



Scale: 5" / 100'
Measured Depth Log

Well Name Pronghorn 11-14-18HNB

Location NWNE SEC 18 T5N R61W

State COLORADO

Country USA

API Number 05-123-38973

Region DJ BASIN

Spud Date 3/19/2014

Surface Coordinates 200' FNL, 1311' FWL
40.40796, -104.25719

Bottom Hole Coordinates 470' FSL, 659 FWL
40.39496, 104.25951

Ground Elevation 4,569'

Logged Interval 5,600' **To** 10,822'

Formation NIOBRARA B CHALK

Type of Drilling Fluid FW LSND

County WELD

Rig Number CADE 25

Field WATTENBERG

Drilling Completed 3/26/2014

K.B. Elevation 4,586'

Total Depth 10,822'

Company Bonanza Creek
Address 410 17th STREET
DENVER, CO 80202

Name BRANT LOGAN
Company BONANZA CRE
Address 410 17th STREET
DENVER, CO 80202

COLUMBINE LOGGING, INC
WELL-SITE GEOLOGISTS

Operator

Energy Inc.

IT, SUITE 1500
202

Geologist

EK ENERGY INC.

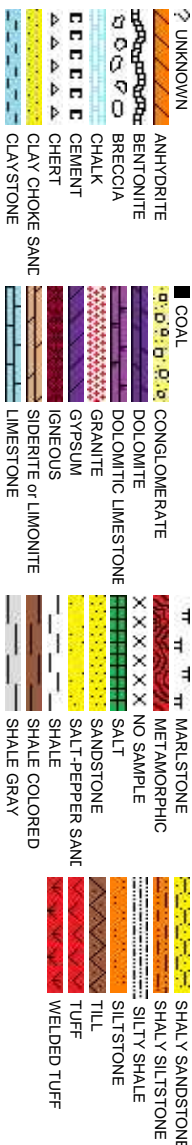
IT, SUITE 1500
202

Other

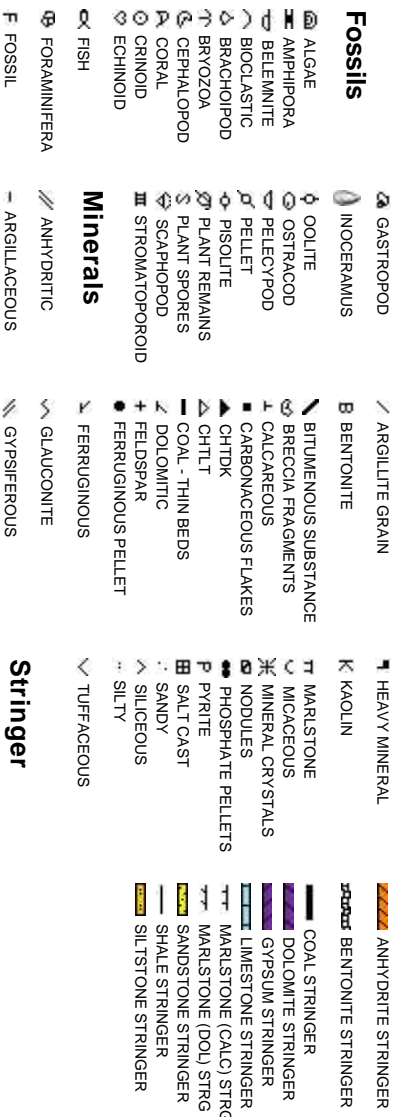
2385 S. LIPAN ST.
DENVER, CO 80223

CHRISTIAN VENTURINO
JEFF LACY

Rock Types

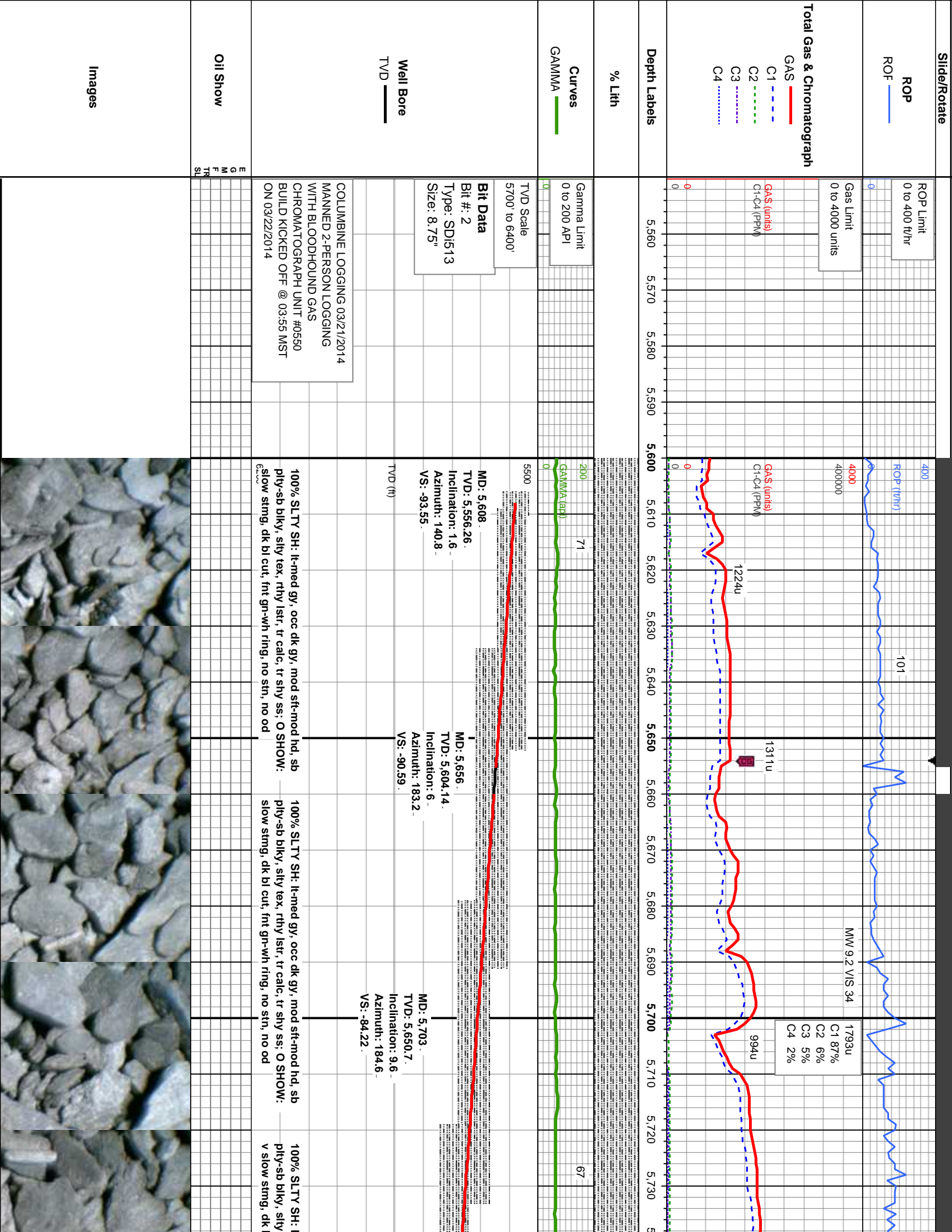


