

COLUMBINE LOGGING

Scale: 5" / 100'
Measured Depth Log

Well Name Morning Fresh 36N-22HZR

Location SEC 22, T3N, R66W

State COLORADO

County WELD

Country USA

Rig Number ENSIGN 132

API Number 051233991400

AFE # 2097606

Region DJ BASIN

Field WATTENBERG

Spud Date 7/29/2014

Drilling Completed 8/5/2014

Surface Coordinates 494' FNL & 1996' FWL
40.228429 -104.942864

Bottom Hole Coordinates 1' FSL & 2287' FEL
40.226805 -104.9795

Ground Elevation 4885'

K.B. Elevation 4898'

Logged Interval 7100' To 12220'

Total Depth 12220'

Formation NIOBRARA

Type of Drilling Fluid FSNL

Operator

Company ANADARKO PETROLEUM INC

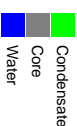
Address 1099 18th St, Suite 1800
Denver , CO 80202

Geologist

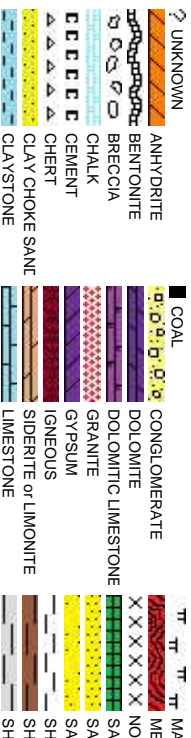
Name SHANA SWIRIN AND EARL DETRA

Company COLUMBINE LOGGING INC
Address 2385 S. Lipan St.
Denver, CO 80223

Zone Color Coding



Rock Types



Accessories

Fossils

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

Minerals

	ARGILLITE GRAIN
	B BENTONITE
	BITUMENOUS SUBSTANCE
	BRECCIA FRAGMENTS
	CALCAREOUS
	CARBONACEOUS FLAKES
	CHERT
	COAL - THIN BEDS
	DOLOMITIC
	FELDSPAR
	FERRUGINOUS PELLET
	FERRUGINOUS
	GLAUCONITE
	GYPSEFEROUS

Stringer

	ANHYDRITE STRINGER
	BENTONITE STRINGER
	COAL STRINGER
	DOLOMITE STRINGER
	GYPSEUM 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
	EVEN
	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
	GRAINSTONE
	LITHOGRAPHIC
	MICROXLN
	MUDSTONE

Rounding

CONNECTION (DOWN)

MN DEPTH (DOWN)

ANGULAR

PACKSTONE

Porosity

	E EARTHY
	FENESTRAL
	FRACTURE

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

	NORMAL FAULT
	OVERTURED STRATA
	REVERSE FAULT

ROUNDED

WACKESTONE

Sorting

INTERCRYSTALLINE

DOWN TIME GAS

SIDEWALL CORE (LEFT)

Textures

INTEROOLITIC

DOWN TIME GAS (LEFT)

SIDEWALL CORE (RIGHT)

BOUNDSTONE

POOR

MOLDIC

CORE - LOST

SLIDE

CHALKY

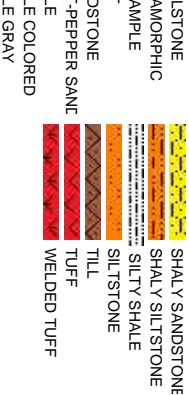
WELL

ORGANIC

CORE - RECOVERED

SURVEY

CRYPTOXLN



Slide/Rotate

Columbine Logging Two Person
Rigged Up 2100hrs 07/31/2014
With Bloodhound Unit # 0624

ROP
ROP —
GAMMA —

ROP (t/h)
GAMMA (api)
Logging Started @
2340hrs on 08/01/2014
at 7100' MD

Total Gas & Chromatograph

GAS —
C1 —
C2 —
C3 —
C4 —

Bit Data
Bit #: 02
Type: SMITH SD1611
Size: 8.75
Depth In: 993.
Depth Out: 7,753.
Jets: 6x16
S/N: JJ5998

Depth Labels

% Lith

Begin in Sussex Formation

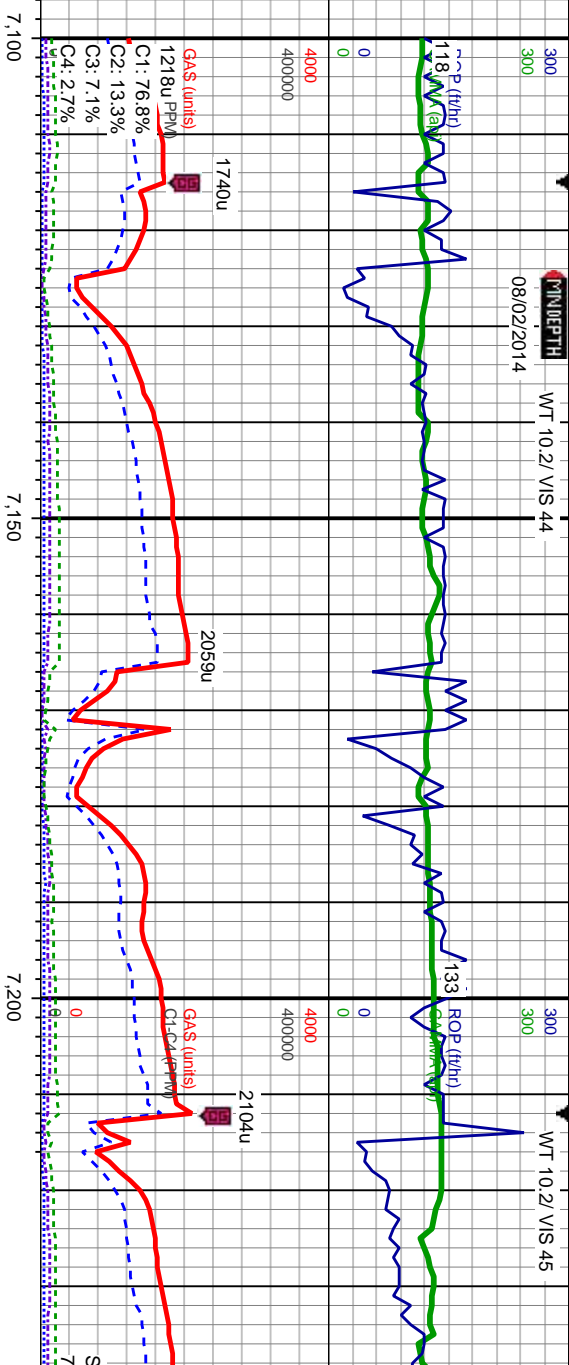
Well Bore
TVD —

Acetone was used as the cutting agent with the dimple filled to the rim
The ratings are based on 7 descriptors:
None, Slight trace, Trace, Fair, Moderate, Good, and Excellent. The descriptor used is based on the loggers observations and best judgement of brilliance, color and longevity of the cut.

Oil Show

ST
FM
CE

Images



MD: 7,118
TVD: 6,935.15
Inclination: 28.56
Azimuth: 192.13
VS: -310.8

MD: 7,165
TVD: 6,975.36
Inclination: 33.75
Azimuth: 189.85
VS: -286.94

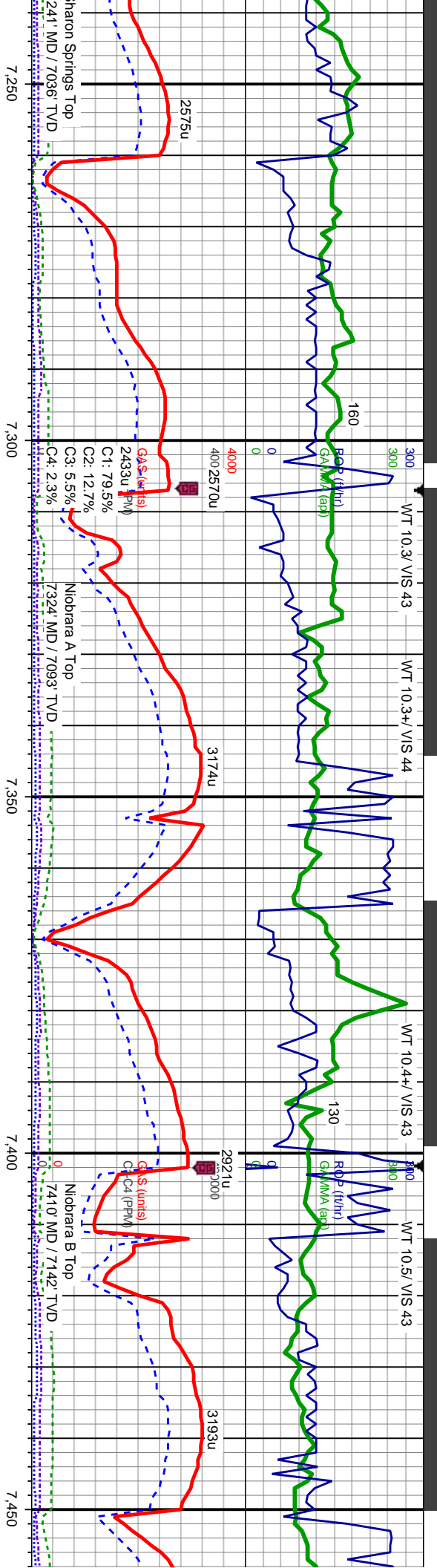
MD: 7,213
TVD: 7,014.37
Inclination: 37.52
Azimuth: 187.75
VS: -259.31

SLTY SH: med-dk gy & blk, sb ply-sb blk, mod
sft-firm, mod srt, c-v c g/s, sb rnd-sb ang, mod
fri, tr shy ss, sting bl cut, dul bl ring

SLTY SH: lt-dk gy & blk, sb ply-sb blk, mod
sft-firm, mod srt, c-v c g/s, sb rnd-sb ang, mod
fri, tr shy ss, tr bent, sting bl cut, dul bl ring

SLTY SH: lt-dk gy & blk, sb ply-sb blk, mod
sft-firm, mod srt, c-v c g/s, sb rnd-sb ang, mod
fri, tr shy ss, tr bent, sting bl cut, dul bl ring





MD: 7,260
TVD: 7,049.86
Inclination: 44.35
Azimuth: 185.84
VS: -228.74

MD: 7,307
TVD: 7,081.86
Inclination: 49.81
Azimuth: 181.58
VS: -194.42

MD: 7,355
TVD: 7,111.45
Inclination: 54.05
Azimuth: 179.36
VS: -156.65

MD: 7,403
TVD: 7,138.1
Inclination: 58.5
Azimuth: 175.41
VS: -116.79

MD: 7,450
TVD: 7,160.79
Inclination: 63.76
Azimuth: 176.04
VS: -75.76

SLTY SH: med-dk gy & blk, sb ply-sb blk, mod
sft-fm, mod srt, c-v c grs, sb md-sb ang, mod
fri, CHK: med-dk gy-brn, mot, blk-y-sb ply,
sft-fm, mod srt, c grs, sb rd-sb ang, mod fri,
MRLST: dk gy & blk, blk-y-sb ply, sft-fm, mod
srt, c grs, sb rd-sb ang, mod fri, abnt bent,
stng bl cut, bl ring

