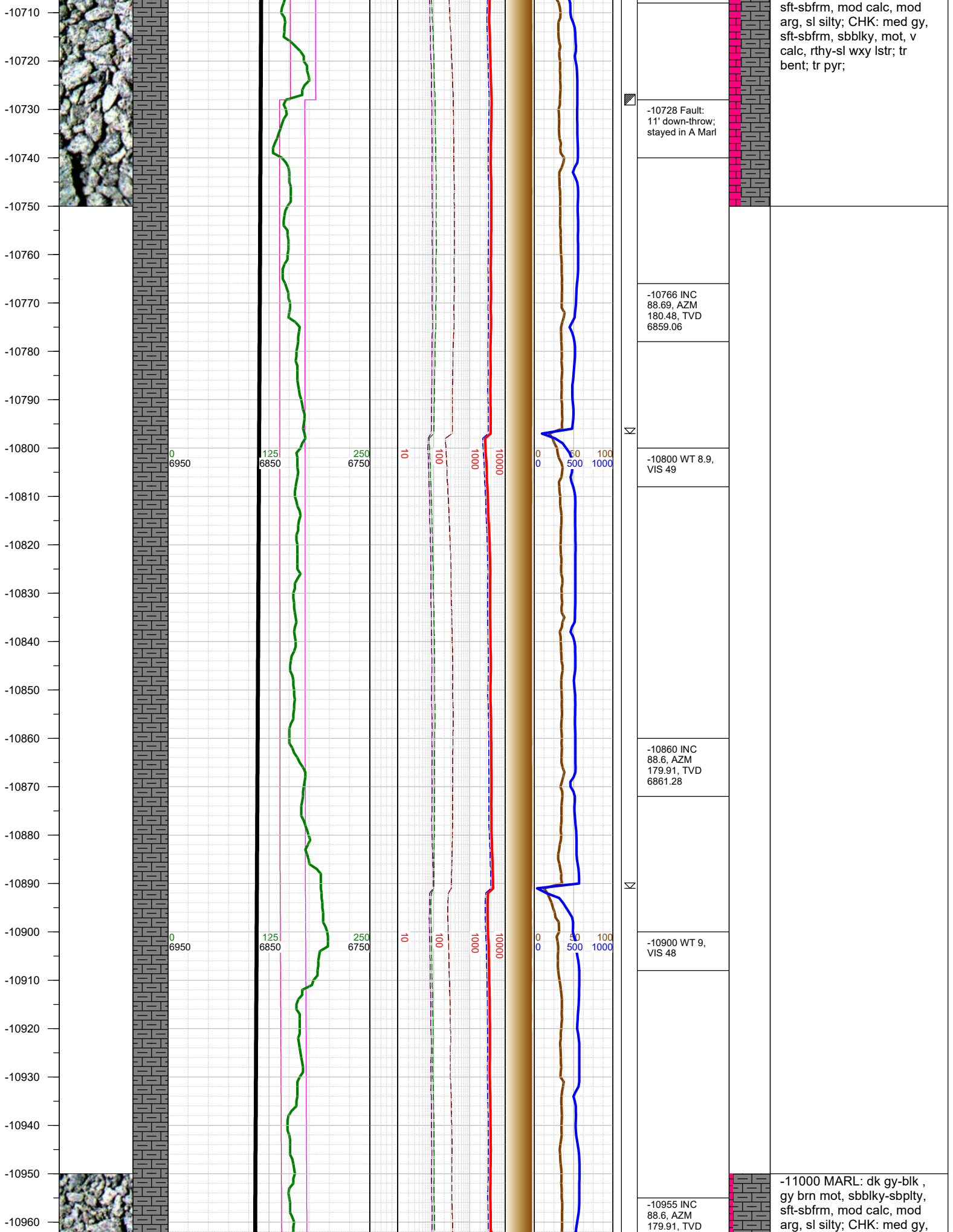
-10009 INC
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179.78, TVD
6852.92

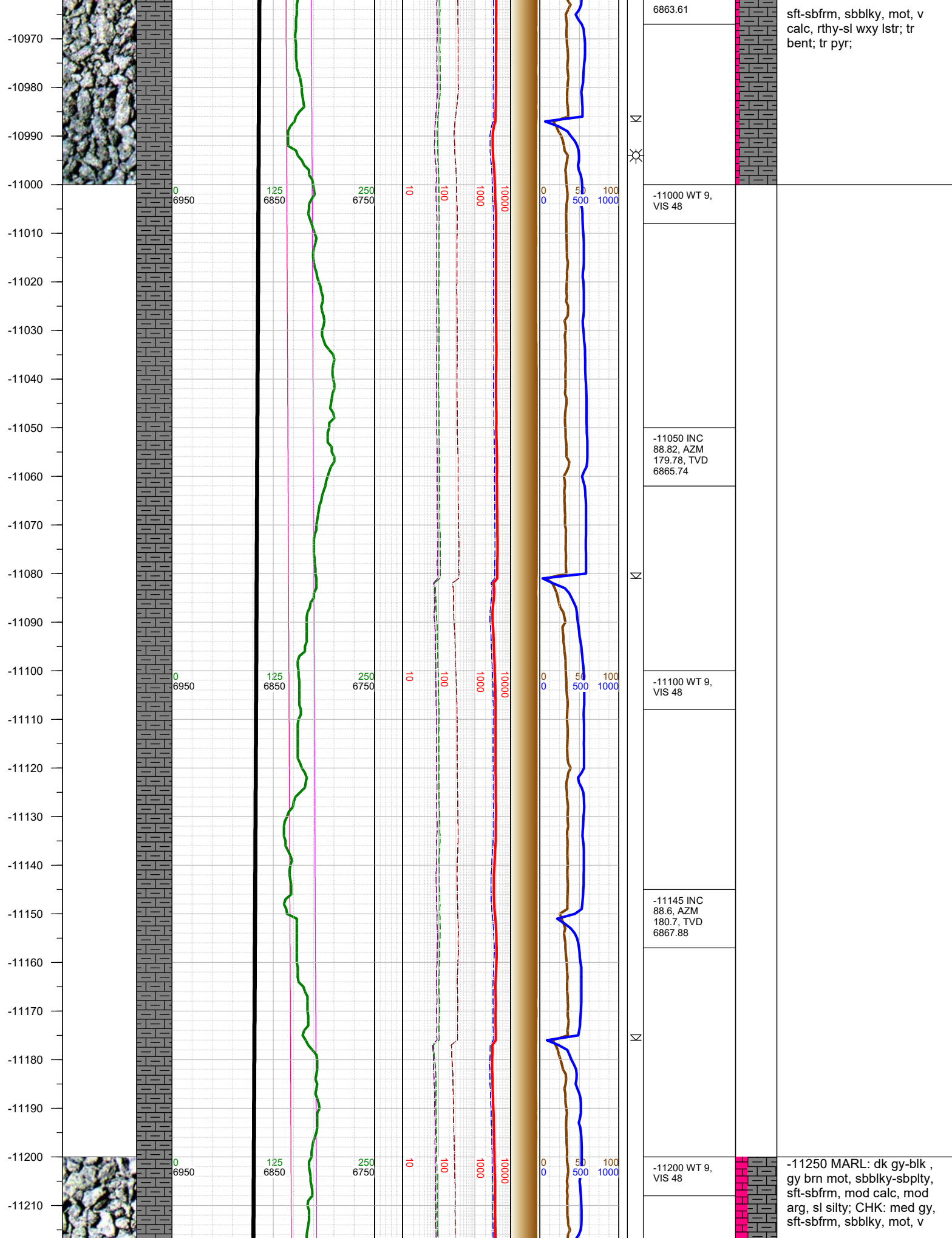
-10104 INC
89.7, AZM
180.22, TVD
6853.35

