



Scale: 5" / 100'
Measured Depth Log

Well Name Mojack M-28-HN

Location SEC. 28-T7N-R64W

State COLORADO

County WELD

Country USA

Rig Number FRONTIER 8

API Number 051233983300

AFE # 39833

Region DJ BASIN

Field WATTENBERG

Spud Date 10/25/2014

Drilling Completed 12/20/2014

Surface Coordinates 230°FNL 1734°FEL

Bottom Hole Coordinates 465°FSL 1191°FEL

Ground Elevation 4900'

K.B. Elevation 4922.5'

Logged Interval 6000' MD To 16917' MD

Total Depth 16917' MD

Formation NIOBRARA

Type of Drilling Fluid FWLSND

Operator

Company BAYSWATER EXPLORATION AND PRODUCTION

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

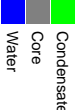
Geologist

Name ROBERT DAVIS, LISA KANT, FLORA SPERBER

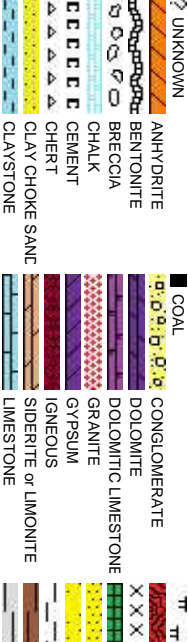
Company COLUMBINE LOGGING INC.

Address 602 S. Lipan St
Denver, CO 80223

Zone Color Code



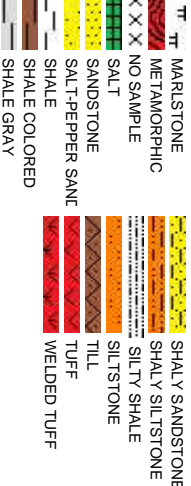
Rock Type



CTION, LLC

ERG

ding

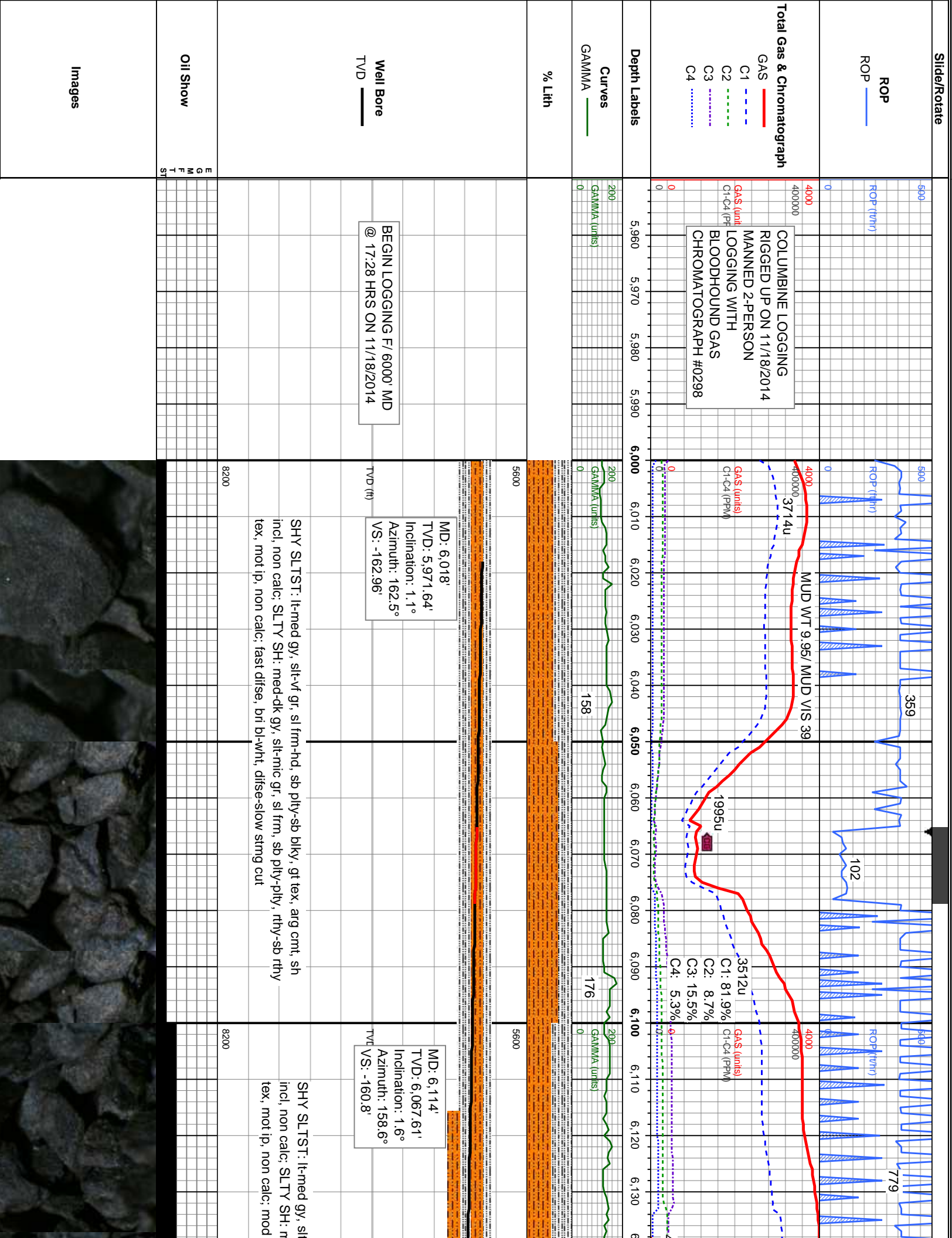


Accessories

Fossils	
GASTROPOD	ARGILLITE GRAIN
INOCERAMUS	HEAVY MINERAL
ALGAE	KAOLIN
AMPHIPORA	MARCASITE
OSTRACOD	MARLSTONE
BELEMNITE	MICACEOUS
BIOCLASTIC	MINERAL CRYSTALS
BRACHIOPOD	NODULES
PISOLUTE	PHOSPHATE PELLETS
BRYOZOA	PYRITE
CEPHALOPOD	SALT CAST
CORAL	SANDY
CRINOID	SIDERITE
ECHINOID	SILTSTONE STRINGER
Minerals	
FISH	FERRUGINOUS
FORAMINIFERA	GLAUCONITE
FOSSIL	GYPSIFEROUS
ANHYDRITIC	SILTY
ARGILLACEOUS	TUFFACEOUS

Other Symbols

Oil Show	
PINPOINT	FAULT
VUGGY	WIRELINE TESTED - LEFT
Engineering	
DEAD	FORMATION TOP
EVEN	GAS SHOW
QUESTIONABLE	OIL SHOW
BIT	DRILL STEM TEST
SPOTTED STAINING	MN DEPTH
CONNECTION (UP)	MN DEPTH UP
Porosity	
CONNECTION (DOWN)	ANGULAR
EARTHY	ROUNDED
FENESTRAL	SUBANG
FRACTURE	SUBRAND
INTERCRYSTALLINE	CASING
INTEROILITIC	SIDEWALL CORE (LEFT)
MOLDIC	SIDEWALL CORE (RIGHT)
ORGANIC	SLIDE
CORE - RECOVERED	SURVEY
Rounding	
MN DEPTH (DOWN)	PS PACKSTONE
ANGULAR	WACKESTONE
Textures	
BOUNDSTONE	POOR
CHALKY	WELL
CRYPTOXLN	MODERATE
Sorting	
MICROSCOPIC	LITHOGRAPHIC
MUDSTONE	GRAINSTONE



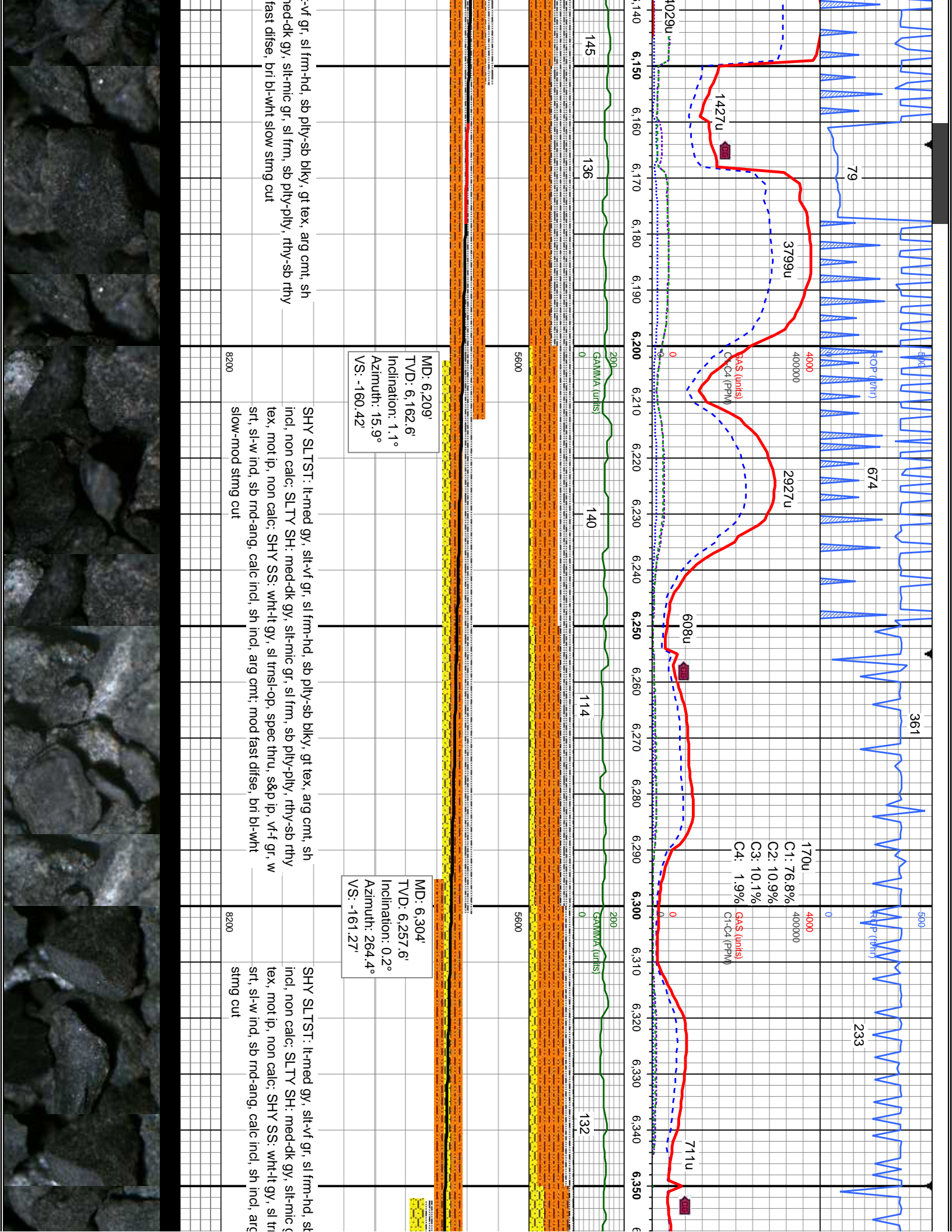
BEGIN LOGGING F/ 6000' MD
@ 17:28 HRS ON 11/18/2014

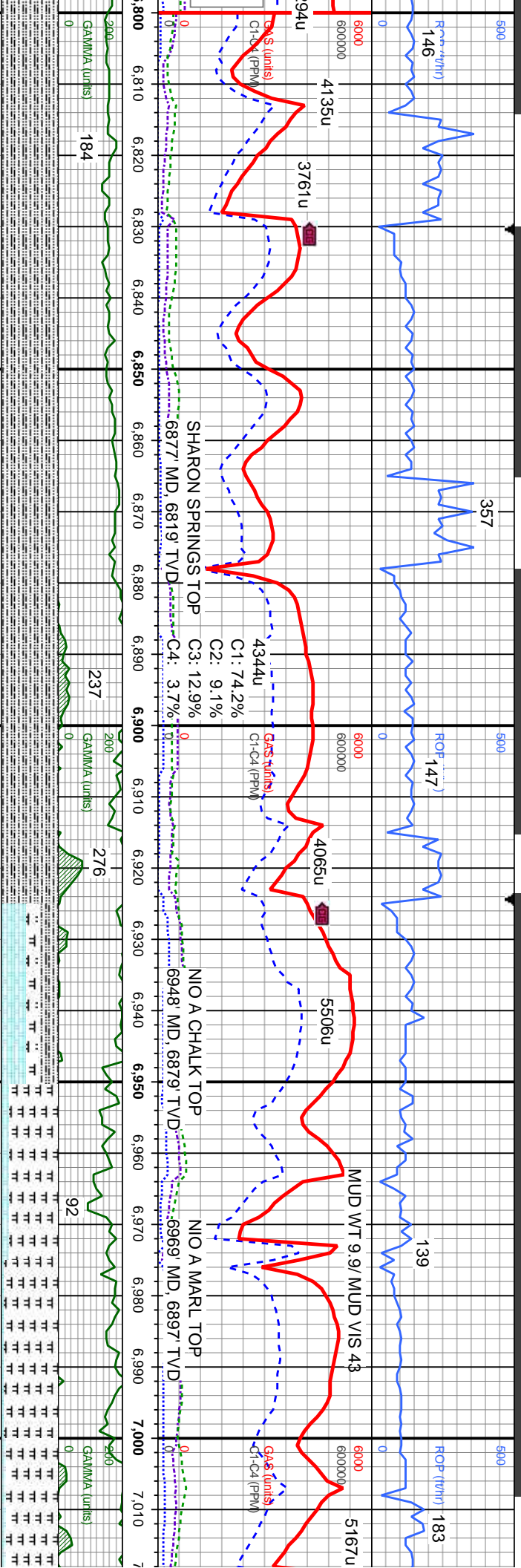
MD: 6,018'
TVD: 5,971.64'
Inclination: 1.1°
Azimuth: 162.5°
VS: -162.96'

SHY SLTST: lt-med gy, slt-vf gr, sl frm-hd, sb ply-sb blkly, gt tex, arg cmt, 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; fast difse, bri bl-wht, difse-slow string cut

MD: 6,114'
TVD: 6,067.61'
Inclination: 1.6°
Azimuth: 158.6°
VS: -160.8'

SHY SLTST: lt-med gy, slt
incl, non calc; SLTY SH: n
tex, mot ip, non calc; mod





MD: 6.827'
TVD: 6.774'
Inclination: 22.8°
Azimuth: 184.3°
VS: -108.78'

MD: 6.876'
TVD: 6.818.34'
Inclination: 27.5°
Azimuth: 182.3°
VS: -88.07'

MD: 6.923'
TVD: 6.858.95'
Inclination: 32.9°
Azimuth: 181.1°
VS: -64.5'

MD: 6.971'
TVD: 6.898.19'
Inclination: 37.4°
Azimuth: 179.2°
VS: -36.9'

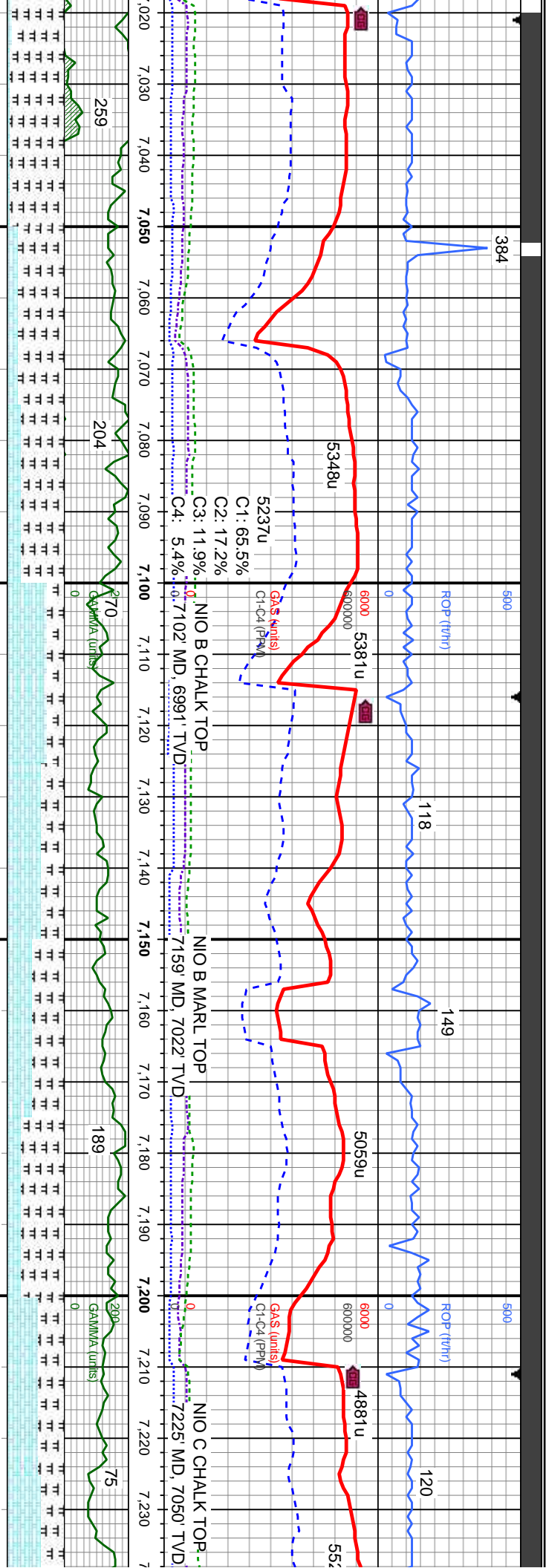
MD: 7'
TVD: 6.971'
Inclination: 37.4°
Azimuth: 179.2°
VS: -36.9'

