



Scale: 5" / 100'  
Measured Depth Log

Well Name SHERLEY C-4-9HN

Location Lat: 40.434325 Long: -104.675164

State COLORADO County WELD

Country USA Rig Number FRONTIER 10

API Number 05-123-40898 AFE # 40898

Region DJ BASIN Field WATTENBERG

Spud Date 4/11/2015 Drilling Completed 4/21/2015

Surface Coordinates Sec 4 T5N R65W  
486°FNL, 716°FWL

Bottom Hole Coordinates Projected:  
Sec 9 T5N R65W  
470°FSL, 470°FWL

Ground Elevation 4641.4' K.B. Elevation 4666.4'

Logged Interval 6000' To 16945' Total Depth 16945'

Formation Niobrara C Chalk

Type of Drilling Fluid LSND

## Operator

Company Bayswater Exploration and Production LLC.

Address 730 17th Street, Suite 610  
Denver, CO 80202

## Geologist

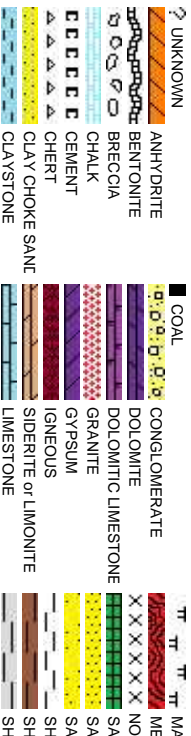
Name CHARLES TRODICK, TRACY LAWSON

Company COLUMBINE LOGGING, INC.  
Address 602 S. LIPAN ST.  
DENVER, CO 80223

## Zone Color Coding



## Rock Types



## Accessories

### Fossils

	GASTROPOD
	INOCERAMUS
	OOOLITE
	AMPHIPORA
	OSTRACOD
	BELEMNITE
	BIOCLASTIC
	BRACHIOPOD
	BRYOZOA
	CEPHALOPOD
	CORAL
	CRINOID
	ECHINOID
	FISH
	FORAMINIFERA
	F FOSSIL

### Minerals

	ARGILLITE GRAIN
	B BENTONITE
	H HEAVY MINERAL
	K KAOLIN
	M MARCASITE
	BRECCIA FRAGMENTS
	C CALCAREOUS
	CARBONACEOUS FLAKES
	CHERT
	COAL - THIN BEDS
	D DOLOMITIC
	F FELDSPAR
	FERRUGINOUS PELLET
	F FERRUGINOUS
	G GLAUCONITE
	G GYPSIFEROUS

### Stringer

	ANHYDRITE STRINGER
	BENTONITE STRINGER
	COAL STRINGER
	DOLOMITE STRINGER
	GYPSUM STRINGER
	LIMESTONE STRINGER
	MARLSTONE (CALC) STRG
	MARLSTONE (DOL) STRG
	SANDSTONE STRINGER
	SHALE STRINGER
	SILTSTONE STRINGER

## Other Symbols

### Oil Show

	P PINPOINT
	V VUGGY
	D DEAD
	E EVEN
	Q QUESTIONABLE
	BIT
	SPOTTED STAINING
	CONNECTION (UP)

### Engineering

	DST INTERVAL
	FAULT
	FORMATION TOP
	GAS SHOW
	OIL SHOW
	MN DEPTH UP

	WIRELINE TESTED - LEFT
	WIRELINE TESTED - RT
	DRILL STEM TEST
	MN DEPTH
	G GRAINSTONE
	L LITHOGRAPHIC
	MX MICROXLN
	M MUDSTONE

### Rounding

	A ANGULAR
--	-----------

	P PACKSTONE
--	-------------

### Porosity

	CONNECTION (DOWN)
	CONNECTION GAS
	CONNECTION GAS (LEFT)
	TRIP GAS
	TRIP GAS (LEFT)

	NORMAL FAULT
	OVERTURED STRATA
	REVERSE FAULT
	CASING

### Sorting

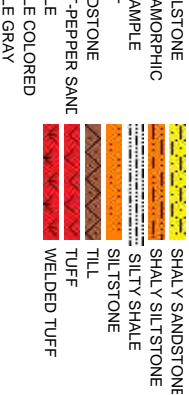
	M MODERATE
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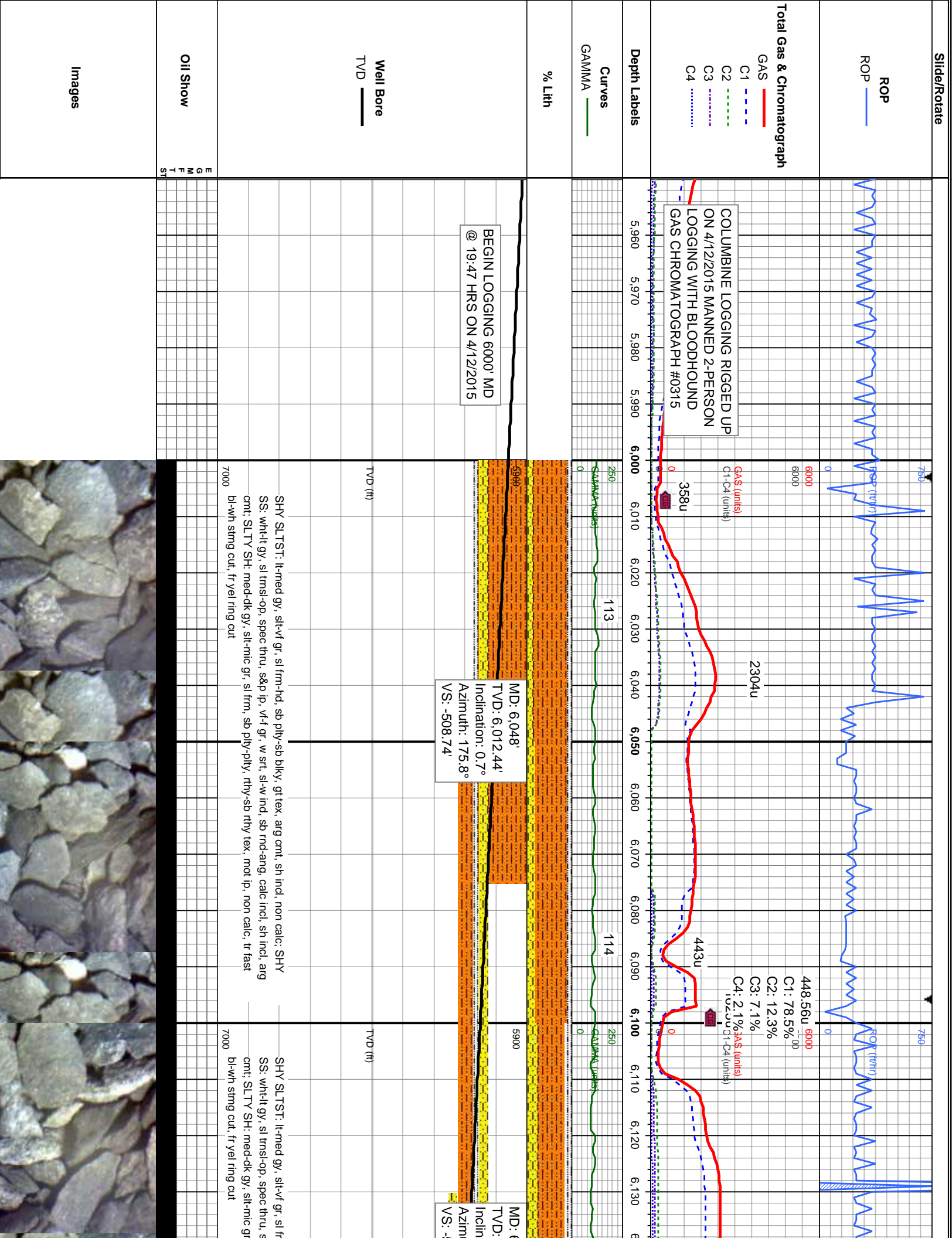
### Textures

	INTERCRYSTALLINE
	INTEROOLITIC
	MOLDIC
	ORGANIC
	DOWN TIME GAS
	DOWN TIME GAS (LEFT)
	CORE - LOST
	CORE - RECOVERED
	SIDEWALL CORE (LEFT)
	SIDEWALL CORE (RIGHT)
	SLIDE
	SURVEY

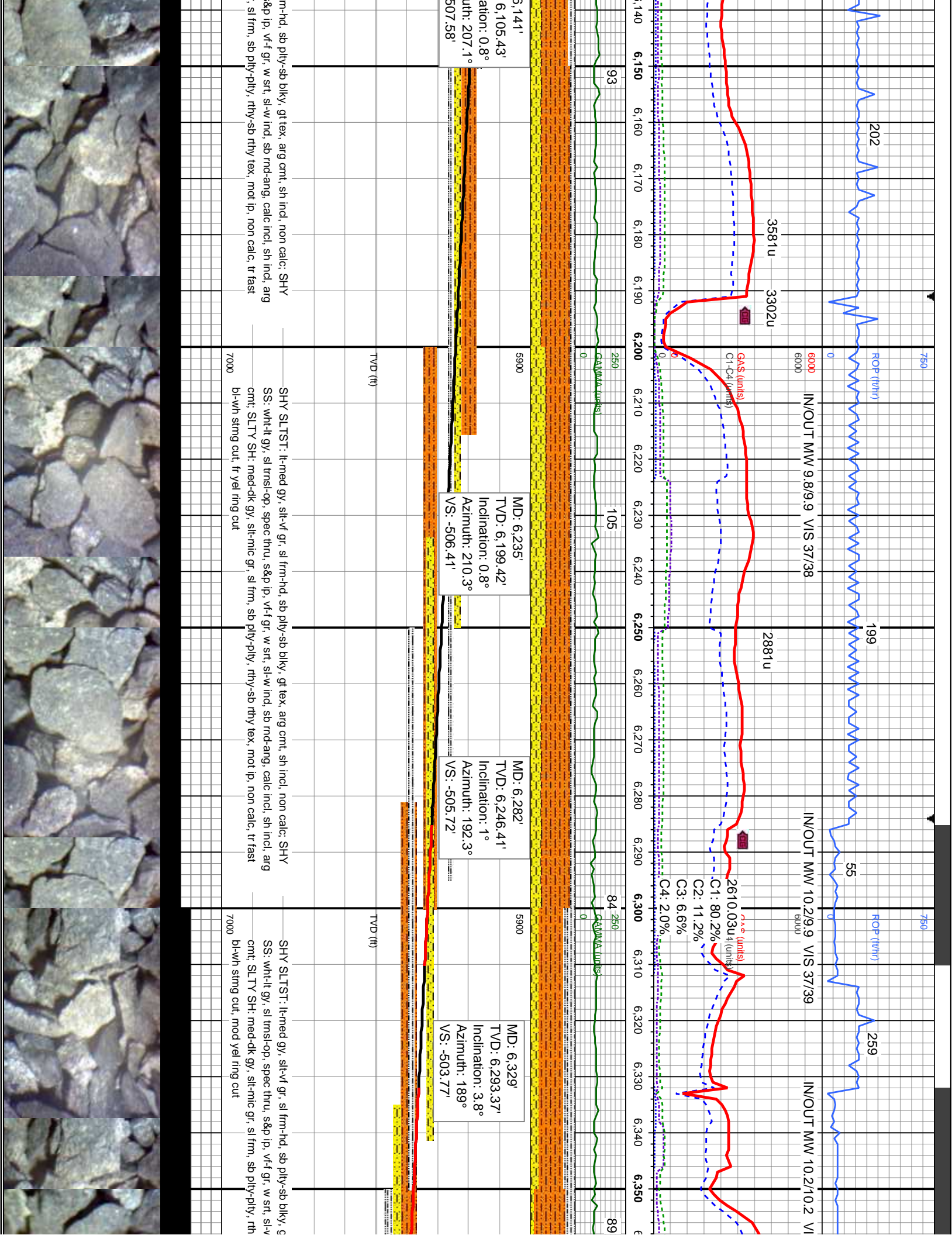
### Textures

	P POOR
	W WELL



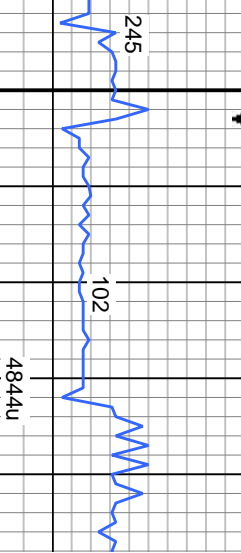
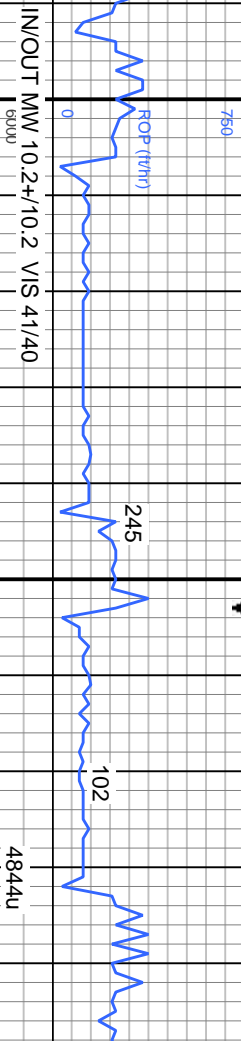
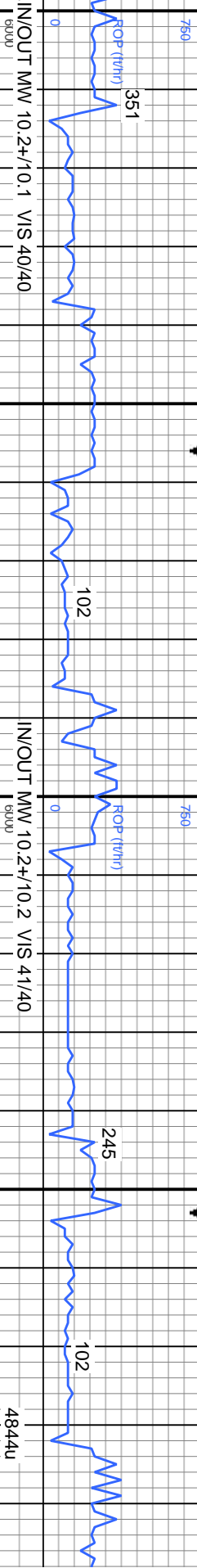












MD: 6,609'  
TVD: 6,563.08'  
Inclination: 26.1°  
Azimuth: 181.8°  
VS: -435.17'

MD: 6,656'  
TVD: 6,604.86'  
Inclination: 28.4°  
Azimuth: 180.9°  
VS: -413.65'

MD: 6,703'  
TVD: 6,645.71'  
Inclination: 30.9°  
Azimuth: 179.5°  
VS: -390.41'

MD: 6,750'  
TVD: 6,685.06'  
Inclination: 35.4°  
Azimuth: 178.1°  
VS: -364.76'

MD: 6,799'  
TVD: 6,731.06'  
Inclination: 35.4°  
Azimuth: 178.1°  
VS: -336.76'

SHY SLTST: lt-med gy, slt-vf gr, sl frm-hd, sb ply-sb blkly, gt tex, arg cnt, sh incl, non calc; SLTY SH: med-dk gy, slt-mic gr, sl frm, sb ply-ply, rthy-sb rthy tex, mot ip, non calc; SHY SS: wht-lt gy, sl trns-op, spec thru, s&p ip, vf-f gr, w srl, sl-w incl, sb md-ang, calc incl, sh incl, arg cnt, mod bl-wh mod fast sting cut, mod thk yel ring cut

SHY SLTST: lt-med gy, slt-vf gr, sl frm-hd, sb ply-sb blkly, gt tex, arg cnt, sh incl, non calc; SLTY SH: med-dk gy, slt-mic gr, sl frm, sb ply-ply, rthy-sb rthy tex, mot ip, non calc; SHY SS: wht-lt gy, sl trns-op, spec thru, s&p ip, vf-f gr, w srl, sl-w incl, sb md-ang, calc incl, sh incl, arg cnt, mod bl-wh mod fast sting cut, mod thk yel ring cut

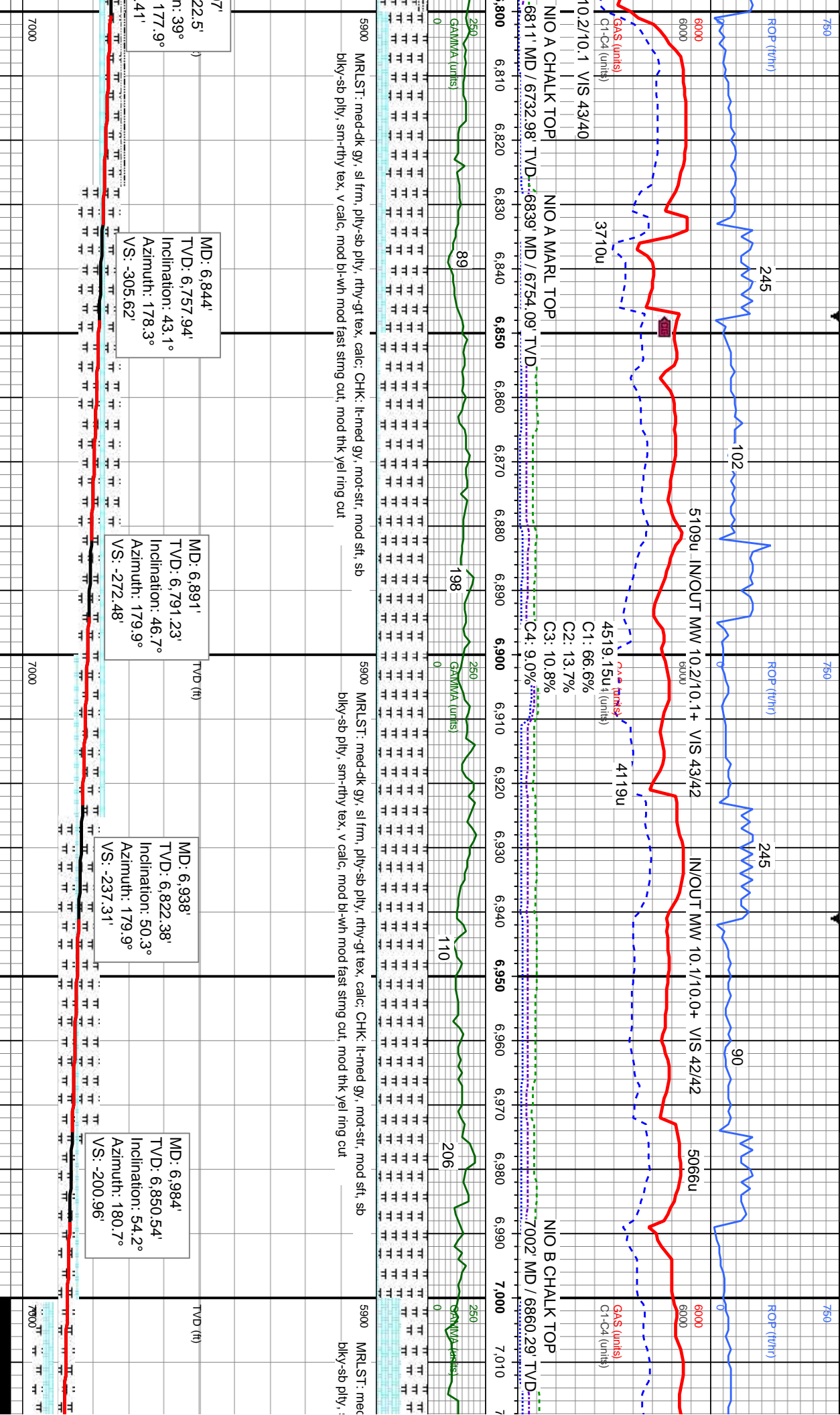
CHK: lt-med gy, mot-sr, mod stf, sb blkly-sb ply, sm-rthy tex, v calc; MRLST: med-dk gy, sl frm, ply-sb ply, rthy-gt tex, calc; SLTY SH: med-dk gy, slt-mic gr, sl frm, sb ply-ply, rthy-sb rthy tex, mot ip, non calc, mod bl-wh mod fast sting cut, mod thk yel ring cut

