



Scale: 5" / 100'  
Measured Depth Log

**Well Name** Prosper Farms 4-65 2-1 4AH

**Location** Section 2, T4S, R65W

**State** COLORADO

**County** ARAPAHOE

**Country** USA

**Rig Number** H&P 448

**API Number** 05-005-07249

**AFE #** WAY.CDR.0046

**Geographic Region** DJ BASIN

**Field** WILDCAT

**Spud Date** 6/16/2017

**Drilling Completed** 6/20/2017

**Surface Coordinates** Section 2 T04S R65W

1180' FSL & 550' FWL

Latitude 39 43'43.860"N

Longitude 104 38'19.560"W

**Bottom Hole Coordinates** Section 1 T04S R65W

1220' FSL & 2310' FWL

Latitude 39 43'43.420"N

Longitude 104 36'49.540"W

**Ground Elevation** 5654(FINISHED GRADE)

**K.B. Elevation** 5679.2

**Logged Interval** 6000 To 14488

**Total Depth** 14488

**Formation** Niobrara **Type of**

**Drilling Fluid** OBM

**Operator**

**Company** Conoco Phillips

**Address** 600 N. Dairy Ashford Rd.  
Houston, TX 77079-1175



**Geologist**

**Name** Dave Aldridge

**Company** Conoco Phillips Central Rockies Implementation

**Address** Dave.E.Aldridge@conocophillips.com

Office:(832)486-3983

600 N Dairy Ashford EC3 14-W134

Houston, TX 77079



Other

Columbine Logging Inc. Mud Logging Company

Geologists/Geosteers on Location: Robert Davis, Todd Thiesse

Gas Detection: Bloodhound chromatograph gas unit #0316

DD/MWD: Baker Hughes

Columbine Computer 87A

Zone Color Coding

- Oil
- Note
- Error
- Condensate
- Core
- Water
- Gas
- Pressure
- Seal

Rock Types

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

Fossils

- GASTROPOD
- INOCERAMUS
- OOOLITE
- OSTRACOD
- PELECYPOD
- PELLET
- PISOLITE
- PLANT REMAINS
- PLANT SPORES
- SCAPHOPOD
- STROMATOPOR
- ECHINOID
- FISH
- FORAMINIFERA
- F FOSSIL
- ARGILLACEOUS

Minerals

- P PINPOINT
- V VUGGY

Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- BIT
- SPOTTED STAINING
- CONNECTION

Engineer

- CONNECTION
- CONNECT
- TRIP GAS
- TRIP GAS
- INTERCRYSTALLINE
- INTEROOLITIC
- MOLDIC
- ORGANIC
- DOWN TIME
- DOWN TING
- CORE - LOST
- CORE - RECC

Accessories

/ ARGILLITE GRAIN	1 HEAVY MINERAL
B BENTONITE	K KAOLIN
BITUMENOUS SUBSTANCE	M MARCASTE
BRECCIA FRAGMENTS	TT MARLSTONE
1 CALCAREOUS	U MICACEOUS
CARBONACEOUS FLAKES	MINERAL CRYSTALS
CHTDK	● NODULES
CHTLT	● PHOSPHATE PELLETS
COAL - THIN BEDS	P PYRITE
DOLOMITIC	B SALT CAST
+ FELDSPAR	: SANDY
● FERRUGINOUS PELLETT	\$ SIDERITE
FERRUGINOUS	Λ SILICEOUS
GLAUCONITE	* SILTY
GYPSIFEROUS	✓ TUFFACEOUS

Stringer

ANHYDRITE STRINGER
BENTONITE STRINGER
COAL STRINGER
DOLOMITE STRINGER
GYPSUM STRINGER
LIMESTONE STRINGER
MARLSTONE (CALC) STRG
MARLSTONE (DOL) STRG
SANDSTONE STRINGER
SHALE STRINGER
SILTSTONE STRINGER

Other Symbols

DST INTERVAL	▽ WIRELINE TESTED - LEFT	E EARTHY
FAULT	△ WIRELINE TESTED - RT	FX FINELYXLN
FORMATION TOP	DRILL STEM TEST	GS GRAINSTONE
GAS SHOW	MN DEPTH	L LITHOGRAPHIC
OIL SHOW		MX MICROXLN
MN DEPTH UP		MS MUDSTONE
MN DEPTH (DOWN)	△ ANGULAR	PS PACKSTONE
NORMAL FAULT	R ROUNDED	WS WACKESTONE
OVERTURNED STRATA	B SUBANG	
REVERSE FAULT	P SUBRND	
CASING		
SIDEWALL CORE (LEFT)		
SIDEWALL CORE (RIGHT)	B3 BOUNDSTONE	P POOR
SLIDE	C CHALKY	W WELL
CRYSTOLIN	CX CRYPTOXLN	

Textures

Sorting



Columbine Logging Inc. Rigged Up 2 man logging 6/16/2017 Chromatograph Gas Unit #0316, began logging from 6000' MD at 19:00 hrs, MDT on 6/16/2017

Gamma Data and Survey Data Provided by Baker Hughes

Gas Data From Bloodhound Unit #0316, data imported via Pason and Gaschart

Bit Data  
Bit #: 1  
Type: HCC AT505F  
Size: 8.5  
Depth In: 2209'  
Depth Out: 7425'  
Jets: 5x14  
S/N: 7163766

Mud Motor is 1.3°  
Survey is 46.46' behind bit  
Gamma is 43.05' behind bit.

MUD WT IN: 9.1 V/S: 50  
MUD WT OUT: 9.0+ V/S: 48

504u  
C1: 97.4%  
C2: 1.8%  
C3: 0.8%  
C4: 0.0%

Total Gas & Chromatograph  
GAS  
C1  
C2  
C3  
C4

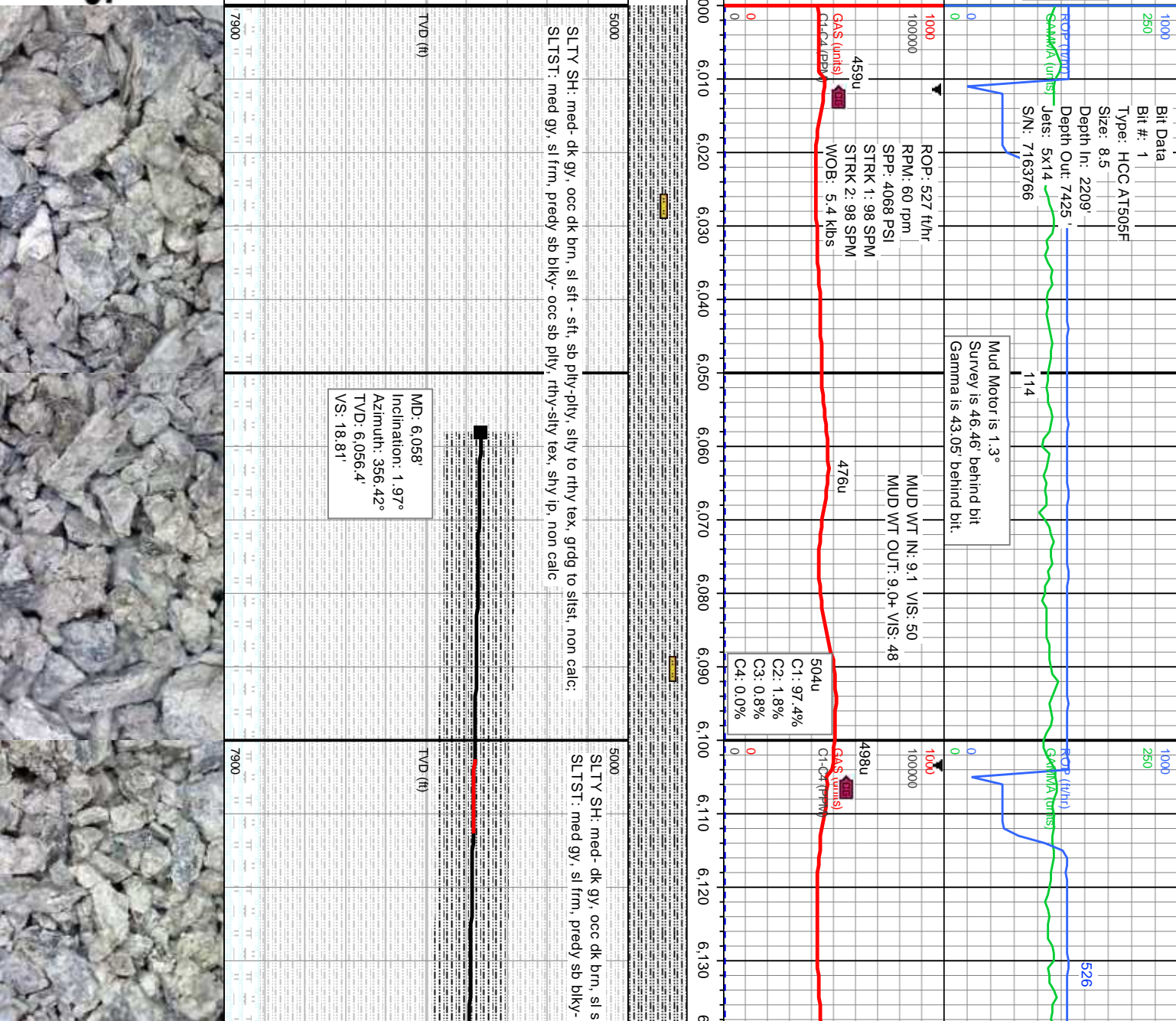
Depth Labels

% Lith

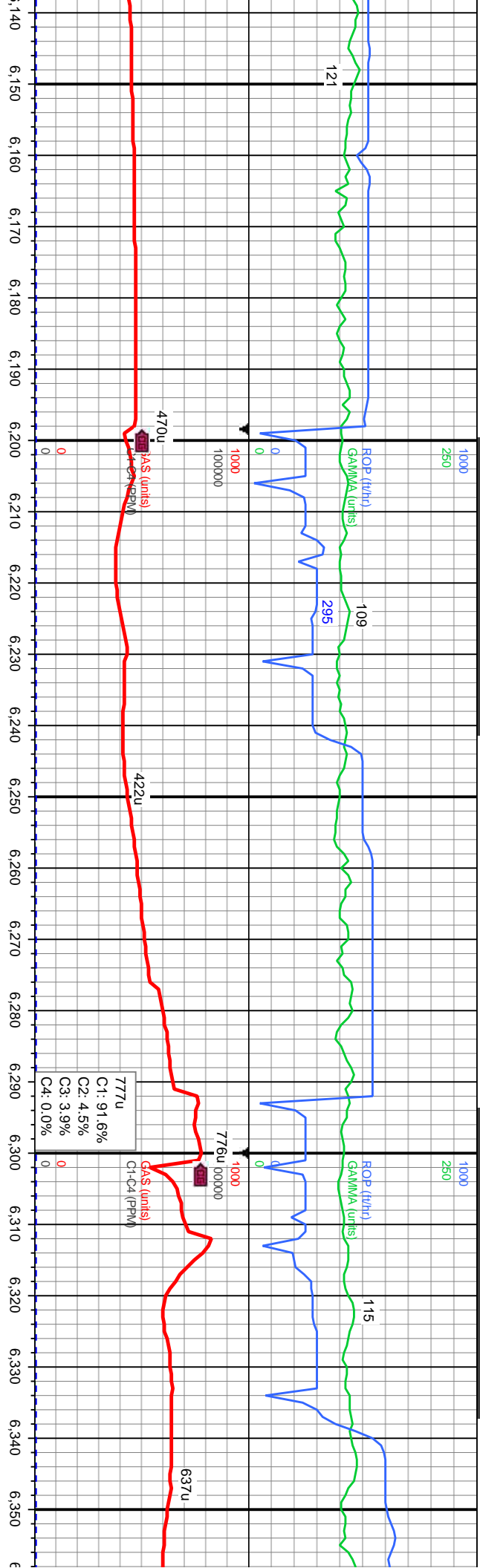
Well Bore  
TVD

Images

Provided for







occ sb ply, rthy-sily tex, shy ip, non calc

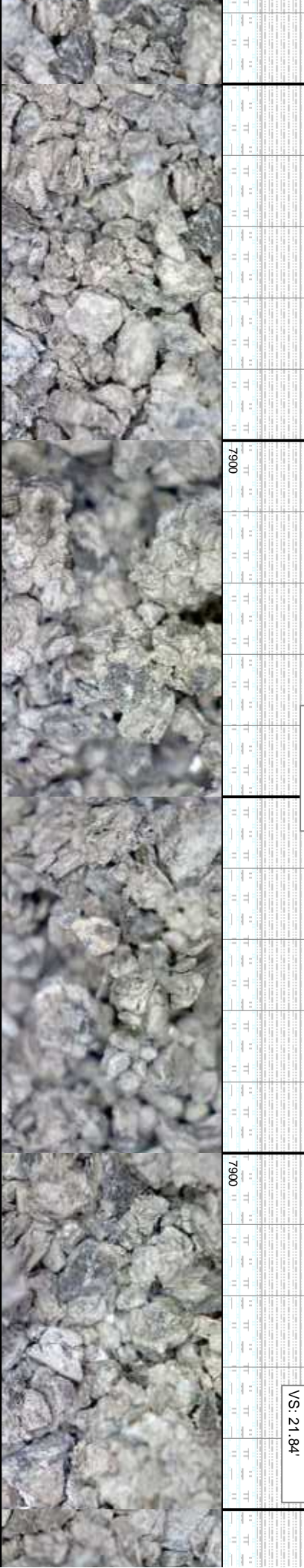
5000 SLTY SH: med- dk gy, occ dk brn, sl sft - sft, sb ply-ply, sily to rthy tex, non calc; with tr SLTST: med gy, sft-sl frm, predy sb bly- occ sb ply, rthy-sily tex, shy ip, non calc.

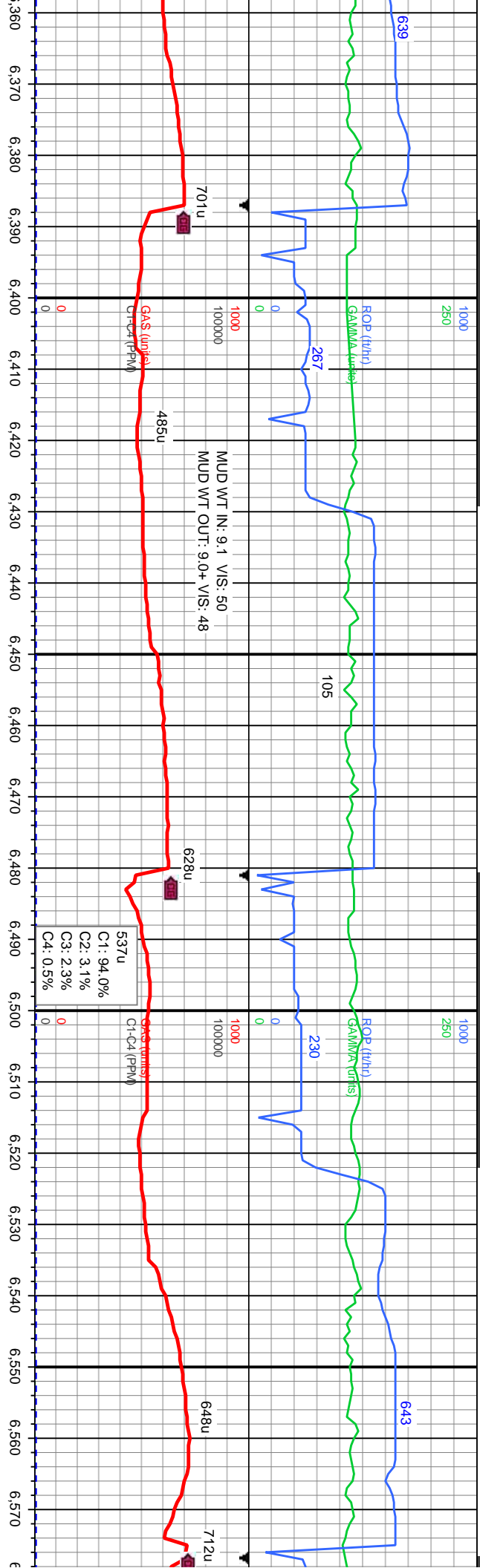
5000 SLTY SH: med- dk gy, occ dk brn, sl sft - sft, sb ply-p

MD: 6,152'  
Inclination: 2.32°  
Azimuth: 352.3°  
TVD: 6,150.33'  
VS: 18.44'

MD: 6,246'  
Inclination: 2.21°  
Azimuth: 29.9°  
TVD: 6,244.26'  
VS: 19.06'

MD: 6,341'  
Inclination: 2.9°  
Azimuth: 51.44°  
TVD: 6,339.17'  
VS: 21.84'





ty, silty to rthy tex, non calc; with tr  
rthy-silty tex, shy ip, non calc.

