

COLUMBINE LOGGING

Scale: 5" / 100'
Measured Depth Log

Well Name Walton I-25HN

Location Lat: 40.550145, Long: -104.832879

State Colorado

County Weld

Country USA

Rig Number Frontier 10

API Number 05-123-41421

AFE # 2014Weld.25HN

Region DJ Basin

Field Wattenberg

Spud Date 7/16/2015

Drilling Completed 8/20/2015

Surface Coordinates Sec.25-T7N-R67W
857FNL, 252FEL

Bottom Hole Coordinates Projected:
Sec.25-T7N-R67W
1898FNL, 470FWL

Ground Elevation 4978'

K.B. Elevation 5000.5'

Logged Interval 6000' To 12280'

Total Depth 12280'

Formation Niobrara B Chalk

Type of Drilling Fluid MMH

Operator

Company Bayswater Exploration and Production LLC.

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

Geologist

Name Colleen Fitzpatrick, Mark Brown

Company Bayswater Exploration and Production LLC.

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Denver, CO 80202

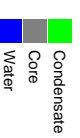


Other

Charles Trodick Lead Wellsite Geologist

Tracy Lawson Wellsite Geologist

Zone Color Coding
















































Rock Types












Geological Symbols		Geological Symbols	Geological Symbols
	UNKNOWN		COAL
	ANHYDRITE		CONGLOMERATE
	BENTONITE		DOLOMITE
	BRECCIA		DOLOMITIC LIMESTONE
	CHALK		GRANITE
	CEMENT		GYPSUM
	CHERT		IGNEOUS
	CLAY CHOKE SAND		SIDERITE or LIMONITE
	CLAYSTONE		LIMESTONE
			MARLSTONE
			METAMORPHIC
			NO SAMPLE
			SALT
			SANDSTONE
			SALT-PEPPER SAND
			SHALE
			SHALE COLORED
			SHALE GRAY
			SHALY SANDSTONE
			SHALY SILTSTONE
			SILTY SHALE
			SILTSTONE
			TILL
			TUFF
			WELDED TUFF

Accessories

Fossils

Fossils	
	GASTROPOD
	INOCERAMUS
	ALGAE
	AMPHIPORA
	BELEMNITE
	BIOCLASTIC
	BRACHIOPOD
	BRYOZOA
	CERPHALOPOD
	CORAL
	CRINOID
	ECHINOID
	FISH
	FORAMINIFERA
	FOSSIL
Minerals	
	ARGILLITE GRAIN
	BENTONITE
	BITUMENOUS SUBSTANCE
	BRECCIA FRAGMENTS
	CALCAREOUS
	CARBONACEOUS FLAKES
	CHERT
	CHERT
	COAL - THIN BEDS
	DOLOMITIC
	FELDSPAR
	FERRUGINOUS PELLET
	FERRUGINOUS
	GLAUCONITE
	GYPSIFEROUS
	HEAVY MINERAL
	KAOLIN
	MARCASITE
	MARLSTONE
	MICACEOUS
	MINERAL CRYSTAL
	NODULES
	PHOSPHATE PEBBLES
	PYRITE
	SALT CAST
	SANDY
	SIDERITE
	SILICEOUS
	SILTY
	TUFFACEOUS

Springer

 ANHYDRITE STRINGER
 BENTONITE STRINGER
 COAL STRINGER
 DOLomite STRINGER
 GYPSUM STRINGER
 LIMESTONE STRINGER
 MARLSTONE (CALC.) STRONG
 MARLSTONE (DOL.) STRONG
 SANDSTONE STRINGER
 SHALE STRINGER
 SILTSTONE STRINGER

Oil Show










P PINPOINT

Engineering






































Engineering

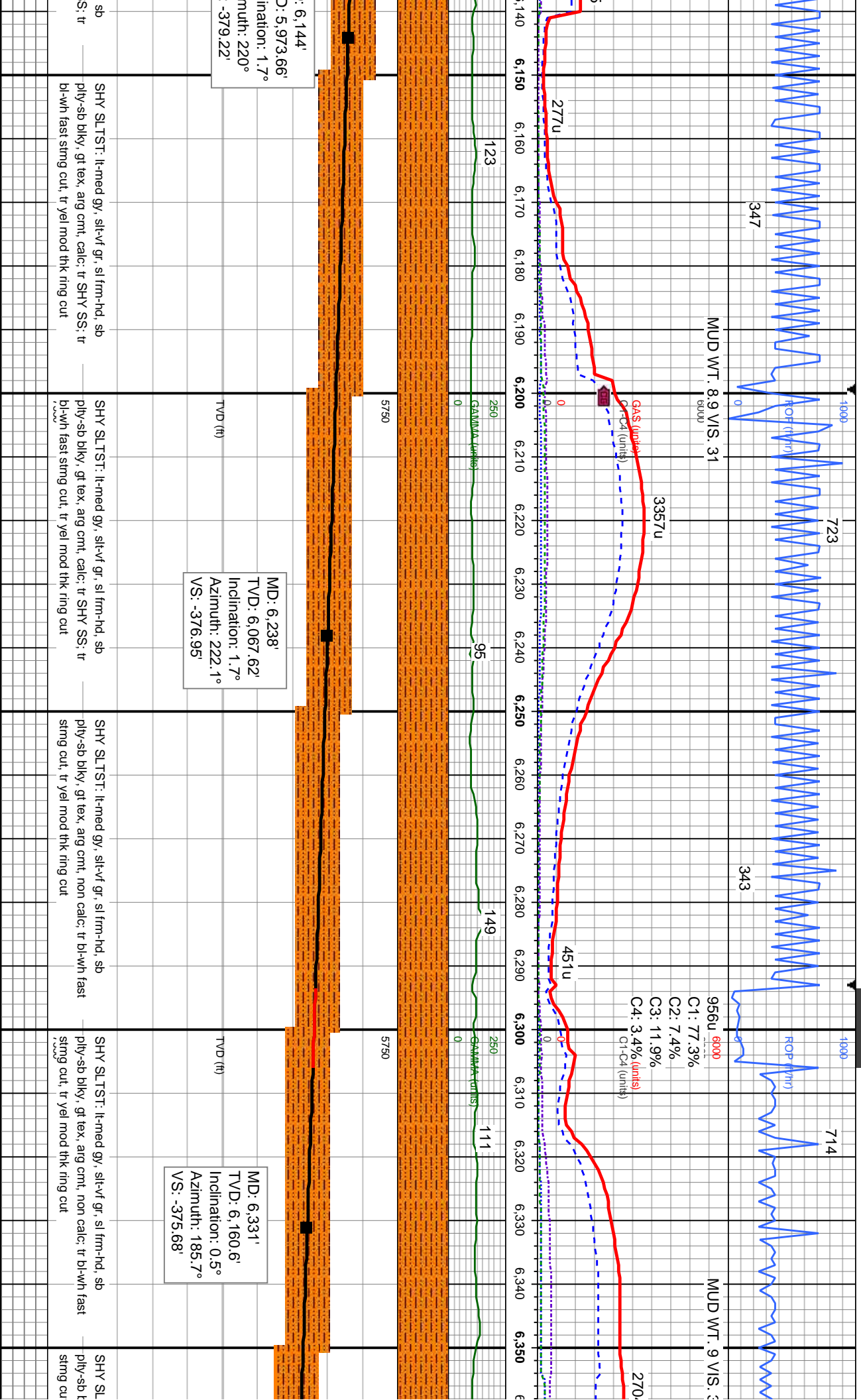
Porosity

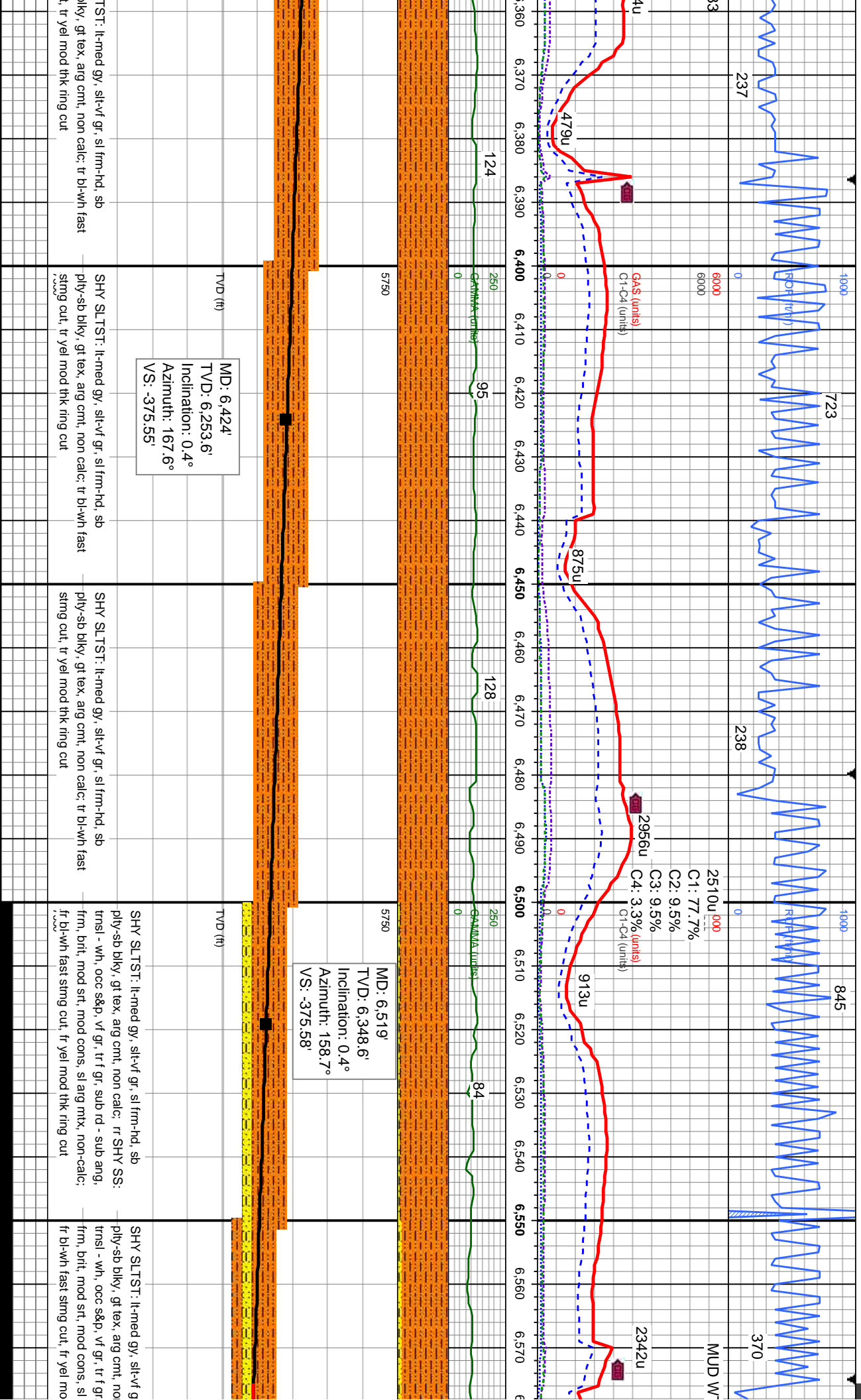
Porosity

CONNECTION (DOWN)		CONNECTION GAS
CONNECTION GAS		CONNECTION GAS
TRIP GAS		TRIP GAS
TRIP GAS (LEFT)		TRIP GAS (LEFT)
INTERCRYSTALLINE		INTERCRYSTALLINE
INTERMOLECULAR		INTERMOLECULAR
MOLDIC		MOLDIC
CORE - LOST		CORE - LOST
CORE - RECOVERED		CORE - RECOVERED