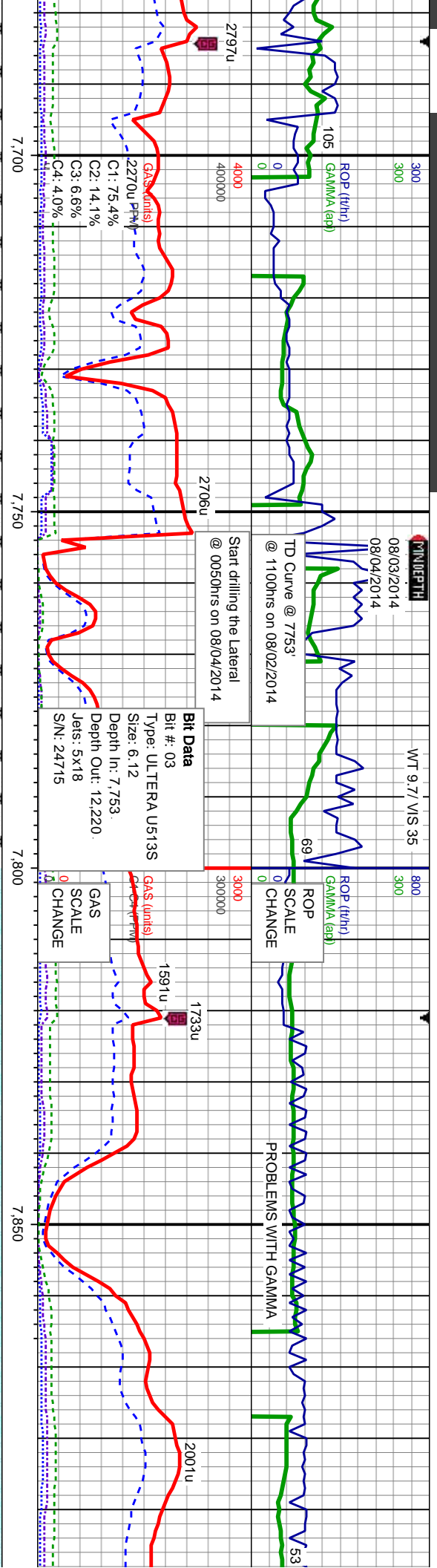
CHK: lt gy-brn, mot, blk-y-sb ply, sft-fm, mod
srt, c grs, sb rd-sb ang, mod fri, MRLST: dk gy
& blk, blk-y-sb ply, sft-fm, mod srt, c grs, sb
rd-sb ang, mod fri, tr bent, stng bl cut, bl ring

CHK: lt gy-brn, mot, blk-y-sb ply, sft-fm, mod
srt, c grs, sb rd-sb ang, mod fri, tr MRLST, tr
bent, stng bl cut, bl ring

eCHK: lt gy-brn, mot, blk-y-sb ply, sft-fm, mod
srt, c grs, sb rd-sb ang, mod fri, tr MRLST, tr
calc incl, stng bl cut, bl ring

CHK: srt, c
& blk,
rd-sb :
cut, bl





mod fri, MRLST: dk gy
mod strd, c grs, sb
cl, sting bl cut, bl

MD: 7.706
TVD: 7.227.06
Inclination: 85.12
Azimuth: 179.97
VS: 170

C CHALK

MD: 7.777
TVD: 7.229.9
Inclination: 90.31
Azimuth: 178.82
VS: 240.91

MD: 7.872
TVD: 7.229.79
Inclination: 89.82
Azimuth: 178.08
VS: 335.88

CHK: lt-dk gy-brn, mot, blk-y-sb pily, sft-frm, mod strd, c grs, sb rd-sb ang, mod fri, MRLST: dk gy & blk, blk-y-sb pily, sft-frm, mod strd, c grs, sb rd-sb ang, mod fri, tr calc incl, tr pyr, sting bl ring

CHK: lt-dk gy-brn, mot, blk-y-sb pily, sft-frm, mod strd, f-c grs, sb rd-sb ang, mod fri, MRLST: dk gy & blk, blk-y-sb pily, sft-frm, mod strd, med-c grs, sb rd-sb ang, mod fri, tr pyr, sting bl cut, bri bl ring

CHK: lt-med gy-brn, mot, blk-y-sb pily, sft-frm, mod strd, f-c grs, sb rd-sb ang, mod fri, tr MRLST, occ calc incl, sting bl cut, dul bl ring



WT 9.7/ VIS 37

800
300

ROP (ft/hr)
GAMMA (cp)

3000
300000

2064u

GAS (units)
1623u (ppm)
C1: 77.3%
C2: 14.1%
C3: 5.9%
C4: 2.7%

900

7,950

8,000

8,050

8,100

MD: 7.967
TVD: 7.228.97
Inclination: 91.17
Azimuth: 178.6
VS: 430.83

MD: 8.062
TVD: 7.227.13
Inclination: 91.05
Azimuth: 179.58
VS: 525.8

CHK: lt-dk gy-brn, mot, blk-y-sb pily, sft-frn, mod
strd, vf-med grs, sb rd-sb ang, mod fri, MRLST:
dk gy & blk, blk-y-sb pily, sft-frn, mod strd,
med-c-grs, sb rd-sb ang, mod fri, tr cal, sting bl
cut, dul bl ring

CHK: lt-dk gy-brn, mot, blk-y-sb pily, sft-frn, mod
strd, vf-med grs, sb rd-sb ang, mod fri, MRLST:
dk gy & blk, blk-y-sb pily, sft-frn, mod strd,
med-c-grs, sb rd-sb ang, mod fri, tr cal, sting bl
cut, dul bl ring

WT 9.7/ VIS 39

800
300

ROP (ft/hr)
GAMMA (cp)

3000
300000

1880u

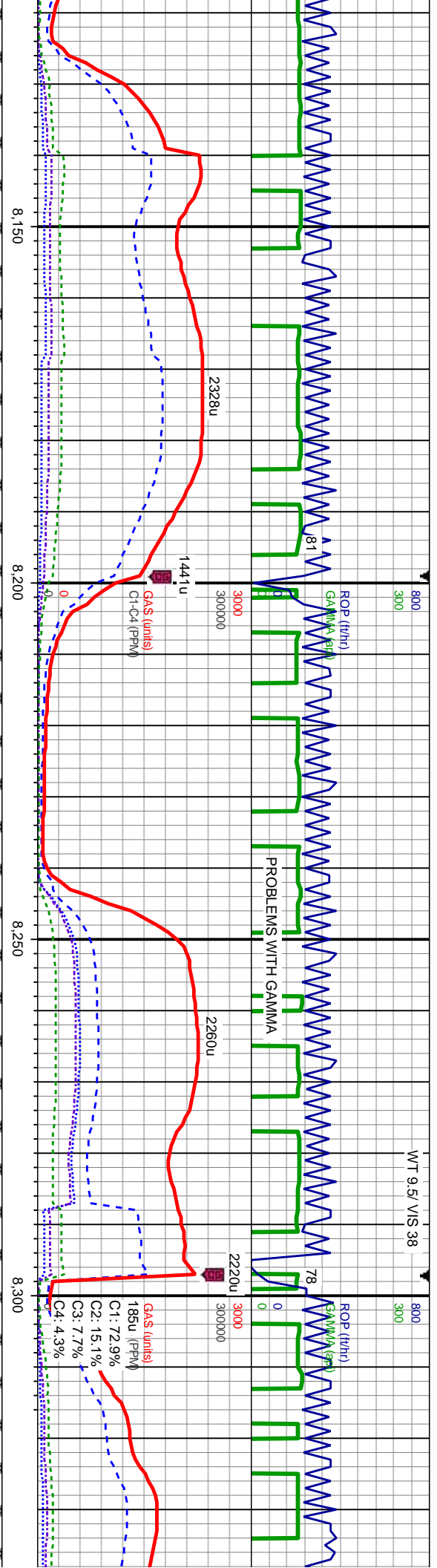
GAS (units)
1618u (ppm)
C1: 68.1%
C2: 17.3%
C3: 10.0%
C4: 4.6%

PROBLEMS WITH GAMMA

1863u

1880u

WT 9.5/ VIS 38



MD: 8.157
TVD: 7.225.03
Inclination: 91.48
Azimuth: 179.93
VS: 620.77

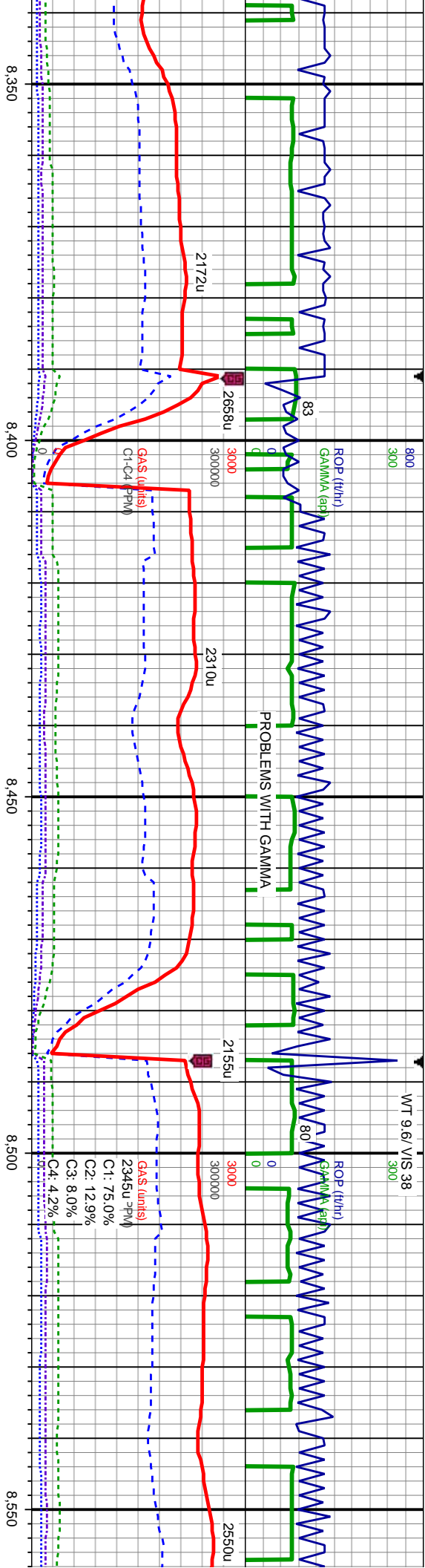
MD: 8.253
TVD: 7.222.5
Inclination: 91.54
Azimuth: 180.24
VS: 716.74

CHK: lt-dk gy-brn, mot, blk-ly-sb pily, sft-frn, mod
srtf, vt-med grs, sb rd-sb ang, mod fri, MRLST:
dk gy & blk, blk-ly-sb pily, sft-frn, mod srtf, med
grs, sb rd-sb ang, mod fri, occ cal, lt fos frags,
occ calc incl, sting bl cut, dul bl ring

CHK: lt-dk gy-brn, mot, blk-ly-sb pily, sft-frn, mod
srtf, vt-med grs, sb rd-sb ang, mod fri, MRLST:
dk gy & blk, blk-ly-sb pily, sft-frn, mod srtf, med
grs, sb rd-sb ang, mod fri, occ cal, lt fos frags,
occ calc incl, sting bl cut, dul bl ring