5000 SLTY SH: med- occ dk gy, tr dk brn, sft - v sft, sb pily-plty, silty to rthy tex, non calc;  
with tr SLTST: med gy occ dk gy, sft-sl frm, predy sb blkly- occ sb pily, rthy-silty tex,  
shy ip, non calc.

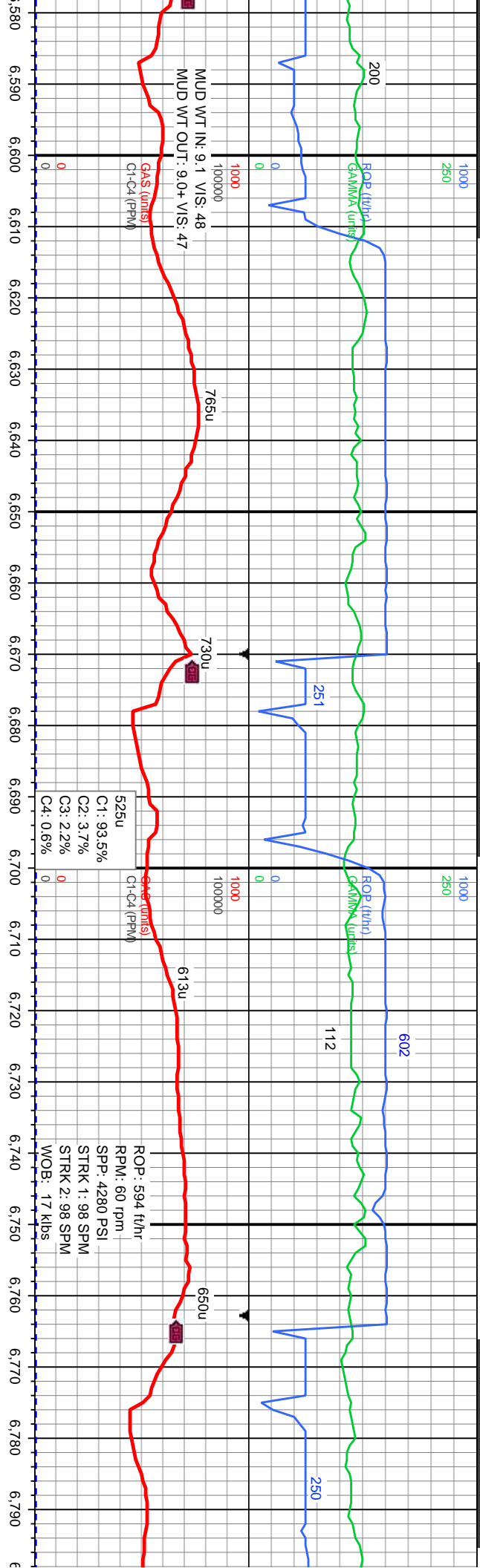
5000 SLTY SH: med- occ dk gy, tr dk brn, sft - v sft, sb pily-plty, silty to rthy tex, non calc;  
SLTST: med gy occ dk gy, sft-sl frm, predy sb blkly- occ sb pily, rthy-silty tex

MD: 6,436'  
Inclination: 3.48°  
Azimuth: 56.09°  
TVD: 6,434.02'  
VS: 26.09

MD: 6,530'  
Inclination: 4.32°  
Azimuth: 70.39°  
TVD: 6,527.81'  
VS: 31.77







on calc: with tr  
shy ip, non calc.

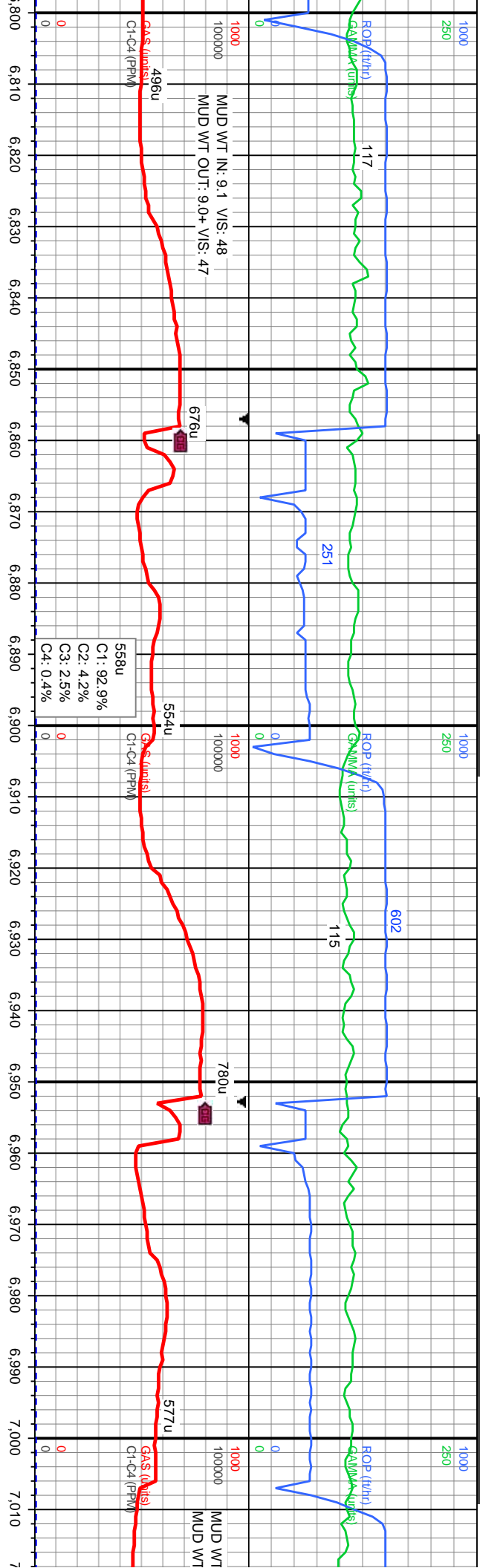
SLTY SH: med-occ dk gy, tr dk brn, sft - v sft, sb ply-ply, silty to rthy tex, non calc, with tr SLTST:  
med gy occ dk gy, sft-sl frm, predy sb blk-occ sb ply, rthy-silty tex, shy ip, non calc.

SLTY SH: med gy- dk gy, sft - v sft, sb ply-ply, silty to rthy tex, non calc, with tr SLTST: med gy,  
tr dk gy, sft-sl frm, predy sb blk-occ sb ply, rthy-silty tex, shy ip, non calc.

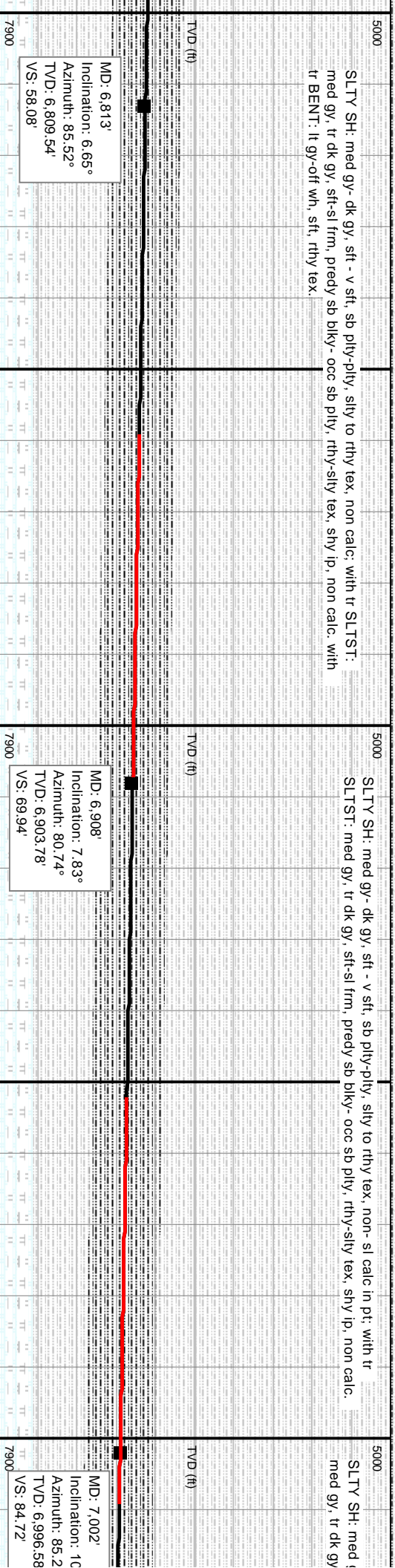
MD: 6.624'  
Inclination: 4.99°  
Azimuth: 82.99°  
TVD: 6.621.5'  
VS: 39.16'

MD: 6.719'  
Inclination: 5.73°  
Azimuth: 85.3°  
TVD: 6.716.08'  
VS: 47.98'



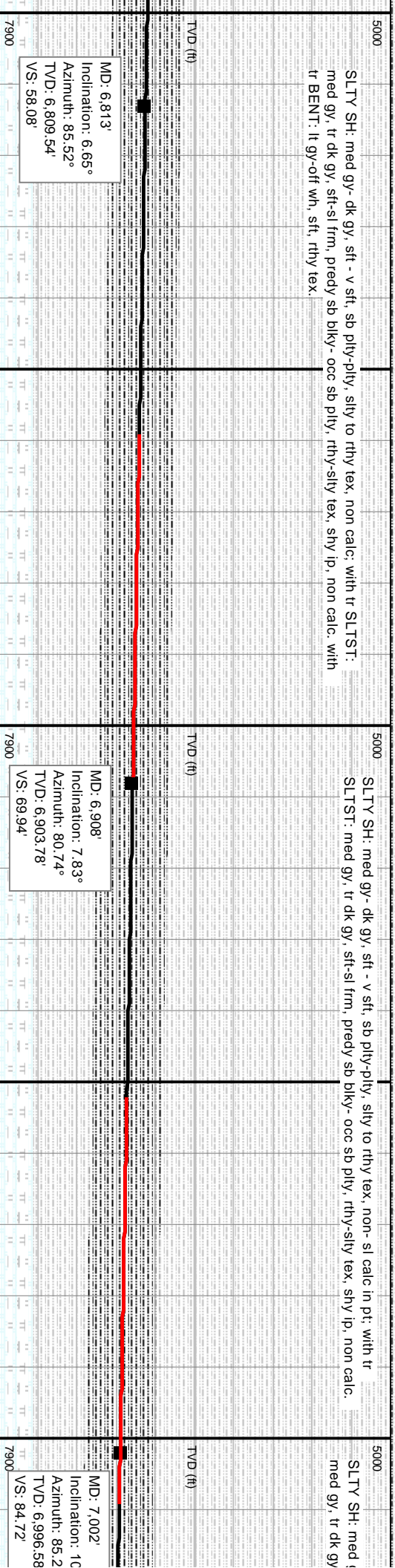


SLTY SH: med gy- dk gy, sft - v sft, sb plty-plty, silty to rthy tex, non calc. with tr SLTST:  
med gy, tr dk gy, sft-sl frm, predy sb blkly- occ sb plty, rthy-silty tex, shy ip, non calc. with  
tr BENT: lt gy-off wh, sft, rthy tex.



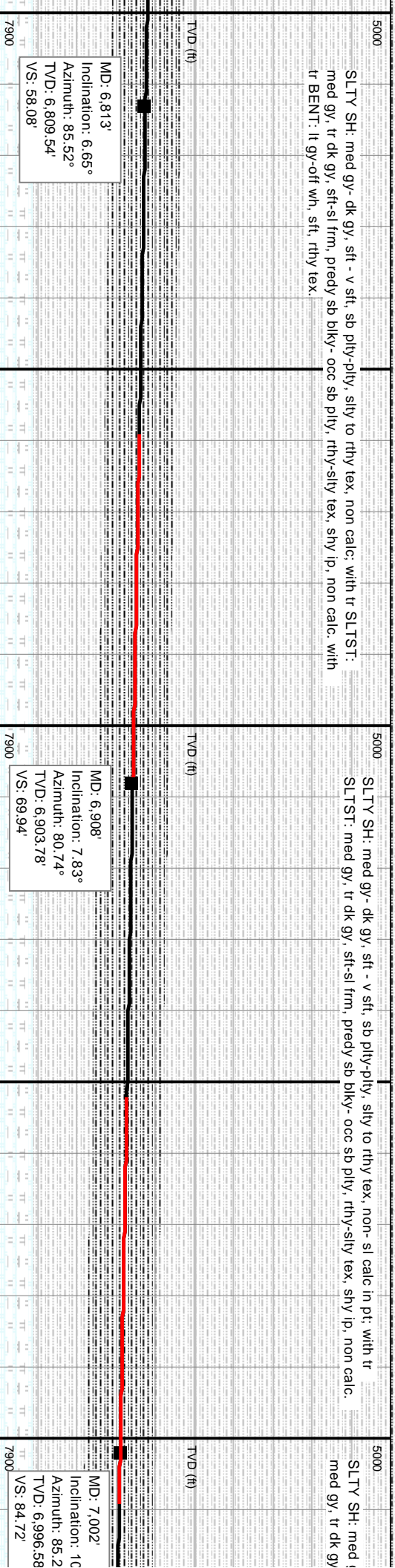
MD: 6.813'  
Inclination: 6.65°  
Azimuth: 85.52°  
TVD: 6.809.54'  
VS: 58.08'

SLTY SH: med gy- dk gy, sft - v sft, sb plty-plty, silty to rthy tex, non- sl calc in pt; with tr  
SLTST: med gy, tr dk gy, sft-sl frm, predy sb blkly- occ sb plty, rthy-silty tex, shy ip, non calc.



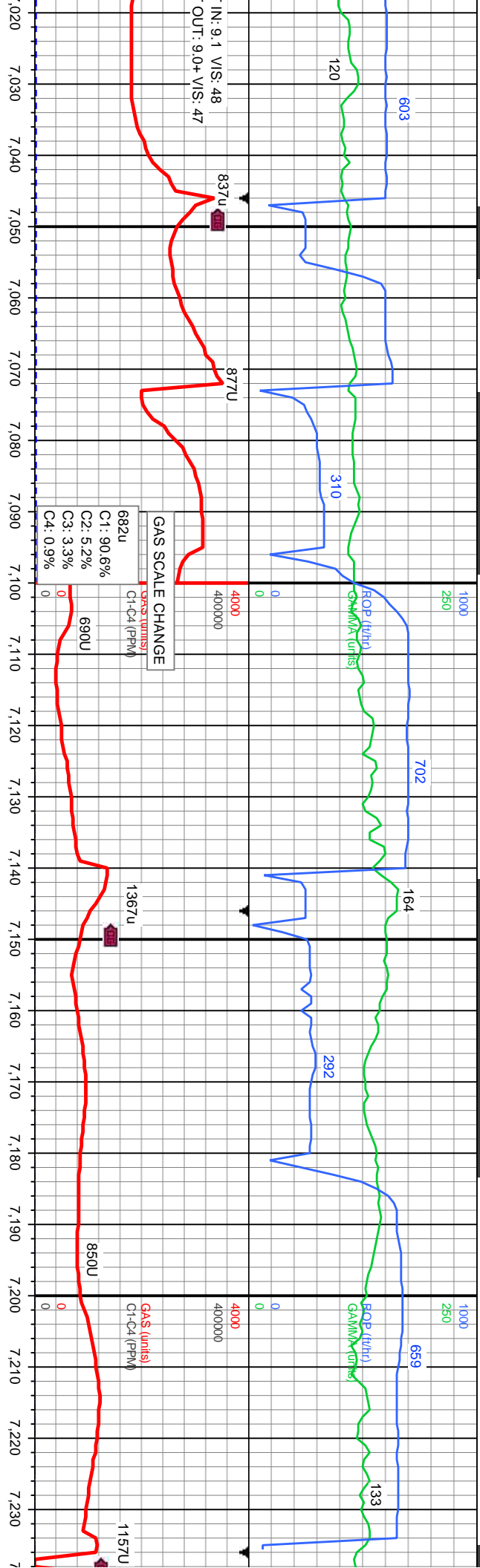
MD: 6.908'  
Inclination: 7.83°  
Azimuth: 80.74°  
TVD: 6.903.78'  
VS: 69.94'

SLTY SH: med  
med gy, tr dk gy

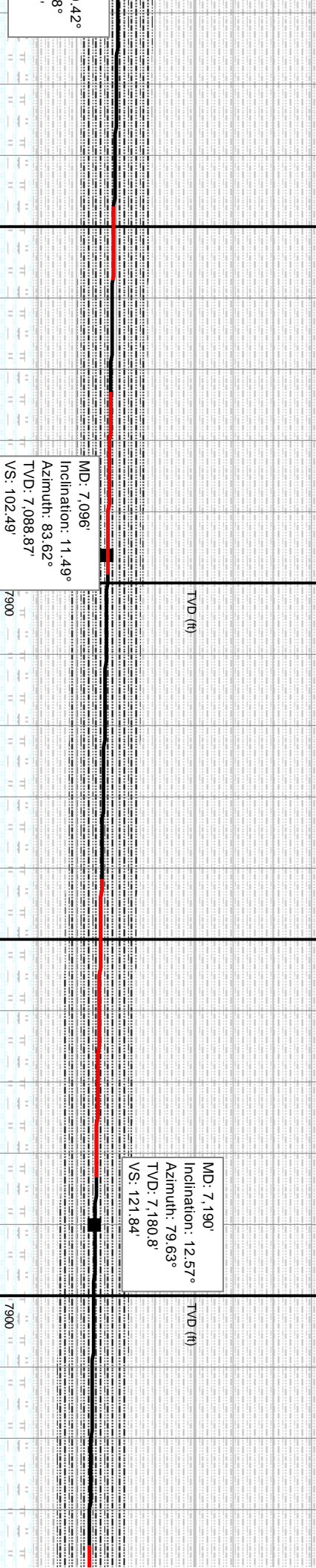


MD: 7.002'  
Inclination: 10°  
Azimuth: 85.2°  
TVD: 6.996.58'  
VS: 84.72'





SLTY SH: med gy - dk gy, sft - v sft, sb ply-ply, silty to rthy tex, non-si calc in pt; with tr SLTST: med gy, occ dk gy, sft-sil frm, predy sb blk-occ sb ply, rthy-silty tex, shy ip, non calc. with tr BENT.