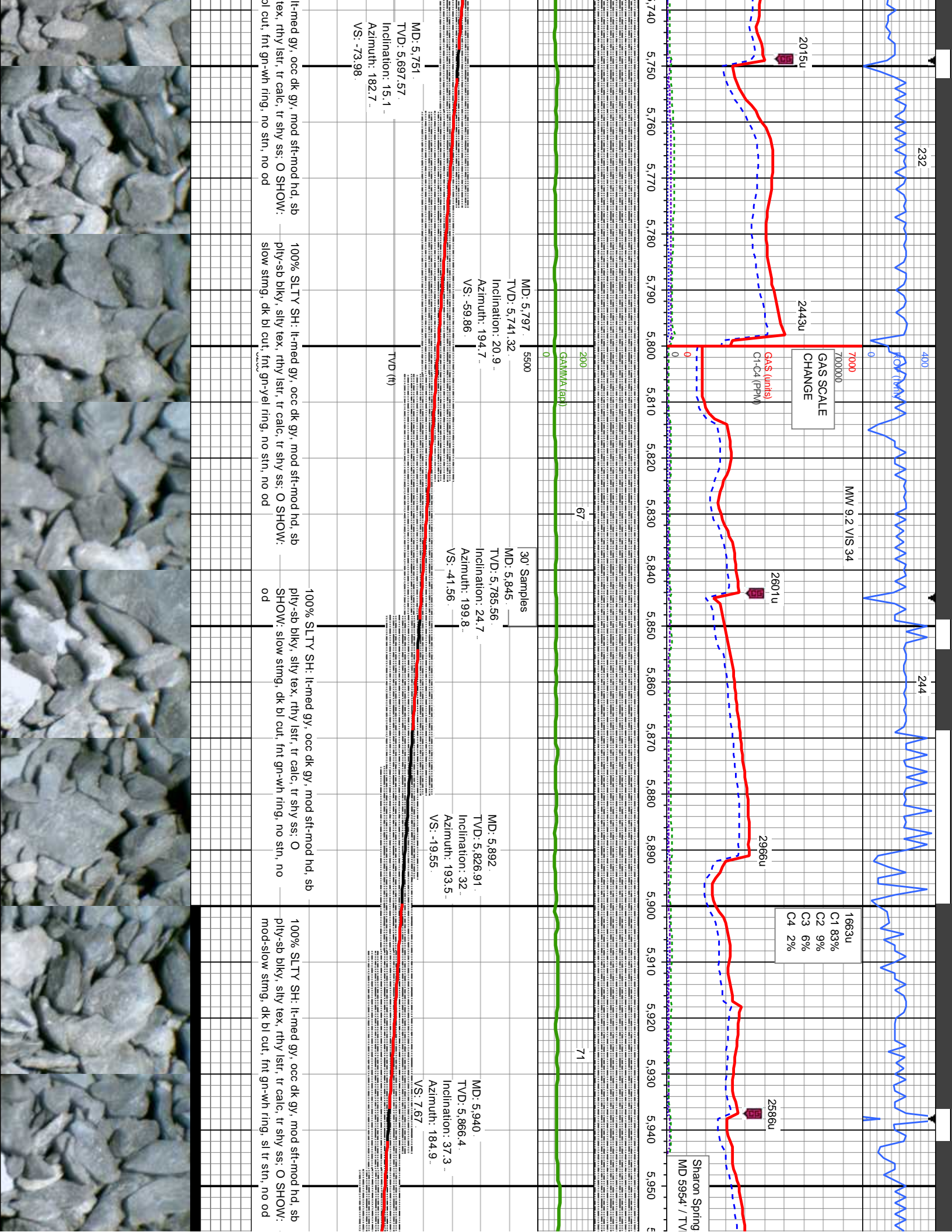
Accessories

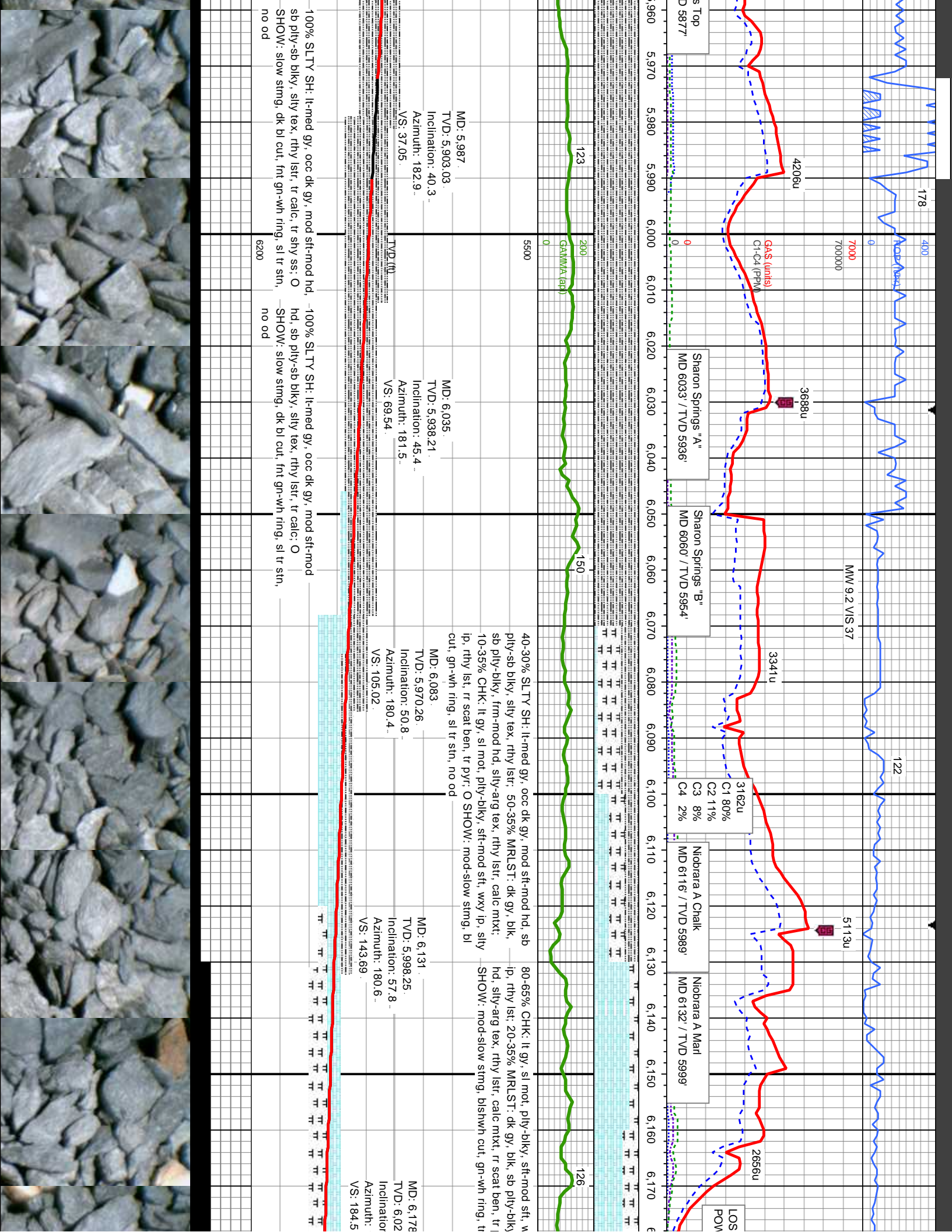


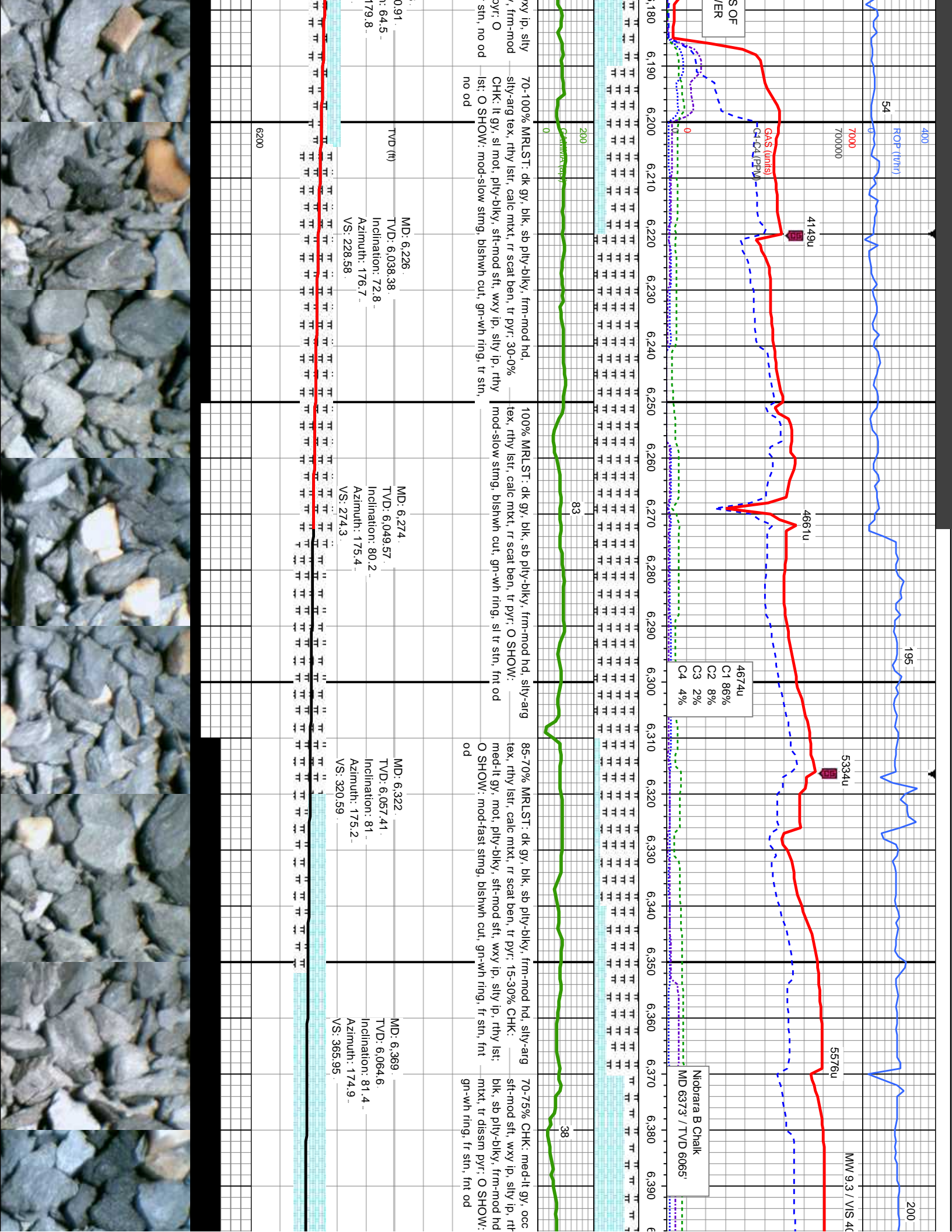
Other Symbols

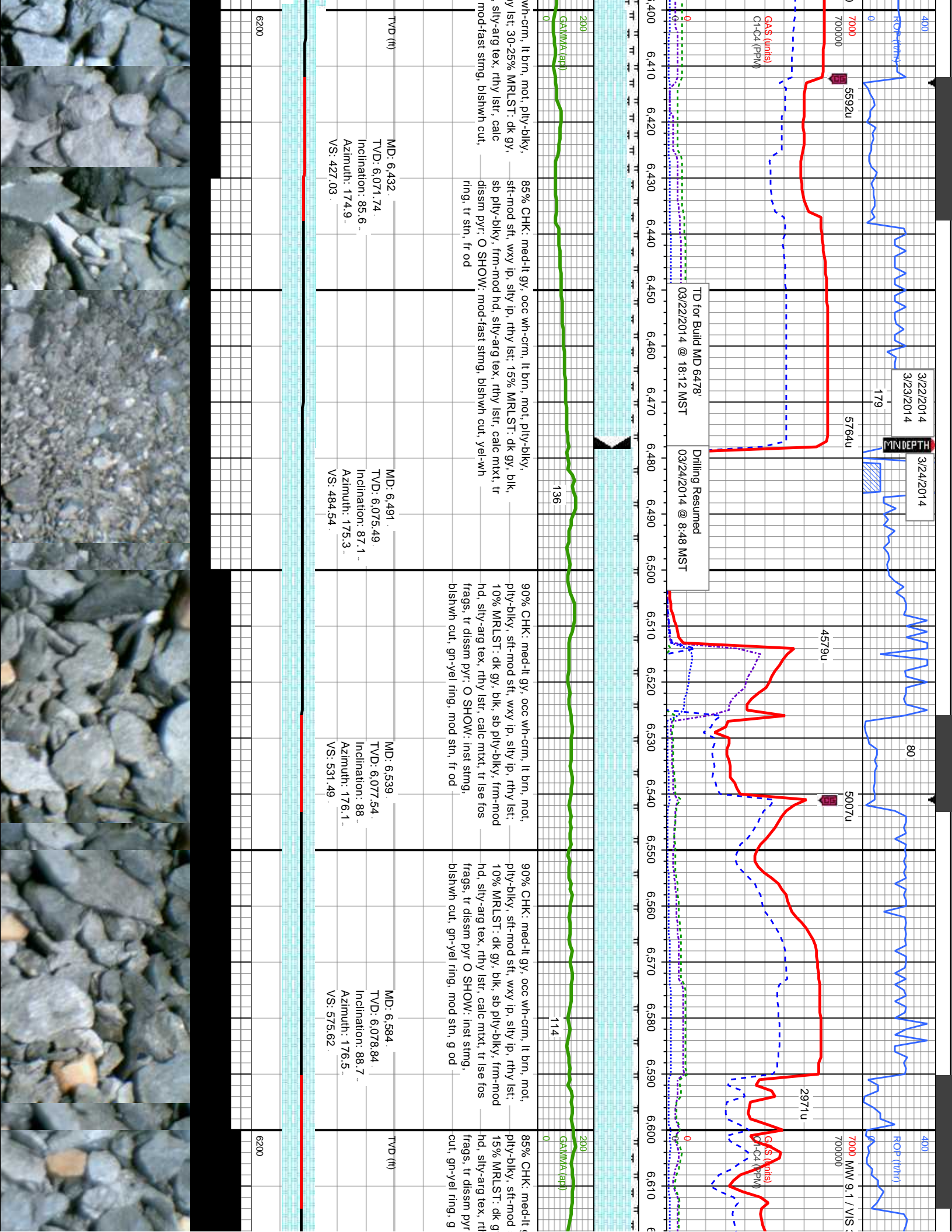
Oil Show	P PINPOINT V VUGGY	DST INTERVAL FAULT	WIRELINE TESTED - LEFT WIRELINE TESTED - RT	E EARTHY FX FINELYXLN
D DEAD	Engineering	FORMATION TOP	DRILL STEM TEST	GS GRAINSTONE
● EVEN	BIT	GAS SHOW OIL SHOW	MNDEPTH MN DEPTH	L LITHOGRAPHIC MX MICROXLN
○ QUESTIONABLE	SPOTTED STAINING	CONNECTION (UP)	Rounding	MS MUDSTONE
● SPOTTED STAINING	CONNECTION (UP)	MNDEPTH UP		
	CONNECTION (DOWN)	MNDEPTH (DOWN)	A ANGULAR	PS PACKSTONE
Porosity	CONNECTION GAS	NORMAL FAULT	R ROUNDED	WS WACKESTONE
E EARTHY	CONNECTION GAS (LEFT)	OVERTURNED STRATA	B SUBANG	
F FENESTRAL	TRIP GAS	REVERSE FAULT	P SUBRND	Sorting
F FRACTURE	TRIP GAS (LEFT)	CASING		M MODERATE
X INTERCRYSTALLINE	DOWN TIME GAS	SIDEWALL CORE (LEFT)	Textures	P POOR
Q INTEROOLITIC	DOWN TIME GAS (LEFT)	SIDEWALL CORE (RIGHT)	BS BOUNDSTONE	W WELL
M MOLDIC	CORE - LOST	SLIDE	C CHALKY	
O ORGANIC	CORE - RECOVERED	SURVEY	CX CRYPTOXLN	