Other Symbols

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





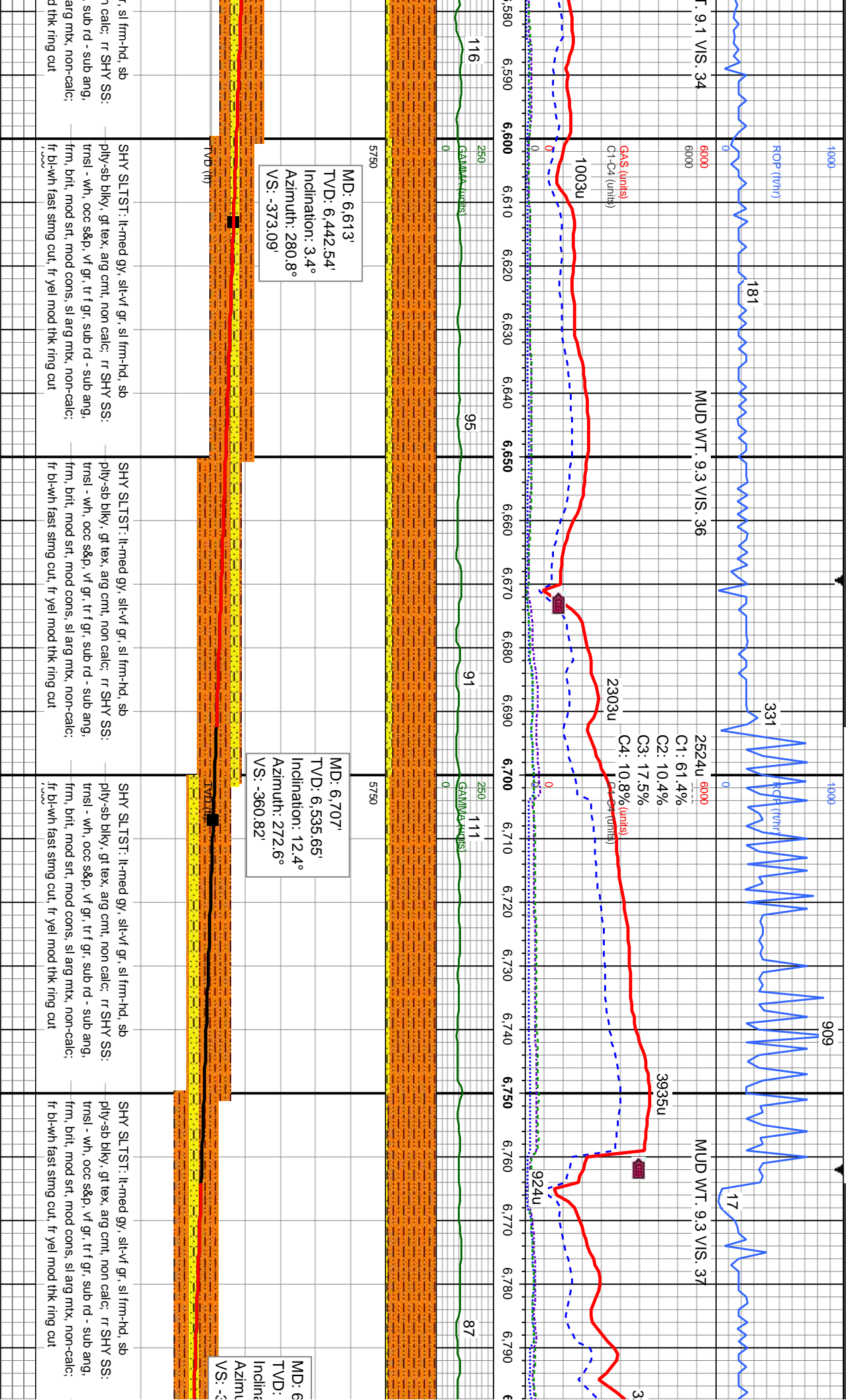
STST: lt-med gy, slt-vf gr, sl frm-hd, sb
ilkly, gt tex, arg cmf, non calc; tr bl-wh fast
t, tr yel mod thk ring cut

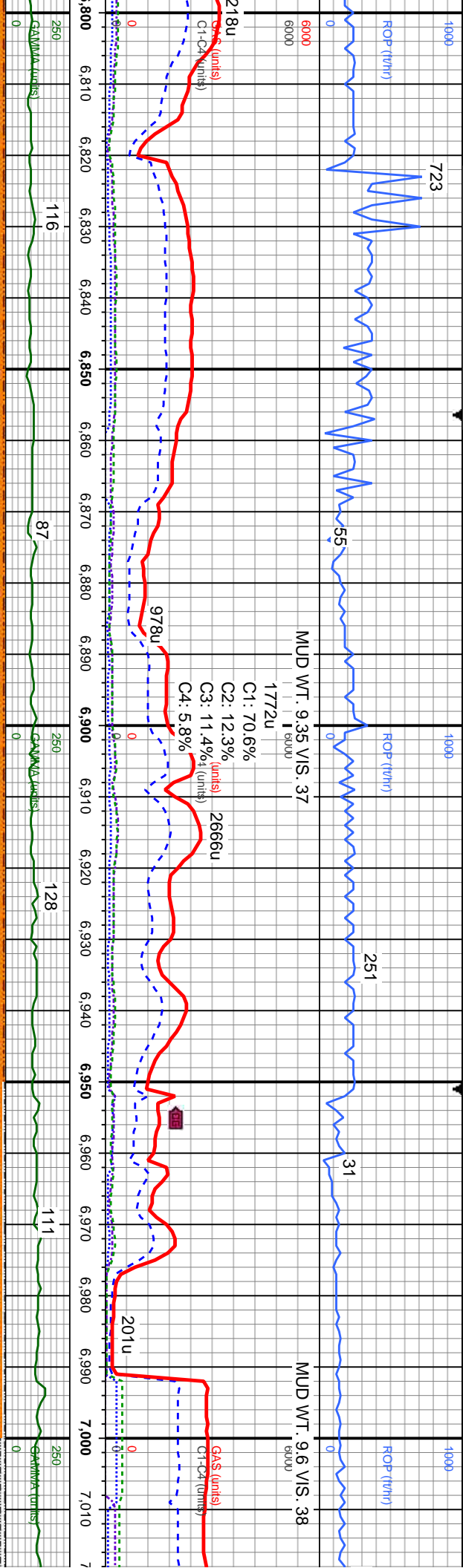
SHY SLTST: lt-med gy, slt-vf gr, sl frm-hd, sb
ply-sb blkly, gt tex, arg cmt, non calc; tr bl-wh fast
stmg cut, tr yel mod thk ring cut

SHY SLTST: lt-med gy, slt-vf gr, sl frm-hd, sb
ply-sb blkly, gt tex, arg cmt, non calc; tr bl-wh fast
stmg cut, tr yel mod thk ring cut

SHY SL ST: lt-med gy, slt-vf gr, sl frm-hd, sb
-ply-sb blkly, qt lex, aig cmt, non calc; rr SHY SS,
trns1 - wh, occ s8p, vf gr, tr f gr, sub rd - sub ang,
frm, bit, mod srt, mod cons, sl aig mtx, non-calc;
fr bl-wh fast string cut, fr yel mod thk ring cut

SHY SLTST: lt-med gy, slt-vf g
ply-sb blkcy, gt tex, arg cmt, noi
tnsl - wh, occ s&p, vf gr, tr f gr
frm, brit, mod srt, mod cons, sl
fr bl-wh fast stmg cut, fr yel mo





MUD WT. 9.35 VIS. 37

1772u

C1: 70.6%

C2: 12.3%

C3: 11.4%

C4: 5.8%

MUD WT. 9.6 VIS. 38

1800u

MD: 6,895'
TVD: 6,718.17'
Inclination: 15.4°
Azimuth: 273.3°
VS: -317.75'

MD: 6,989'
TVD: 6,806.78'
Inclination: 23.6°
Azimuth: 283.8°
VS: -289'

SHY SLTST: lt-med gy, silt-vf gr, tr med ss gr, sl
frm-hd, sb pily-sb blkly, gt tex, arg cmt, non calc, tr
shy ss, tr bl-wh fast string cut, fr yel mod thk ring cut

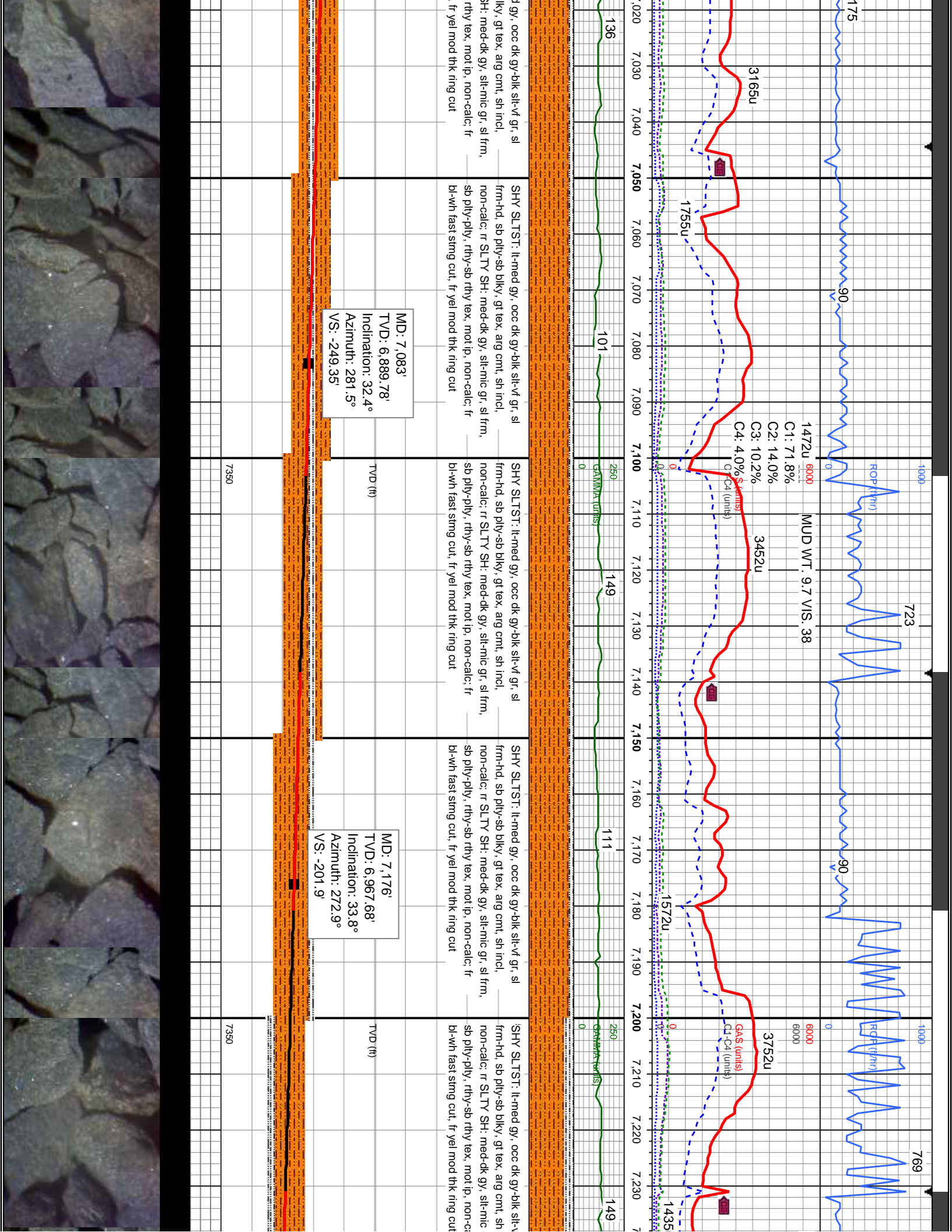
SHY SLTST: lt-med gy, silt-vf gr, tr med ss gr, sl
frm-hd, sb pily-sb blkly, gt tex, arg cmt, non calc, tr
shy ss, tr bl-wh fast string cut, fr yel mod thk ring cut

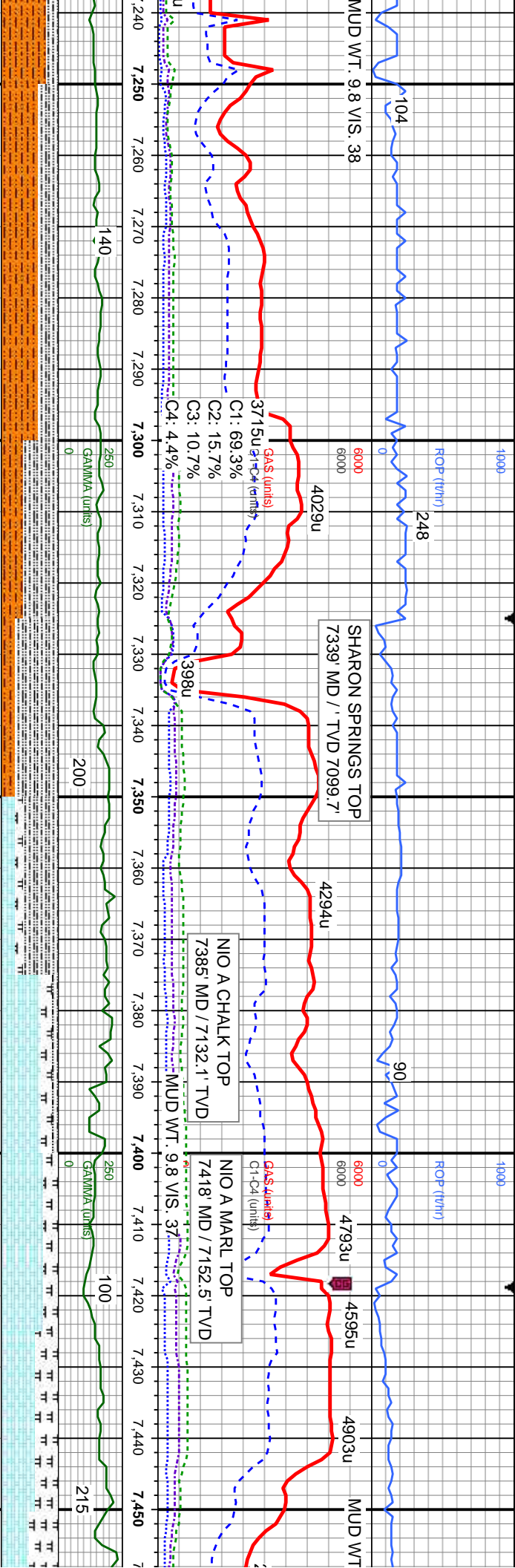
SHY SLTST: lt-med gy, silt-vf gr, tr med ss gr, sl
frm-hd, sb pily-sb blkly, gt tex, arg cmt, non calc, tr
shy ss, tr bl-wh fast string cut, fr yel mod thk ring cut

