



Scale: 5" / 100'
Measured Depth Log

Well Name	Badding 14N-2HZ		
Location	SECTION 35, T2N, R65W		
State	COLORADO	County	WELD
Country	USA	Rig Number	ENSIGN 145
API Number	05123382860000	AFE #	2087152
Region	DJ BASIN	Field	WATTENBERG
Spud Date	1/8/2014	Drilling Completed	1/16/2014
Surface Coordinates	2411' FSL x 1411' FWL (SEC. 35)		
Bottom Hole Coordinates	Section 2, T1N, R66W 1' FSL x 1970' FWL		
Ground Elevation	5103'	K.B. Elevation	5116'
Logged Interval	7000'	To	15274'
Formation	NIOBRARA C CHALK		
Type of Drilling Fluid	FW LSND		

Company Anadarko
Address 1099 18th STR
DENVER, CO 8

Name ZACK HEIDER
Company ANADARKO PE
Address 1099 18th STR
DENVER, CO 8

COLUMBINE LOGGING, INC
WELL-SITE GEOLOGISTS

Operator

3ET.
0202

Geologist

RHEAD CANNON

ETROLEUM.

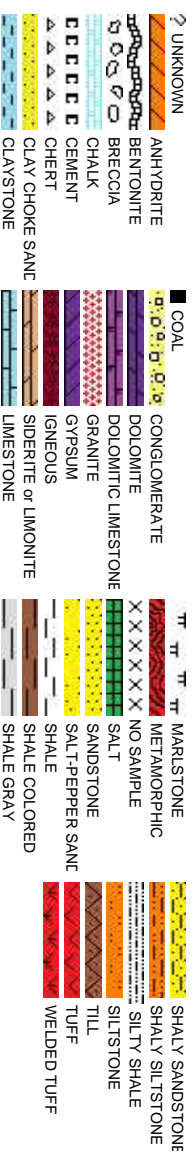
3ET.
0202

Other

2385 S. LIPAN ST.
DENVER, CO 80223

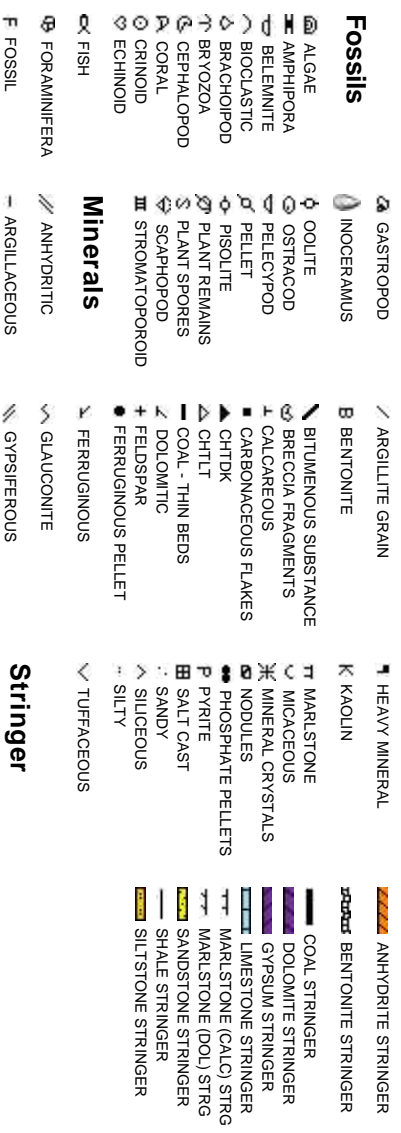
JOEY LUCE
CAMERON NAKOS
IRENE KADEL-HARDER (TRAINEE)

Rock Types



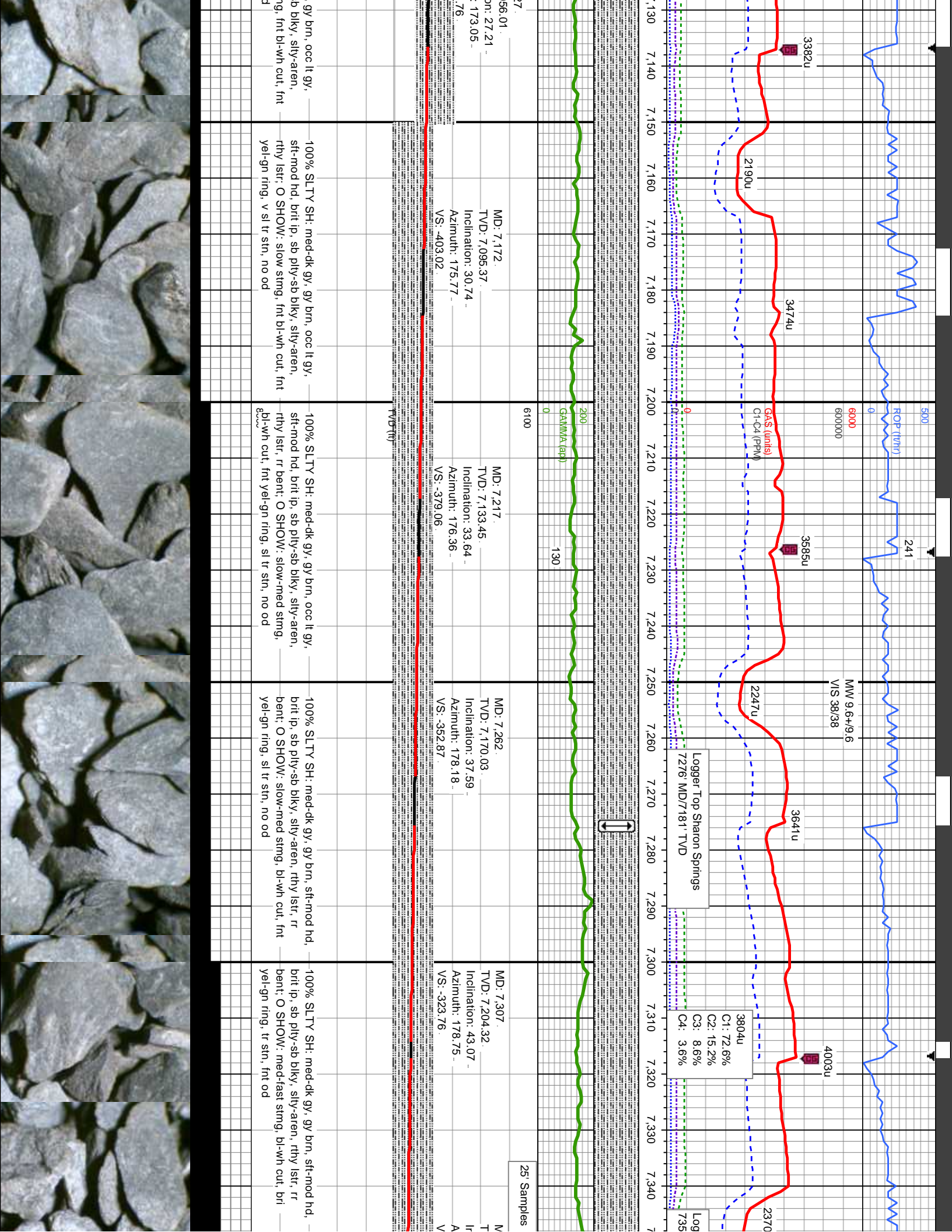
Accessories

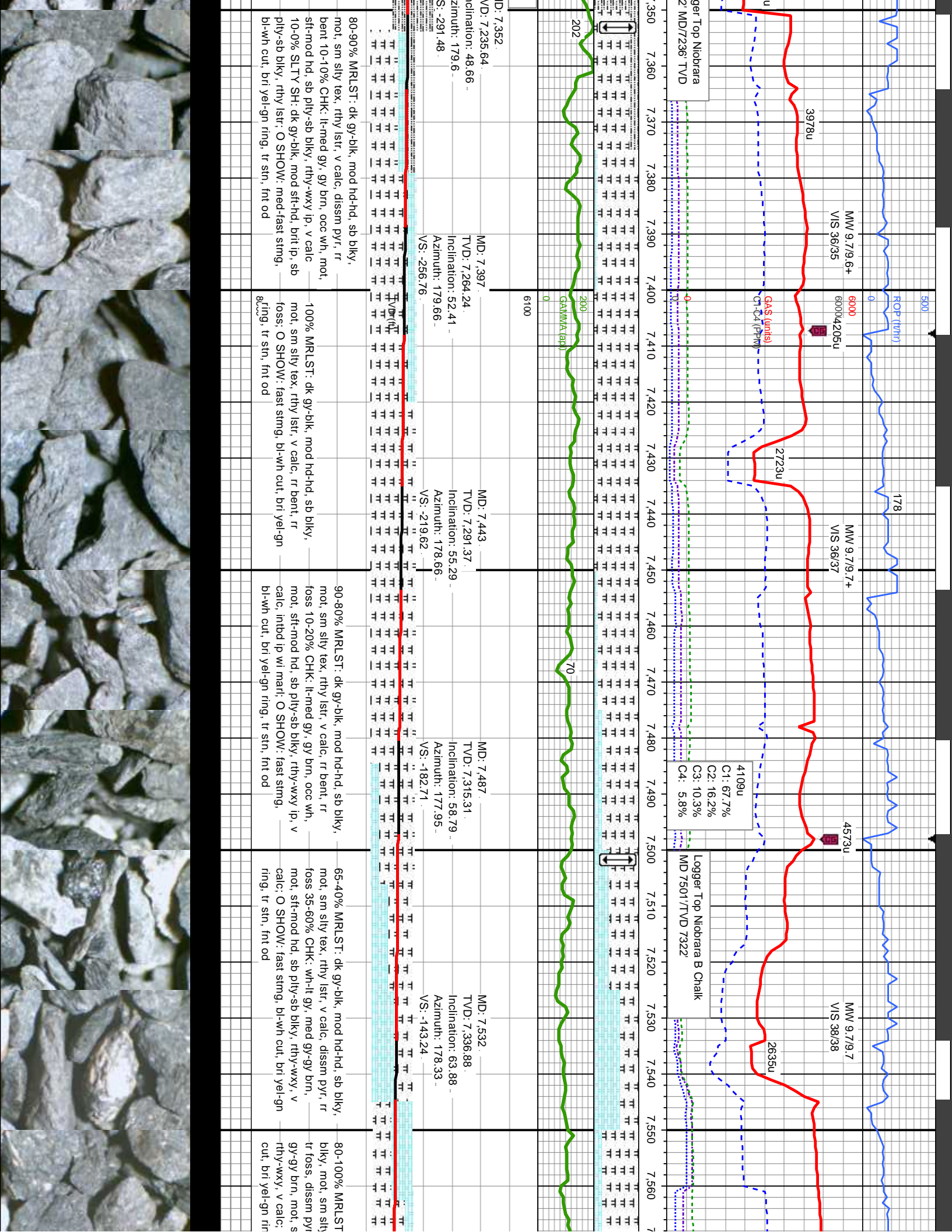
Fossils

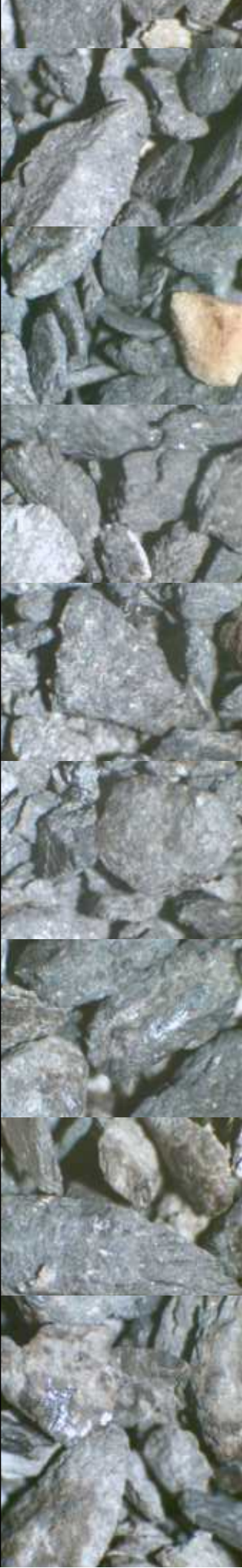
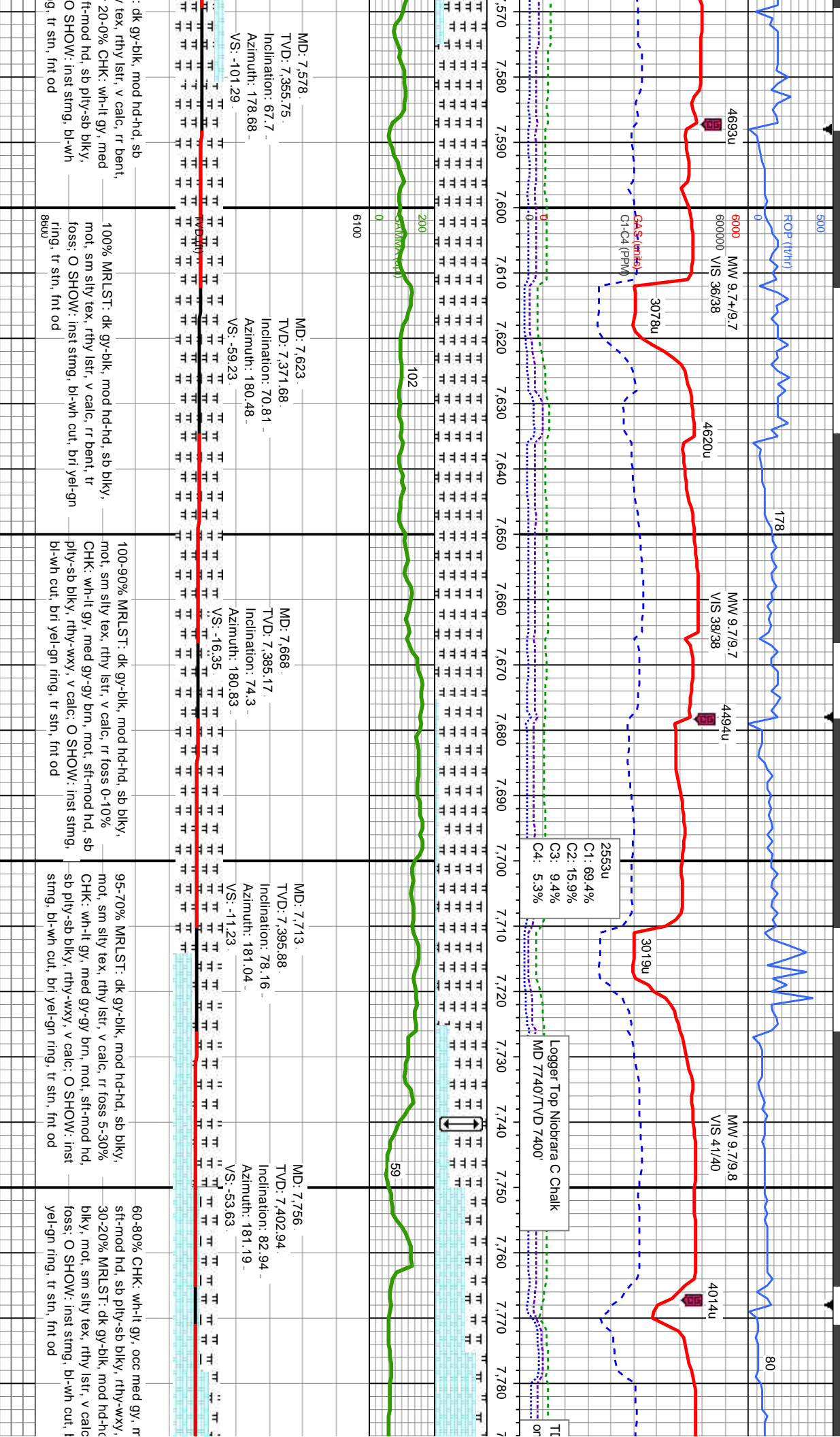