CHK: lt-dk
srtf, vt-n
dk gy & l
grs, sb n
occ calc





MD: 8,348
TVD: 7,220.3
Inclination: 91.11
Azimuth: 180.18
VS: 811.71

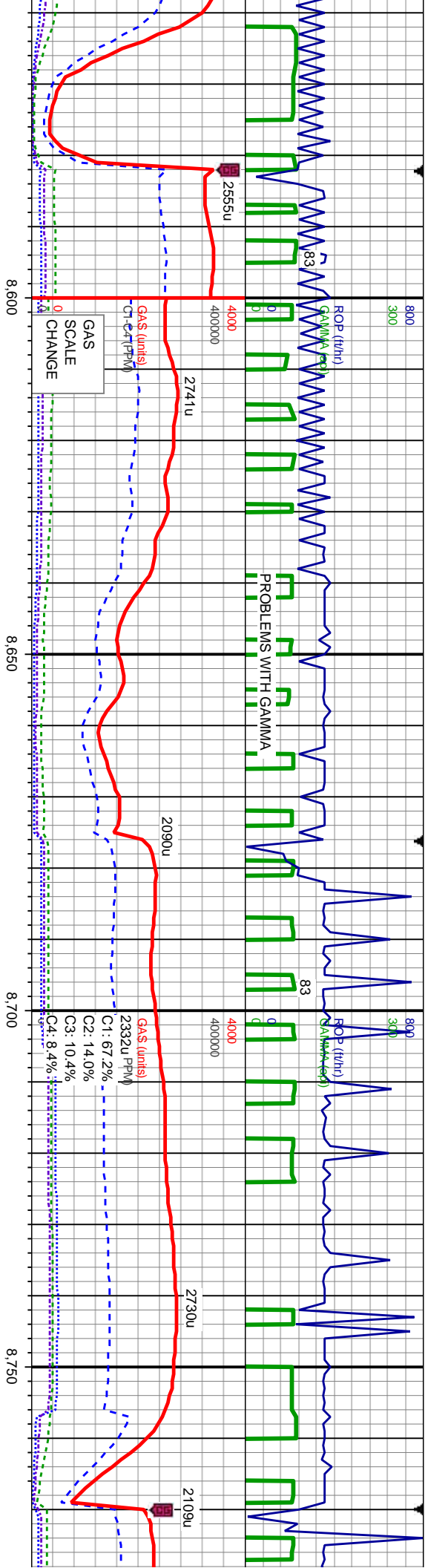
MD: 8,443
TVD: 7,218.21
Inclination: 91.42
Azimuth: 180.53
VS: 906.69

MD: 8,538
TVD: 7,216.22
Inclination: 90.98
Azimuth: 180.34
VS: 1,001.66

dk gy-brn, mot, blk-y-sb pty, sft-frn, mod
ned grs, sb rd-sb ang, mod fri, MRLST:
blk, blk-y-sb pty, sft-frn, mod srd, med
-d-sb ang, mod fri, occ cal, tr fos frags,
incl, sting bl cut, dul bl ring

CHK: lt-dk gy-brn, mot, blk-y-sb pty, sft-frn, mod
srd, vt-med grs, sb rd-sb ang, mod fri, MRLST:
dk gy & blk, blk-y-sb pty, sft-frn, mod srd, med
grs, sb rd-sb ang, mod fri, occ cal, tr fos frags,
occ calc incl, sting bl cut, bri bl ring





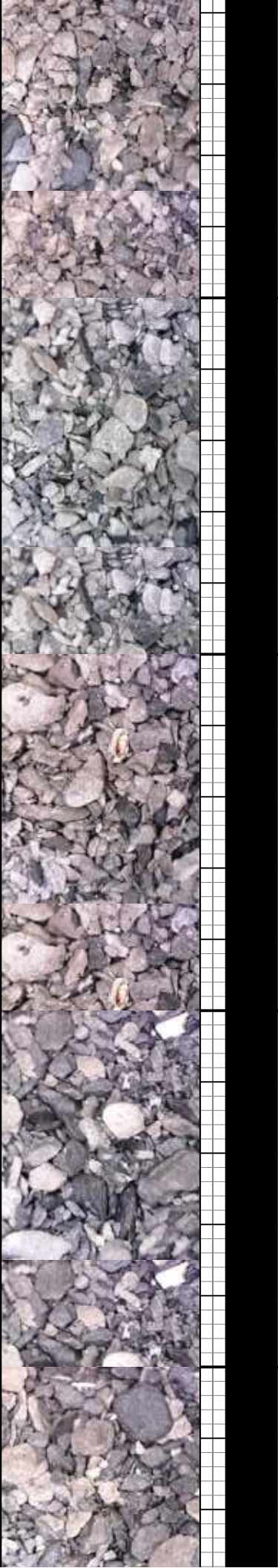
MD: 8.633
TVD: 7,214.79
Inclination: 90.74
Azimuth: 180.67
VS: 1,096.65

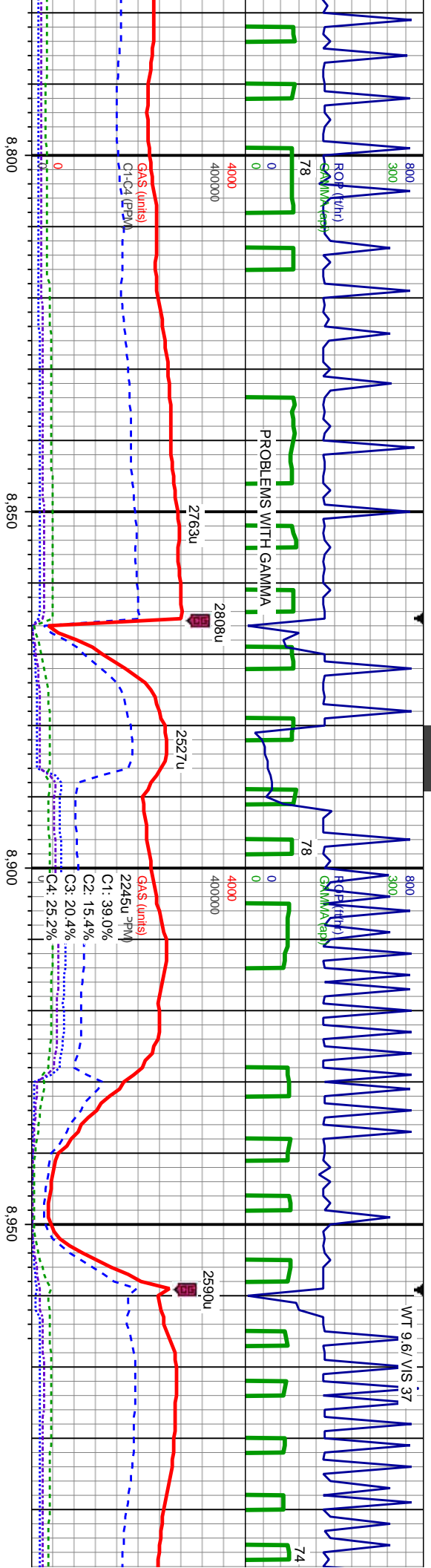
MD: 8.728
TVD: 7,213.72
Inclination: 90.55
Azimuth: 180.72
VS: 1,191.64

b pily, sft-frm, mod
ng, mod fri, MRLST:
t-frm, mod srd, med
tr cal, sting bl cut, —

CHK: lt gy-brn, mot, biky-sb pily, sft-frm, mod
srd, vf-med grs, sb rd-sb ang, mod fri, MRLST:
dk gy & blk, biky-sb pily, sft-frm, mod srd, med
grs, sb rd-sb ang, mod fri, tr cal, sting bl cut, —
dul bl ring

CHK: lt gy-brn, crm, mot, biky-sb pily, sft-frm,
mod srd, vf-med grs, sb rd-sb ang, mod fri,
MRLST: dk gy & blk, biky-sb pily, sft-frm, mod
srd, med grs, sb rd-sb ang, mod fri, tr cal,
sting bl cut, dul bl ring



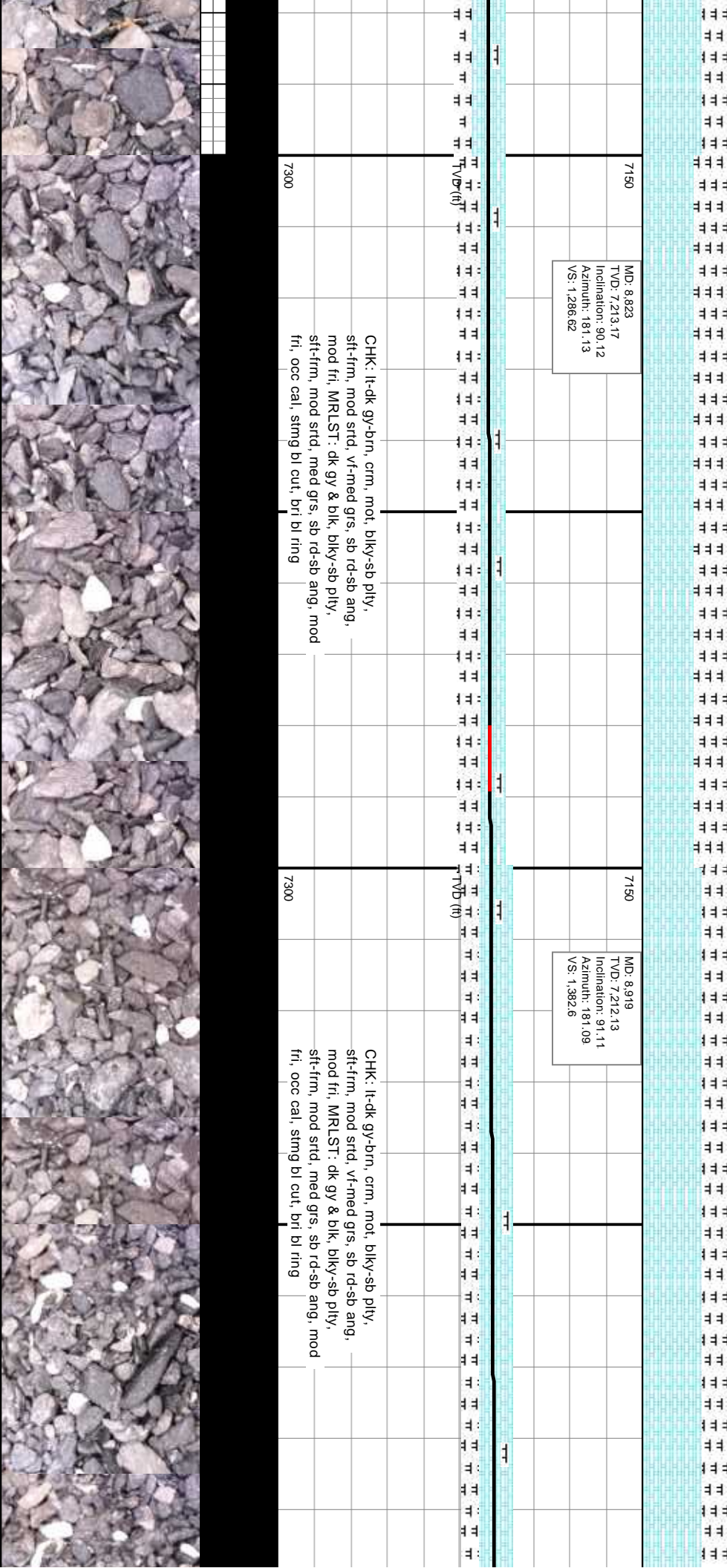


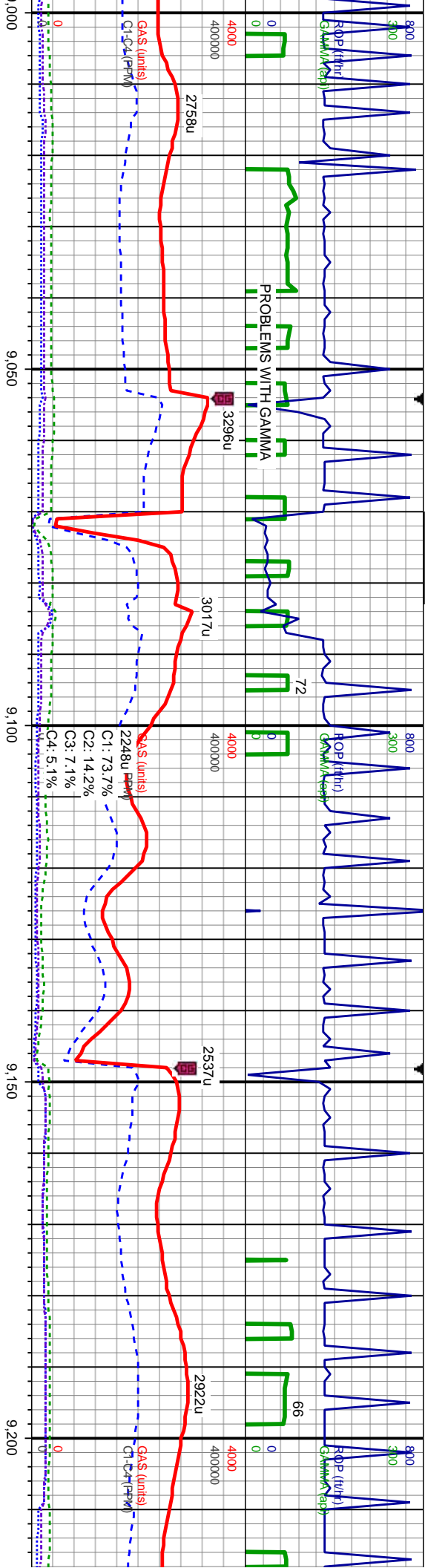
MD: 8.823
TVD: 7.213.17
Inclination: 90.12
Azimuth: 181.13
VS: 1.286.62

