

OPERATOR: **Extraction Oil & Gas**

WELL NAME: **Livingston S19-25-3N**

FIELD NAME: DJ Basin - Wattenberg

DRILLING RIG: Patterson 901

API #: 05-014-20758

LAT/LONG: 39.978564, -105.039993
SURFACE HOLE: NWSE S7-T1S-R68W, 2332' FSL, 1492' FEL
BOTTOM HOLE: S19-T1S-R68W, 460' FSL, 971' FWL

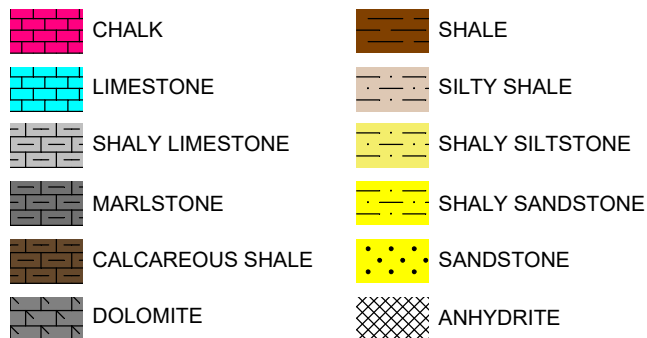


Earth Science Agency, LLC

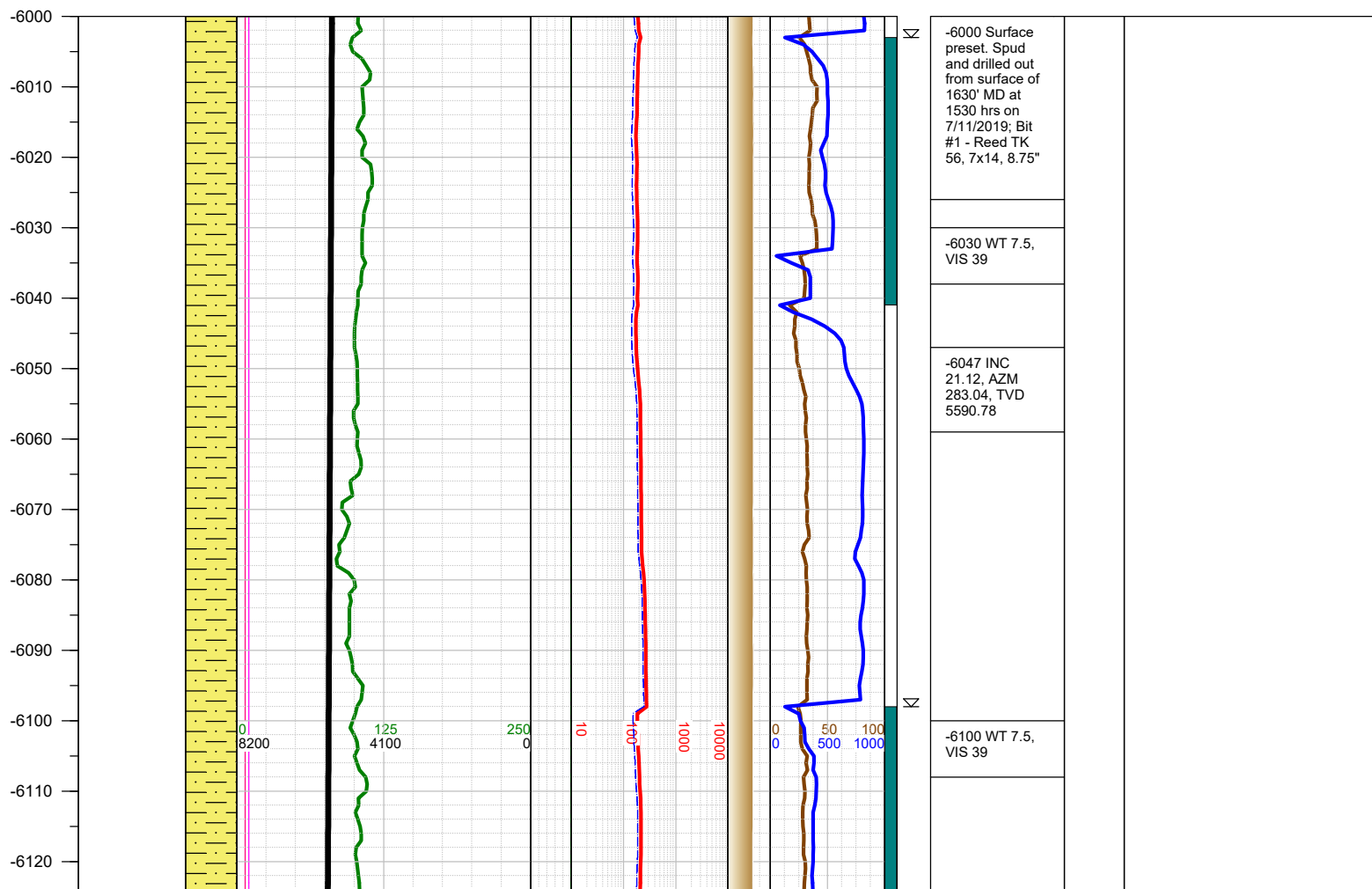
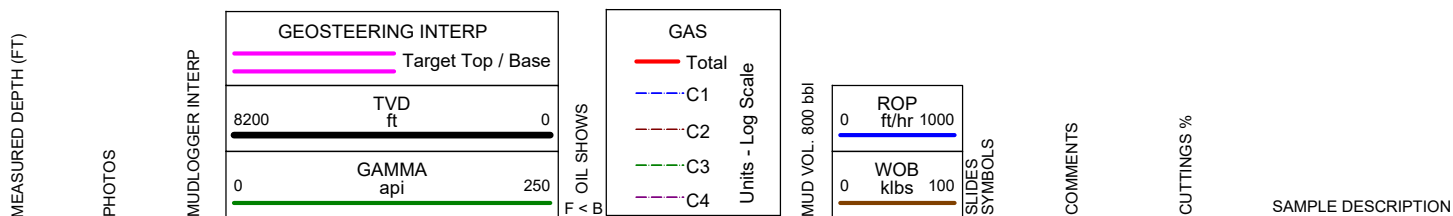
COUNTY: Broomfield
STATE: Colorado
GROUND ELEVATION: 5317'
KELLY BUSHING: 5346'
DRILLING FLUID: OBM
TVD VS. MD: 8057' / 21396'
SPUD DATE: July 11, 2019
TD DATE: July 14, 2019

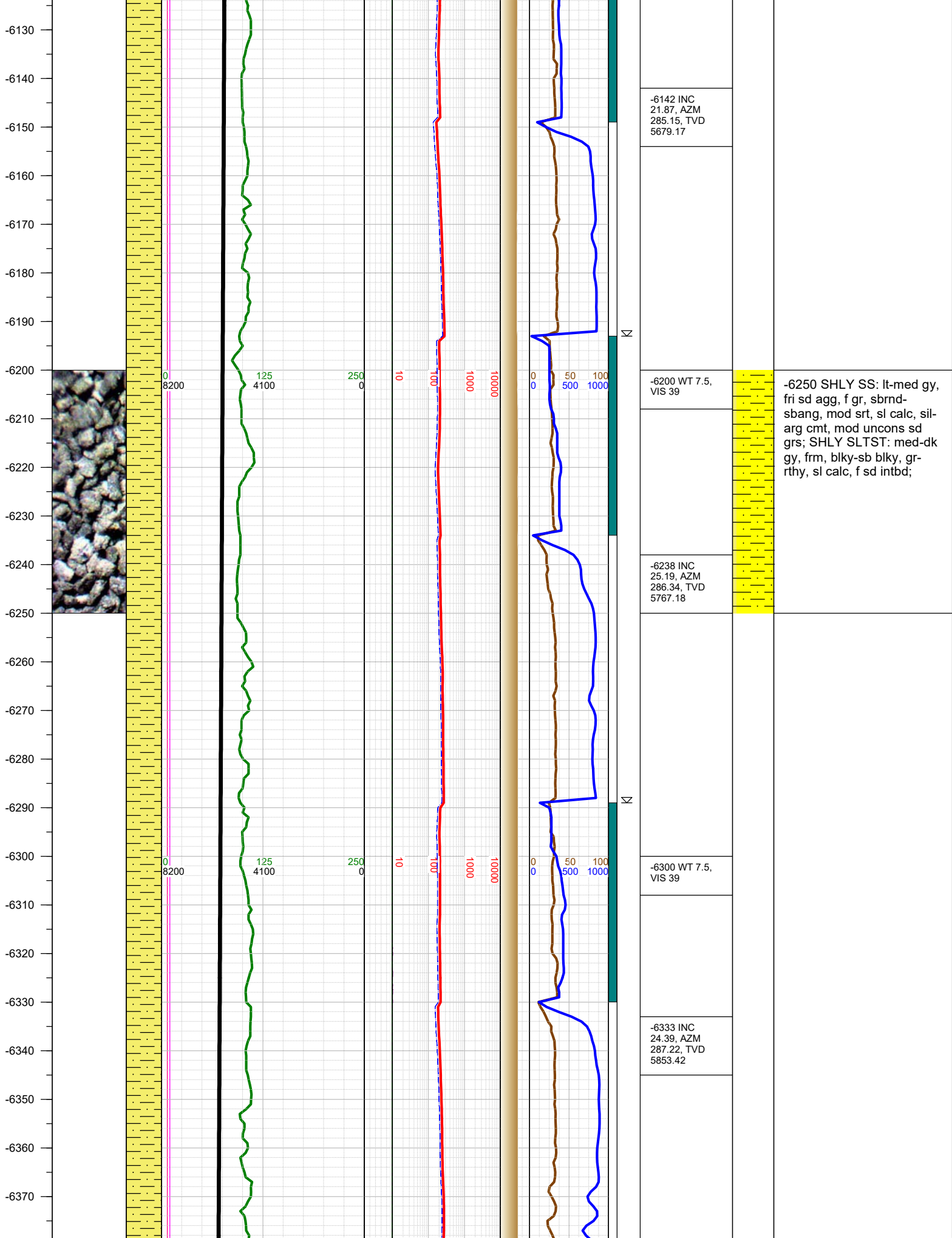
DEPTHS LOGGED: 6000' - 21396'
DATES LOGGED: July 11, 2019 - July 14, 2019
GEOLOGISTS: Dominic Pitre, Madison Miller
SCALE: 5" = 100'

