



Scale: 5' / 100'  
Measured Depth Log

Well Name SHOOK 3-10-5CDH\_LATERAL

Location SECTION 3 T1S R67W

State COLORADO

County ADAMS

Country USA

Rig Number ENSIGN 145

API Number 05-001-09979

AFE # 1700013

Geographic Region DJ BASIN

Field WATTENBERG

Spud Date 4/17/2017

Drilling Completed 7/26/2017

Surface Coordinates Section 3, 2058' FSL x 2139' FEL

39.99222, -104.87317

Bottom Hole Coordinates

Section 10, 399' FSL x 1249' FEL  
39.973388, -104.869884

Ground Elevation 5098'

K.B. Elevation 5111'

Logged Interval 7500' To 14024'

Total Depth 6524'

Formation NIOBRARA A BENCH thru CODELL

Type of Drilling Fluid OBM - OIL BASED MUD

Operat

Company PetroShare Corporation

Address 7200 S Alton Way  
Englewood, CO 80112



Geolog

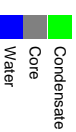
Name JOEY LUCE, SAGE BETTS

Company TERRA GUIDANCE

Address 1298 O Road  
Loma CO 81524  
(970) 260-5408



Color Co



or

SHARE

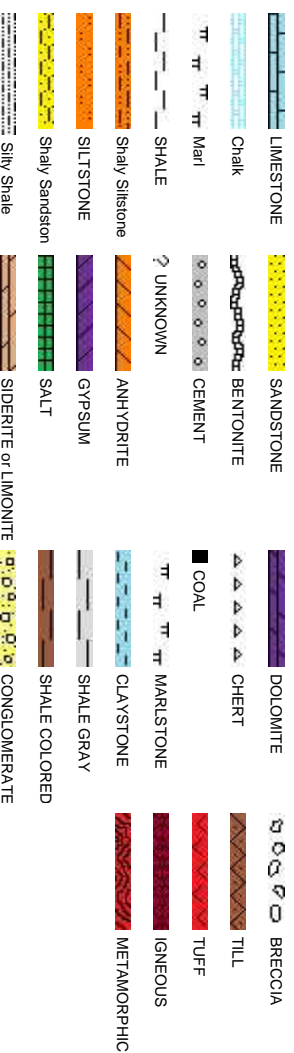
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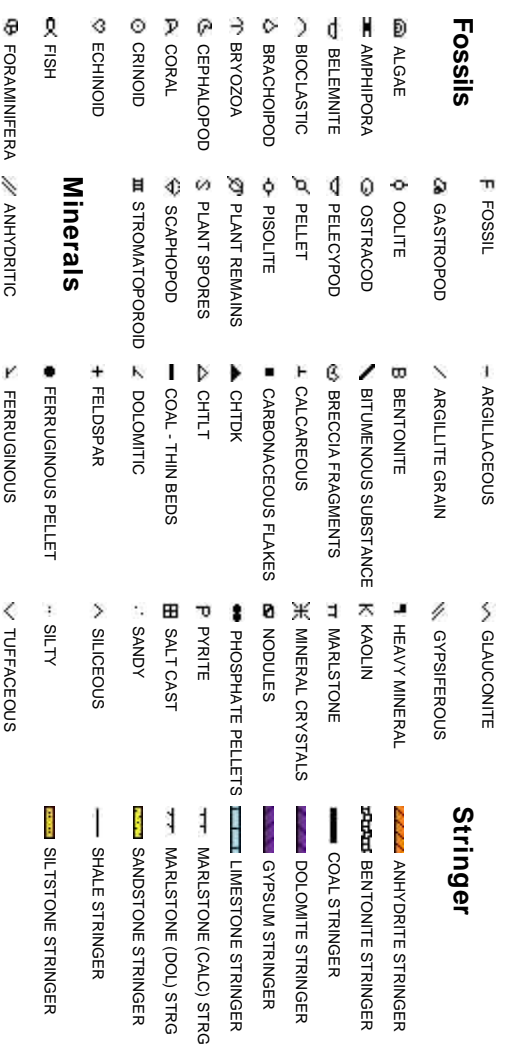
ding



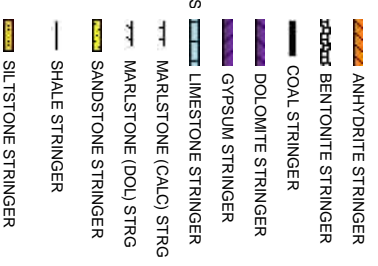
## Rock Types



## Accessories



## Stringer



## Oil Show



## Engin

## Porosity




Other Symbols

 FORMATION TOP

L LITHOGRAPHIC

Rounding

 GAS SHOW

MX MICROXLN

 MIN DEPTH


A ANGULAR

MS MUDSTONE

 NORMAL FAULT

R ROUNDED

PS PACKSTONE

 OIL SHOW

a SUBANG

WS WACKESTONE


Seering

 OVERTURNED STRATA


r SUBRND

 REVERSE FAULT

Textures

 SIDEWALL CORE (LEFT)

M MODERATE

 SIDEWALL CORE (RIGHT) BS BOUNDSTONE P POOR


 SLIDE

C CHALKY

W WELL


 LOST SURVEY


CX CRYPTOXLN

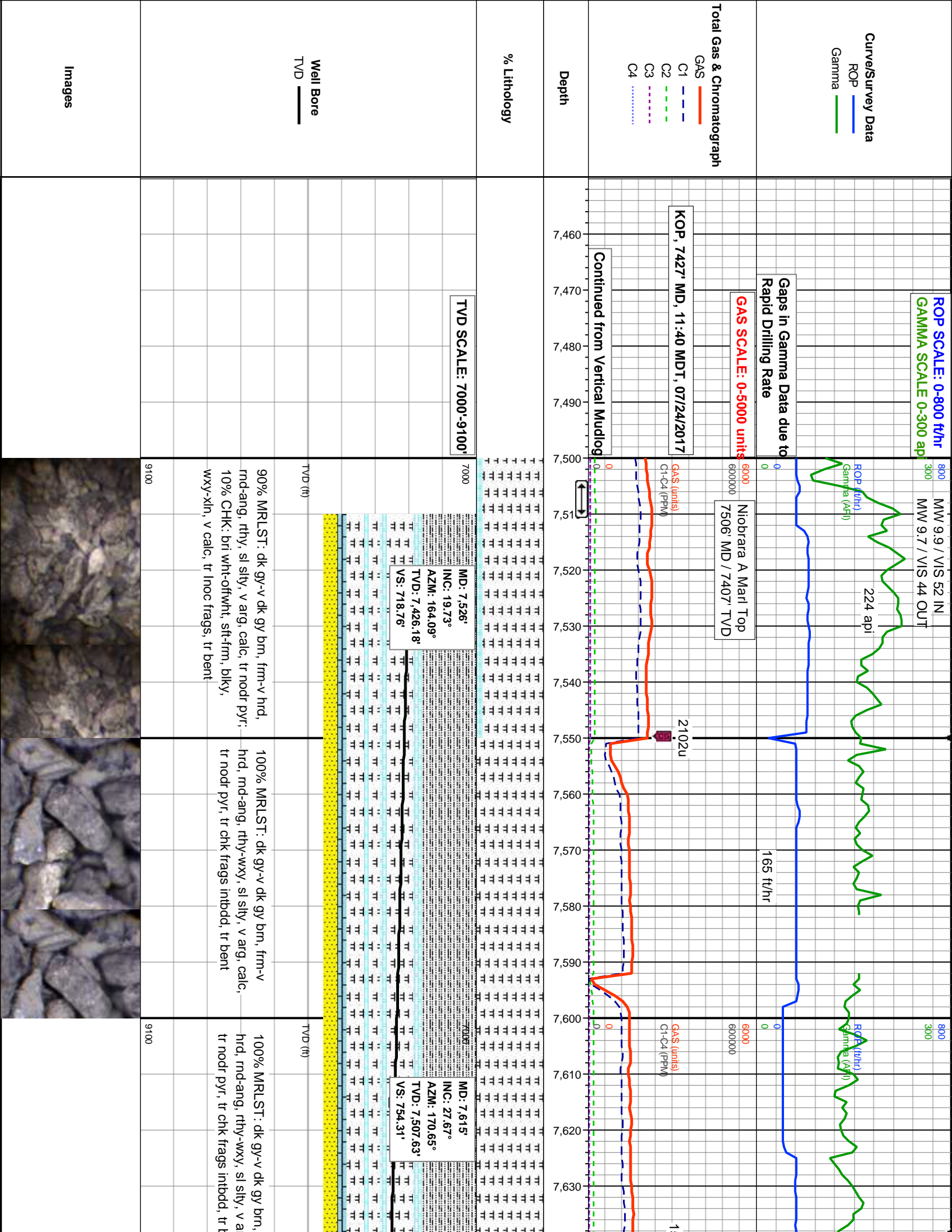
 RECOVERED TRIP GAS

E EARTHY

ConnectionGas(Vert)

 WIRELINE TESTED - LEFT FX FINELYXLN

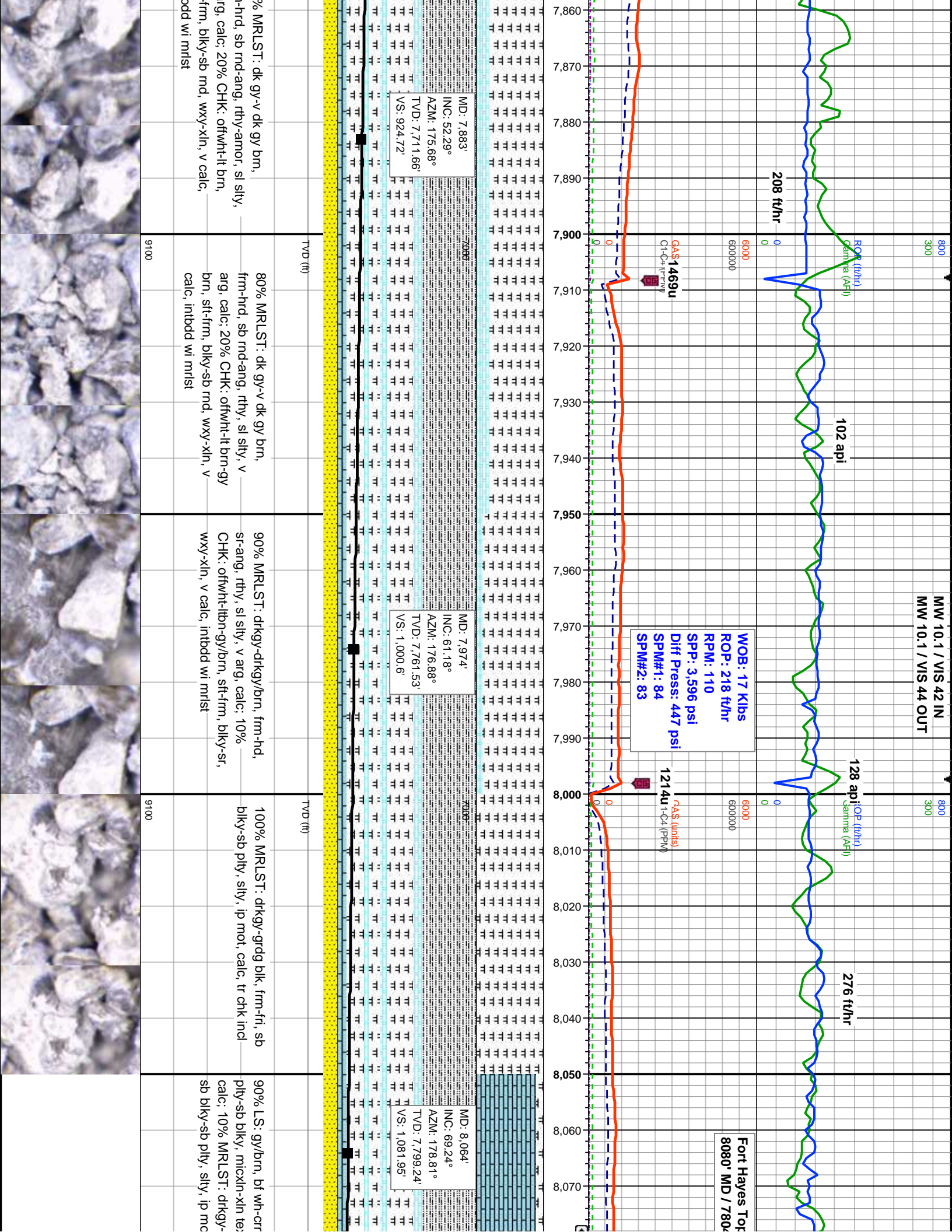
 WIRELINE TESTED - RT BS GRAINSTONE







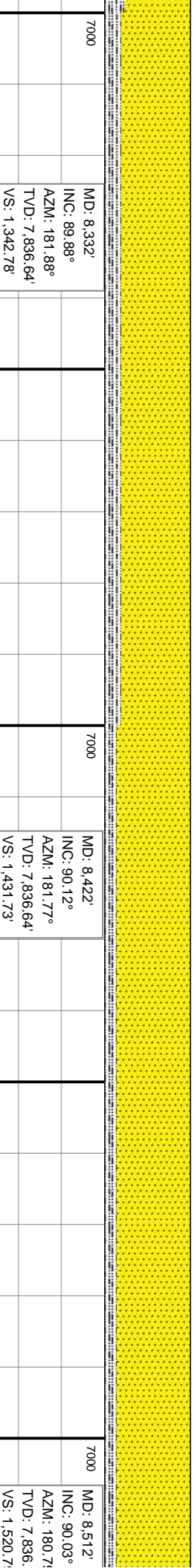
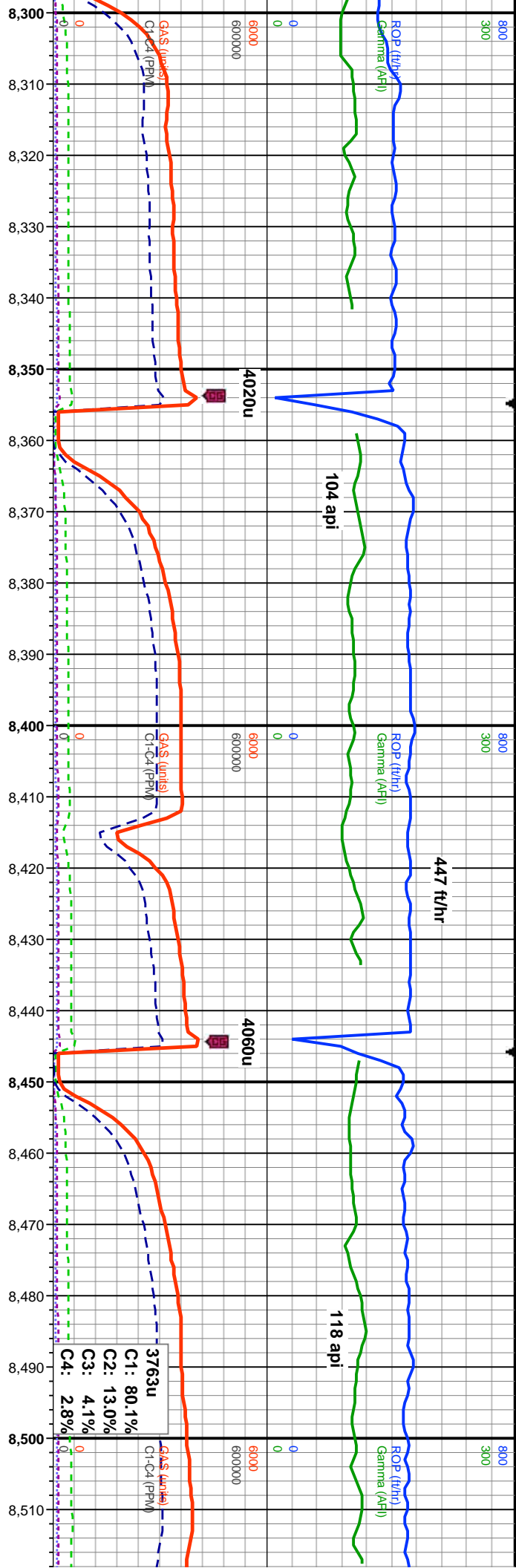