non calc; SLTY SH: wht-lt gy, arg cnt, tr fast

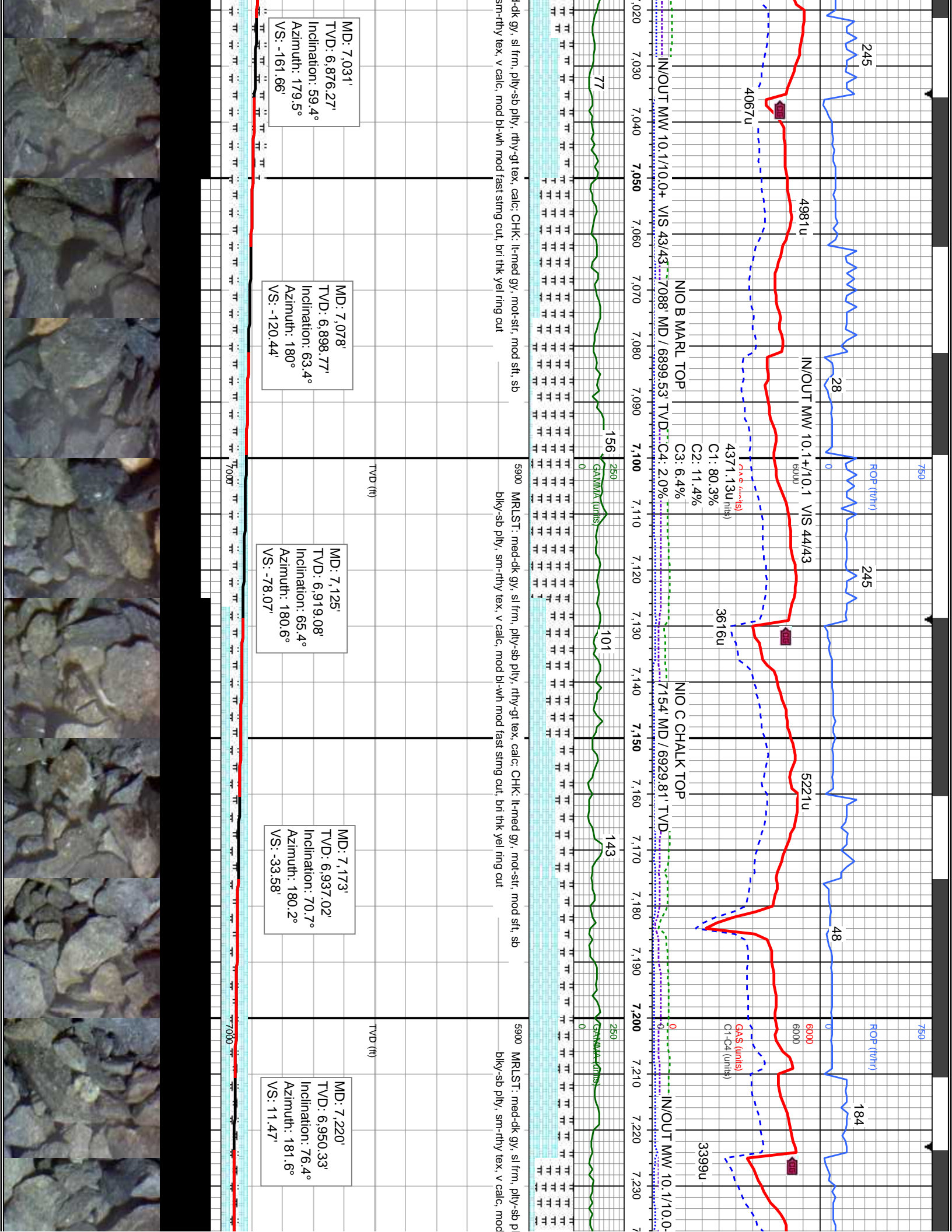
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Landed Curve @ 7405' MD  
4/13/2015 @ 13:30

212

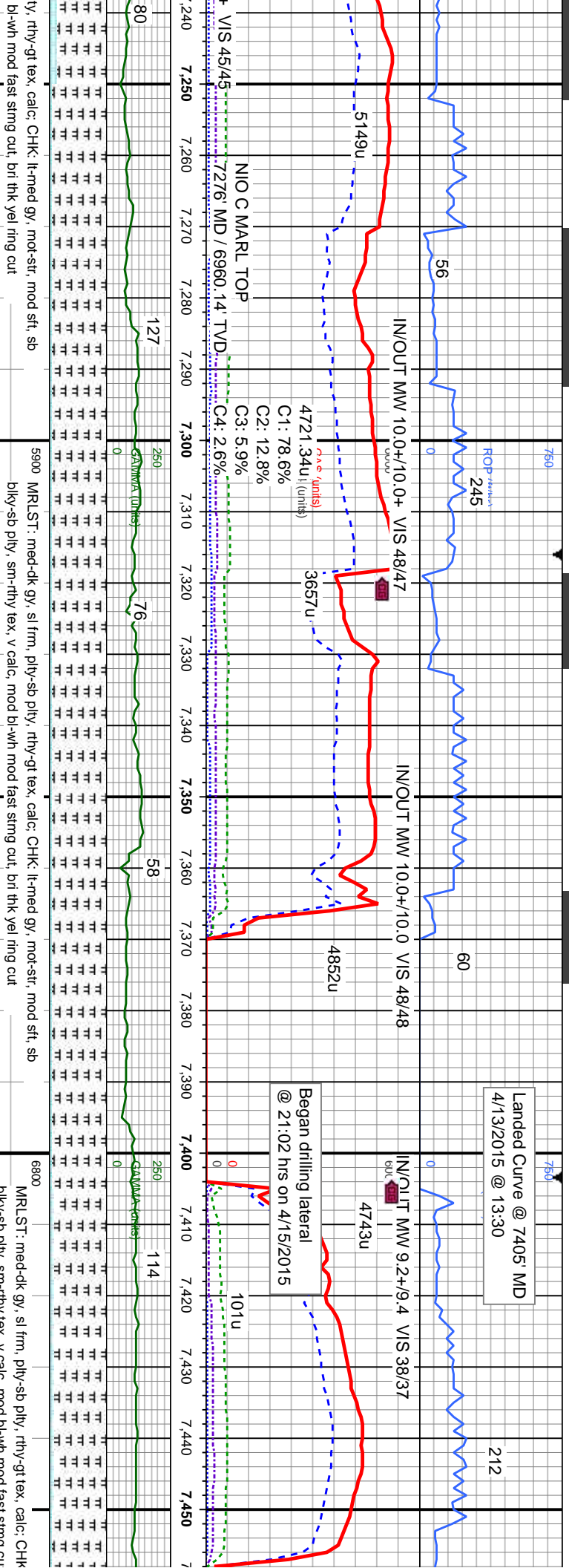
IN/OUT MW 9.2+/9.4 VIS 38/37

4743u

Began drilling lateral  
@ 21:02 hrs on 4/15/2015

NIO C MARL TOP  
7276' MD / 6960.14' TVD

C1: 78.6%  
C2: 12.8%  
C3: 5.9%  
C4: 2.6%



ly, rthy-gr tex, calc; CHK: lt-med gy, mod-st, mod sft, sb  
bl-wh mod fast sting cut, bri thk yel ring cut

5900 MRLST: med-dk gy, sl frm, ply-sb ply, rthy-gr tex, calc; CHK: lt-med gy, mod-st, mod sft, sb  
bly-sb ply, sm-rthy tex, v calc, mod bl-wh mod fast sting cut, bri thk yel ring cut

6800 MRLST: med-dk gy, sl frm, ply-sb ply, rthy-gr tex, calc; CHK: lt-med gy, mod-st, mod sft, sb  
bly-sb ply, sm-rthy tex, v calc, mod bl-wh mod fast sting cu

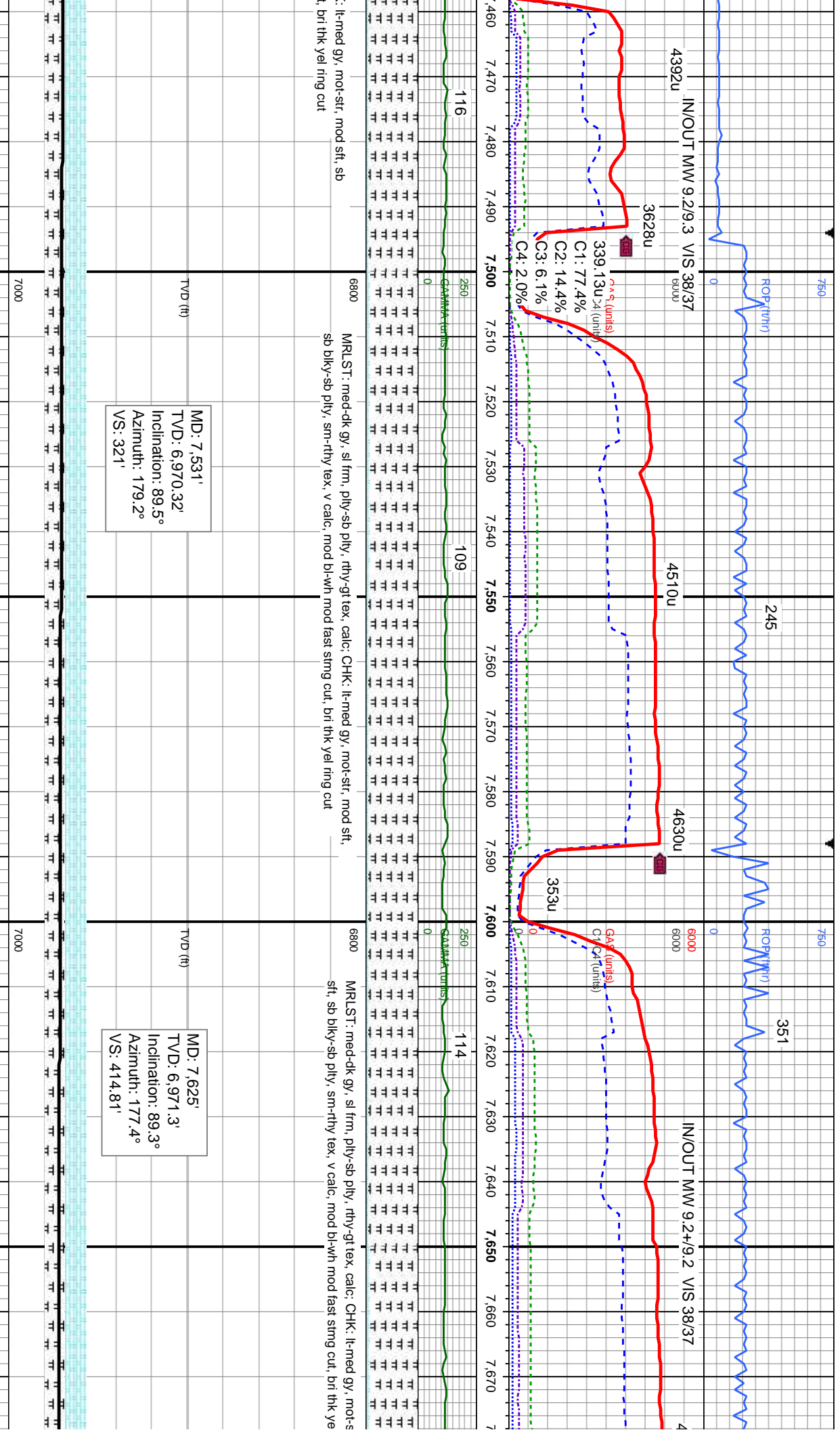
MD: 7,266'  
TVD: 6,959.11'  
Inclination: 81.6°  
Azimuth: 182.3°  
VS: 56.61'

MD: 7,313'  
TVD: 6,964.55'  
Inclination: 85.1°  
Azimuth: 181.8°  
VS: 103.29'

MD: 7,355'  
TVD: 6,967.19'  
Inclination: 87.7°  
Azimuth: 179.3°  
VS: 145.19'

MD: 7,437'  
TVD: 6,969.34'  
Inclination: 89.3°  
Azimuth: 179.7°  
VS: 227.09'







DATE: 4/16/2015

328

207

IN/OUT MW 9.3/9.2+ VIS 38/37

ROF (ft)

ROF (ft)

747u

4843u

4769u

4461u

4666u

GAS (units)

Calc (units)

C1: 78.4%  
C2: 14.9%  
C3: 6.0%  
C4: 0.7%

C1:  
C2:  
C3:  
C4:

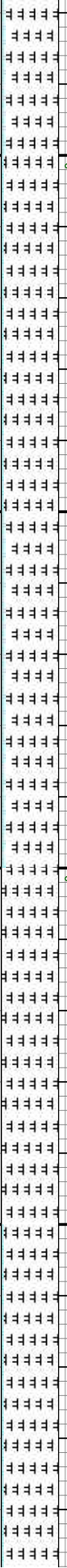
410u

7,680 7,690 7,700 7,710 7,720 7,730 7,740 7,750 7,760 7,770 7,780 7,790 7,800 7,810 7,820 7,830 7,840 7,850 7,860 7,870 7,880 7,890

250 111

250 152

107



MRSLT: med-dk gy, sl frm, ply-sb ply, rthy-gt tex, calc; CHK: lt-med gy, mot-sft, mod sft, sb blk-y-sb ply, sm-rthy tex, v calc, mod bl-wh mod fast string cut, bri thk yel ring cut

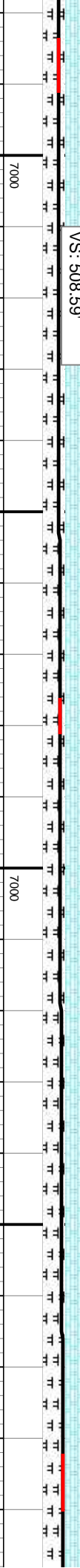
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TVD (ft)

TVD

MD: 7,719'  
TVD: 6,971.63'  
Inclination: 90.3°  
Azimuth: 178.6°  
VS: 508.59'

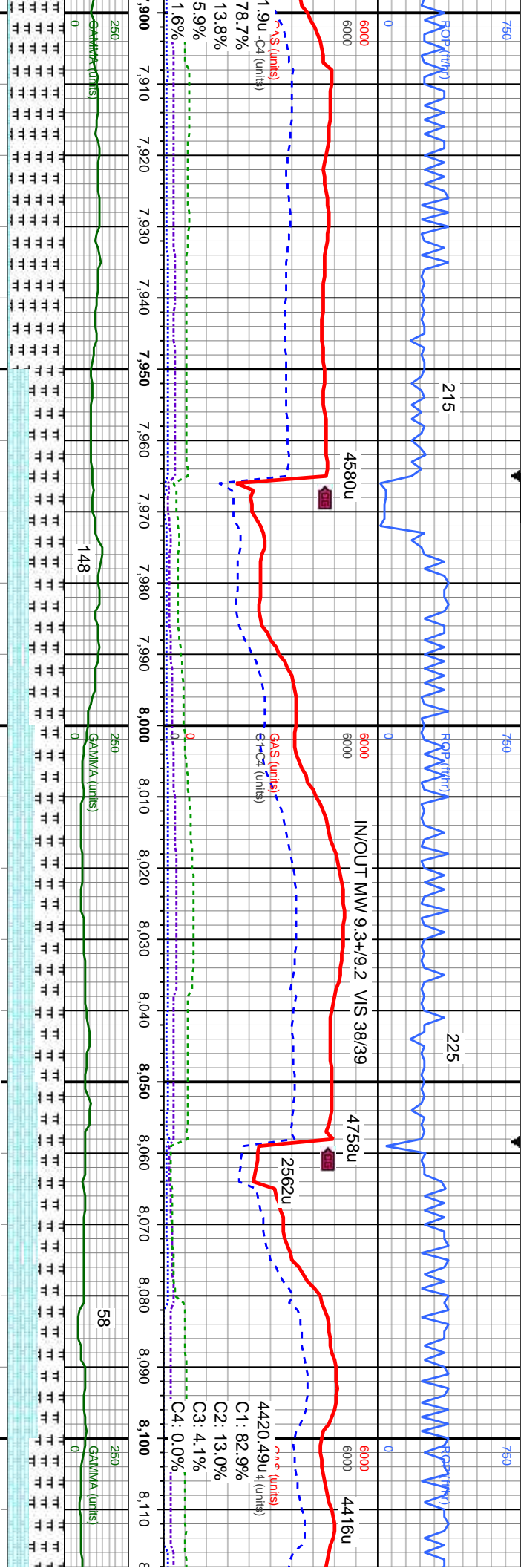
MD: 7,813'  
TVD: 6,970.65'  
Inclination: 90.9°  
Azimuth: 179.5°  
VS: 602.47'



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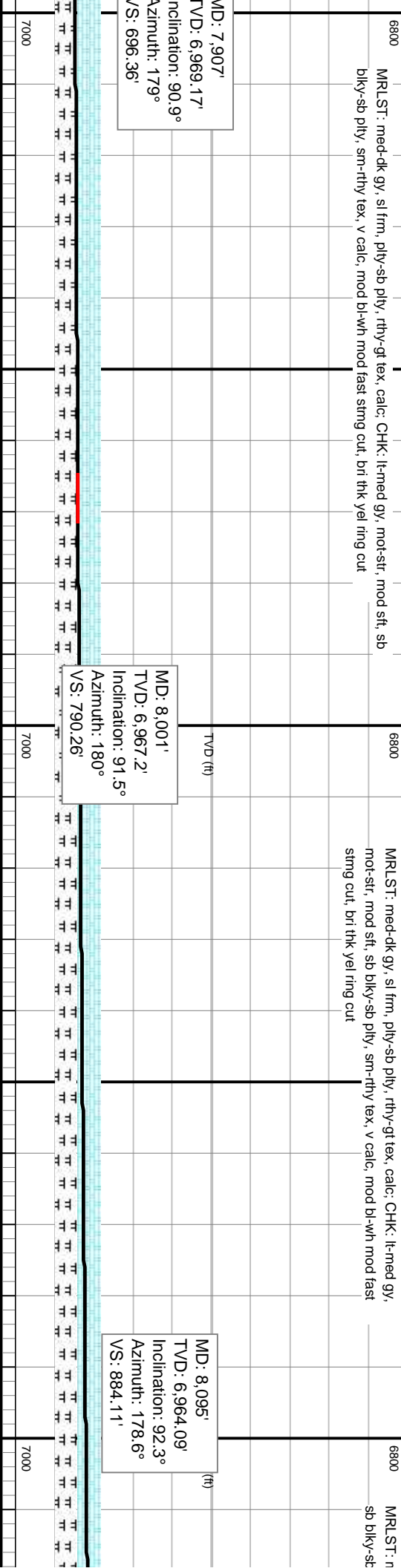




MD: 7,907'  
TVD: 6,969.17'  
Inclination: 90.9°  
Azimuth: 179°  
VS: 696.36'

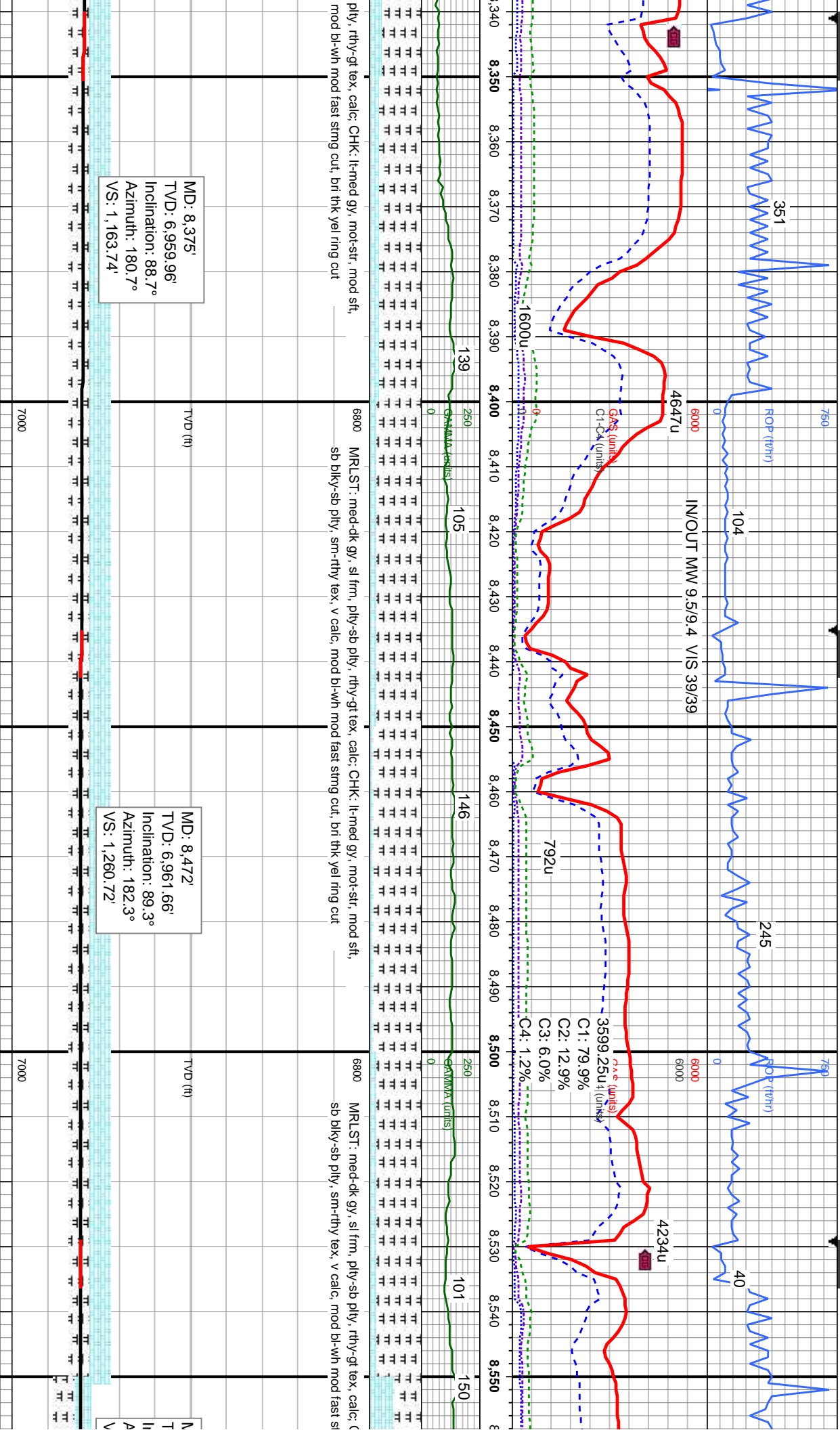
MD: 8,001'  
TVD: 6,967.2'  
Inclination: 91.5°  
Azimuth: 180°  
VS: 790.26'

