



Scale: 5" / 100'
Measured Depth Log

Well Name ROHN STATE LD03-62HN

Location SESE SEC 4 T9N R58W

State COLORADO

County WELD

Country USA

Rig Number H&P 273

API Number 05-123-37475

Field WILDCAT

Region DJ BASIN

Drilling Completed 9/20/2014

Spud Date 9/14/2014

Surface Coordinates 737' FSL; 330' FEL

Bottom Hole Coordinates 660' FFSL; 660' FFELL

Ground Elevation 4706'

K.B. Elevation 4730'

Logged Interval 4911' To 10095'

Total Depth 10095'

Formation NIOBRARA

Type of Drilling Fluid LSND

Operator

Company NOBLE ENERGY INC.

Address 1625 Broadway Suite 2200
Denver, CO 80202

Geologist

Name RENEE CLACKER

Company NOBLE ENERGY INC.

Address 1625 Broadway Suite 2200
Denver, CO 80202

Other

Wellsite Geologist #1 Laura Kellogg

Wellsite Geologist #2 Garrett Luallen

Wellsite Geological Services Provided By Columbine Logging













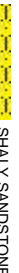








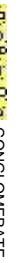











Zone Color Coding

Oil
Note
Error




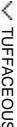
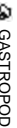
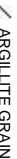
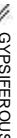


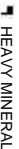




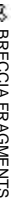














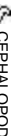

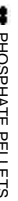


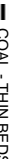




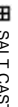














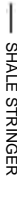
Condensate
Core
Water

Gas
Pres
Sea







Rock Types

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

Accessories

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

Oil Show

 MOLDIC
 ORGANIC
 PINPOINT
 DEAD
 EVEN
 VUGGY

Engineering

 QUESTIONABLE
 SPOTTED STAINING
 BIT


Porosity

 CONNECTION (LEFT)
 CONNECTION (RIGHT)
 FENESTRAL
 CONNECTION GAS
 FRACTURE
 CORE - LOST
 INTERCRYSTALLINE
 CORE - RECOVERED
 INTERROOtlIC
 DST INTERVAL

Other Symbols

 FAULT  WIRELINE TESTED - LEFT **E** EARTHY

 FORMATION TOP  WIRELINE TESTED - RT **FX** FINELYXLN

 GAS SHOW

GS GRAINSTONE


Rounding

 MINDEPTH MN DEPTH

L LITHOGRAPHIC

 NORMAL FAULT **A** ANGULAR

MX MICROXLN

 OIL SHOW

R ROUNDED

MS MUDSTONE

 OVERTURNED STRATA

B SUBANG

PS PACKSTONE

 REVERSE FAULT

F SUBRND

WS WACKESTONE

 SIDEWALL CORE (LEFT)

Textures


Sorting

 SIDEWALL CORE (RIGHT)

