

Scale: 5" / 100'
Measured Depth Log

Well Name Fiducial 6-62-34-3340 BH2 Horizontal

Location NWSV Sec 34-T6N-R62W

State CO

County Weld

Country USA

Rig Number Nabors M22

API Number 05-123-39263

AFE # 18779D

Region DJ Basin

Field Wattenberg

Spud Date 8/12/2014

Drilling Completed 8/22/2014

Surface Coordinates NWSW Sec 34-T6N-R62W

2345' FSL, 370' FWL

Bottom Hole Coordinates

Projected:

SENE Sec 35-T6N-R62W

2655' FSL, 500' FEL

Ground Elevation 4687'

K.B. Elevation 4709'

Logged Interval 5833' To 16115'

Total Depth 16115'

Formation Niobrara B Chalk

Type of Drilling Fluid LSND

Company Bill Barrett Corp.

Address 1099 18th Street, Suite 2300
Denver, CO 80202

Name Scott Hampton


Company Bill Barrett Corporation

Address 1099 18th Street, Suite 2300
Denver, CO 80202

Charles Trodick Senior Wellsite Geologist

Mark Raimo Senior Wellsite Geologist

Oil	Note	Error





































Condensate

Core

























































Water

Gas
Pres
Sea

Rock Types

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

Accessories

 GASTROPOD	 ARGILLITE GRAIN	 HEAVY MINERAL	
 INOCERAMUS	 B BENTONITE	 K KAOLIN	
 ALGAE	 BITUMENOUS SUBSTANCE	 M MARCASITE	 ANHYDRITE STRINGER
 AMPHIPORA	 BRECCIA FRAGMENTS	 M MARLSTONE	 BENTONITE STRINGER
 BELEMNITE	 CALCAREOUS	 MICACEOUS	 COAL STRINGER
 BIOCLASTIC	 CARBONACEOUS FLAKES	 MINERAL CRYSTALS	 DOLOMITE STRINGER
 BRACHIOPOD	 CHTDK	 NODULES	 GYPSUM STRINGER
 BRYOZOA	 CHTLT	 PHOSPHATE PELLETS	 LIMESTONE STRINGER
 CEPHALOPOD	 COAL - THIN BEDS	 P PYRITE	 MARLSTONE (CALC) STRG
 CORAL	 DOLOMITIC	 B SALT CAST	 MARLSTONE (DOL) STRG
 CRINOID	 + FELDSPAR	 S SANDY	 SANDSTONE STRINGER
 ECHINOID	 ● FERRUGINOUS PELLET	 S SIDERITE	 SHALE STRINGER
 FISH	 S FERRUGINOUS	 S SILICEOUS	 SILTSTONE STRINGER
 FORAMINIFERA	 // ANHYDRITIC	 S SILTY	
 F FOSSIL	 - ARGILLACEOUS	 V TUFFACEOUS	

Oil Show

- P PINPOINT
- VUGGY






































Engineering

- D DEAD
- EVEN
- QUESTIONABLE
- BIT
- SPOTTED STAINING
- CONNECTION (UP)

Porosity

- CONNECTION (DOWN)
- CONNECTION GAS
- CONNECTION GAS
- TRIP GAS
- TRIP GAS (LEFT)
- FRACTURE
- INTERCRYSTALLINE
- DOWN TIME GAS
- INTEROOLITIC
- DOWN TIME GAS
- MOLDIC
- CORE - LOST
- ORGANIC
- 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		

Slide/Rotate

Columbine Logging 2-Manned
Geosteering Operational 8/12/2014
Bloodhound # 0052

ROP
ROP —
GAMMA —

Log continues from
Fiducial 6-62-34-3340 BH2 VERT

Total Gas & Chromatograph
GAS —
C1 —
C2 —
C3 —
C4 —

Depth Labels

% Lith

Well Bore
TVD —

Oil Show

EGMFTST

Images

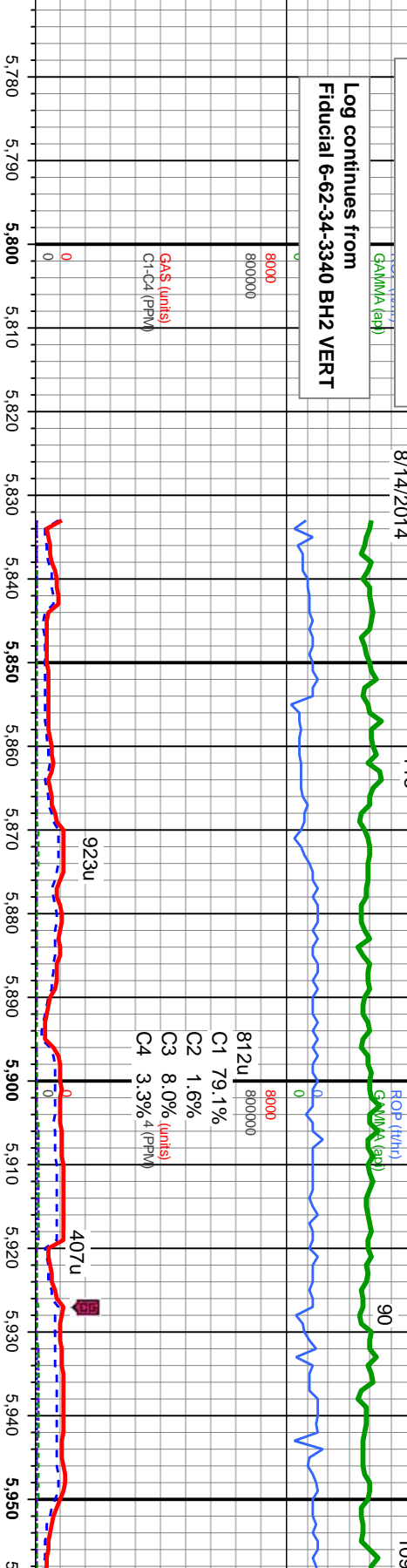
In/Out Mud Wt: 9.8/9.8 Vis 40/42

8/14/2014

113

In/Out Mud Wt: 9.7/9.7 Vis

109



MD: 5,865'
TVD: 5,832.62'
Inclination: 4.2°
Azimuth: 89.3°
VS: -331.16'

MD: 5,913'
TVD: 5,880.25'
Inclination: 9.8°
Azimuth: 84.6°
VS: -325.32'

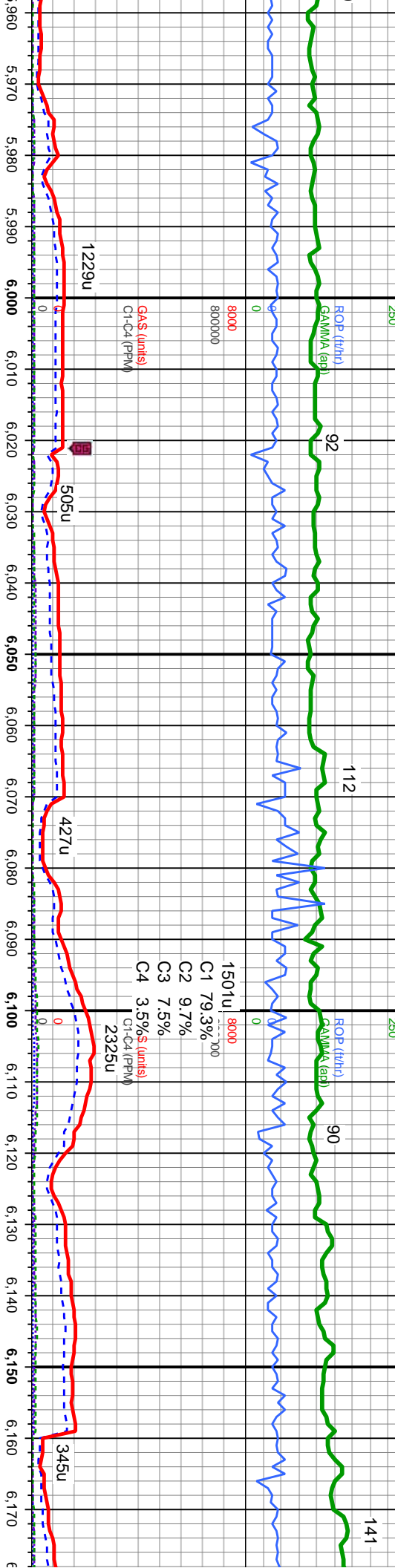
MD: 5,9
TVD: 5,
Inclinati
Azimuth
VS: -31

SHY SLTST: lt - med gy, gy brn, s&p, mod frm,
brit, sb-ply - sb blkly, rthy tex, v/ occ f-med gr, w srt,
non calc; SLTY SH: lt - dk gy, sft - frm, sb ply - sb
blkly, rthy tex, non calc, tr SHY SS

SHY SLTST: lt - med gy, gy brn, s&p, mod frm,
brit, sb-ply - sb blkly, rthy tex, v/ occ f-med gr, w srt,
non calc; SLTY SH: lt - dk gy, sft - frm, sb ply - sb
blkly, rthy tex, non calc, tr SHY SS

SHY SLTST: lt - med gy, gy brn, s&p, mod frm,
brit, sb-ply - sb blkly, rthy tex, v/ occ f-med gr, w srt,
non calc; SLTY SH: lt - dk gy, sft - frm, sb ply - sb
blkly, rthy tex, non calc, tr SHY SS

SHY SL
brit, sb-pl
non calc
blkly, rthy



60'
3926.18'
Inclination: 14.6 °
VS: 77.6°
VS: 5.51'

MD: 6.007'
TVD: 5.971.06'
Inclination: 19.8 °
Azimuth: 79.9°
VS: -301.81'

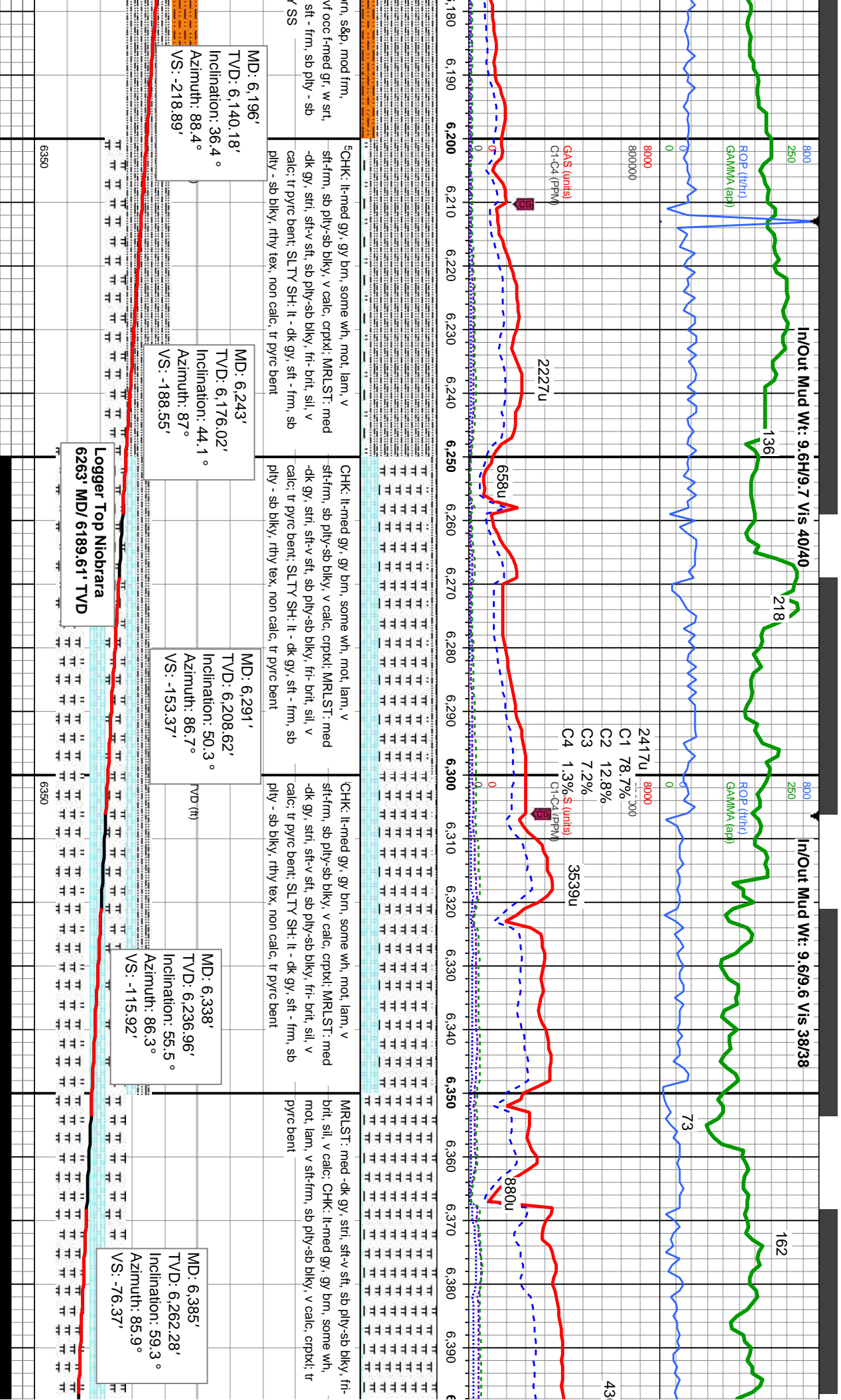
MD: 6.055'
TVD: 6.015.7'
Inclination: 23.3 °
Azimuth: 86.3°
VS: -284.28'

MD: 6.102'
TVD: 6.058.76'
Inclination: 24 °
Azimuth: 93.7°
VS: -265.47'

MD: 6.149' SHY SLTST: It - med gy, gy t
TVD: 6.100brit.sb-ply - sb blkly, rthy tex,
Inclination: non calc; SLTY SH: It - dk gy
Azimuth: 86°blkly, rthy tex, non calc, tr SH
VS: -244.4'

Logger Top Sharon Springs
6143' MD/ 6095.38' TVD

SHY SLTST: It - med gy, gy brn, s&p, mod frm, brit.sb-ply - sb blkly, rthy tex, v/ occ f-med gr, w srt, non calc; SLTY SH: It - dk gy, sft - frm, sb ply - sb blkly, rthy tex, non calc, tr SHY SS	SHY SLTST: It - med gy, gy brn, s&p, mod frm, brit.sb-ply - sb blkly, rthy tex, v/ occ f-med gr, w srt, non calc; SLTY SH: It - dk gy, sft - frm, sb ply - sb blkly, rthy tex, non calc, tr SHY SS	SHY SLTST: It - med gy, gy brn, s&p, mod frm, brit.sb-ply - sb blkly, rthy tex, v/ occ f-med gr, w srt, non calc; SLTY SH: It - dk gy, sft - frm, sb ply - sb blkly, rthy tex, non calc, tr SHY SS	SHY SLTST: It - med gy, gy brn, s&p, mod frm, brit.sb-ply - sb blkly, rthy tex, v/ occ f-med gr, w srt, non calc; SLTY SH: It - dk gy, sft - frm, sb ply - sb blkly, rthy tex, non calc, tr SHY SS
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MINDEPTH

In/Out Mud Wt: 9.1/8.2 Vis 35/32

8/15-16/2014

122

NOT PUMPING TO SHAKER

RESUMED DRILLING
8/14/2014 19:45 MST, 8/16/2014

Bit Data
Bit #: 3
Type: Ulterra U513S
Size: 6.12
Depth In: 6.635'
Jets: 5x18
S/N: 23192

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb pty-sb blk, v calc, crptx: MRLST: med
-dk gy, stri, sft-v sft, sb pty-sb blk, fri- brt, sil, v
calc, tr cal, tr inoc

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb pty-sb blk, v calc, crptx: MRLST: med
-dk gy, stri, sft-v sft, sb pty-sb blk, fri- brt, sil, v
calc, tr cal, tr inoc

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb pty-sb blk, v calc, crptx: MRLST: med
-dk gy, stri, sft-v sft, sb pty-sb blk, fri- brt, sil, v
calc, tr cal, tr inoc

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb pty-sb blk, v calc, crptx: MRLST: med
-dk gy, stri, sft-v sft, sb pty-sb blk, fri- brt, sil, v
calc, tr cal, tr inoc

TVD Scale Change
6275' MD - 6375' MD
Each White Block is 10'

39' Target Zone

MD: 6.658'
TVD: 6.328.22'
Inclination: 88.8 °
Azimuth: 88.3 °
VS: 184.59'

MD: 6.749'
TVD: 6.329.89'
Inclination: 89.1 °
Azimuth: 89.9 °
VS: 275.57'

MD: 6.831'
TVD: 6.331.57'
Inclination: 89.1 °
Azimuth: 89.9 °
VS: 364.57'

In/Out Mud Wt: 9.1/9.0 Vis 34/32

145

133

GAS LINE REPAIR

ROP (ft/hr)
GAMMA ray
4626u

ROP (ft/hr)
GAMMA ray
4961u

5144u (15)