SHY SLTST: lt-med gy, occ dk gy-blk silt-vf gr, sl
frm-hd, sb pily-sb blkly, gt tex, arg cmt, sh incl,
non-calc; rr SLTY SH: med-dk gy, silt-mic gr, sl frm,
sb pily-pily, rthy-sb rthy tex, mot lp, non-calc; fr
bl-wh fast string cut, fr yel mod thk ring cut

SHY SLTST: lt-med gy, occ dk gy-blk silt-vf gr, sl
frm-hd, sb pily-sb blkly, gt tex, arg cmt, sh incl,
non-calc; rr SLTY SH: med-dk gy, silt-mic gr, sl frm,
sb pily-pily, rthy-sb rthy tex, mot lp, non-calc; fr
bl-wh fast string cut, fr yel mod thk ring cut





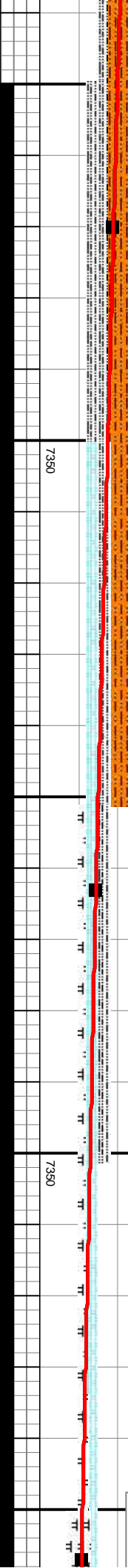


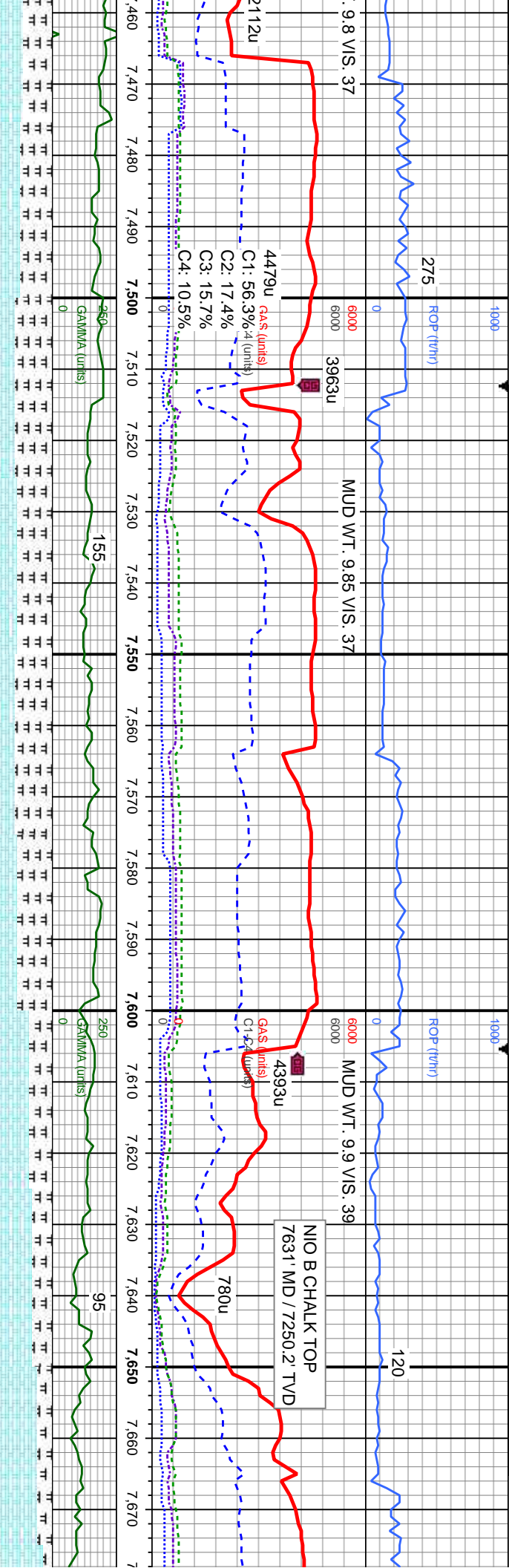
SLTY SH: med-dk gy, sil-mic gr, sl frm, sb ply-ply, rthy-sb rthy tex, mot ip, non-calc; tr SHY	SLTY SH: med-dk gy, sil-mic gr, sl frm, sb ply-ply, rthy-sb rthy tex, mot ip, non-calc; tr SHY	SLTY SH: med-dk gy, sil-mic gr, sl frm, sb ply-ply, rthy-sb rthy tex, mot ip, non-calc; tr MRLST:	5CHK: lk-med gy, mot-sit, mod sft, sb biky-sb ply, sm-rthy tex, v calc; mod MRLST: med-dk gy, sl frm, ply-sb ply, rthy-gt tex, sl mot, calc; abnt CHK: lk-med gy, mot-sit, mod sft, sb biky-sb ply, sm-rthy tex, v calc; no min flr, fr bl-wh fast stmg cut, fr yel mod thk ring cut	MRLST: mot, calc; biky-sb ply, bl-wh fas
ply-ply, rthy-sb rthy tex, mot ip, non-calc; tr SHY	ply-ply, rthy-sb rthy tex, mot ip, non-calc; tr SHY	ply-ply, rthy-sb rthy tex, mot ip, non-calc; tr MRLST:	fast stmg cut, fr yel mod thk ring cut	bl-wh fas
SLTST: lk-med gy, sil-vf gr, sl frm, sb ply-sb biky, gt tex, arg cnt, non-calc; fr bl-wh fast stmg cut, fr yel mod thk ring cut	SLTST: lk-med gy, sil-vf gr, sl frm, sb ply-sb biky, gt tex, arg cnt, non-calc; fr bl-wh fast stmg cut, fr yel mod thk ring cut	SLTST: lk-med gy, sil-vf gr, sl frm, sb ply-sb biky, gt tex, arg cnt, non-calc; fr bl-wh fast stmg cut, fr yel mod thk ring cut		

MD: 7,270'
TVD: 7,046.25'
Inclination: 32.8°
Azimuth: 268.9°
VS: -151.93°

MD: 7,363'
TVD: 7,118.78'
Inclination: 44.7°
Azimuth: 268.2°
VS: -95.07°

MD: 7,45'
TVD: 7.1'
Inclination:
Azimuth:
VS: -22.6°





med-dk gy, sl frm, pily-sb pily, rthy-gt tex, sl
mod CHK: lt-med gy, mot-str, mod sft, sb
bily-sb pily, sm-rthy tex, v calc; no min flor, difse
t string cut, fr yel mod thk ring cut

MRSLT: med-dk gy, sl frm, pily-sb pily, rthy-gt tex,
sl mot, calc; rr CHK: lt-med gy, mot-str, mod sft, sb
bily-sb pily, sm-rthy tex, v calc; no min flor, difse
bl-wh fast string cut, fr yel mod thk ring cut

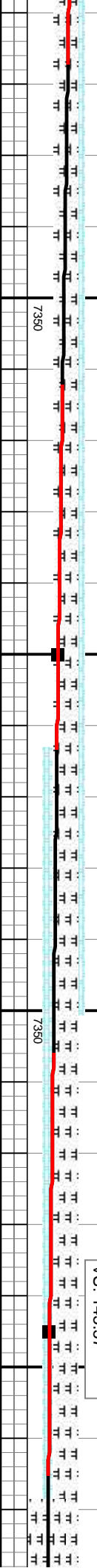
MRSLT: med-dk gy, sl frm, pily-sb pily, rthy-gt tex,
sl mot, calc; ooc CHK: lt-med gy, mot-str, mod sft,
sb bily-sb pily, sm-rthy tex, v calc; no min flor,
difse bl-wh fast string cut, fr yel mod thk ring cut

CHK: lt-med gy, mot-str, mod sft, sb bily-sb pily,
sm-rthy tex, v calc; ooc MRSLT: med-dk gy, sl frm,
pily-sb pily, rthy-gt tex, sl mot, calc; no min flor,
difse bl-wh fast string cut, fr yel mod thk ring cut

CHK: lt-med gy, mot-str, mod s
sm-rthy tex, v calc; rr MRSLT:
pily-sb pily, rthy-gt tex, sl mot,
difse bl-wh fast string cut, fr yel

MD: 7,550'
TVD: 7,221.33'
Inclination: 64.8°
Azimuth: 265.7°
VS: 58.22°

MD: 7,645'
TVD: 7,255.76'
Inclination: 72.7°
Azimuth: 265.7°
VS: 145.57°



1900

MINDEPTH
8/16/2015

1900

MINDEPTH
8/17/2015

1900

ROP (W/H)

249

ROP (W/H)

137

ROP (W/H)

6000

MUD WT. IN/OUT: 10/9.9+ VIS. 42/39

Landed Curve @ 7980.1' MD
08/15/2015 @ 21:47 MDT

4452u

TOOH FOR NEW
MOTOR @ 14:13
MDT ON 8/16

RESUMED
DRILLING @ 23:28
MDT ON 8/16

MUD WT. IN/C

8.9%

4239u

6000

8.3%

4.6%

3132u

3.2%

2888u

2888u

C1: 56.0%

C2: 18.0%

C3: 15.3%

C4: 10.6%

1810u

250

250

116

250

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TVD (ft)

TVD (ft)

TVD (ft)

MD: 7.925'
TVD: 7.288.12'
Inclination: 92.5°
Azimuth: 270.1°
VS: 416.73'

MD: 7.939'
TVD: 7.287.43'
Inclination: 93.21°
Azimuth: 270.6°
VS: 430.31'

MD: 8.032'
TVD: 7.282.31'
Inclination: 93.1°
Azimuth: 269°
VS: 520.7'

Possible Uphole Contamination

MR.LST: med-dk gy, ooc blk, sl frm, brit, ply-sb ply, rthy-gt tex, sl sily mtx, v calc, r CHK: crm-wht, mot brn, lt-med gy, mot-str, mod sft, sb blk-ly-sb ply, rthy-gt tex, sl sily mtx, v calc, r CHK: crm-wht, mot brn, lt-med gy, mot-str, mod sft, sb blk-ly-sb ply, sm-rthy - sb-wxy tex, v calc, r SLTY SH: med-dk gy, slt-mic gr, sl frm, sb ply-pty, rthy-sb rthy tex, mot ip, non-calc, r SHY SLTST: rthy-sb rthy tex, mot ip, non-calc, r SHY SLTST: lt-med gy, slt-vf gr, sl frm, sb ply-sb blk, gt tex, arg cnt, non-calc, tr inoc foss; no min flor, bl-wh fast sting cut, fr yel mod thk ring cut

MR.LST: med-dk gy, sl frm, brit, ply-sb ply, rthy-gt tex, sl sily mtx, v calc, r CHK: crm-wht, mot brn, lt-med gy, mot-str, mod sft, sb blk-ly-sb ply, sm-rthy - sb-wxy tex, v calc, r CHK: crm-wht, mot brn, lt-med gy, mot-str, mod sft, sb blk-ly-sb ply, sm-rthy - sb-wxy tex, v calc, no min flor, bl-wh fast sting cut, fr yel mod thk ring cut