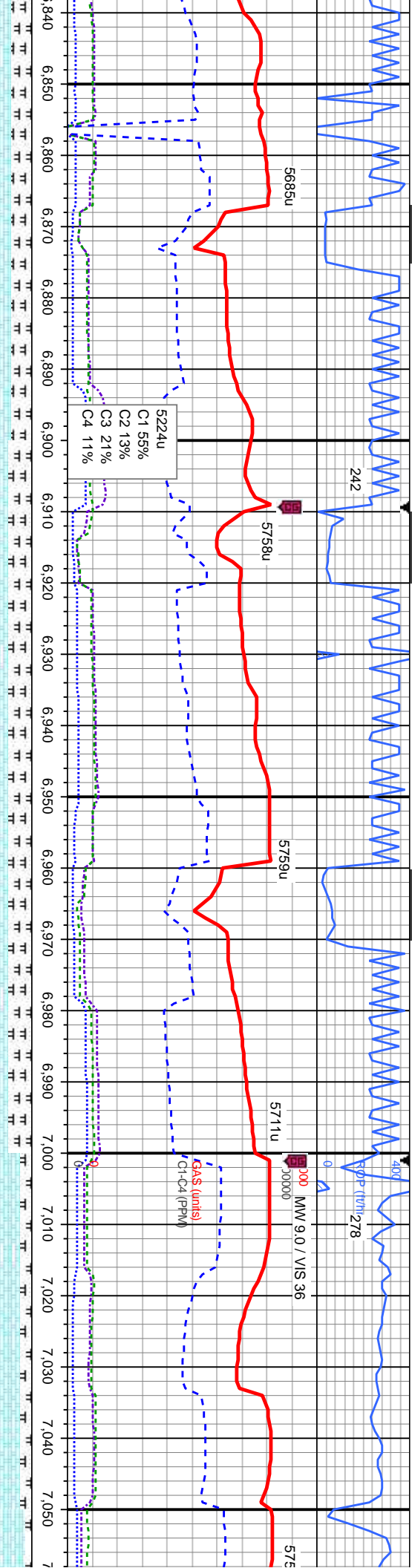






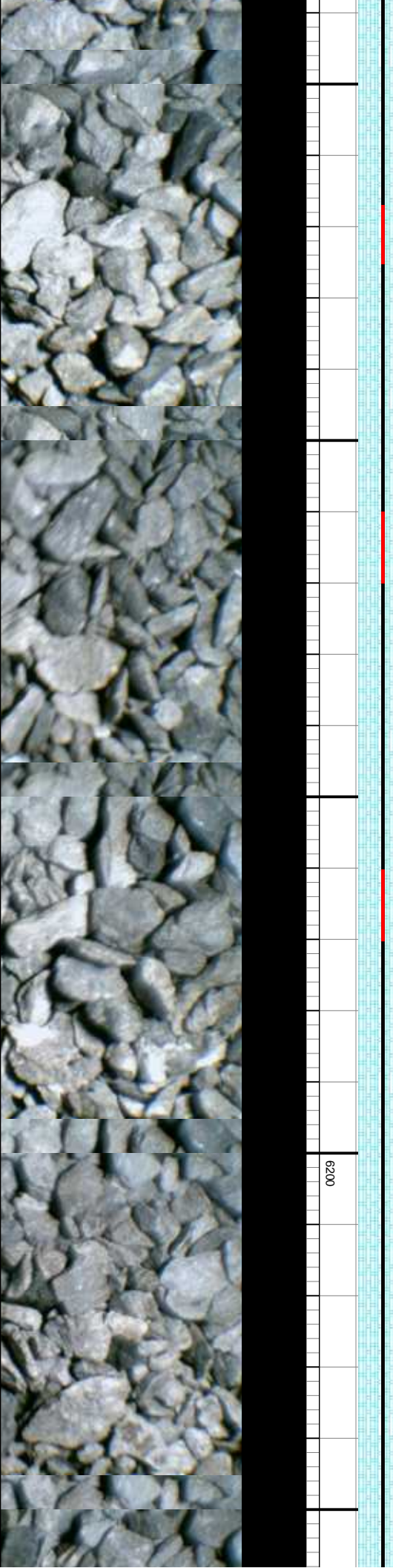


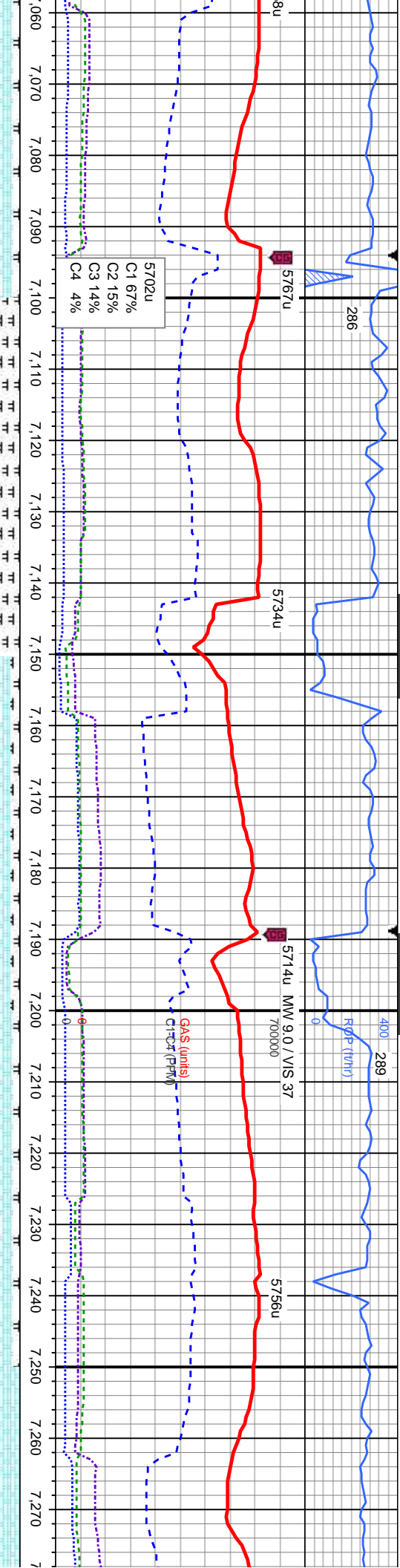




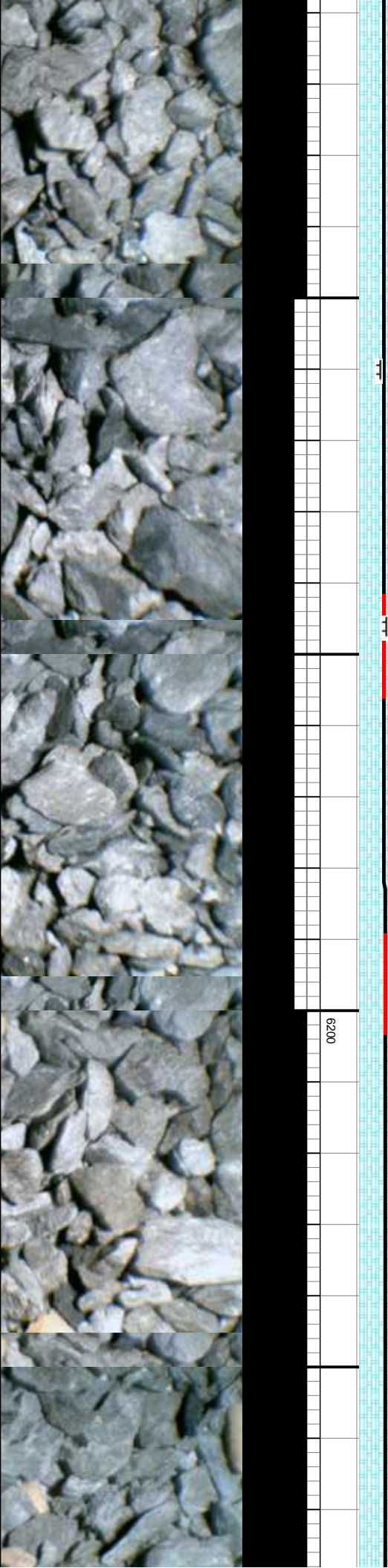
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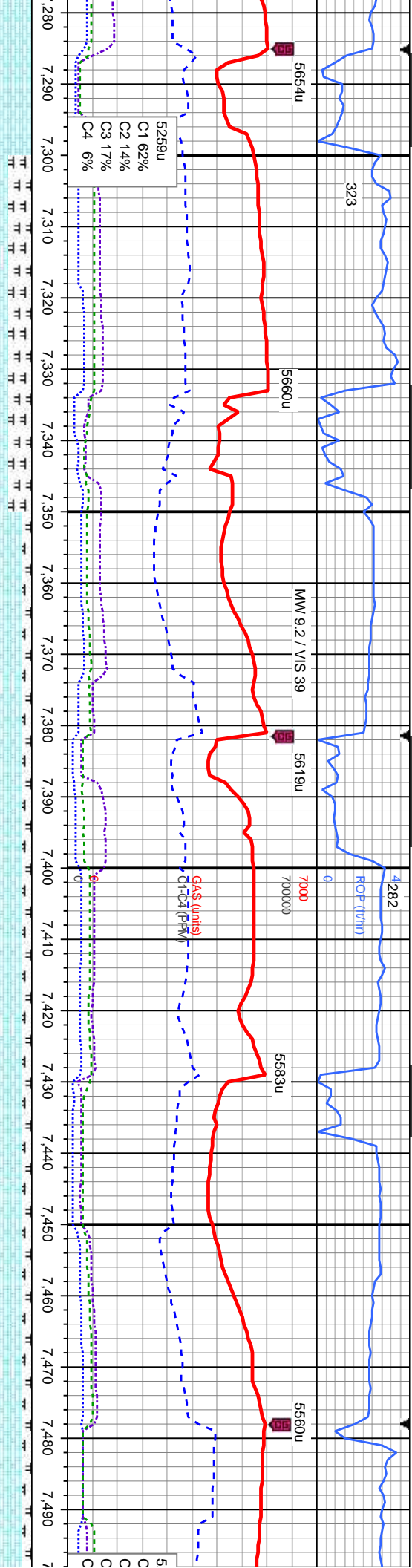
MD: 6.860 TVD: 6.078.67 Inclination: 90.6 Azimuth: 181.2 VS: 848.5	MD: 6.908 TVD: 6.078.42 Inclination: 90 Azimuth: 181.4 VS: 896.22	MD: 6.951 TVD: 6.078.68 Inclination: 89.3 Azimuth: 181.4 VS: 938.98	MD: 6.999 TVD: 6.078.93 Inclination: 90.1 Azimuth: 182.2 VS: 986.75	MD: 7.043 TVD: 6.078.78 Inclination: 90.3 Azimuth: 182 VS: 1,030.55
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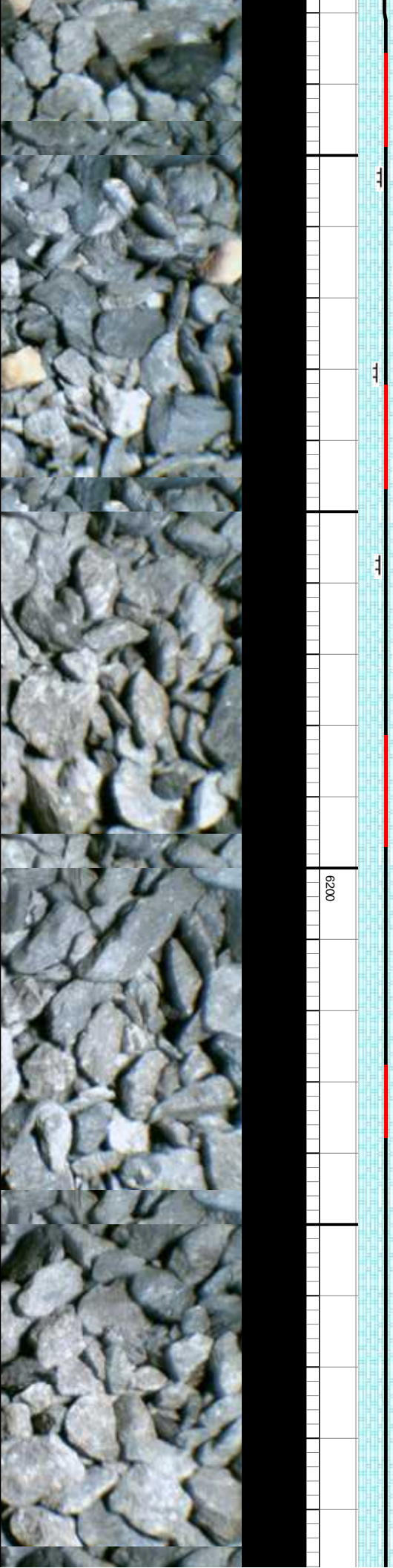


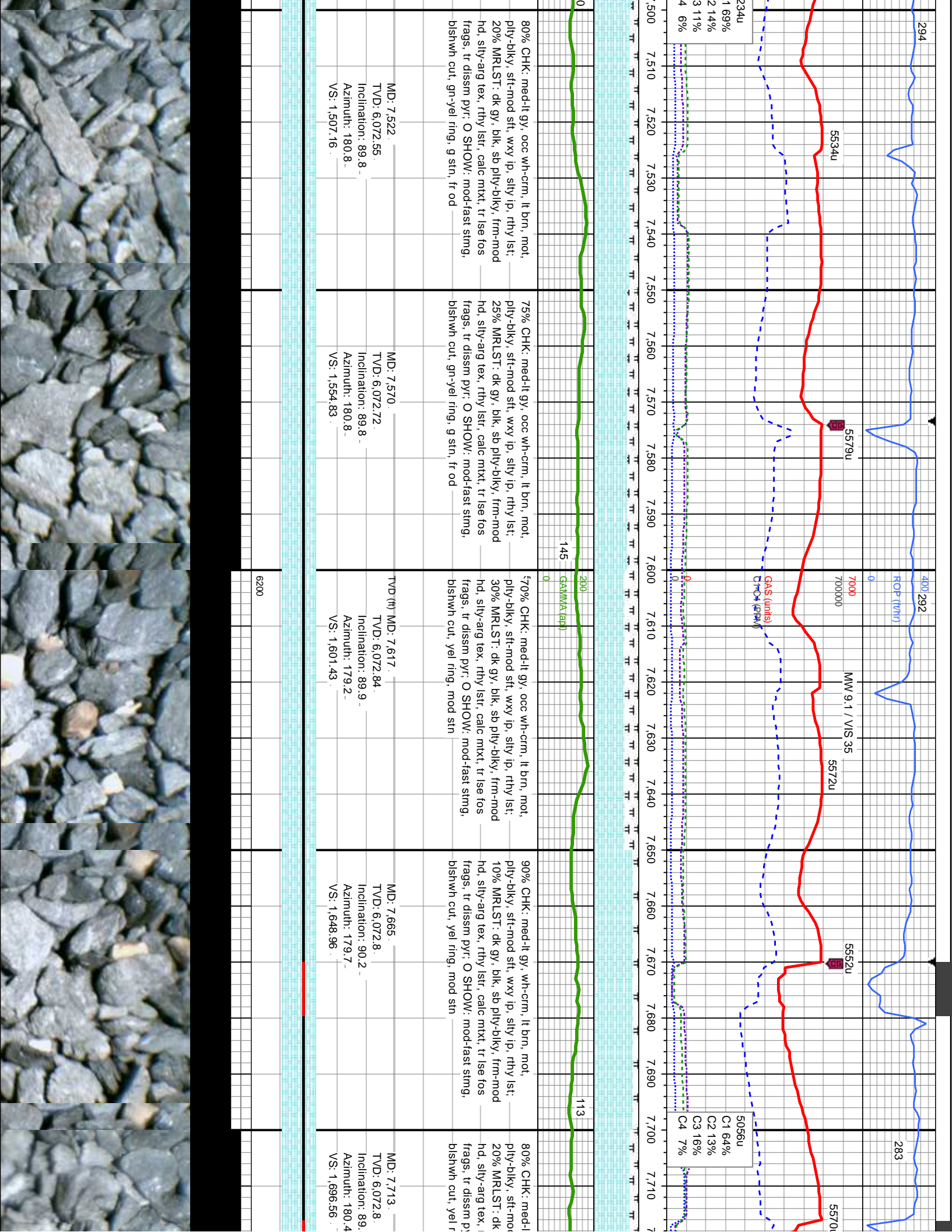
CHK: med-lt gy, ooc wh-frm, lt brn, mot, pty-biky, sft-mod sft, wxy ip, silty ip, rthy lst; MRLST: dk gy, blk, sb pty-biky, frm-mod y-arg tex, rthy lst, calc mixt, tr lse fos tr dissn pyr; O SHOW: v-fast stmg, n cut, gn-yel ring, g stn, g od	MD: 7.091 TVD: 6,078.53 Inclination: 90.3 Azimuth: 180.4 VS: 1,078.26	MD: 7.138 TVD: 6,078 Inclination: 91 Azimuth: 180.7 VS: 1,124.92	