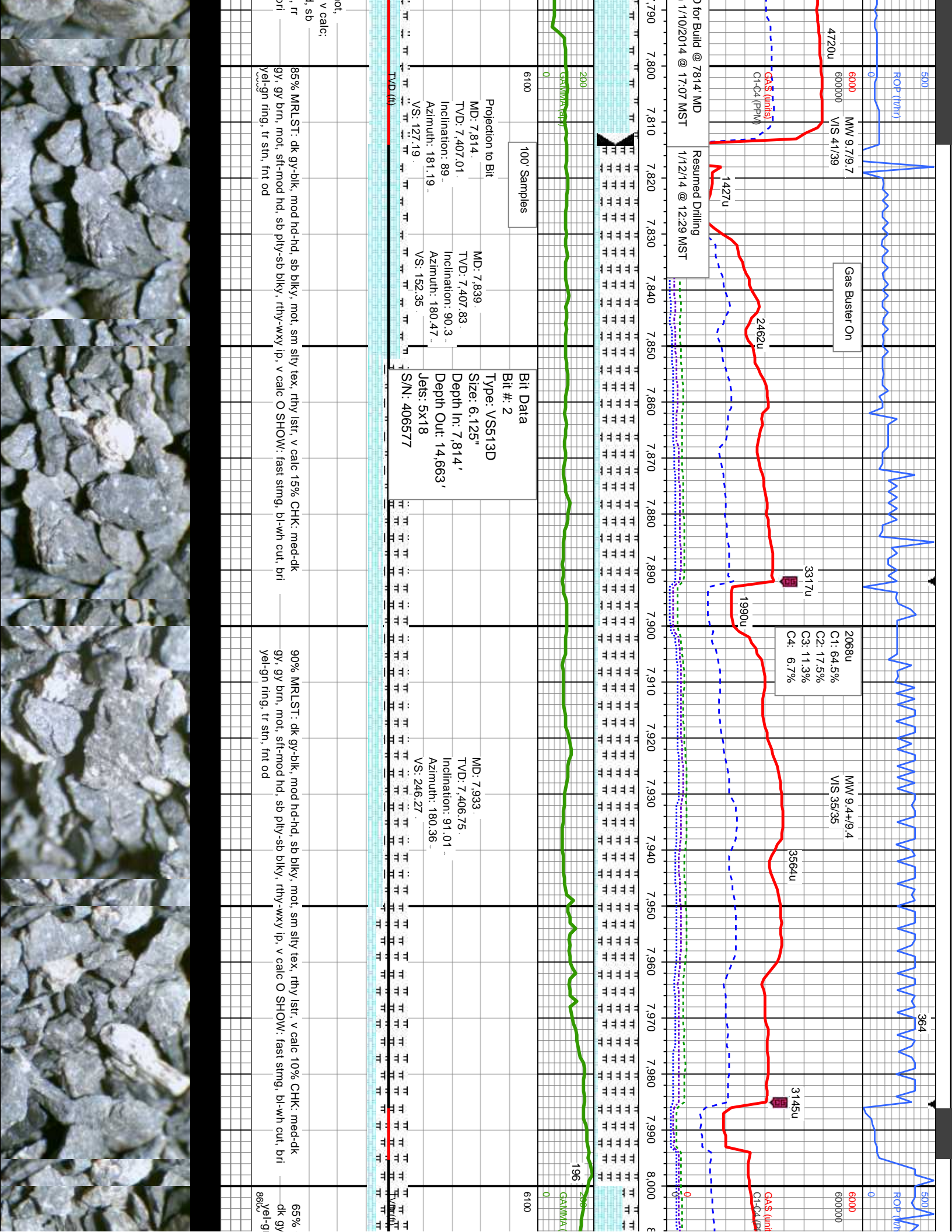
Stringer

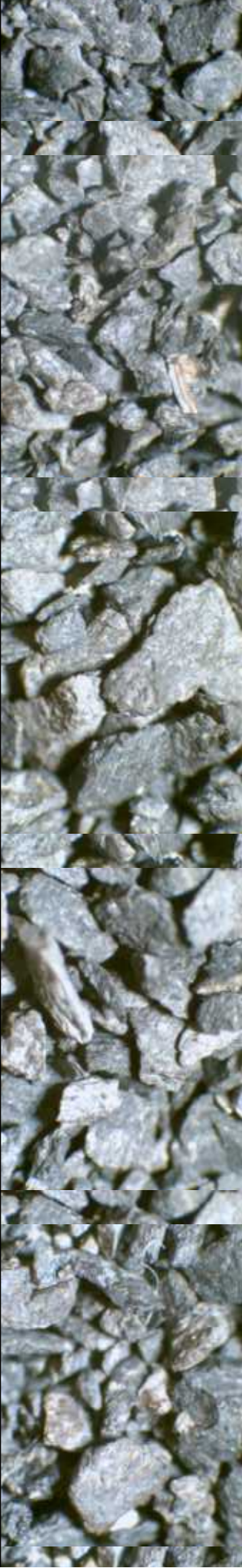
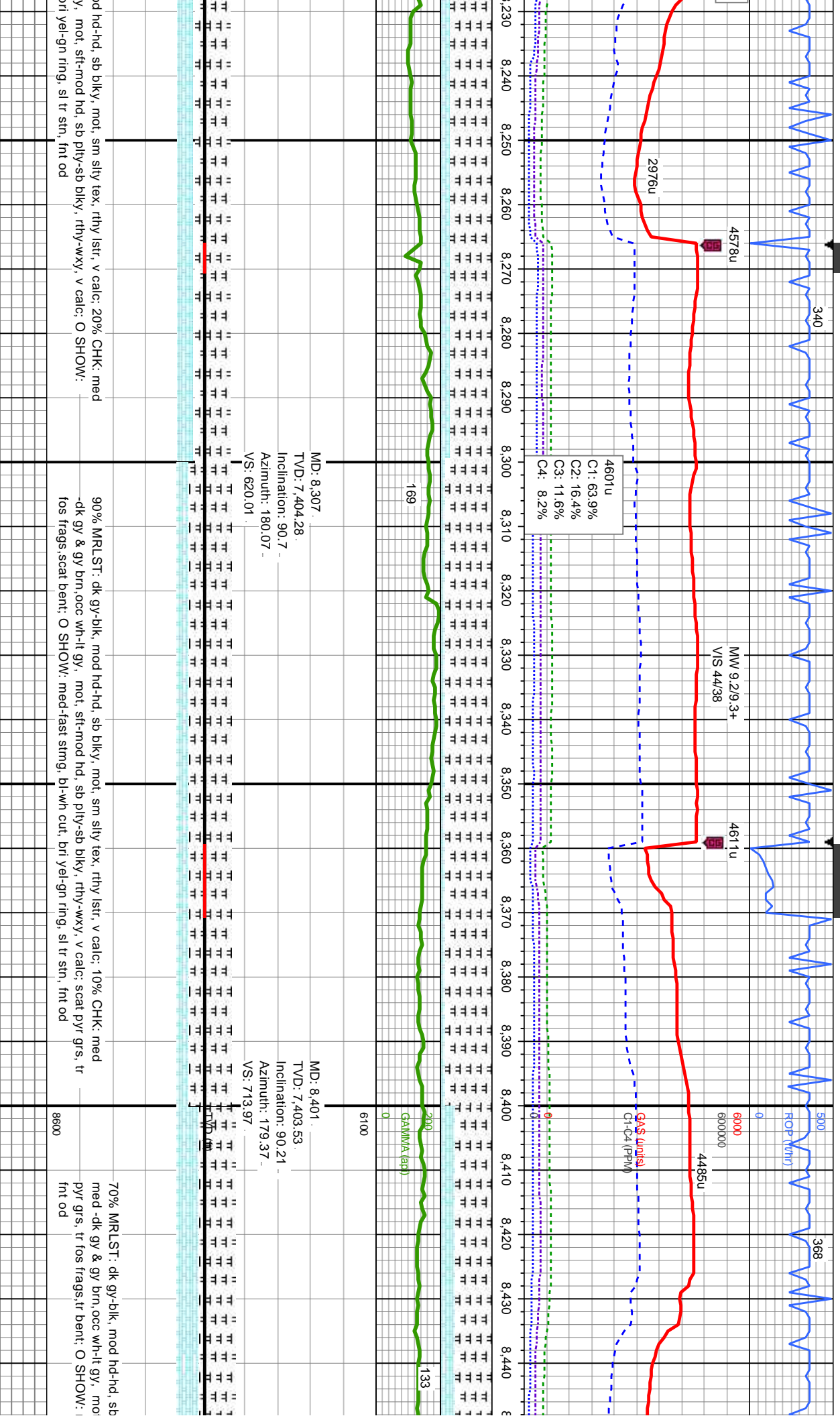
Slide/Rotate		ROP Data From iBall		ROP (ft/hr)		182	
ROP		ROP		ROP		ROP	
ROF		ROF		ROF		ROF	
Total Gas & Chromatograph		Gas Data From iBall		MW 9.4/9.3+ VIS 38/36		2553u C1: 77.8% C2: 13.7% C3: 7.1% C4: 1.4% MW 9.6/9.5 VIS 38/38	
GAS		GAS (units)		C1-C4 (PPM)		C1-C4 (PPM)	
C1		C1		C1		C1	
C2		C2		C2		C2	
C3		C3		C3		C3	
C4		C4		C4		C4	
Depth Labels		6.950 6.960 6.970 6.980 6.990 7.000 7.010 7.020 7.030 7.040 7.050 7.060 7.070 7.080 7.090 7.100 7.110 7.120		6.950 6.960 6.970 6.980 6.990 7.000 7.010 7.020 7.030 7.040 7.050 7.060 7.070 7.080 7.090 7.100 7.110 7.120		6.950 6.960 6.970 6.980 6.990 7.000 7.010 7.020 7.030 7.040 7.050 7.060 7.070 7.080 7.090 7.100 7.110 7.120	
% Lith							
Curves		Gamma from Baker Hughes		50 Samples		Gamma (api)	
GAMMA		GAMMA		GAMMA		GAMMA	
Well Bore		COLUMBINE LOGGING 1/10/2014		MANAGED 2-PERSON LOGGING		WITH BLOODHOUND GAS	
TVD		CHROMATOGRAPH UNIT #0728		BUILT KICKED OFF @ 08:07 MST		ON 1/10/2014	
Bit Data		Bit #: 1		Type: SD1611		Size: 8.75"	
		Depth In: 1,178'		Depth Out: 7,814'		Jets: 3x18,3x16	
		S/N: JH5330					
Oil Show		Oil Shows Every 100'					
Images							