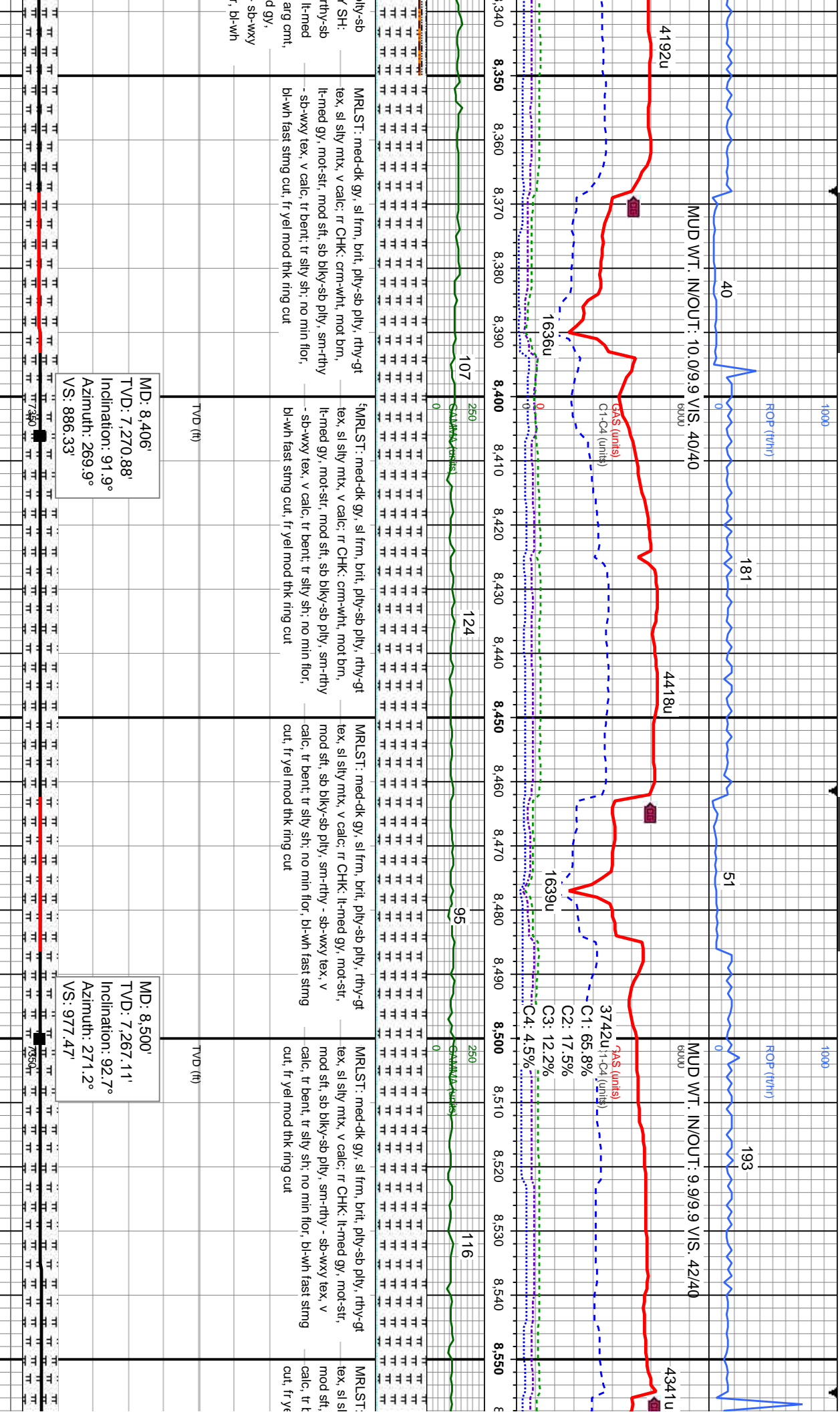
MR.LST: med-dk gy, sl frm, brit, ply-sb ply, rthy-gt tex, sl sily mtx, v calc, r CHK: crm-wht, mot brn, lt-med gy, mot-str, mod sft, sb blk-ly-sb ply, sm-rthy - sb-wxy tex, v calc, tr inoc foss; no min flor, bl-wh fast sting cut, fr yel mod thk ring cut

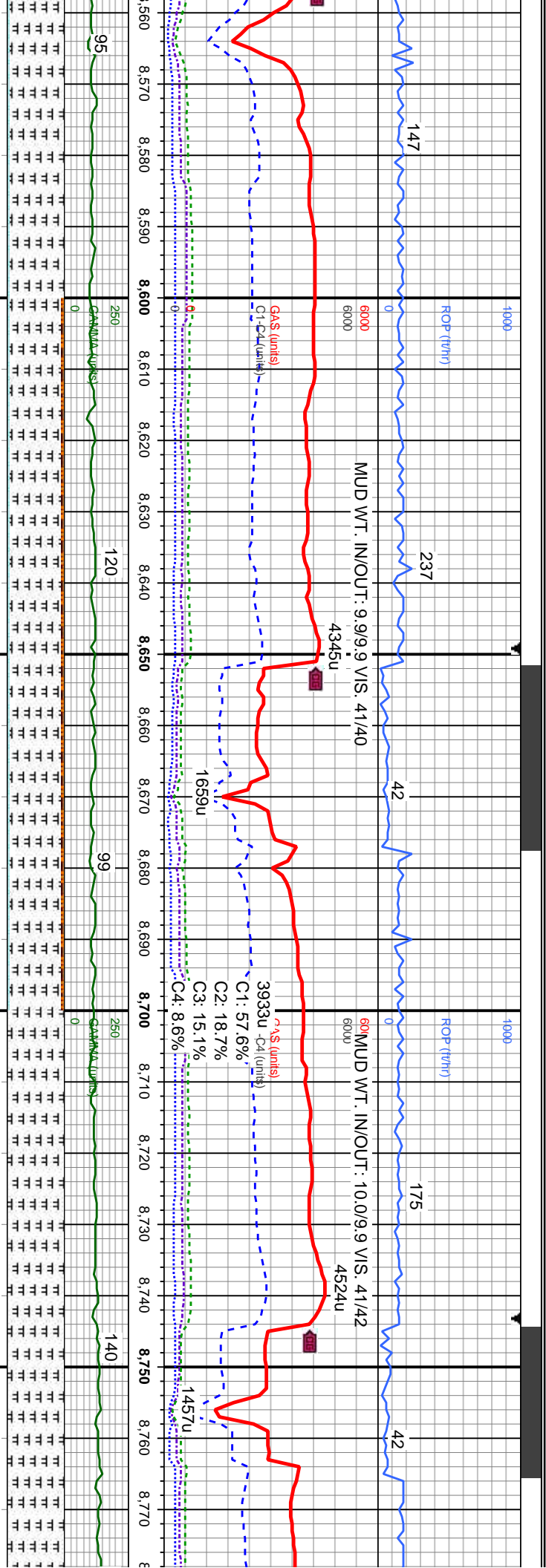
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MD: 8.032'
TVD: 7.282.31'
Inclination: 93.1°
Azimuth: 269°
VS: 520.7'

N
T
I
A
V





med-dk gy, sl frm, brit, ply-sb ply, rthy-gt
ly mix, v calc; r CHK: lt-med gy, mot-str,
sb blk-y-sb ply, sm-rthy - sb-wxy tex, v
bent, tr sily sh, no min flr, bl-wh fast sting
a) mod thk ring cut

MRST: med-dk gy, ooc blk, sl frm, brit, ply-sb
ply, rthy-gt tex, sl sily mix, v calc; r SHY SLTST:
lt-med gy, slt-vf gr, sl frm, sb ply-sb blk, gt tex,
arg cnt, non-calc; r CHK: lt-med gy, mot-str, mod
sft, sb blk-y-sb ply, sm-rthy - sb-wxy tex, v calc; tr
bent, no min flr, bl-wh fast sting cut, fr yel mod
thk ring cut

MRST: med-dk gy, ooc blk, sl frm, brit, ply-sb
ply, rthy-gt tex, sl sily mix, v calc; r SHY SLTST:
lt-med gy, slt-vf gr, sl frm, sb ply-sb blk, gt tex,
arg cnt, non-calc; r CHK: lt-med gy, mot-str, mod
sft, sb blk-y-sb ply, sm-rthy - sb-wxy tex, v calc; tr
cal, tr bent, no min flr, bl-wh fast sting cut, fr yel
mod thk ring cut

MRST: med-dk gy, sl frm, brit, ply-sb ply, rthy-gt
tex, sl sily mix, v calc; tr chk, tr sily slst, tr bent, tr
sily sh, no min flr, bl-wh fast sting cut, fr yel mod
thk ring cut

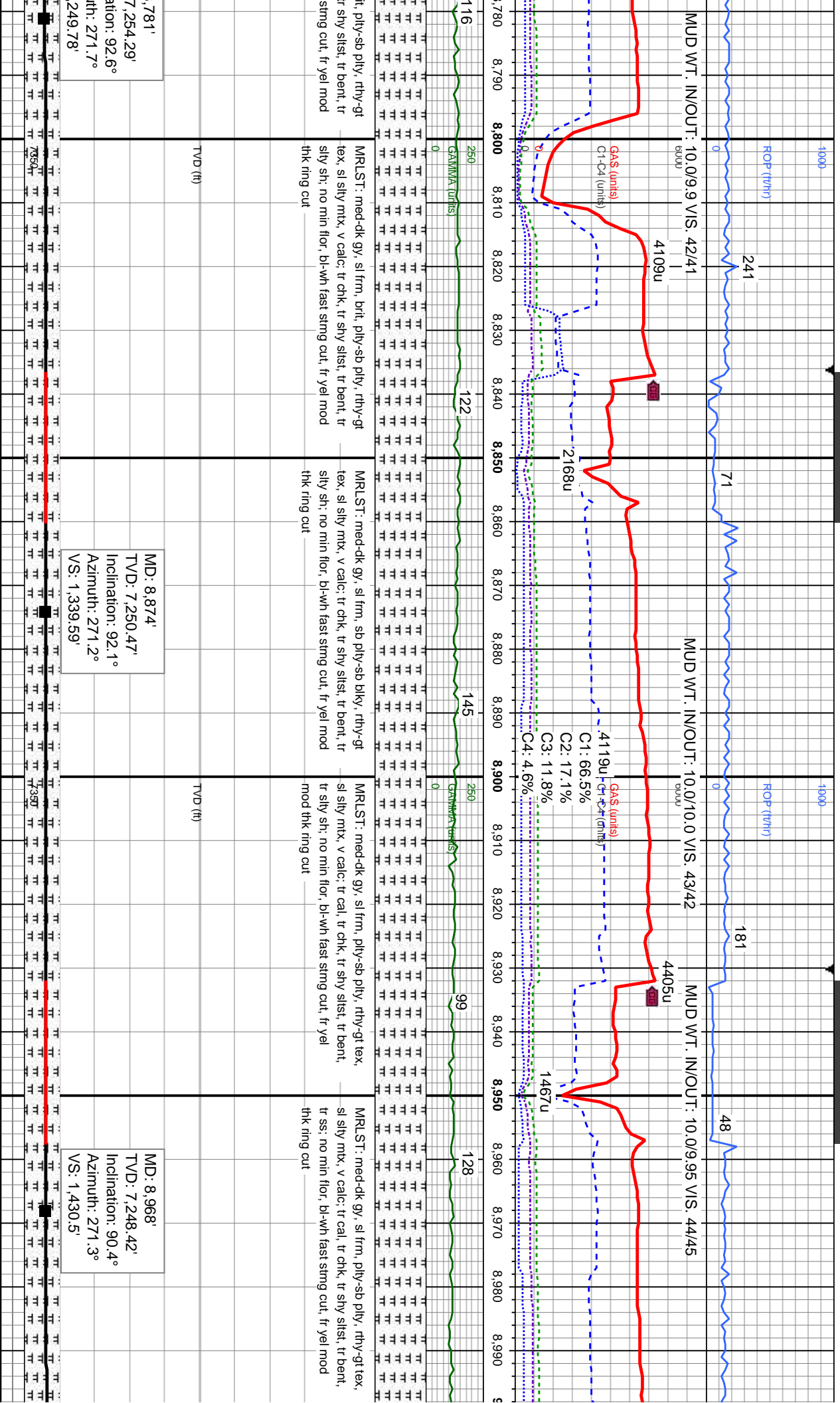
MRST: med-dk gy, sl frm, brit, ply-sb ply, rthy-gt
tex, sl sily mix, v calc; tr chk, tr sily sh, no min flr, bl-wh fast
thk ring cut

