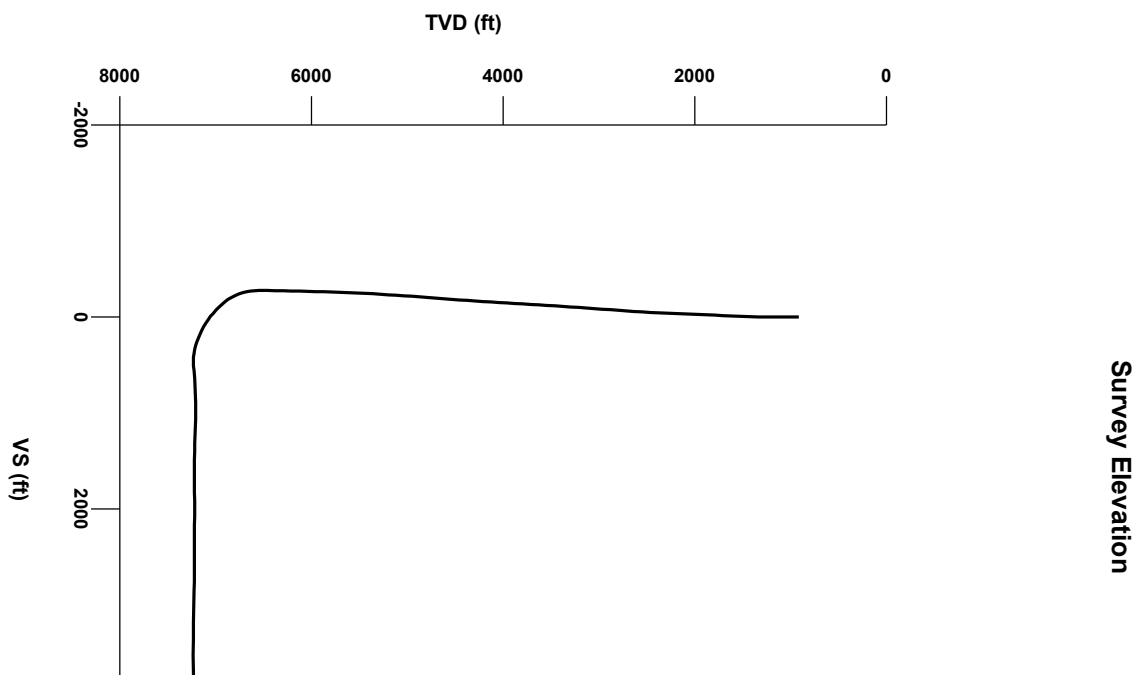


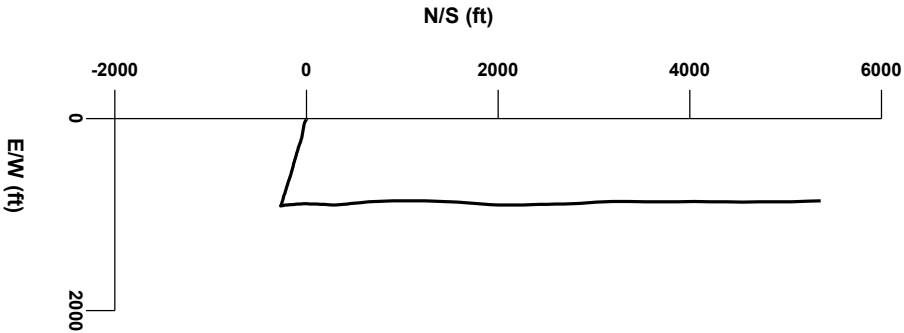


LOG created using Lplot VH Version 3.0, April 22, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: ANADARKO PETROLEUM COMPANY
WELL: Russian Fiddler 37N-18HZ
LOCATION: SECTION 19, T2N, R65W
COUNTY: WELD
STATE: COLORADO
SPOT: 335' FSL, 2463' FEL
ELEVATION: 4989' GL, 5006' KB
FIELD: WATTENBERG #90750
SPUD DATE: 04/14/2013
TD DATE: 04/20/2013
DATES LOGGED: 04/15/2013-04/20/2013
DEPTHS LOGGED: 6670' MD - 12711' MD
LOGGERS: Mark Weiderspon, Jakob Pammer
DRILLING FLUID: FW LSND
DRILLING RIG: XTREME 6
API: 05-123-36227
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: Wellsite Geological Services Provided By Columbine Logging Inc.



Survey Plan





Chalk

Shaly Siltstone

Marl

Silty Shale

Shaly Sandstone

ENGINEERING SYMBOLS

Connection

Connection Gas

Midnight Depth

GAS

0

UNITS

6000

C1

0

PPM

600000

C2

0

PPM

600000

C3

0

PPM

600000

C4

0

PPM

600000

ROP

0

MIN/FT

10

DEPTH (FEET)

6600

10

20

30

40

50

60

70

80

90

6700

10

OIL SHOW

TFG

SLIDE

WT

Sample Interval 50

Sample Description Interval 100

All measurements are in feet and degrees unless noted otherwise

Kickoff Point

2100 hrs 04/15/2013

from 6670 MD

Bit #01

8-3/4

SEC MMD55

Serial 112162146

Begin in Sussex Formation

Two man logging unit rigged up

1555 hrs 04/15/2013

Columbine Logging Inc.

Bloodhound Unit #0566

GAMMA

50 cps±200

TVD

ft

7350

108

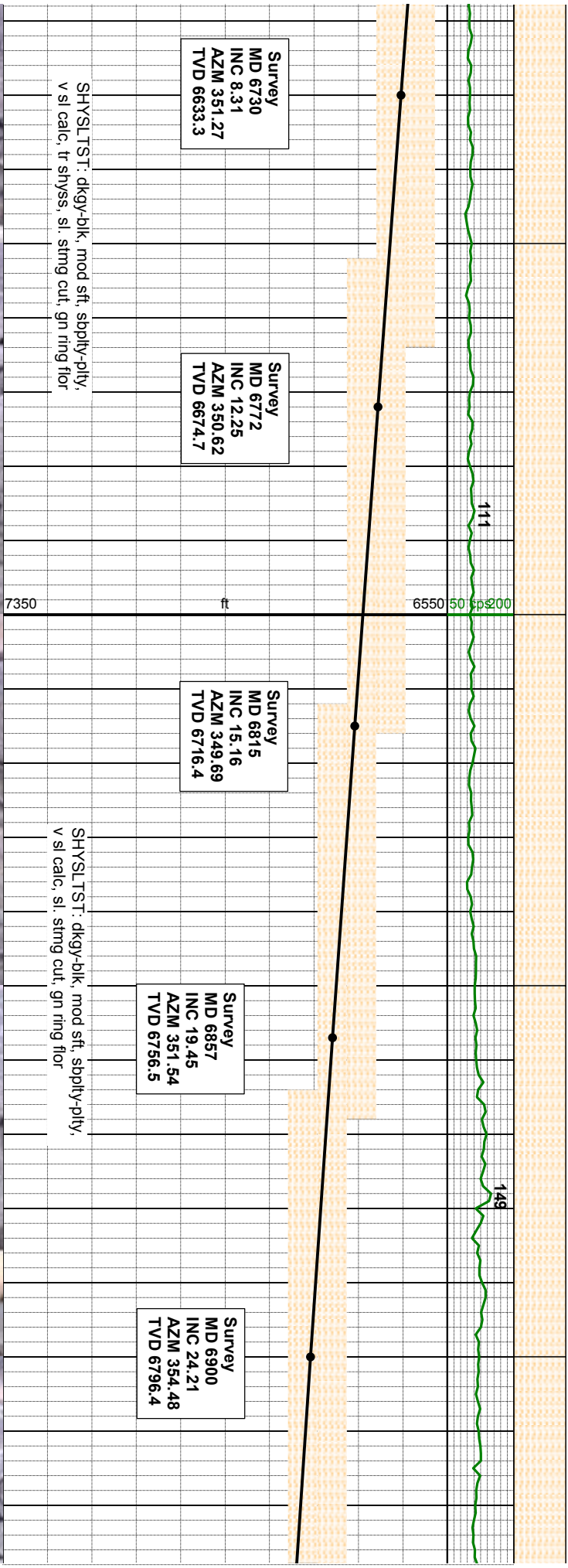
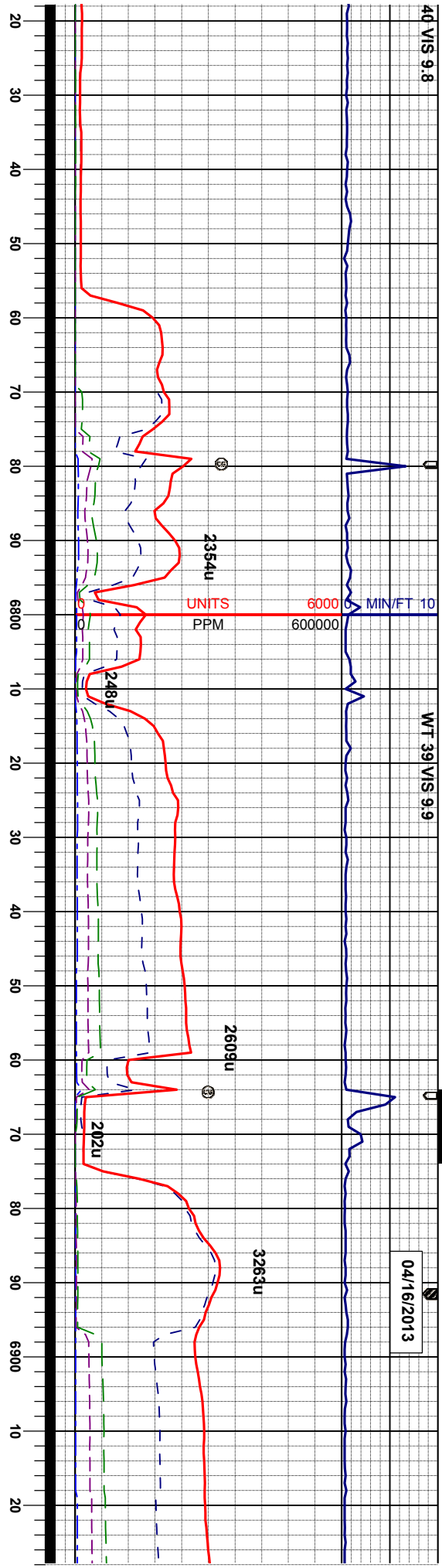
Survey

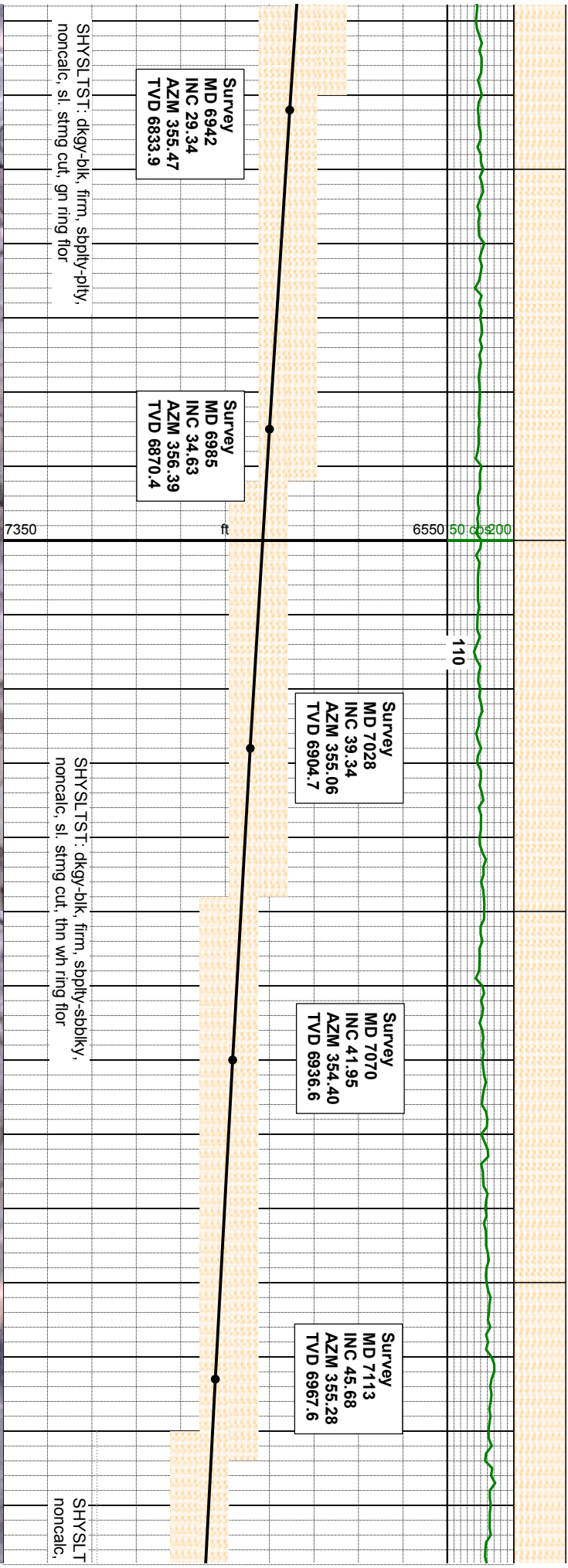
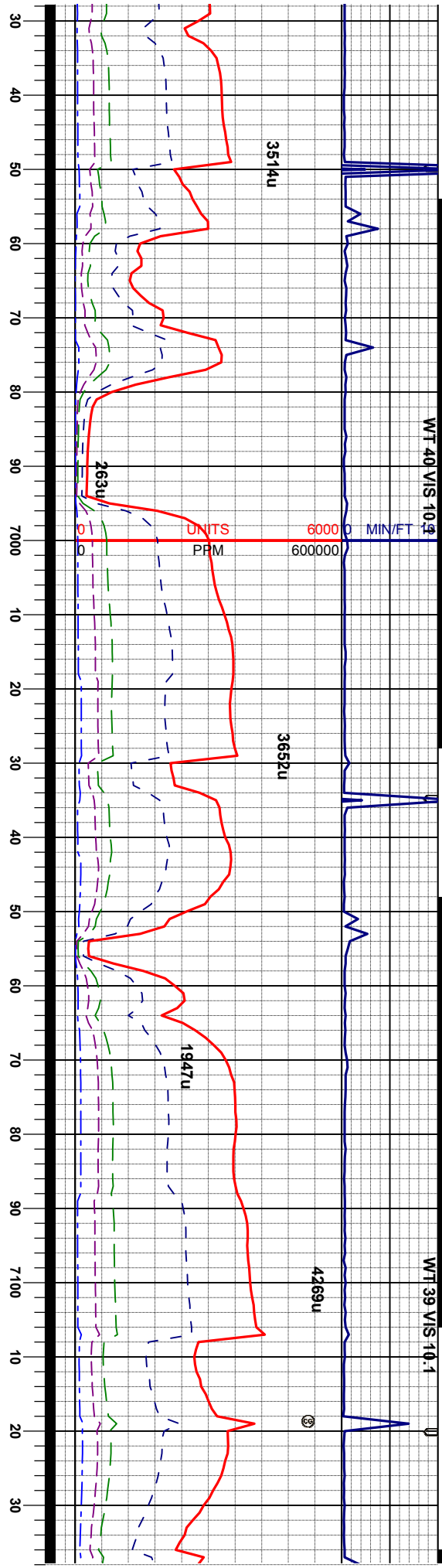
MD 6687