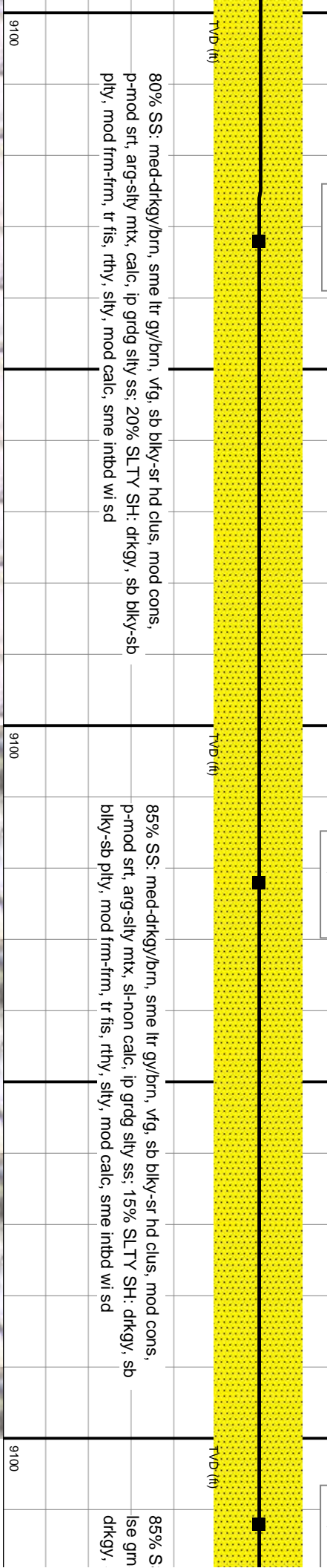








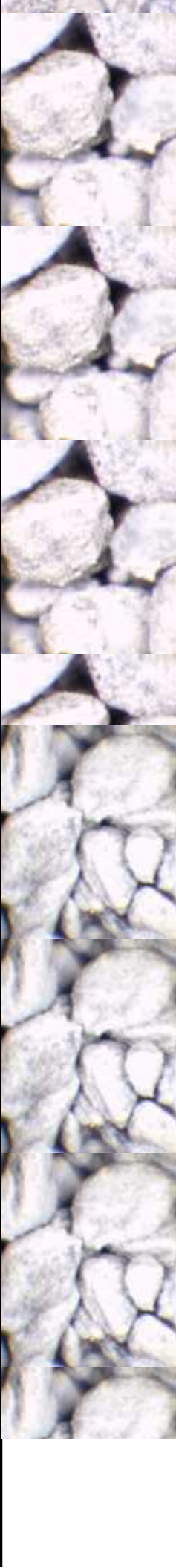
MD: 8.422'  
INC: 90.12°  
AZM: 181.77°  
TVD: 7.836.64'  
VS: 1.431.73'



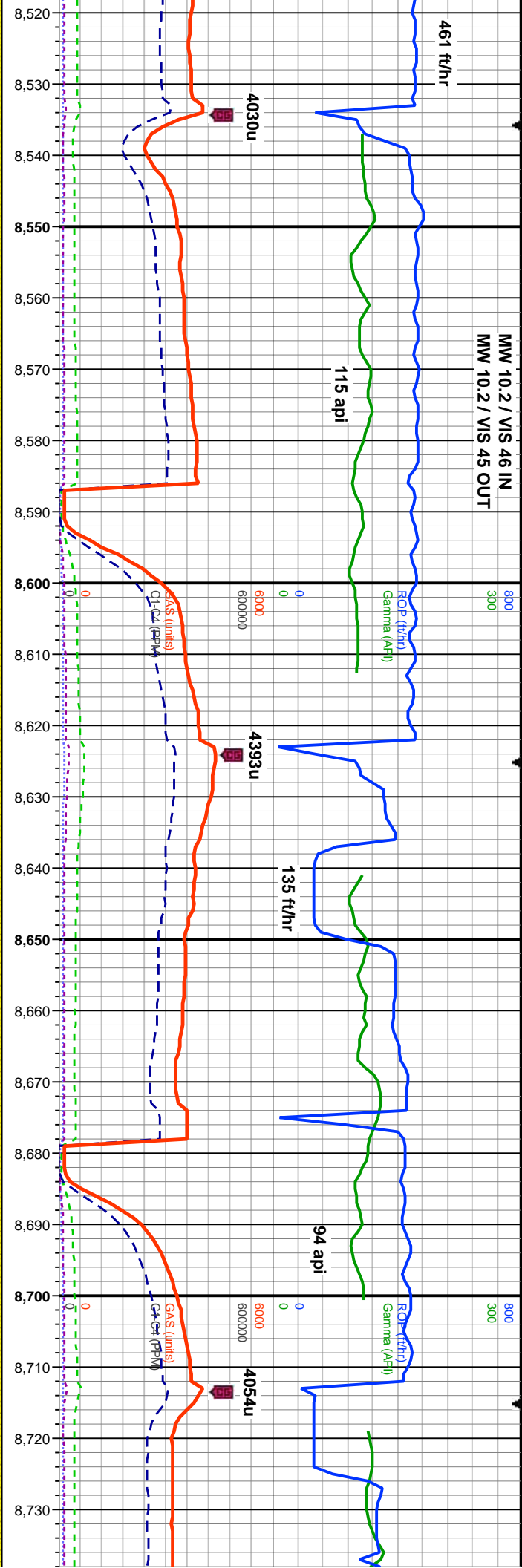
80% SS: med-drtgy/brn, sme ltr gy/brn, vfg, sb blk-y-sr hd clus, mod cons,  
p-mod srt, arg-sltly mtz, calc, ip grdg slty ss: 20% SLTY SH: drtgy, sb blk-y-sb  
plty, mod frm-frm, tr fis, rthy, slty, mod calc, sme intbd wi sd

85% SS: med-drtgy/brn, sme ltr gy/brn, vfg, sb blk-y-sr hd clus, mod cons,  
p-mod srt, arg-sltly mtz, sl-non calc, ip grdg slty ss: 15% SLTY SH: drtgy, sb  
blk-y-sb plty, mod frm-frm, tr fis, rthy, slty, mod calc, sme intbd wi sd

85% S  
lse grm  
drtgy,

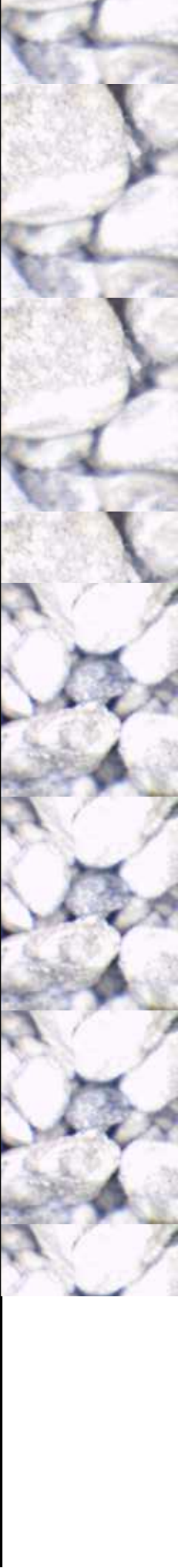


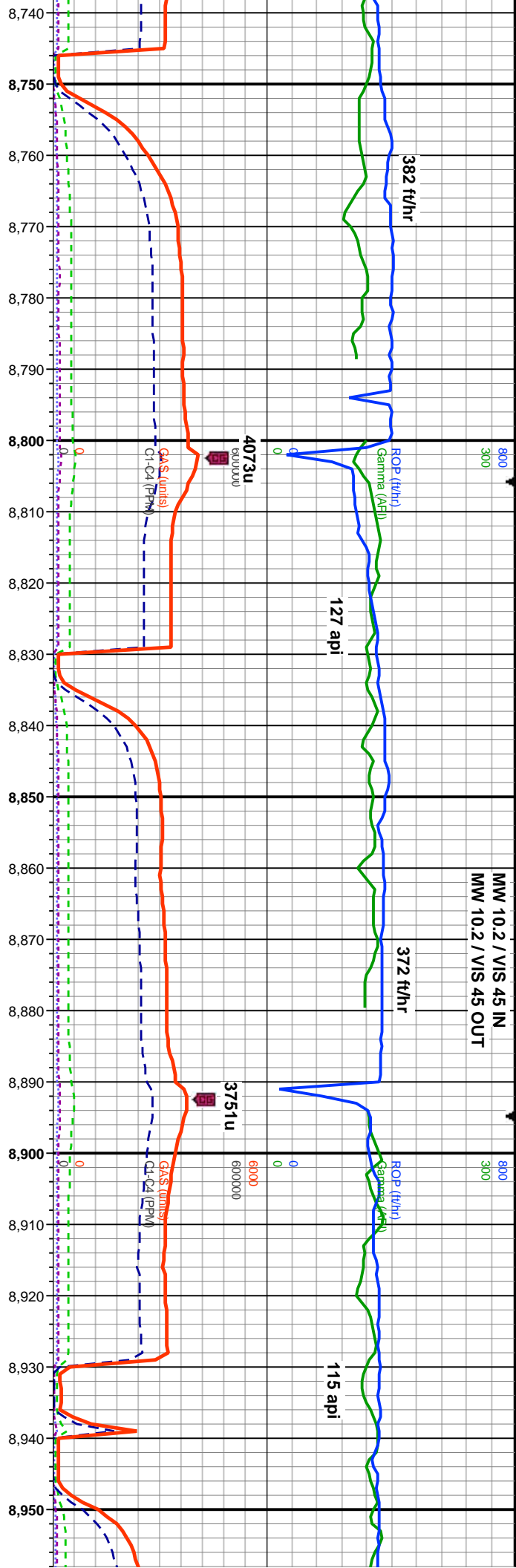




9°	MD: 8.602'	INC: 89.88°	AZM: 178.29°	TVD: 7.836.59'	VS: 1.610.21'
9'	MD: 8.692'	INC: 90°	AZM: 177.78°	TVD: 7.836.69'	VS: 1.699.86'

90°	90°	9100	9100
9100	9100	9100	9100





MD: 8,781'  
INC: 89.66°  
AZM: 177.81°  
TVD: 7,836.95'  
VS: 1,788.55'

MD: 8,871'  
INC: 89.51°  
AZM: 178.44°  
TVD: 7,837.6'  
VS: 1,878.2'

MD: 8,871'  
INC: 89.51°  
AZM: 178.44°  
TVD: 7,837.6'  
VS: 1,878.2'

TVD (ft)

TVD (ft)

sme ltr gy/brn, vfg, sb blk-y-sr hd clus, mod cons, sme  
y mt, sl-non calc, ip grdg silty ss, 15% SLTY SH:  
d frm-frm, tr fis, rthy, silty, sme intbd wi sd

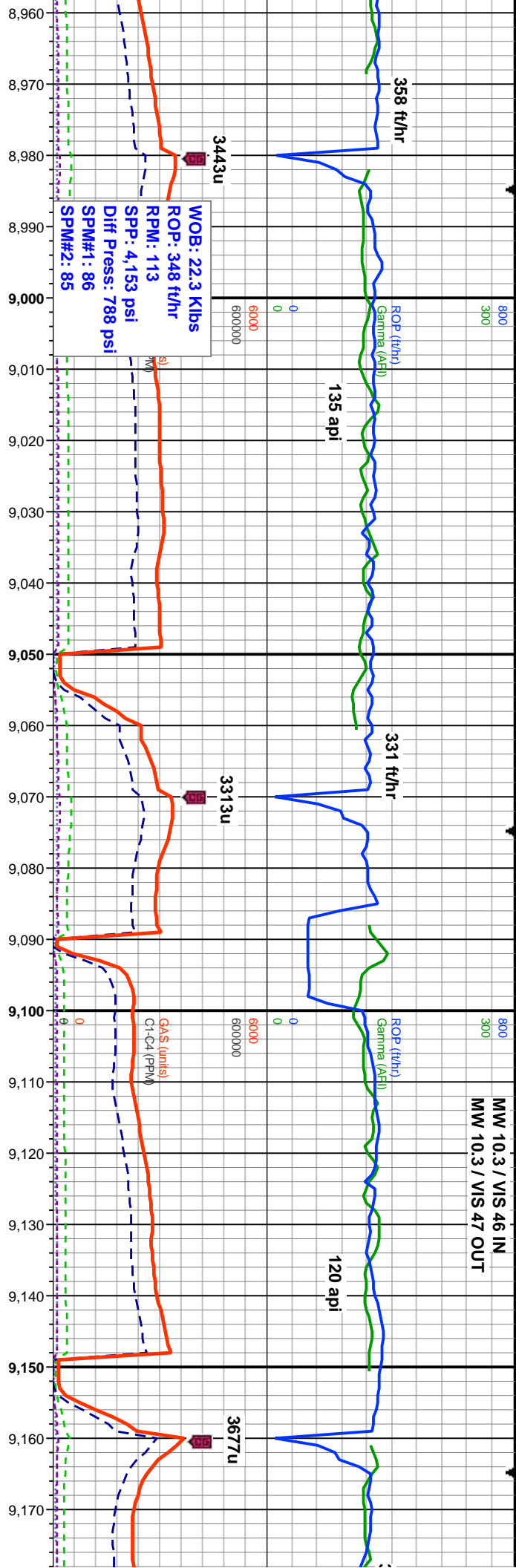
90% SS: med-dtkgy/brn, lbn-bf, vfg, sb blk-y-sr clus, mod-ply cons, lse grns,  
mod srt, arg-silty mt, sl-non calc; 10% SLTY SH: dtkgy, sb blk-y-sb ply, mod  
frm, ip fis, rthy, silty, sme intbd wi sd