MD: 7.186 TVD: 6,076.86 Inclination: 91.7 Azimuth: 181.9 VS: 1,172.62	TVD (ft)	MD: 7.234 TVD: 6,075.52 Inclination: 91.5 Azimuth: 182.8 VS: 1,220.41	MD: 7 TVD: Inclin Azim VS: 1
65% CHK: med-lt gy, ooc wh-frm, lt brn, mot, pty-biky, sft-mod sft, wxy ip, silty ip, rthy lst; 35% MRLST: dk gy, blk, sb pty-biky, frm-mod hd, silty-arg tex, rthy lst, calc mixt, tr lse fos frags, tr dissn pyr; O SHOW: v-fast stmg, blshwh cut, gn-yel ring, mod stn, g od						
85% CHK: med-lt gy, ooc wh-frm, lt brn, mot, pty-biky, sft-mod sft, wxy ip, silty ip, rthy lst; 15% MRLST: dk gy, blk, sb pty-biky, frm-mod hd, silty-arg tex, rthy lst, calc mixt, tr lse fos frags, tr dissn pyr; O SHOW: v-fast stmg, blshwh cut, gn-yel ring, mod stn, g od						
590% CHK: med-lt gy, ooc wh-frm, lt brn, mot, pty-biky, sft-mod sft, wxy ip, silty ip, rthy lst; 10% MRLST: dk gy, blk, sb pty-biky, frm-mod hd, silty-arg tex, rthy lst, calc mixt, tr lse fos frags, tr dissn pyr; O SHOW: mod-fast stmg, blshwh cut, yel ring, g stn, g od						
100% CHK: med-lt gy, wh-c pty-biky, sft-mod sft, wxy ip, mrlst; O SHOW: mod-fast s yel ring, g stn, g od						