MD: 8.919
TVD: 7.212.13
Inclination: 91.11
Azimuth: 181.09
VS: 1.382.6

CHK: lt-dk gy-brn, crm, mot, biky-sb pily,
sft-frn, mod strd, vi-med grs, sb rd-sb ang,
mod fri, MRLST: dk gy & blk, biky-sb pily,
sft-frn, mod strd, med grs, sb rd-sb ang, mod
fri, occ cal, stimg bl cut, bri bl ring

CHK: lt-dk gy-brn, crm, mot, biky-sb pily,
sft-frn, mod strd, vi-med grs, sb rd-sb ang,
mod fri, MRLST: dk gy & blk, biky-sb pily,
sft-frn, mod strd, med grs, sb rd-sb ang, mod
fri, occ cal, stimg bl cut, bri bl ring





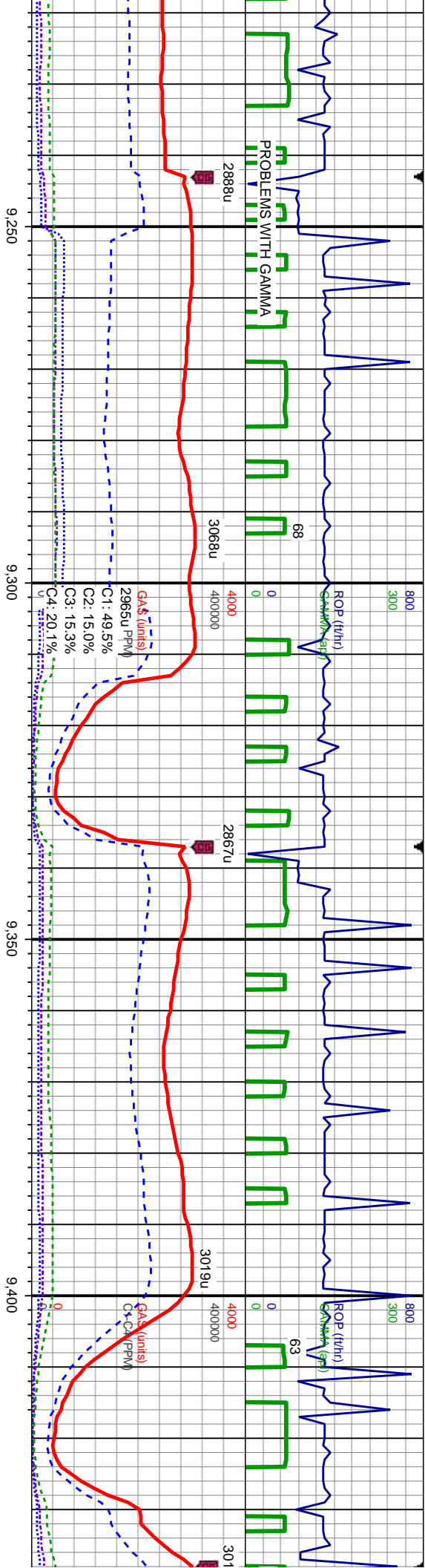
MD: 9.109
TVD: 7,208.87
Inclination: 90.86
Azimuth: 180.94
VS: 1,572.54

MD: 9.204
TVD: 7,207.62
Inclination: 90.65
Azimuth: 180.63
VS: 1,667.52

CHK: lt-dk gy-brn, crm, mot, blk-y-sb pily,
sft-frn, mod strd, vt-med grs, sb rd-sb ang,
mod fri, MRLST: dk gy & blk, blk-y-sb pily,
sft-frn, mod strd, med grs, sb rd-sb ang, mod
fri, occ cal, sting bl cut, bri bl ring

CHK: crm, mot, blk-y-sb pily, sft-frn, mod strd,
vt-med grs, sb rd-sb ang, mod fri, MRLST: dk
gy & blk, blk-y-sb pily, sft-frn, mod strd, med
grs, sb rd-sb ang, mod fri, tr cal, sting bl cut,
bri bl ring





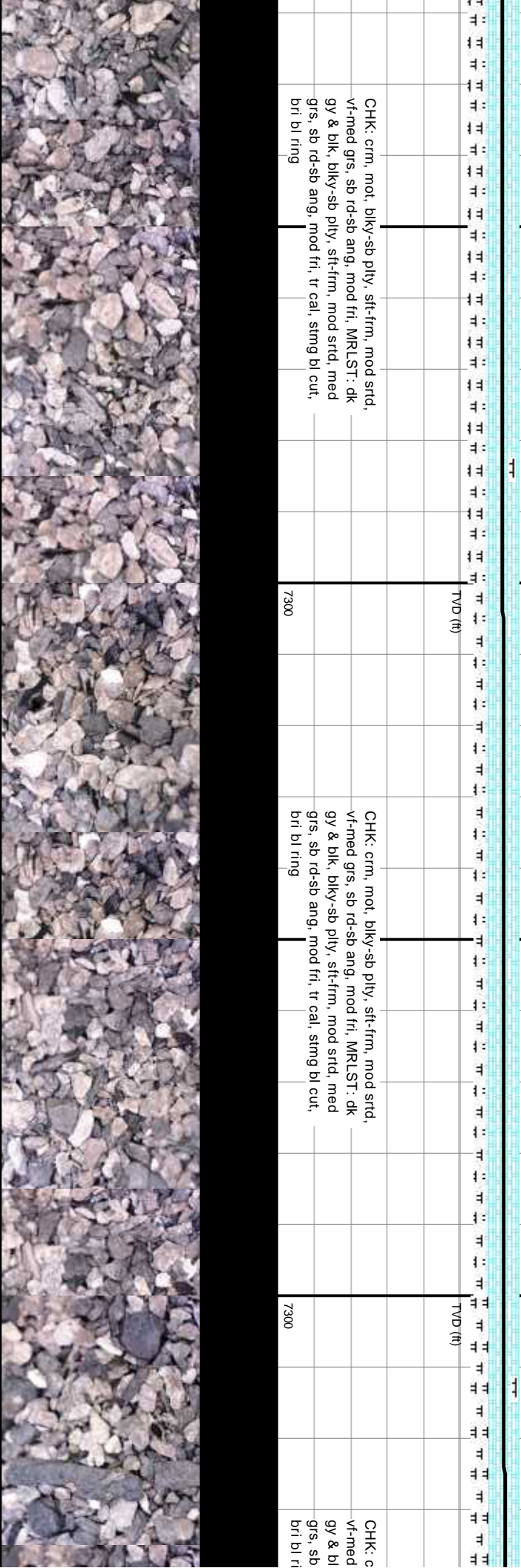
MD: 9.299
TVD: 7,207.15
Inclination: 89.91
Azimuth: 179.79
VS: 1,762.52

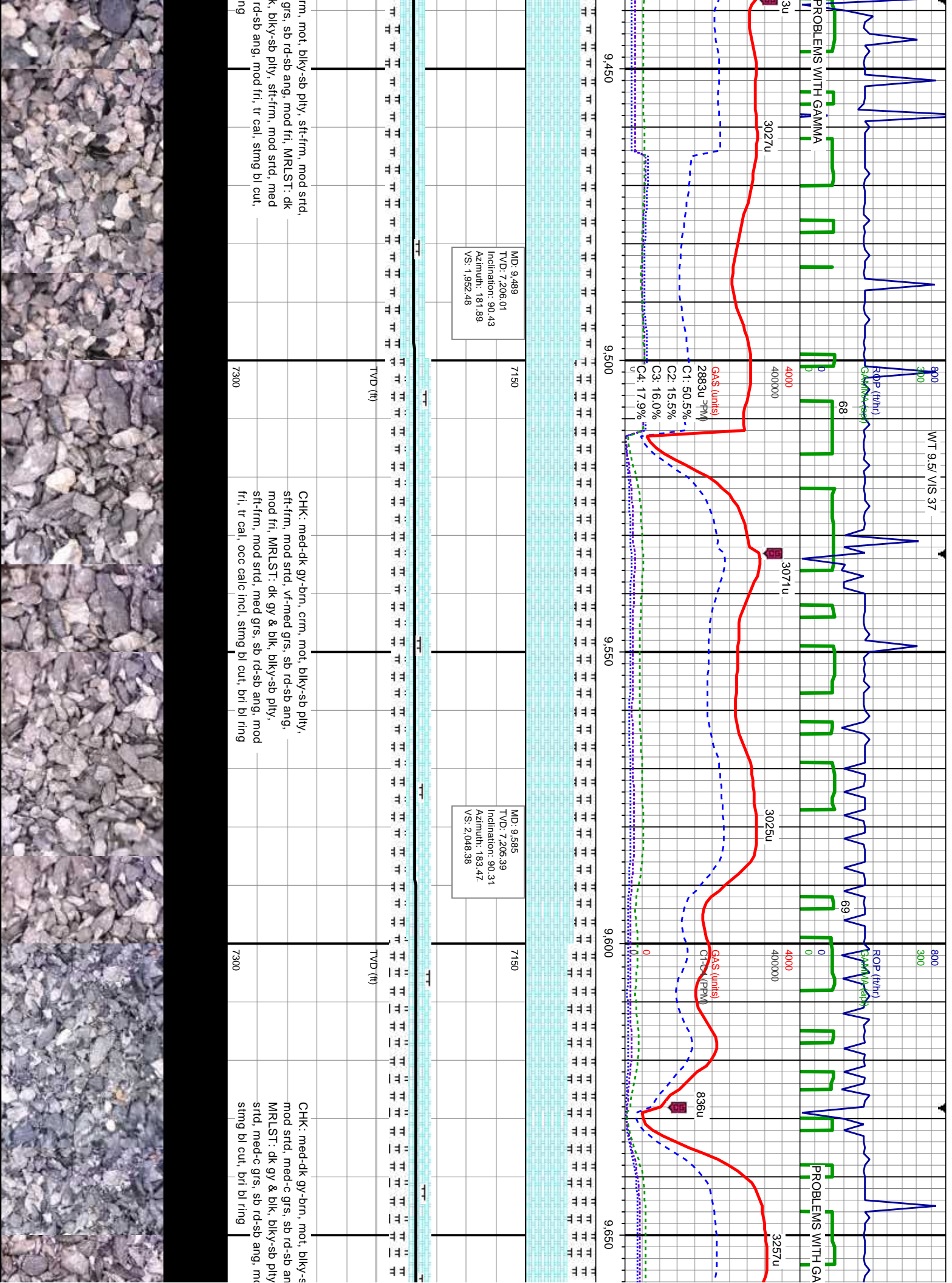
MD: 9.394
TVD: 7,206.8
Inclination: 90.52
Azimuth: 180.78
VS: 1,857.52