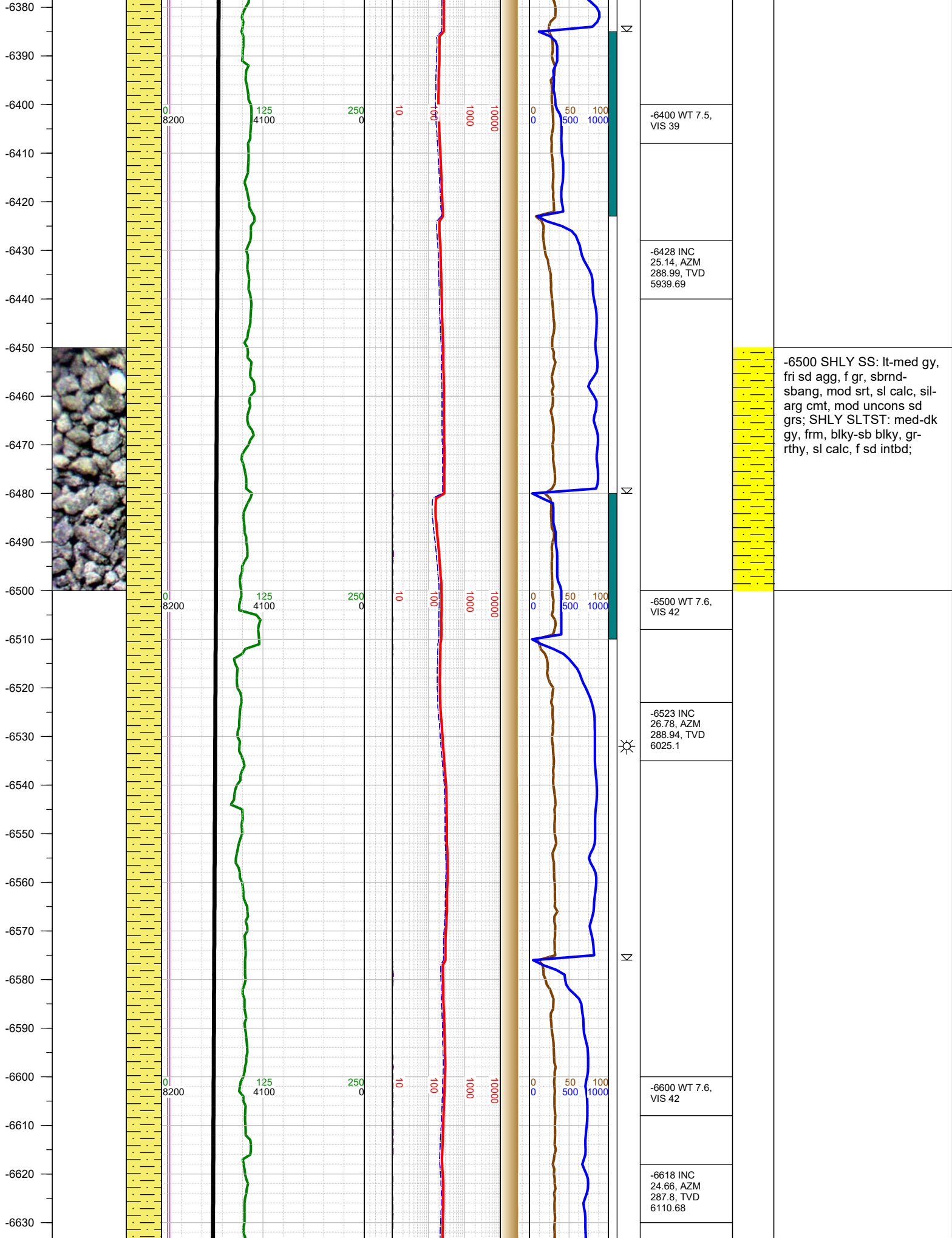
LEGEND

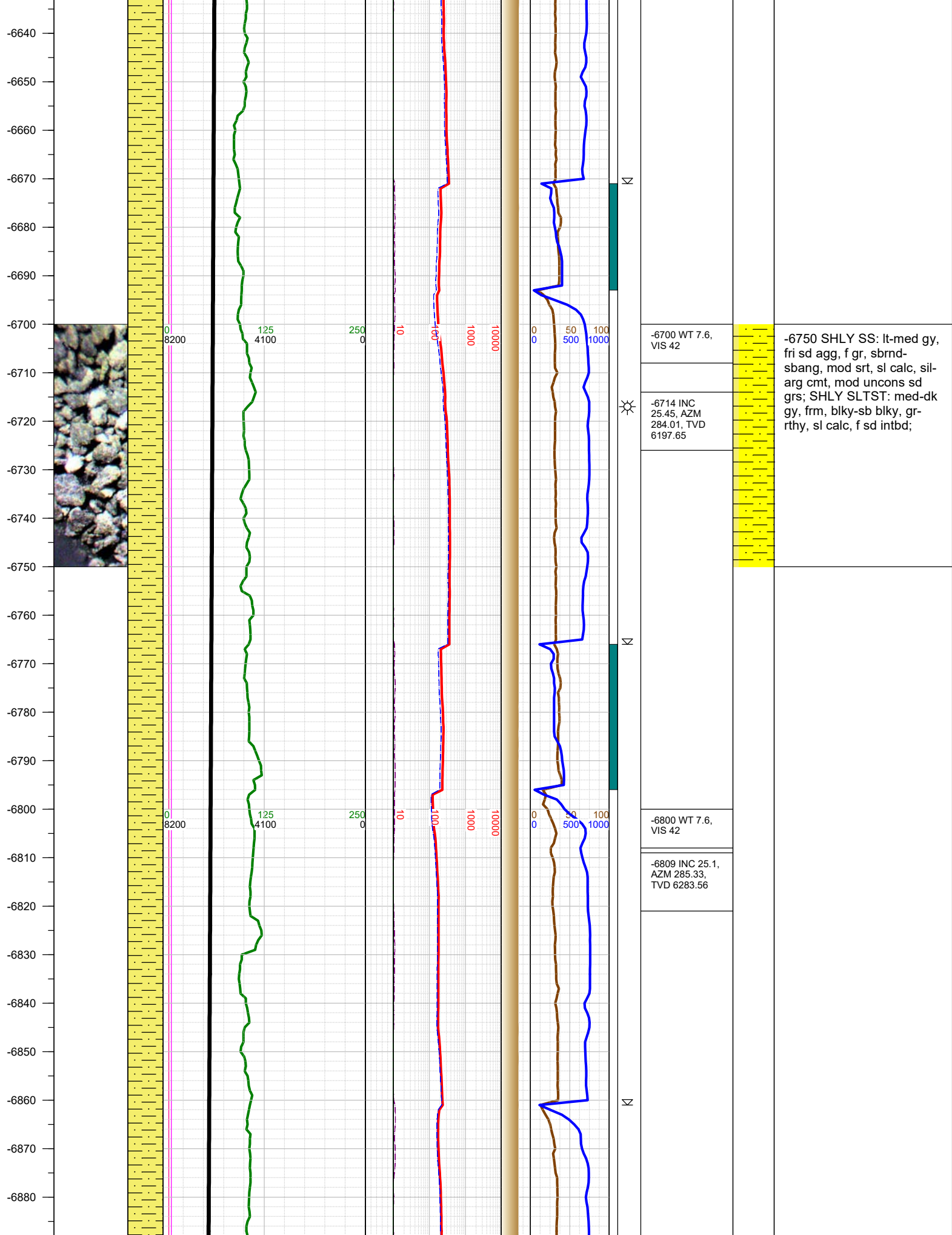


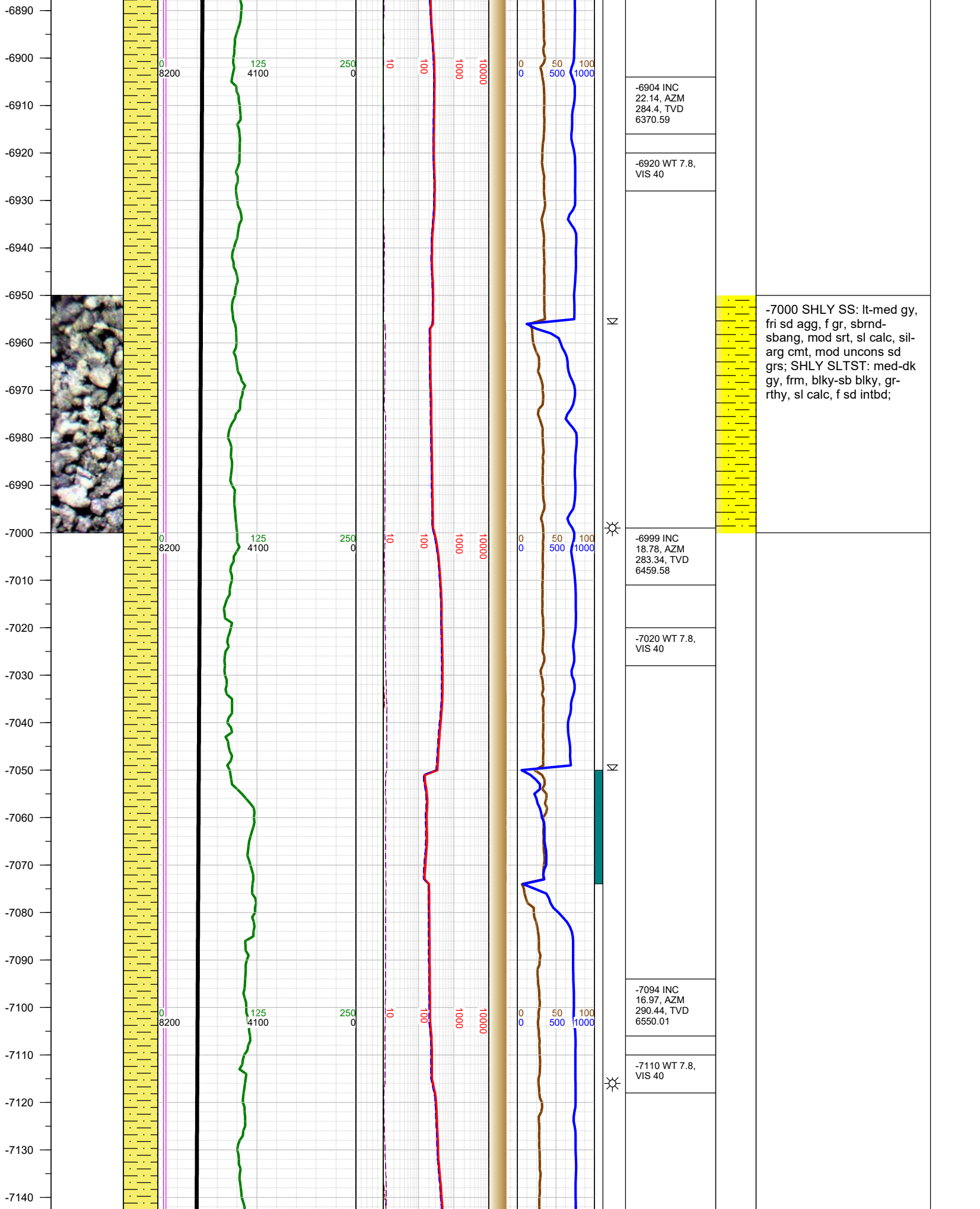
FORMATION CONNECTION MIDNIGHT NEW BIT GAS SHOW FAULT

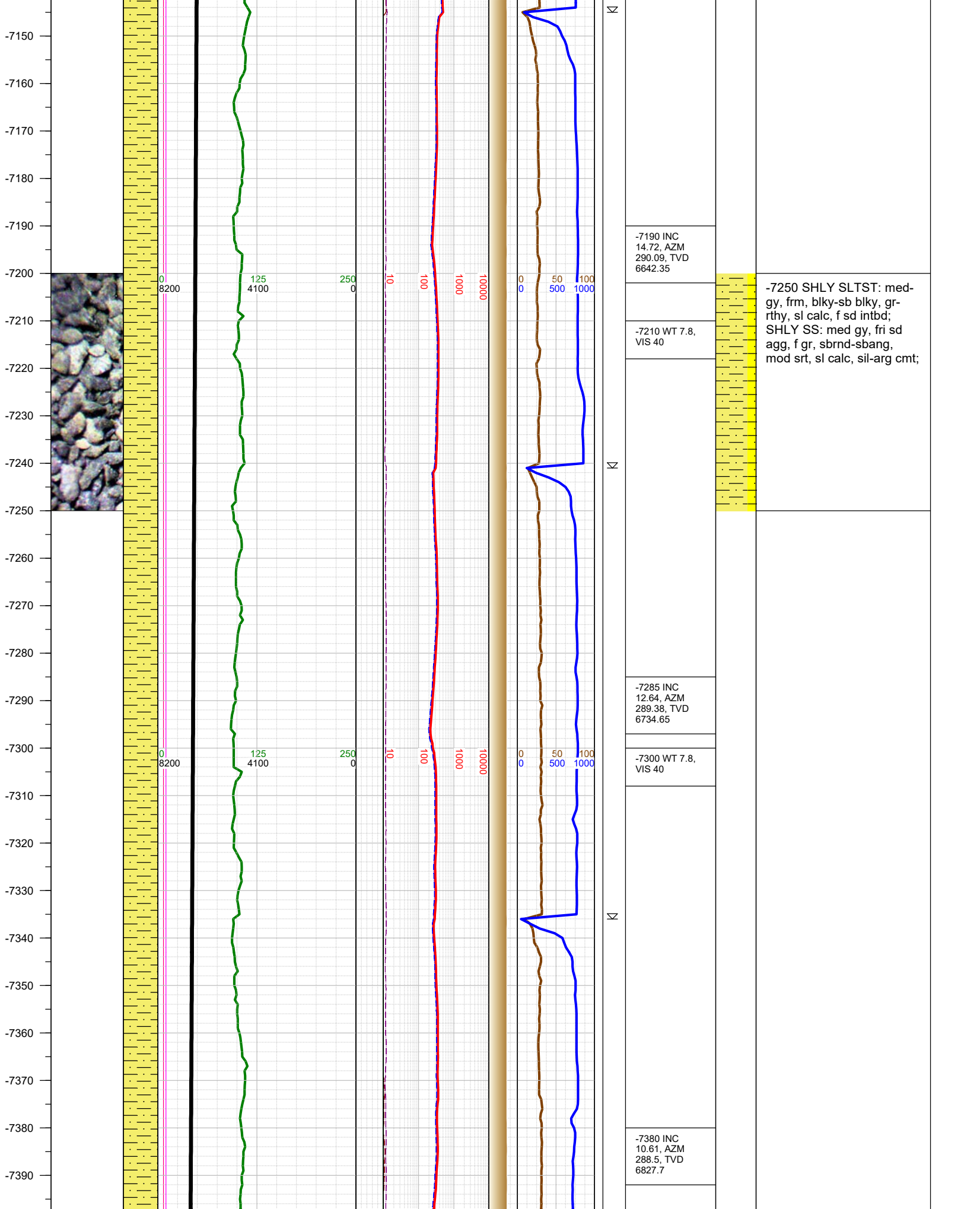


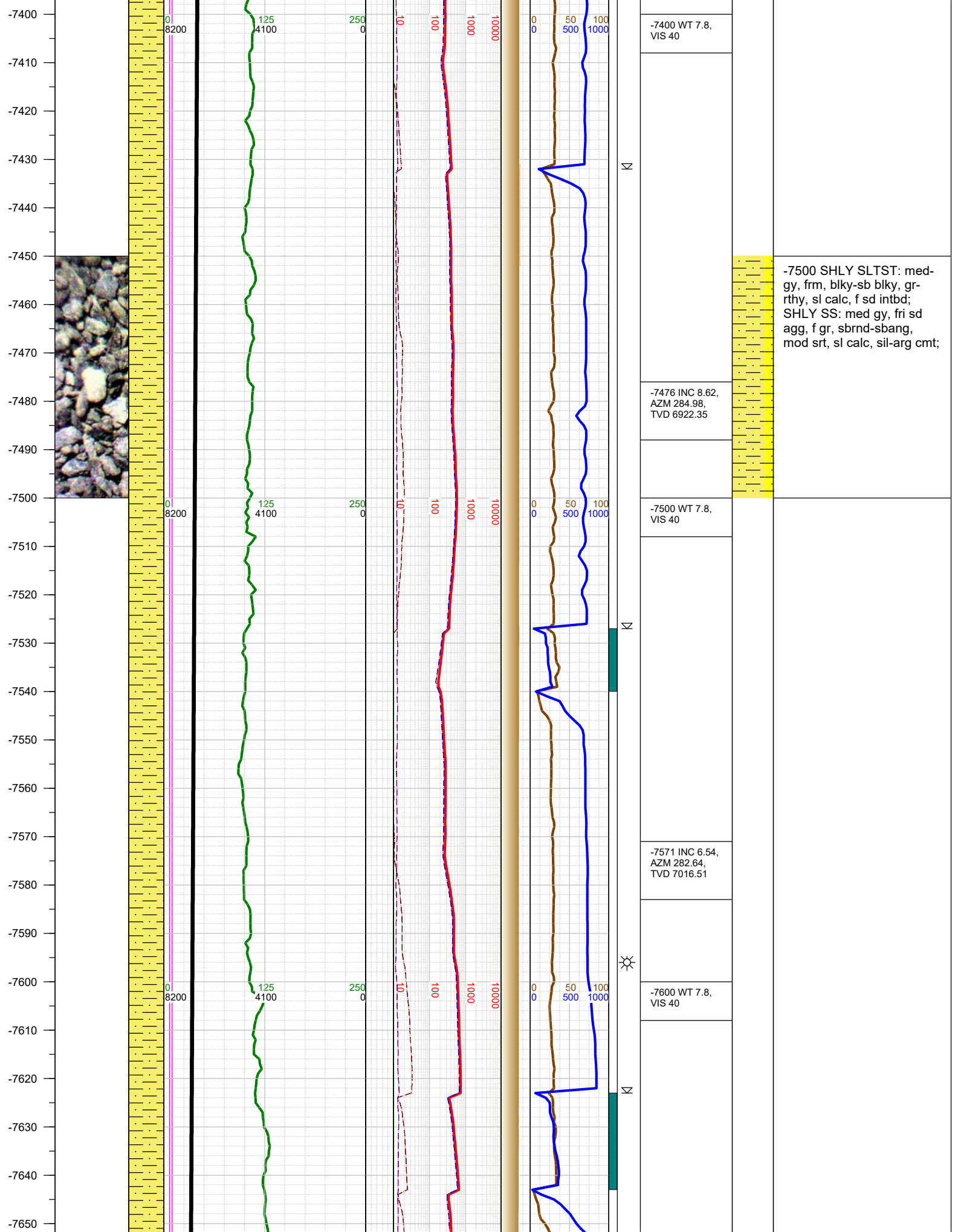


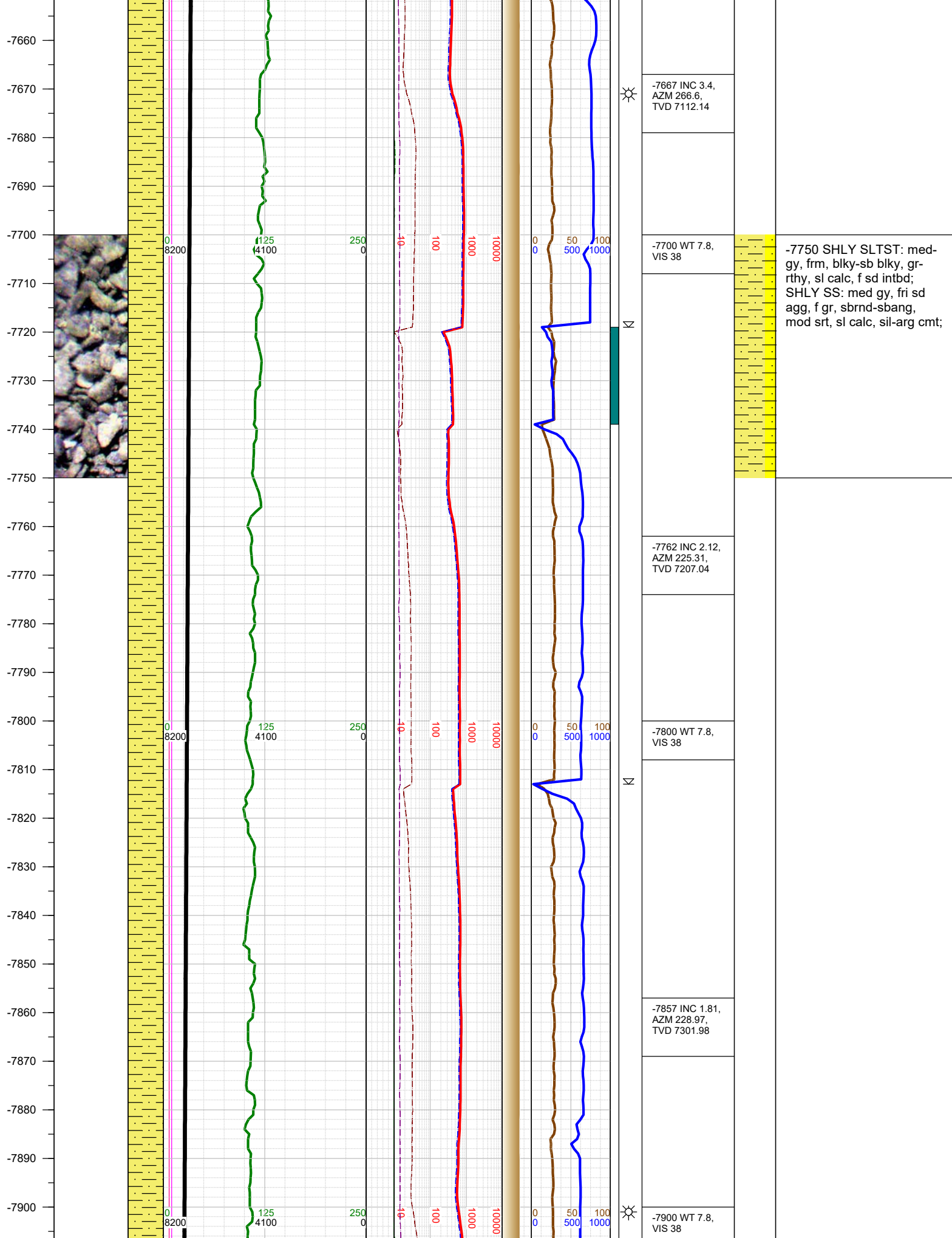


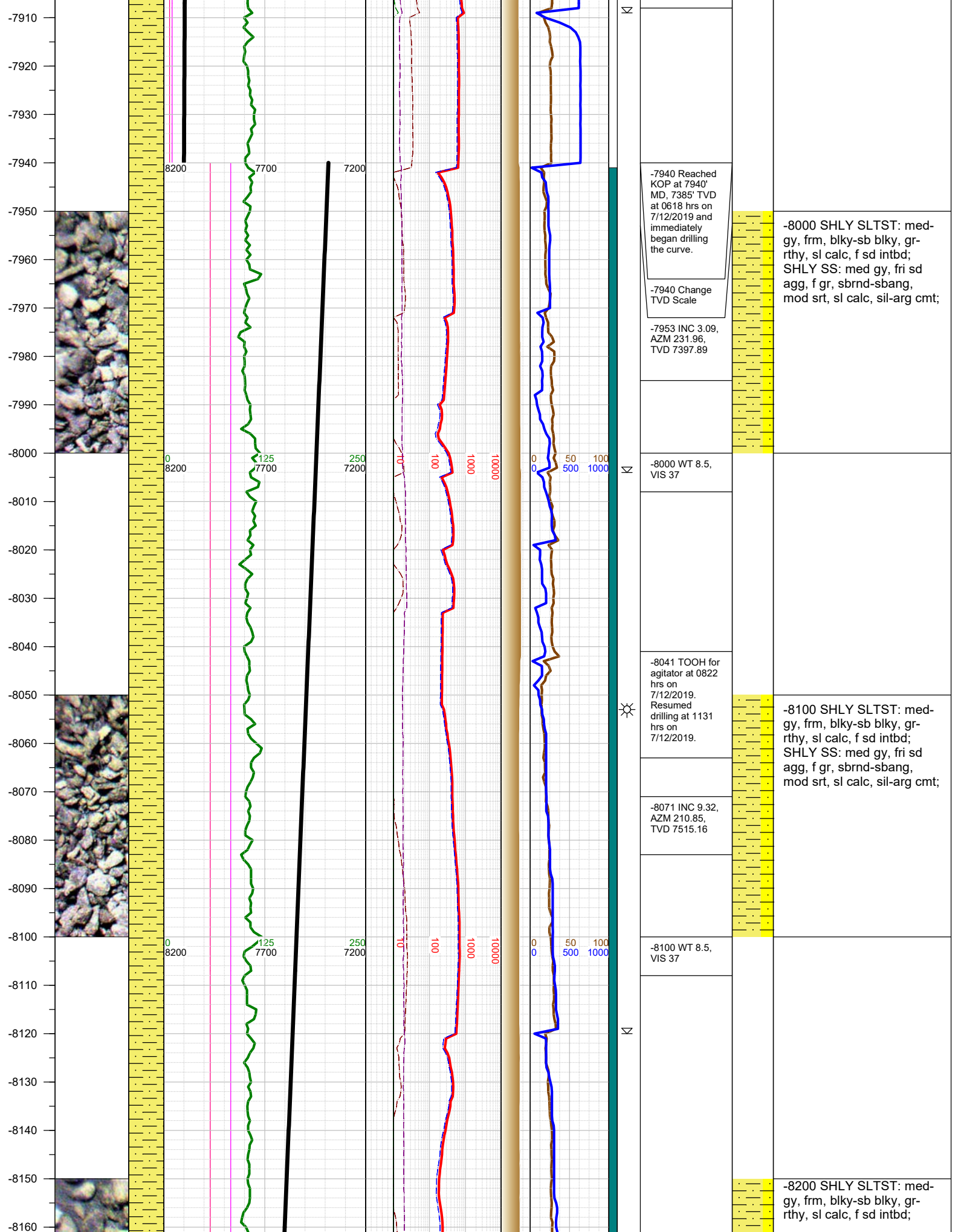


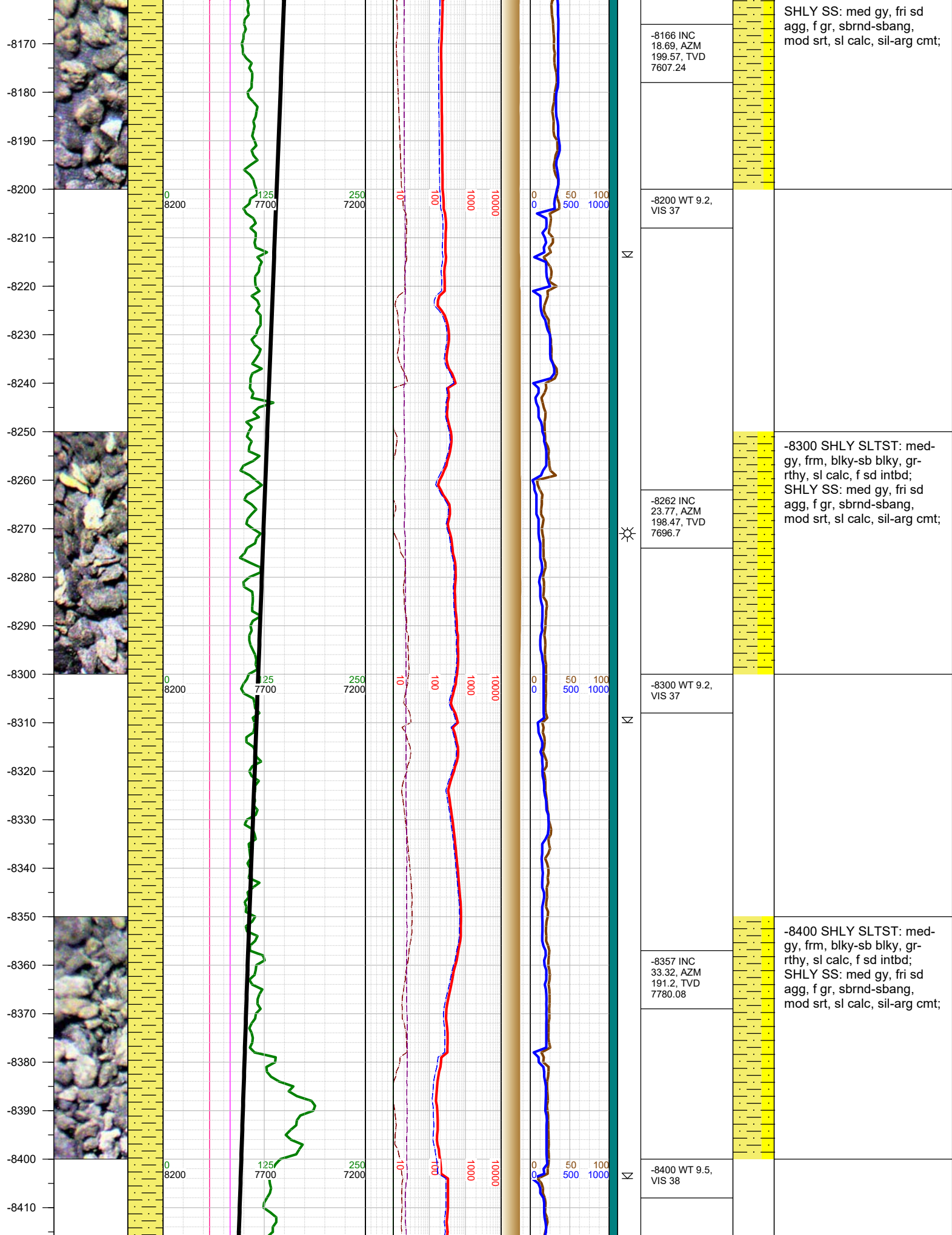


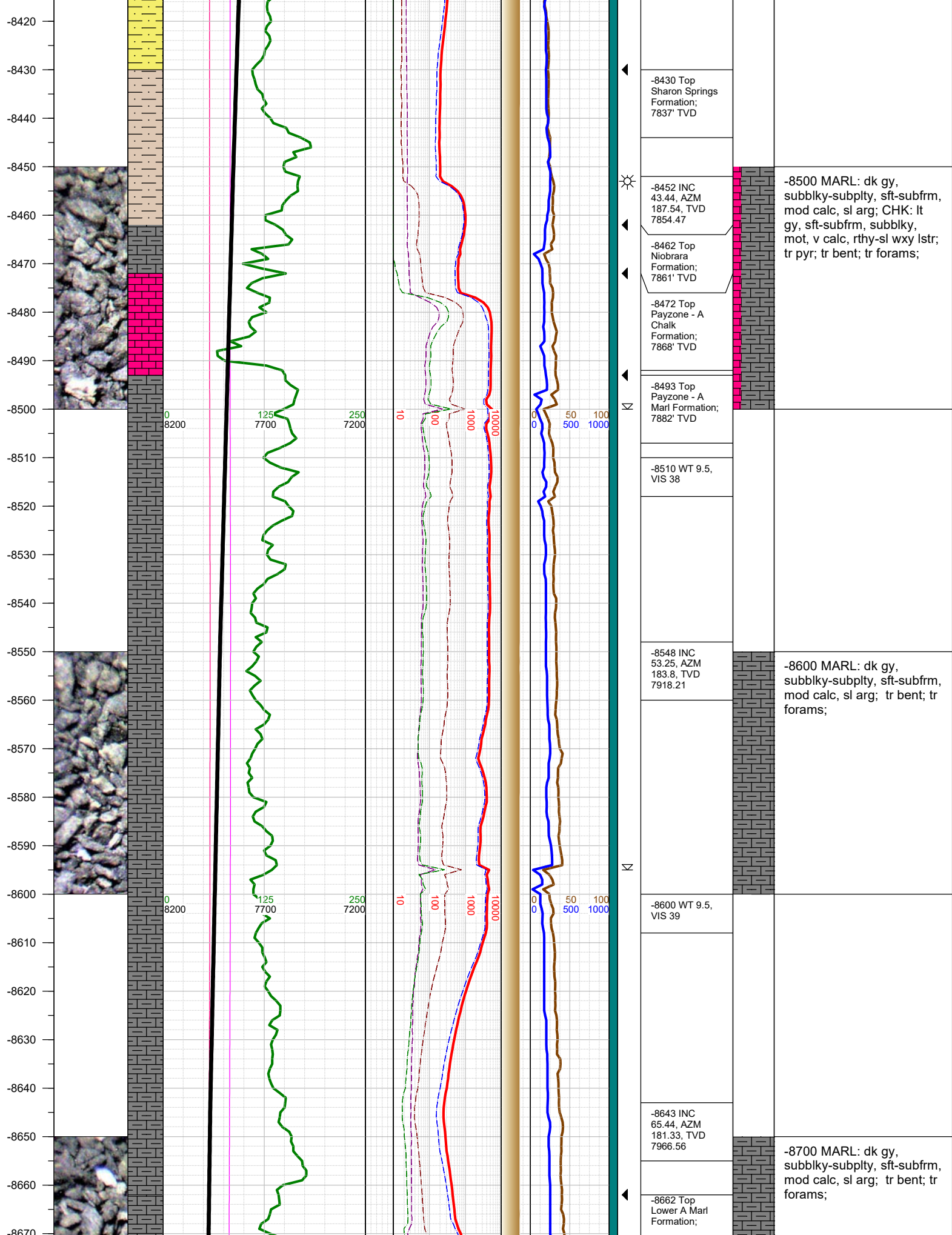


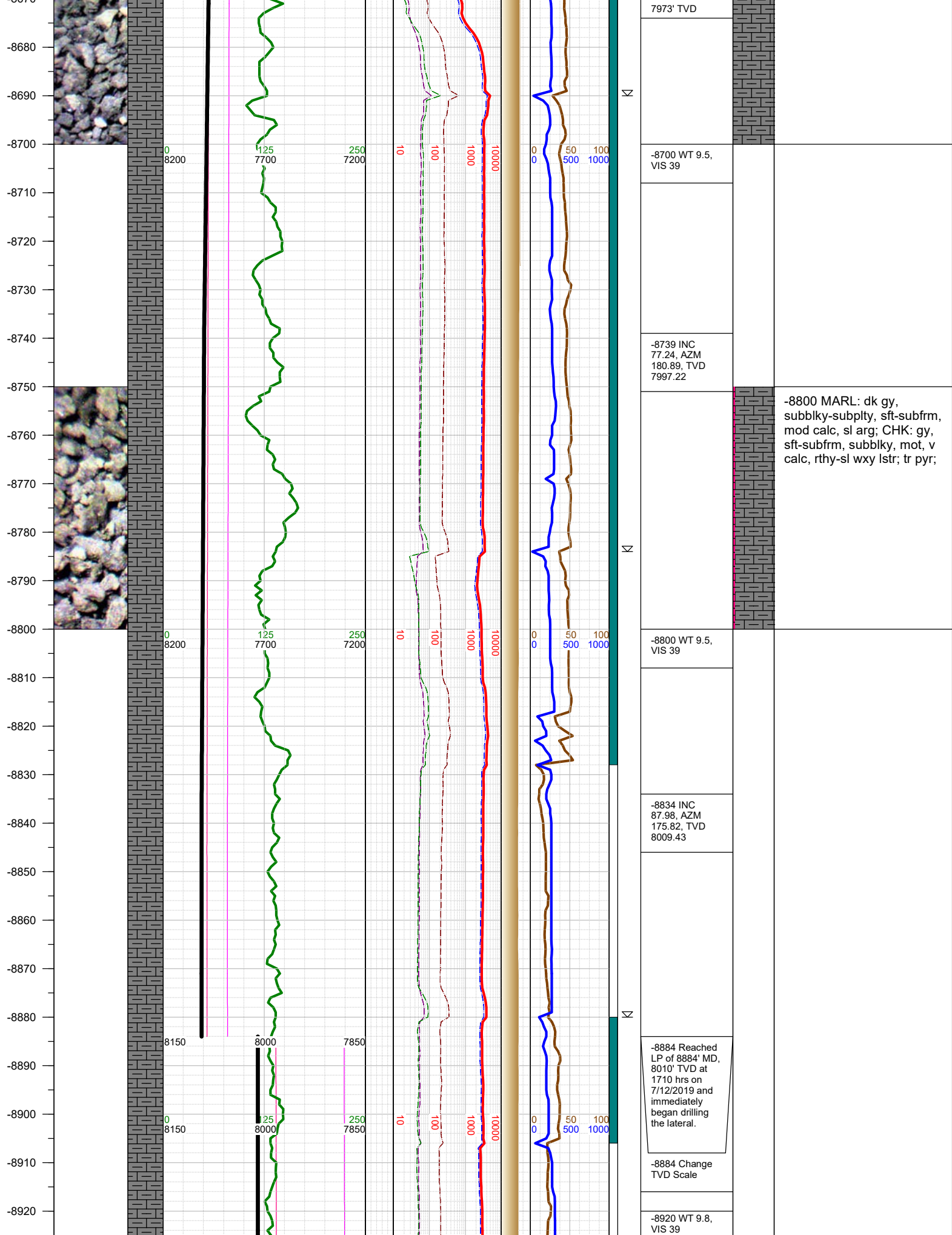




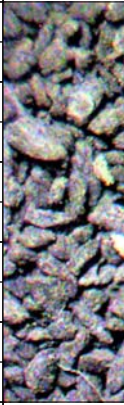








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-9000 WT 9.8,
VIS 38

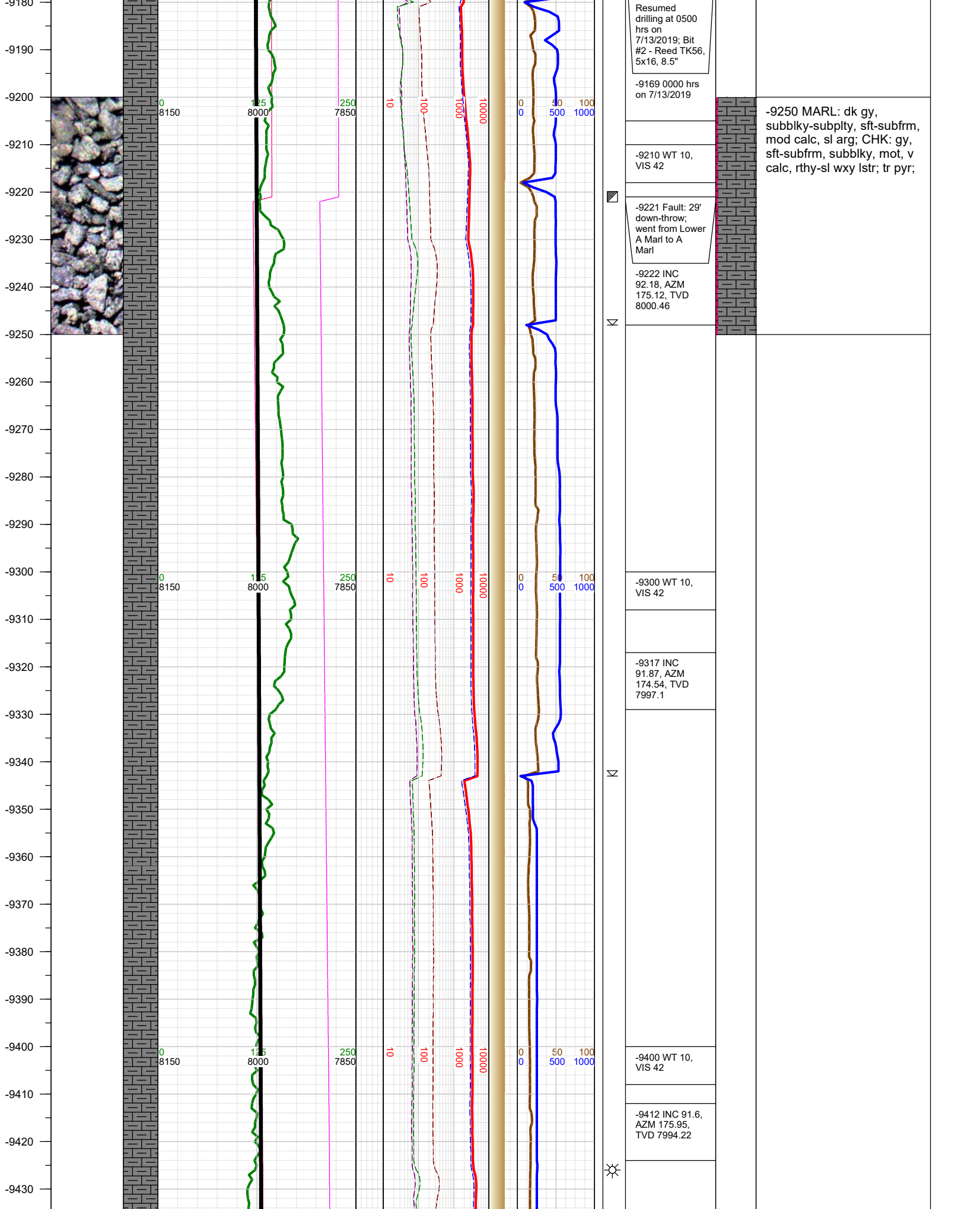
-9025 INC
92.27, AZM
174.9, TVD
8006.27

-9100 WT 9.8,
VIS 38

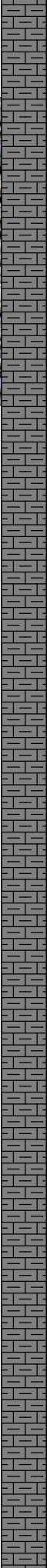