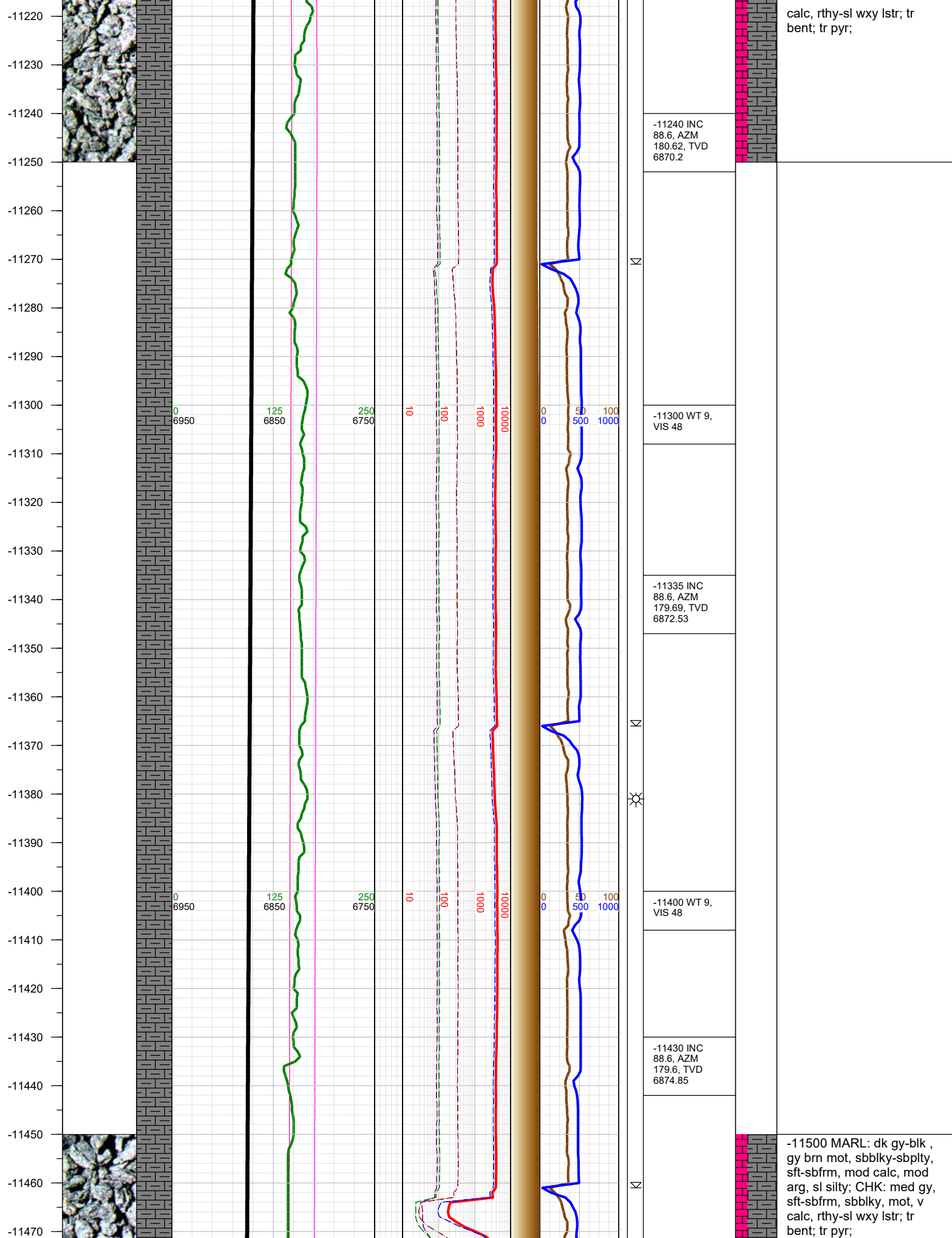
-10120 WT 8.9,
VIS 48

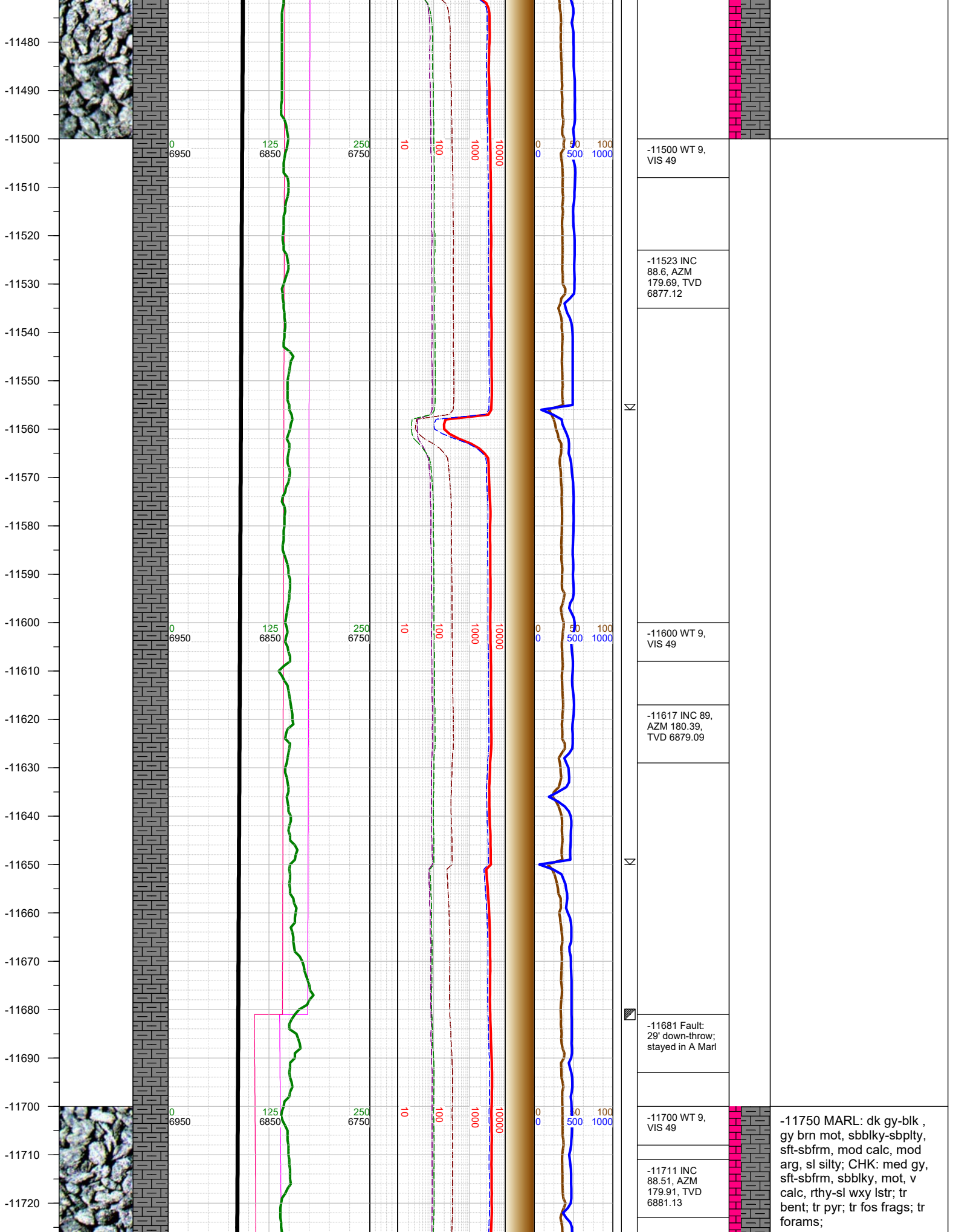




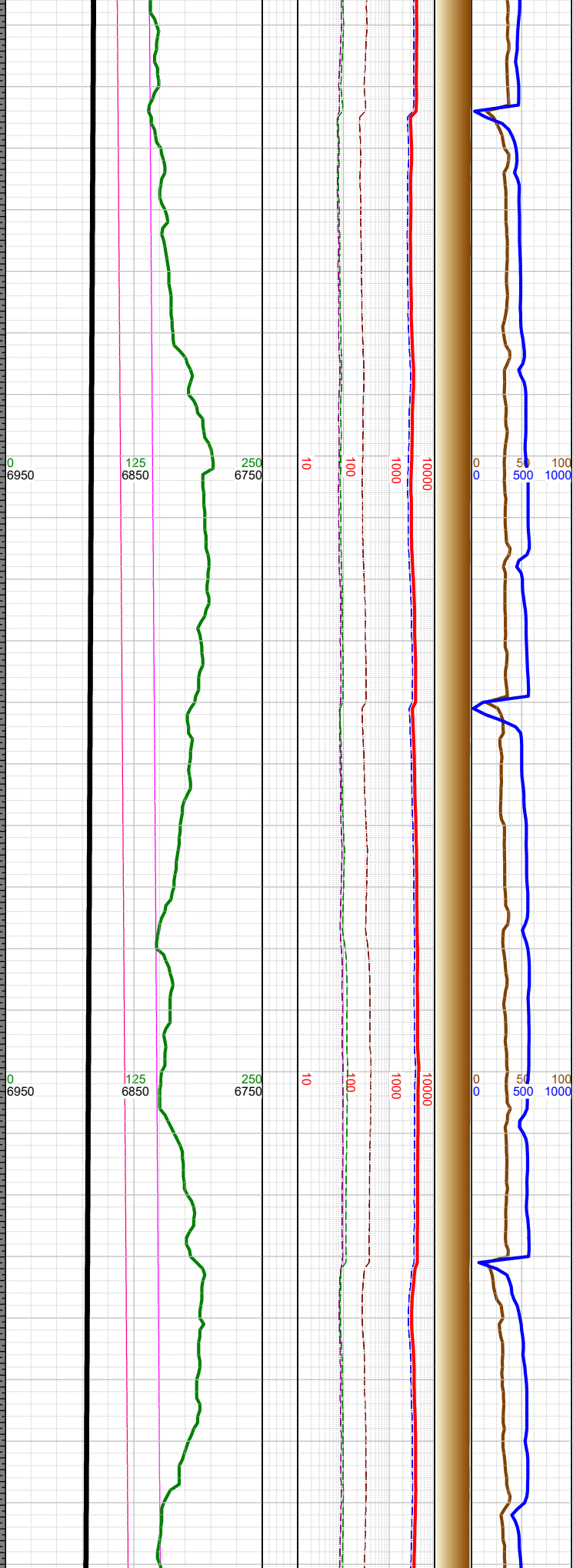
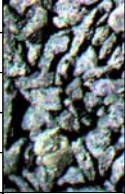






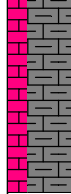


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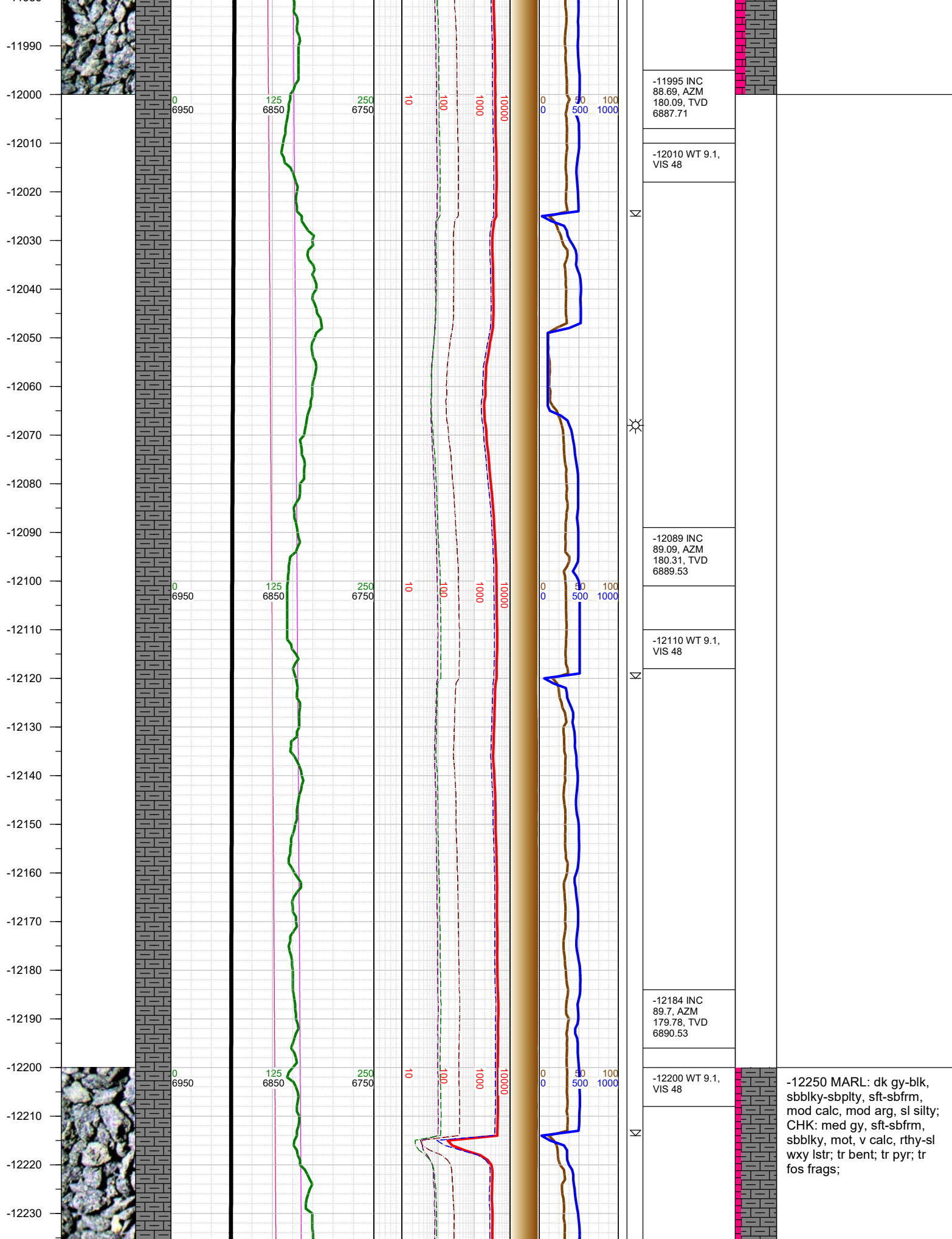


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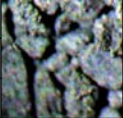
-11805 INC 88.82, AZM 180.22, TVD 6883.32
-11820 WT 9, VIS 49
-11900 INC 88.6, AZM 179.91, TVD 6885.46
-11920 WT 9.1, VIS 48



-12000 MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, mod arg, silty; CHK: med gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; tr bent; tr pyr; tr fos frags;



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-12278 INC
89.62, AZM 180,
TVD 6891.09

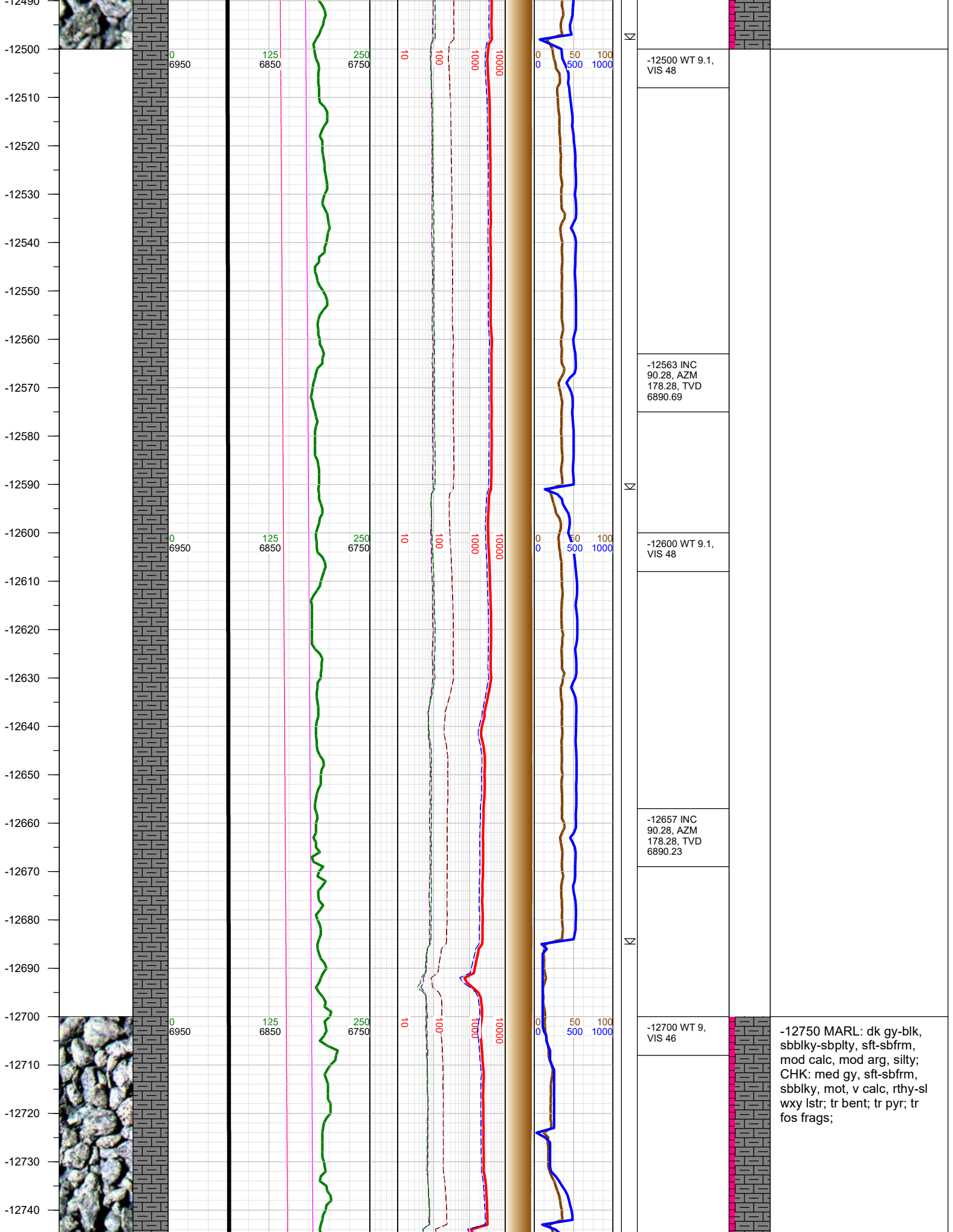
-12300 WT 9.1,
VIS 48

-12373 INC
89.88, AZM
179.69, TVD
6891.5

-12400 WT 9.1,
VIS 48

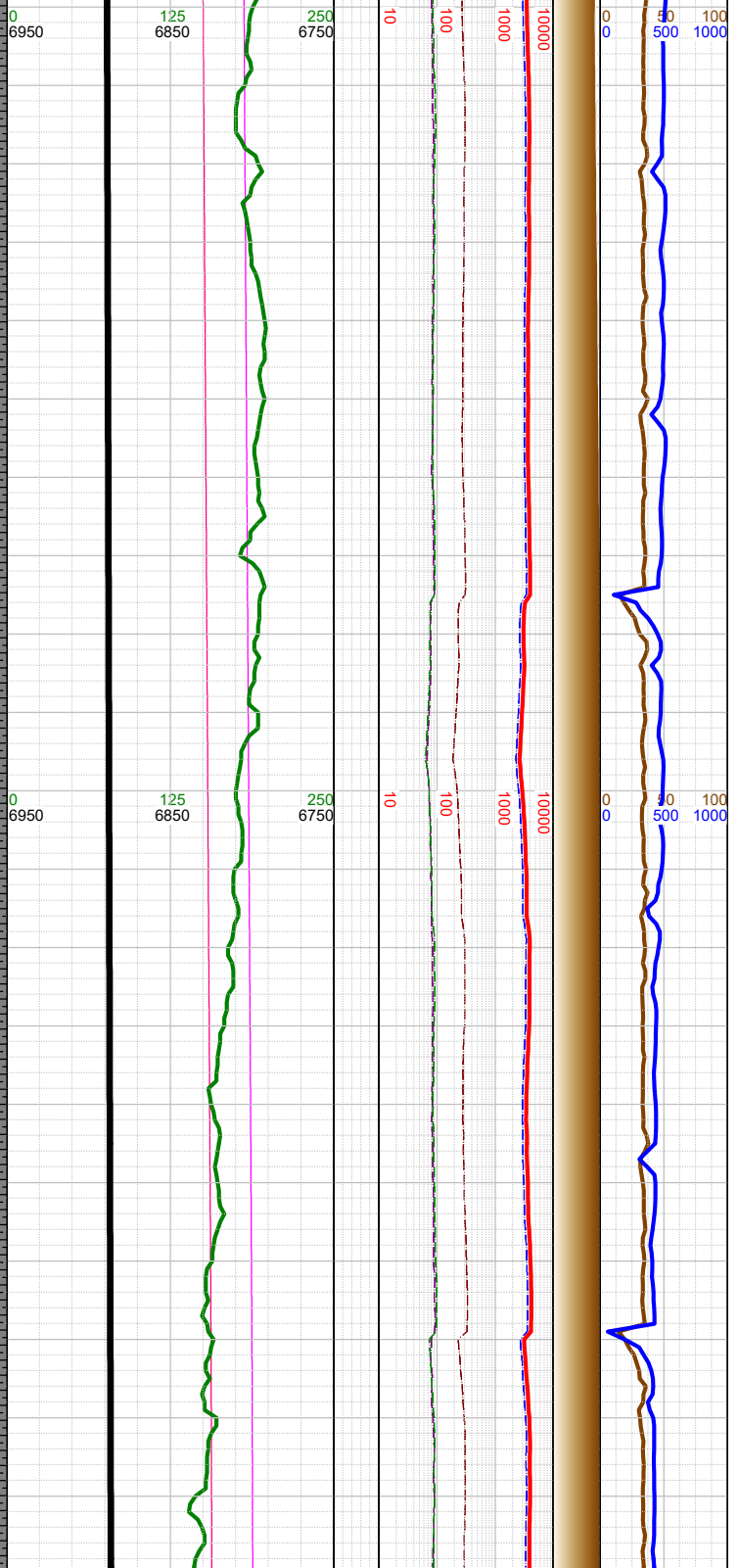
-12467 INC
90.41, AZM
178.81, TVD
6891.26