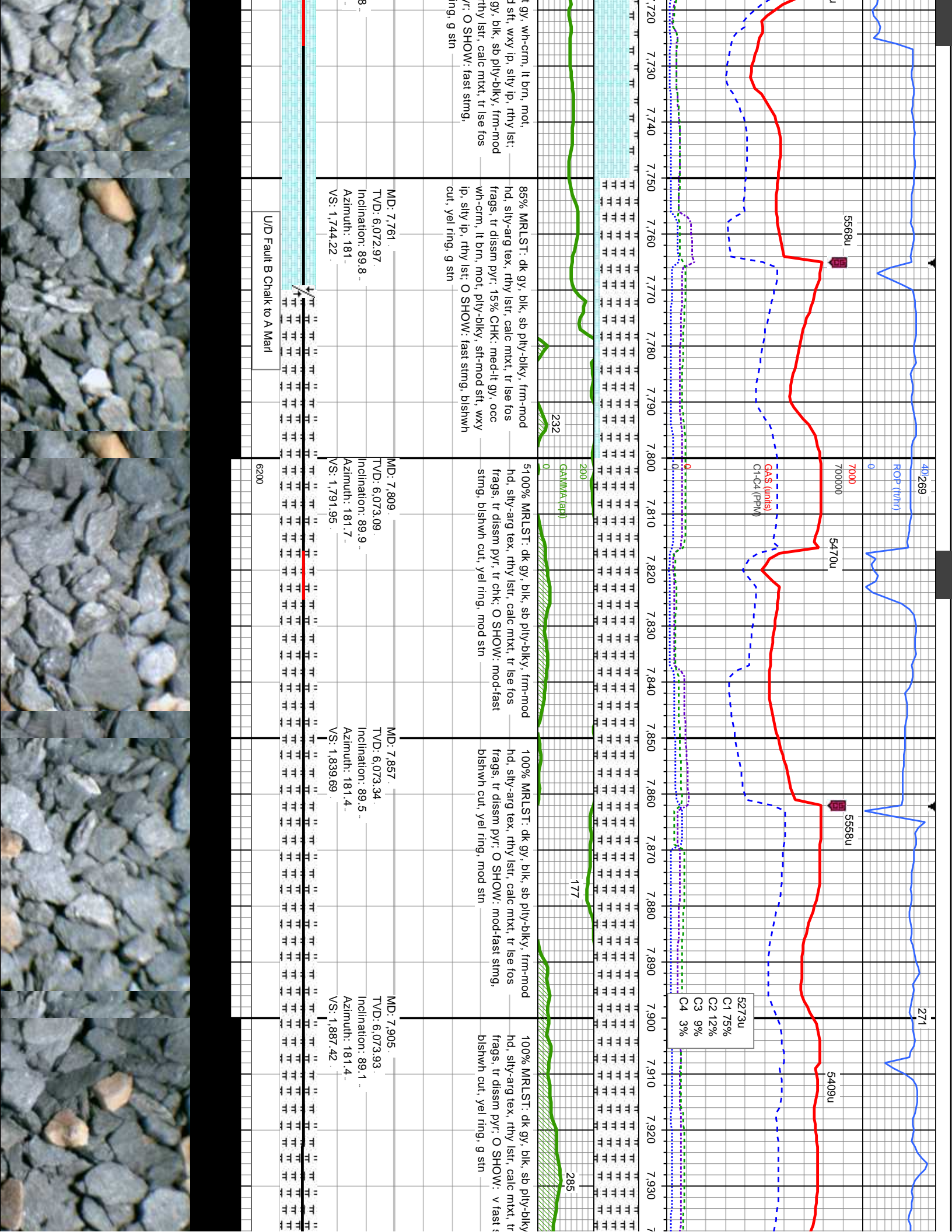


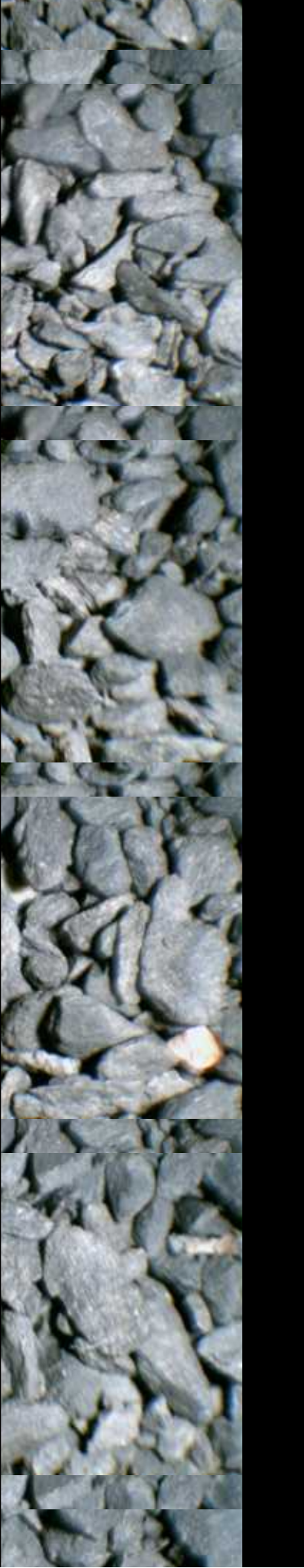
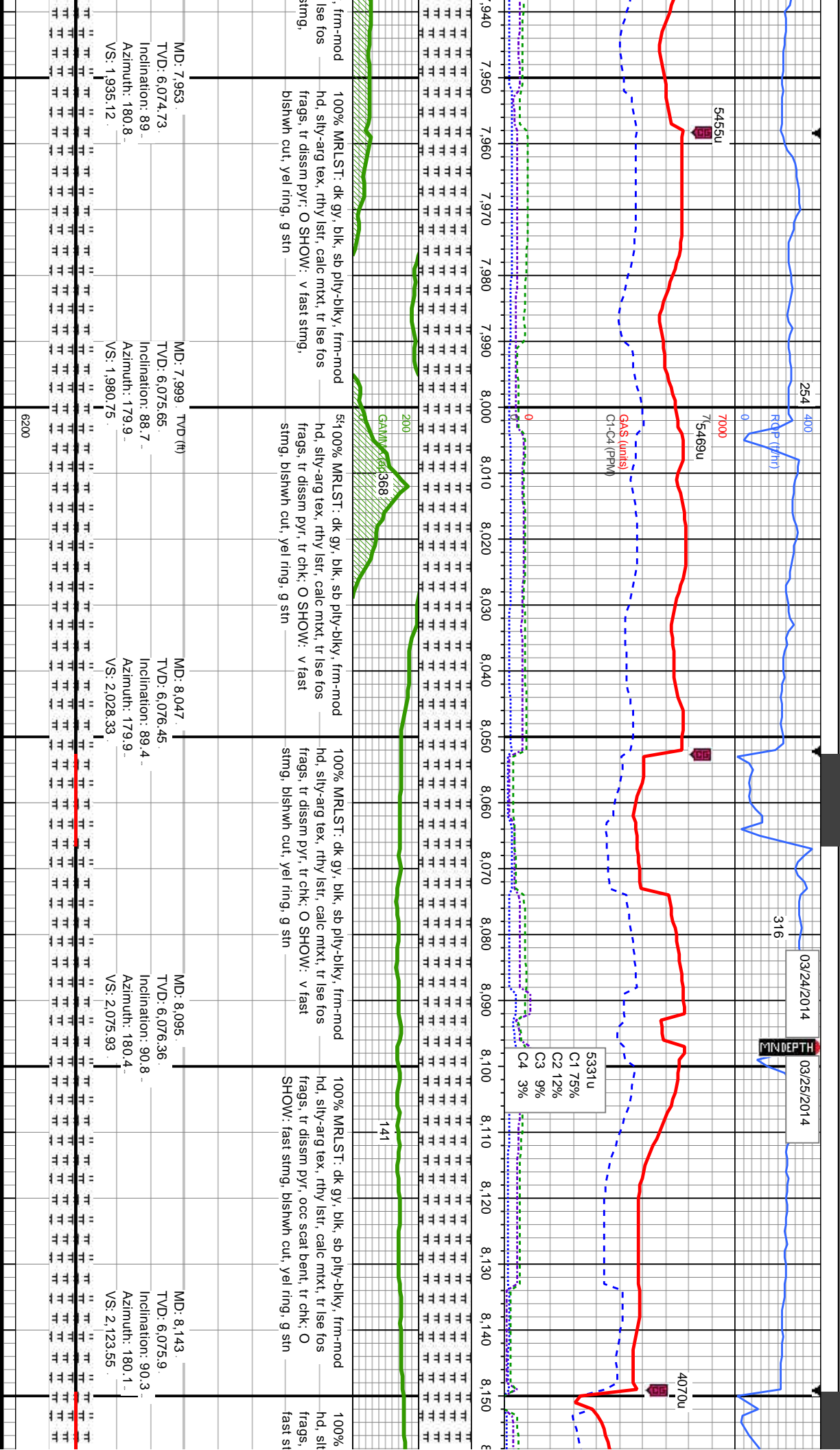