 SLIDE

BS BOUNDSTONE

M MODERATE

 SURVEY

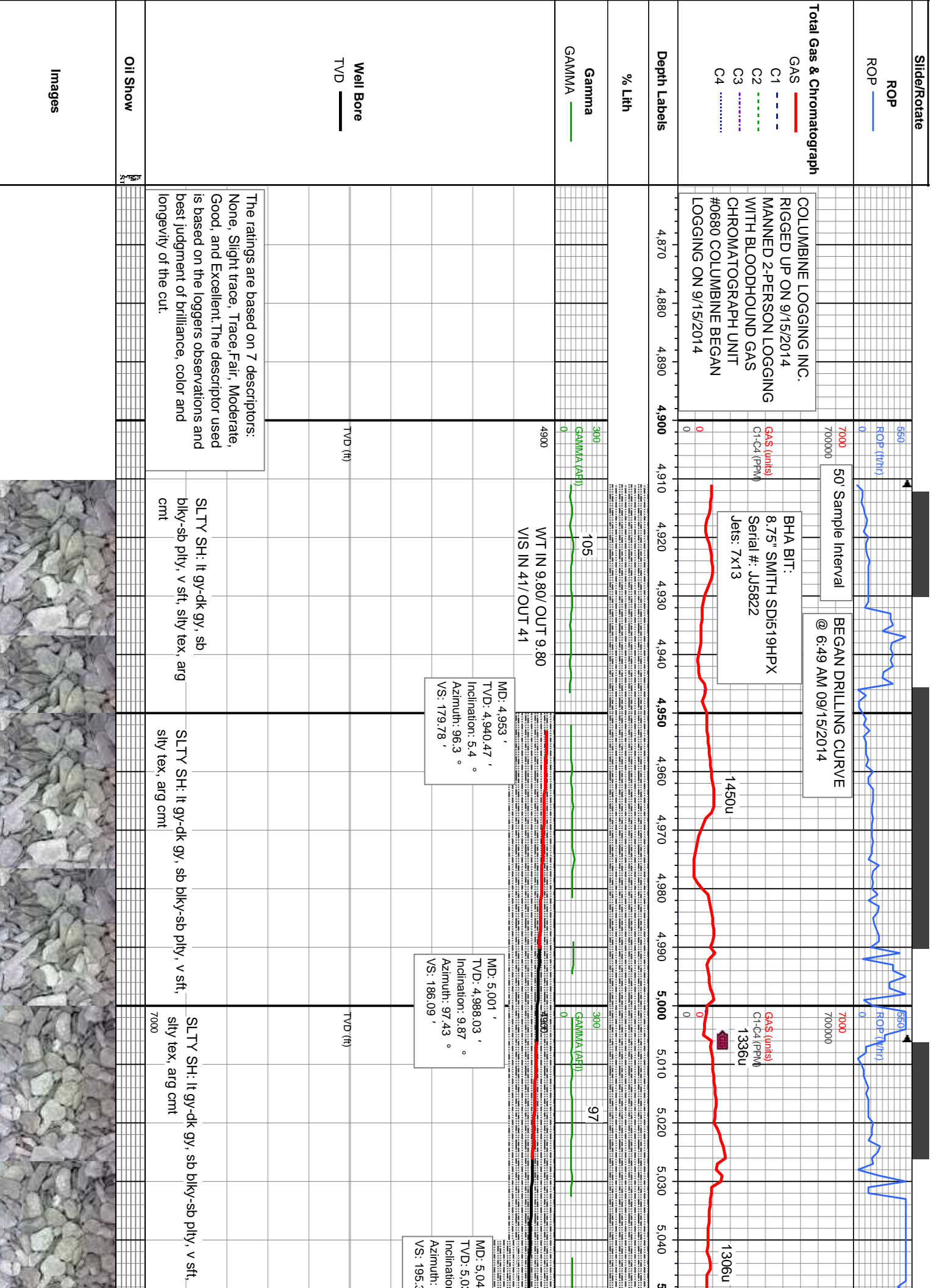
C CHALKY

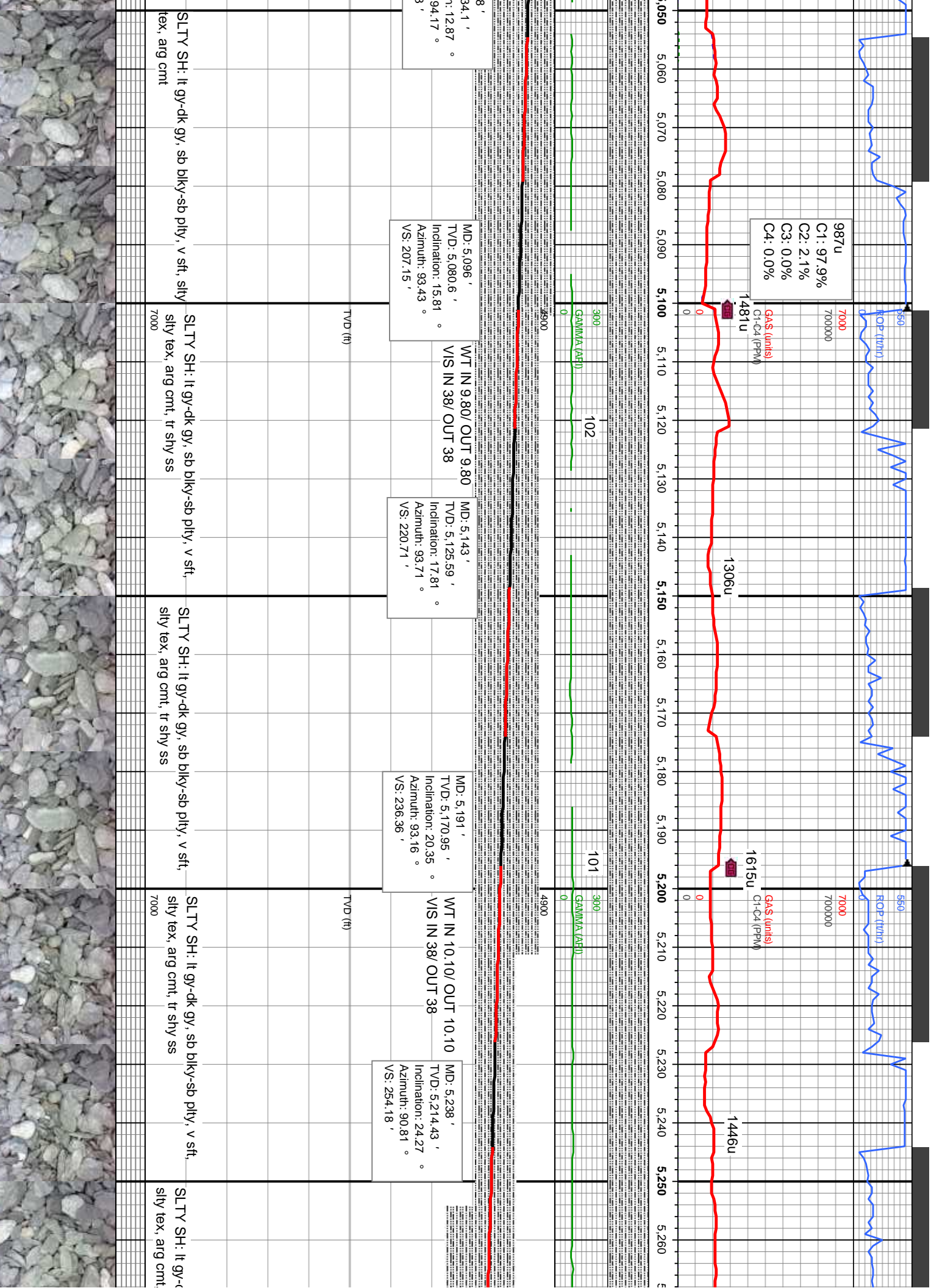
P POOR

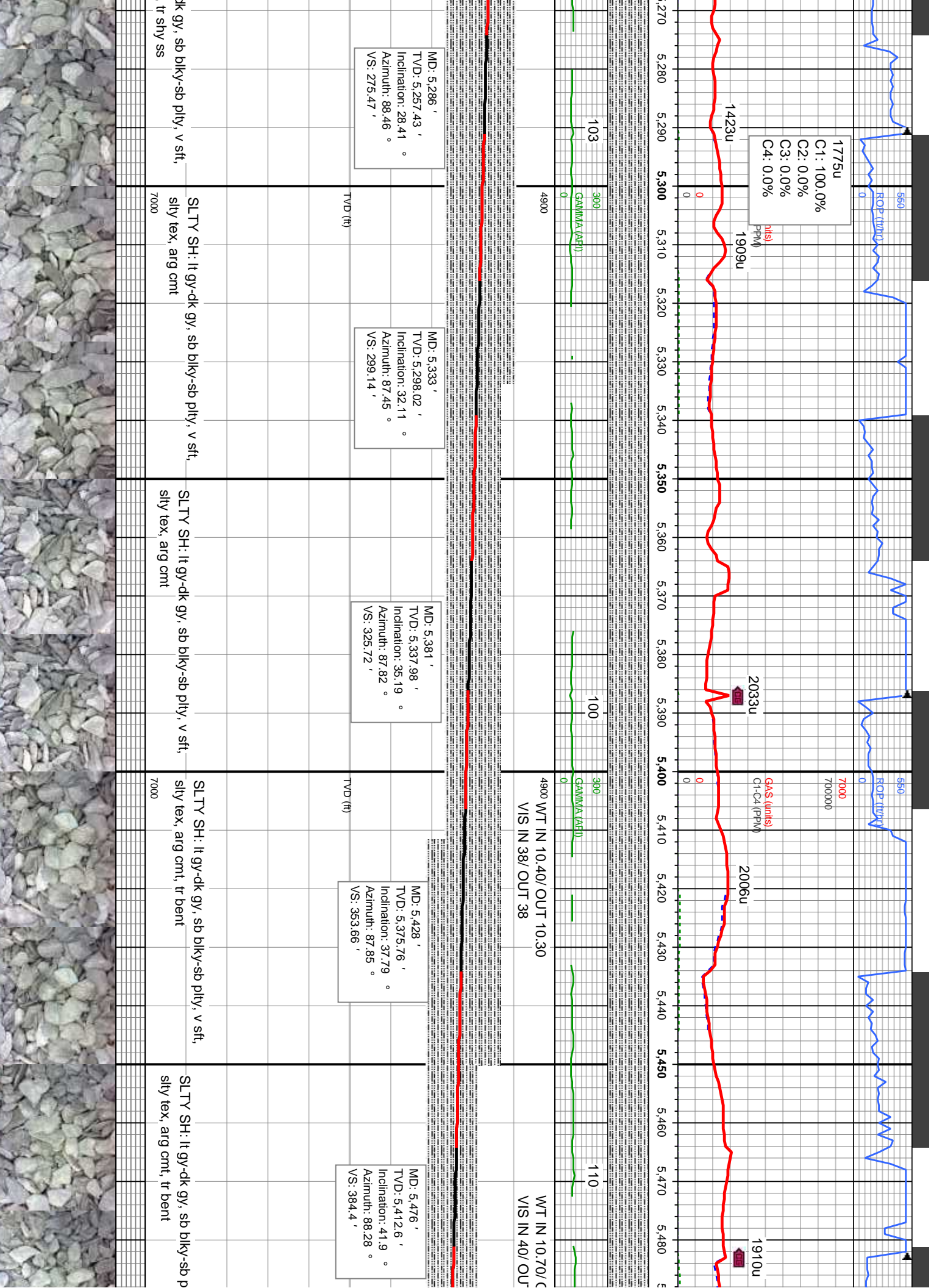
 TRIP GAS

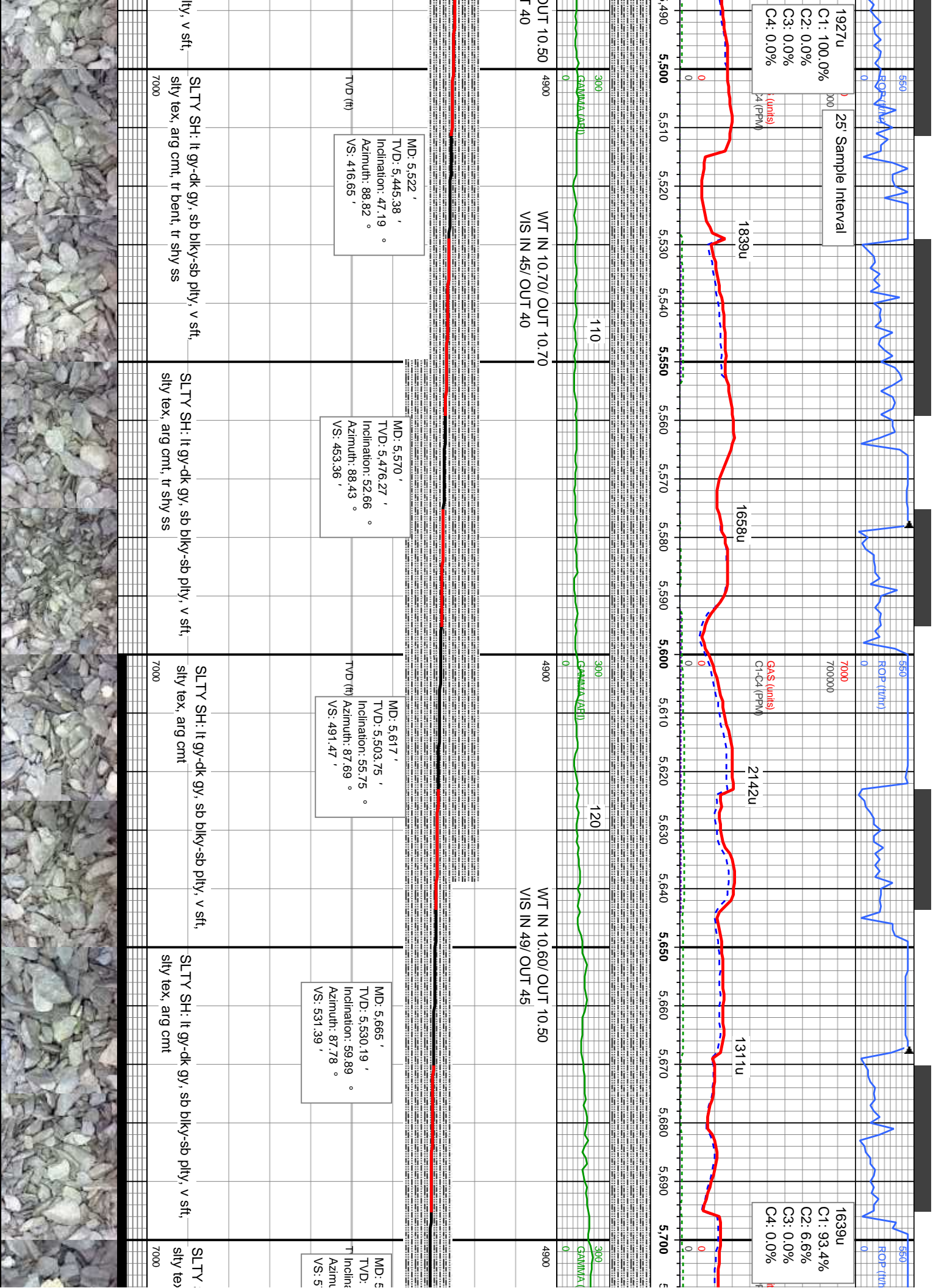
CX CRYPTOXLN

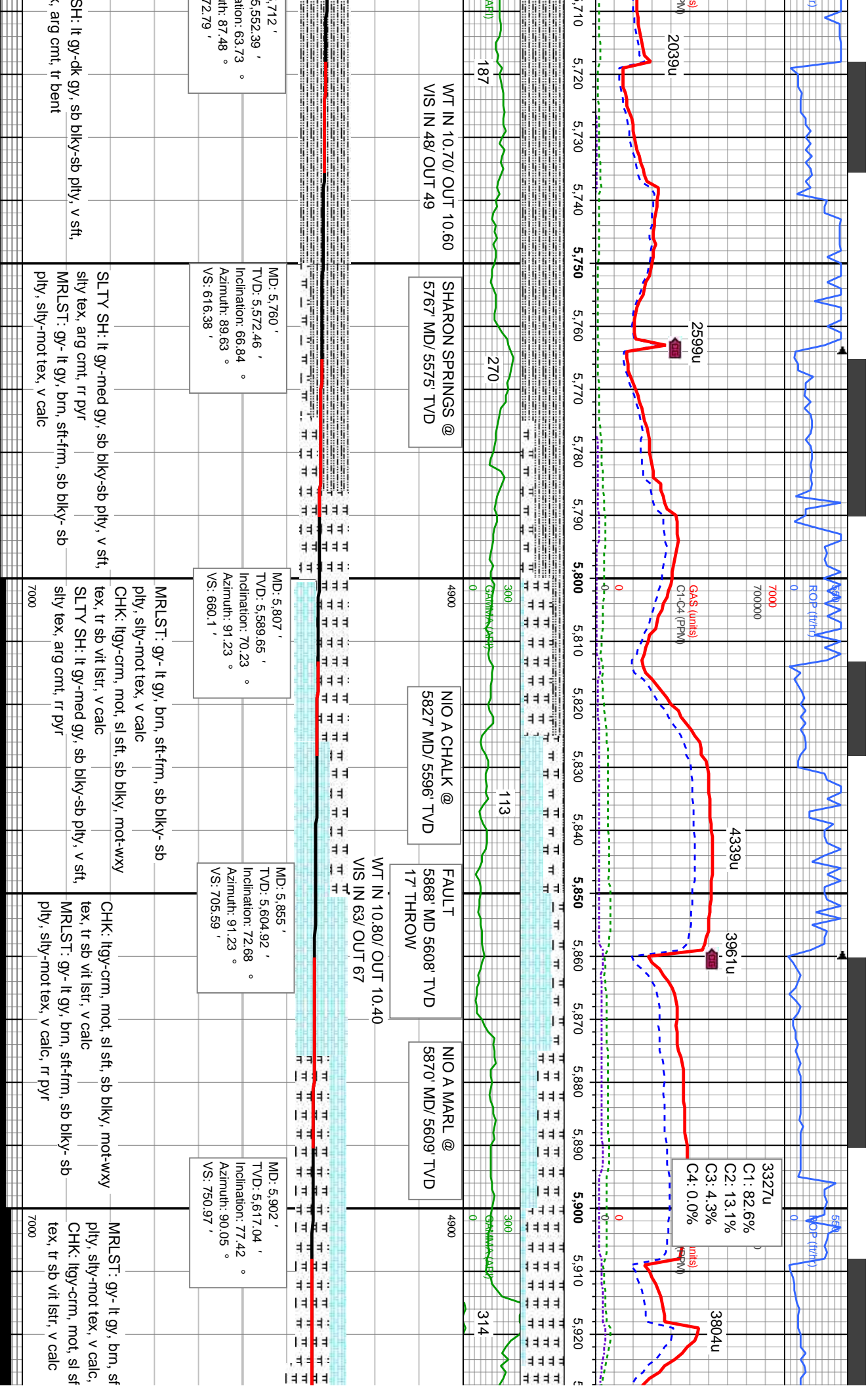
W WELL