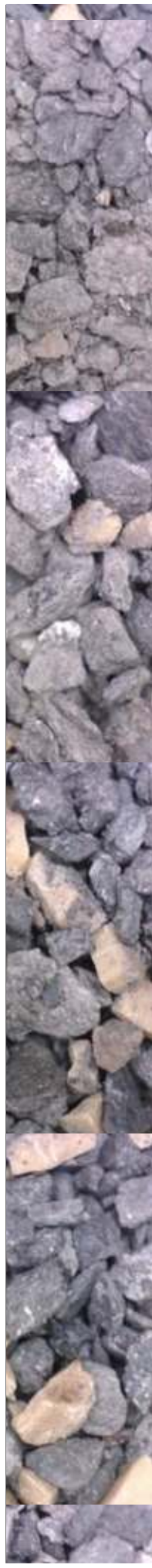
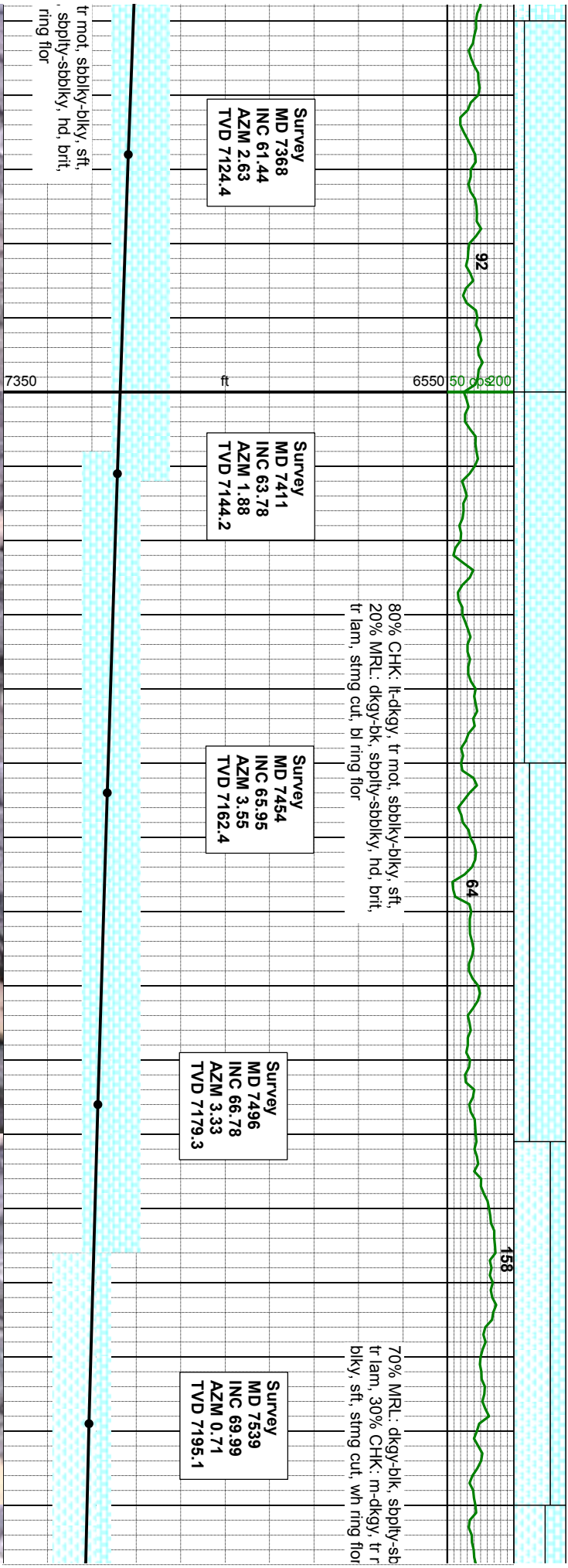
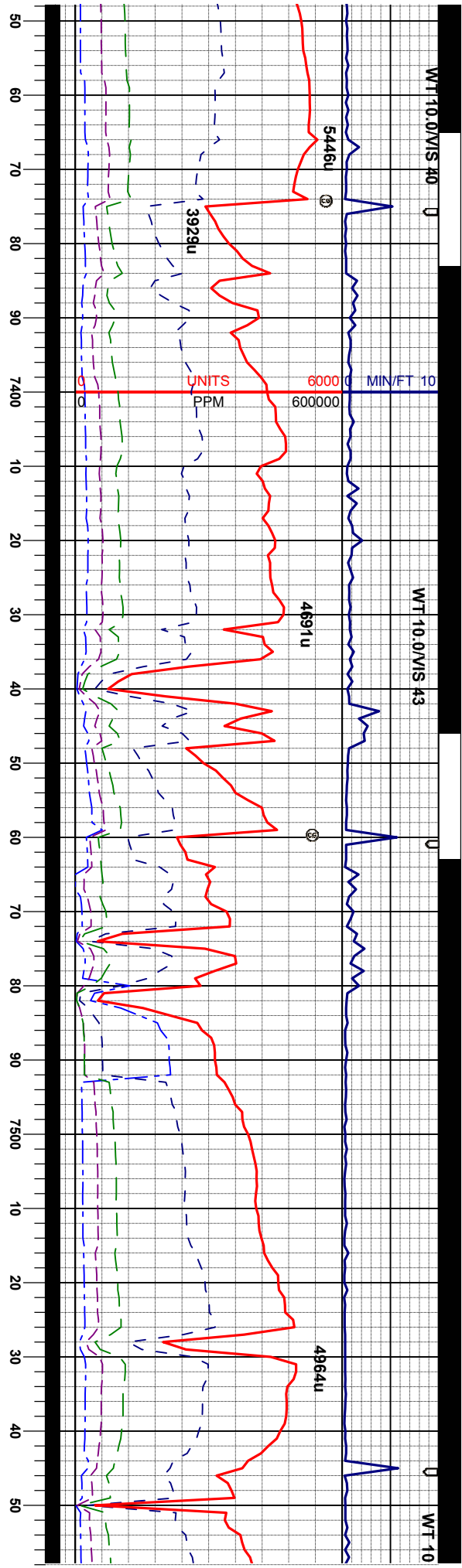
INC 4.59

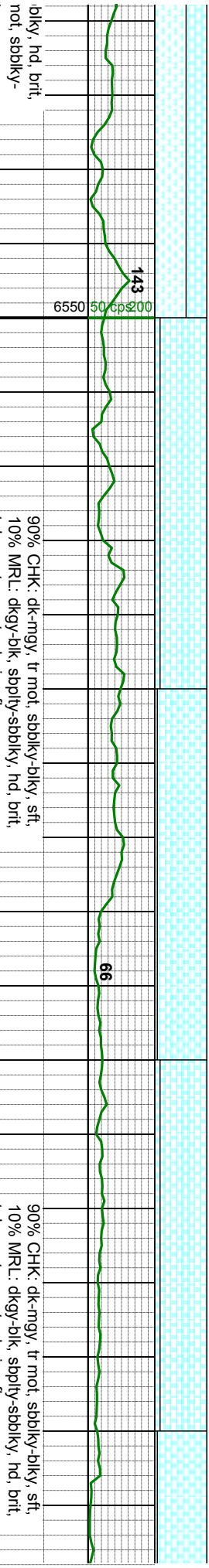
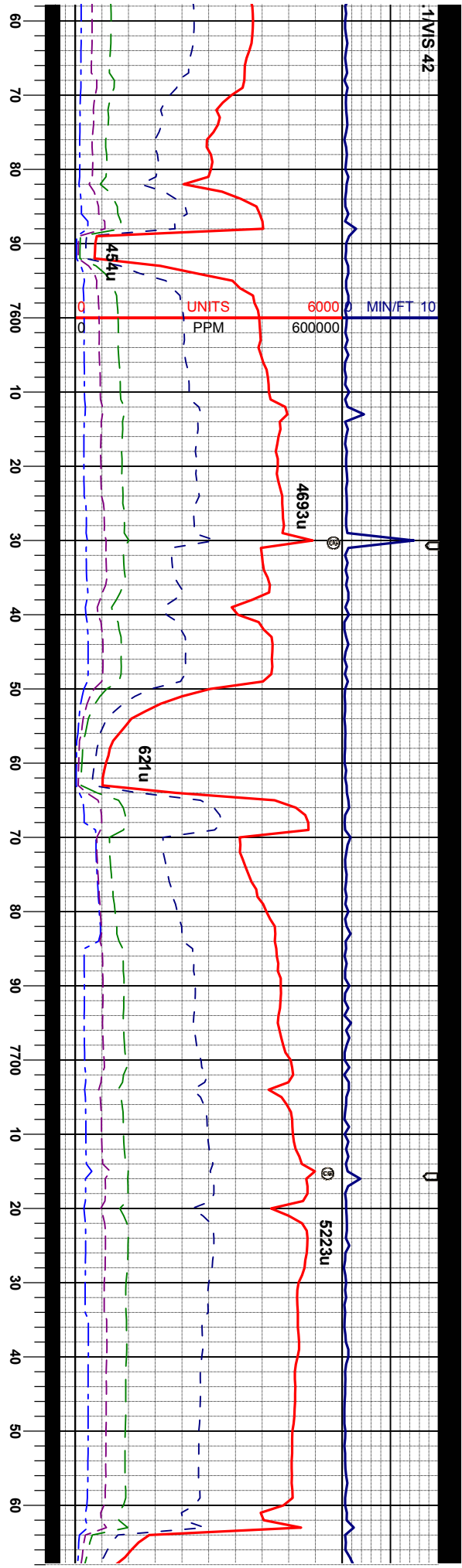
AZM 351.89

TVD 6690.6









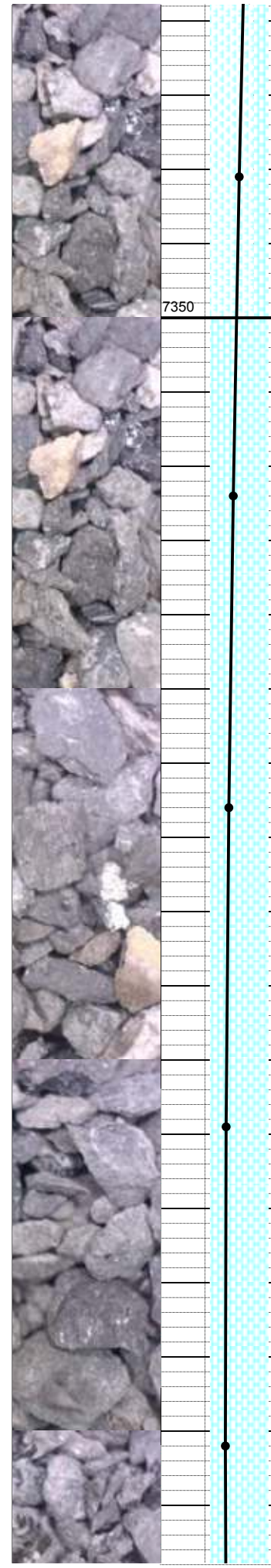
Survey
MD 7581
INC 73.48
AZM 358.53
TVD 7208.3