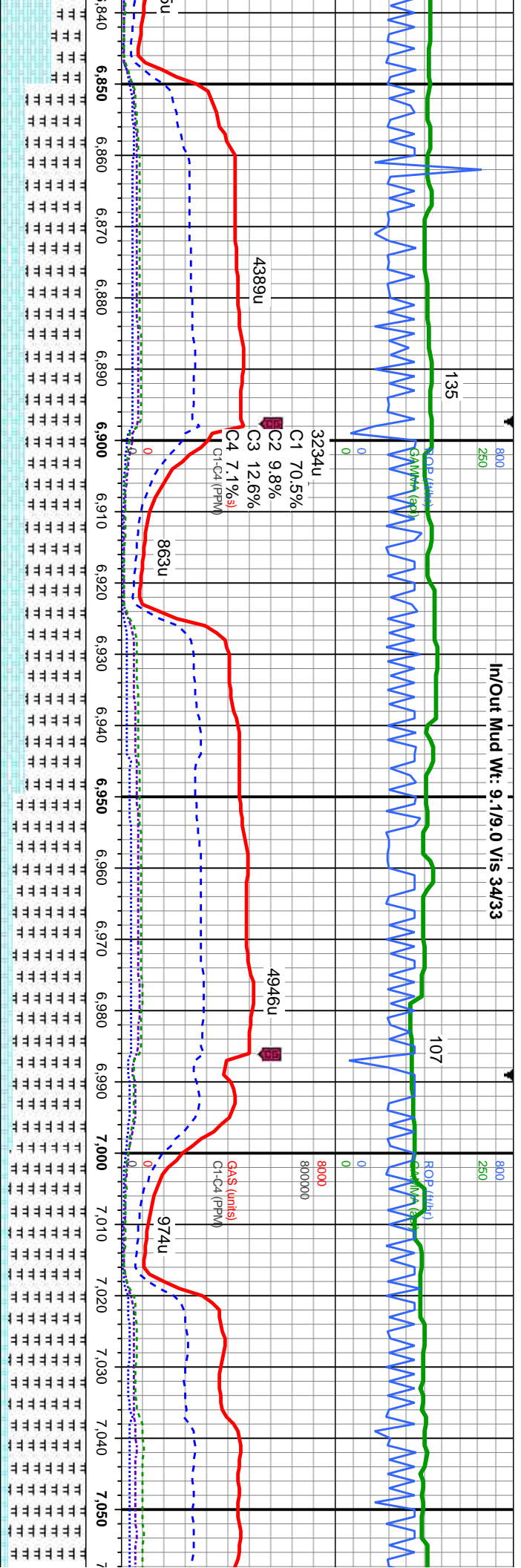
4350u (10mbs)
C1 67.9%
C2 14.7%
C3 11.3%
C4 6.0%

4350u (10mbs)
C1 67.9%
C2 14.7%
C3 11.3%
C4 6.0%

5144u (15)
C1 67.9%
C2 14.7%
C3 11.3%
C4 6.0%

925u (15)

In/Out Mud Wt: 9.1/9.0 Vis 34/33



MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blkly, fri-
brit, sil, v calc: CHK: lt-dk gy, gy brn, some wh, —
mot, lam, v sft-frn, sb ply-sb blkly, v calc, crpxl: tr
cal, tr bent

MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blkly, fri-
brit, sil, v calc: CHK: lt-dk gy, gy brn, some wh, —
mot, lam, v sft-frn, sb ply-sb blkly, v calc, crpxl: tr
cal, tr bent

MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blkly, fri-
brit, sil, v calc: CHK: lt-dk gy, gy brn, some wh, —
mot, lam, v sft-frn, sb ply-sb blkly, v calc, crpxl: tr
cal, tr bent

MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blkly, fri-
brit, sil, v calc: CHK: lt-dk gy, gy brn, some wh, —
mot, lam, v sft-frn, sb ply-sb blkly, v calc, crpxl: tr
cal, tr bent

MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blkly, fri-
brit, sil, v calc: CHK: lt-dk gy, gy brn, some wh, —
mot, lam, v sft-frn, sb ply-sb blkly, v calc, crpxl: tr
cal, tr bent

3'
10.2'
i: 90.5°
90.6°
3'

MD: 6,930'
TVD: 6,329.4'
Inclination: 90.5°
Azimuth: 91.3°
VS: 456.44'

MD: 7,021'
TVD: 6,328.13'
Inclination: 91.1°
Azimuth: 91.3°
VS: 547.33'

6350

6350



In/Out Mud Wt: 9.1/9.1 Vis 34/34

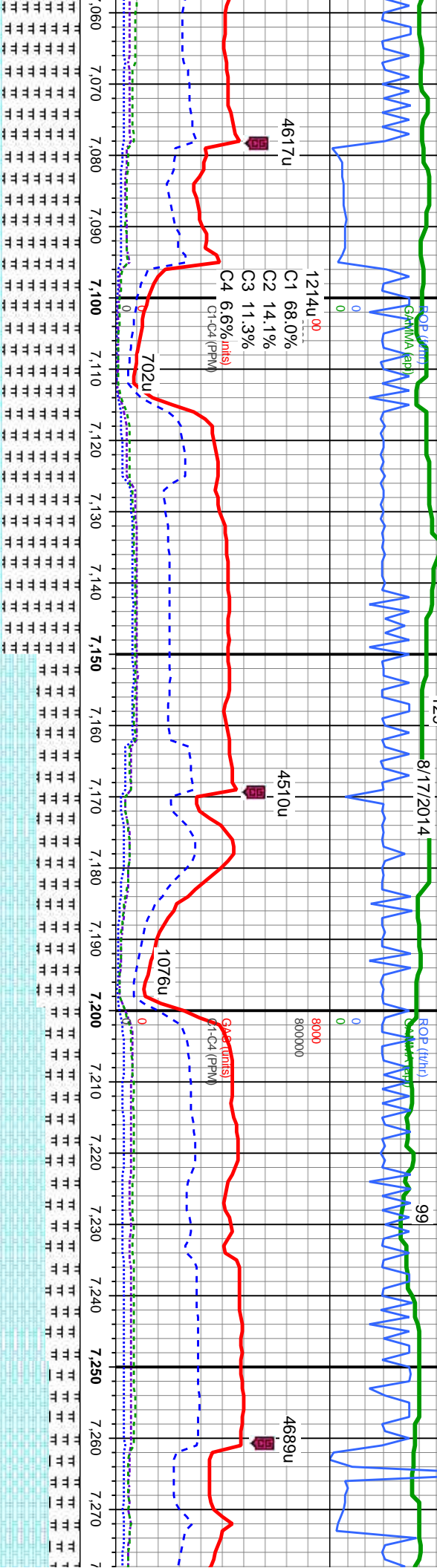
140

129

MINDEPTH 8/17/2014

99

In/Out f



med -dk gy, stri, sft-v sft, sb ply-sb blkly, fri-
cal: CHK: lt-dk gy, gy brn, some wh, —
v, v st-frm, sb ply-sb blkly, v calc, crpxl: tr
cal, tr bent

MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blkly, fri-
brit, sil, v calc: CHK: lt-dk gy, gy brn, some wh, —
mot, lam, v st-frm, sb ply-sb blkly, v calc, crpxl: tr
cal, tr bent

CHK: lt-dk gy, gy brn, some wh, mot, lam, v st-frm,
sb ply-sb blkly, v calc, crpxl: MRLST: med -dk gy,
stri, sft-v sft, sb ply-sb blkly, fri- brit, sil, v calc: tr
cal, tr bent, tr inoc

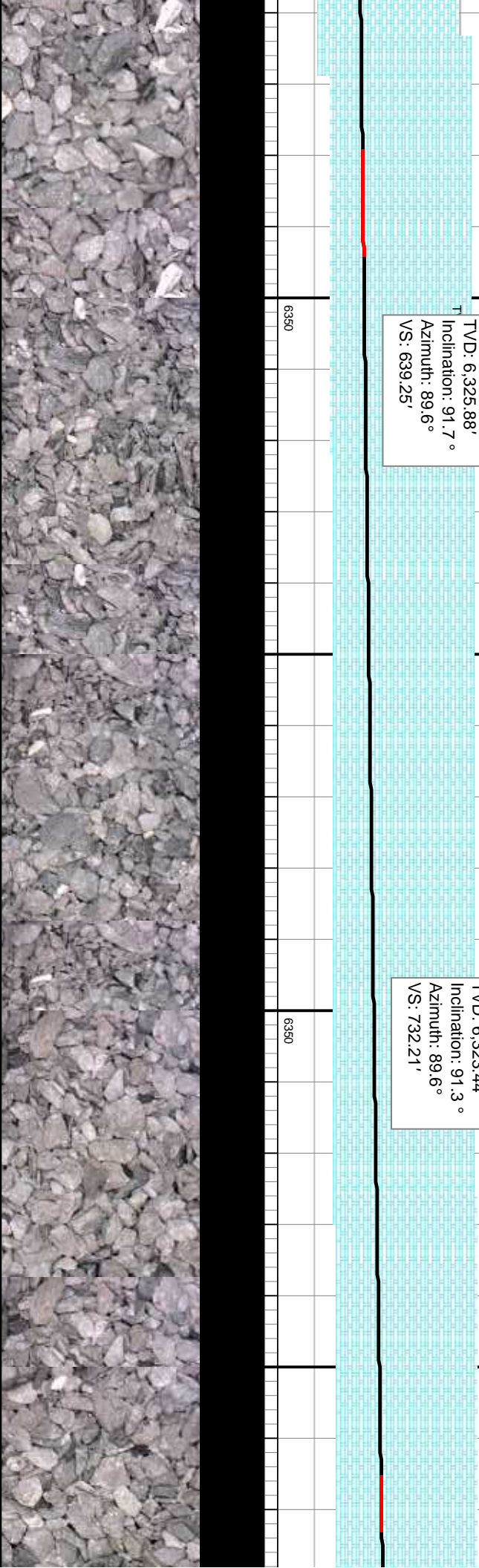
CHK: lt-dk gy, gy brn, some wh, mot, lam, v st-frm,
sb ply-sb blkly, v calc, crpxl: tr
cal, tr bent, tr inoc

MD: 7,113'
TVD: 6,325.88'
Inclination: 91.7°
Azimuth: 89.6°
VS: 639.25'

MD: 7,206'
TVD: 6,323.44'
Inclination: 91.3°
Azimuth: 89.6°
VS: 732.21'

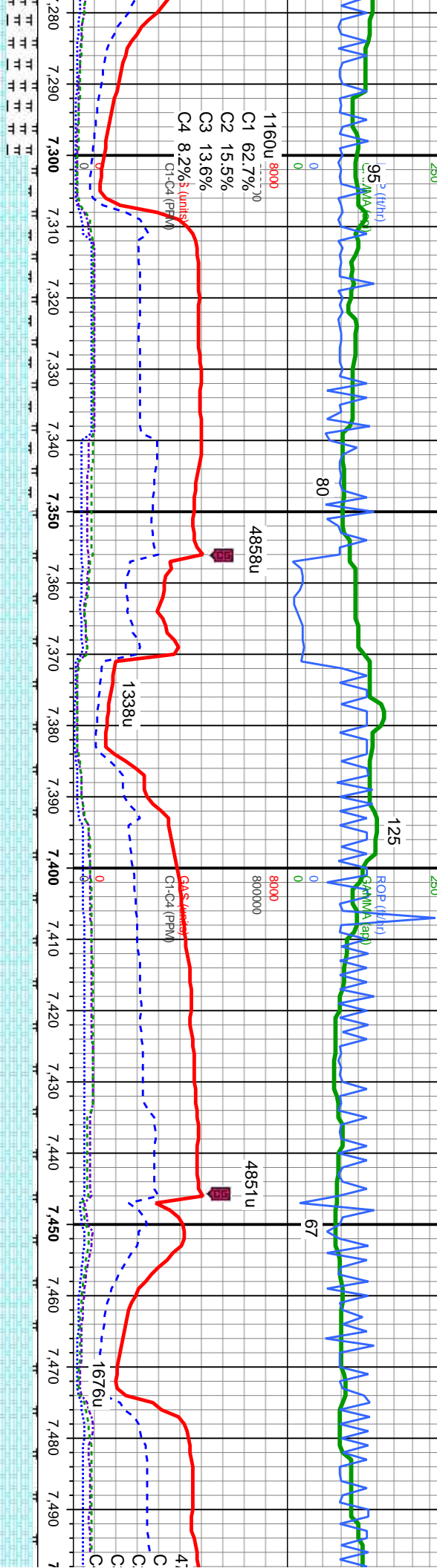
6350

6350



Mud Wt: 9.1/9.1 Vis 34/34

In/Out Mud Wt: 9.



CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v calc; tr cal tr inoc

CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v calc; tr cal tr inoc

CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v calc; tr cal tr inoc

MD: 7,296'
TVD: 6,320.62'
Inclination: 92.3 °
Azimuth: 89.4 °
VS: 822.15'

MD: 7,388'
TVD: 6,317.41'
Inclination: 91.7 °
Azimuth: 88.9 °
VS: 914.09'

MD: 7,481'
TVD: 6,314.4'
Inclination: 92 °
Azimuth: 89.1 °
VS: 1,007.04'

6350

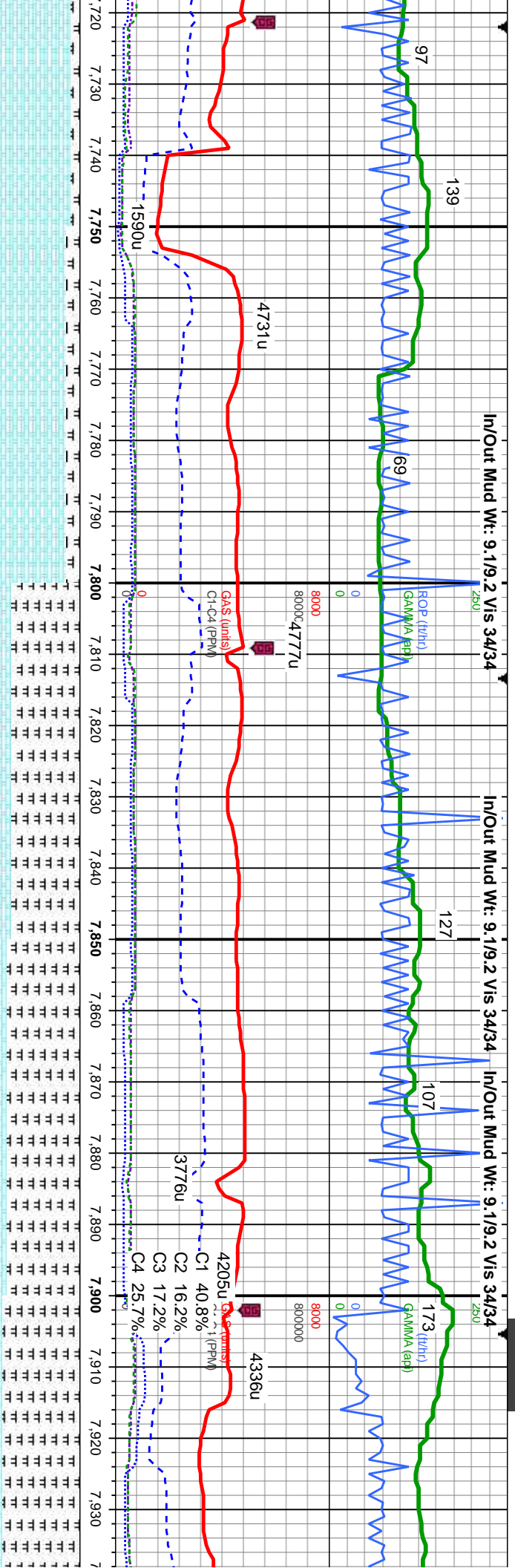
6350



In/Out Mud Wt: 9.1/9.2 Vis 34/34

In/Out Mud Wt: 9.1/9.2 Vis 34/34

In/Out Mud Wt: 9.1/9.2 Vis 34/34



brn, some wh, mot, lam, v
ky, v calc, cpxl: MRLST: med
sb ply-sb blk, fri- brt, sil, v

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med
-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v
calc: tr cal tr inoc

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med
-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v
calc:

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med
-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v
calc:

MD: 7,754'
TVD: 6,310.67'
Inclination: 90.5°
Azimuth: 88.4°
VS: 1,280'