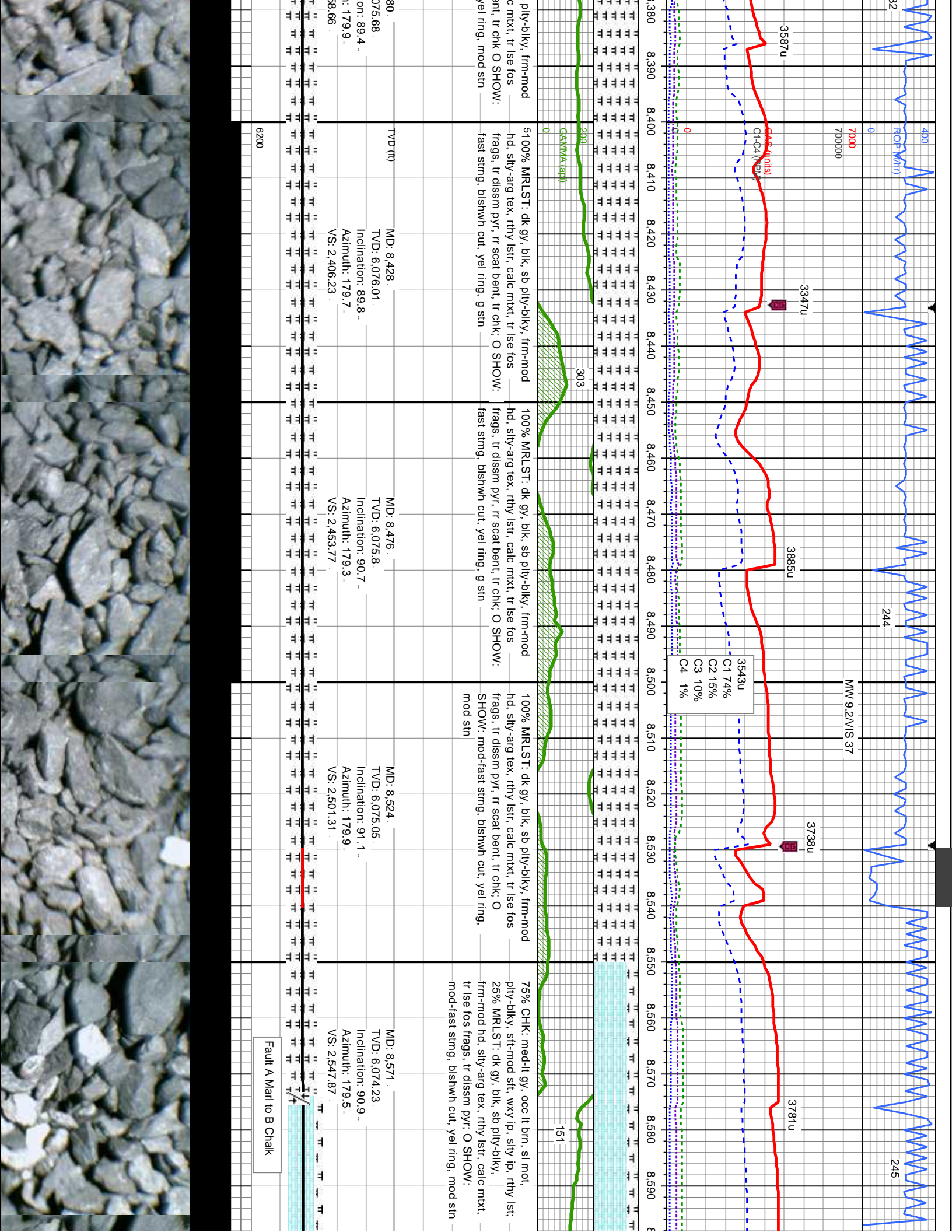
60% CHK: med-lt gy, occ wh-crm, lt brn, mot, pty-blky, sft-mod sft, wxy ip, silty ip, rthy lst; 40% MRLST: dk gy, blk, sb pty-blky, frm-mod hd, silty-arg tex, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; O SHOW: mod-fast stmg, blshwh cut, gn-yel ring, g stn, g od	85% CHK: med-lt gy, occ wh-crm, lt brn, mot, pty-blky, sft-mod sft, wxy ip, silty ip, rthy lst; 15% MRLST: dk gy, blk, sb pty-blky, frm-mod hd, silty-arg tex, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; O SHOW: mod-fast stmg, blshwh cut, gn-yel ring, g stn, g od	585% CHK: med-lt gy, occ wh-crm, lt brn, mot, pty-blky, sft-mod sft, wxy ip, silty ip, rthy lst; 15% MRLST: dk gy, blk, sb pty-blky, frm-mod hd, silty-arg tex, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; O SHOW: mod-fast stmg, blshwh cut, gn-yel ring, g stn, g od	85% CHK: med-lt gy, occ wh-crm, lt brn, mot, pty-blky, sft-mod sft, wxy ip, silty ip, rthy lst; 15% MRLST: dk gy, blk, sb pty-blky, frm-mod hd, silty-arg tex, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; O SHOW: mod-fast stmg, blshwh cut, gn-yel ring, g stn, g od
MD: 7,330. TVD: 6,073.05. Inclination: 91. Azimuth: 182.3. VS: 1,316.05.	MD: 7,378. TVD: 6,072.3. Inclination: 90.8. Azimuth: 183.3. VS: 1,363.89.	MD: 7,426. TVD: 6,072.05. Inclination: 89.8. Azimuth: 181.9. VS: 1,411.71.	MD: 7,474. TVD: 6,072.3. Inclination: 89.6. Azimuth: 181.3. VS: 1,459.46.