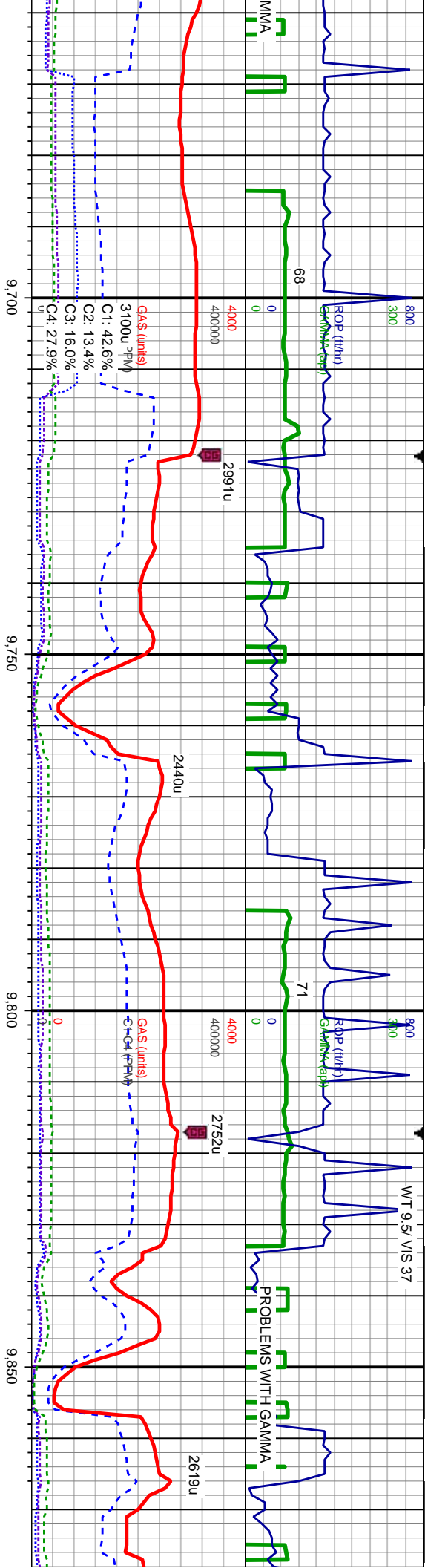
CHK: crm, mot, blk-y-sb ply, sft-frn, mod srt'd,
vf-med grs, sb rd-sb ang, mod fri, MRLST: dk
gy & blk, blk-y-sb ply, sft-frn, mod srt'd, med
grs, sb rd-sb ang, mod fri, tr cal, sting bl cut,
bri bl ring

CHK: crm, mot, blk-y-sb ply, sft-frn, mod srt'd,
vf-med grs, sb rd-sb ang, mod fri, MRLST: dk
gy & blk, blk-y-sb ply, sft-frn, mod srt'd, med
grs, sb rd-sb ang, mod fri, tr cal, sting bl cut,
bri bl ring

CHK: c
vf-med
gy & bl
grs, sb
bri bl ri





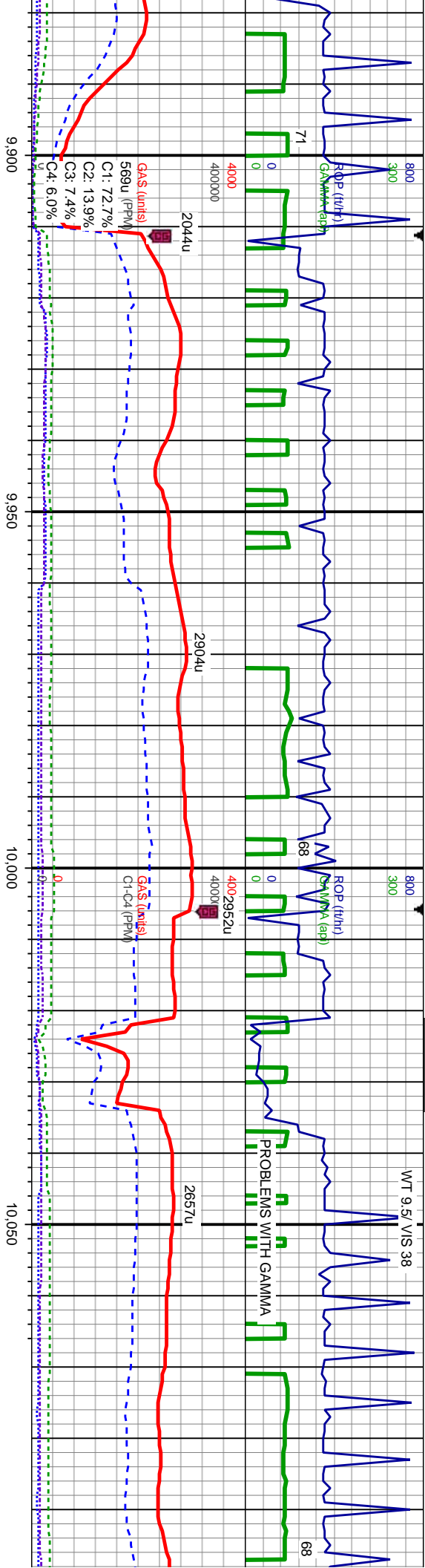


MD: 9.680
TVD: 7.204.95
Inclination: 90.22
Azimuth: 185.47
VS: 2.143.08

MD: 9.775
TVD: 7.204.72
Inclination: 90.06
Azimuth: 183.41
VS: 2.237.79

b pily, sft-frm, g, mod fri, sft-frm, mod d fri, occ cal,	TVD (ft)	7150	7300	CHK: med-dk gy-brn, mot, biky-sb pily, sft-frm, mod srtld, med-c grs, sb rd-sb ang, mod fri, MRLST: dk gy & blk, biky-sb pily, sft-frm, mod srtld, med-c grs, sb rd-sb ang, mod fri, occ cal, stimg bl cut, bri bl ring
b pily, sft-frm, g, mod fri, sft-frm, mod d fri, occ cal,	TVD (ft)	7150	7300	CHK: lt-dk gy-brn, mot, biky-sb pily, sft-frm, mod srtld, med-c grs, sb rd-sb ang, mod fri, MRLST: dk gy & blk, biky-sb pily, sft-frm, mod srtld, med-c grs, sb rd-sb ang, mod fri, stimg bl cut, bri bl ring



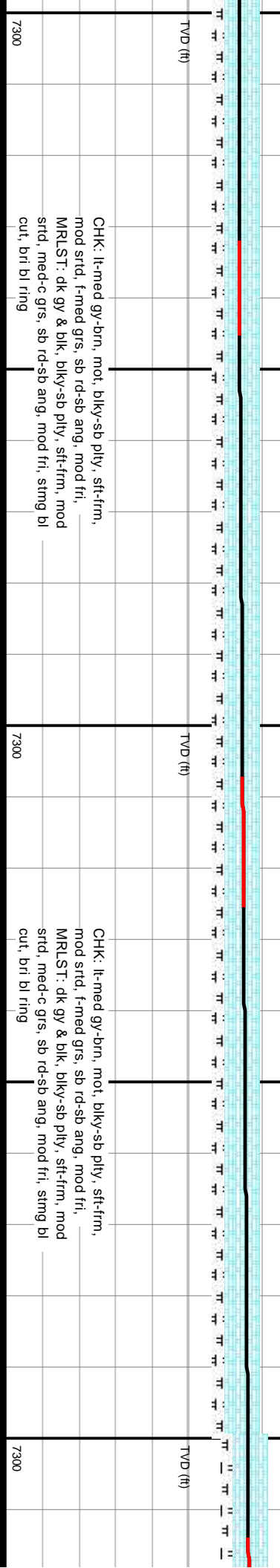
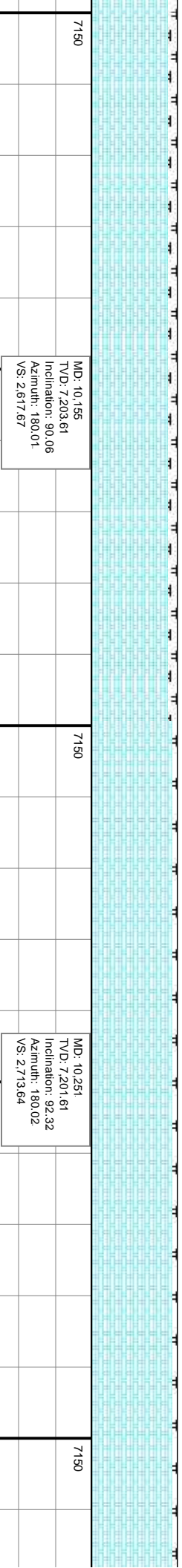
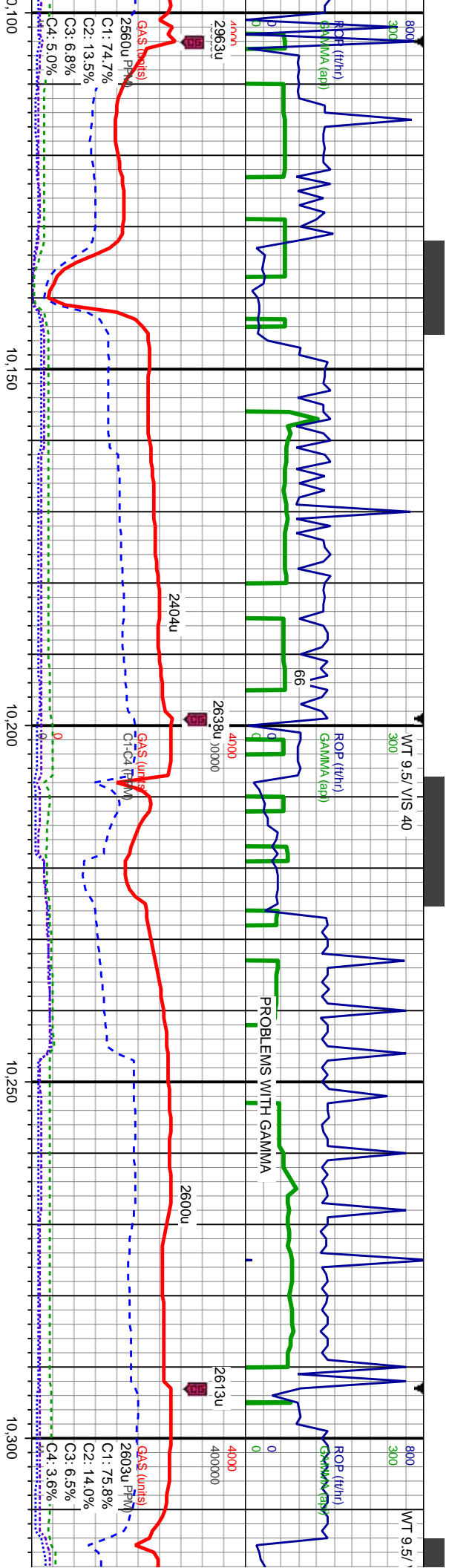