MD: 8,095'  
TVD: 6,964.09'  
Inclination: 92.3°  
Azimuth: 178.6°  
VS: 884.11'



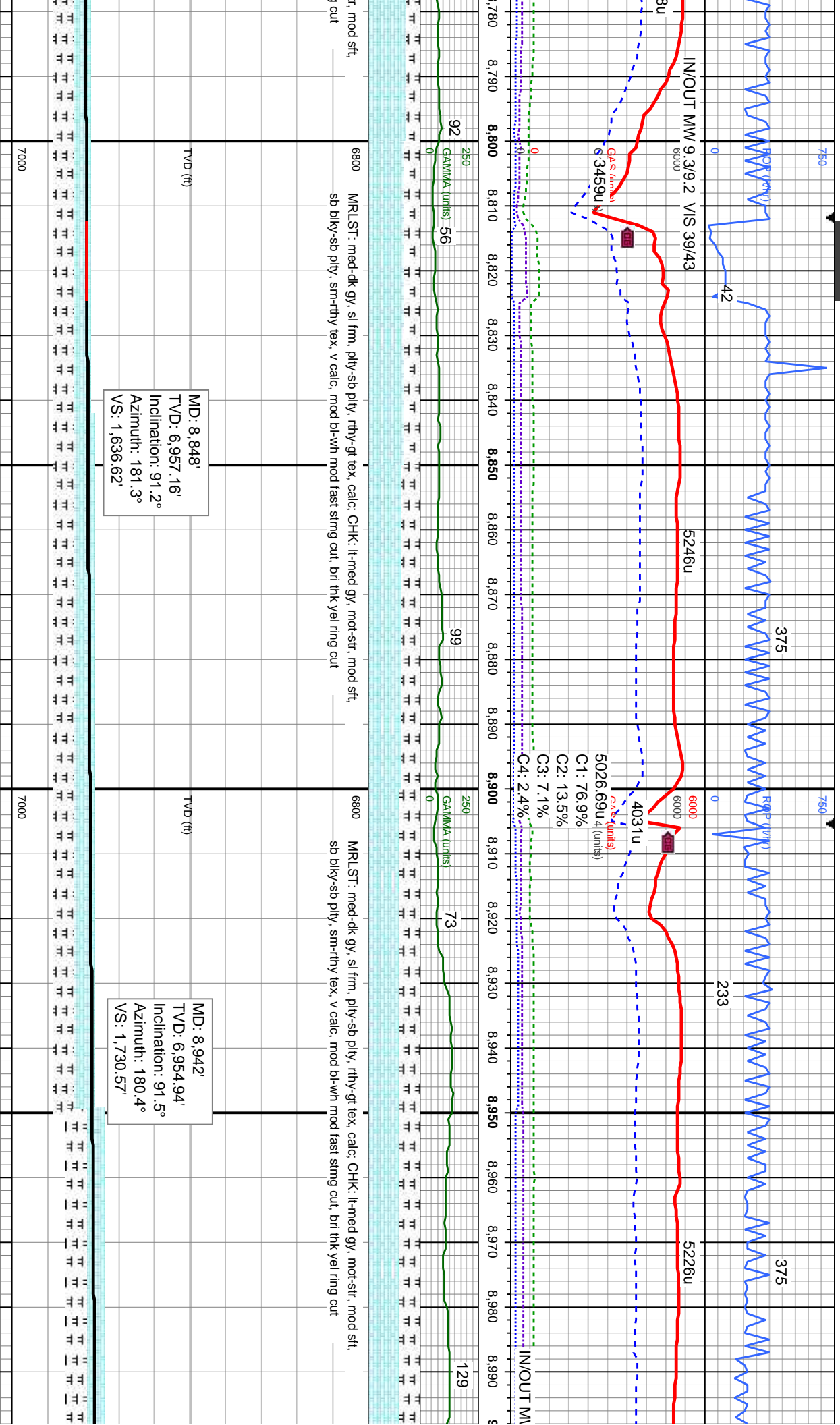










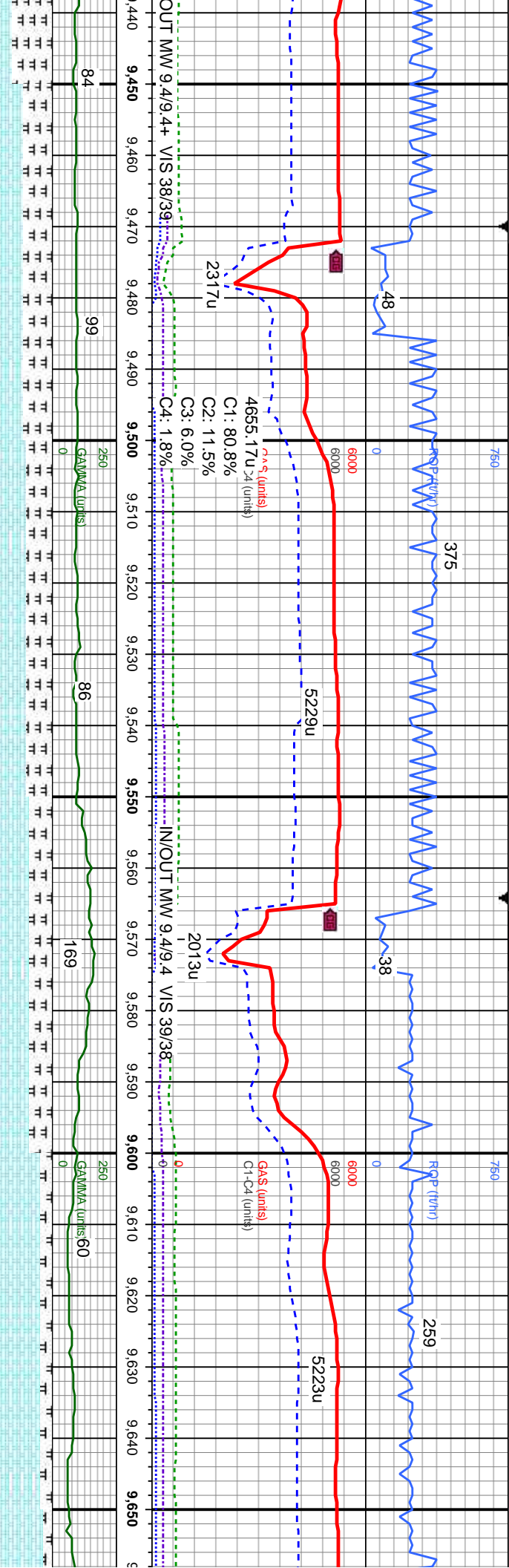










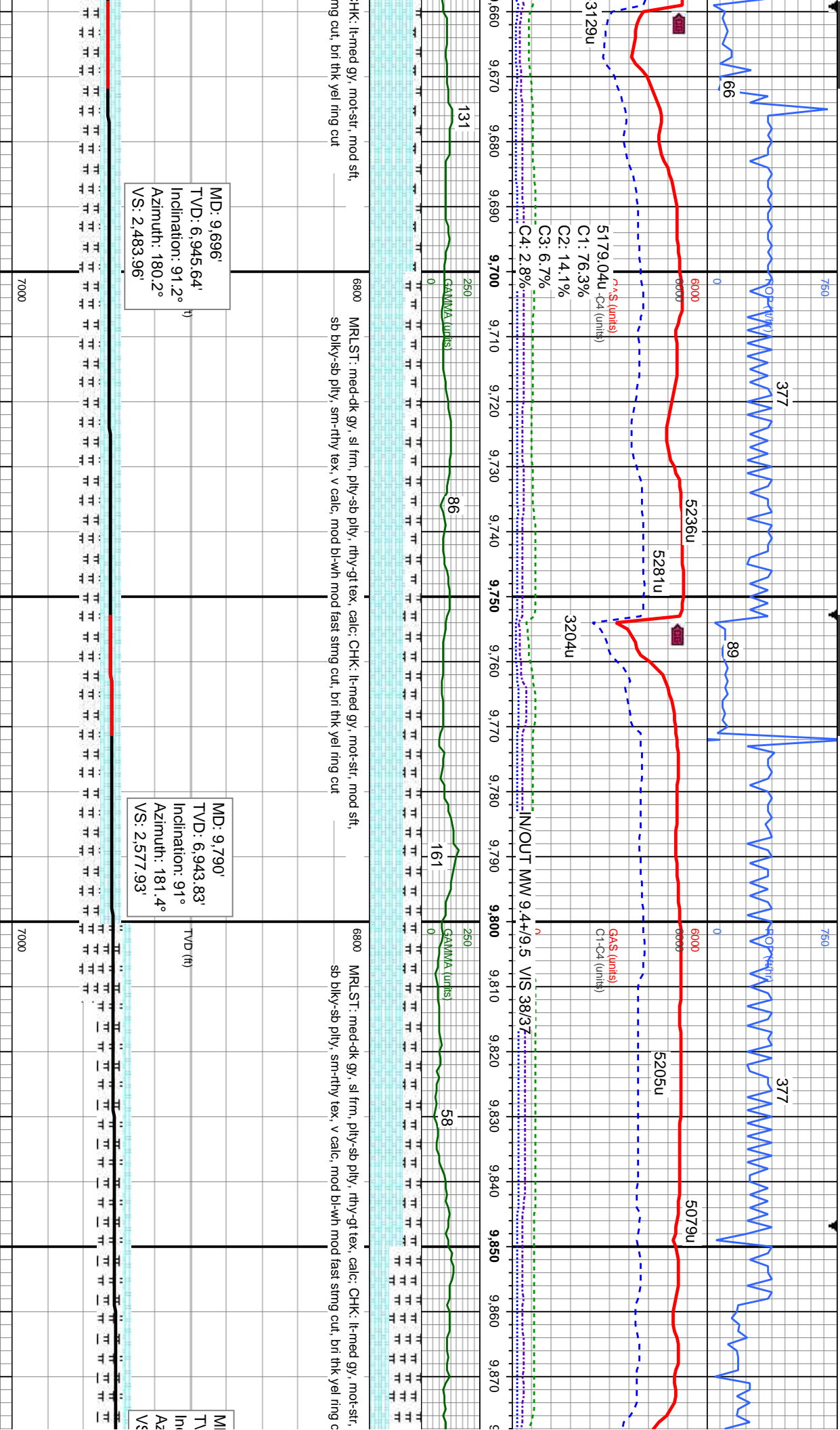


MD: 9,507'  
TVD: 6,946.79'  
Inclination: 90.4°  
Azimuth: 179.3°  
VS: 2,295.1'

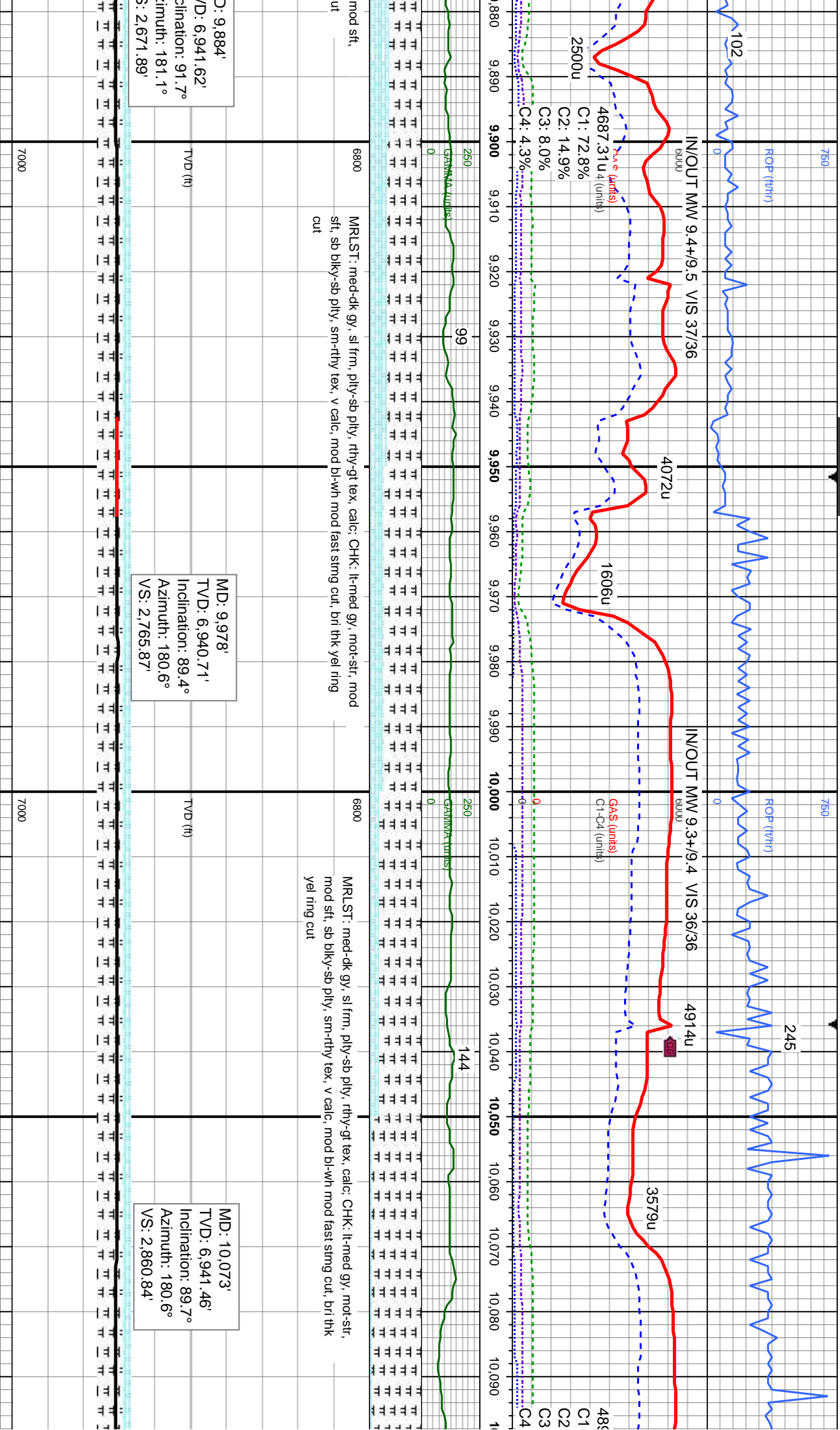
MD: 9,601'  
TVD: 6,946.55'  
Inclination: 89.9°  
Azimuth: 179.7°  
VS: 2,389.02'

ply, rthy-gt tex, calc; CHK: lt-med gy, mot-str, mod sft, mod bl-wh mod fast stmg cut, bri thk yel ring cut	6800	MRLST: med-dk gy, sl frm, ply-sb ply, rthy-gt tex, calc; CHK: lt-med gy, mot-str, mod sft, sb blk-y-sb ply, sm-rthy tex, v calc, mod bl-wh mod fast stmg cut, bri thk yel ring cut	6800	MRLST: med-dk gy, sl frm, ply-sb ply, rthy-gt tex, calc; CHK: lt-med gy, mot-str, mod sft, sb blk-y-sb ply, sm-rthy tex, v calc, mod bl-wh mod fast stmg cut, bri thk yel ring cut
	7000		7000	