6/17/2017

MINDEPTH

Bit Data  
Bit #: 2  
Type: HCC TD505F  
Size: 8.5  
Depth In: 7425'  
Depth Out: 8293'  
Jets: 5x14  
S/N: 7163559

MUD WT IN: 9.2  
MUD WT OUT:

TOOH to change BHA for curve  
assembly at 7425' MD @  
12:25AM MDT on 6/17/17.  
Resumed drilling @ 11:53 hrs  
MDT on 6/17/17.

GA\$ (units)  
C1-C4 (PPM)

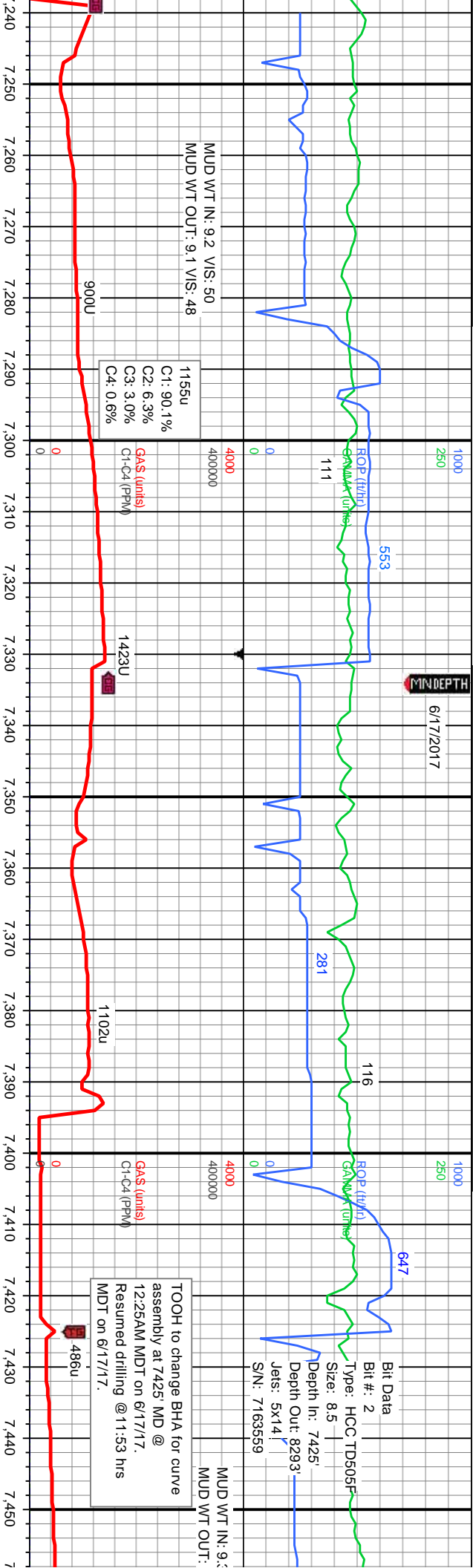
1155u  
C1: 90.1%  
C2: 6.3%  
C3: 3.0%  
C4: 0.6%

900U

1423U

1102u

486u



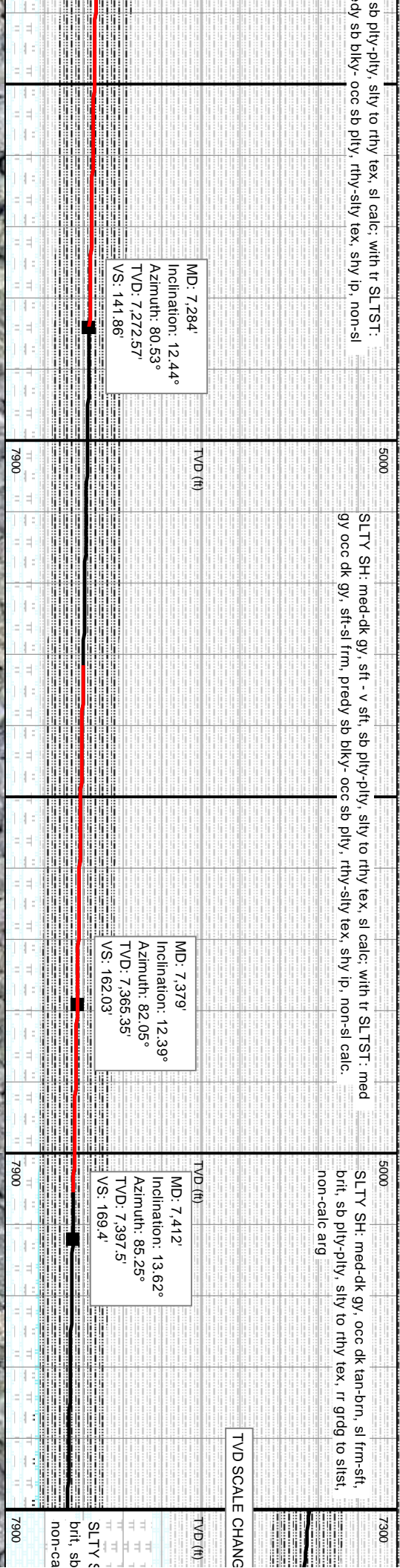
SLTY SH: med-dk gy, sft - v sft, sb pily-pty, silty to rthy tex, sl calc: with tr SLTST: med  
gy occ dk gy, sft-sl frm, predy sb blkly- occ sb pily, rthy-silty tex, shy ip, non-sl calc.

SLTY SH: med-dk gy, occ dk tan-brn, sl frm-sft,  
brlt, sb pily-pty, silty to rthy tex, rr grdg to silst,  
non-calc arg

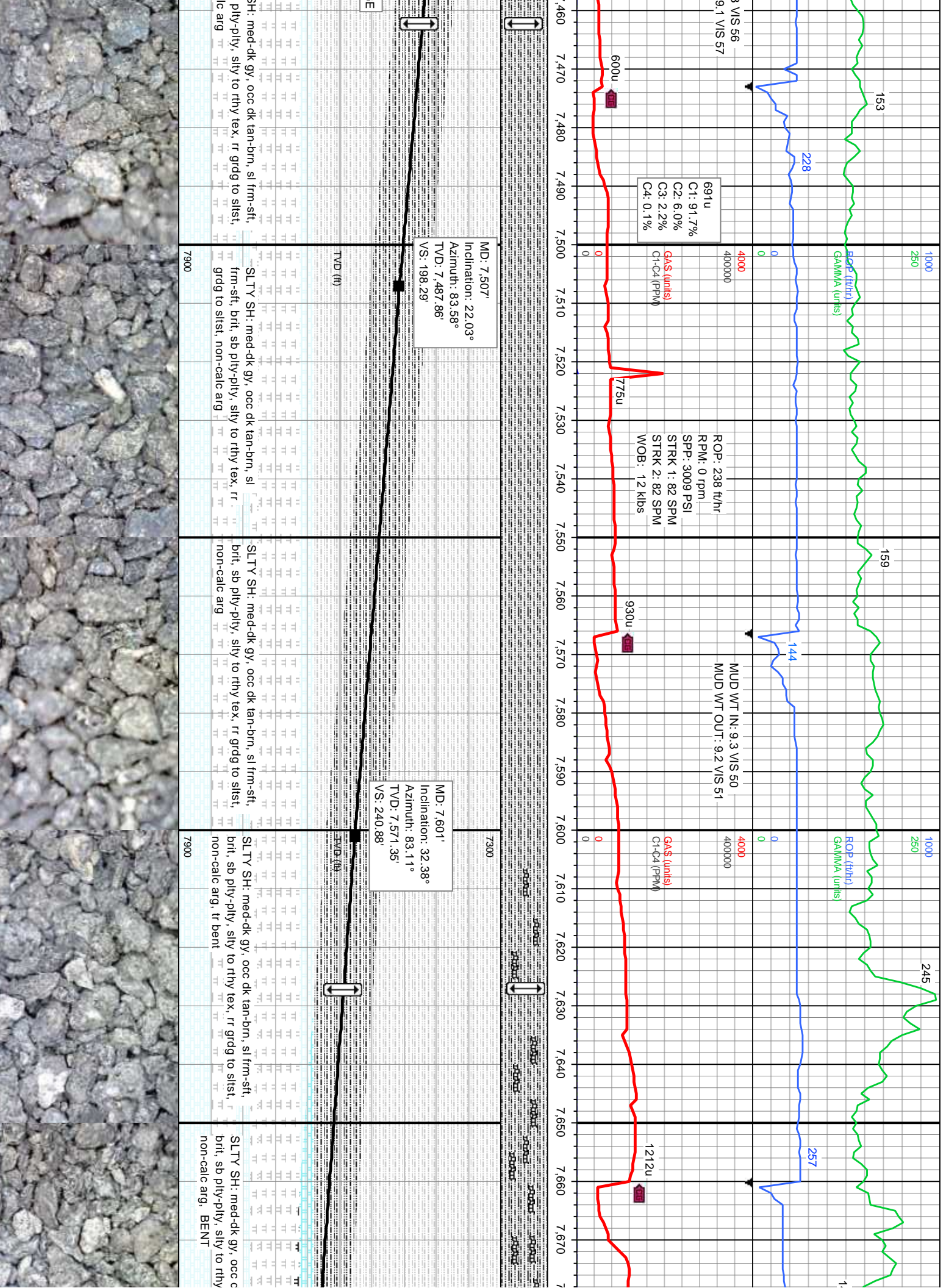
MD: 7,284'  
Inclination: 12.44°  
Azimuth: 80.53°  
TVD: 7,272.57'  
VS: 141.86'

MD: 7,379'  
Inclination: 12.39°  
Azimuth: 82.05°  
TVD: 7,366.35'  
VS: 162.03'

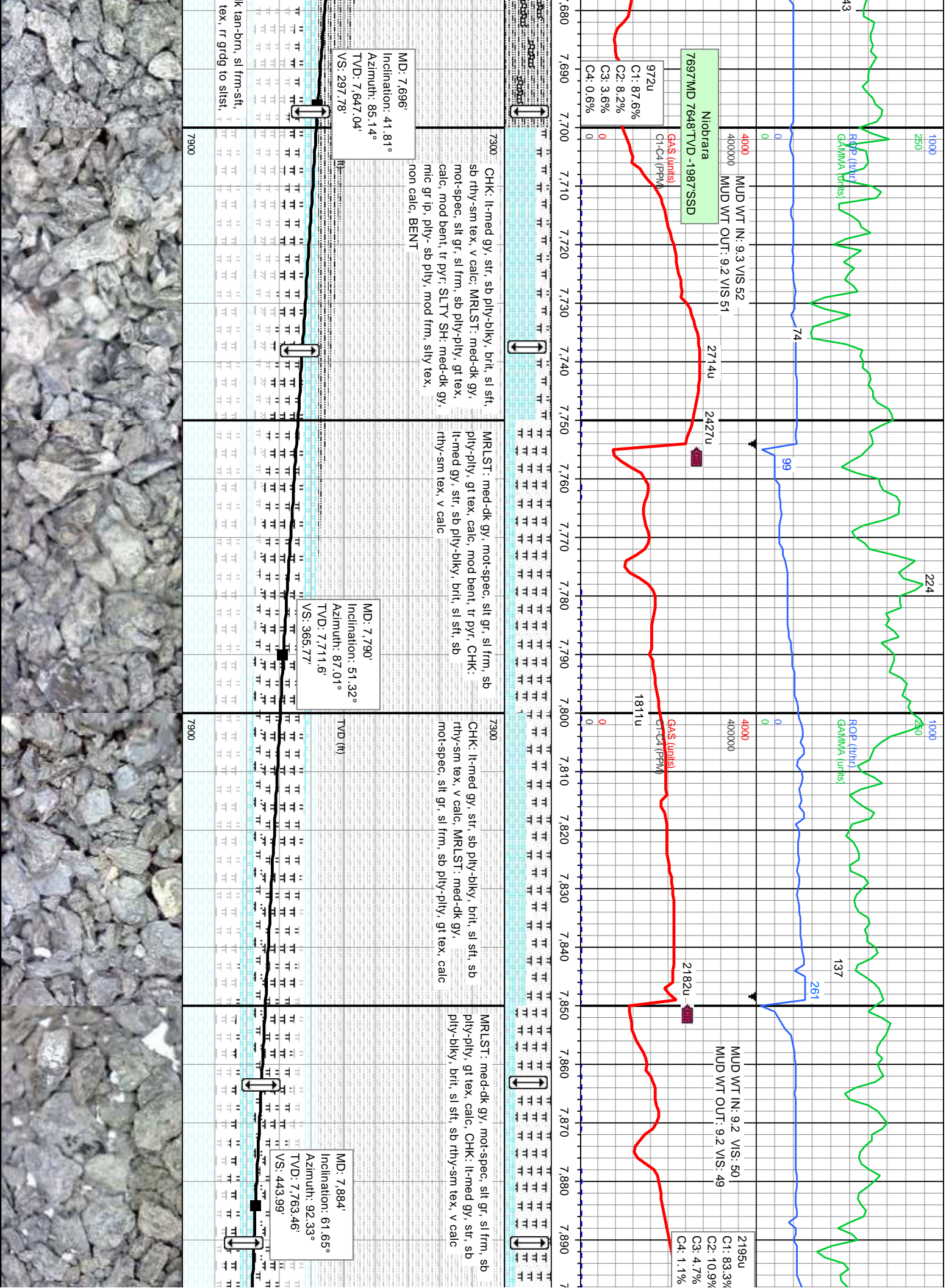
MD: 7,412'  
Inclination: 13.62°  
Azimuth: 85.25°  
TVD: 7,397.5'  
VS: 169.4'

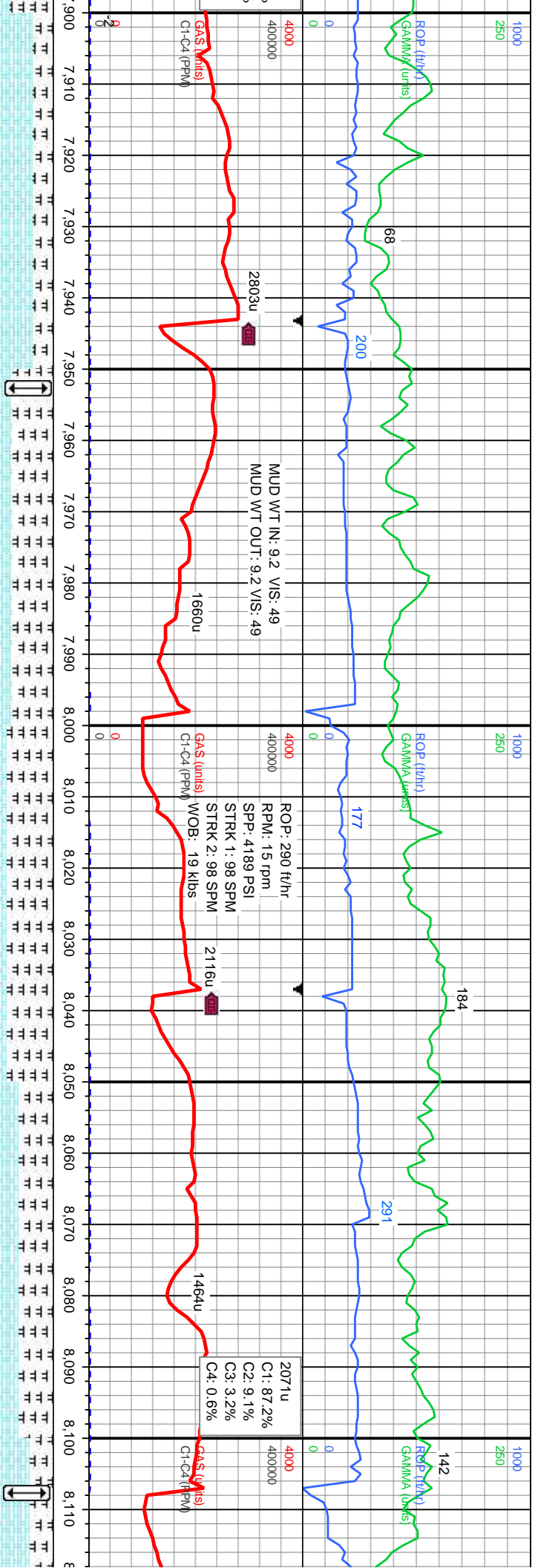












7300	CHK: lt-med gy, str, sb pily-biky, brit, sl sft, sb rthy-sm tex, v calc, MRLST: med-dk gy, mot-spec, silt gr, sl frm, sb pily-pily, gt tex, calc	7300	MRST: med-dk gy, mot-spec, silt gr, sl frm, sb pily-pily, gt tex, calc, CHK: lt-med gy, str, sb pily-biky, brit, sl sft, sb rthy-sm tex, v calc, tr bent	7300	MRST: med-dk gy, mot-spec, silt gr, sl frm, sb pily-pily, gt tex, calc, CHK: lt-med gy, str, sb pily-biky, brit, sl sft, sb rthy-sm tex, v calc, tr bent	7300	MRST: med-dk gy, mot-spec, silt gr, sl frm, sb pily-pily, gt tex, calc, CHK: lt-med gy, str, sb pily-biky, brit, sl sft, sb rthy-sm tex, v calc, tr bent
TVD (ft)		TVD (ft)		TVD (ft)		TVD (ft)	
7900		7900		7900		7900	