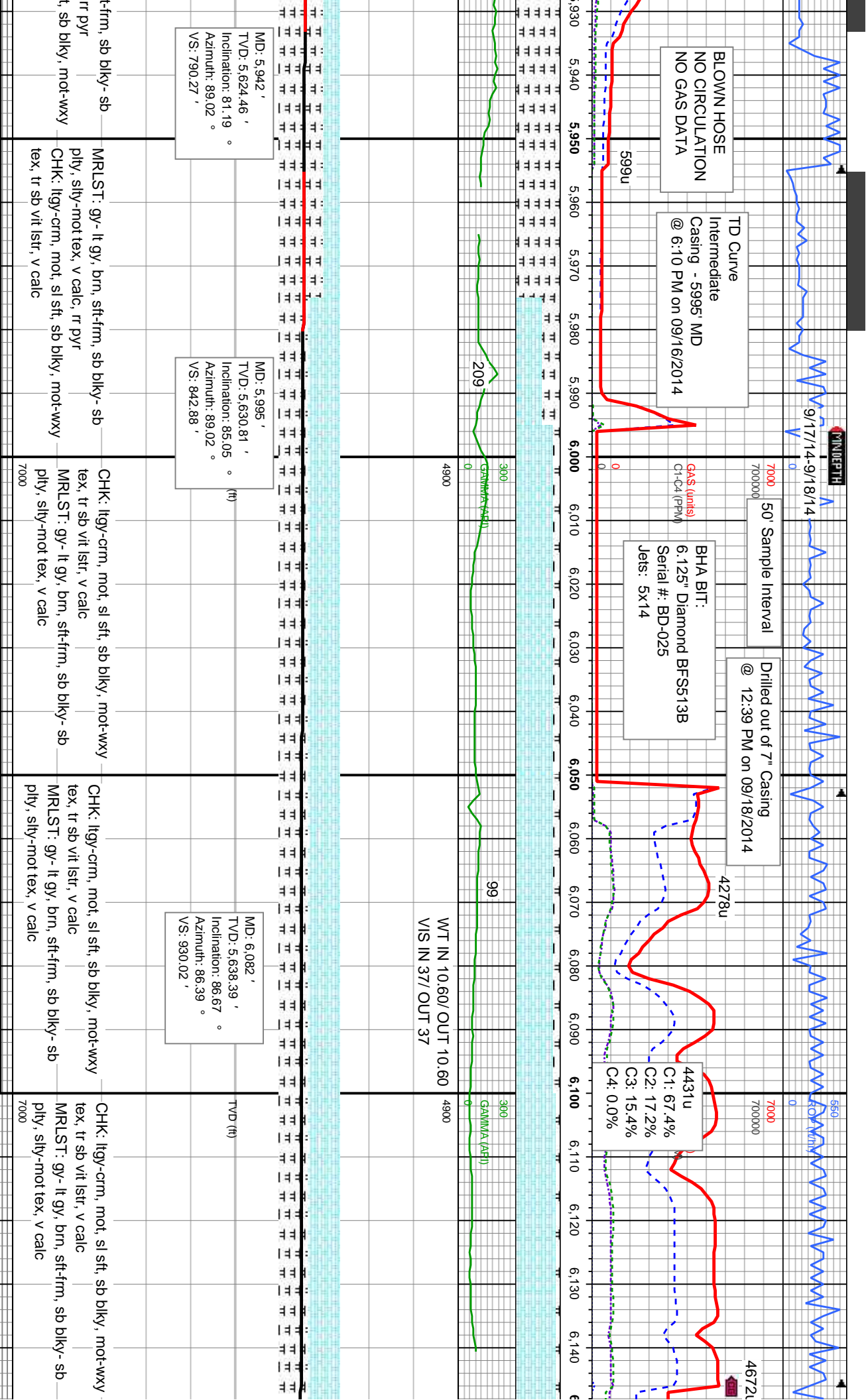










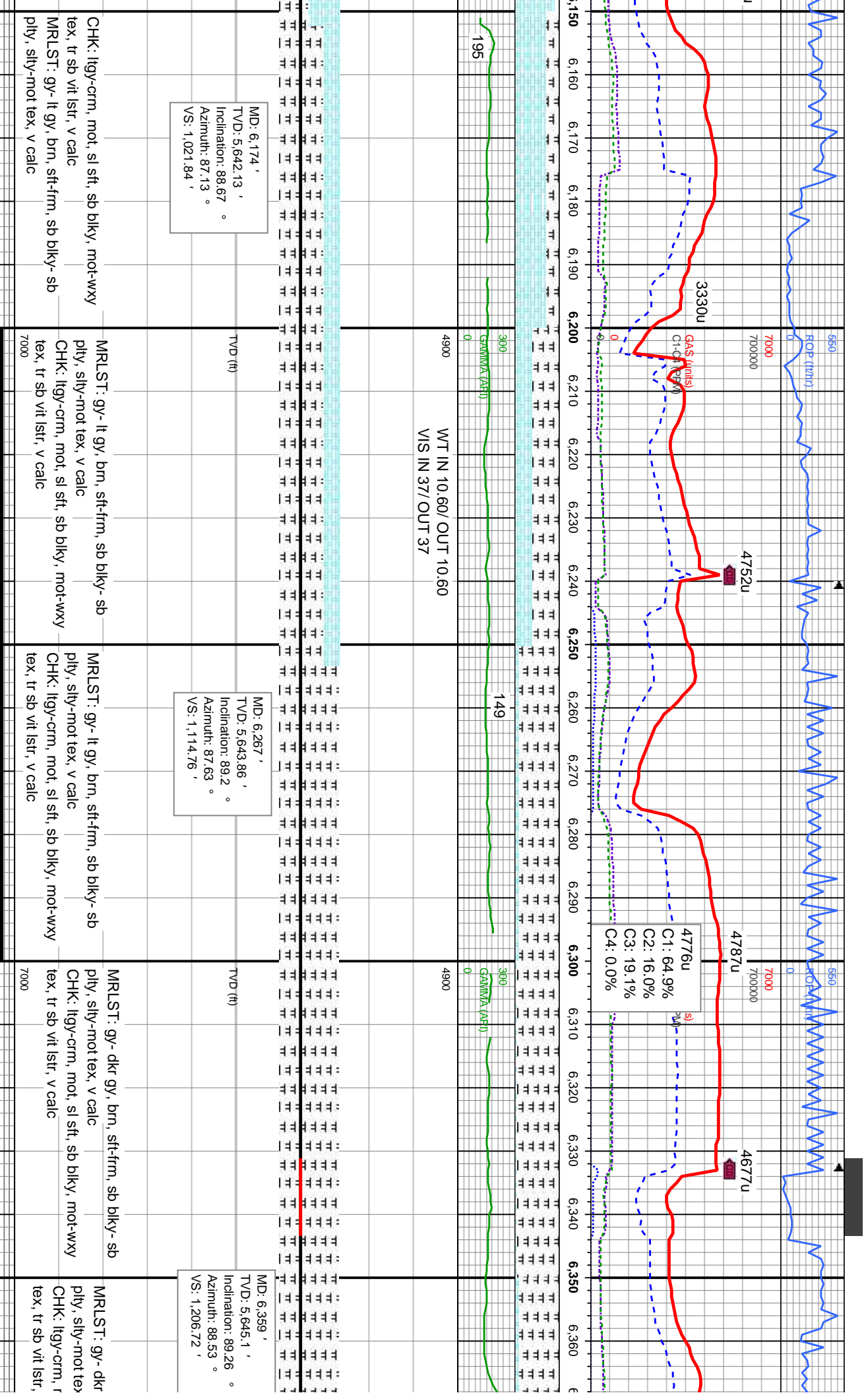


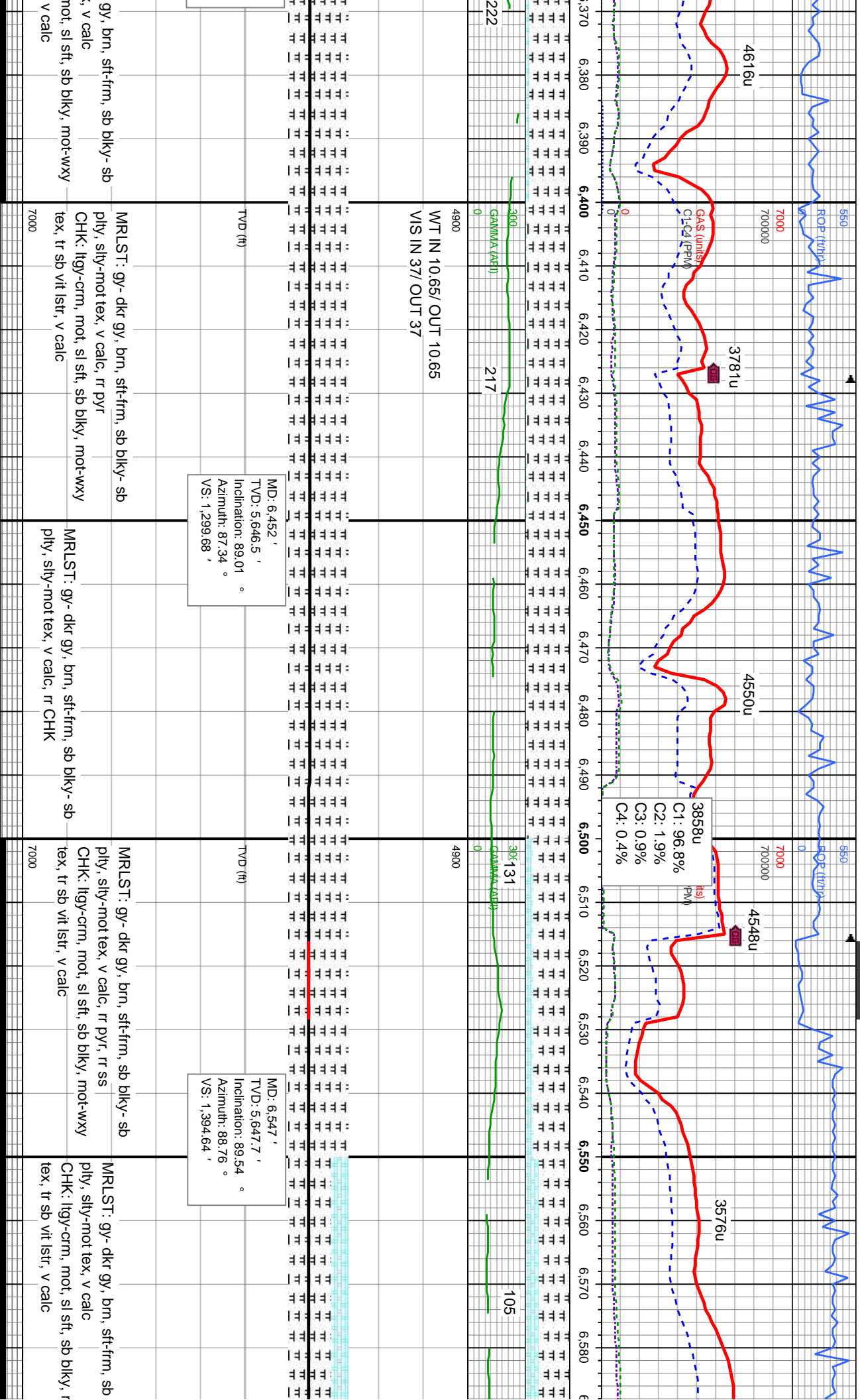
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sb
ply, sfty-mot tex, v calc, r pyr
CHK: llyg-frm, mot, sl sft, sb bly, mot-wxy
tex, tr sb vit lstr, v calc