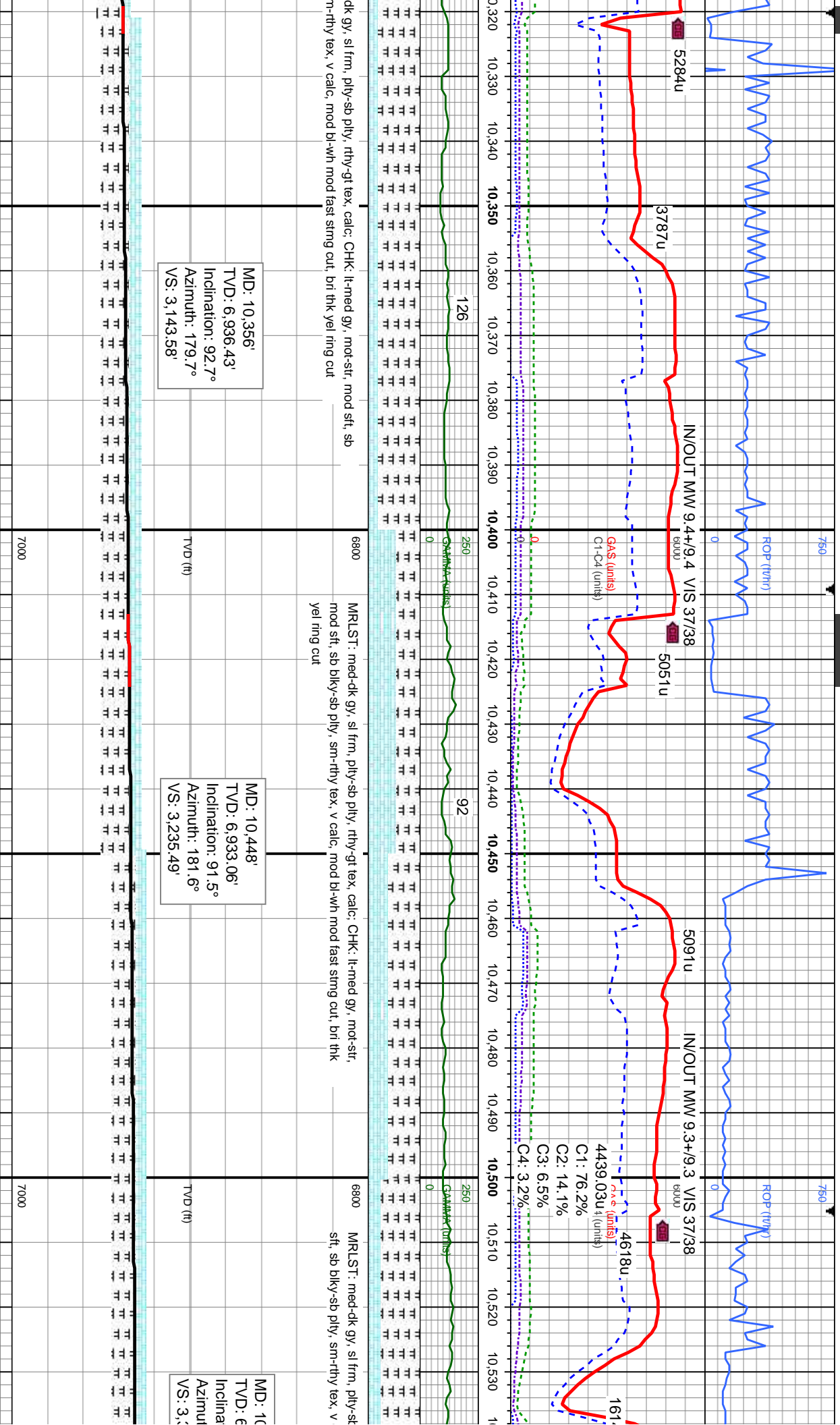


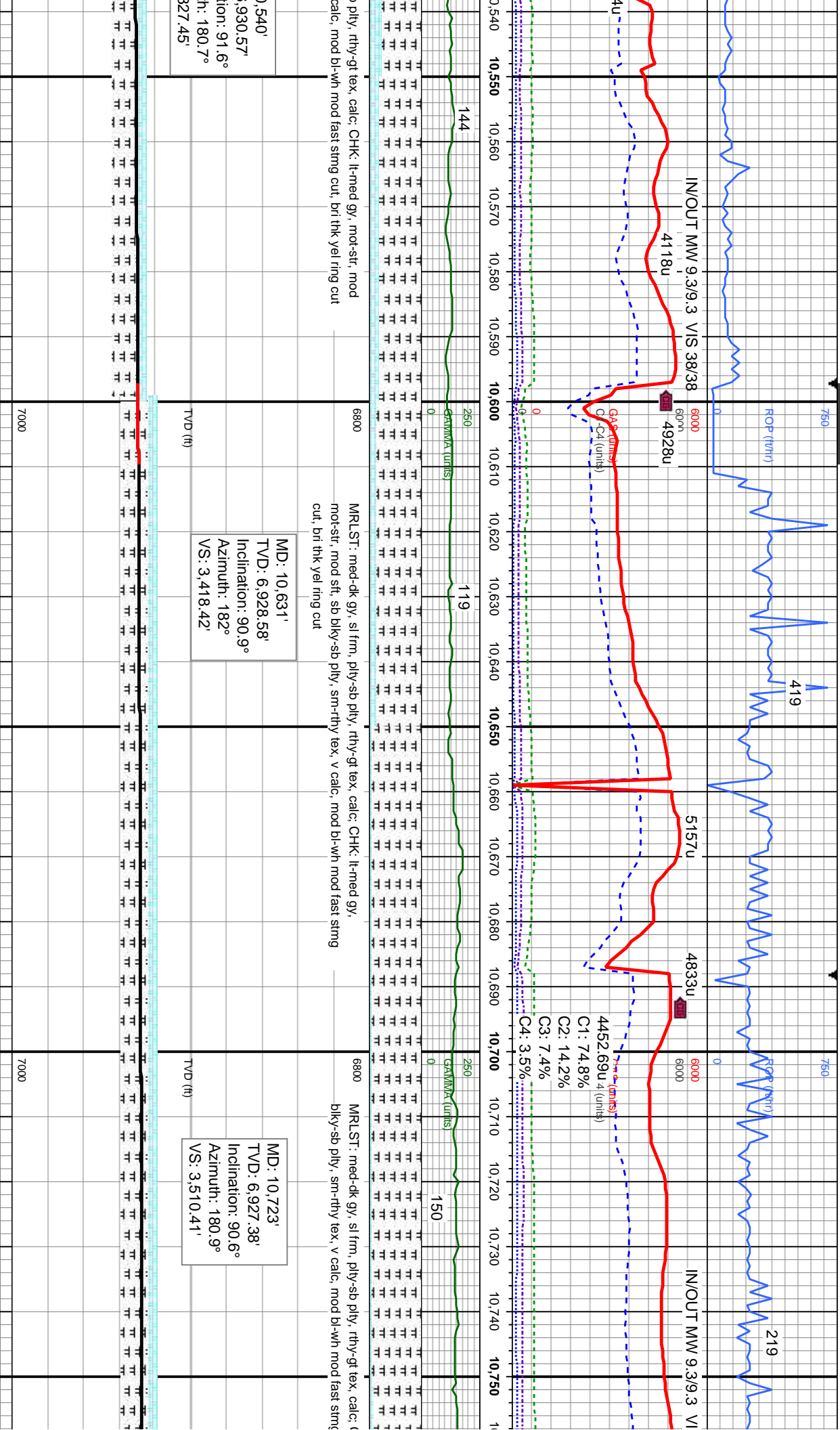




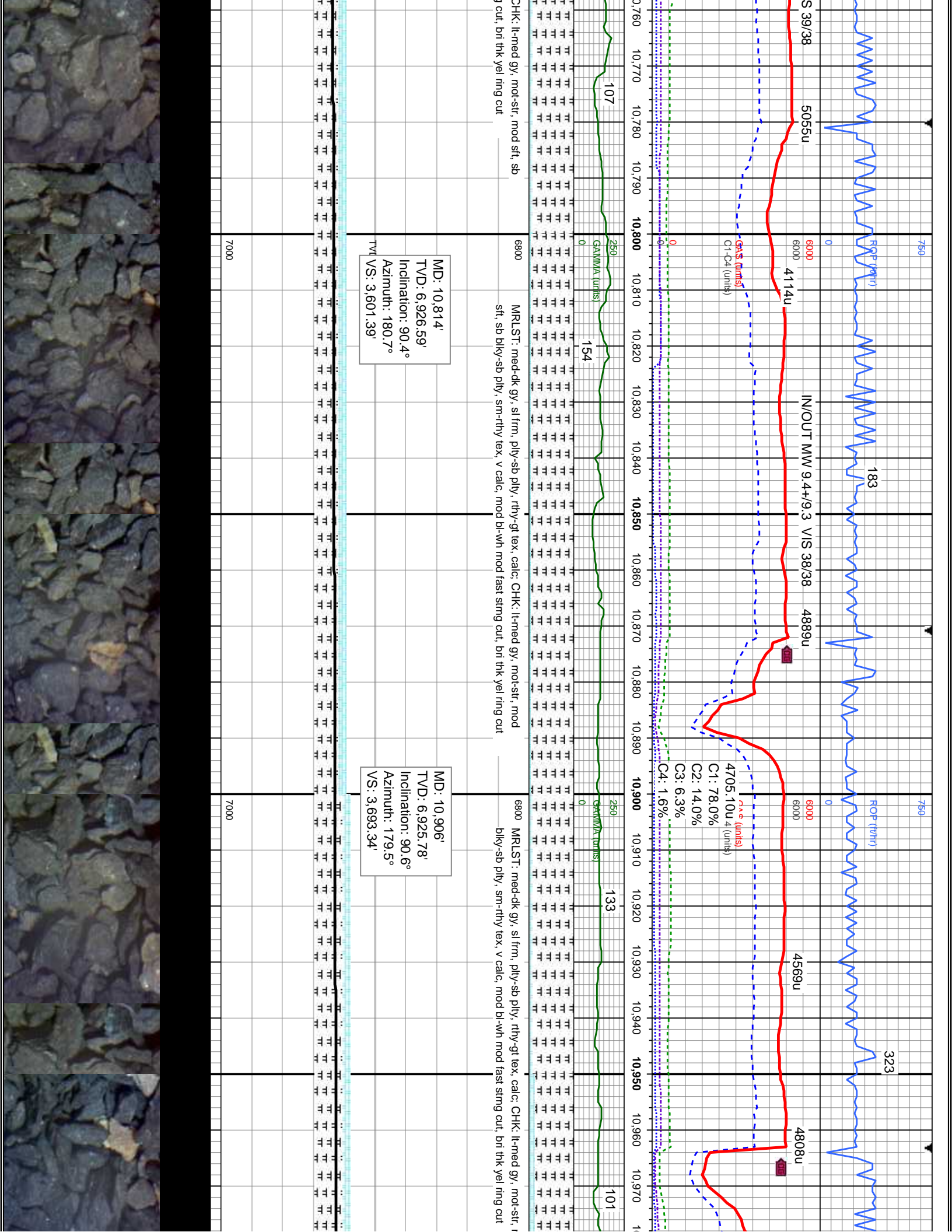


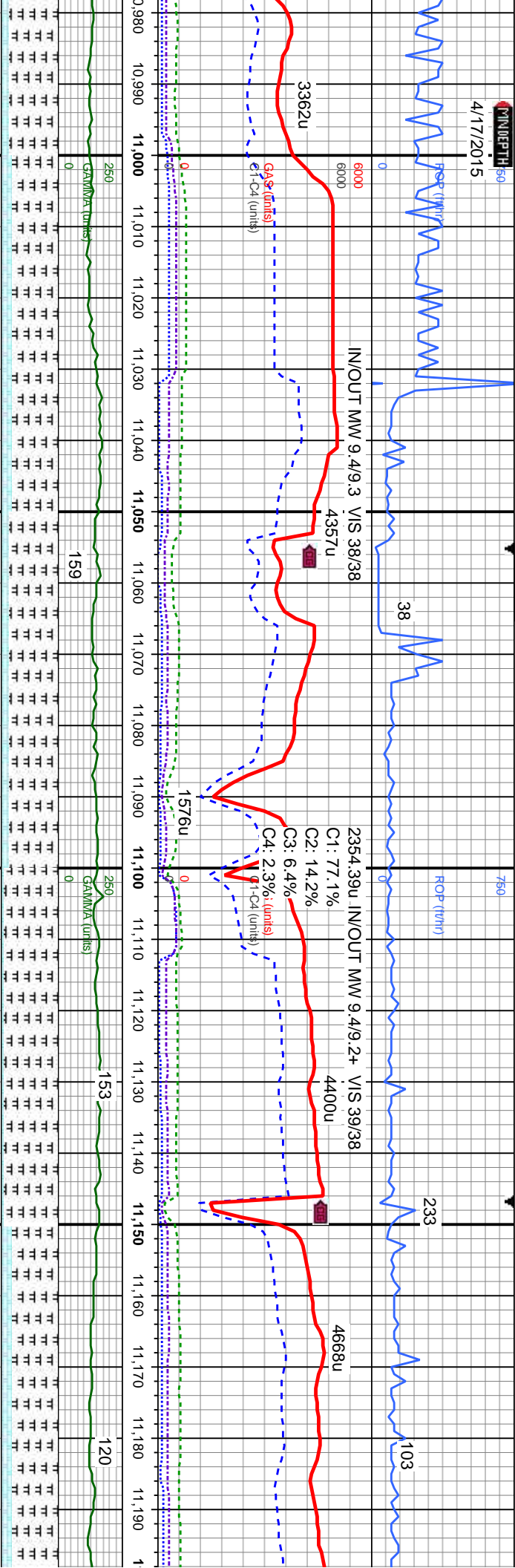








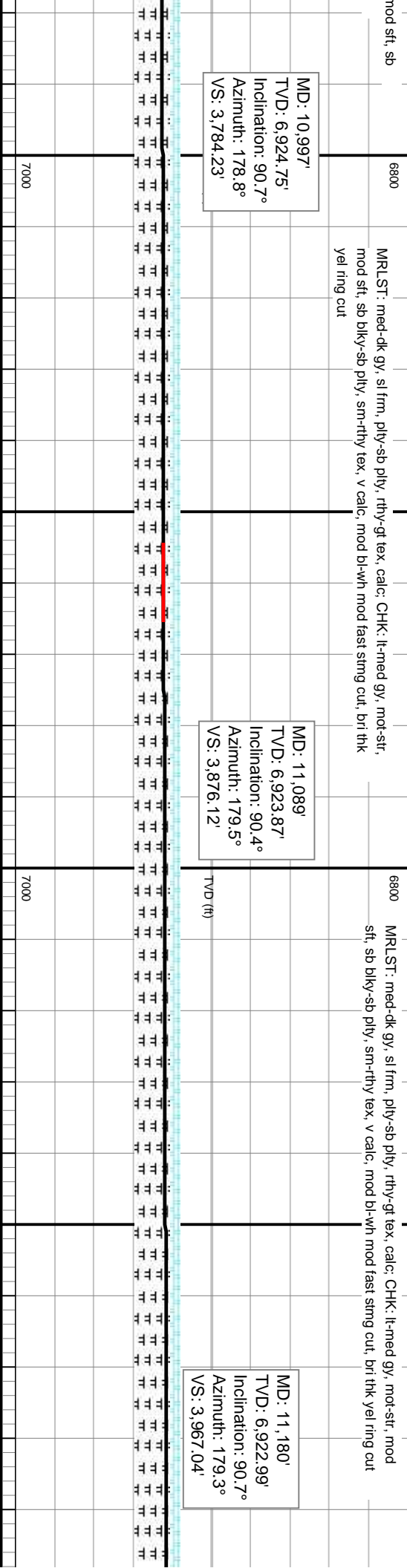




MD: 10,997'  
TVD: 6,924.75'  
Inclination: 90.7°  
Azimuth: 178.8°  
VS: 3,784.23'

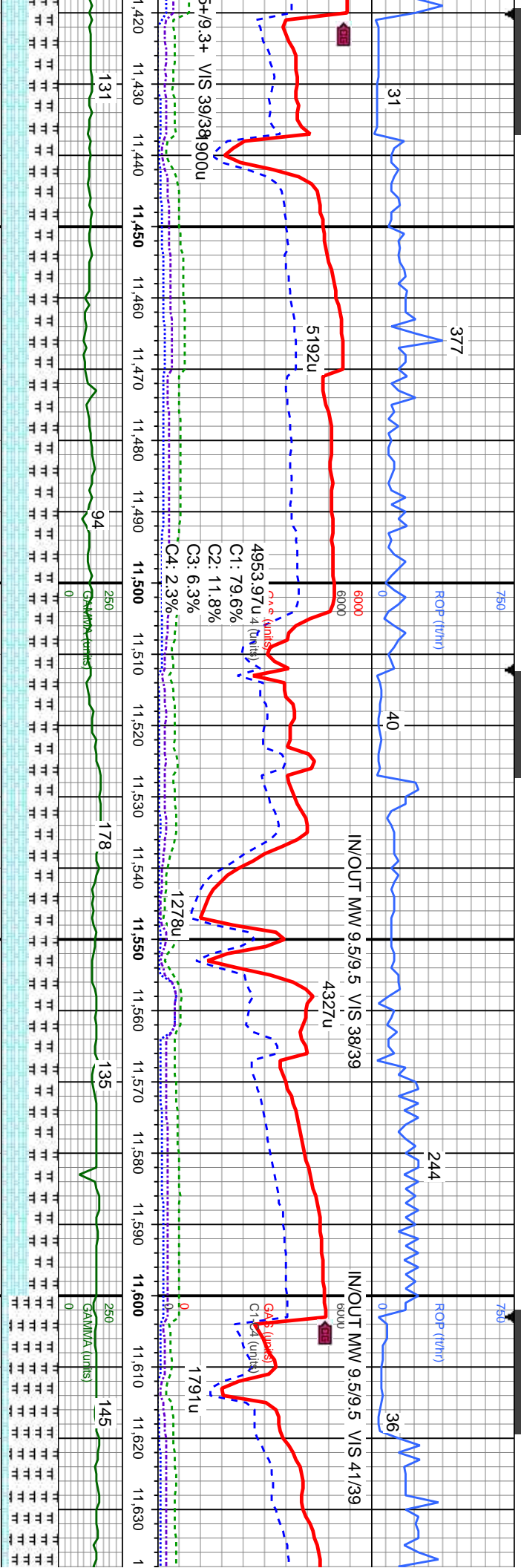
MD: 11,089'  
TVD: 6,923.87'  
Inclination: 90.4°  
Azimuth: 179.5°  
VS: 3,876.12'

MD: 11,180'  
TVD: 6,922.99'  
Inclination: 90.7°  
Azimuth: 179.3°  
VS: 3,967.04'









MD: 11,455'  
TVD: 6,931.08'  
Inclination: 89.4°  
Azimuth: 178.8°  
VS: 4,242.47'

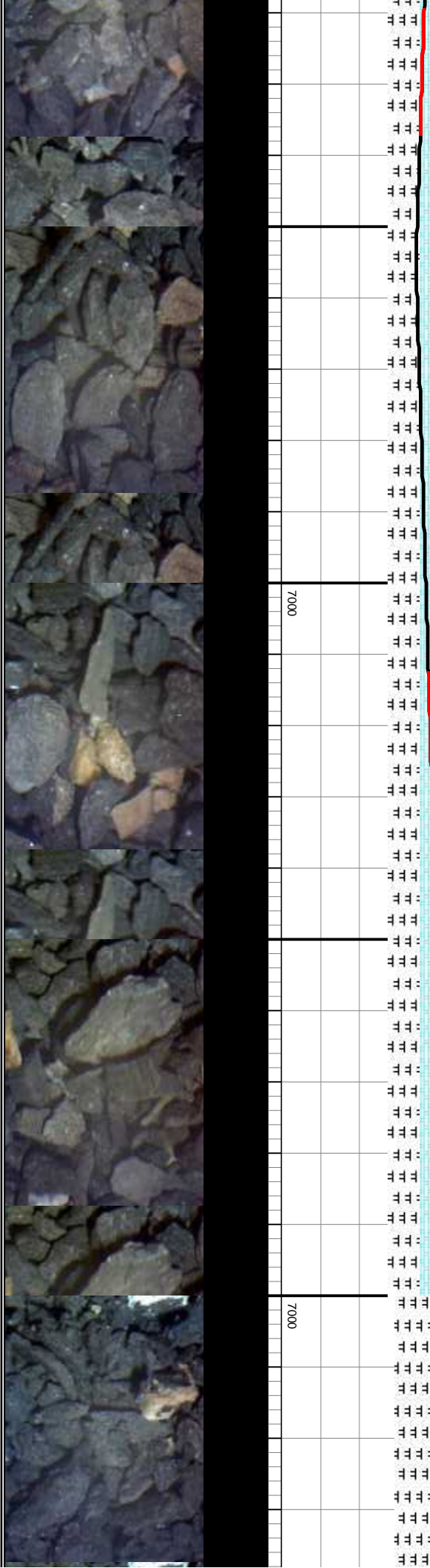
MD: 11,545'  
TVD: 6,921.07'  
Inclination: 89.9°  
Azimuth: 179.3°  
VS: 4,331.34'

MD: 11,616'  
TVD: 6,921.07'  
Inclination: 89.9°  
Azimuth: 179.3°  
VS: 4,423.34'

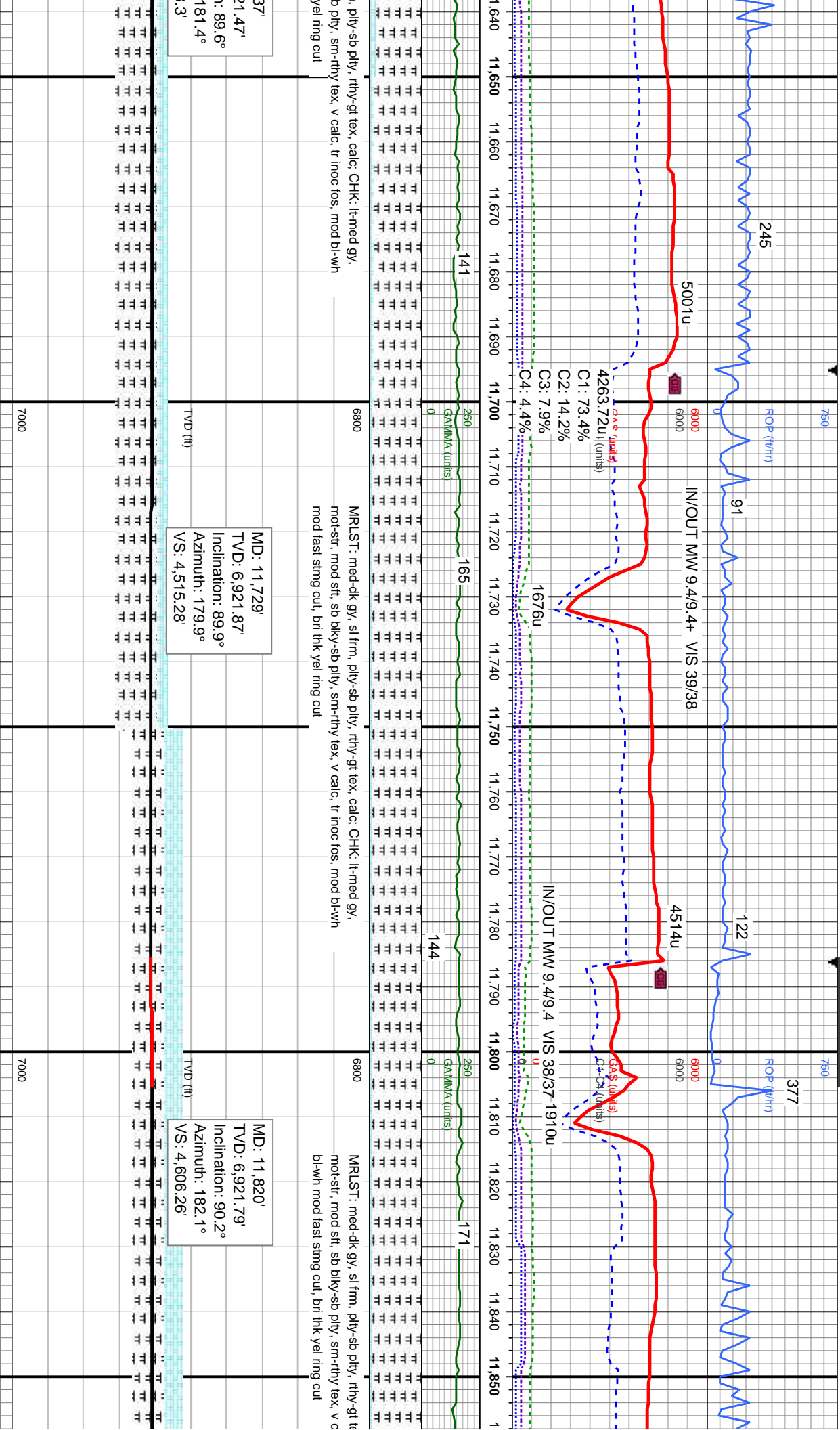
MRSLT: med-dk gy, sl frm, pily-sb pily, rthy-gt tex, calc; CHK: lt-med gy, mot-str, mod sft, sb blk-y-sb pily, sm-rthy tex, v calc; mod bl-wh mod fast string cut, bri thk yel ring cut