MD: 7,979'

Inclination: 69.69°

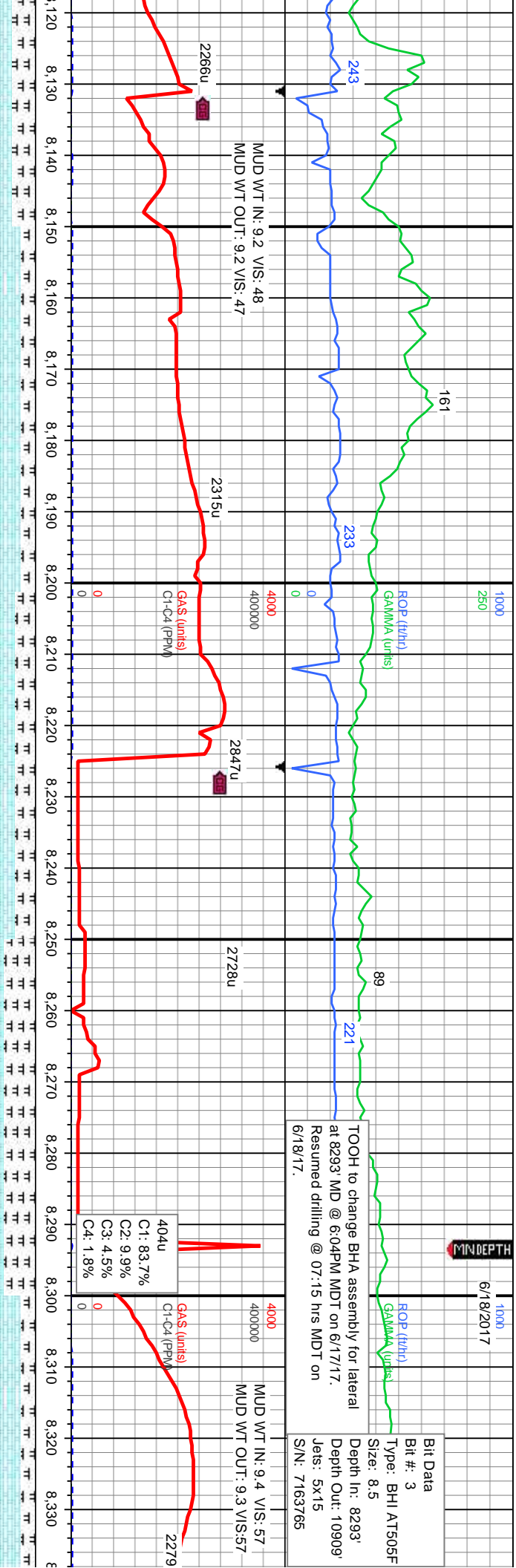
Azimuth: 94.72°

TVD: 7,802.57'

VS: 530.34'



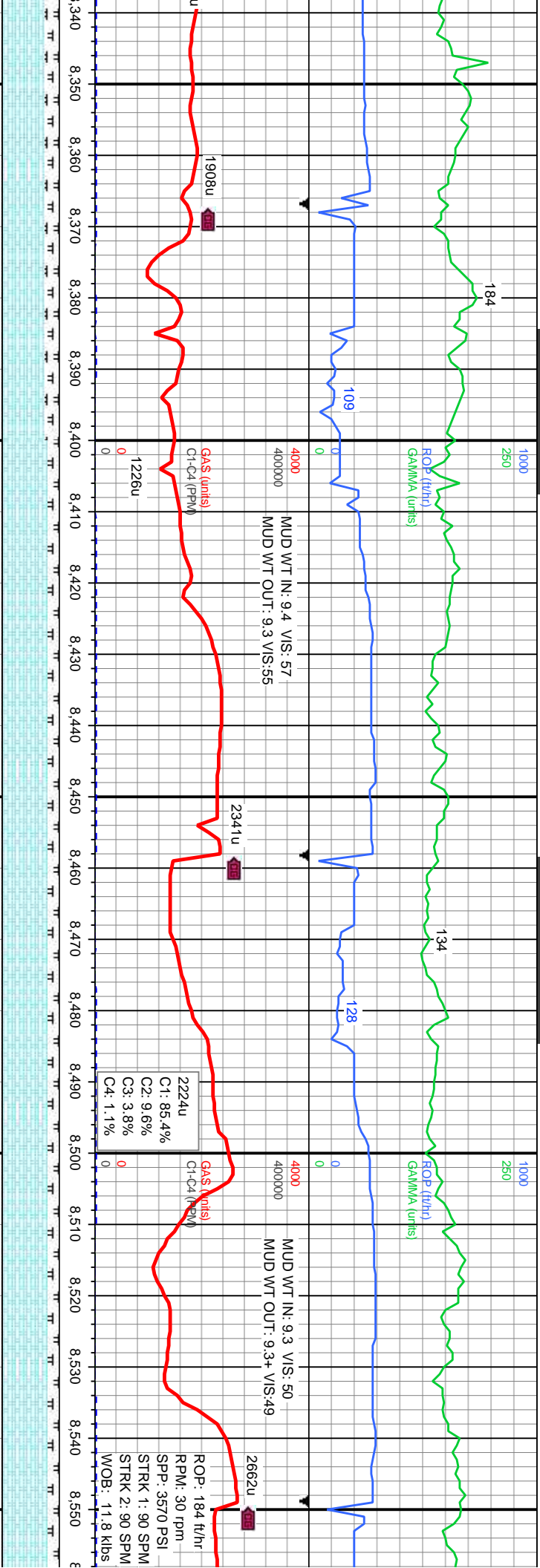




str, sb pily-blky, brit, sl sft, sb lc, tr bent, tr pyr; MRLST: spec, slt gr, sl frm, sb calc	CHK: lt-med gy, str, sb pily-blky, brit, sl sft, sb rthy-sm tex, v calc, tr bent, tr pyr; MRLST: med-dk gy, mot-spec, slt gr, sl frm, pily-pily, gt tex, calc	7300	CHK: med-dk gy, sb pily-pily, brit, sft-sl frm, rthy tex, with tr BENT. MRLST: dk gy, silty gr, fri-frm, pily, gt tex, v calc.	7300	CHK: med-dk gy, sb pily-pily, brit, sft-sl frm, rthy tex, with tr BENT. MRLST: dk gy, silty gr, fri-frm, pily, gt tex, v calc.	7300	CHK: lt-med gy, str, sb pily-blky, brit, sl rthy-sm tex, v calc, tr bent, tr pyr; MRLS gy, mot-spec, slt gr, sl frm, sb pily-pily, calc
MD: 8.167' Inclination: 83.05° Azimuth: 91.75° TVD: 7.8496'	MD: 8.230' Inclination: 90.09° Azimuth: 90.85° TVD: 7.85337'	MD: 8.303' Inclination: 92.06° Azimuth: 91.81° TVD: 7.852'	MD: 8.303' Inclination: 92.06° Azimuth: 91.81° TVD: 7.852'	MD: 8.303' Inclination: 92.06° Azimuth: 91.81° TVD: 7.852'	MD: 8.303' Inclination: 92.06° Azimuth: 91.81° TVD: 7.852'	MD: 8.303' Inclination: 92.06° Azimuth: 91.81° TVD: 7.852'	MD: 8.303' Inclination: 92.06° Azimuth: 91.81° TVD: 7.852'
VS: 711.69'	VS: 774.53'	VS: 847.5'	VS: 847.5'	VS: 847.5'	VS: 847.5'	VS: 847.5'	VS: 847.5'
TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)





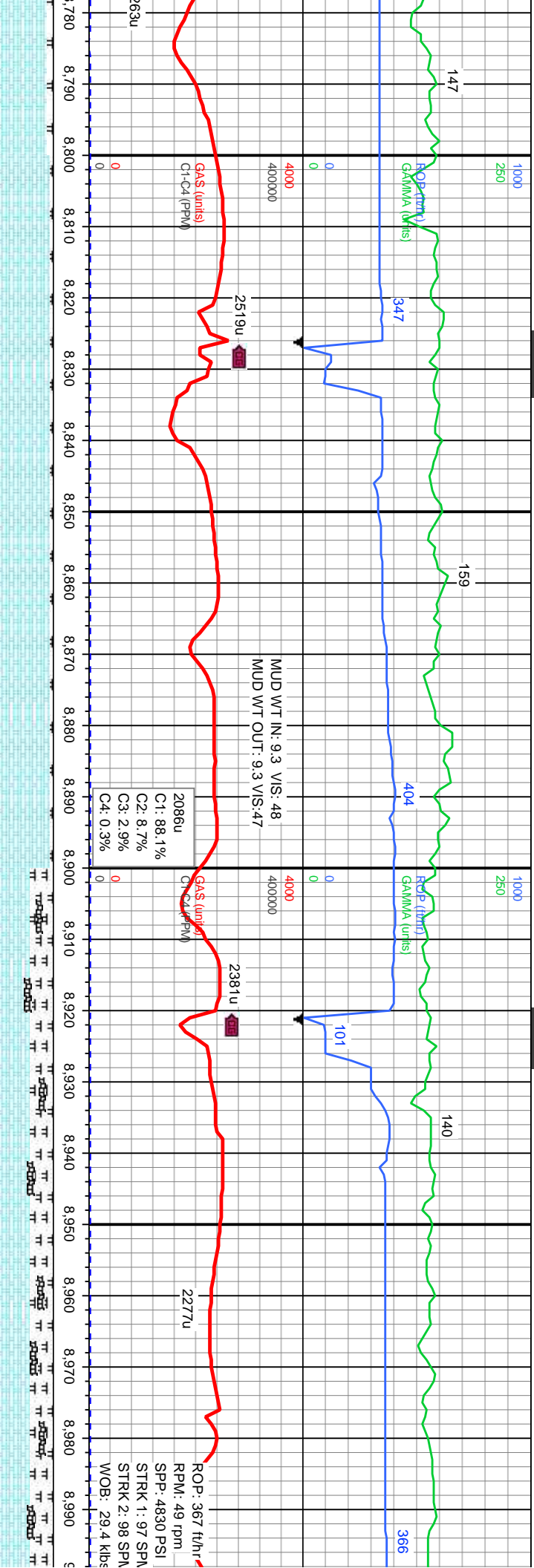


T.T. med-dk gt tex,	CHK: lt-med gy, str, sb pily-blky, brit, sl sft, sb rthy-sm tex, v calc, tr bent, tr pyr: MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pily-pily, gt tex, calc									
	7300 CHK: lt-med gy, str, sb pily-blky, brit, sl sft, sb rthy-sm tex, v calc, tr bent, tr pyr: MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pily-pily, gt tex, calc									
T.T. med-dk gt tex,	MD: 8.394' Inclination: 92.34° Azimuth: 92.1° TVD: 7,848.51'									
	VS: 938.4'									
T.T. med-dk gt tex,	MD: 8.485' Inclination: 90.46° Azimuth: 92.07° TVD: 7,846.28'									
	VS: 1,029.32'									
T.T. med-dk gt tex,	7300 CHK: lt-med gy, str, sb pily-blky, brit, sl sft, sb rthy-sm tex, v calc, tr bent, tr pyr: MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pily-pily, gt tex, calc									
	7300 CHK: lt-med gy, str, sb pily-blky, brit, sl sft, sb rthy-sm tex, v calc, tr bent, tr pyr: MRLST: med-dk gy, mot-spec, slt gr, sl frm, sb pily-pily, gt tex, calc									



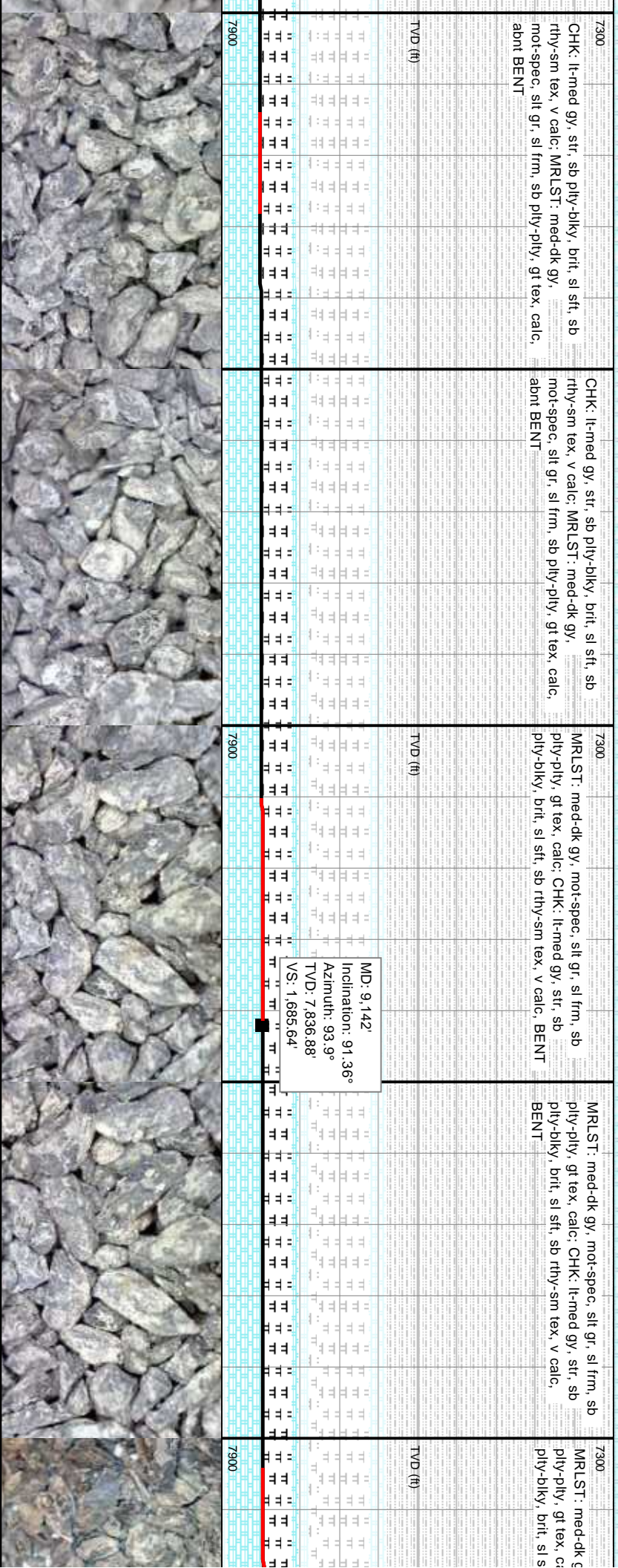
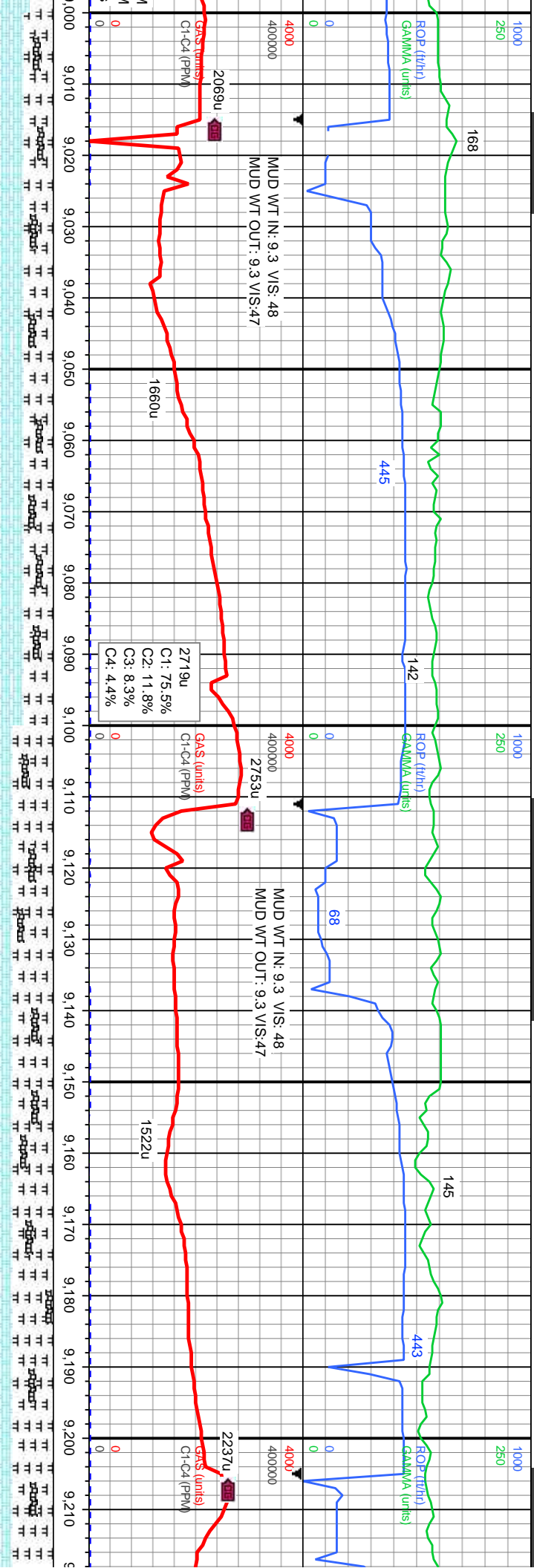