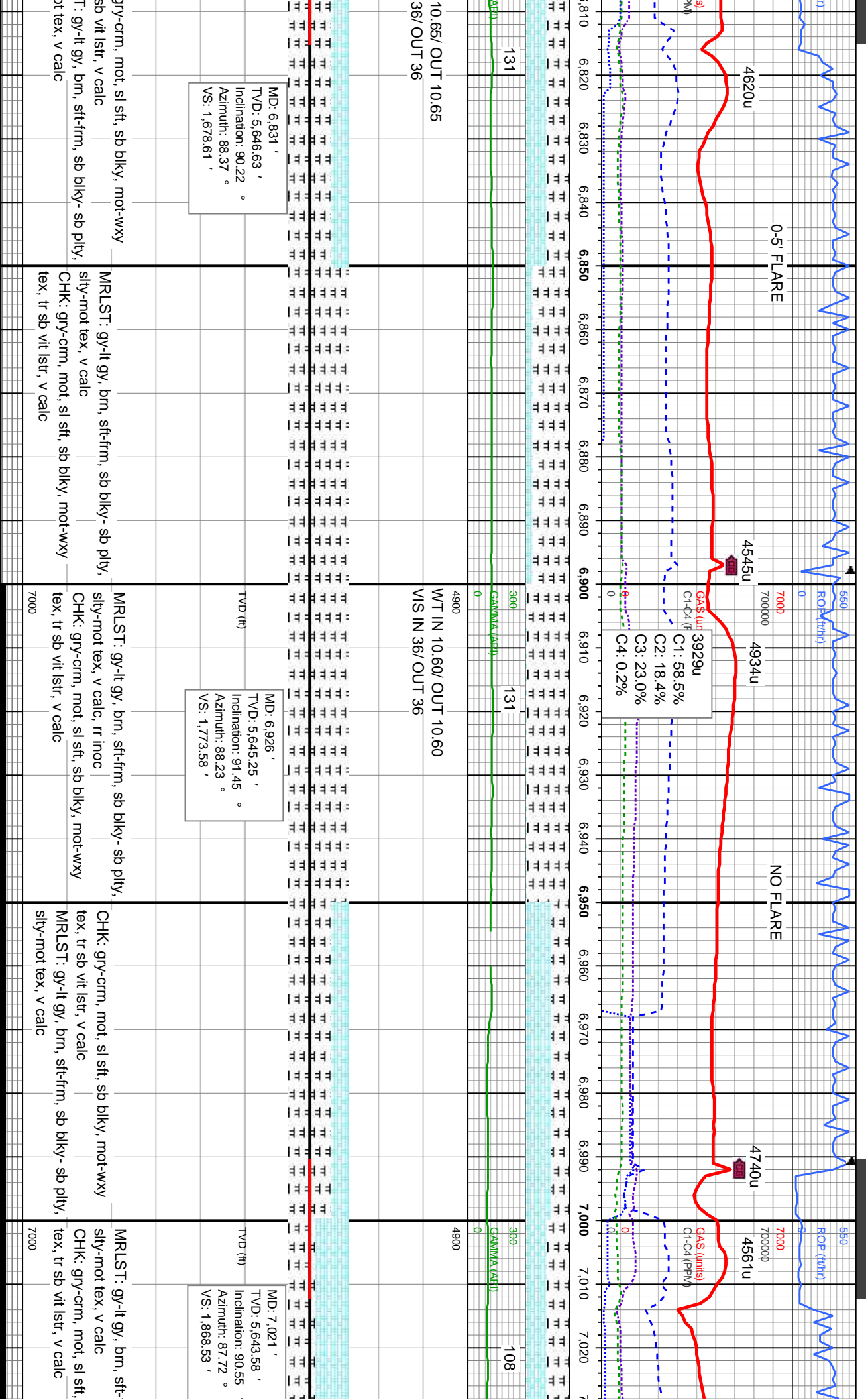
CHK: itgy-crm, mot, sl sft, sb blk, mot-wxy
tex, tr sb vit lst, v calc
MRLST: gy- lt gy, bm, sft-fm, sb blk- sb
ply, sily-mot tex, v calc

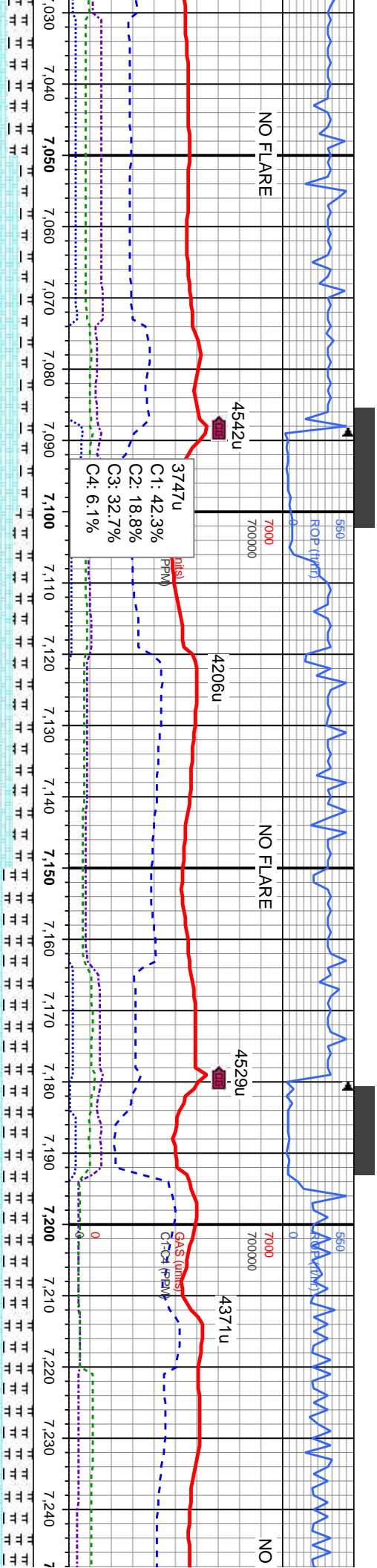
CHK: lgy-crm, mot, sl sft, sb blkly, mot-wxy
tex, tr sb vit lstr, v calc
MRLST: gy- lt gy, brn, sft-fm, sb blkly- sb
ply, silty-mot tex, v calc

CHK: lgy-crm, mot, sl sft, sb blkly, mot-wxy
tex, tr sb vit lstr, v calc
MRLST: gy- lt gy, brn, sft-frm, sb blkly- sb
ply, silty-mot tex, v calc
7000

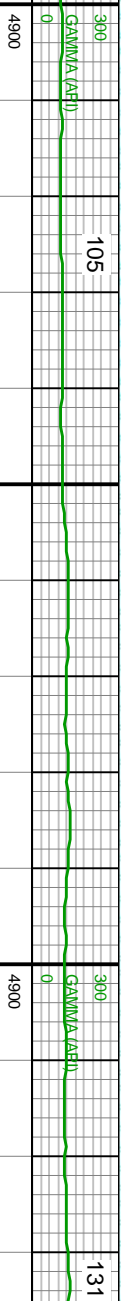








WT IN 10.75/ OUT 10.75
VIS IN 36/ OUT 36



MD: 7,116 '
TVD: 5,643.15 '
Inclination: 89.97 °
Azimuth: 87.82 °
VS: 1,963.48 '

MD: 7,211 '
TVD: 5,643.97 '
Inclination: 89.04 °
Azimuth: 87.56 °
VS: 2,058.43 '

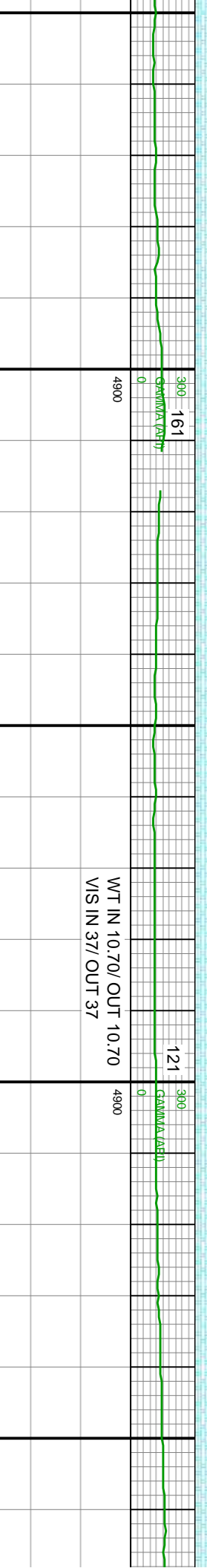
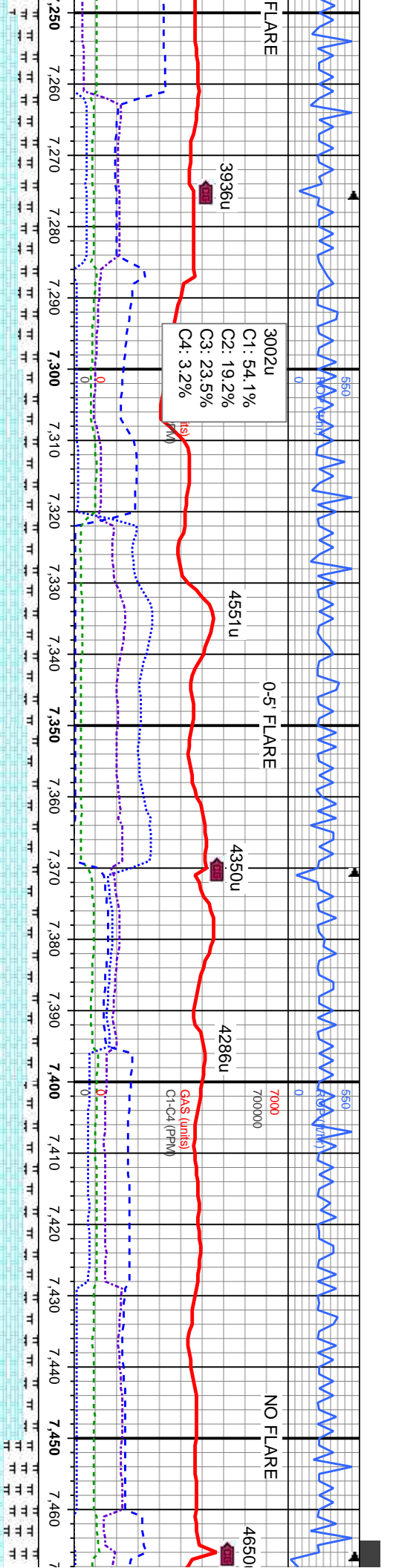
frm, sb blk-y- sb pty,
sb blk-y, mot-wxy
CHK: gry-crm, mot, sl sft, sb blk-y, mot-wxy
tex, tr sb vit lstr, v calc
MRLST: gy-ilt gy, brn, sft-frm, sb blk-y- sb pty,
sily-mot tex, v calc