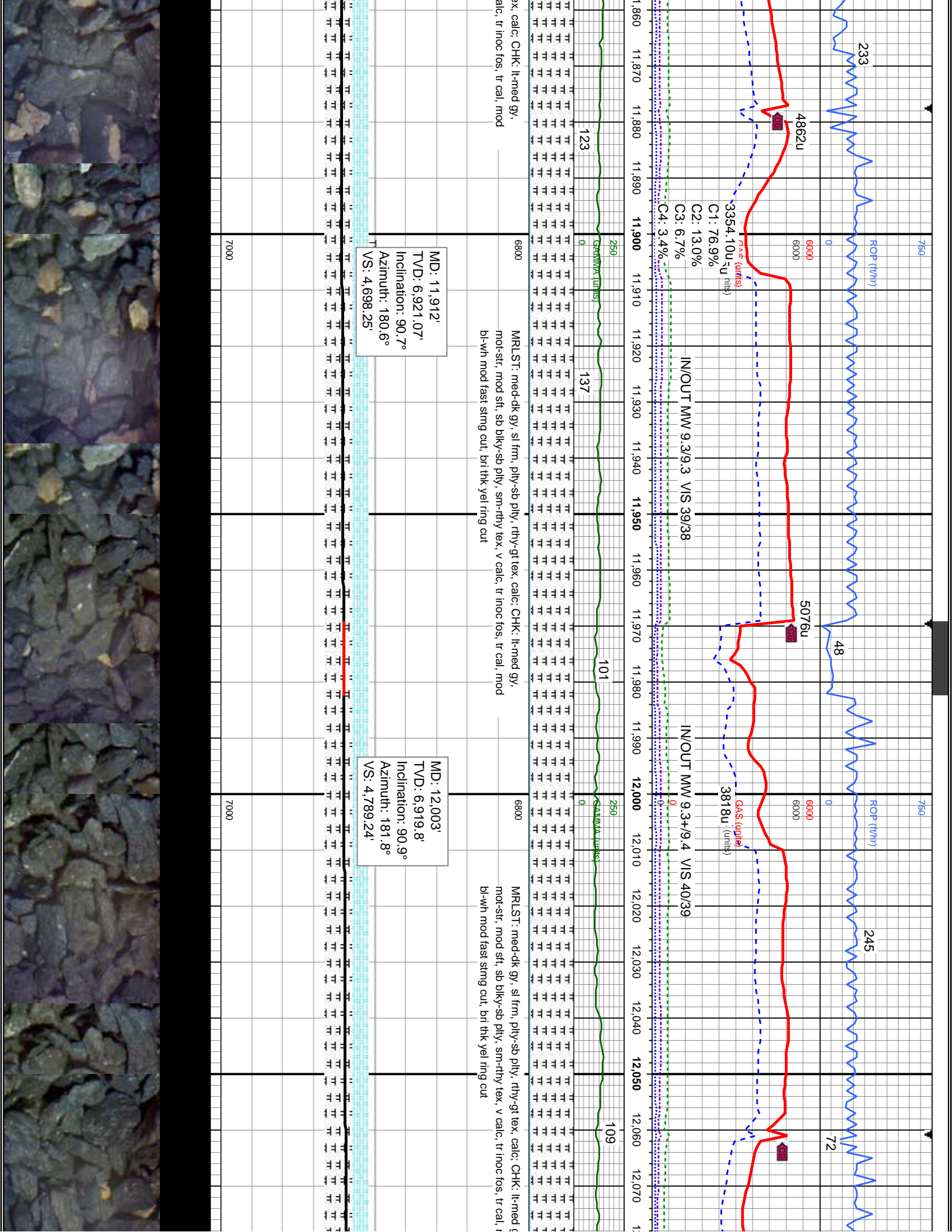
MRSLT: med-dk gy, sl frm, pily-sb pily, rthy-gt tex, calc; CHK: lt-med gy, mot-str, mod sft, sb blk-y-sb pily, sm-rthy tex, v calc; mod bl-wh mod fast string cut, bri thk yel ring cut

MRSLT: med-dk gy, sl frm, pily-sb pily, rthy-gt tex, calc; CHK: lt-med gy, mot-str, mod sft, sb blk-y-sb pily, sm-rthy tex, v calc; mod bl-wh mod fast string cut, bri thk yel ring cut

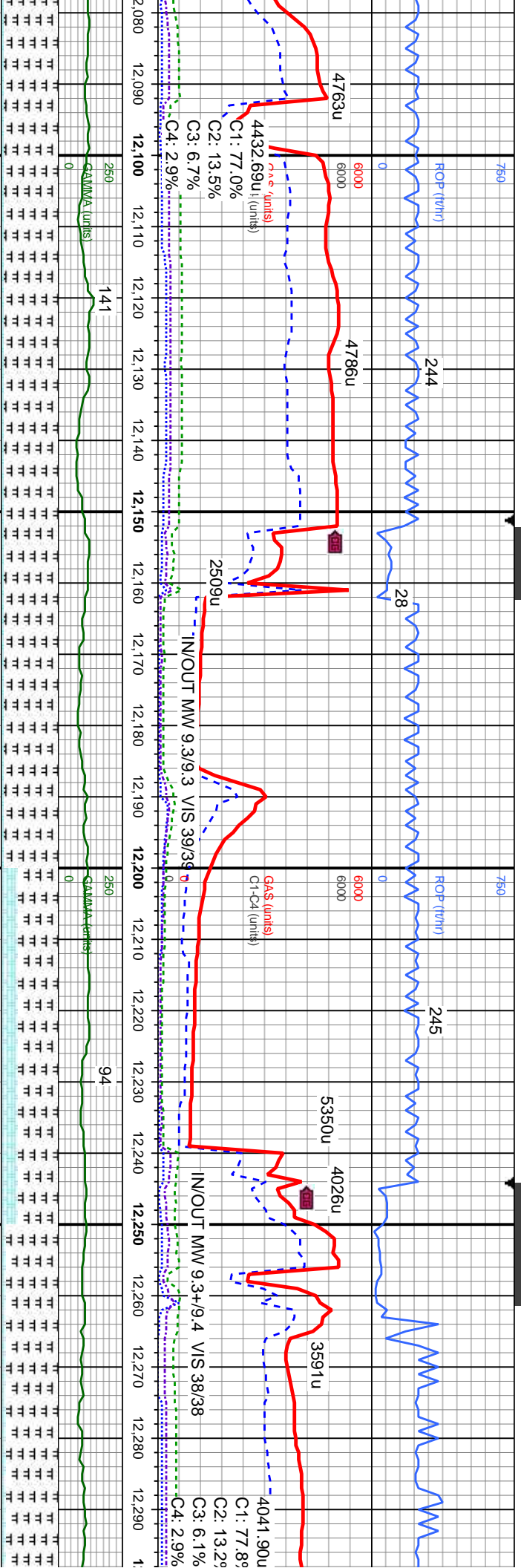


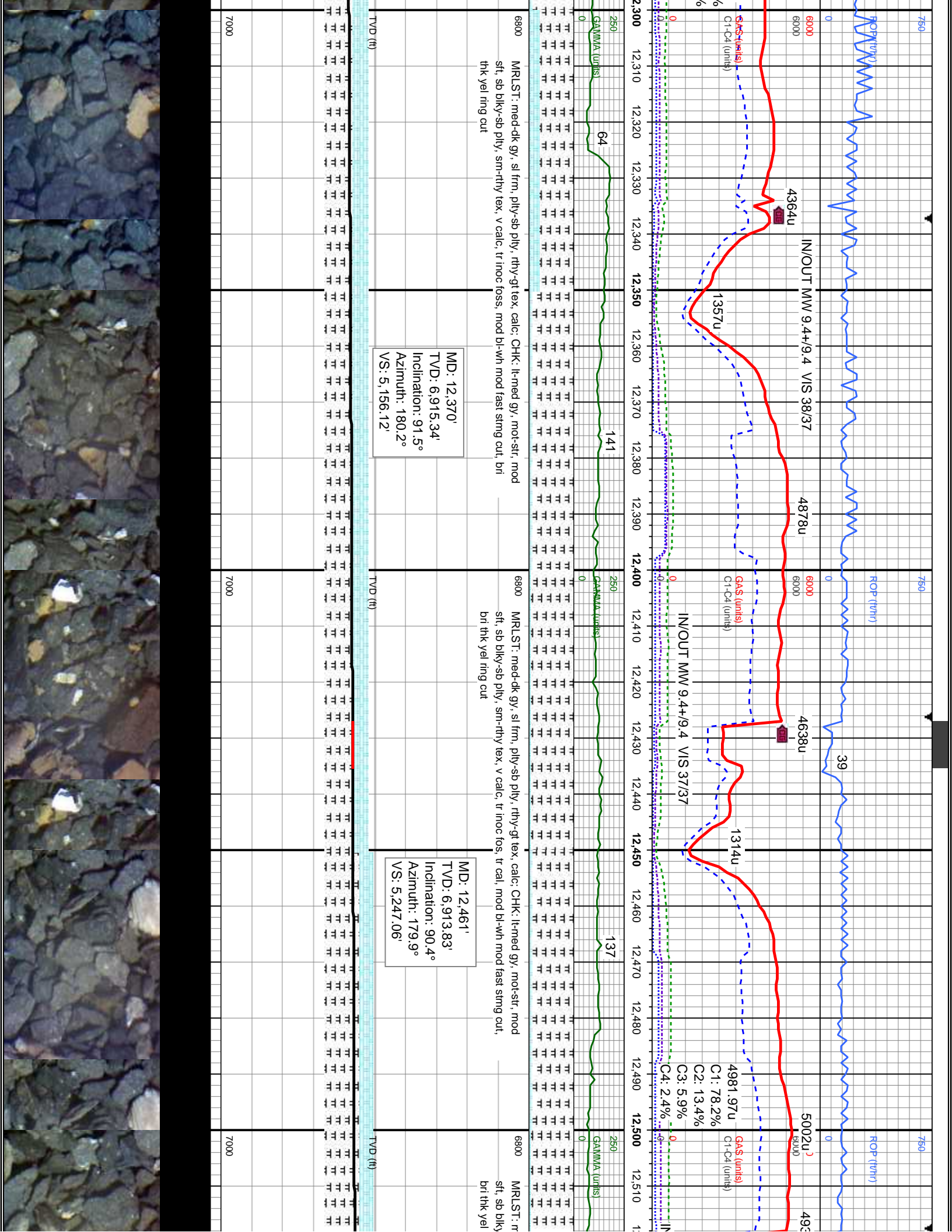




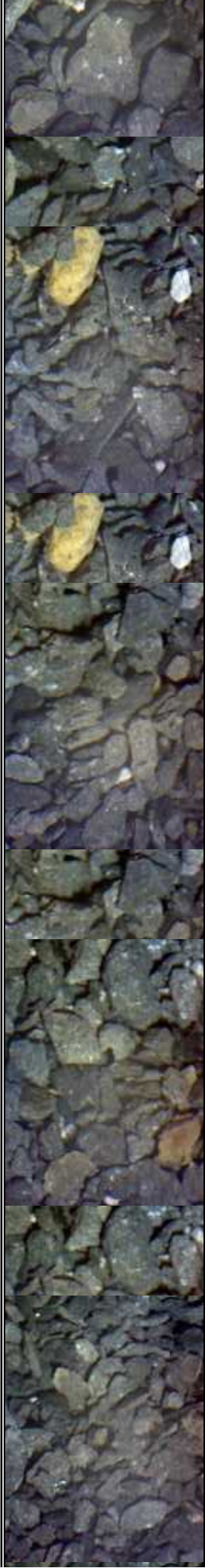
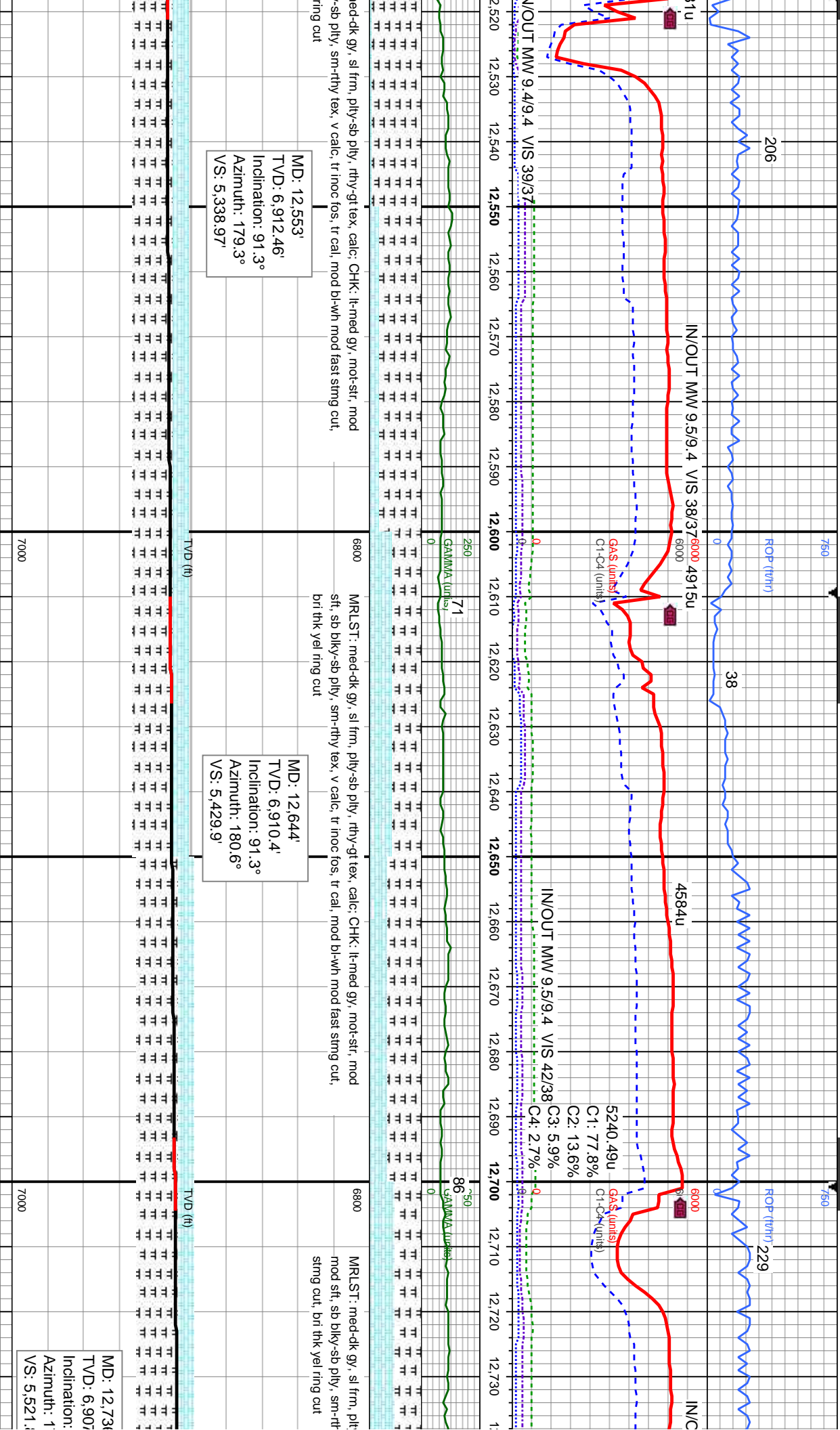