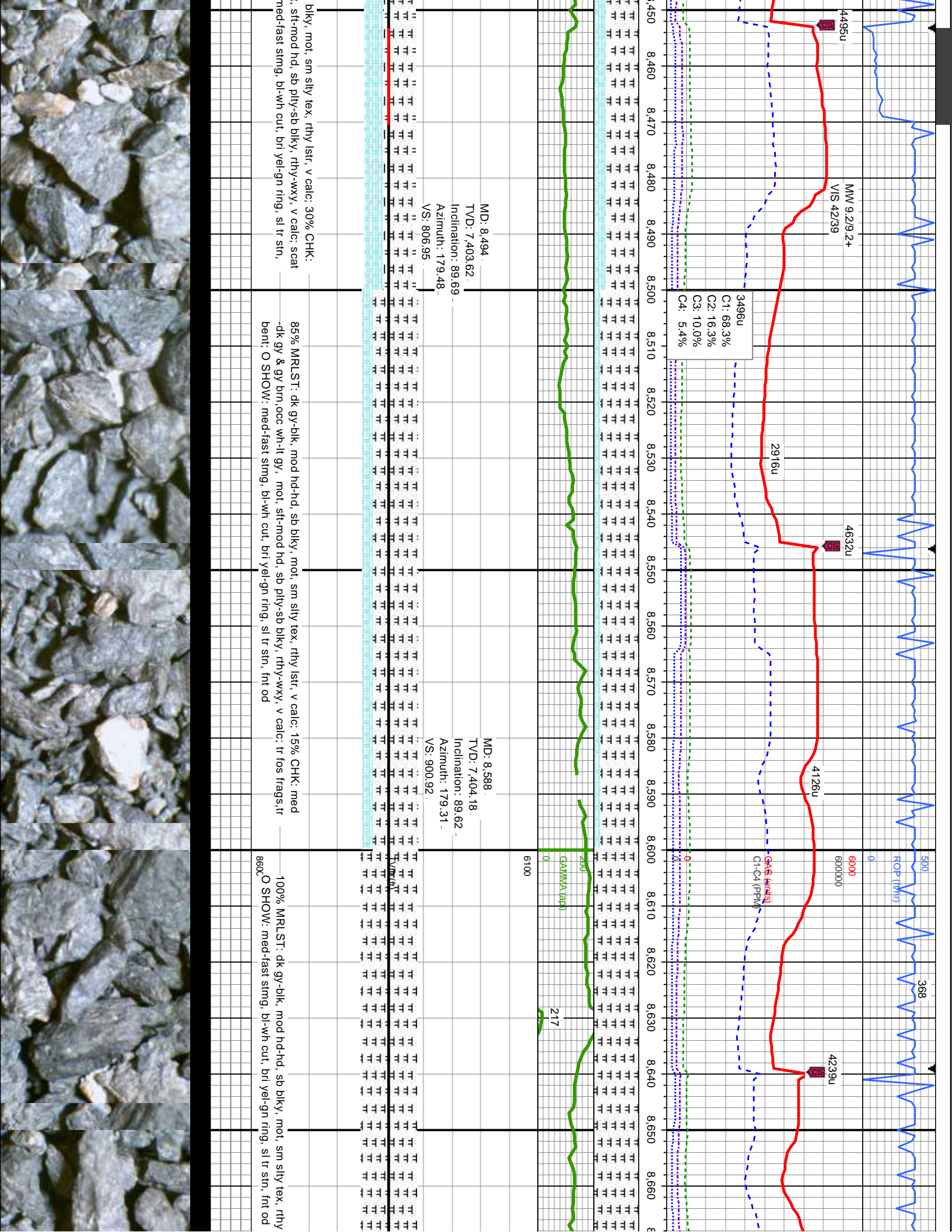


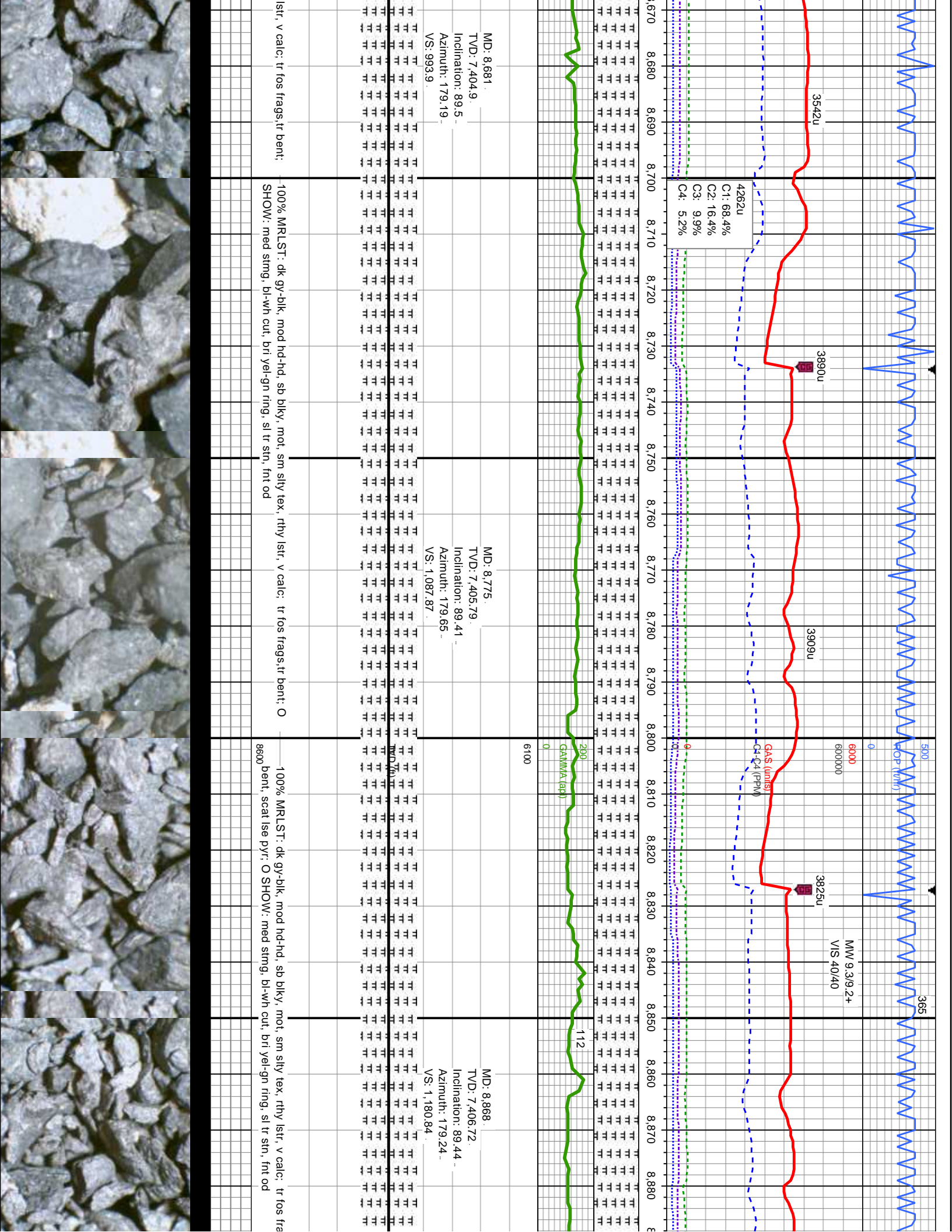


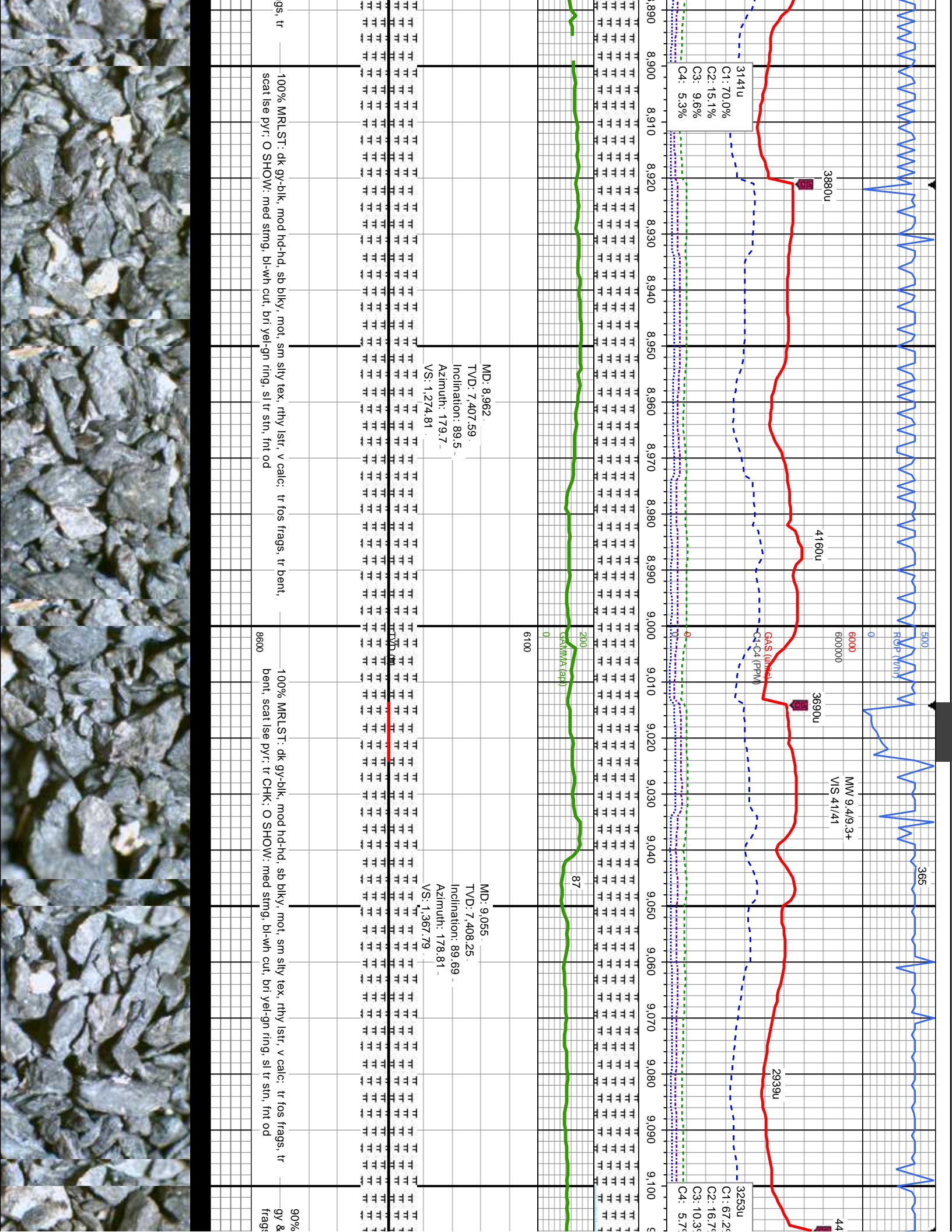


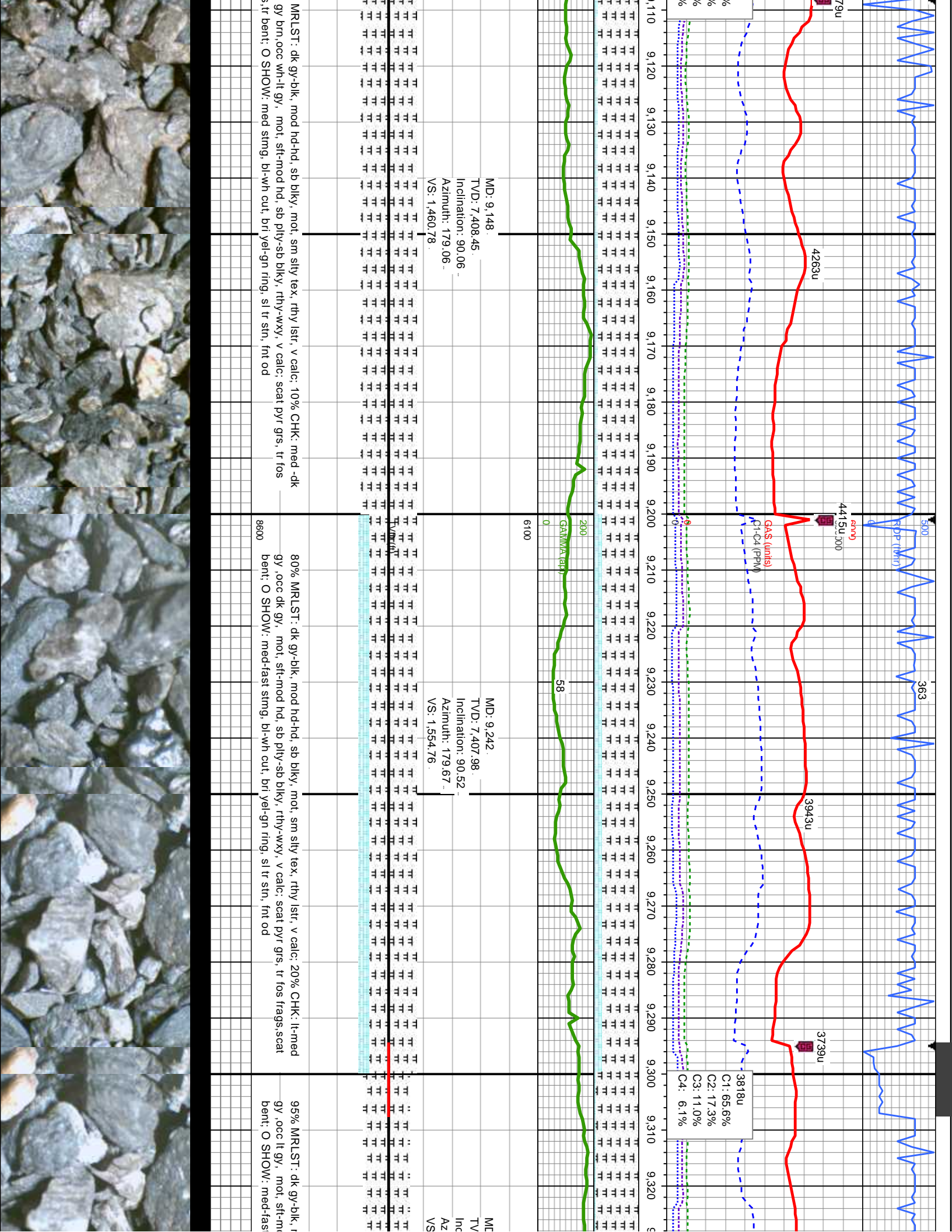


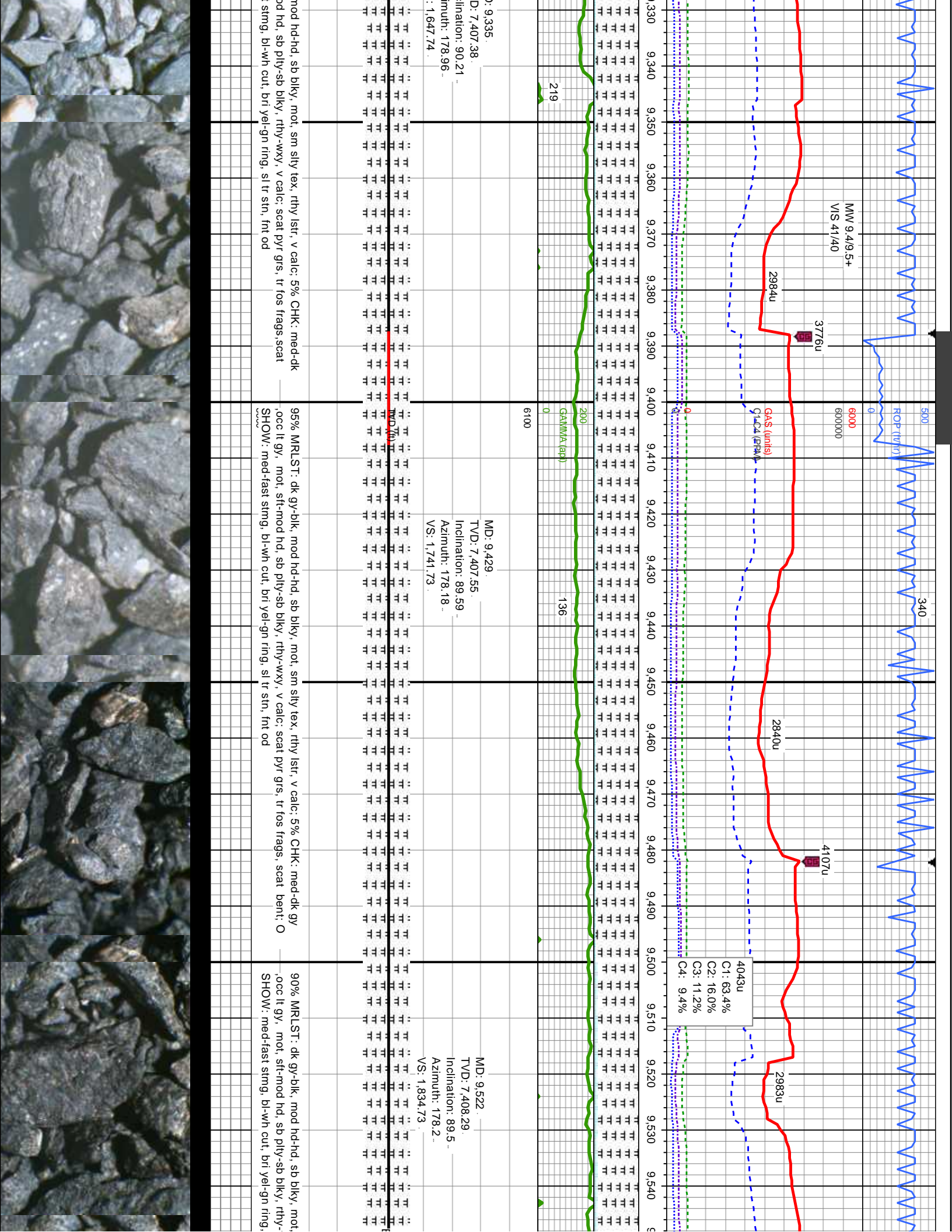












13 Jan 2014

500
ROP (in/hr)

379

MMW 9.4/9.5+
VIS 40/41

6000
600000

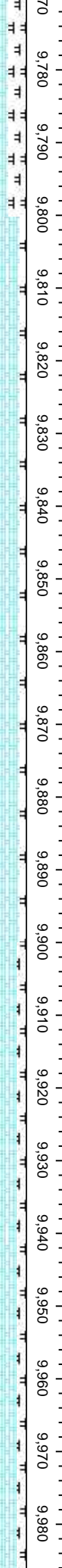
4438u

MMW 9.4/9.5+
VIS 42/40

3324u
GAS (units)
C1-C4 (PPM)

4013u
C1: 56.0%
C2: 17.1%
C3: 14.7%
C4: 12.2%

3838u



200
6100
GAMMA (API)

99

MD: 9.792
TVD: 7.411.02
Inclination: 89.32
Azimuth: 177.72
VS: 2.104.71

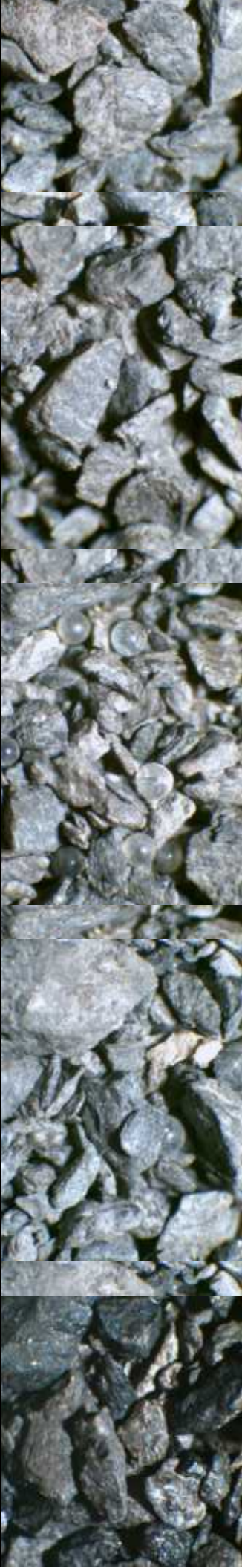
MD: 9.882
TVD: 7.412.14
Inclination: 89.26
Azimuth: 178.08
VS: 2.194.71

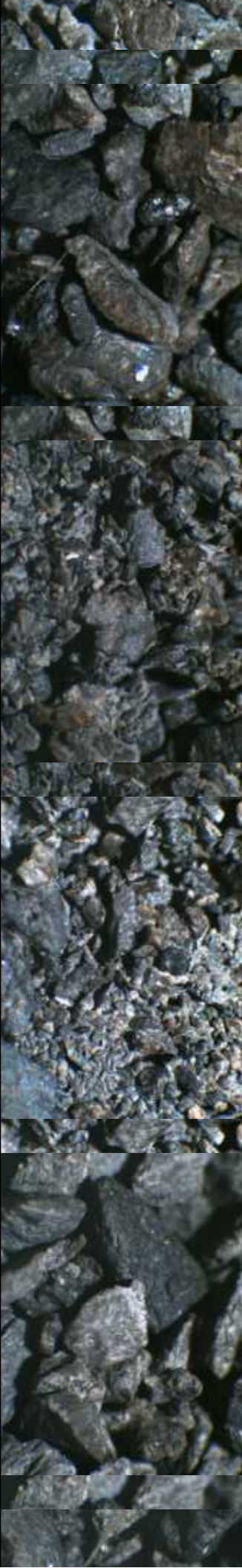
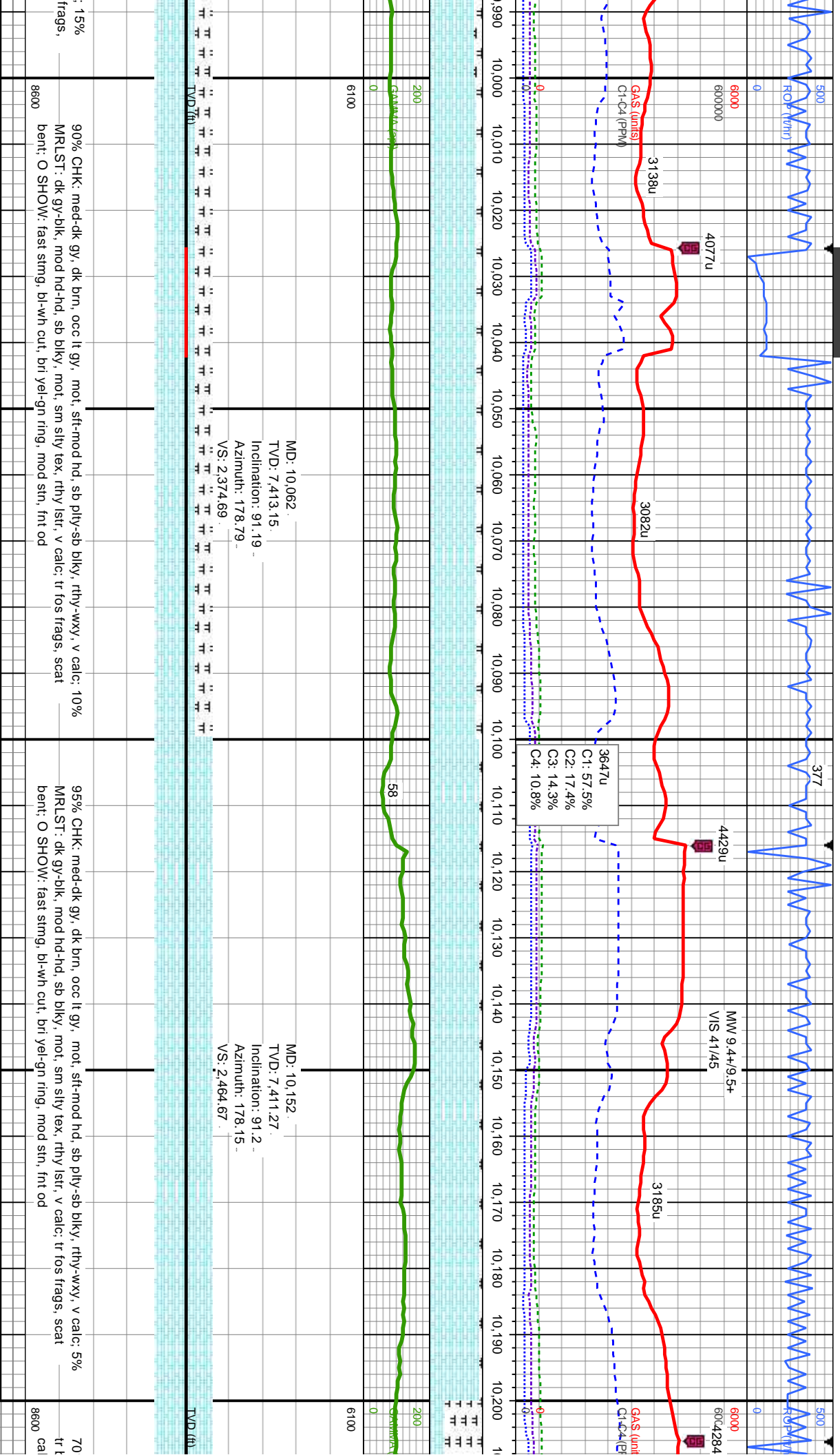
MD: 9.972
TVD: 7.413.4
Inclination: 89.13
Azimuth: 177.56
VS: 2.284.69