CHK: gry-crm, mot, sl sft, sb blk-y, mot-wxy
tex, tr sb vit lstr, v calc
MRLST: gy-ilt gy, brn, sft-frm, sb blk-y- sb pty,
sily-mot tex, v calc

MRLST: gy-ilt gy, brn, sft-frm, sb blk-y- sb pty,
sily-mot tex, v calc
CHK: gry-crm, mot, sl sft, sb blk-y, mot-wxy
tex, tr sb vit lstr, v calc

MRLST: gy-ilt gy, brn, sft-frm, sb blk-y- sb pty,
sily-mot tex, v calc
CHK: gry-crm, mot, sl sft, sb blk-y, mot-wxy
tex, tr sb vit lstr, v calc





MD: 7,305 ' °
TVD: 5,644.98 ' °
Inclination: 89.72 °
Azimuth: 88.29 °
VS: 2,152.39 ' °

MD: 7,400 '
TVD: 5,644.49 '
Inclination: 90.86 °
Azimuth: 88.75 °
VS: 2,247.38 '

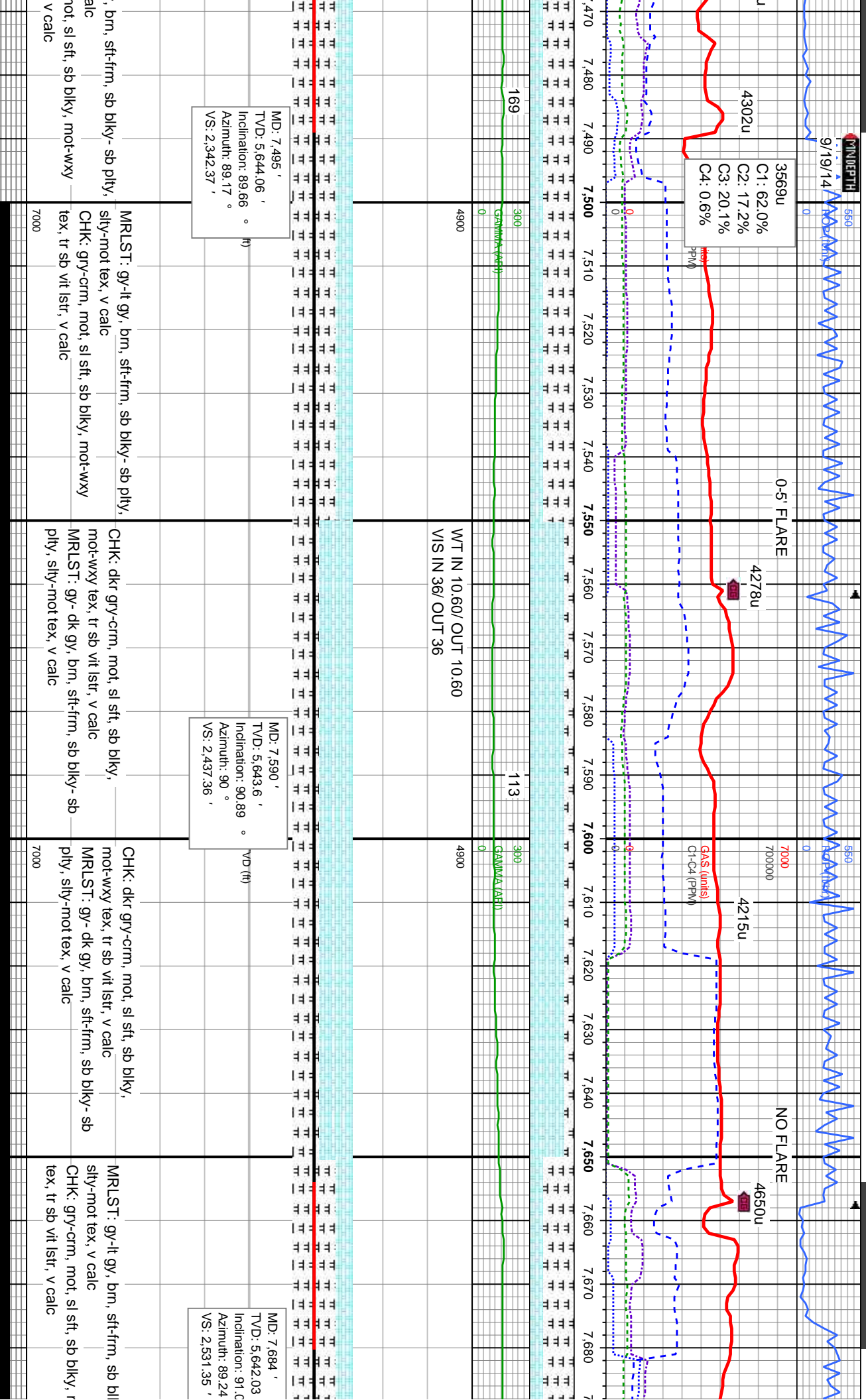
CHK: gry-crm, mot, sl sft, sb bky, mot-wxy
tex, tr sb vit lstr, v calc
MRST: gy-ft gy, bm, sft-firm, sb bky- sb ply,
sfty-mot tex, v calc

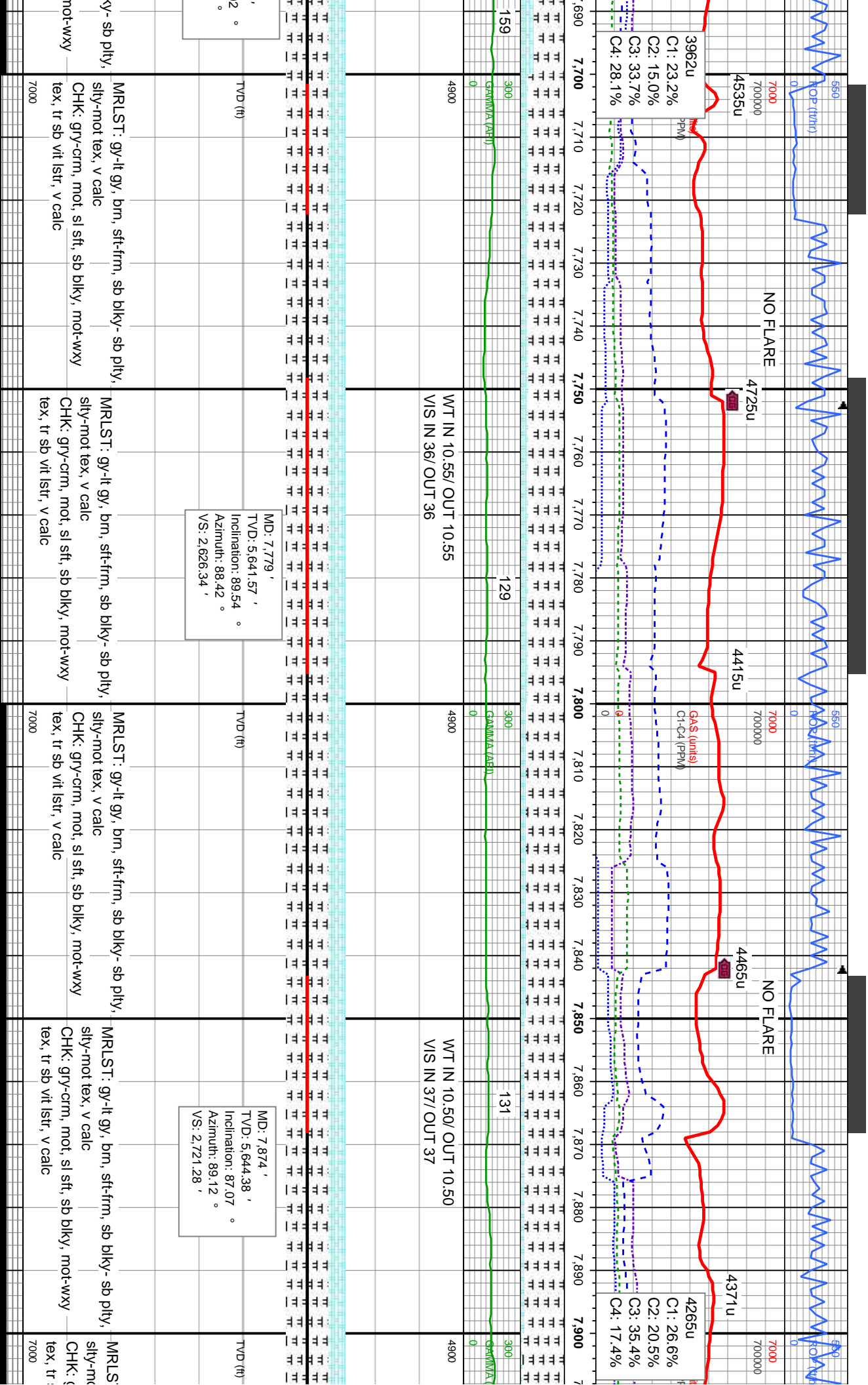
CHK:	dkr gry- <i>crm</i> , <i>mot</i> , <i>sl sft</i> , <i>sb bilky</i> ,	
	<i>mot-wxy tex</i> , <i>tr sb vit lstr</i> , <i>v calc</i>	
MR _{LST} :	<i>gy-dk gy</i> , <i>brn</i> , <i>sft-frn</i> , <i>sb bilky-sb</i>	
	<i>ply</i> , <i>sily-mot tex</i> , <i>v calc</i>	
Z ₀₀₀		