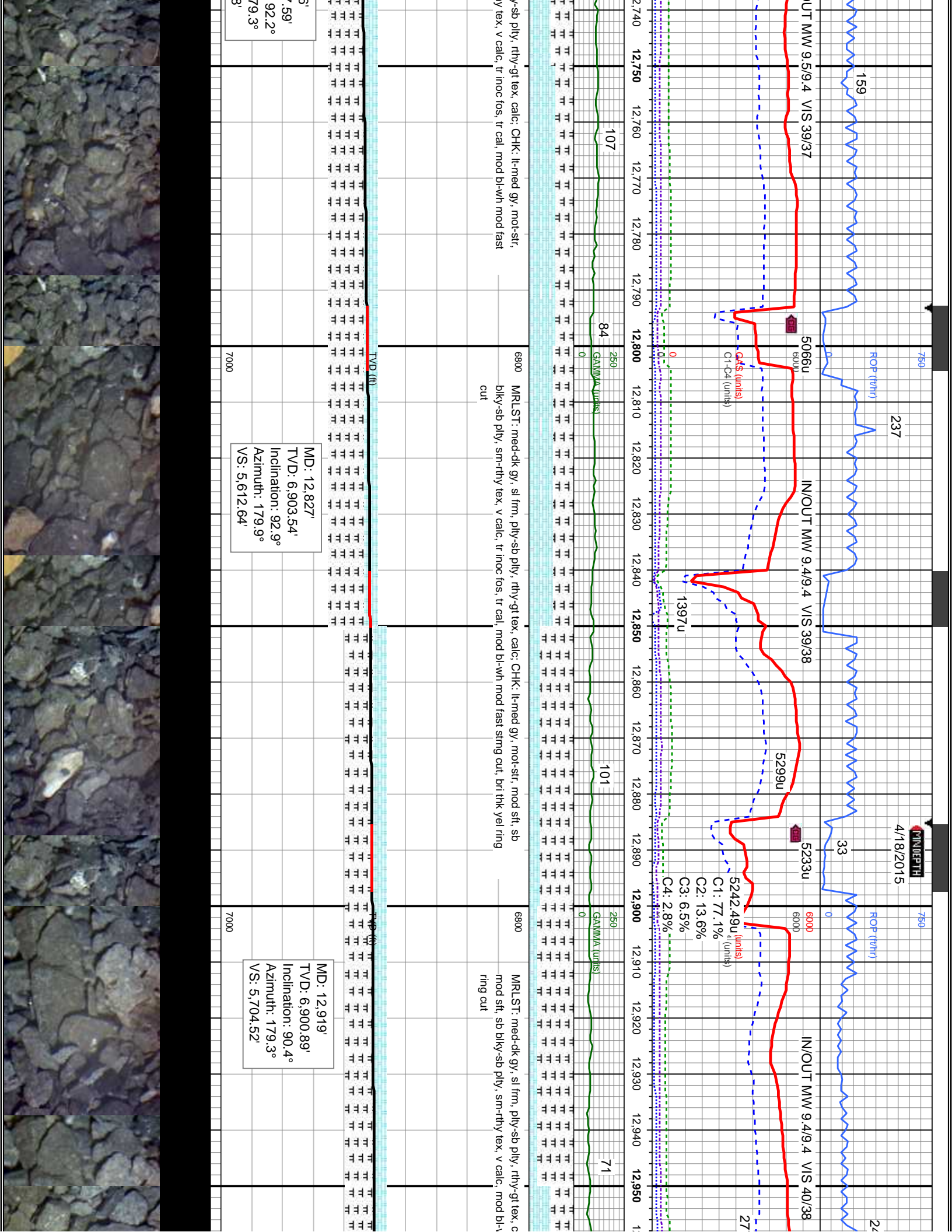




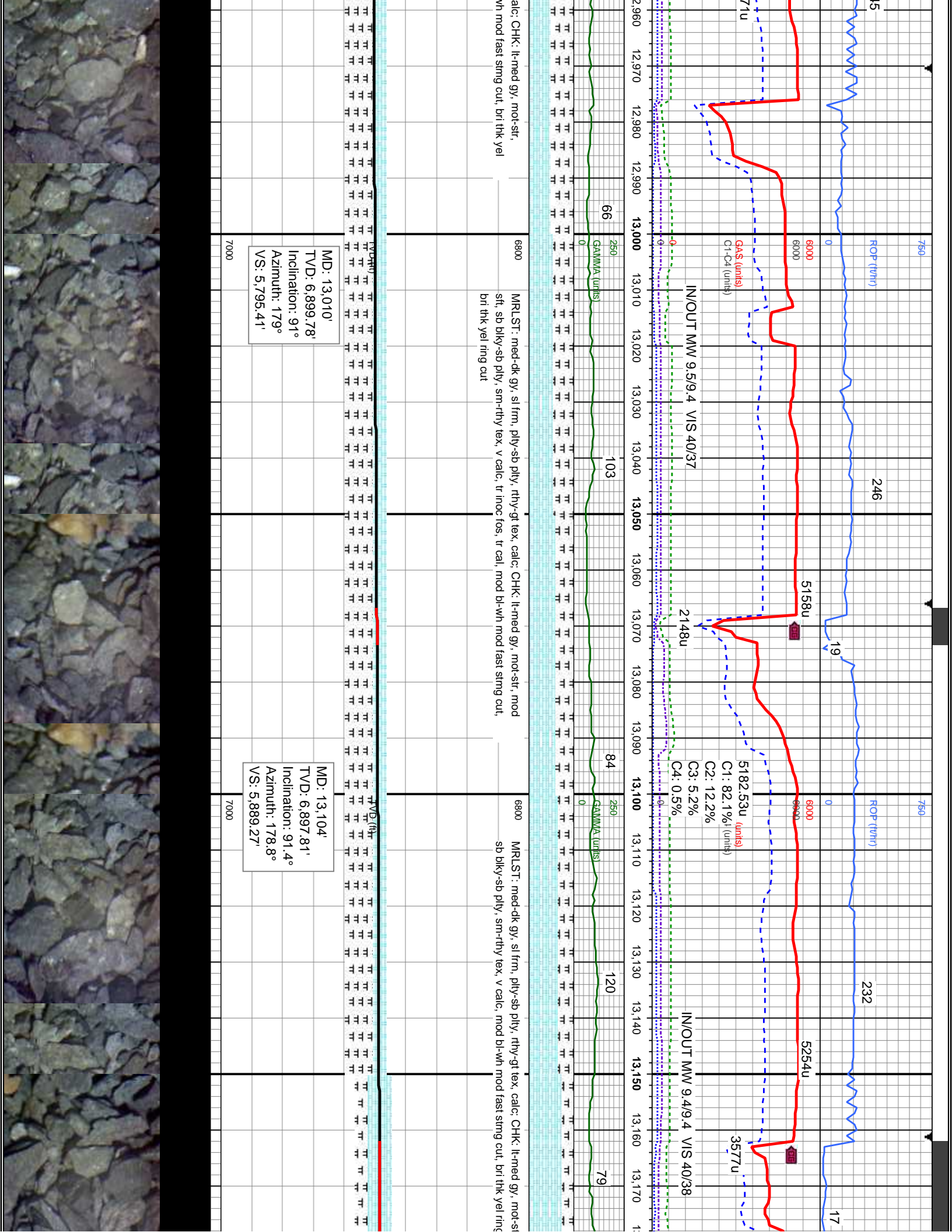


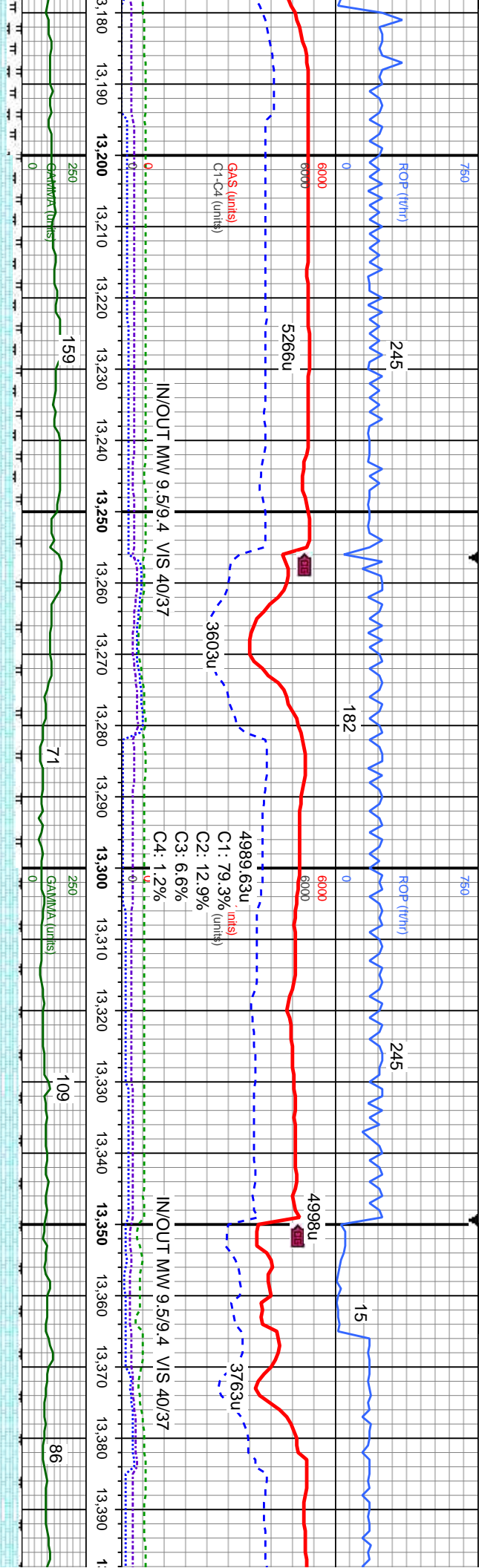












6800 MRLST: med-dk gy, sl frm, ply-sb ply, rthy-gt tex, calc; CHK: lt-med gy, mot-slt, mod sft, sb blk-y-sb ply, sm-rthy tex, v calc, mod bl-wh mod fast sting cut, bri thk yel ring cut

6800 MRLST: med-dk gy, sl frm, ply-sb ply, rthy-gt tex, calc; CHK: lt-med gy, mot-slt, mod sft, sb blk-y-sb ply, sm-rthy tex, v calc, mod bl-wh mod fast sting cut, bri thk yel ring cut

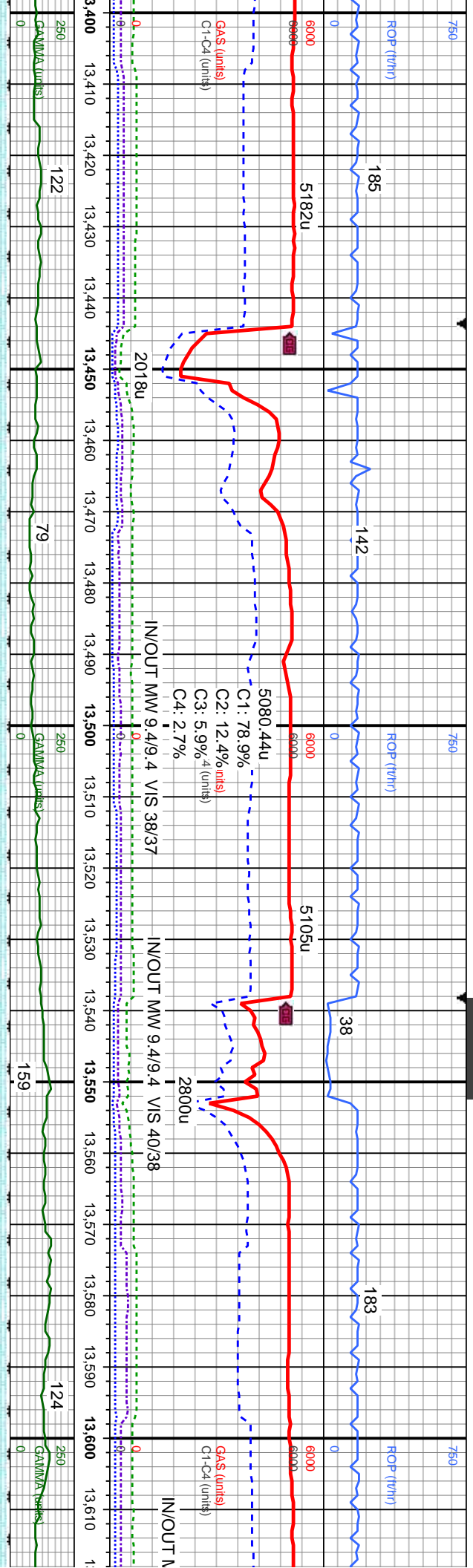
MD: 13,198'  
TVD: 6,896.42'  
Inclination: 90.3°  
Azimuth: 179.5°  
VS: 5,983.15'

MD: 13,292'  
TVD: 6,894.94'  
Inclination: 91.5°  
Azimuth: 178.5°  
VS: 6,077.02'

MD: 13,386'  
TVD: 6,894.12'  
Inclination: 89.5°  
Azimuth: 177.9°  
VS: 6,170.82'







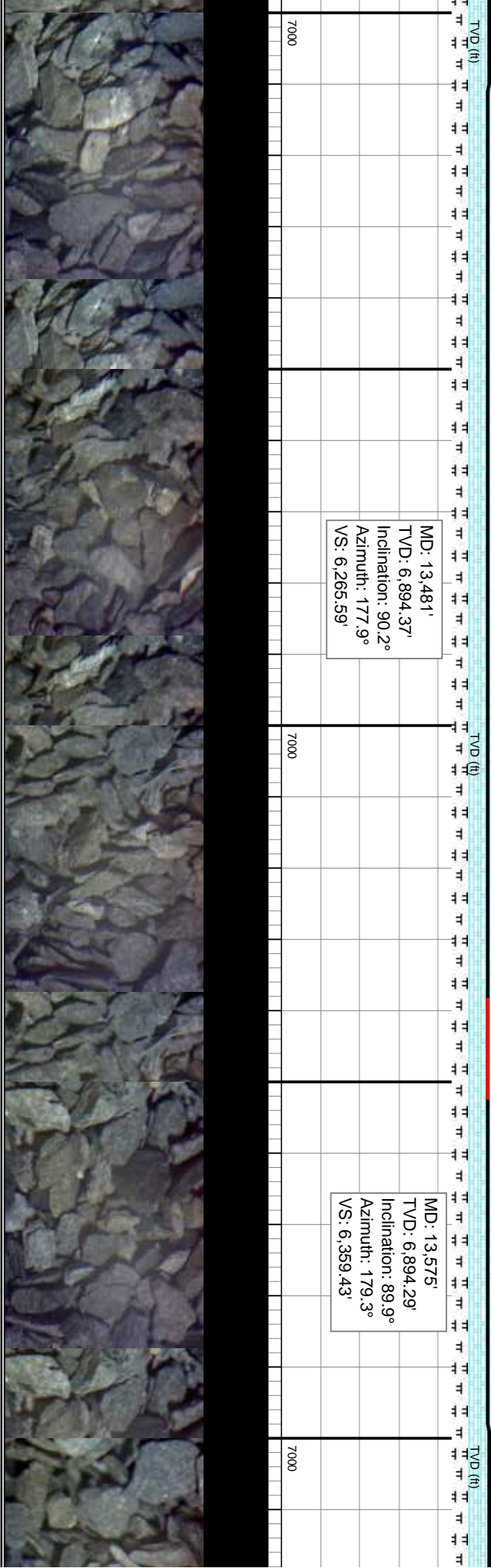
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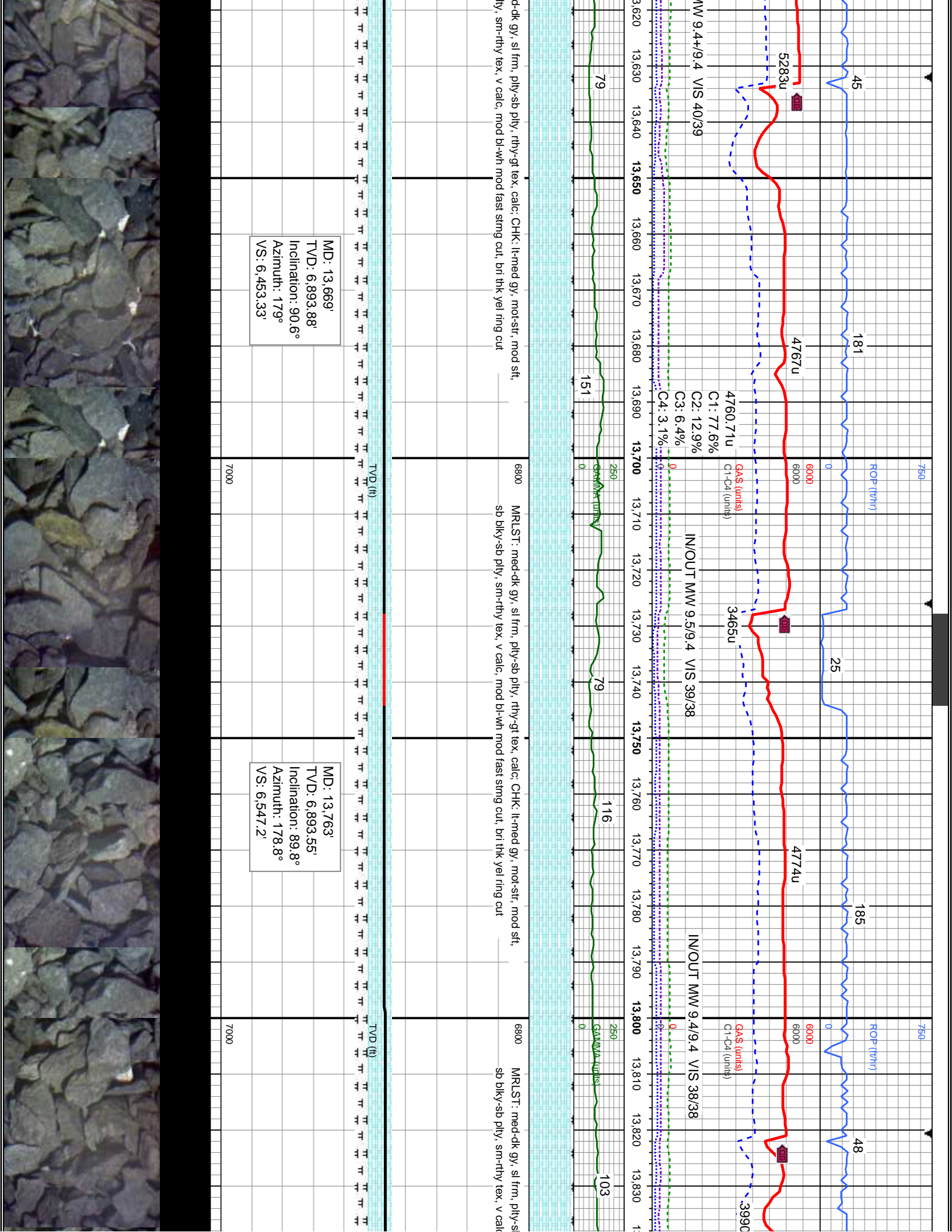
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6800 MRLST: me sb biky-sb p

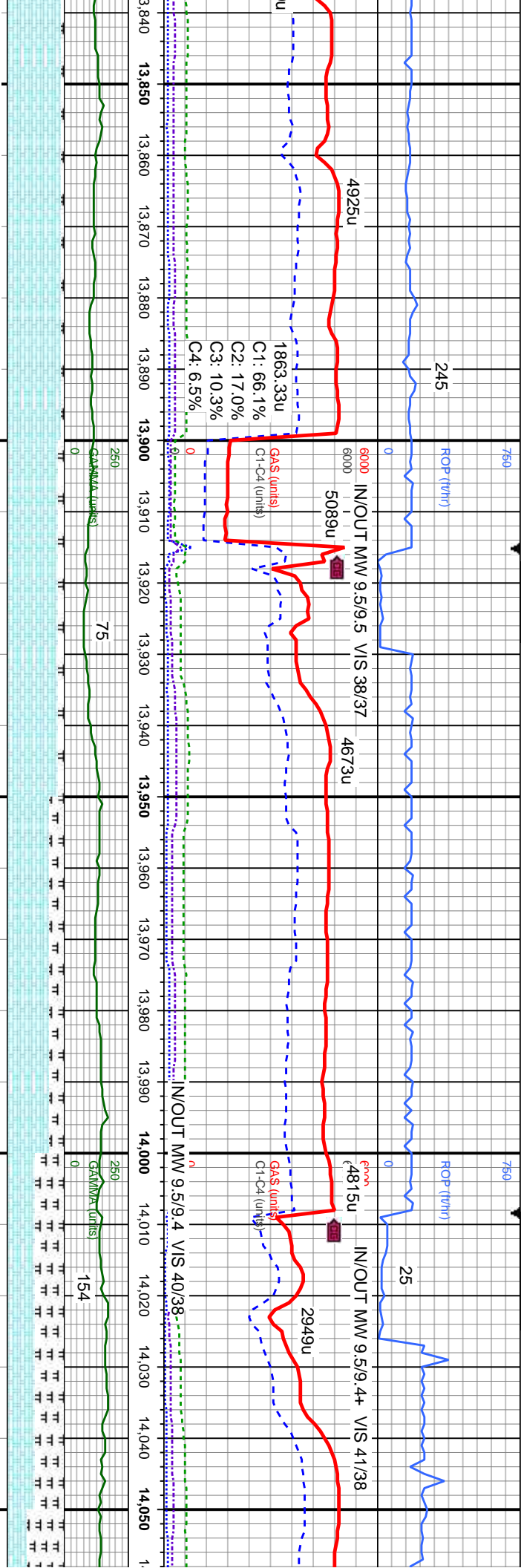
MD: 13,481'  
TVD: 6,894.37'  
Inclination: 90.2°  
Azimuth: 177.9°  
VS: 6,265.59'

MD: 13,575'  
TVD: 6,894.29'  
Inclination: 89.9°  
Azimuth: 179.3°  
VS: 6,359.43'







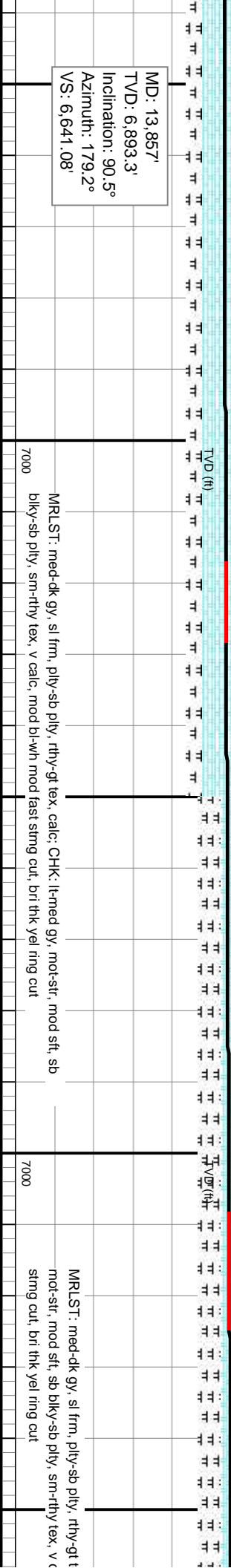


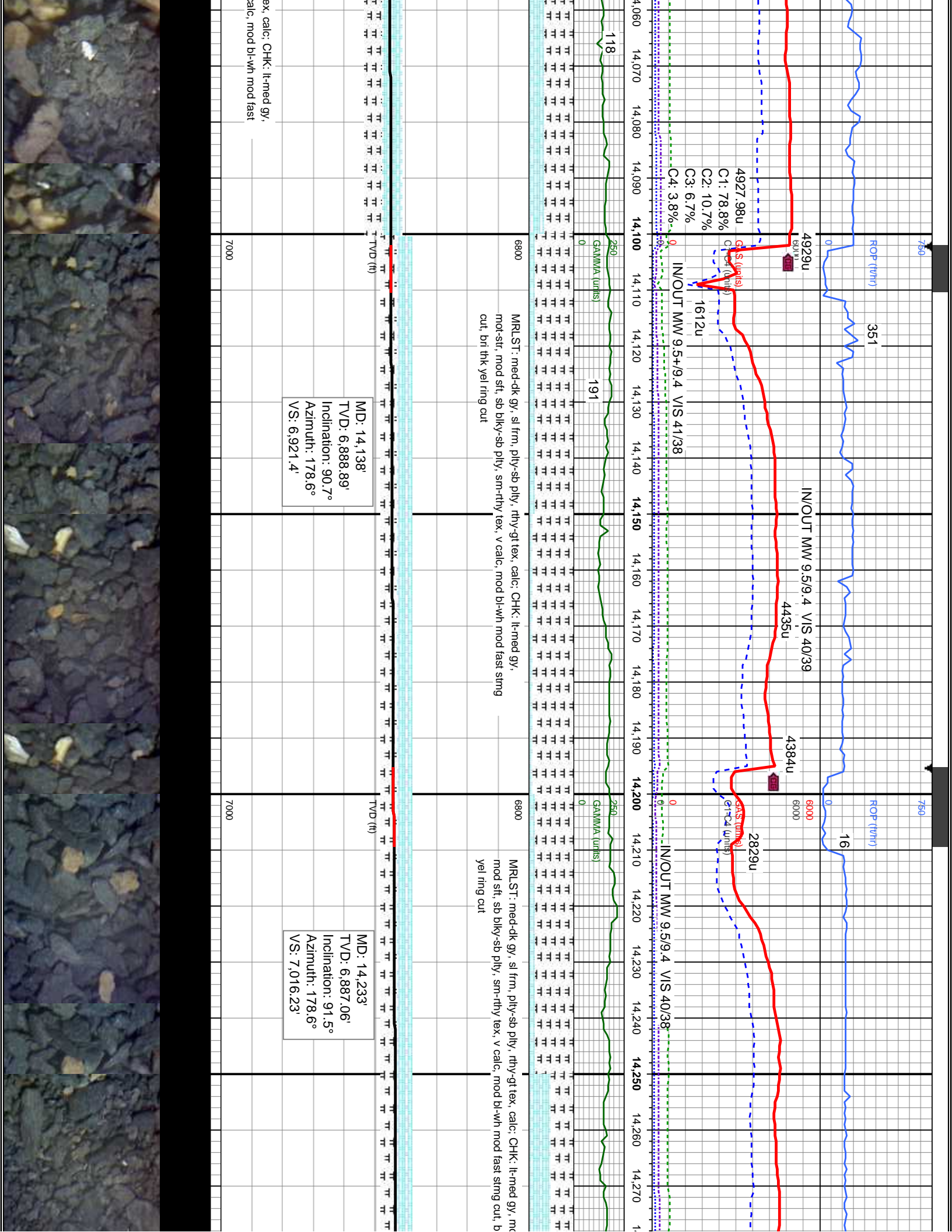
o ply, rthy-gt tex, calc; CHK: lt-med gy, mot-sfr, mod sft,  
s, mod bl-wh mod fast sting cut, bri thk yel ring cut

