



Scale: 5" / 100'
Measured Depth Log

Well Name Carlson G-15-16HN

Location NENE SEC 15 T5N R65W 1056FNL 324FEL

State Colorado

County Weld

Country United States

Rig Number Frontier (Utah) 8

API Number 05-123-41718

AFE # 2014WELDG15.16HN_1

Region DJ Basin

Field Wattenberg

Spud Date 7/16/2015

Drilling Completed 8/16/2015

Surface Coordinates N 40.403696 W 104.641131

Ground Elevation 4621'

K.B. Elevation 4643'

Logged Interval 6000' To 14774'

Total Depth 14774'

Formation Niobrara

Type of Drilling Fluid LSND

Operator

Company Bayswater Exploration & Production, LLC.

Address 730 17th St.
Denver, CO 80202

Geologist

Name Mark E. Brown

Company Bayswater Exploration & Production, LLC.

Address 730 17th St.
Denver, CO 80202



Other

Robert Davis Wellsite Geologist

Ben Katka Wellsite Geologist

Columbine Logging Computer 148

Bloodhound Unit 298

Zone Color Coding

Oil

Note

Error

Condensate

Core

Water

Gas

Pressure

Seal

Rock Types

UNKNOWN

ANHYDRITE

BENTONITE

BRECCIA

CHALK

CEMENT

CHERT

CLAY CHOKE SANC

CLAYSTONE

COAL

CONGLOMERATE

DOLOMITE

DOLOMITIC LIMESTONE

GRANITE

GYPSUM

IGNEOUS

SIDERITE or LIMONITE

LIMESTONE

MARLSTONE

METAMORPHIC

NO SAMPLE

SALT

SANDSTONE

SALT-PEPPER SANC

SHALE

SHALE COLORED

SHALE GRAY

SHALY SANDSTONE

SHALY SILTSTONE

SILTY SHALE

SILTSTONE

TILL

TUFF

WELDED TUFF

Accessories

GASTROPOD

INOCERAMUS

OOLITE

OSTRACOD

PELECYPOD

PELLET

PISOLUTE

PLANT REMAINS

PLANT SPORES

SCAPHOPOD

STROMATOPOROID

ECHINOID

FISH

FORAMINIFERA

FOSSIL

ARGILLITE GRAIN

B BENTONITE

BITUMENOUS SUBSTANCE

BRECCIA FRAGMENTS

CALCAREOUS

CARBONACEOUS FLAKES

CHERT

CHITL

COAL - THIN BEDS

DOLOMITIC

FELDSPAR

FERRUGINOUS PELLET

FERRUGINOUS

GLAUCONITE

GYPSIFEROUS

HEAVY MINERAL

K KAOLIN

MARCASITE

TT MARLSTONE

MICACEOUS

MINERAL CRYSTALS

NODULES

PHOSPHATE PELLETS

P PYRITE

SALT CAST

SANDY

SIDERITE

SILICEOUS

SILTY

TUFFACEOUS

ANHYDRITE STRINGER

BENTONITE STRINGER

COAL STRINGER

DOLOMITE STRINGER

GYPSUM STRINGER

LIMESTONE STRINGER

MARLSTONE (CALC) STRG

MARLSTONE (DOL) STRG

SANDSTONE STRINGER

SHALE STRINGER

SILTSTONE STRINGER

Engineering

Oil Show

P PINPOINT

V VUGGY

Porosity

CONNECTION GAS (DOWN)

CONNECTION GAS (LEFT)

TRIP GAS

TRIP GAS (LEFT)

F FRACTURE

INTERCRYSTALLINE

DOWN TIME GAS

INTEROOLITIC

MOLDIC

O ORGANIC

CORE - LOST

CORE - RECOVERED

D DEAD

EVEN






































QUESTIONABLE

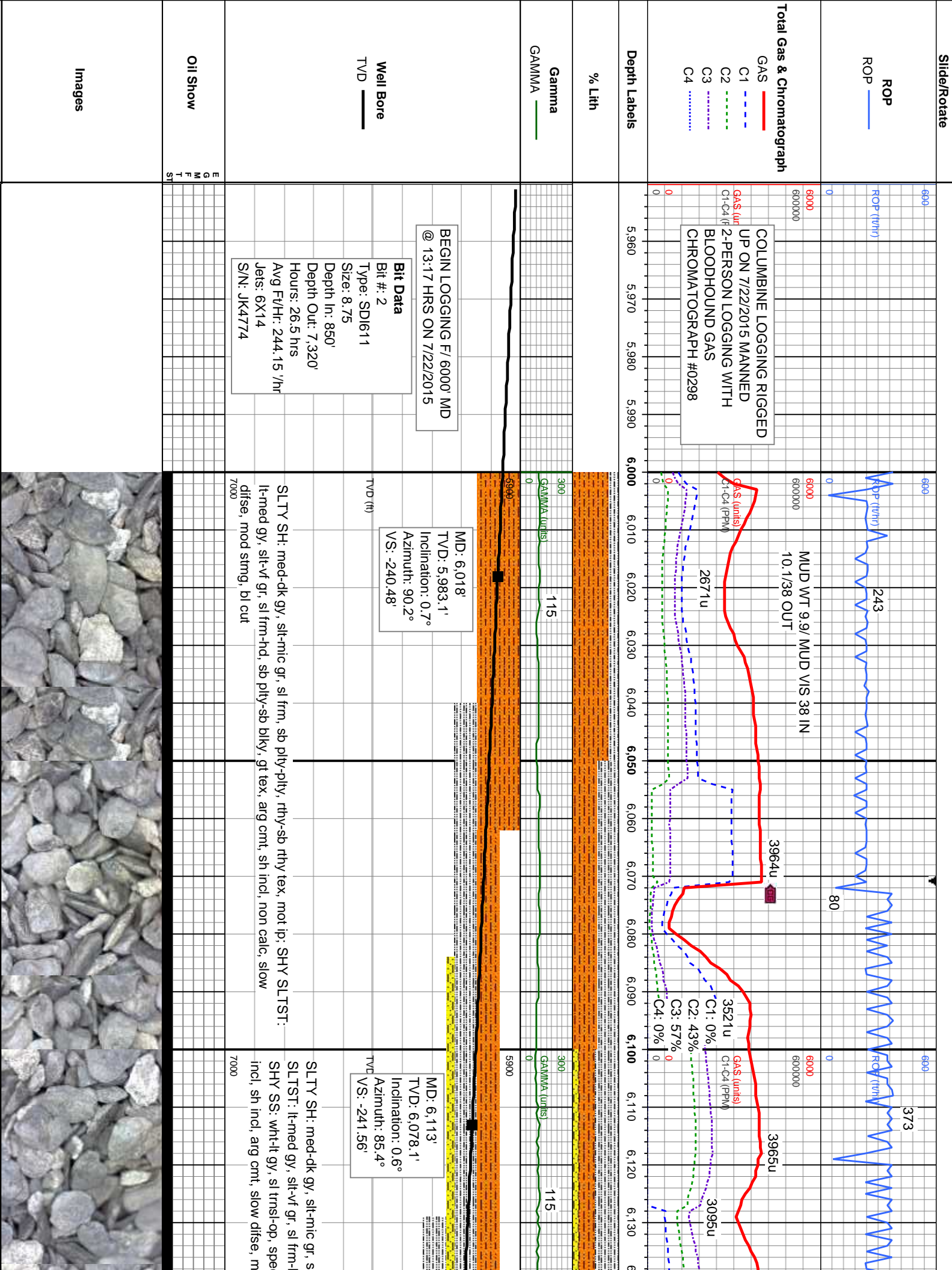
BIT

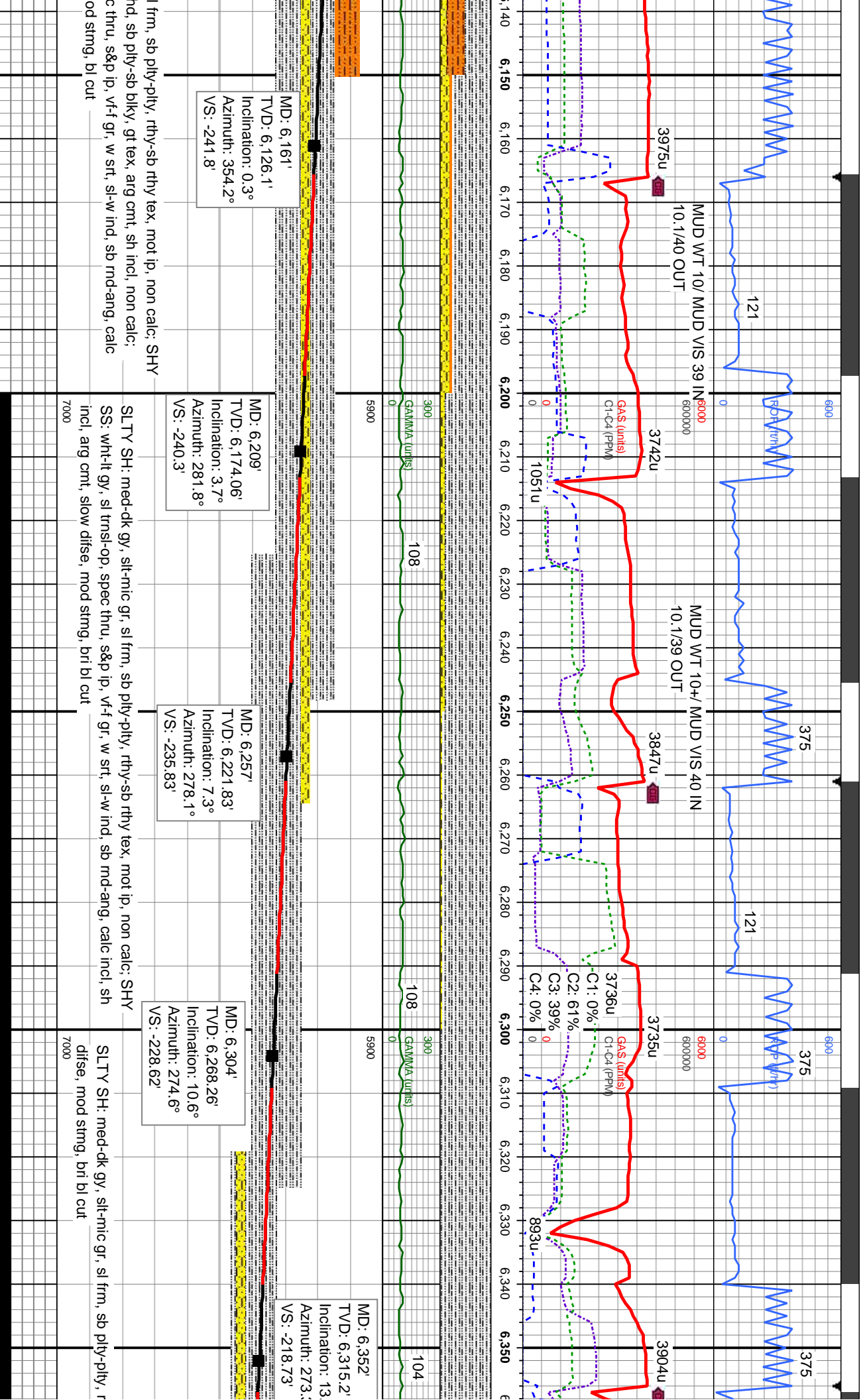
SPOTTED STAINING

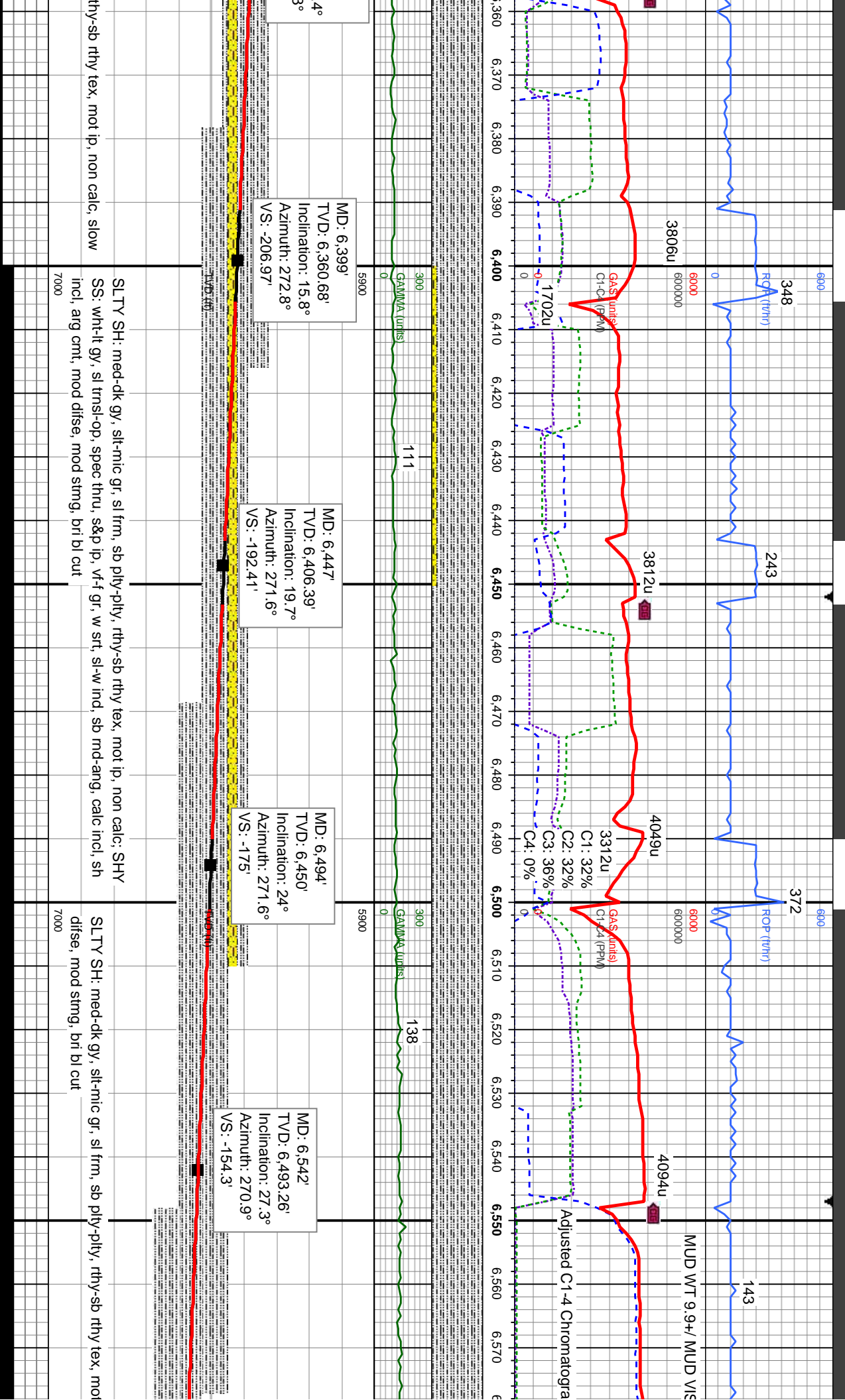
CONNECTION (UP)

Other Symbols

	DST INTERVAL		WIRELINE TESTED - LEFT		E EARTHY
	FAULT		WIRELINE TESTED - RT		FX FINELYXLN
	FORMATION TOP		DRILL STEM TEST		BS GRAINSTONE
	GAS SHOW		MINDEPTH MN DEPTH		L LITHOGRAPHIC
	OIL SHOW				MX MICROXLN
	MINDEPTH UP	Rounding			
					MS MUDSTONE
	MIN DEPTH (DOWN)		A ANGULAR		PS PACKSTONE
	NORMAL FAULT		R ROUNDED		WS WACKSTONE
	OVERTURNED STRATA		B SUBANG		
	REVERSE FAULT		N SUBRND	Sorting	
	CASING				M MODERATE
Textures					
	SIDEWALL CORE (LEFT)				P POOR
	SIDEWALL CORE (RIGHT)		BS BOUNDSTONE		W WELL
	SLIDE		C CHALKY		
	SURVEY		CX CRYPTOXLN		