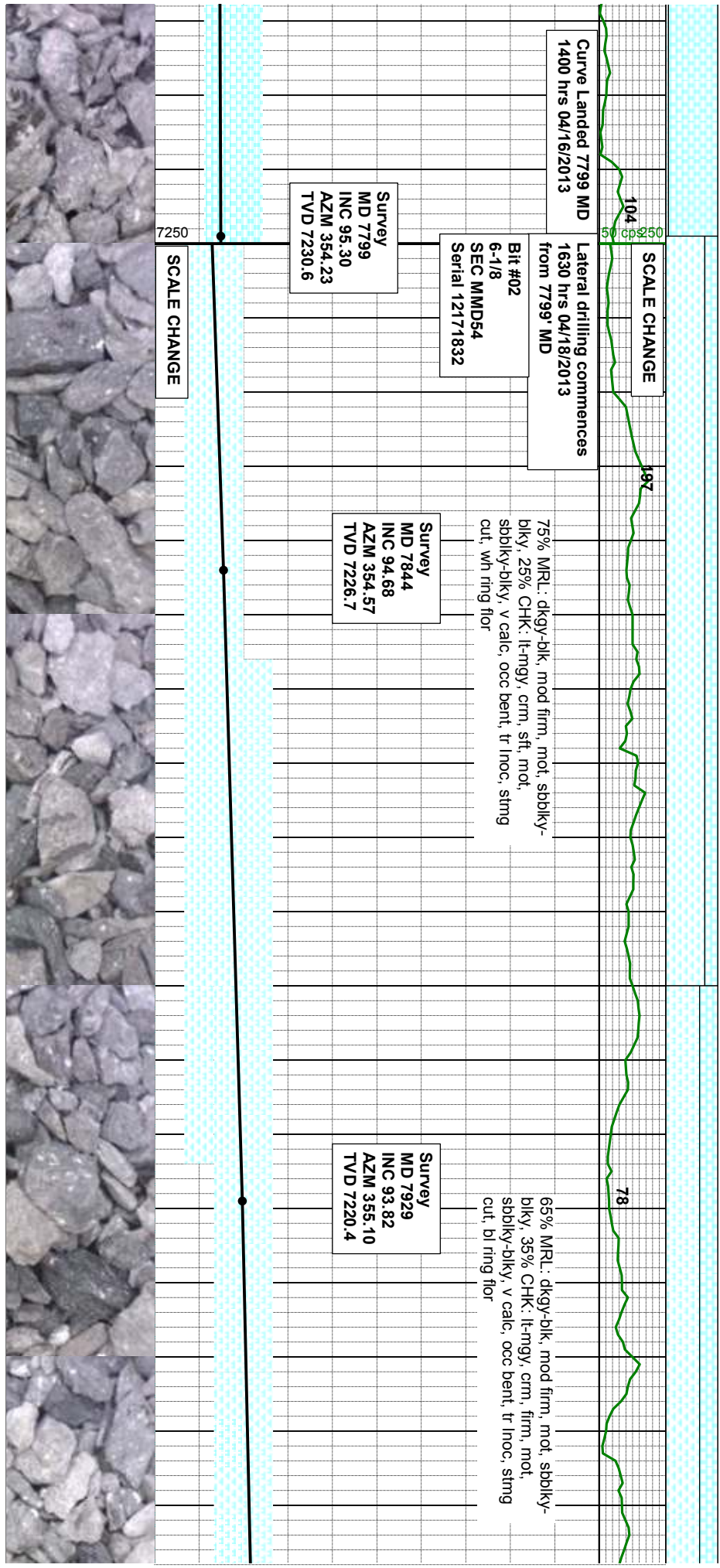
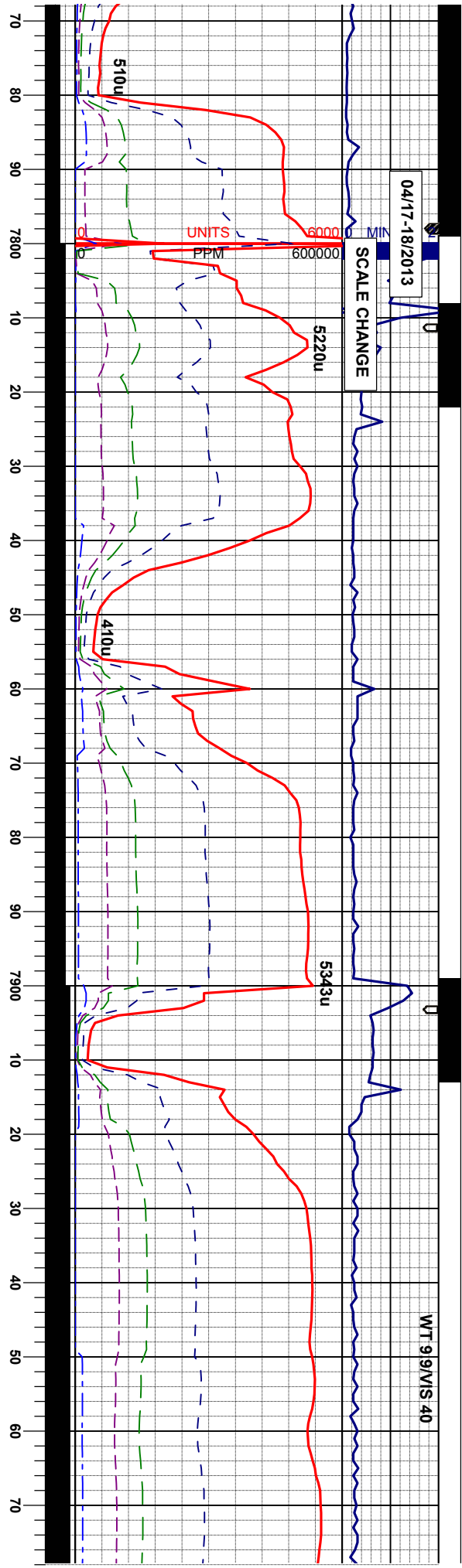
Survey
MD 7624
INC 77.66
AZM 356.33
TVD 7219.0

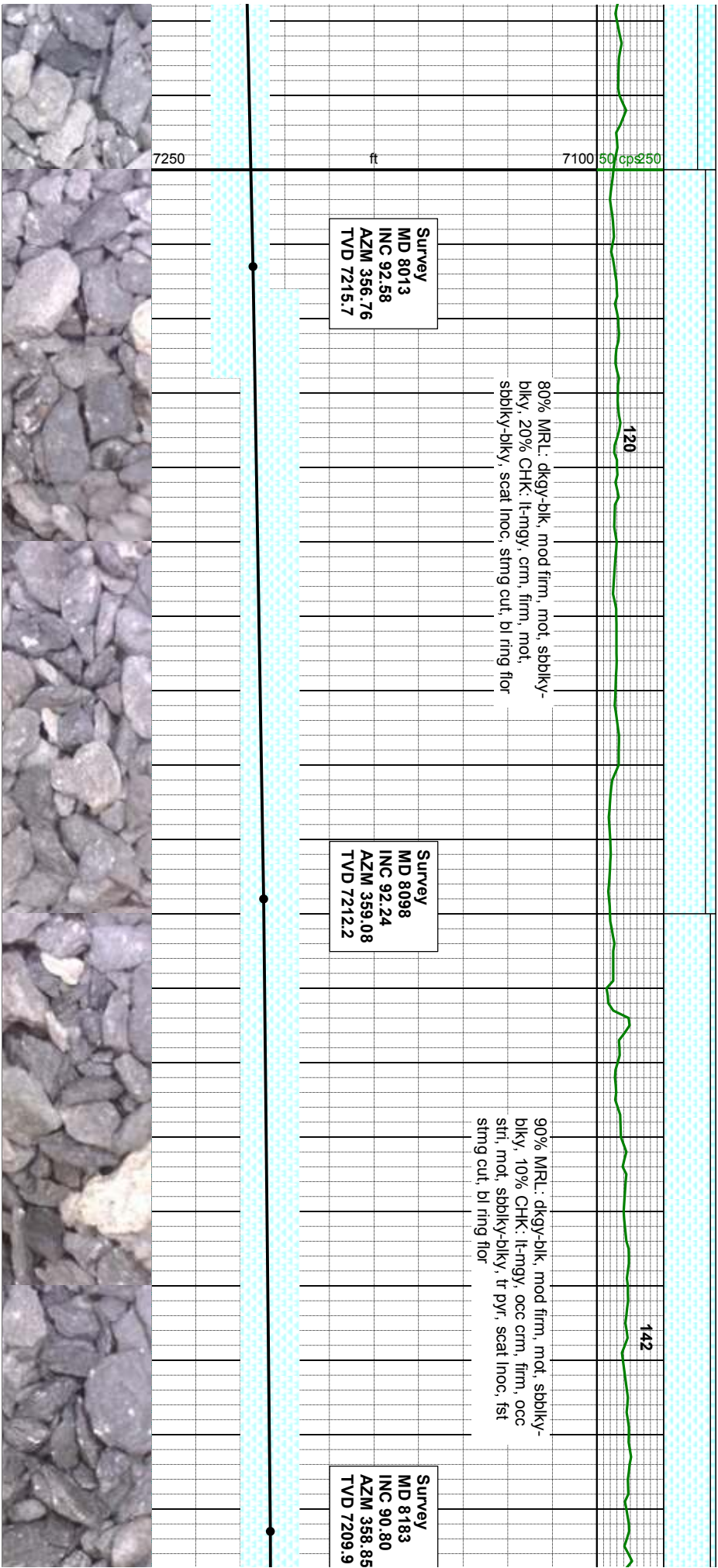
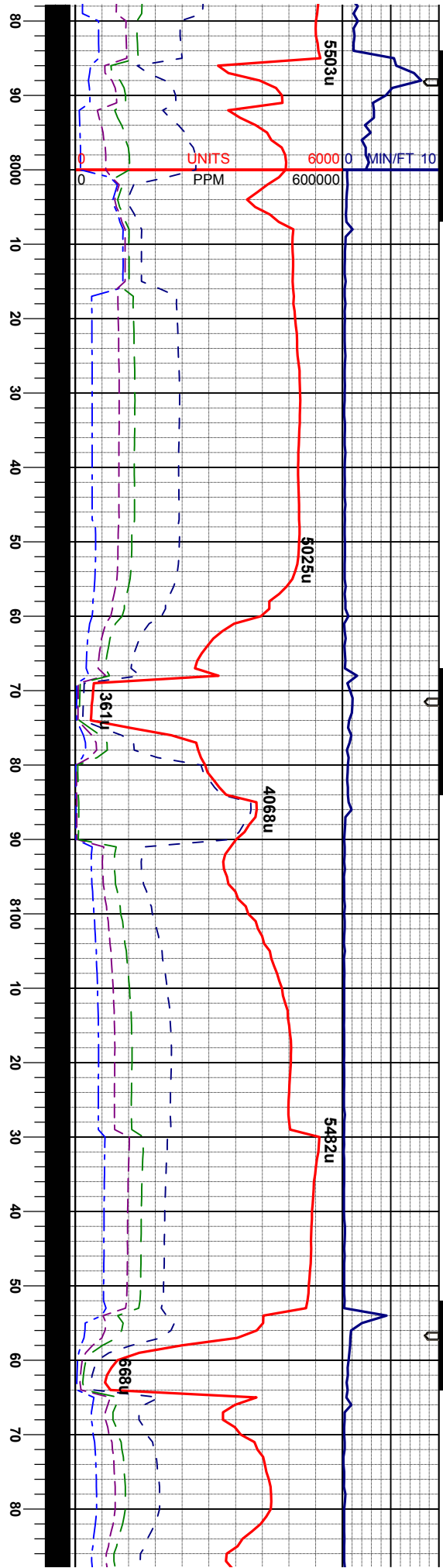
Survey
MD 7666
INC 80.82
AZM 354.19
TVD 7226.8

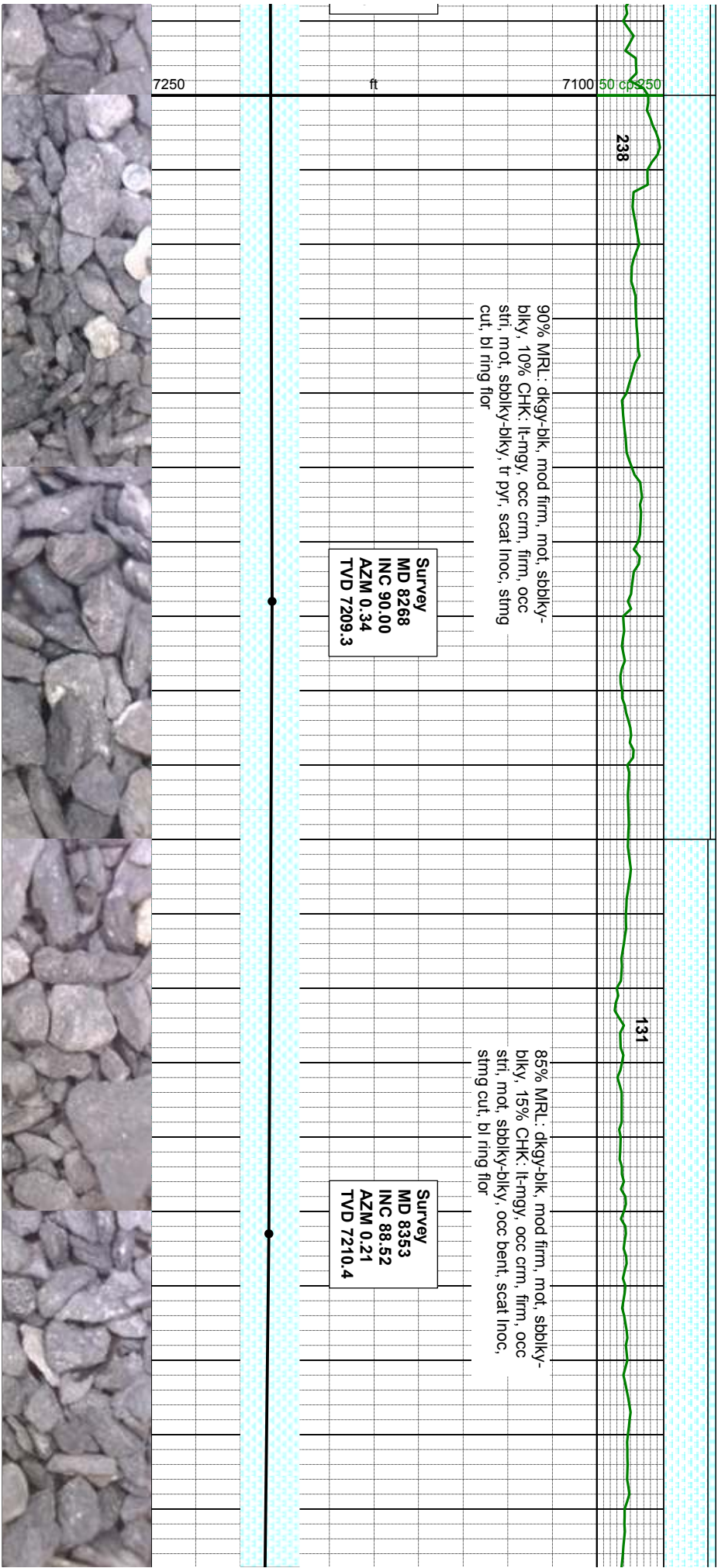
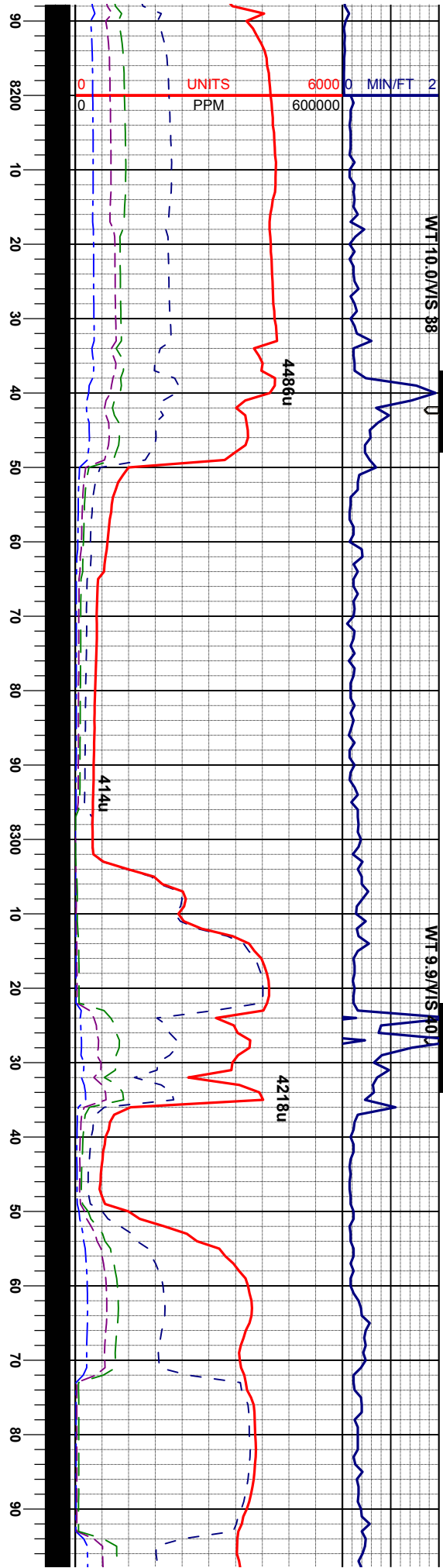
Survey
MD 7709
INC 85.96
AZM 354.53
TVD 7231.8