MD: 13,857'  
TVD: 6,893.3'  
Inclination: 90.5°  
Azimuth: 179.2°  
VS: 6,641.08'

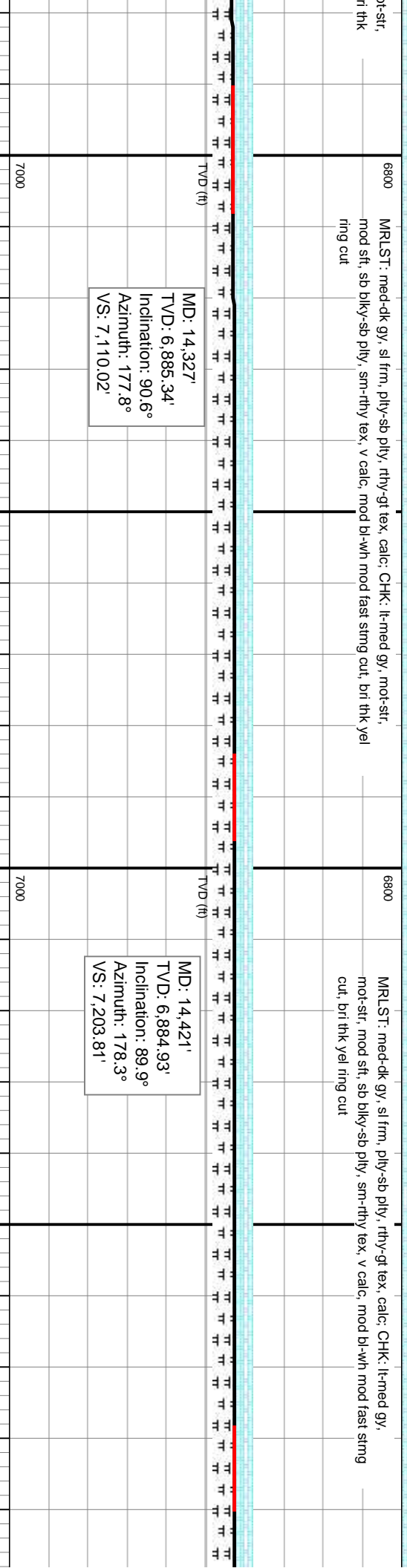
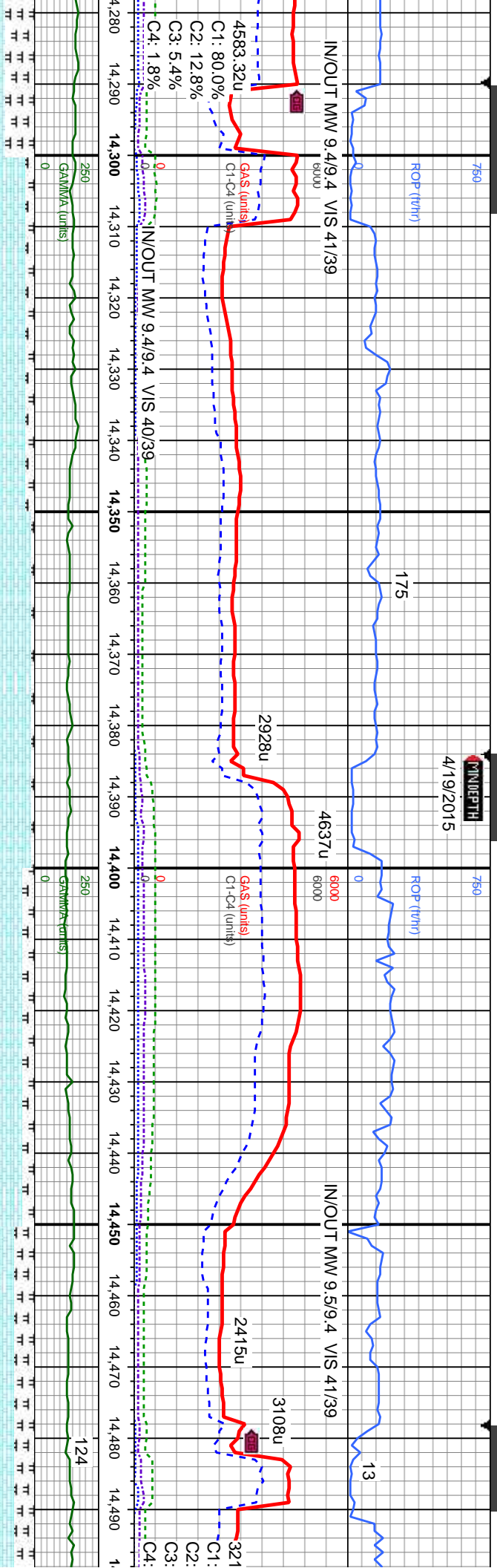
MD: 13,951'  
TVD: 6,891.91'  
Inclination: 91.2°  
Azimuth: 177.2°  
VS: 6,734.87'

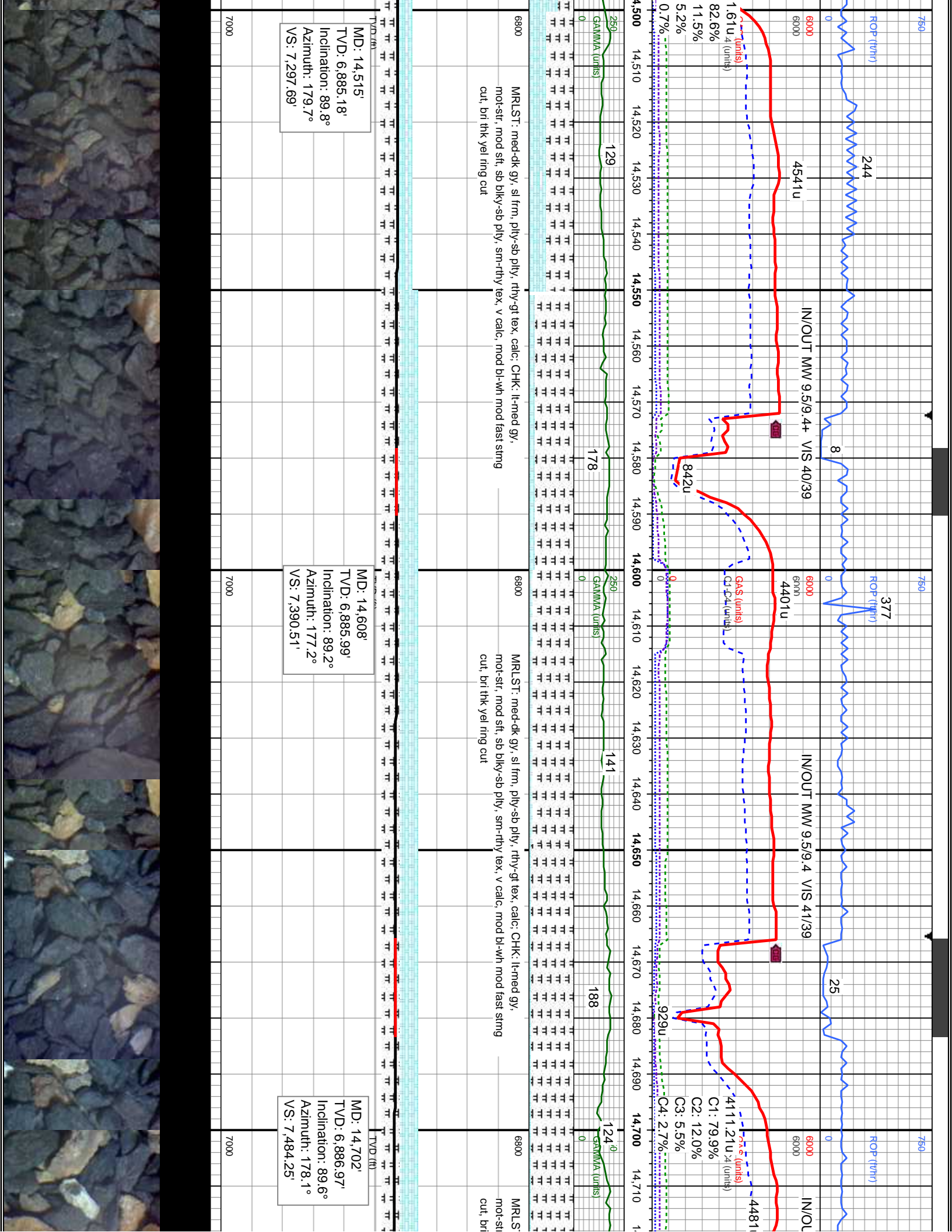
MD: 14,045'  
TVD: 6,890.18'  
Inclination: 90.9°  
Azimuth: 177.9°  
VS: 6,828.59'



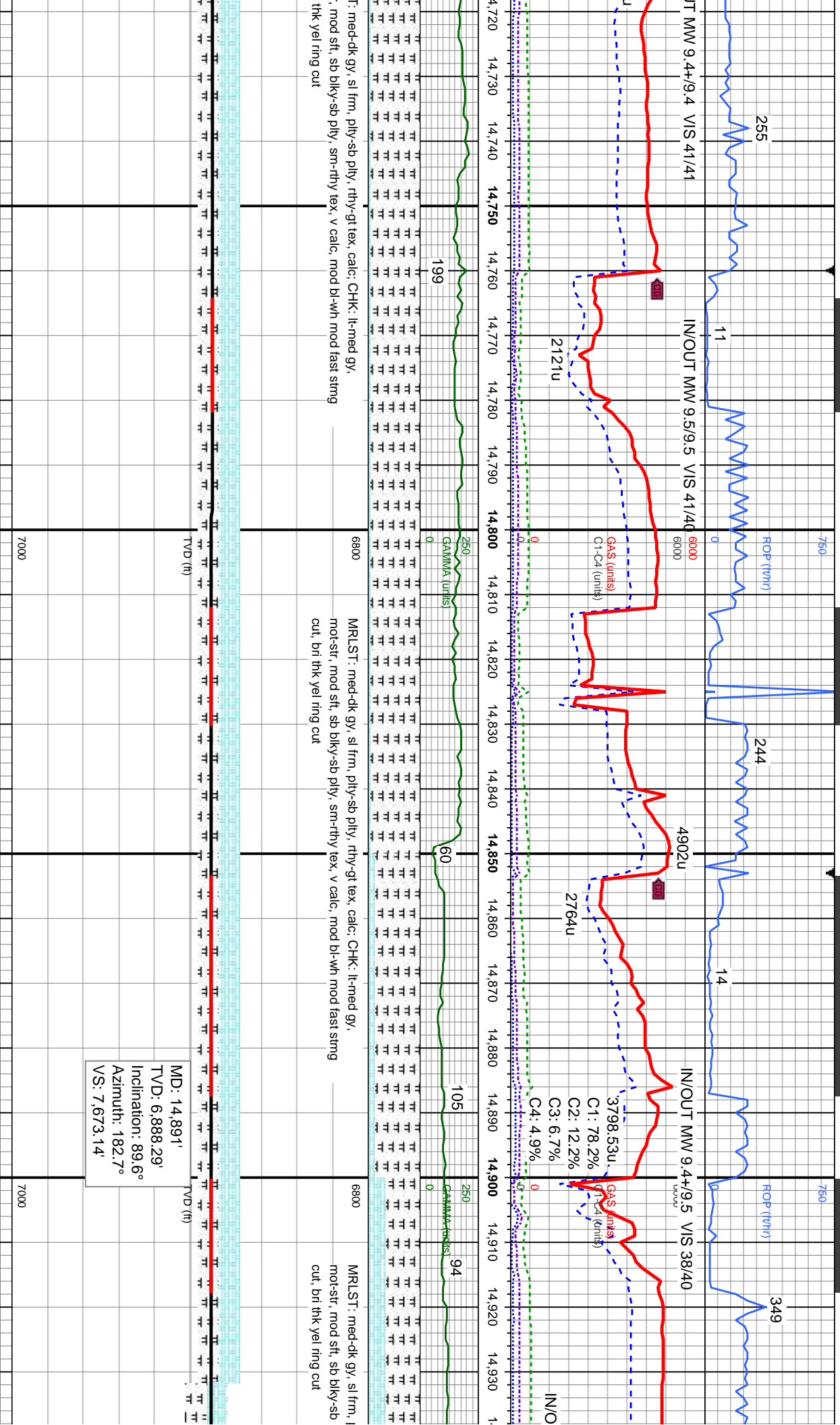


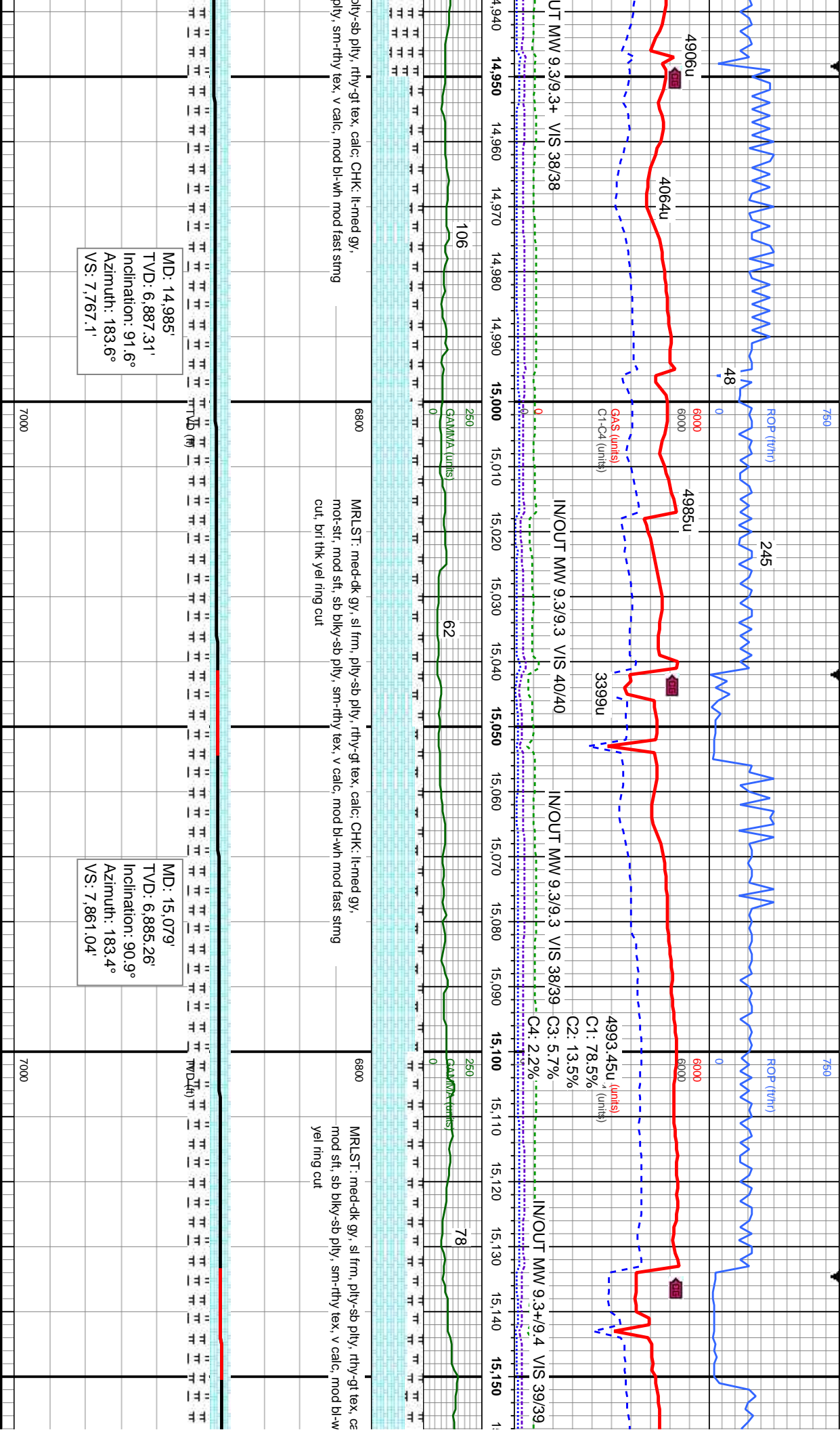










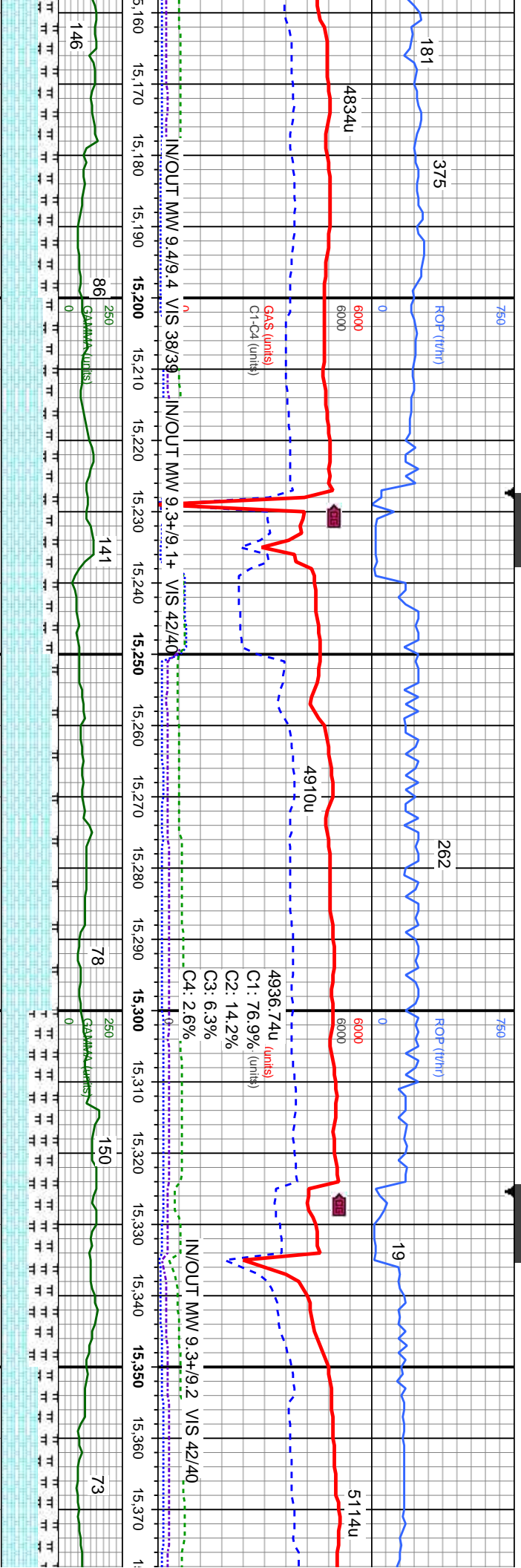


MD: 14.985'  
TVD: 6.887.31'  
Inclination: 91.6°  
Azimuth: 183.6°  
VS: 7.767.1'