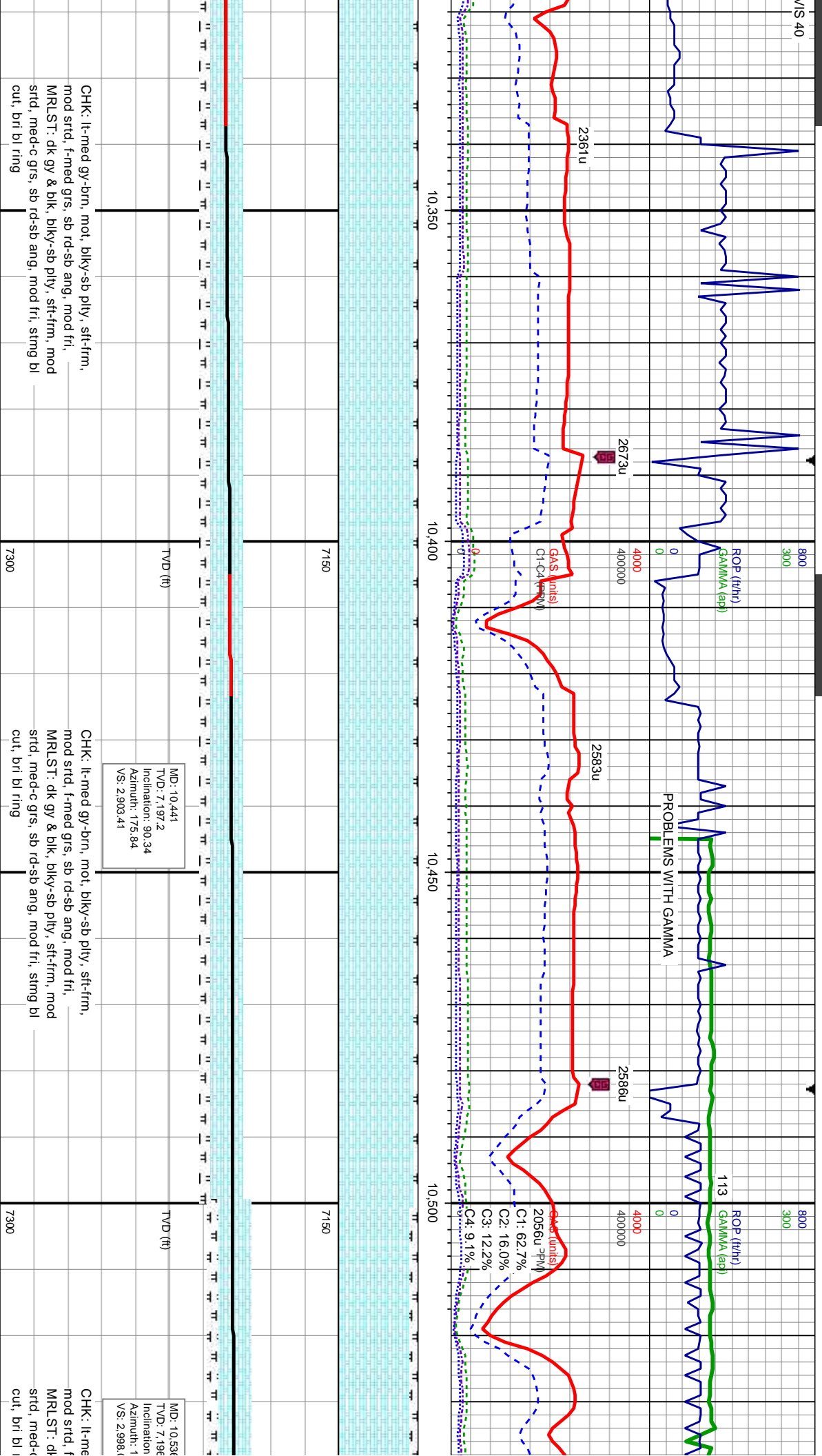
MD: 9.965
TVD: 7,204.25
Inclination: 90.22
Azimuth: 180.2
VS: 2,427.67

MD: 10.060
TVD: 7,203.86
Inclination: 90.25
Azimuth: 179.9
VS: 2,522.67

9,900	9,950	10,000	10,050
7150	7150	7150	7150
7300	7300	7300	7300
TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)
CHK: lt-dk gy-brn, mot, blk-y-sb pily, sft-frm, mod srt'd, med-c grs, sb rd-sb ang, mod fri, MRLST: dk gy & blk, blk-y-sb pily, sft-frm, mod srt'd, med-c grs, sb rd-sb ang, mod fri, sting bl cut, bri bl ring			
CHK: lt-med gy-brn, mot, blk-y-sb pily, sft-frm, mod srt'd, f-med grs, sb rd-sb ang, mod fri, MRLST: dk gy & blk, blk-y-sb pily, sft-frm, mod srt'd, med-c grs, sb rd-sb ang, mod fri, sting bl cut, bri bl ring			







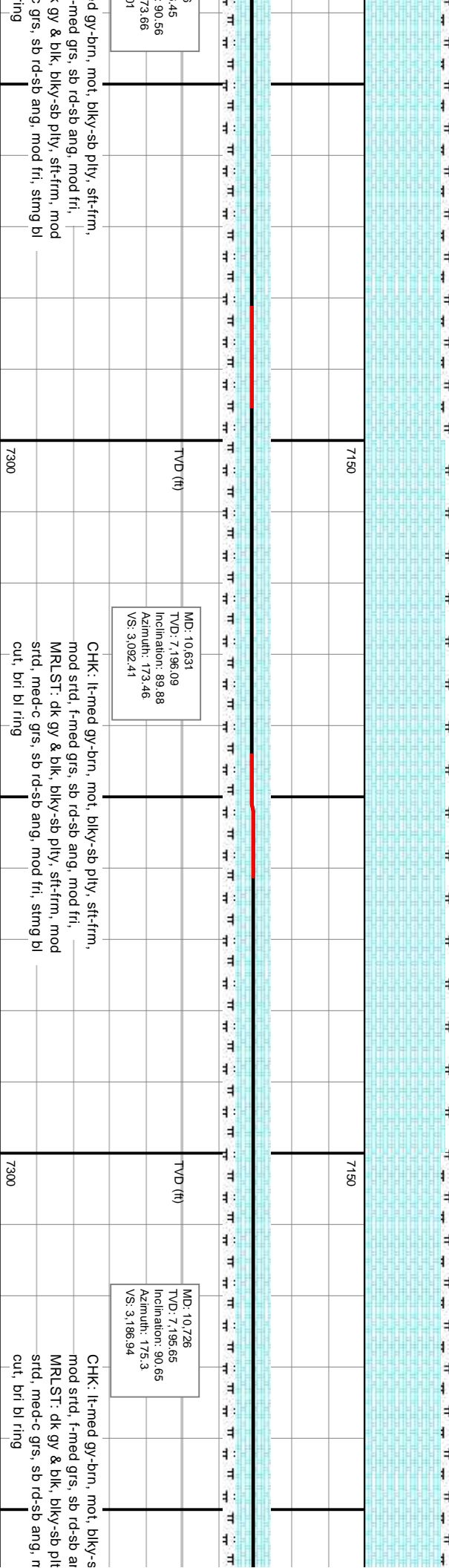
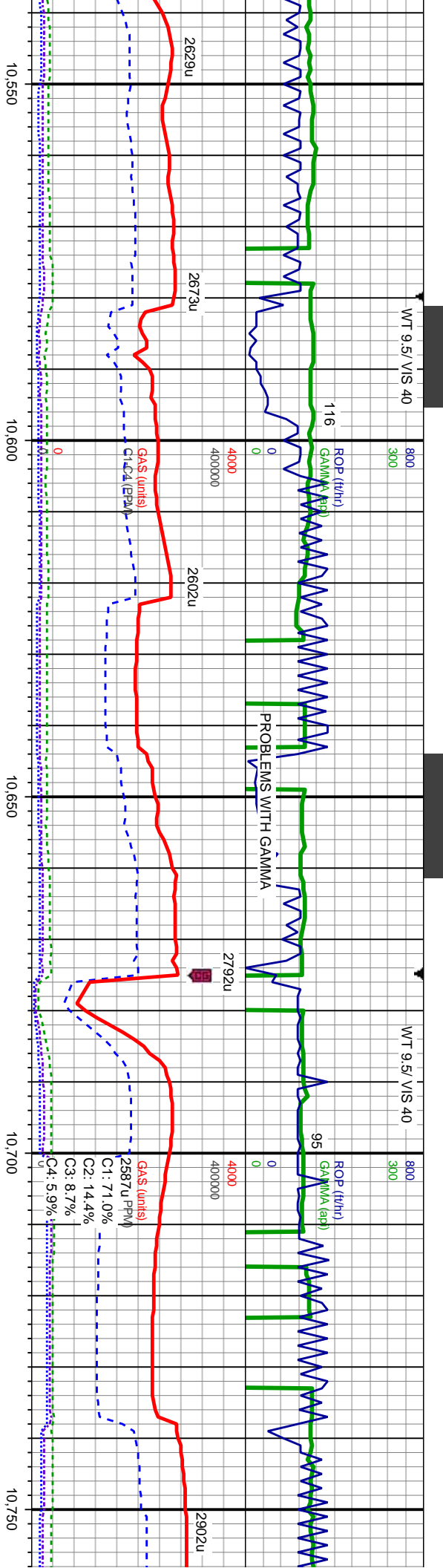
CHK: lt-med gy-brn, mot, blk-y-sb pily, sft-frn,
mod strd, f-med grs, sb rd-sb ang, mod fri,
MRLST: dk gy & blk, blk-y-sb pily, sft-frn, mod
strd, med-c grs, sb rd-sb ang, mod fri, sting bl
cut, bri bl ring

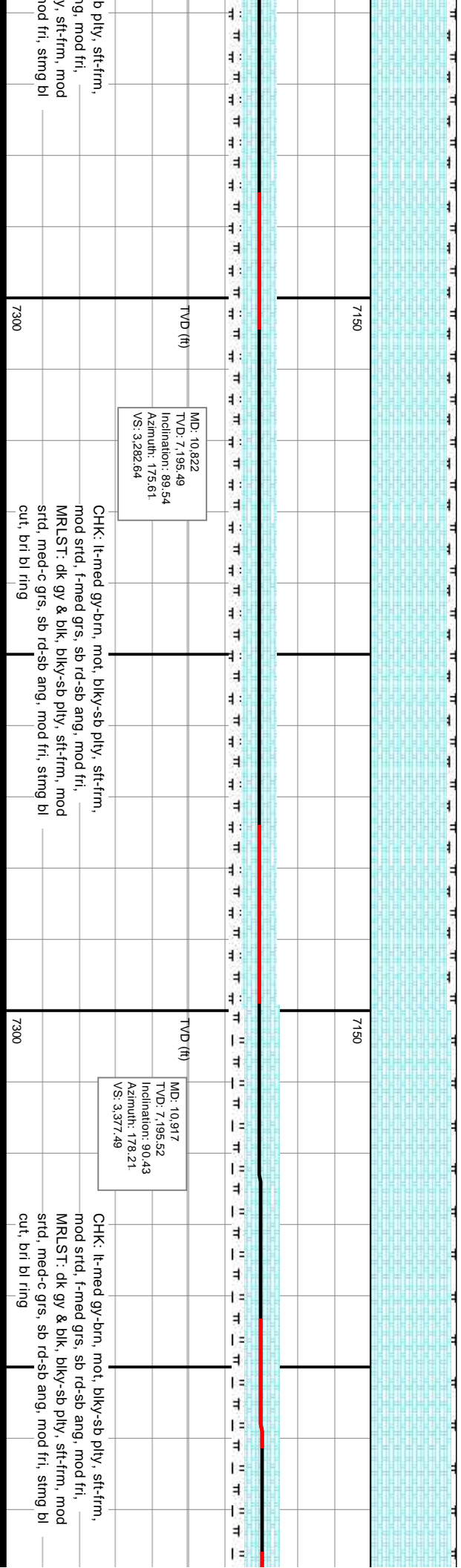
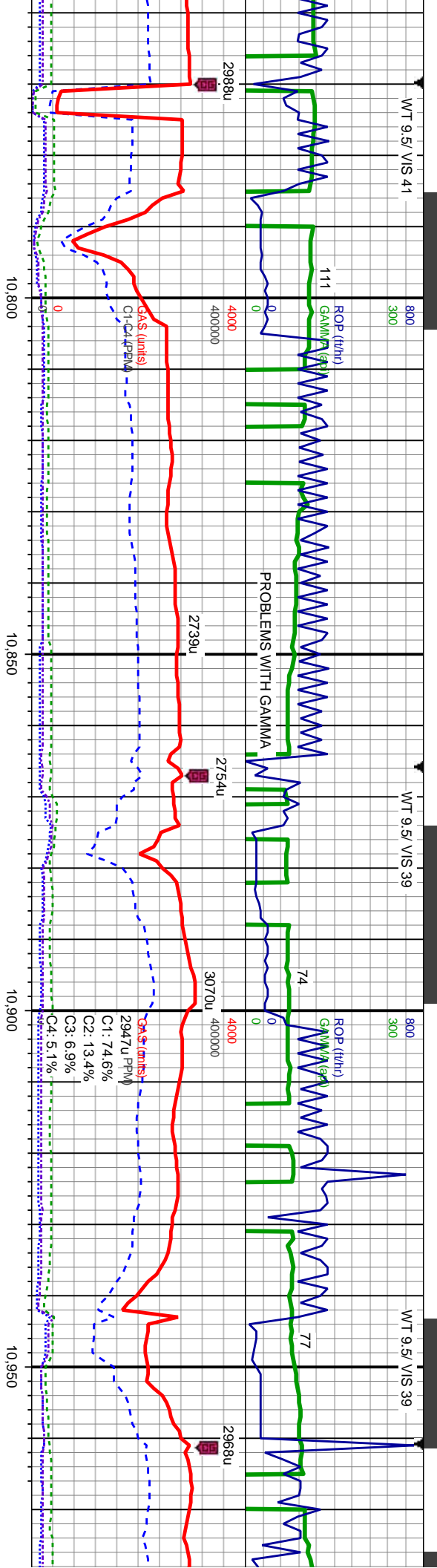
CHK: lt-med gy-brn, mot, blk-y-sb pily, sft-frn,
mod strd, f-med grs, sb rd-sb ang, mod fri,
MRLST: dk gy & blk, blk-y-sb pily, sft-frn, mod
strd, med-c grs, sb rd-sb ang, mod fri, sting bl
cut, bri bl ring