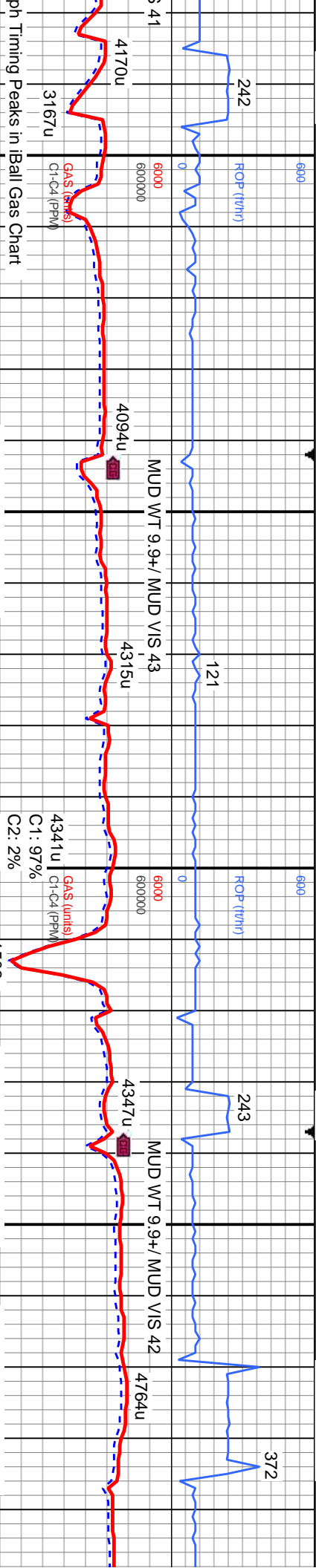


thy-sb rthy tex, mot ip, non calc, slow

SLTY SH: med-dk gy, silt-mic gr, sl frm, sb pily-pily, rthy-sb rthy tex, mot ip, non calc; SHY
SS: wht-lt gy, sl trnsi-op, spec thru, s&p ip, v-f gr, w srt, sl-w ind, sb md-ang, calc incl, sh
incl, arg cnt, mod difse, mod stmg, bri bl cut

SLTY SH: med-dk gy, silt-mic gr, sl frm, sb pily-pily, rthy-sb rthy tex, mot
difse, mod stmg, bri bl cut

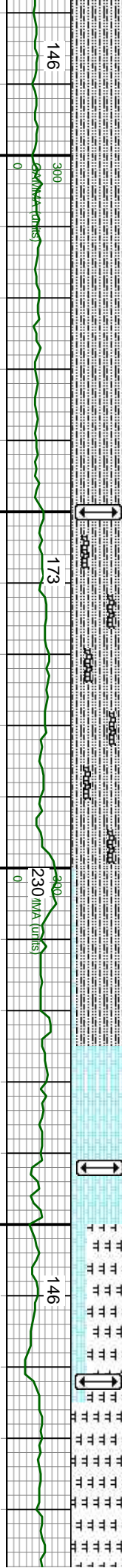




SHARON SPRINGS TOP
6650' MD / 6585' TVD

NIORARA A CHALK TOP
6742' MD / 6654' TVD

NIORARA A MARL TOP
6772' MD / 6674' TVD



SLTY SH: med-dk gy, silt-mic gr, sl frm, sb pty-pty, rthy-sb rthy tex, mot ip, non calc, tr bent, fast difse, mod stmg, bri bl cut

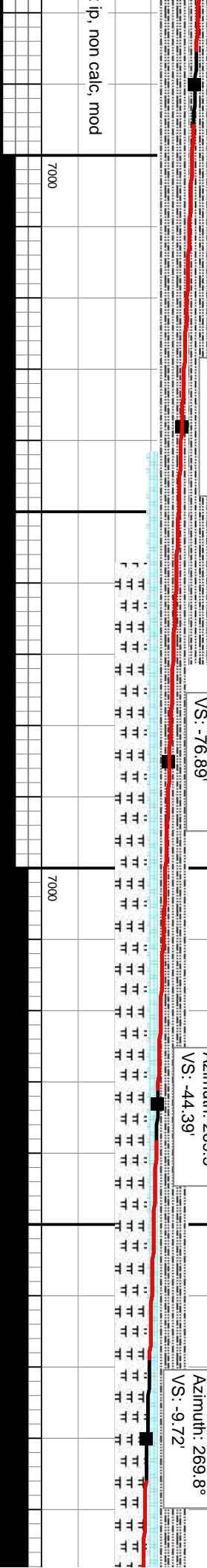
MD: 6,590'
TVD: 6,535.12'
Inclination: 31.3°
Azimuth: 270.5°
VS: -130.88'

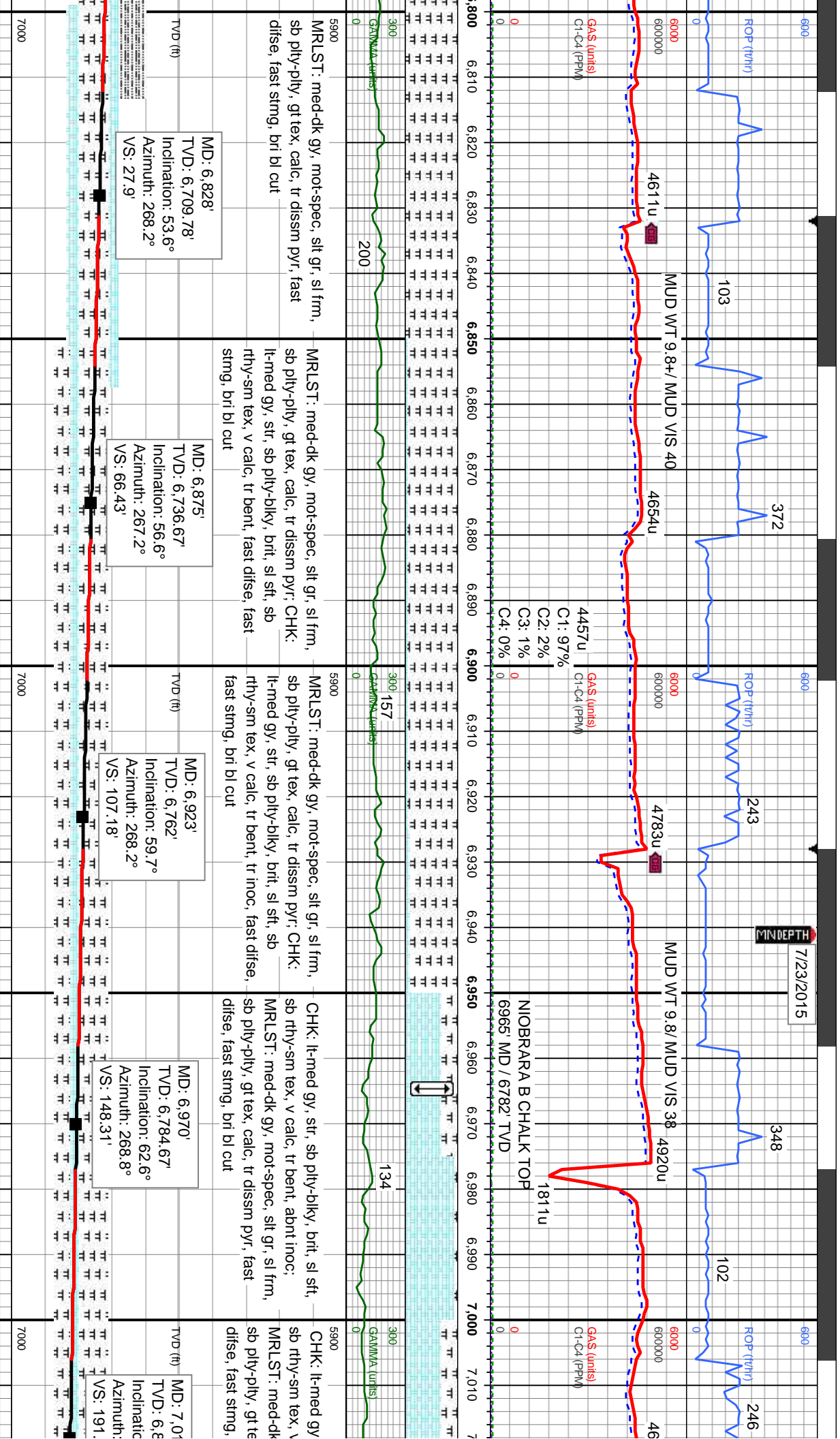
MD: 6,638'
TVD: 6,575.55'
Inclination: 33.9°
Azimuth: 268.9°
VS: -105.07'

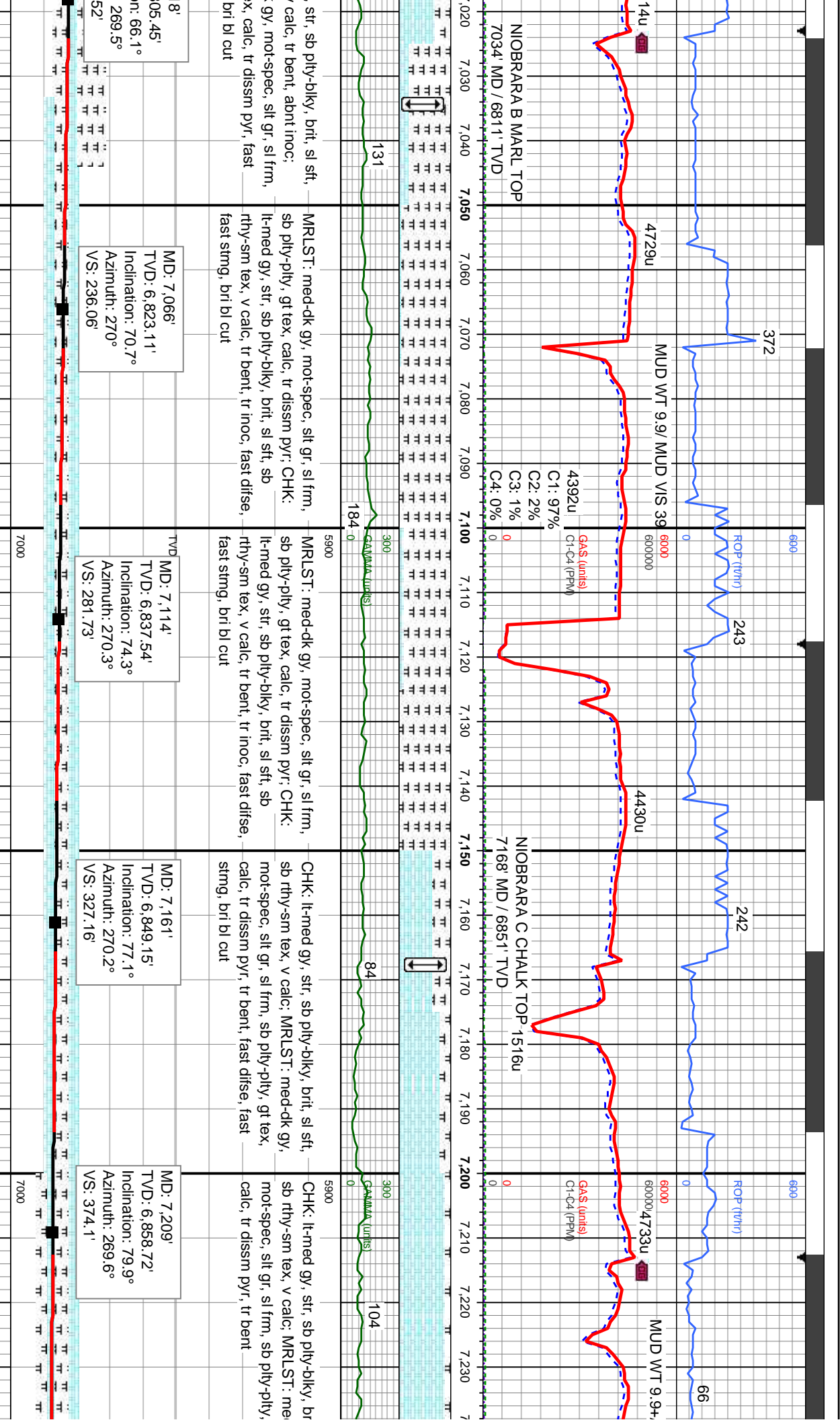
MD: 6,685'
TVD: 6,613.12'
Inclination: 39.9°
Azimuth: 268.8°
VS: -76.89'

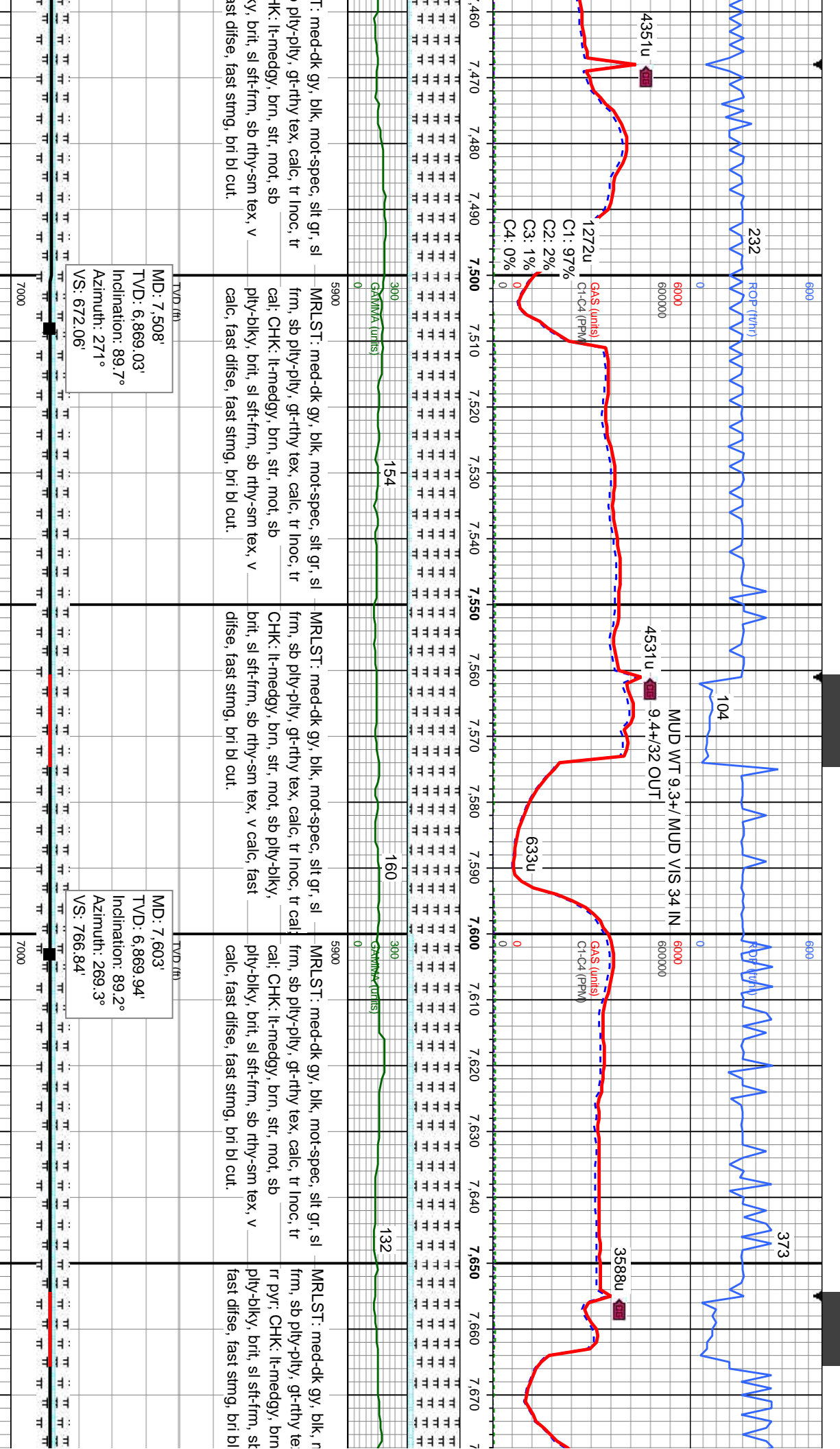
MD: 6,733'
TVD: 6,648.38'
Inclination: 45.5°
Azimuth: 269.5°
VS: -44.39'