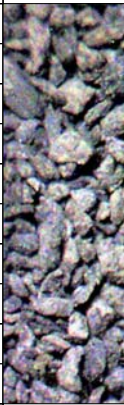
-9120 INC
91.16, AZM
175.6, TVD
8003.43

-9169 TOOH for
RSS at 1820
hrs on
7/12/2019.

-9000 MARL: dk gy,
subblky-subplty, sft-subfrm,
mod calc, sl arg; tr bent; tr
pyr;



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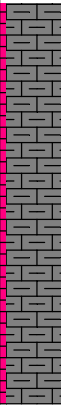
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-9507 INC
91.03, AZM
176.66, TVD
7992.04

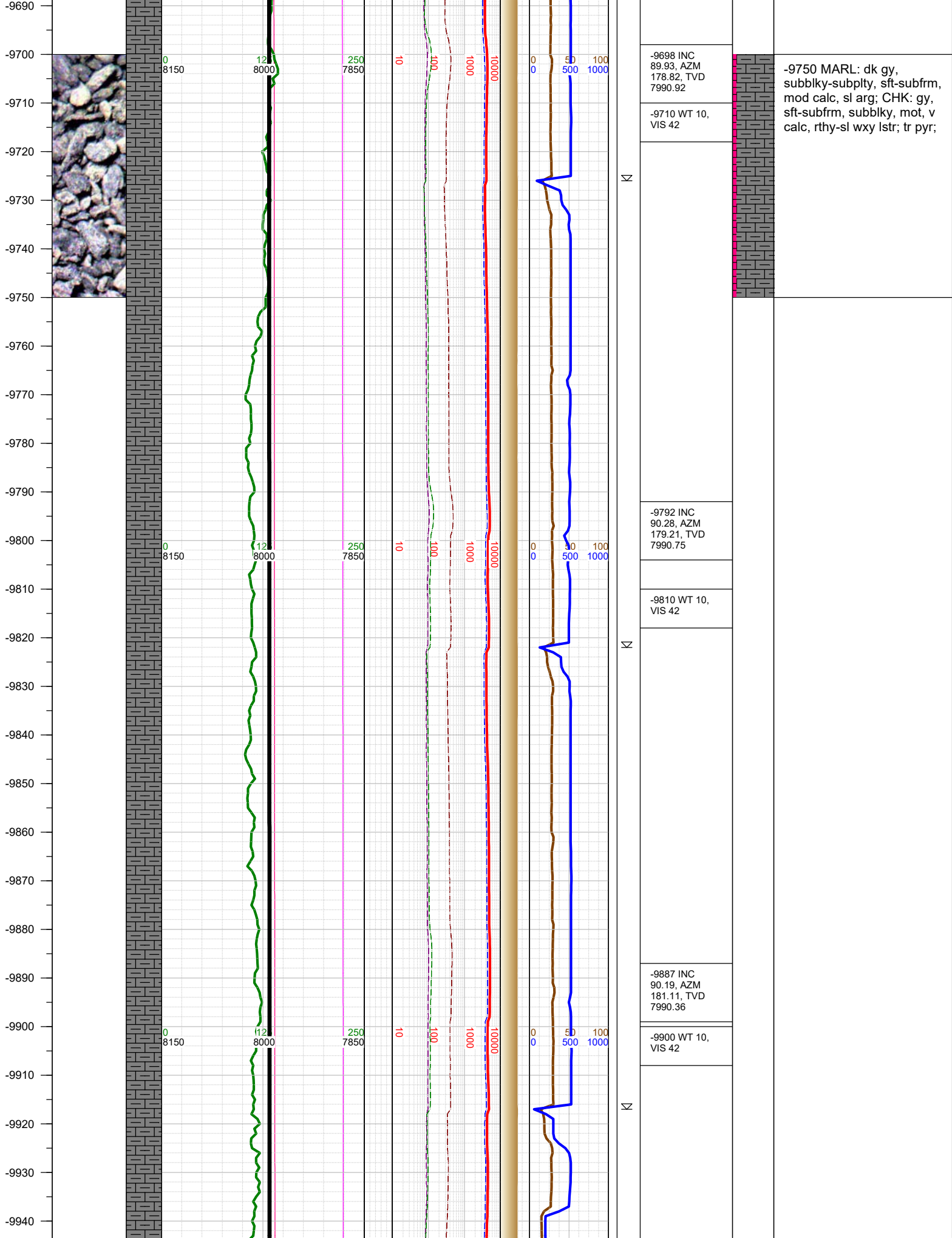
-9520 WT 10,
VIS 42

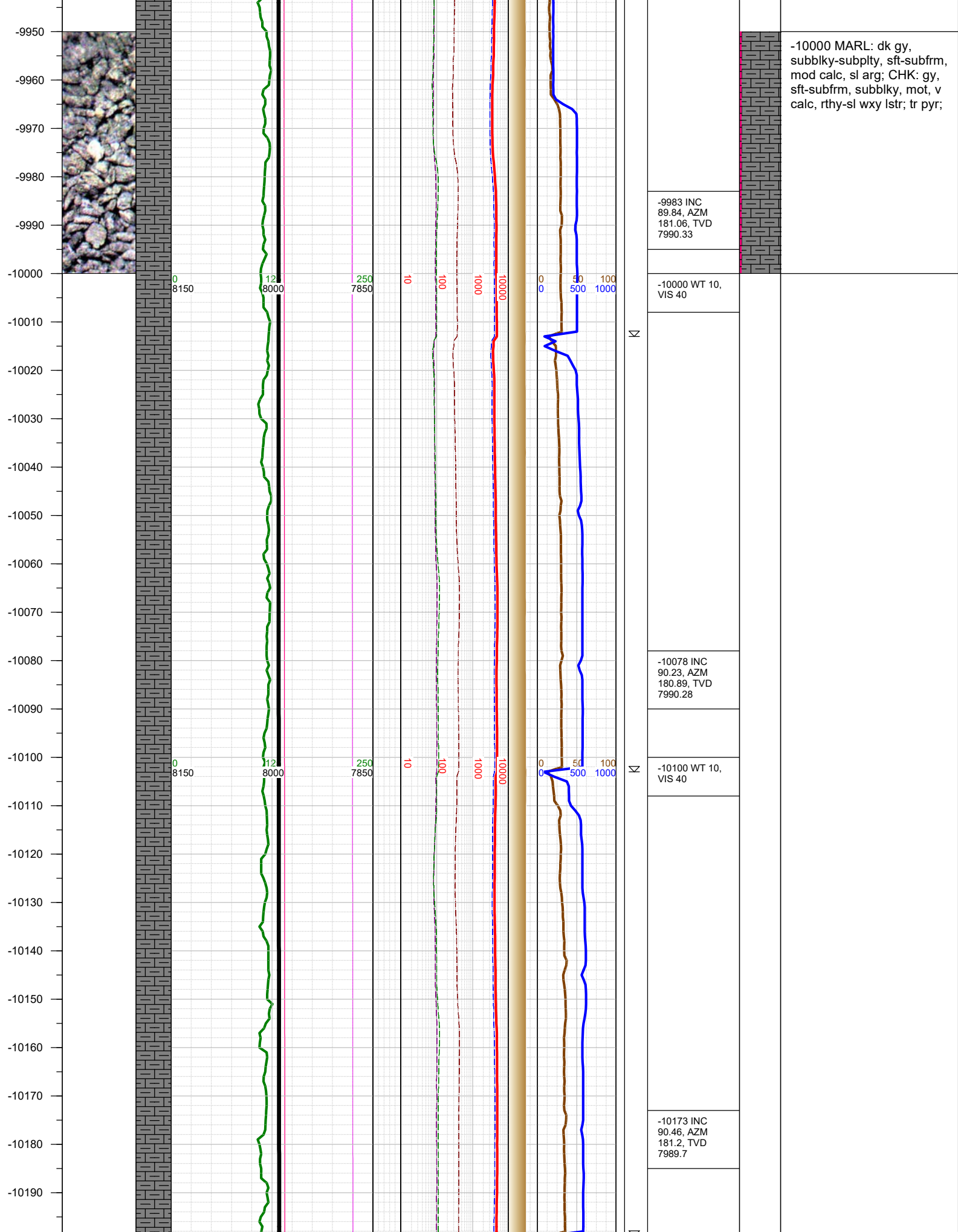
-9603 INC
90.19, AZM
176.7, TVD
7991.02

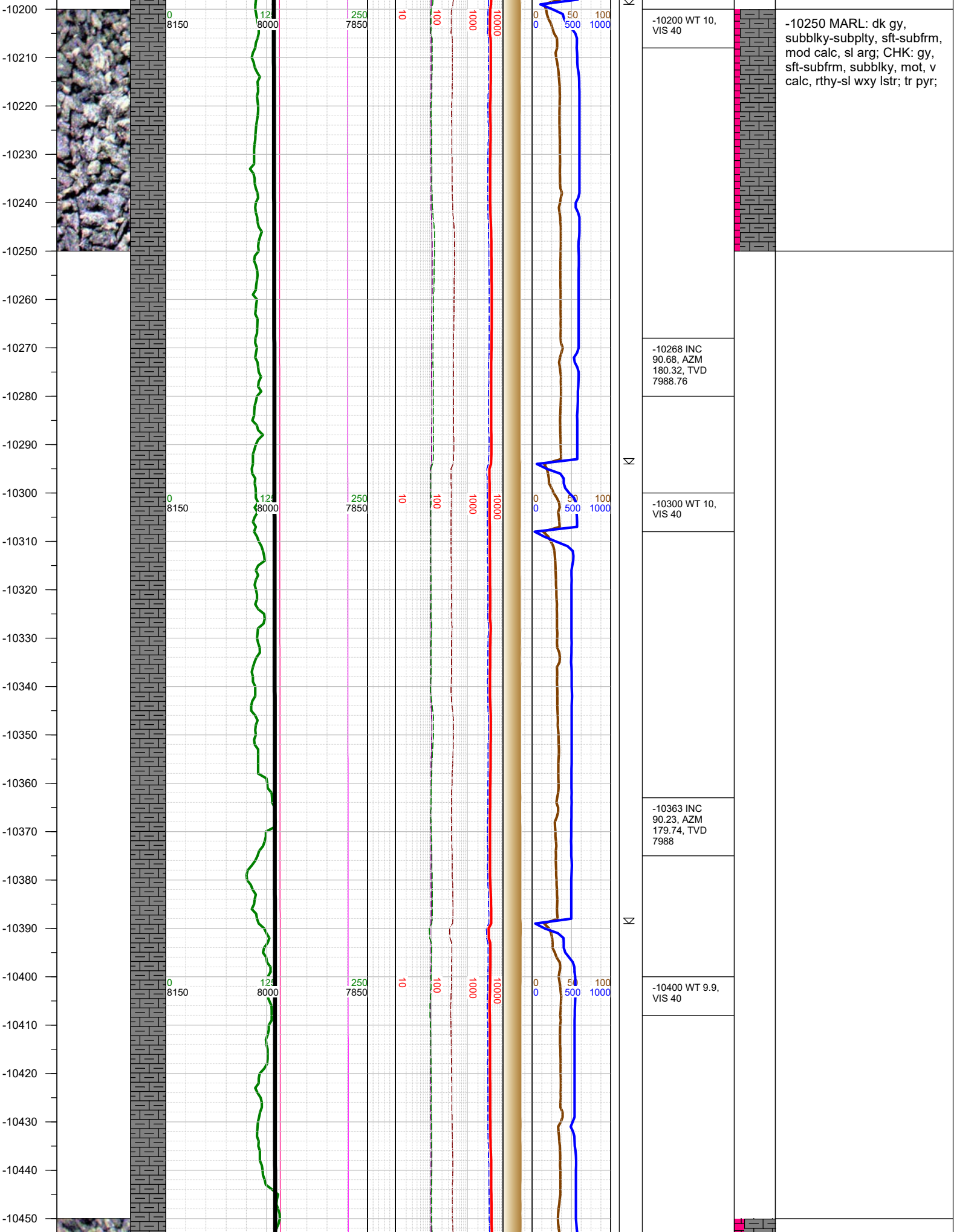
-9620 WT 10,
VIS 42

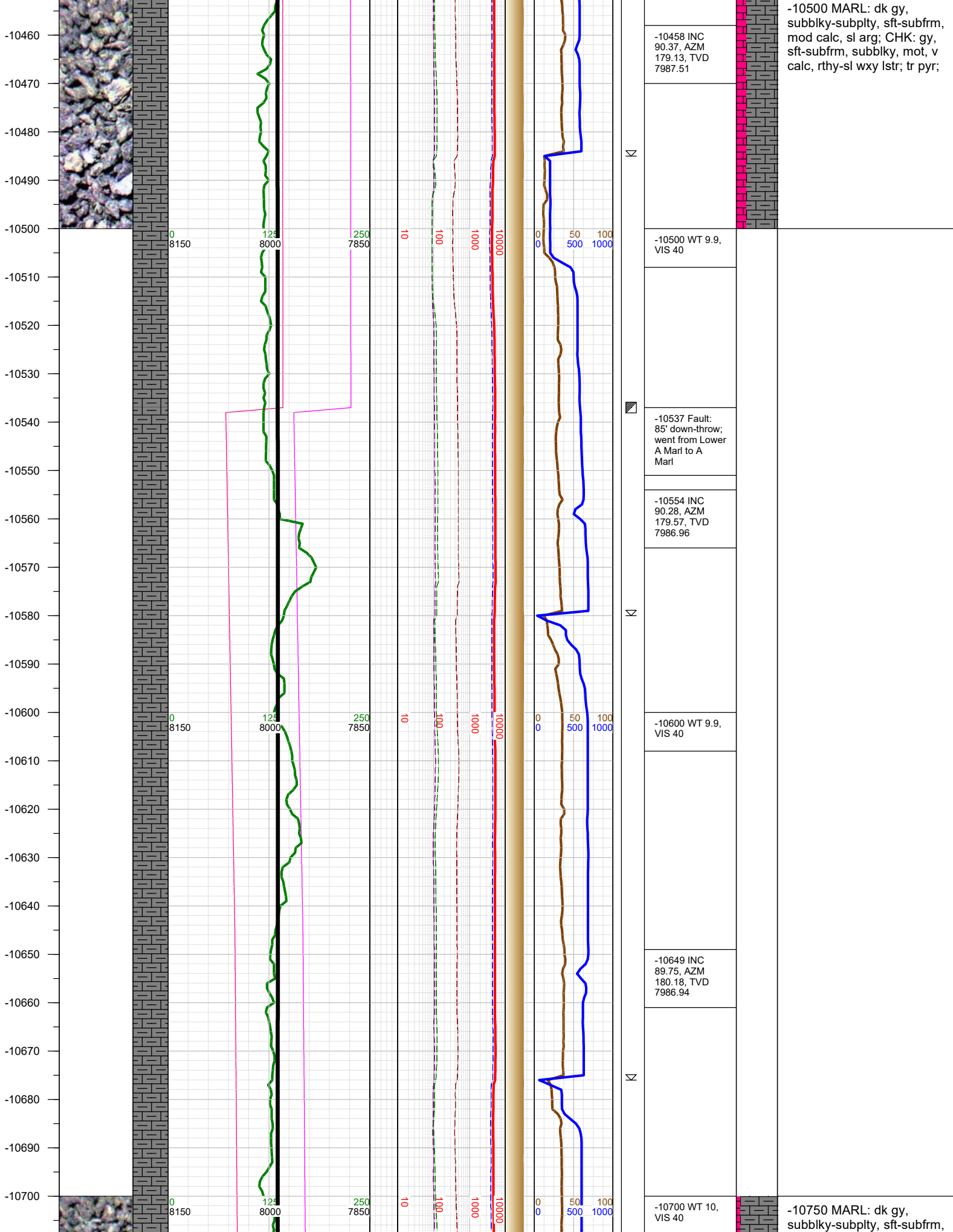


-9500 MARL: dk gy,
subblky-subplty, sft-subfrm,
mod calc, sl arg; CHK: gy,
sft-subfrm, subblky, mot, v
calc, rthy-sl wxy lstr; tr pyr;