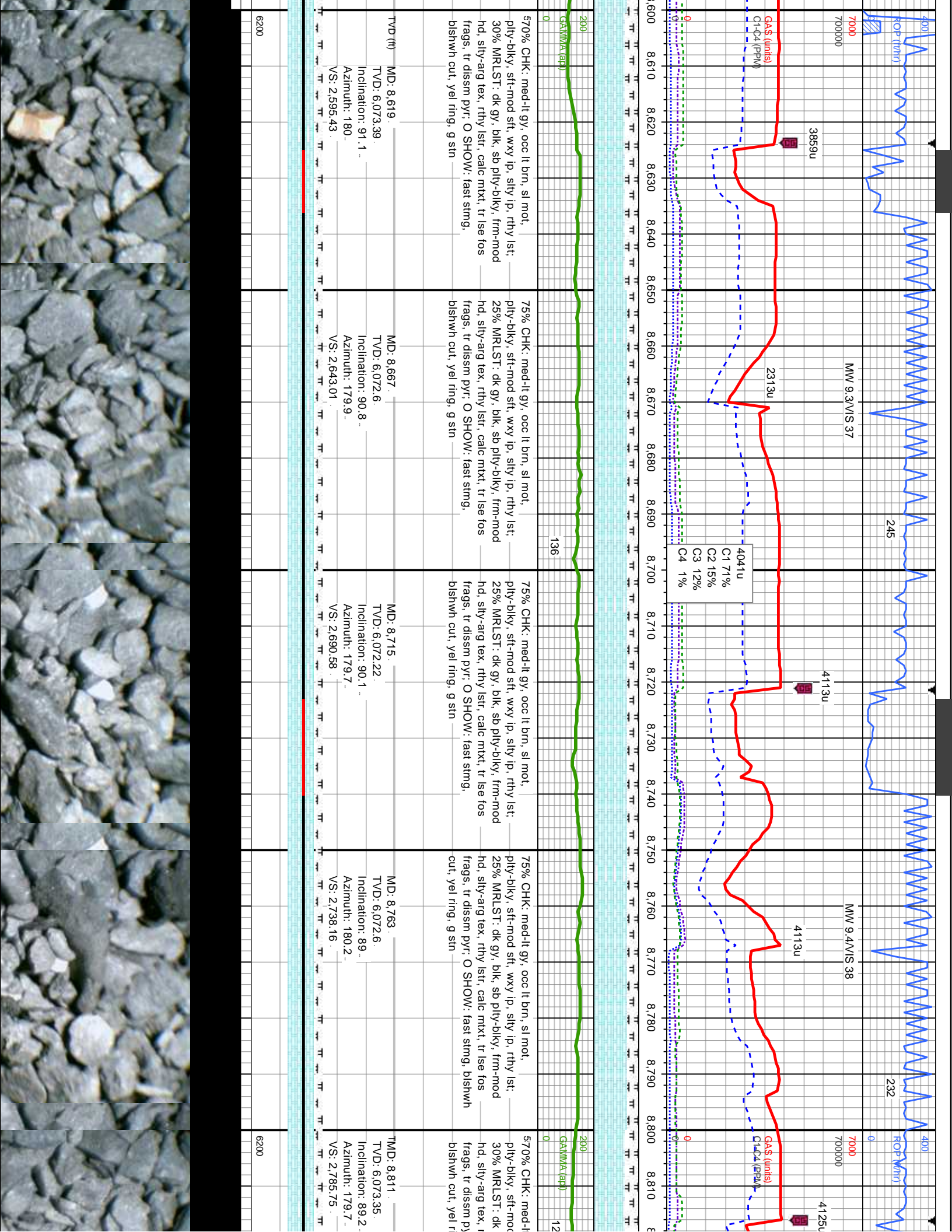


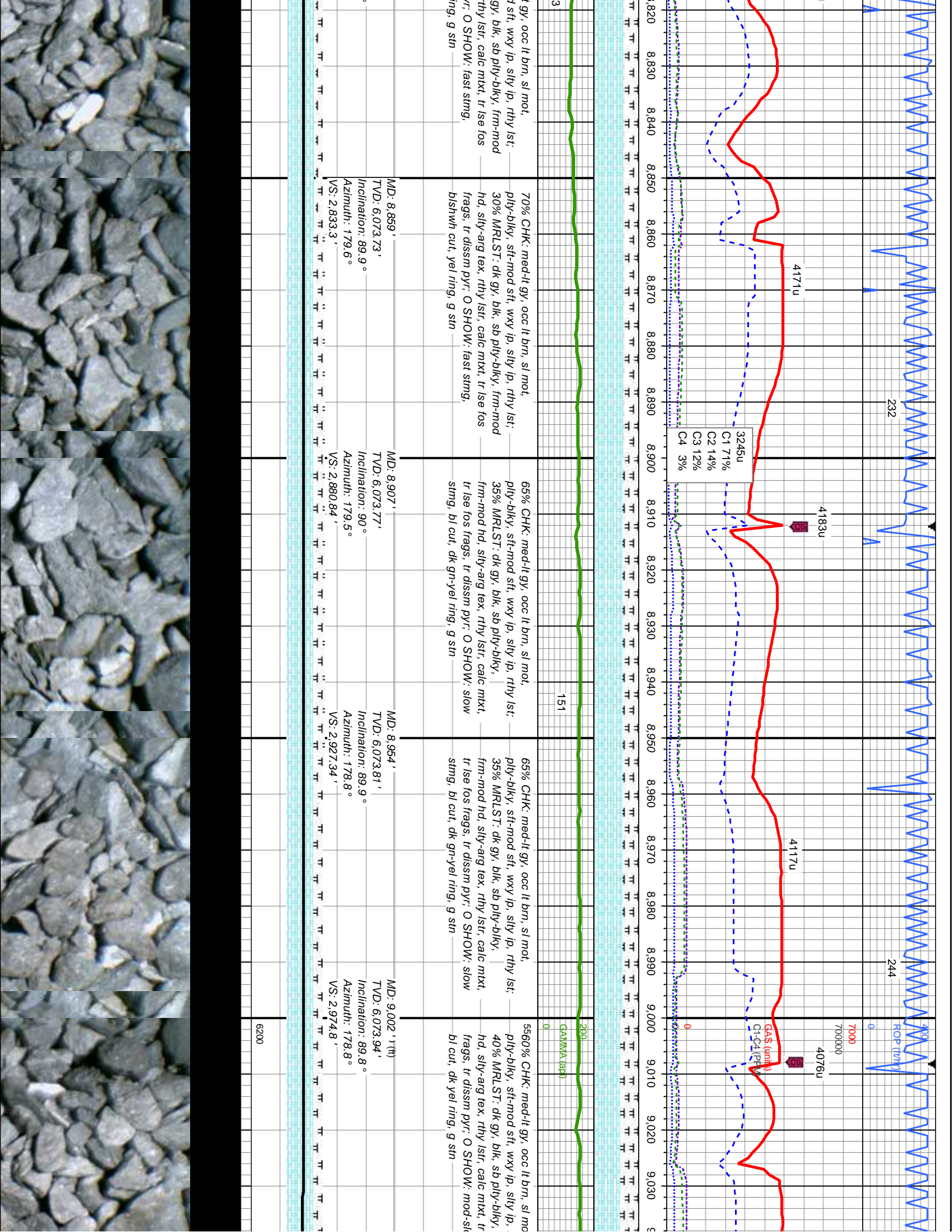




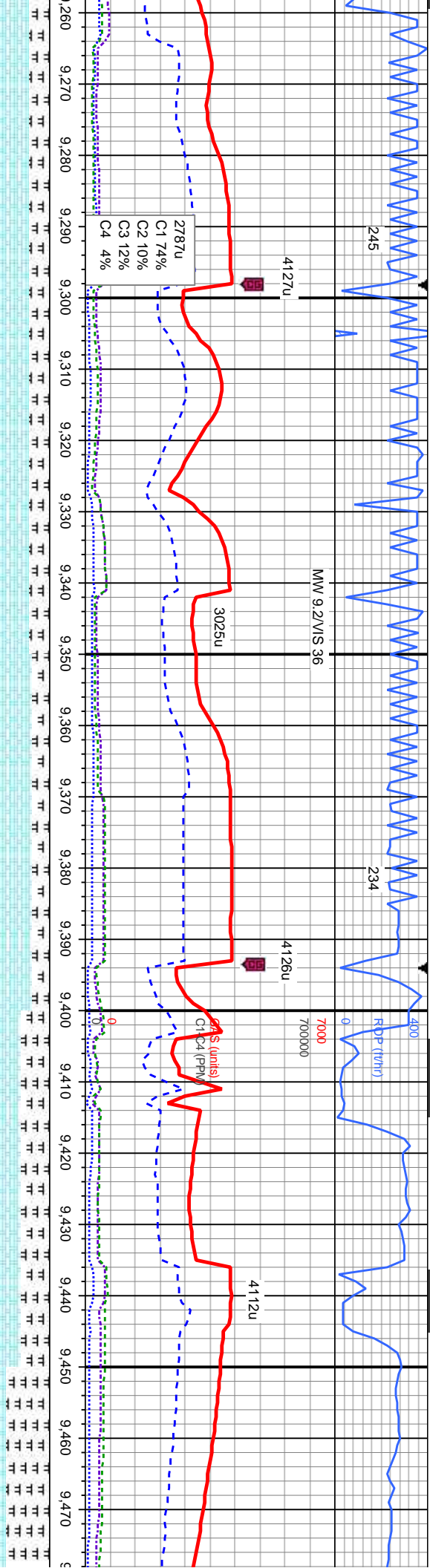






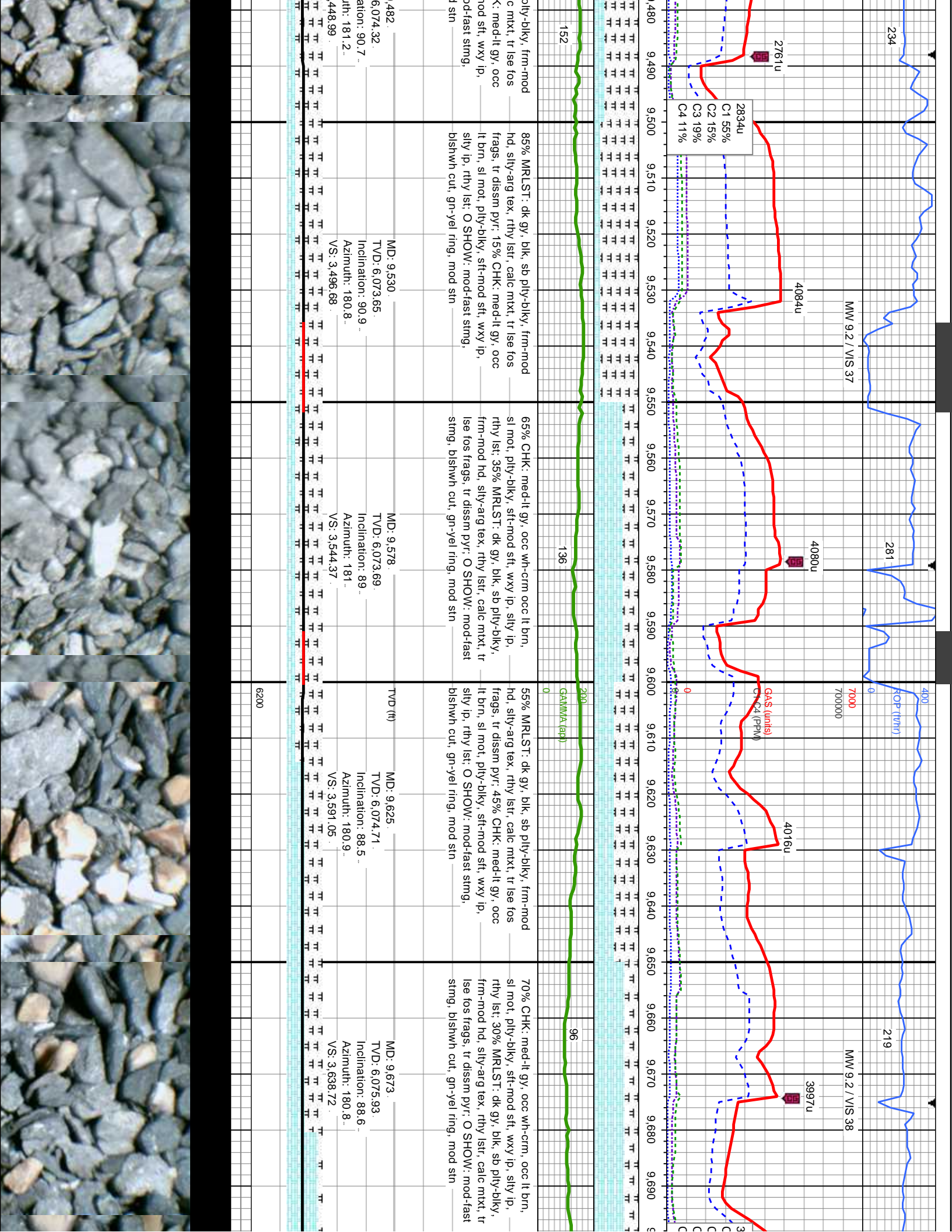


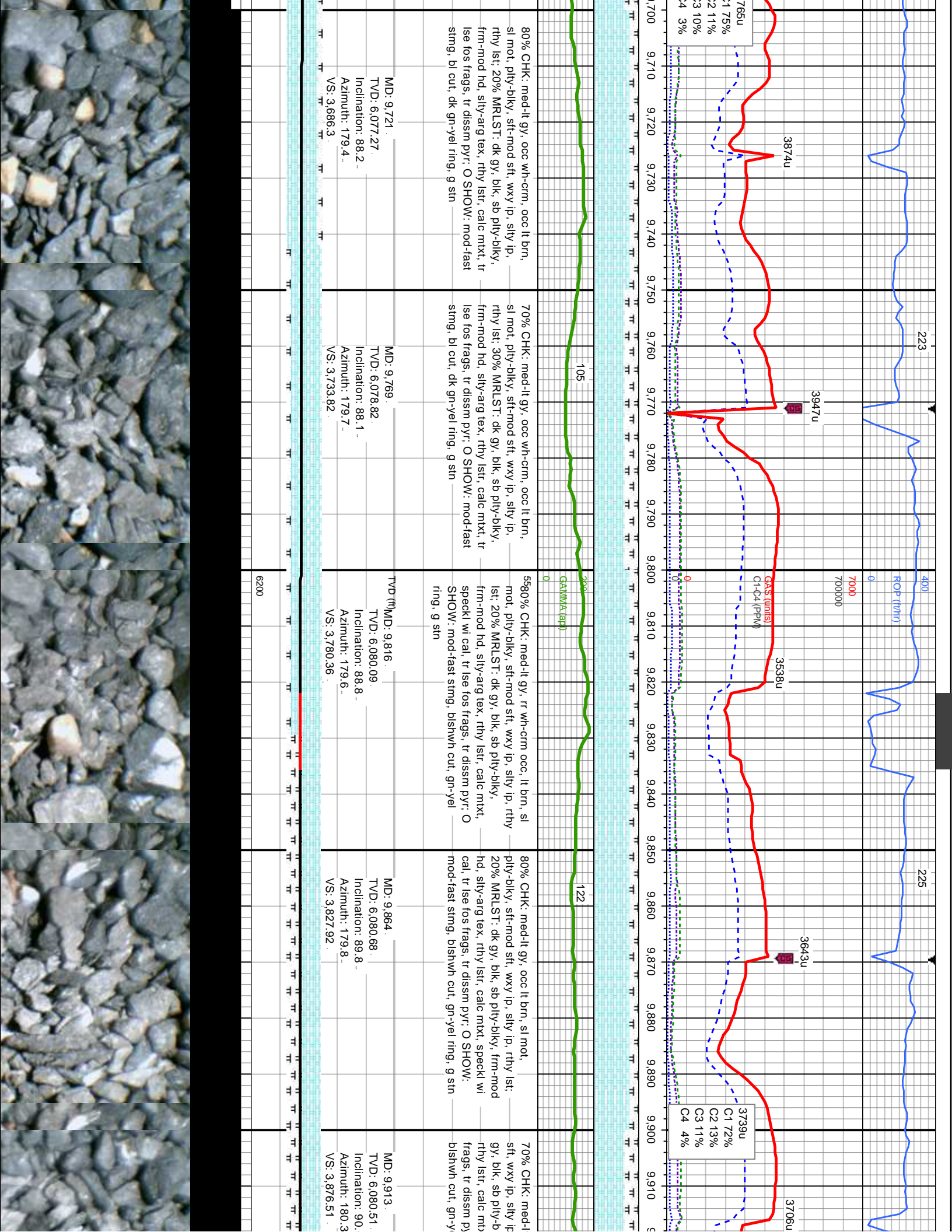


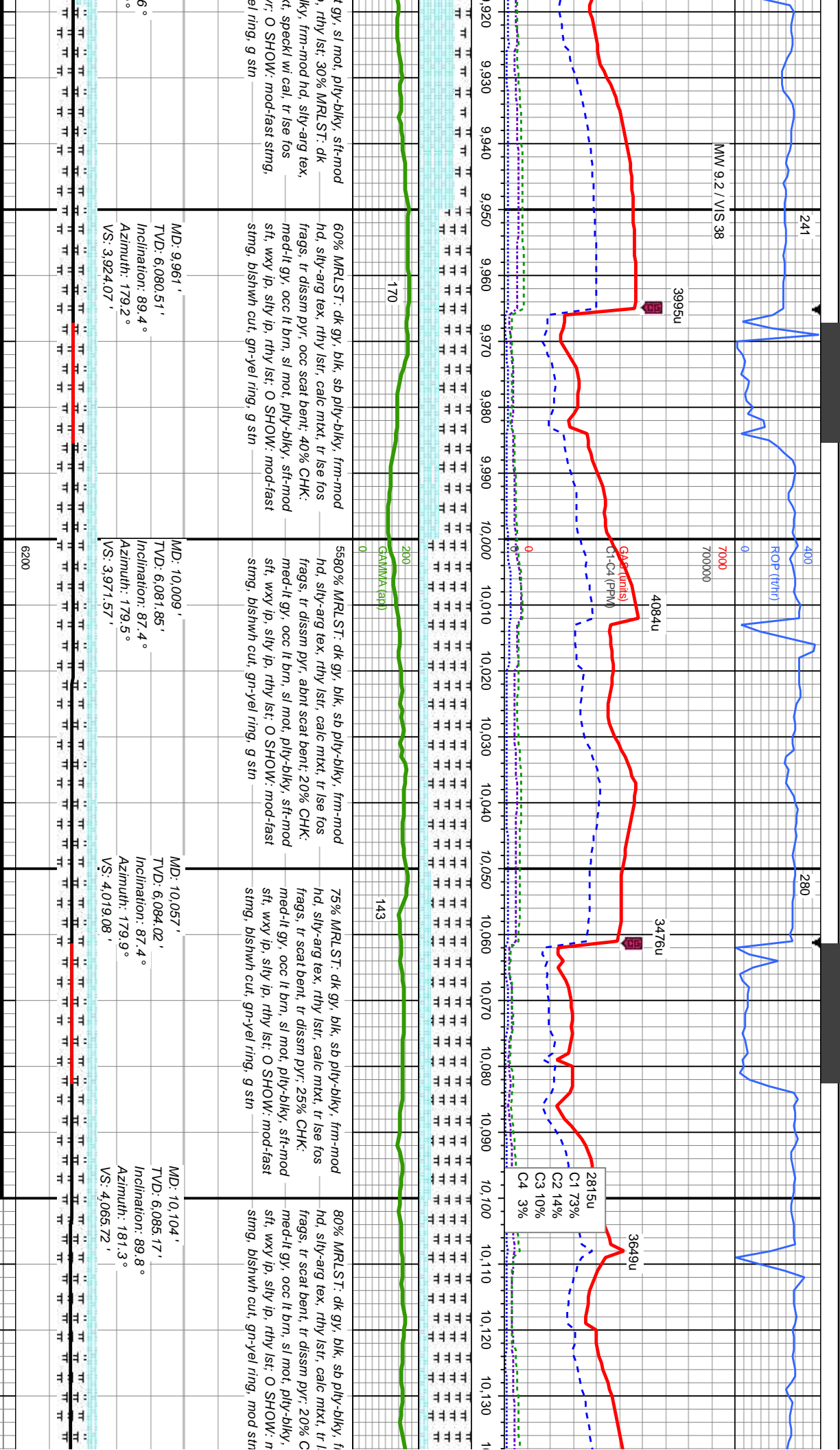


HK: med-lt gy, occ lt brn, sl mot, wxy ip, silty ip, rthy lst; dk gy, blk, sb pily-blky, frm-mod -arg tex, rthy lst, calc mxt, tr lse fos tr dissim pyr; O SHOW: mod-slow sting, v dk yel ring, fr sin	65% CHK: med-lt gy, occ lt brn, sl mot, pily-blky, sft-mod sft, wxy ip, silty ip, rthy lst; 35% MRLST: dk gy, blk, sb pily-blky, frm-mod hd, silty-arg tex, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; O SHOW: mod-fast sting, blshwh cut, dk gn ring, excel sin	70% CHK: med-lt gy, occ lt brn, sl mot, pily-blky, sft-mod sft, wxy ip, silty ip, rthy lst; 30% MRLST: dk gy, blk, sb pily-blky, frm-mod hd, silty-arg tex, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; O SHOW: mod-fast sting, blshwh cut, dk gn