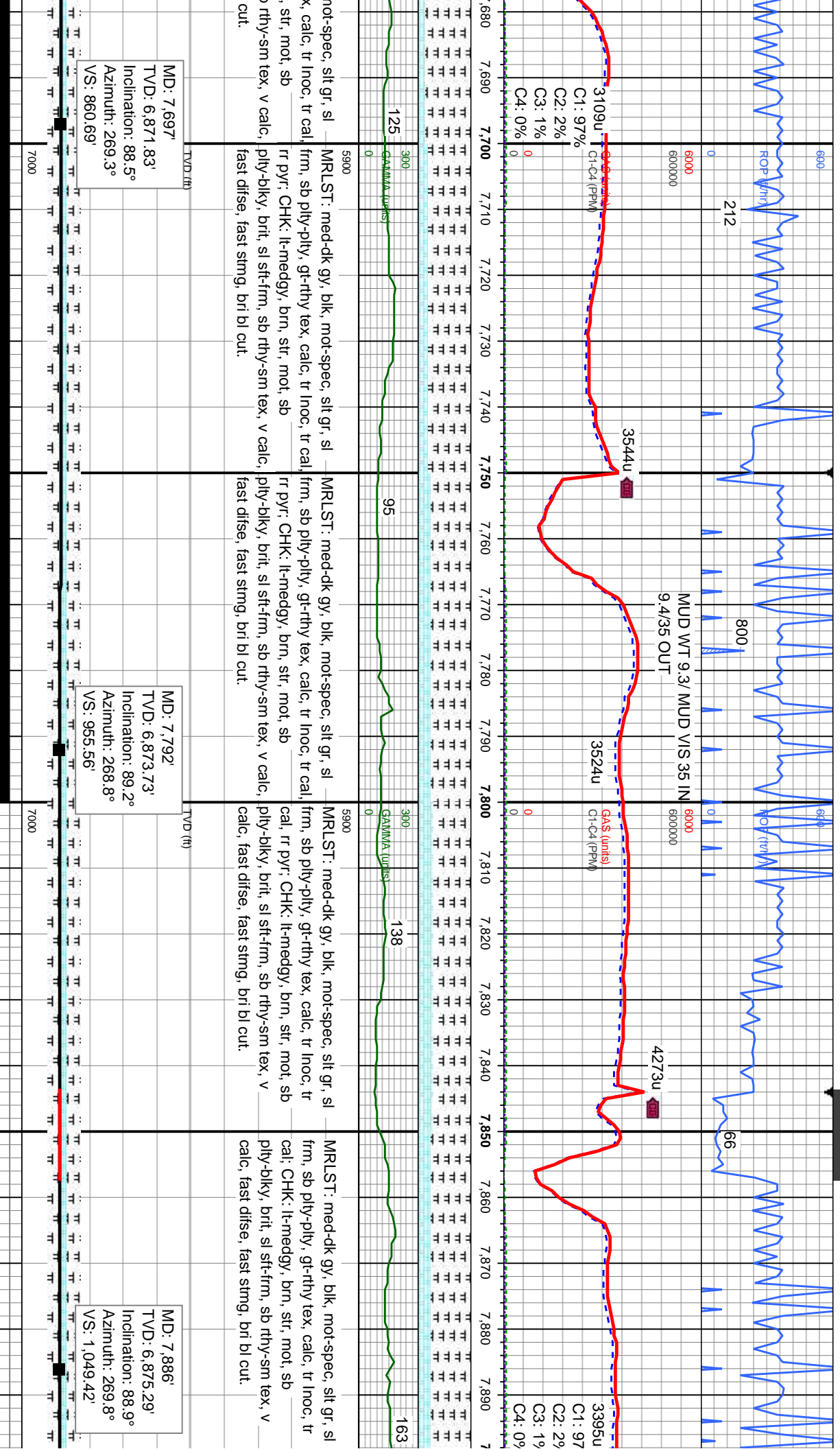
MD: 6,780'
TVD: 6,680.04'
Inclination: 49.8°
Azimuth: 269.8°
VS: -9.72'