-10458 INC
90.37, AZM
179.13, TVD
7987.51

-10500 WT 9.9,
VIS 40

-10537 Fault:
85' down-throw;
went from Lower
A Marl to A
Marl

-10554 INC
90.28, AZM
179.57, TVD
7986.96

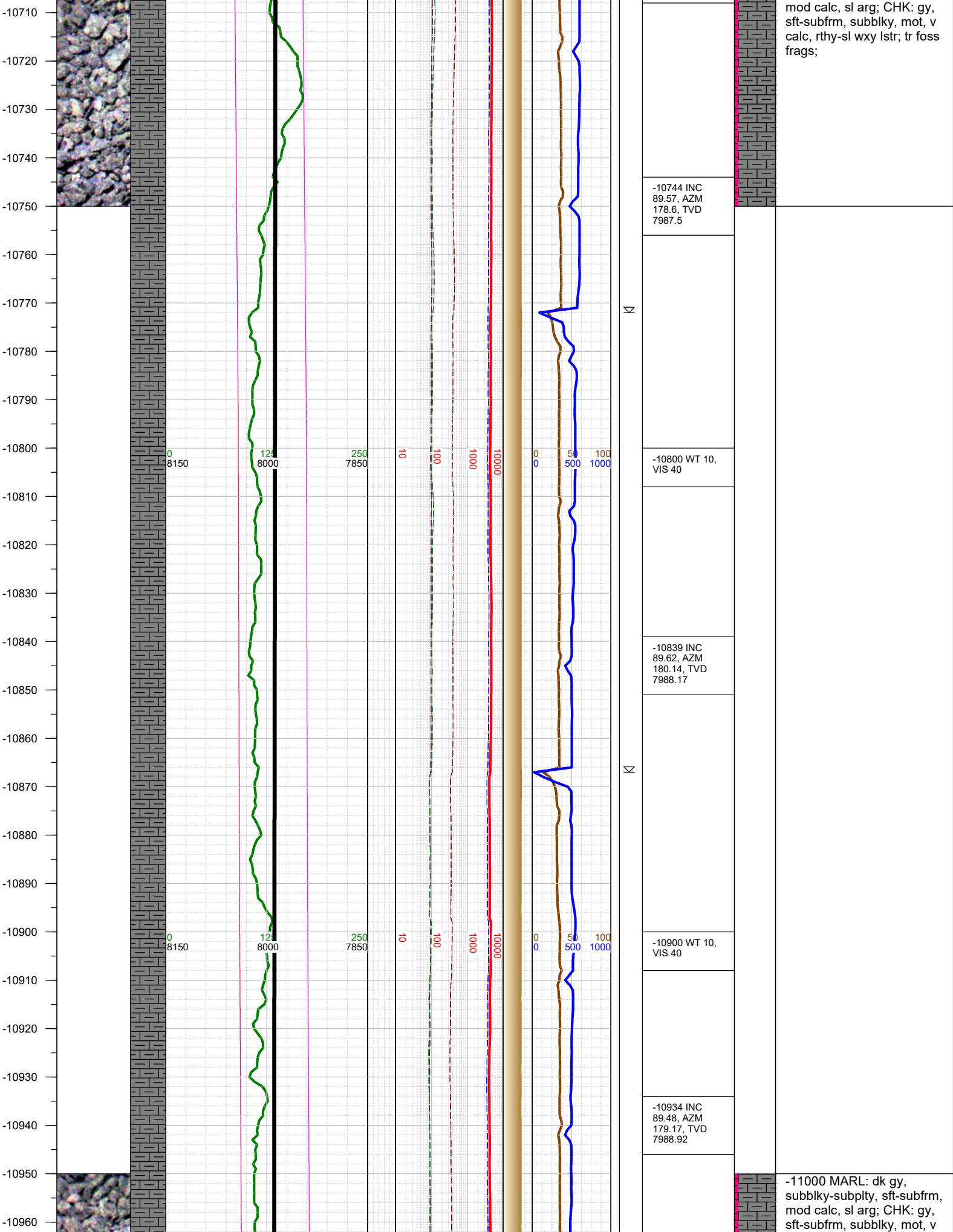
-10600 WT 9.9,
VIS 40

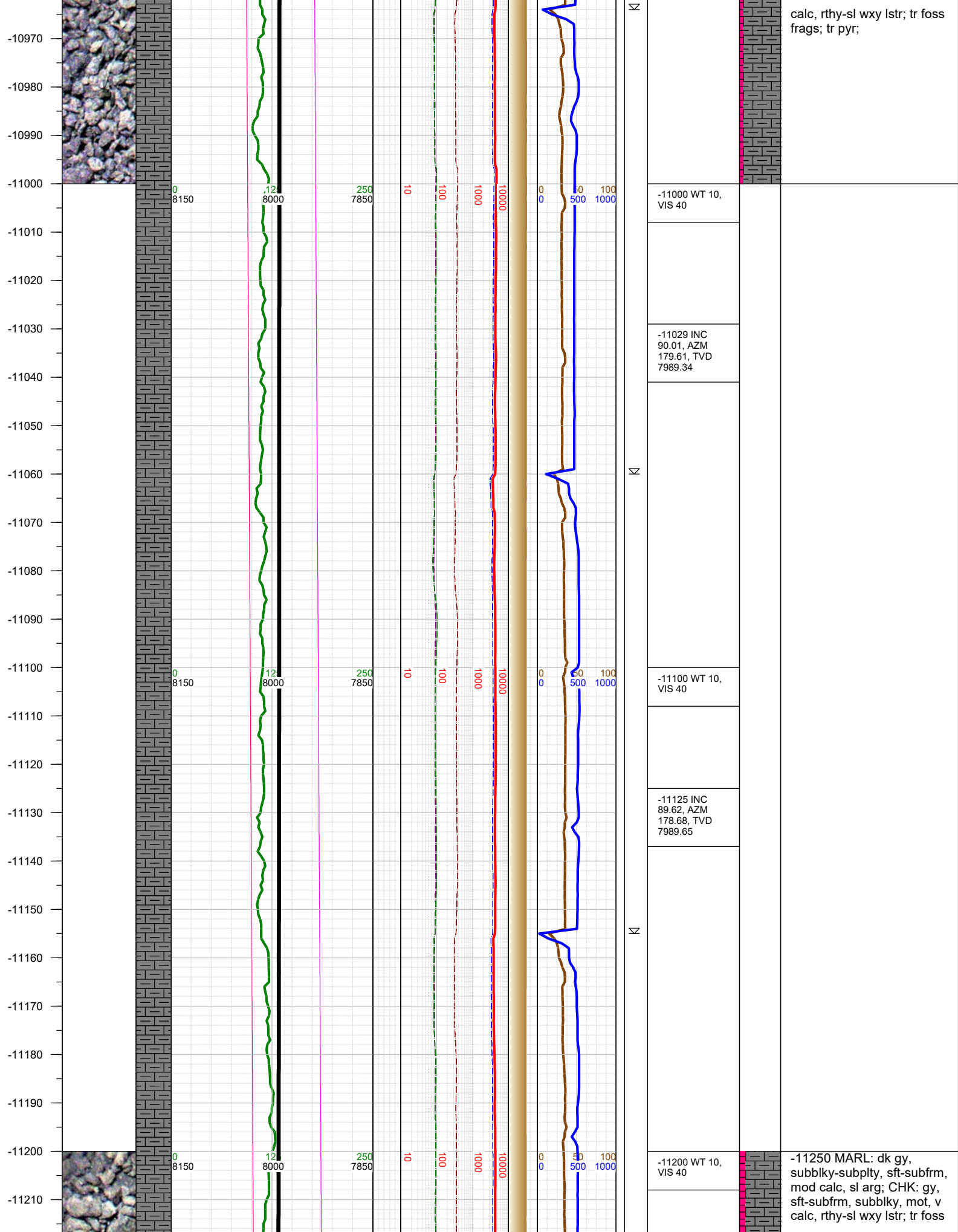
-10649 INC
89.75, AZM
180.18, TVD
7986.94

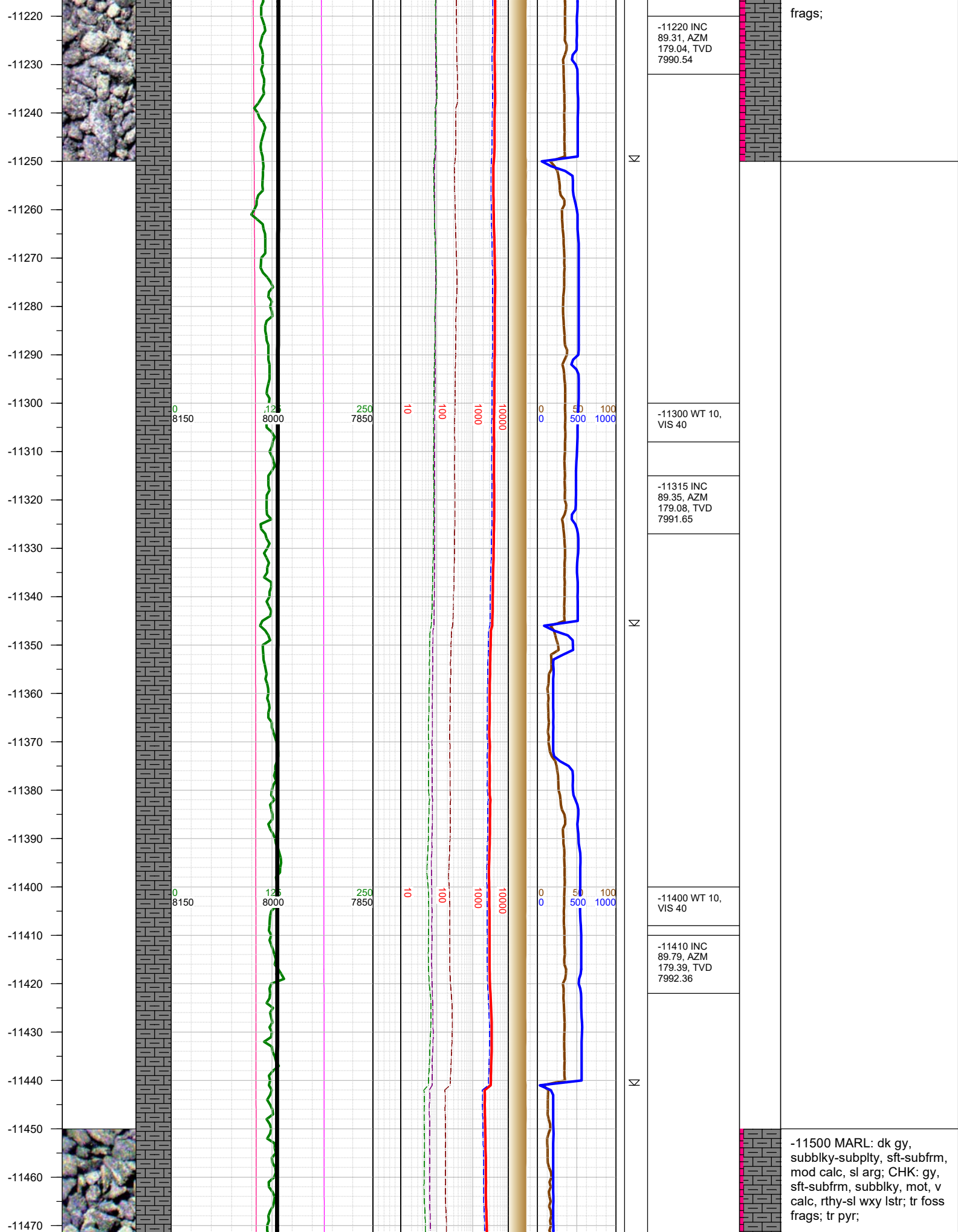
-10700 WT 10,
VIS 40

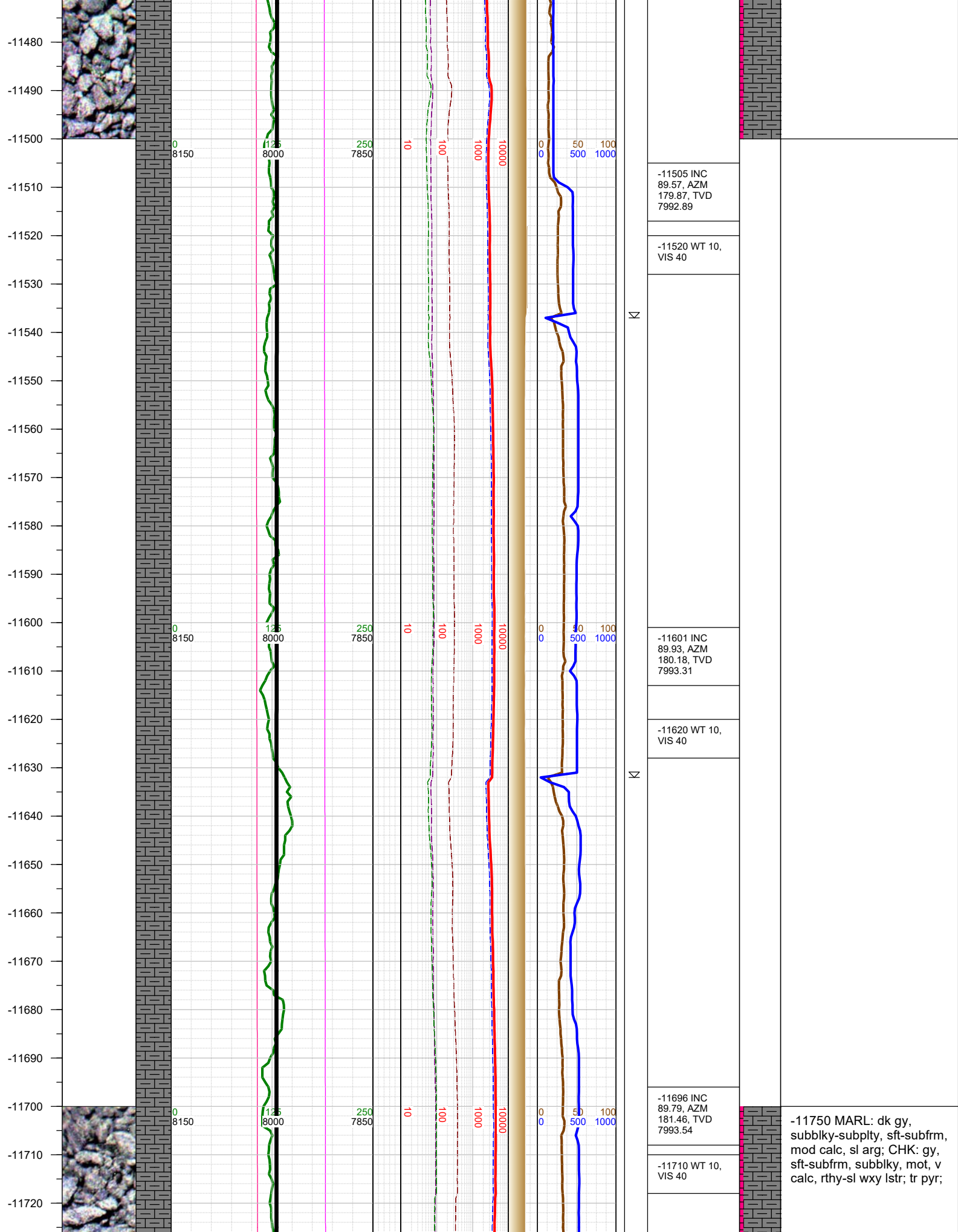
-10500 MARL: dk gy,
subblky-subply, sft-subfrm,
mod calc, sl arg; CHK: gy,
sft-subfrm, subblky, mot, v
calc, rthy-sl wxy lstr; tr pyr;

-10750 MARL: dk gy,
subblky-subply, sft-subfrm,

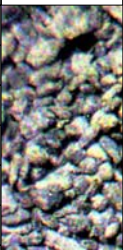








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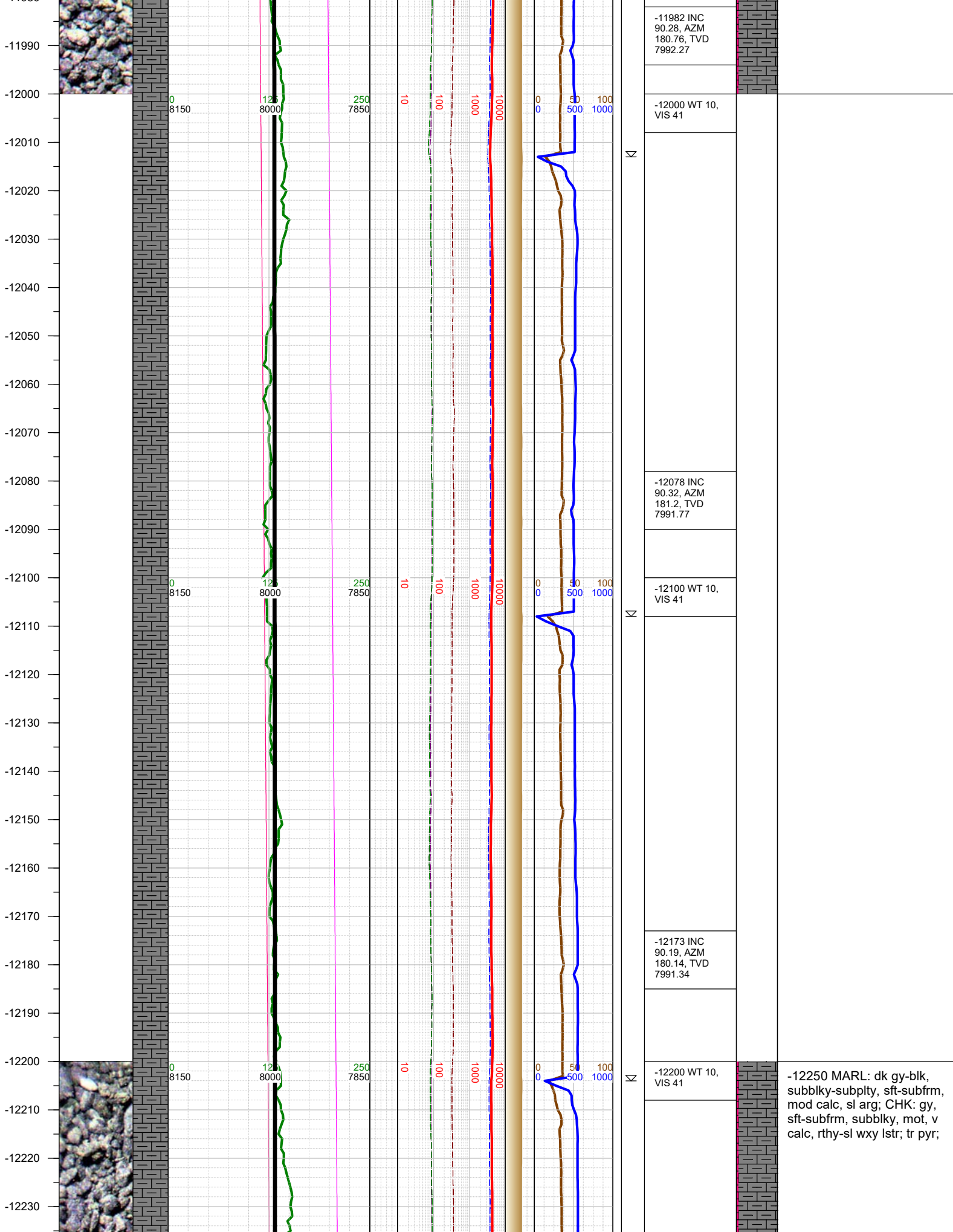
-11791 INC
90.41, AZM
180.98, TVD
7993.38

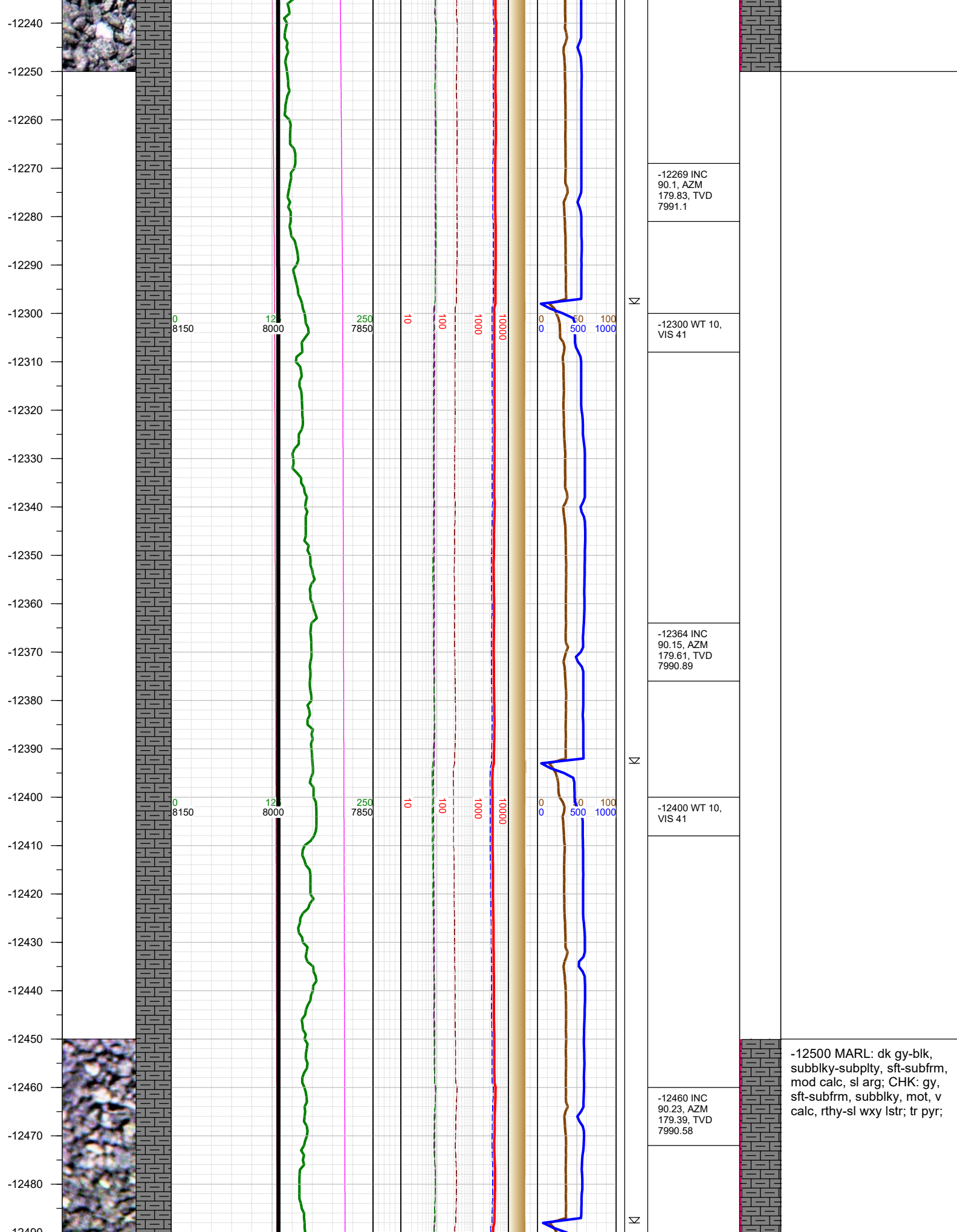
-11810 WT 10,
VIS 40

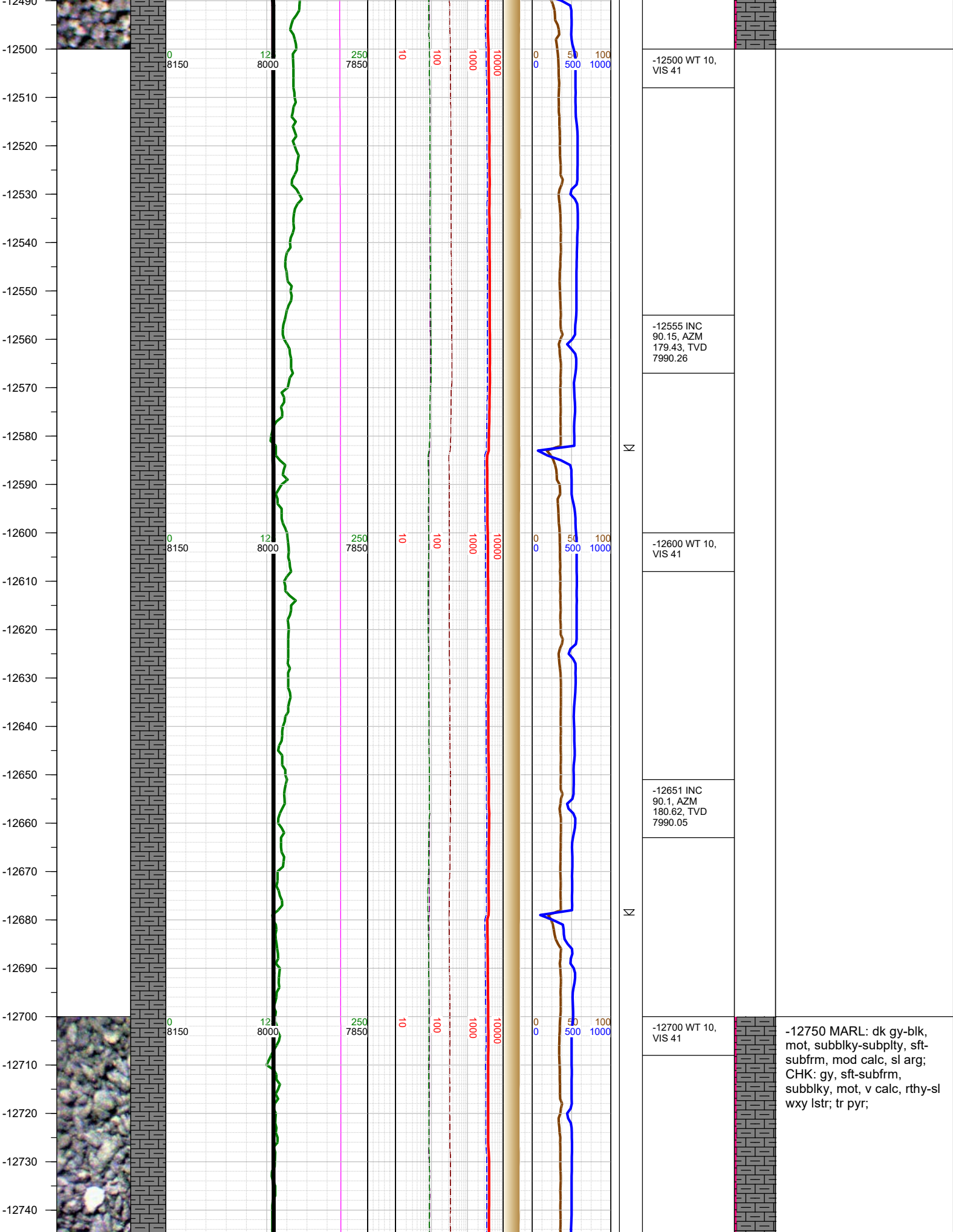
-11887 INC
90.32, AZM
181.59, TVD
7992.77