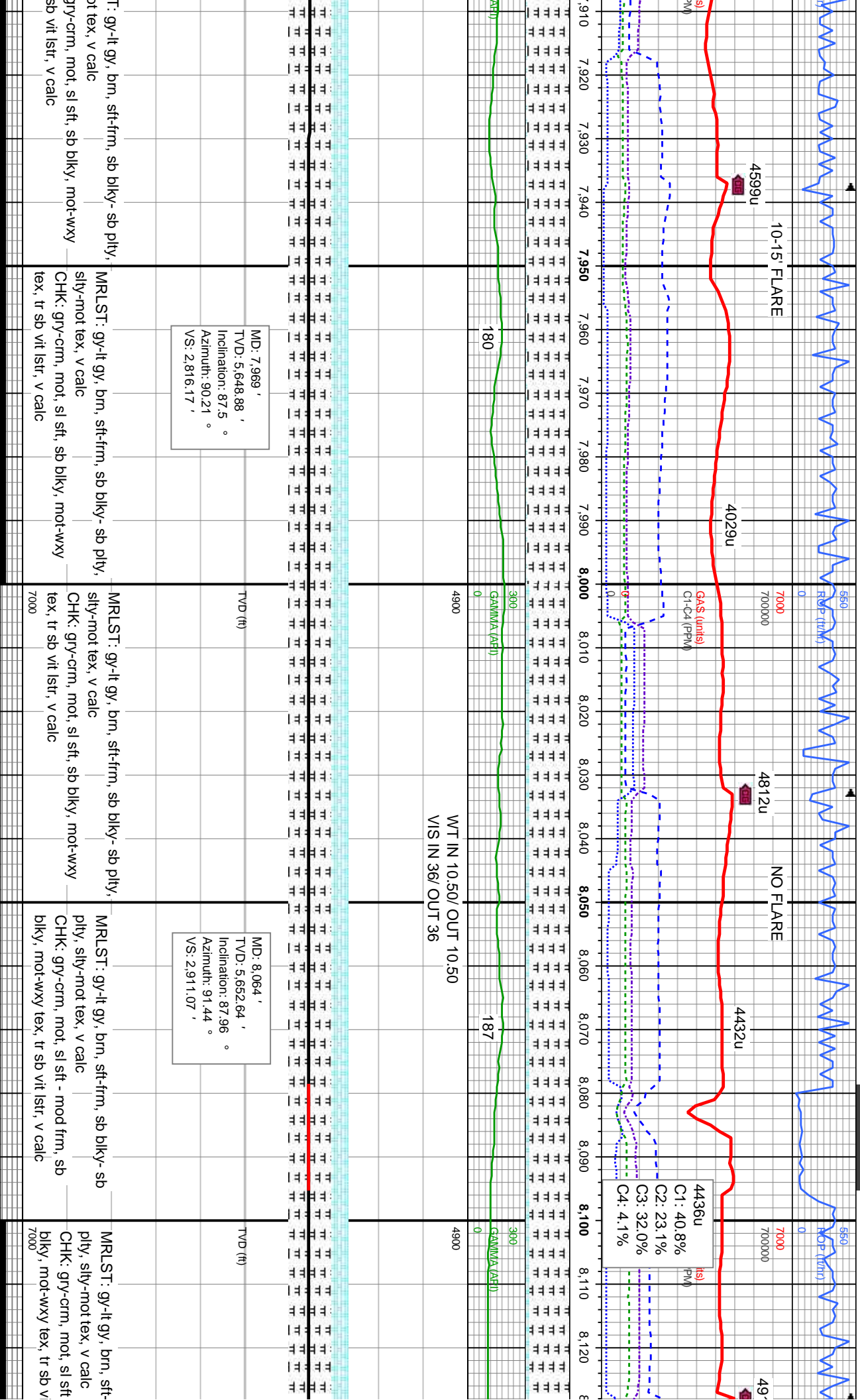
CHK: dkr gry-*cr*m, *mot*, *sl* *sft*, *sb* *blky*,
mot-wxy *tex*, *tr* *sb* *vit* *lsr*, *v* *calc*
 MRLST: *gy*-*dk* *gy*, *bm*, *sft-firm*, *sb* *blky*-*sb*
ply, *slty*-*mot* *tex*, *v* *calc*

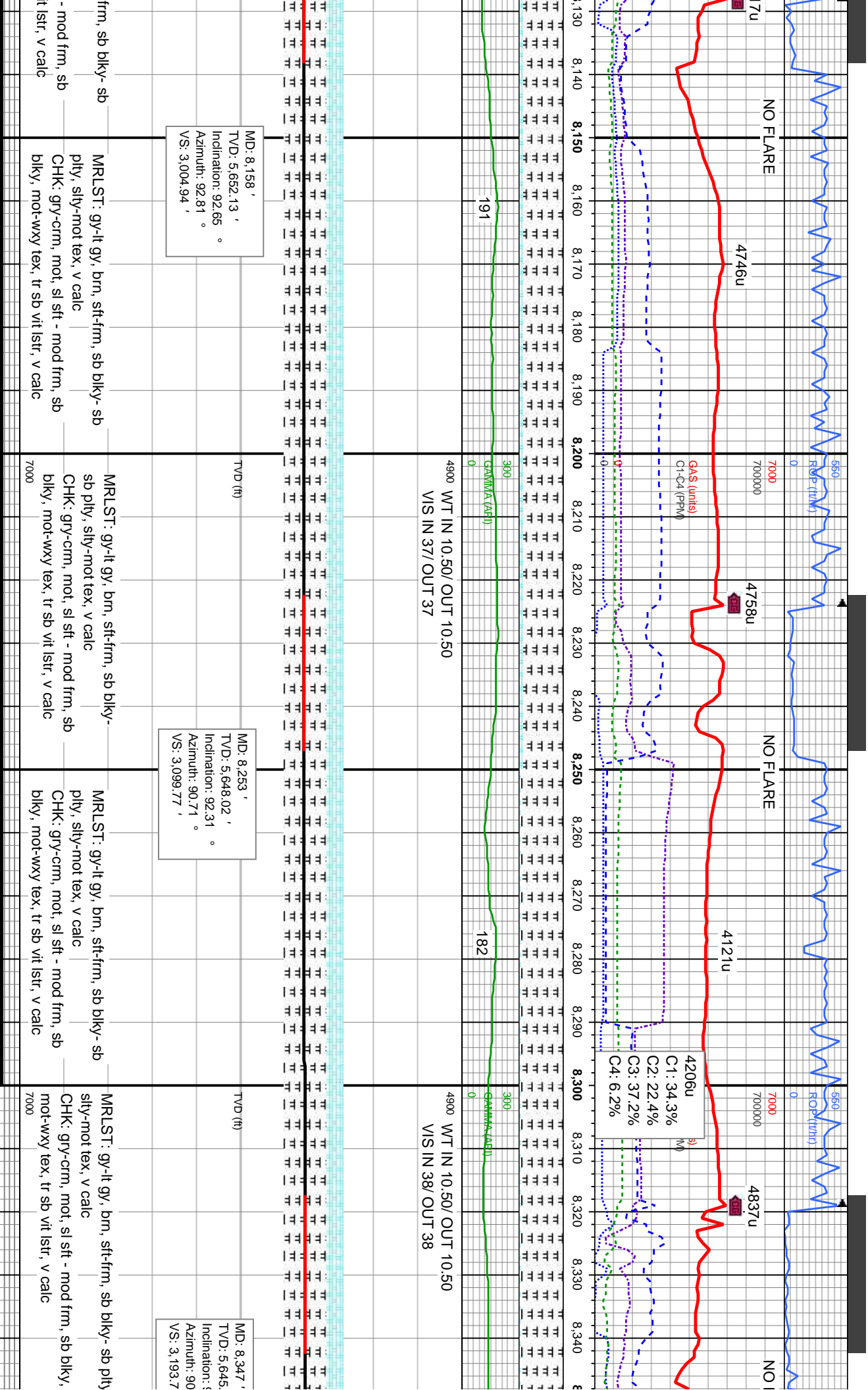
CHK:	dkr gry- <i>crm</i> , <i>mot</i> , <i>sl sft</i> , <i>sb biky</i> , <i>mot-wxy tex</i> , <i>tr sb vit lstr</i> , <i>v calc</i>	
MRUST:	<i>gy- dk gy</i> , <i>bm</i> , <i>sft-firm</i> , <i>sb biky- sb ply</i> , <i>sfty-mot tex</i> , <i>v calc</i>	
7000		

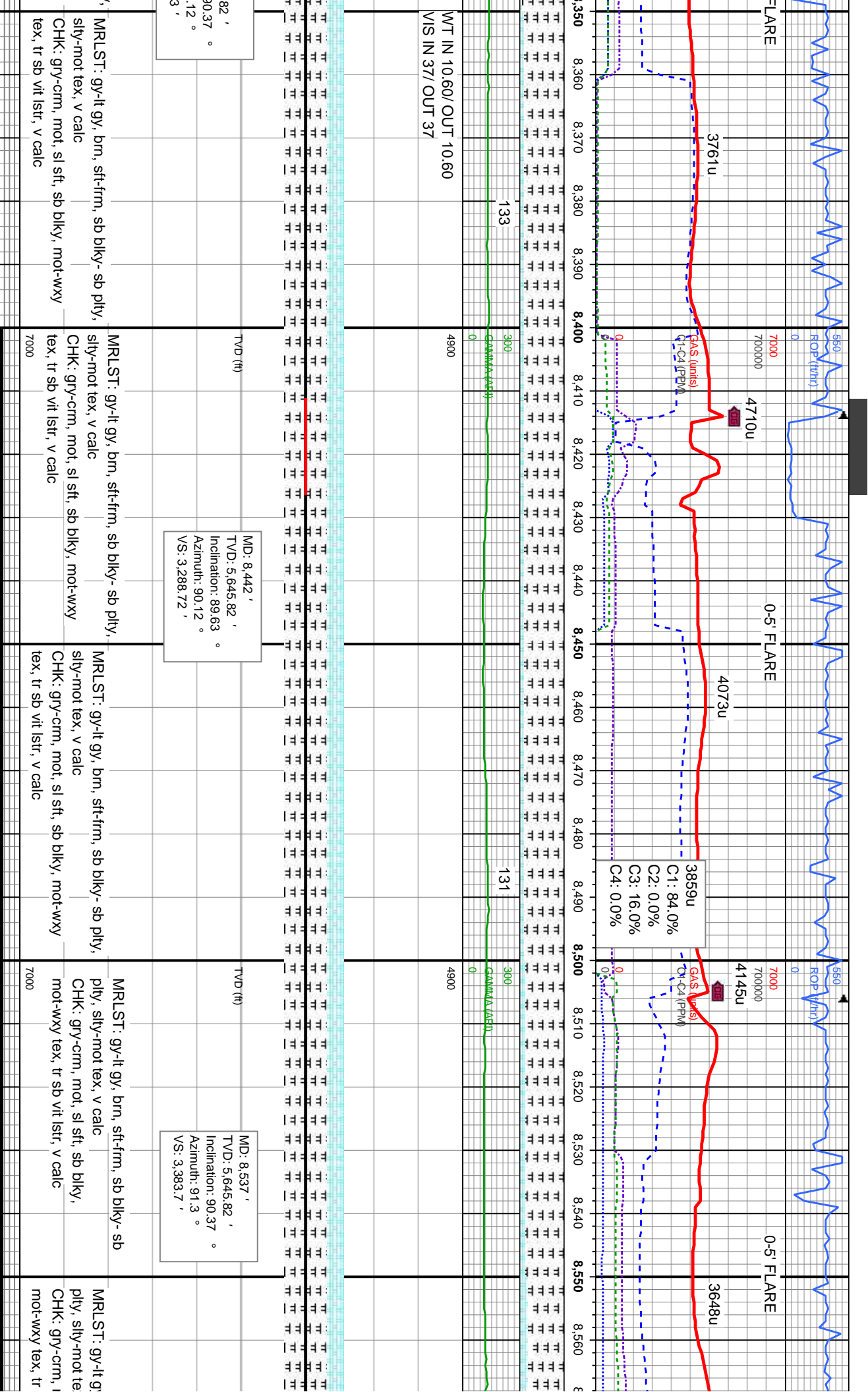
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sly-mot tex, v ci
CHK: gry-crm, n
tex, tr sb vit lstr,