SLTY SH: med gy-blk, silt-mic gr, sl frm, sb ply-ply, rthy-sb rthy tex, mot ip, non calc; tr SHY SS: wht-lt gy, sl trnsi-op, spec thru, s&p ip, v-f gr, w srt, sl-w ind, sb rnd-ang, calc incl, sh incl, arg cmt; r bent; fast difse, bri bl-wh mod string cut

SLTY SH: med gy-blk, lt spec, silt-mic gr, sl frm, brit, sb ply-ply, flky ip, rthy-sb rthy tex, mot ip, lam ip; CHK: lt-med gy, mot thru, sft-sl frm, sb ply-sb blk-ireg, glos tex, fos frags, v calc; MRLST: med-dk gy, mot, silt gr, sl frm-hd, brit, sb ply-sb blk-ireg, glos tex, calc; tr bent; fast difse, bri bl-wh mod string cut

MRLST: med-dk gy, mot, silt gr, sl frm-hd, brit, sb ply-sb blk-ireg, glos tex, calc; tr bent; fast difse, bri bl-wh mod string cut

MRLST: med-dk gy, mot, silt gr, sl frm-hd, brit, sb ply-sb blk-ireg, glos tex, calc; tr bent; fast difse, bri bl-wh mod string cut



MD: 7,066'
TVD: 6,968.92'
Inclination: 47.3°
Azimuth: 183.4°
VS: 26.17'

5CHK: lt-med gy, str ip, mot ip, sft-sl frm, sb
ply-sb blk-ireg, glos tex, com fos frags, v
calc; MRLST: med-dk gy, mot, slt gr, sl
frm-hd, brit, sb ply-sb blk, v gt tex, calc; tr
foss frags; v fast difse, bri bl-wht mod
stmg-milky cut

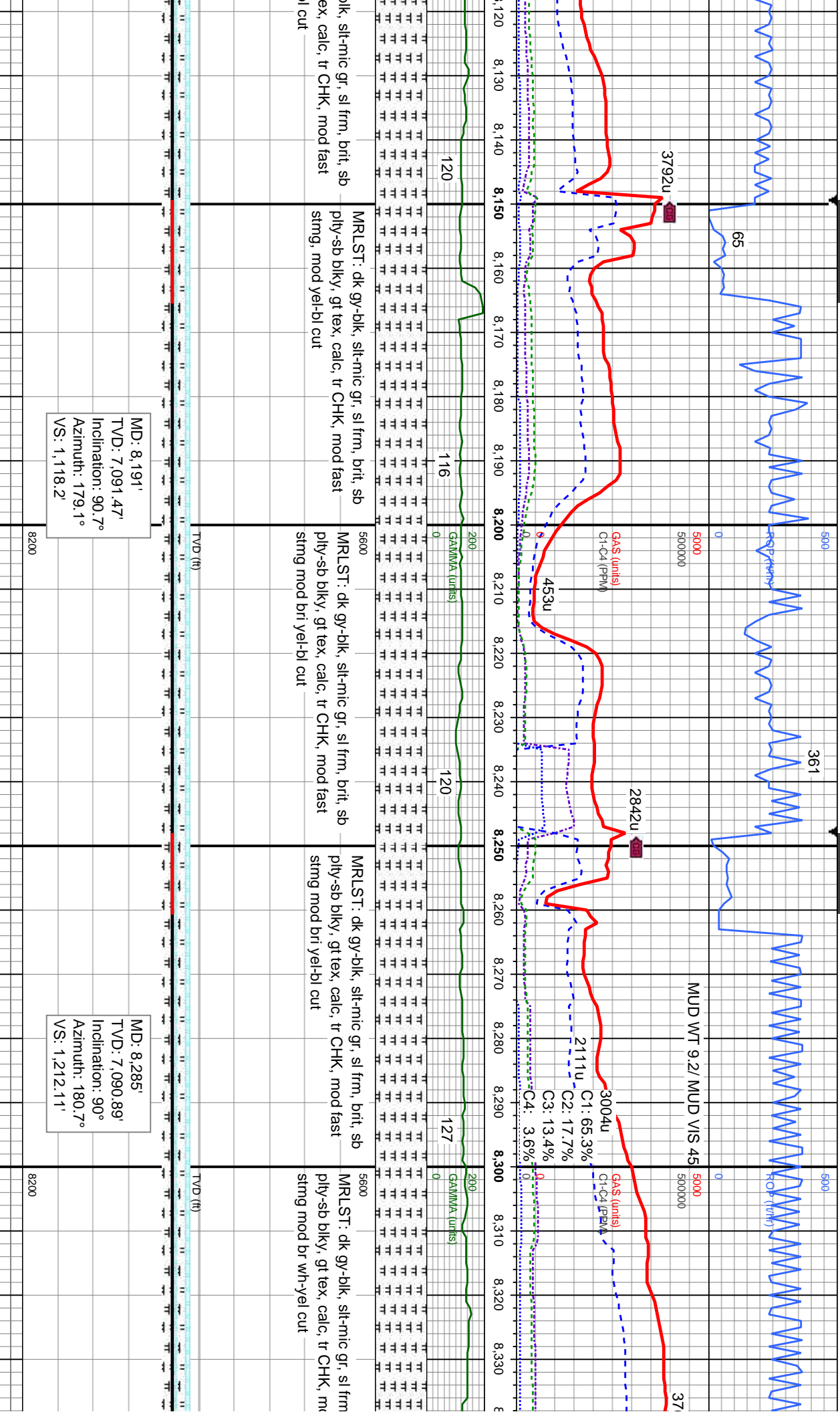
MD: 7,113'
TVD: 6,998.35'
Inclination: 55.1°
Azimuth: 183.4°
VS: 62.57'

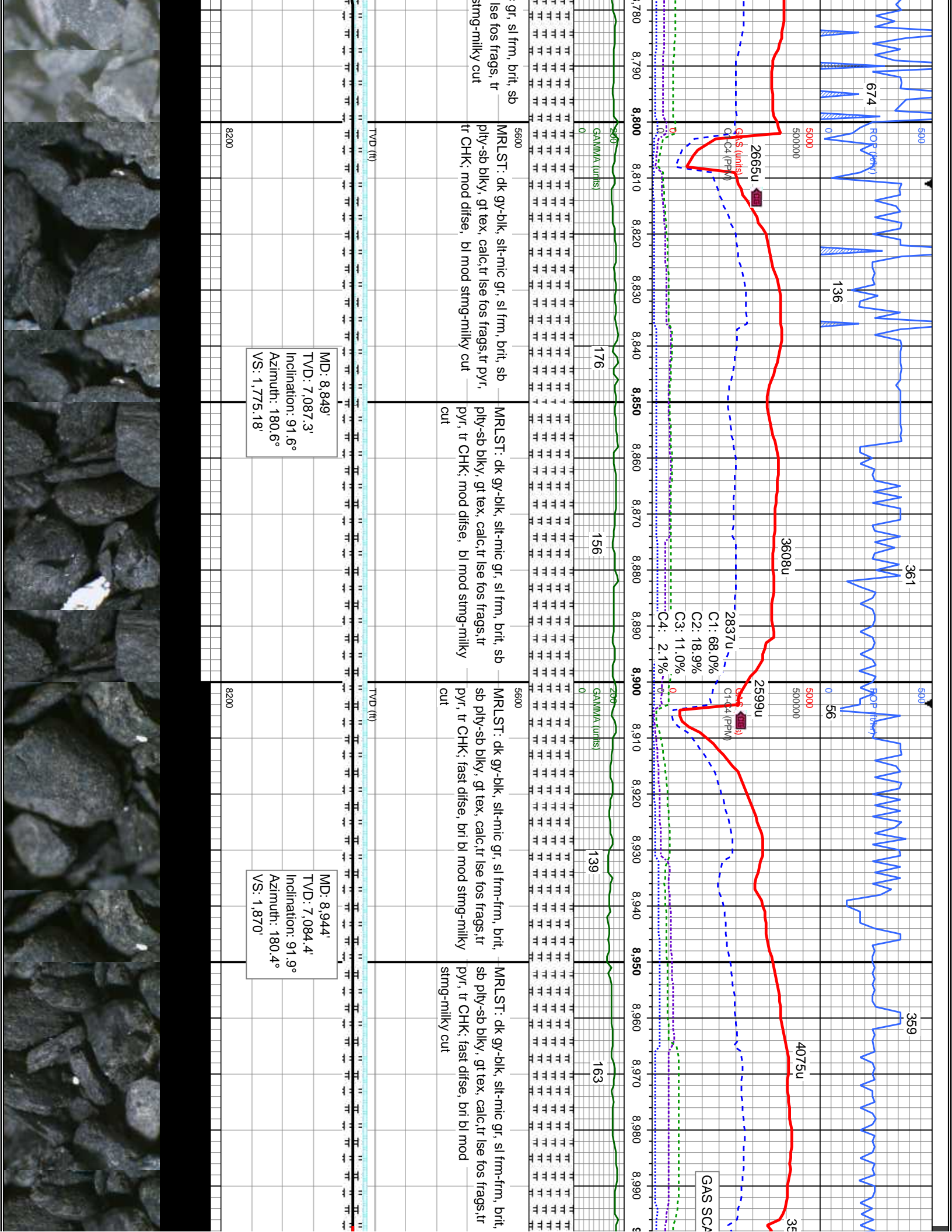
MD: 7,161'
TVD: 7,023.6'
Inclination: 61.4°
Azimuth: 182.7°
VS: 103.18'

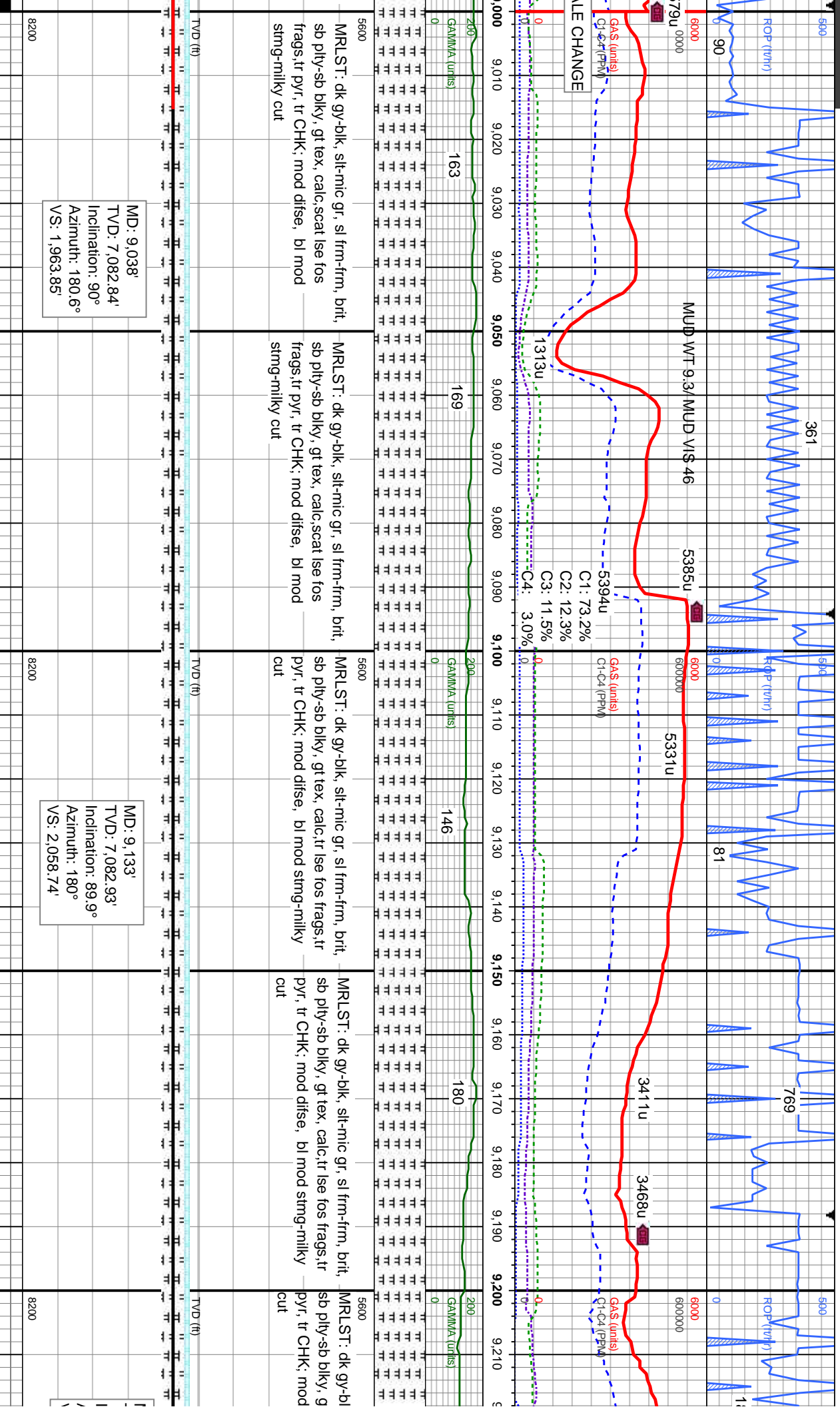
MD: 7,208'
TVD: 7,044.27'
Inclination: 66.4°
Azimuth: 183.4°
VS: 145.17'

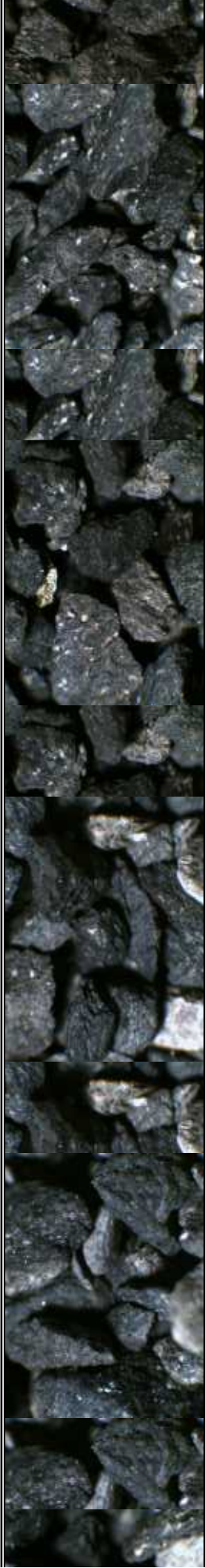
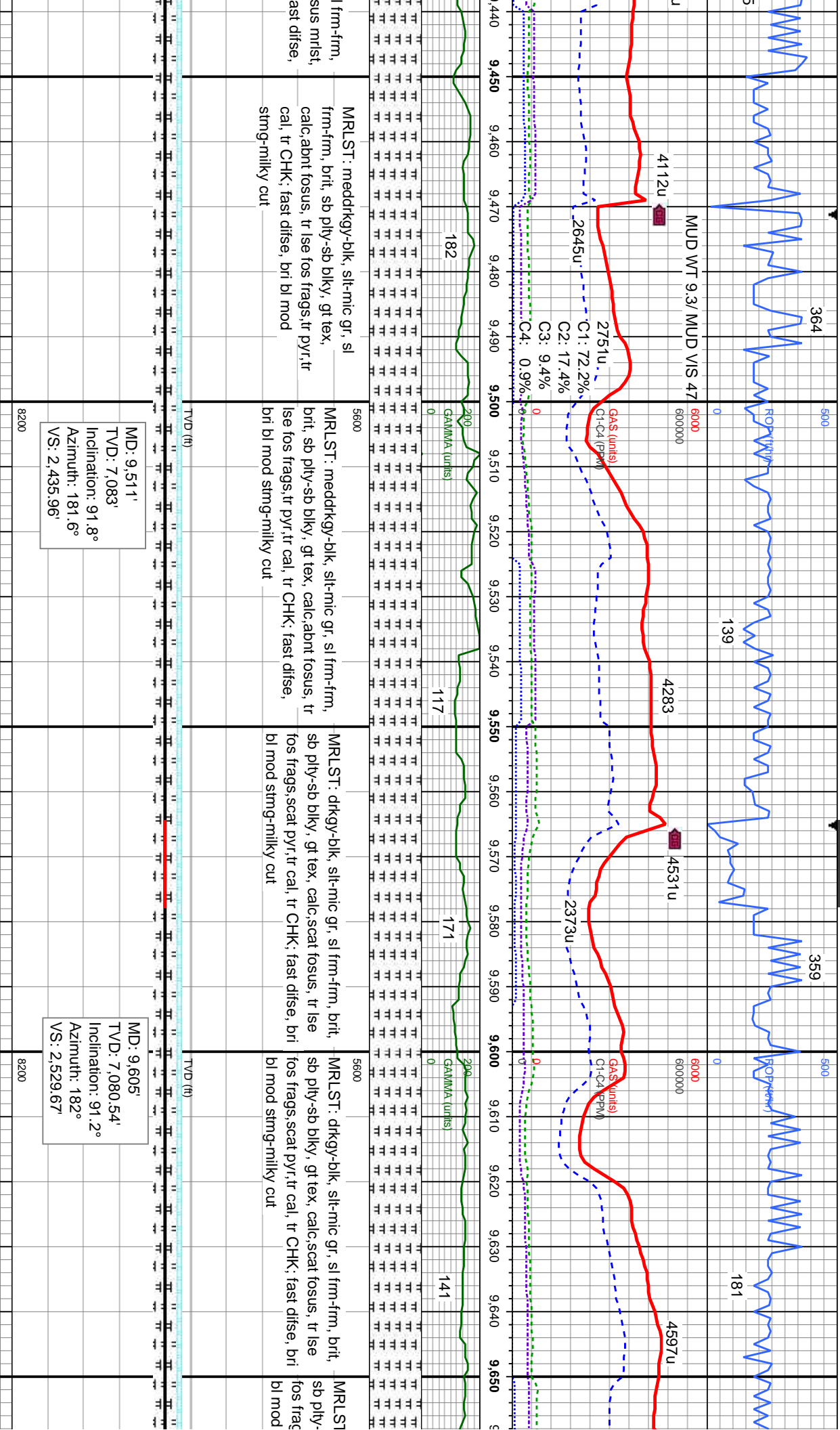
MRLST: med-dk gy, mot, slt gr, sl frm-hd,
brit, sb ply-sb blk, v gt tex, calc; CHK:
lt-med gy, str thru, sft-sl frm, sb ply-sb
blk-ireg, glos tex, fos frags, v calc; v tr
bent, v rr pyr, tr foss frags; fast difse, bri
bl-wht mod stmg cut