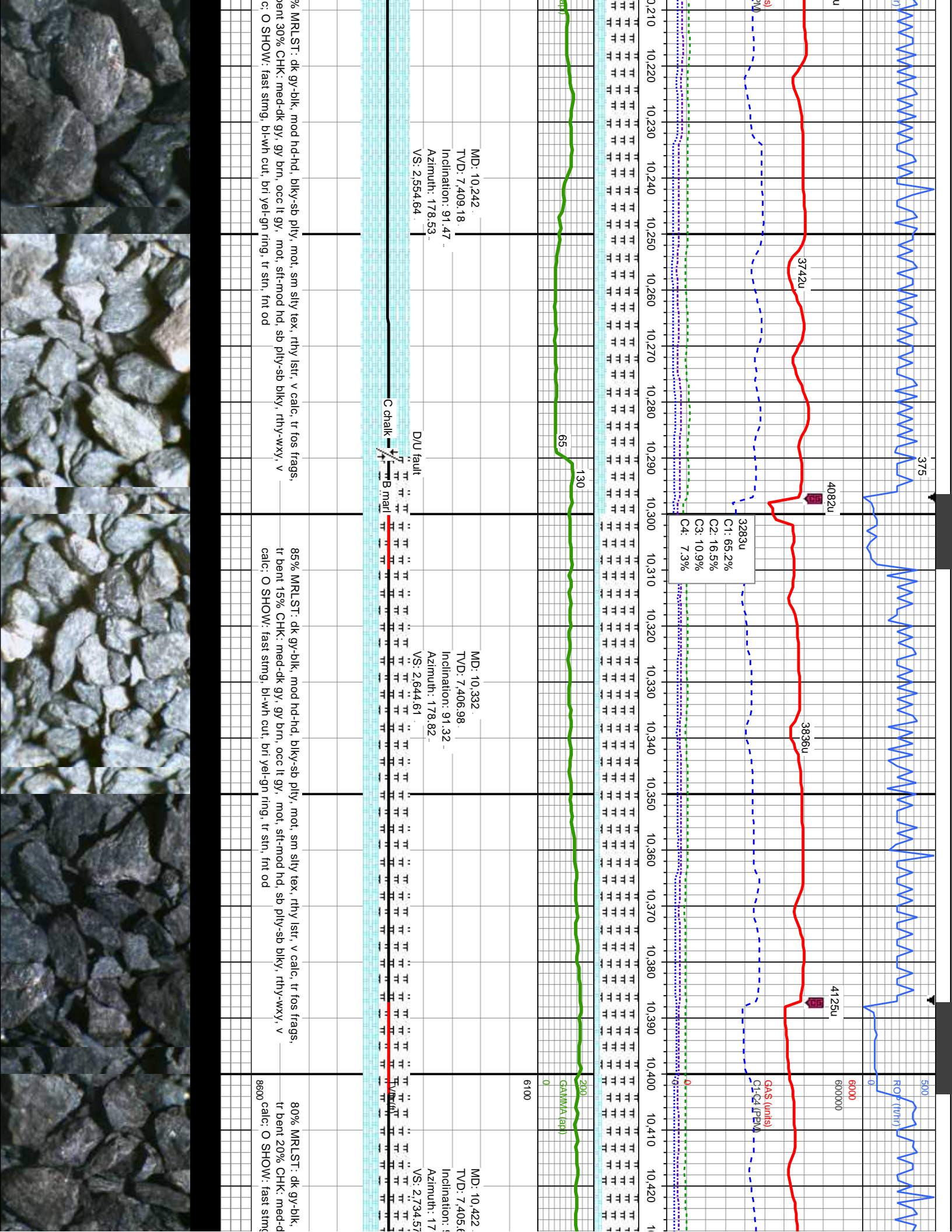
wxy, v calc: 50% MRLST: dk
tr fos frags, scat bent: O

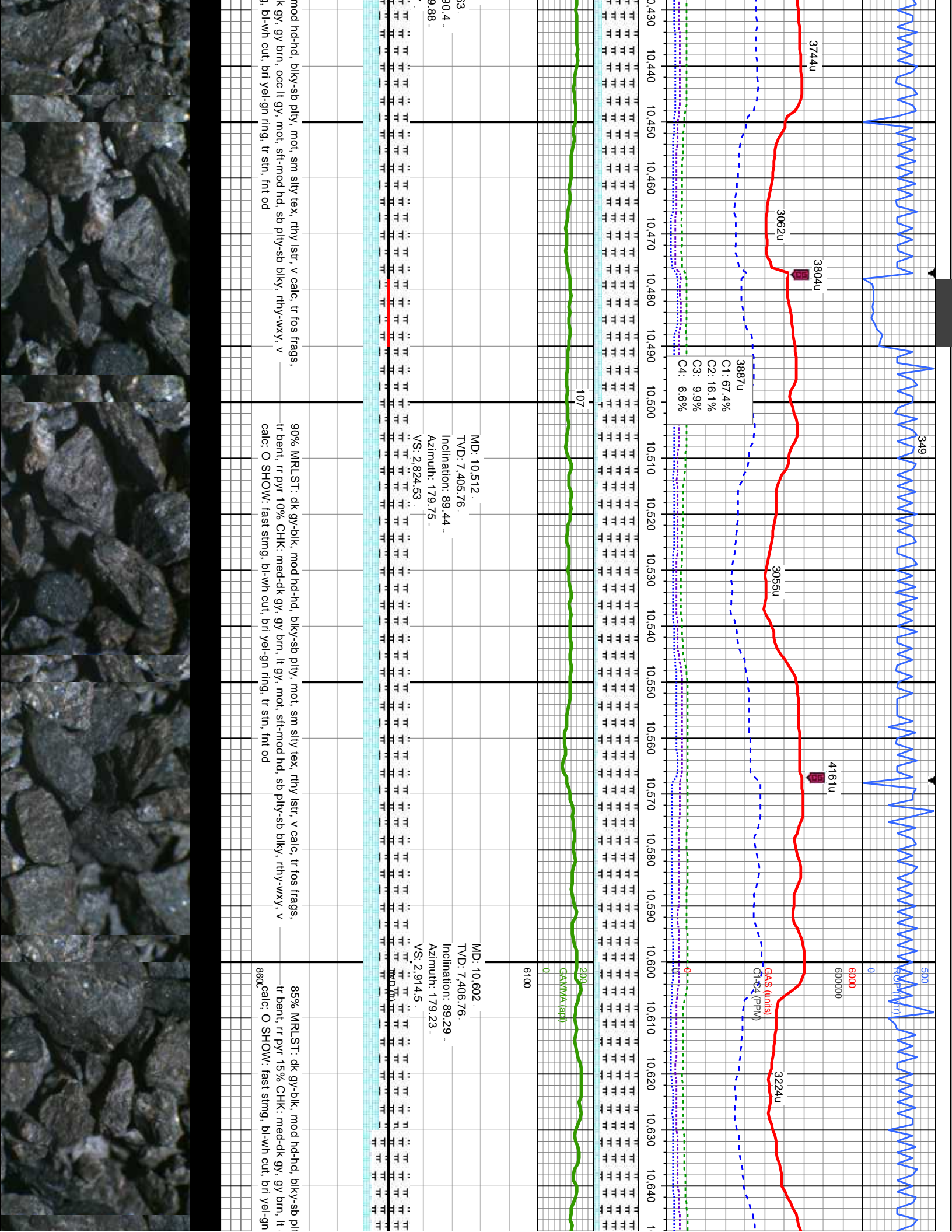
90% CHK: lt-med gy, lt brn, occ dk gy, mot, sft-mod hd, sb ply-sb blk, rthy-wxy, v calc: 10%
MRLST: dk gy-blk, mod nd-hd, sb blk, mot, sm stly tex, rthy lstr, v calc: scat pyr, tr fos frags, scat
bent: O SHOW: fast stmg, bl-wh cut, bri ye-l-gn ring, tr stn, fnt od

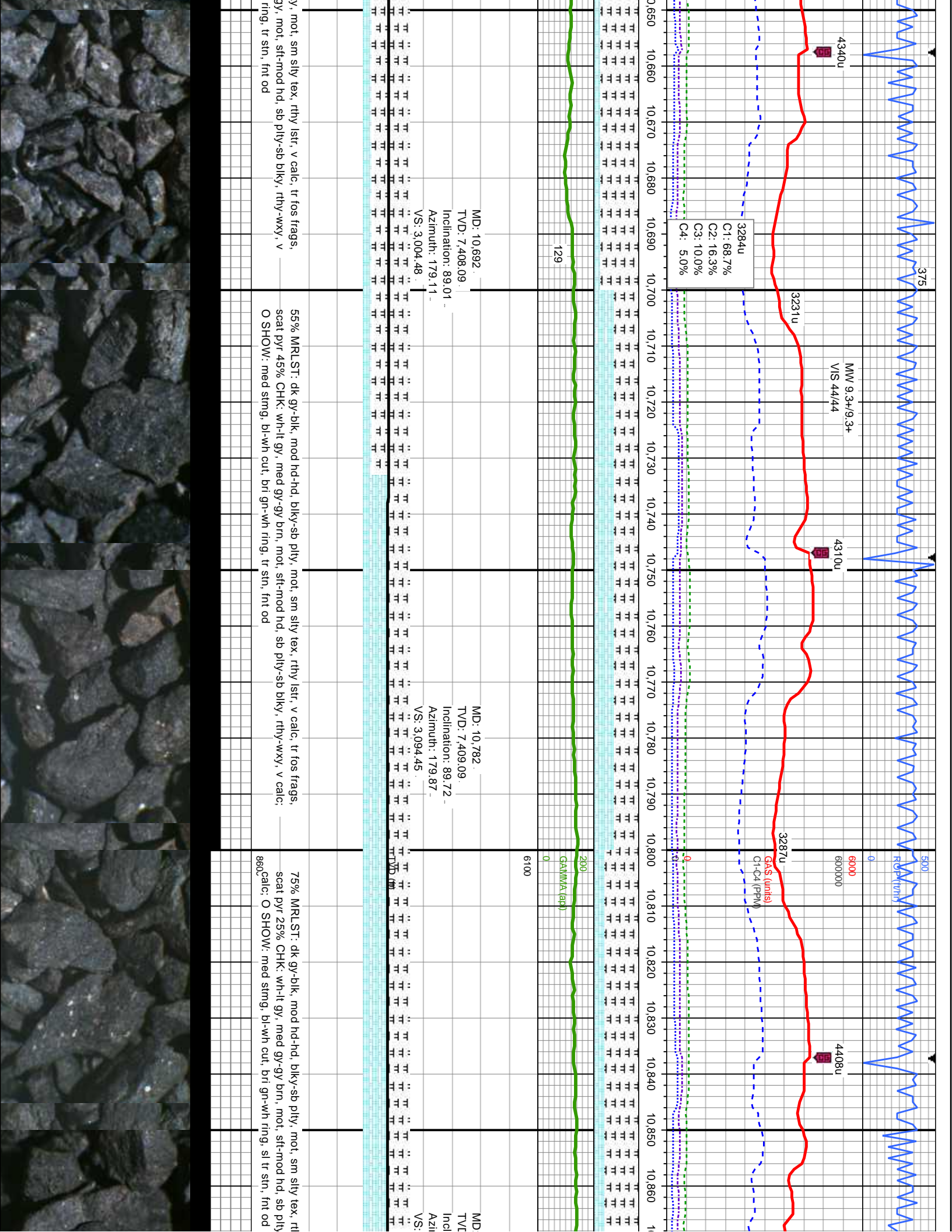
85% CHK: lt-med gy, lt brn, occ dk gy, mot, sft-mod hd, sb ply-sb blk, rthy-wxy, v calc: 10%
MRLST: dk gy-blk, mod nd-hd, sb blk, mot, sm stly tex, rthy lstr, v calc: scat pyr, tr fos
scat bent: O SHOW: fast stmg, bl-wh cut, bri ye-l-gn ring, mod stn, fnt od