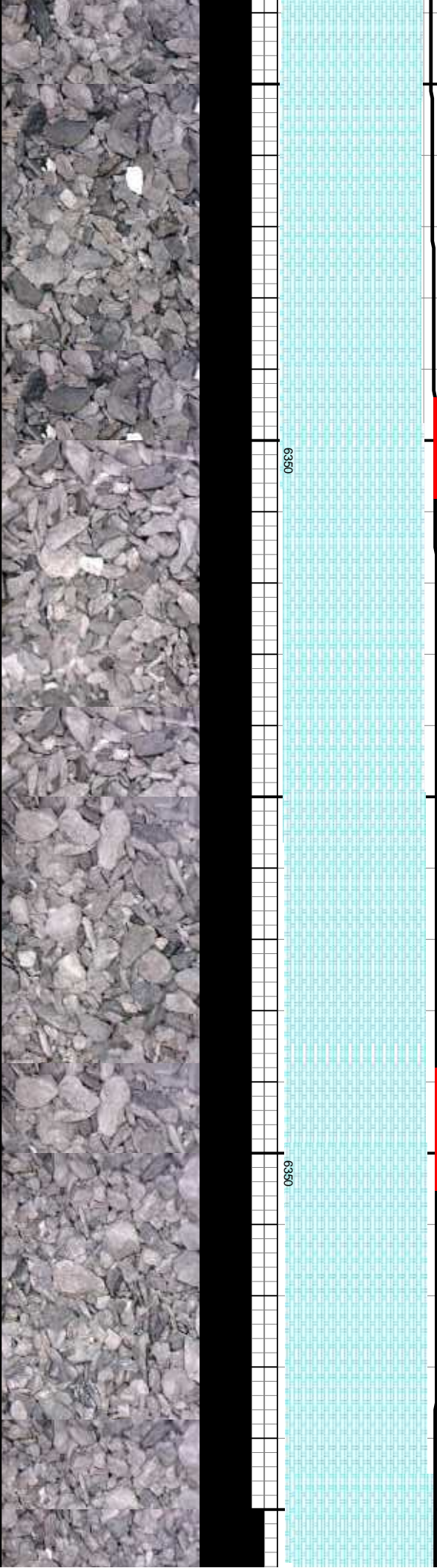
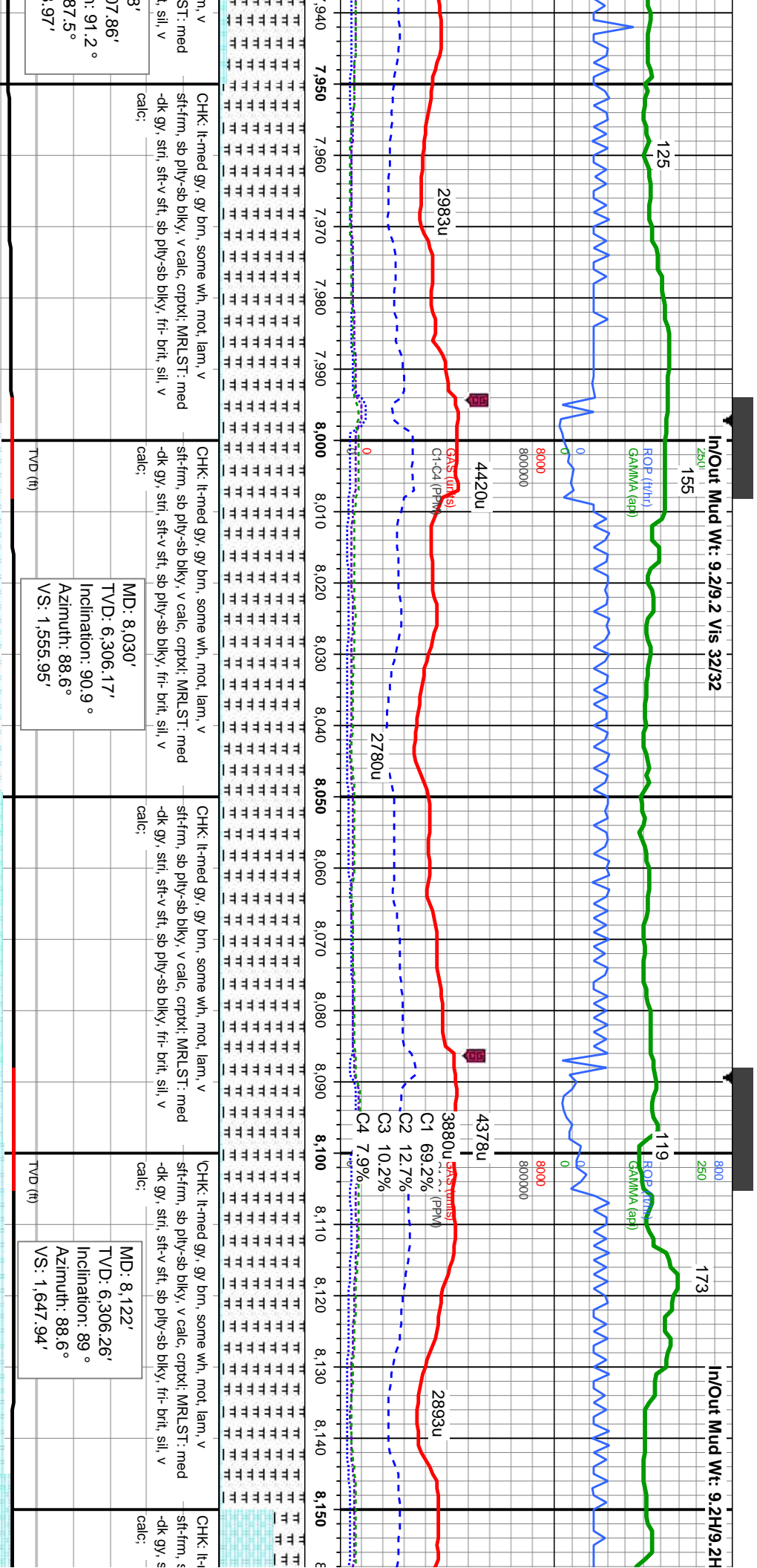
MD: 7,846'
TVD: 6,309.55'
Inclination: 90.9°
Azimuth: 88.4°
VS: 1,371.99'

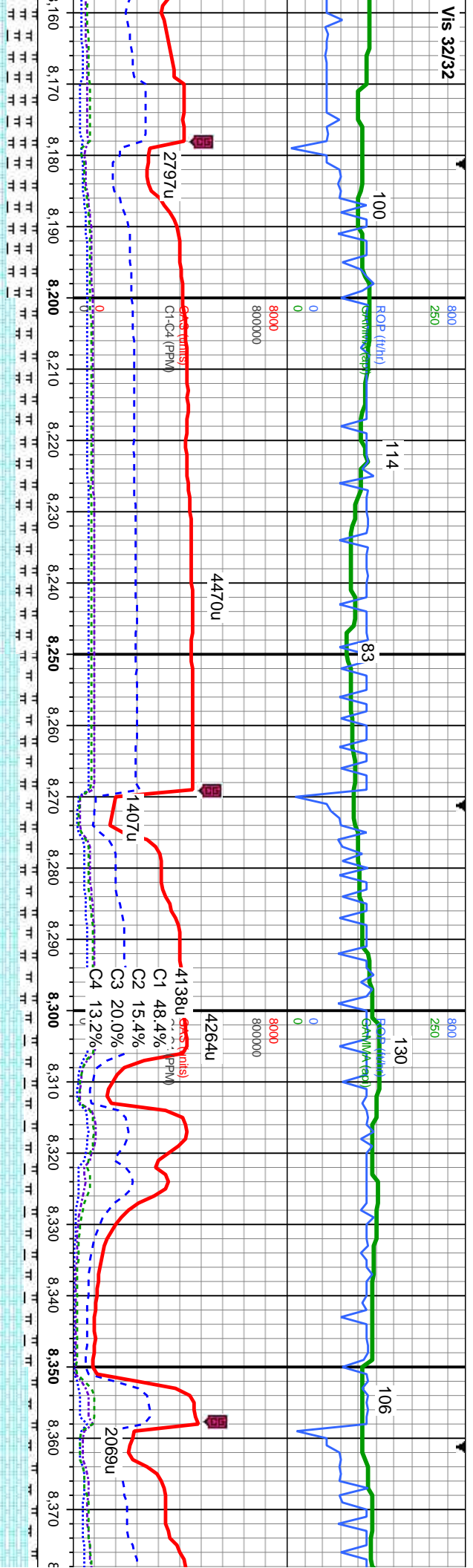
MD: 7,933'
TVD: 6,303.30'
Inclination: 90.9°
Azimuth: 88.4°
VS: 1,463'

6350

6350







med gy, gy brn, some wh, mot, lam, v
sft-frm, sb pty-sb blk, v calc, cpxl: MRLST: med
-dk gy, stri, sft-v sft, sb pty-sb blk, fri- brt, sil, v
calc;

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb pty-sb blk, v calc, cpxl: MRLST: med
-dk gy, stri, sft-v sft, sb pty-sb blk, fri- brt, sil, v
calc;

MD: 8,211'
TVD: 6,307.5'
Inclination: 89.4°
Azimuth: 88.7°
VS: 1,736.93'

MD: 8,302'
TVD: 6,308.05'
Inclination: 89.9°
Azimuth: 88.6°
VS: 1,827.93'

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb pty-sb blk, v calc, cpxl: MRLST: med
-dk gy, stri, sft-v sft, sb pty-sb blk, fri- brt, sil, v
calc;

In/Out Mud Wt: 9.2H/9.2H Vis 32/32

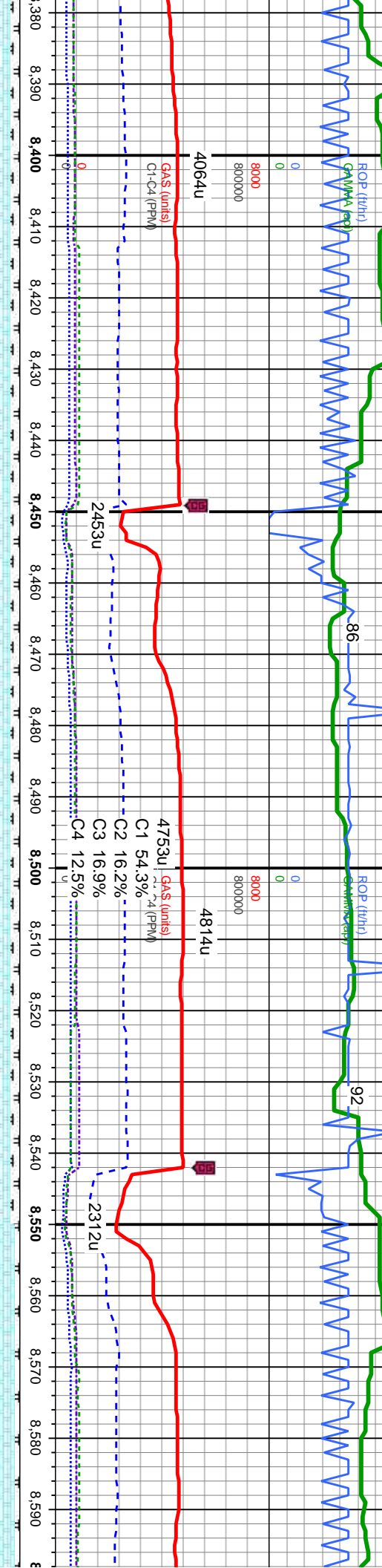
172

250

800

166

In/Out Mud Wt:



wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v
cpbtk: MRLST: med	sft-fm, sb ply-sb blk, v calc, cpbtk: MRLST: med	sft-fm, sb ply-sb blk, v calc, cpbtk: MRLST: med	sft-fm, sb ply-sb blk, v calc, cpbtk: MRLST: med
blk, fri- brt, sil, v	-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v
	calc:	calc:	calc:

TVD (ft)

TVD (ft)

MD: 8,394'
TVD: 6,308.29'
Inclination: 89.8 °
Azimuth: 88.2 °
VS: 1,919.93'

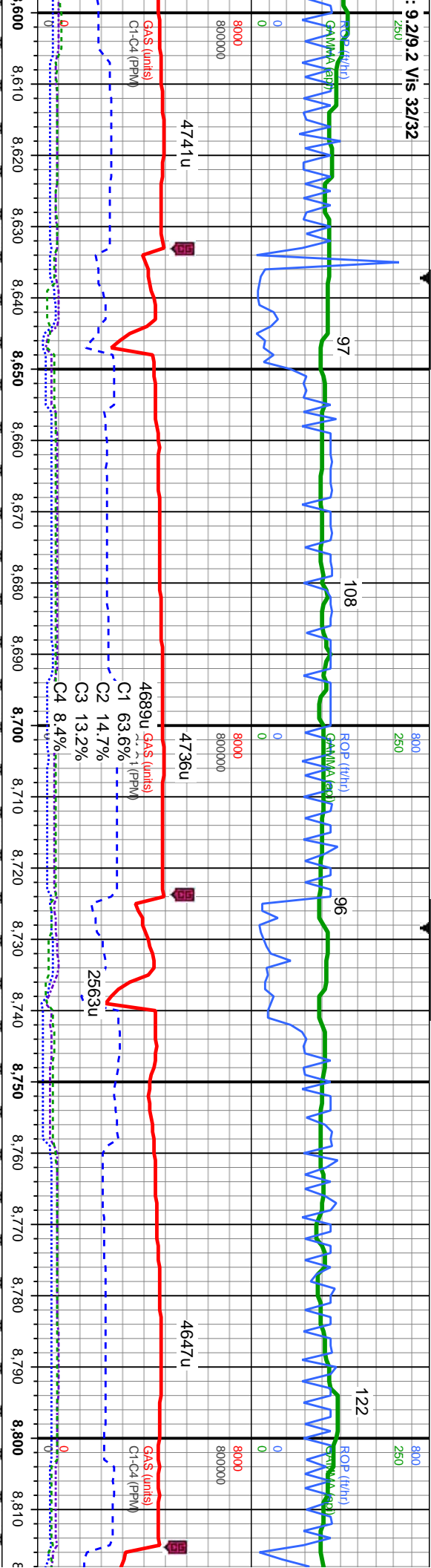
MD: 8,486'
TVD: 6,307.97'
Inclination: 90.6 °
Azimuth: 88.4 °
VS: 2,011.93'

6350

MD: 8,578'
TVD: 6,306.45'
Inclination: 91.3 °
Azimuth: 88.3 °
VS: 2,103.91'



9.2/9.2 Vis 32/32



CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-firm, sb pfty-sb blyk, v calc, cipbxi; MRST: med
-dk gy, sfti, sft-v sft, sb pfty-sb blyk, fri- brit, sil, v
calc;

CHK: il-med gy, gy brn, some whl, mot, lam, v
sft-firm, sb ply-sb blk, v calc, crptxl; MRLST: med
-dk gy, strl, sft-v sft, sb ply-sb blk, fri-brtl, sil, v
calc;

CHK: It-med gy, gy bm, some wh, mot, larn, v
stf-fm, sb ply-sb blk, v calc, crptx; MRLST: med
-dk gy, str, stf-v stf, sb ply-sb blk, fri-
brit, sil, v calc;

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb bky, v calc, cpxix; MRLST: mec-
-dk gy, stri, sft-v sft, sb ply-sb bky, fri-
brit, sil, v calc;

CHK: lt-med gy, gy
sft-frm, sb plty-sb b
-dk gy, stri, sft-v sft,
calc;

TVD (ft)

TVD (ft)

TVD (ft)

MD: 8,669'
TVD: 6,304.62'
Inclination: 91 °
Azimuth: 88.4 °
VS: 2,194.9'

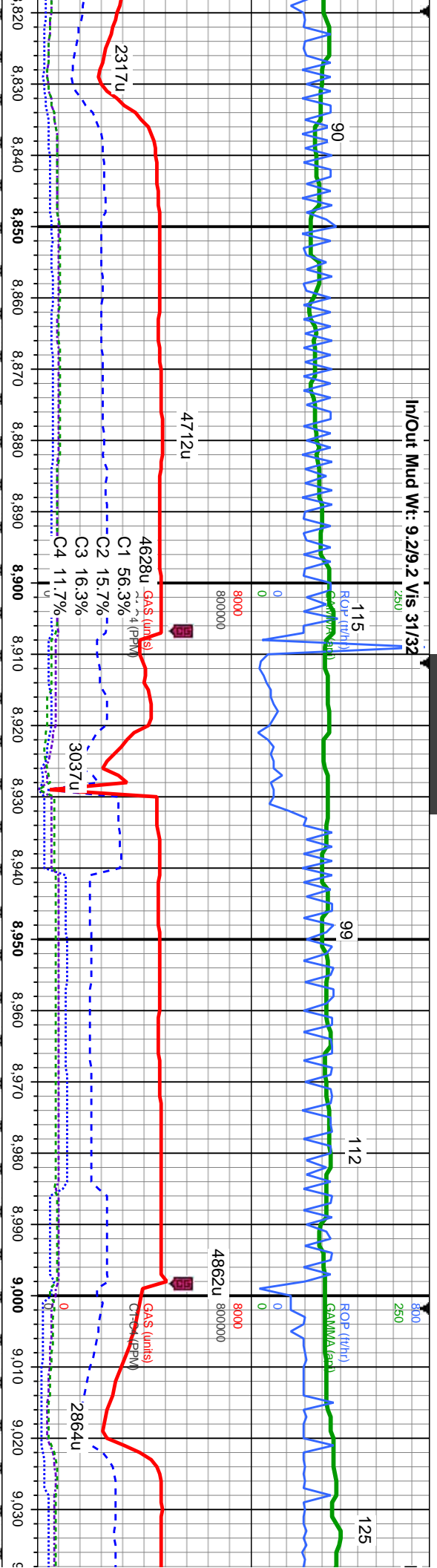
MD: 8,760'
TVD: 6,303.51'
Inclination: 90.4 °
Azimuth: 89 °
VS: 2,285.89'

6350

6350

6350

In/Out Mud Wt: 9.2/9.2 Vis 31/32



brn, some wh, mot, lam, v
sft-firm, sb pily-sb blkly, v calc, crptk: MRLST: med
dk gy, stri, sft-v sft, sb pily-sb blkly, fri- brlt, sil, v

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-firm, sb pily-sb blkly, v calc, crptk: MRLST: med
dk gy, stri, sft-v sft, sb pily-sb blkly, fri- brlt, sil, v

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-firm, sb pily-sb blkly, v calc, crptk: MRLST: med
dk gy, stri, sft-v sft, sb pily-sb blkly, fri- brlt, sil, v