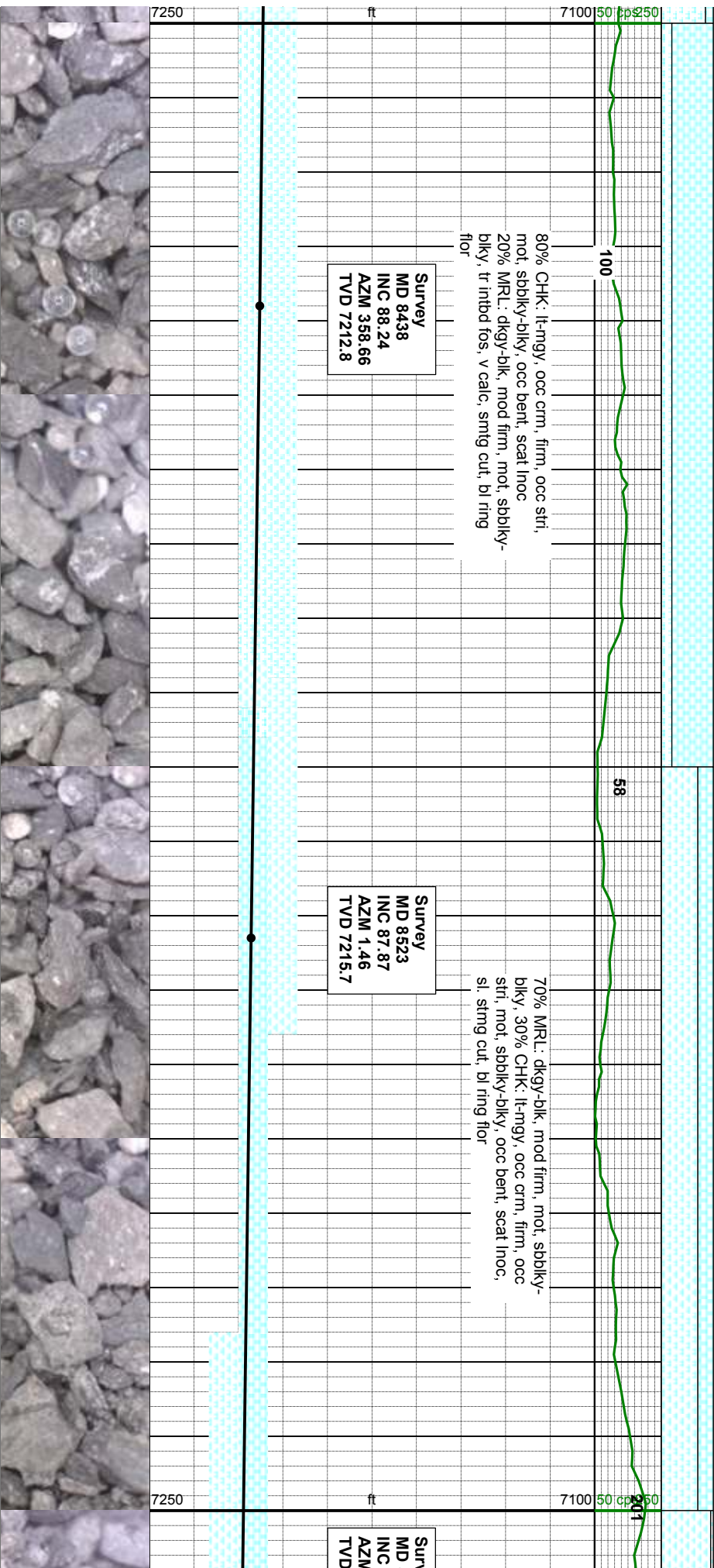
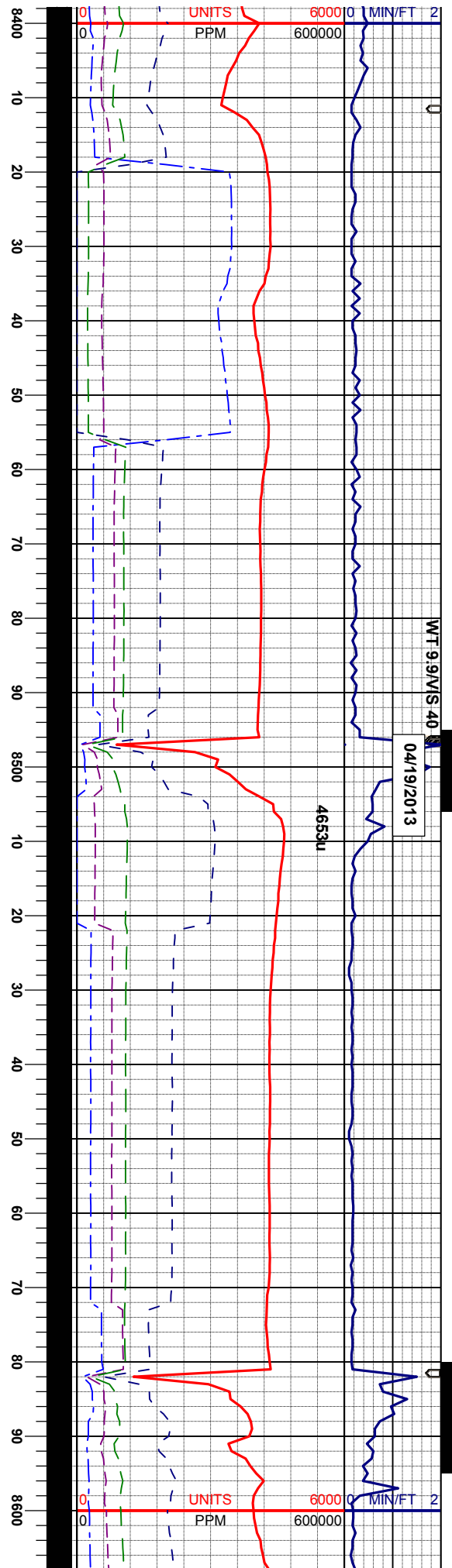
Survey
MD 7752
INC 90.61
AZM 354.13
TVD 7233.1

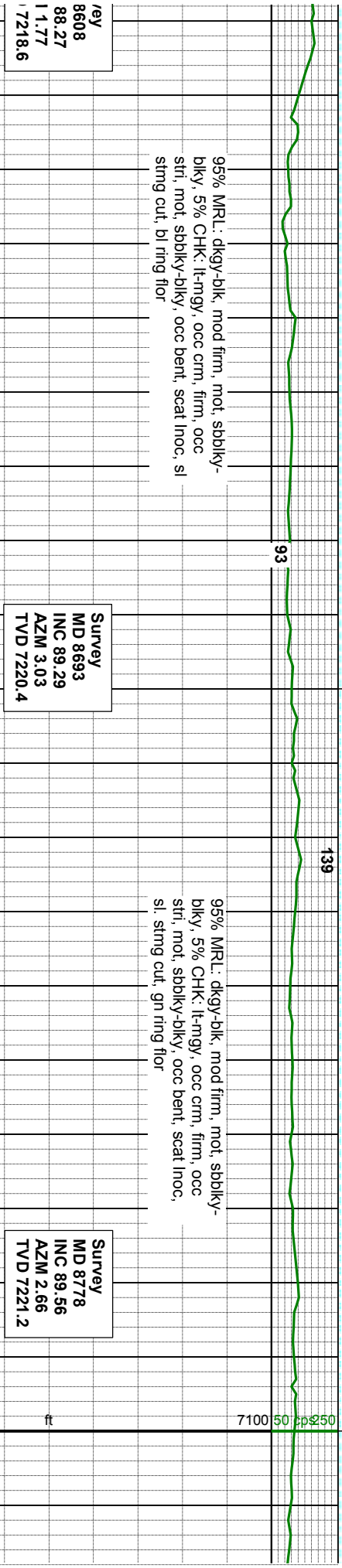
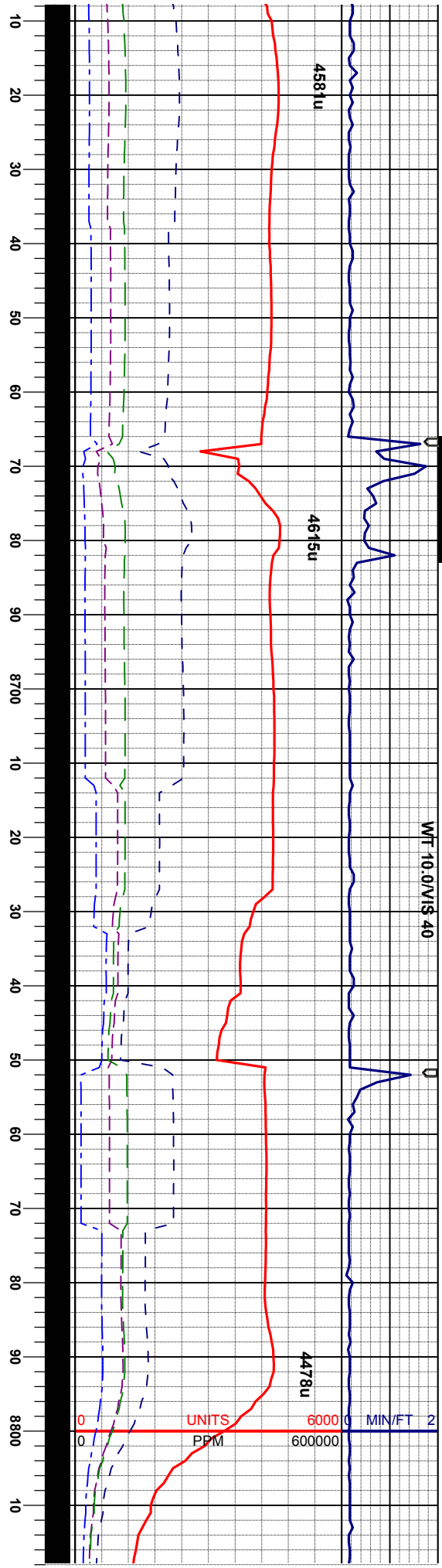