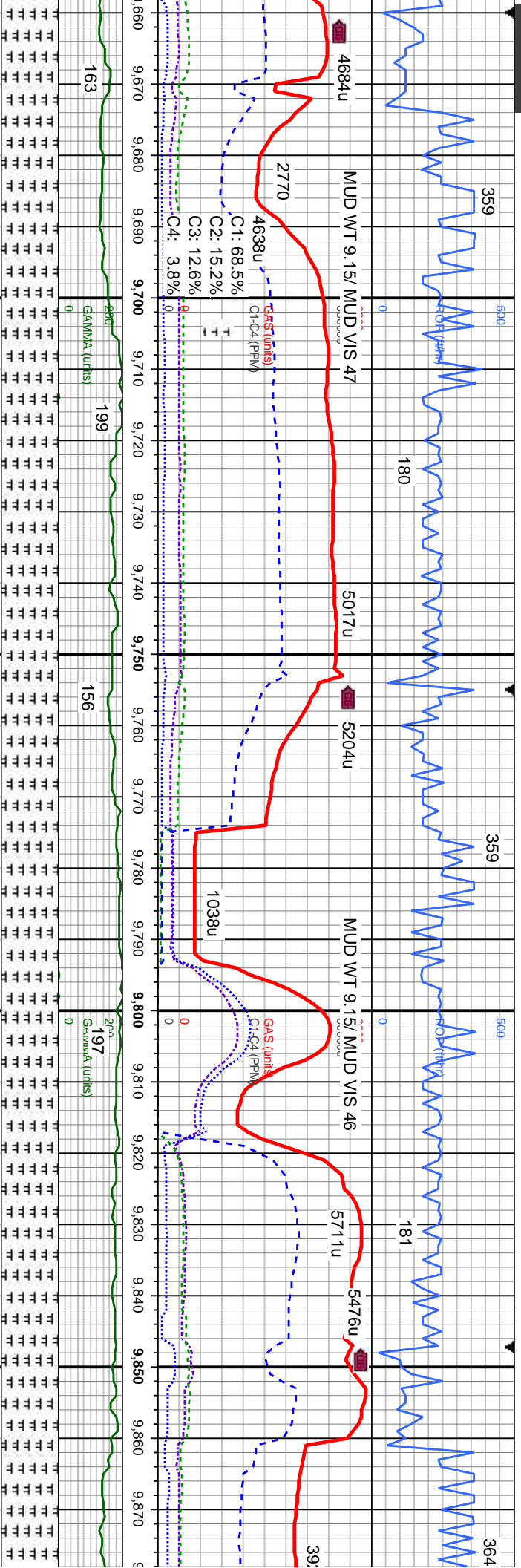












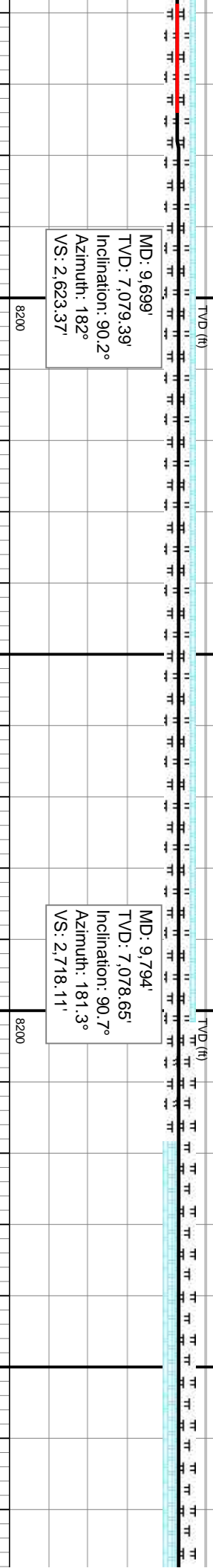
drkgy-blk, slt-mic gr, sl frm-frm, brit,
ssb blk, gt tex, calc, scat fokus, tr lse
ss, scat pyr, tr cal, tr CHK; fast difse, bri
stmng-milky cut

MR.LST: meddrkgy-blk, slt-mric gr, sl frm-frm,
brit, sb pty-sb blk, gt tex, calc,abt fokus, tr
ise fos frags, tr pyr, tr cal, tr CHK; fast difse,
bri bl mod stimg-milky cut

—MR.LST: medgy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb blk, gt tex, calc,abt fosus, tr lse fos frags, tr pyr, tr cal, scat CHK; fast dtise, bri bl mod stma-milky cut

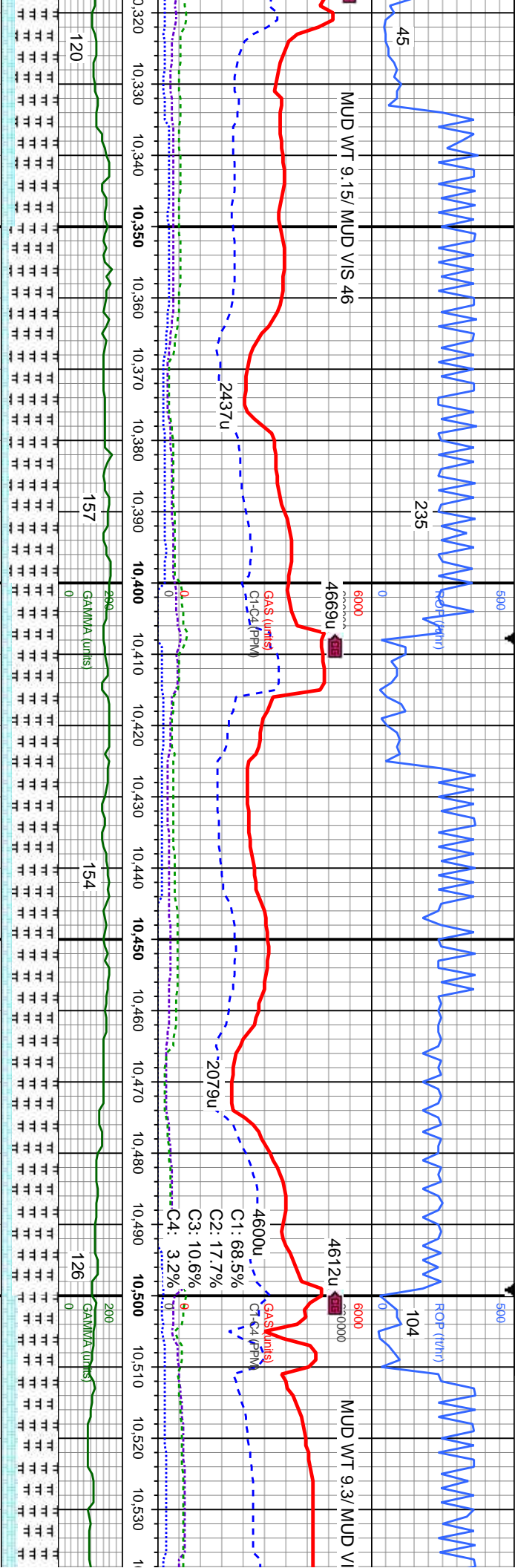
MRSLST: medgy-blk, silt-mic gr, sl frm-frm,
brit, sb pily-sb blk, gt tex, calc,abt fofus
lse fos frags,rr pyr,rr cal, scat CHK, fast
difse, bri bl mod stmg-milky cut

MLST: medgy-blk, slt-mi
brit, sb pty-sb blk, mot-gt
ise fos frags, tr pyr, tr cal, s
dise, bri bl mod stma-milk



MD: 9,699'
TVD: 7,079.39'
Inclination: 90.2°
Azimuth: 182°
VS: 2,623.37'

MD: 9,794'
TVD: 7,078.65'
Inclination: 90.7
Azimuth: 181.3°
VS: 2,718.11'



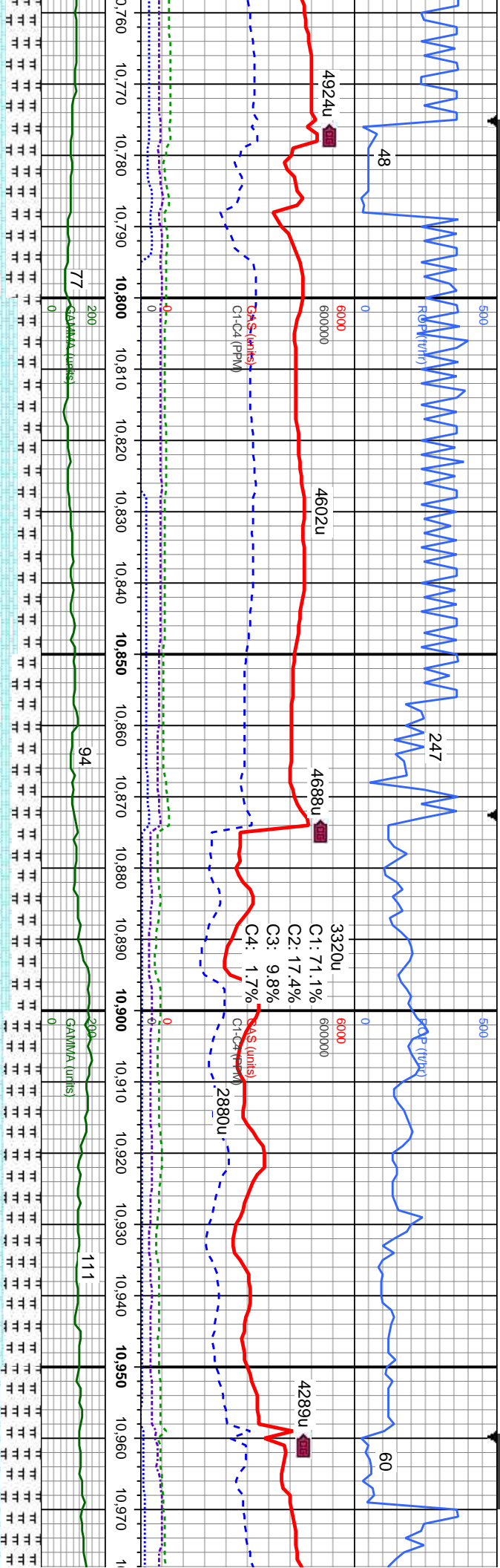
Depth (ft)	Log Description	Log Description	Log Description	
10,320	blk, silt-mic gr, sl frm-frm, ky, mot-gt tex, occ lam, v calc, tr pyr, tr calc, CHK: lt-med sb ply-sb blk-ireg, glos tex, mod string bri bl-milky cut	MRSLT: med gy-blk, silt-mic gr, sl frm-frm, brit, sb ply-sb blk-ireg, mot-gt tex, occ lam, v calc, fokus, tr ise fos, tr pyr, tr calc, CHK: lt-med gy, sl sft-sl frm, sb ply-sb blk-ireg, glos tex, v calc, fast difse, mod string bri bl-milky cut	MRSLT: med gy-blk, silt-mic gr, sl frm-frm, brit, sb ply-sb blk-ireg, mot-gt tex, occ lam, v calc, fokus, tr ise fos, tr pyr, tr calc, CHK: lt-med gy, sl sft-sl frm, sb ply-sb blk-ireg, glos tex, v calc, si difse, mod string bri bl-milky cut	MRSLT: med gy-blk, silt-mic gr, sl frm-frm, brit, sb ply-sb blk-ireg, mot-gt tex, occ lam, v calc, fokus, tr ise fos, tr pyr, tr calc, CHK: lt-med gy, sl sft-sl frm, sb ply-sb blk-ireg, glos tex, v calc

MD: 10,354'
TVD: 7,078.93'
Inclination: 89.8°
Azimuth: 180.4°
VS: 3,277.73'

MD: 10,446'
TVD: 7,077.89'
Inclination: 91.5°
Azimuth: 182.1°
VS: 3,369.52'

MD: 10,446'
TVD: 7,077.89'
Inclination: 91.5°
Azimuth: 182.1°
VS: 3,369.52'





ST: med gy-blk, slt-mic gr, sl frm-frm, sb ply-sb blk, mot-gt tex, occ lam, v tr foss, tr lse fos; CHK: lt-med gy, sl r bent, fast difse, mod fast sting bri ky cut, fast difse, mod fast sting bri ky cut

5600
CHK: lt-med gy, sl sft-sl frm, sb ply-sb blk, i-reg, glos tex, v calc; MRLST: med gy-blk, slt-mic gr, sl frm-frm, bri, sb ply-sb blk, mot-gt tex, occ lam, v calc, tr bent, bleeding, difse, mod fast sting bri bl-milky cut

5600
CHK: lt-med gy, sl sft-sl frm, sb ply-sb blk, i-reg, glos tex, v calc; MRLST: med gy-blk, slt-mic gr, sl frm-frm, bri, sb ply-sb blk, mot-gt tex, occ lam, v calc, tr bent, bleeding, difse, mod fast sting bri bl-milky cut

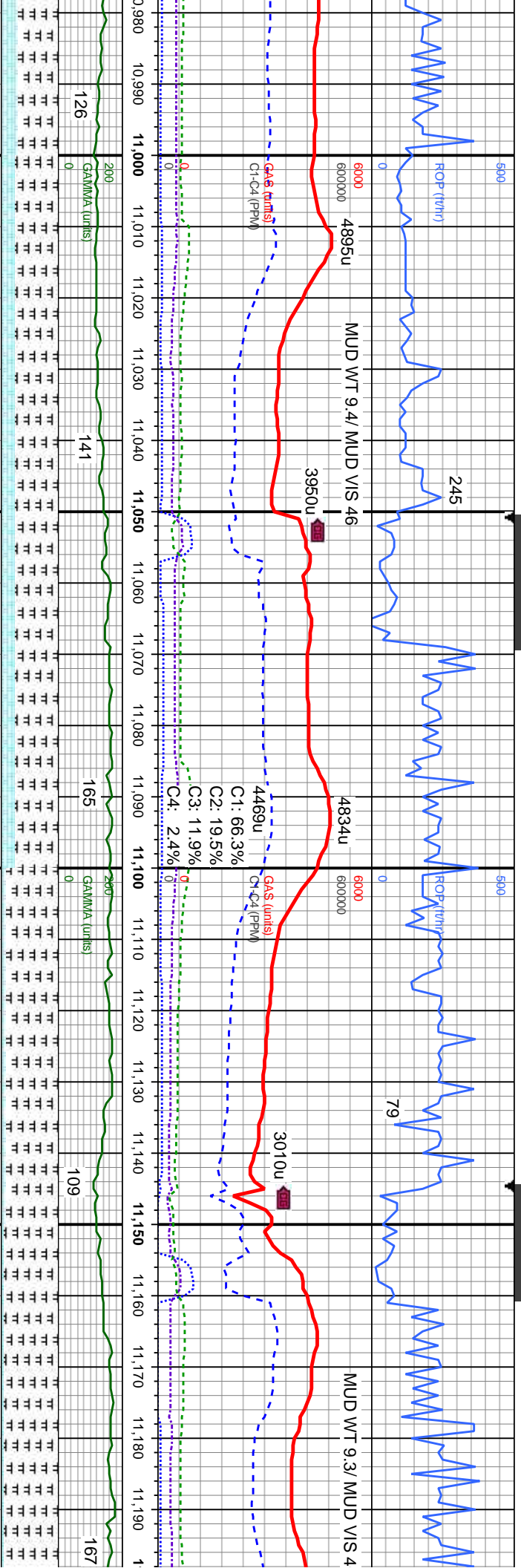
5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm, bri, sb ply-sb blk, mot-gt tex, occ lam, v calc, tr foss, tr lse fos; CHK: lt-med gy, sl sft-sl frm, sb ply-sb blk, i-reg, glos tex, v calc, tr bent, fast difse, mod fast sting bri-bl milky cut