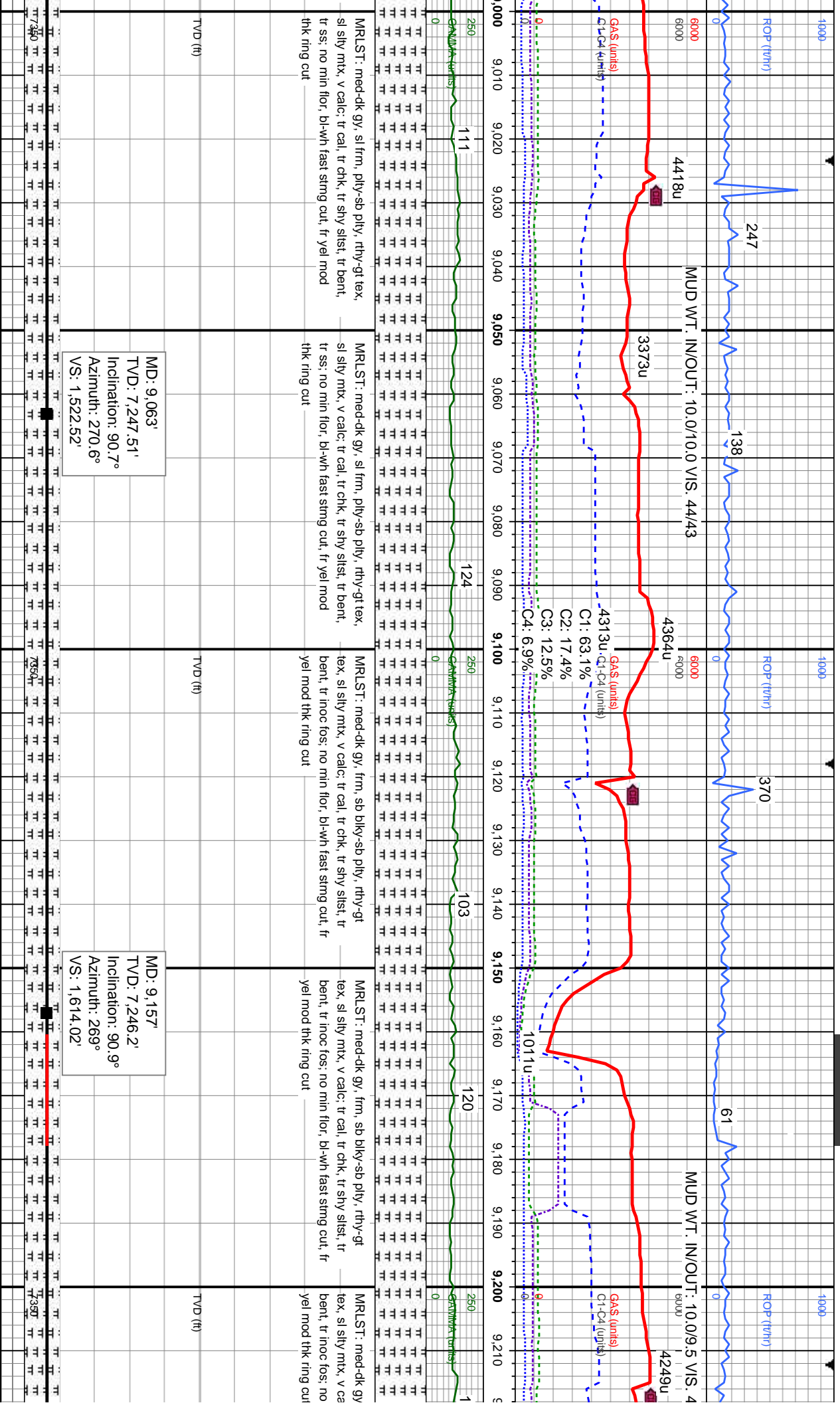
MD: 8,594'
TVD: 7,263.17'
Inclination: 92.1°
Azimuth: 269.4°
VS: 1,068.71'

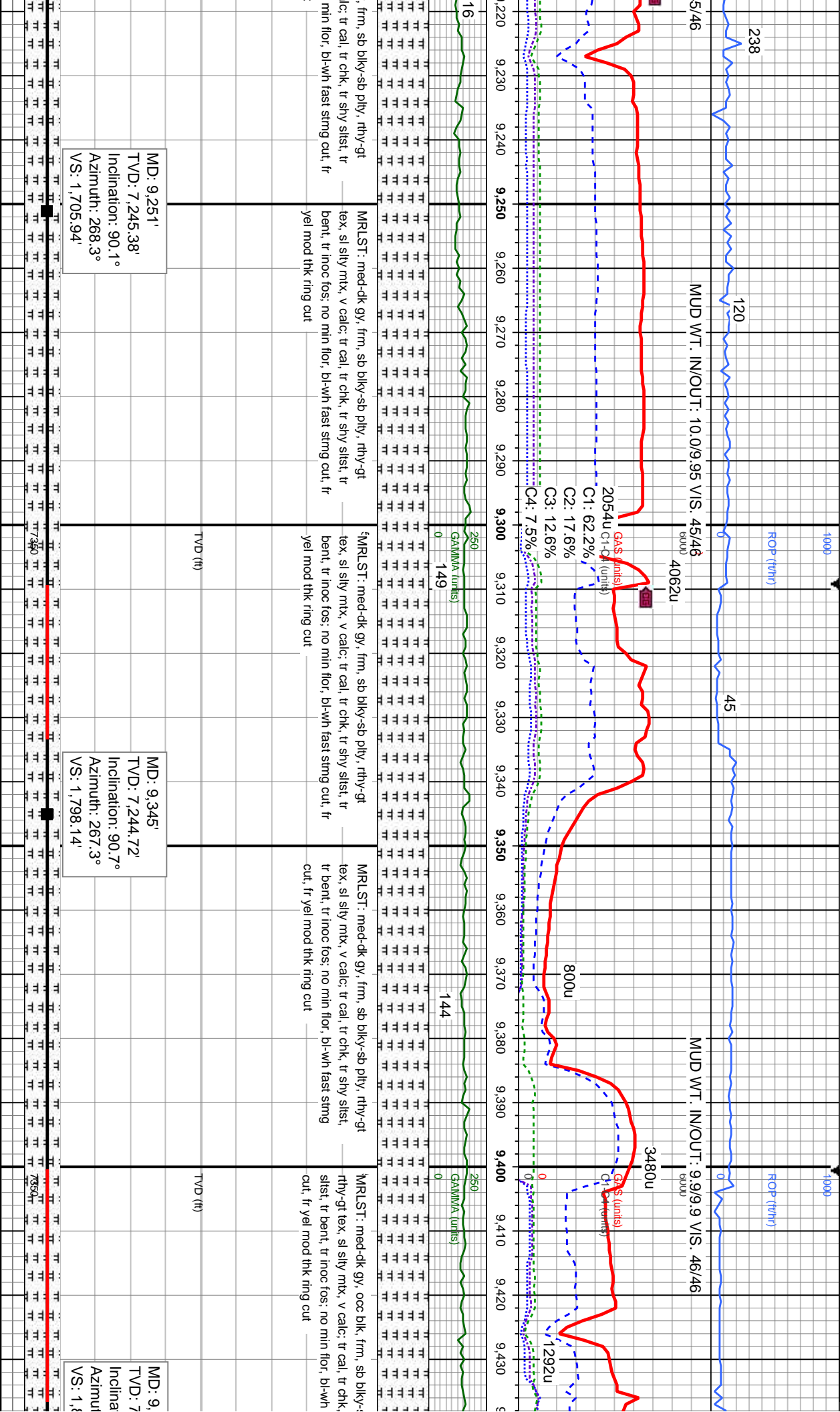
MD: 8,688'
TVD: 7,258.91'
Inclination: 93.1°
Azimuth: 271°
VS: 1,159.97'

MD: 8
TVD:
Incline:
Azimu
VS: 1







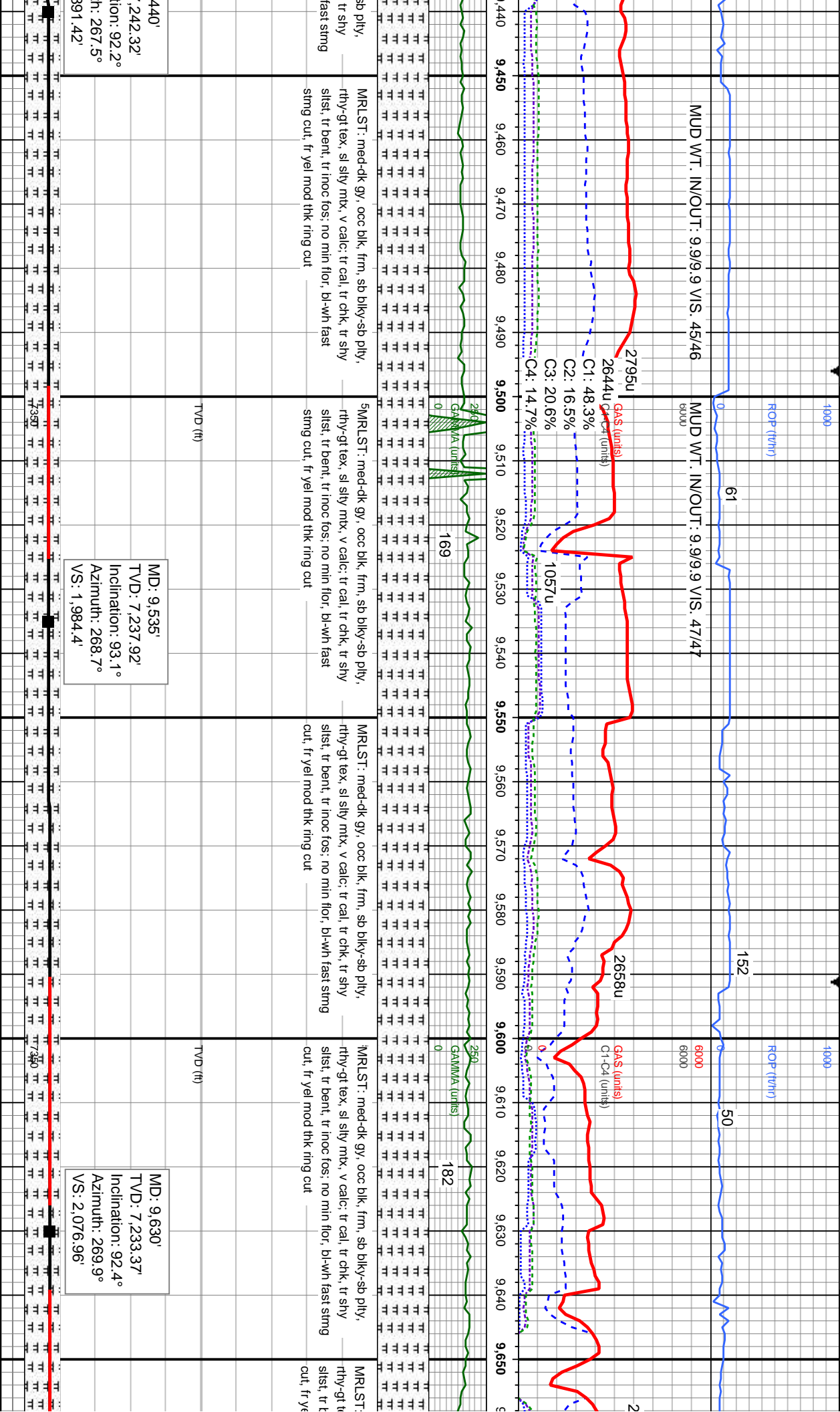


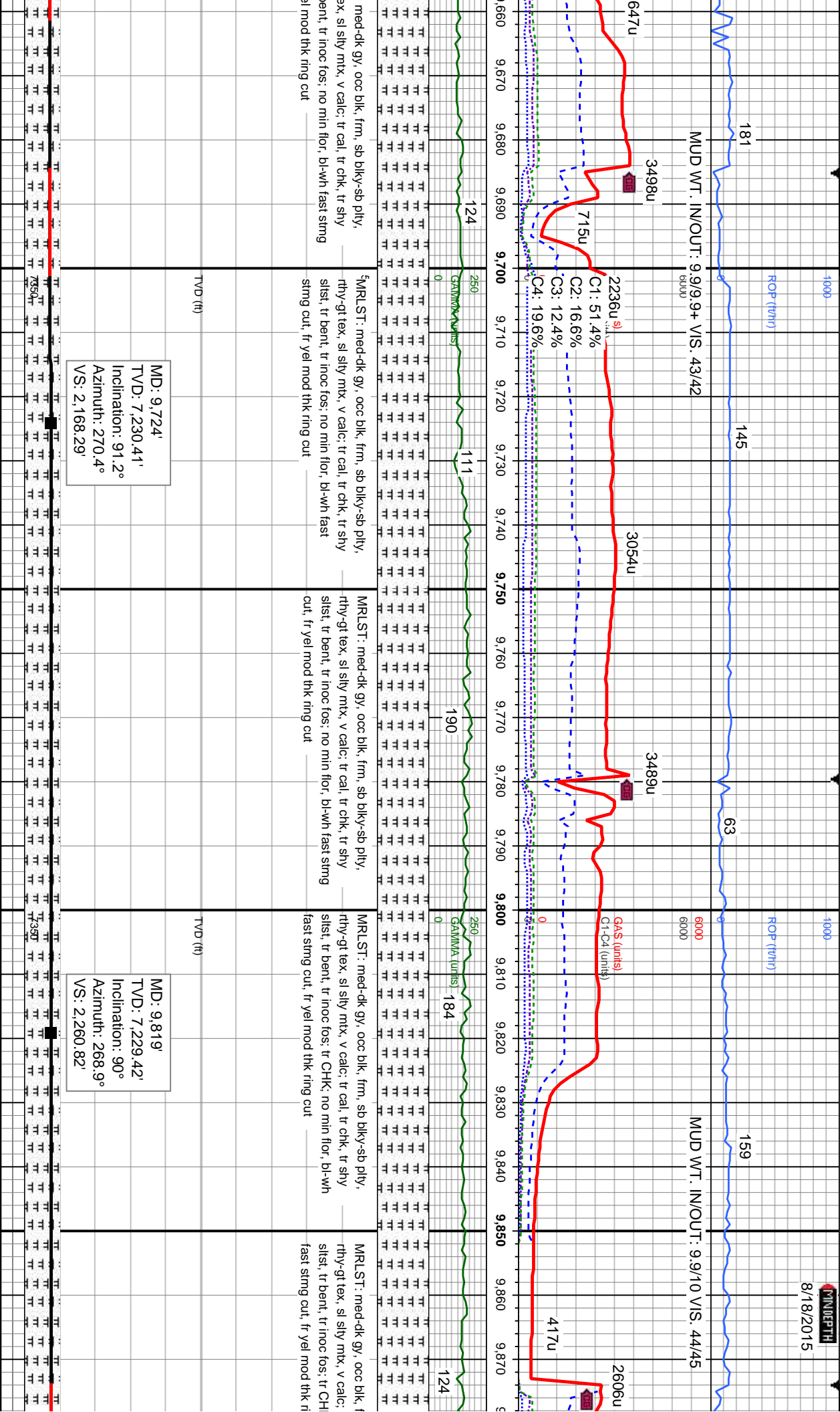
MD: 9,251'
TVD: 7,245.38'
Inclination: 90.1°
Azimuth: 268.3°
VS: 1,705.94'