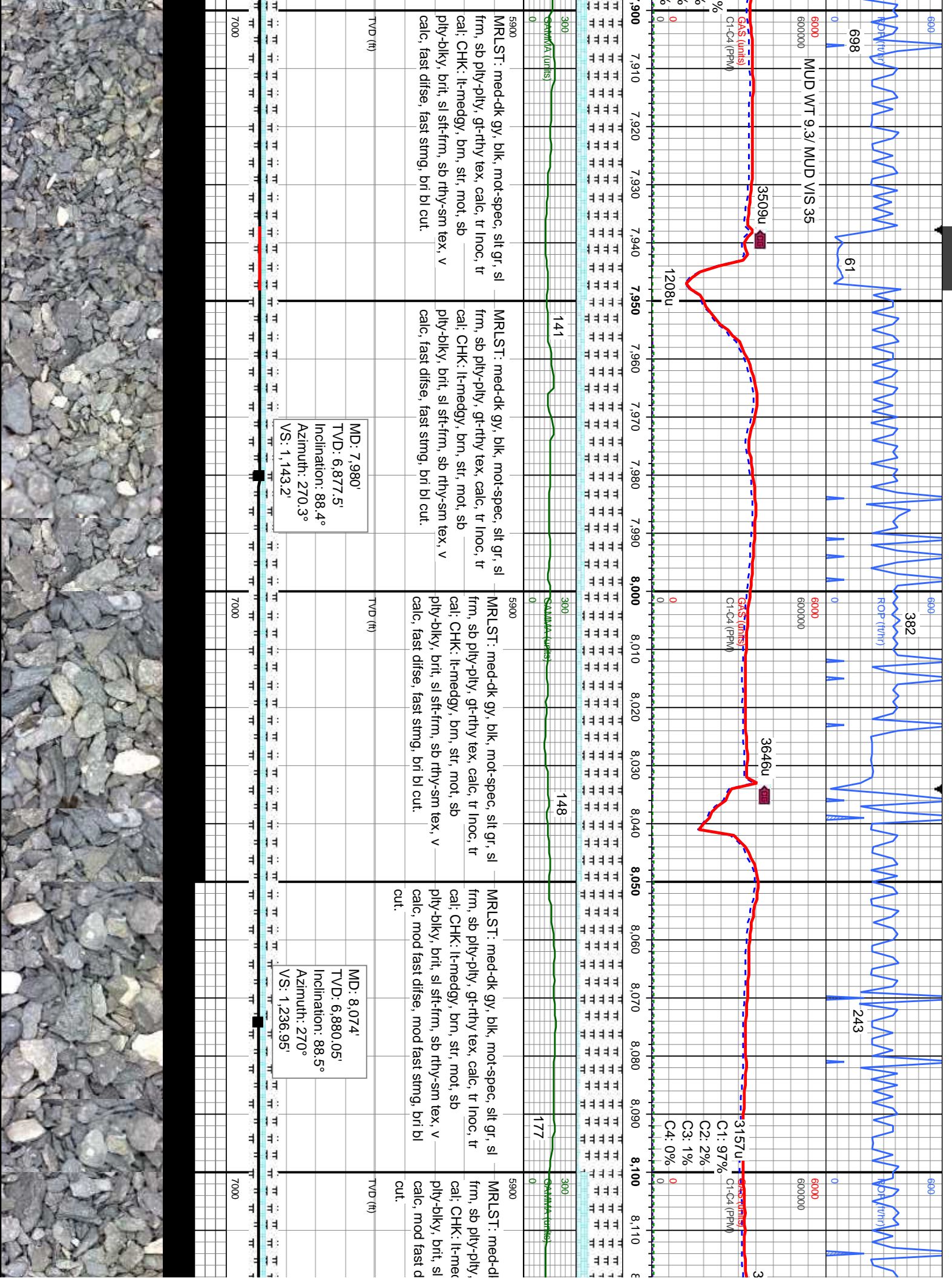


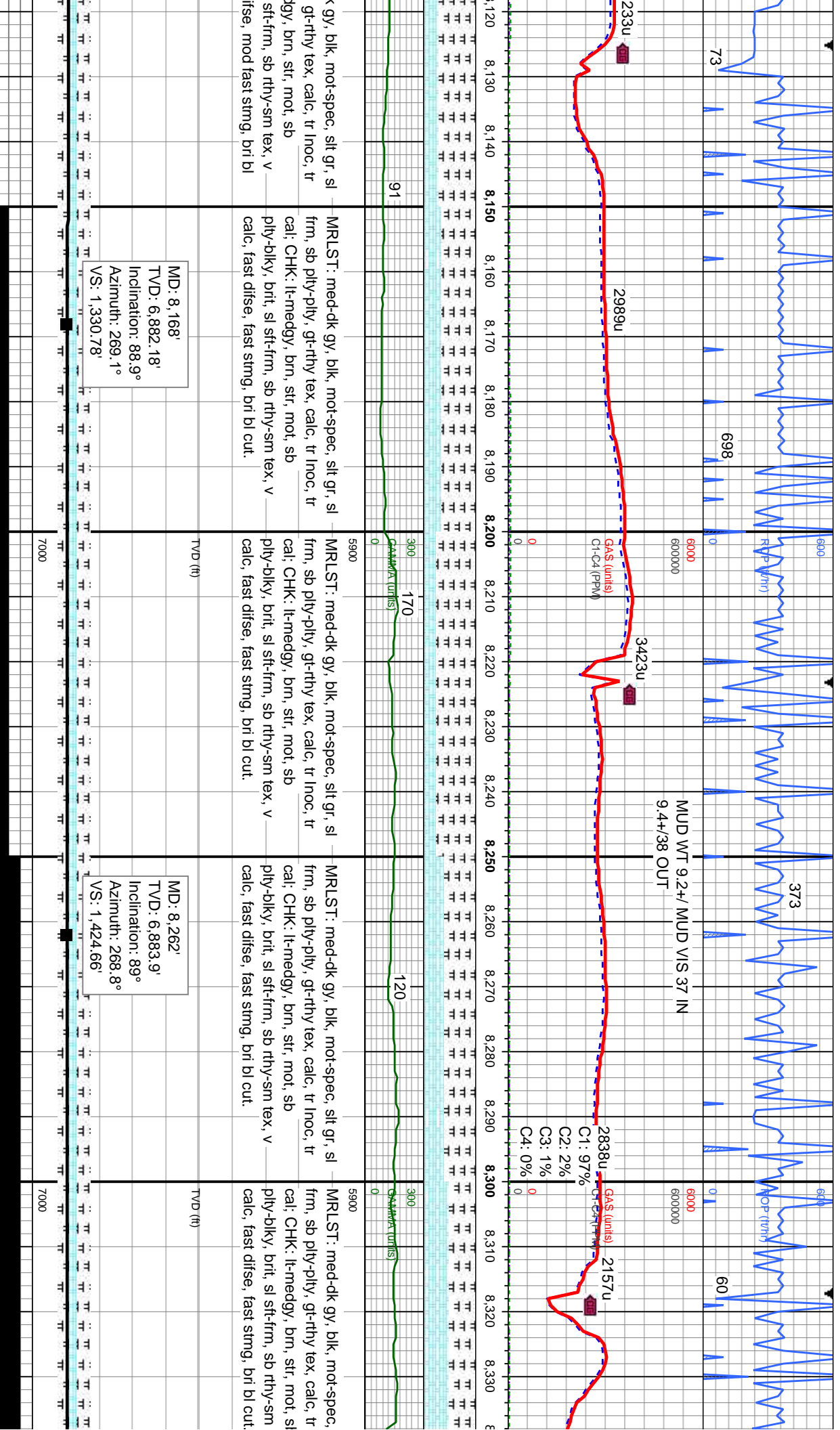


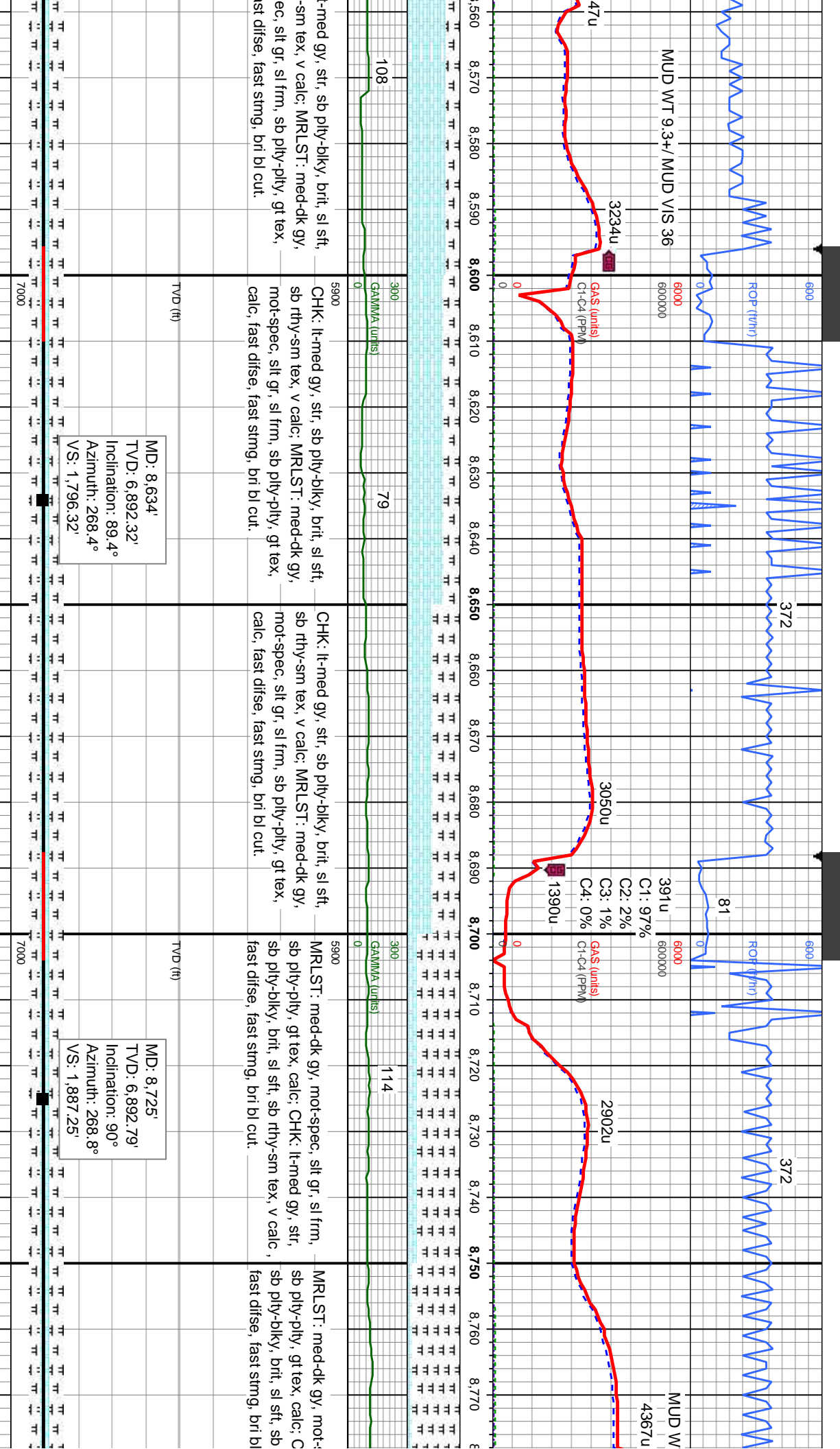


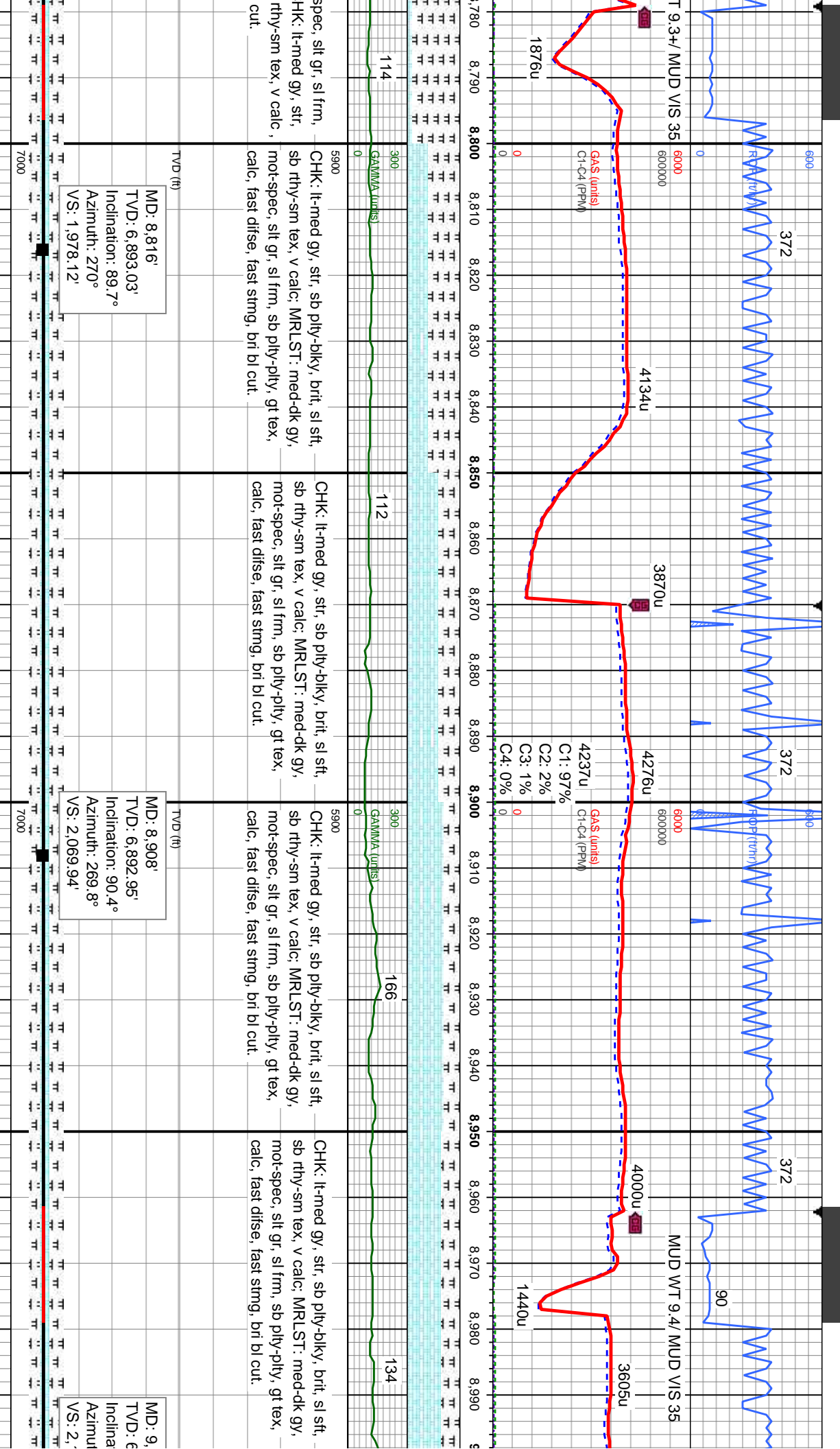


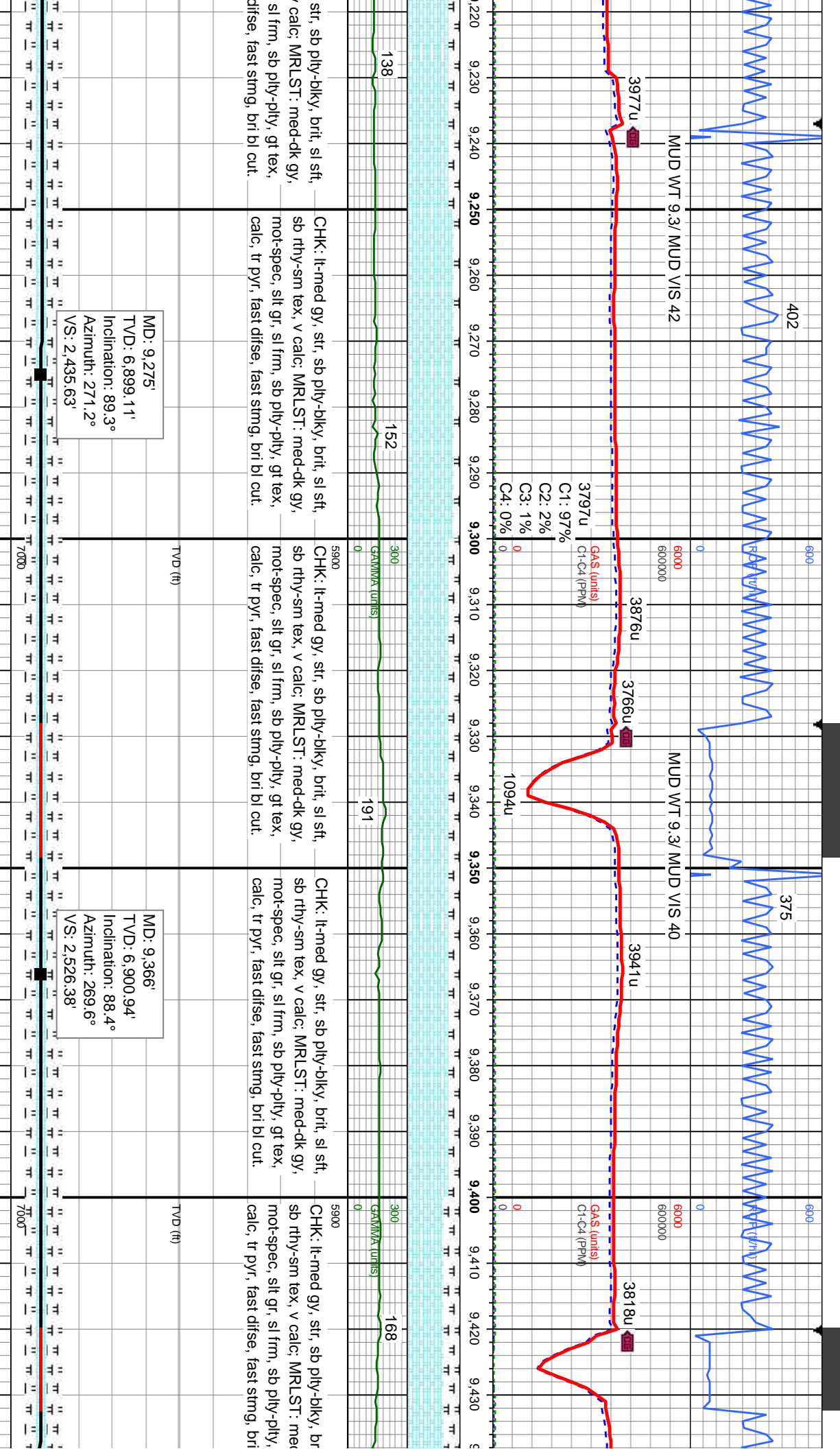


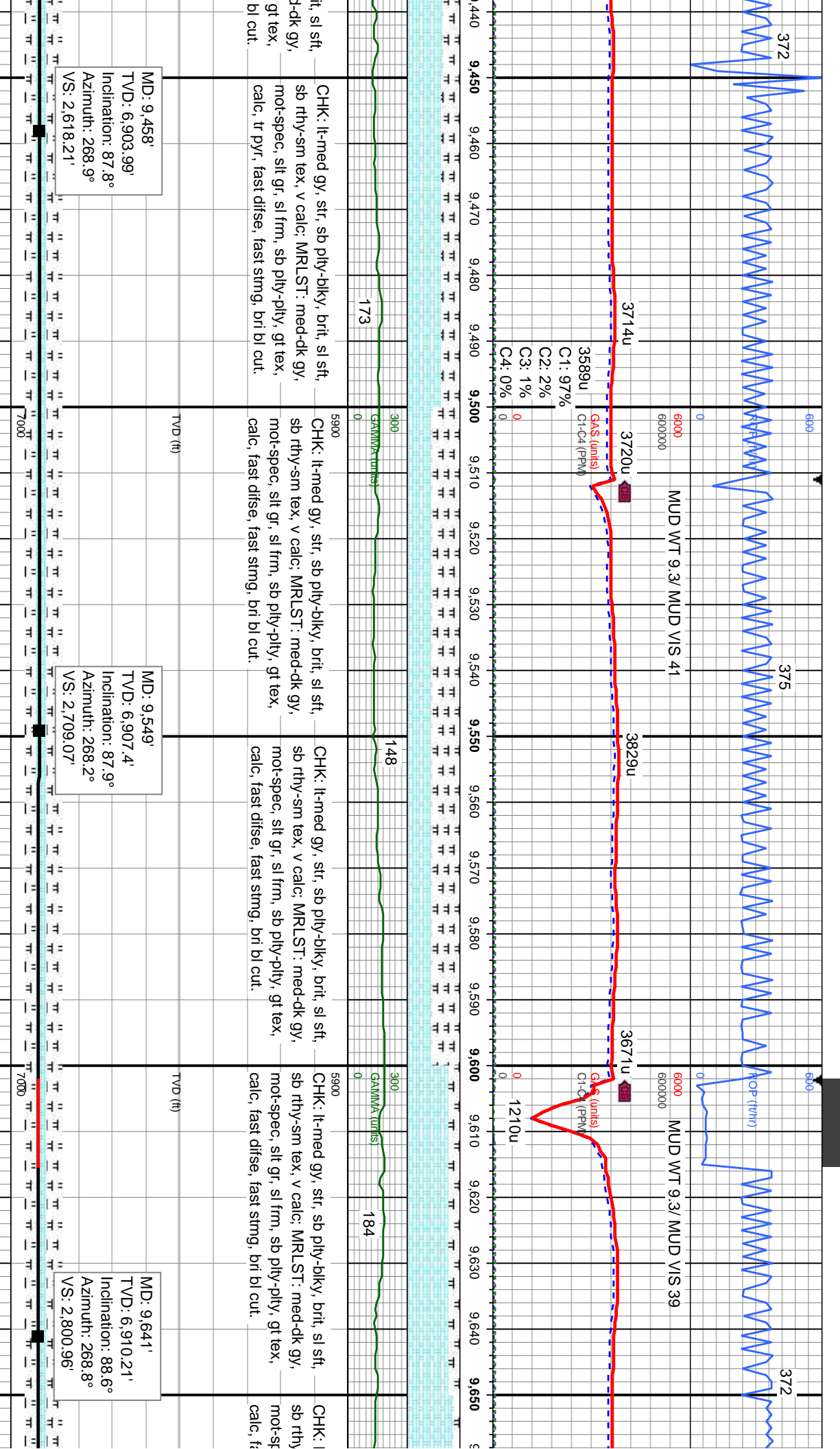


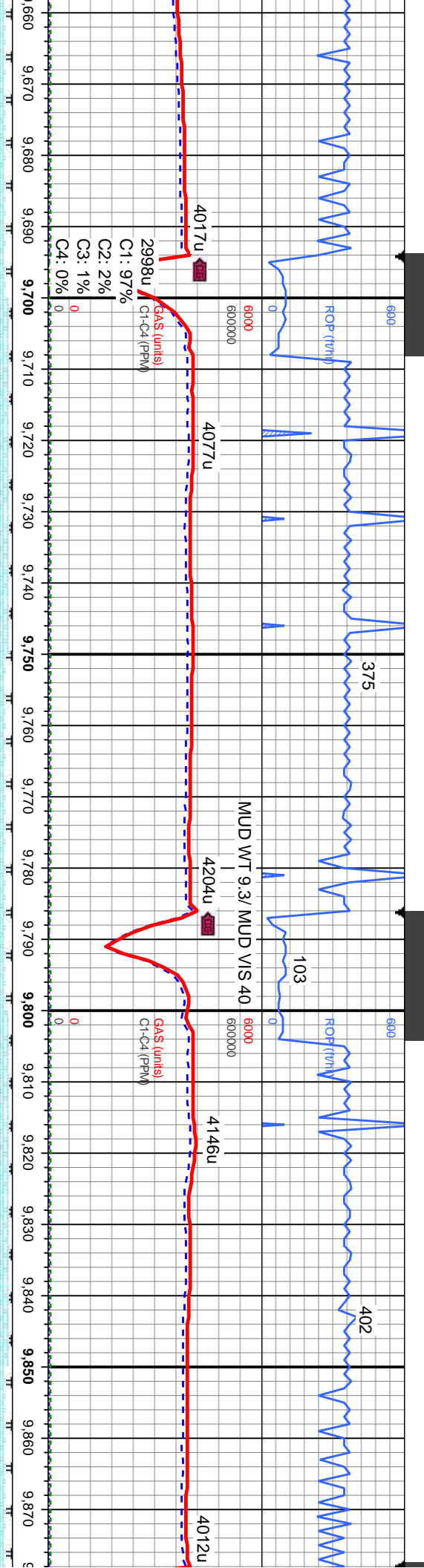






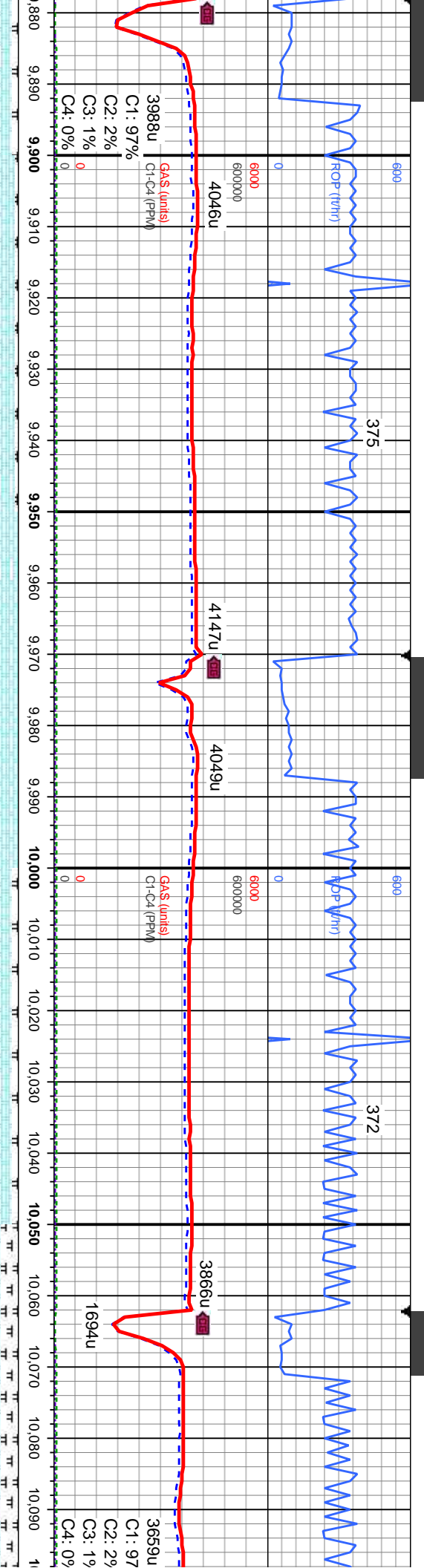






93	300	5900	97	300	5900	123	300	5900
GAMMA (units)								
CHK: lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, fast difse, fast string, bri bl cut.								
TVD (ft)								
MD: 9,733' TVD: 6,911.74' Inclination: 89.5° Azimuth: 268.8° VS: 2,892.86'								
MD: 9,824' TVD: 6,912.06' Inclination: 90.1° Azimuth: 269.5° VS: 2,983.75'								