MRLST: med gy-blk, slt-n bri, sb ply-sb blk, mot-g calc, tr foss, tr lse fos; CHK: sft-sl frm, sb ply-sb blk, i-reg, glos tex, v calc, tr bent, fast difse, mod fast sting bri-bl milky cut

MD: 10,814'
TVD: 7,075.24'
Inclination: 90°
Azimuth: 180.9°
VS: 3,736.36'

MD: 10,906'
TVD: 7,075.72'
Inclination: 89.4°
Azimuth: 180.4°
VS: 3,828.22'





nic gr, sl frm-frm, v
tex, occ lam, v
CHK: lt-med gy, sl
reg, glos tex, v
and fast stmg bri-bl
cut

5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc, tr foss, tr lse fos: CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk-ireg, glos tex, v calc, tr bent, fast dse, sl stmg bri bl-milky cut

5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc, tr foss, tr lse fos: CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk-ireg, glos tex, v calc, tr bent, fast dse, sl stmg bri bl-milky cut

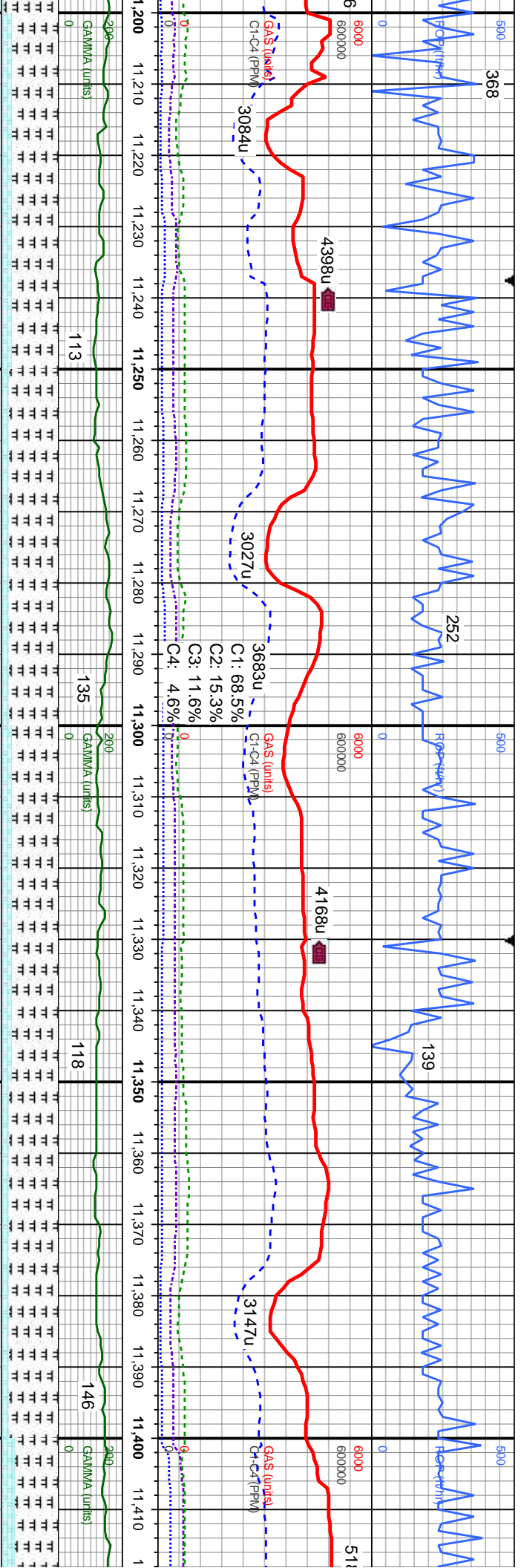
5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc, tr foss, tr lse fos: CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk-ireg, glos tex, v calc, rr bent, fast dse, sl stmg bri bl-milky cut

MD: 10,998'
TVD: 7,076.44'
Inclination: 89.7°
Azimuth: 180.9°
VS: 3,920.08'

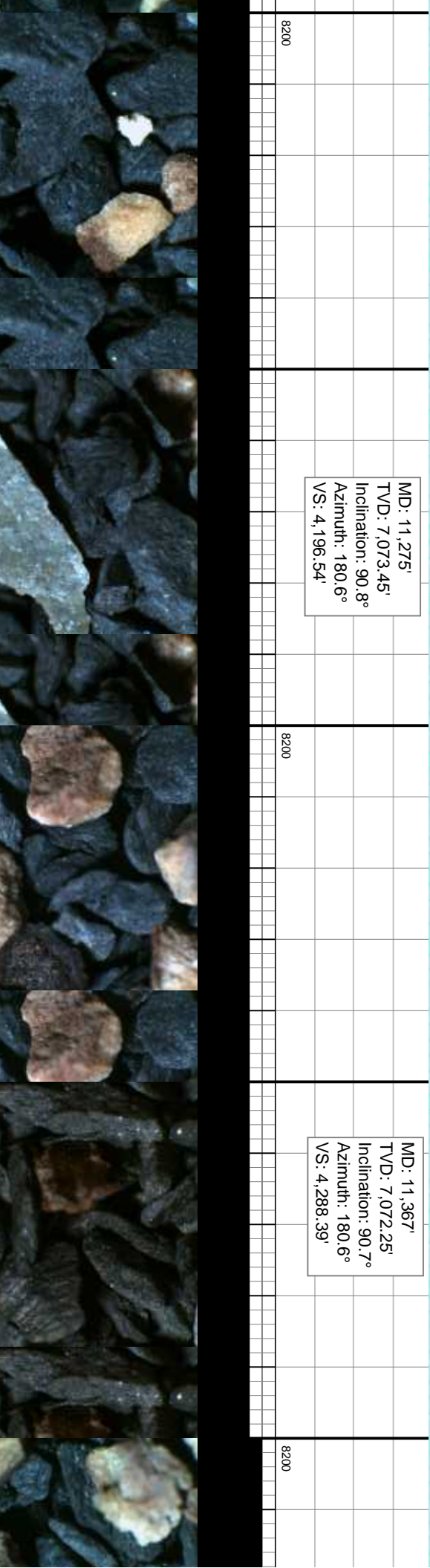
MD: 11,090'
TVD: 7,076.36'
Inclination: 90.4°
Azimuth: 181.3°
VS: 4,011.89'

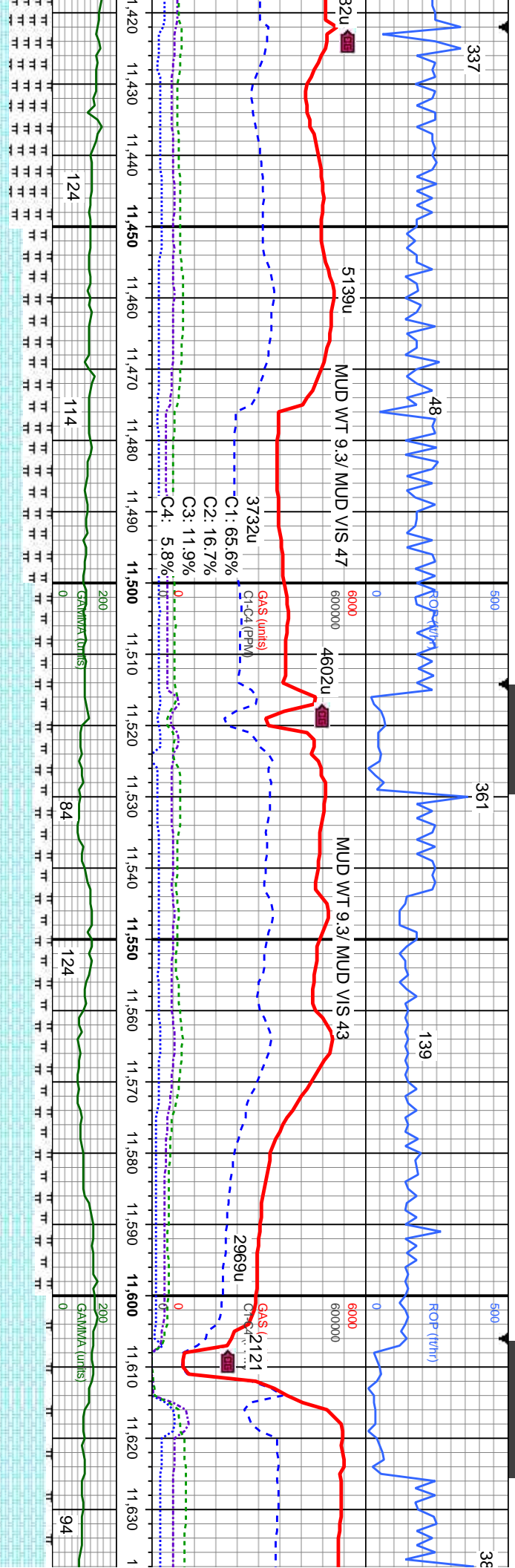
MD: 11,182'
TVD: 7,075.08'
Inclination: 91.2°
Azimuth: 180.9°
VS: 4,103.7'





5600	MRLST: med gy-blk, silt-mic gr, sl frm-frm, brit, sb pily-sb blkly, mot-gt tex, occ lam, v calc, tr foss, tr lse fos: CHK: lt-med gy, sl sft-sl frm, sb pily-sb blkly-ireg, glos tex, v calc, rr bent, slow difse, slow stmg mod-bri blu-milky cut	5600	MRLST: med gy-blk, silt-mic gr, sl frm-frm, brit, sb pily-sb blkly, mot-gt tex, occ lam, v calc, tr foss, tr lse fos: CHK: lt-med gy, sl sft-sl frm, sb pily-sb blkly-ireg, glos tex, v calc, rr bent, fast dfse, non stmg bri wh-bl cut	5600	MRLST: med gy-blk, silt-mic gr, sl frm-frm, brit, sb pily-sb blkly, mot-gt tex, occ lam, v calc, tr foss, tr lse fos: CHK: lt-med gy, sl sft-sl frm, sb pily-sb blkly-ireg, glos tex, v calc, rr bent, fast difse, non stmg bri wh-bl milky cut
TVD (ft)		TVD (ft)		TVD (ft)	





CHK: It-med gy, sl sft-sl frm, sb pty-sb
biky-ireg, glos tex, v calc; MRLST: med
gy-blk, silt-mic gr, sl frm-frm, brt, sb pty-sb
biky,mot-gt tex,occ lam, v calc, tr bent, fast
dise, mod stmg bri-bl milky cut

CHK: It-med gy, sl sft-sl frm, sb pty-sb
biky-ireg, mot-glos tex, fousus, v calc;
MRLST: med gy-blk, silt-mic gr, sl frm-frm,
brt, sb pty-sb biky,mot-gt tex,occ lam, v
calc, tr bent, scat pyrm,fast dise, mod
stmg bri-bl milky cut

CHK: It-med gy, sl sft-sl frm, sb pty-
biky-ireg, mot-glos tex, fousus, v calc; MRLST:
med gy-blk, silt-mic gr, sl frm-frm, brt, sb
pty-sb biky,mot-gt tex,occ lam, v calc, tr bent,
scat pyr, fast dise, mod stmg bri-bl milky cut

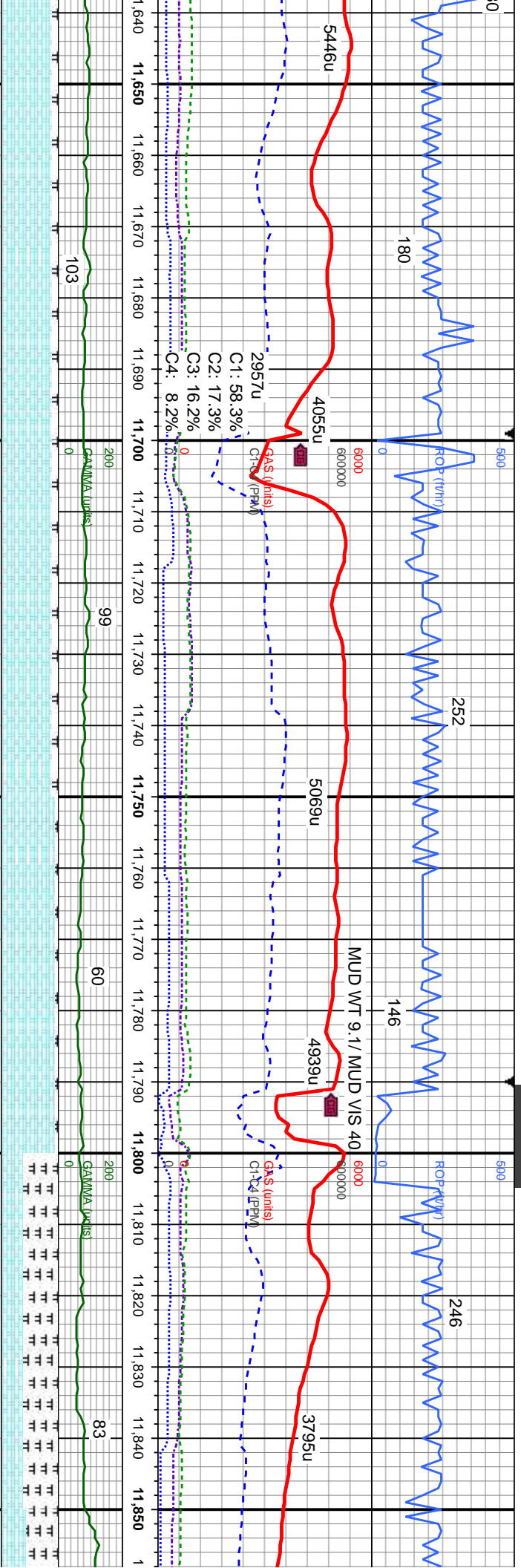
CHK: It-med gy, sl sft-sl frm, sb pty-
biky-ireg, mot tex, v calc, fousus; MRLST:
med gy-blk, silt-mic gr, sl frm-frm, t
med gy-blk,mot-gt tex,occ lam, v c
tr bent, mod fast dise bri-bl milky c

MD: 11,459'
TVD: 7,071.21'
Inclination: 90.6°
Azimuth: 179.7°
VS: 4,380.29'

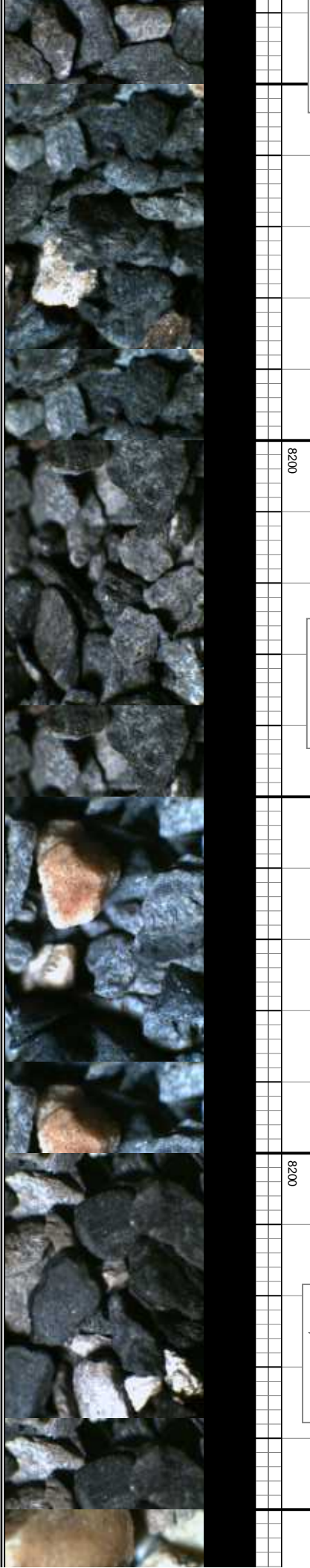
MD: 11,551'
TVD: 7,069.44'
Inclination: 91.6°
Azimuth: 180.4°
VS: 4,472.18'