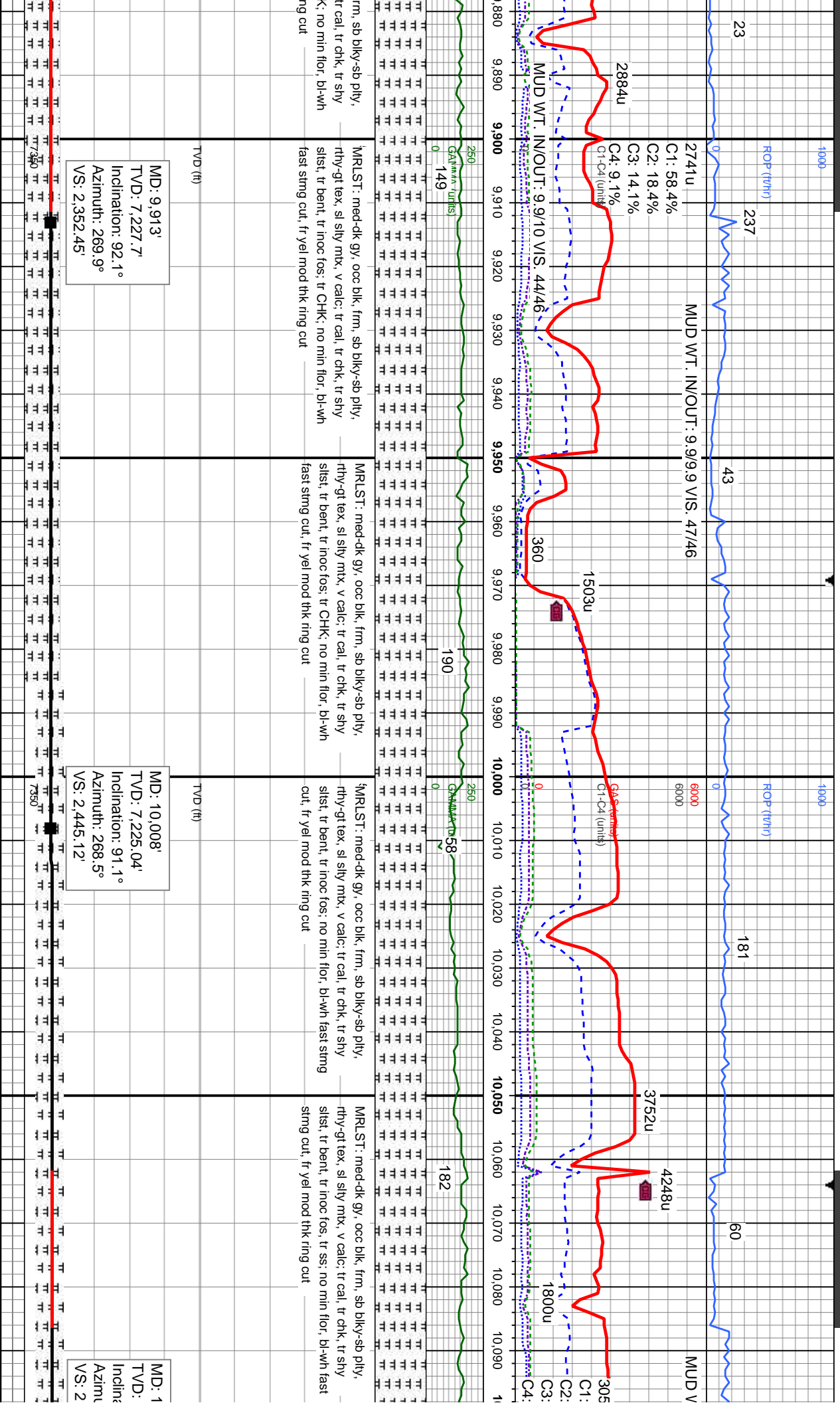
MD: 9,345'
TVD: 7,244.72'
Inclination: 90.7°
Azimuth: 267.3°
VS: 1,798.14'

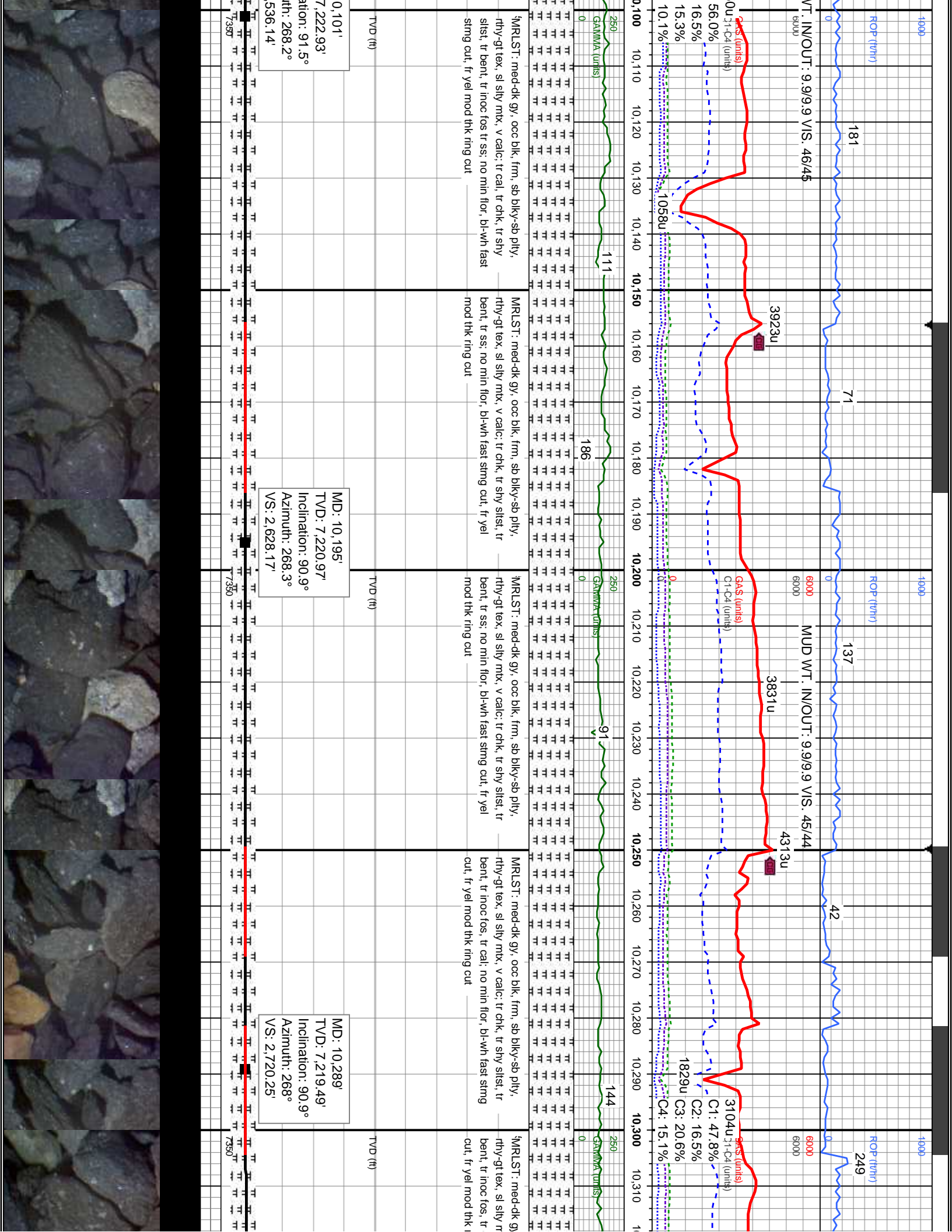
MD: 9,430'
TVD: 7,244.72'
Inclination: 90.7°
Azimuth: 267.3°
VS: 1,798.14'