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-firm, sb pily-sb blkly, v calc, crptk: MRLST: med
dk gy, stri, sft-v sft, sb pily-sb blkly, fri- brlt, sil, v

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-firm, sb pily-sb blkly, v calc, crptk: MRLST: med
dk gy, stri, sft-v sft, sb pily-sb blkly, fri- brlt, sil, v

MD: 8,852'
TVD: 6,302.47'
Inclination: 90.9°
Azimuth: 89.1°
VS: 2,377.88'

MD: 8,942'
TVD: 6,301.68'
Inclination: 90.1°
Azimuth: 89.1°
VS: 2,467.87'

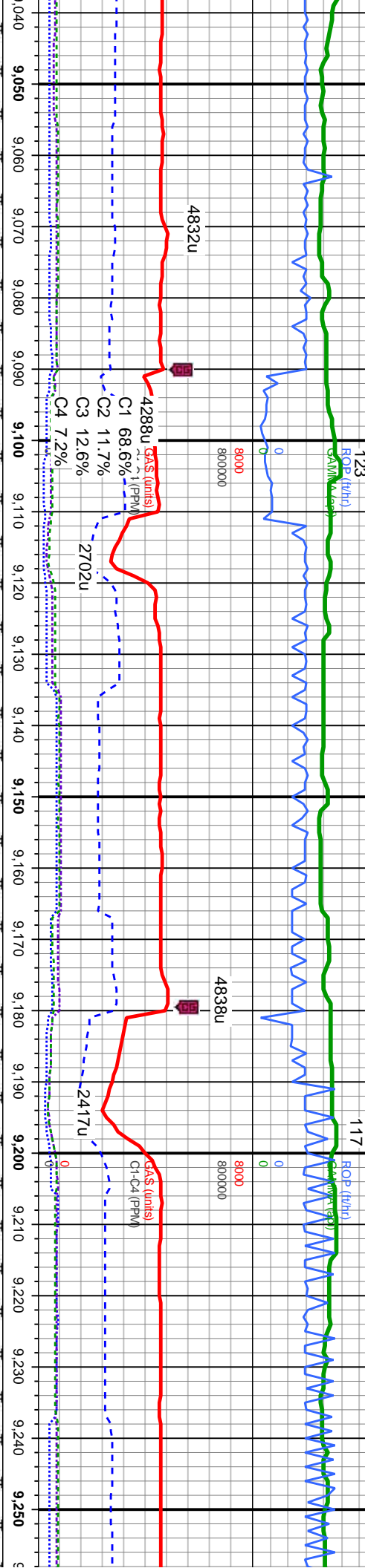
MD: 9,034'
TVD: 6,300.
Inclination: 89
Azimuth: 89
VS: 2,559.8

6350

6350

In/Out Mud Wt: 9.2/9.2 Vis 31/31

In/Out Mud Wt: 9.2/9.2 Vis 31/32

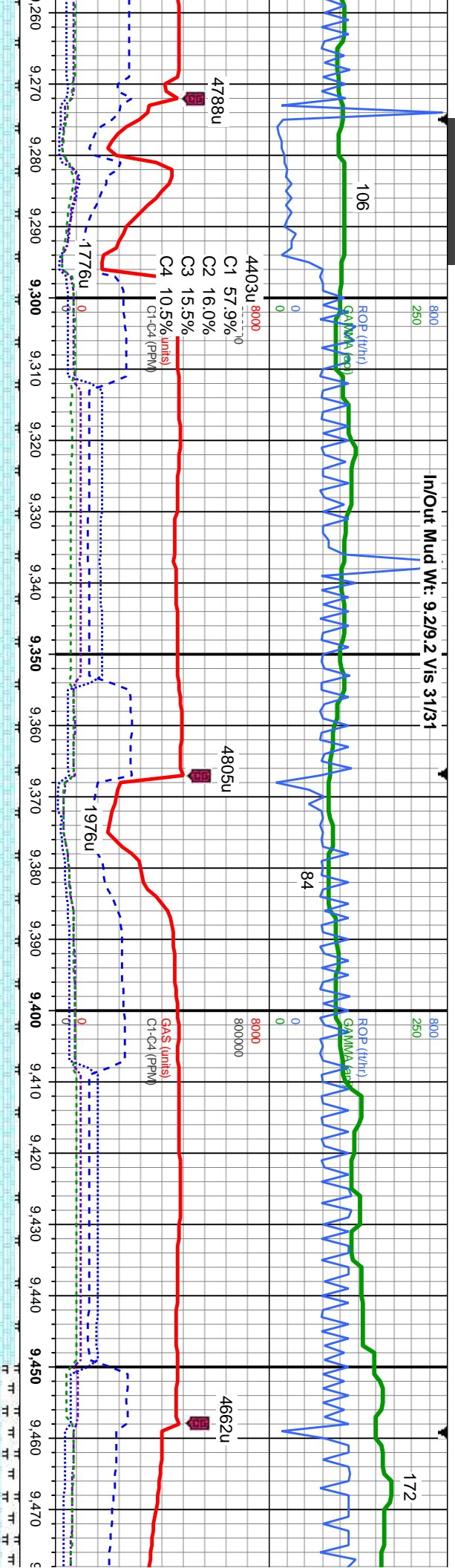


Depth (ft)	CHK: It-med gy, gy brn, some wh, mot, lam, v	CHK: It-med gy, gy brn, some wh, mot, lam, v	CHK: It-med gy, gy brn, some wh, mot, lam, v	CHK: It-med gy, gy brn, some wh, mot, lam, v
9,040	sft-fm, sb ply-sb blk, v calc, crptl: MRLST: med	sft-fm, sb ply-sb blk, v calc, crptl: MRLST: med	sft-fm, sb ply-sb blk, v calc, crptl: MRLST: med	sft-fm, sb ply-sb blk, v calc, crptl: MRLST: med
9,050	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v
9,060	calc;	calc;	calc;	calc;
9,070				
9,080				
9,090				
9,100				
9,110				
9,120				
9,130				
9,140				
9,150				
9,160				
9,170				
9,180				
9,190				
9,200				
9,210				
9,220				
9,230				
9,240				
9,250				

Depth (ft)	MD: 9.125'	MD: 9.217'
9,040	TVD: 6,299.69'	TVD: 6,298.88'
9,050	Inclination: 90.2°	Inclination: 90.8°
9,060	Azimuth: 88.2°	Azimuth: 88.6°
9,070	VS: 2,650.84'	VS: 2,742.84'
9,080		
9,090		
9,100		
9,110		
9,120		
9,130		
9,140		
9,150		
9,160		
9,170		
9,180		
9,190		
9,200		
9,210		
9,220		
9,230		
9,240		
9,250		



In/Out Mud Wt: 9.2/9.2 Vis 31/31



med gy, gy brn, some wh, mot, lam, v
b ply-sb blk, v calc, cpxl: MRLST: med
sft-v sft, sb ply-sb blk, fri- brt, sil, v

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med
-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v
calc:

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med
-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v
calc:

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med
-dk gy, str, sft-v sft, sb ply-sb blk, fri- brt, sil, v
calc:

MD: 9,308'
TVD: 6,298.72'
Inclination: 89.4 °
Azimuth: 87.9 °
VS: 2,833.83'

MD: 9,400'
TVD: 6,299.29'
Inclination: 89.9 °
Azimuth: 88.1 °
VS: 2,925.83'



In/Out Mud Wt: 9.2/9.2 Vis 32/32

250

169

250

In/Out Mud Wt: 9.2/9.2 Vis 32/32

178

ROP (t/h)

SAWMA (ppm)

ROP (t/h)

SAWMA (ppm)

80000

4690u

80000

4678u

4571u
C1 57.7%
C2 16.2%
C3 14.4%
C4 11.7%

4571u
C1-C4 (PPM)

3541u

3427u

C2 16.2%

C2 16.2%

C3 14.4%

C3 14.4%

C4 11.7%

C4 11.7%

444

444

C1 57.7%

C1 57.7%

C2 16.2%

C2 16.2%

C3 14.4%

C3 14.4%

C4 11.7%

C4 11.7%

wh, mot, lam, v
cpxpxl: MRLST: med
blkly, fri- brt, sil, v

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb ply-sb blkly, v calc, cpxpxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blkly, fri- brt, sil, v
calc:

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb ply-sb blkly, v calc, cpxpxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blkly, fri- brt, sil, v
calc:

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb ply-sb blkly, v calc, cpxpxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blkly, fri- brt, sil, v
calc:

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb ply-sb blkly, v calc, cpxpxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blkly, fri- brt, sil, v
calc:

TVD (ft)

TVD (ft)

MD: 9.491'
TVD: 6,299.36'
Inclination: 90.0°
Azimuth: 87.7°
VS: 3,016.82'

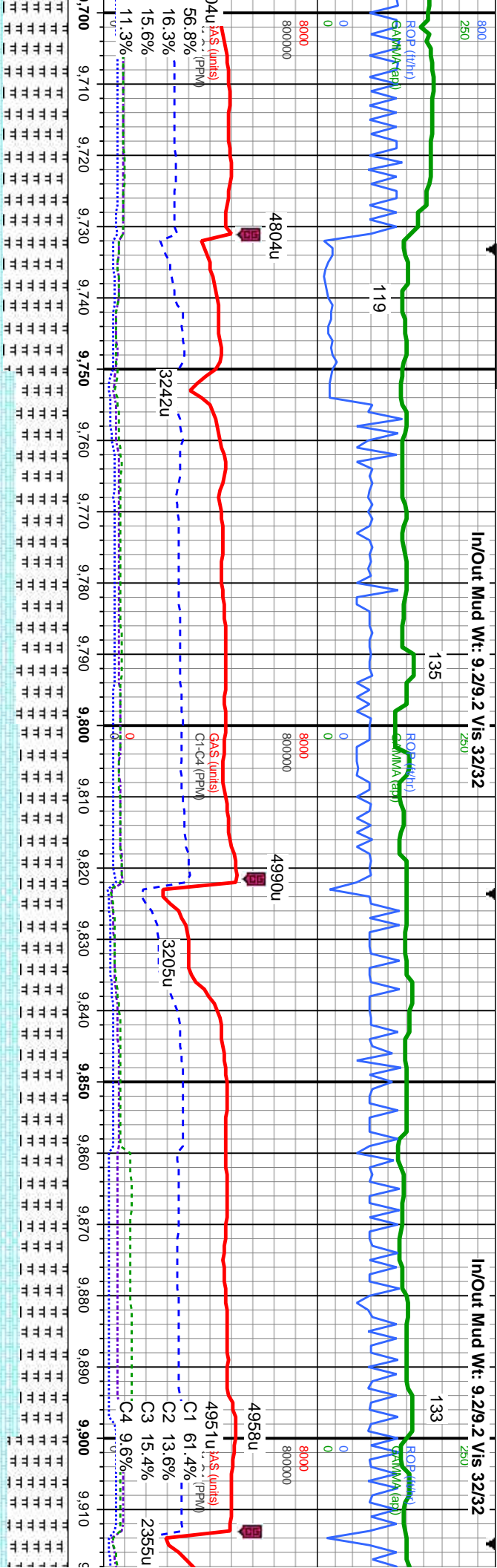
MD: 9.582'
TVD: 6,298.81'
Inclination: 90.7°
Azimuth: 87.7°
VS: 3,107.81'

MD: 9.674'
TVD: 6,296.88'
Inclination: 91.7°
Azimuth: 88.3°
VS: 3,199.78'

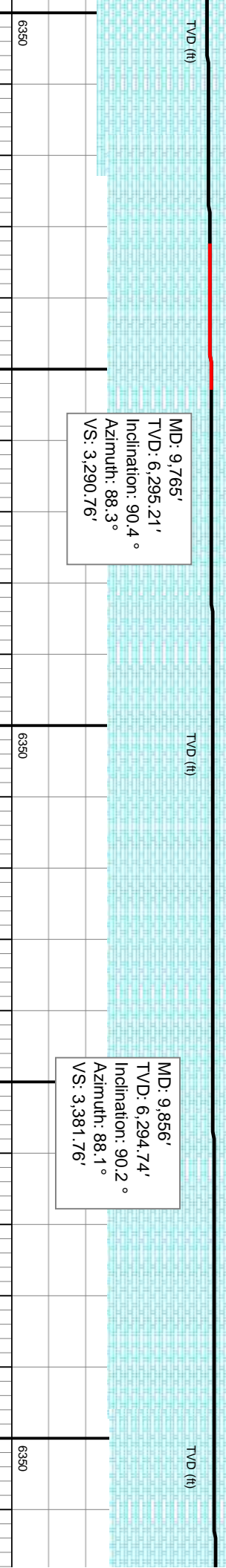
6350

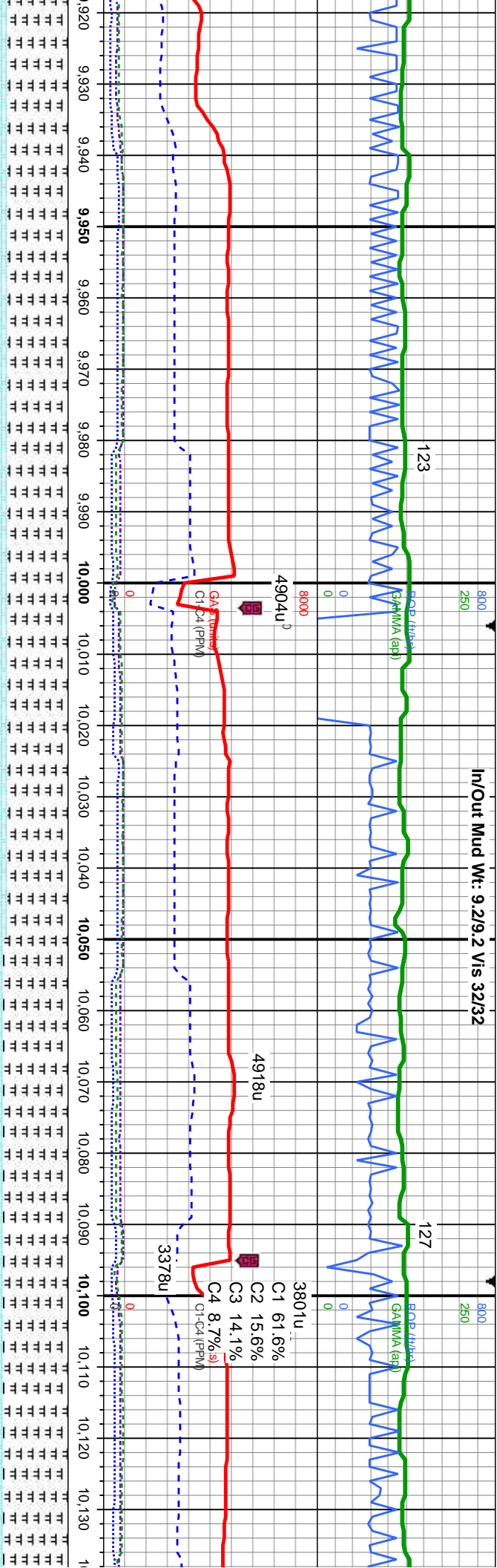
6350





CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-frn, sb ply-sb blk, v calc, crrpxl: MRLST: med	sft-frn, sb ply-sb blk, v calc, crrpxl: MRLST: med	sft-frn, sb ply-sb blk, v calc, crrpxl: MRLST: med	sft-frn, sb ply-sb blk, v calc, crrpxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v
calc:	calc:	calc:	calc:



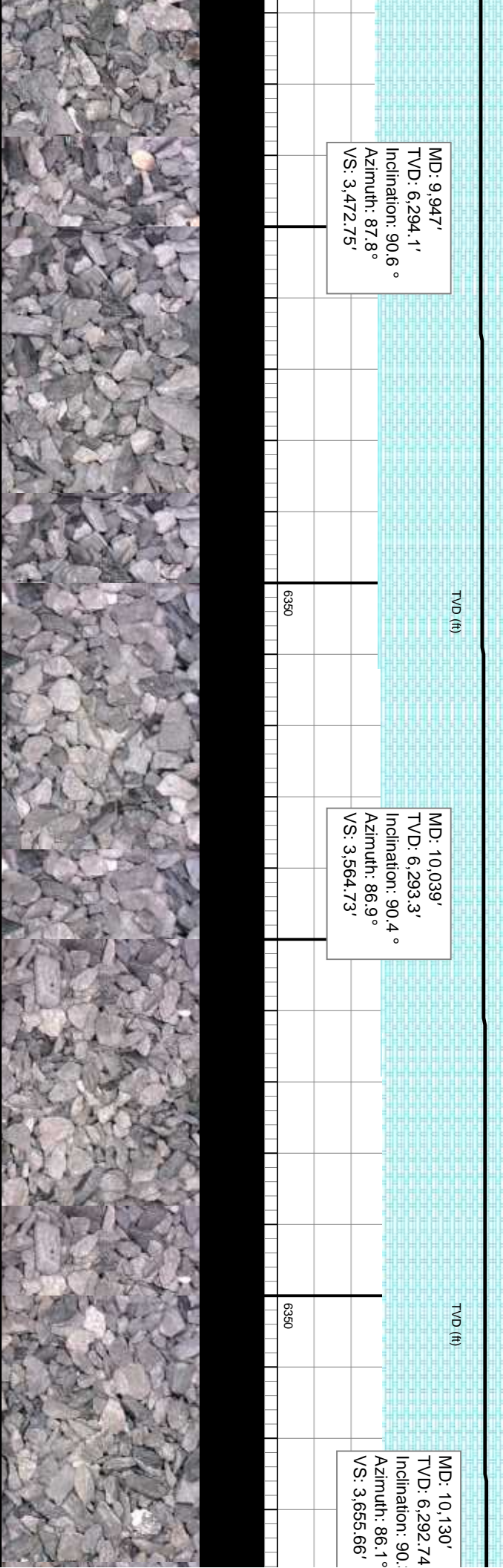


brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v
dk, v calc, crptl: MRLST: med	sft-frn, sb pty-sb blk, v calc, crptl: MRLST: med	sft-frn, sb pty-sb blk, v calc, crptl: MRLST: med	sft-frn, sb pty-sb blk, v calc, crptl: MRLST: med
sb pty-sb blk, fri- brt, sil, v	-dk gy, str, sft-v sft, sb pty-sb blk, fri- brt, sil, v	-dk gy, str, sft-v sft, sb pty-sb blk, fri- brt, sil, v	-dk gy, str, sft-v sft, sb pty-sb blk, fri- brt, sil, v
	calc:	calc:	calc