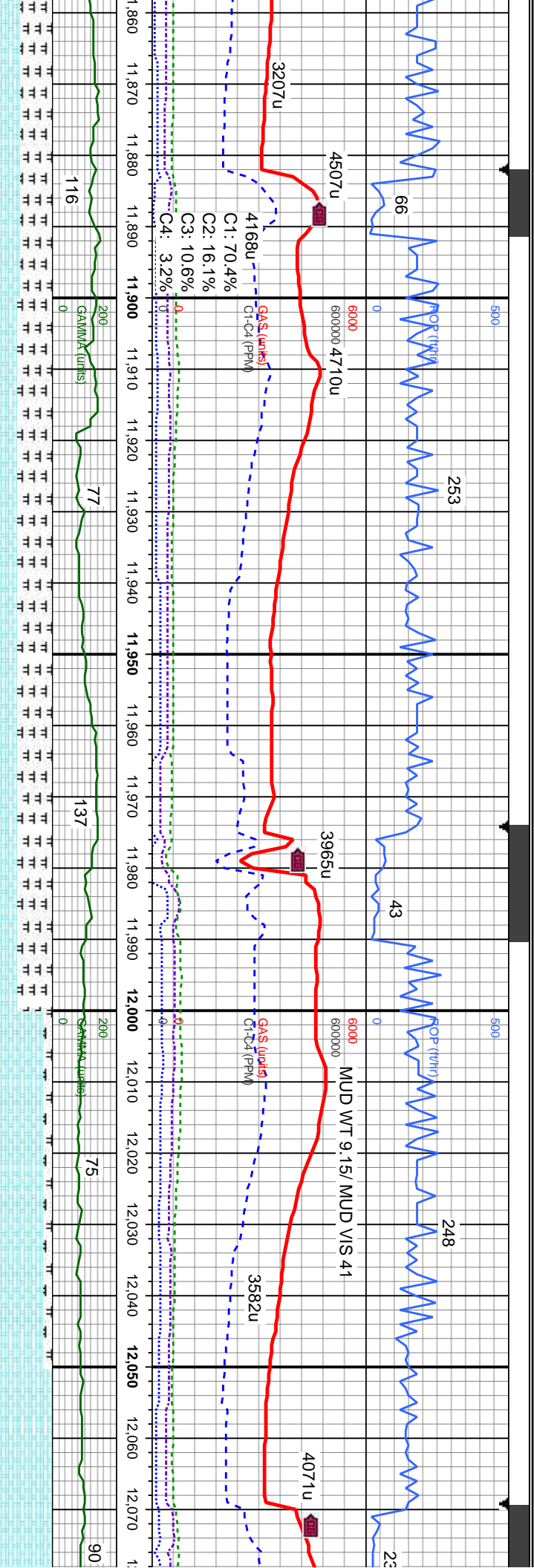
MD:
TV:
Inc:
Az:
VS:





Y-sb MRLST: med gy-blk, slt-mic gr, sl frm-frn, brit, sb ply-sb alc, tr pyr, mod fast difse bri-bl milky cut	CHK: lt-med gy, sl sft-sl frm, sb ply-sb bkly-ireg, mot tex, v calc, fousus; MRLST: med gy-blk, slt-mic gr, sl frm-frn, brit, sb ply-sb bkly, mot-gt tex, occ lam, v calc, tr pyr, tr bent, mod fast difse bri-bl milky cut	5600	CHK: lt-med gy, sl sft-sl frm, sb ply-sb bkly-ireg, mot tex, v calc, fousus; MRLST: med gy-blk, slt-mic gr, sl frm-frn, brit, sb ply-sb bkly, mot-gt tex, occ lam, v calc, tr pyr, tr bent, difse, mod strmg mod bri bl-milky cut	5600	MRLST: med gy-blk, slt-mic gr, sl frm-frn, brit, sb ply-sb bkly, mot-gt tex, occ lam, v calc; CHK: lt-med gy, sl sft-sl frm, sb ply-sb bkly, mot tex, v calc, fousus, difse, fnt stmg bri bl-milky cut	5600
MD: 11,643' D: 7,067.83' Inclination: 90.4° Azimuth: 181.8° VS: 4,563.97'		8200	MD: 11,735' TVD: 7,066.71' Inclination: 91° Azimuth: 182.7° VS: 4,655.65'	8200	MD: 11,827' TVD: 7,067.03' Inclination: 88.6° Azimuth: 180.7° VS: 4,747.39'	8200





med gy-blk, silt-mic gr, sl frm-frn, pty-sb blk, mot-gt tex, occ lam, v
CHK: lt-med gy, sl sft-sl frm, sb pty-sb
ot tex, v calc, fousus, difse, frt stmg
bri bl-milky cut

MRSLT: med gy-blk, silt-mic gr, sl frm-frn, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc; CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk, mot tex, v calc, fousus, fast difse, mod stmg bri bl-milky cut

MRSLT: med gy-blk, silt-mic gr, sl frm-frn, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc; CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk, mot tex, v calc, fousus, fast difse, mod stmg bri bl-milky cut

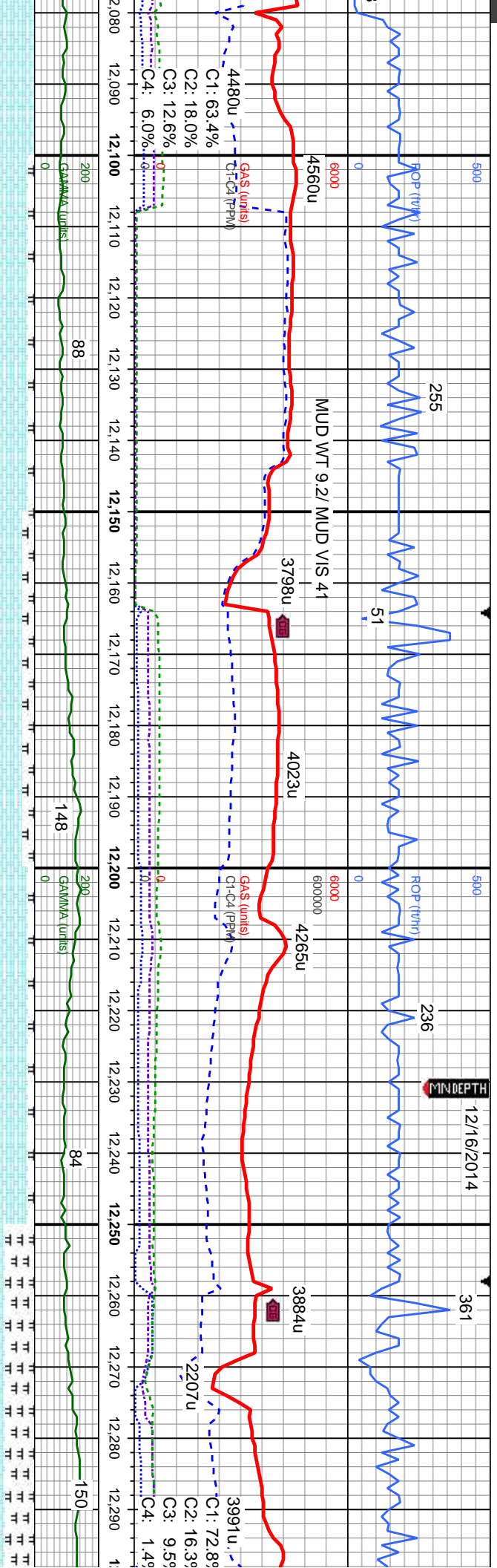
CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk, mot-gt tex, occ lam, v calc, fousus; MRSLT: med gy-blk, silt-mic gr, sl frm-frn, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc, tr pyr, tr bent, fast difse, mod fast stmg bri bl-milky cut

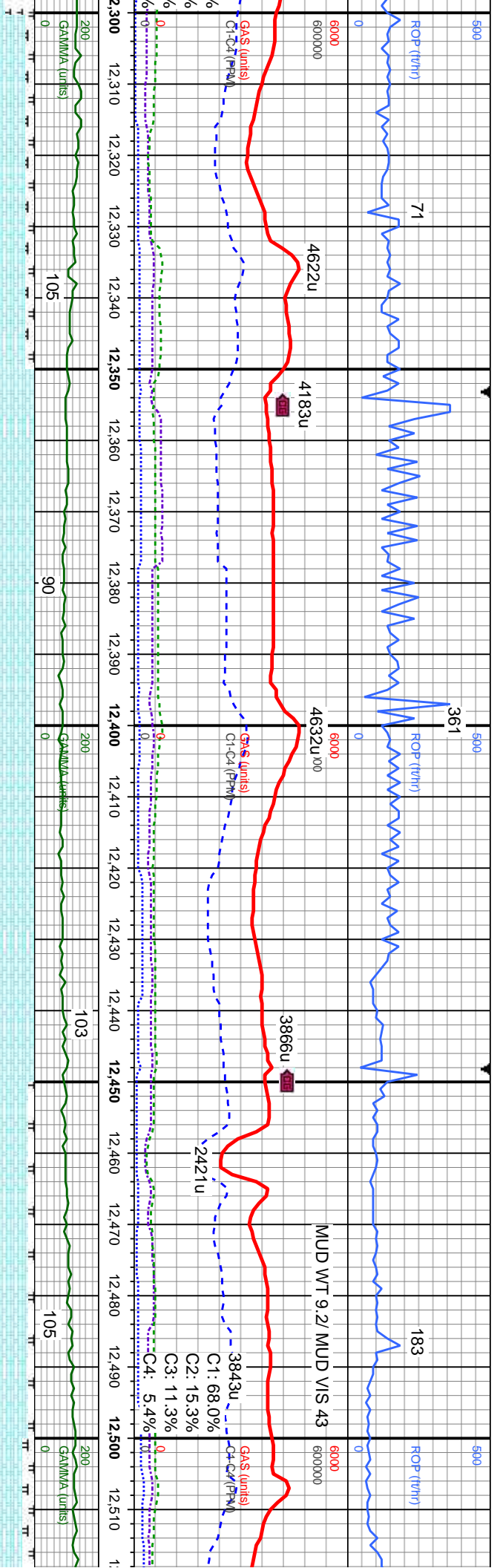
CHK: lt-med gy, sl sft-sl frm, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc, fast difse, mod fast stmg

MD: 11.919'
TVD: 7,069.52'
Inclination: 88.3°
Azimuth: 180.9°
VS: 4,839.2'

MD: 12.014'
TVD: 7,071.34'
Inclination: 89.5°
Azimuth: 181.8°
VS: 4,933.97'



[illegible]



CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc, fokus; MRLST:
med gy-blk, slt-mic gr, sl frm-frm, bri, sb
ply-sb biky, mot-gt tex, occ lam, v calc, tr
bent, mod difse, mod stmg bri bl-wh cut

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc, fokus, tr MRLST,
mod difse, mod stmg bri bl-wh cut

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc, fokus, scat MRLST,
mod difse, mod stmg bri bl-wh cut

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc, fokus; MRLST:
med gy-blk, slt-mic gr, sl frm-frm, bri, sb
ply-sb biky, mot-gt tex, occ lam, v calc, tr
bent, mod difse, mod stmg bri bl-wh cut

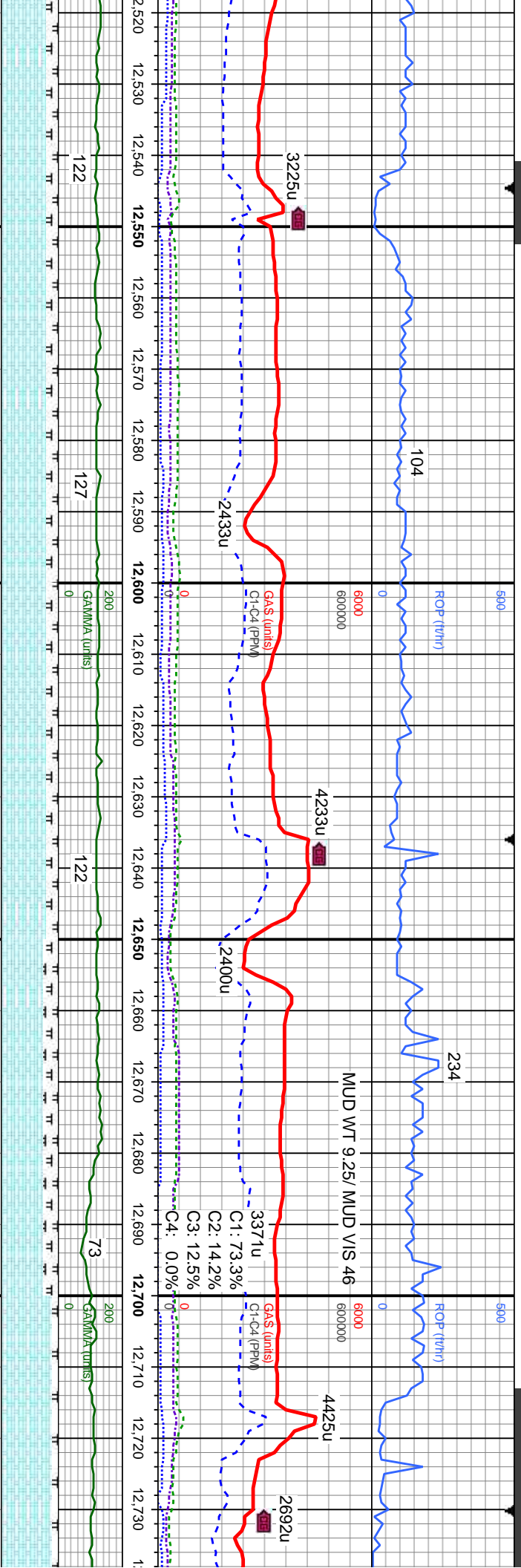
CHK: lt-med gy,
biky-ireg, mot te
med gy-blk, slt-t
ply-sb biky, mot
bent, mod difse

97'
67.63'
n: 90.8°
180.2°
6.4'

MD: 12,392'
TVD: 7,066.39'
Inclination: 90.7°
Azimuth: 180.6°
VS: 5,311.26'

MD: 12,486'
TVD: 7,065.49'
Inclination: 90.4°
Azimuth: 180°
VS: 5,405.15'



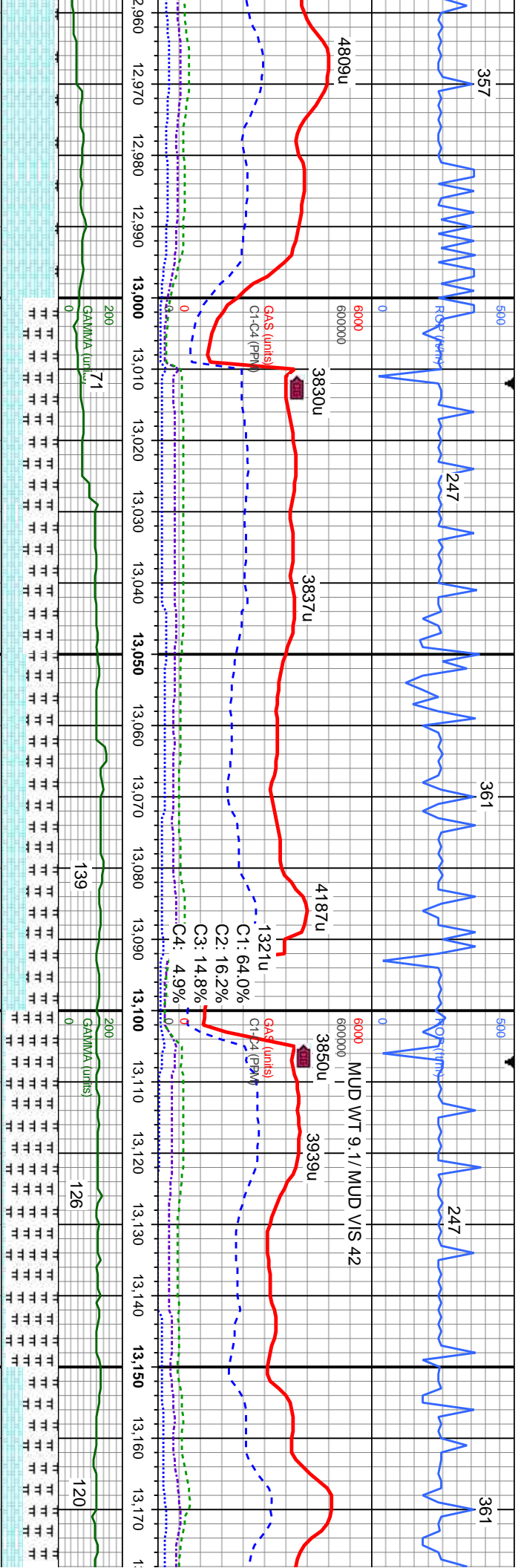


sl sft-sl frm, sb ply-sb x, v calc, fousus: MRLST: nic gr, sl frm-frm, brit, sb gt tex, occ lam, v calc, tr slow sting bri bl-wh cut	CHK: lt-med gy, sl sft-sl frm, sb ply-sb biky-ireg, mot tex, v calc, fousus: MRLST: med gy-blk, silt-mic gr, sl frm-frm, brit, sb ply-sb biky, mot-gt tex, occ lam, v calc, tr bent, mod dise, slow sting bri bl-wh cut	CHK: lt-med gy, sl sft-sl frm, sb ply-sb biky-ireg, mot tex, v calc, fousus: MRLST: med gy-blk, silt-mic gr, sl frm-frm, brit, sb ply-sb biky, mot-gt tex, occ lam, v calc, tr bent, mod dise, slow-mod sting bri bl-wh cut	CHK: lt-med gy, sl sft-sl frm, sb ply-sb biky-ireg, mot tex, v calc, fousus: MRLST: med gy-blk, silt-mic gr, sl frm-frm, brit, sb ply-sb biky, mot-gt tex, occ lam, v calc, tr bent, mod dise, slow-mod sting bri bl-wh cut
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MD: 12,581'
TVD: 7,064.74'
Inclination: 90.5°
Azimuth: 180°
VS: 5,500.05'