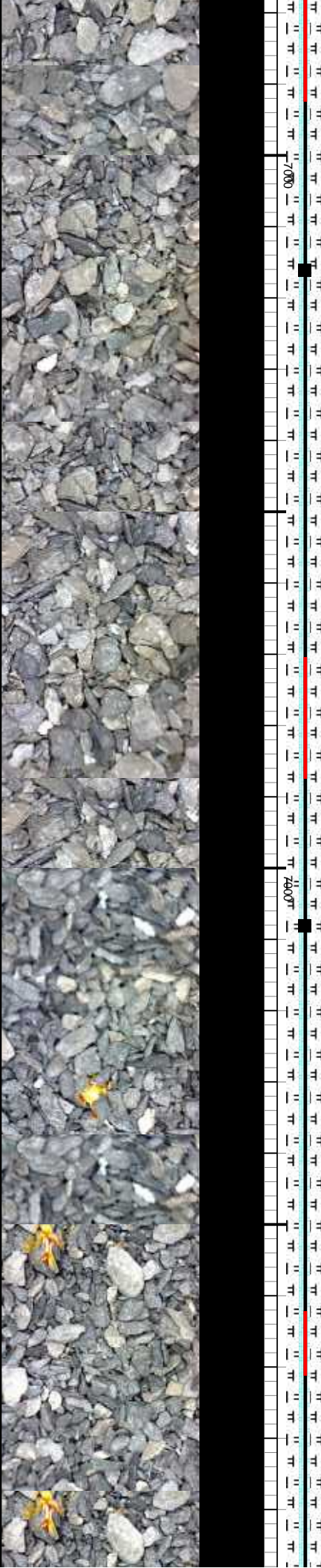


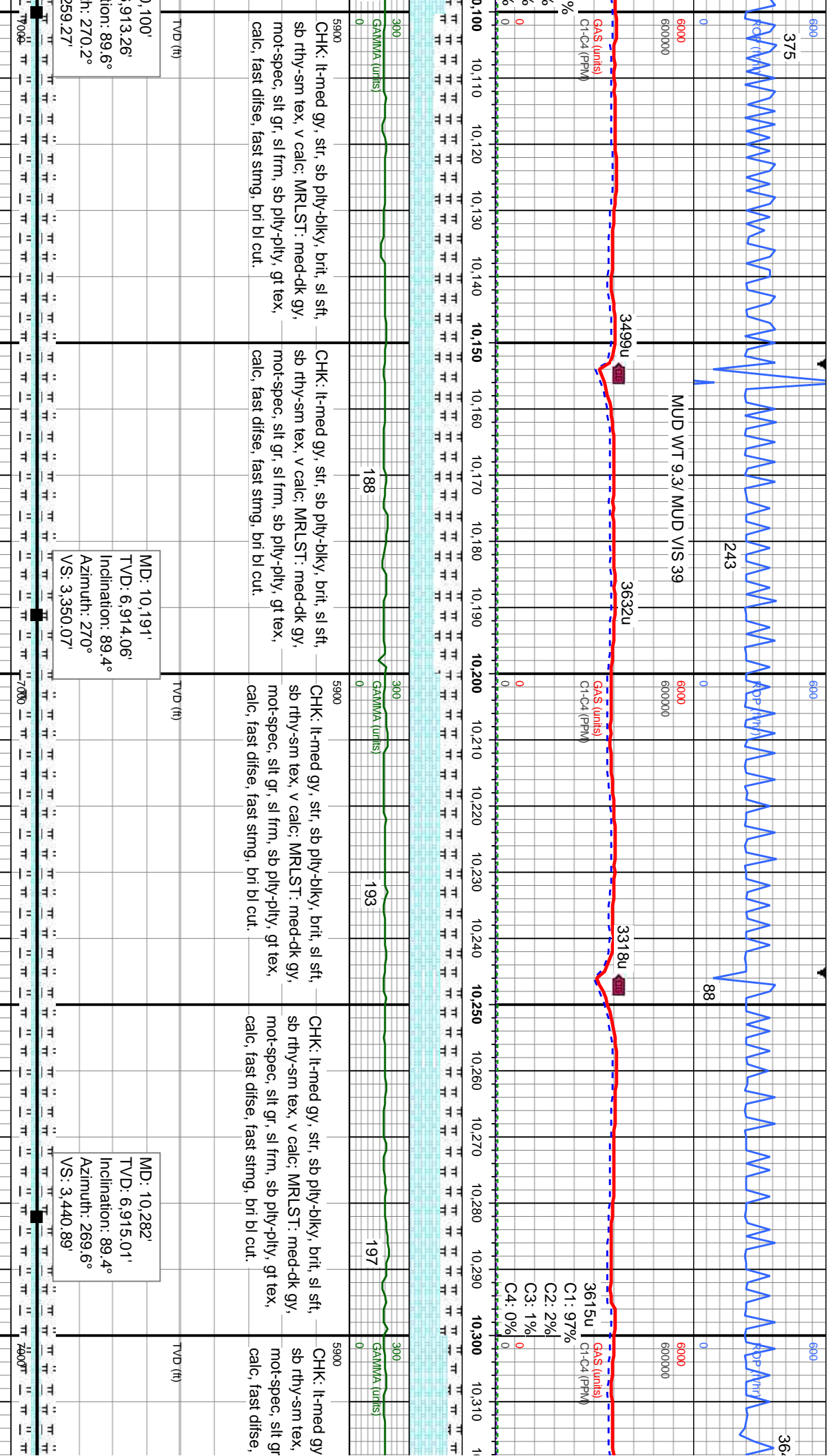
5900	300	125	5900	300	127	5900	300	184
CHK: lt-med gy, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc, fast difse, fast string, bri bl cut.	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc, fast difse, fast string, bri bl cut.	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc, fast difse, fast string, bri bl cut.	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc, fast difse, fast string, bri bl cut.	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc, fast difse, fast string, bri bl cut.	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc, fast difse, fast string, bri bl cut.	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc, fast difse, fast string, bri bl cut.	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc, fast difse, fast string, bri bl cut.	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc, fast difse, fast string, bri bl cut.

MD: 9,916'
TVD: 6,912.94'
Inclination: 88.8°
Azimuth: 269.1°
VS: 3,075.62'

MD: 10,008'
TVD: 6,913.42'
Inclination: 90.6°
Azimuth: 270°
VS: 3,167.47'

MD: 10,008'
TVD: 6,913.42'
Inclination: 90.6°
Azimuth: 270°
VS: 3,167.47'





MD: 10,100'
TVD: 6,913.26'
Inclination: 89.6°
Azimuth: 270.2°
VS: 3,559.27'

MD: 10,191'
TVD: 6,914.06'
Inclination: 89.4°
Azimuth: 270°
VS: 3,350.07'

MD: 10,282'
TVD: 6,915.01'
Inclination: 89.4°
Azimuth: 269.6°
VS: 3,440.89'

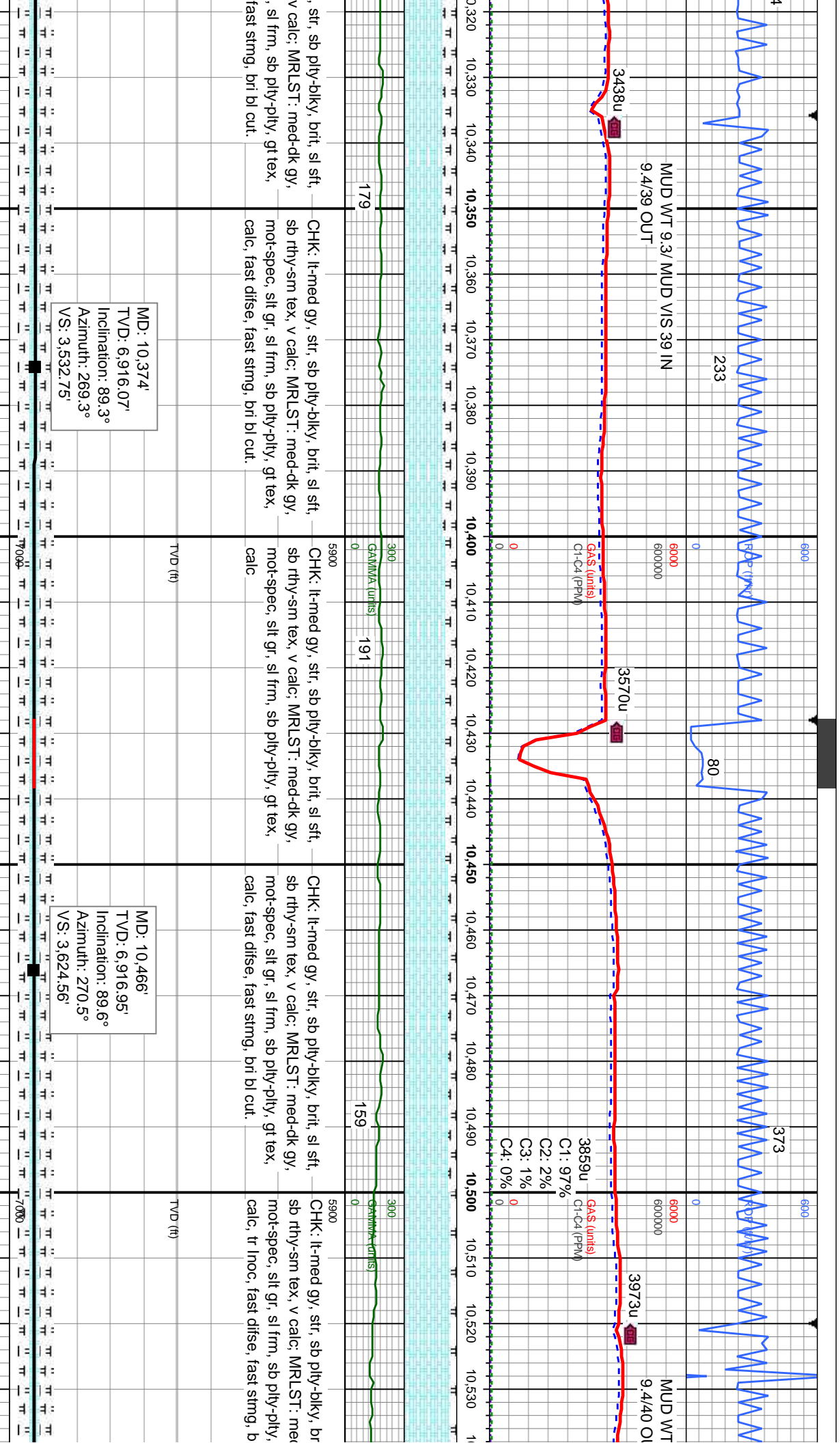
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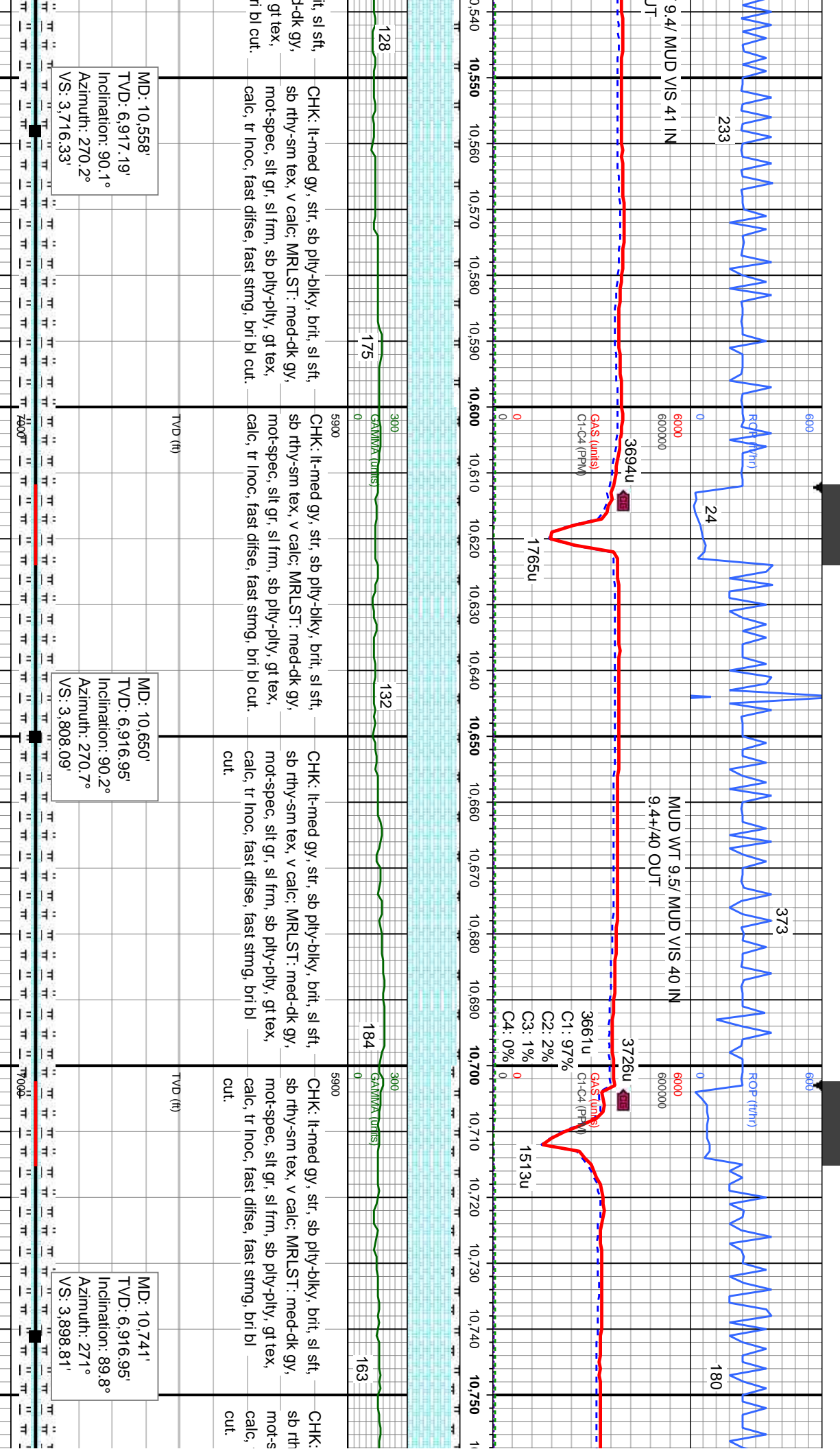
CHK: It-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, fast difse, fast stmg, bri bl cut.