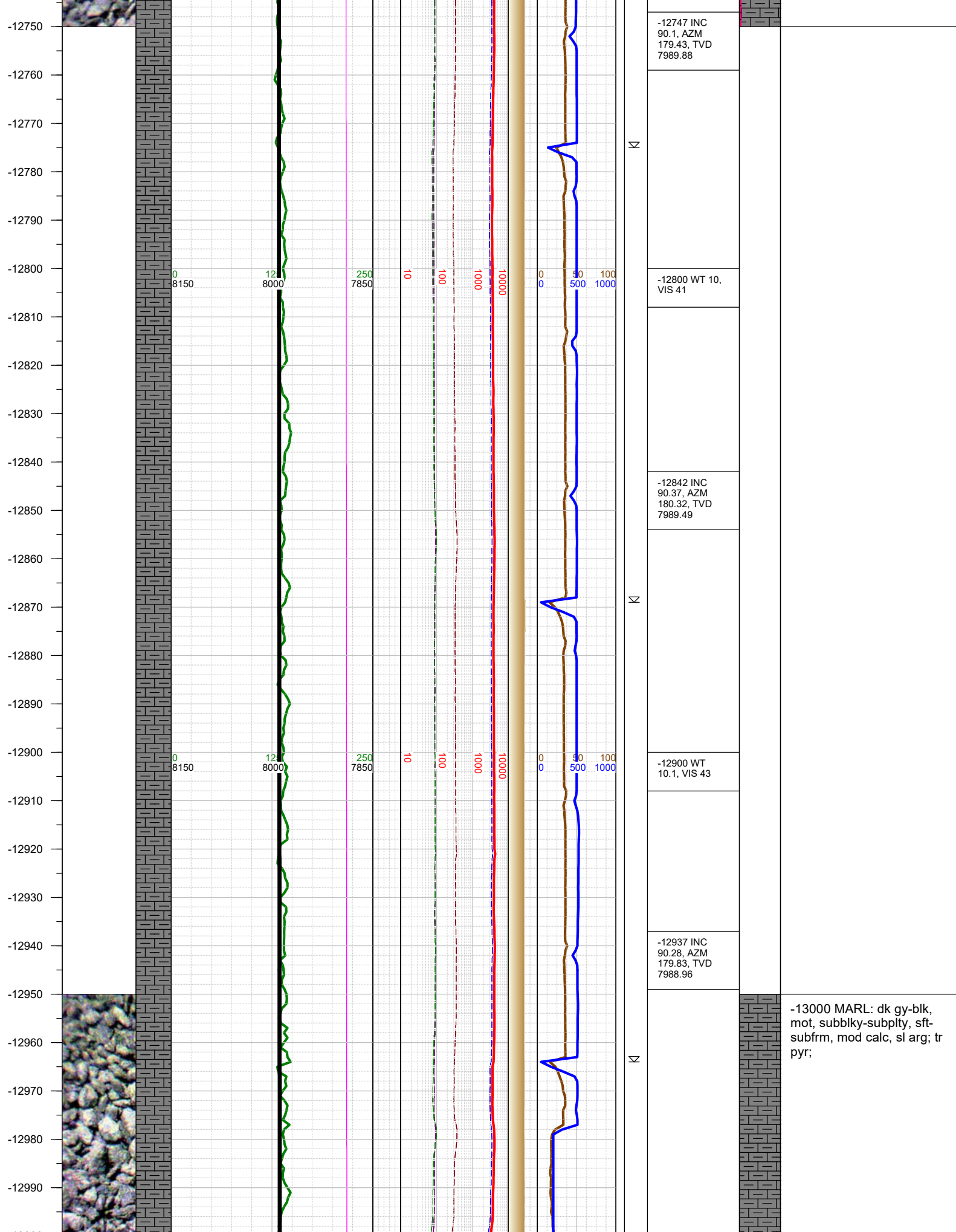
-11900 WT 10,
VIS 40

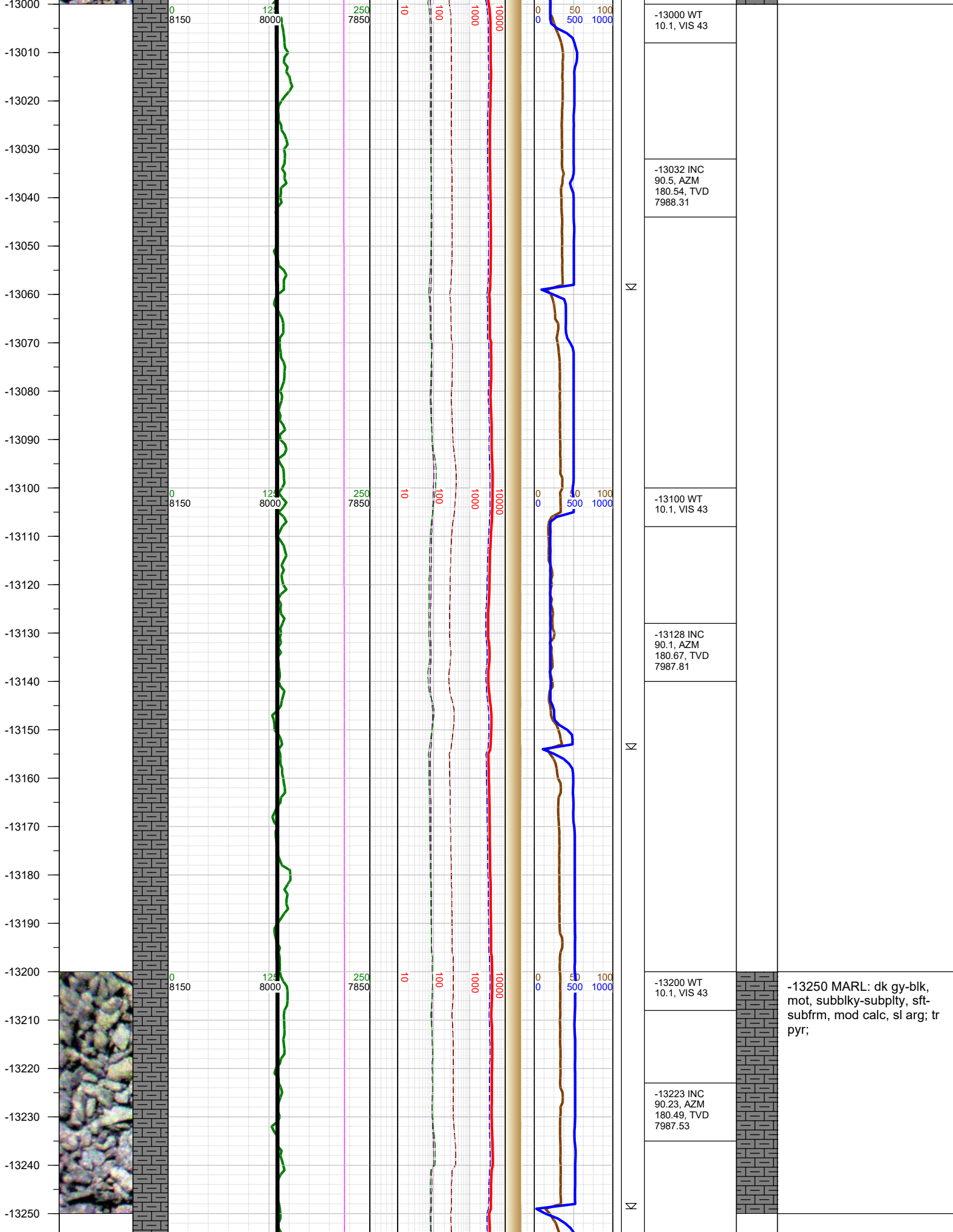
-12000 MARL: dk gy-blk,
subblky-subplty, sft-subfrm,
mod calc, sl arg; CHK: gy,
sft-subfrm, subblky, mot, v
calc, rthy-sl wxy lstr; tr pyr;



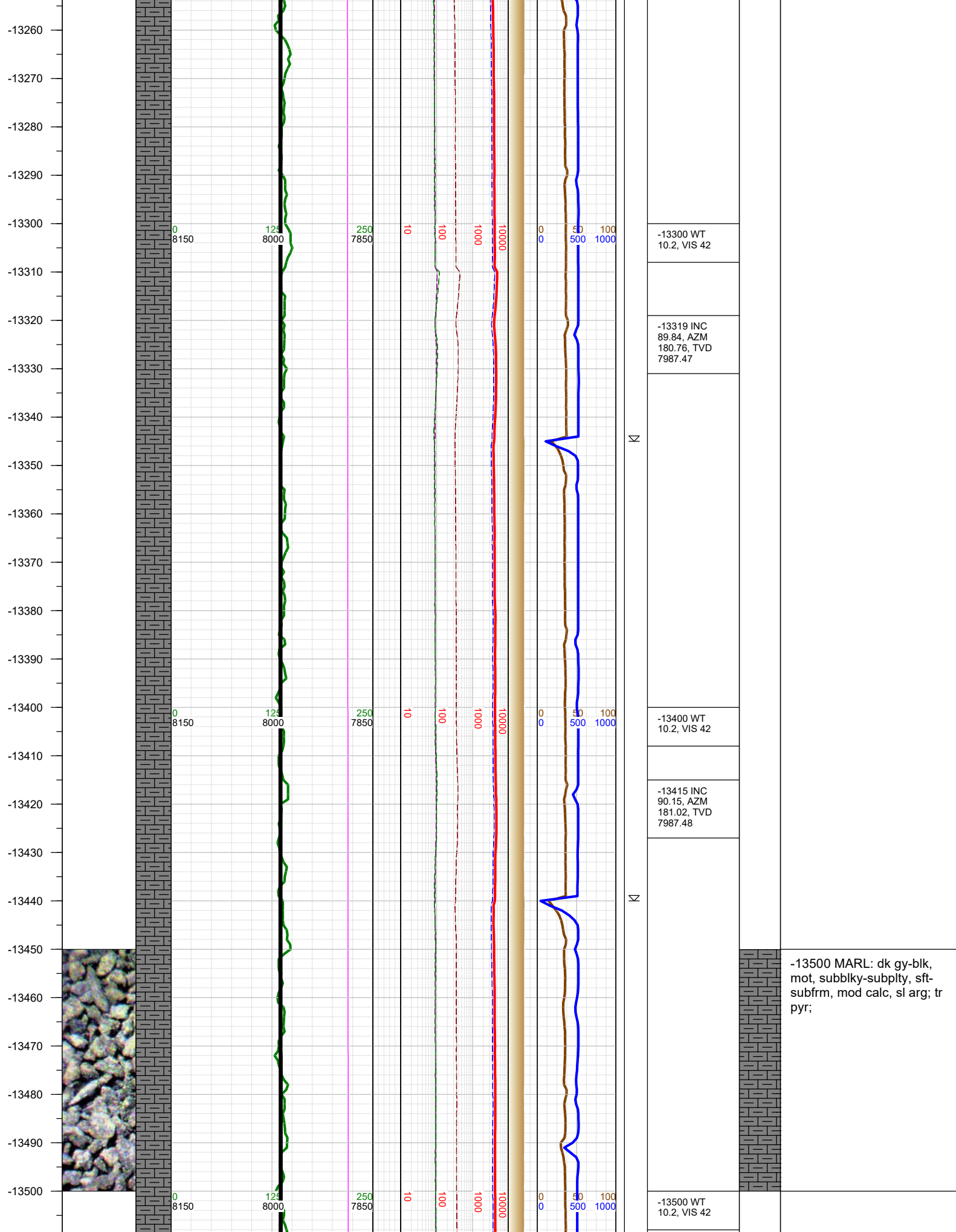


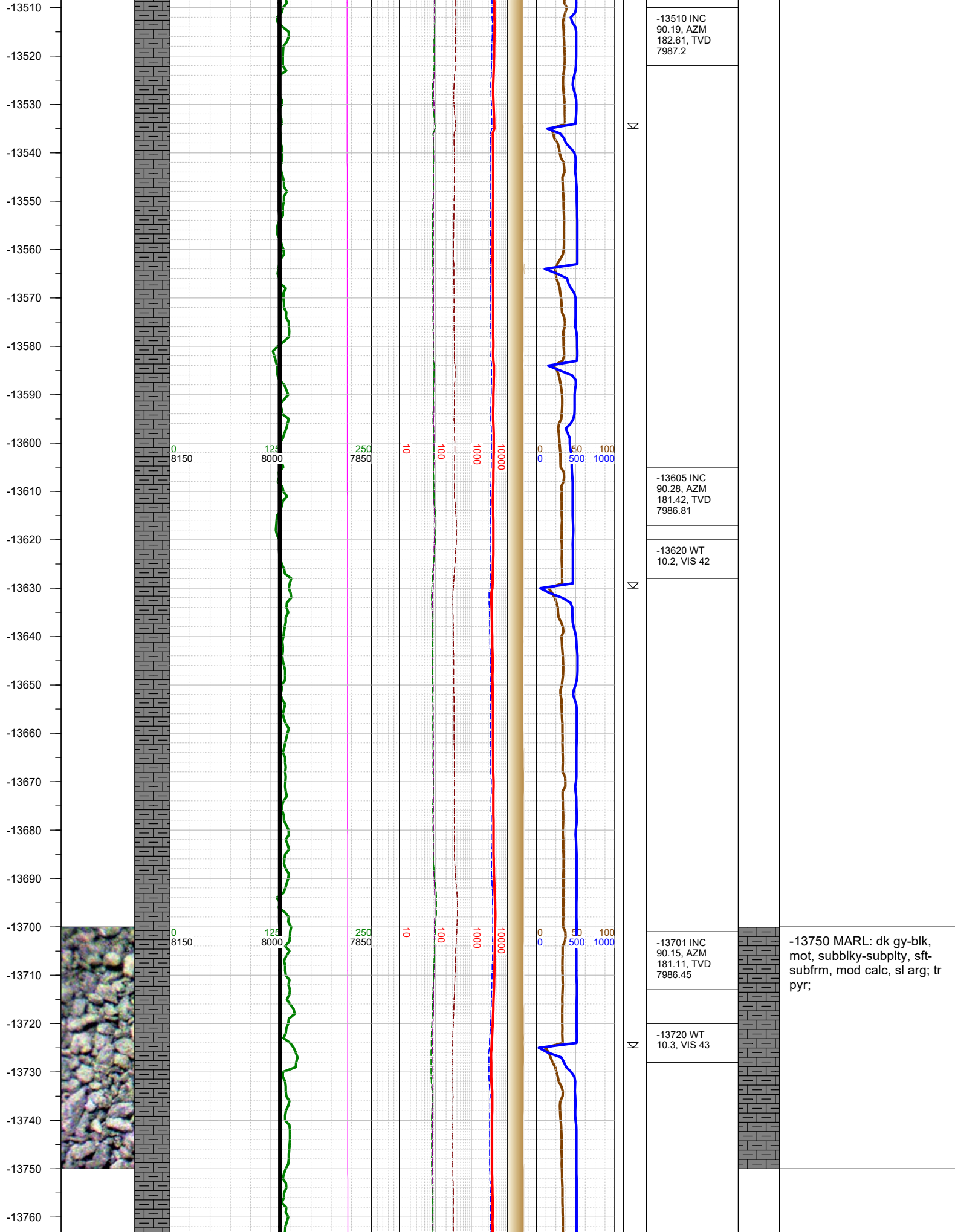




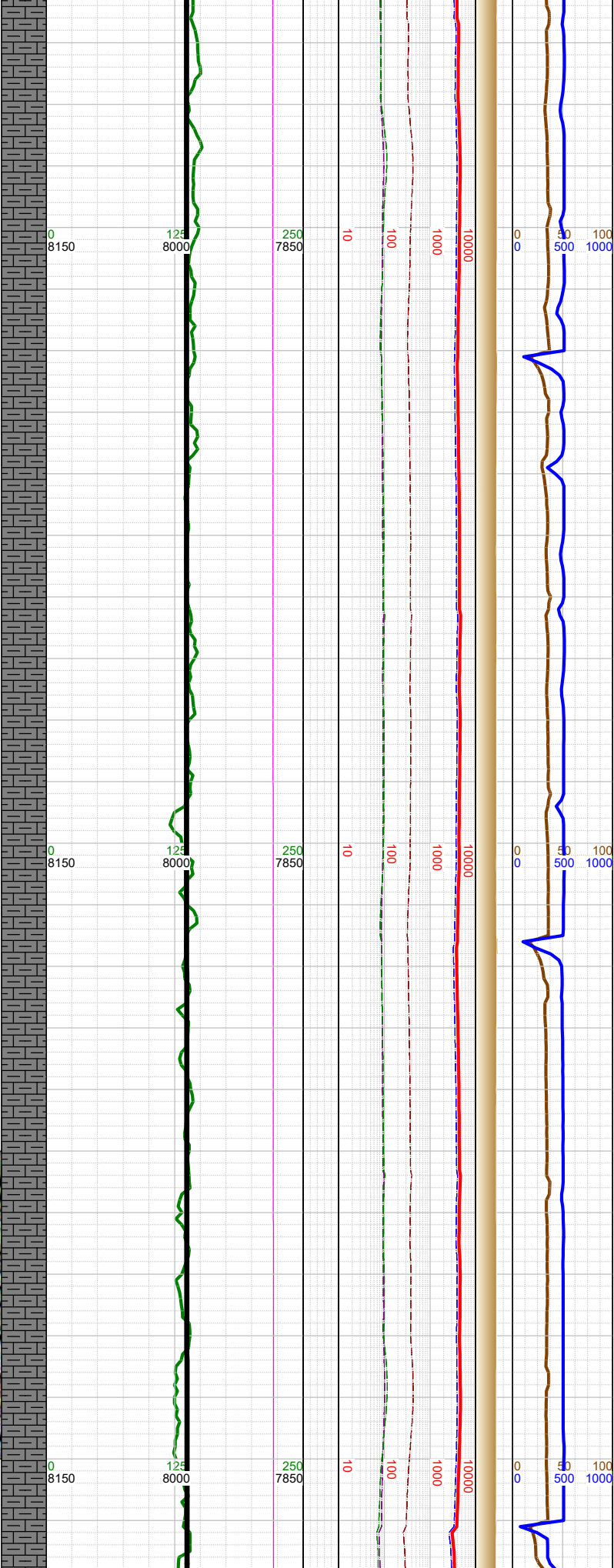
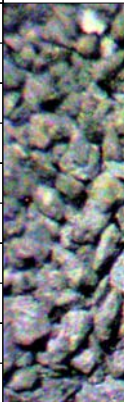


-13250 MARL: dk gy-blk, mot, subblky-subply, sft-subfrm, mod calc, sl arg; tr pyr;



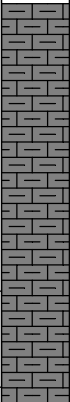


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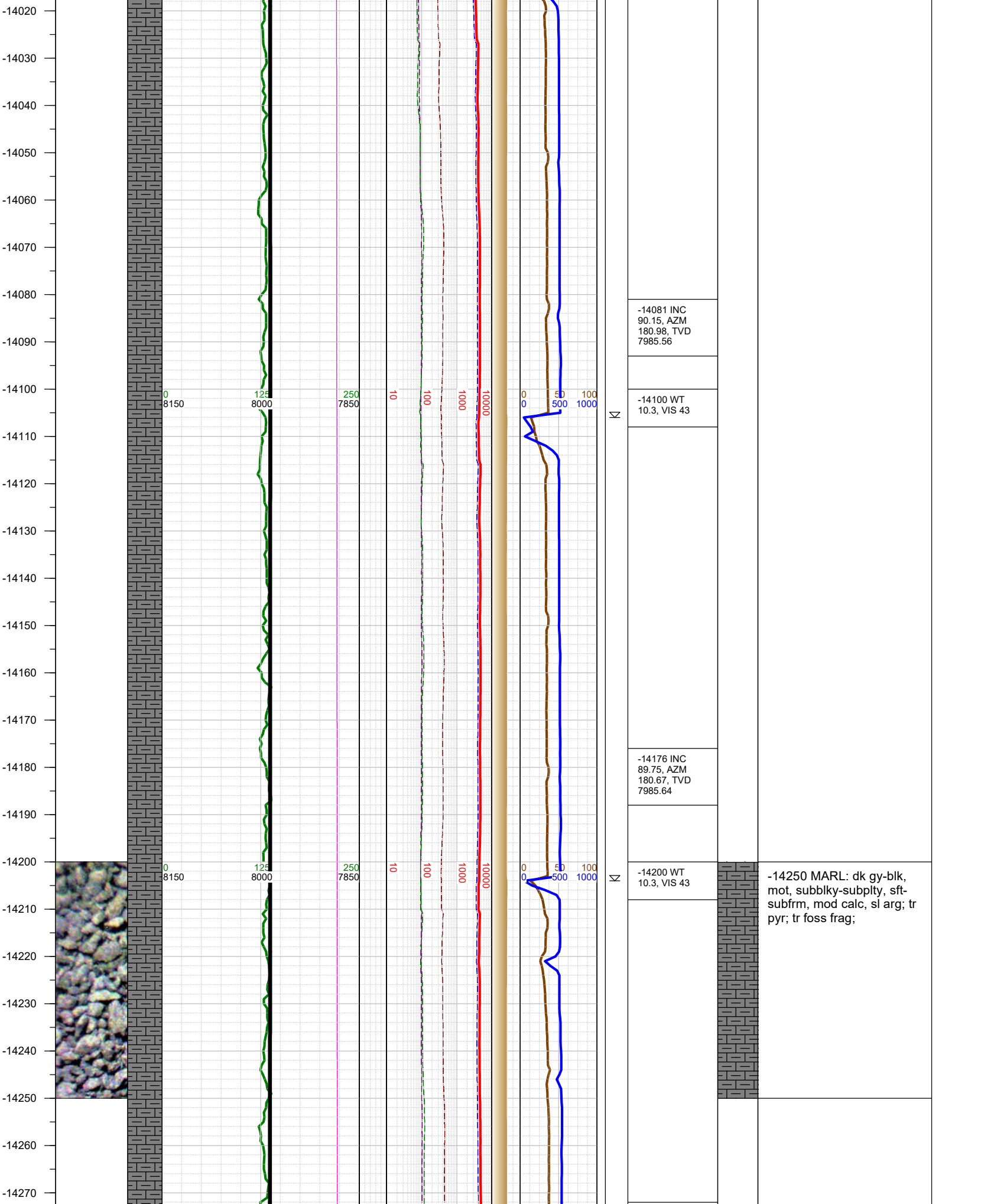