MD: 12,675'
TVD: 7,064.74'
Inclination: 89.5°
Azimuth: 178.1°
VS: 5,594.01'





med gy, sl sft-sl frm, sb pty-sb
mot tex, v calc, fofus; MRLST: med
sl-mic gr, sl frm-frm, brit, sb pty-sb
mot-gt tex, occ lam, v calc, fofus, tr
mod difse, milky bri bl-wh cut

5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm,
brit, sb pty-sb blk, mot-gt tex, occ lam, v calc,
occ fofus; CHK: lt-med gy, sl sft-sl frm, sb
pty-sb blk-ireg, mot tex, v calc, fofus, tr
bent, tr pyr, tr lse cal, mod difse, slow-mod
stmg bri bl-wh cut

5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm,
brit, sb pty-sb blk, mot-gt tex, occ lam, v calc,
occ fofus; CHK: lt-med gy, sl sft-sl frm, sb
pty-sb blk-ireg, mot tex, v calc, fofus, tr pyr,
tr lse cal, mod difse, slow-mod stmg bri
bl-wh cut

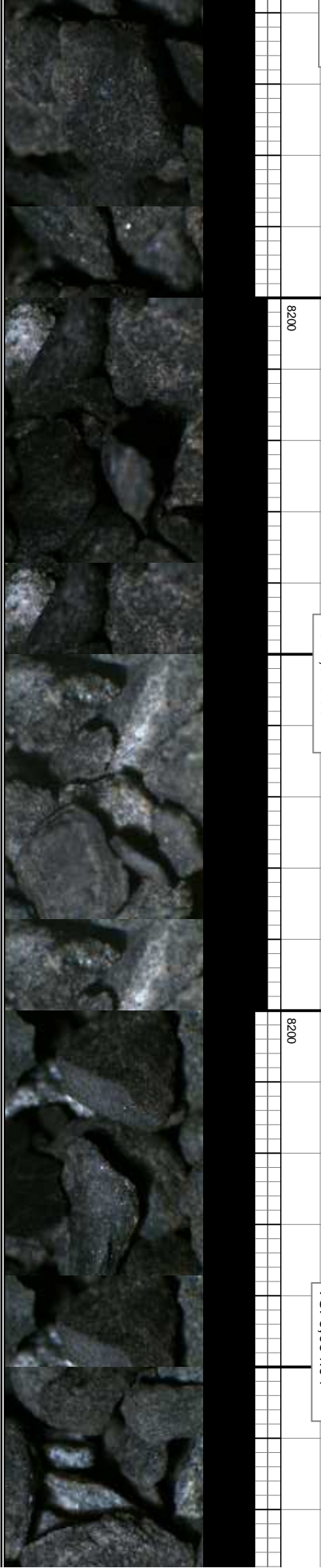
5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm,
brit, sb pty-sb blk, mot-gt tex, occ lam, v calc,
occ fofus; CHK: lt-med gy, sl sft-sl frm, sb
pty-sb blk-ireg, mot tex, v calc, fofus, mod
difse, slow-mod stmg bri bl-wh cut

5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm,
brit, sb pty-sb blk, mot-gt tex, occ lam, v calc,
occ fofus; CHK: lt-med gy, sl sft-sl frm, sb
pty-sb blk-ireg, mot tex, v calc, fofus, mod
difse, slow-mod stmg bri bl-wh cut

57'
64.58'
n: 90.3°
182°
5.75'

MD: 13.052'
TVD: 7,063.75'
Inclination: 90.7°
Azimuth: 182.8°
VS: 5,970.39'

MD: 13.146'
TVD: 7,063.01'
Inclination: 90.2°
Azimuth: 182°
VS: 6,064.04'



12/18/2014

MINDEPTH

5900

106

361

5900

ROP (ft/hr)

181

9

6000

600000

3790u

GAS (units)
G-CD (PPM)

1401u

3022u

3810u

1991u

C1: 65.2%

C2: 9.7%

C3: 18.6%

C4: 6.4%

2677u

GAS (units)
G-CD (PPM)

54

94

1080u

2892u

1080u

1080u

1080u

1080u

1080u

1080u

1080u

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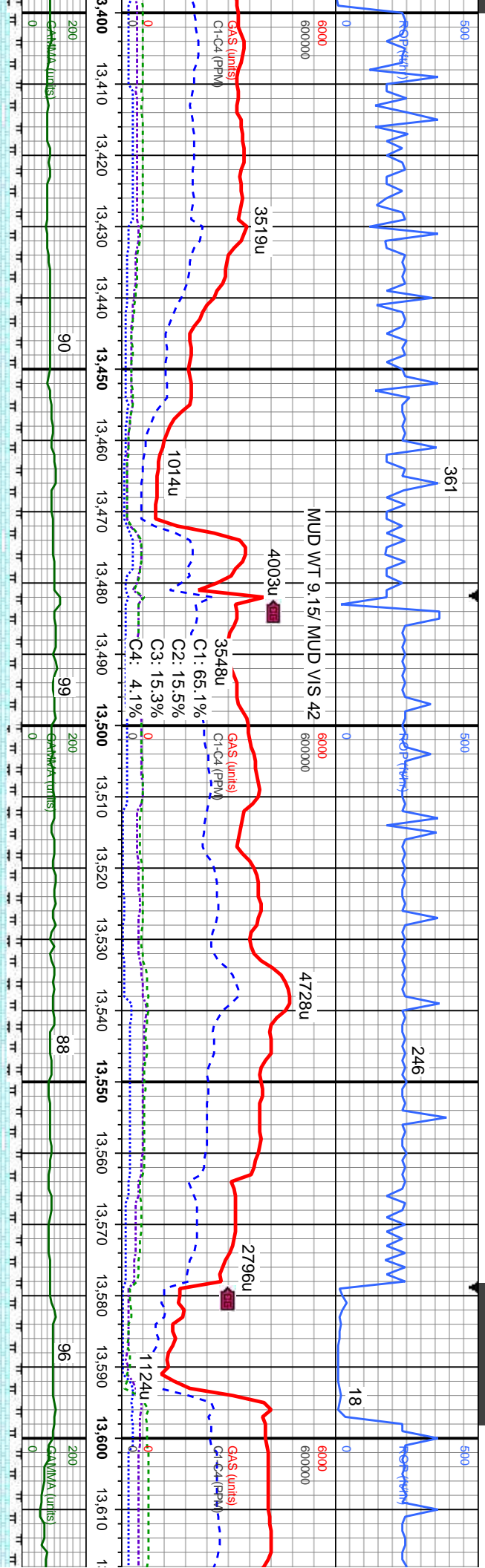
114

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5600
CHK: lt-med gy, sl sft-sl frm, sb pty-sb
blky-ireg, mot tex, v calc; MRLST: med
gy-blk, sft-mic gr, sl frm-frm, brit, sb pty-sb
blky, mot-gt tex, occ lam, v calc, tr lse fos
frags, occ fousus, mod difse, slow-mod
stmg bri bl-wh cut

5600
CHK: lt-med gy, sl sft-sl frm, sb pty-sb
blky-ireg, mot tex, v calc; MRLST: med
gy-blk, sft-mic gr, sl frm-frm, brit, sb pty-sb
blky, mot-gt tex, occ lam, v calc, tr lse fos
frags, rr bent, mod difse, slow-mod stmg bri
bl-wh cut

5600
CHK: lt-med gy, sl sft-sl frm, sb pty-sb
blky-ireg, mot tex, v calc; MRLST: med
gy-blk, sft-mic gr, sl frm-frm, brit, sb pty-sb
blky, mot-gt tex, occ lam, v calc, tr lse fos
frags, rr bent, mod difse, slow stmg-milky
bri bl-wh cut

5600
CHK: lt-med gy, sl sft-sl frm, sb pty-sb
blky-ireg, mot tex, v calc; MRLST: med
gy-blk, sft-mic gr, sl frm-frm, brit, sb pty-sb
blky, mot-gt tex, occ lam, v calc, tr lse fos
frags, rr bent, mod difse, slow stmg-milky
bri bl-wh cut

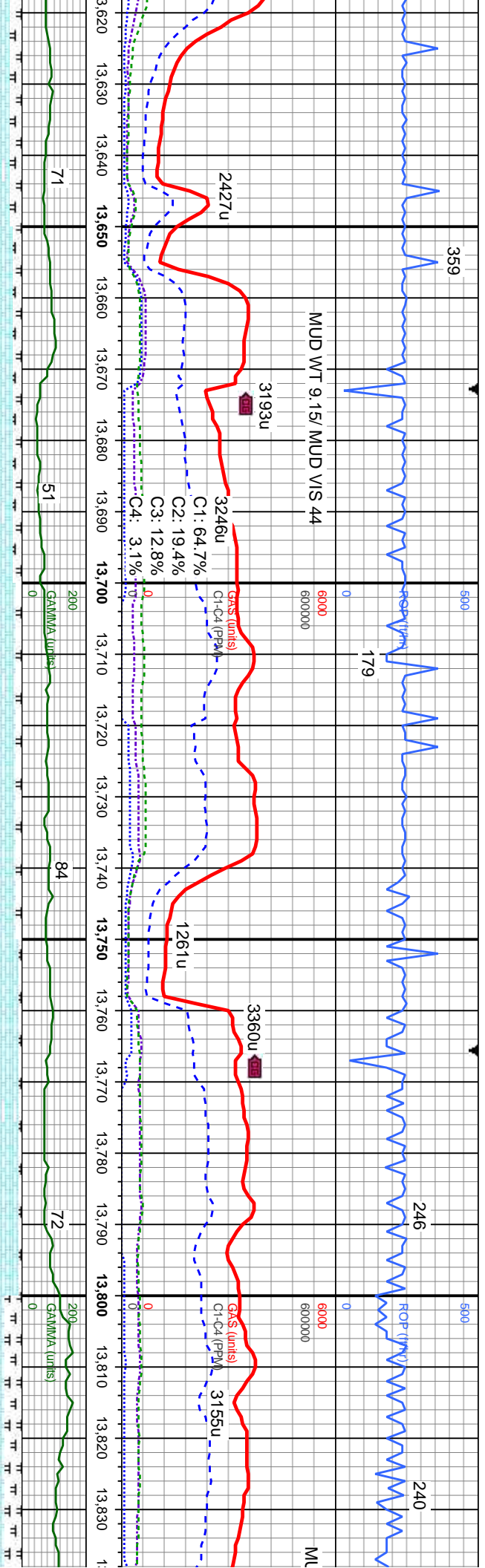
5600
CHK: lt-med gy
blky-ireg, mot tex
gy-blk, sft-mic g
blky, mot-gt tex,
frags, occ fousus
bl-wh cut

MD: 13,430'
TVD: 7,062.43'
Inclination: 90.7°
Azimuth: 182.3°
VS: 6,347.18'

MD: 13,524'
TVD: 7,062.68'
Inclination: 89°
Azimuth: 180.9°
VS: 6,440.93'

MD: 13,
TVD: 7,
Inclinati
Azimuth
VS: 6,5





sl sft-sl frm, sb ply-sb
x, v calc; MRLST: med
r, sl frm-frm, brit, sb ply-sb
occ lam, v calc, tr lse fos
, mod difse, mod sting bri

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
blky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb
blky,mot-gt tex,occ lam, v calc, rr lse fos
frags, occ fofusus, mod difse, mod sting bri
bl-wh cut

5600
CHK: lt-med gy, sl sft-sl frm, sb ply-sb
blky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb
blky,mot-gt tex,occ lam, v calc, rr lse fos
frags, occ fofusus, rr bent, mod difse, mod
sting bri bl-wh cut

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
blky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb
blky,mot-gt tex,occ lam, v calc, occ fofusus, tr
bent, mod difse, mod sting bri bl-wh cut

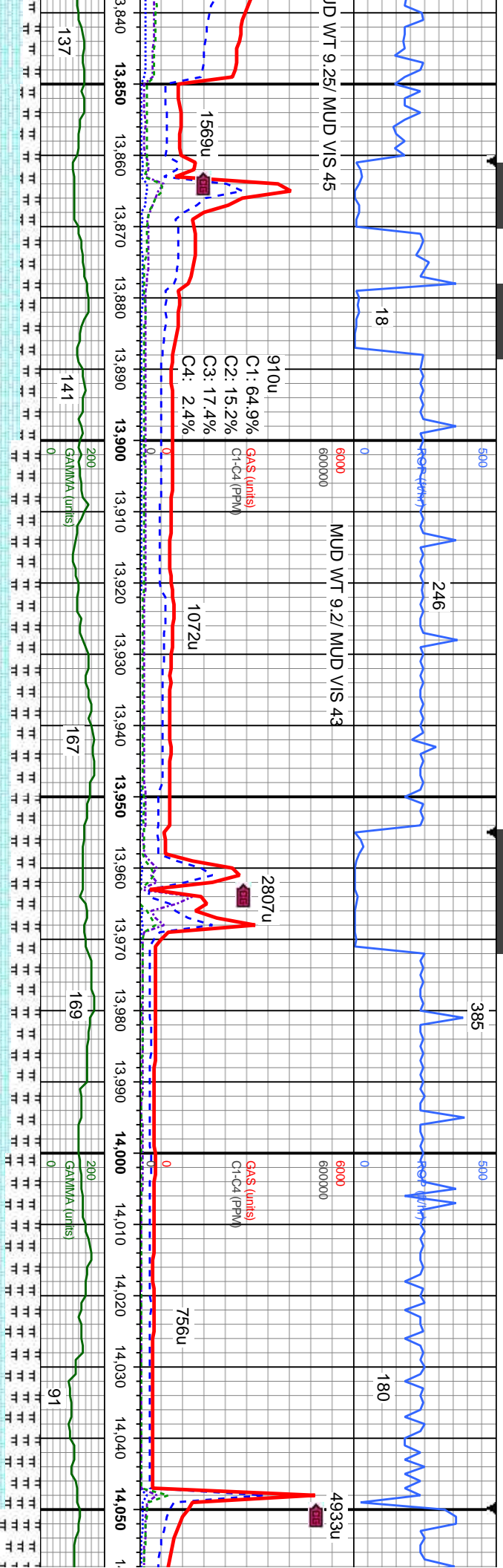
5600
CHK: lt-med gy, sl sft-sl frm, sb ply-sb
blky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, slt
blky,mot-gt tex,occ lam, v calc, occ
bent, mod difse, mod sting-milky b
cut

618'
062.52'
on: 91.2°
i: 182.1°
34.69'

MD: 13,712'
TVD: 7,060.22'
Inclination: 91.6°
Azimuth: 181.3°
VS: 6,628.41'

MD: 13,806'
TVD: 7,057.35'
Inclination: 91.9°
Azimuth: 180.9°
VS: 6,722.18'





med
ply-sb
fusus, tr
bl-wh

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb
biky, mot-gt tex, occ lam, v calc, occ fusus,
tr bent, mod difse, mod stmg-milky bri
bl-wh cut

5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm,
brit, sb ply-sb biky, mot-gt tex, occ lam, v
calc, occ fusus; CHK: lt-med gy, sl sft-sl
frm, sb ply-sb biky-ireg, mot tex, v calc, tr
bent, mod difse, mod stmg-milky bri bl-wh
cut

5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm,
brit, sb ply-sb biky, mot-gt tex, occ lam, v calc,
occ fusus; CHK: lt-med gy, sl sft-sl frm, sb
ply-sb biky-ireg, mot tex, v calc, scat lse fos.
tr cal, mod difse, mod stmg-milky bri bl-wh
cut