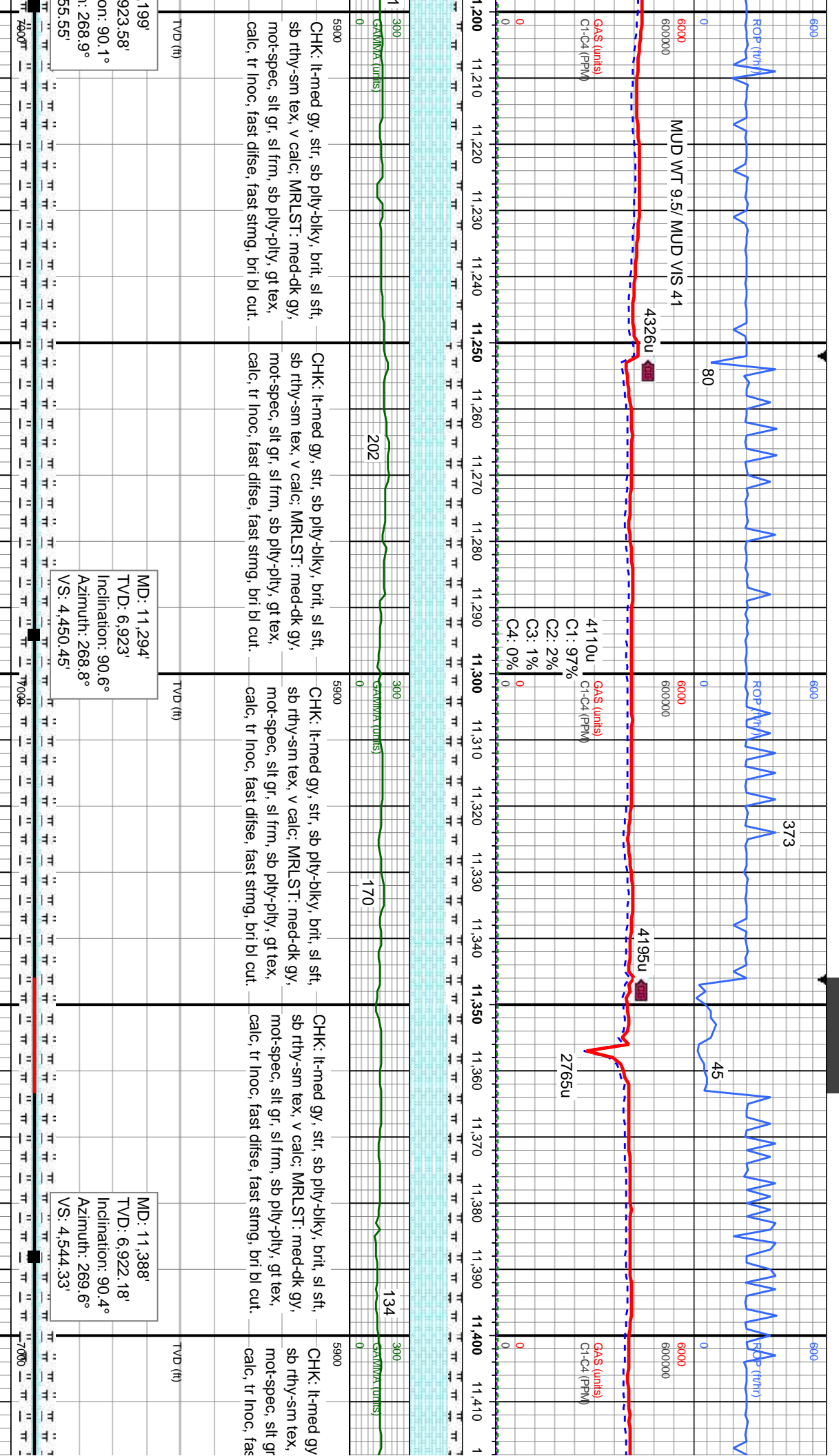
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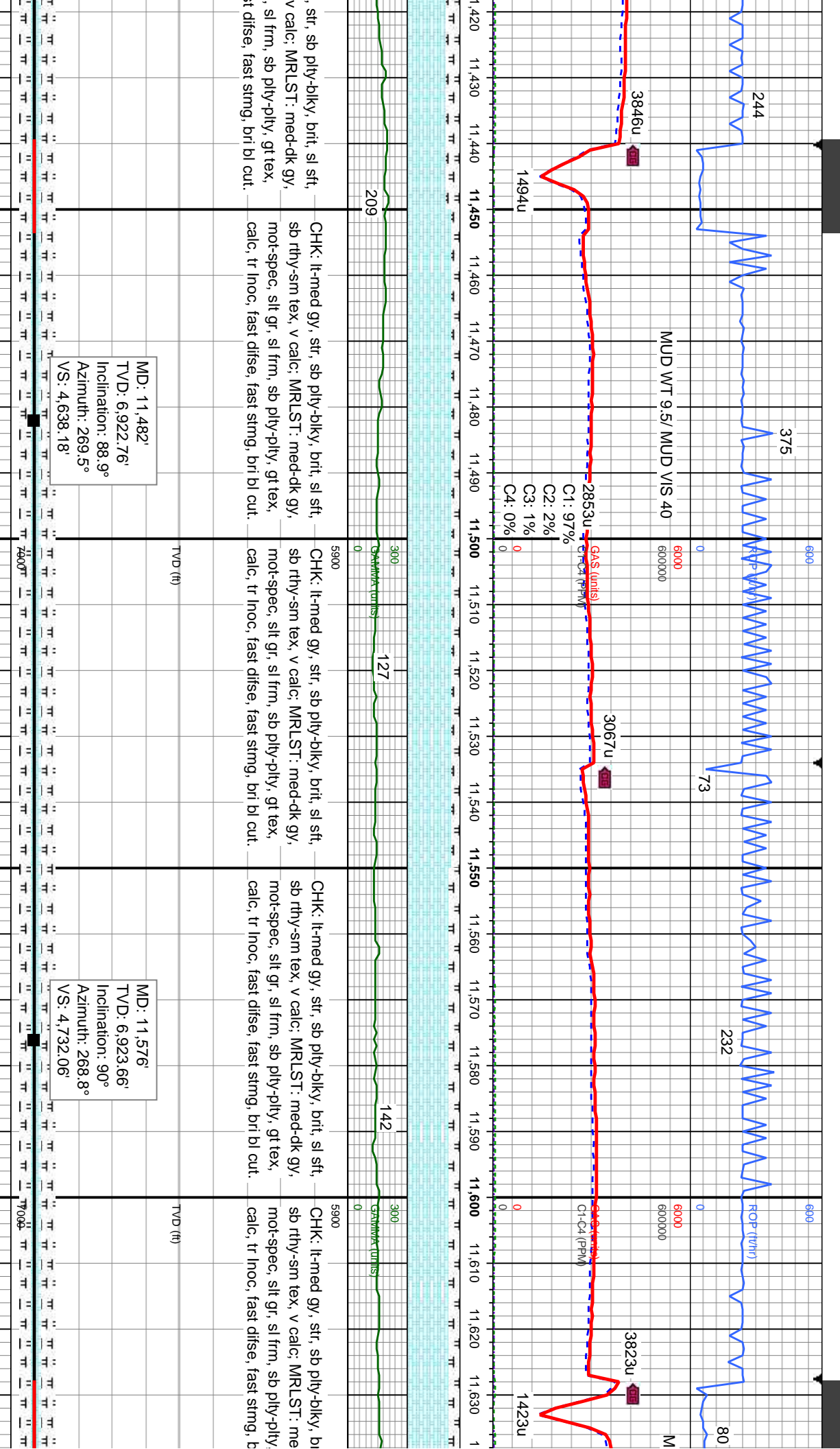
CHK: It-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, fast difse, fast stmg, bri bl cut.

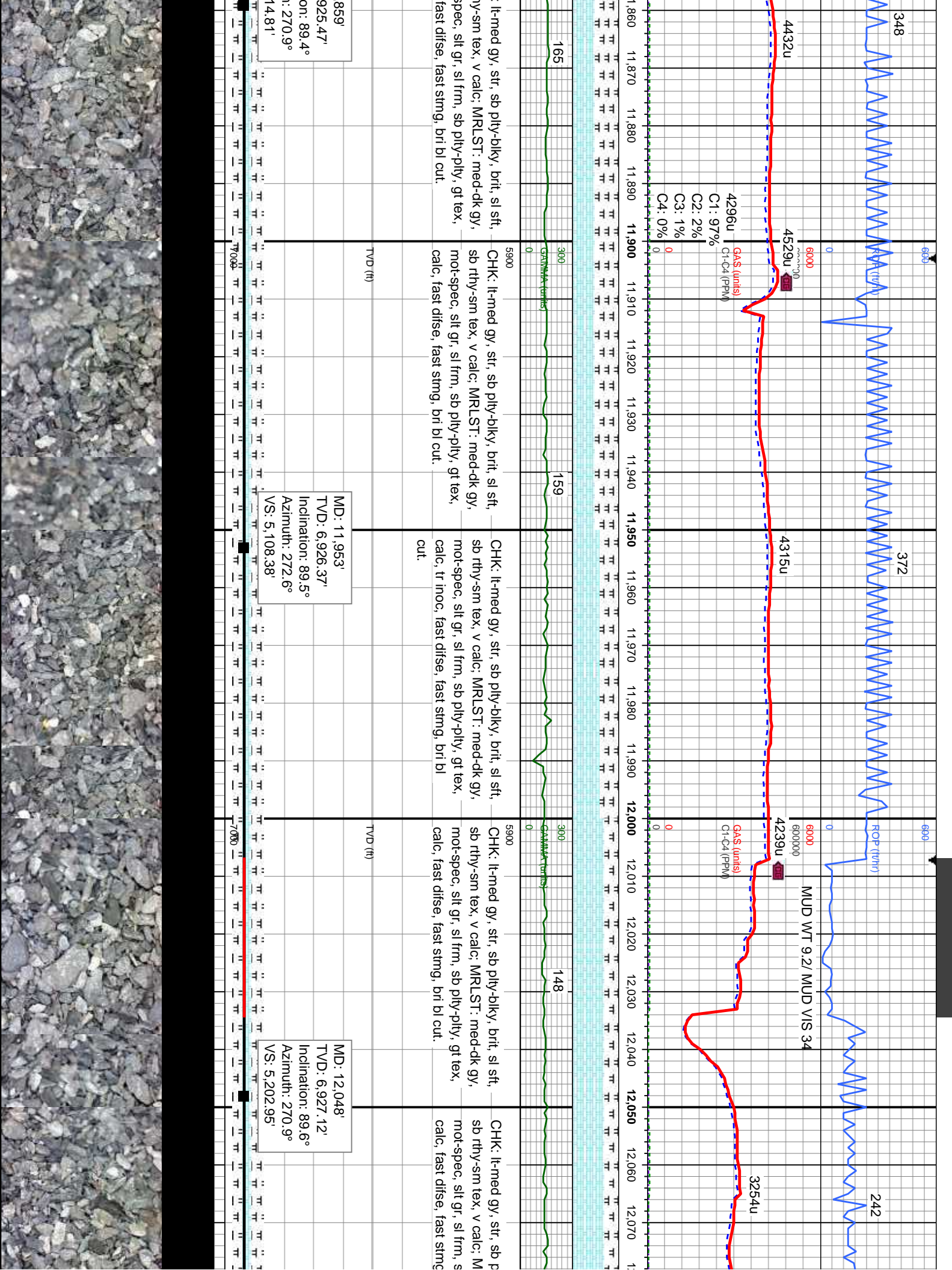
CHK: It-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, fast difse, fast stmg, bri bl cut.

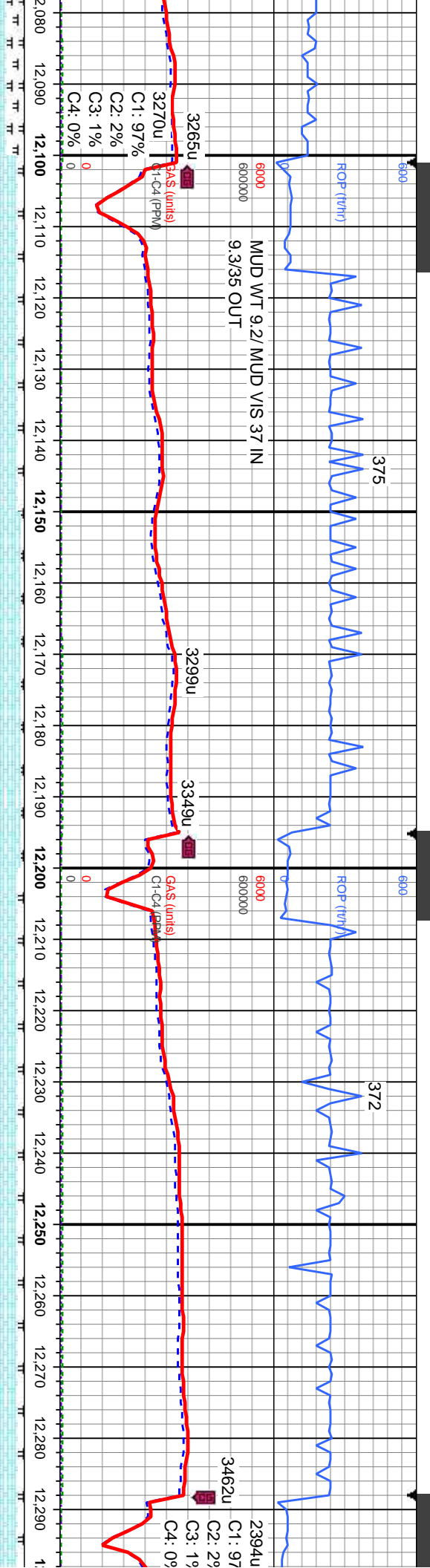






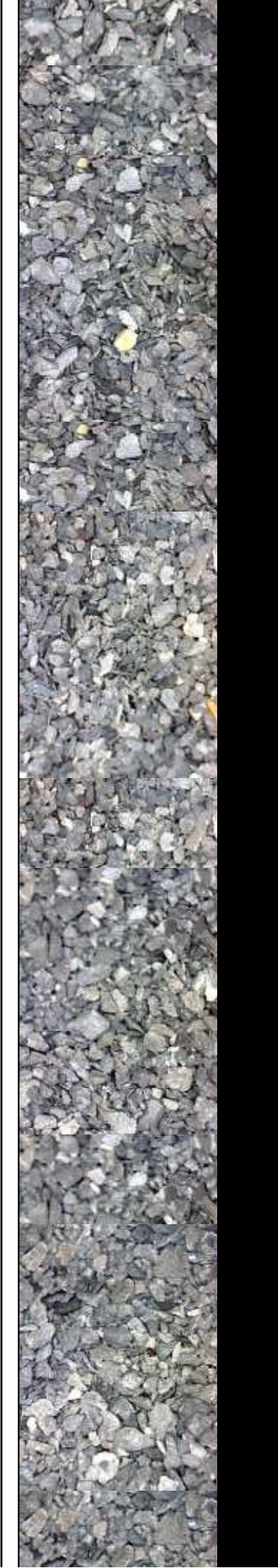


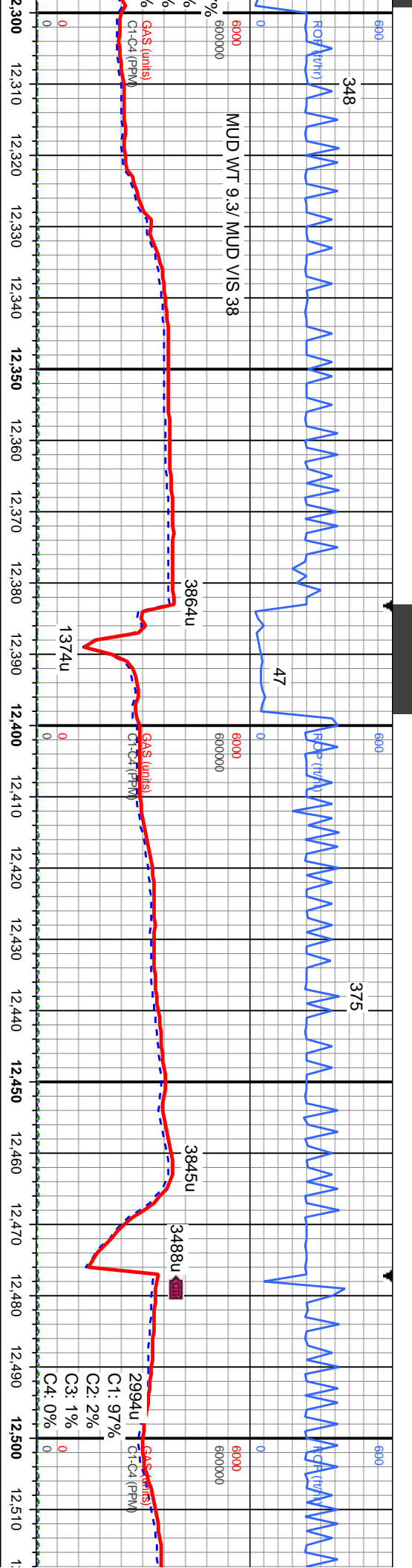




158	300	5900	154	300	5900	118	300	5900
CHK: It-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast stmg, bri bl cut.			CHK: It-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast stmg, bri bl cut.			CHK: It-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast stmg, bri bl cut.		