-12500 MARL: dk gy-blk,
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mod calc, mod arg, sl silty;
CHK: med gy, sft-sbfrm,
sbbly, mot, v calc, rthy-sl
wxy lstr; tr bent; tr pyr; tr
fos frags;



-12750 MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, mod arg, silty; CHK: med gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; tr bent; tr pyr; tr fos frags;

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-12752 INC
90.72, AZM
178.5, TVD
6889.4

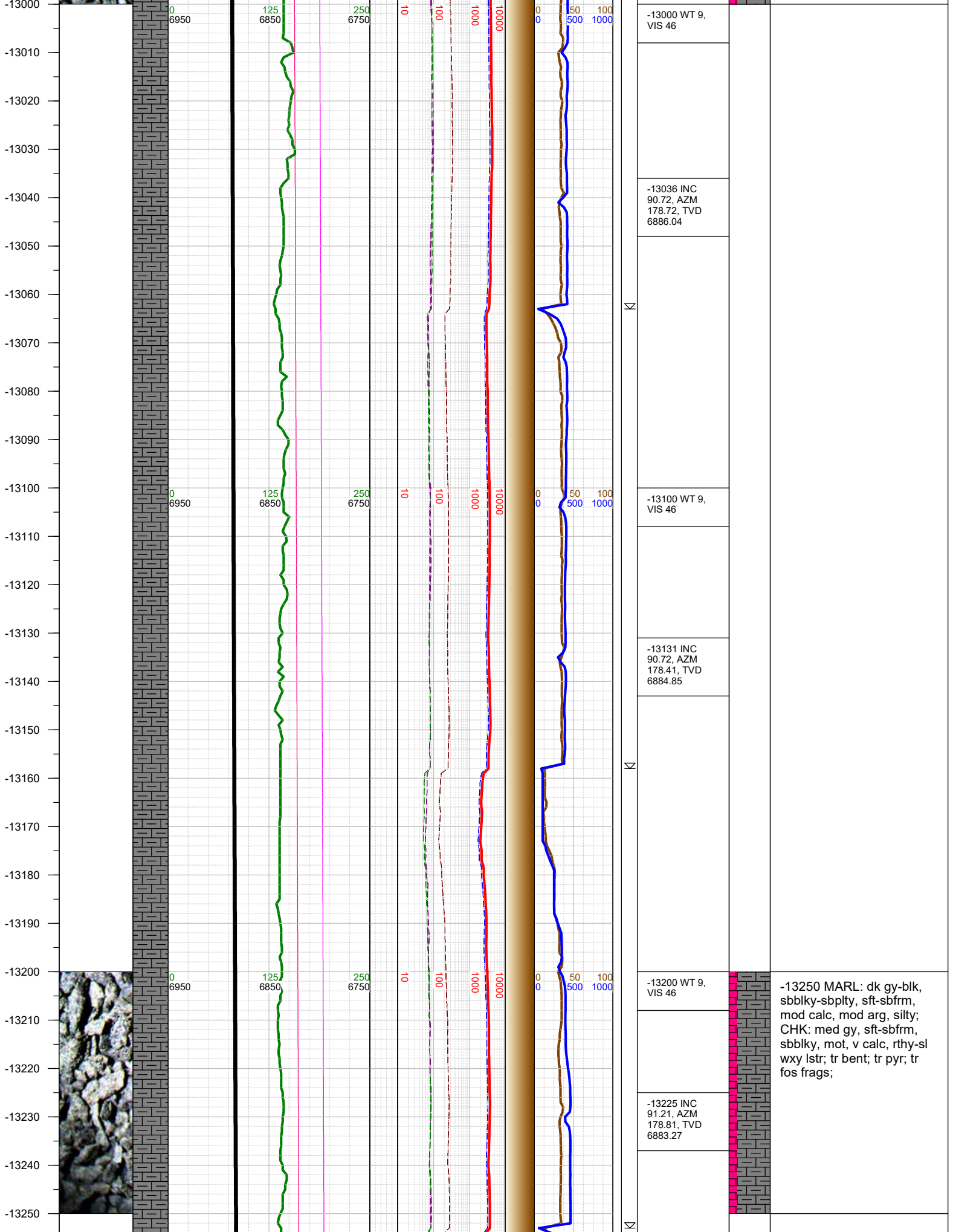
-12800 WT 9,
VIS 46

-12847 INC
90.72, AZM
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6888.2

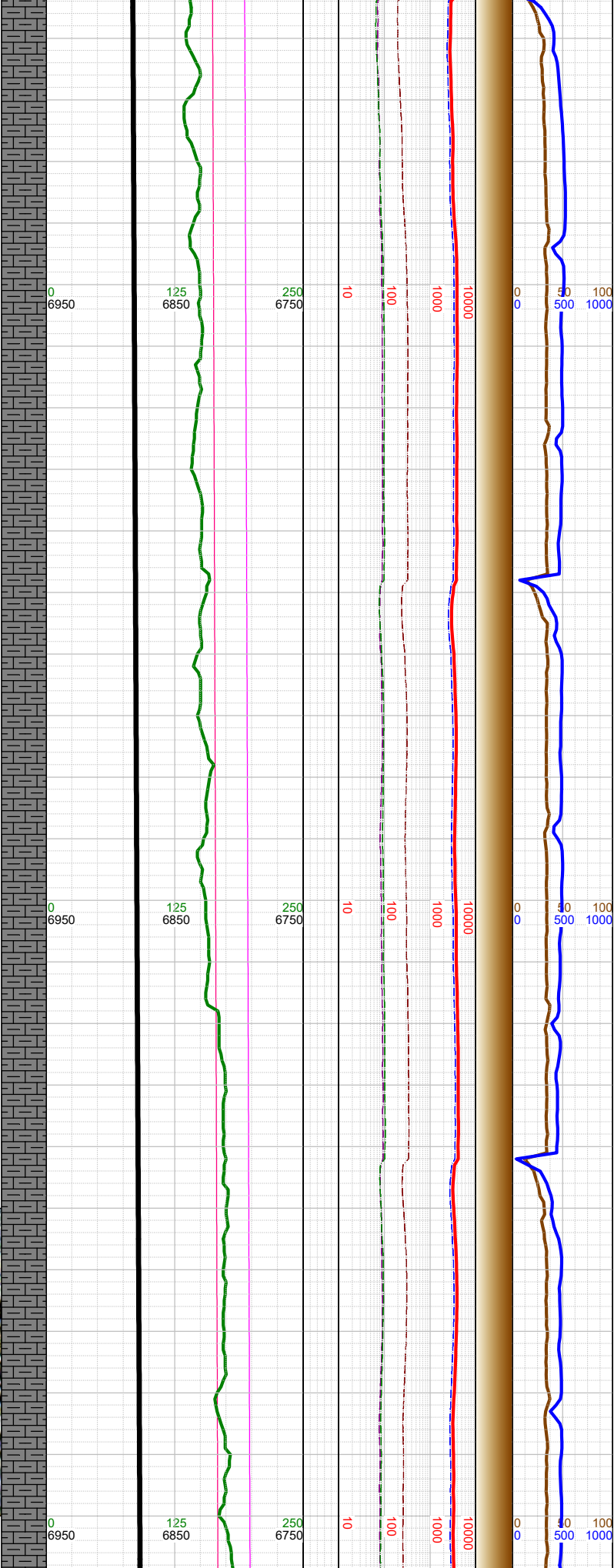
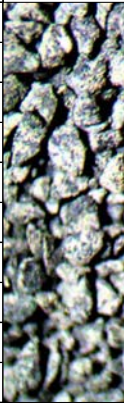
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-12942 INC
90.59, AZM
178.81, TVD
6887.12

-13000 MARL: dk gy-blk,
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CHK: med gy, sft-sbfrm,
sbbly, mot, v calc, rthy-sl
wxy lstr; tr bent; tr pyr; tr
fos frags;



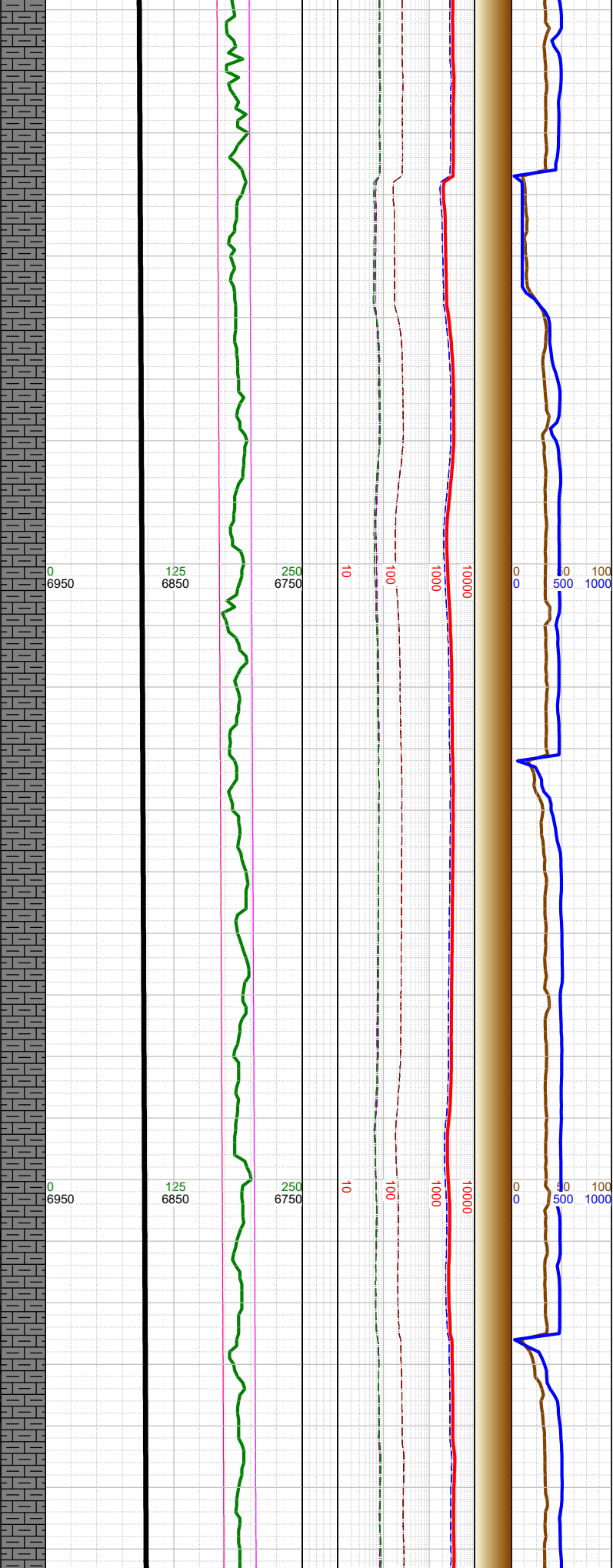
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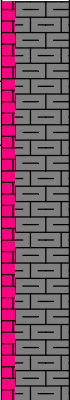
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	-13320 INC 91.3, AZM 178.59, TVD 6881.19	
	-13400 WT 9, VIS 46	
	-13415 INC 91.12, AZM 178.41, TVD 6879.18	
	-13500 WT 9, VIS 46	

-13500 MARL: dk gy-blk,
sbbly-sbply, sft-sbfrm,
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CHK: med gy, sft-sbfrm,
sbbly, mot, v calc, rthy-sl
wxy lstr; tr bent; tr pyr; tr
fos frags;