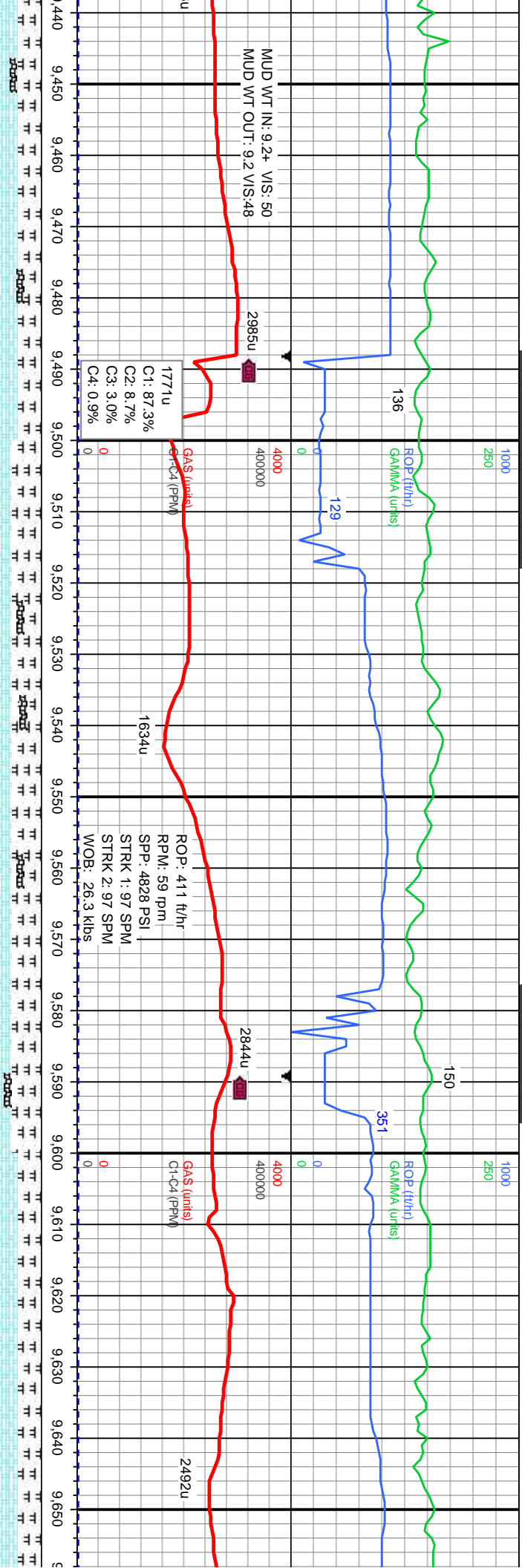
blkly, brit, sl sft, sb	7300	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb	7300	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb	7300	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb
med-dk gy,		rthy-sm tex, v calc: MRLST: med-dk gy,		rthy-sm tex, v calc: MRLST: med-dk gy,		rthy-sm tex, v calc: MRLST: med-dk gy,
ply-pty, gt tex, calc		mot-spec, slt gr, sl frm, sb ply-pty, gt tex, calc		slt gr, sl frm, sb ply-pty, gt tex, calc, abnt BENT		calc, abnt BENT
	TVD (ft)		TVD (ft)		TVD (ft)	
	7900		7900		7900	
		MD: 8.856'		MD: 8.953'		
		Inclination: 90.25°		Inclination: 91.2°		
		Azimuth: 92.33°		Azimuth: 93.14°		
		TVD: 7.843.8'		TVD: 7.842.6'		
		VS: 1.402.14'		VS: 1.497.05'		







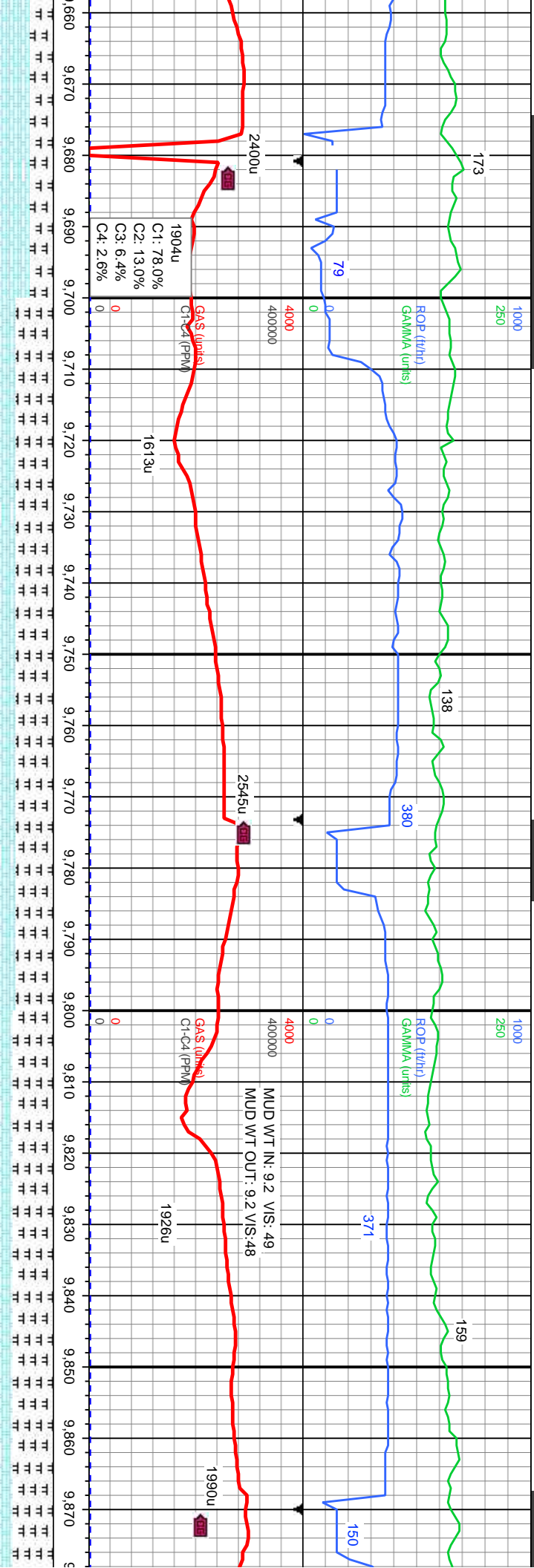




sl sft, sb gy, gt tex,	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, silt gr, sl frm, sb ply-pty, gt tex, calc, tr-abnt BENT	7300	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, silt gr, sl frm, sb ply-pty, gt tex, calc, tr-abnt BENT	7300	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, silt gr, sl frm, sb ply-pty, gt tex, calc, tr-abnt BENT	7300	CHK: lt-med gy, str, sb ply-blky, brit, sl sft, sb rthy-sm tex, v calc; MRLST: med-dk gy, mot-spec, silt gr, sl frm, sb ply-pty, gt tex, calc, tr BENT	7300	CHK: l rthy-sm mot-sp calc, tr
TVD (ft)									
MD: 9,520' Inclination: 89.66° Azimuth: 92.72° TVD: 7,832.73' VS: 2,063.21'									
TVD (ft)									
MD: 9,614' Inclination: 90° Azimuth: 92.36° TVD: 7,833.01' VS: 2,157.15'									







med gy, str, sb pty-biky, brit, sl sft, sb  
n tex, v calc: MRLST: med-dk gy,  
ec, silt gr, sl frm, sb pty-pty, gt tex,  
BENT

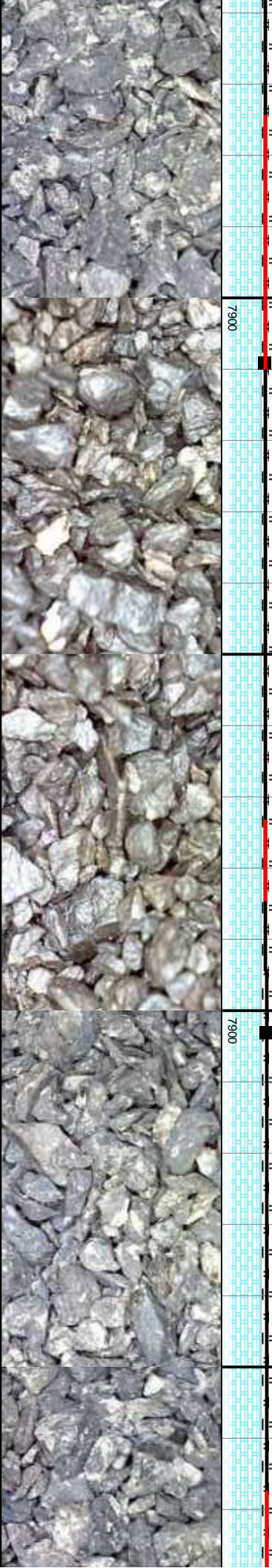
7300  
CHK: lt-med gy, str, sb pty-biky, brit, sl sft, sb  
rthy-sm tex, v calc: MRLST: med-dk gy,  
mot-spec, silt gr, sl frm, sb pty-pty, gt tex,  
calc, tr BENT

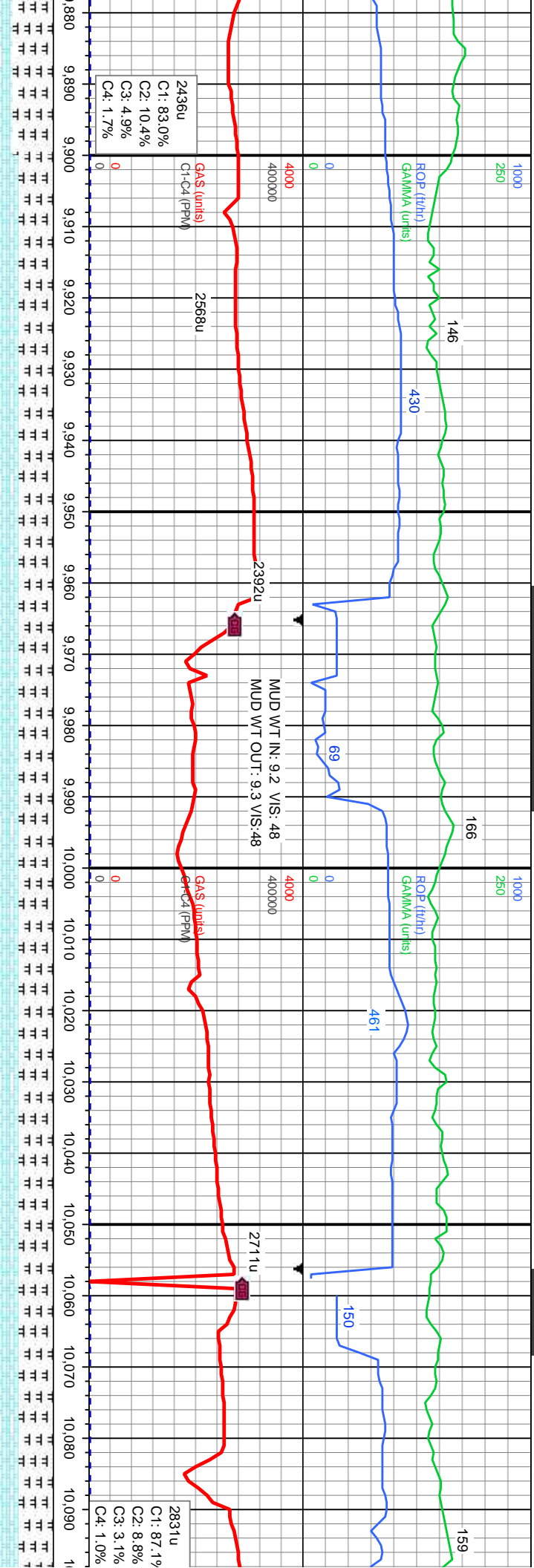
7300  
CHK: lt-med gy, str, sb pty-biky, brit, sl sft, sb  
rthy-sm tex, v calc: MRLST: med-dk gy,  
mot-spec, silt gr, sl frm, sb pty-pty, gt tex,  
calc, tr BENT

7300  
CHK: lt-med gy, str, sb pty-biky, brit, sl sft, sb  
rthy-sm tex, v calc: MRLST: med-dk gy,  
mot-spec, silt gr, sl frm, sb pty-pty, gt tex, calc,  
tr BENT

MD: 9.709'  
Inclination: 90.68°  
Azimuth: 91.75°  
TVD: 7.832.45'  
VS: 2.252.1'

MD: 9.803'  
Inclination: 90.89°  
Azimuth: 91.22°  
TVD: 7.831.16'  
VS: 2.346.07'

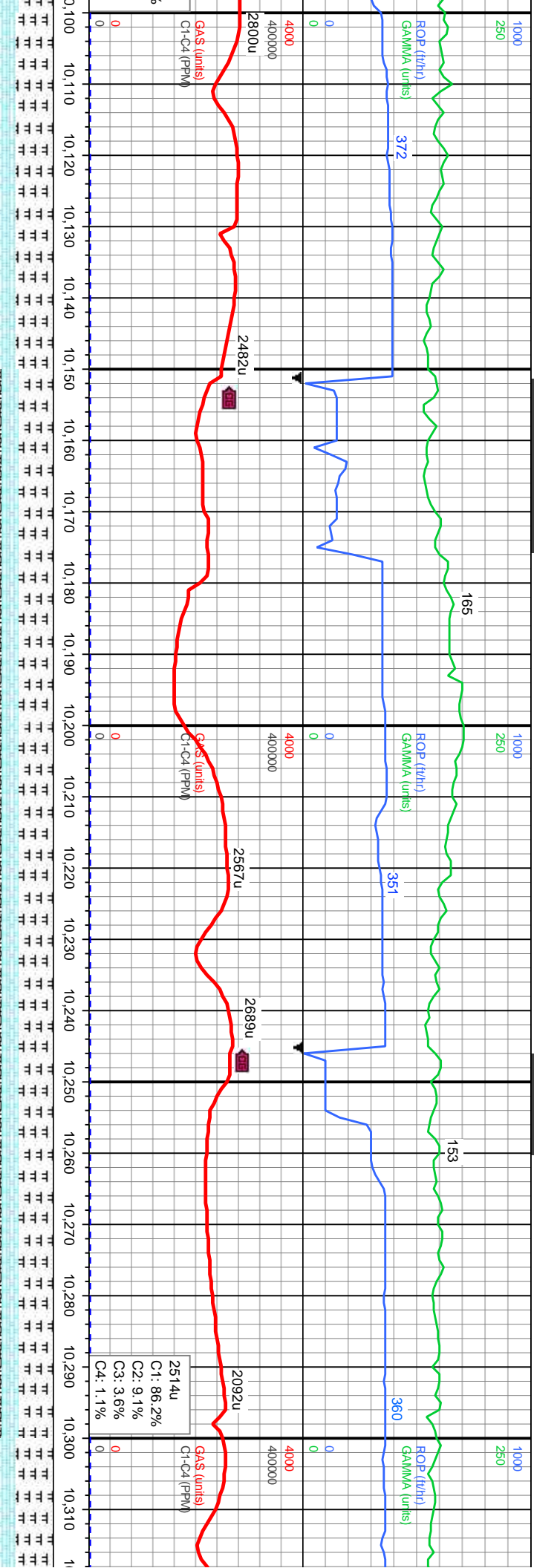




biky, brit, sl sft, sb		7300	CHK: lt-med gy, str, sb pily-biky, brit, sl sft, sb		7300	CHK: lt-med gy, str, sb pily-biky, brit, sl sft, sb		7300	CHK: lt-med gy, str, sb pily-biky, brit, sl sft, sb		7300
med-dk gy,			rthy-sm tex, v calc; MRLST: med-dk gy,			rthy-sm tex, v calc; MRLST: med-dk gy,			rthy-sm tex, v calc; MRLST: med-dk gy,		
pily-pily, gt tex, calc,			mot-spec, slt gr, sl frm, sb pily-pily, gt tex, calc,			mot-spec, slt gr, sl frm, sb pily-pily, gt tex, calc,			mot-spec, slt gr, sl frm, sb pily-pily, gt tex, calc,		
tr BENT			tr BENT			tr BENT			tr BENT		
TVD (ft)		7900	TVD (ft)		7900	TVD (ft)		7900	TVD (ft)		7900
MD: 9.898'			MD: 9.993'			MD: 10.087'			MD: 10.087'		
Inclination: 91.29°			Inclination: 89.78°			Inclination: 91.11°			Inclination: 91.11°		
Azimuth: 91.09°			Azimuth: 88.55°			Azimuth: 89.9°			Azimuth: 89.9°		
TVD: 7.829.35'			TVD: 7.828.46'			TVD: 7.827.73'			TVD: 7.827.73'		
VS: 2.441.05'			VS: 2.536.03'			VS: 2.630'			VS: 2.630'		







7300  
CHK: lt gy- med gy, sb pily- pily, brit, sft-frm, rthy  
tex, calc, MRLST: gy-dk gy, occ spec, silt gr, frm,  
sb pily-sl blkly, gt tex, v calc with BENT: lt  
gy-occ lt gn, m gy, sft, silty in pt.