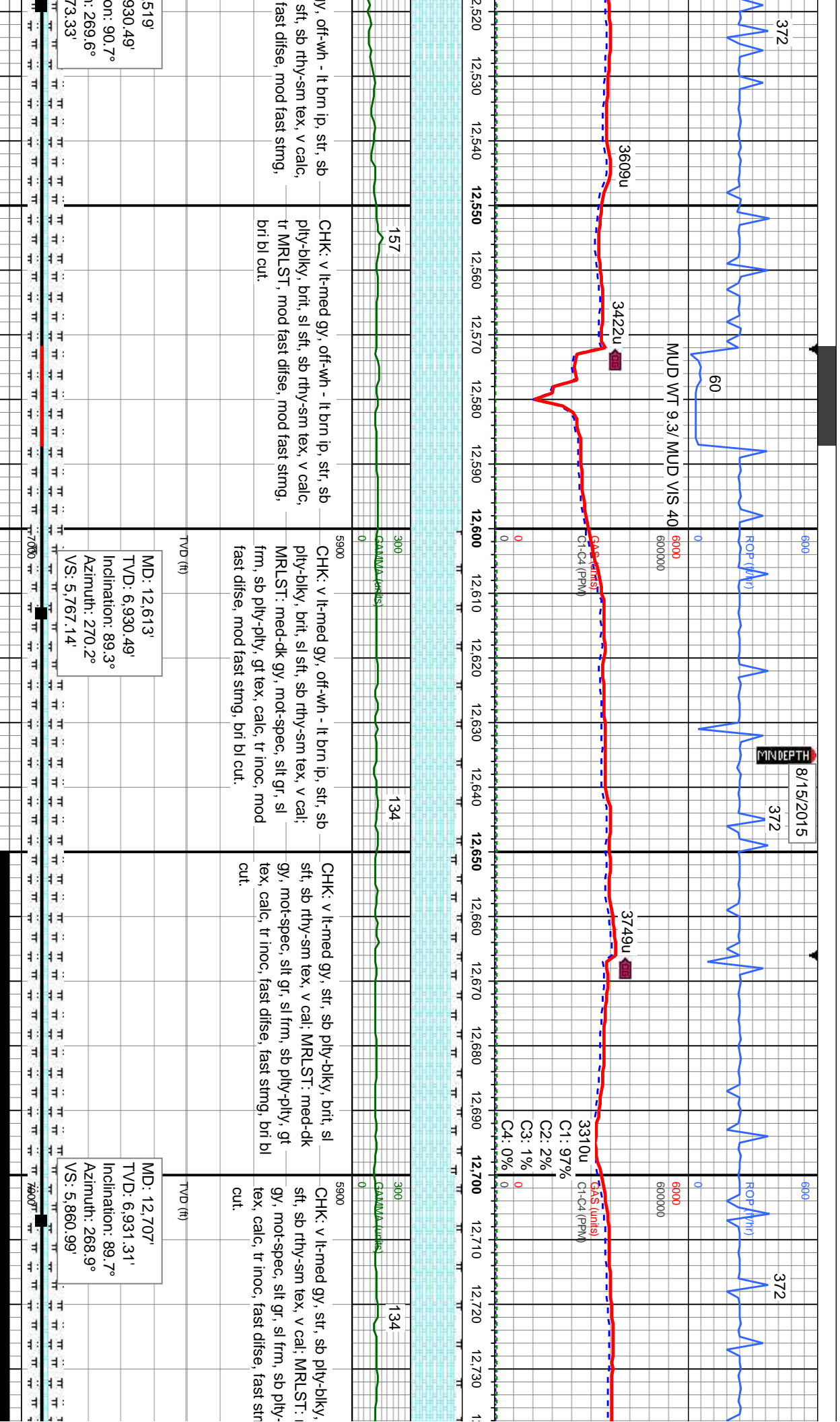
Possible Fault			Possible Fault		
MD: 12,142' TVD: 6,926.87' Inclination: 90.7° Azimuth: 268.9° VS: 5,296.76'			MD: 12,236' TVD: 6,926.3' Inclination: 90° Azimuth: 268.4° VS: 5,390.68'		

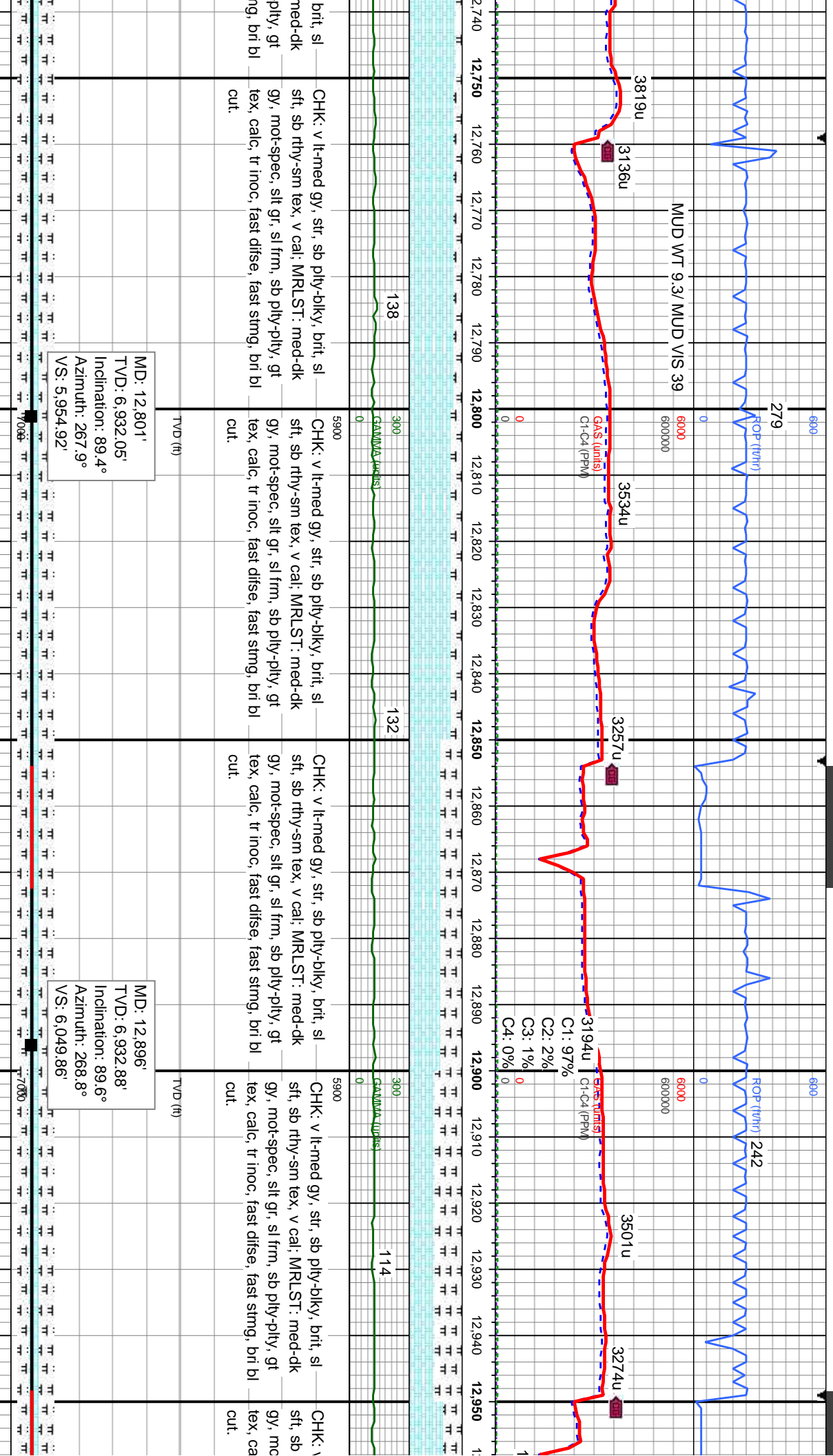


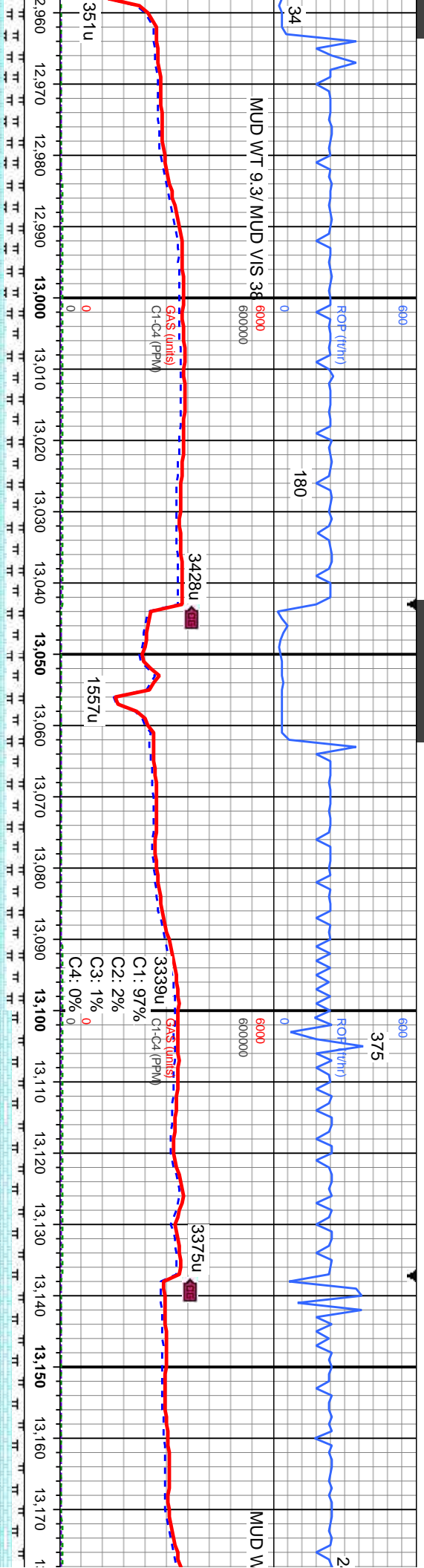


6900	348	MUD WT 9.3/ MUD VIS 38	6900	375	6900
12,300	12,310	12,320	12,330	12,340	12,350
12,360	12,370	12,380	12,390	12,400	12,410
12,420	12,430	12,440	12,450	12,460	12,470
12,480	12,490	12,500	12,510		
12,520					
12,530					
12,540					
12,550					
12,560					
12,570					
12,580					
12,590					
12,600					
12,610					
12,620					
12,630					
12,640					
12,650					
12,660					
12,670					
12,680					
12,690					
12,700					
12,710					
12,720					
12,730					
12,740					
12,750					
12,760					
12,770					
12,780					
12,790					
12,800					
12,810					
12,820					
12,830					
12,840					
12,850					
12,860					
12,870					
12,880					
12,890					
12,900					
12,910					
12,920					
12,930					
12,940					
12,950					
12,960					
12,970					
12,980					
12,990					
13,000					









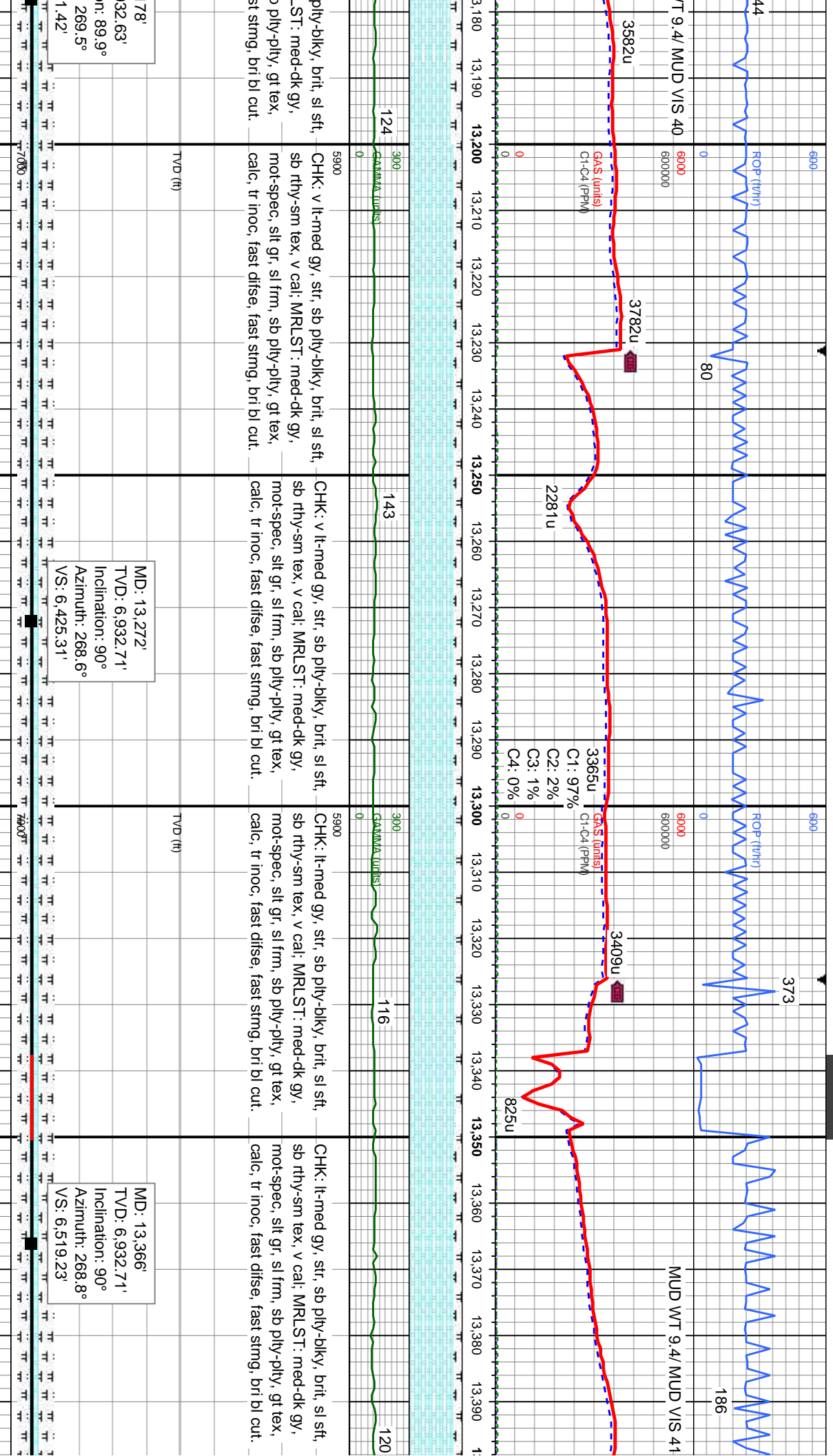
<div>127</div> <div>300</div> <div>5900</div> <div>CHK: v lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast strng, bri bl cut.</div>										<div>82</div> <div>300</div> <div>5900</div> <div>CHK: v lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast strng, bri bl cut.</div>										<div>118</div> <div>300</div> <div>5900</div> <div>CHK: v lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast strng, bri bl cut.</div>										<div>136</div> <div>300</div> <div>5900</div> <div>CHK: v lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast strng, bri bl cut.</div>																			
TVD (ft)																																																	
<div>MD: 12.990'</div> <div>TVD: 6,933.2'</div> <div>Inclination: 90°</div> <div>Azimuth: 269.1°</div> <div>VS: 6.143.76'</div>																				<div>MD: 13.084'</div> <div>TVD: 6,932.88'</div> <div>Inclination: 90.4°</div> <div>Azimuth: 270.2°</div> <div>VS: 6.237.6'</div>																				<div>MD: 13.1'</div> <div>TVD: 6.5'</div> <div>Inclination:</div> <div>Azimuth:</div> <div>VS: 6.33'</div>									

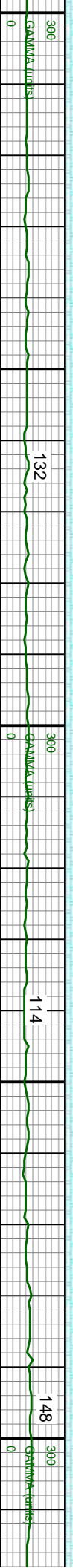
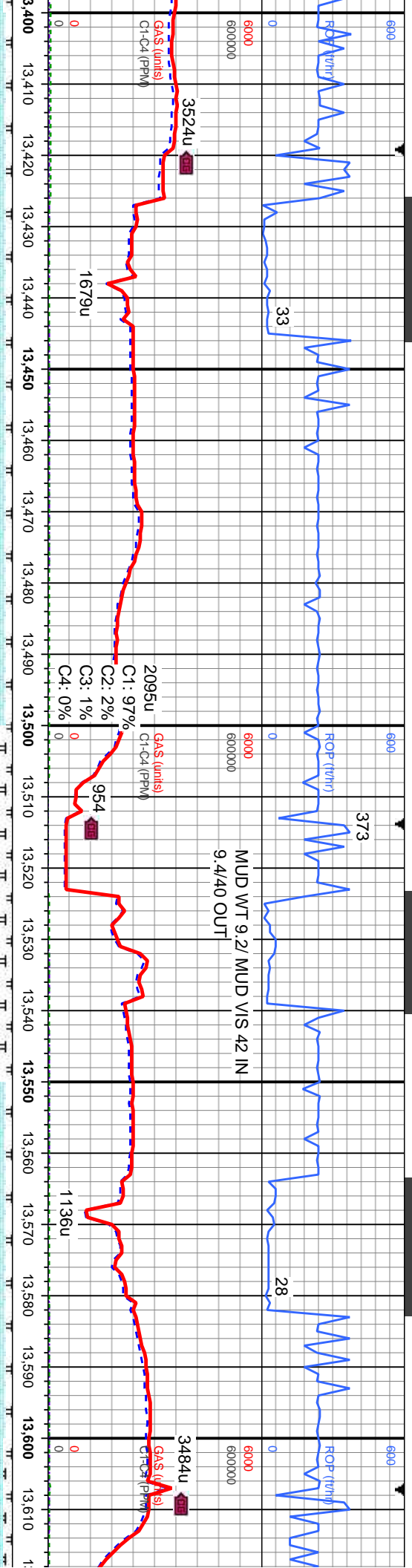
MD: 12.990'
TVD: 6.933.2'
Inclination: 90°
Azimuth: 269.1°
VS: 6.143.76'

MD: 13.084'
TVD: 6.932.88'
Inclination: 90.4°
Azimuth: 270.2°
VS: 6.237.6'

MD: 13.1'
TVD: 6.933'
Inclination: 90.4°
Azimuth: 270.2°
VS: 6.237.6'







CHK: lt-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast string, bri bl cut.