MD: 10.441
TVD: 7.197.2
Inclination: 90.34
Azimuth: 175.84
VS: 2.903.41

MD: 10.536
TVD: 7.196
Inclination
Azimuth: 1
VS: 2.998.6

CHK: lt-med
mod strd, f
MRLST: dk
strd, med-c
cut, bri bl

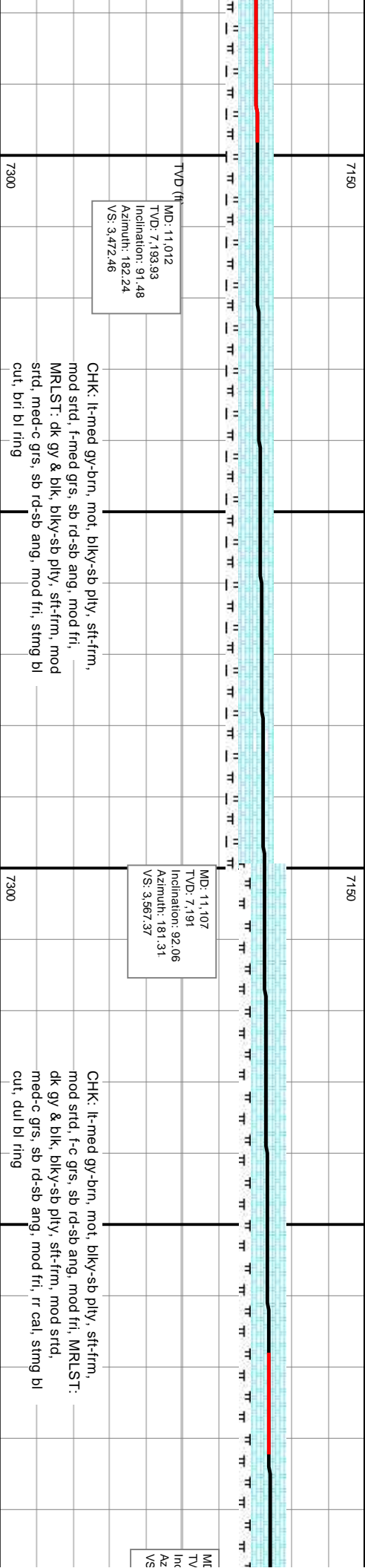
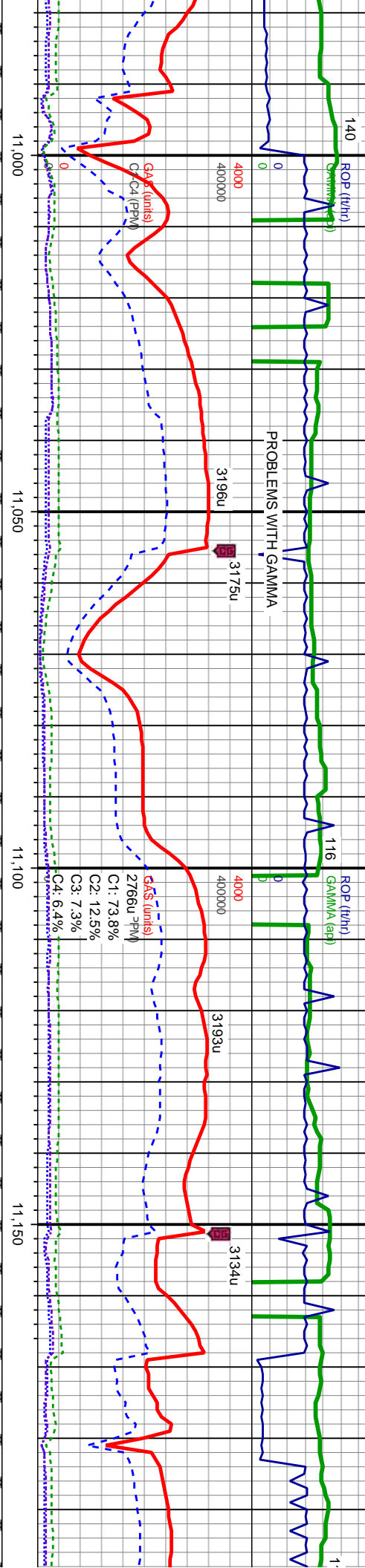


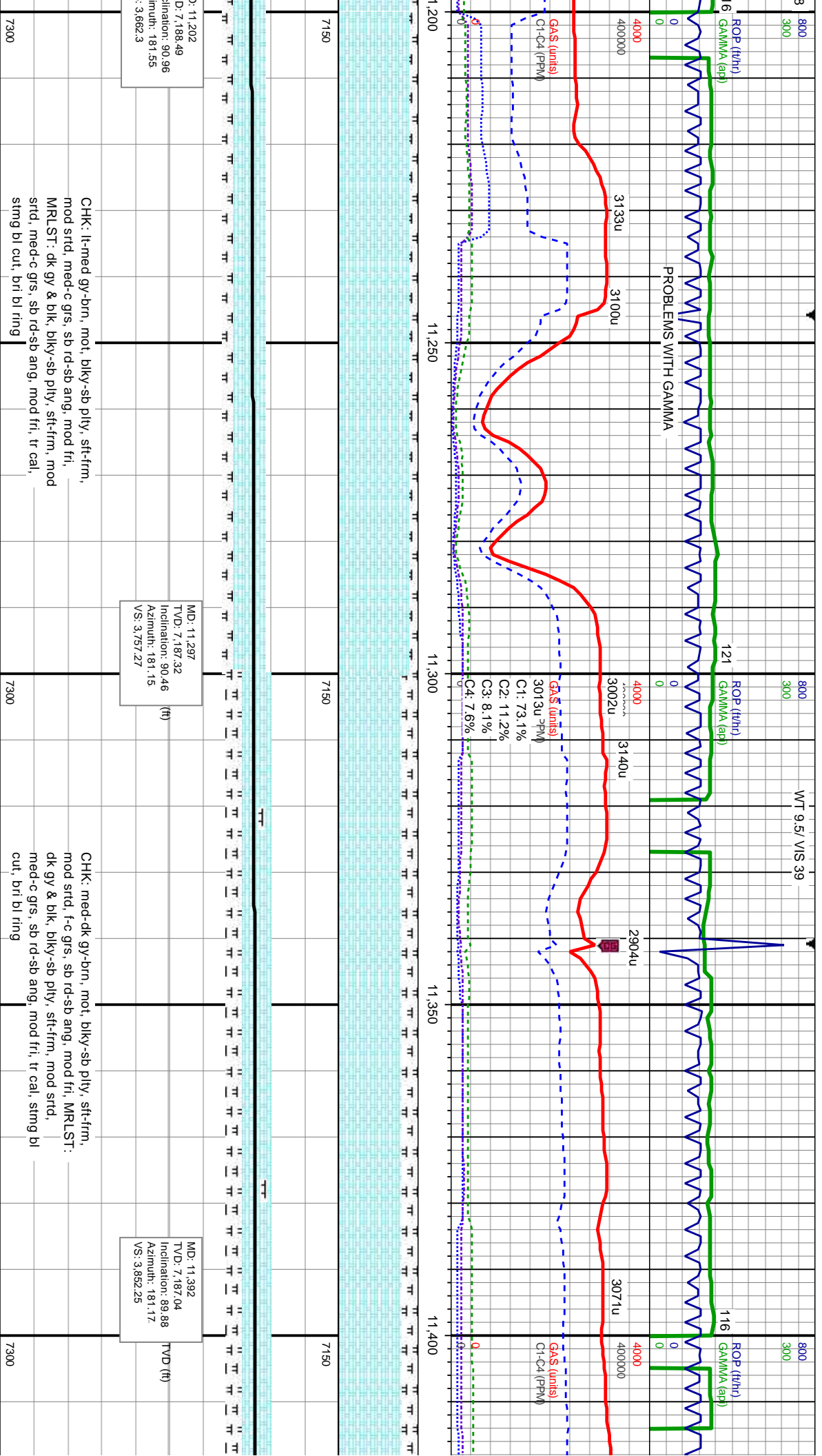


WT 9.5/ VIS 40

MINDEPTH
08/05/2014

WT 9.5/ VIS 3





CHK: lt-med gy-brn, mot, blkly-sb ply, sft-firm, -
mod strd, med-c grs, sb rd-sb ang, mod fri, -
MRST: dk gy & blk, blkly-sb ply, sft-firm, mod
strd, med-c grs, sb rd-sb ang, mod fri, tr cal,
stmg bl cut, bri bl ring

CHK: med-dk gy-bm, mot, blk-y-sb ply, st-frm,
-mod srtf, f-c-grs, sb rd-sb ang, mod fri, MR.LST:
dk gy & blk, blk-y-sb ply, st-frm, mod srtf,
-med-c-grs, sb rd-sb ang, mod fri, tr cal, stmg bl
cut, bri bl ring

WT 9.5 / VIS 38

PROBLEMS WITH GAMMA

11,450

11,500

11,550

11,600

3067u

2979u

2879u

3143u

ROP (ft/hr)
GAMMA (api)

ROP (ft/hr)
GAMMA (api)

2888u (PPM)
C1: 72.9%
C2: 12.5%
C3: 7.7%
C4: 7.0%

2888u (PPM)
C1-C4 (PPM)

MD: 11.487
TVD: 7,187.06
Inclination: 90.09
Azimuth: 180.52
VS: 3.947.24

MD: 11.582
TVD: 7,186.78
Inclination: 90.25
Azimuth: 182.14
VS: 4.042.21

CHK: med-dk gy-brn, mot, blk-y-sb pily, sft-frn,
mod srtld, f-c grs, sb rd-sb ang, mod fri, MRLST:
dk gy & blk, blk-y-sb pily, sft-frn, mod srtld,
med-c grs, sb rd-sb ang, mod fri, tr cal, sting bl
cut, brl bl ring