7300  
CHK: lt gy- med gy, sb pily- pily, brit, sft-frm,  
rthy tex, calc, MRLST: gy-dk gy, occ spec,  
silt gr, frm, sb pily-sl blkly, gt tex, v calc with  
BENT: lt gy-occ lt gn, m gy, sft, silty in pt.

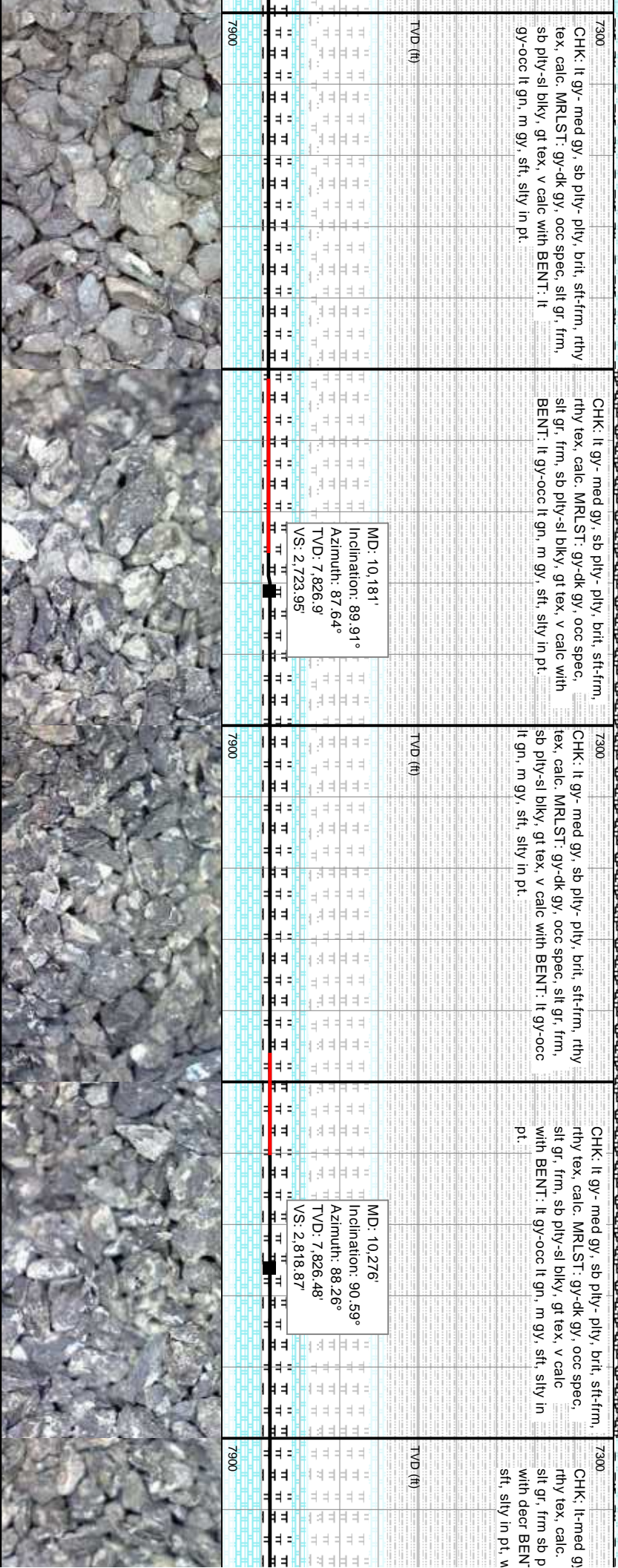
7300  
CHK: lt gy- med gy, sb pily- pily, brit, sft-frm, rthy  
tex, calc, MRLST: gy-dk gy, occ spec, silt gr, frm,  
sb pily-sl blkly, gt tex, v calc with BENT: lt gy-occ  
lt gn, m gy, sft, silty in pt.

7300  
CHK: lt gy- med gy, sb pily- pily, brit, sft-frm,  
rthy tex, calc, MRLST: gy-dk gy, occ spec,  
silt gr, frm, sb pily-sl blkly, gt tex, v calc  
with BENT: lt gy-occ lt gn, m gy, sft, silty in  
pt.

7300  
CHK: lt-med gy, calc,  
rthy tex, calc,  
silt gr, frm sb p  
with decr BEN  
sft, silty in pt, w

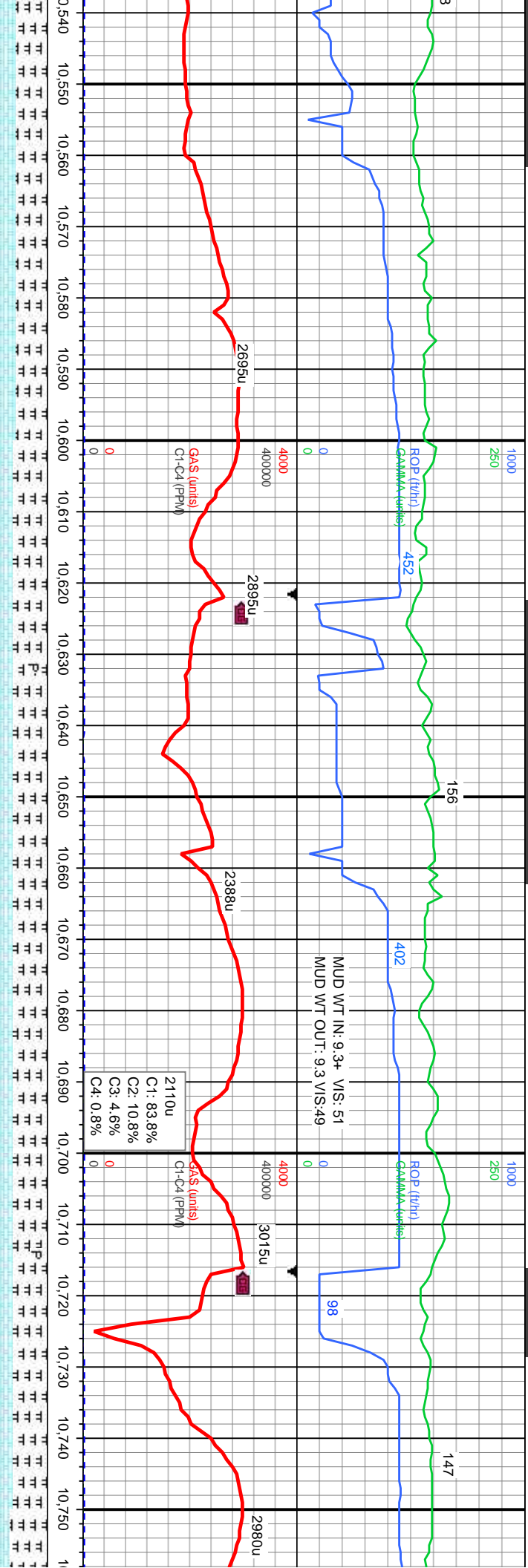
MD: 10,181'  
Inclination: 89.91°  
Azimuth: 87.64°  
TVD: 7,826.9'  
VS: 2,723.95'

MD: 10,276'  
Inclination: 90.59°  
Azimuth: 88.26°  
TVD: 7,826.48'  
VS: 2,818.87'







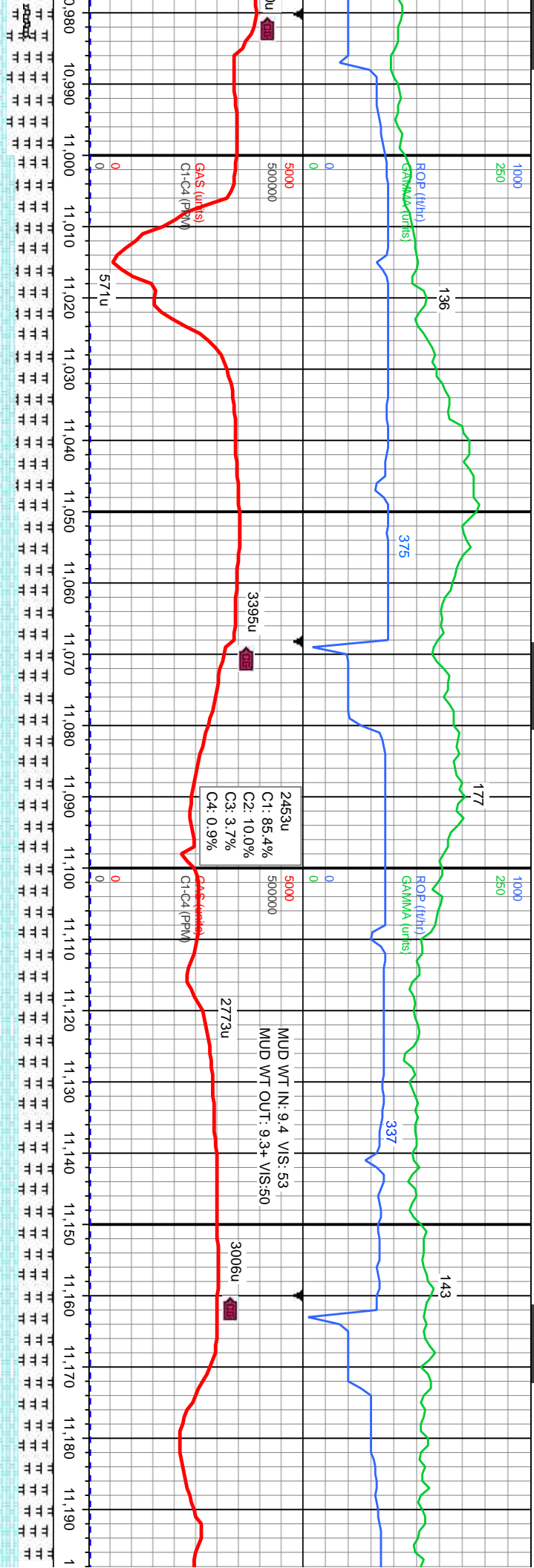


MD: 10,559 Inclination: 90.99° Azimuth: 88.8° TVD: 7,820.5' VS: 3,101.65'		CHK: lt-med gy, sb ply-ply, brit, sft-frm, rthy tex, calc. MRLST: gy-dk gy, occ spec, silt gr, frm sb ply-sl blkly, gt tex, v calc, with incr BENT: lt gy-occ lt gn, sme m gy, sft, silty in pt.	7300	CHK: lt gy- med gy, sb ply- ply, brit, sft-frm, rthy tex, calc. MRLST: gy-dk gy, occ spec, silt gr, frm, sb ply-sl blkly, gt tex, v calc with BENT: lt gy-occ lt gn, m gy, sft, silty in pt and tr PYR.	7300	MD: 10,654 Inclination: 88.68° Azimuth: 86.84° TVD: 7,820.78' VS: 3,196.54'	CHK: lt gy- med gy, sb ply- ply, brit, sft-frm, rthy tex, calc. MRLST: gy-dk gy, occ spec, silt gr, frm, sb ply-sl blkly, gt tex, v calc with BENT: lt gy-occ lt gn, m gy, sft, silty in pt and tr PYR.	7300	CHK: lt gy- med gy, sb ply- ply, brit, sft-frm, rthy tex, calc. MRLST: gy-dk gy, occ spec, silt gr, frm, sb ply-sl blkly, gt tex, v calc with BENT: lt gy-occ lt gn, m gy, sft, silty in pt and tr PYR.	7300	MD: 10,748 Inclination: 88.67° Azimuth: 86.87° TVD: 7,822.95' VS: 3,290.34'	CHK: lt gy- med gy, sb ply- ply, brit, sft-frm, rthy tex, calc. MRLST: gy-dk gy, occ spec, silt gr, frm, sb ply-sl blkly, gt tex, v calc with BENT: lt gy-occ lt gn, m gy, sft, silty in pt and tr PYR.	7300
TVD (ft)						TVD (ft)					TVD (ft)		









3, silt gr, frm, sb with tr BENT. CHK: frm, rthy tex, calc.	7300	MRLST: dk gy-gy, occ spec, silt gr, frm, sb ply-sb blk, gt tex, v calc, with tr BENT. CHK: lt-med gy, sb ply-ply, brit, frm, rthy tex, calc.	CHK: med gy-lt gy, sb ply-ply, fri-frm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frm, sb ply-sb blk, gt tex, v calc.	7300	CHK: med gy-lt gy, sb ply-ply, fri-frm, rthy calc. MRLST: dk gy-gy, occ spec, silt gr, frm, sb ply-sb blk, gt tex, v calc.	MRLST: dk gy-gy, occ spec, silt gr, frm, sb ply-sb blk, gt tex, v calc, with tr BENT. CHK: lt-med gy, sb ply-ply, brit, frm, rthy tex, calc.
MD: 11,005' Inclination: 89.17° Azimuth: 88.71° TVD: 7,827.97' VS: 3,547.06'	TVD (ft)	MD: 11,099' Inclination: 89.23° Azimuth: 89.04° TVD: 7,829.29' VS: 3,641.02'	TVD (ft)	MD: 11,194' Inclination: 89.1° Azimuth: 89.1° TVD: 7,830.36' VS: 3,735.99'	TVD (ft)	
7900		7900		7900		