ring, excel sin	550% CHK: med-lt gy, occ lt brn, sl mot, pily-blky, sft-mod sft, wxy ip, silty ip, rthy lst; 50% MRLST: dk gy, blk, sb pily-blky, frm-mod hd, silty-arg tex, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; O SHOW: mod-fast sting, blshwh cut, gn-yel ring, mod sin	75% MRLST: dk gy, blk, sb pily-blky, sft-mod sft, wxy ip, silty ip, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; 25% CHK: med-lt gy, occ lt brn, sl mot, pily-blky, sft-mod sft, wxy ip, silty ip, rthy lst, calc mxt, tr lse fos frags, tr dissim pyr; O SHOW: mod-fast sting, blshwh cut, gn-yel ring, mod sin
MD: 9.290 TVD: 6.076.16 Inclination: 90.1 Azimuth: 180.2 VS: 3.258.75	MD: 9.337 TVD: 6.075.79 Inclination: 90.8 Azimuth: 179.4 VS: 3.305.33	MD: 9.385 TVD: 6.075 Inclination: 91.1 Azimuth: 178.9 VS: 3.352.81	MD: 9.434 TVD: 6.074.57 Inclination: 89.9 Azimuth: 180.1 VS: 3.401.34	MD: 9.484 TVD: 6.074.57 Inclination: 89.9 Azimuth: 180.1 VS: 3.401.34









03/25/2014

03/26/2014

MINDEPTH