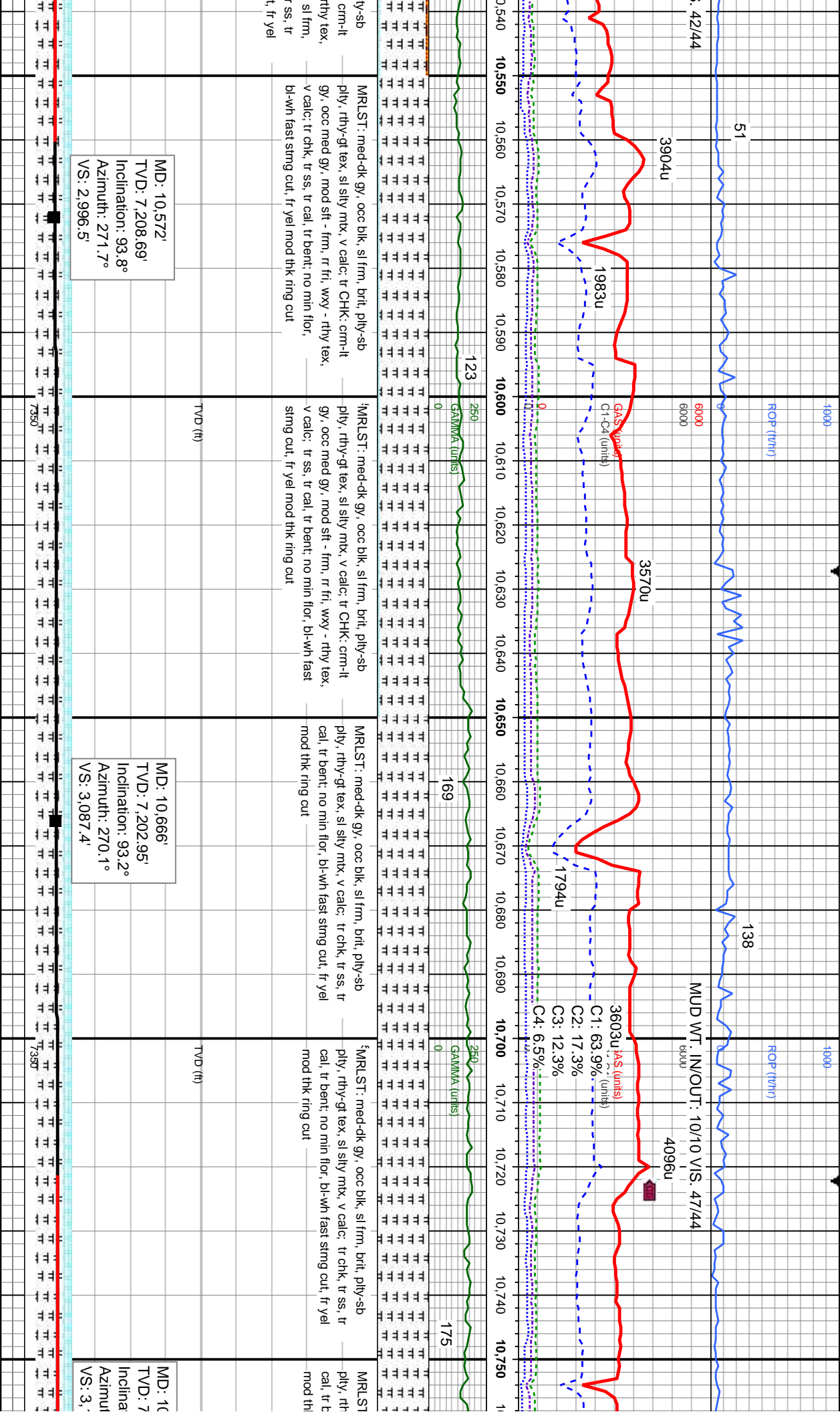


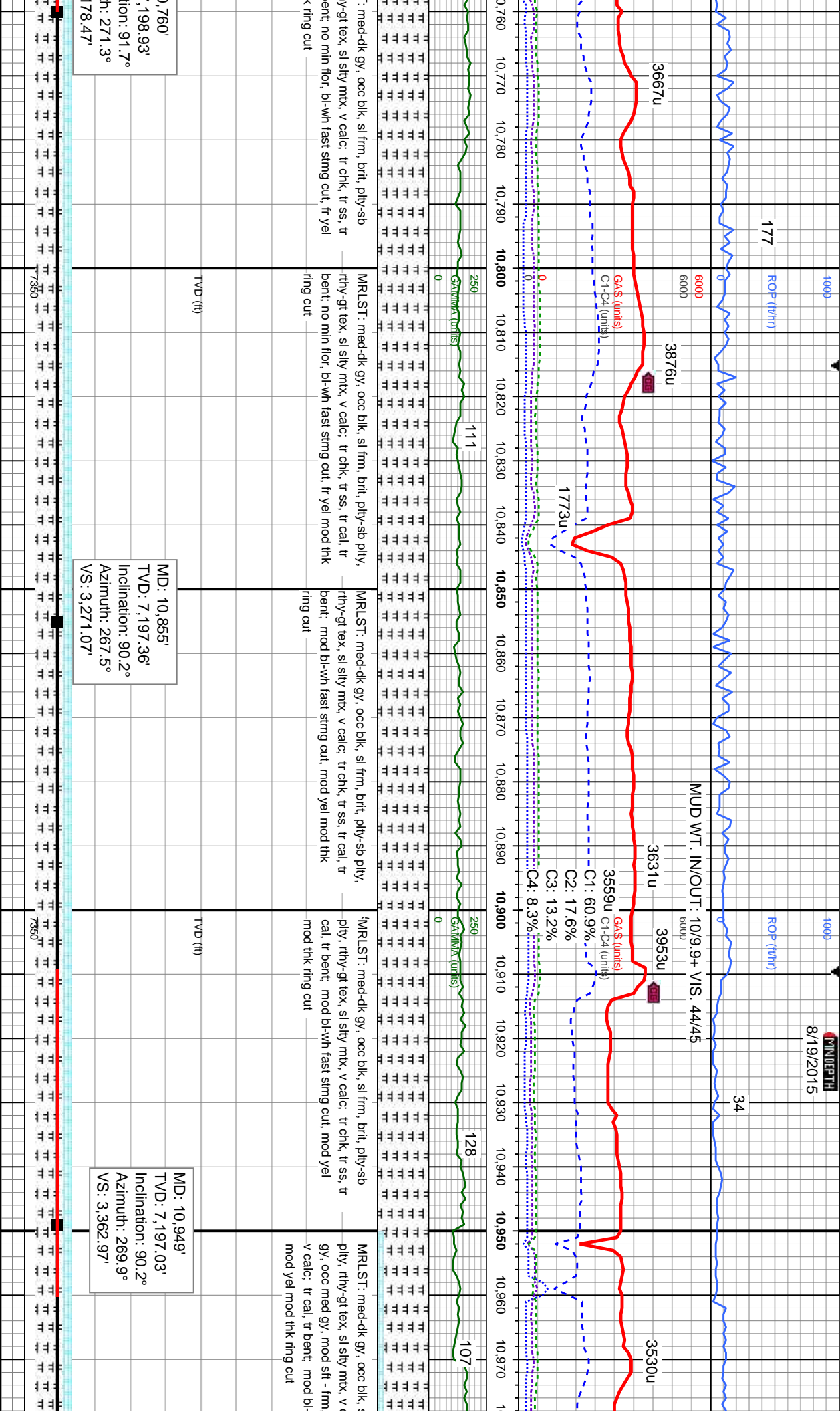


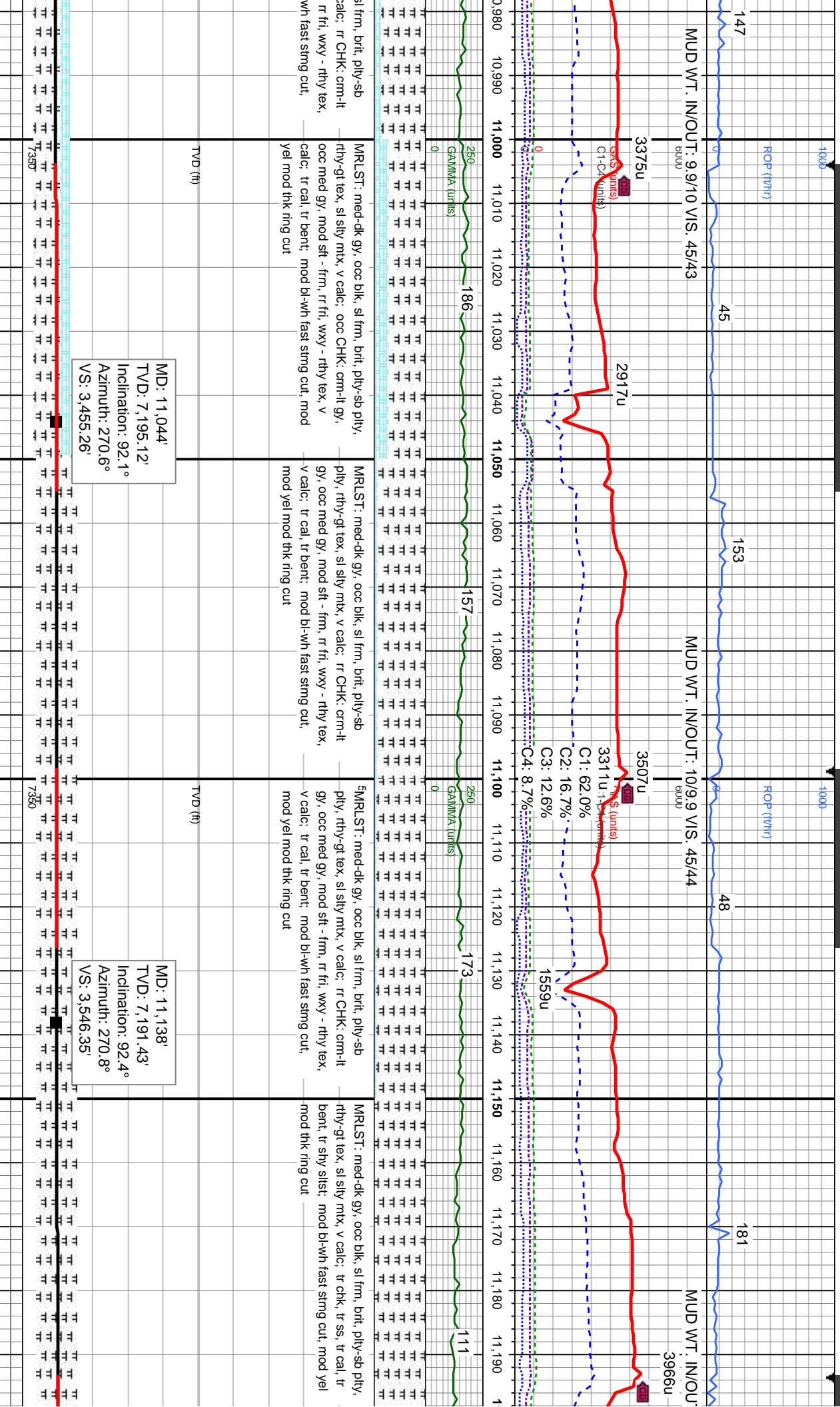


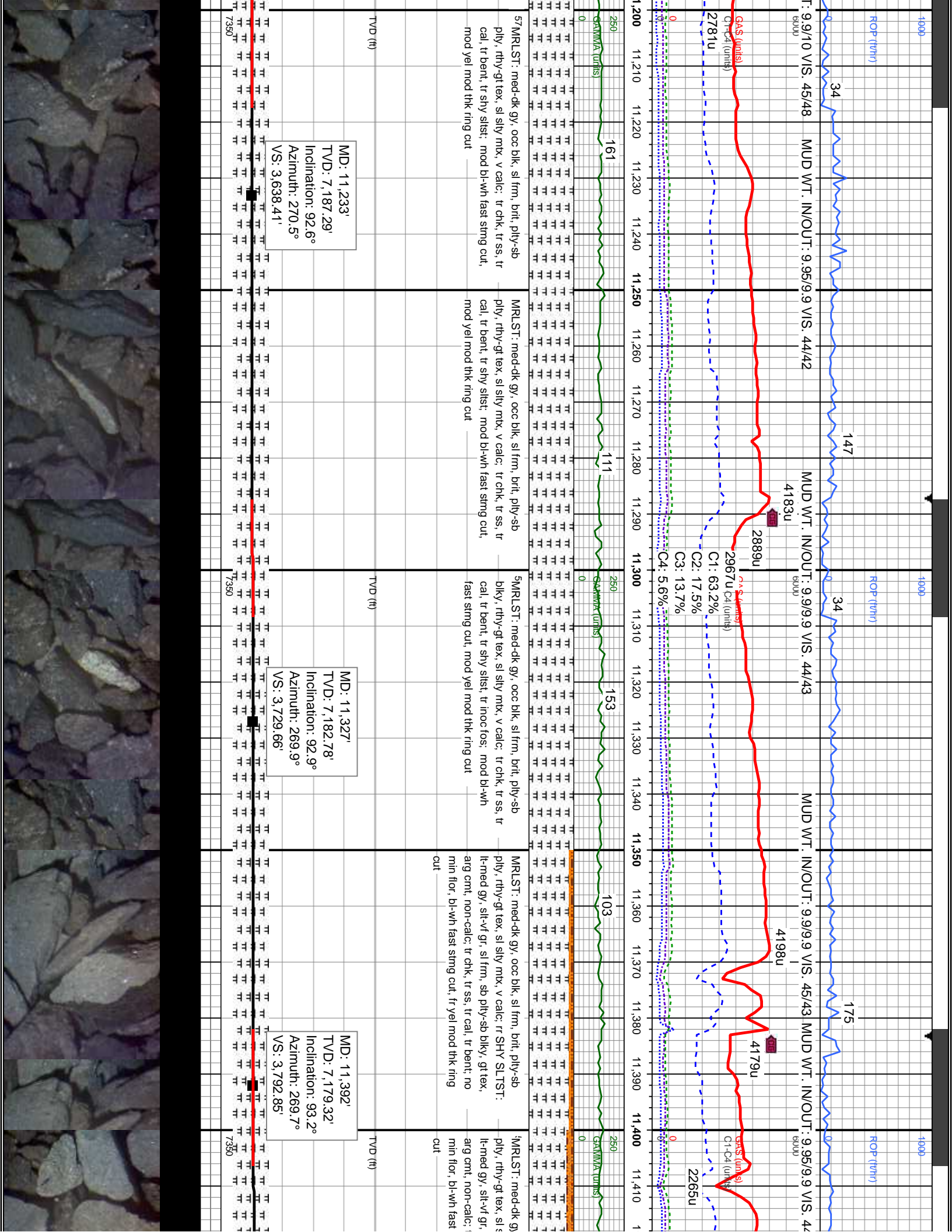


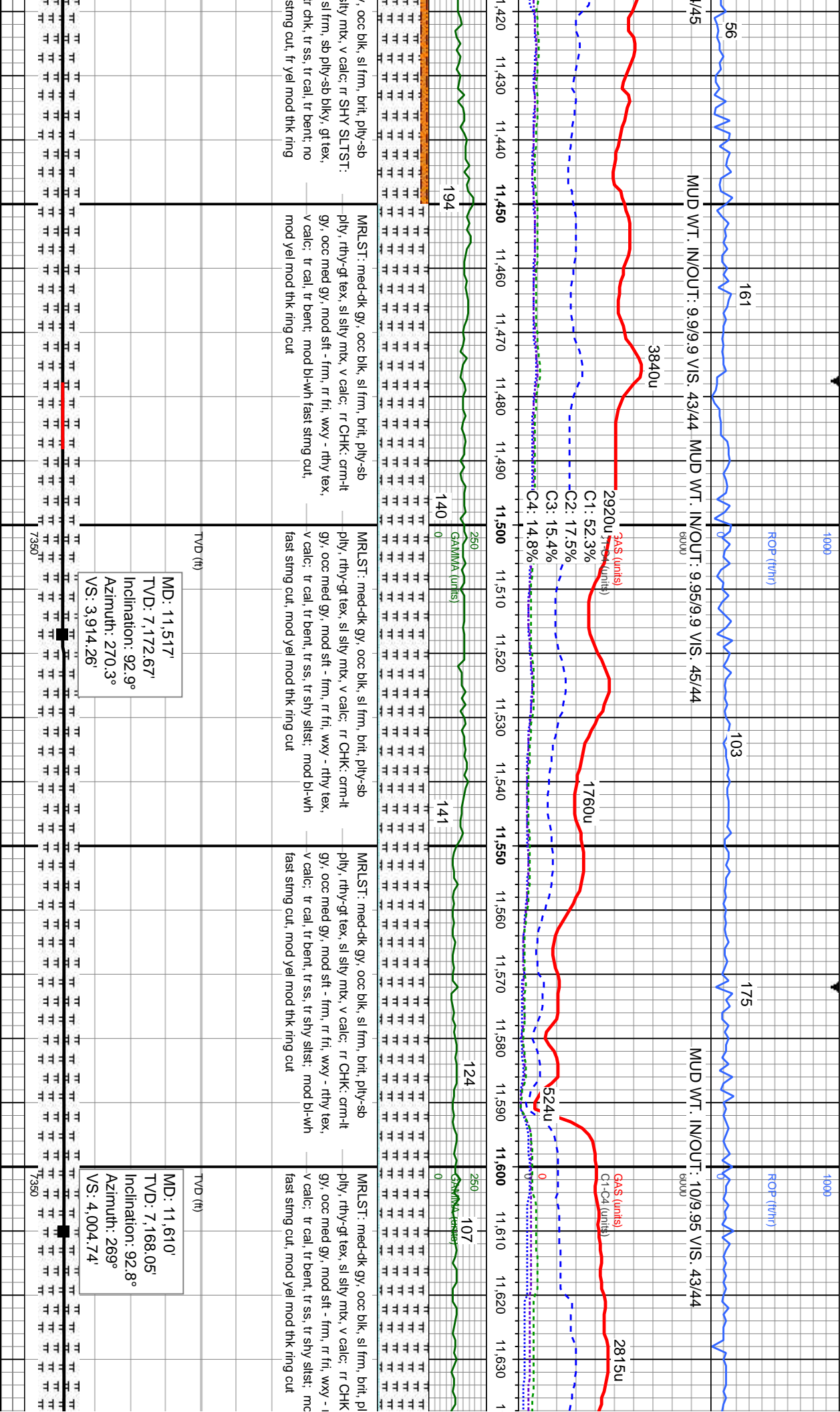


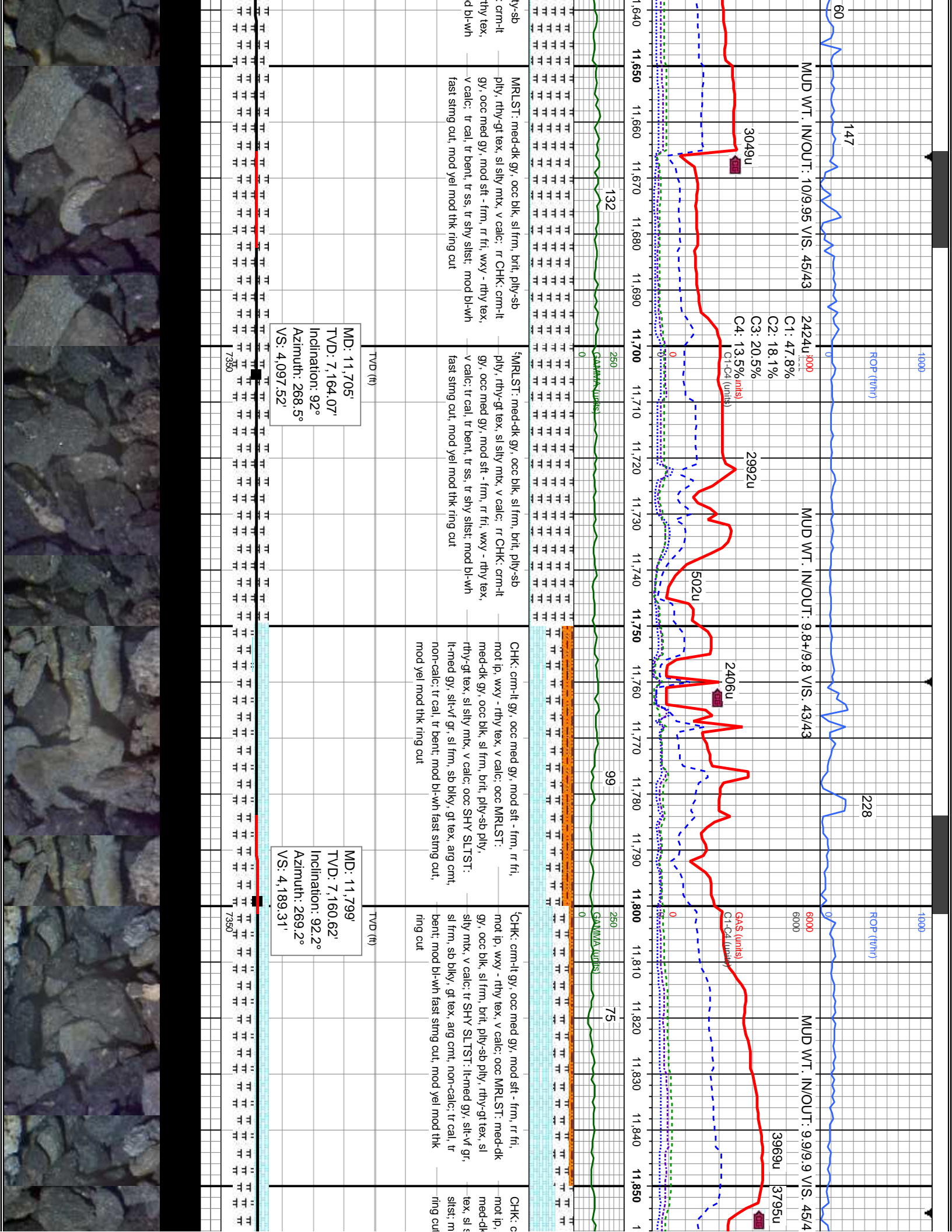












1900

MINDEPTH
8/20/2015

1900

ROP (W/H)

52

154

32

6000

MUD WT. IN/OUT: 10/10 VIS. 44/45

6000

MUD WT. IN/OUT: 9.9+/10 VIS. 44/45

3581u
3AS (units)
C1: 61.1%
C2: 17.6%
C3: 13.8%
C4: 7.4%

3909u
GAS (units)
C1-C4 (units)

1312u

1919u

4284u

1690u

128 250

136 250

111

cm-lt gy, ooc med gy, mod sft - frm, r fri,
wxy - rthy tex, v calc; ooc MRLST:
gy, ooc blk, sl frm, brit, ply-sb ply, rthy-gt
slyy mtx, v calc; tr cal, tr bent, tr ss, tr shy
mod bl-wh fast simg cut, mod yel mod thk

CHK: crm-lt gy, ooc med gy, mod sft - frm, r fri,
mot ip, wxy - rthy tex, v calc; ooc MRLST: med-dk
gy, abnt blk, sl frm, brit, ply-sb ply, rthy-gt tex, sl
slyy mtx, v calc; tr cal, tr bent, tr ss, tr shy slst;
mod bl-wh fast simg cut, mod yel mod thk ring cut

MRLST: med-dk gy, sl frm, brit, ply-sb ply,
rthy-gt tex, sl slyy mtx, v calc; ooc CHK: crm-lt
gy, ooc med gy, mod sft - frm, r fri, wxy - rthy
tex, v calc; tr cal, tr bent, tr ss, tr shy slst; mod
bl-wh fast simg cut, mod yel mod thk ring cut

MRLST: med-dk gy, sl frm, brit, ply-sb ply, rthy-gt
tex, sl slyy mtx, v calc; ooc CHK: crm-lt gy, ooc
med gy, mod sft - frm, r fri, wxy - rthy tex, v calc; tr
cal, tr bent, tr ss, tr shy slst; mod bl-wh fast simg
cut, mod yel mod thk ring cut