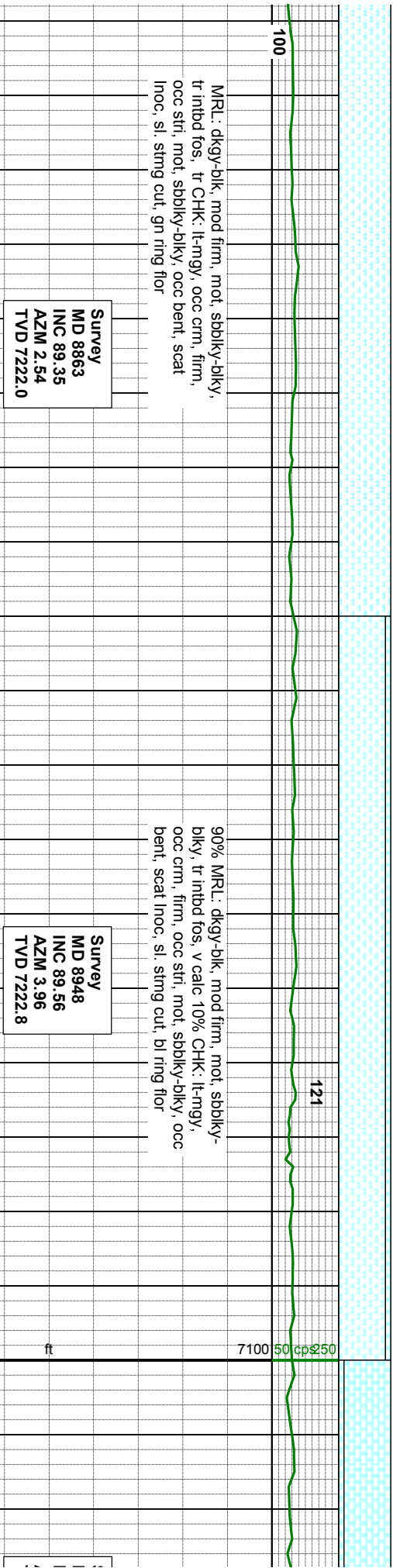


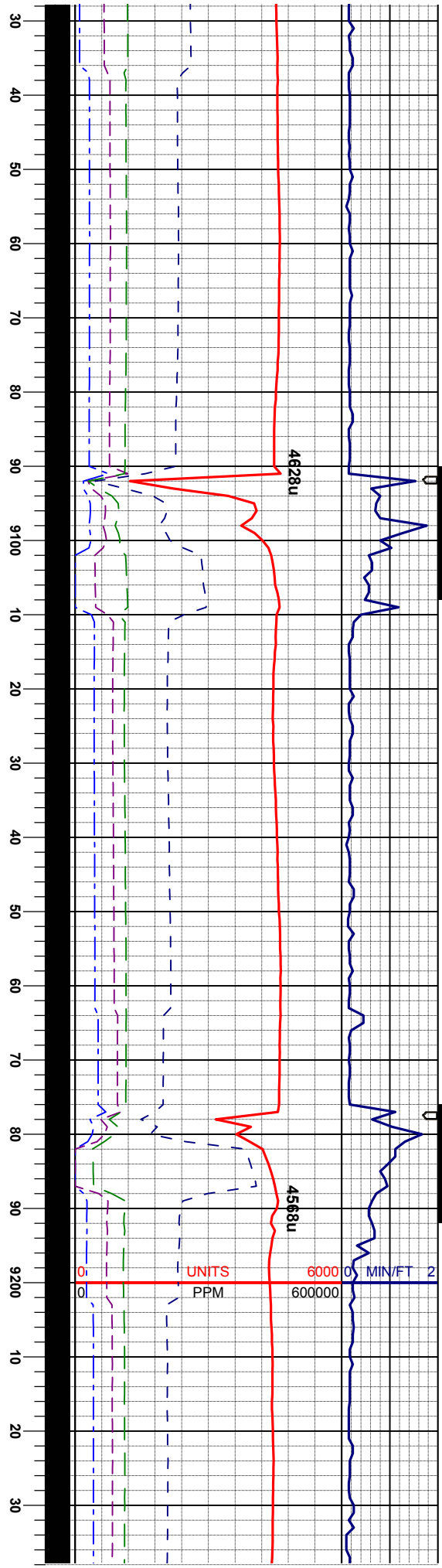












90% CHK: dkgy, occ crm, firm, occ stri,
mot, sbbly-blky, 10% MRL: dkgy-blk, mod
firm, mot, sbbly-blky, sting cut, gn ring flr

Survey
MD 9033
INC 90.52
AZM 4.81
TVD 7222.8

95% CHK: lt-mgy, occ crm, firm, occ stri,
mot, sbbly-blky, 5% MRL: dkgy-blk, mod
firm, mot, sbbly-blky, sl, sting cut, bl ring
flr

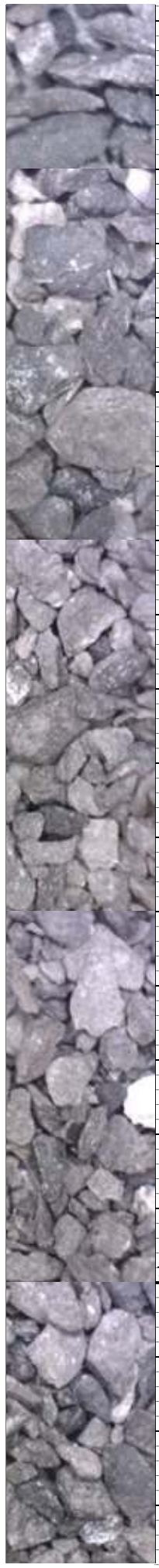
Survey
MD 9119
INC 90.95
AZM 3.84
TVD 7221.7

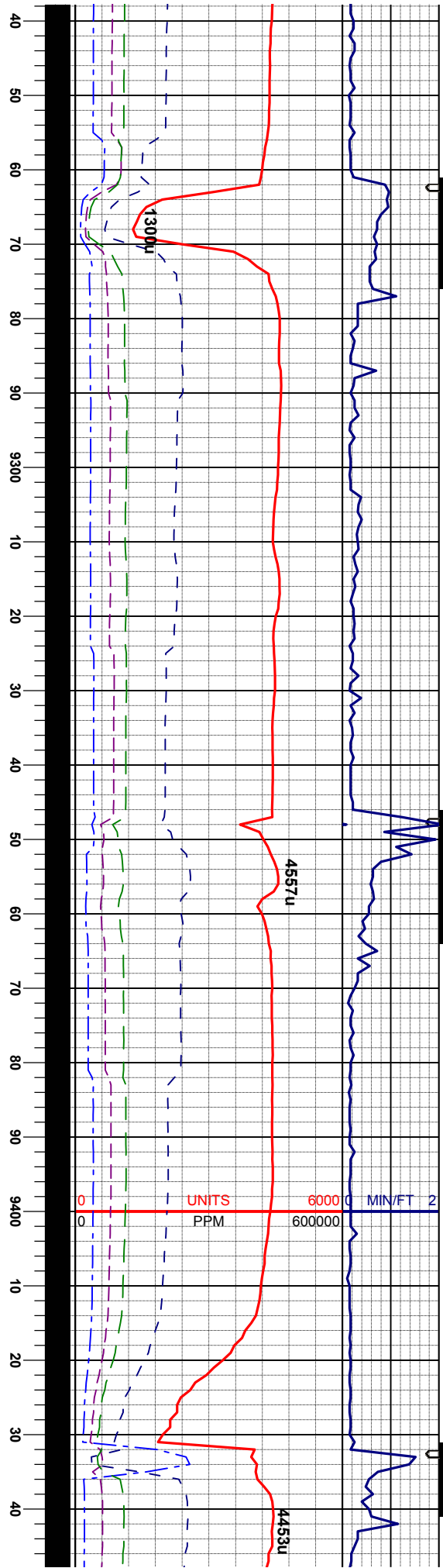
7100 50 cp 250

90% MF
sbbly,
mot, sbb

Survey
MD 9204
INC 90.92
AZM 2.84
TVD 7220.3

Fault





Survey
MD 9289
INC 89.78
AZM 1.73
TVD 7219.8

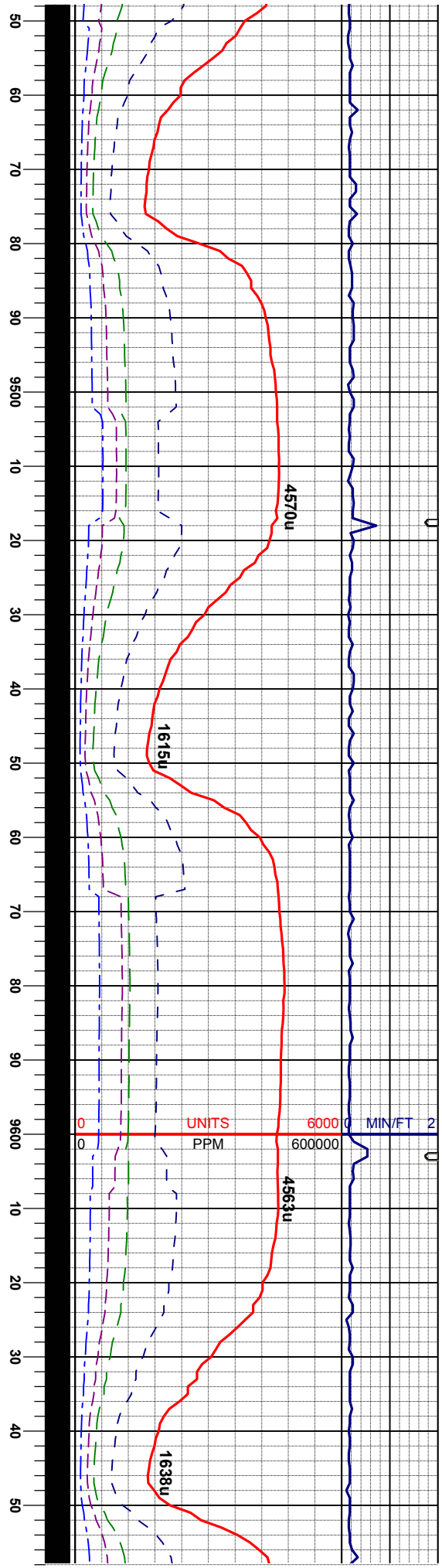
Survey
MD 9374
INC 89.62
AZM 0.63
TVD 7220.2

RL: dkgy-blk, mod firm, sbply-
10% CHK: lt-mgy, occ crn, firm,
dky-blky, sl stmg cut, bl ring flr

90% CHK: lt-mgy, occ crn, firm, mot,
sbbly-blky, 10% MRL: dkgy-blk, mod firm,
sbply-sbbly, com inoc, sl stmg cut, br bl
ring flr

80% MRL: dkgy-bl
sbbly, 20% CHK:
mot, sbbly-blky, t
flr





103
k, mod firm, sbply-
lt-mgy, occ crm, firm,
Inoc, sl sting cut, bl ring

90% MRL: dkgy-blk, mod firm, sbply-
sbply, 10% CHK: lt-mgy, occ crm, firm,
mot, sbply-blky, tr inoc, sl, sting, bl ring
flor

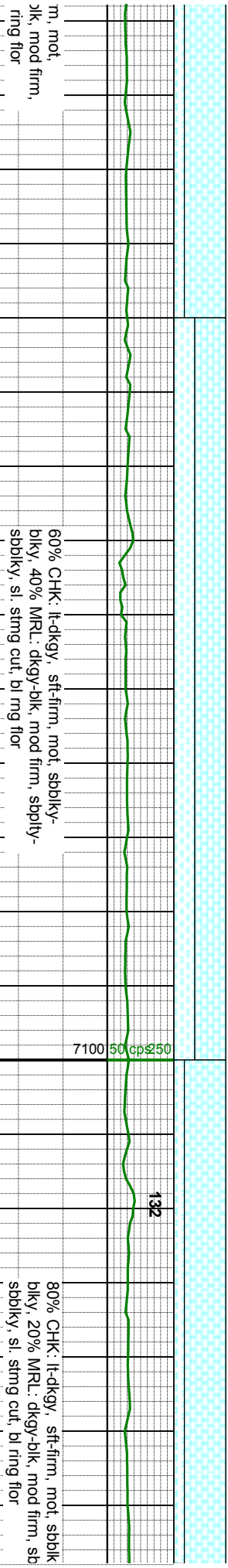
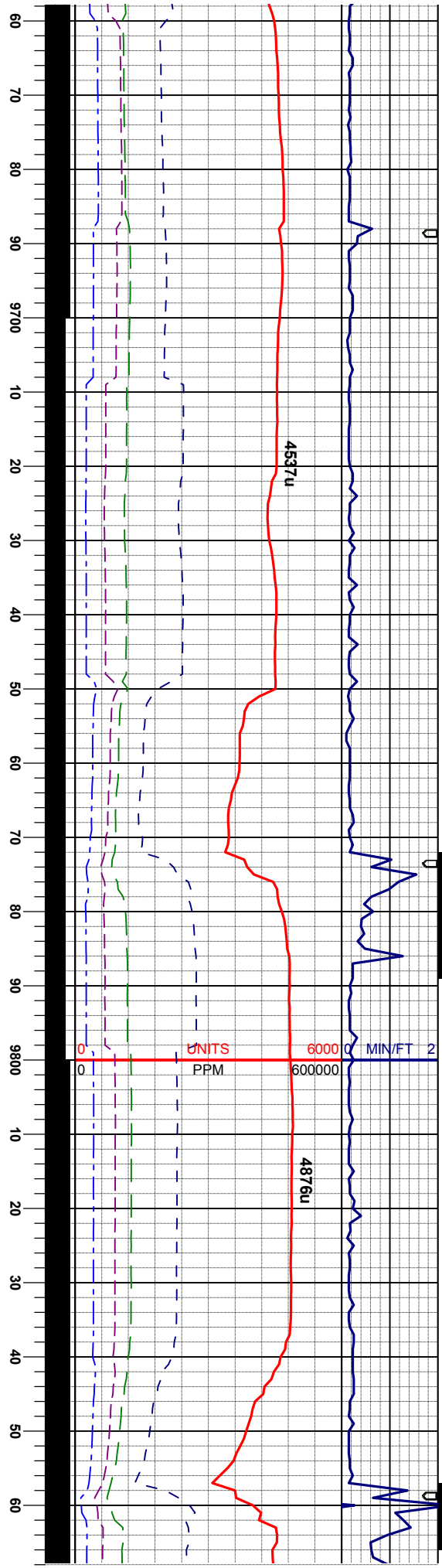
113
80% CHK: lt-mgy, occ crm, fir
sbply-blky, 20% MRL: dkgy-t
sbply-sbply, sl, sting, thk gn