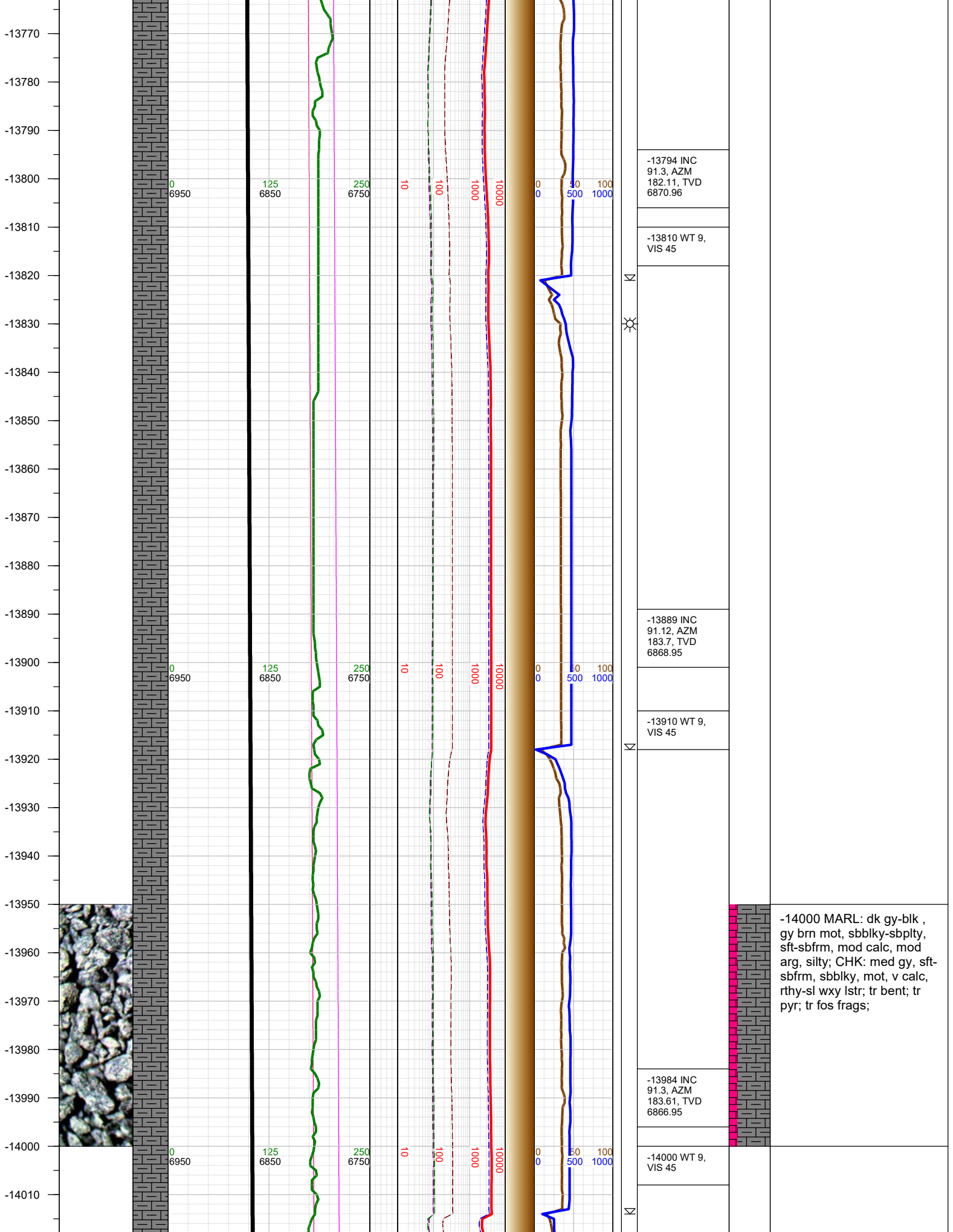
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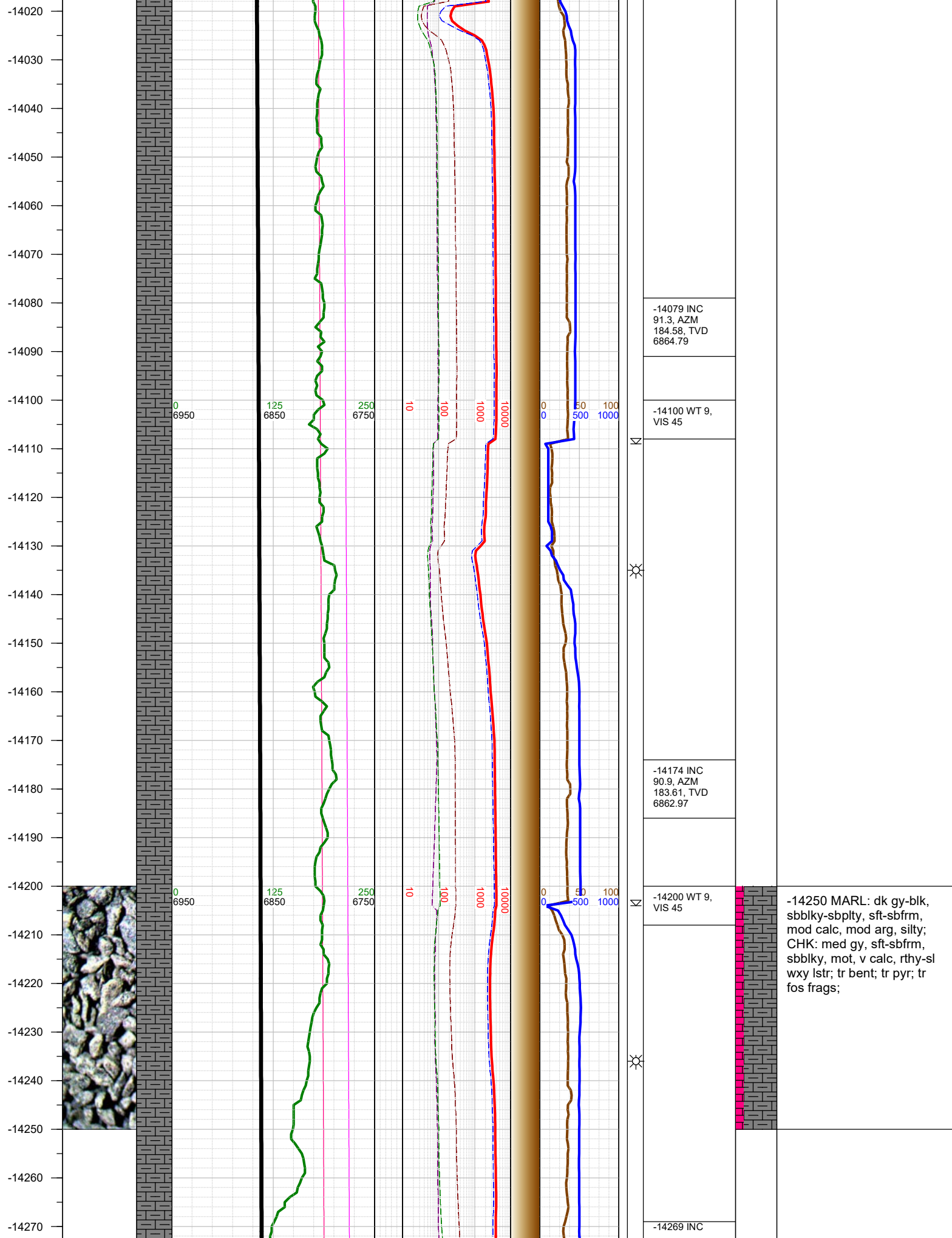


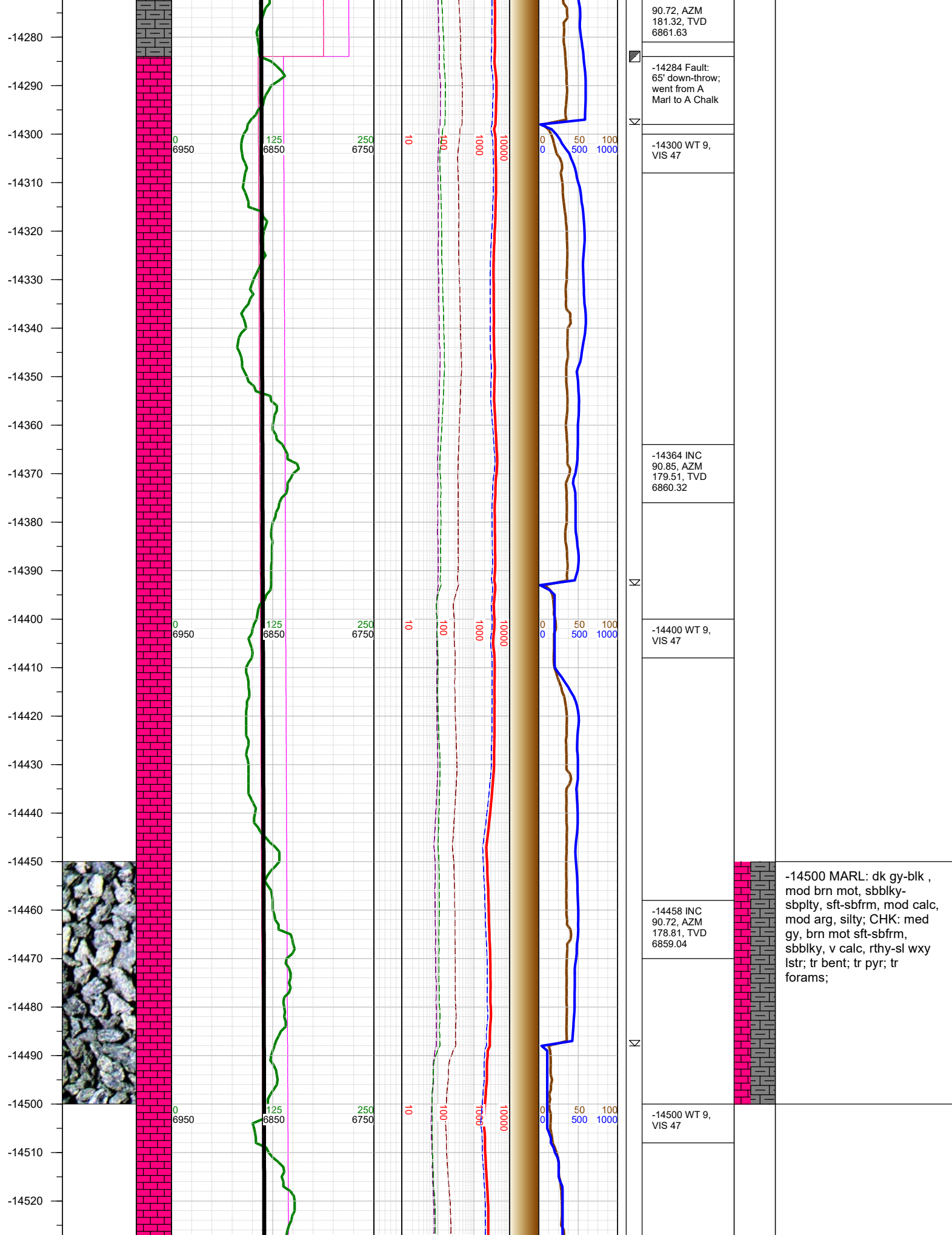
∞	-13509 INC 91.52, AZM 178.5, TVD 6877.01
☀	
	-13604 INC 91.12, AZM 179.51, TVD 6874.83
	-13620 WT 9, VIS 45
∞	
	-13698 INC 91.12, AZM 181.1, TVD 6872.99
∞	-13710 WT 9, VIS 45



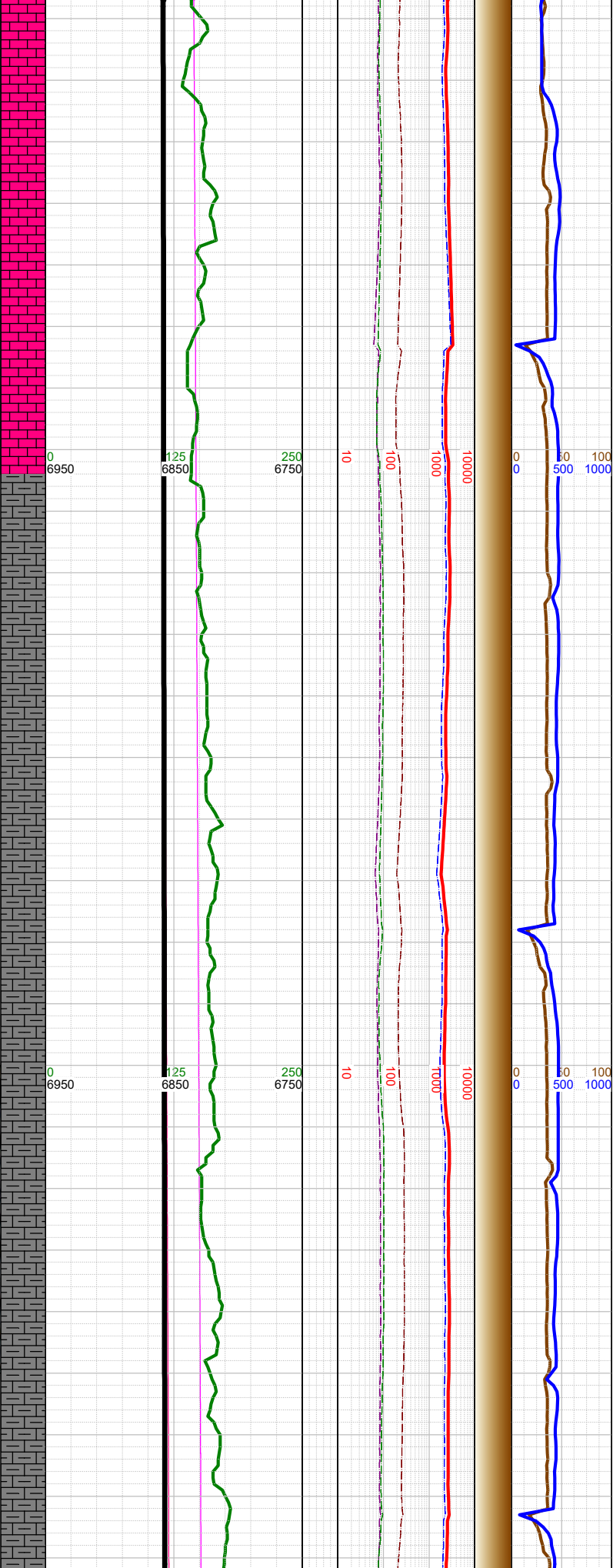
-13750 MARL: dk gy-blk,
sbbiky-sbplty, sft-sbfrm,
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CHK: med gy, sft-sbfrm,
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wxy lstr; tr bent; tr pyr; tr
fos frags;



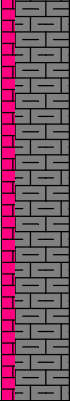
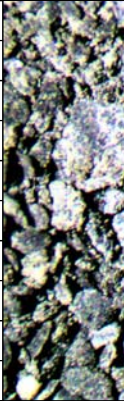
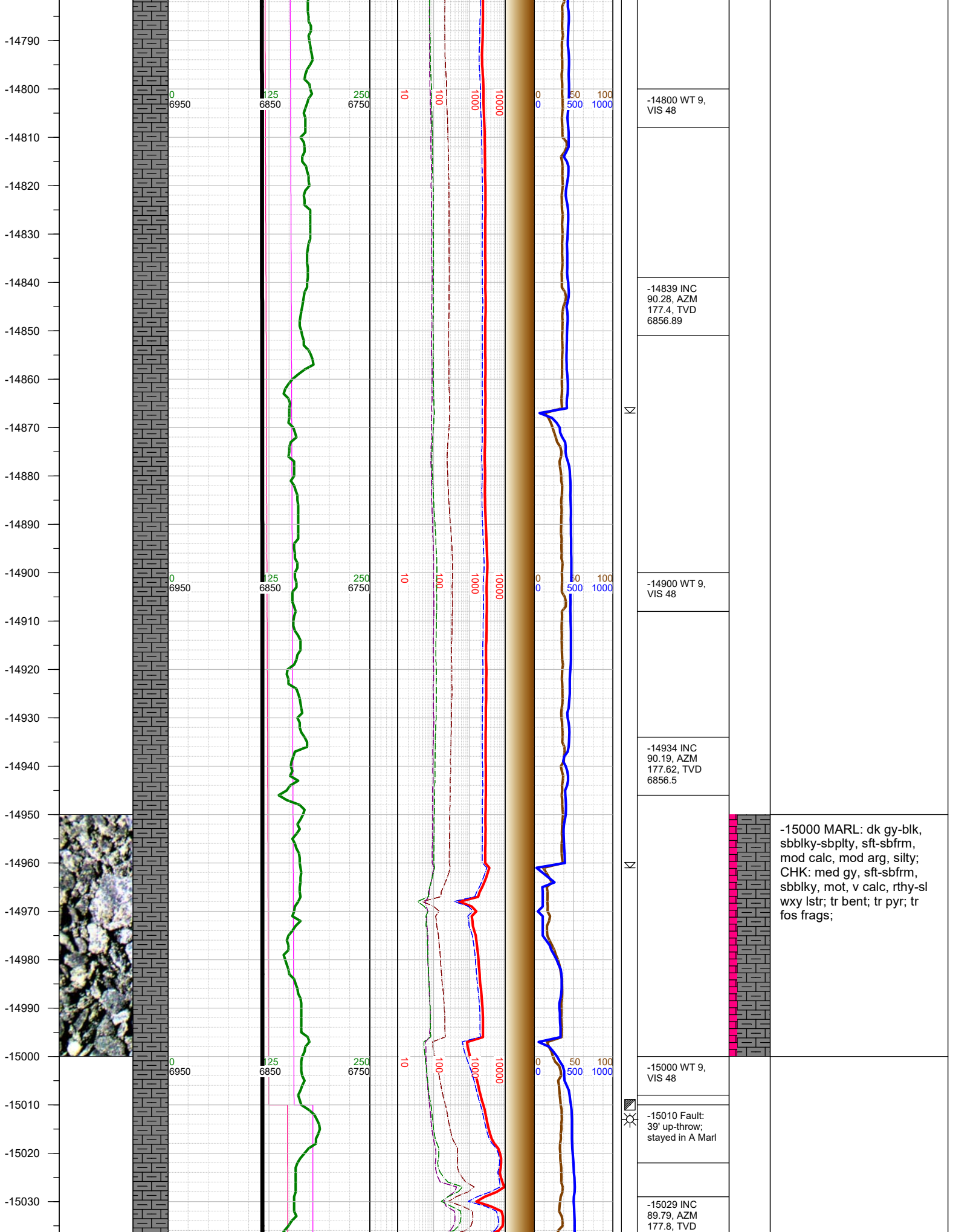