MD: 9,947'
TVD: 6,294.1'
Inclination: 90.6 °
Azimuth: 87.8 °
VS: 3,472.75'

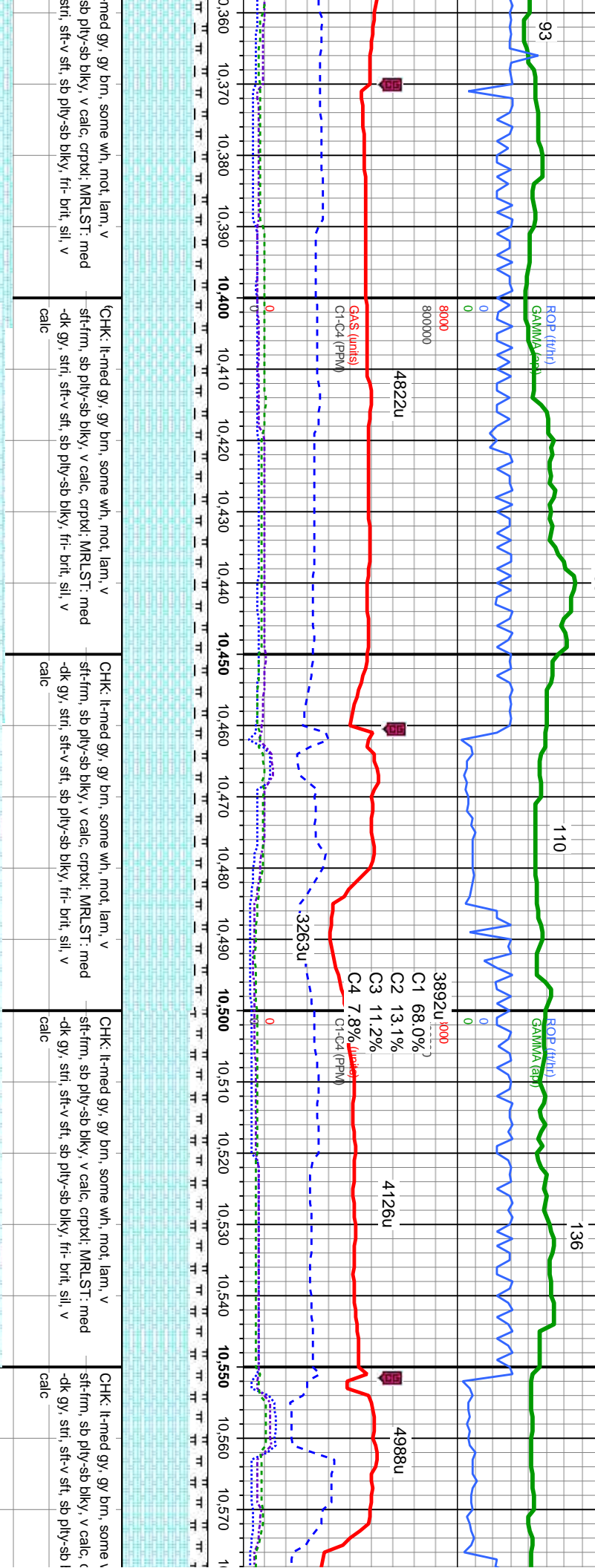
MD: 10,039'
TVD: 6,293.3'
Inclination: 90.4 °
Azimuth: 86.9 °
VS: 3,564.73'

MD: 10,130'
TVD: 6,292.74
Inclination: 90.
Azimuth: 86.1 °
VS: 3,655.66'



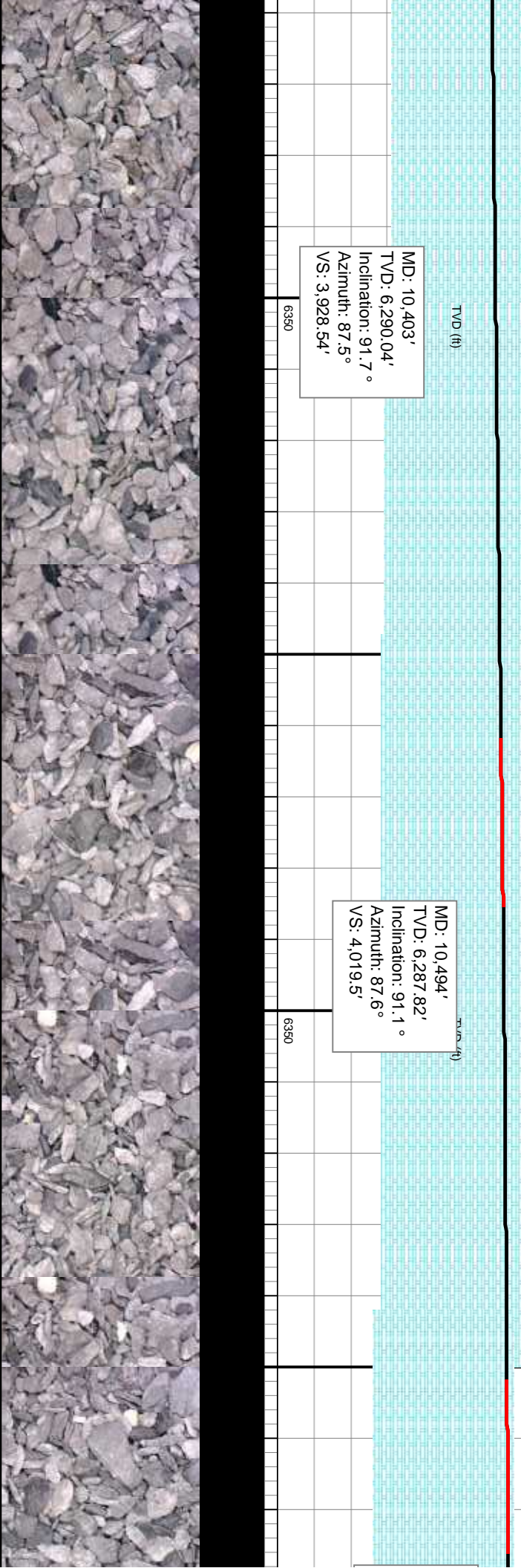
In/Out Mud Wt: 9.2/9.3 Vis 32/32

In/Out Mud Wt: 9.2/9.3 Vis 32/32

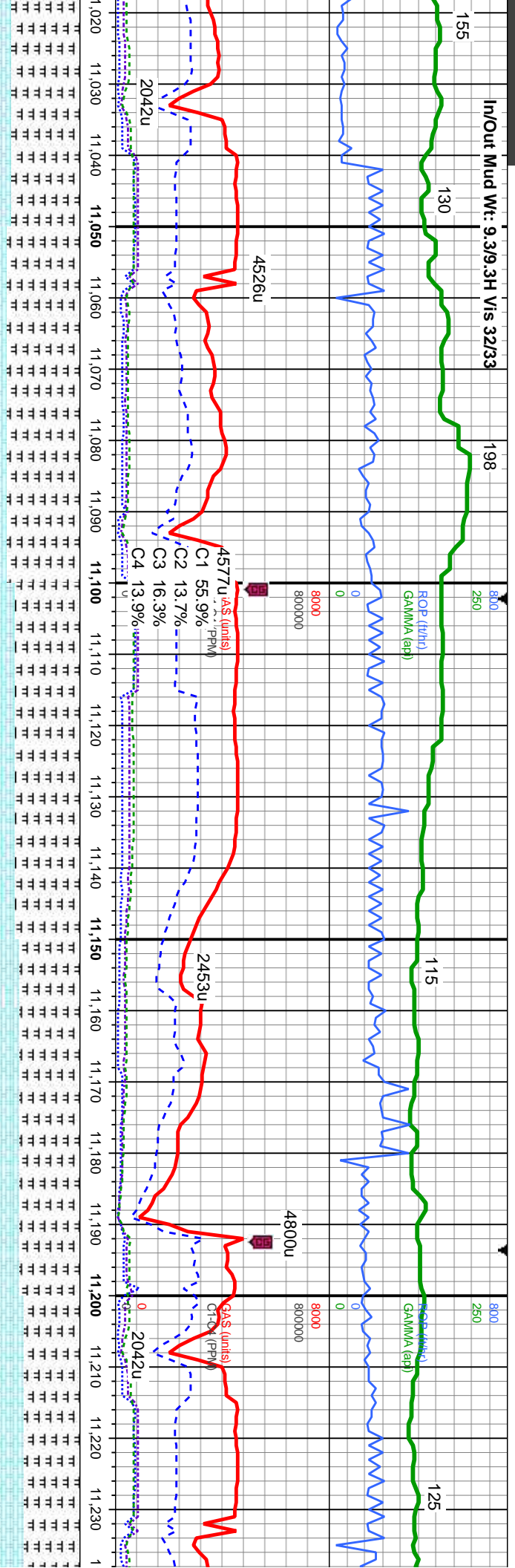


MD: 10,403'
TVD: 6,290.04'
Inclination: 91.7°
Azimuth: 87.5°
VS: 3,928.54'

MD: 10,494'
TVD: 6,287.82'
Inclination: 91.1°
Azimuth: 87.6°
VS: 4,019.5'



In/Out Mud Wt: 9.3/9.3H Vis 32/33



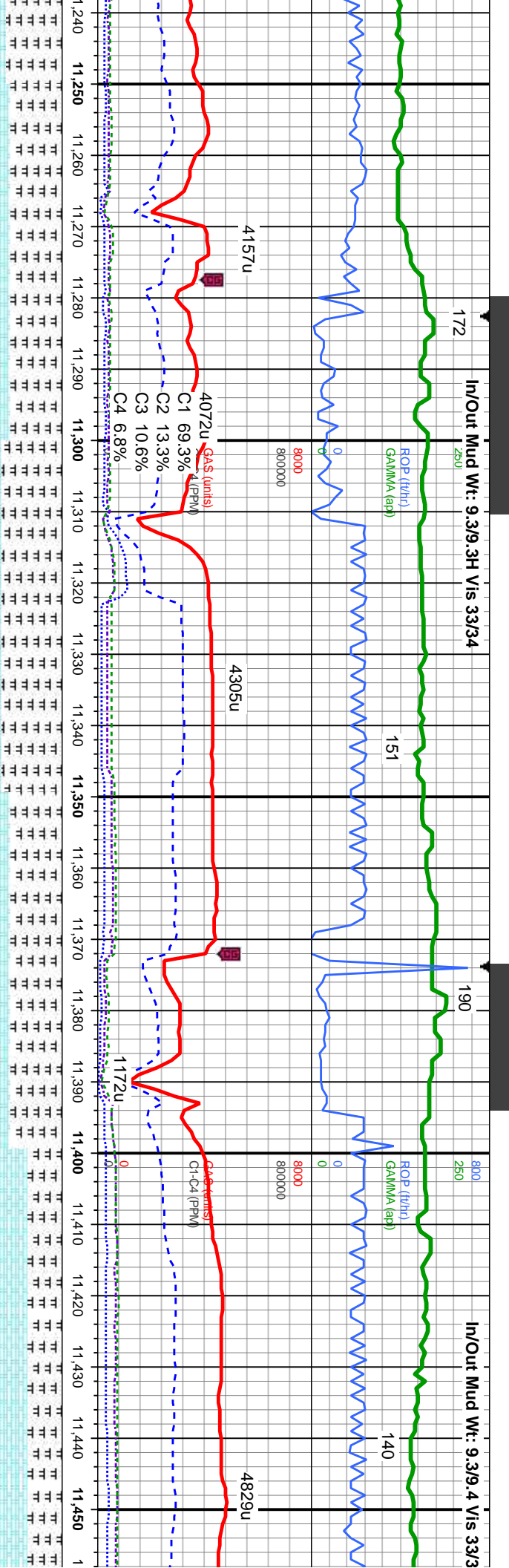
brn, some wh, mot, lam, v bky, v calc, cpbx: MRLST: med sb pty-sb blk, fri- brit, sil, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb pty-sb blk, v calc, cpbx: MRLST: med -dk gy, stri, sft-v sft, sb pty-sb blk, fri- brit, sil, v calc	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb pty-sb blk, v calc, cpbx: MRLST: med -dk gy, stri, sft-v sft, sb pty-sb blk, fri- brit, sil, v calc	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb pty-sb blk, v calc, cpbx: MRLST: med -dk gy, stri, sft-v sft, sb pty-sb blk, fri- brit, sil, v calc
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MD: 11,041'
TVD: 6,283.97'
Inclination: 89.1°
Azimuth: 90.4°
VS: 4,566.35'

MD: 11,132'
TVD: 6,284.77'
Inclination: 89.9°
Azimuth: 90.5°
VS: 4,657.29'

MD: 11,221'
TVD: 6,283.84'
Inclination: 91.3°
Azimuth: 91°
VS: 4,746.22'





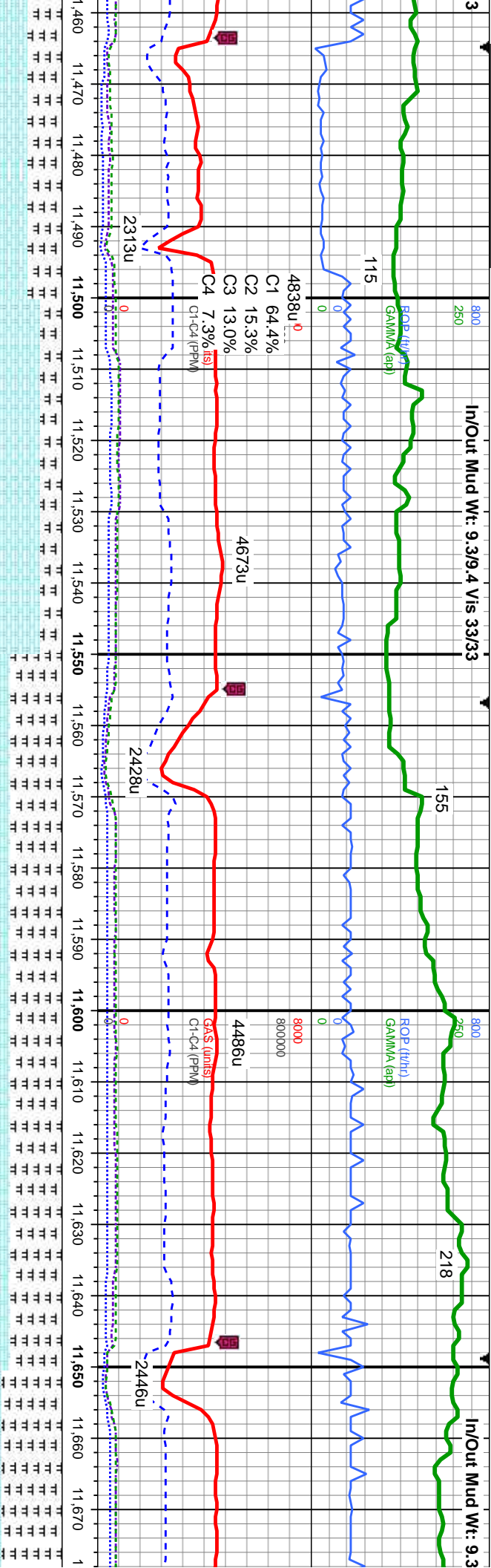
n, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	6250	CHK: lt-med gy, gy brn, some wh, mot, lam, v
ST: med	sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med	sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med		sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med
t, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v		-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v
	calc	calc		calc

MD: 11,313'
TVD: 6,282.39'
Inclination: 90.5°
Azimuth: 90.4°
VS: 4,838.15'

6350	CHK: lt-med gy, gy brn, some wh, mot, lam, v	CHK: lt-med gy, gy brn, some wh, mot, lam, v	6250	CHK: lt-med gy, gy brn, some wh, mot, lam, v
	sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med	sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med		sft-frm, sb ply-sb blk, v calc, crptl: MRLST: med
	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v	-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v		-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, v
	calc	calc		calc

MD: 11,404'
TVD: 6,281.68'
Inclination: 90.4°
Azimuth: 90.3°
VS: 4,929.1'





MD: 11,496'
TVD: 6,282'
Inclination: 89.2°
Azimuth: 92°
VS: 5,021'