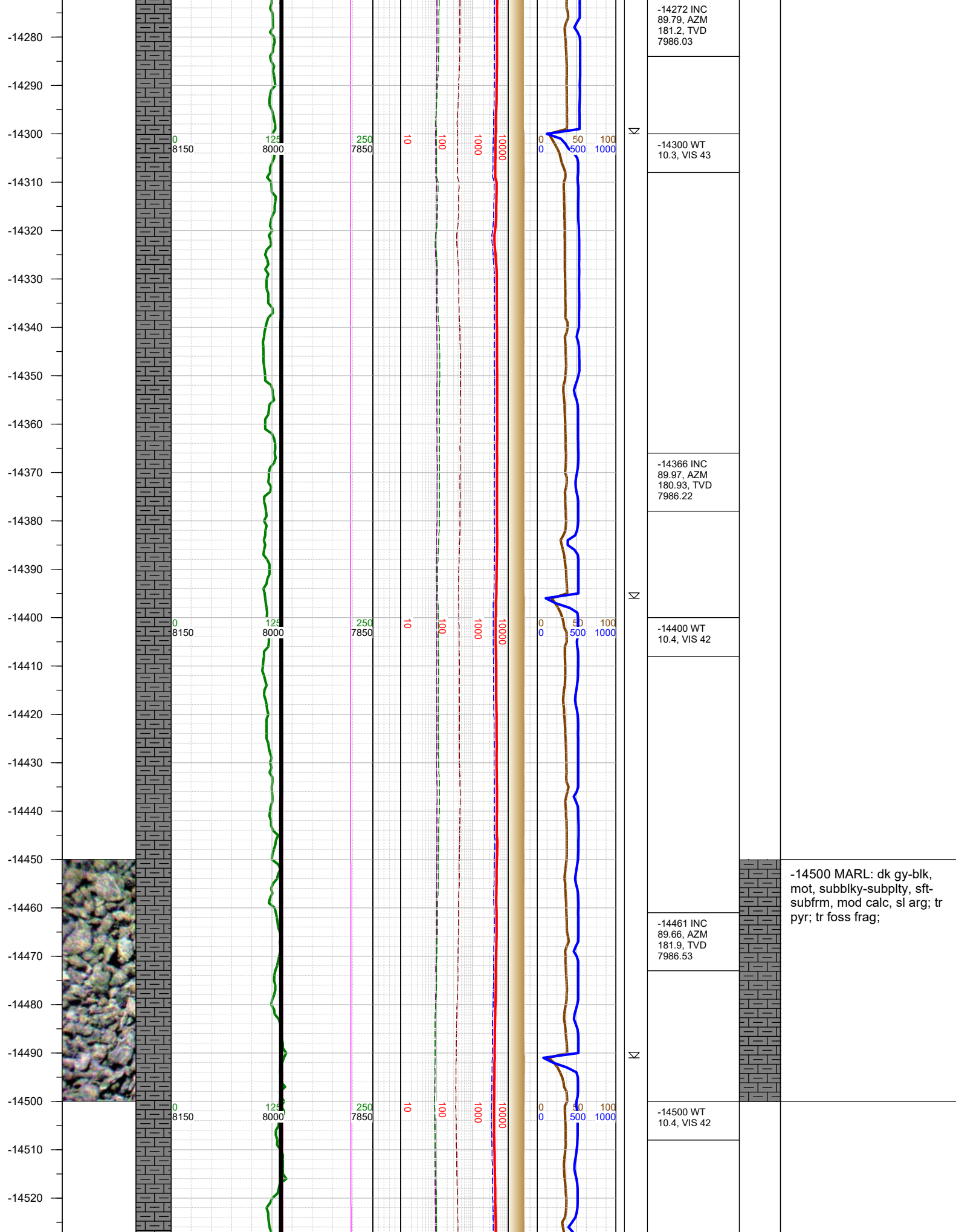
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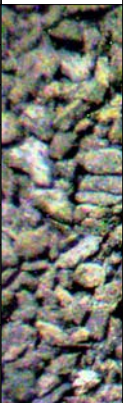
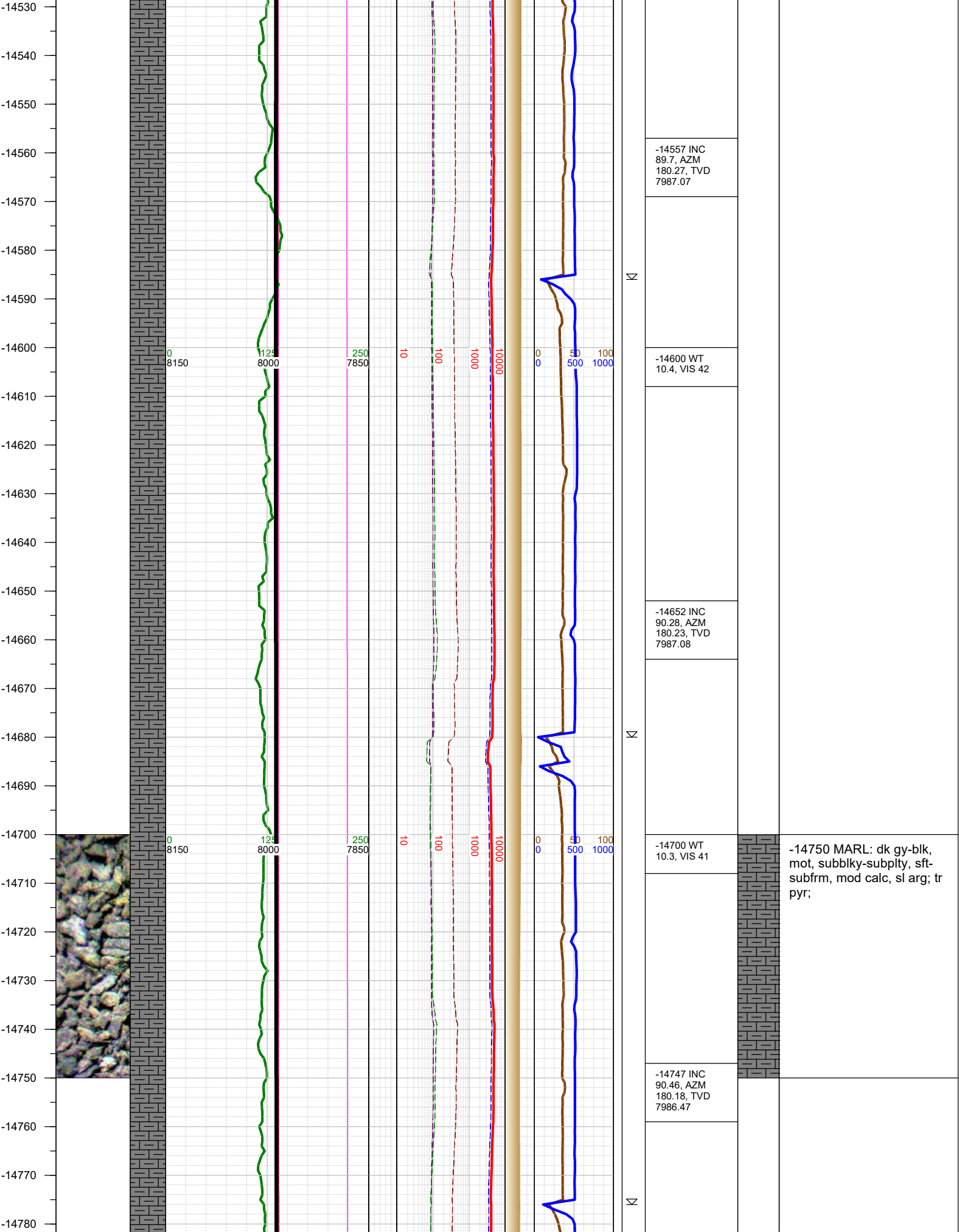
	-13796 INC 89.88, AZM 180.93, TVD 7986.43
	-13810 WT 10.3, VIS 43
	-13892 INC 90.28, AZM 181.2, TVD 7986.29
	-13910 WT 10.3, VIS 43
	-13986 INC 90.23, AZM 181.02, TVD 7985.87
	-14000 WT 10.3, VIS 43



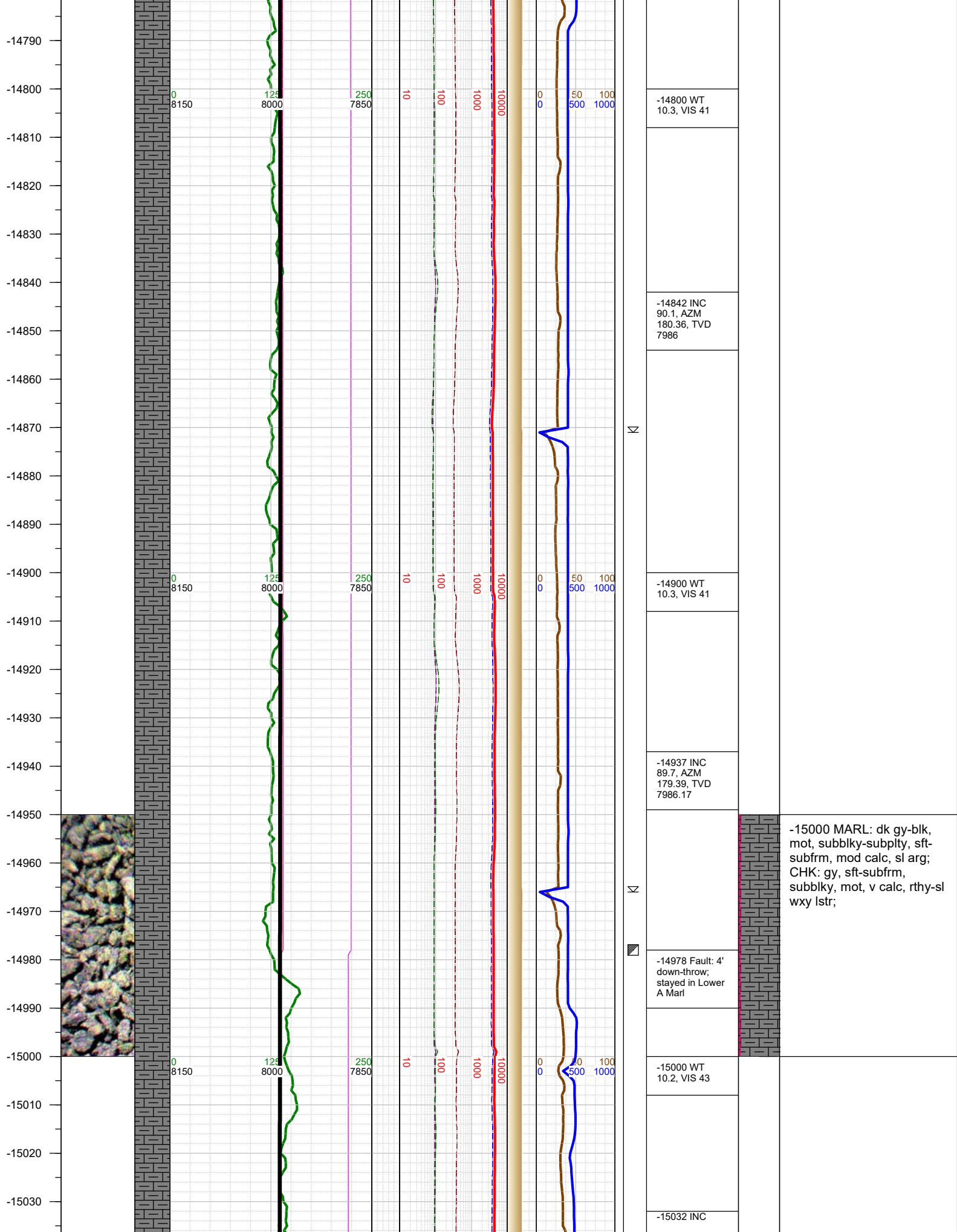
-14000 MARL: dk gy-blk,
mot, subblky-subply, sft-
subfrm, mod calc, sl arg; tr
pyr; tr foss frag;

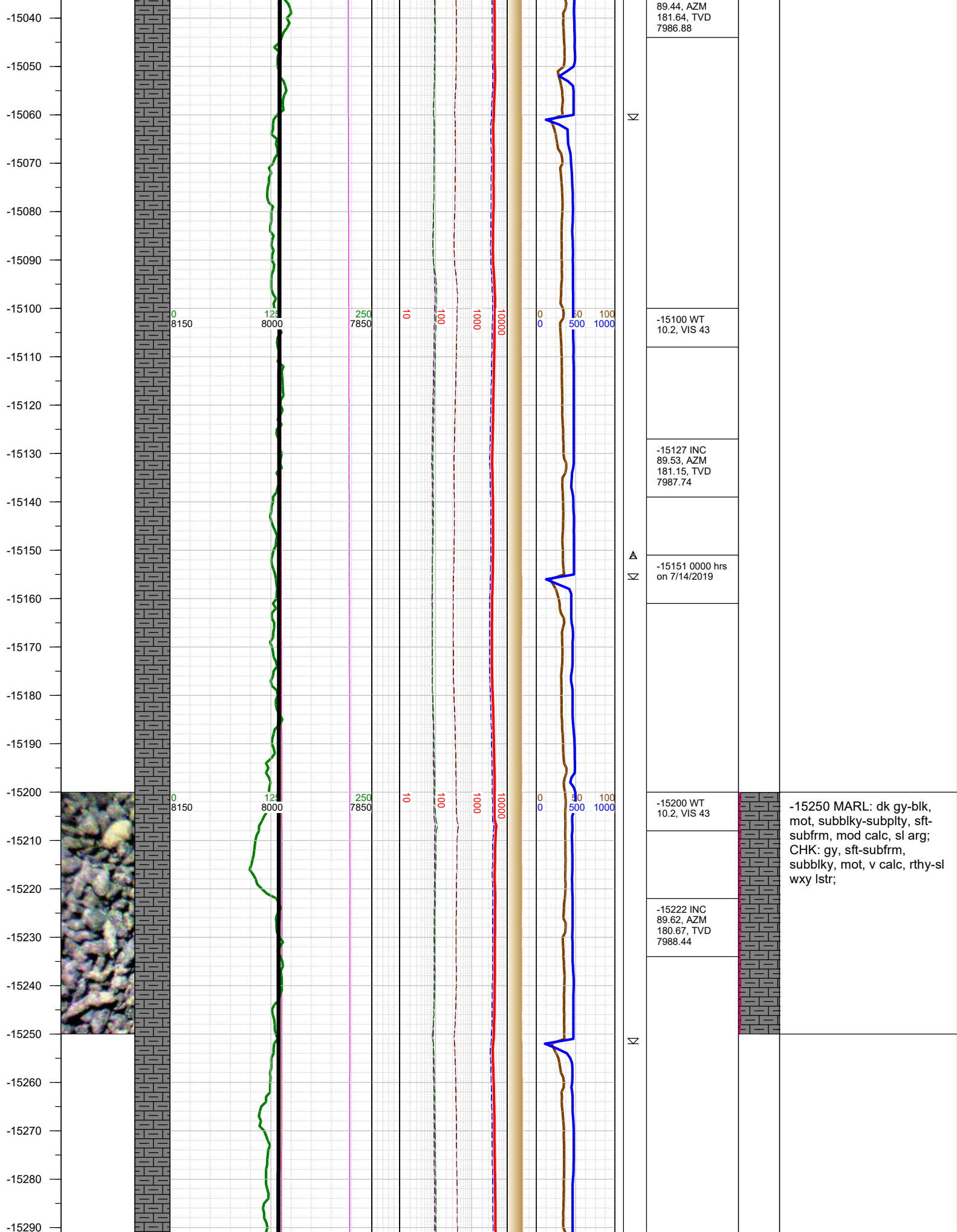


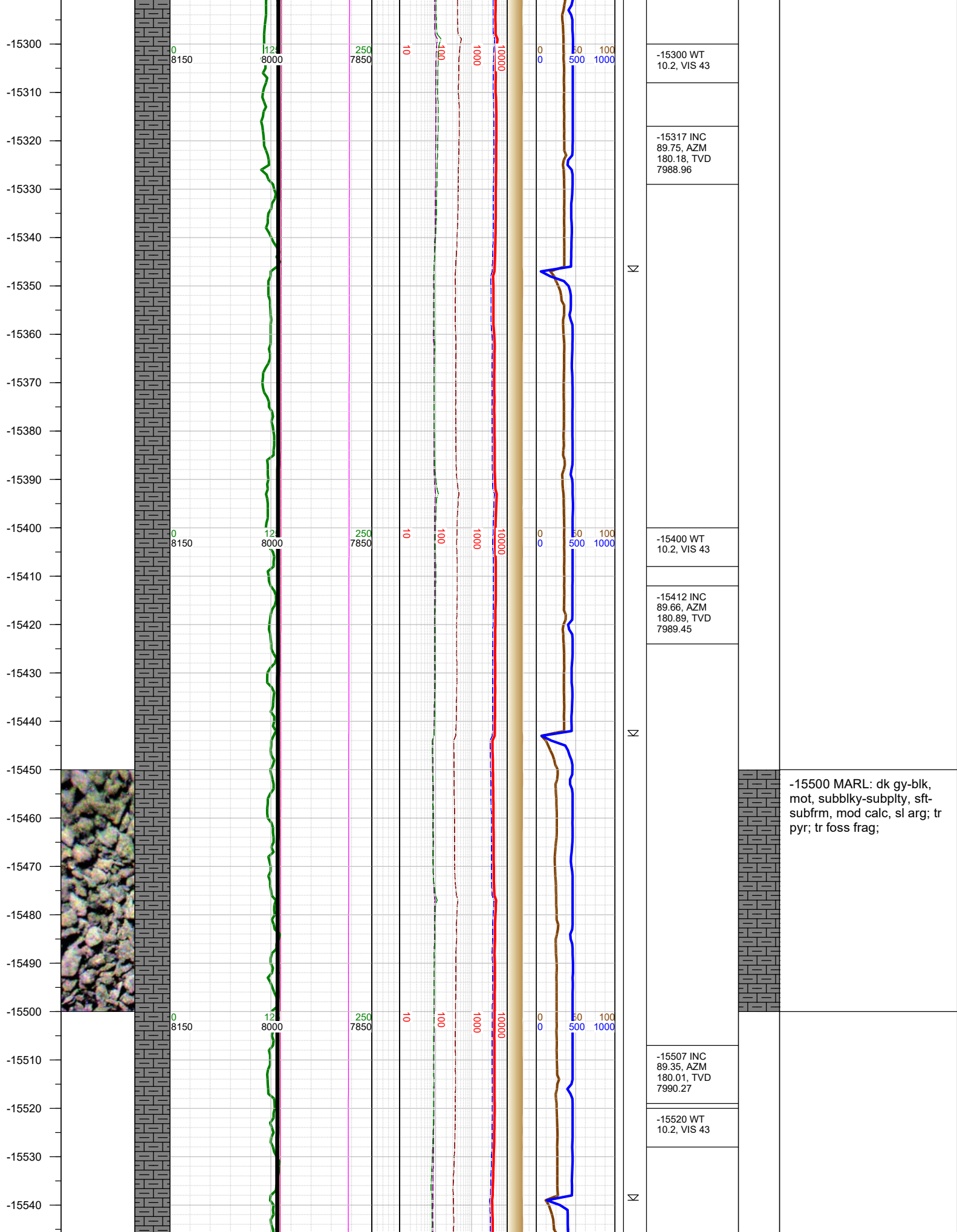




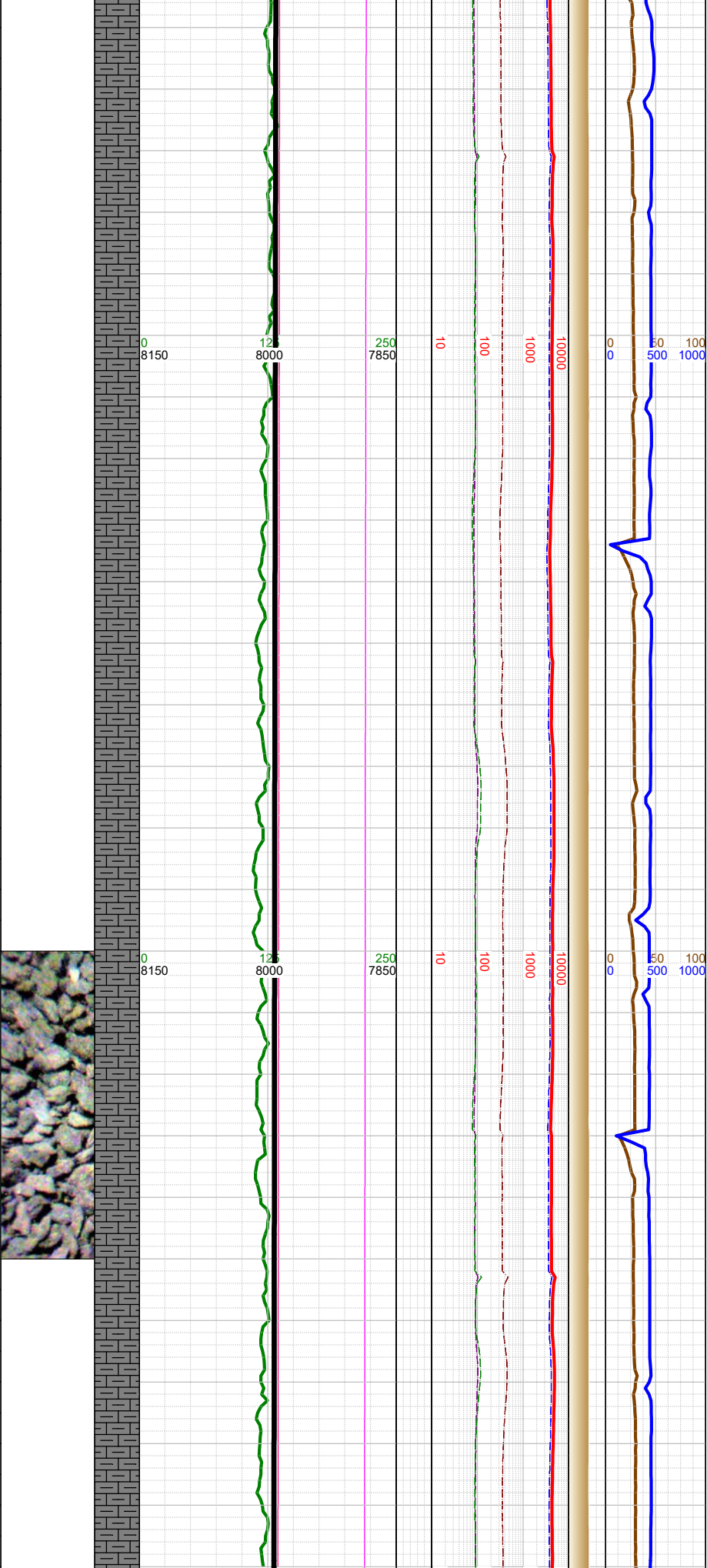
-14750 MARL: dk gy-blk, mot, subblky-subply, sft-subfrm, mod calc, sl arg; tr pyr;







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-15602 INC
89.4, AZM
180.05, TVD
7991.31