95% SS: med-dtkgy/brn, lbn-bf, vfg, sb blk-y  
mod srt, arg-silty mt, sl-non calc; 5% SLTY  
ip fis, rthy, silty, sme intbd wi sd

9100

9100

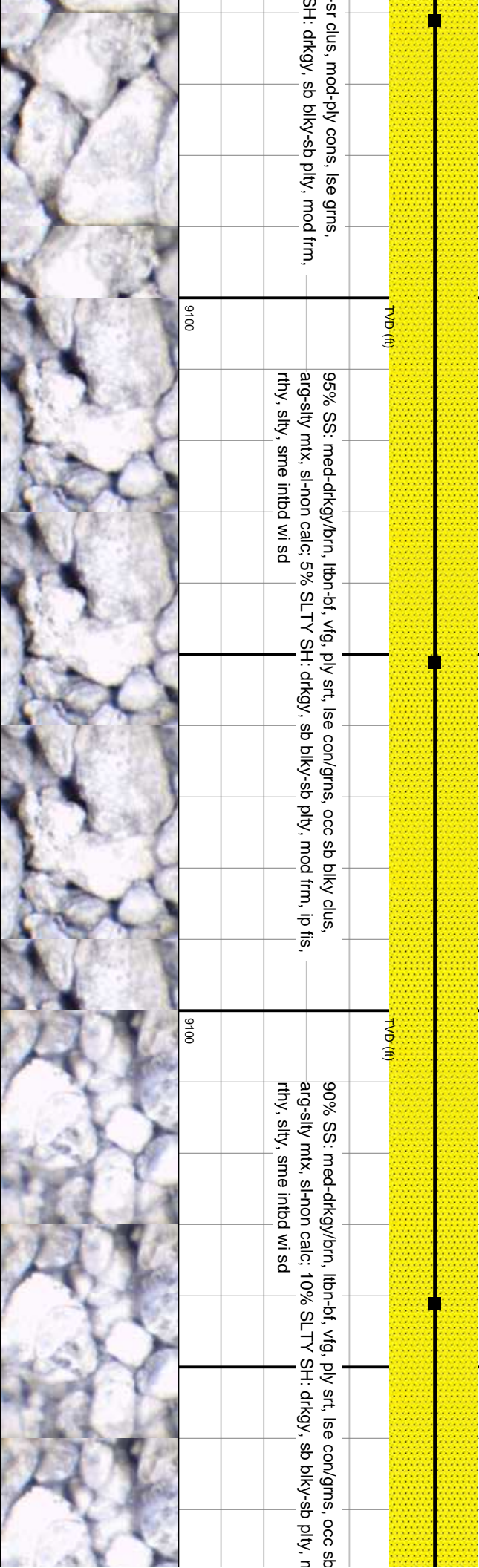




MD: 8.961'  
INC: 89.66°  
AZM: 180.65°  
TV/D: 7.838.25'  
VS: 1.967.61'

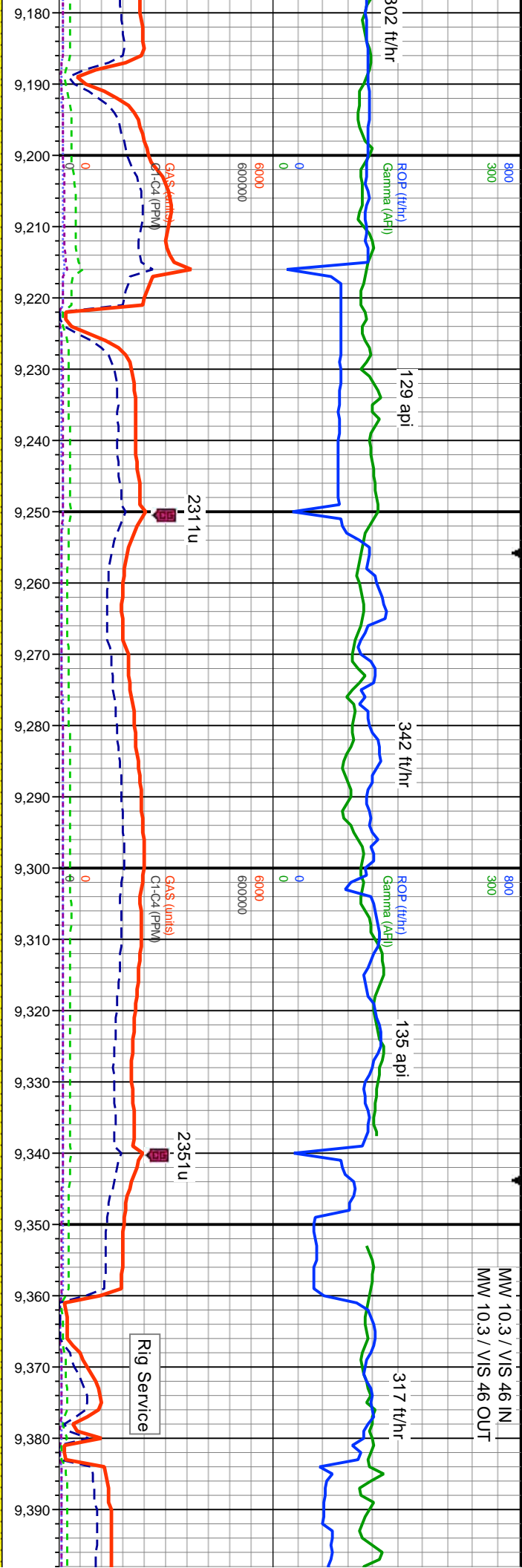
MD: 9.051'  
INC: 89.57°  
AZM: 183.13°  
TV/D: 7.838.86'  
VS: 2.056.52

MD: 9.141'  
INC: 89.57°  
AZM: 183.18°  
TV/D: 7.839.53'  
VS: 2.145.12'





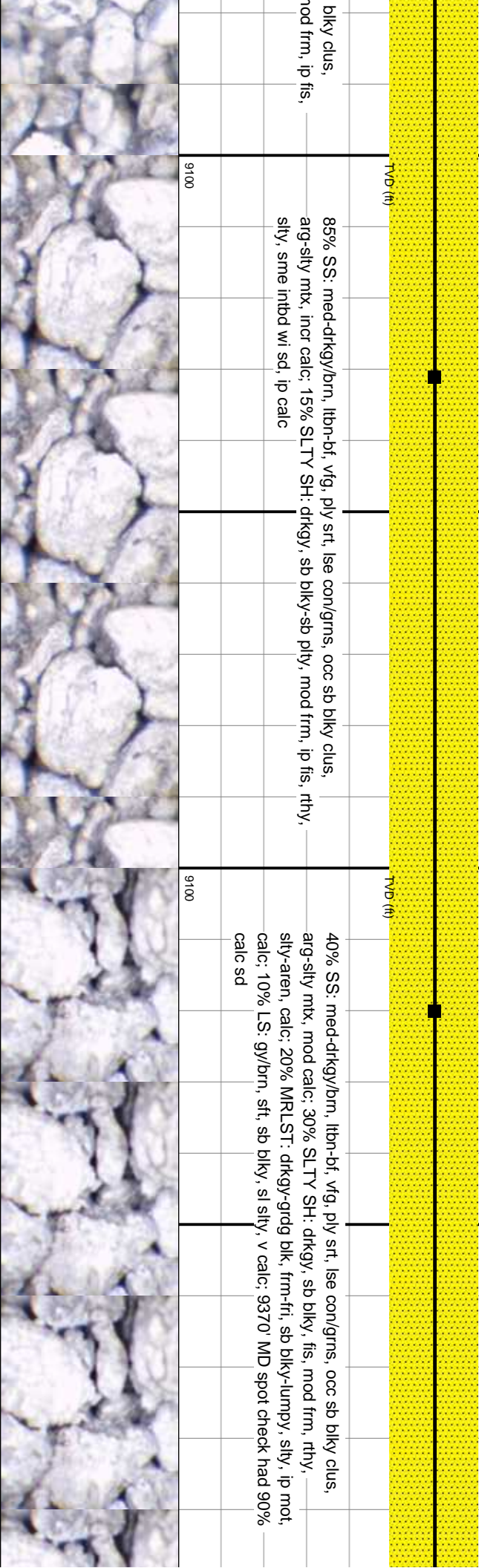
MW 10.3 / VIS 46 IN  
MW 10.3 / VIS 46 OUT



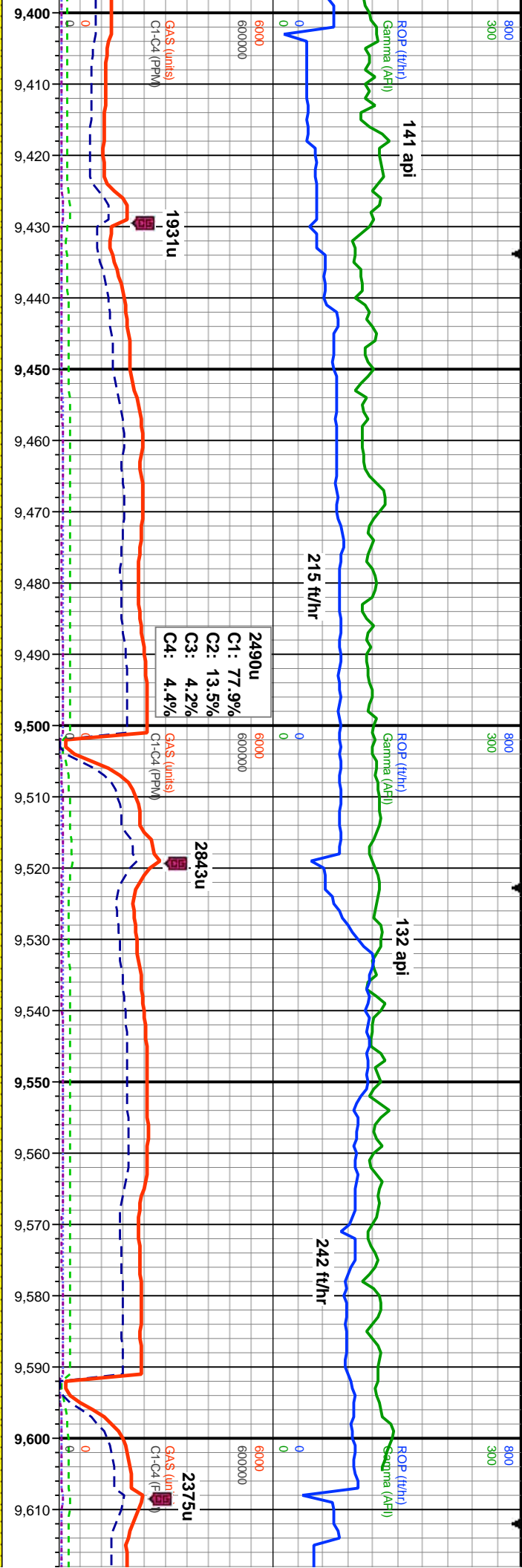
MD: 9.231'  
INC: 89.6°  
AZM: 183.27°  
TVD: 7,840.19'  
VS: 2.233.7

MD: 9.320'  
INC: 89.63°  
AZM: 183.88°  
TVD: 7,840.78'  
VS: 2.321.19'