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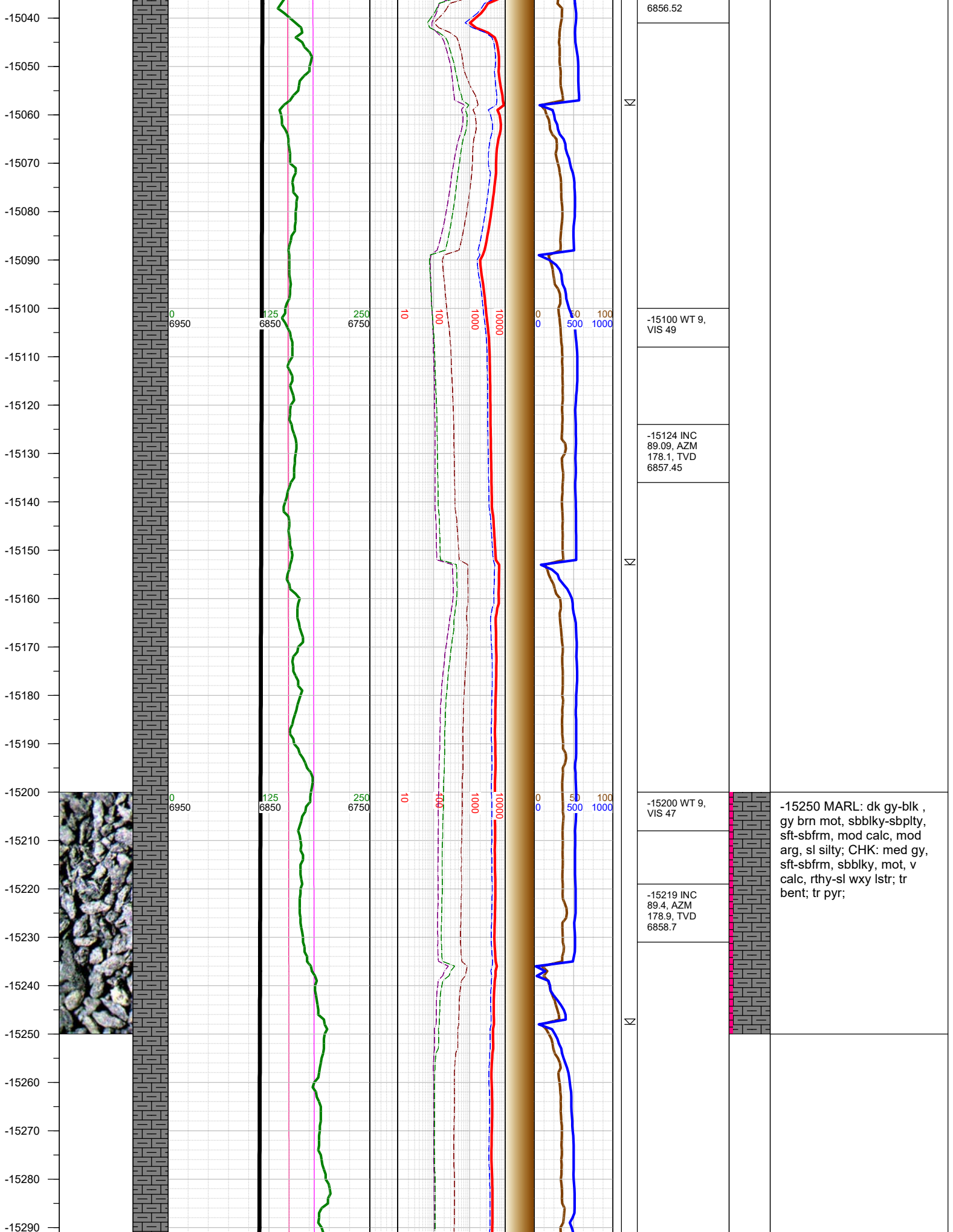
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	-14600 WT 9, VIS 48		
X	-14648 INC 90.41, AZM 177.31, TVD 6857.78		
	-14700 WT 9, VIS 48	-14750 MARL: dk gy , med gy brn mot, sbblky-sbplty, sft-sbfrm, mod calc, mod arg, sl silty; CHK: lt gy, sft- sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr, mod bent; mod pyr; tr foram;	
X	-14744 INC 90.19, AZM 177.88, TVD 6857.28		

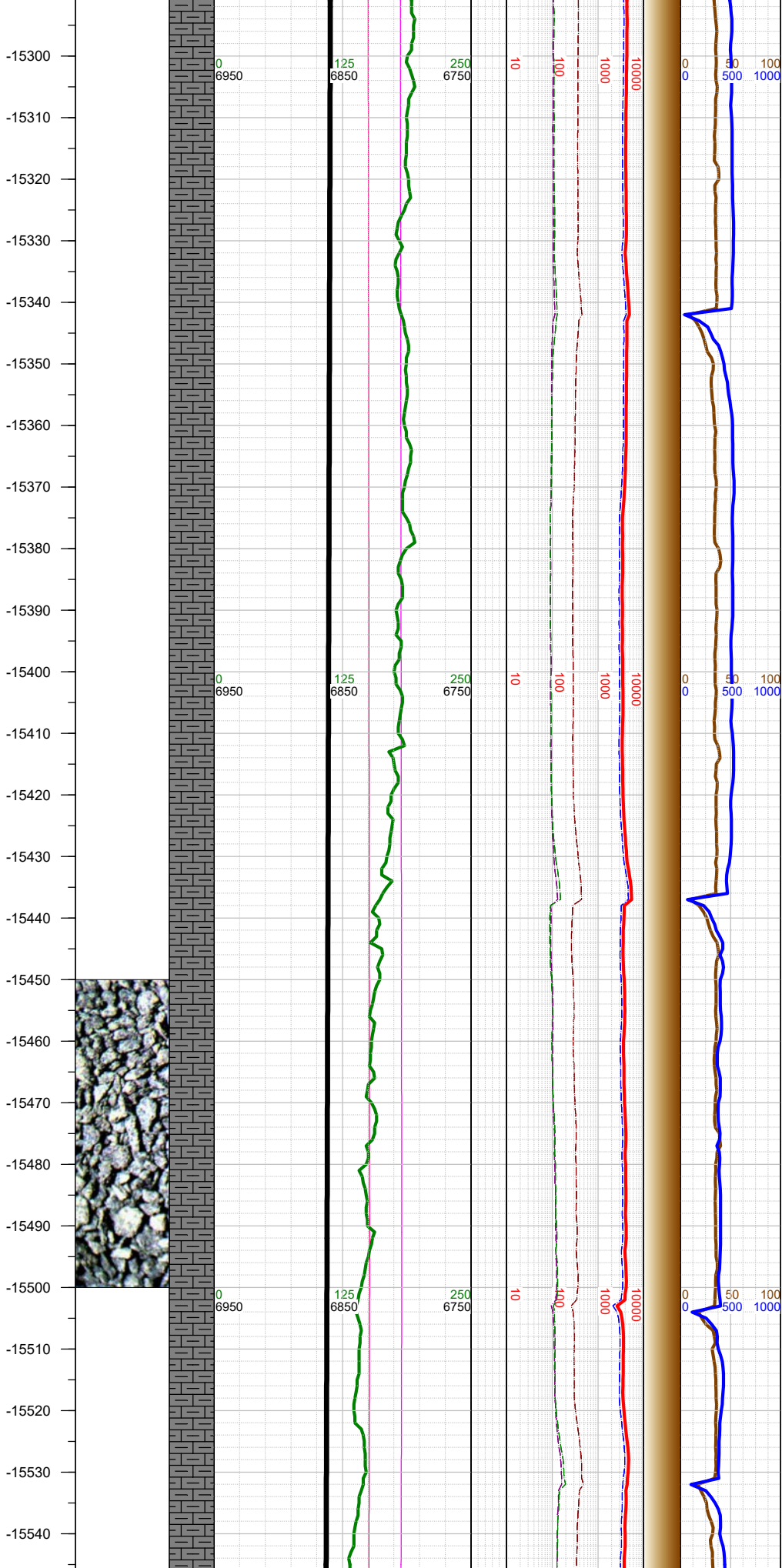


-15000 MARL: dk gy-blk, sbblky-sbplty, sft-sbfrm, mod calc, mod arg, silty; CHK: med gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; tr bent; tr pyr; tr fos frags;



-15010 Fault: 39' up-throw; stayed in A Marl

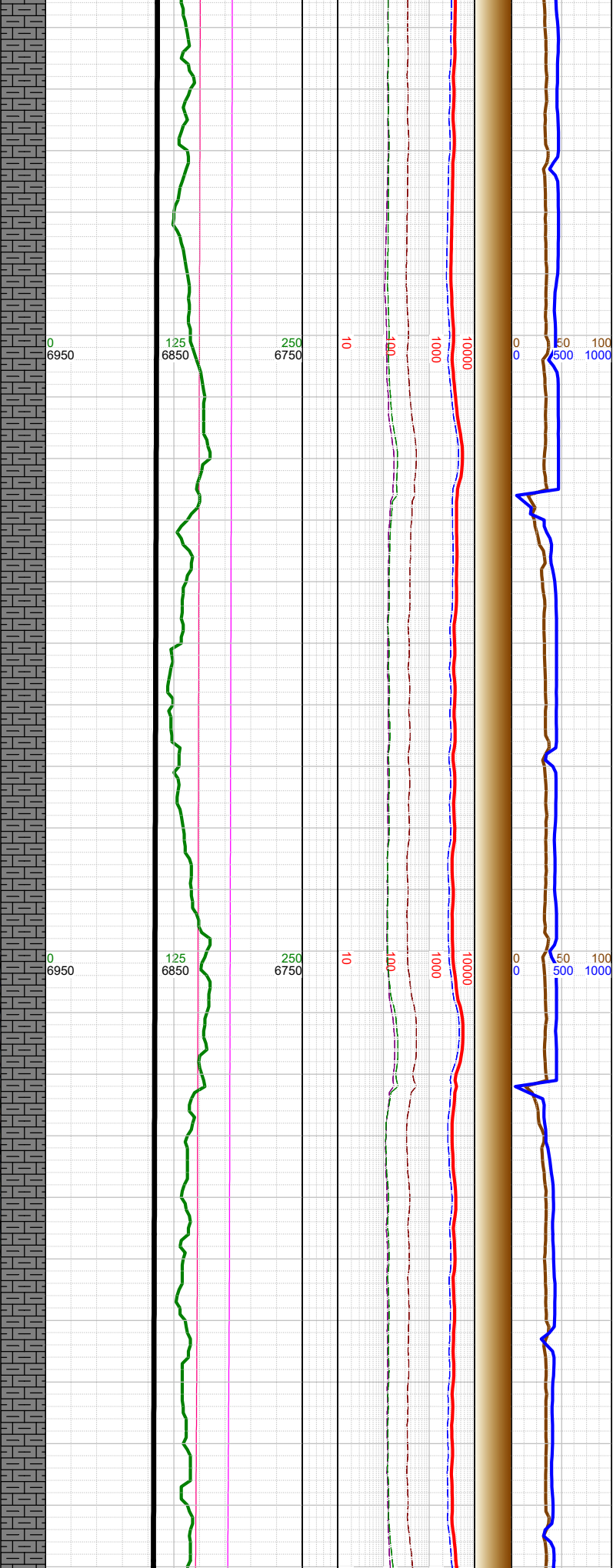




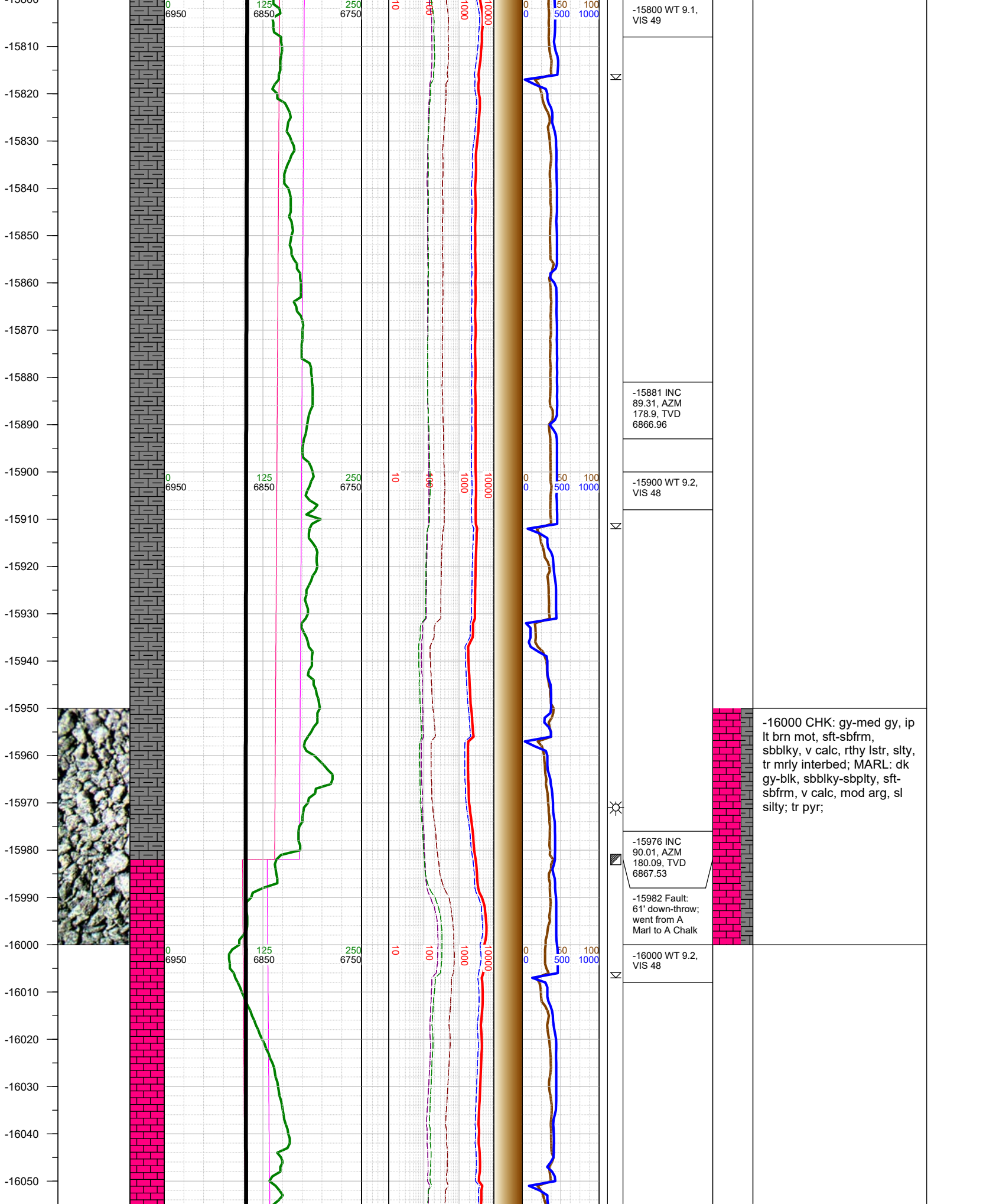
-15300 WT 9, VIS 47
-15313 INC 89.22, AZM 179.29, TVD 6859.83
-15400 WT 9, VIS 47
-15408 INC 89.31, AZM 179.21, TVD 6861.05
-15503 INC 89.22, AZM 179.38, TVD 6862.27
-15520 WT 9.1, VIS 49