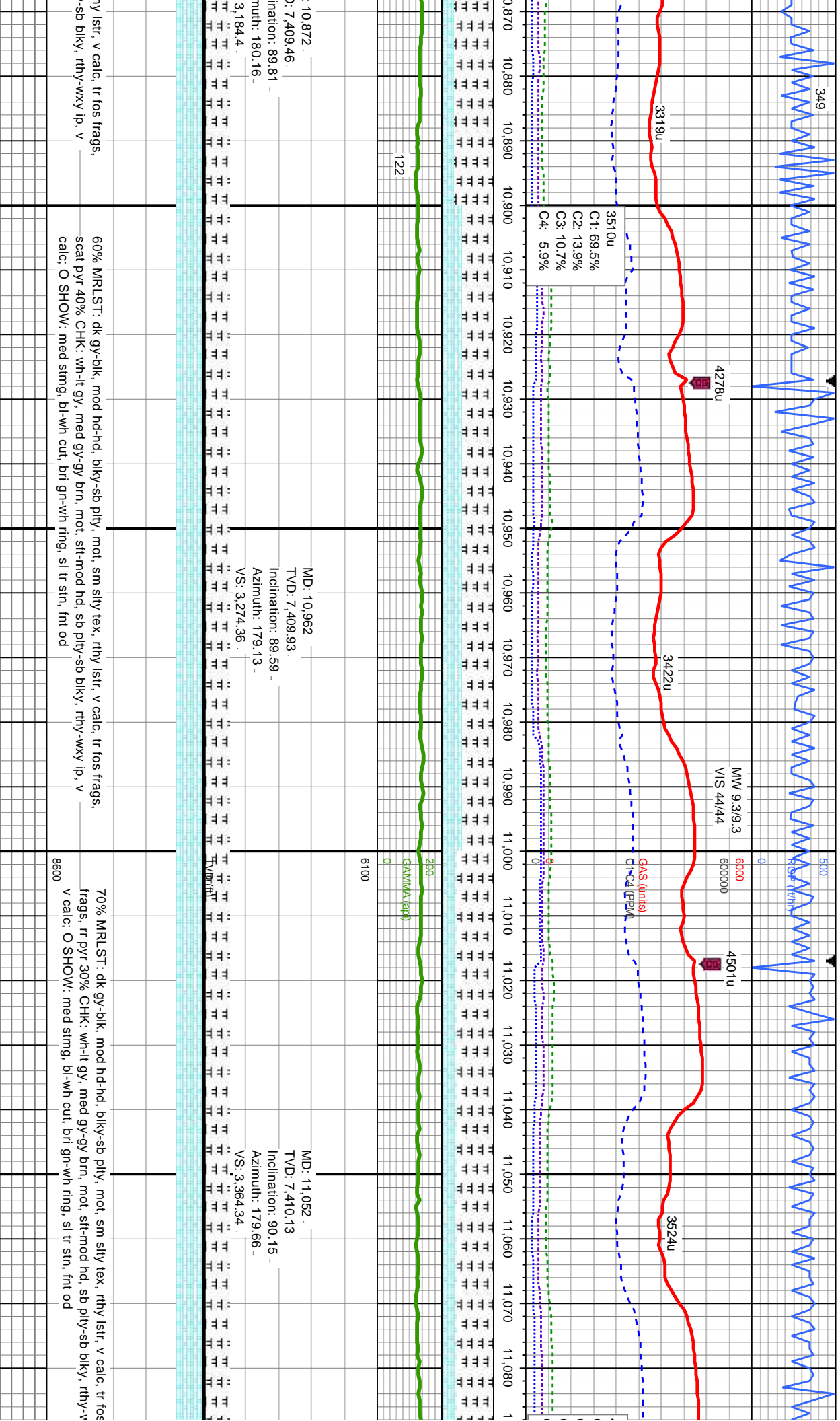


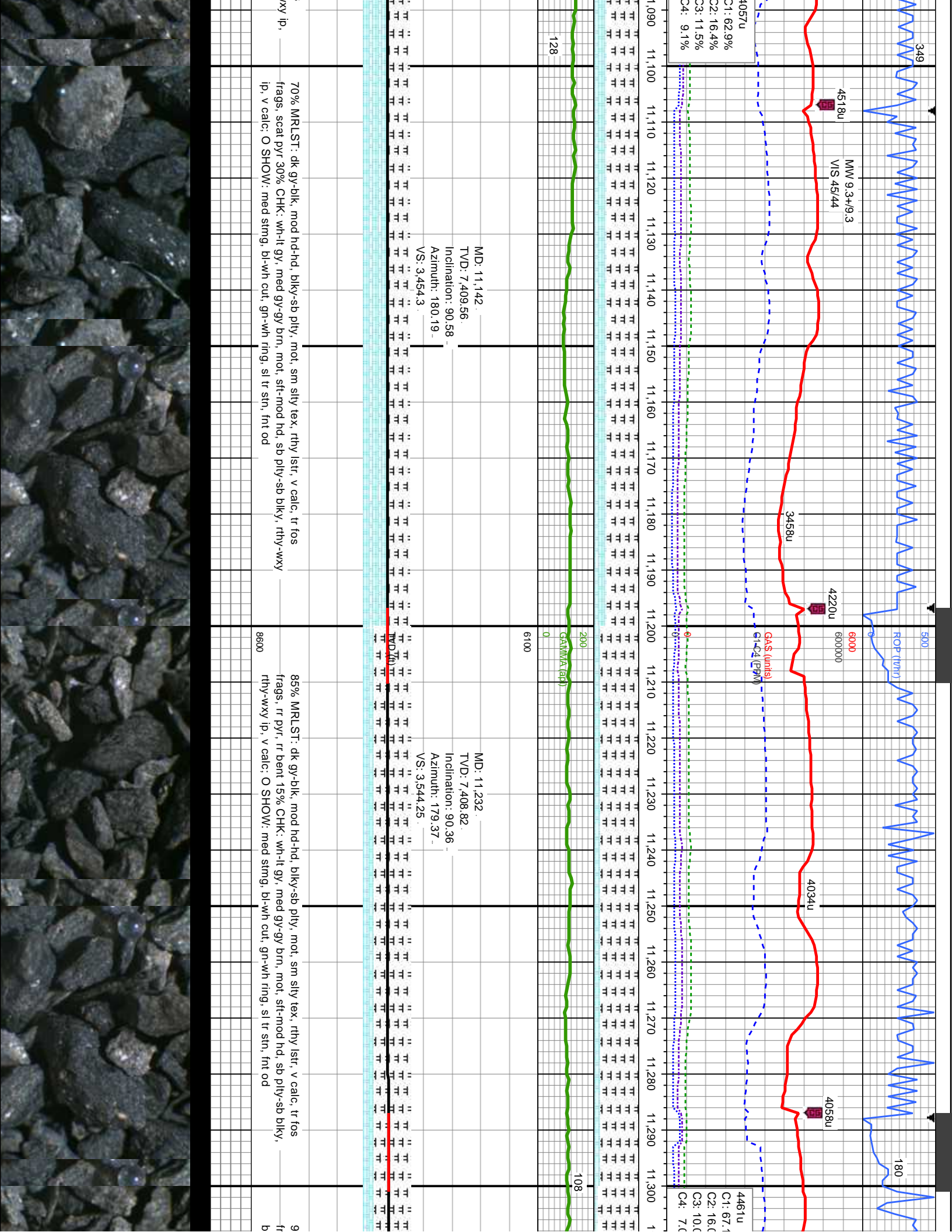


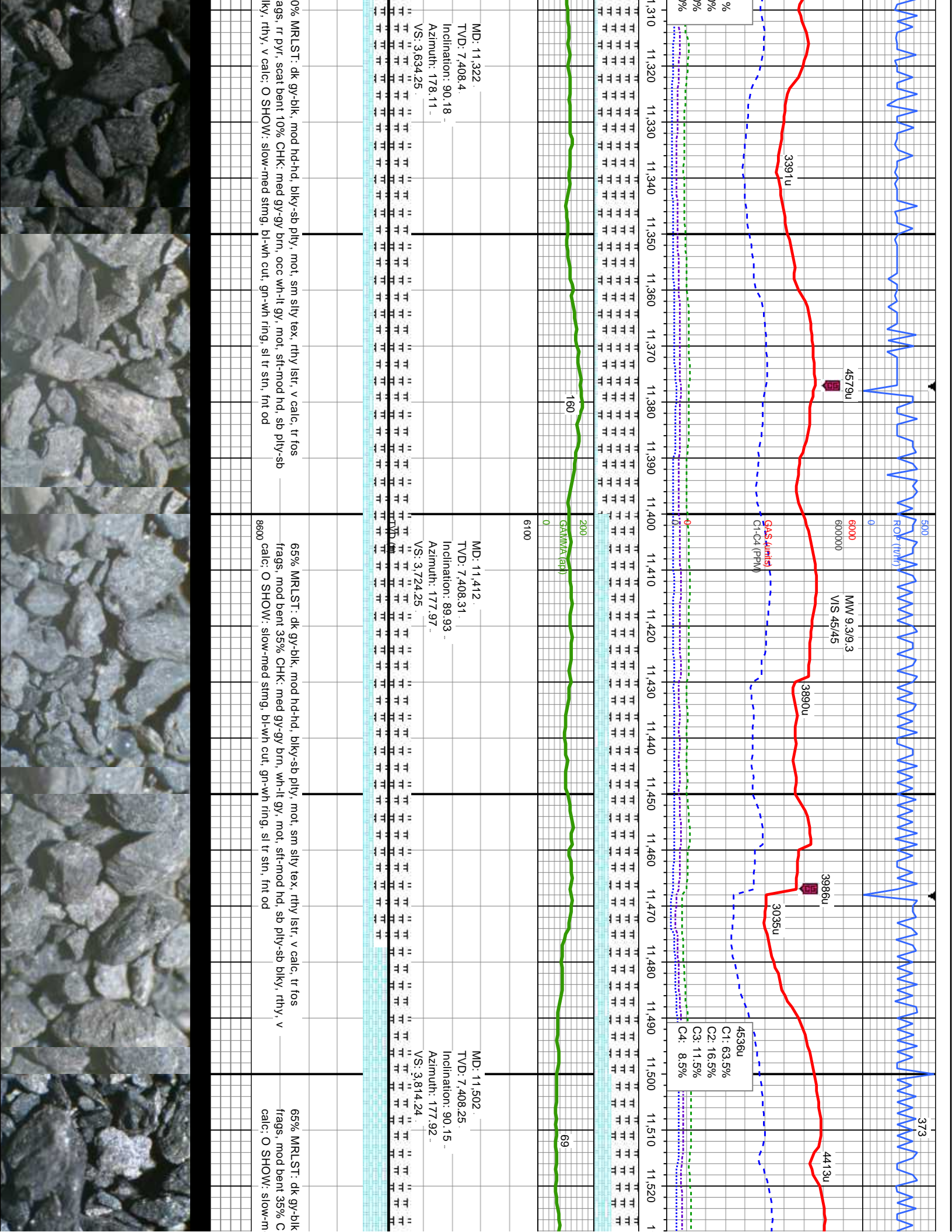


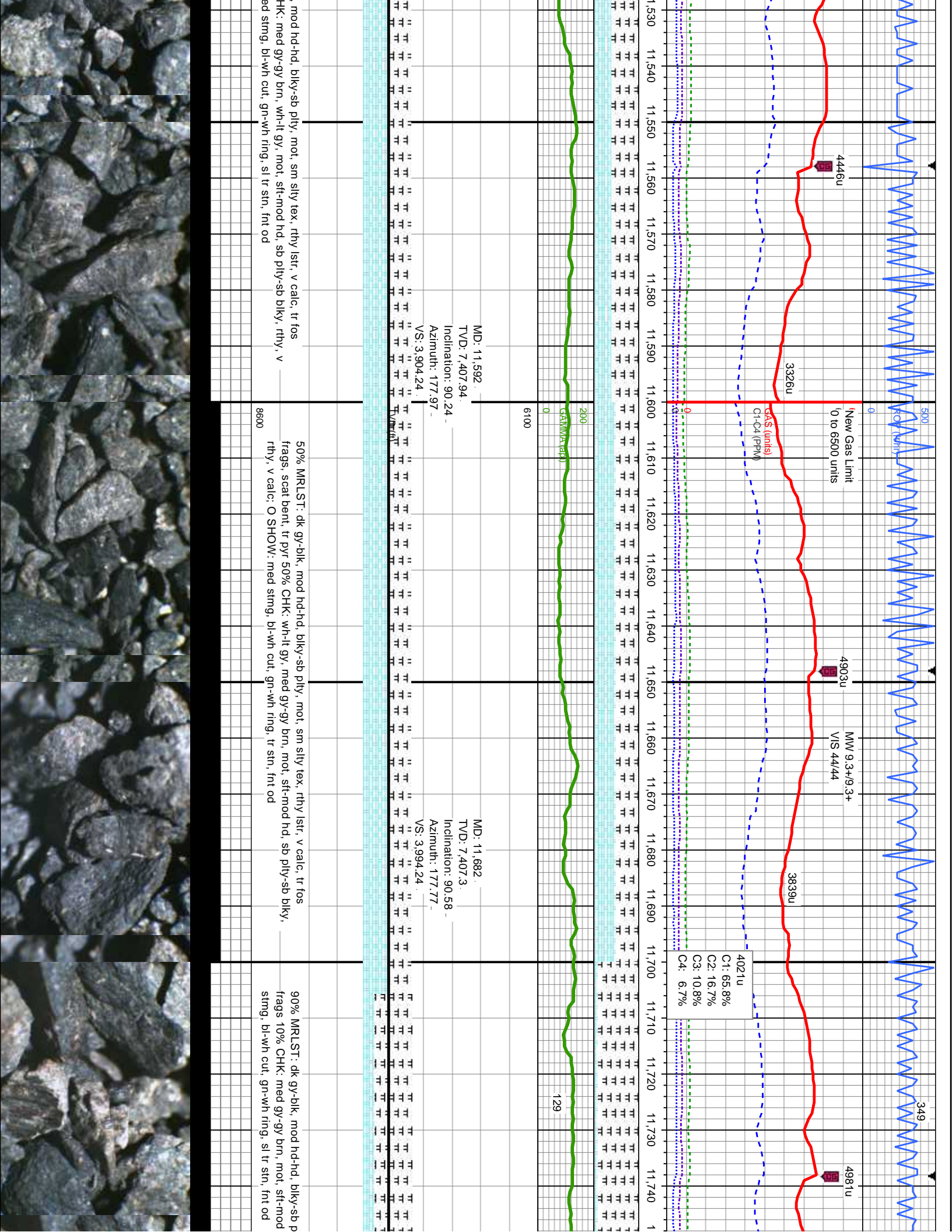


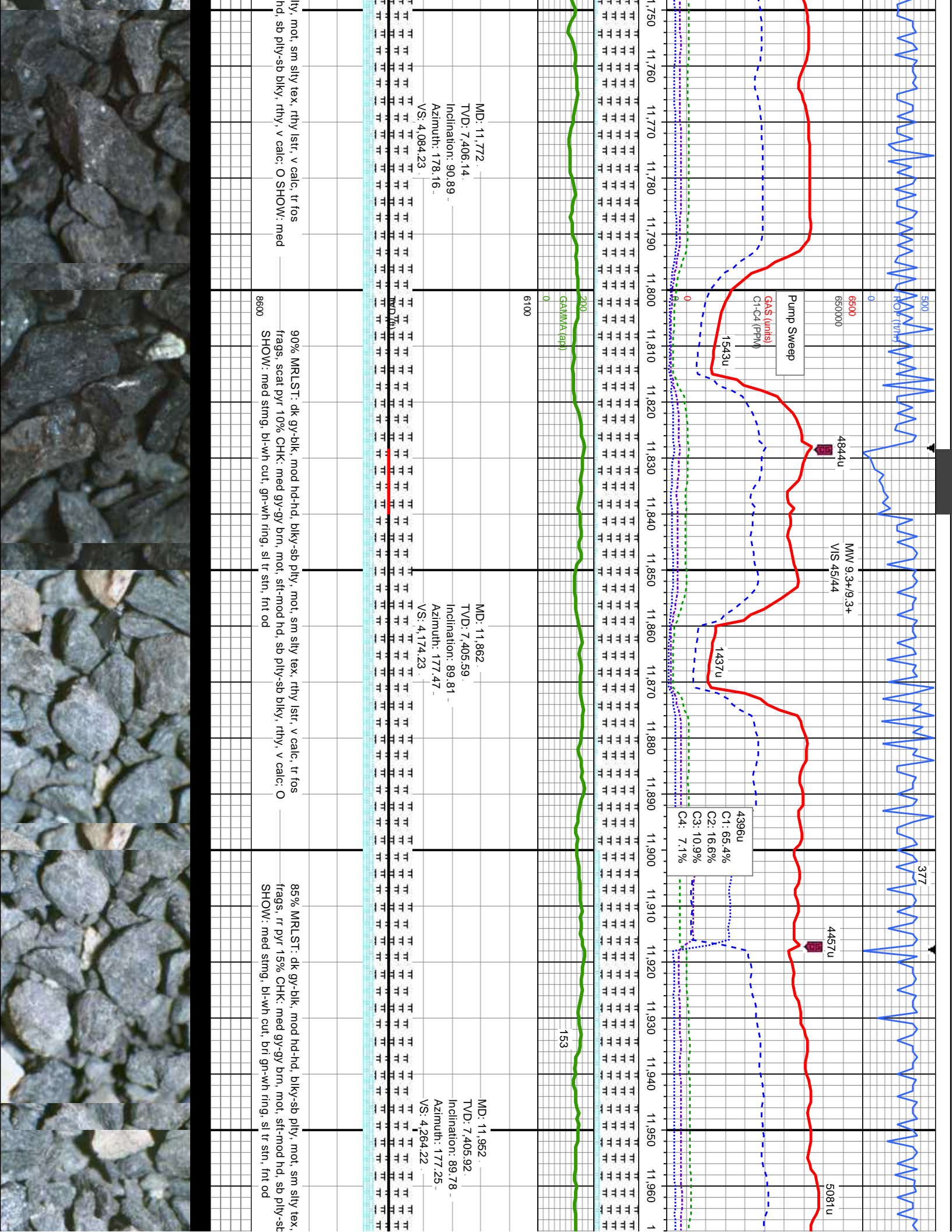


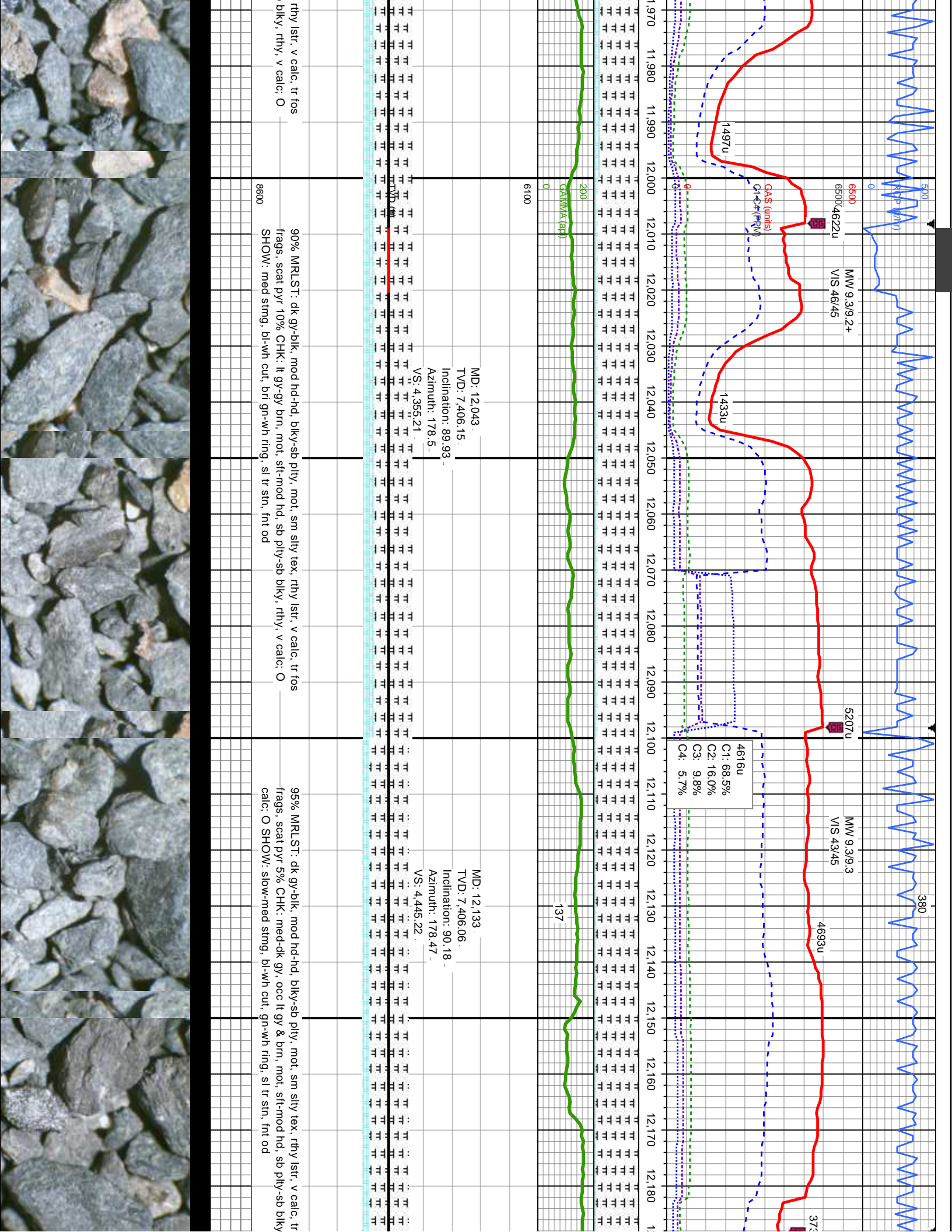


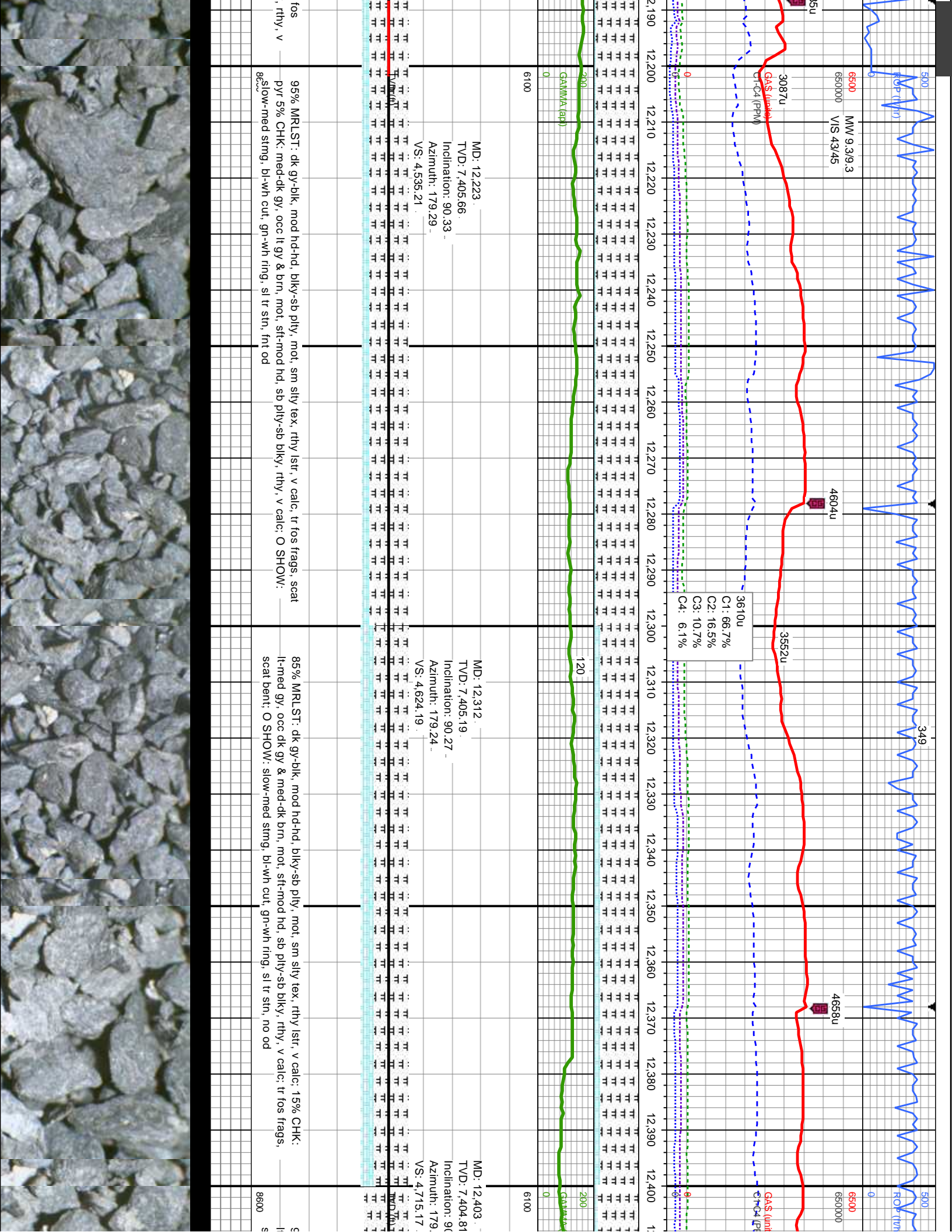


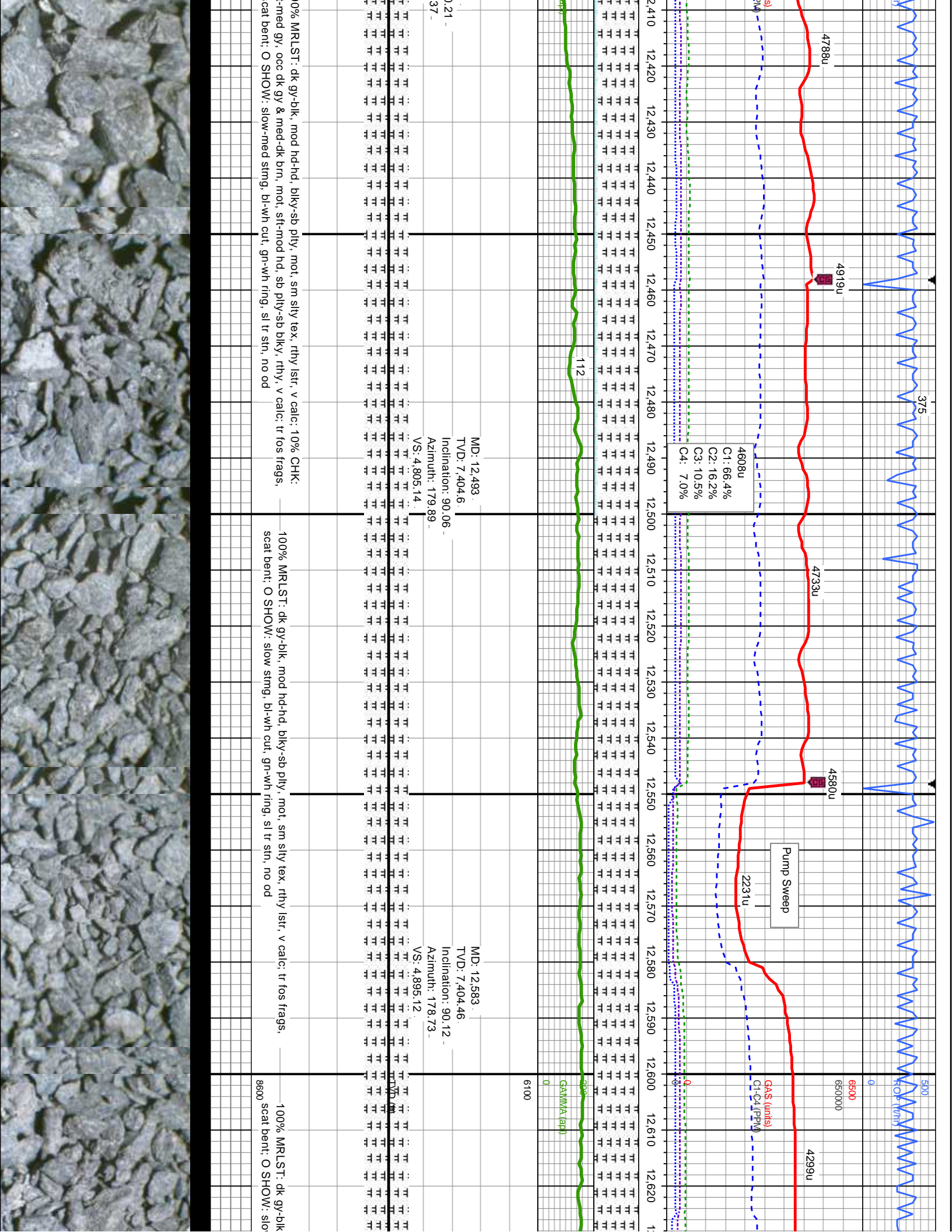


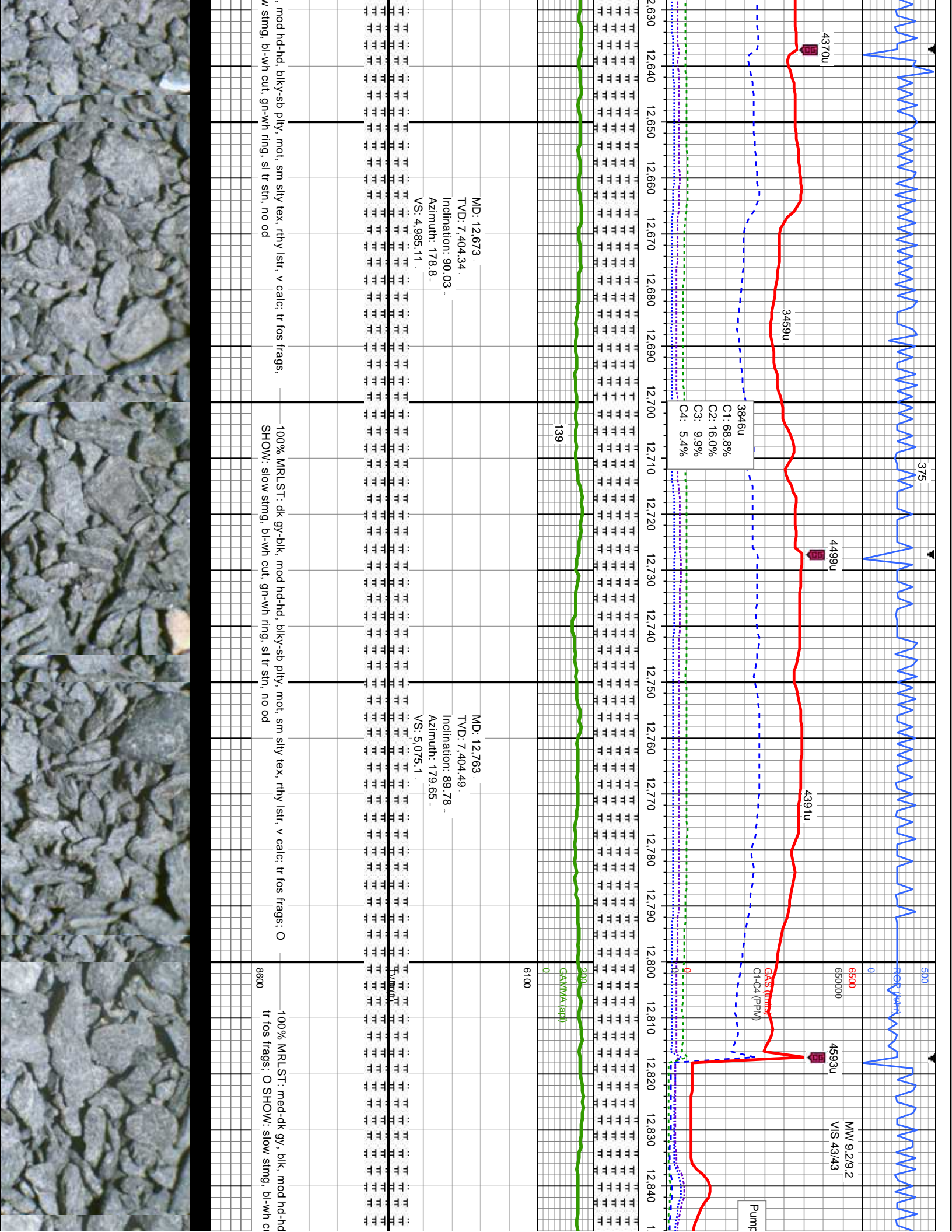


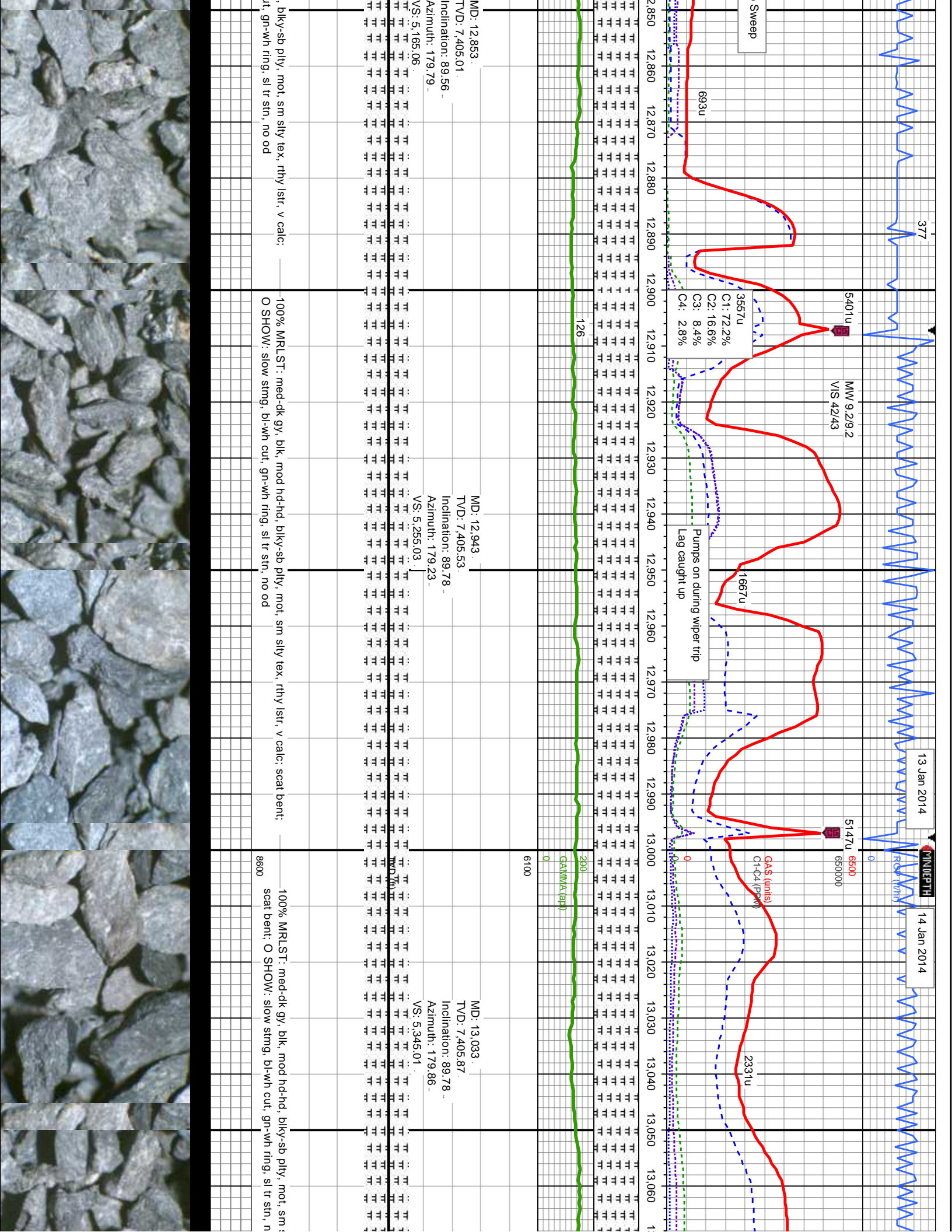


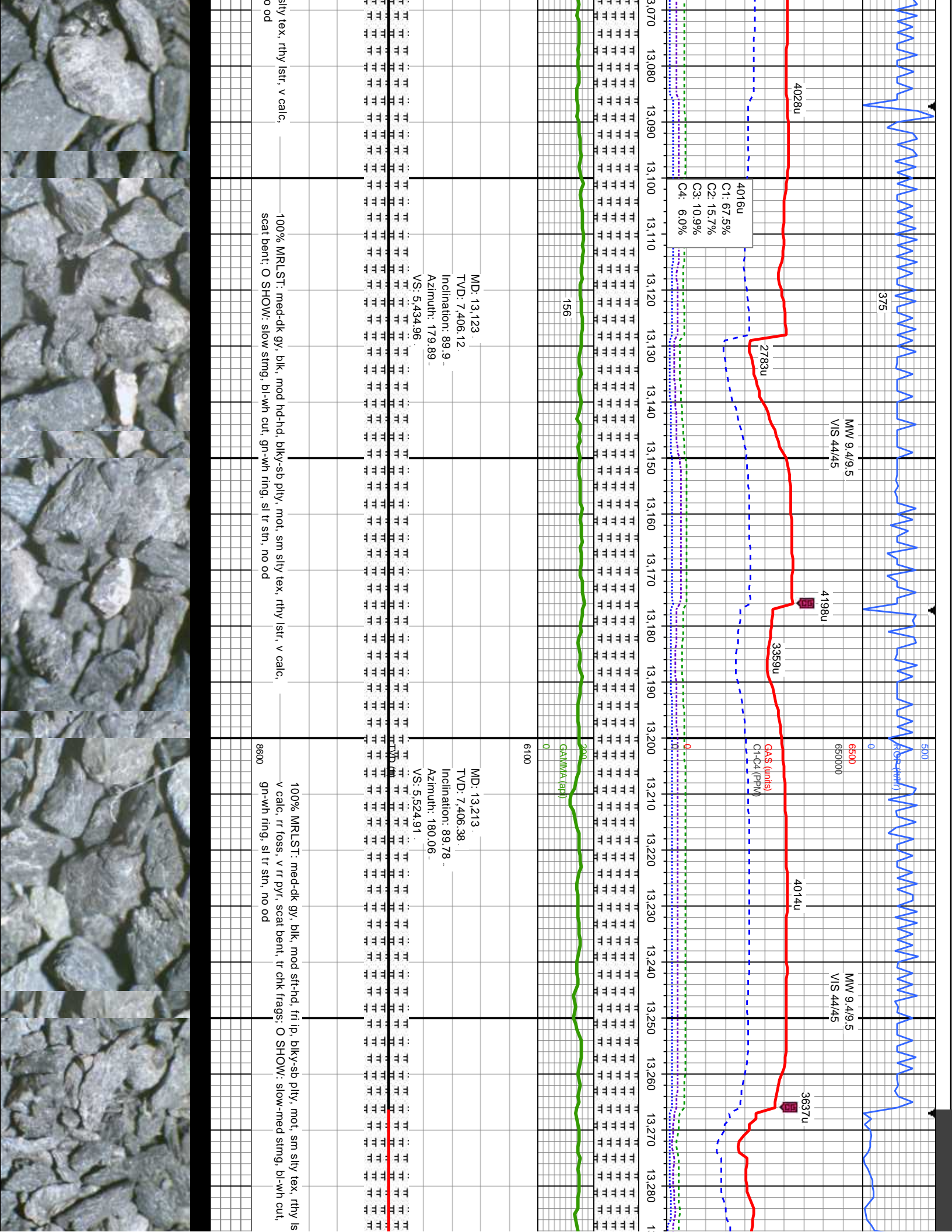


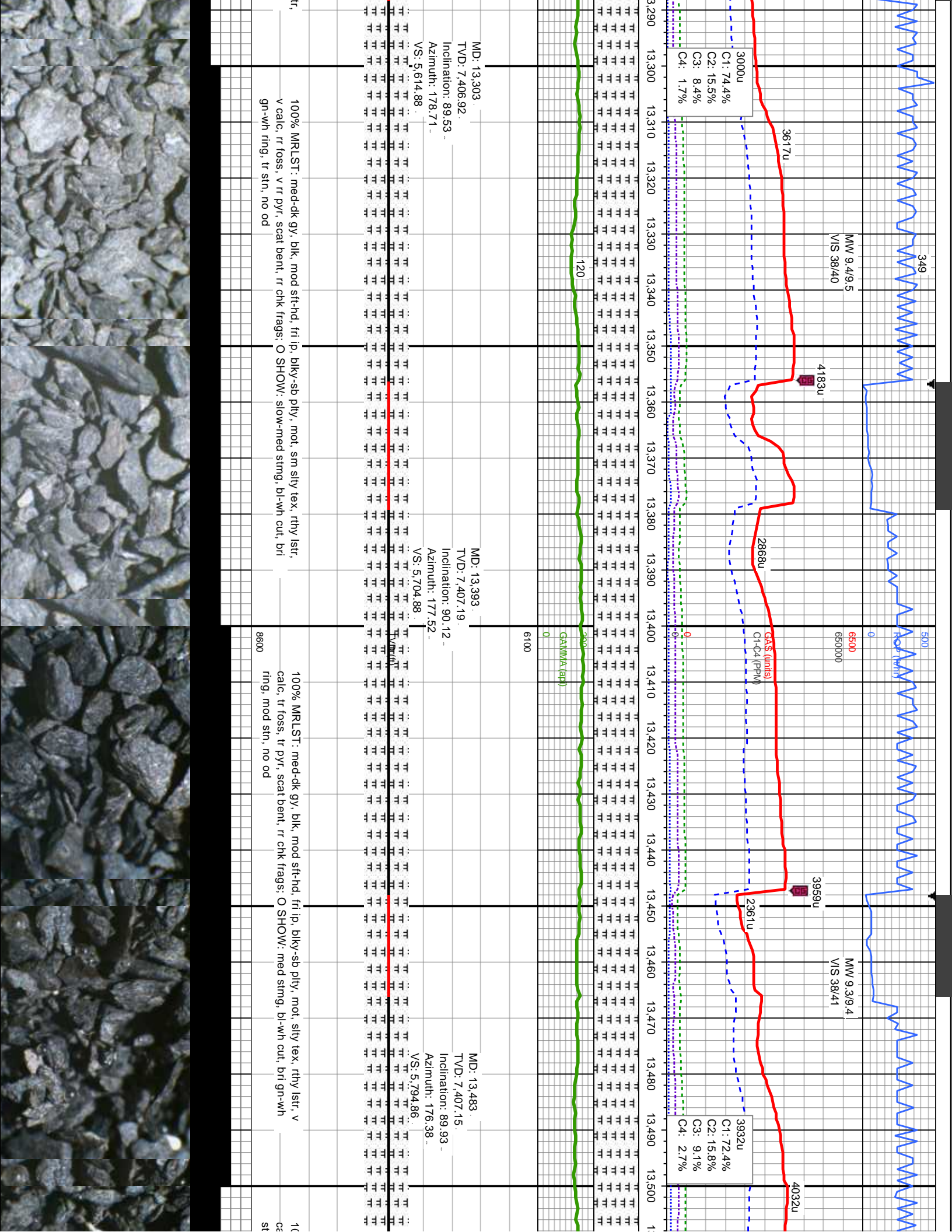


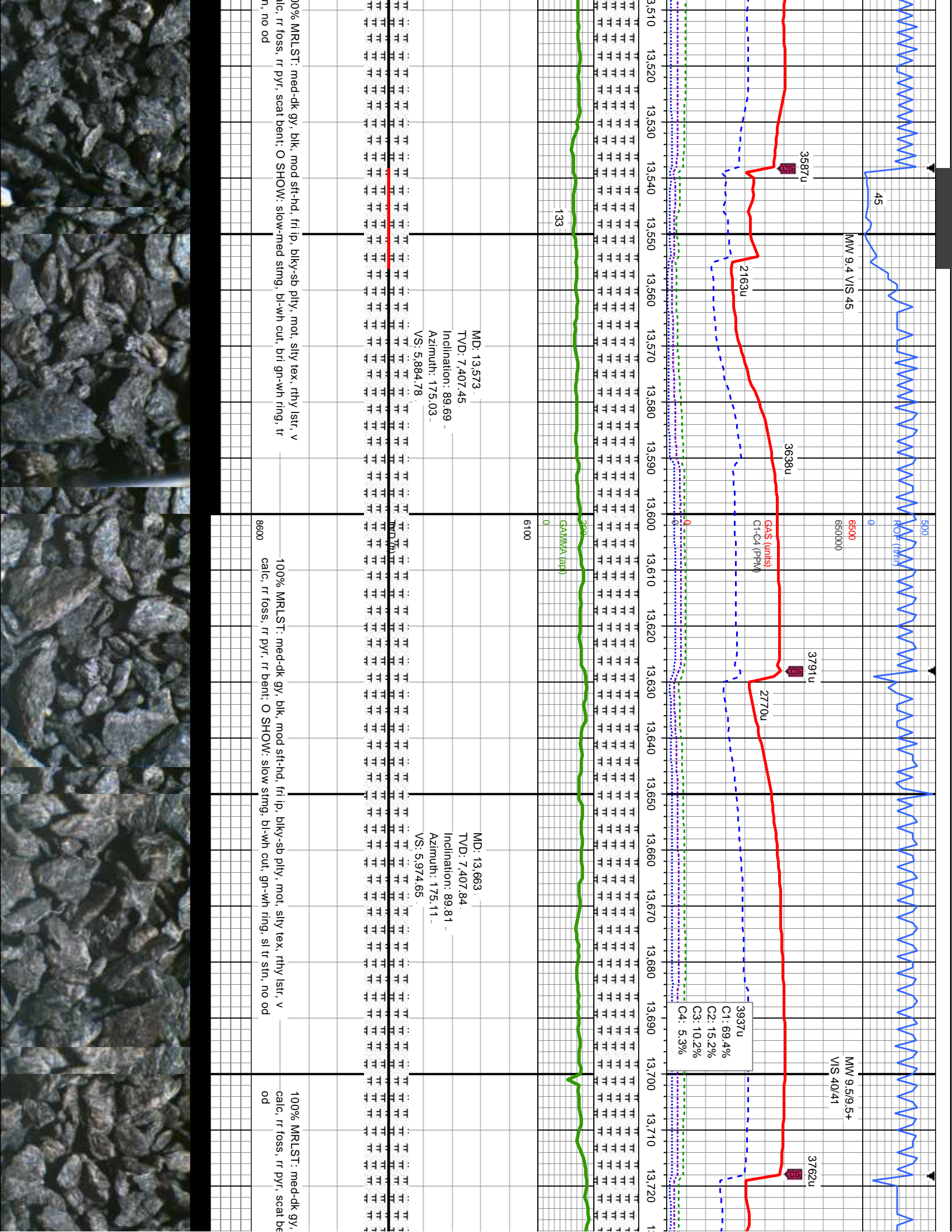


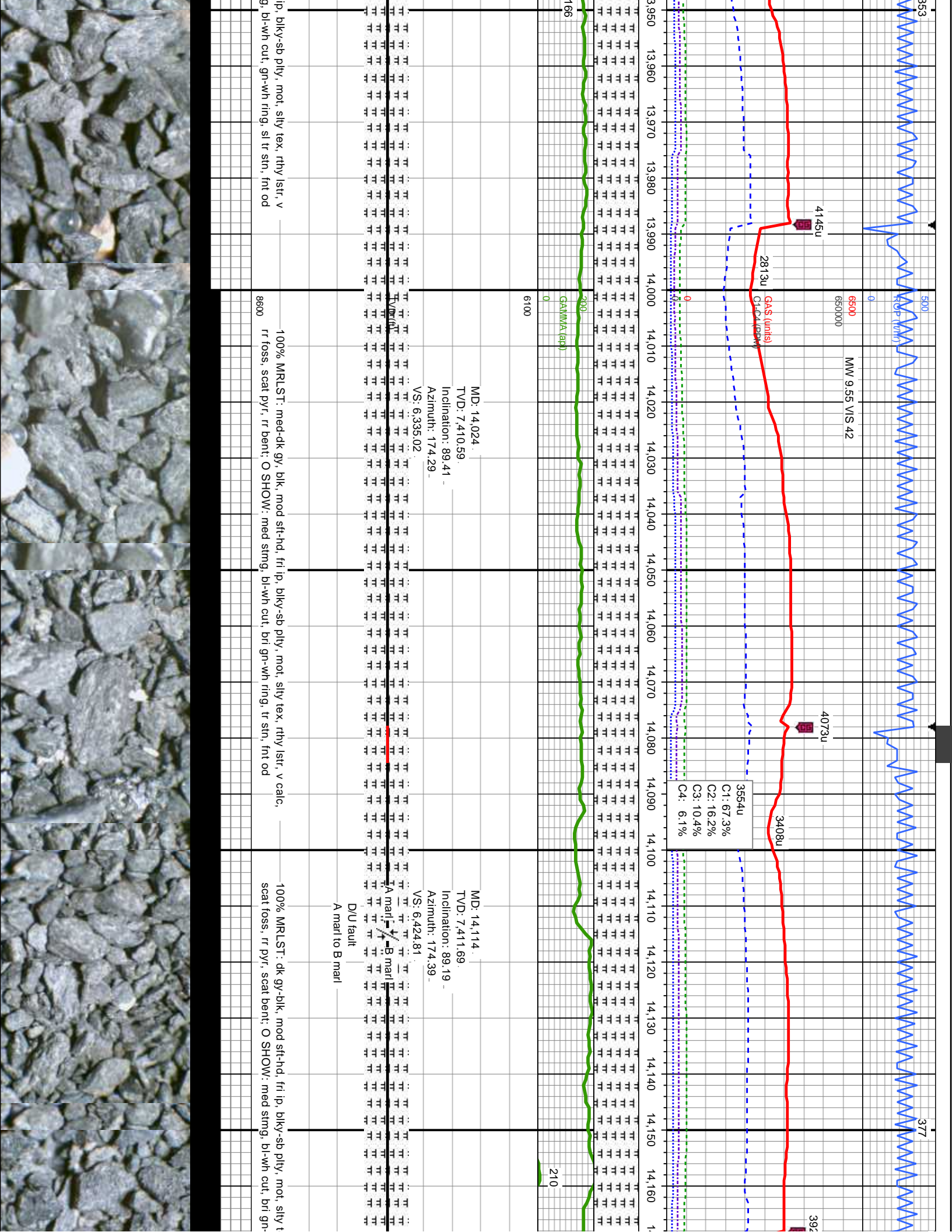


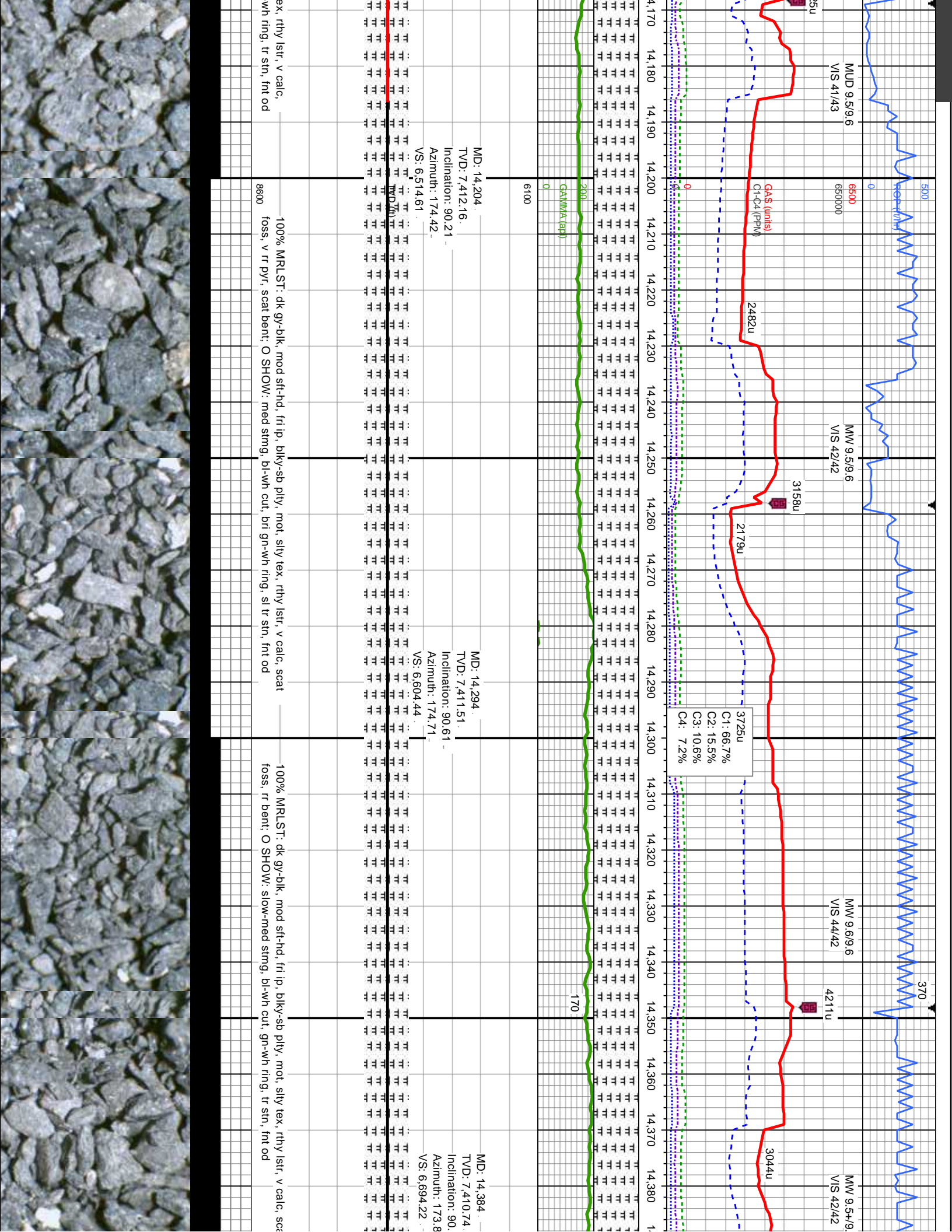


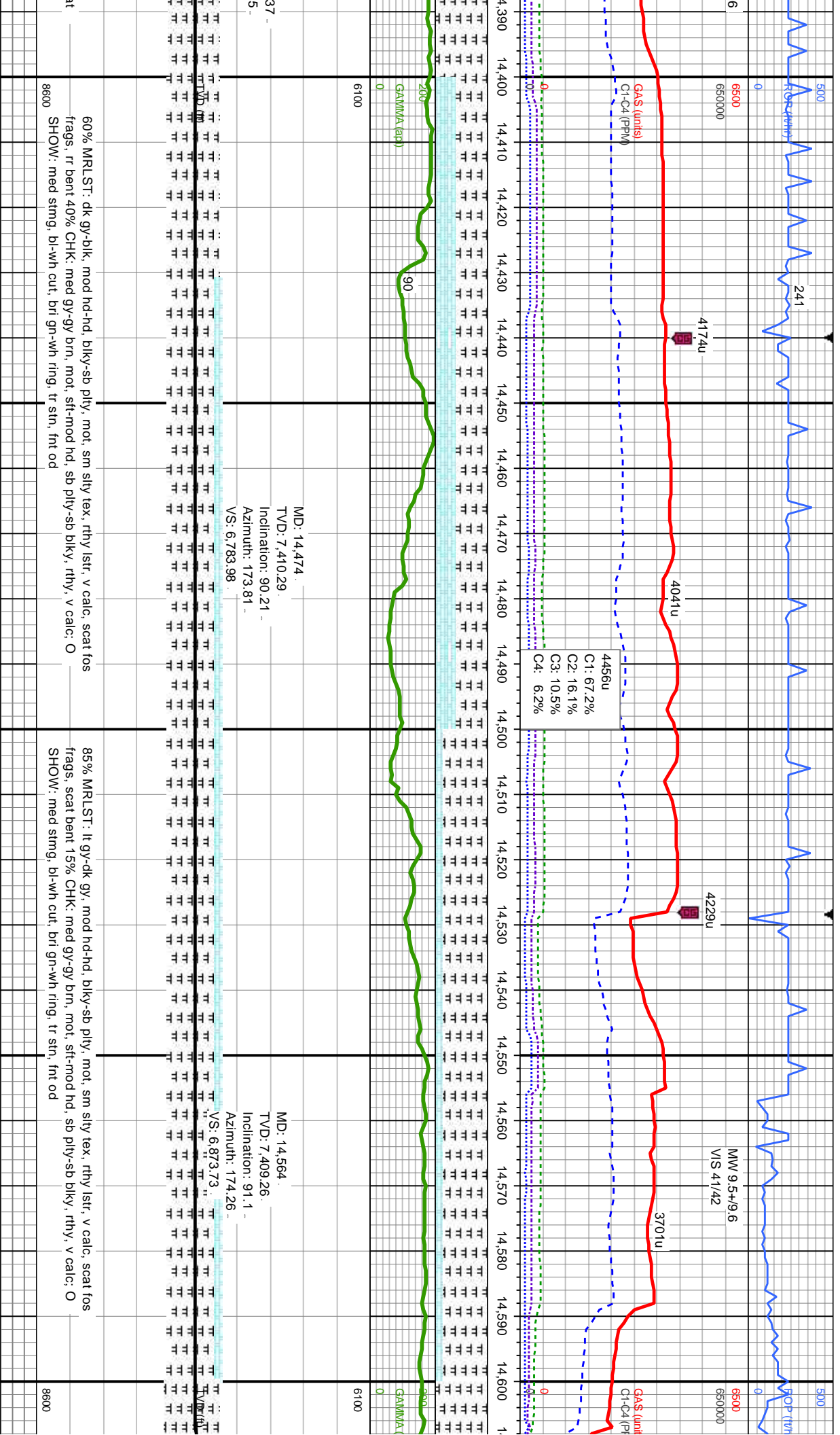












14 Jan 2014 15 Jan 2014