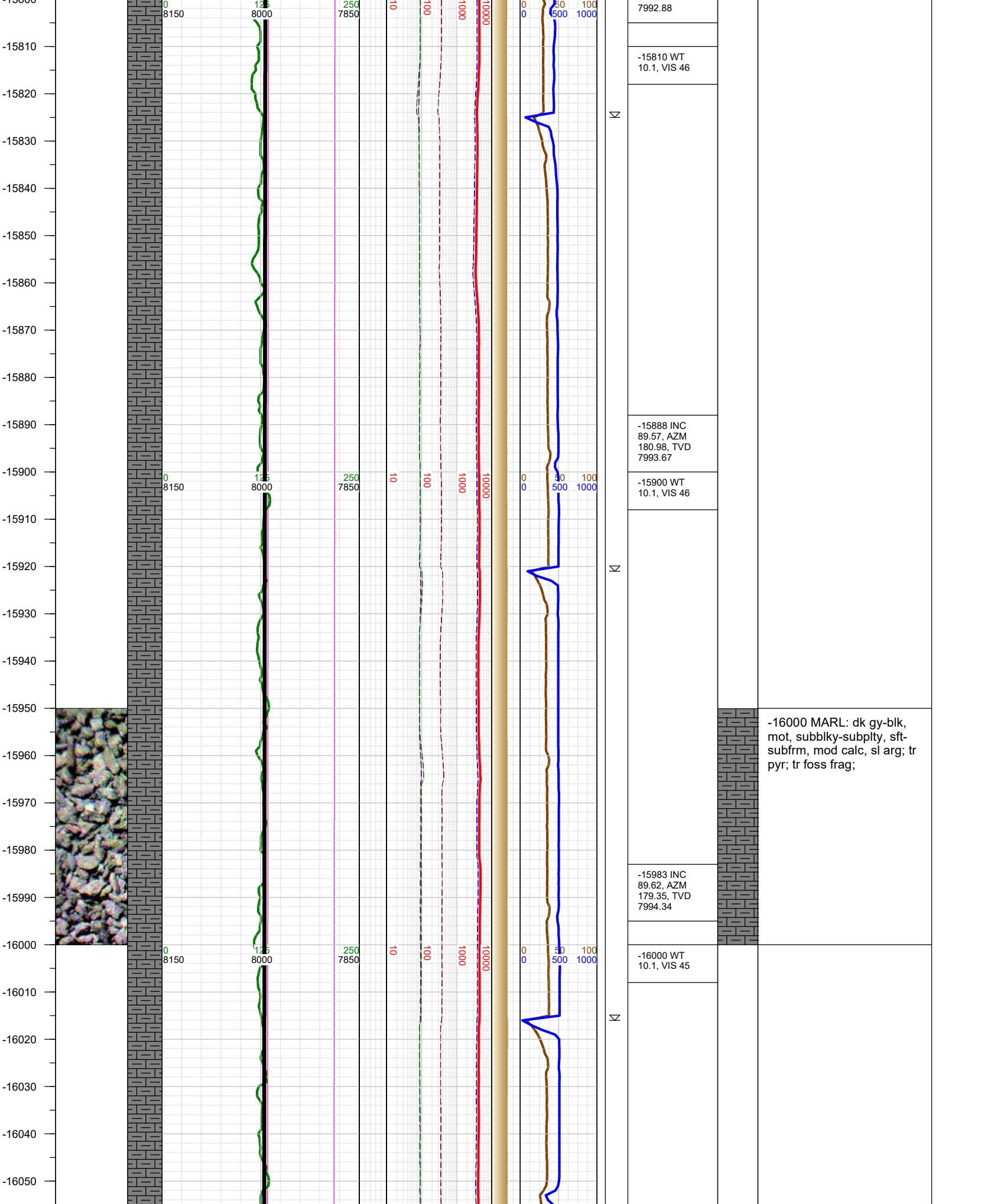
-15620 WT
10.2, VIS 43

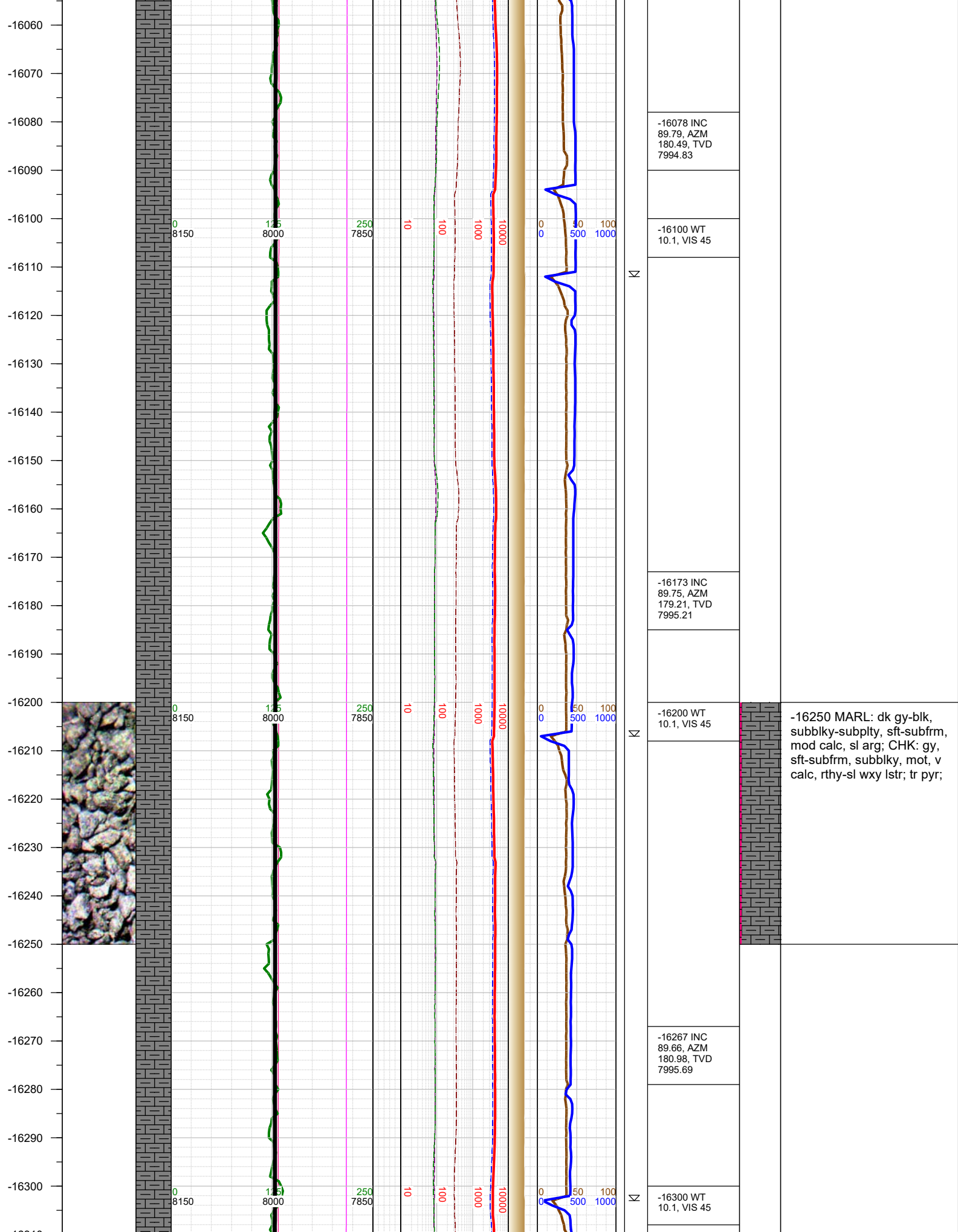
-15698 INC
89.62, AZM
180.62, TVD
7992.13

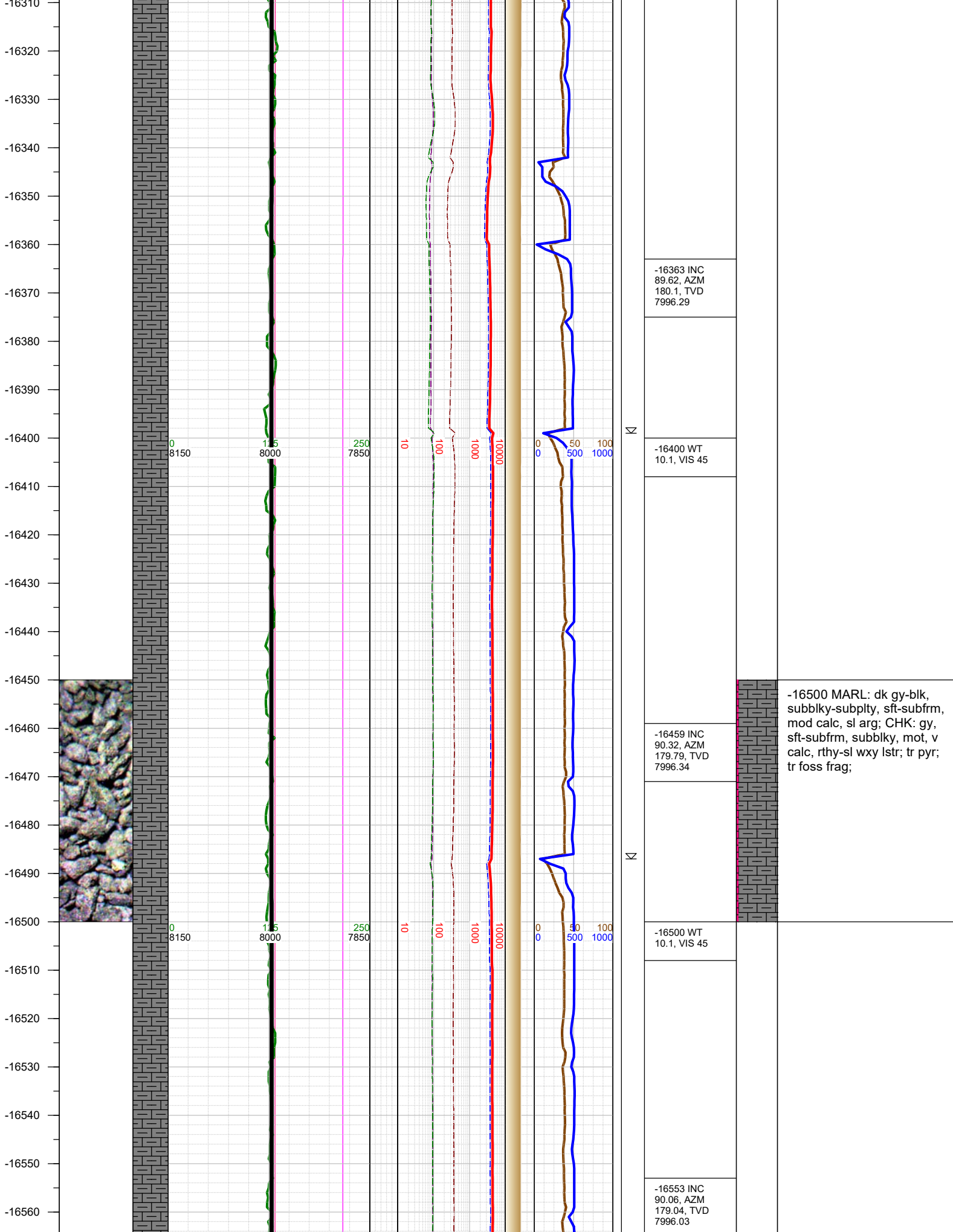
-15710 WT
10.1, VIS 46

-15793 INC
89.48, AZM
180.23, TVD

-15750 MARL: dk gy-blk,
mot, subblky-subplty, sft-
subfrm, mod calc, sl arg; tr
pyr; tr foss frag;

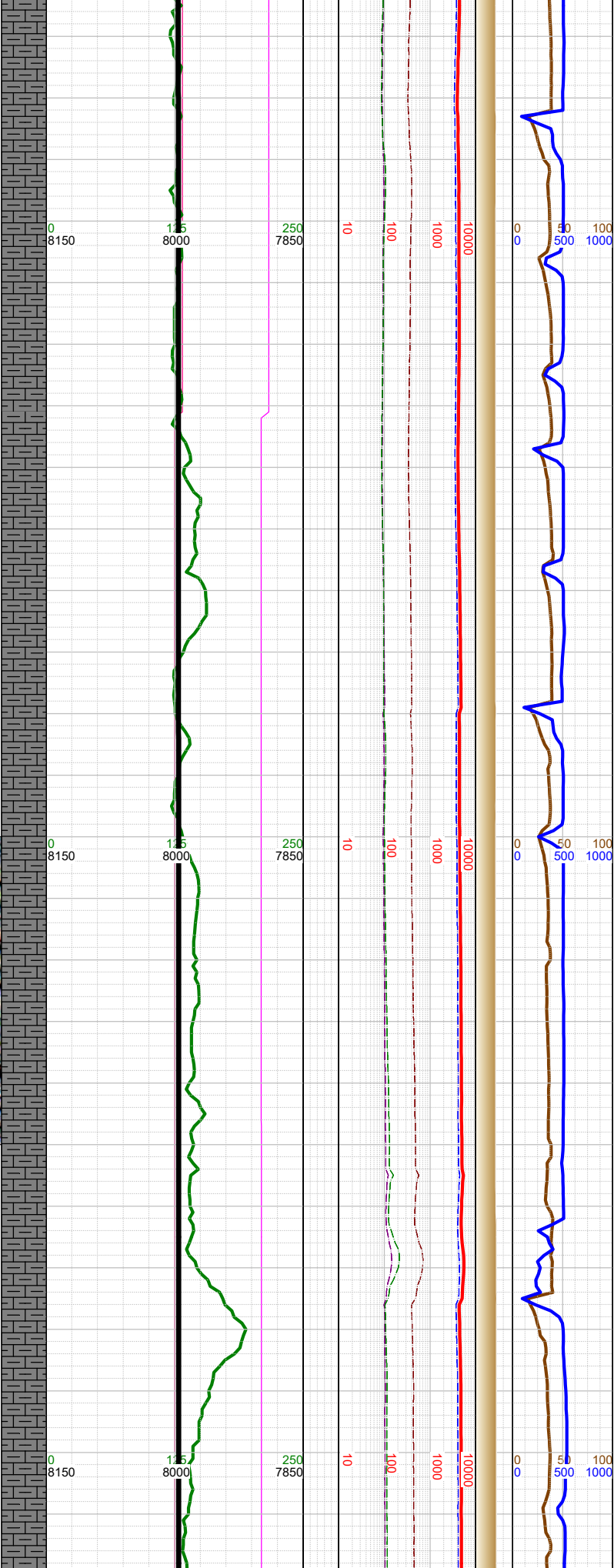
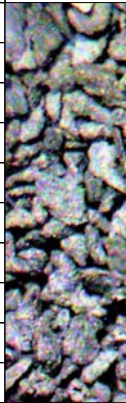




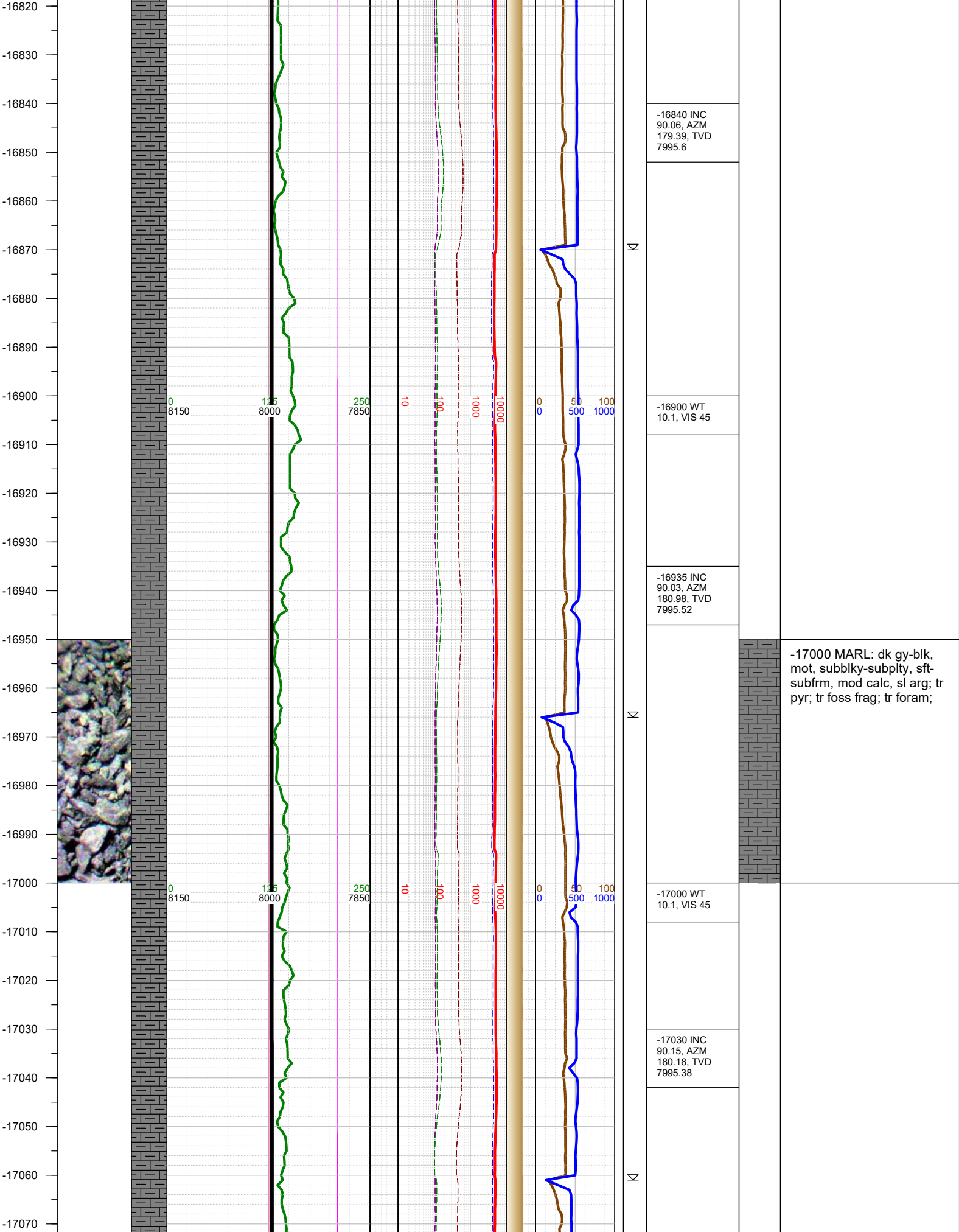


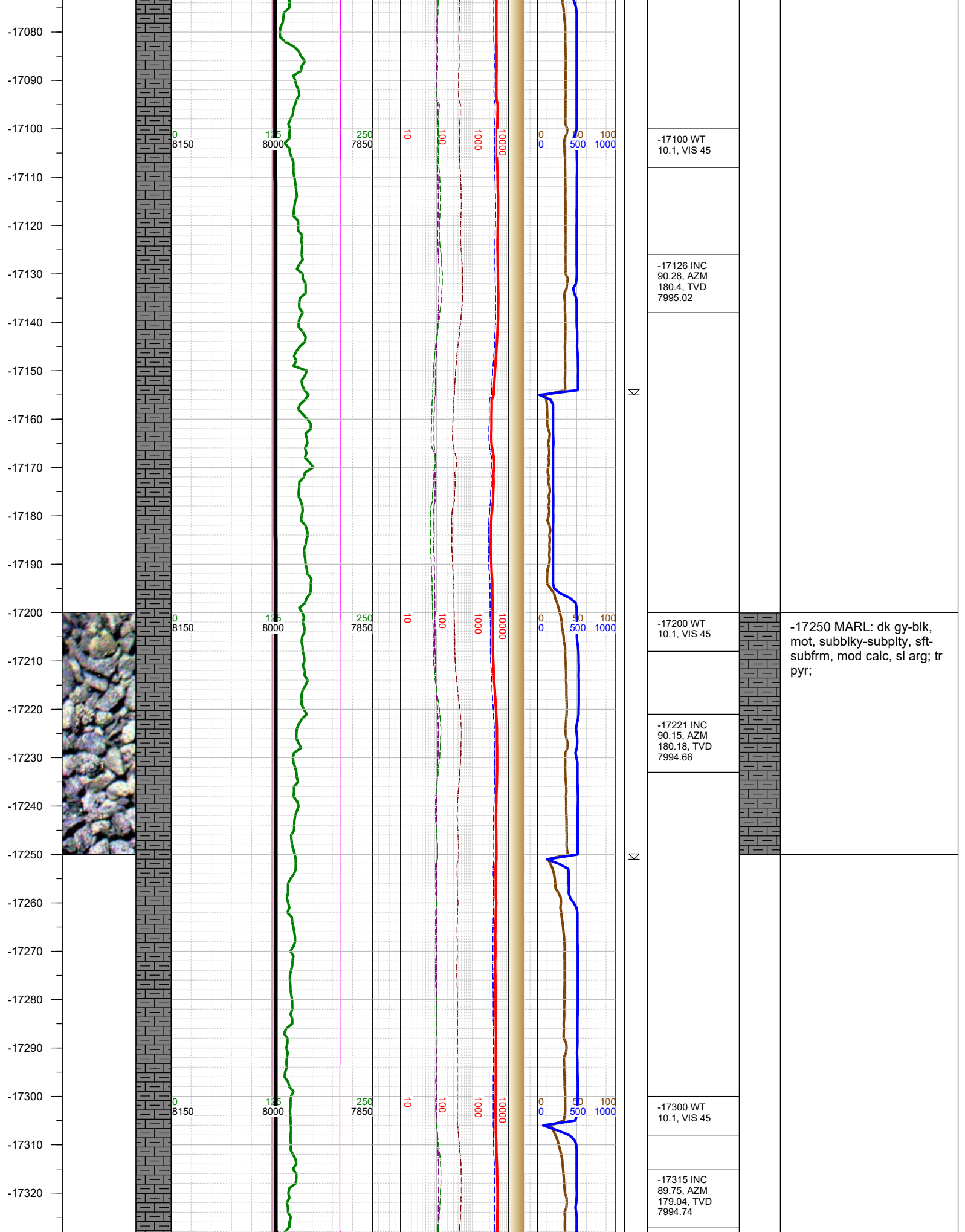
-16500 MARL: dk gy-blk, subblky-subplty, sft-subfrm, mod calc, sl arg; CHK: gy, sft-subfrm, subblky, mot, v calc, rthy-sl wxy lstr; tr pyr; tr foss frag;