MD: 15.079'  
TVD: 6.885.26'  
Inclination: 90.9°  
Azimuth: 183.4°  
VS: 7.861.04'







MD: 15,173'  
TVD: 6,883.45'  
Inclination: 91.3°  
Azimuth: 184.3°  
VS: 7,954.96'

MD: 15,267'  
TVD: 6,881.15'  
Inclination: 91.5°  
Azimuth: 183.4°  
VS: 8,048.88'

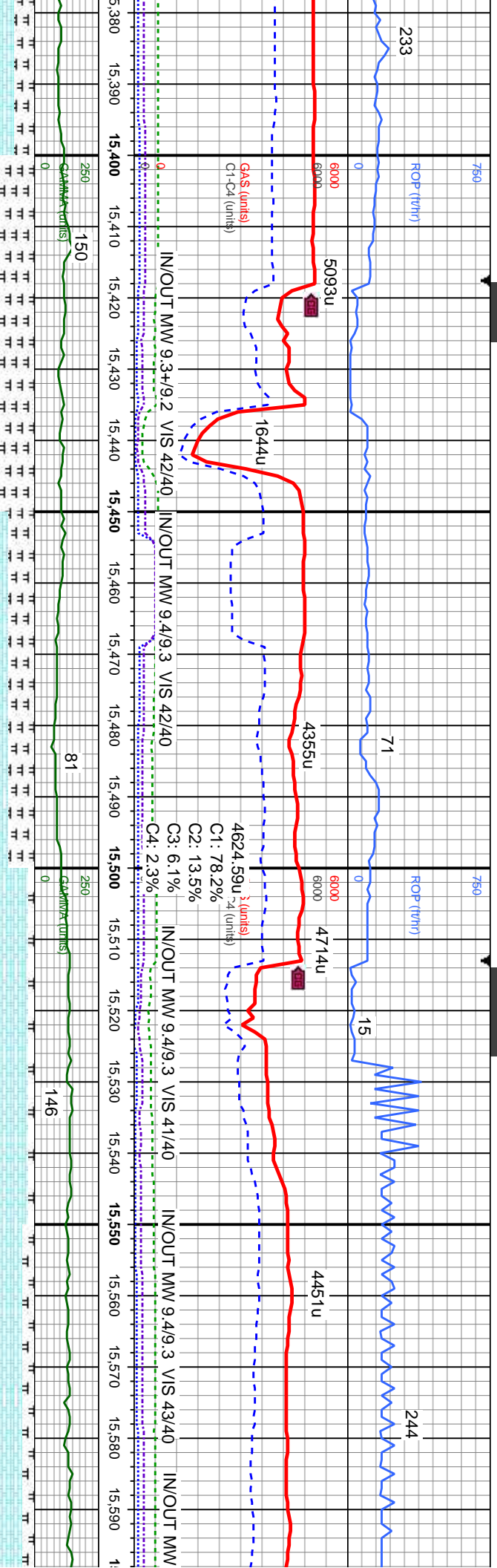
MD: 15,361'  
TVD: 6,878.78'  
Inclination: 91.4°  
Azimuth: 183.7°  
VS: 8,142.81'

CHK: lt-med gy, mot-sir,  
h mod fast string cut, bri thk

MRLST: med-dk gy, sl frm, pily-sb pily, rthy-gt tex, calc; CHK: lt-med gy, mot-sir, mod  
sft, sb blk-y-sb pily, sm-rthy tex, v calc, mod bl-wh mod fast string cut, bri thk yel ring cut

MRLST: med-dk gy, sl frm, pily-sb pily, rthy-gt tex, calc; CHK: lt-med gy, r  
mod sft, sb blk-y-sb pily, sm-rthy tex, v calc, mod bl-wh mod fast string cut,  
ring cut





6800

not-st, brk thk yel

MRLST: med-dk gy, sl frm, pily-sb pily, rthy-gt tex, calc; CHK: lk-med gy, mot-str, mod sft, sb bily-sb pily, sm-rthy tex, v calc, mod bl-wh mod fast sting cut, brk thk yel ring cut

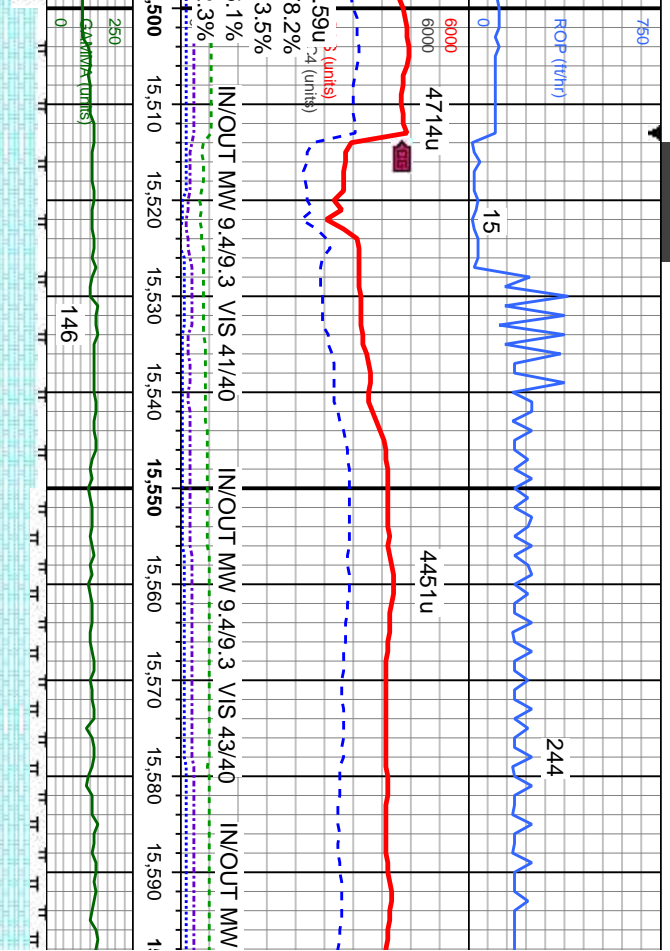
MD: 15,456'

TVD: 6,877.2'

Inclination: 90.5°

Azimuth: 185°

VS: 8,237.7'



6800

not-st, brk thk yel

MRLST: med-dk gy, sl frm, pily-sb pily, rthy-gt tex, calc; CHK: lk-med gy, mot-str, mod sft, sb bily-sb pily, sm-rthy tex, v calc, mod bl-wh mod fast sting cut, brk thk yel ring cut

MD: 15,549'

TVD: 6,876.79'

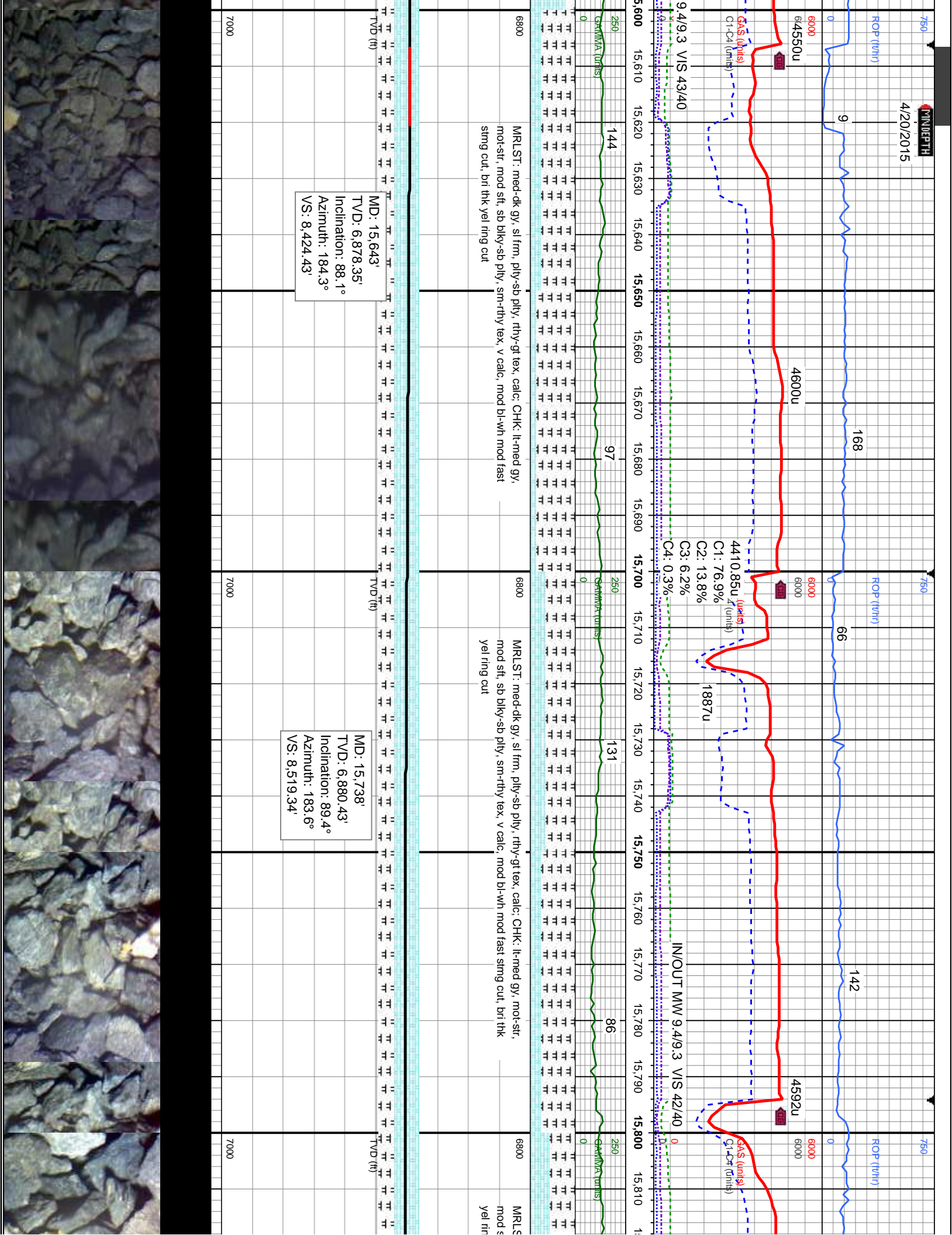
Inclination: 90°

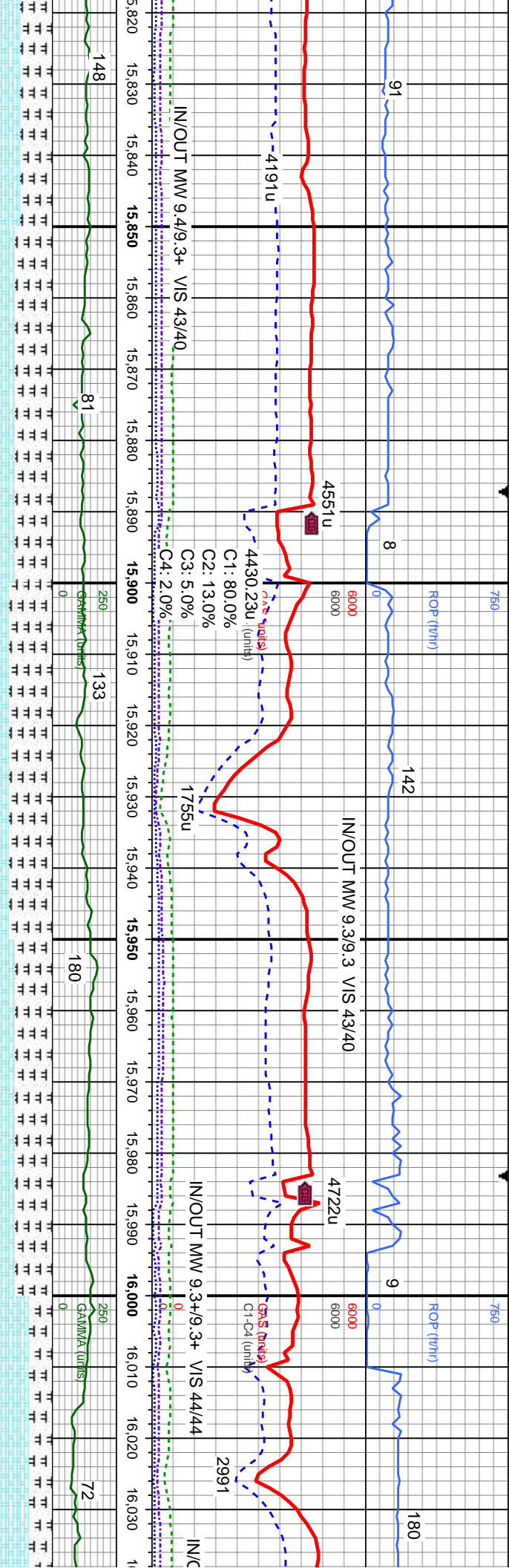
Azimuth: 185°

VS: 8,330.56'









g cut  
T: med-dk gy, si frm, ply-sb ply, rthy-gt tex, calc, CHK: lt-med gy, mot-sir,  
mod sft, sb blk-y-sb ply, sm-rthy tex, v calc, mod bl-wh mod fast stmg cut, bri thk  
g cut

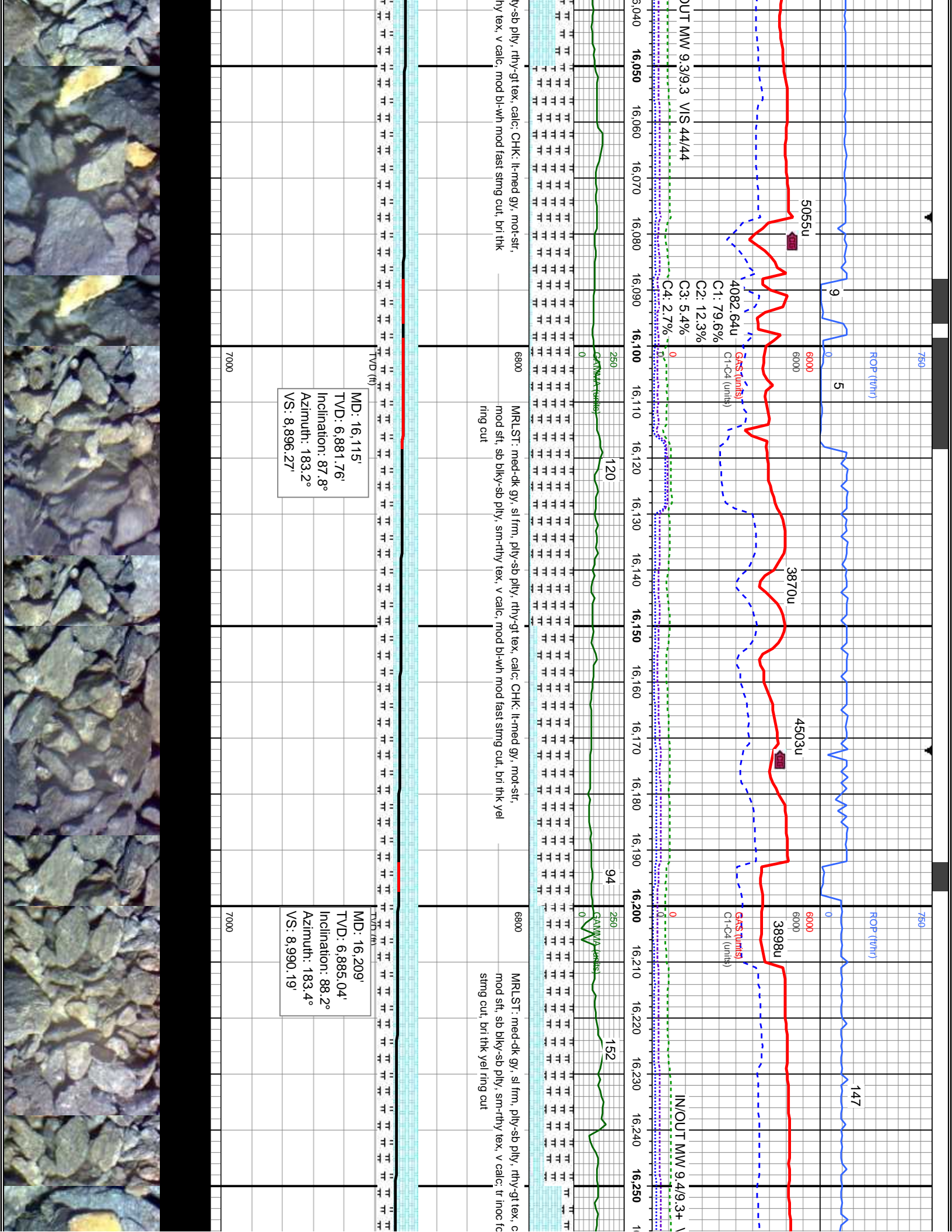
MD: 15,832'  
TVD: 6,880.43'  
Inclination: 90.6°  
Azimuth: 182.7°  
VS: 8,613.32'

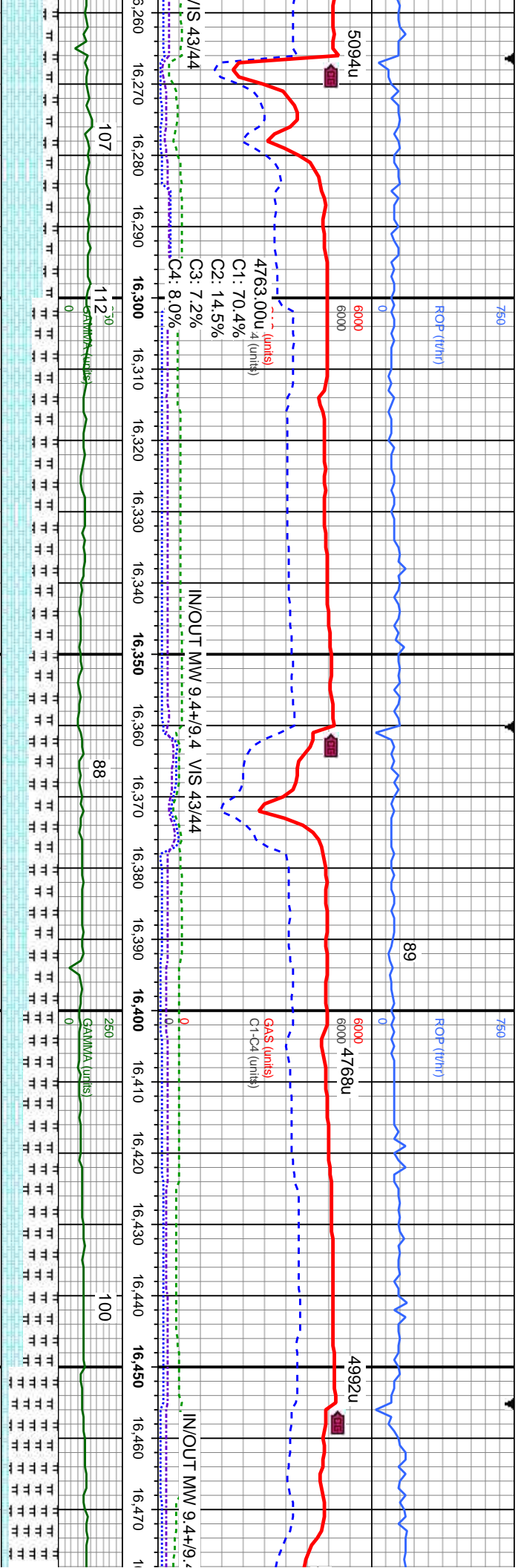
MD: 15,926'  
TVD: 6,879.69'  
Inclination: 90.3°  
Azimuth: 182°  
VS: 8,707.31'

MD: 16,020'  
TVD: 6,879.69'  
Inclination: 89.7°  
Azimuth: 181.8°  
VS: 8,801.31'









16,260 16,270 16,280 16,290 16,300 16,310 16,320 16,330 16,340 16,350 16,360 16,370 16,380 16,390 16,400 16,410 16,420 16,430 16,440 16,450 16,460 16,470

107 112 88 250 100

MD: 16,303'  
TVD: 6,887.75'  
Inclination: 88.5°  
Azimuth: 183°  
VS: 9,084.12'

MD: 16,396'  
TVD: 6,889.61'  
Inclination: 89.2°  
Azimuth: 183.7°  
VS: 9,177.07'