Contaminated Cuttings from Rig Service





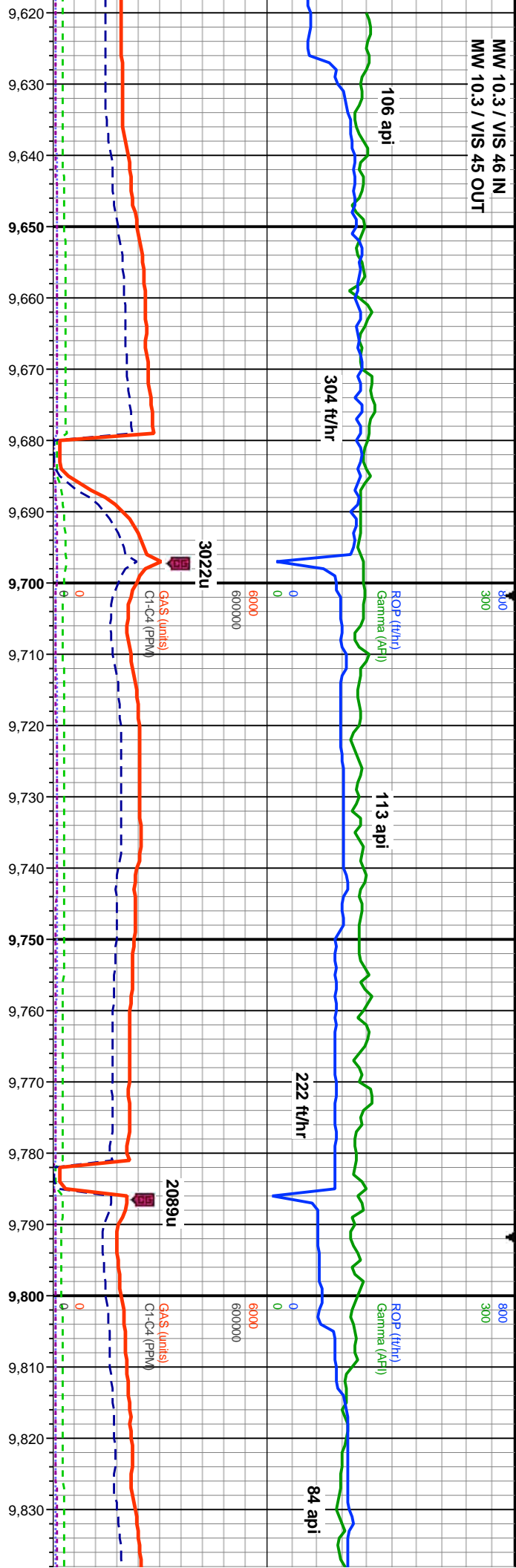


7000	MD: 9.410' INC: 89.82° AZM: 183.33° TVD: 7.841.22' VS: 2.409.66'	MD: 9.499' INC: 89.88° AZM: 182.65° TVD: 7.841.45' VS: 2.497.32'	MD: 9.589' INC: 89.75° AZM: 182.77° TVD: 7.841.74' VS: 2.586.04'	7000
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9100	TVD (ft)	65% SS: med-drkgy/brn, vfg, ply srt, ply cons, abnt lse grns, occ sb blkly clus, arg-sily mtx, sl-non calc, tr ls flks: 35% SLTY SH: drkgy-dk brn, sb blkly-sb ply, mod sft, ip fis, rthy, sily, sme intbd wi sd, ip calc	9100	TVD (ft)	70% SS: med-drkgy/brn, vfg, ply srt, ply cons, abnt lse grns, occ sb blkly clus, arg-sily mtx, sl-non calc: 30% SLTY SH: drkgy-grdg blk, sb blkly, mod sft-frn, ip fis-brt, rthy, sily, aren, v sl calc	9100	TVD (ft)	60% SS: ang clus, sb blkly, n
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MW 10.3 / VIS 46 IN  
MW 10.3 / VIS 45 OUT



MD: 9.678'  
INC: 90.25°  
AZM: 182.49°  
TVD: 7.841.74'  
VS: 2.673.79'

MD: 9.768'  
INC: 89.91°  
AZM: 180.49°  
TVD: 7.841.61'  
VS: 2.762.81'

TVD (ft)

TVD (ft)

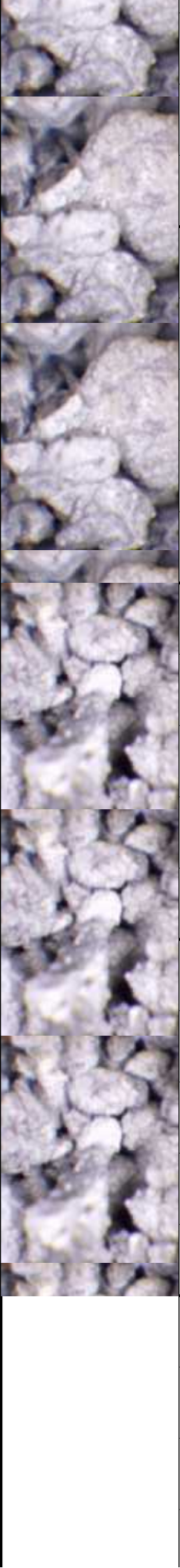
med-dtgy/brn, vfg, p-mod srt, mod cons, scat lse grns, sb blk/sb  
arg-sily mtx, sl calc, tr nodr pyr, 40% SLTY SH: dtgy, gy/brn, grd blk,  
mod srt-frm, ip fis-brt, rthy, sily, aren, v sl calc

90% SS: med-dtgy/brn, sme lbn-bf, vfg, ply srt, lse con, scat grns, occ sb blk/sb  
clus, arg-sily mtx, sl-mod calc, 10% SLTY SH: dtgy, sb blk/sb ply, mod frm,  
ip fis, rthy, sily-aren, ip intbd w/ sd, ip calc

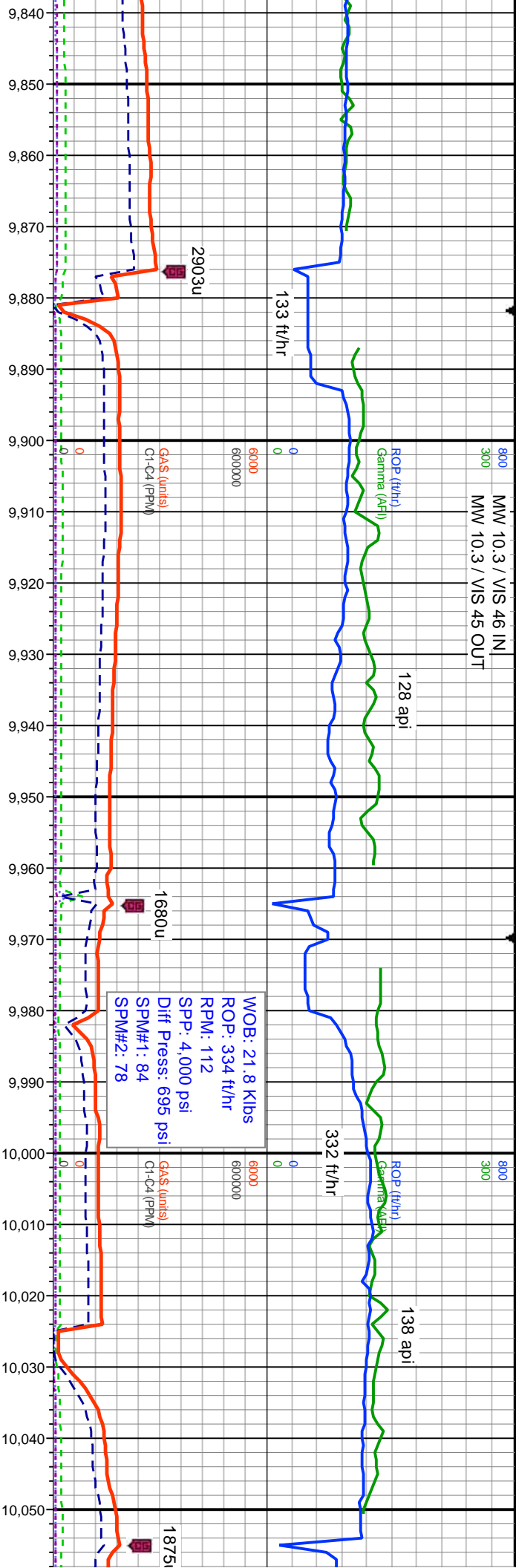
85% SS: med-dtgy/brn, sm  
clus, arg-sily mtx, sl-mod cal  
ip fis, rthy, sily-aren, ip intbd

9100

9100







MD: 9.857'  
INC: 89.97°  
AZM: 179.11°  
TVD: 7.841.71'  
VS: 2.851.18'

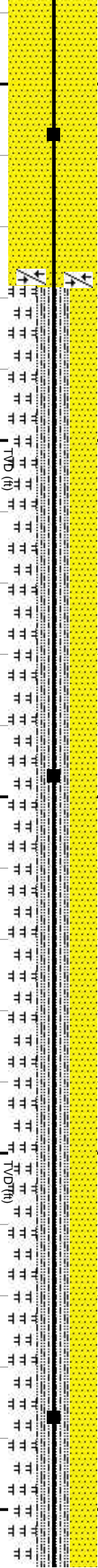
Potential D/U Fault: Upper Carlie

7000

MD: 9.947'  
INC: 89.78°  
AZM: 176.96°  
TVD: 7.841.9'  
VS: 2.940.83'

7000

MD: 10.037'  
INC: 90.15°  
AZM: 176.66°  
TVD: 7.841.96'  
VS: 3.030.64'



75% SS: med-dkgy/bm, sme lbn-bf, vfg, ply srt, lse con, scat grns, occ sb blkly  
clus, arg-sltly mtk, sl-mod calc: 25% SLTY SH: drkgy-grdg blk, sb blkly-sb ply,  
mod frm, ip fis, rthy, slty-aren, ip intbd wi sd, ip calc

9100

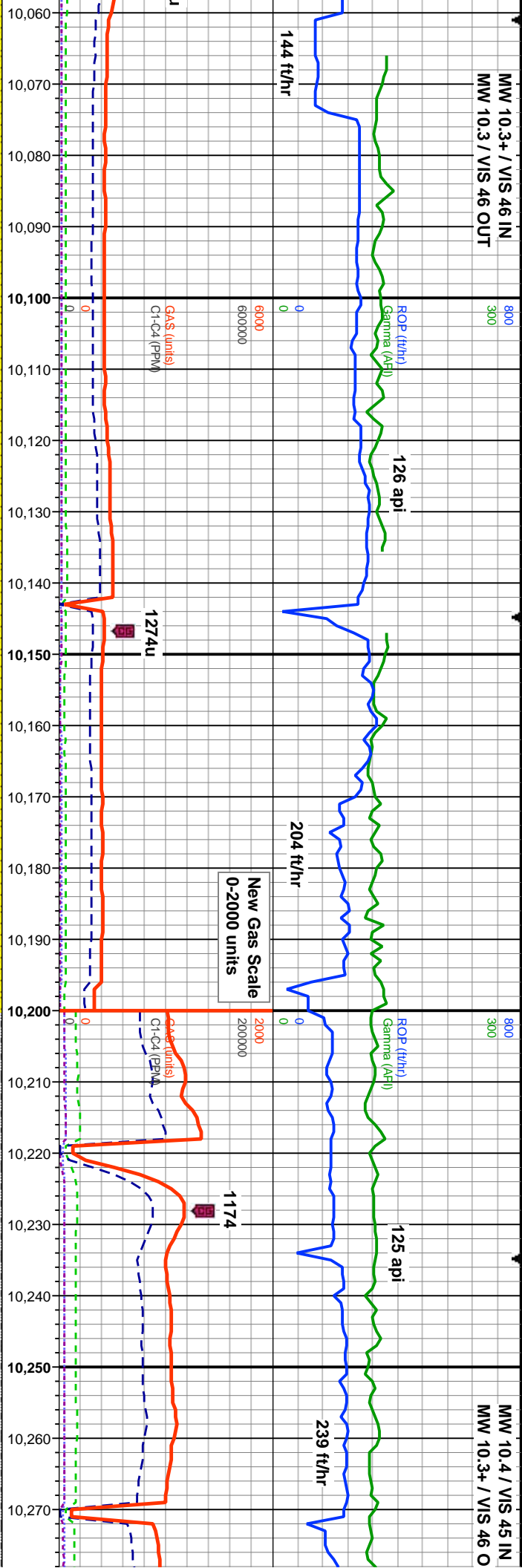
9100

70% SS: med-dkgy/bm, sme lbn-bf, vfg, ply srt, lse con, scat grns, occ sb blkly  
clus, arg-sltly mtk, sl-mod calc: 30% SLTY SH: drkgy-grdg blk, sb blkly-sb ply,  
mod frm, ip fis, rthy, slty-aren, ip intbd wi sd, ip calc





MW 10.3+ / VIS 46 IN  
MW 10.3 / VIS 46 OUT



MD: 10.127'  
INC: 89.94°  
AZM: 178.24°  
TVD: 7.841.89'  
VS: 3.120.37'

MD: 10.217'  
INC: 89.6°  
AZM: 179.57°  
TVD: 7.842.25'  
VS: 3.209.89'

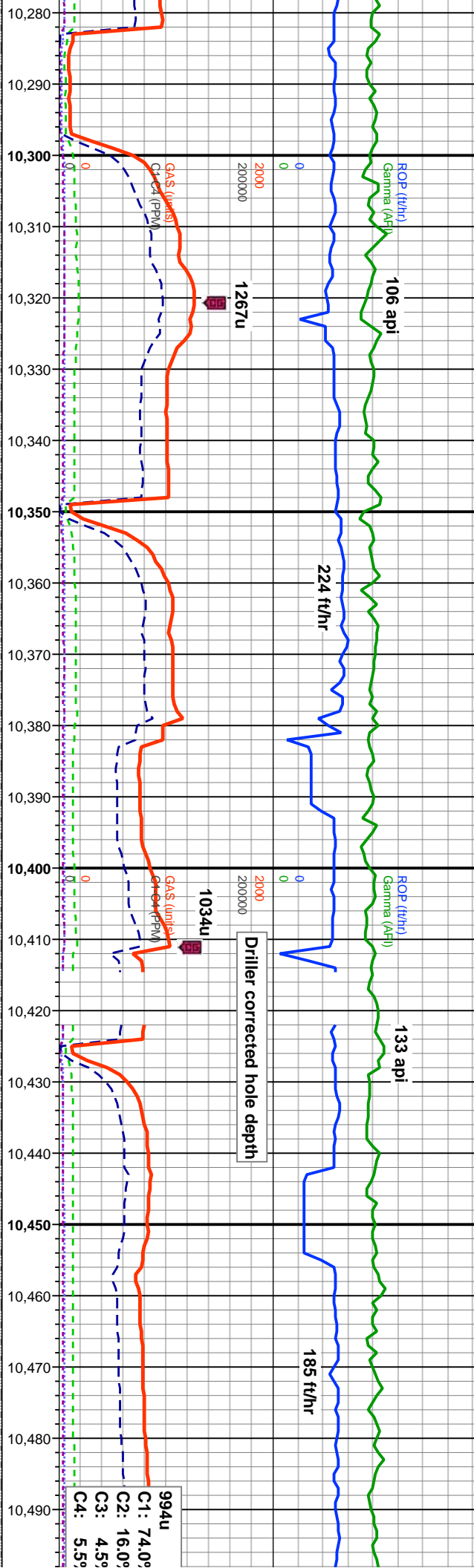
sft, lse con, scat grms, occ sb blk  
dtkgy-grdg blk, sb blk-ly-sb ply,  
calc, incr mlst character