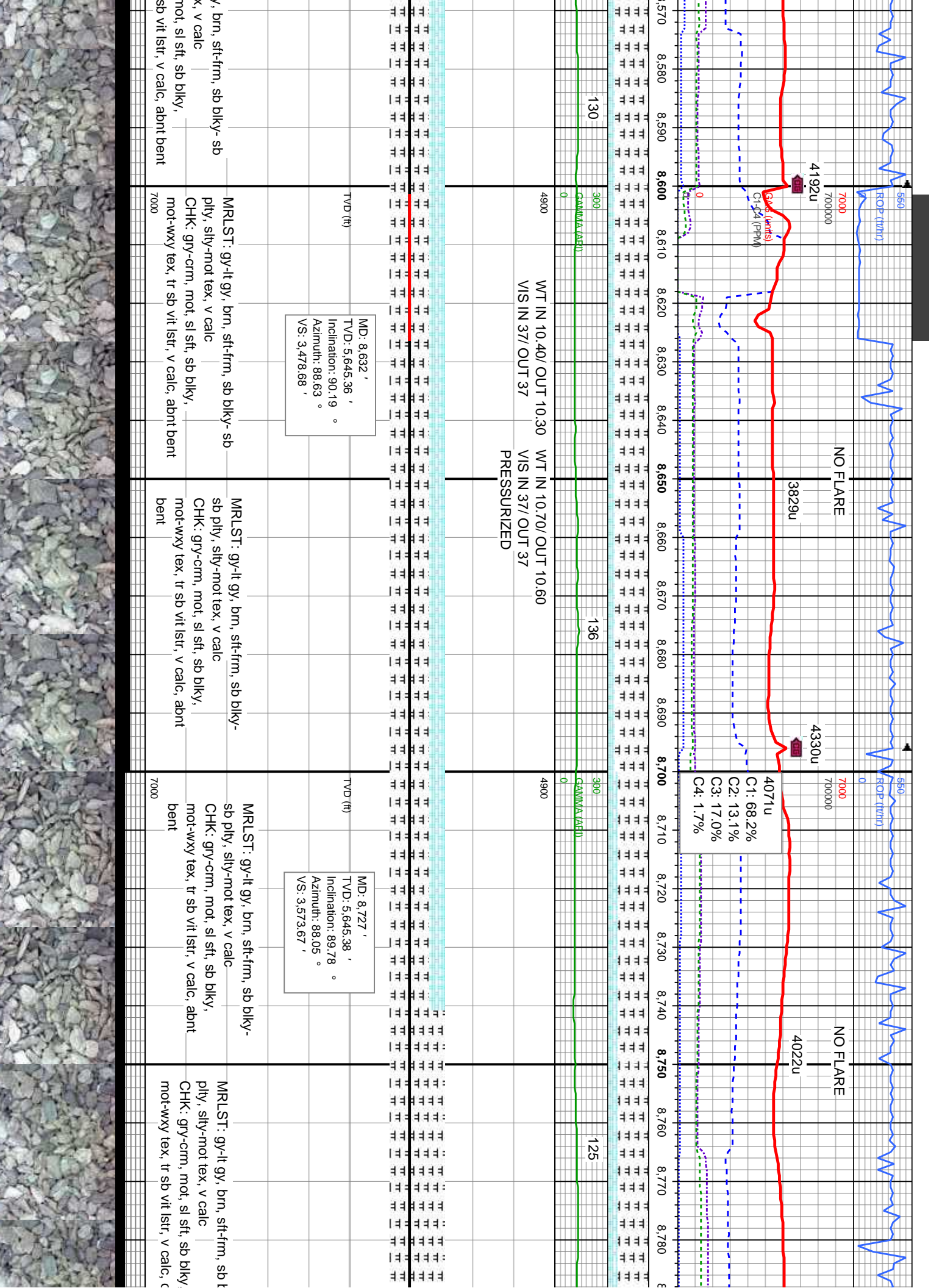


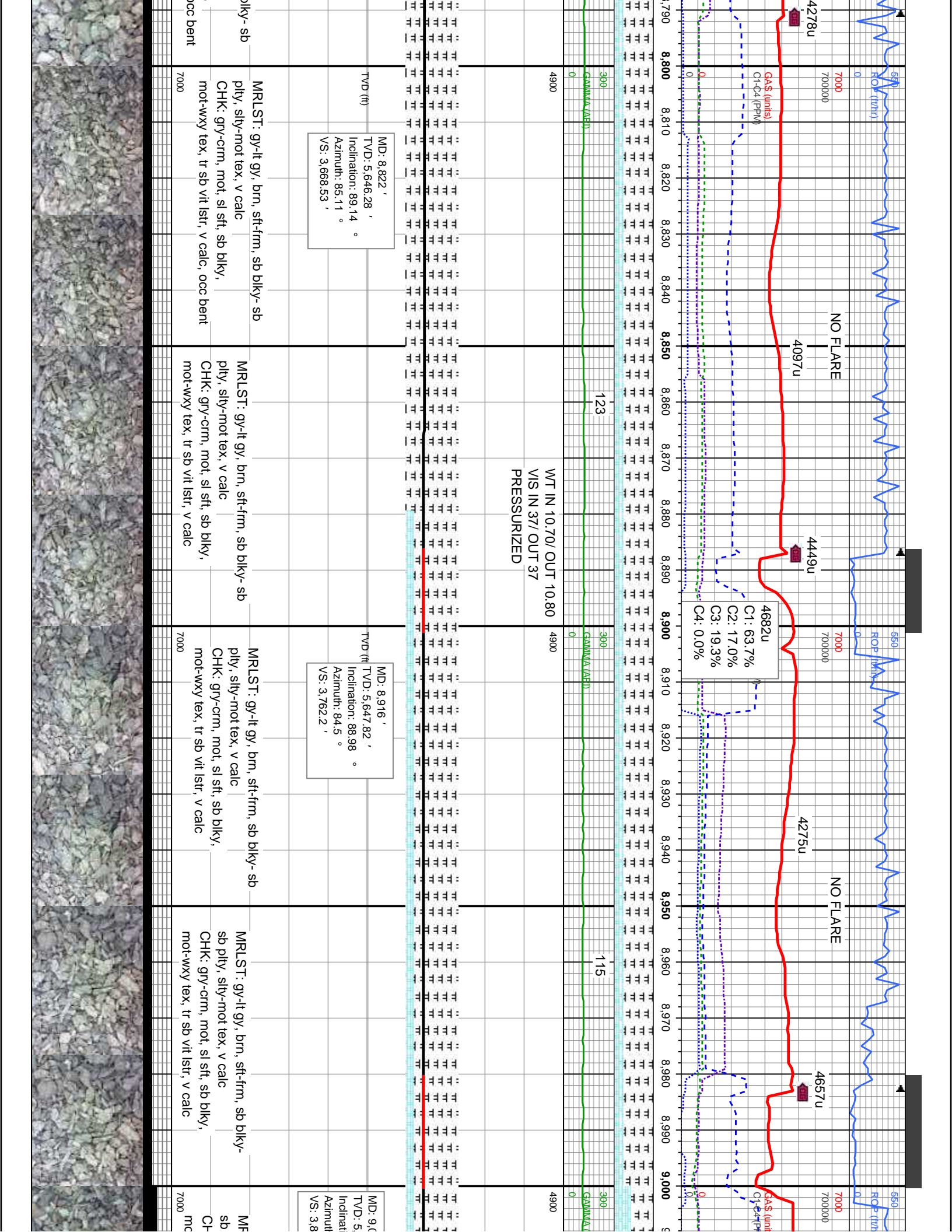












4278u

ROp (ft/hr)

7000

7000000

GAS (units)

C1-C4 (PPM)

4097u

NO FLARE

4449u

ROp (ft/hr)

7000

7000000

GAS (units)

C1-C4 (PPM)

4682u

C1: 63.7%

C2: 17.0%

C3: 19.3%

C4: 0.0%

NO FLARE

4275u

ROp (ft/hr)

7000

7000000

GAS (units)

C1-C4 (PPM)

4657u

ROp (ft/hr)

7000

7000000

GAS (units)

C1-C4 (PPM)

9000

WT IN 10.70/ OUT 10.80
VIS IN 37/ OUT 37
PRESSURIZED

MD: 8,822 '
TVD: 5,646.28 '
Inclination: 89.14 °
Azimuth: 85.11 °
VS: 3,668.53 '

MD: 8,916 '
TVD: 5,647.82 '
Inclination: 88.98 °
Azimuth: 84.5 °
VS: 3,762.2 '

MD: 9,000 '
TVD: 5,648.00 '
Inclination: 88.98 °
Azimuth: 84.5 °
VS: 3,762.2 '