CHK: It-med gy, gy brn, some wh, mot. lam, v
sft-frm, sb ply-sb blk, v calc, crptxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blk, fir- brit, sil, v
calc

MD: 11,588'
TVD: 6,282.72'
Inclination: 89.9°
Azimuth: 89°
VS: 5,112.94'

CHK: It-med gy, gy brn, some wh, mot. lam, v
sft-frm, sb ply-sb blk, v calc, crptxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blk, fir- brit, sil, v
calc

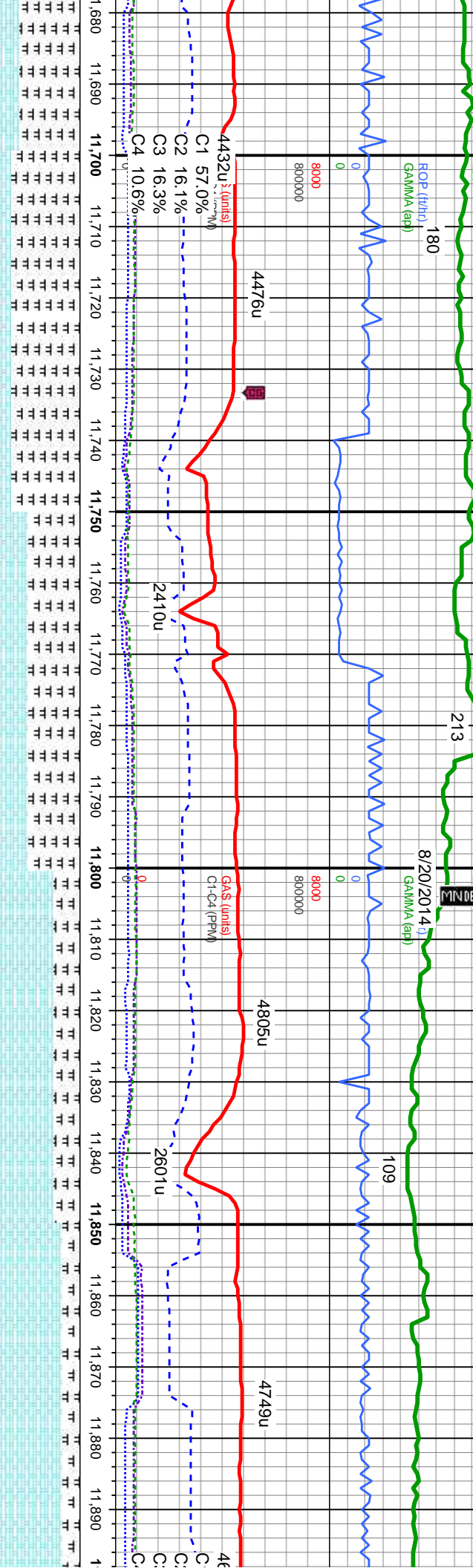
CHK: It-med gy, gy brn, some wh, mot. lam, v
sft-frm, sb ply-sb blk, v calc, crptxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blk, fir- brit, sil, v
calc

MD: 11,616'
TVD: 6,282'
Inclination: 89.9°
Azimuth: 92°
VS: 5,201'



9.4 Vis 33/33

In/Out Mud Wt: 9.3/9.4 Vis 33/34



79'
82.32'
n: 90.6°
89.1°
3.93'

MD: 11,771'
TVD: 6,281.76'
Inclination: 90.1°
Azimuth: 89.1°
VS: 5,295.93'

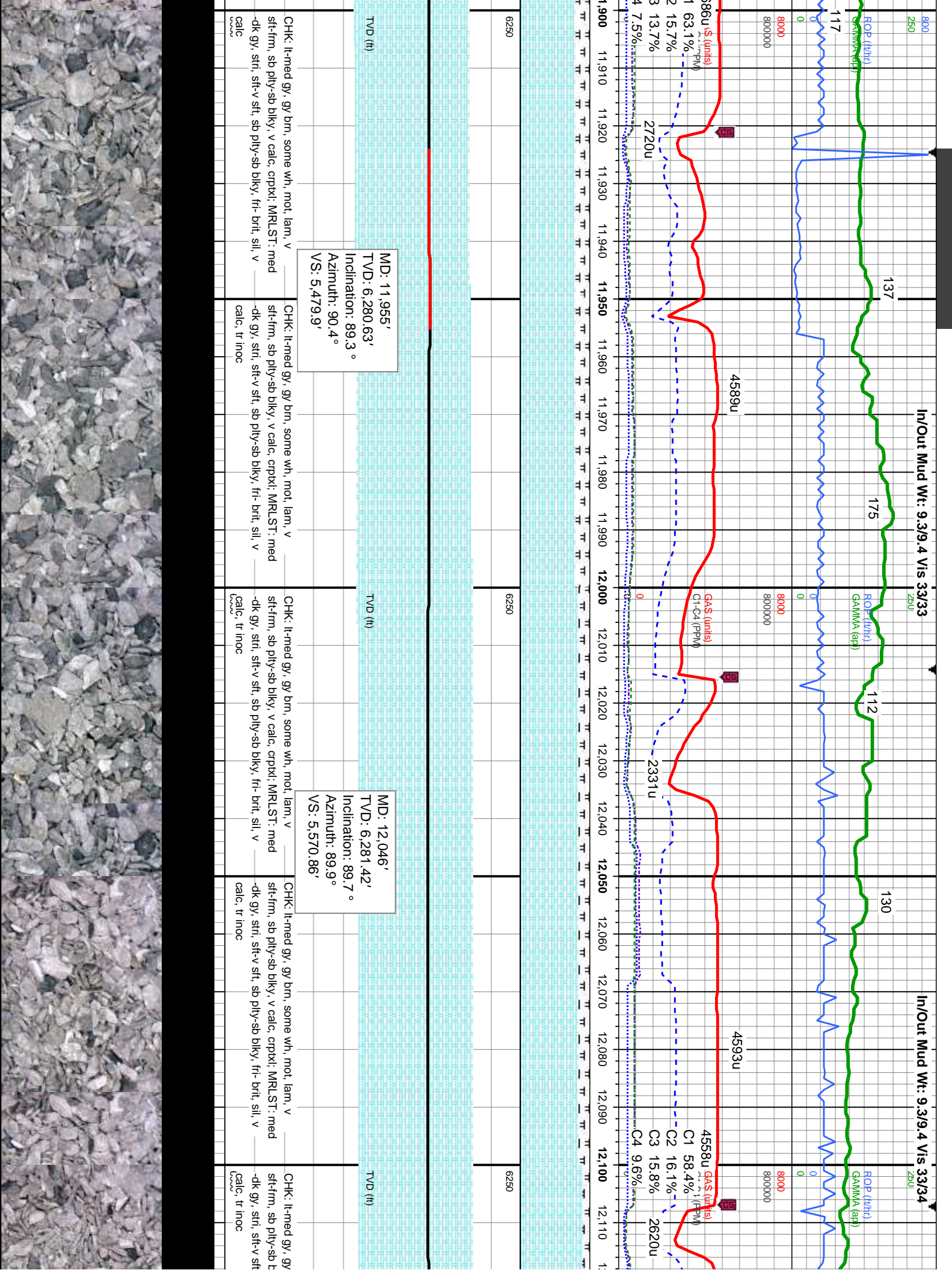
MD: 11,864'
TVD: 6,280.87'
Inclination: 91°
Azimuth: 88.7°
VS: 5,388.92'

CHK: It-med gy, gy brn, some wh, mot. lam, v
st-frn, sb ply-sb blk, v calc, crptl: MRLST: med
-dk gy, str, str-v sft, sb ply-sb blk, fr- brt, sil, v
calc

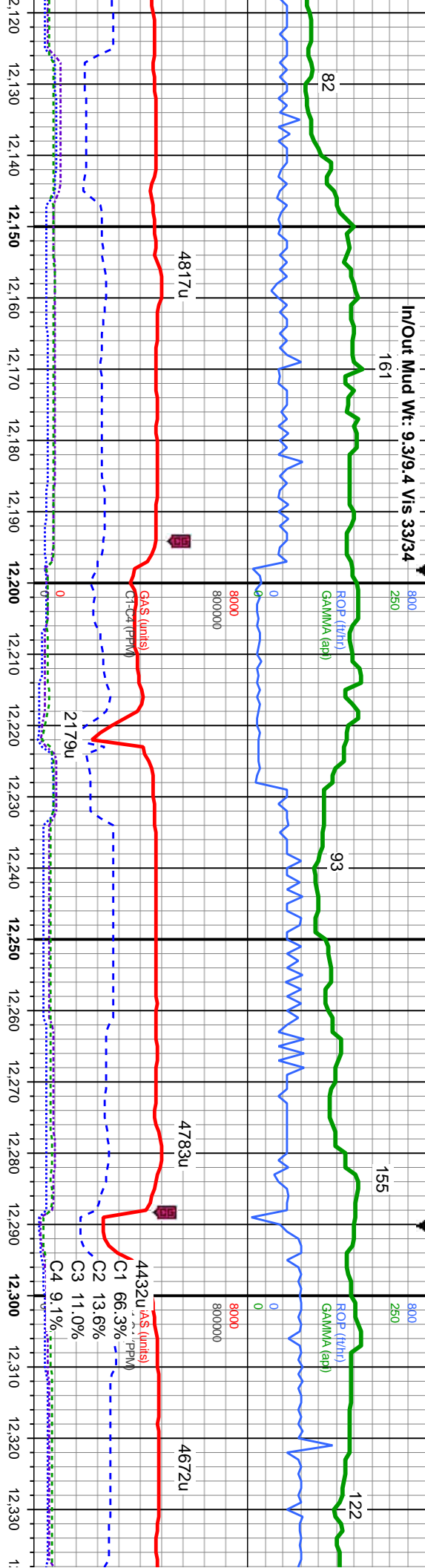
CHK: It-med gy, gy brn, some wh, mot. lam, v
st-frn, sb ply-sb blk, v calc, crptl: MRLST: med
-dk gy, str, str-v sft, sb ply-sb blk, fr- brt, sil, v
calc

CHK: It-med gy, gy brn, some wh, mot. lam, v
st-frn, sb ply-sb blk, v calc, crptl: MRLST: med
-dk gy, str, str-v sft, sb ply-sb blk, fr- brt, sil, v
calc





In/Out Mud Wt: 9.3/9.4 Vis 33/34
161



MD: 12,136'
TVD: 6,280.95'
Inclination: 90.9°
Azimuth: 90.6°
VS: 5,660.82'

CHK: It-med gy, gy brn, some wh, mot. lam, v
st-frn, sb ply-sb blk, v calc, crptl: MRLST: med
-dk gy, str, stf-v stf, sb ply-sb blk, fr- brt, sil, v
calc, tr inoc

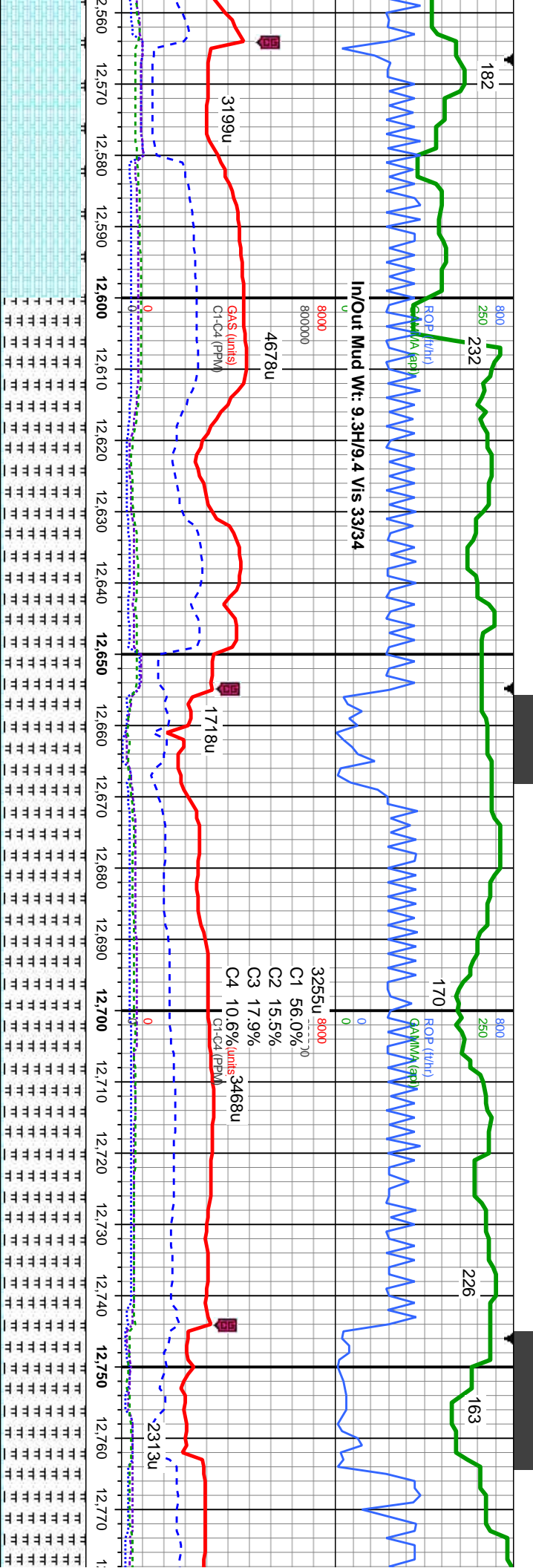
MD: 12,229'
TVD: 6,281.68'
Inclination: 88.2°
Azimuth: 89.8°
VS: 5,753.77'

CHK: It-med gy, gy brn, some wh, mot. lam, v
st-frn, sb ply-sb blk, v calc, crptl: MRLST: med
-dk gy, str, stf-v stf, sb ply-sb blk, fr- brt, sil, v
calc, tr inoc

MD: 12,321'
TVD: 6,284.25'
Inclination: 88.6°
Azimuth: 89.8°
VS: 5,845.71'

CHK: It-med gy, gy brn, some wh, mot. lam, v
st-frn, sb ply-sb blk, v calc, crptl: MRL
-dk gy, str, stf-v stf, sb ply-sb blk, fr- brt
calc, tr inoc





MD: 12,594'
TVD: 6,287.62'
Inclination: 90 °
Azimuth: 88.3°
VS: 6,118.67'

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-firm, sb pty-sb blk, v calc, crptl: MRLST: med
-dk gy, str, sft-v sft, sb pty-sb blk, fri- brt, sil

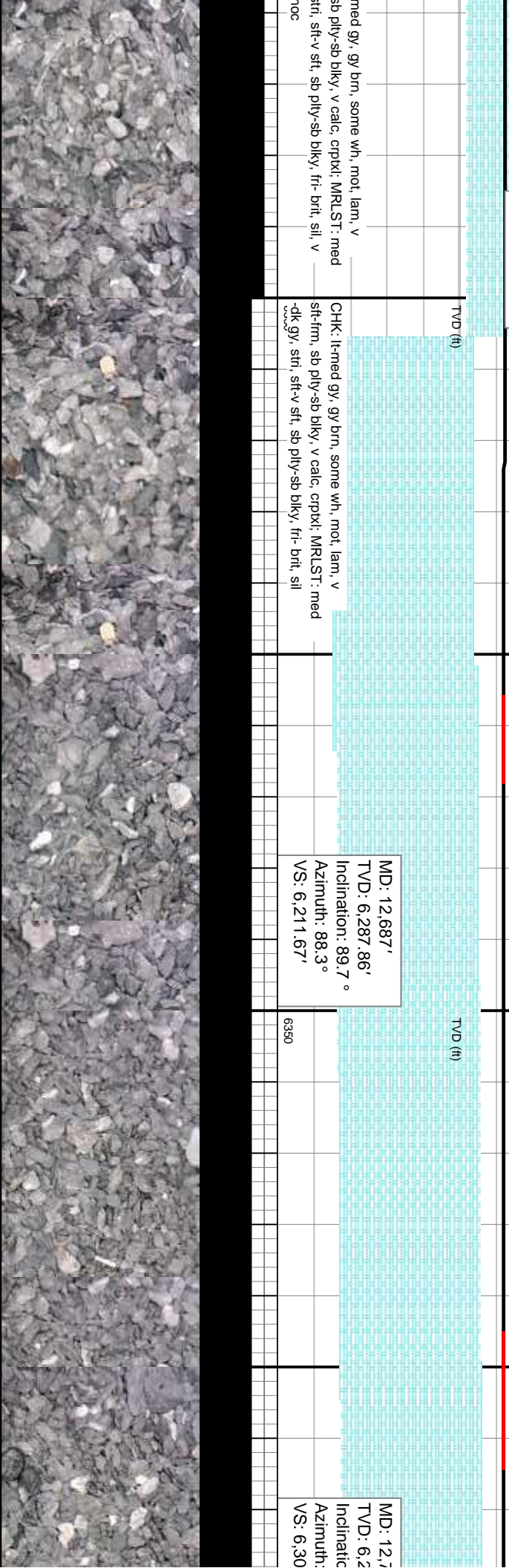
CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-firm, sb pty-sb blk, v calc, crptl: MRLST: med
-dk gy, str, sft-v sft, sb pty-sb blk, fri- brt, sil