45% SLTY SH: dk gy-v dk gy-blk, frm, sb blk-ly-sb ply, ip fis, rthy, silty-aren, ip  
intbd wi sd, calc; 40% SS: med dk gy-v dk gy, rnd-sb rnd, vfg, grdg silty, ply srt,  
lse cons, v arg mtx, mod-com calc cmt; 15% MRLST: med dk gy-dk gy, sft-frm,  
rnd, rthy, v arg, calc

50% MRLST: med dk gy-v dk gy, sft-frm, rnd-sb rnd, rthy-amor, v v  
silty, calc; 50% SLTY SH: dk gy-v dk gy, frm, sb blk-ly-sb ply, ip fis,  
calc



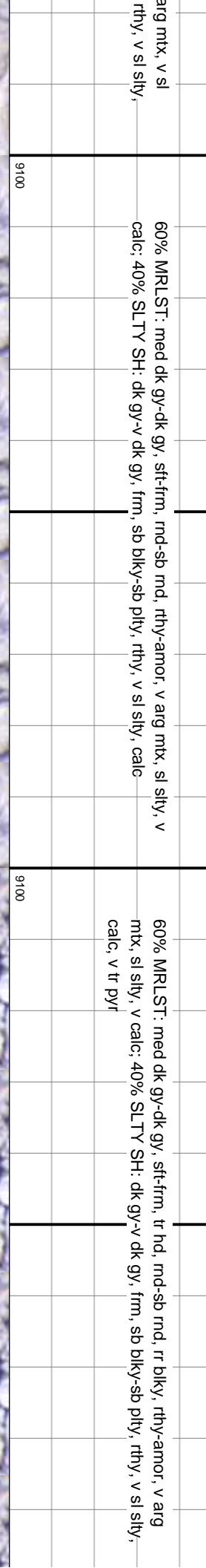




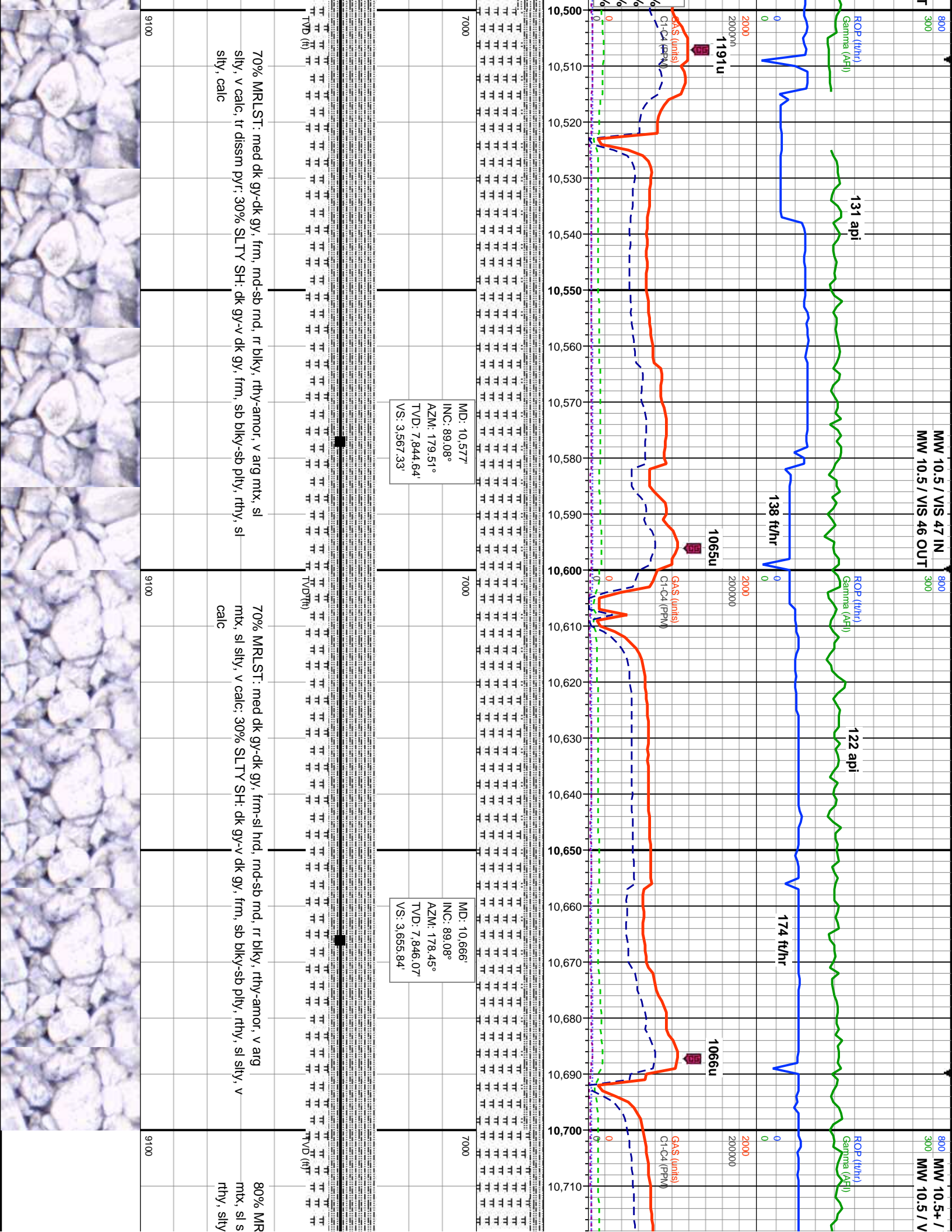
MD: 10,308'  
INC: 89.45°  
AZM: 179.57°  
TVD: 7,843'  
VS: 3,300.3'

MD: 10,398'  
INC: 89.51°  
AZM: 179.91°  
TVD: 7,843.82'  
VS: 3,389.68'

MD: 10,487'  
INC: 90.18°  
AZM: 180.38°  
TVD: 7,844.06'  
VS: 3,477.99'



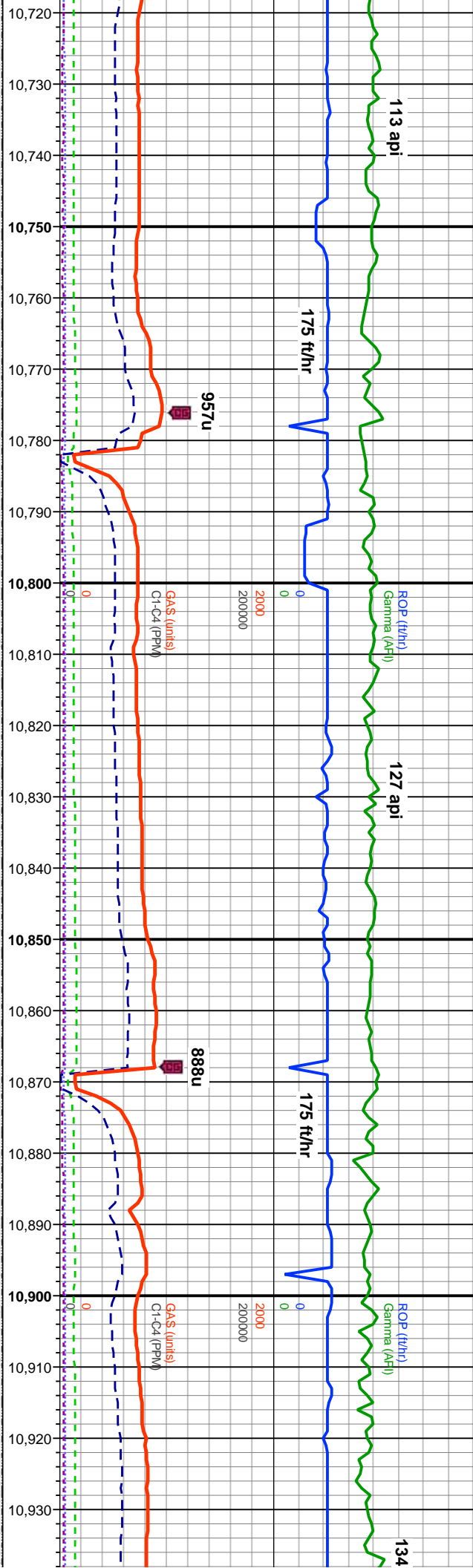




VIS 47 IN  
S 46 OUT

800 MW 10.5+ / VIS 48 IN  
300 MW 10.5+ / VIS 47 OUT

800 MW 10.5  
300 MW 10.5



MD: 10,755'  
INC: 89.08°  
AZM: 177.52°  
TVD: 7,847.5'  
VS: 3,744.49'

MD: 10,844'  
INC: 89.11°  
AZM: 177.96°  
TVD: 7,848.91'  
VS: 3,833.18'

MD: 10,934'  
INC: 89.17°  
AZM: 178.7°  
TVD: 7,850.  
VS: 3,922.7'



LST: med dk gy-dk gy, frm, tr hrd, rnd-sb rnd, rr blk, rthy-armor, v arg  
lty grdg sdy, v calc: 20% SLTY SH: dk gy-v dk gy, frm, sb blk-sb pty,  
, v calc

80% MRLST: med dk gy-dk gy, frm-sl hd, rnd-sb rnd, mnr blk, rthy-armor, v arg  
mtx, sl sly grdg sdy, v calc: 20% SLTY SH: dk gy-v dk gy, frm-hd, sb blk-sb pty,  
rthy, sly, v calc

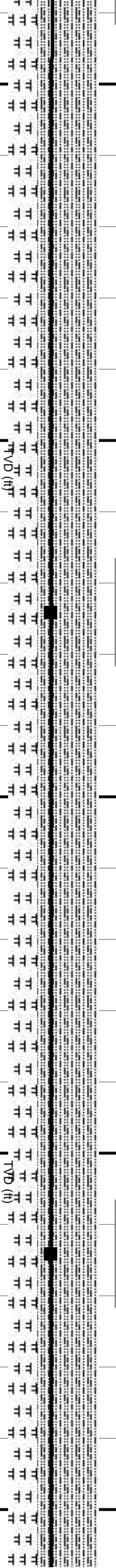
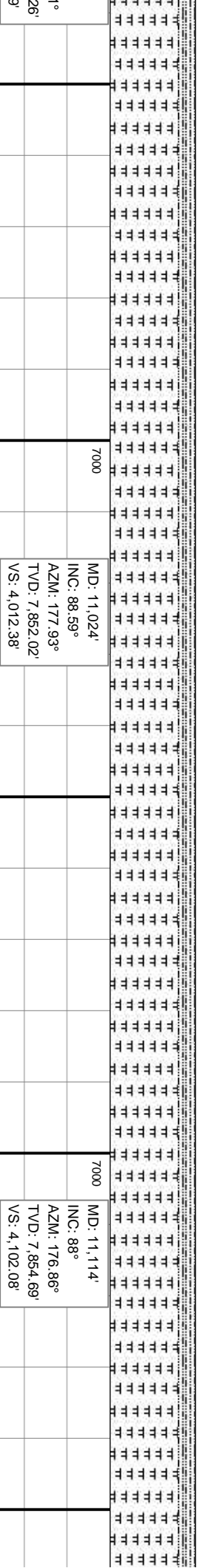
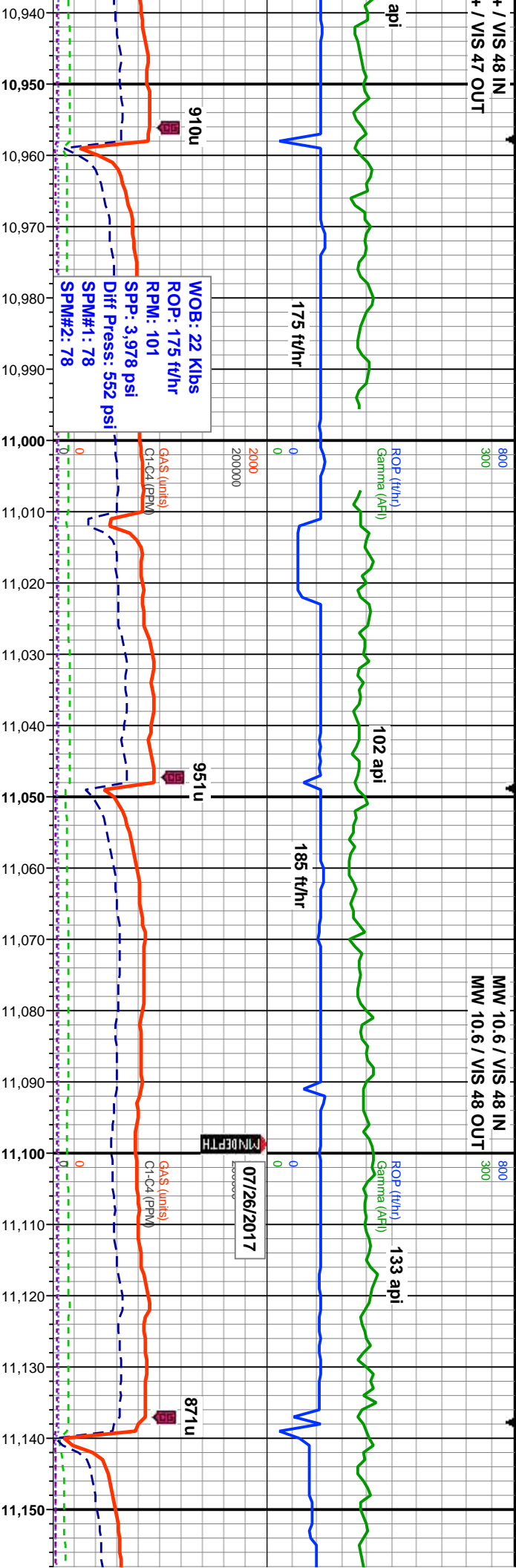
80% MRLST: med dk gy-dk  
mtx, sl sly, v calc: 20% SLT  
v calc