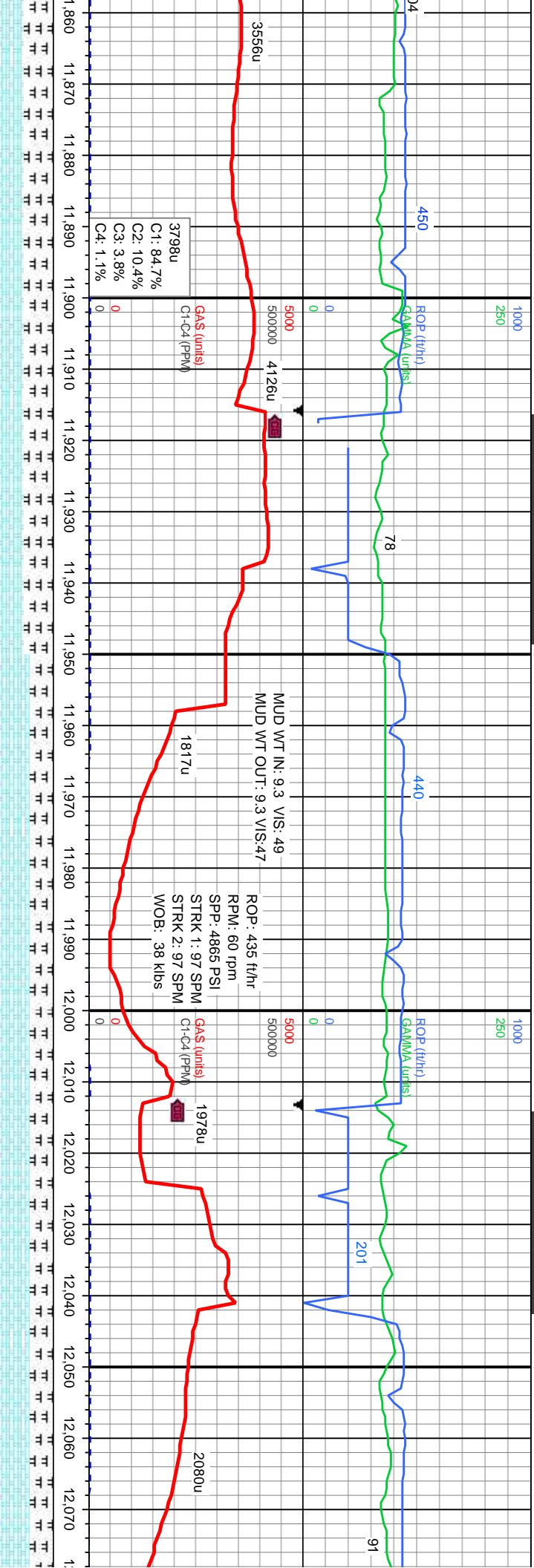






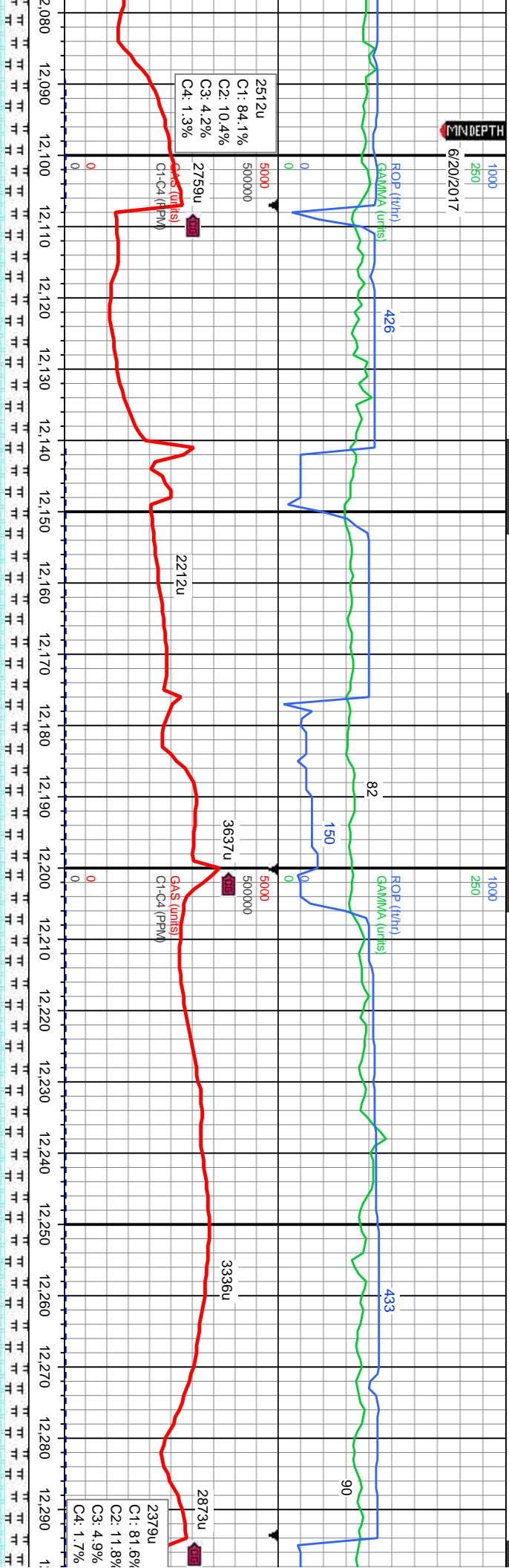






ST: dk gy-gy, occ spec, slt gr, frm, pty-sb blkly, gt tex, v calc, with tr LT: CHK: lt-med gy, sme off wh, sb pty, brit, frm, rthy tex, calc.	7300 MRLST: dk gy-gy, occ spec, slt gr, frm, sb pty-sb blkly, gt tex, v calc, CHK: lt-med gy, sme wh, sb pty-pty, brit, frm, rthy tex, calc.	7300 CHK: lt gy-med gy, wh, sb pty-pty, fri-frm, rthy tex, calc. MRLST: dk gy-gy, occ spec, slt gr, sb pty-sb blkly, gt tex, v calc.	7300 CHK: lt gy-med gy, wh, sb pty-pty, fri-frm, rthy tex, calc. MRLST: dk gy-gy, occ spec, frm-occ hd, slt gr, sb pty-sb blkly, gt tex, v calc.	CHK: lt gy-med gy, wh, sb pty-sb blkly, gt tex, v calc. MRLST: dk gy-gy, occ spec, frm-occ hd, slt gr, sb pty-sb blkly, gt tex, v calc.
9.29° 9.34°	MD: 11,949° Inclination: 89.97° Azimuth: 92.03° TVD: 7,827.6'	MD: 12,044° Inclination: 90.92° Azimuth: 92.98° TVD: 7,826.86'		
9.29° 9.34°	9.29° 9.34°	9.29° 9.34°	9.29° 9.34°	9.29° 9.34°

MINDEPTH  
6/20/2017



ly-pty, fri-fm, rthy  
occ spec, sit gr, sb  
h about sweep mat.

7300  
CHK: lt gy-med gy, wh, sb pty-pty, fri-fm, rthy  
tex, calc. MRLST: dk gy-gy, occ spec, frm, sit  
gr, sb pty-sb blk, gt tex, v calc. with sme  
sweep mat.

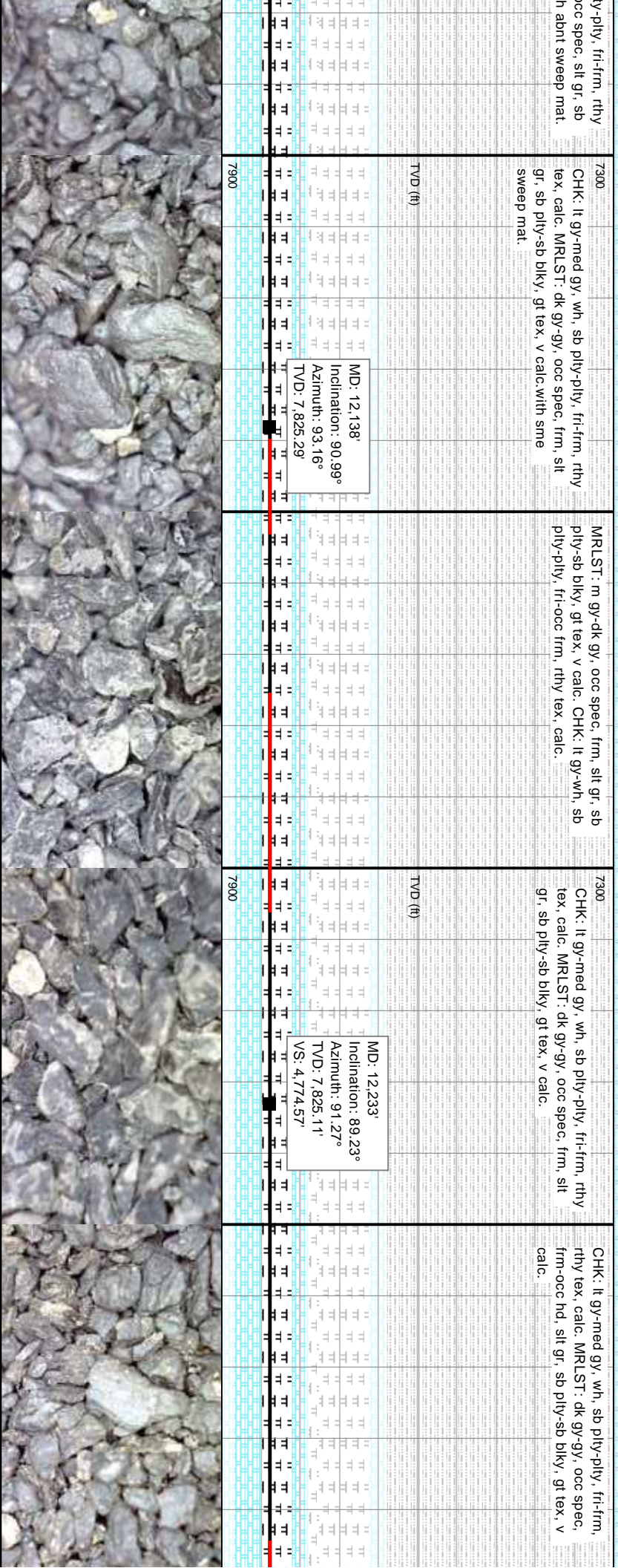
MRLST: m gy-dk gy, occ spec, frm, sit gr, sb  
pty-sb blk, gt tex, v calc. CHK: lt gy-wh, sb  
pty-pty, fri-occ frm, rthy tex, calc.

7300  
CHK: lt gy-med gy, wh, sb pty-pty, fri-fm, rthy  
tex, calc. MRLST: dk gy-gy, occ spec, frm, sit  
gr, sb pty-sb blk, gt tex, v calc.

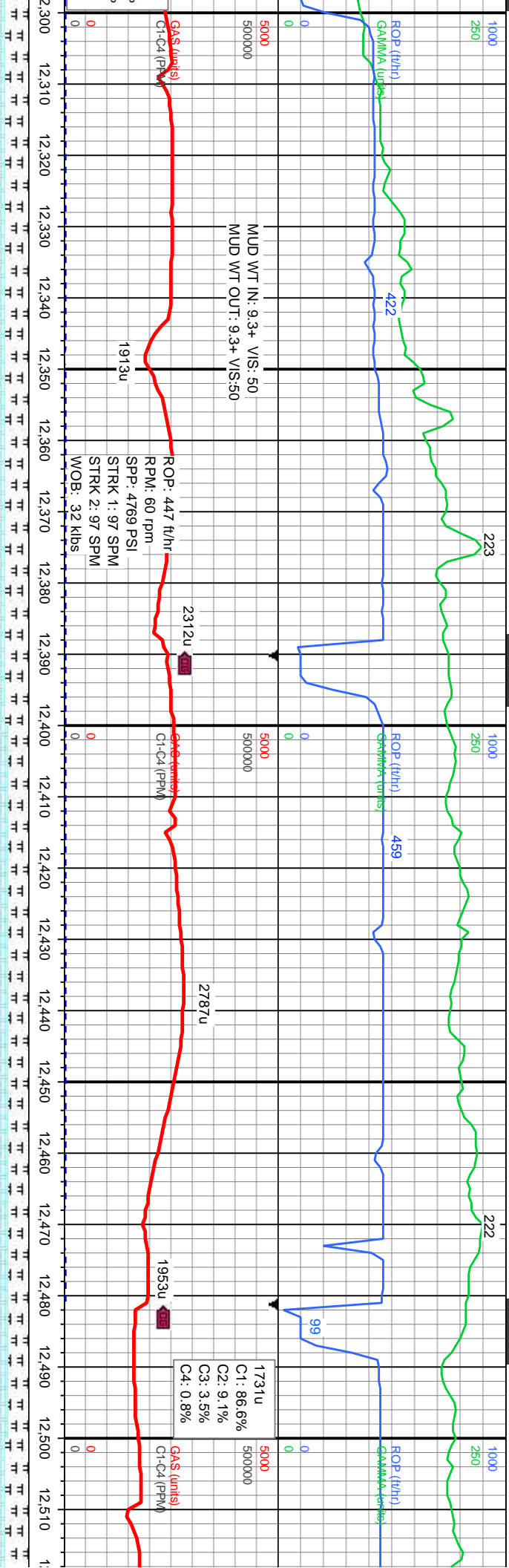
CHK: lt gy-med gy, wh, sb pty-pty, fri-fm,  
rthy tex, calc. MRLST: dk gy-gy, occ spec,  
frm-occ hd, sit gr, sb pty-sb blk, gt tex, v  
calc.

MD: 12,138'  
Inclination: 90.99°  
Azimuth: 93.16°  
TVD: 7,825.29'

MD: 12,233'  
Inclination: 89.23°  
Azimuth: 91.27°  
TVD: 7,825.11'  
VS: 4,774.57'







7300 CHK: lt gy-med gy, wh, sb pty-pty, fri-fm, rthy  
tex, calc. MRLST: dk gy-gy, occ spec, frm, silt  
gr, sb pty-sb blkly, gt tex, v calc.

7300 CHK: lt gy-med gy, wh, sb pty-pty, fri-fm, rthy  
tex, calc. MRLST: dk gy-gy, occ spec, frm-occ  
hd, silt gr, sb pty-sb blkly, gt tex, v calc.

7300 MRLST: m gy-dk gy, occ spec, frm, silt gr,  
sb pty-sb blkly, gt tex, v calc. CHK: lt  
gy-wh, sb pty-pty, fri-occ frm, rthy tex,  
calc.

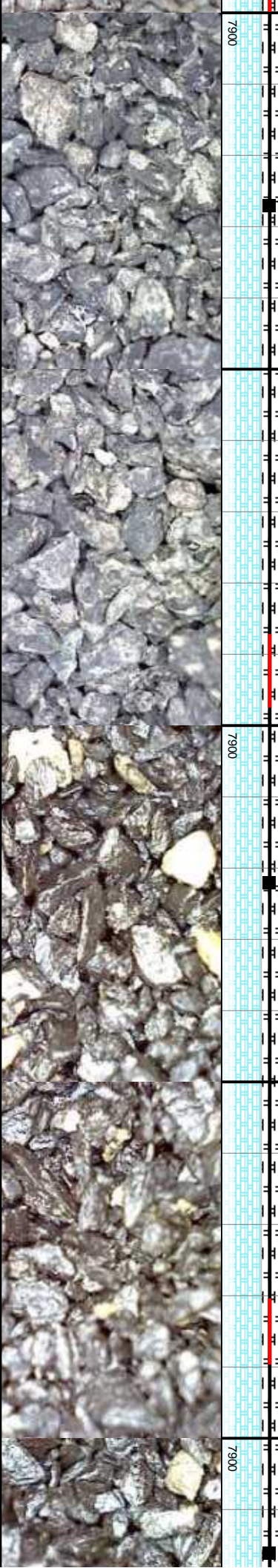
7300 CHK: lt gy-med gy, wh, sb pty-pty, fri-fm, rthy  
tex, calc. MRLST: dk gy-gy, occ spec, frm-occ  
hd, silt gr, sb pty-sb blkly, gt tex, v calc.

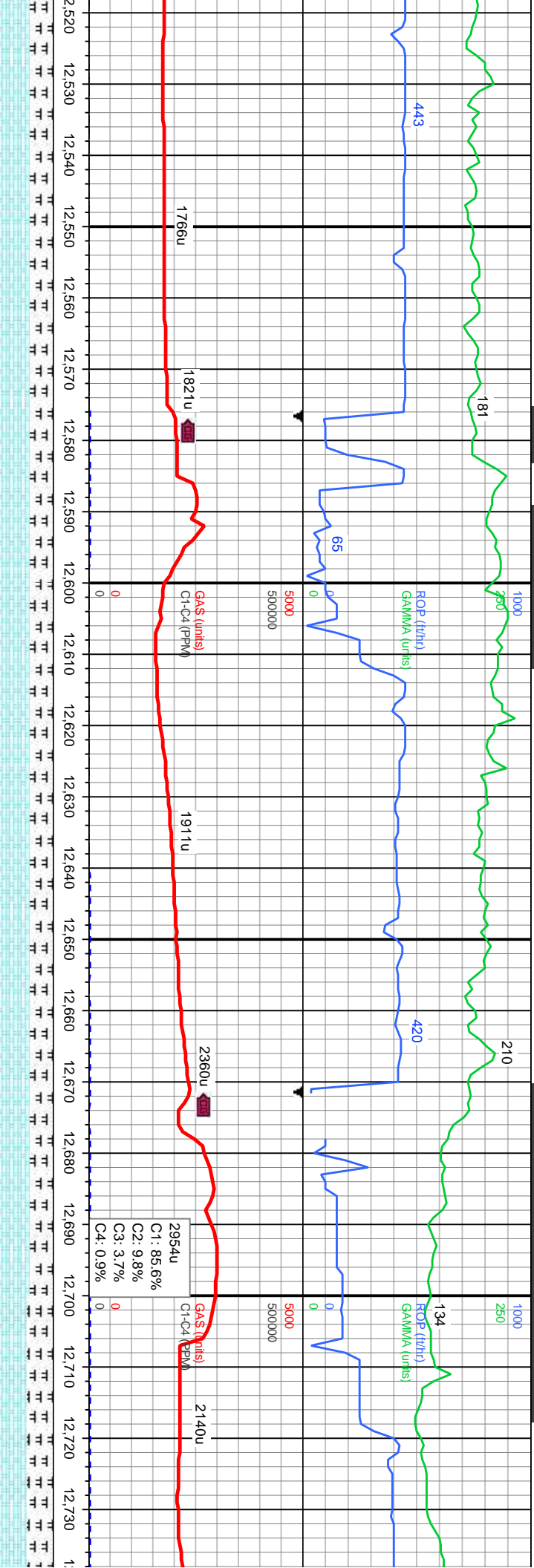
7300 MRLST: m  
gr, sb pty-sb  
gy-wh, sb p  
calc.