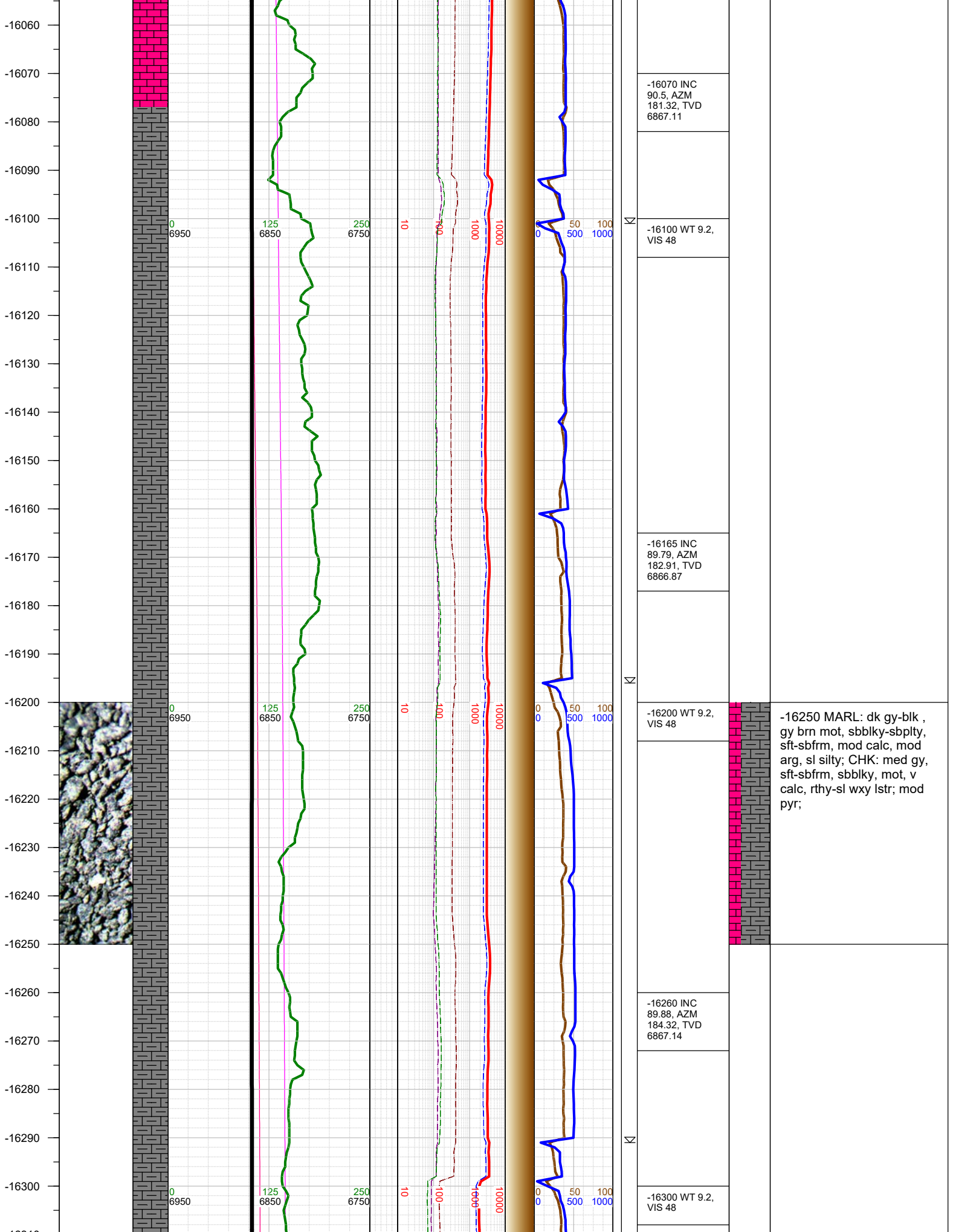
-15500 MARL: dk gy-blk , gy brn mot, sbblky-sbplty, sft-sbfrm, mod calc, mod arg, sl silty; CHK: med gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; tr bent; tr pyr;

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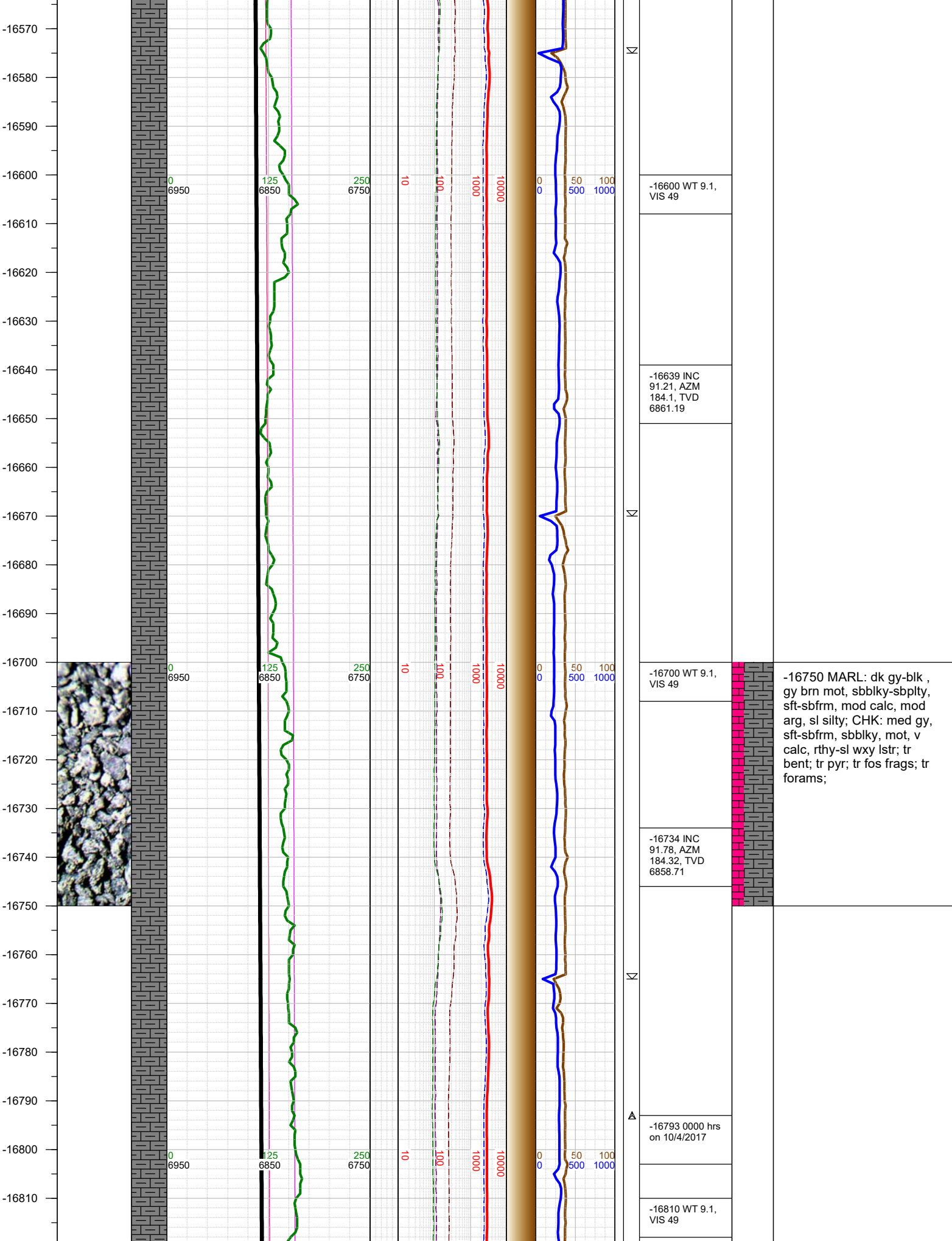


N	-15598 INC 89.27, AZM 178.98, TVD 6863.52	
	-15610 WT 9.1, VIS 49	
N	-15692 INC 89.31, AZM 179.12, TVD 6864.69	-15750 MARL: dk gy-blk , gy brn mot, sbblky-sbplty, sft-sbfrm, mod calc, mod arg, sl silty; CHK: med gy, sft-sbfrm, sbblky, mot, v calc, rthy-sl wxy lstr; tr bent; tr pyr;
	-15710 WT 9.1, VIS 49	
S	-15786 INC 89.31, AZM 178.72, TVD 6865.82	





-16250 MARL: dk gy-blk ,
gy brn mot, sbbkly-sbply,
sft-sbfrm, mod calc, mod
arg, sl silty; CHK: med gy,
sft-sbfrm, sbbkly, mot, v
calc, rthy-sl wxy lstr; mod
pyr;



-16600 WT 9.1,
VIS 49

-16639 INC
91.21, AZM
184.1, TVD
6861.19

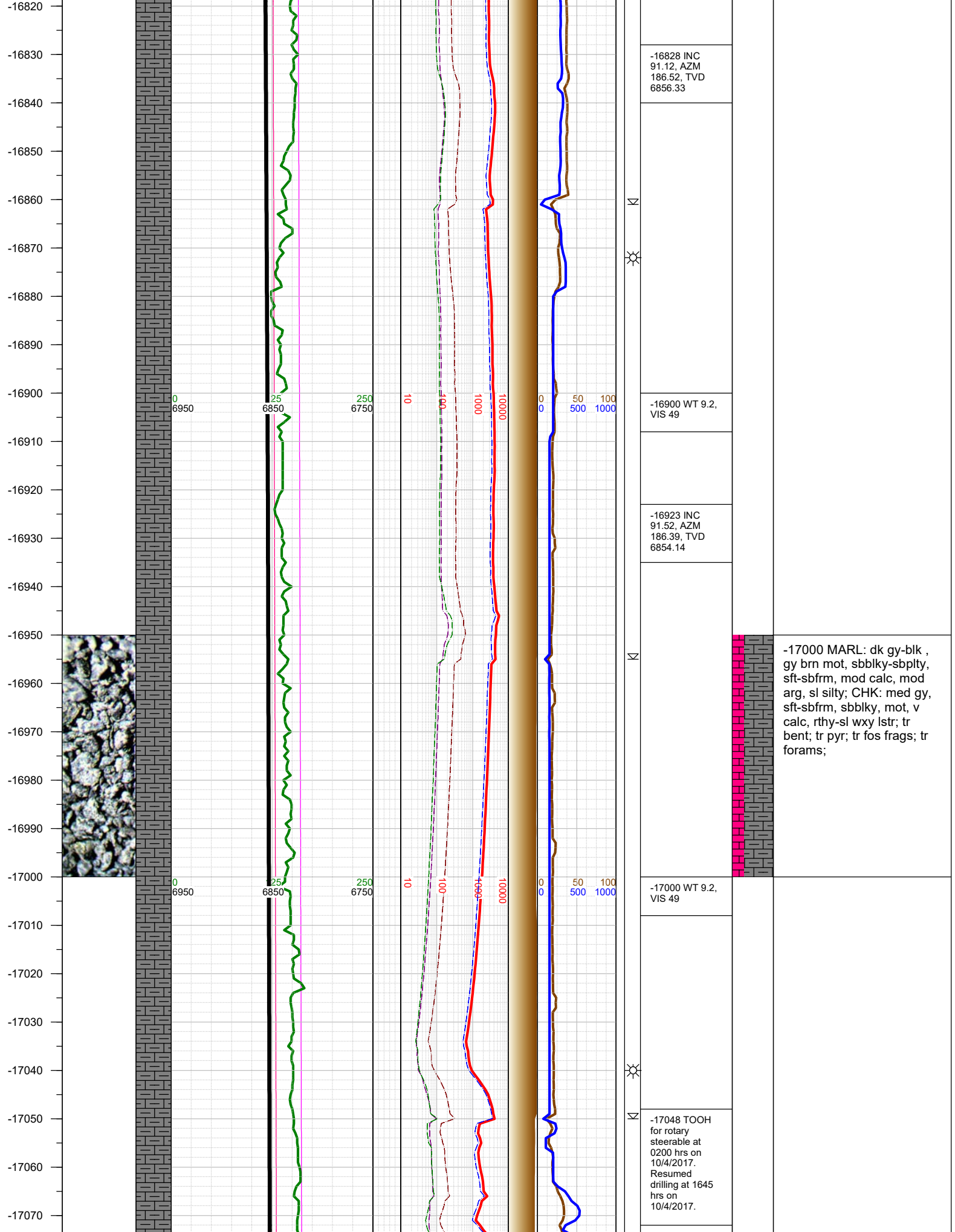
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VIS 49