MINDEPTH

178

241

MW 9.6/9.6+
VIS 42/43

TOOH to fix/change BHA
1/14/14 @ 17:29 MST

Resumed Drilling
1/15/14 @ 17:12 MST

Bit Data
Bit #: 3
Type: VSS13D
Size: 6.125"
Depth In: 14,665'
Depth Out: 15,274'
Jets: 5x18
S/N: 406577

3412u
C1: 72.9%
C2: 14.9%
C3: 8.1%
C4: 4.1%

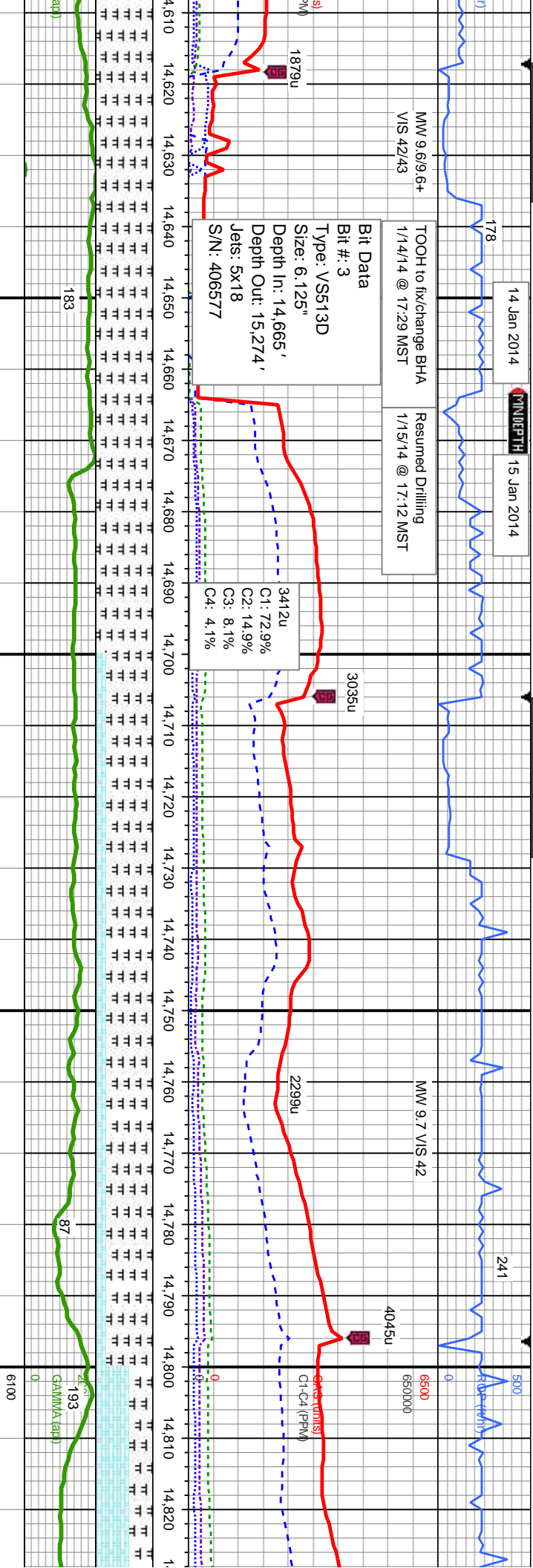
3035u

MW 9.7 VIS 42

4045u

2299u

650000
650000
C1-C4 (PPM)



MD: 14,654
TVD: 7,407.87
Inclination: 90.67
Azimuth: 174.68
VS: 6,963.54

MD: 14,743
TVD: 7,407.34
Inclination: 90
Azimuth: 175.26
VS: 7,052.39

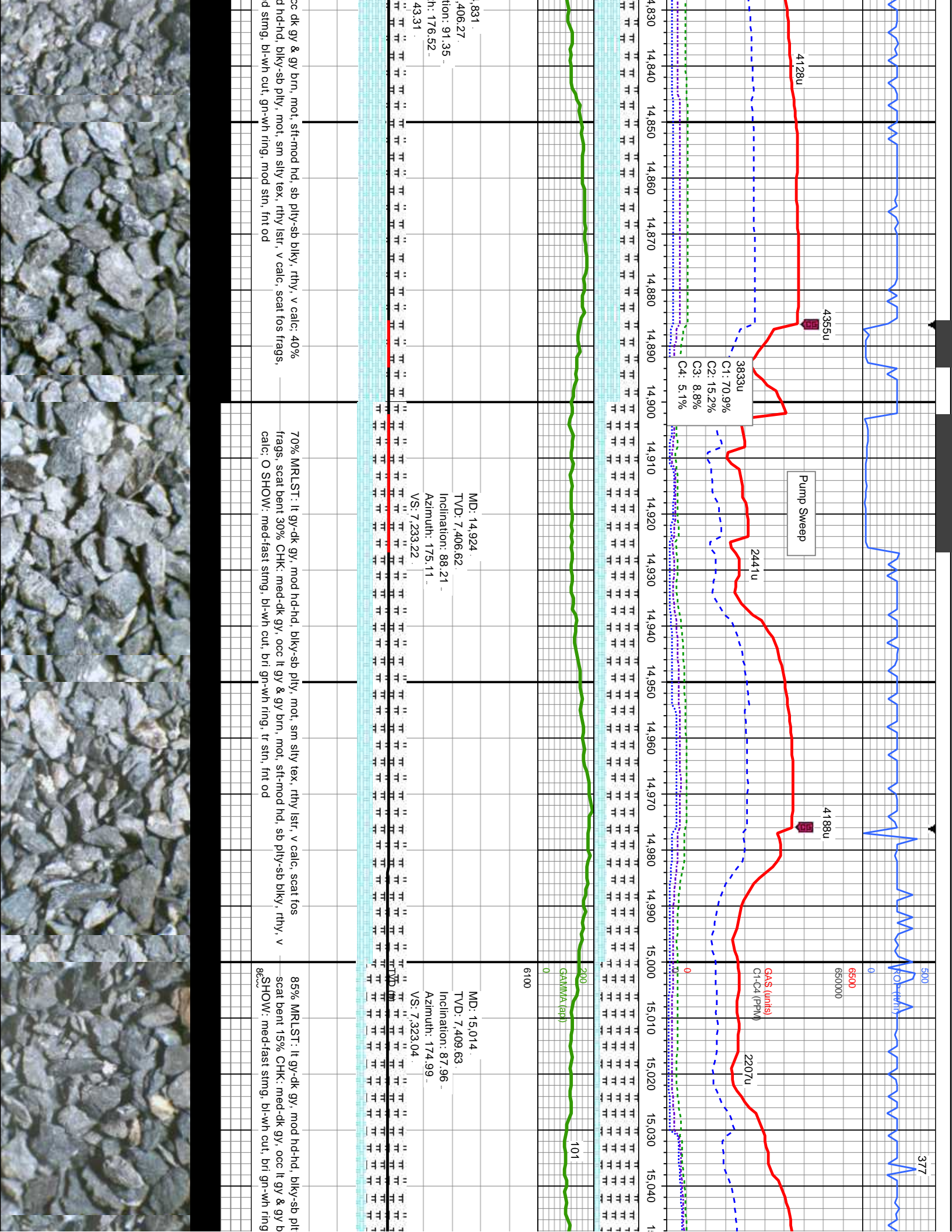
MD: 14
TVD: 7
Inclina
Azimu
VS: 7.1

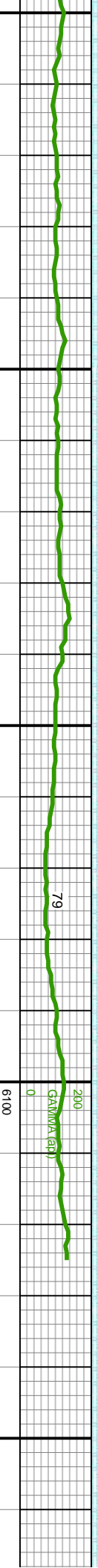
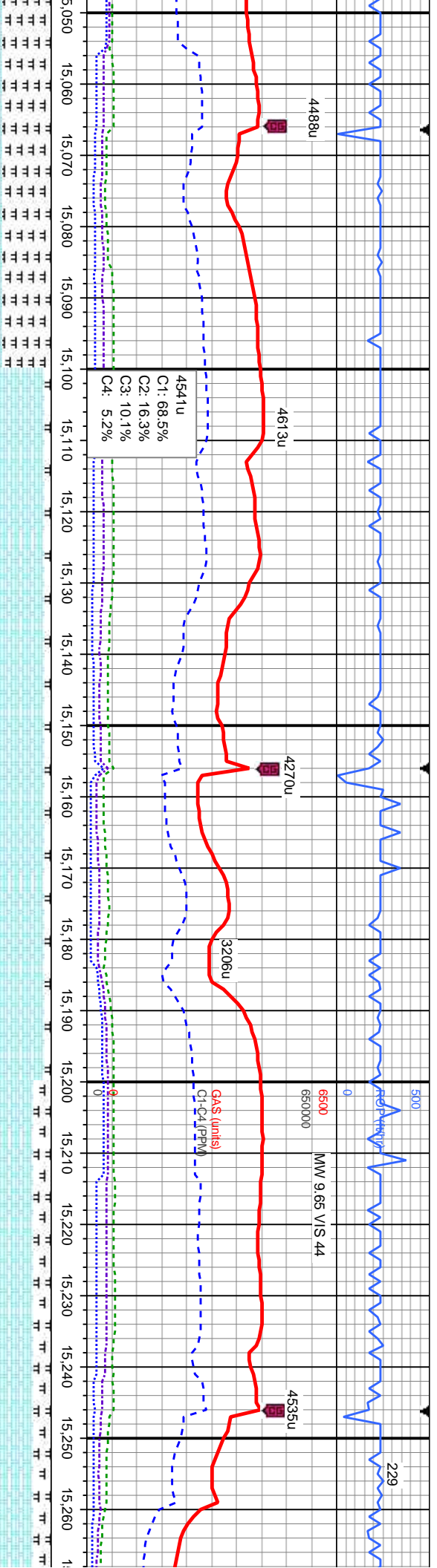