Survey
MD 9459
INC 89.72
AZM 359.09
TVD 7220.7

Survey
MD 9544
INC 89.81
AZM 359.03
TVD 7221.0

Survey
MD 9629
INC 89.69
AZM 358.08
TVD 7221.4

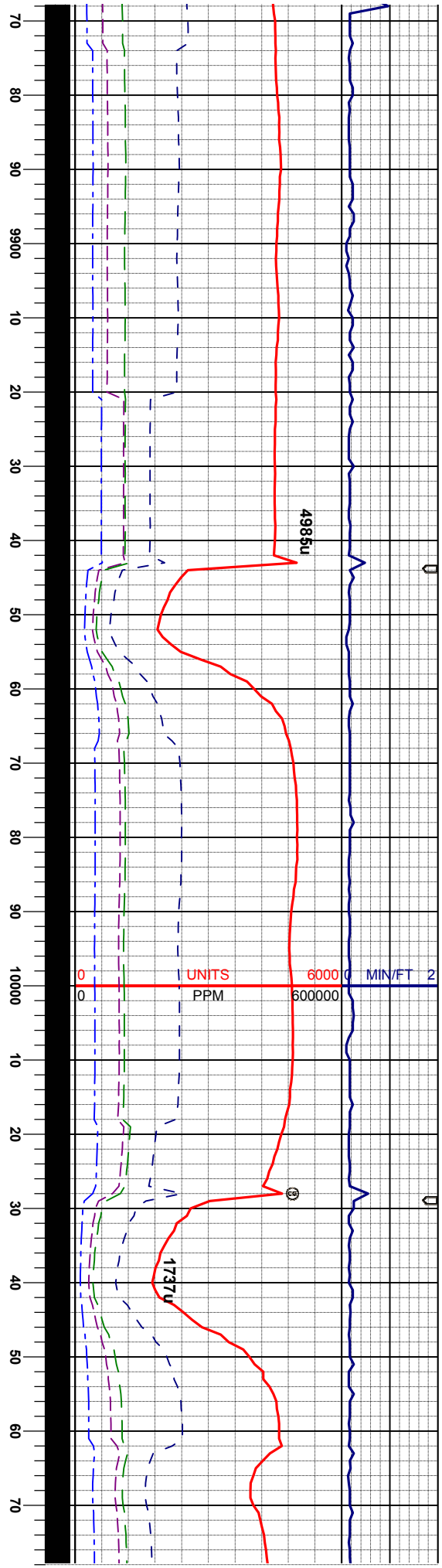




Survey
MD 9715
INC 89.78
AZM 357.66
TVD 7221.8

Survey
MD 9800
INC 90.09
AZM 359.71
TVD 7221.9





Survey
MD 9885
INC 89.29
AZM 358.04
TVD 7222.4

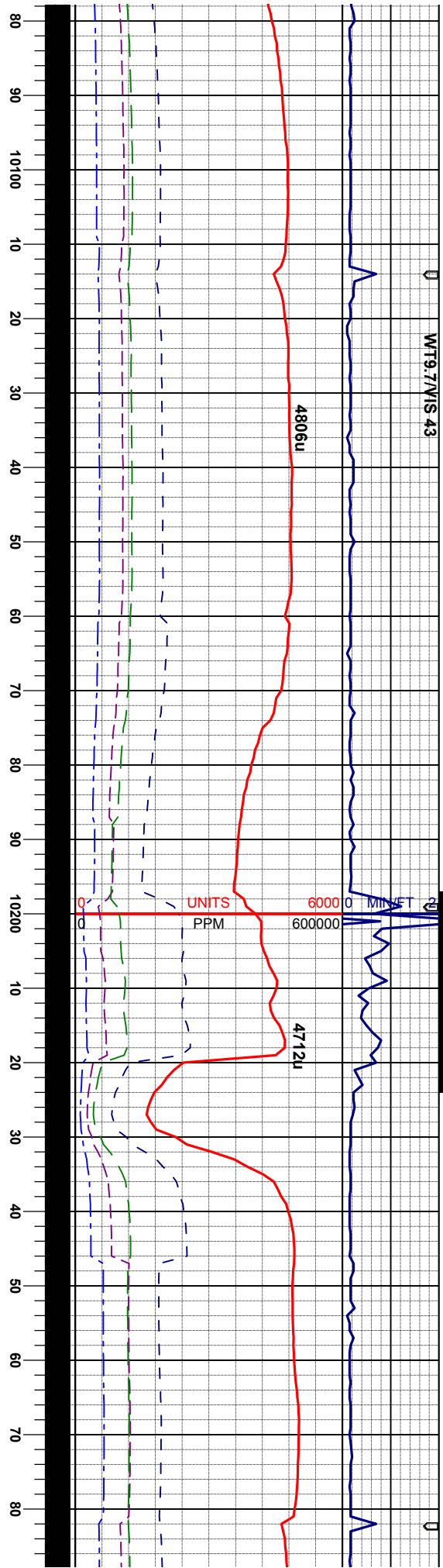
Survey
MD 9970
INC 89.96
AZM 358.79
TVD 7222.9

Survey
MD 10055
INC 89.75
AZM 358.27
TVD 7223.1

CHK: lt-mgy, sft-firm, mot, sbbly-biky, rr
MRL: dkgy-blk, mod firm, sbbly-sbbly, sl
sting cut, bl ring flor

65% MRL: dkgy-blk, sbbly-biky, mot, mod
sft 35% CHK: lt-mgy, sbbly-sbbly, mot,
occ str, sft, occ loc, sl, sting cut, bl ring
flor

7100 50 cp 250
ft
7250



Survey
MD 10140
INC 89.07
AZM 356.12
TVD 7224.0

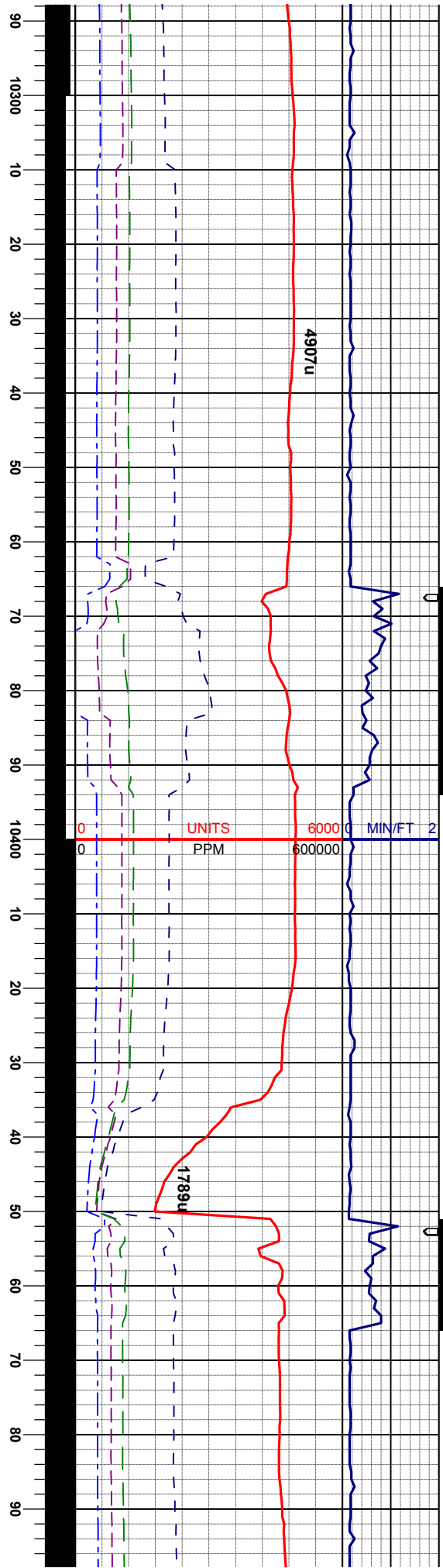
60% MRL: dkgy-blk, sbbiky-biky, mot, mod
sft 40% CHK: lt-mgy, sbbiky-sbply, mot,
occ stri, sft, occ Inoc, sl, sting cut, bl ring
flor

60% CHK: lt-mgy, sbbiky-sbply, mot, occ
stri, sft 40% MRL: dkgy-blk, sbbiky-biky,
mot, mod sft, occ Inoc, sl, sting cut, bl ring
flor