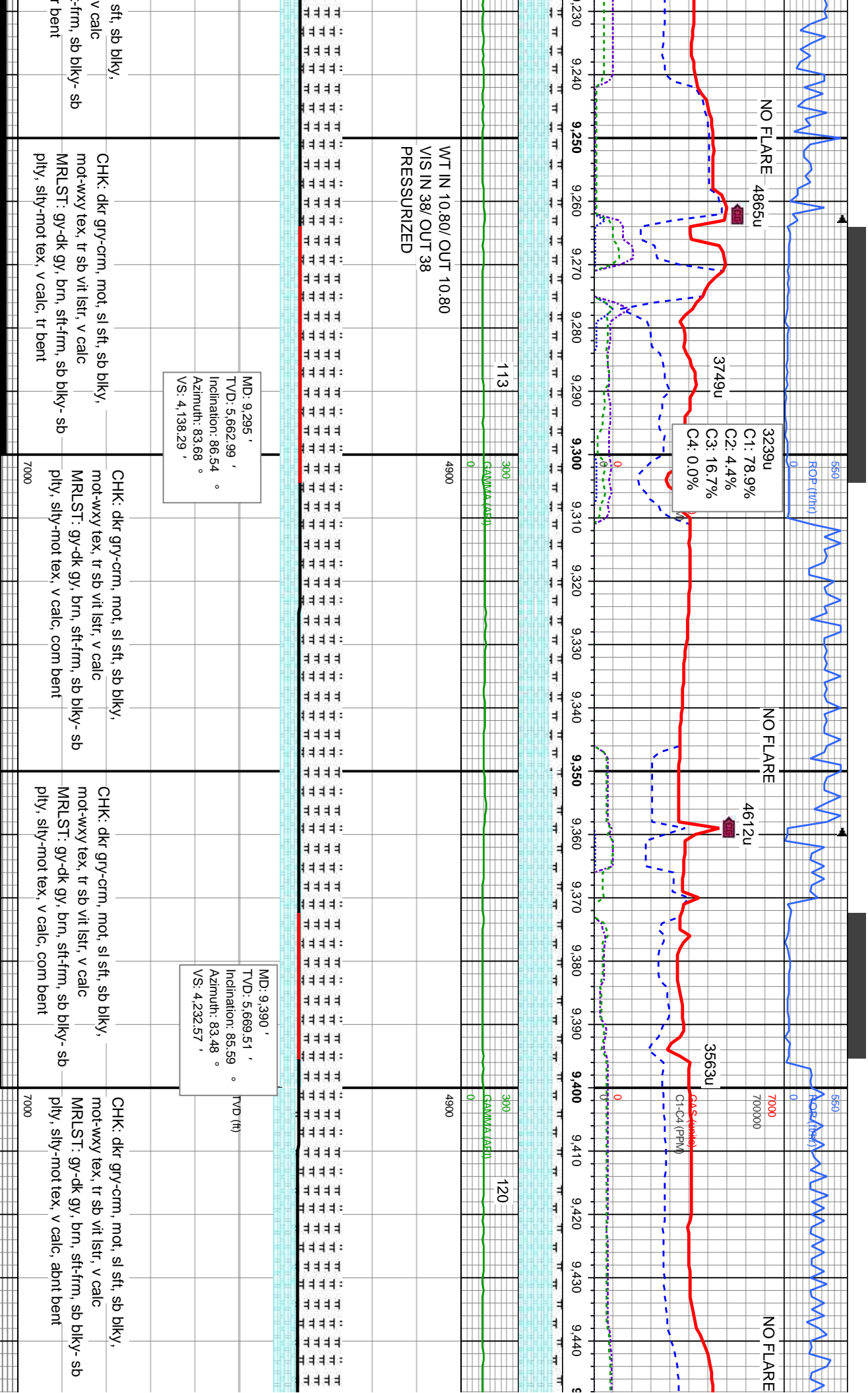
MRLST: gy-lt gy, brn, sft-firm, sb blk-y-sb
pily, silty-mot tex, v calc
CHK: gry-crm, mot, sl sft, sb blk-y,
mot-wxy tex, tr sb vit lstr, v calc, occ bent

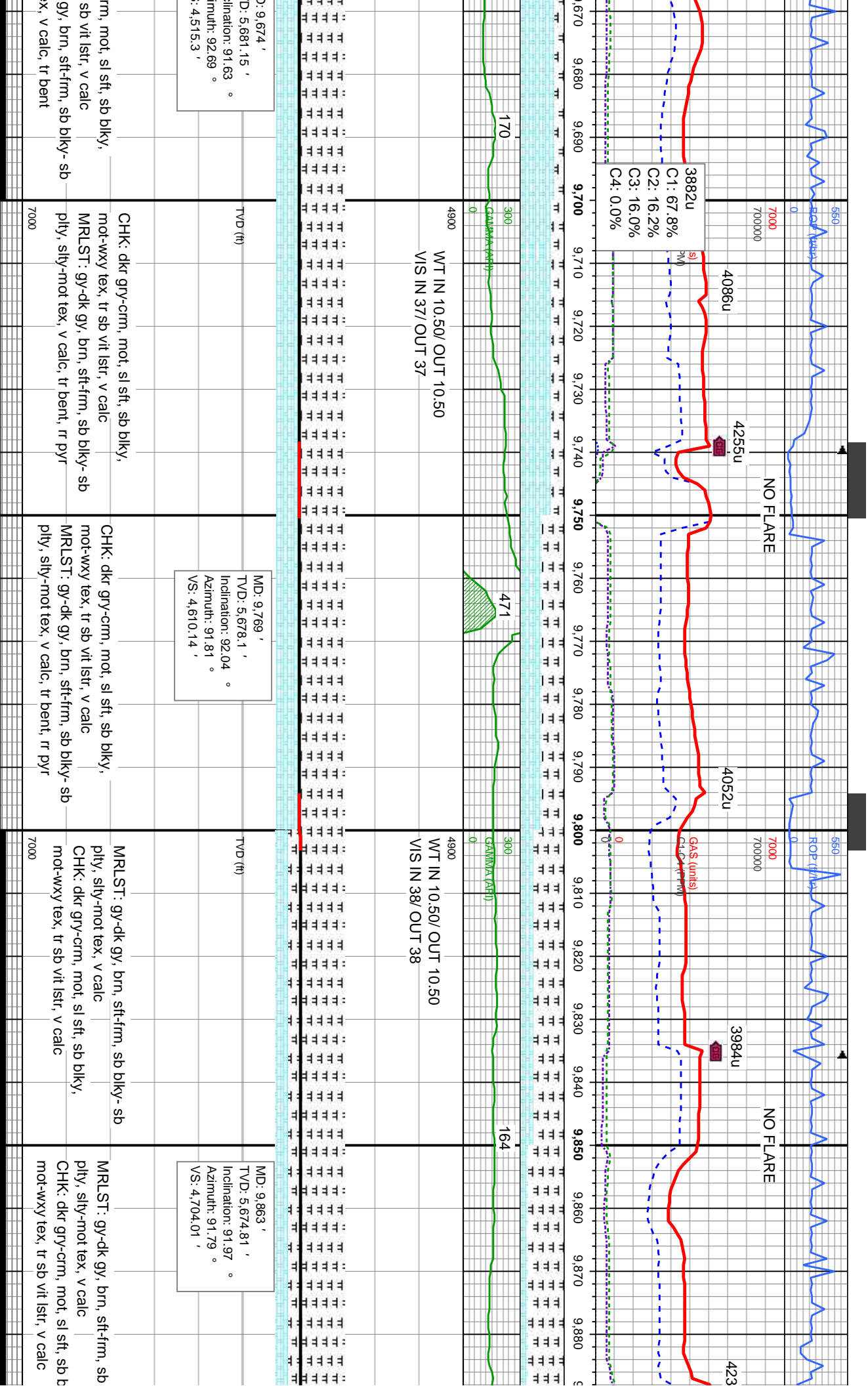
MRLST: gy-lt gy, brn, sft-firm, sb blk-y-sb
pily, silty-mot tex, v calc
CHK: gry-crm, mot, sl sft, sb blk-y,
mot-wxy tex, tr sb vit lstr, v calc

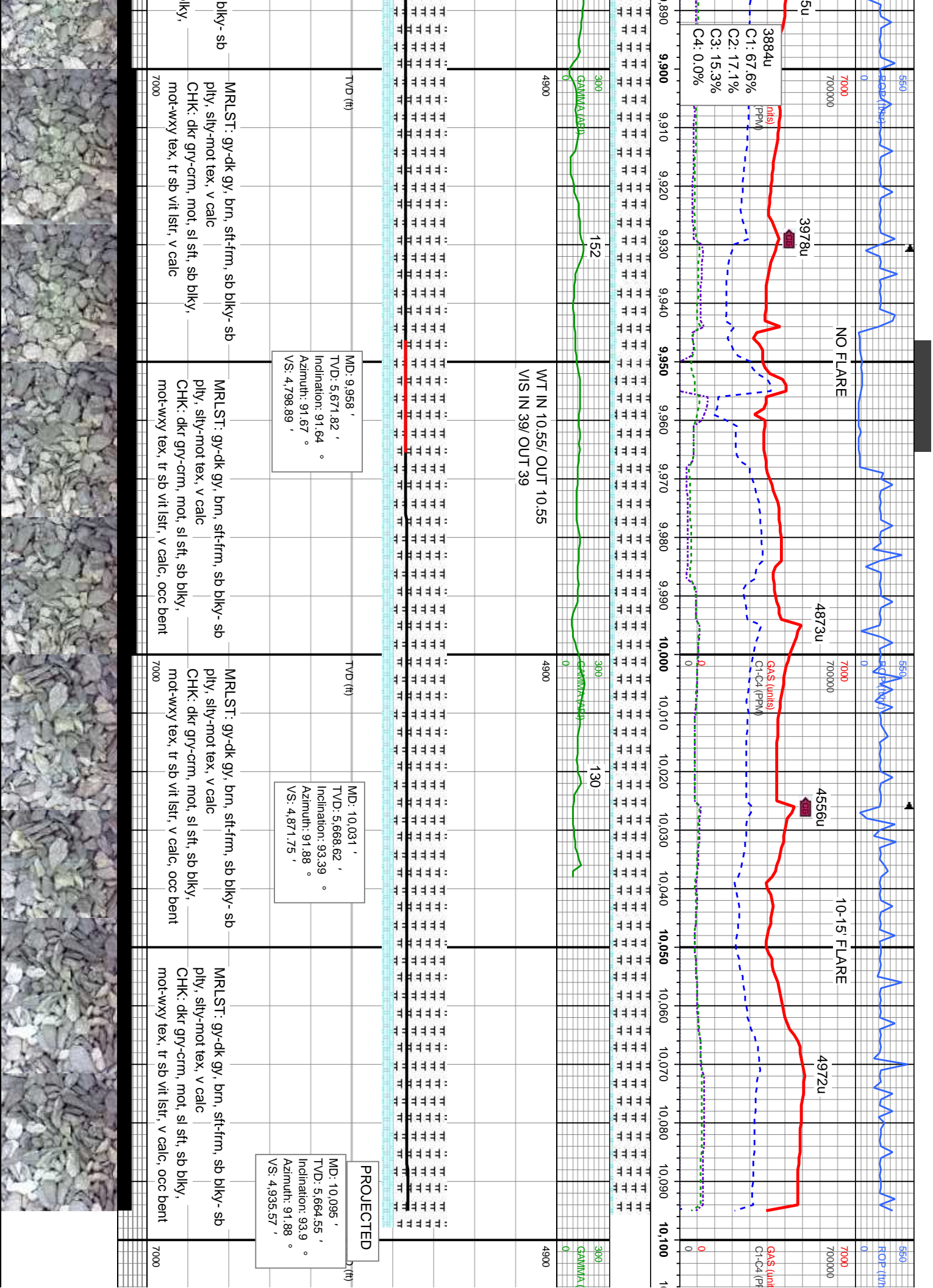
MRLST: gy-lt gy, brn, sft-firm, sb blk-y-sb
pily, silty-mot tex, v calc
CHK: gry-crm, mot, sl sft, sb blk-y,
mot-wxy tex, tr sb vit lstr, v calc

MRLST: gy-lt gy, brn, sft-firm, sb blk-y-sb
pily, silty-mot tex, v calc
CHK: gry-crm, mot, sl sft, sb blk-y,
mot-wxy tex, tr sb vit lstr, v calc

MRLST: gy-lt gy, brn, sft-firm, sb blk-y-sb
pily, silty-mot tex, v calc
CHK: gry-crm, mot, sl sft, sb blk-y,
mot-wxy tex, tr sb vit lstr, v calc







NOBLE ENERGY INC.
ROHN STATE LD03-62HN
TD @ 10095 MD
09/20/2014 @ 04:37 AM
THANK YOU
COLUMBINE LOGGING

10,110	10,120	10,130	10,140	10,150
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API)