100% MRLST: lt gy-dk gy, mod hd-hd, blkly-sb pily, mot, sm silty tex, rthy lst, v calc, mod
fos frags, mod bent CHK: tr, med gy-gy brn, mot, sft-mod hd, sb pily-sb blkly, rthy, v calc, O
SHOW: med sting, bl-wh cut, bri gn-wh ring, tr stn, fnt od

80% MRLST: lt gy-dk gy, mod hd-hd, blkly-sb pily, mot, sm silty tex, rthy lst, v calc, scat fos frags,
scat bent 20% CHK: lt-med gy, occ dk gy & gy brn, mot, sft-mod hd, sb pily-sb blkly, rthy, v calc, O
SHOW: med sting, bl-wh cut, bri gn-wh ring, tr stn, fnt od

60% CHK: lt-med gy, o
MRLST: lt gy-dk gy, mo
scat bent: O SHOW: me







MD: 15,104
TVD: 7,412.92
Inclination: 87.84
Azimuth: 176.07
VS: 7,412.88

MD: 15,194
TVD: 7,416.37
Inclination: 87.77
Azimuth: 175.82
VS: 7,502.75

MD: 15,220
TVD: 7,417.39
Inclination: 87.75
Azimuth: 175.58
VS: 7,528.71

mot, sm silty tex, rthy lstr, v calc, scat fos frags,
mot, sft-mod hd, sb ply-sb blkly, rthy, v calc; O
tr stn, fnt od

90% CHK: lt-*mea* gy, *occ* dk gy & gy brn, *mot* stf-*mod* hd, sb *ply*-sb *biky*, *rthy*, v *calc*; 10% MRLST: lt-gy-dk gy, *mod* hd-hd, *biky*-sb *ply*, *mot*, sm *sily* tex, *rthy* lstr, v *calc*, tr scat fos frags, tr bent; O — SHOW: med-fast smtg, bl-wh cut, bri gn-wh ring, tr sin, fnl od

70% CHK: lt- med gy, occ dk gy & gy brn, mol, sft-med hd, sb pily blyk, rthy, v calc; 30% MRLST: lt gy-dk gy, mod hd-hd, blyk-sb pily sm sily tex, rthy lsrt, v calc, scat fos frags, tr bent; O SHOW: med strng, bl-wh cut, bri gn-wh ring, tr str, fnt od