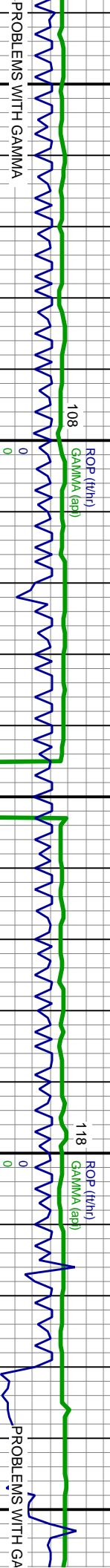
CHK: lt-med gy-brn, mot, blk-y-sb pily, sft-frn,
mod srtld, med-c grs, sb rd-sb ang, mod fri,
MRLST: dk gy & blk, blk-y-sb pily, sft-frn, mod
srtld, med-c grs, sb rd-sb ang, mod fri, tr cal,
occ calc incl, sting bl cut, dul bl ring

CHK: lt-med
mod srtld, l
MRLST: dl
srtld, med-c
occ calc in



WT 9.5/ VIS 40

WT 9.6/ VIS 39



2787u

3141u

3055u

2647u

11,650

11,700

11,750

11,800

11,850

MD: 11.677
TVD: 7,186.36
Inclination: 90.25
Azimuth: 182.56
VS: 4.137.13

TVD (ft)

MD: 11.772
TVD: 7,185.92
Inclination: 90.28
Azimuth: 183.06
VS: 4.232.01

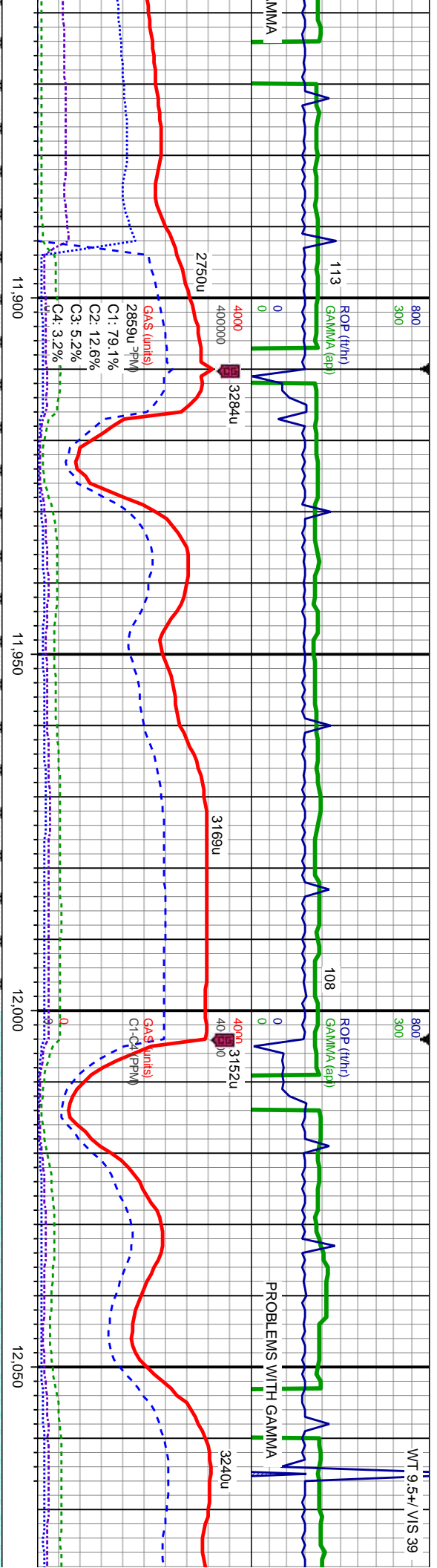
TVD (ft)

gy-brn, mot, blk-y-sb pily, sft-frn,
med-c grs, sb rd-sb ang, mod fri,
k gy & blk, blk-y-sb pily, sft-frn, mod
c grs, sb rd-sb ang, mod fri, tr cal,
incl, sting bl cut, dul bl ring

CHK: lt-med gy-brn, mot, blk-y-sb pily, sft-frn,
mod strd, med-c grs, sb rd-sb ang, mod fri,
MRLST: dk gy & blk, blk-y-sb pily, sft-frn, mod
strd, med-c grs, sb rd-sb ang, mod fri, tr cal,
occ calc incl, sting bl cut, dul bl ring

CHK: lt-dk gy-brn, mot, blk-y-s
strd, med grs, sb rd-sb ang, r
gy & blk, blk-y-sb pily, sft-frn,
grs, sb rd-sb ang, mod fri, occ
incl, sting bl cut, dul bl ring



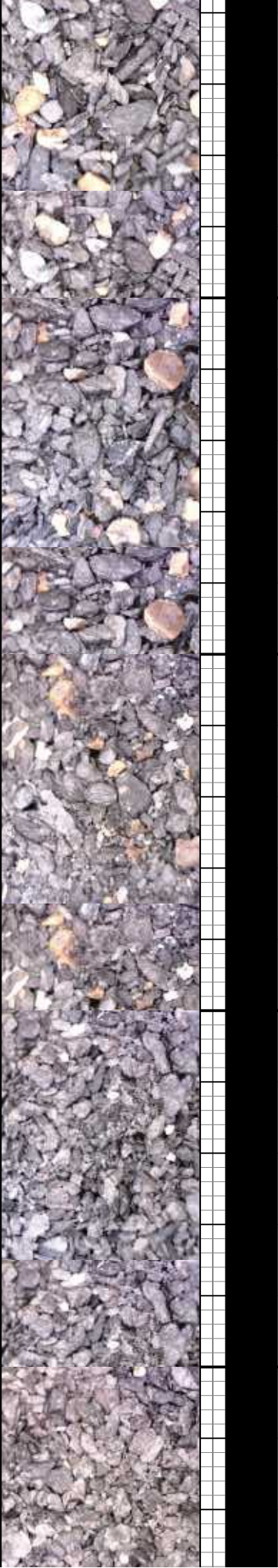


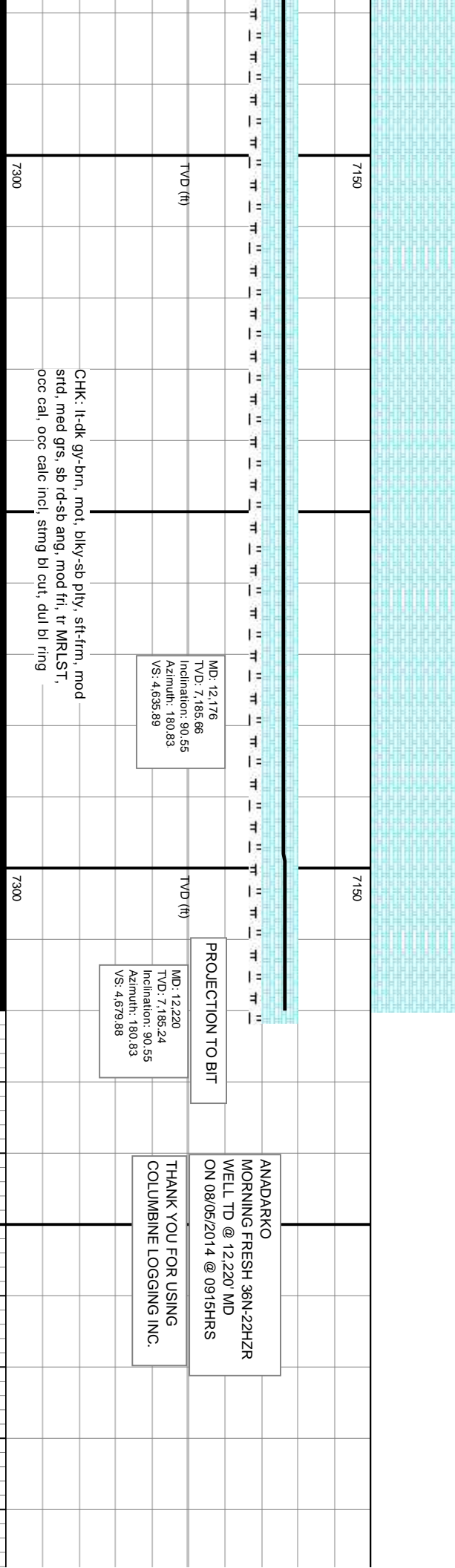
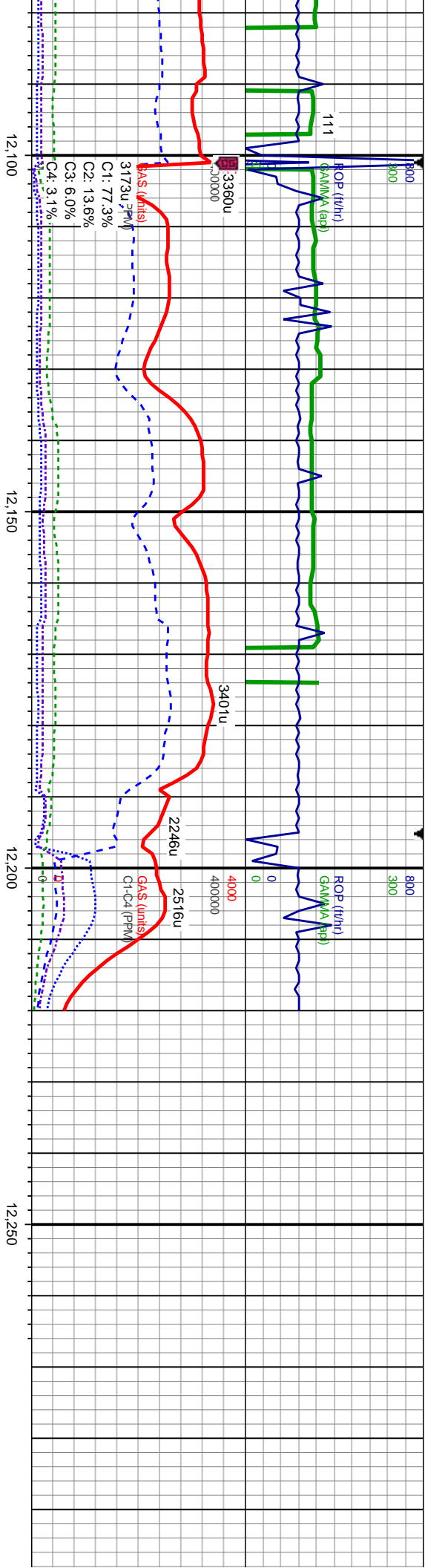
MD: 11.867
TVD: 7,185.29
Inclination: 90.49
Azimuth: 181.17
VS: 4.326.94

MD: 11.962
TVD: 7,185.06
Inclination: 89.78
Azimuth: 181.1
VS: 4.421.92

MD: 12.057
TVD: 7,185.68
Inclination: 89.47
Azimuth: 180.97
VS: 4.516.9

b pily, sft-frm, mod
mod fri, MRLST: dk
mod srtf, med-c
cal, occ calc
CHK: lt-dk gy-brn, mot, bily-sb pily, sft-frm, mod
srtf, med grs, sb rd-sb ang, mod fri, MRLST: dk
gy & blk, bily-sb pily, sft-frm, mod srtf, med-c
grs, sb rd-sb ang, mod fri, occ cal, occ calc
incl, string bl cut, dul bl ring





MD: 12,176
TVD: 7,185.66
Inclination: 90.55
Azimuth: 180.83
VS: 4.635.89

MD: 12,220
TVD: 7,185.24
Inclination: 90.55
Azimuth: 180.83
VS: 4.679.88

PROJECTION TO BIT

ANADARKO
MORNING FRESH 36N-22HZR
WELL TD @ 12,220' MD
ON 08/05/2014 @ 0915HRS

THANK YOU FOR USING
COLUMBINE LOGGING INC.

CHK: lt-dk gy-brn, mot, blk-y-sb pty, sft-frm, mod
sftd, med grs, sb rd-sb ang, mod fri, tr MRLST,
occ cal, occ calc incl, string bl cut, dul bl ring