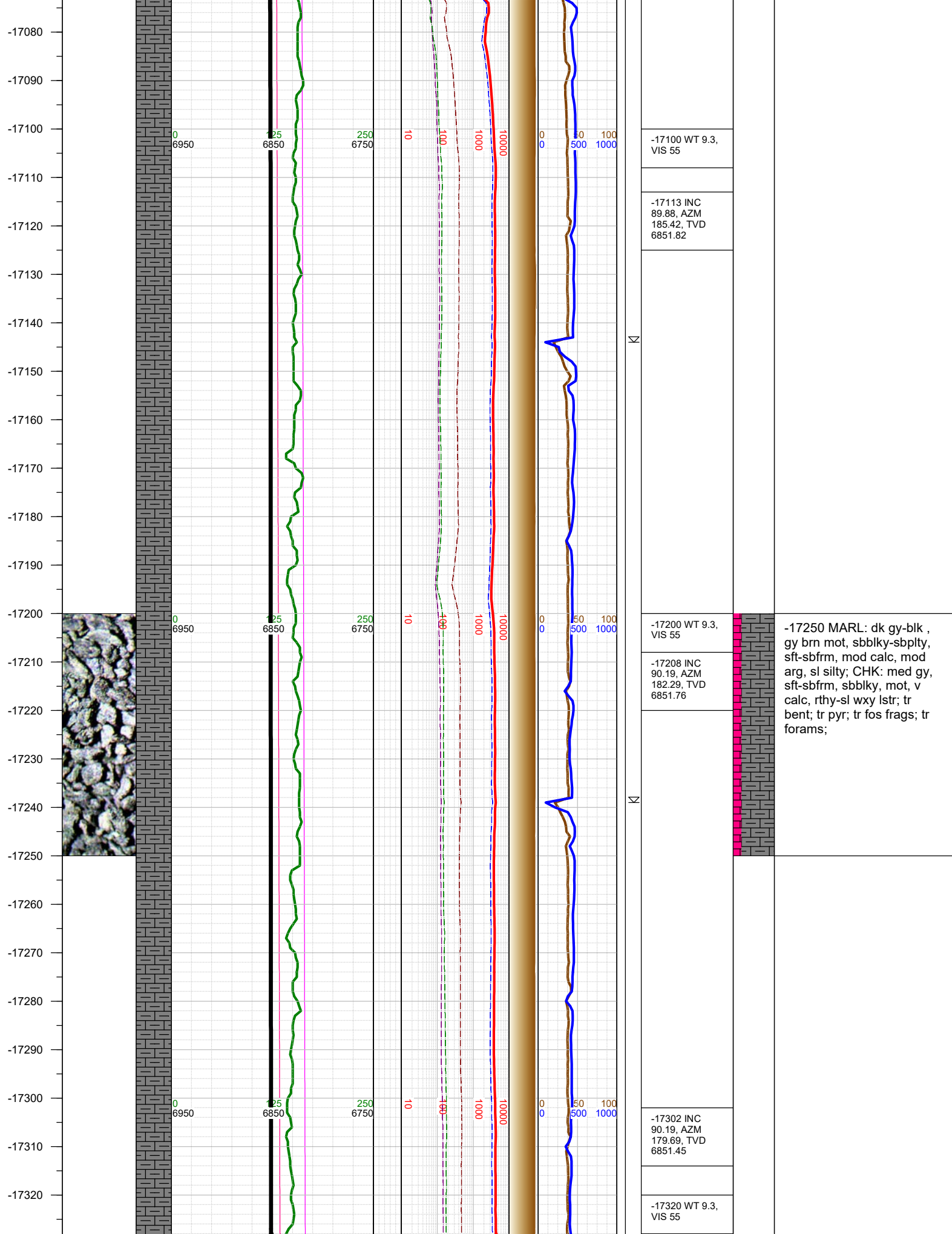
-16734 INC
91.78, AZM
184.32, TVD
6858.71

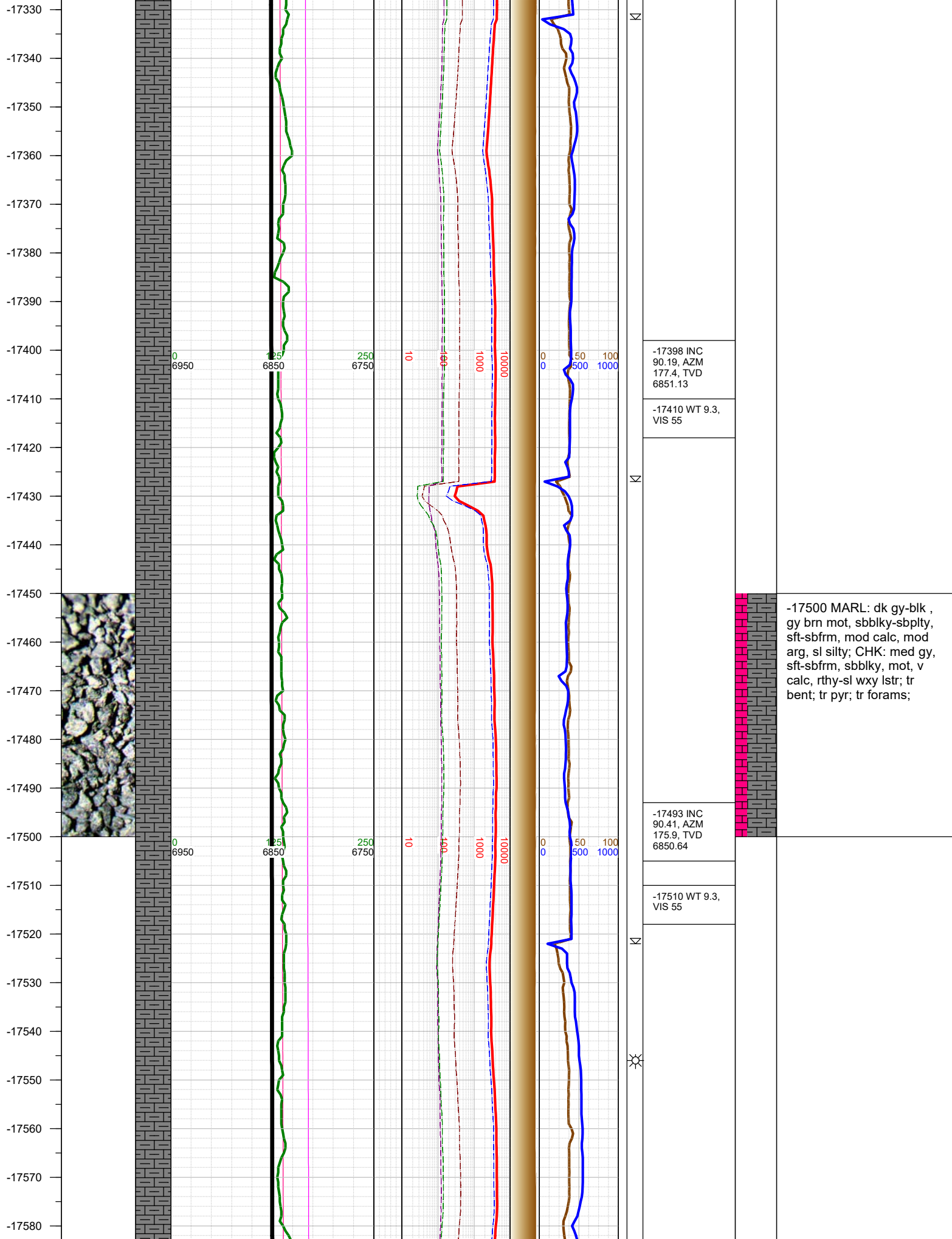
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on 10/4/2017

-16810 WT 9.1,
VIS 49

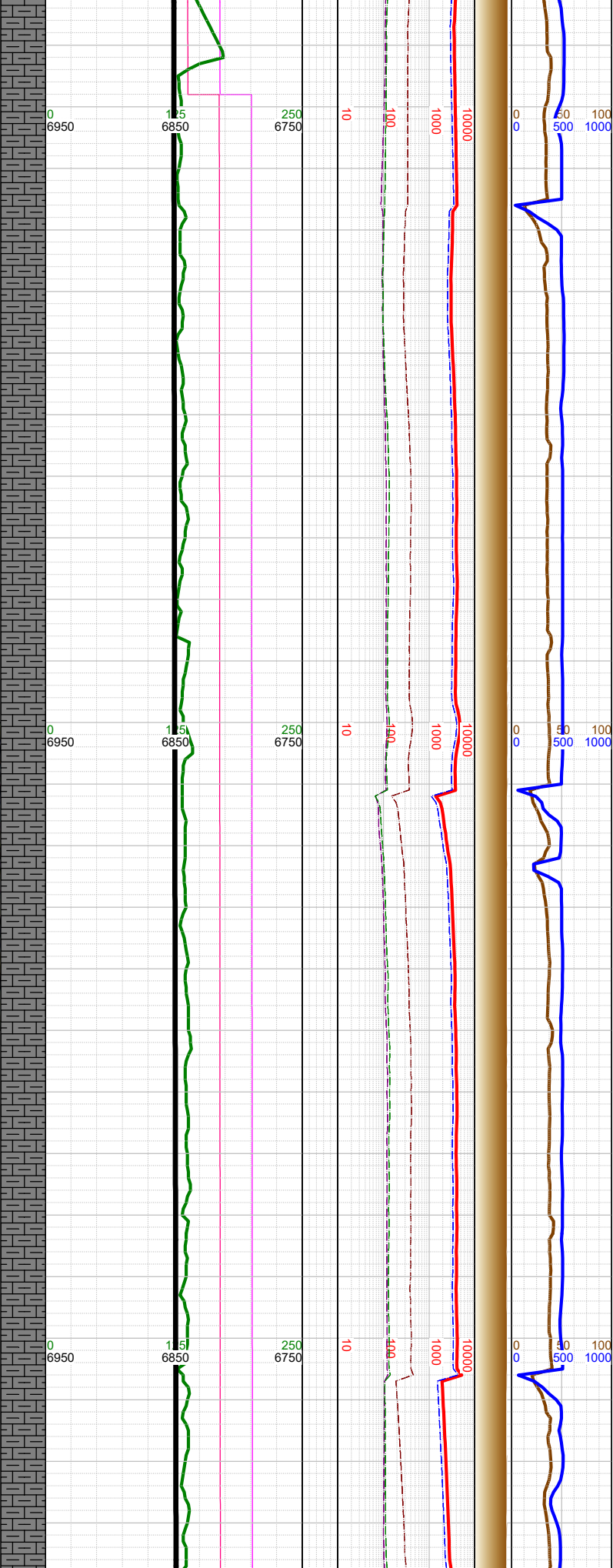
-16750 MARL: dk gy-blk ,
gy brn mot, sbbly-sbply,
sft-sbfrm, mod calc, mod
arg, sl silty; CHK: med gy,
sft-sbfrm, sbbly, mot, v
calc, rthy-sl wxy lstr; tr
bent; tr pyr; tr fos frags; tr
forams;



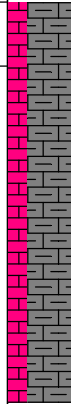




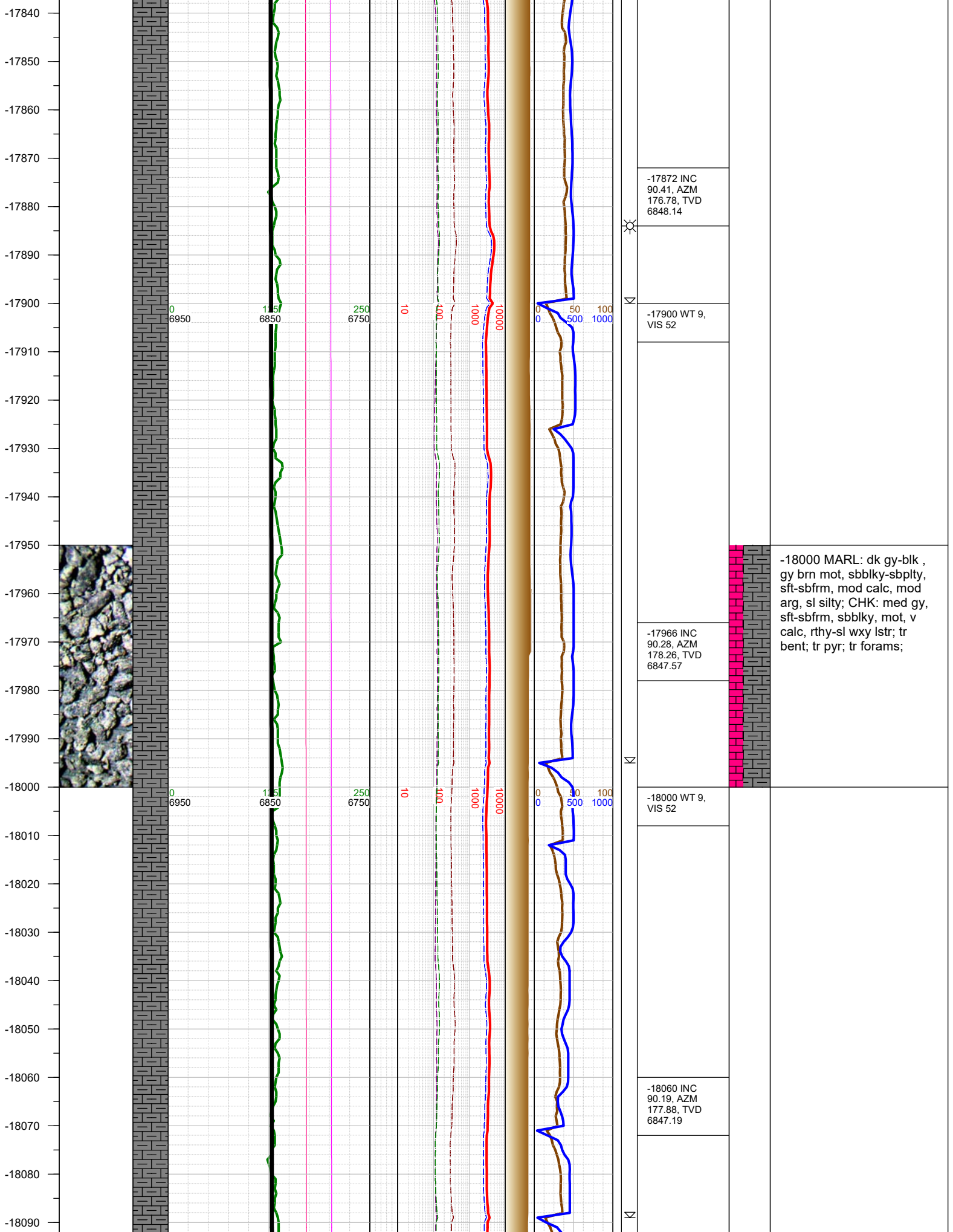
-17590
-17600
-17610
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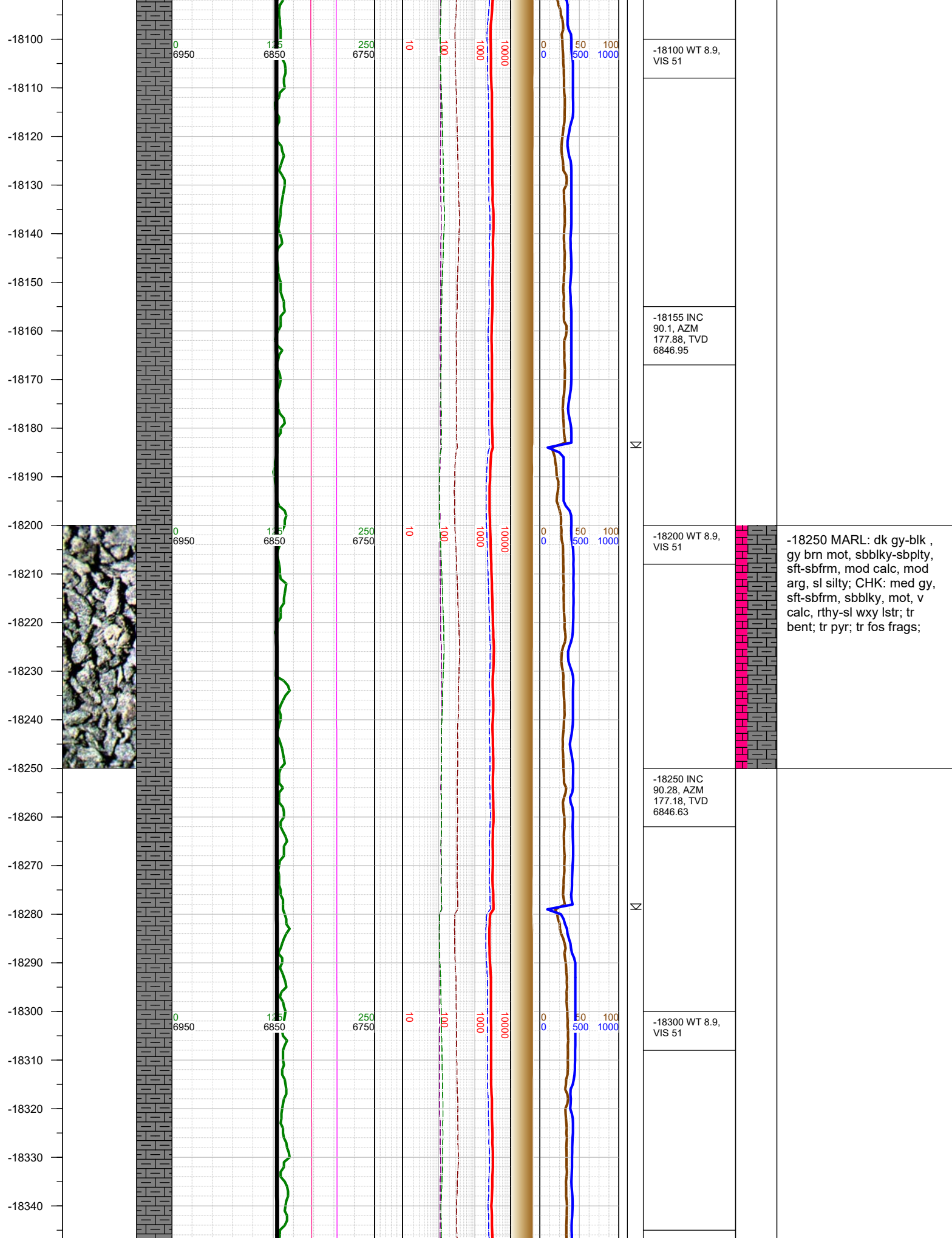