CHK: lt-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast string, bri bl cut.

CHK: lt-med gy, str, sb pty-biky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast string, bri bl cut.

TVD (ft)

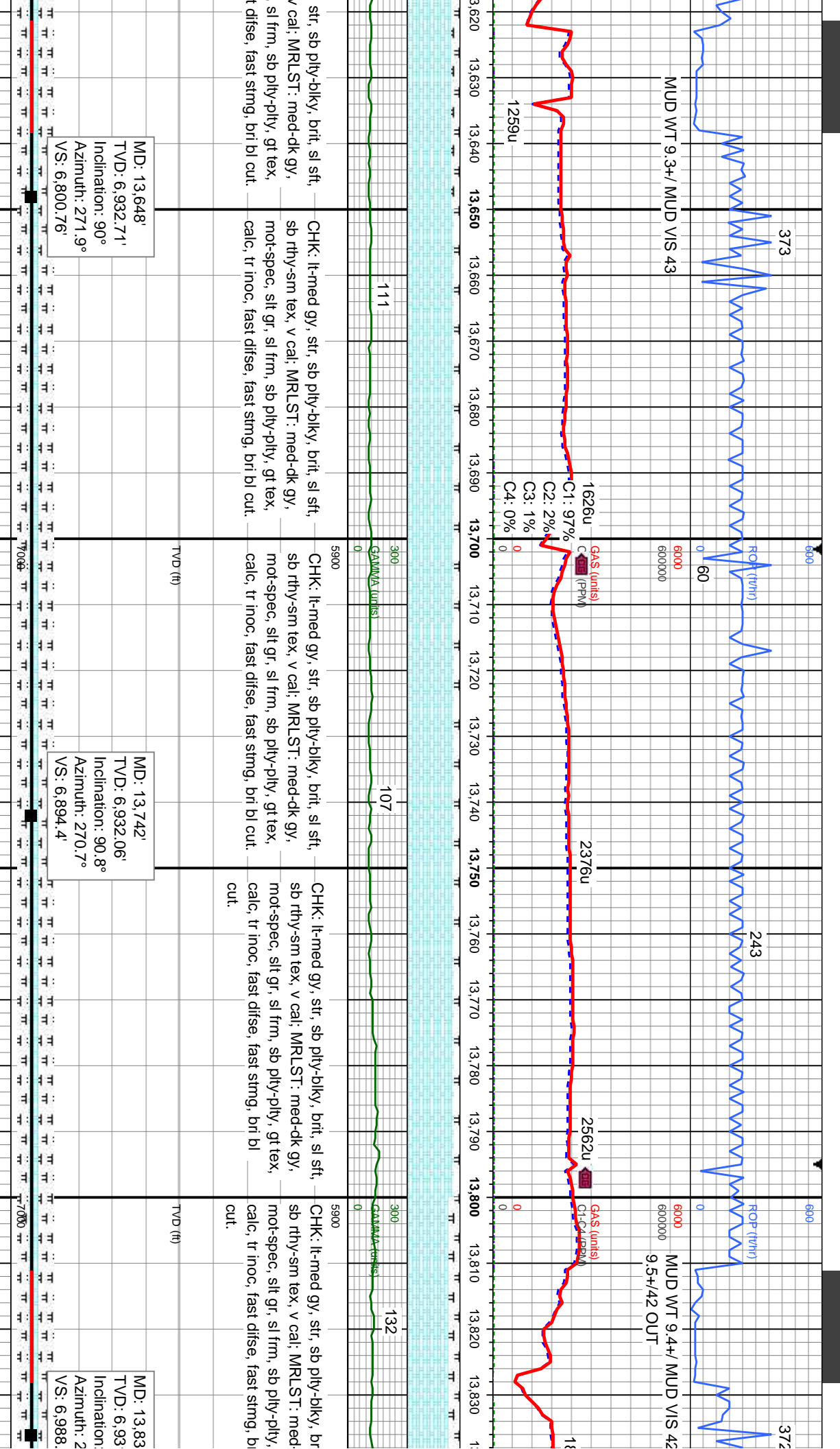
TVD (ft)

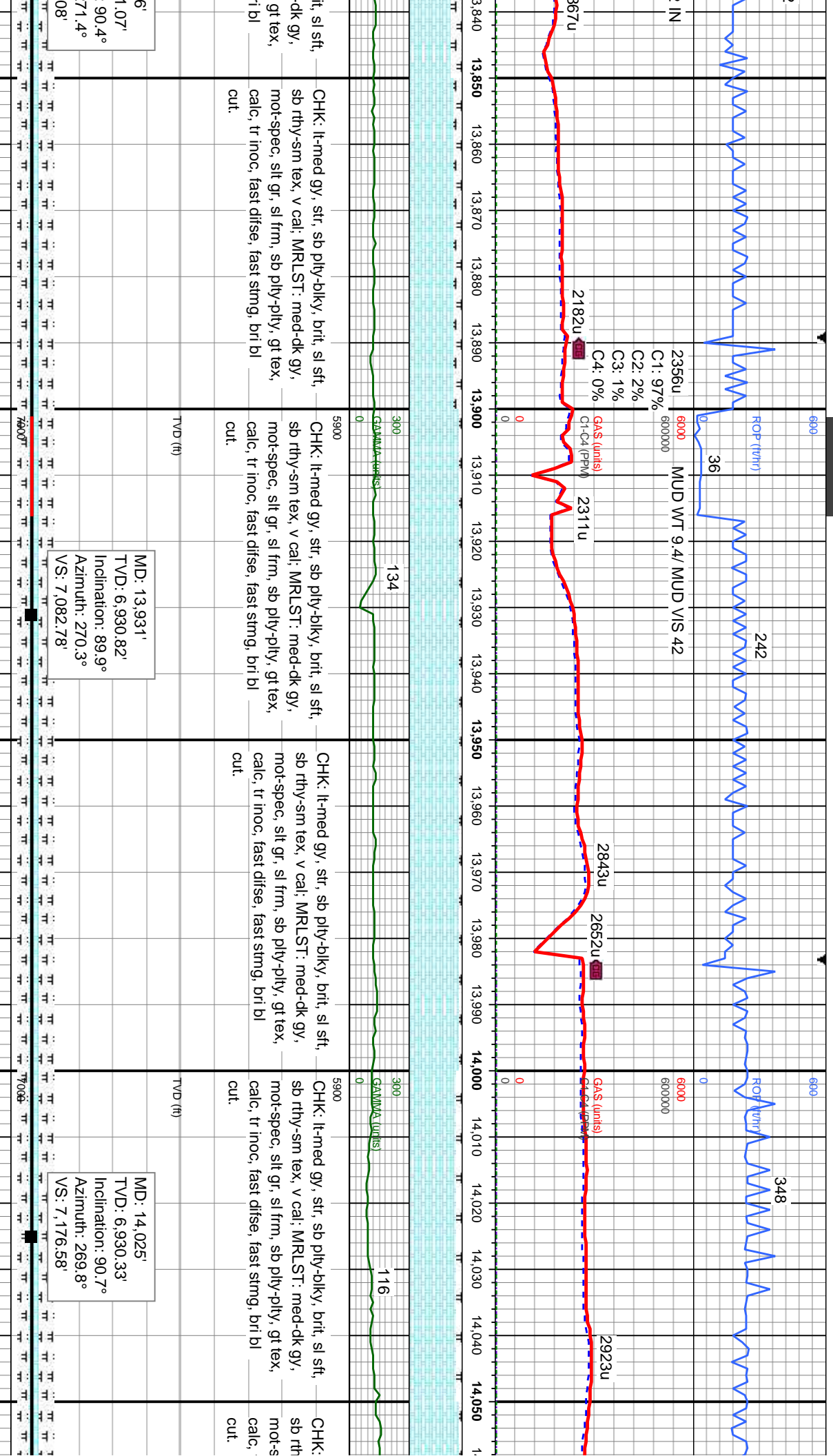
TVD (ft)

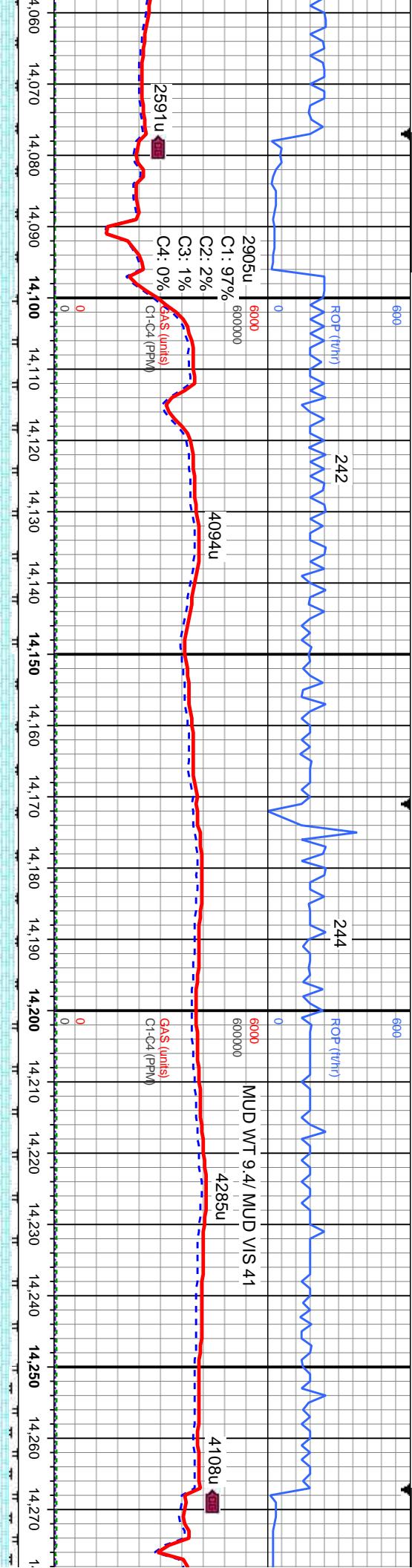
MD: 13.460'
TVD: 6.932.71'
Inclination: 90°
Azimuth: 268.8°
VS: 6.613.14'

MD: 13.554'
TVD: 6.932.71'
Inclination: 90°
Azimuth: 269.3°
VS: 6.707.03'









It-med gy, str, sb pty-blky, brit, sl sft, y-sm tex, v cal; MRLST: med-dk gy, pec, slt gr, sl frm, sb pty-pty, gt tex, tr inoc, fast difse, fast stmg, bri bl cut.

CHK: It-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast stmg, bri bl cut.

CHK: It-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast stmg, bri bl cut.

CHK: It-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast stmg, bri bl cut.

MD: 14,119'
TVD: 6,929.92'
Inclination: 89.8°
Azimuth: 270.3°
VS: 7,270.37'

MD: 14,213'
TVD: 6,931.07'
Inclination: 88.8°
Azimuth: 270.9°
VS: 7,364.1'



8/16/2015

MINDEPTH

242

MUD WT 9.4/ MUD VIS 41

243

ROP (ft/hr)

241

ROP (ft/hr)

0

6000

600000

0

6000

600000

GAS (units)

C1-C4 (PPM)

4083u

C1: 97%

C2: 2%

C3: 1%

C4: 0%

4168u

4277u

4032u

3835u

184

GAMMA (units)

0

300

5900

159

GAMMA (units)

0

300

5900

200

ly-blky, brit, sl sft,

LST: med-dk gy,

o ply-ply, gt tex,

st smg, bri bl

CHK: lt-med gy, str, sb ply-blky, brit, sl sft,

sb rthy-sm tex, v cal; MRLST: med-dk gy,

mot-spec, slt gr, sl frm, sb ply-ply, gt tex,

calc, tr inoc, fast difse, fast smg, bri bl

cut.

TVD (ft)

MD: 14,308'

TVD: 6,932.64'

Inclination: 89.3°

Azimuth: 270.2°

VS: 7,458.83'

CHK: lt-med gy, str, sb ply-blky, brit, sl sft,

sb rthy-sm tex, v cal; MRLST: med-dk gy,

mot-spec, slt gr, sl frm, sb ply-ply, gt tex,

calc, tr inoc, fast difse, fast smg, bri bl

cut.

TVD (ft)

MD: 14,402'

TVD: 6,932.07'

Inclination: 91.4°

Azimuth: 269.8°

VS: 7,552.63'

CHK: lt-med gy, str, sb ply-blky, brit, sl sft,

sb rthy-sm tex, v cal; MRLST: med-dk gy,

mot-spec, slt gr, sl frm, sb ply-ply, gt tex,

calc, tr inoc, fast difse, fast smg, bri bl

cut.

TVD (ft)

MD: 14,49

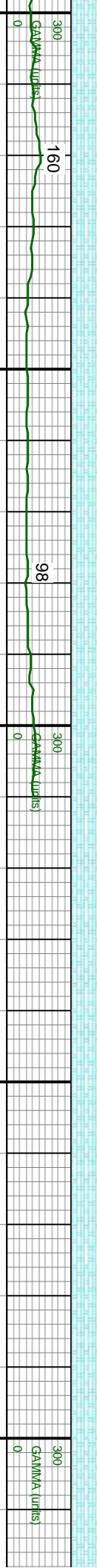
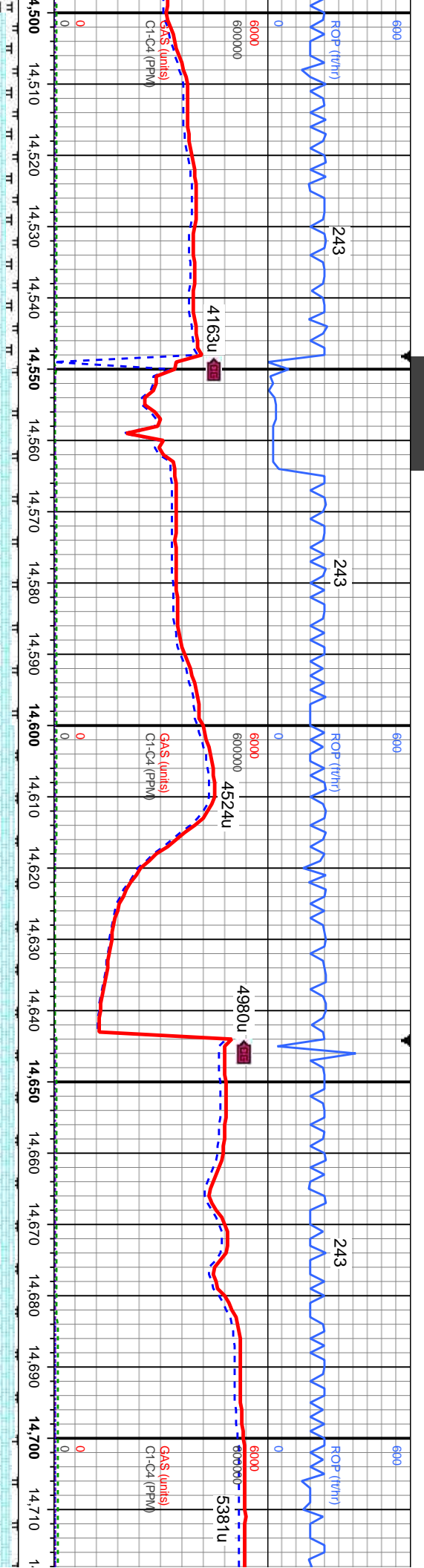
TVD: 6,93

Inclination:

Azimuth: 2

VS: 7,646





CHK: lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, sit gr, sl frm, sb pty-pty, gt tex, calc, tr inoc, fast difse, fast stmg, bri bl cut.

CHK: lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, sit gr, sl frm, sb pty-pty, gt tex, calc, fast difse, fast stmg, bri bl cut.

CHK: lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, sit gr, sl frm, sb pty-pty, gt tex, calc, fast difse, fast stmg, bri bl cut.

CHK: lt-med gy, str, sb pty-blky, brit, sl sft, sb rthy-sm tex, v cal; MRLST: med-dk gy, mot-spec, sit gr, sl frm, sb pty-pty, gt tex, calc, fast difse, fast stmg, bri bl cut.

MD: 14,590'
TVD: 6,933.38'
Inclination: 90°
Azimuth: 270.2°
VS: 7,740.24'

MD: 14,684'
TVD: 6,932.97'
Inclination: 90.5°
Azimuth: 270°
VS: 7,834.04'