+ / VIS 48 IN  
+ / VIS 47 OUT

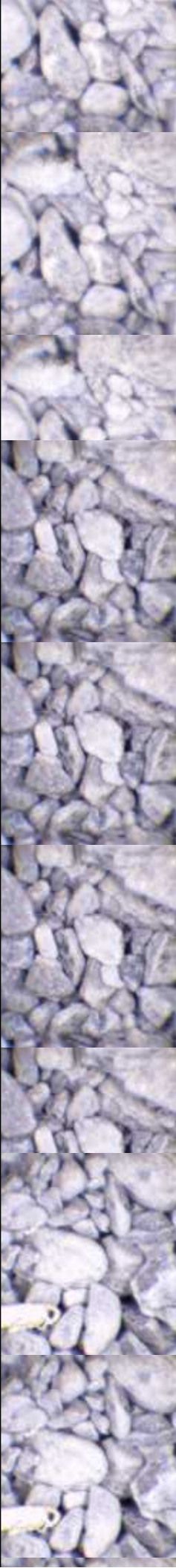
MW 10.6 / VIS 48 IN  
MW 10.6 / VIS 48 OUT



gy, frm-sl hd, md-sb rd, mnr blk, rthy-amor, v arg  
Y SH: dk gy-v dk gy, frm-hd, sb blk-sb plty, rthy, slty,

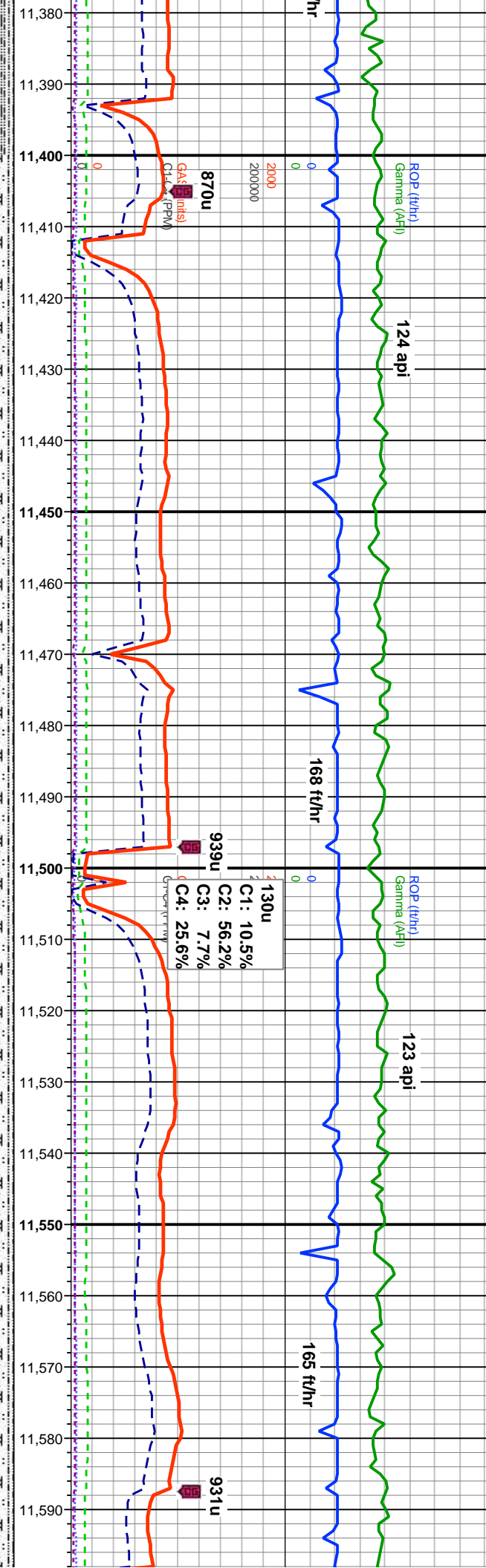
80% MRLST: med dk gy-dk gy, sft-frm, mnr hd, md-sb rd, mnr blk, rthy-amor,  
v arg mtx, sl slty, v calc; 20% SLTY SH: dk gy-v dk gy, frm, sb blk-sb plty, rthy,  
slty, v calc

80% MRLST: med dk gy-dk gy, sft-sl frm, md-sb  
slty, v calc; 20% SLTY SH: dk gy-v dk gy, sft-frm

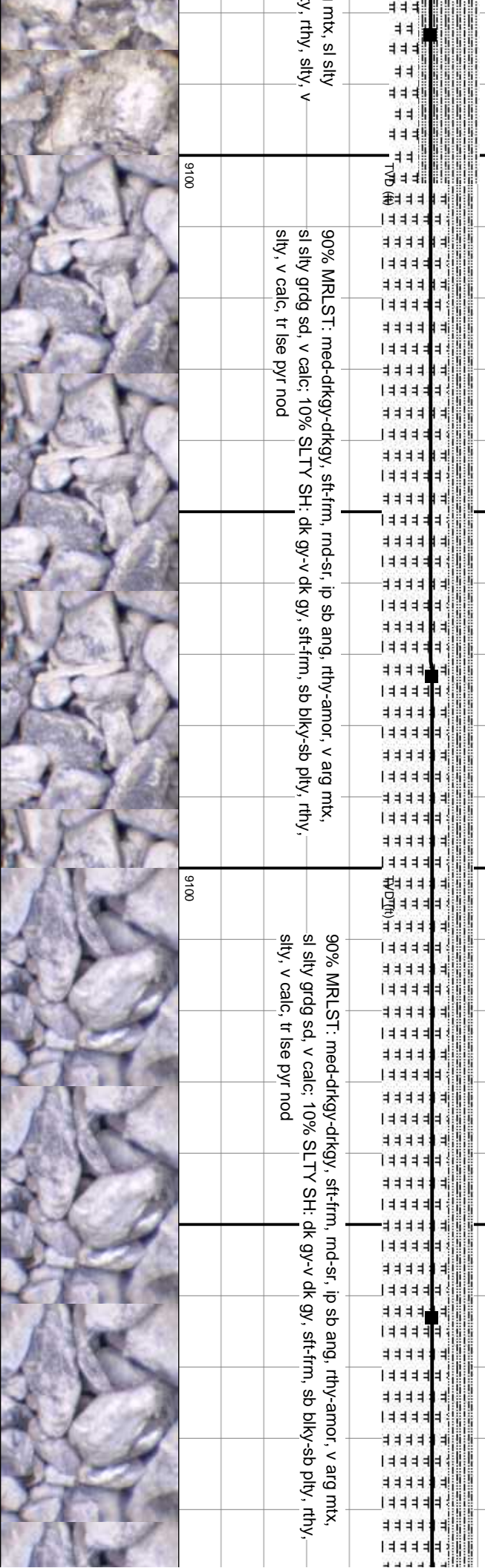




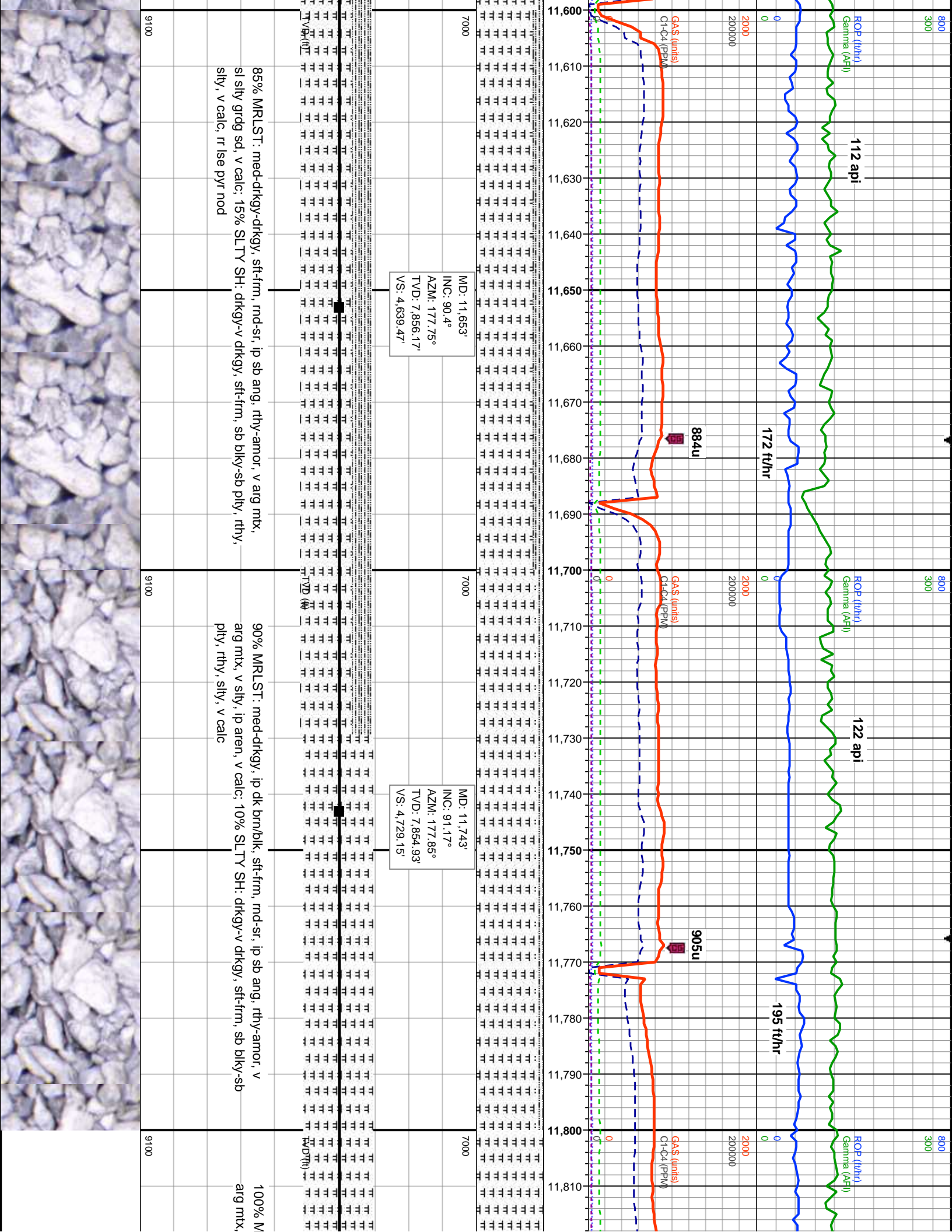




D: 11,383' C: 90.43° AZM: 177.66° D: 7,858.17' S: 4,370.37'	7000	MD: 11,473' INC: 90.43° AZM: 177.68° TVD: 7,857.49' VS: 4,460.08'	7000	MD: 11,563' INC: 90.43° AZM: 177.72° TVD: 7,856.82' VS: 4,549.78'
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MW 10.7+ / VIS 54 IN  
MW 10.7 / VIS 57 OUT

MW 10.5 / VIS 49 IN  
MW 10.7 / VIS 49 OUT

118 api

126 api

115 api

170 ft/hr

177 ft/hr

WOB: 22.4 Klbs

ROP: 177 ft/hr

RPM: 110

SPP: 3,957 psi

Diff Press: 519 psi

SPM#1: 75

SPM#2: 75

ROP (ft/hr)

Gamma (API)

GAS (units)

C1-C4 (PPM)

ROP (ft/hr)

Gamma (API)

GAS (units)

C1-C4 (PPM)

923

827u

906u

MD: 11,833'  
INC: 91.02°  
AZM: 178.34°  
TVD: 7,853.21'  
VS: 4,818.78'

MD: 11,923'  
INC: 91.2°  
AZM: 178.92°  
TVD: 7,851.47'  
VS: 4,908.33'

MD: 12,013'  
INC: 91.02°  
AZM: 179.44°  
TVD: 7,849.73'  
VS: 4,997.8'

RLLST: med-drkgy, ip dk brn/blk, sft-frn, md-sr, ip sb ang, rthy-amor, v  
v slty-tr sltst frags, ip aren, v calc

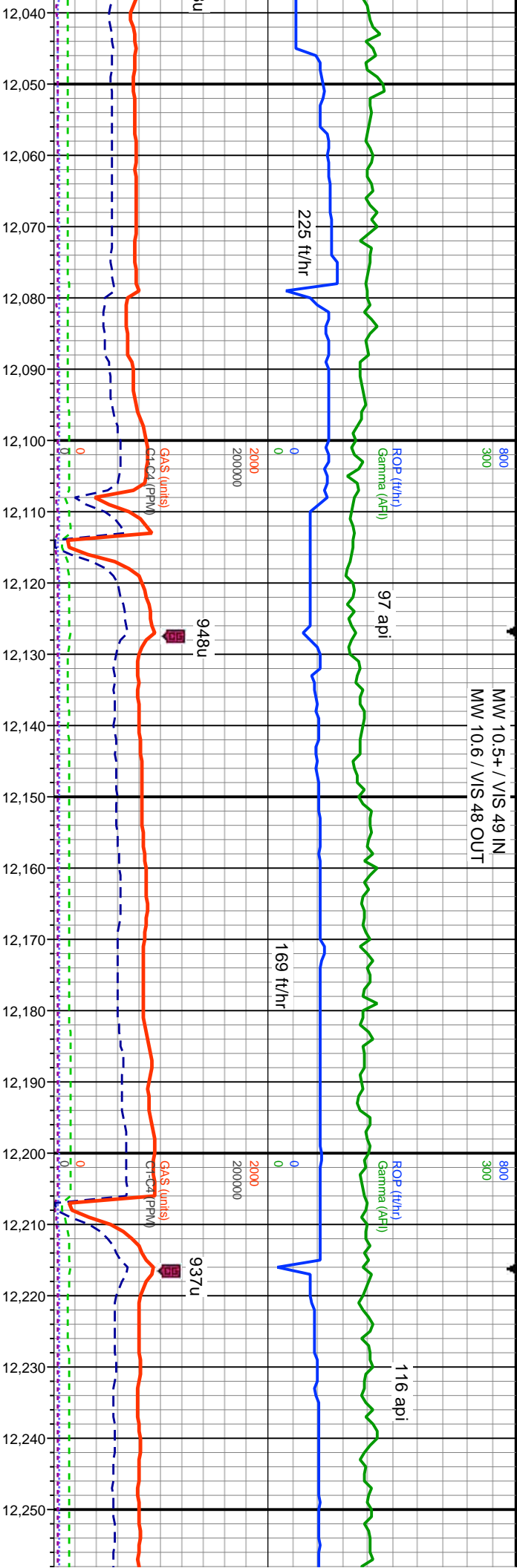
100% MRLST: med-drkgy, ip dk brn/blk, sft-frn, md-sr, ip sb ang, rthy-amor, v  
arg mtx, v slty-tr sltst frags, ip aren, v calc