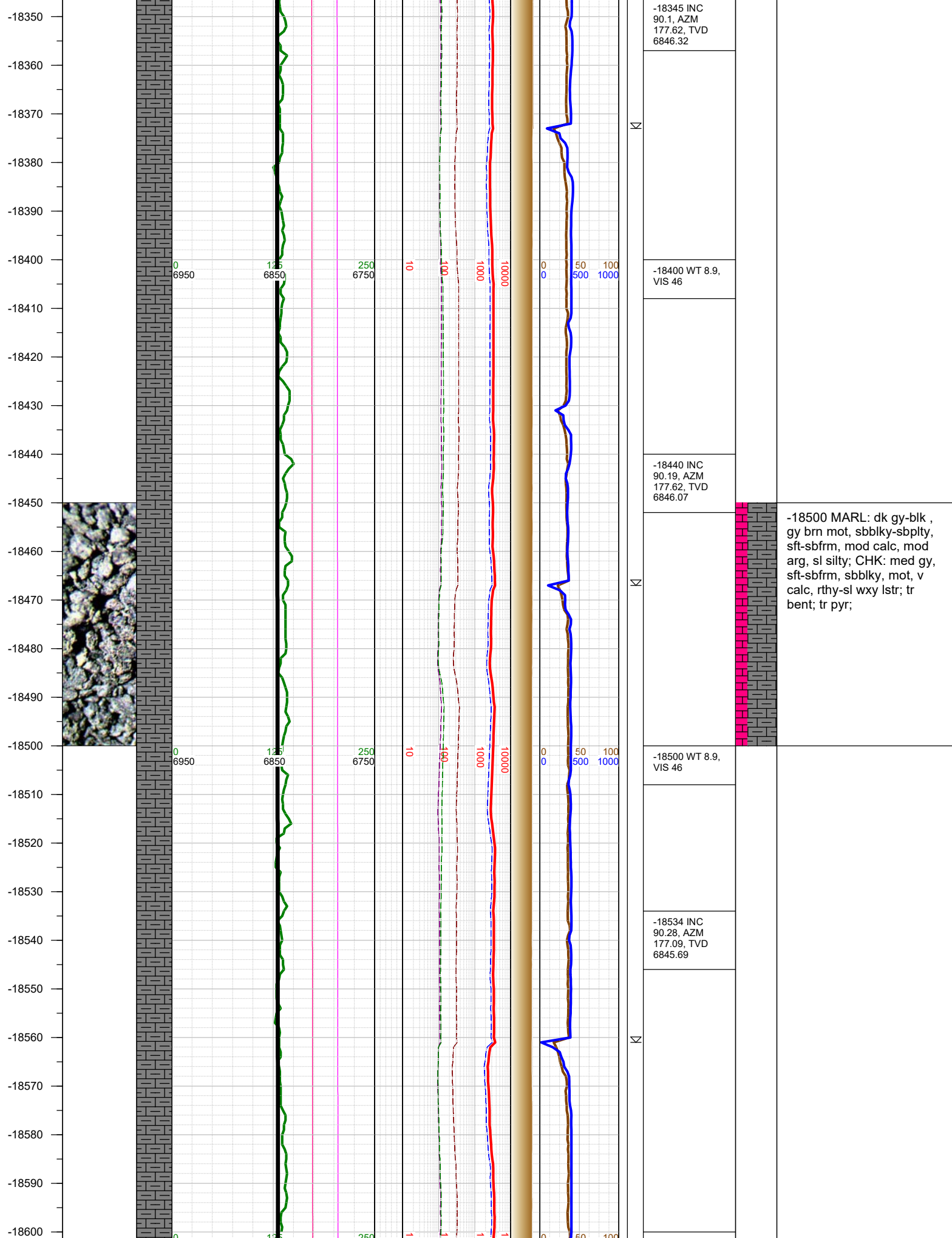
<div><div></div><div>-17587 INC 90.19, AZM 177.31, TVD 6850.14</div></div>	
<div><div></div><div>-17598 Fault: 25' up-throw; stayed in A Marl</div></div>	
<div><div></div><div>-17610 WT 9.3, VIS 55</div></div>	
<div><div></div><div>-17682 INC 90.5, AZM 177.31, TVD 6849.57</div></div>	
<div><div></div><div>-17700 WT 9.3, VIS 55</div></div>	
<div><div></div><div>-17777 INC 90.41, AZM 176.78, TVD 6848.82</div></div>	
<div><div></div><div>-17800 WT 9, VIS 52</div></div>	

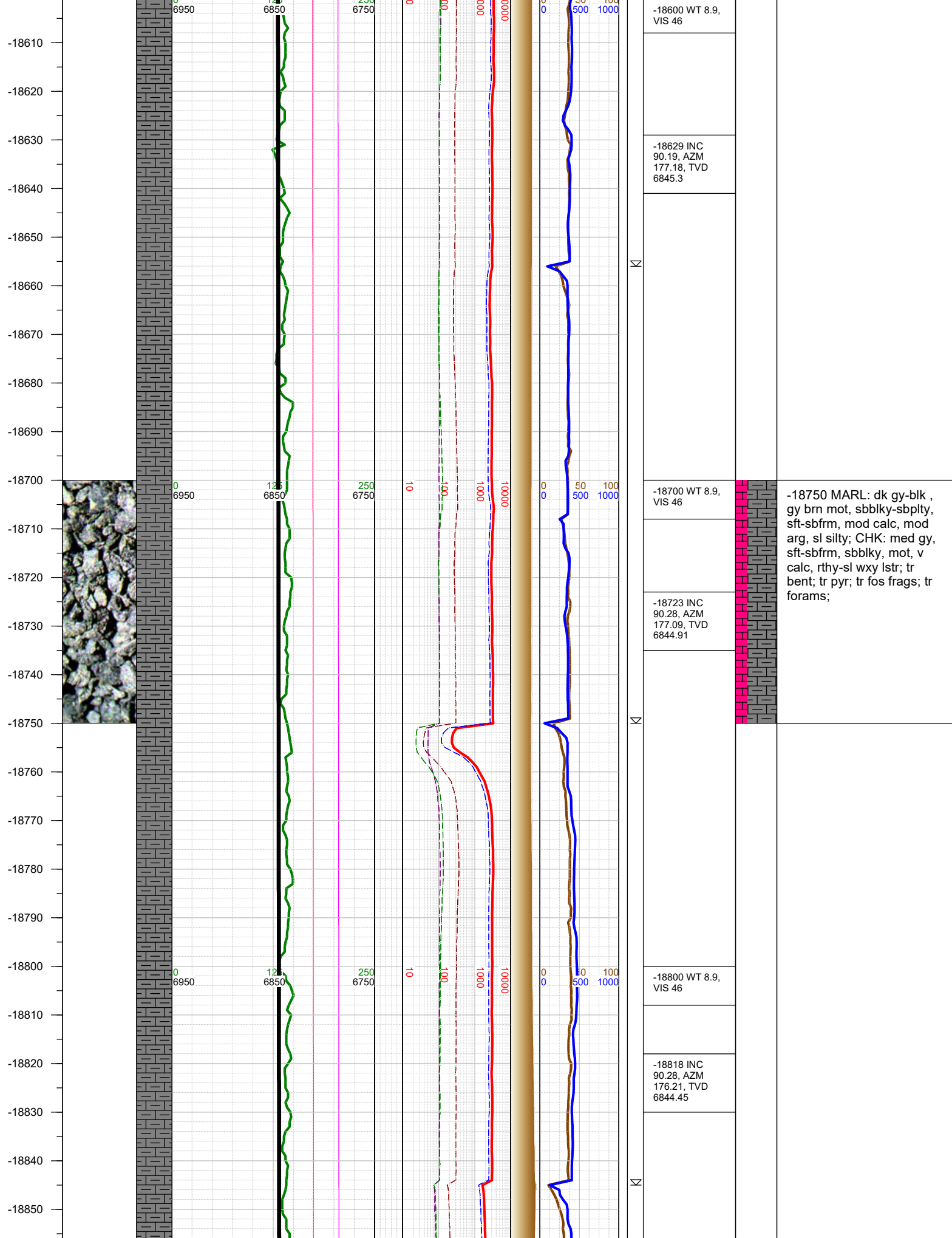


-17750 MARL: dk gy-blk ,
gy brn mot, sbblky-sbplty,
sft-sbfrm, mod calc, mod
arg, sl silty; CHK: med gy,
sft-sbfrm, sbblky, mot, v
calc, rthy-sl wxy lstr; tr
bent; tr pyr; tr forams;

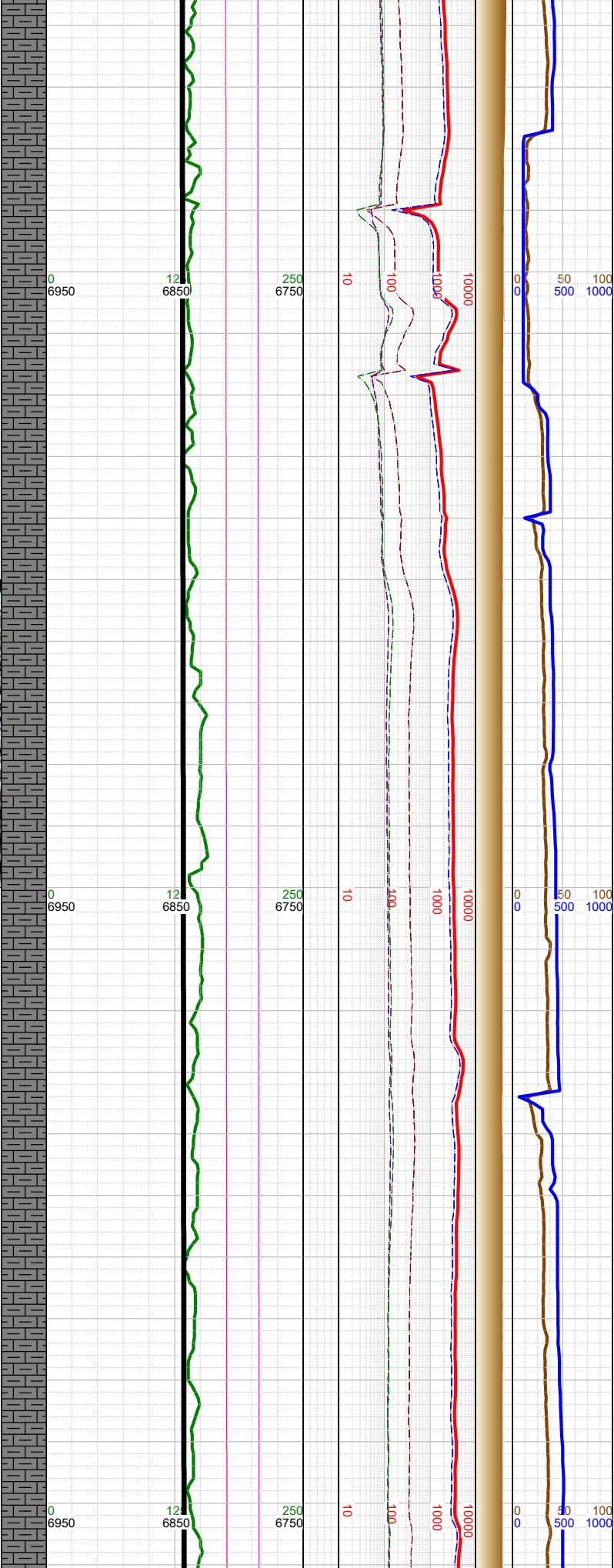
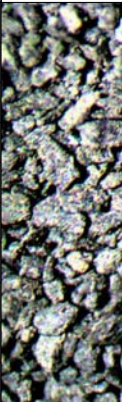




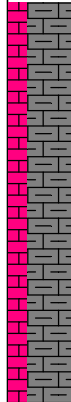




-18860
-18870
-18880
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-18900
-18910
-18920
-18930
-18940
-18950
-18960
-18970
-18980
-18990
-19000
-19010
-19020
-19030
-19040
-19050
-19060
-19070
-19080
-19090
-19100
-19110



-18900 WT 8.9, VIS 46
-18912 INC 90.41, AZM 176.21, TVD 6843.88
-19007 INC 90.28, AZM 178.5, TVD 6843.31
-19020 WT 8.9, VIS 46
-19090 WT 8.8, VIS 45
-19102 INC 90.28, AZM 179.21, TVD



-19000 MARL: dk gy-blk ,
gy brn mot, sbbkly-sbplty,
sft-sbfrm, mod calc, mod
arg, sl silty; CHK: med gy,
sft-sbfrm, sbbkly, mot, v
calc, rthy-sl wxy lstr; tr
bent; tr pyr; tr fos frags; tr
forams;