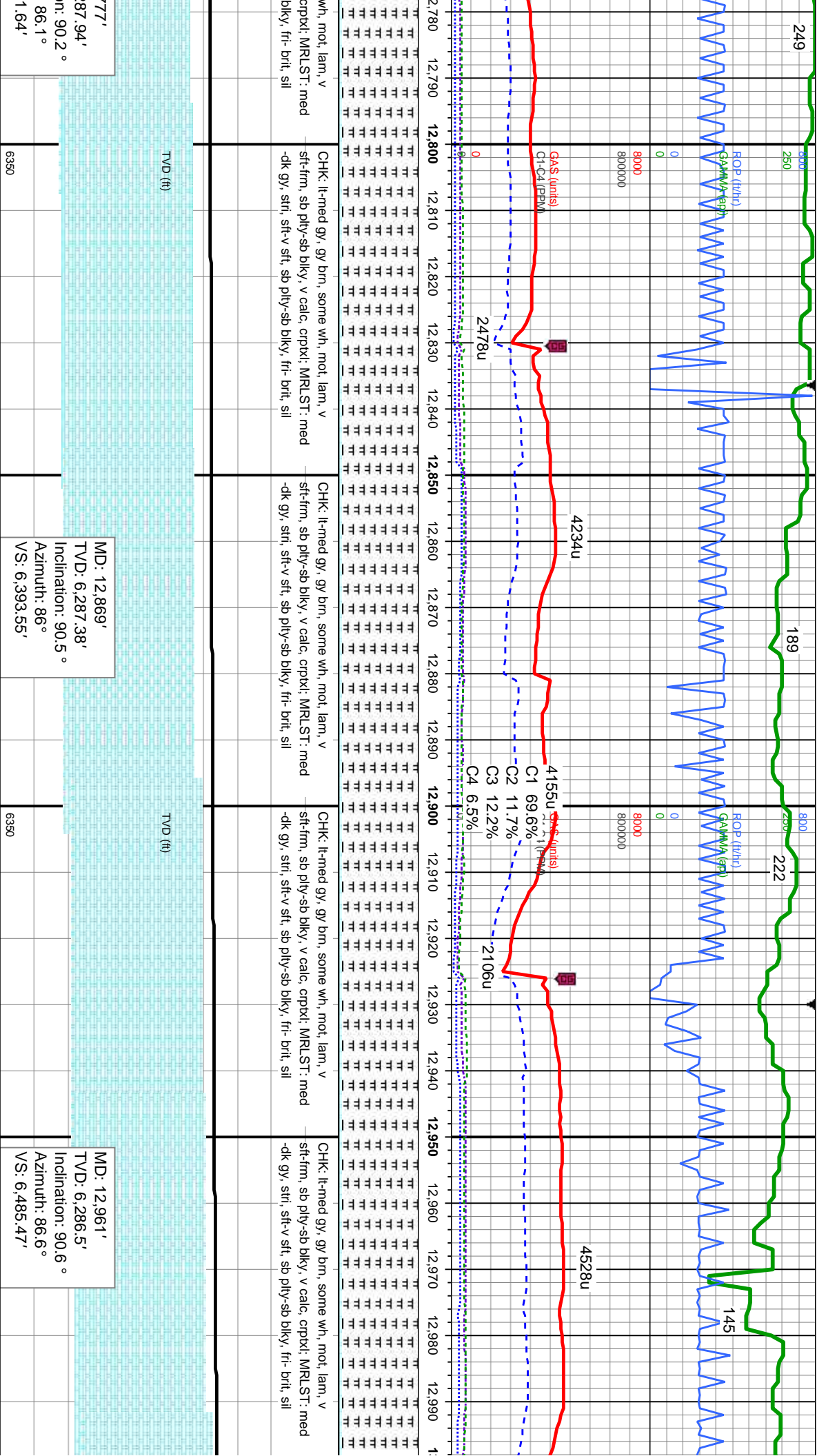
CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-firm, sb pty-sb blk, v calc, crptl: MRLST: med
-dk gy, str, sft-v sft, sb pty-sb blk, fri- brt, sil

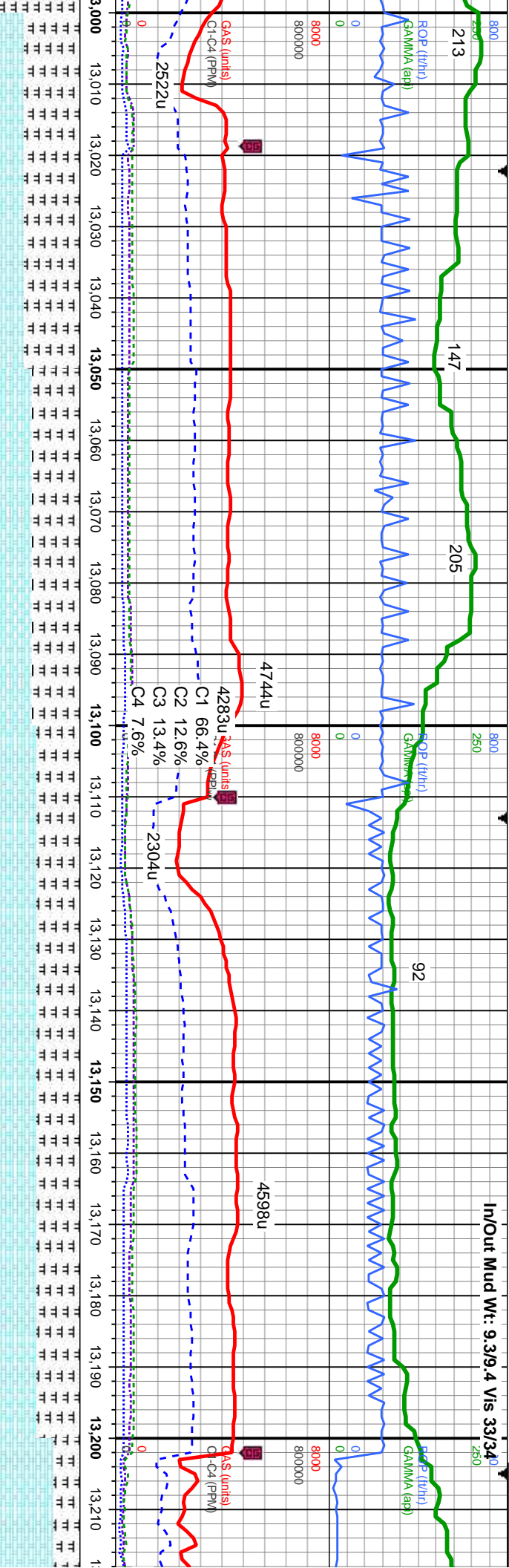
MD: 12,687'
TVD: 6,287.86'
Inclination: 89.7 °
Azimuth: 88.3°
VS: 6,211.67'

MD: 12,700'
TVD: 6,287.86'
Inclination: 89.7 °
Azimuth: 88.3°
VS: 6,211.67'

MD: 12,700'
TVD: 6,287.86'
Inclination: 89.7 °
Azimuth: 88.3°
VS: 6,211.67'





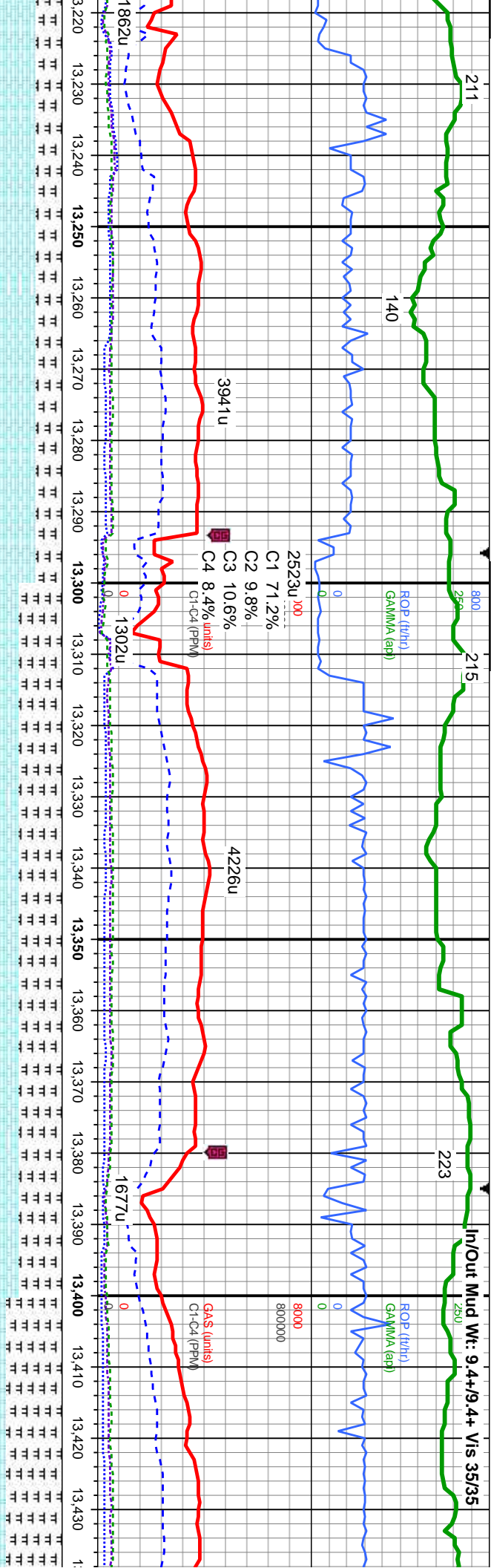


CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb pty-sb blk, v calc, crptl: MRLST: med -dk gy, stri, sft-v sft, sb pty-sb blk, fri- brit, sil	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb pty-sb blk, v calc, crptl: MRLST: med -dk gy, stri, sft-v sft, sb pty-sb blk, fri- brit, sil	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb pty-sb blk, v calc, crptl: MRLST: med -dk gy, stri, sft-v sft, sb pty-sb blk, fri- brit, sil	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-frm, sb pty-sb blk, v calc, crptl: MRLST: med -dk gy, stri, sft-v sft, sb pty-sb blk, fri- brit, sil
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TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)
6350	6350	6350	6350

MD: 13,052'
TVD: 6,285.15'
Inclination: 91.1°
Azimuth: 86.2°
VS: 6,576.39'

MD: 13,143'
TVD: 6,282.76'
Inclination: 91.9°
Azimuth: 86.5°
VS: 6,667.29'



con, some wh, mot, lam, v
sft-frn, sb ply-sb blkly, v calc, cprtxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blkly, fri- brtl, sil

con, some wh, mot, lam, v
sft-frn, sb ply-sb blkly, v calc, cprtxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blkly, fri- brtl, sil

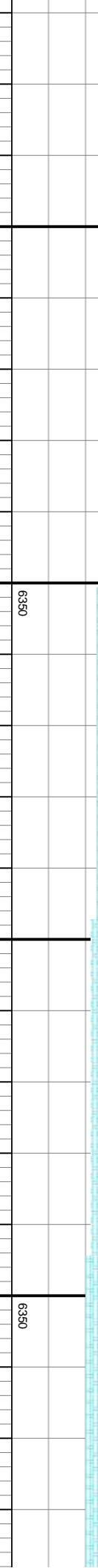
con, some wh, mot, lam, v
sft-frn, sb ply-sb blkly, v calc, cprtxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blkly, fri- brtl, sil

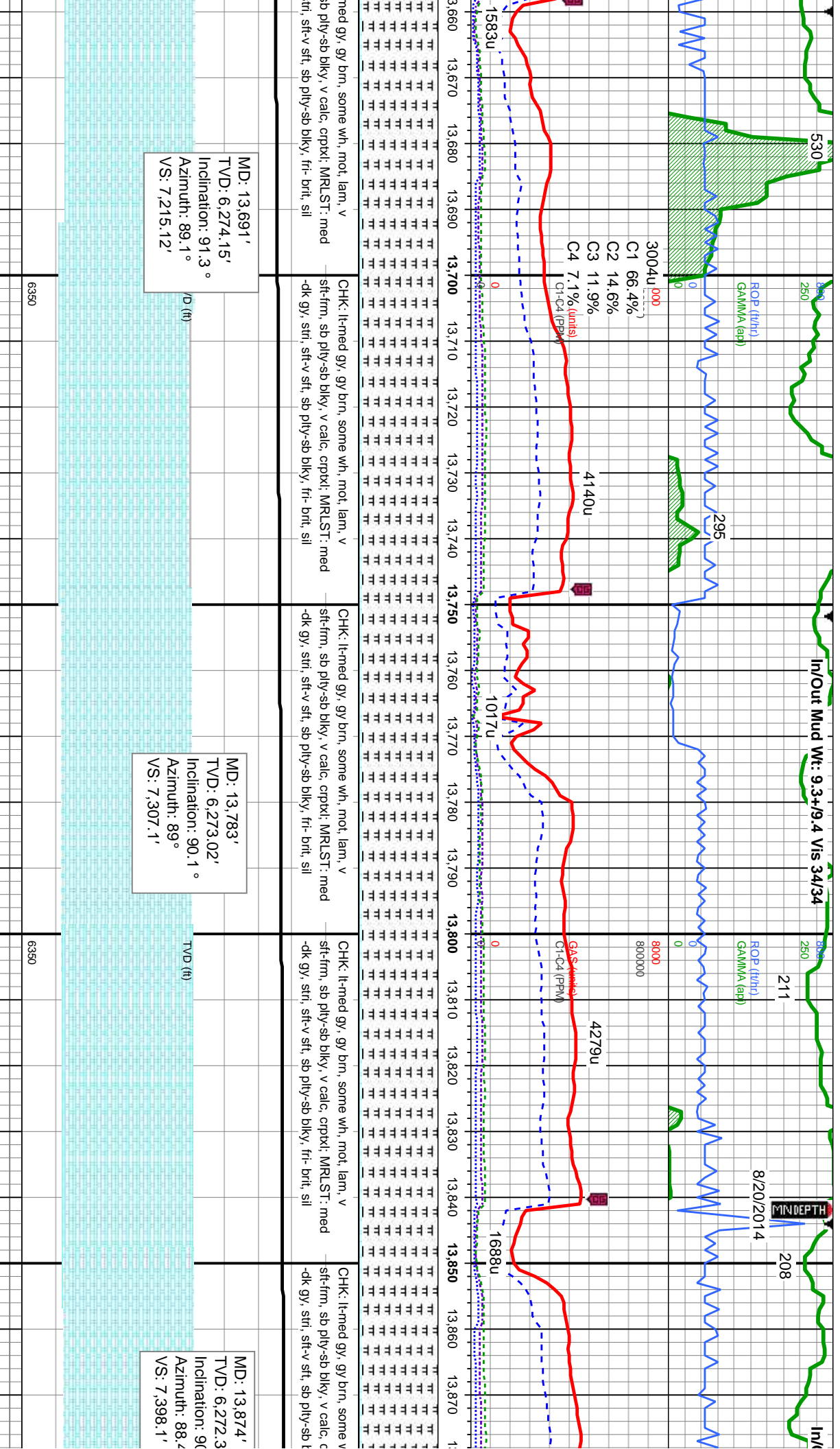
con, some wh, mot, lam, v
sft-frn, sb ply-sb blkly, v calc, cprtxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blkly, fri- brtl, sil

MD: 13,235'
TVD: 6,280.36'
Inclination: 91.1°
Azimuth: 87.7°
VS: 6,759.23'

MD: 13,325'
TVD: 6,279.73'
Inclination: 89.7°
Azimuth: 87.7°
VS: 6,849.21'

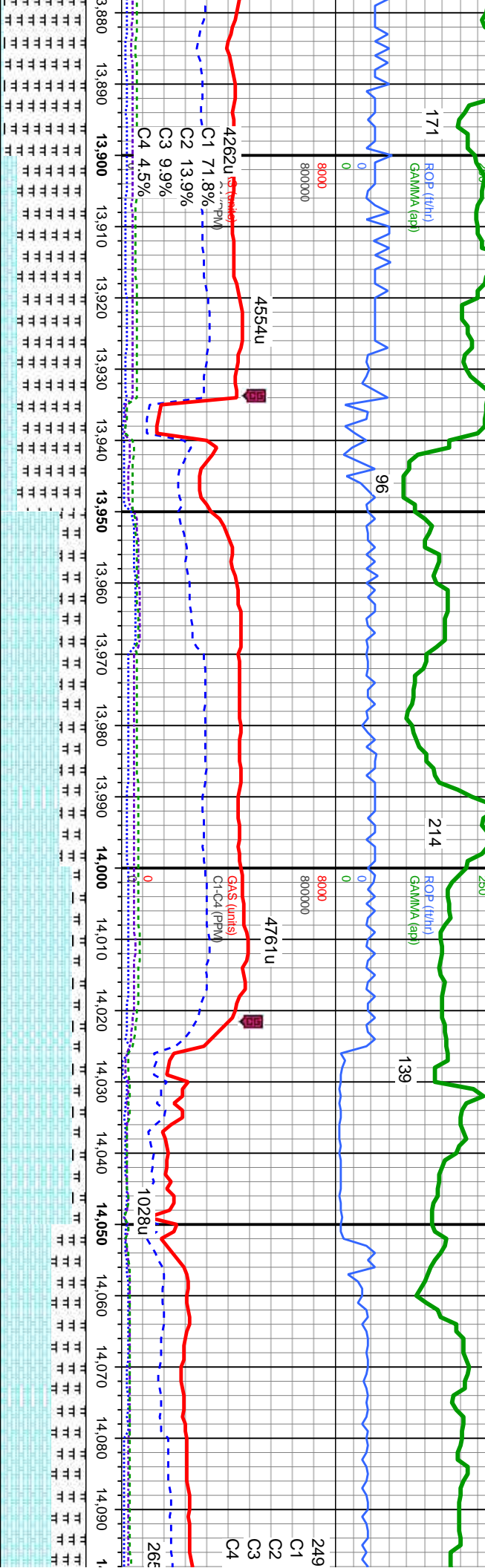
MD: 13,417'
TVD: 6,279.17'
Inclination: 91°
Azimuth: 87.4°
VS: 6,941.19'