90% MRLST: med-drkgy, ip  
wxy, v arg mtx, v slty-ip are  
sb blkyy-sb plty, ip fls, rthy, s





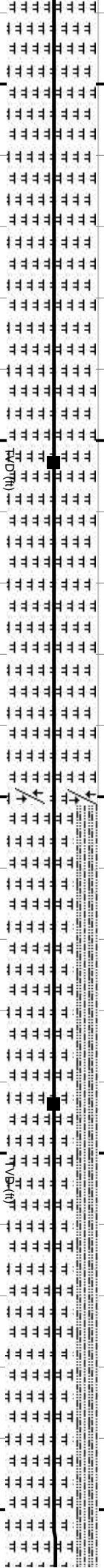
MW 10.5+ / VIS 49 IN  
MW 10.6 / VIS 48 OUT



MD: 12.103'  
INC: 91.51°  
AZM: 179.39°  
TVD: 7,847.74'  
VS: 5.087.22'

U/D Fault: Middle Carlie to Upper Carlie

MD: 12.193'  
INC: 91.69°  
AZM: 179.88°  
TVD: 7,845.23'  
VS: 5.176.59'

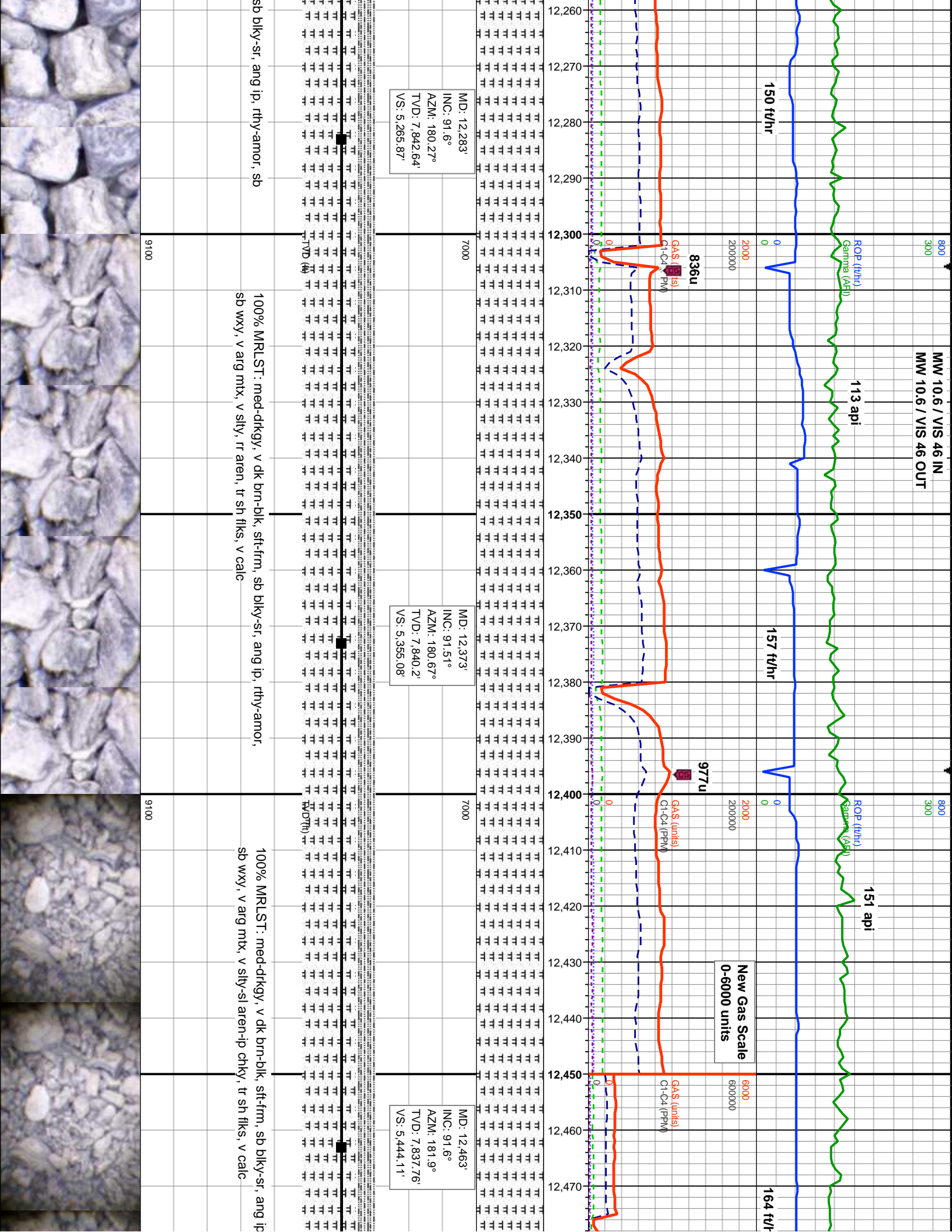


dk brn/blk, sft-frn, md-sr, ip sb ang, rthy-amor, sb  
n, sl chky, v calc; 10% SLTY SH: drkgy-v drkgy, sft-frn,  
lty, v calc

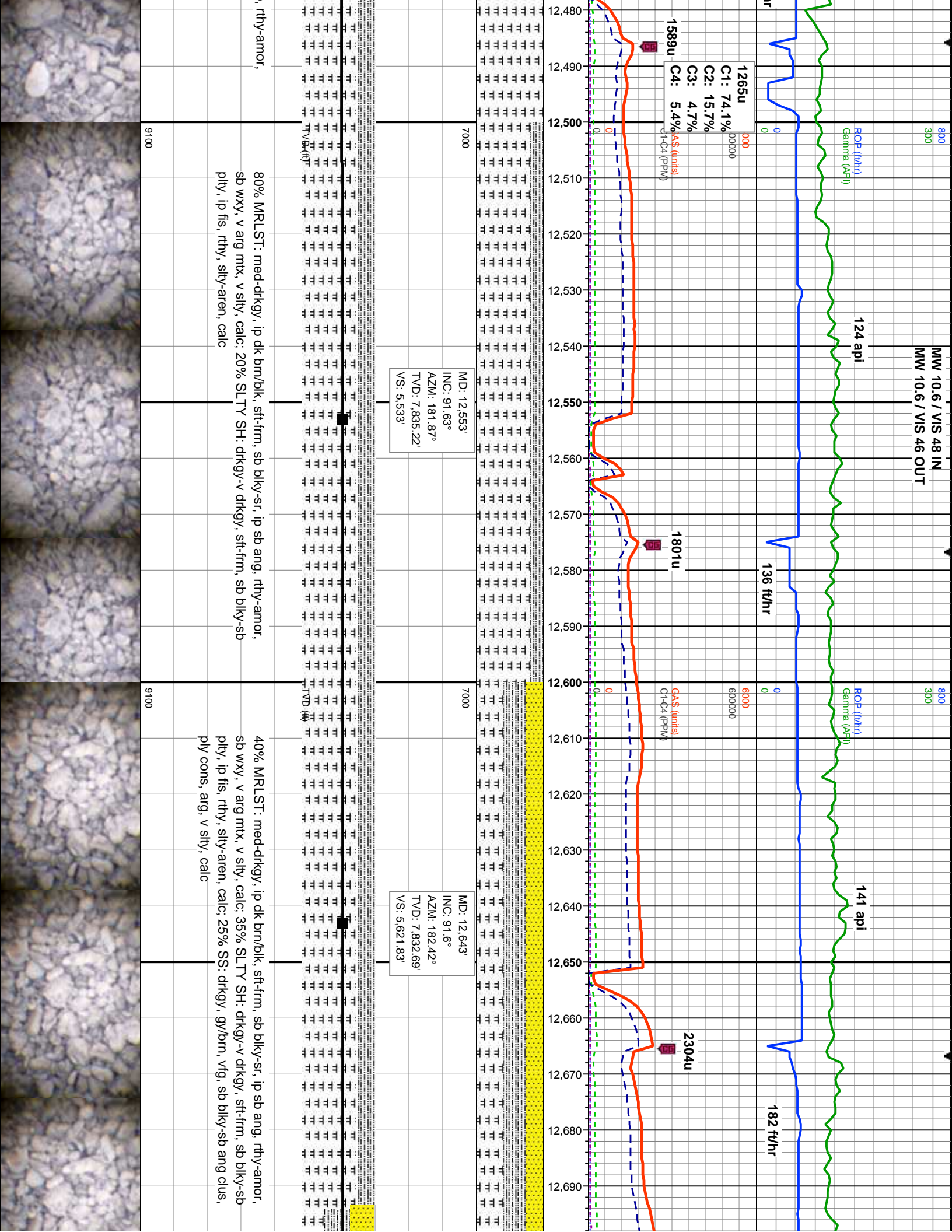
100% MRLST: med-drkgy, ip dk brn/blk, sft-frn, md-sr, ip sb ang, rthy-amor, sb  
wxy, v arg mnt, v silty-ip aren, tr sh flks, sl chky, v calc

100% MRLST: med-drkgy, dk brn/blk, sft-frn,  
wxy, v arg mnt, v silty-ip aren, tr sh flks, v calc





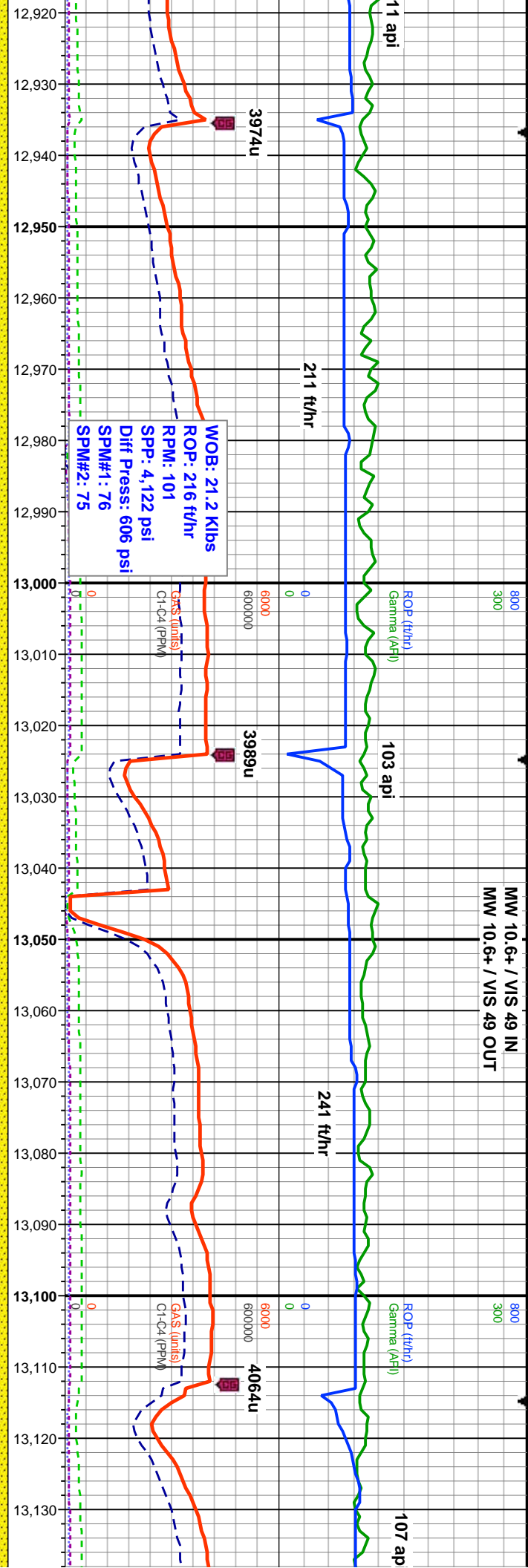








MW 10.6+ / VIS 49 IN  
MW 10.6+ / VIS 49 OUT

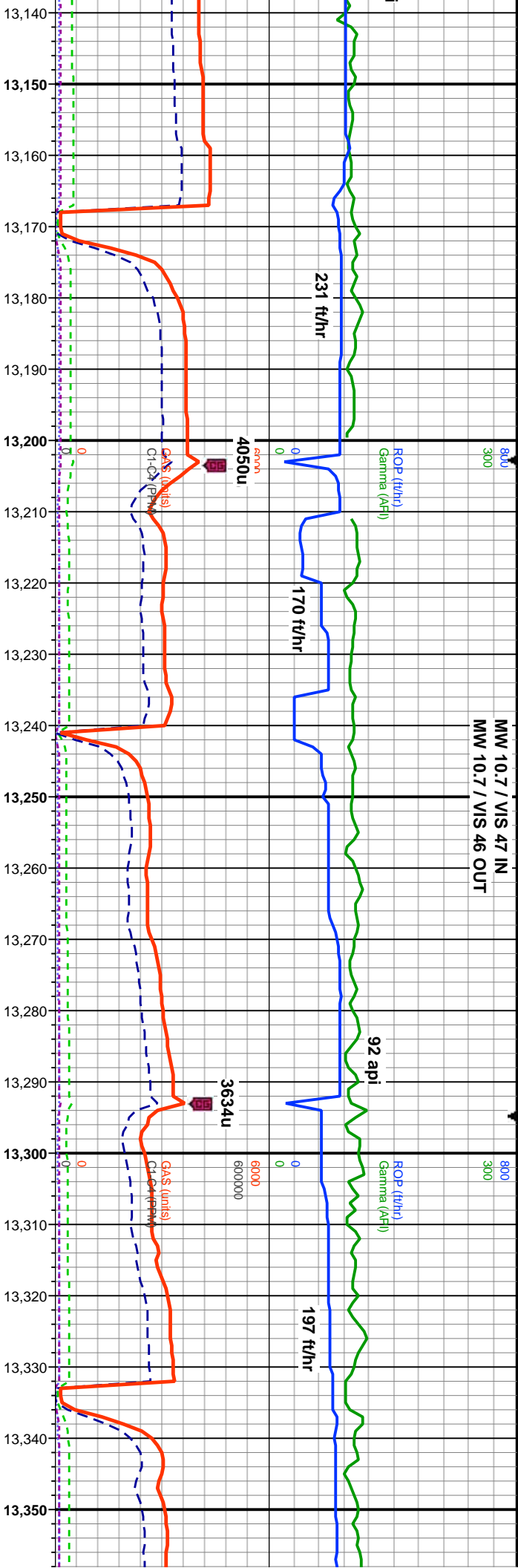


MD: 13.003' INC: 90.34° AZM: 180.19° TVD: 7.825.04' VS: 5.978.11'	MD: 13.093' INC: 90.4° AZM: 180.37° TVD: 7.824.45' VS: 6.067.39'
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71' 9'	7000	9100
71' 9'	7000	9100