MD: 12,327'  
Inclination: 89.69°  
Azimuth: 91.8°  
TVD: 7,826'  
VS: 4,868.55'

MD: 12,422'  
Inclination: 89.54°  
Azimuth: 91.98°  
TVD: 7,826.64'  
VS: 4,963.51'

MD: 12,516'  
Inclination:  
Azimuth: 92  
TVD: 7,826.  
VS: 5,057.4'

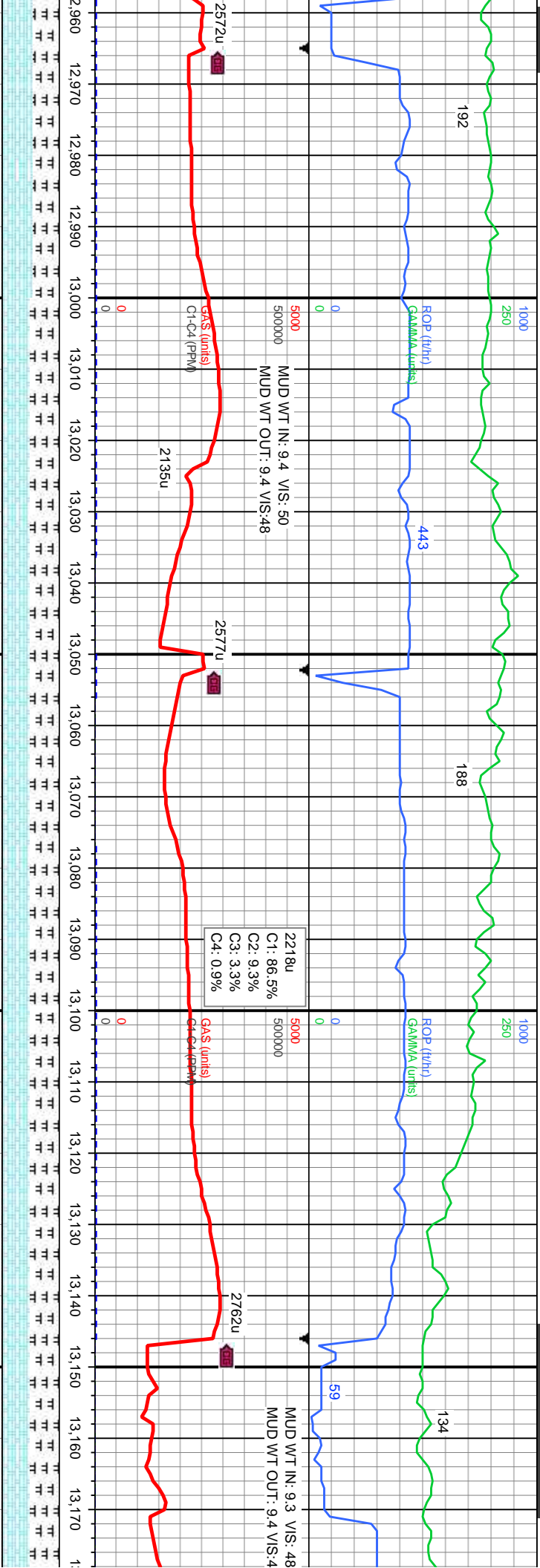




gy-dk gy, occ spec, frm, slit sb blkly, gt tex, v calc. CHK: it ply-pty, fri-occ frm, rthy tex,		CHK: lt gy-med gy, wh, sb ply-pty, fri-frm, rthy tex, calc. MRLST: dk gy-gy, occ spec, frm-occ hd, slit gr, sb ply-sb blkly, gt tex, v calc.		7300 CHK: med gy-lt gy,sme wh, sb ply-pty, fri-frm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, slit gr, fri-frm, sb ply- sb blkly, gt tex, v calc.		CHK: med gy-lt gy,sme wh, sb ply-pty, fri-frm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, slit gr, fri-frm, sb ply- sb blkly, gt tex, v calc.		7300 CHK: med gy-lt gy,sme wh, sb ply-pty rthy tex, v calc. MRLST: dk gy-gy, occ gr, fri-frm, sb ply- sb blkly, gt tex, v cal sme sweep mat.	
90.22° .38° 83°		MD: 12.611' Inclination: 91.79° Azimuth: 92.81° TVD: 7,825.17' VS: 5,152.37		MD: 12.705' Inclination: 91.02° Azimuth: 91.14° TVD: 7,822.86' VS: 5,246.3'		MD: 12.705' Inclination: 91.02° Azimuth: 91.14° TVD: 7,822.86' VS: 5,246.3'		MD: 12.705' Inclination: 91.02° Azimuth: 91.14° TVD: 7,822.86' VS: 5,246.3'	
TVD (ft)		TVD (ft)		TVD (ft)		TVD (ft)		TVD (ft)	
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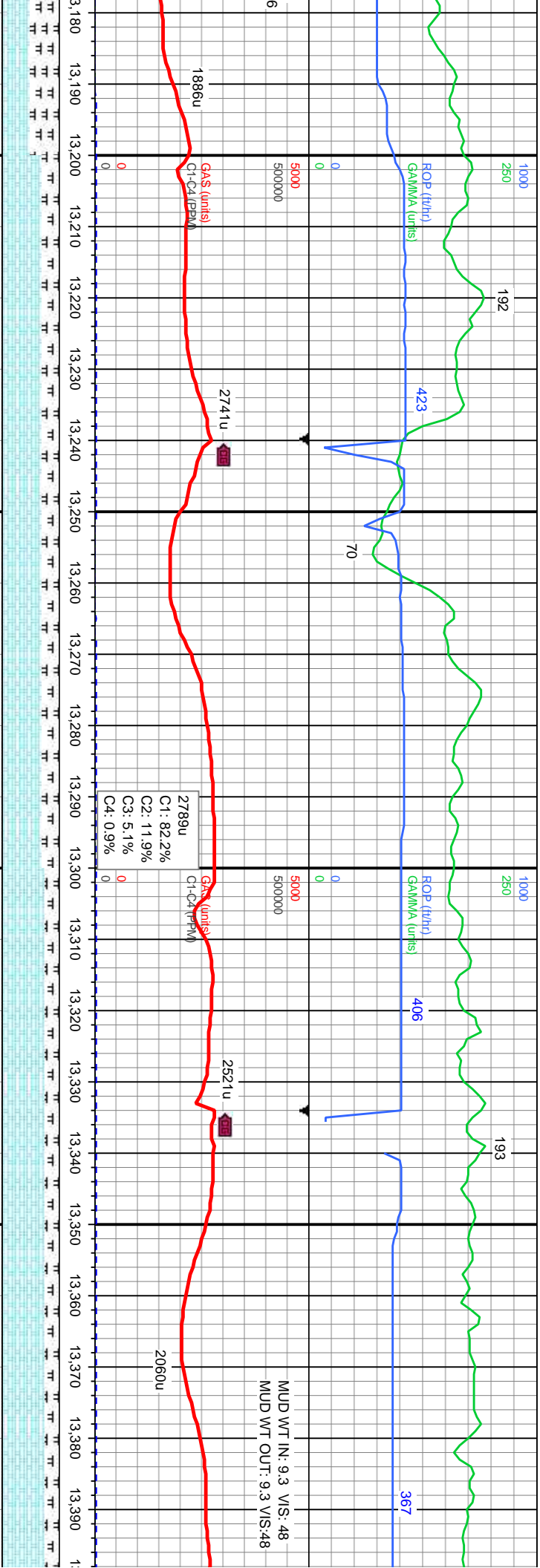




med gy-lt gy, occ wh, sb ply-ply, fri-firm, x, v calc. MRLST: dk gy-gy, occ spec, fri-firm, sb ply- sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb ply-ply, fri-firm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-firm, sb ply- sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb ply-ply, fri-firm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-firm, sb ply- sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb ply-ply, fri-firm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-firm, sb ply- sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb ply-ply, fri-firm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-firm, sb ply- sb blk, gt tex, v calc	7300
MD: 12,989' Inclination: 91.39° Azimuth: 91.8° TVD: 7,821.16' VS: 5,530.27'	TVD (ft)		MD: 13,083' Inclination: 92.09° Azimuth: 92.46° TVD: 7,818.31' VS: 5,624.18'	TVD (ft)		MD: 13,171' Inclination: 92.46° Azimuth: 92.46° TVD: 7,818.31' VS: 5,719.18'	TVD (ft)		



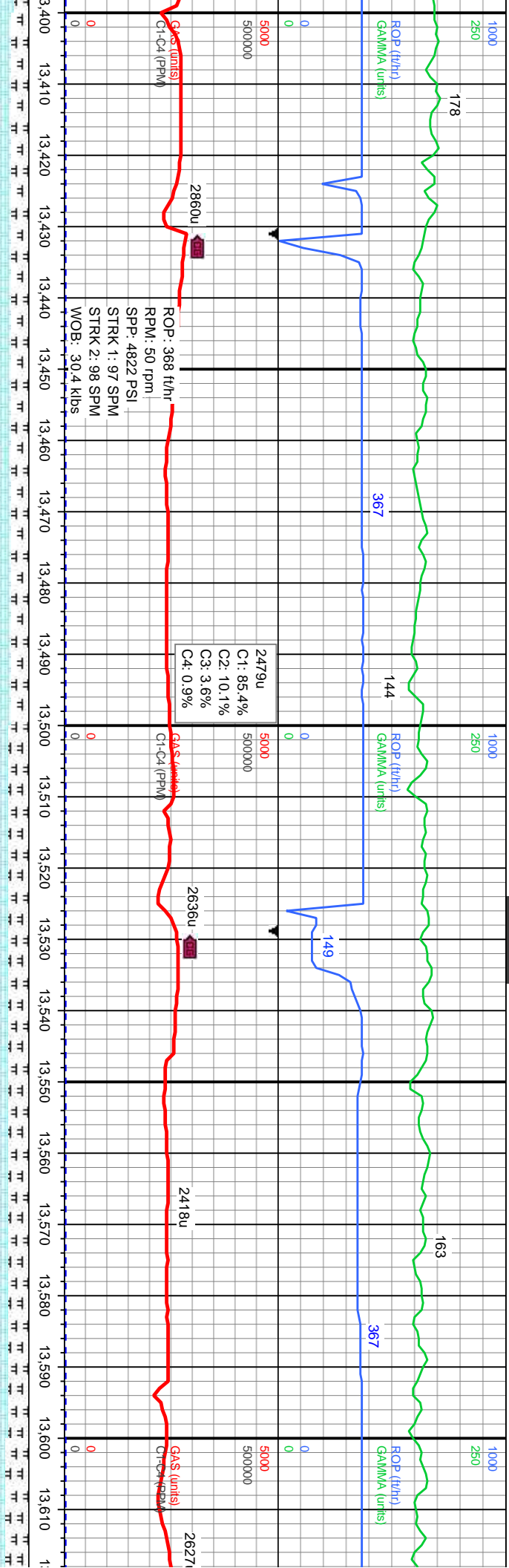




sb pily-pty, fri-frm, gy-gy, occ spec, silt tex, v calc		7300	CHK: med gy-lt gy, occ wh, sb pily-pty, fri-frm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frm, sb pily- sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb pily-pty, fri-frm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frm, sb pily- sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb pily-pty, fri-frm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frm, sb pily- sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb pily-pty, fri-frm, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frm, sb pily- sb blk, gt tex, v calc
1: 90.46° 91.54° 6.19° .12°		TVD (ft)		TVD (ft)		TVD (ft)		TVD (ft)	
MD: 13.272° Inclination: 90.34° Azimuth: 91.43° TVD: 7.81554° VS: 5.813.1°									
MD: 13.366° Inclination: 90.4° Azimuth: 90.84° TVD: 7.814.93° VS: 5.907.08°									







7300	CHK: med gy-lt gy, occ wh, sb ply-ply, fri-frn, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frn, sb ply-sb blk, gt tex, v calc	CHK: med gy-lt gy, occ wh, sb ply-ply, fri-frn, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frn, sb ply-sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb ply-ply, fri-frn, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frn, sb ply-sb blk, gt tex, v calc	7300	CHK: med gy-lt gy, occ wh, sb ply-ply, fri-frn, rthy tex, v calc. MRLST: dk gy-gy, occ spec, silt gr, fri-frn, sb ply-sb blk, gt tex, v calc
TVD (ft)			TVD (ft)		TVD (ft)	
7300			7300		7300	

MD: 13.461'  
Inclination: 90.31°  
Azimuth: 90.38°  
TVD: 7.814.34'  
VS: 6.002.08'

MD: 13.555'  
Inclination: 90.65°  
Azimuth: 90.24°  
TVD: 7.813.55'  
VS: 6.096.08'

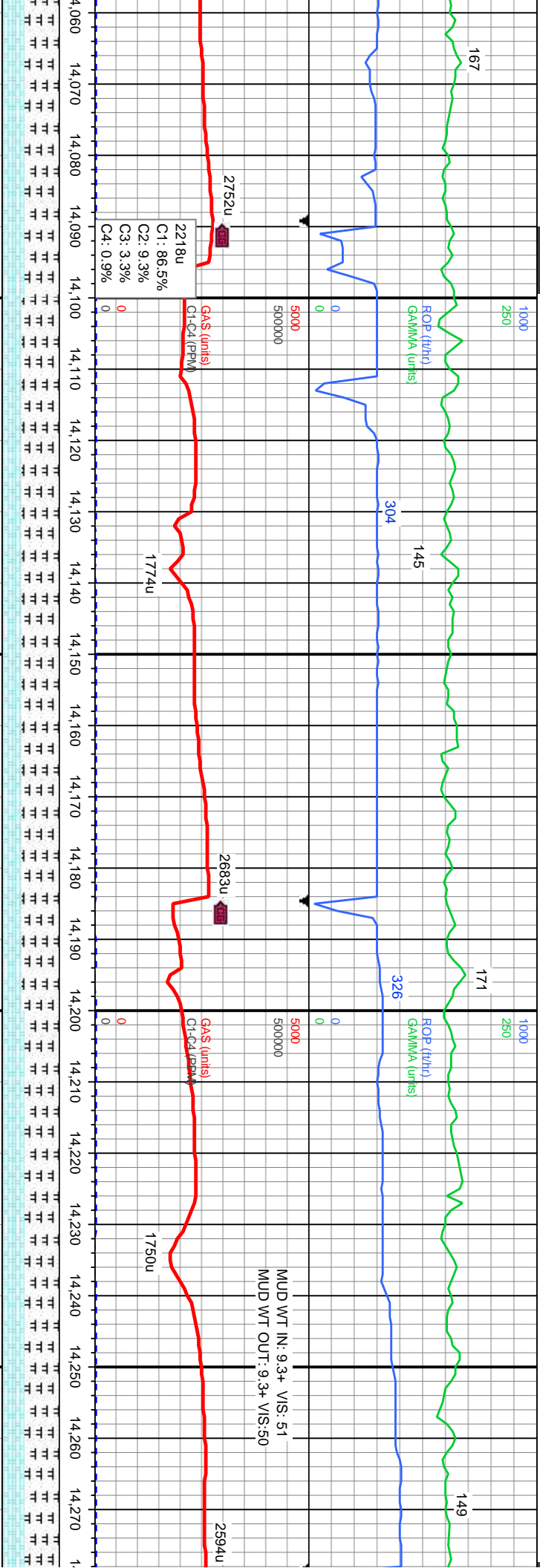












: dk gy-gy, occ spec, slt gr, fri-frm, sb blky, gt tex, v calc; CHK: med gy-ll wh, sb pily-pily, fri-frm, rthy tex, v calc		7300	MRLST: dk gy-gy, occ spec, slt gr, fri-frm, sb pily- sb blky, gt tex, v calc; CHK: med gy-ll gy,occ wh, sb pily-pily, fri-frm, rthy tex, v calc		7300	MRLST: dk gy-gy, occ spec, slt gr, fri-frm, sb pily- sb blky, gt tex, v calc; CHK: med gy-ll gy,occ wh, sb pily-pily, fri-frm, rthy tex, v calc		7300	MRLST: dk gy-gy, occ spec, slt gr, fri-frm, sb pily- sb blky, gt tex, v calc; CHK: med gy-ll gy,occ wh, sb pily-pily, fri-frm, rthy tex, v calc		7300
TVD (ft)		7300	TVD (ft)		7300	TVD (ft)		7300	TVD (ft)		7300
MD: 14.122' Inclination: 91.33° Azimuth: 90.79° TVD: 7.799.27' VS: 6.662.87'		7300	MD: 14.216' Inclination: 91.02° Azimuth: 90.96° TVD: 7.797.34' VS: 6.756.85'		7300	MD: 14.216' Inclination: 91.02° Azimuth: 90.96° TVD: 7.797.34' VS: 6.756.85'		7300	MD: 14.216' Inclination: 91.02° Azimuth: 90.96° TVD: 7.797.34' VS: 6.756.85'		7300