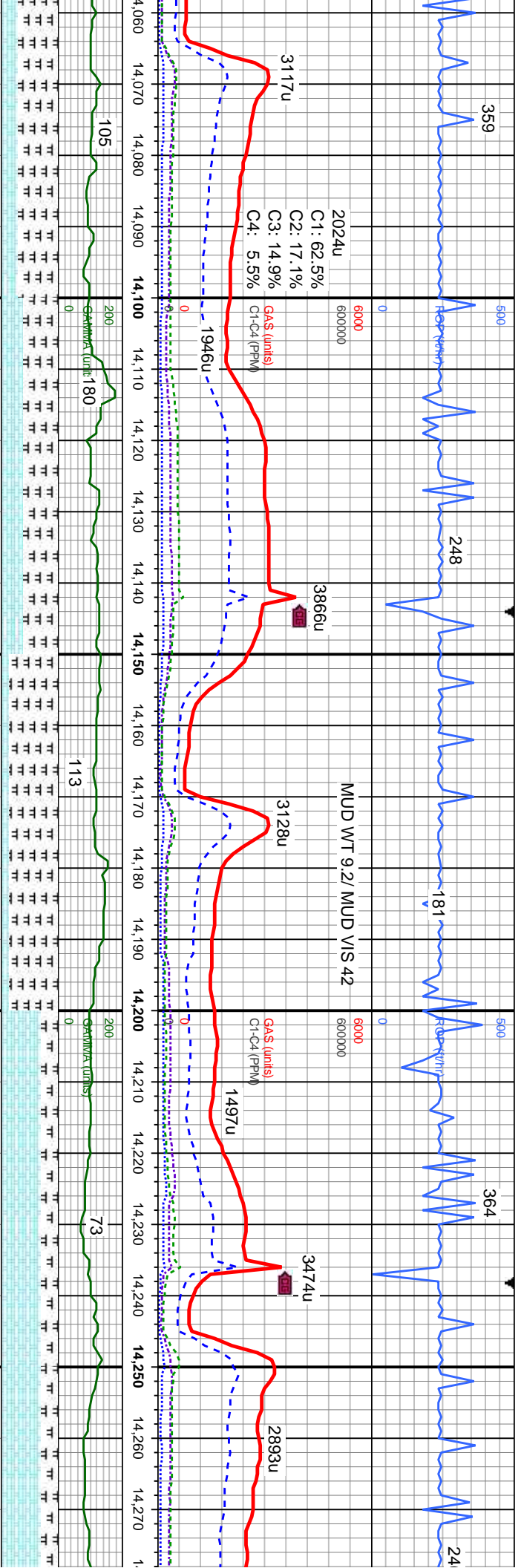
5600
MRLST: med gy-blk, slt-mic gr, sl frm-frm,
brit, sb ply-sb biky, mot-gt tex, occ lam, v calc,
occ fusus; CHK: lt-med gy, sl sft-sl frm, sb
ply-sb biky-ireg, mot tex, v calc, scat lse fos.
tr cal, mod difse, slow stmg-milky bri bl-wh
cut

MRLST
brit, sb
occ fos
ply-sb
cal, mo

MD: 13,900'
TVD: 7,054.56'
Inclination: 91.5°
Azimuth: 180.7°
VS: 6,815.98'

MD: 13,994'
TVD: 7,053.74'
Inclination: 89.5°
Azimuth: 181.1°
VS: 6,909.81'





med gy-blk, silt-mic gr, sl frm-frm, pty-sb blk, mot-gt tex, occ lam, v calc, us: CHK: lt-med gy, sl sft-sl frm, sb blk, mot-gt tex, occ lam, v calc, occ fosus: CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk, mot-gt tex, occ lam, v calc, occ fos, tr cal, mod difse, slow strng-milky bri bl-wh cut

MRLST: med gy-blk, silt-mic gr, sl frm-frm, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc, occ fosus: CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk, mot-gt tex, occ lam, v calc, occ fos, tr cal, slow difse, slow-mod strng bri bl-wh cut

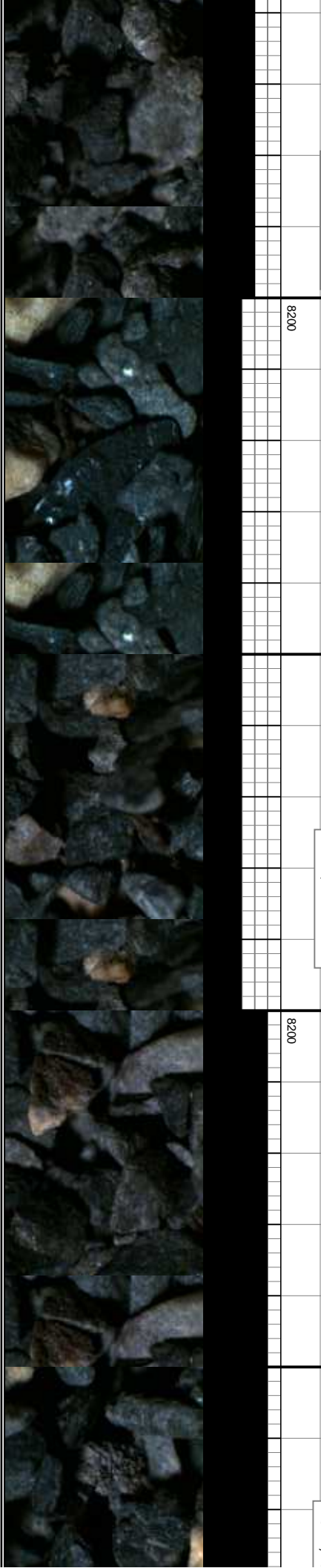
MRLST: med gy-blk, silt-mic gr, sl frm-frm, brit, sb pty-sb blk, mot-gt tex, occ lam, v calc, occ fosus: CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk, mot-gt tex, occ lam, v calc, occ fos, tr cal, mod difse, slow-mod strng bri bl-wh cut

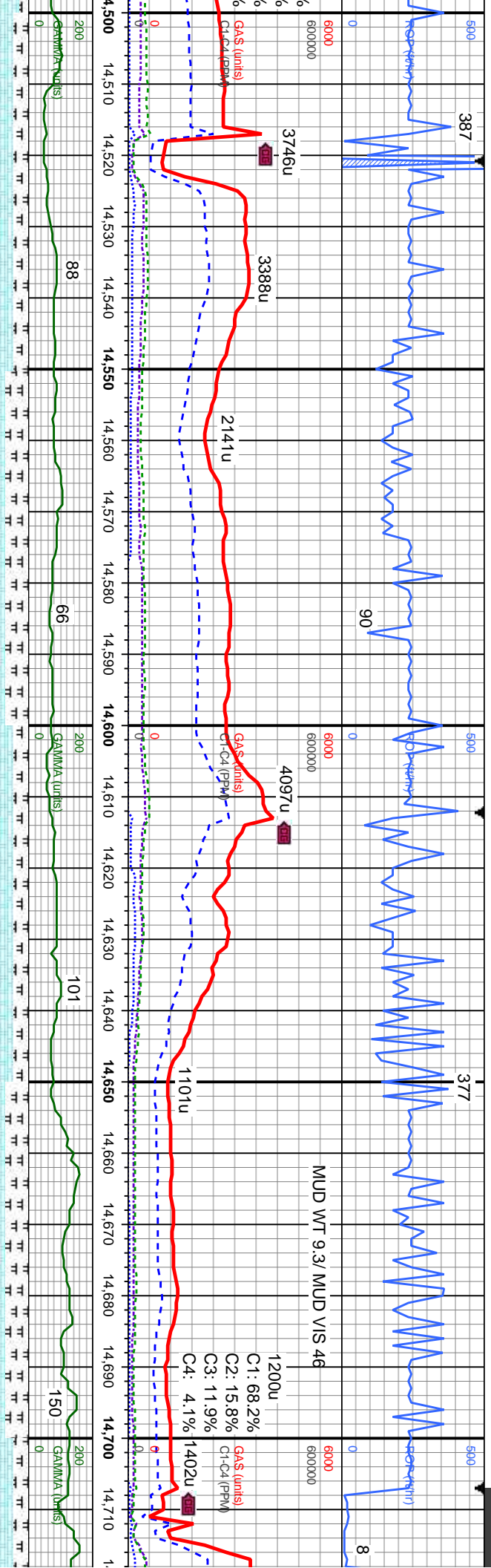
CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk, mot-gt tex, occ lam, v calc, occ fosus: CHK: lt-med gy, sl sft-sl frm, sb pty-sb blk, mot-gt tex, occ lam, v calc, occ fos, tr cal, mod difse, slow-mod strng bri bl-wh cut

MD: 14,088'
TVD: 7,054.23'
Inclination: 89.9°
Azimuth: 180.7°
VS: 7,003.64'

MD: 14,182'
TVD: 7,054.15'
Inclination: 90.2°
Azimuth: 180.4°
VS: 7,097.5'

MD: 14,190'
TVD: 7,054.15'
Inclination: 90.2°
Azimuth: 180.4°
VS: 7,097.5'





5600

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb
biky, mot-gt tex, occ lam, v calc, occ fofus,
scat lse fos, tr cal, mod difse, mod
stimg-milky bri bl-wh cut

5600

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb
ply-sb biky, mot-gt tex, occ lam, v calc,
occ fofus, scat lse fos, tr cal, mod difse,
mod stmg-milky bri bl-wh cut

5600

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb
biky, mot-gt tex, occ lam, v calc, occ fofus,
tr lse fos, mod difse, slow-mod
stimg bri bl-wh cut

5600

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb
biky, mot-gt tex, occ lam, v calc, occ fofus,
tr lse fos, mod difse, slow-mod
stimg bri bl-wh cut

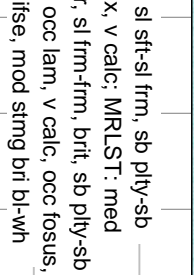
5600

CHK: lt-med gy, sl sft-sl frm, sb ply-sb
biky-ireg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb
biky, mot-gt tex, occ lam, v calc, occ fofus,
tr lse fos, mod difse, slow-mod
stimg bri bl-wh cut

MD: 14,560'
TVD: 7,052.08'
Inclination: 91.5°
Azimuth: 179.7°
VS: 7,475.17'

MD: 14,654'
TVD: 7,049.04'
Inclination: 92.2°
Azimuth: 179.5°
VS: 7,569.05'





CHK: it-med gy, sl sft-sl frm, sb ply-sb
bly-íreg, mot tex, v calc; MRLST: med
gy-blk, slt-mic gr, sl frm-frm, bri, sb ply-sb
bly, mot-gt tex, occ lam, v calc, occ fofus,
tr íse fos, mod dífse, mod string bri bl-wh
cut

5630
CHIK: lt-med gy, sl sft-sl frm, sb pily-sb
biky-tieg, mot tex, v calc; MRLST: med
biky-blk, sft-mic gr, sl frm-frm, brit, sb pily-sb
biky, mot-gf tex, occ lam, v calc, occ fousu,
rr bent, mot diflse, slow-mod string bri
bl-wh cut

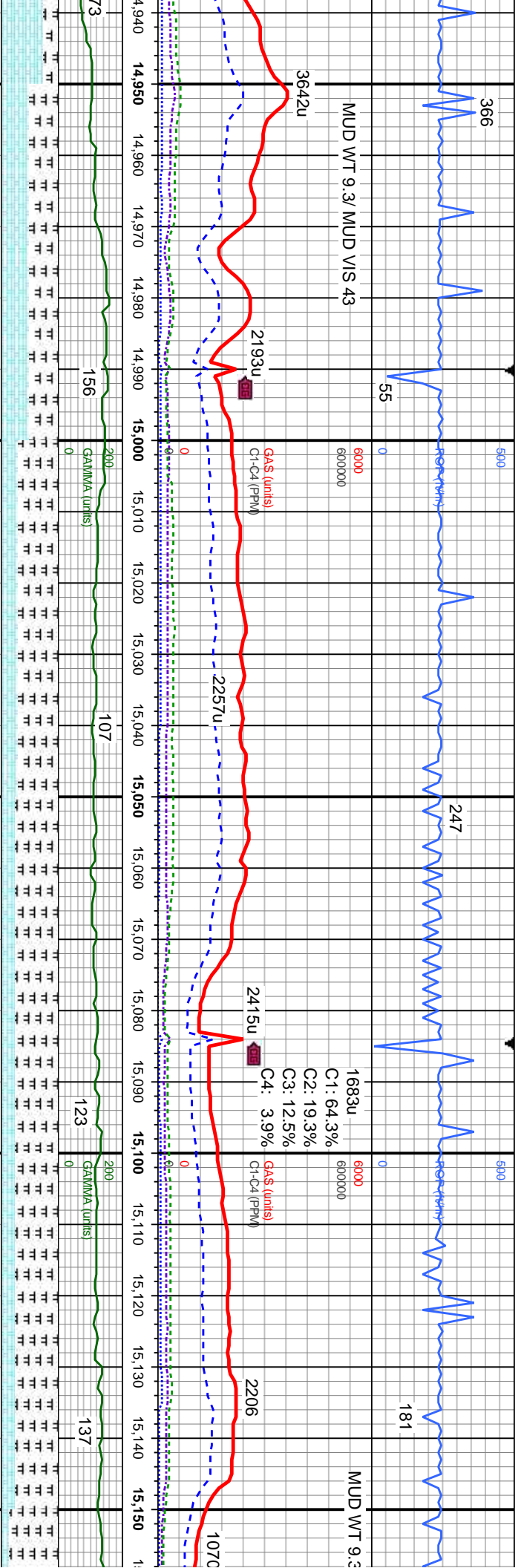
CHK: li-med gy, sl st-sl frm, sb ply-sb
biky-ieg, mot tex, v calc: MRLST: med gy-blk,
slt-mic gr, sl frm-frm, brit, sb ply-sb biky,
mot-gt tex, occ lam, v calc, occ fous, rr bent,
mod difse, slow-mod stmg bri bl-wh cut

5600
-CHK, lt-med gy, sl sft-sl frm, sb ply
blyk-ireg, mot tex, v calc; MR LST:
gy-blyk, slt-mic gr, sl frm-frm, brit, st
blyk, mot-gf tex, occ lam, v calc, oc
rr bent, mot dlise, slow-mod stang
bl-wh cut

MD: 14,748'
TVD: 7,045.76'
Inclination: 91.8°
Azimuth: 179.3°
VS: 7,662.94'

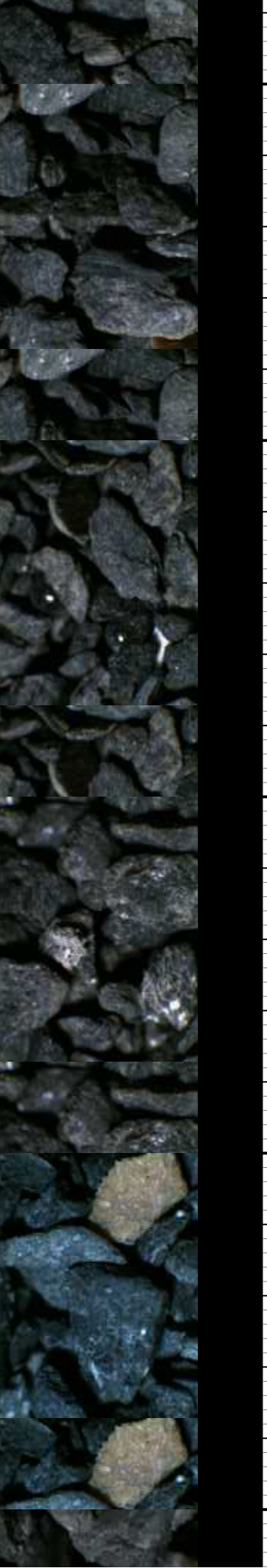
MD: 14,842'
TVD: 7,043.38'
Inclination: 91.1°
Azimuth: 180.6°
VS: 7,756.83'