MRLST: med-dk gy, sl frm, brit,
tex, sl slyy mtx, v calc; abnt CH-
med gy, mod sft - frm, r fri, wxy
slyy slst, tr cal, tr bent, tr ss, m
mod yel mod thk ring cut

TVD (ft)

TVD (ft)

MD: 11,894'
TVD: 7,156.81'
Inclination: 92.4°
Azimuth: 269.2°
VS: 4,281.94'

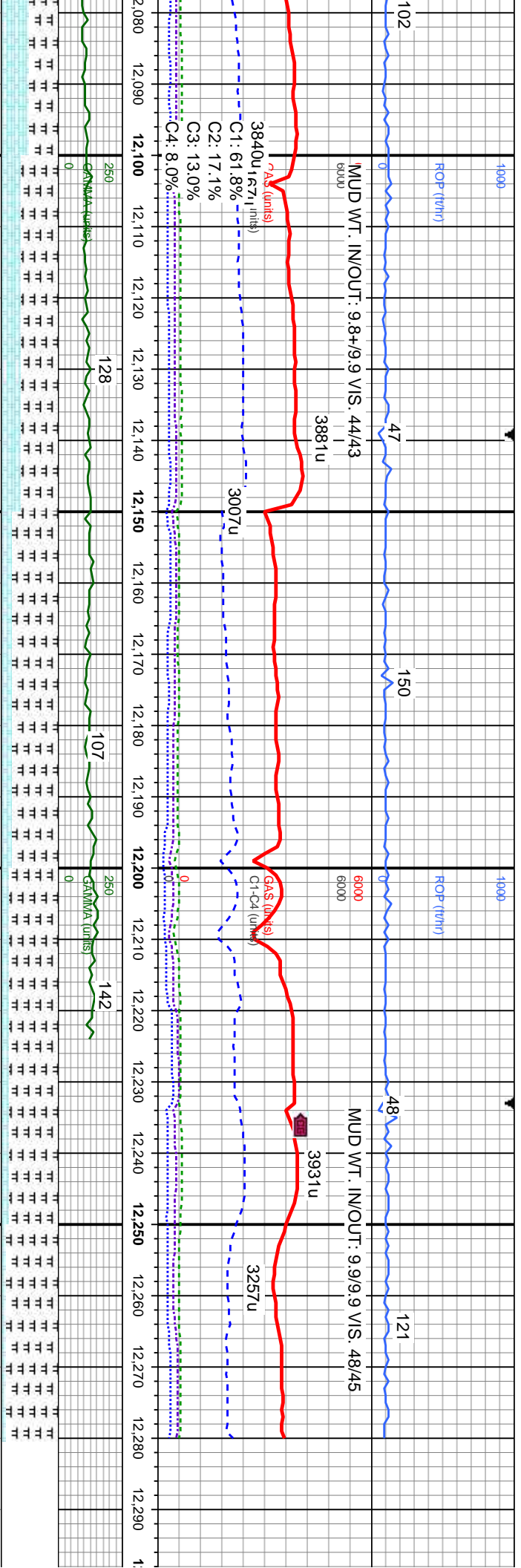
MD: 11,989'
TVD: 7,152.34'
Inclination: 93°
Azimuth: 269.2°
VS: 4,374.54'

MD:
TVC
Incl
Azir
VS:

7350

7350





ply-sb ply, rthy-gt K: crm-It gy, occ - rthy tex, v calc: tr bl-wh fast string cut,	57MRST: med-dk gy, sl frm, brit, ply-sb ply, rthy-gt tex, sl silty mix, v calc: abnt CHK: crm-It gy, occ med gy, mod sft - frm, r r fr, wxy - rthy tex, v calc: tr shy slst, tr cal, tr bent, tr ss: mod bl-wh fast string cut, mod yel mod thk ring cut	MRST: med-dk gy, sl frm, brit, ply-sb ply, rthy-gt tex, sl silty mix, v calc: tr CHK: crm-It gy, occ med gy, mod sft - frm, r r fr, wxy - rthy tex, v calc: tr shy slst, tr cal, tr bent, tr inoc fos: mod bl-wh fast string cut, mod yel mod thk ring cut	MRST: med-dk gy, sl frm, brit, ply-sb ply, rthy-gt tex, sl silty mix, v calc: tr CHK: crm-It gy, occ med gy, mod sft - frm, r r fr, wxy - rthy tex, v calc: tr shy slst, tr cal, tr bent, tr inoc fos: mod bl-wh fast string cut, mod yel mod thk ring cut
12,083' MD: 7,148.48' Inclination: 91.7° Azimuth: 269.6° VS: 4,466.12'	12,178' MD: 7,145.83' Inclination: 91.5° Azimuth: 268.3° VS: 4,558.88'	12,225' MD: 7,144.52' Inclination: 91.7° Azimuth: 268.3° VS: 4,604.88'	12,280' MD: 7,142.89' Inclination: 91.7° Azimuth: 268.3° VS: 4,658.71'