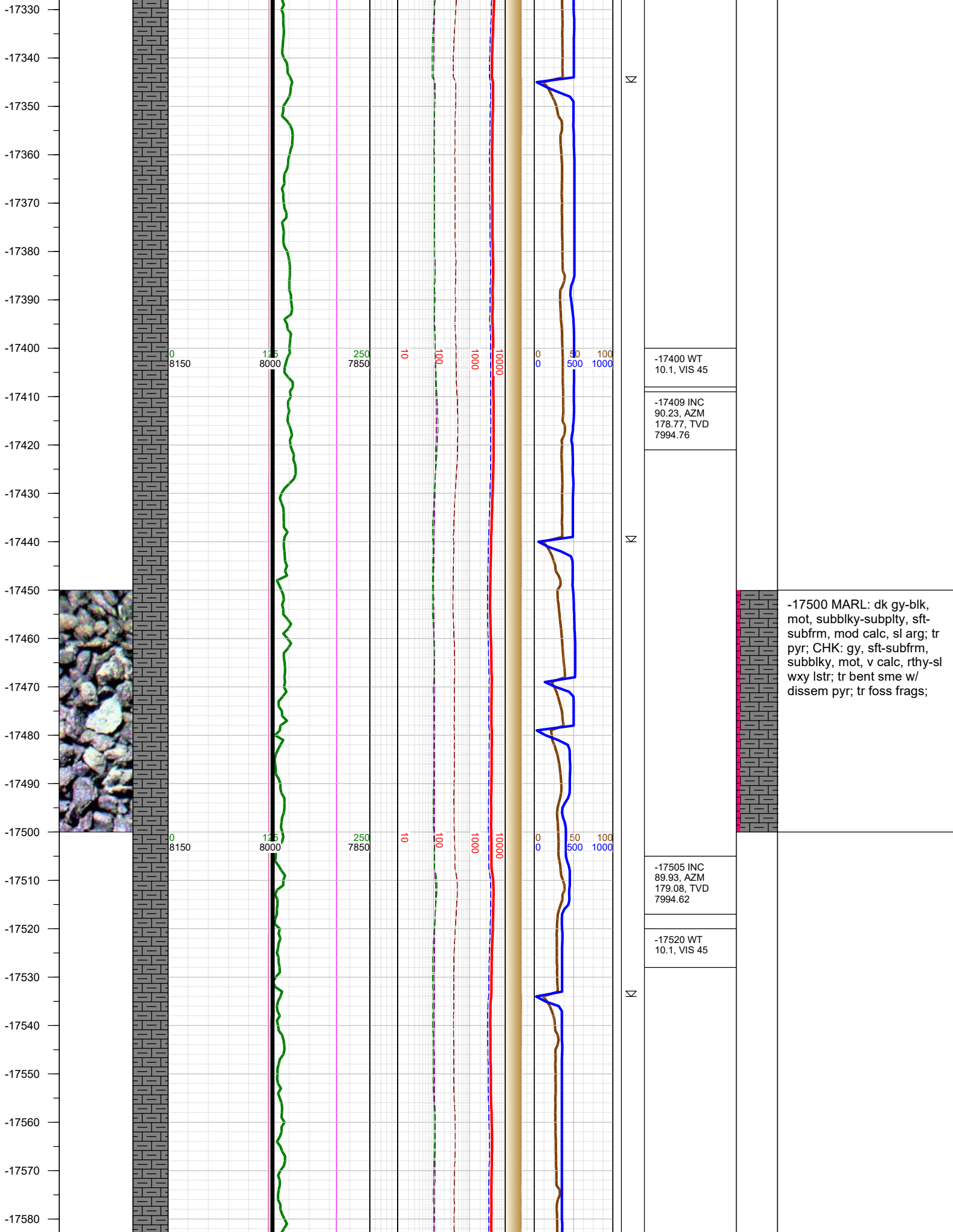
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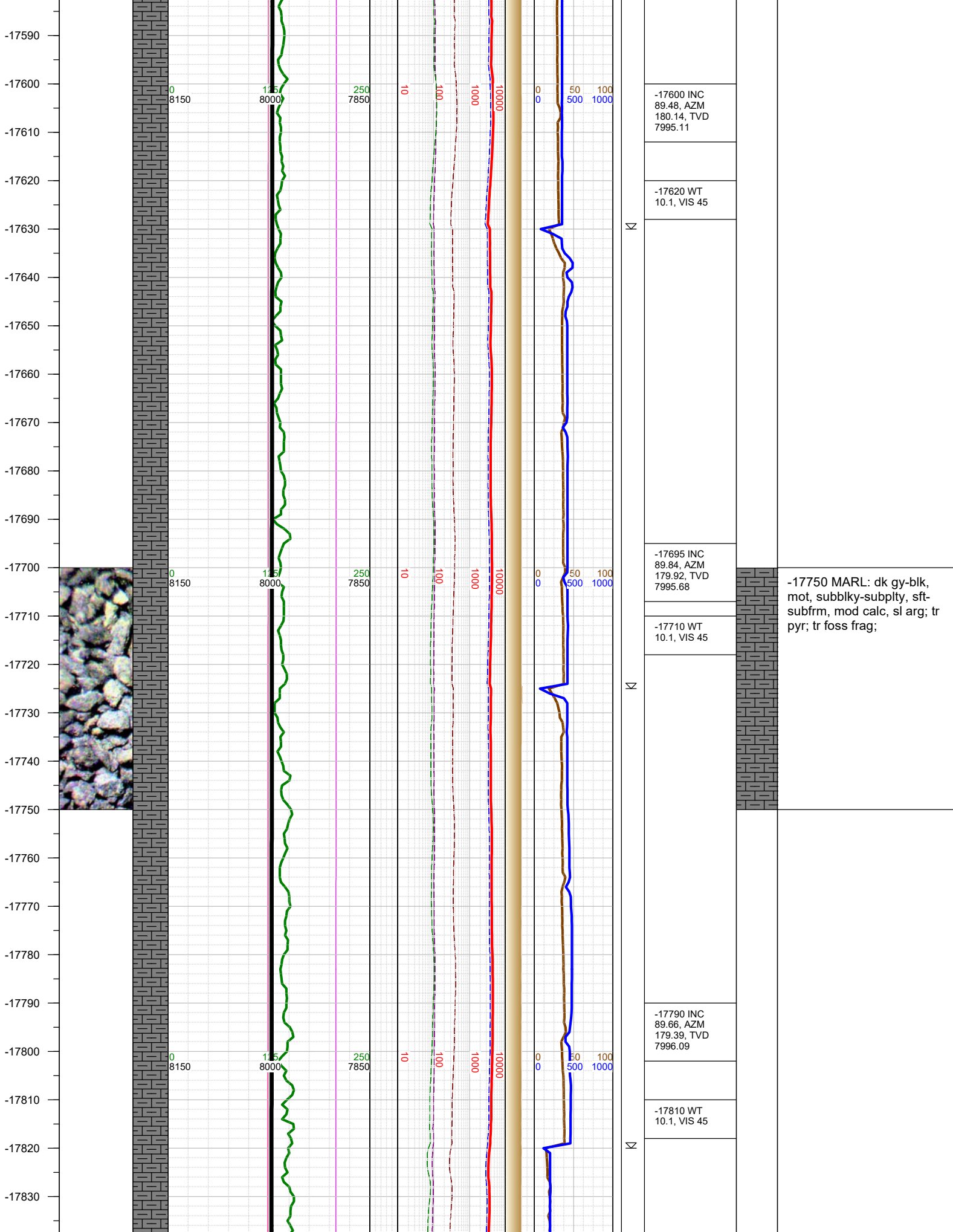


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	-16600 WT 10.1, VIS 45	
▨		-16631 Fault: 9' down-throw; went from Lower A Marl to A Marl
	-16649 INC 90.32, AZM 178.99, TVD 7995.71	
N		
	-16700 WT 10.1, VIS 45	-16750 MARL: dk gy-blk, mot, subblky-subply, sft- subfrm, mod calc, sl arg; tr pyr; tr foss frag;
N	-16744 INC 89.88, AZM 181.02, TVD 7995.55	
	-16800 WT 10.1, VIS 45	

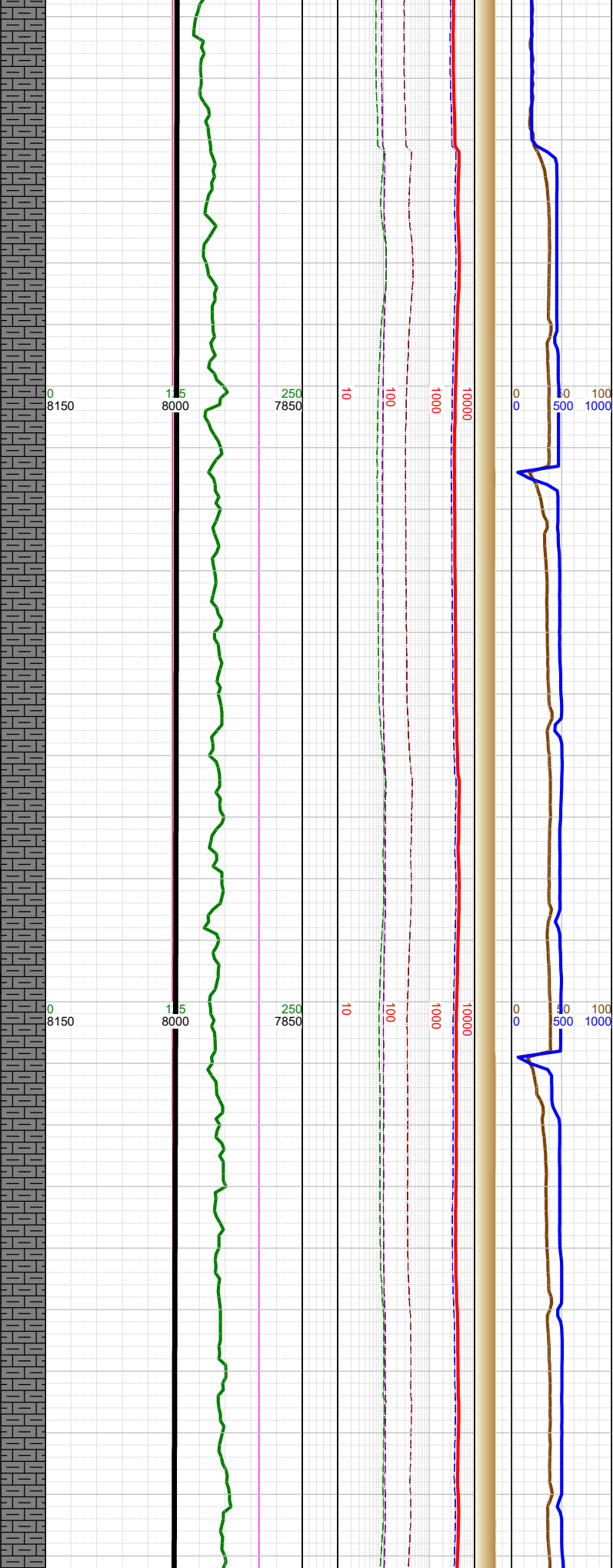
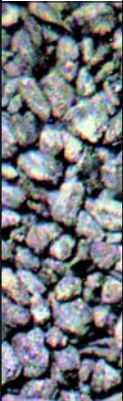








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-17886 INC
89.62, AZM
179.79, TVD
7996.69

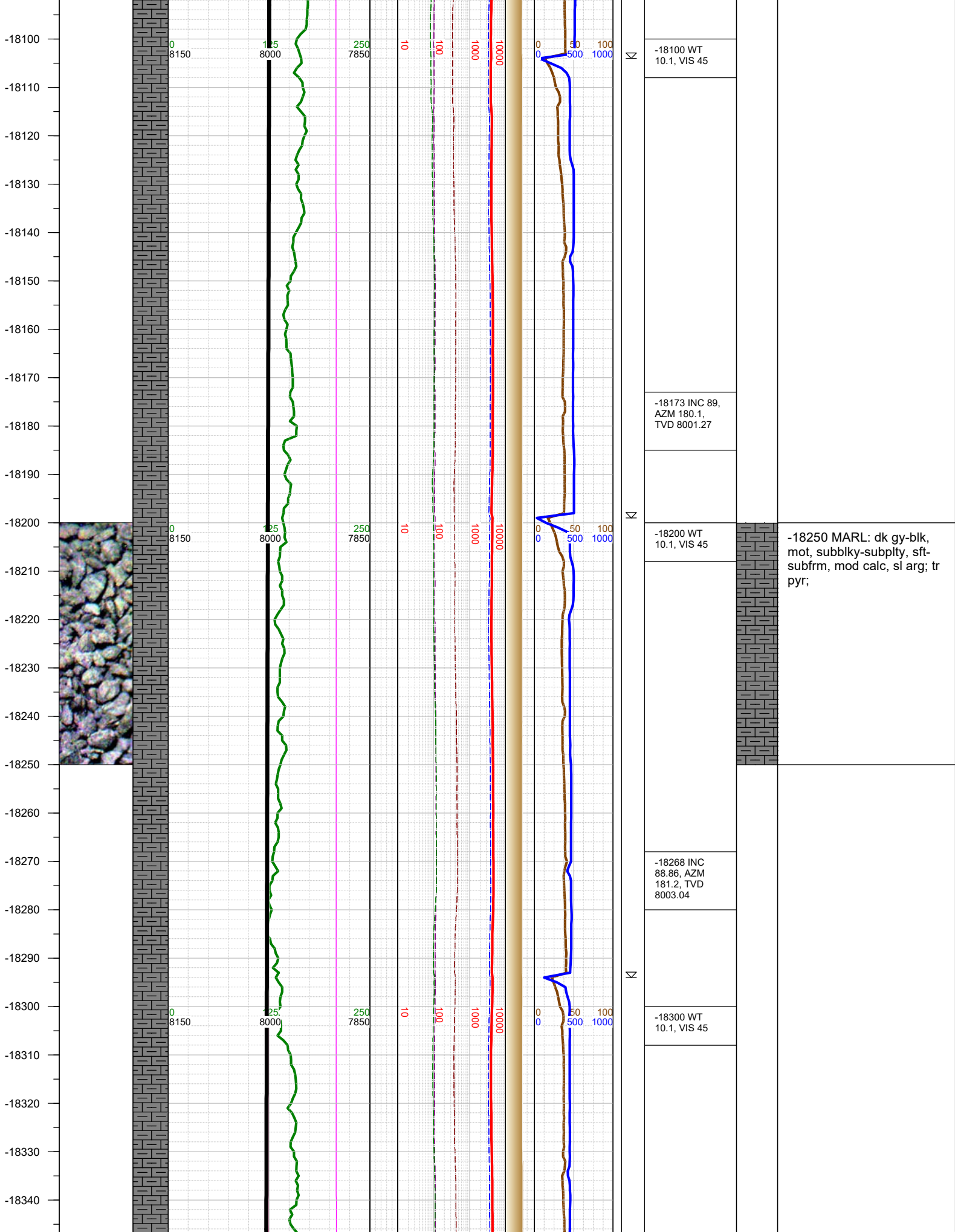
-17900 WT
10.1, VIS 45

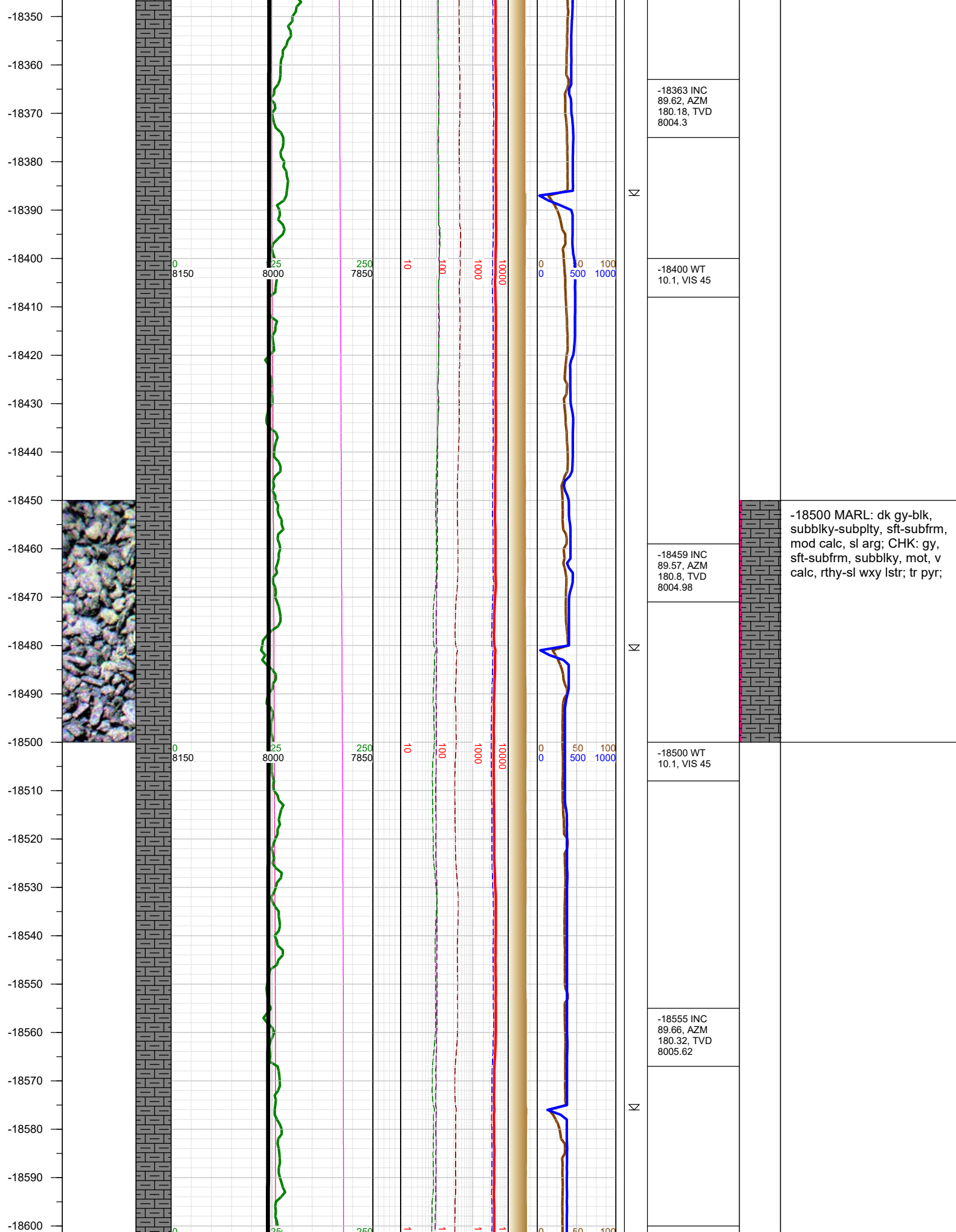
-17982 INC
89.09, AZM
181.24, TVD
7997.77

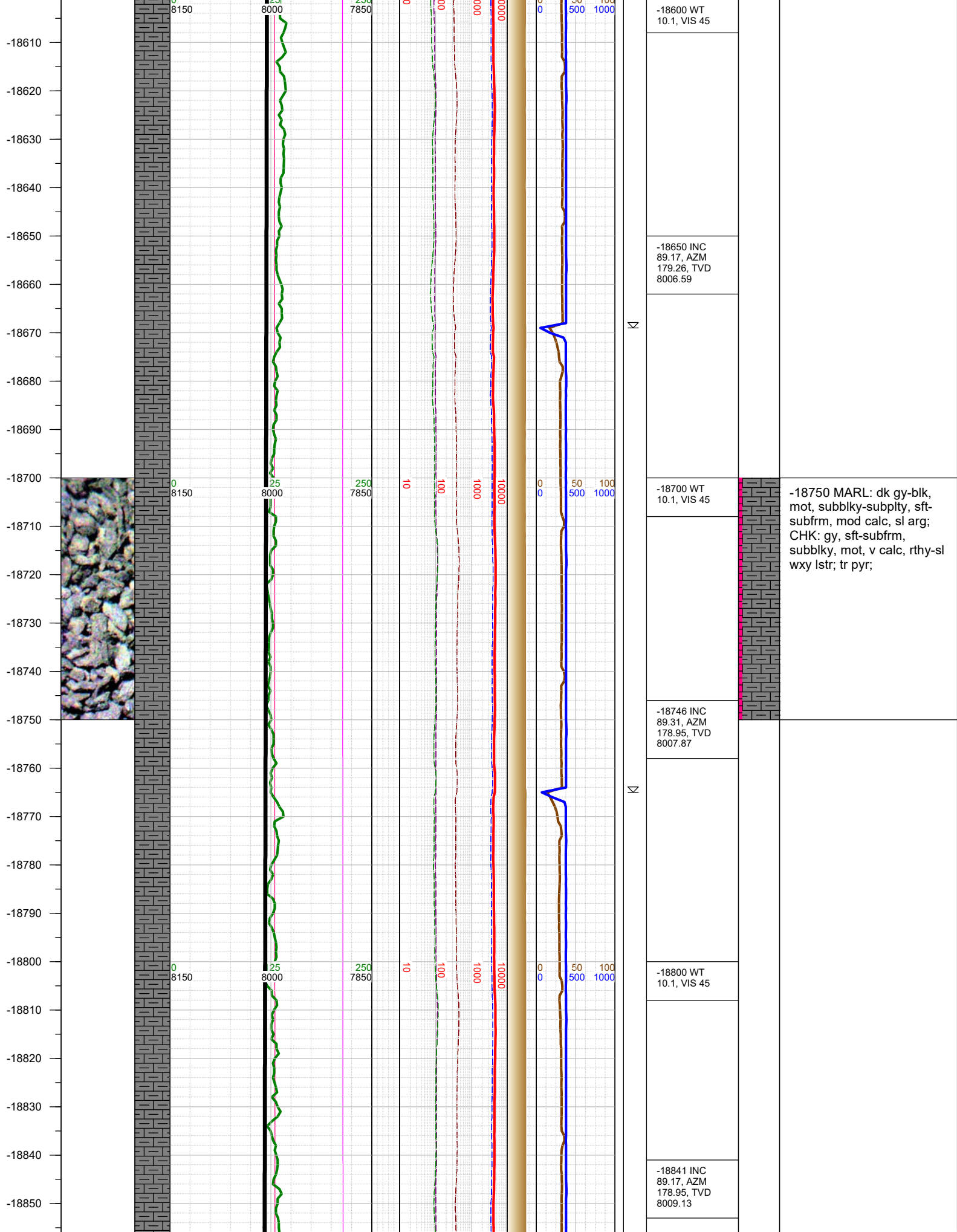
-18000 WT
10.1, VIS 45

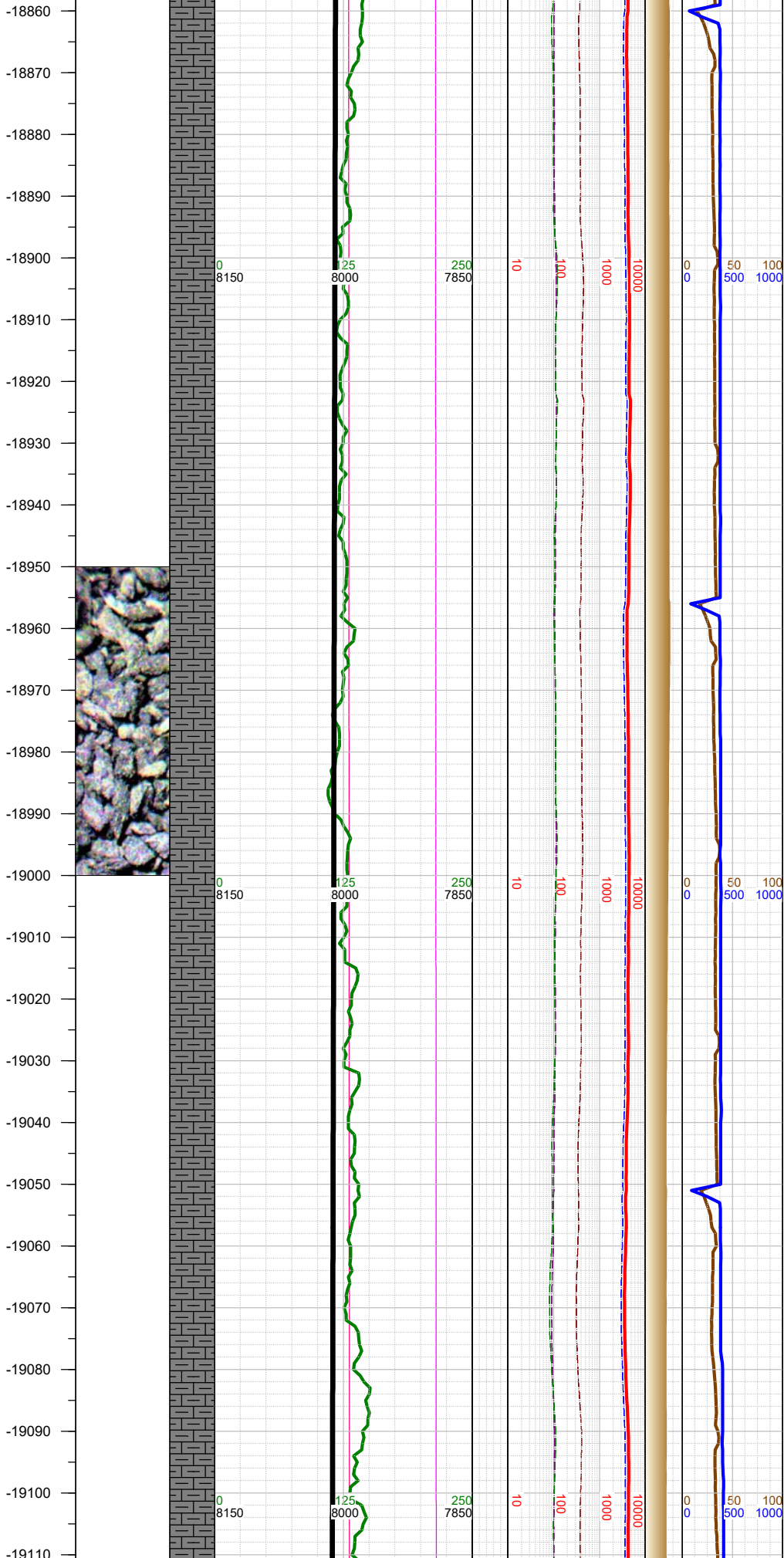
-18077 INC
88.86, AZM
179.61, TVD
7999.47

-18000 MARL: dk gy-blk,
mot, subblky-subplty, sft-
subfrm, mod calc, sl arg; tr
pyr;







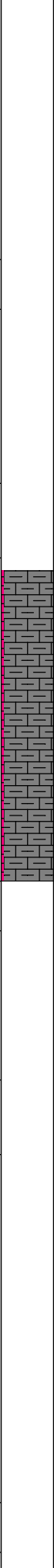


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	-18900 WT 10.1, VIS 45
	-18936 INC 89.17, AZM 180.05, TVD 8010.5
	-19000 WT 10.1, VIS 45
	-19032 INC 89.17, AZM 180.14, TVD 8011.89
	-19100 WT 10.1, VIS 45



-19000 MARL: dk gy-blk, subblky-subplty, sft-subfrm, mod calc, sl arg; CHK: gy, sft-subfrm, subblky, mot, v calc, rthy-sl wxy lstr; tr pyr; tr foss frag;