MW 10.7 / VIS 47 IN  
MW 10.7 / VIS 46 OUT



MD: 13,183'  
INC: 90.68°  
AZM: 179.68°  
TVD: 7,823.61'  
VS: 6,156.72'

MD: 13,273'  
INC: 90.12°  
AZM: 178.97°  
TVD: 7,822.98'  
VS: 6,246.17'

MD: 13,273'  
INC: 90.12°  
AZM: 178.97°  
TVD: 7,822.98'  
VS: 6,246.17'

TVD (ft)

TVD (ft)

sb blk-y-rnd, sft-firm, ply cons-lse grns, v arg, grdg  
SH: dk gy brn-v dk gy, frm-mod hrd, blk-y-ip fis, rthy,  
gy, sl calc

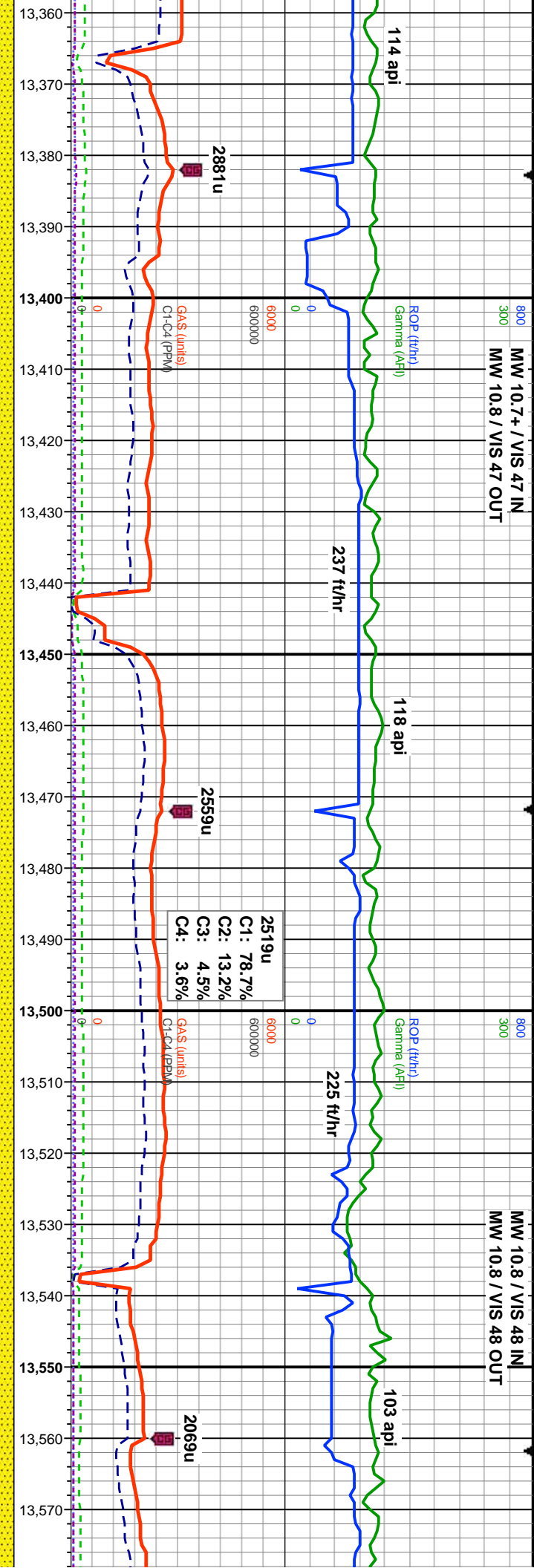
85% SS: med-dk gy-dk gy brn, vfg, sb blk-y-rnd, sft-firm, ply cons-lse grns, v arg,  
grdg silty, mod calc: 15% SLTY SH: dk gy brn-v dk gy, frm, blk-y-ip fis, rthy, silty-sl  
aren, arg, sl calc

90% SS: med-dk gy-dk gy brn, vfg, sb blk-y-rnd,  
silty, calc: 10% SLTY SH: dk gy brn-v dk gy, frm  
calc

9100

9100





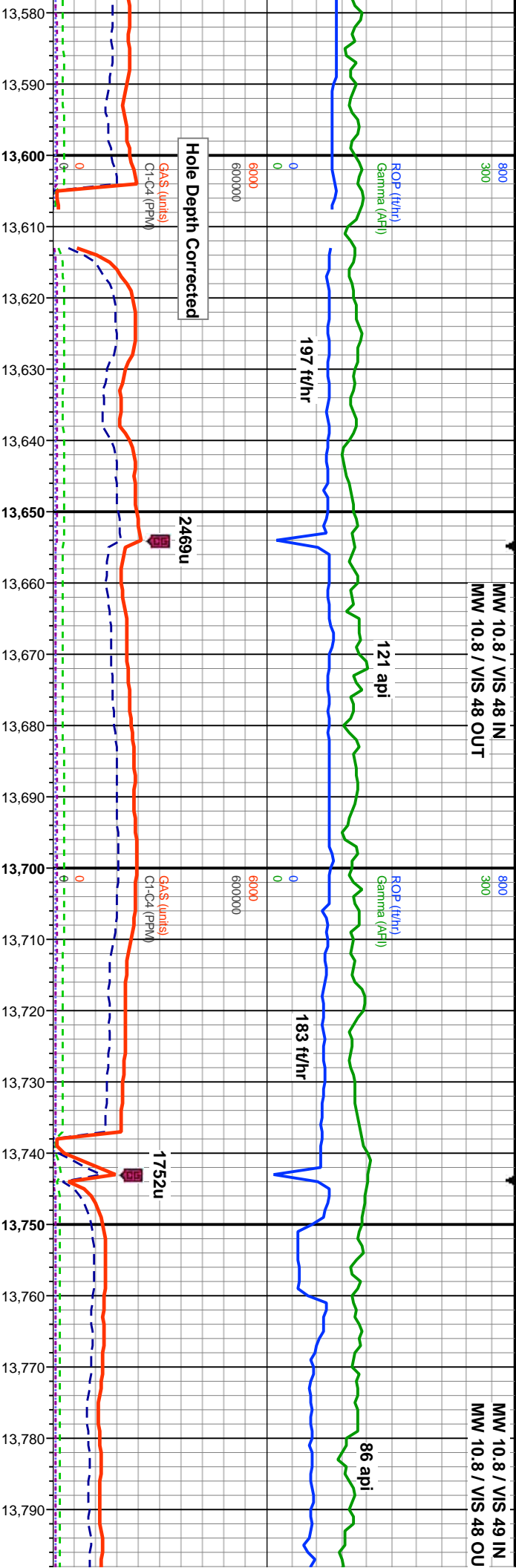
D: 13.363'  
C: 90.18°  
AZM: 177.91°  
D: 7.822.74'  
S: 6.335.77'

MD: 13.453'  
INC: 90.18°  
AZM: 179.01°  
TVD: 7.822.46'  
VS: 6.425.36'

MD: 13.543'  
INC: 88.28°  
AZM: 176.55°  
TVD: 7.823.67'  
VS: 6.515.03'

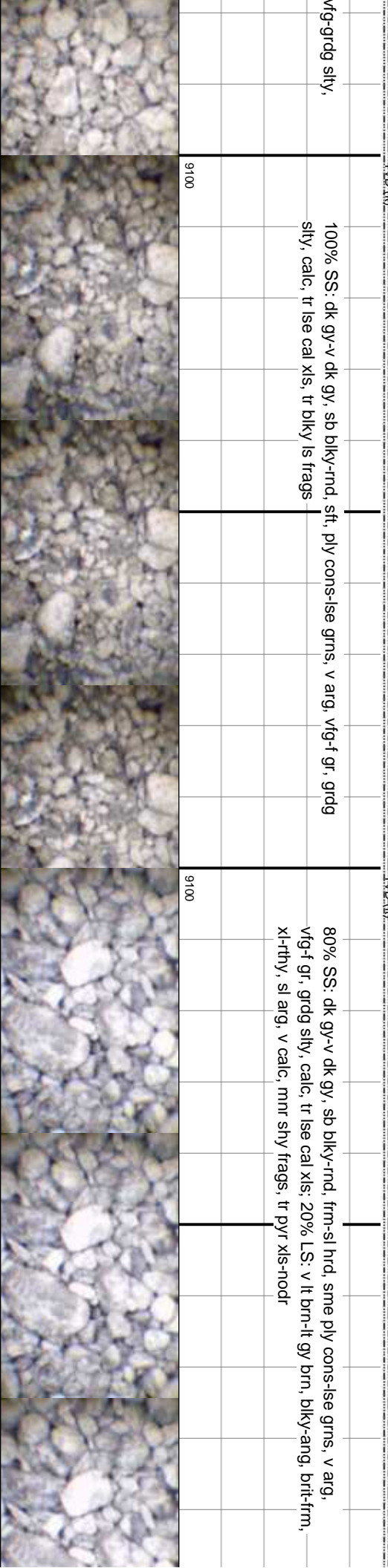
TVD (ft)		7000	9100
sft, ply cons-lse grms, v arg, grdg			
i, blk-y-fis, rthy, slty-sl aren, arg, sl			
90% SS: dk gy-dk gy brn, vfg, sb blk-y-rnd, sft, ply cons-lse grms, v arg, grdg slty, calc, tr lse cal xls; 10% SLTY SH: dk gy brn-v dk gy, frm, blk-y-fis, rthy, slty-sl aren, arg, calc			
TVD (ft)		7000	9100
100% SS: dk gy-v dk gy, sb blk-y-rnd, sft, ply cons-lse grms, v arg, calc, tr lse cal xls, v tr xl pyr			



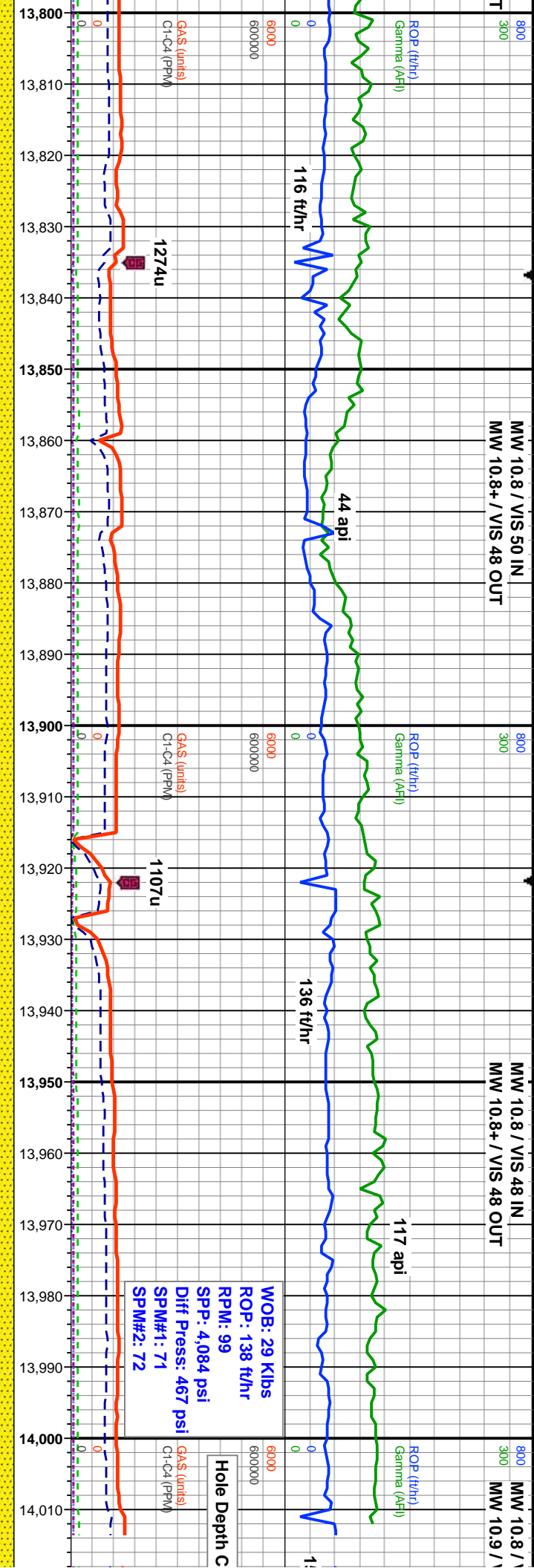


MD: 13,633'  
INC: 90.09°  
AZM: 175.97°  
TVD: 7,824.95'  
VS: 6,604.88'

MD: 13,723'  
INC: 89.91°  
AZM: 173.05°  
TVD: 7,824.95'  
VS: 6,694.84'







7000	MD: 13.814' INC: 89.97° AZM: 171.88° TVD: 7.825.05' VS: 6.785.83'	MD: 13.903' INC: 89.2° AZM: 174.05° TVD: 7.825.69' VS: 6.874.82'	MD: 13.993' INC: 89.17° AZM: 178.31° TVD: 7.826.97' VS: 6.964.66'	7000
N				N
II				II
A				A
T				T
V				V

9100	50% SS: dk gy-v dk gy, sb blk-nd, sft-frn, sme ply cons-ise grns, v arg, vf-g-f gr, gridg slty, sl calc: 50% LS: v lt brn-lt gy brn, blk-ang, brit-frn, xl-rthy, arg, v calc, tr pyr xls-nodr	9100	70% SS: dk gy-v dk gy, sb blk-nd, frm-mod hrd, tr ply cons-ise grns, v arg, vf-g-f gr, gridg slty, calc: 30% LS: v lt brn-lt gy brn, blk-ang, brit-frn, xl-rthy, arg, v calc	9100	80% SS: dk gy- blk-nd, frm-rm ply cons, v arg, gridg slty, calc, t 20% LS: lt brn-l blk-ang, brit-fr arg, v calc
9100		9100		9100	