209

7250 ft 7100 50 cp 250



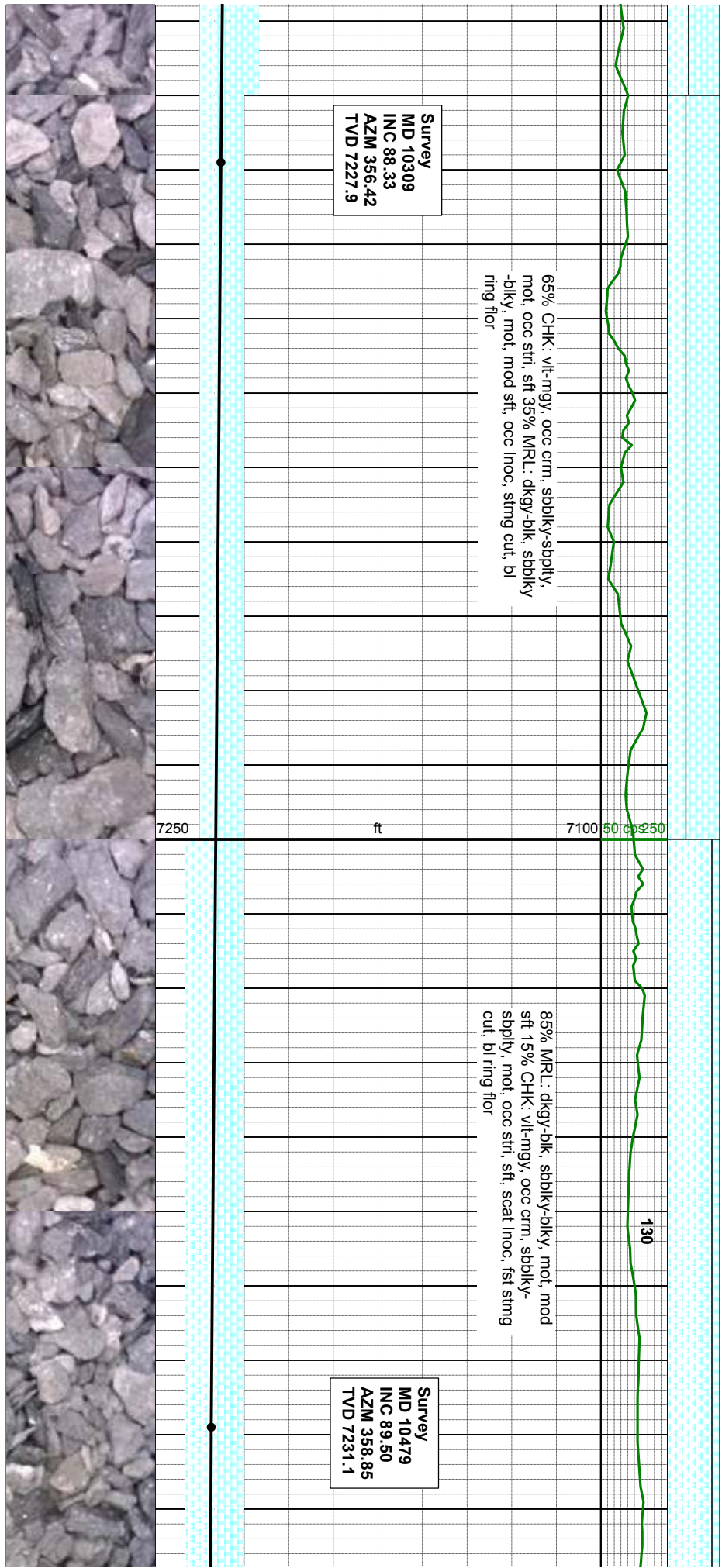


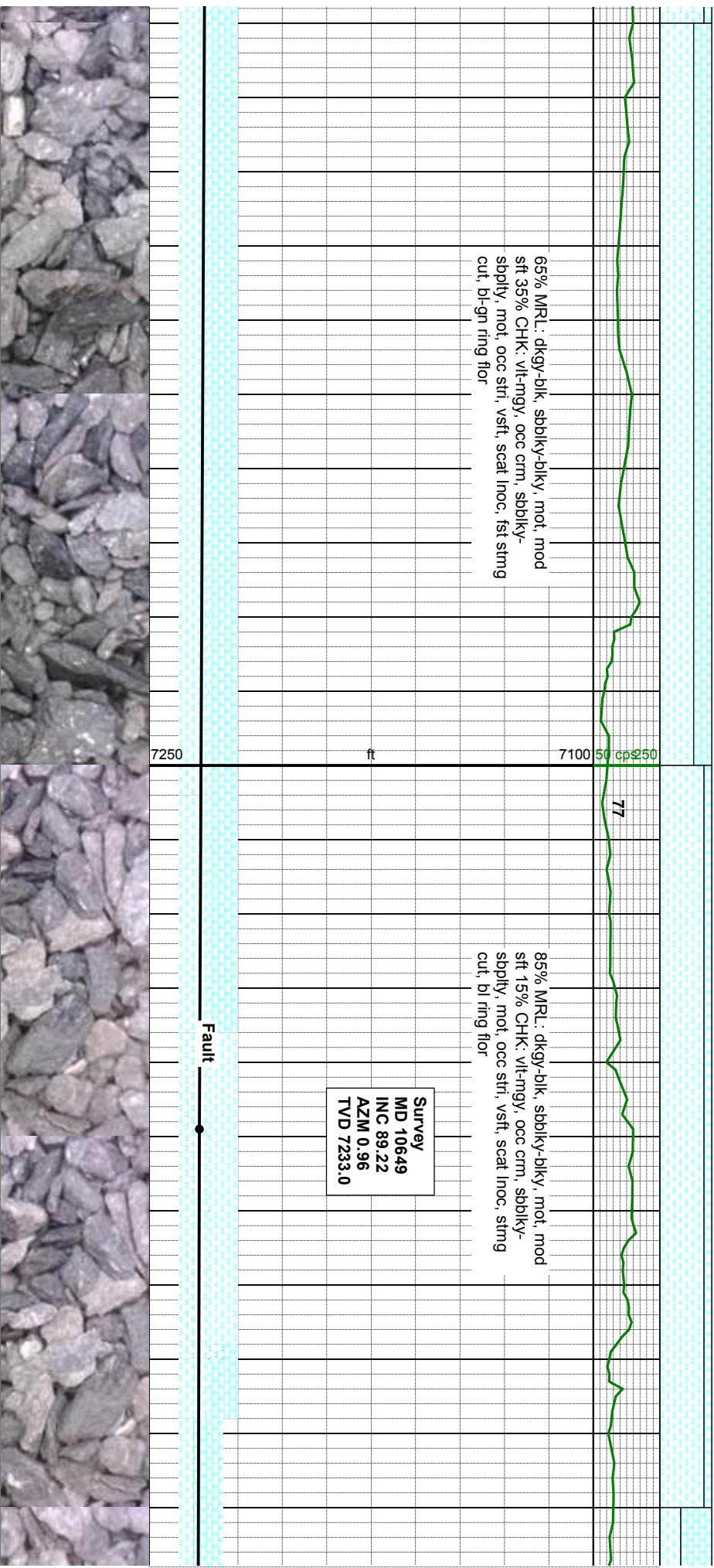
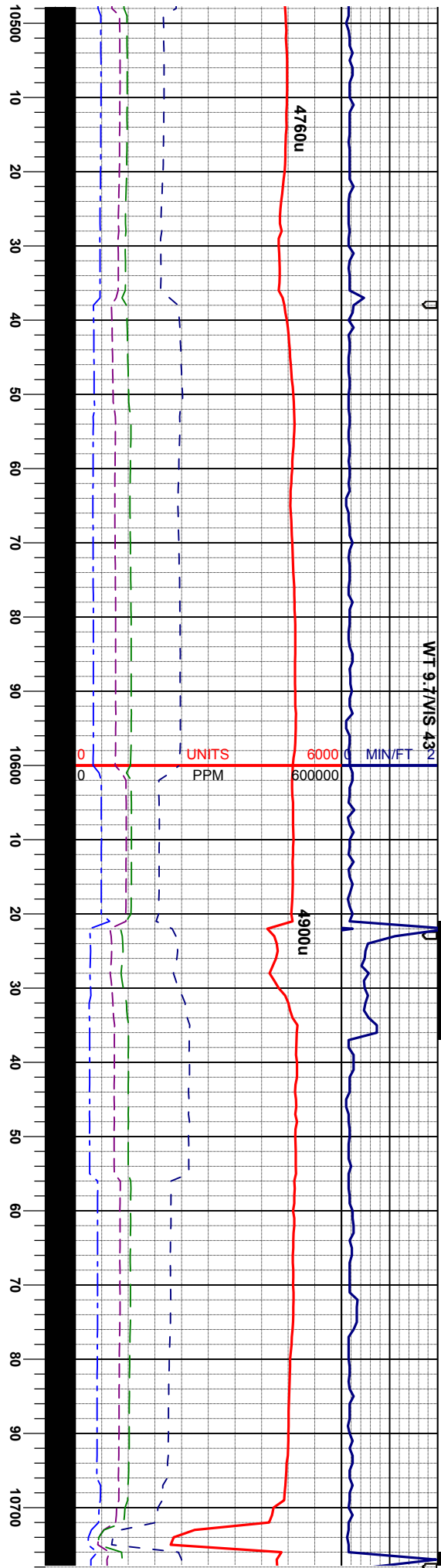
Survey
MD 10309
INC 88.33
AZM 356.42
TVD 7227.9

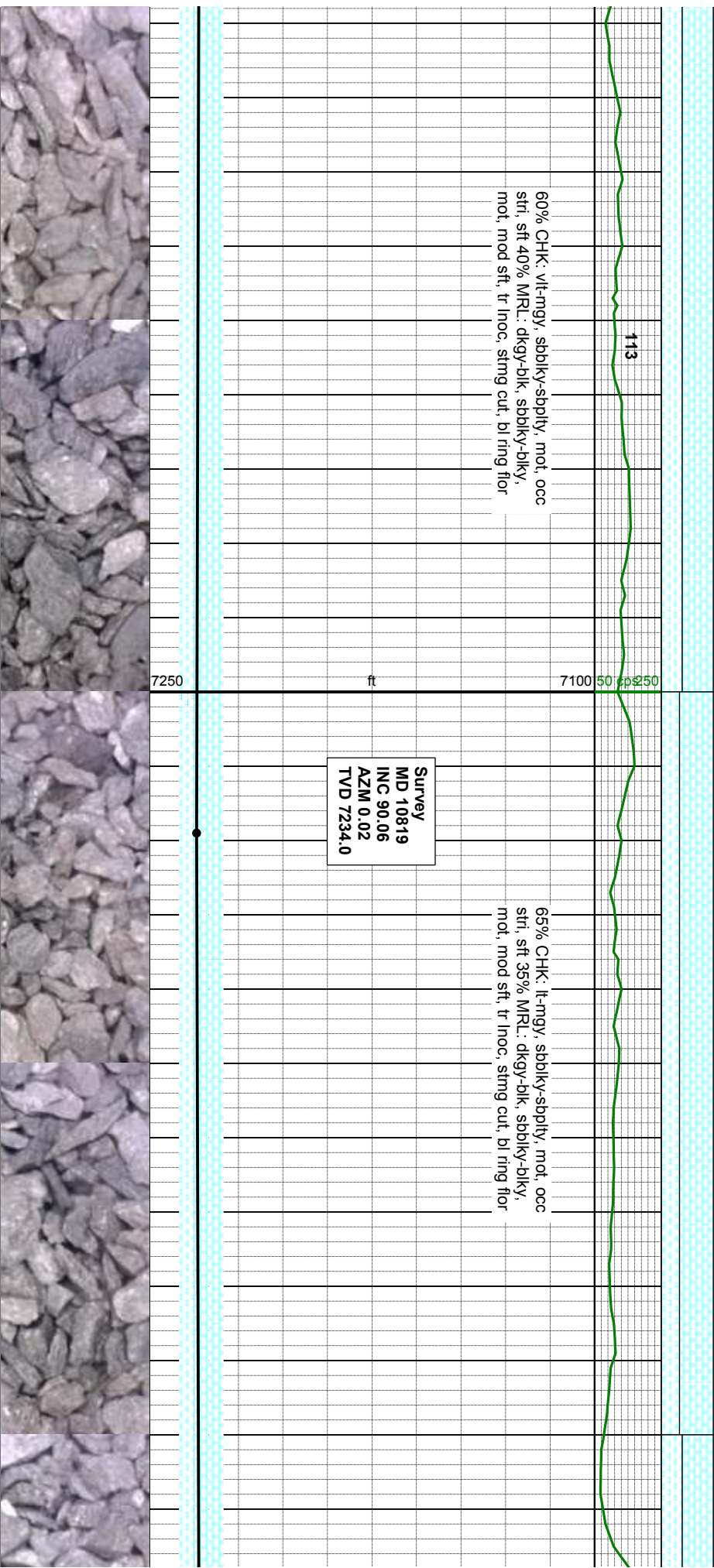
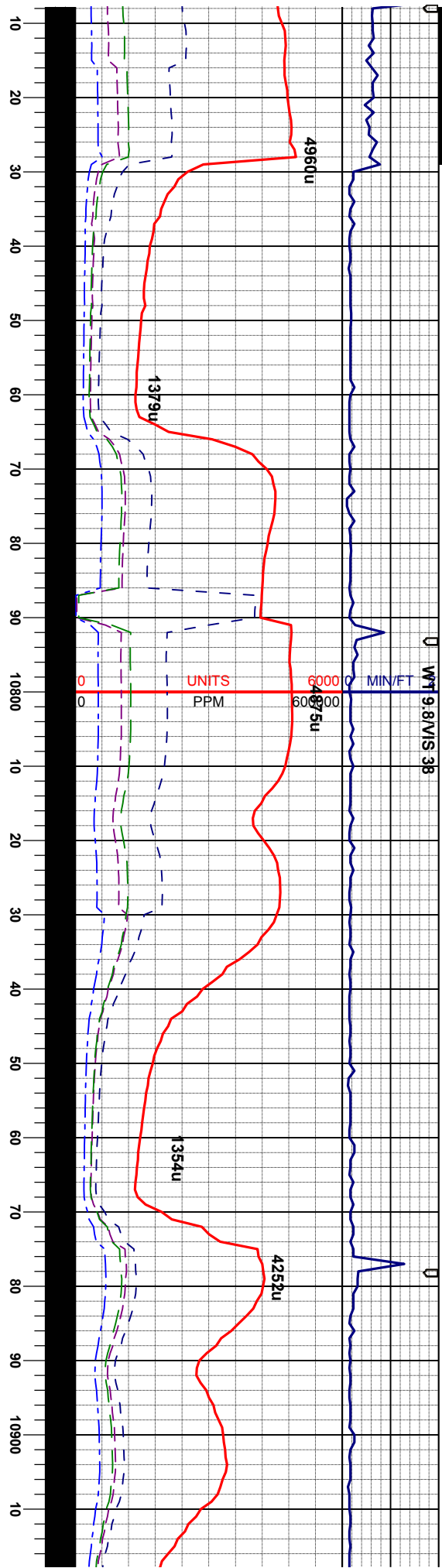
65% CHK: vlt-mgy, occ crm, sbblky-sbply,
mot, occ str, sft 35% MRL: dkgy-blk, sbblky
-blky, mot, mod sft, occ inoc, sting cut, bl
ring flor

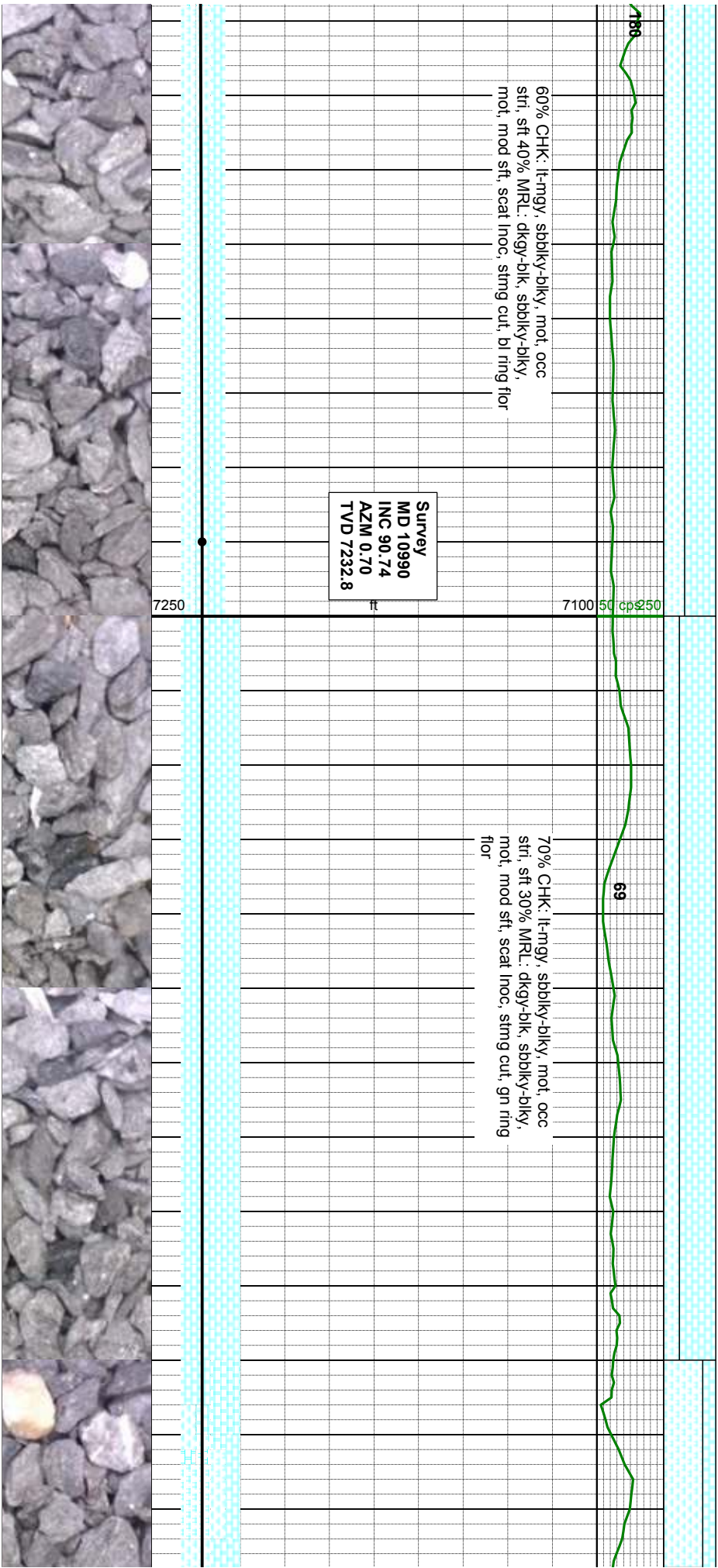
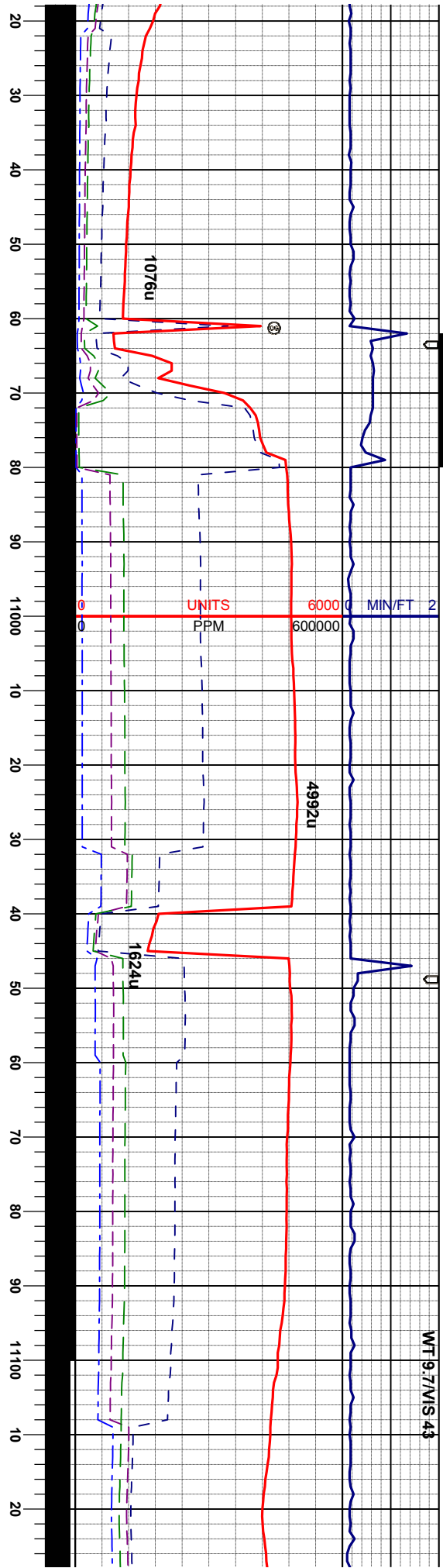
Survey
MD 10479
INC 89.50
AZM 358.85
TVD 7231.1