Out Mud Wt: 9.3+/9.4 Vis 34/34

In/Out Mud Wt: 9.3+/9.4 Vis 33/33



h, mot, lam, v
cpxl: MRLST: med
biky, fri- bnt, sil

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb ply-sb biky, v calc, cpxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb biky, fri- bnt, sil

CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb ply-sb biky, v calc, cpxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb biky, fri- bnt, sil, tr cal, tr inoc

MD: 13,965'
TVD: 6,270.16'
Inclination: 91.9 °
Azimuth: 88.6 °
VS: 7,489.07'

MD: 14,056'
TVD: 6,269.13'
Inclination: 89.4 °
Azimuth: 87.7 °
VS: 7,580.06'

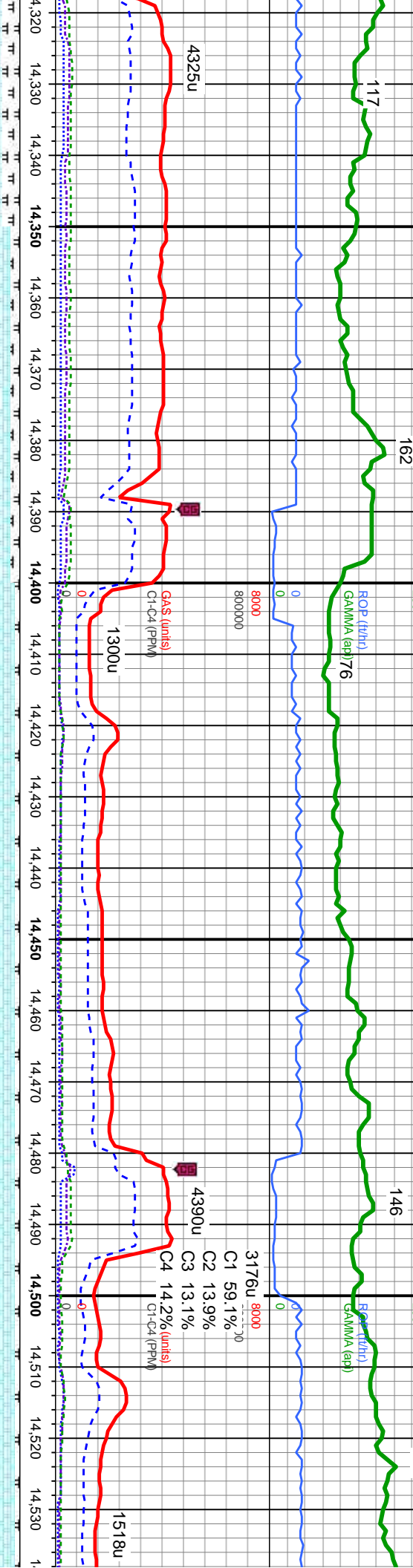
CHK: It-med gy, gy brn, some wh, mot, lam, v
sft-frm, sb ply-sb biky, v calc, cpxl: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb biky, fri- bnt, sil



In/Out Mud Wt: 9.4/9.4 Vis 35/35

In/Out Mud Wt: 9.4/9.5 Vis 35/36

In/Out Mud Wt: 9.1/9.5 Vis 34/35



brn, some wh, mot, lam, v
bly, v calc, cpbk: MRLST: med
sb pty-sb bly, fri- brt, sil, tr cal,
CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb pty-sb bly, v calc, cpbk: MRLST: med
-dk gy, str, sft-v sft, sb pty-sb bly, fri- brt, sil, tr cal,
tr inoc

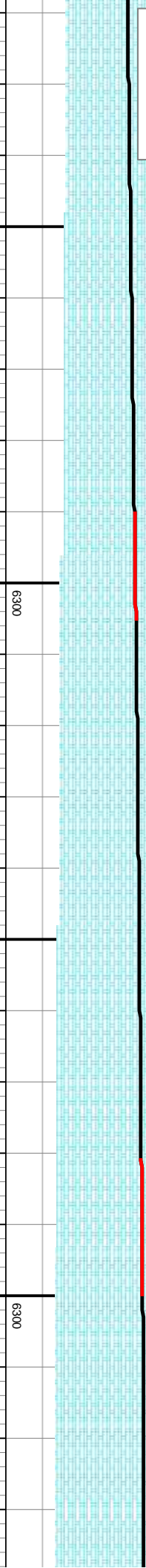
CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb pty-sb bly, v calc, cpbk: MRLST: med
-dk gy, str, sft-v sft, sb pty-sb bly, fri- brt, sil, tr cal,
tr inoc

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb pty-sb bly, v calc, cpbk: MRLST: med
-dk gy, str, sft-v sft, sb pty-sb bly, fri- brt,
tr inoc

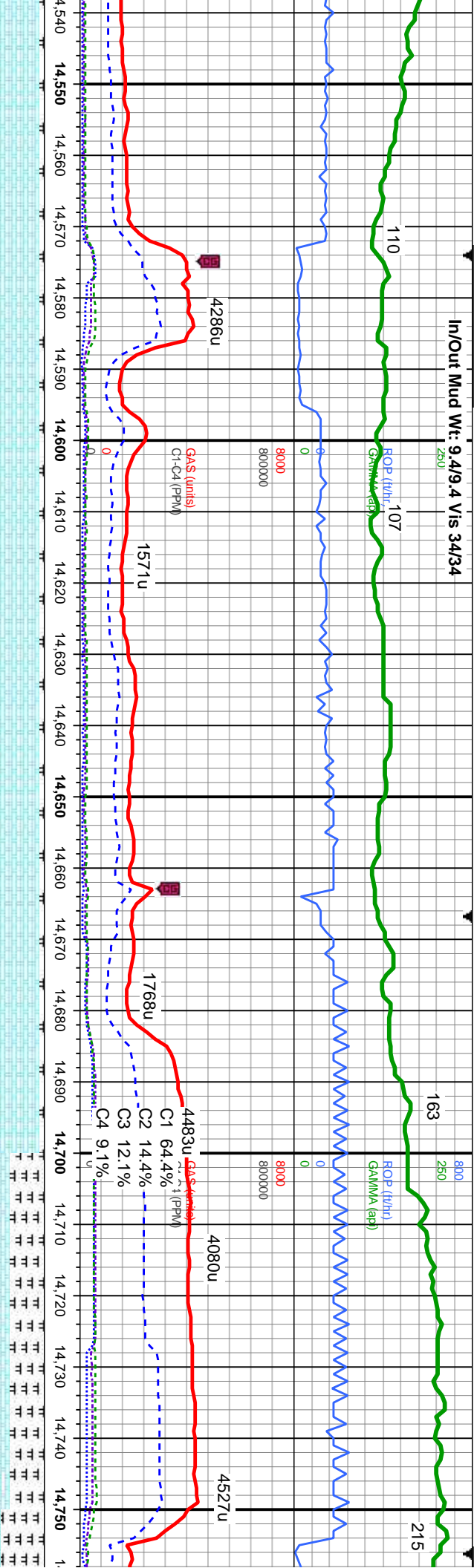
MD: 14,330'
TVD: 6,266.2'
Inclination: 91.7°
Azimuth: 86.8°
VS: 7,853.98'

MD: 14,422'
TVD: 6,263.79'
Inclination: 91.3°
Azimuth: 88.4°
VS: 7,945.93'

MD: 14,513'
TVD: 6,262.12'
Inclination: 90.8°
Azimuth: 88.6°
VS: 8,036.91'



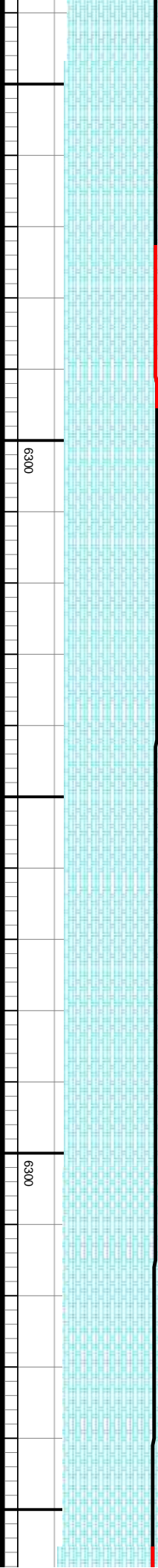
In/Out Mud Wt: 9.4/9.4 Vis 34/34



Depth (ft)	CHK: It-med gy, gy brn, some wh, mot, lam, v	CHK: It-med gy, gy brn, some wh, mot, lam, v	CHK: It-med gy, gy brn, some wh, mot, lam, v	CHK: It-med gy, gy brn, some wh, mot, lam, v
14,540	sft-firm, sb pily-sb blk, v calc, cpbx: MRLST: med	sft-firm, sb pily-sb blk, v calc, cpbx: MRLST: med	sft-firm, sb pily-sb blk, v calc, cpbx: MRLST: med	sft-firm, sb pily-sb blk, v calc, cpbx: MRLST: med
14,550	-dk gy, stri, sft-v sft, sb pily-sb blk, fri- brt, sil, tr cal, tr inoc	-dk gy, stri, sft-v sft, sb pily-sb blk, fri- brt, sil, tr cal, tr inoc	-dk gy, stri, sft-v sft, sb pily-sb blk, fri- brt, sil, tr cal, tr inoc	-dk gy, stri, sft-v sft, sb pily-sb blk, fri- brt, sil, tr cal, tr inoc
14,560				
14,570				
14,580				
14,590				
14,600				
14,610				
14,620				
14,630				
14,640				
14,650				
14,660				
14,670				
14,680				
14,690				
14,700				
14,710				
14,720				
14,730				
14,740				
14,750				

MD: 14,604'
TVD: 6,261.88'
Inclination: 89.5 °
Azimuth: 89.1 °
VS: 8,127.91'

MD: 14,694'
TVD: 6,261.96'
Inclination: 90.4 °
Azimuth: 89.1 °
VS: 8,217.9'



d Wt: 9.4/9.4 Vis 32/33 199

In/Out Mud Wt: 9.4/9.4 Vis 32/33

210

ROP (ft/hr)

117

ROP (ft/hr)

210

GAMMA (api)

117

GAMMA (api)

210

8000

8000

4612u

4573u

3734u

GAS (units)

4506u

3734u

CI-C4 (ppm)

C1 69.2%

3734u

0

C2 14.4%

3734u

0

C3 10.9%

3734u

0

C4 5.5%

3734u

0

2340u

3734u

0

2340u

3734u

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wh, mot, lam, v
cpx: MRLST: med
blk: fri- brt, sil, tr cal

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpx: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, tr cal

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpx: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, tr cal

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpx: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, tr cal

CHK: lt-med gy, gy brn, some wh, mot, lam, v
sft-fm, sb ply-sb blk, v calc, cpx: MRLST: med
-dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, tr cal

TVD (ft)

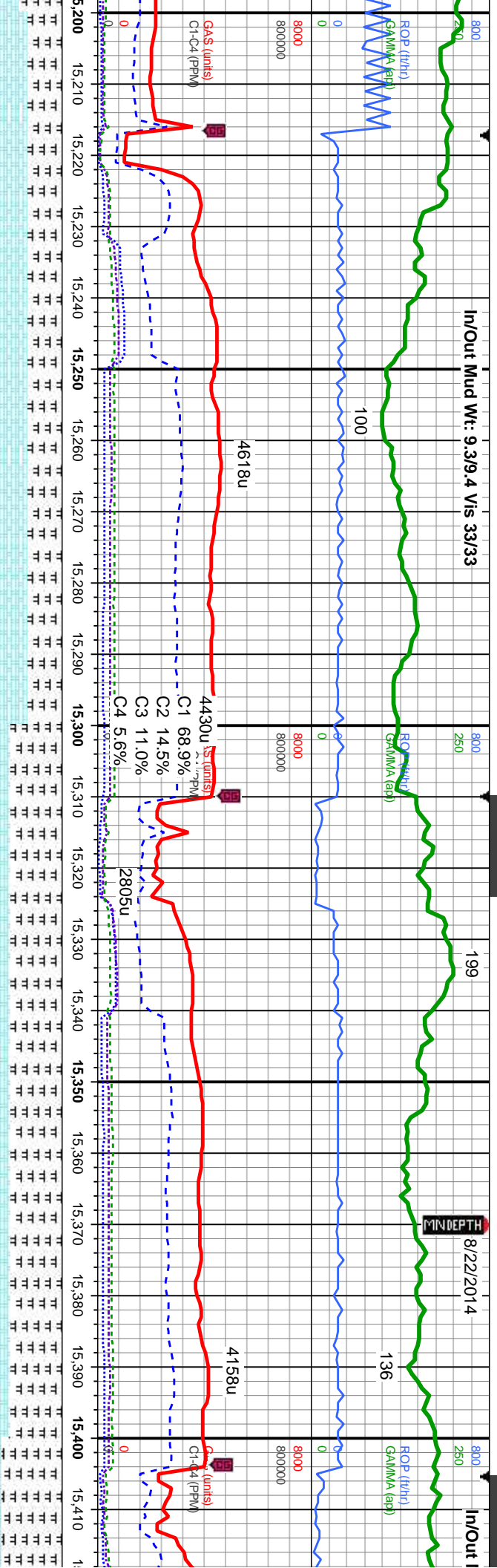
MD: 15,061'
TVD: 6,268.35'
Inclination: 89.8 °
Azimuth: 87.7°
VS: 8,584.81'

TVD (ft)

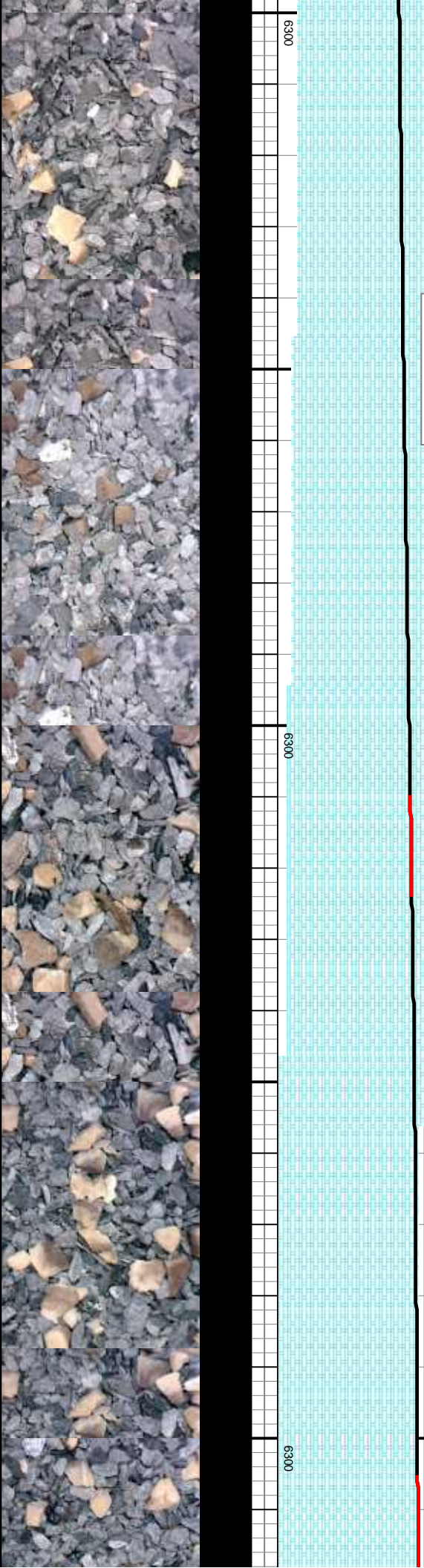
MD: 15,156'
TVD: 6,267.69'
Inclination: 91 °
Azimuth: 89.2°
VS: 8,679.8'

6300

6300



CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, tr cal	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, tr cal	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, tr cal	CHK: lt-med gy, gy brn, some wh, mot, lam, v sft-fm, sb ply-sb blk, v calc, cpxl: MRLST: med -dk gy, stri, sft-v sft, sb ply-sb blk, fri- brt, sil, tr cal
MD: 15,250' TVD: 6,265.39' Inclination: 91.8° Azimuth: 88.9° VS: 8,773.77'	MD: 15,345' TVD: 6,262.49' Inclination: 91.7° Azimuth: 89.1° VS: 8,868.72'	MD: 15,345' TVD: 6,262.49' Inclination: 91.7° Azimuth: 89.1° VS: 8,868.72'	MD: 15,345' TVD: 6,262.49' Inclination: 91.7° Azimuth: 89.1° VS: 8,868.72'
TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)



Mud Wt: 9.3/9.4 Vis 34/34

In/Out Mud Wt: 9.4/9.4 Vis 34/34