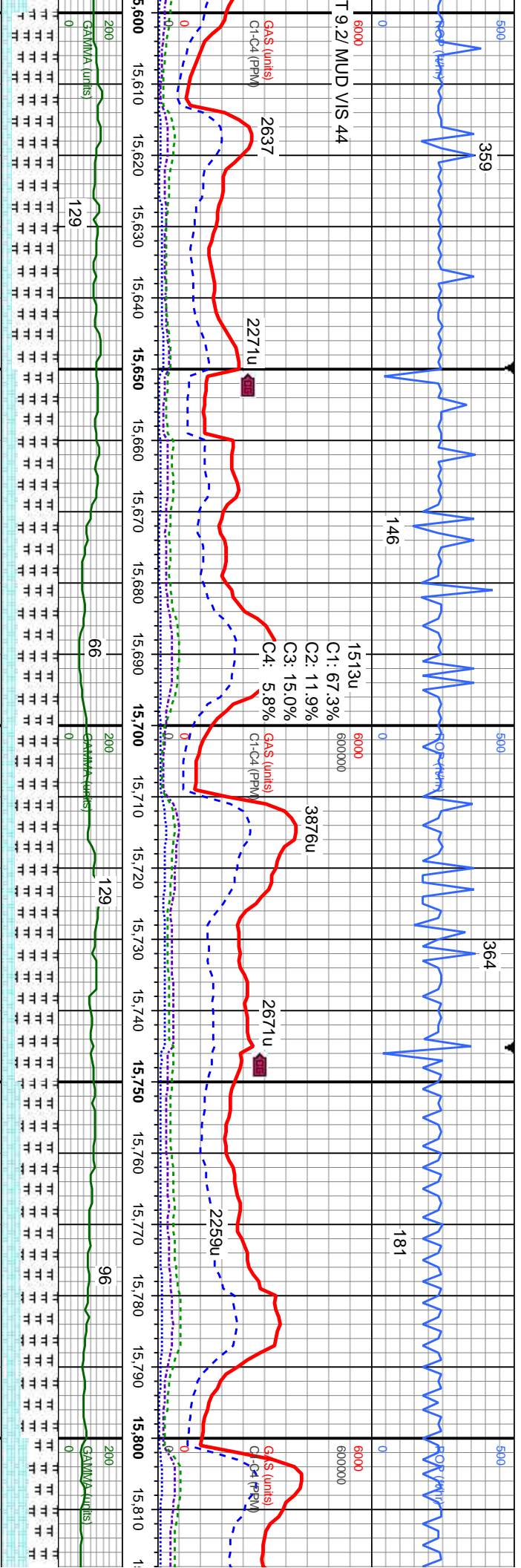
MD: 14,9;
TVD: 7,04
Inclinatio
Azimuth:
VS: 7,85C



ply-sb med ply-sb bri	CHK: lt-med gy, slt-slt frm, sb ply-sb biky-ireg, mot tex, v calc; MRLST: med gy-blk, slt-mic gr, sl frm-frm, brit, sb ply-sb biky, mot-gt tex, occ lam, v calc, occ fosus, tr bent, mod difse, slow-mod string bri bl-wh cut	5600 MRLST: med-dk gy, mot ip, slt gr, sl frm-hd, brit, sb ply-sb biky, lam ip, v gt tex, calc; CHK: lt-med gy, str ip, mot ip, slt-slt frm, sb ply-sb biky-ireg, com fos frags, v calc, tr foss frags, mod difse, mod string bri bl-wh cut	5600 MRLST: med-dk gy, mot ip, slt gr, sl frm-hd, brit, sb ply-sb biky, lam ip, v gt tex, calc; CHK: lt-med gy, str ip, mot ip, slt-slt frm, sb ply-sb biky-ireg, com fos frags, v calc, tr foss frags, mod difse, slow-mod string bri bl-wh cut	5600 MRLS brit, slt CHK: ply-slt foss fr bl-wh
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36' 12.32' 1: 90.2° 181.8° .62'	8200	MD: 15,031' TVD: 7,041.9' Inclination: 90.3° Azimuth: 181.8° VS: 7.945.35'	8200	MD: 15,125' TVD: 7,041.57' Inclination: 90.1° Azimuth: 181.8° VS: 8.039.08'
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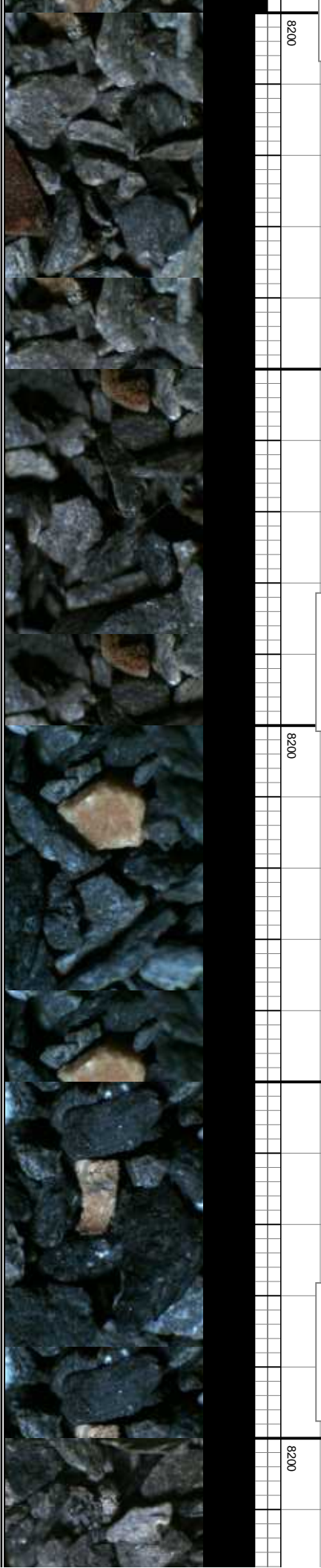
MRSLST: med-dk gy, mot ip, slt gr, sl frm-hd, brit, sb ply-sb blkly, lam ip, v gt tex, calc; CHK: lt-med gy, str ip, mot ip, sft-sl frm, sb ply-sb blkly-ireg, com fos frags, v calc, tr lse frags, tr lse foss frags, tr bent, mod difse, slow stmg bri bl-wh cut

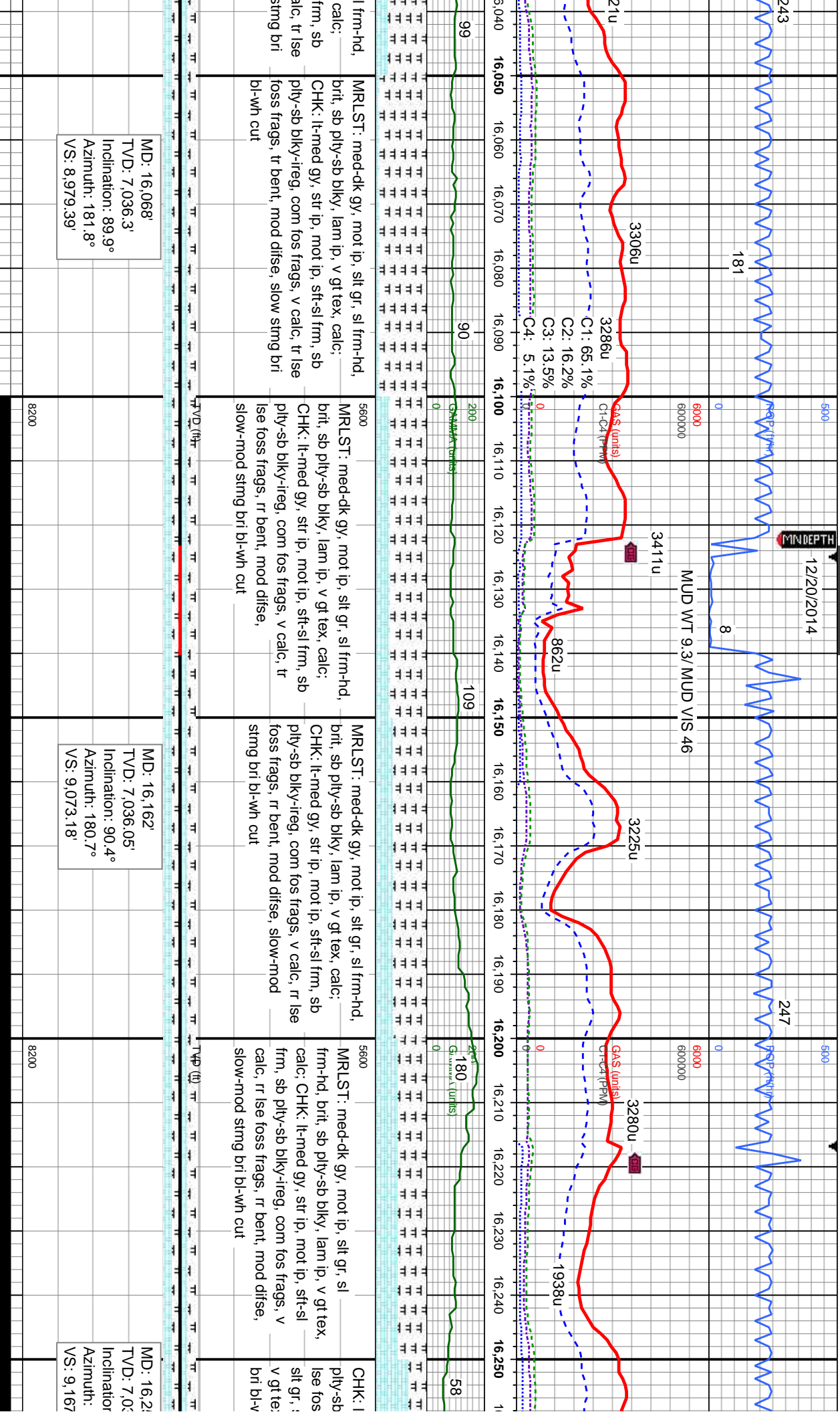
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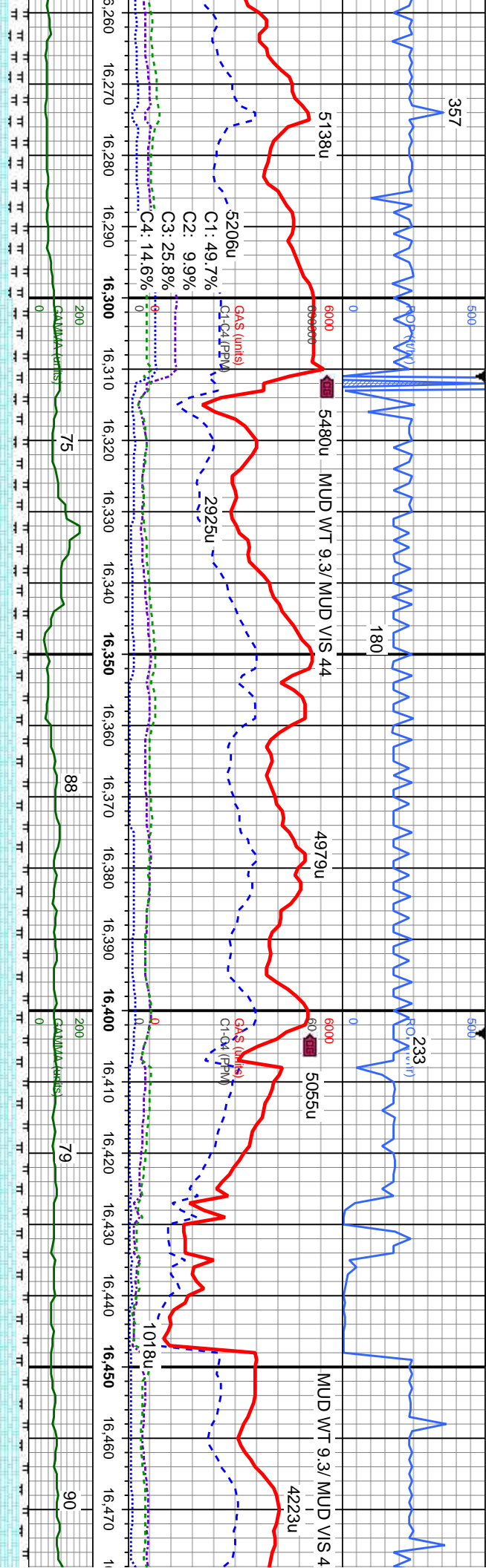
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MD: 15,691'
TVD: 7,038.44'
Inclination: 90.5°
Azimuth: 181.8°
VS: 8,603.41'

MD: 15,785'
TVD: 7,037.7'
Inclination: 90.4°
Azimuth: 181.6°
VS: 8,697.15'







lt-med gy, str ip, mot ip, sft-sl frm, sb
bly-ireg, com fos frags, v calc, r
s frags; MRLST: med-dk gy, mot ip,
sl frm-hd, brit, sb ply-sb bly, lam ip,
x, calc, mod difse, slow-mod sting
h cut

CHK: lt-med gy, str ip, mot ip, sft-sl frm, sb
ply-sb bly-ireg, com fos frags, v calc, r
lse foss frags; MRLST: med-dk gy, mot ip,
sit gr, sl frm-hd, brit, sb ply-sb bly, lam
ip, v gt tex, calc, mod difse, slow-mod
sting bri bl-wh cut

CHK: lt-med gy, str ip, mot ip, sft-sl frm, sb
ply-sb bly-ireg, com fos frags, v
calc, r lse foss frags; MRLST: med-dk
gy, mot ip, sit gr, sl frm-hd, brit, sb
ply-sb bly, lam ip, v gt tex, calc, mod
difse, slow-mod sting bri bl-wh cut

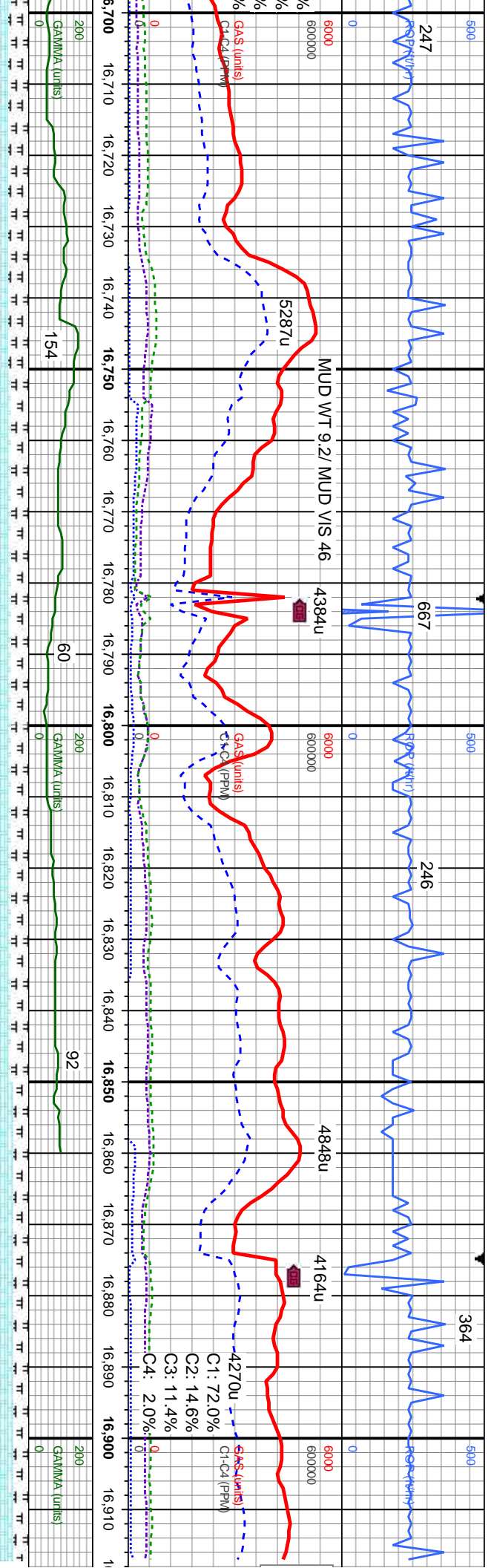
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ply-sb bly-ireg, com fos frags, v calc, r lse
foss frags; MRLST: med-dk gy, mot ip, sit
gr, sl frm-hd, brit, sb ply-sb bly, lam ip, v gt
tex, calc, mod difse, slow-mod sting bri
bl-wh cut

CHK: lt-med gy, str ip, mot ip, sft-sl frm, sb
ply-sb bly-ireg, com fos frags, v calc, r lse
foss frags; MRLST: med-dk gy, mot ip, sit
gr, sl frm-hd, brit, sb ply-sb bly, lam ip, v gt
tex, calc, mod difse, slow-mod sting bri
bl-wh cut

MD: 16,350'
TVD: 7,033.84'
Inclination: 91.3°
Azimuth: 181.3°
VS: 9,260.82'

MD: 16,445'
TVD: 7,032.51'
Inclination: 90.3°
Azimuth: 180.9°
VS: 9,355.62'





5600
CHK: lt-med gy, str thru, sl sft-sft, sb
ply-sb blkly-ireg, com fos frags, v calc;
MRLST: med-dk gy, slt gr, sl frm-hd, brit,
sb ply-sb blkly, lam ip, v gt tex, calc, mod
dise, slow sting bri bl-wh cut

5600
CHK: lt-med gy, str thru, sl sft-sft, sb
ply-sb blkly-ireg, com fos frags, v calc;
MRLST: med-dk gy, slt gr, sl frm-hd, brit,
sb ply-sb blkly, lam ip, v gt tex, calc; rr lse
fos frag, mod dise, slow sting bri bl-wh
cut

5600
CHK: lt-med gy, str thru, sl sft-sft, sb
ply-sb blkly-ireg, com fos frags, v calc;
MRLST: med-dk gy, slt gr, sl frm-hd, brit,
sb ply-sb blkly, lam ip, v gt tex, calc; rr lse
fos frag, mod dise, slow-mod sting bri
bl-wh cut

5600
CHK: lt-med gy, str thru, sl sft-sft, sb
ply-sb blkly-ireg, com fos frags, v calc;
MRLST: med-dk gy, slt gr, sl frm-hd, brit,
sb ply-sb blkly, lam ip, v gt tex, calc; rr lse
fos frag, mod dise, slow-mod sting bri
bl-wh cut

PROECTIO

MD: 16,727'
TVD: 7,032.43'
Inclination: 90.2°
Azimuth: 179.9°
VS: 9,637.12'

MD: 16,821'
TVD: 7,031.77'
Inclination: 90.6°
Azimuth: 179.7°
VS: 9,731.04'

MD: 16,862'
TVD: 7,031.38'
Inclination: 90.5°
Azimuth: 179.7°
VS: 9,772'

MD: 16,917'
TVD: 7,030
Inclination:
Azimuth: 17
VS: 9,827



Bayswater Mojack M-28-HN
well TD @ 16917' MD on
12/20/2014 @ 17:25 MST

Thank you for using
Columbine Logging Inc.

16,920 16,930 16,940 16,950

IN TO BIT

9'
90.5°
9.7°