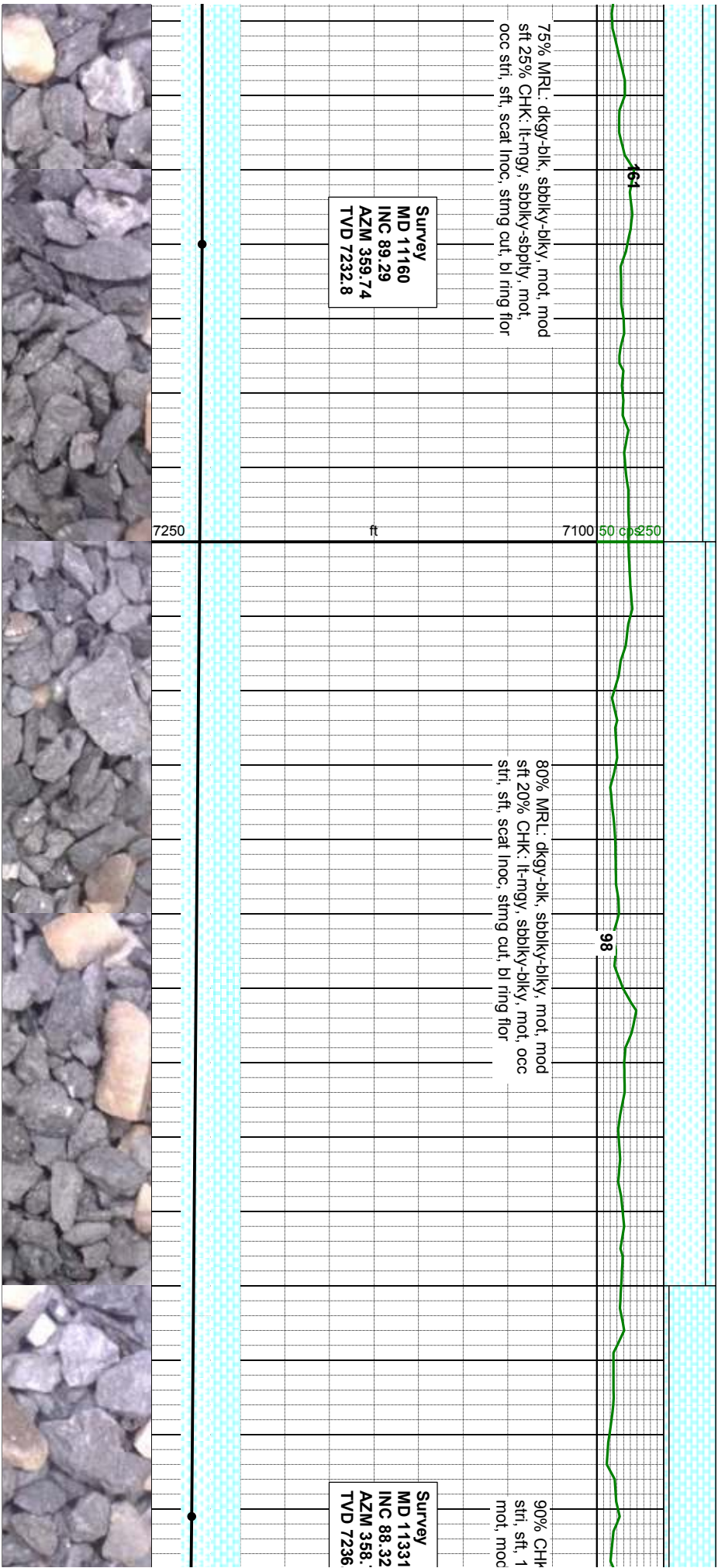
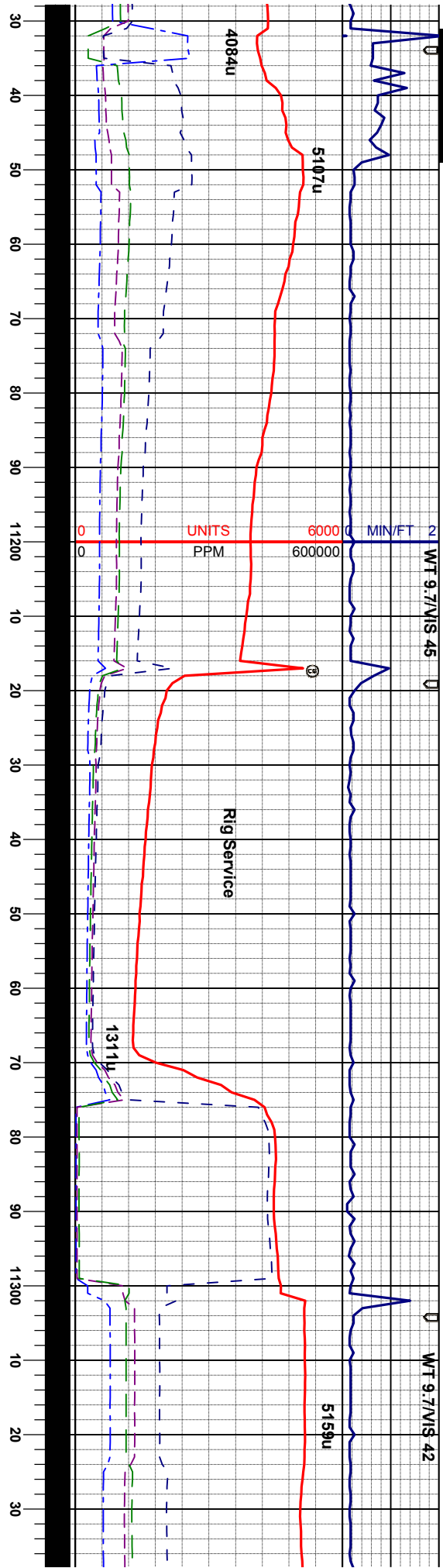
85% MRL: dkgy-blk, sbblky-blky, mot, mod
sft 15% CHK: vlt-mgy, occ crm, sbblky-
sbply, mot, occ str, sft, scat inoc, fst sting
cut, bl ring flor

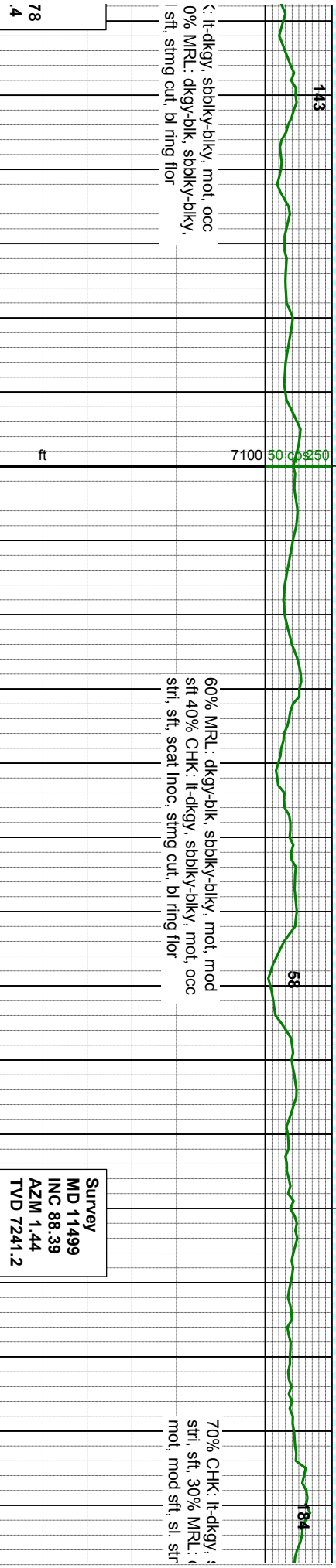
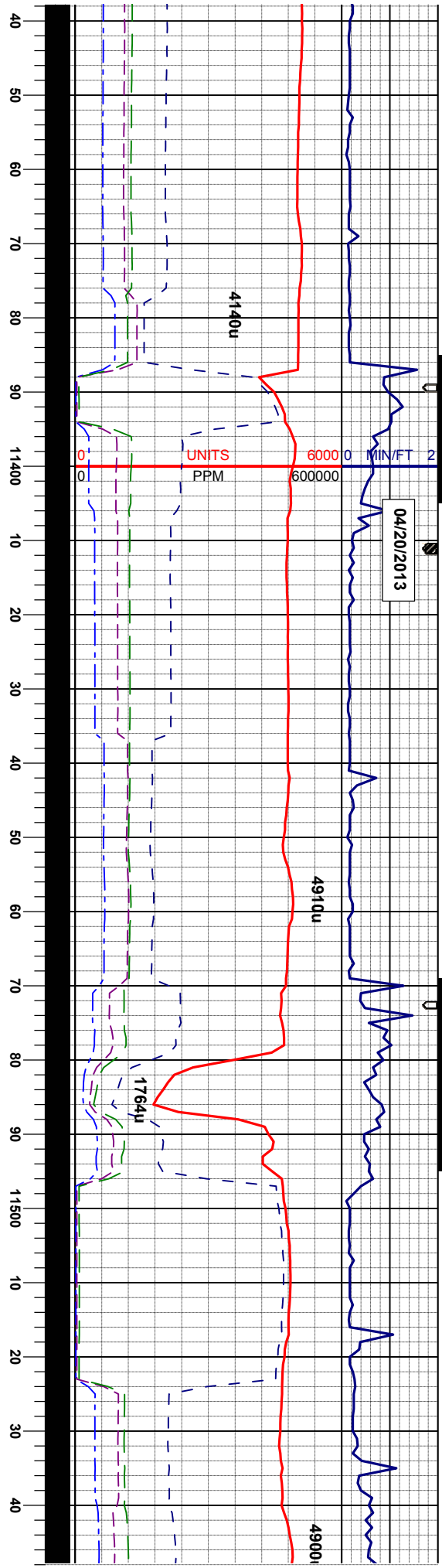


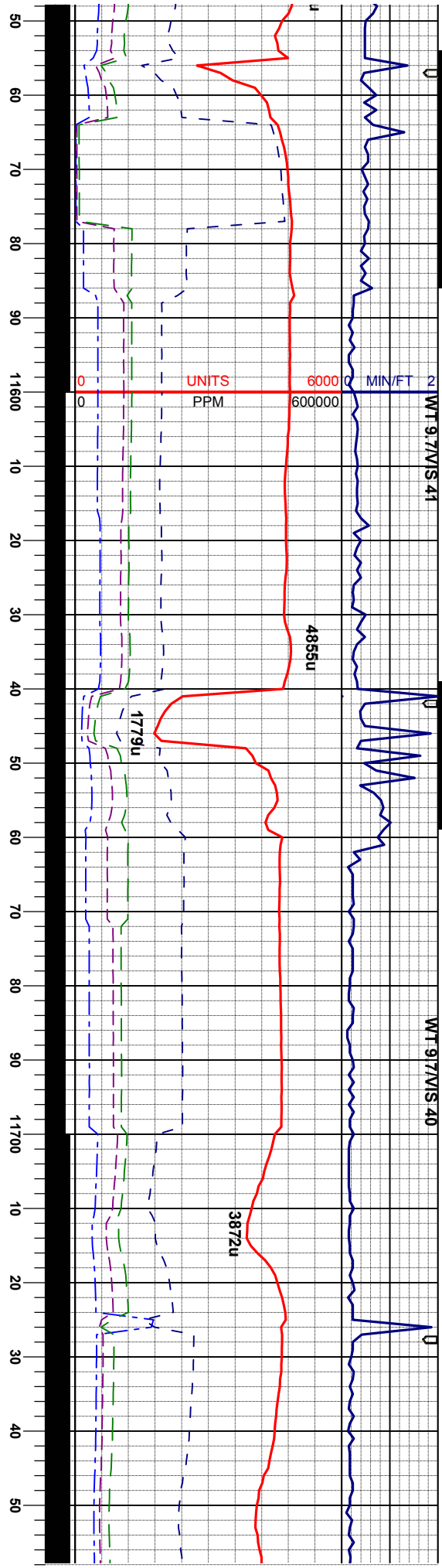












sbblky-blky, mot, occ
dkgy-blk, sbblky-blky,
ng, bl ring flr

90% CHK: lt-dkgy, sbblky-blky, mot, occ
str, sft, 10% MRL: dkgy-blk, sbblky-blky,
mot, mod sft, sl, sting, bl ring flr

80% MRL: dkgy-blk, sbblky-bl
sft 20% CHK: lt-dkgy, sbblky-l
str, sft, sl, sting, bl ring flr

Survey
MD 11669
INC 90.83
AZM 0.65
TVD 7242.4

7250 ft 7100 50 250

