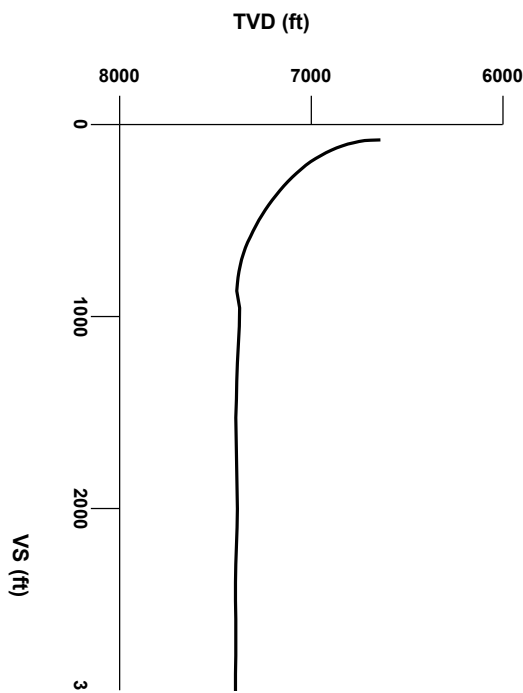




LOG created using Lplot VH Version 3.0, June 09, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

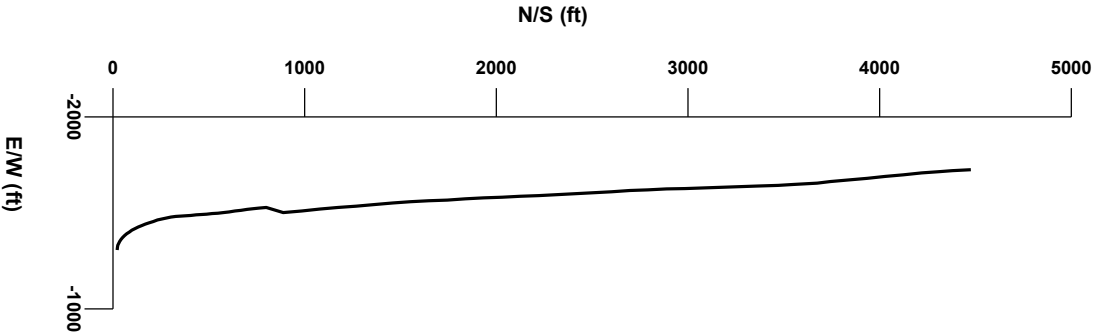
OPERATOR: ANADARKO PETROLEUM CORPORATION
WELL: GOBBLER 29N-23HZ
LOCATION: SWSE SEC 23, T2N, R66W, 6th PM
COUNTY: WELD
STATE: COLORADO
SPOT: 240' FSL x 2165' FEL
ELEVATION: GL 5,102', KB 5,115'
FIELD: WATTENBURG
SPUD DATE: 05/29/2013
TD DATE: 06/08/2013
DATES LOGGED: 06/02/2013 - 06/08/2013
DEPTHS LOGGED: 6873' MD - 11750'
LOGGERS: DAVID HENSLEY, JOHN V, SHANA S.
DRILLING FLUID: FSLN
DRILLING RIG: ENSIGN 132
API: 05-123-37064
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: WELLSITE GEOLOGICAL SERVICES PROVIDED BY COLUMBINE LOGGING INC.

Lat: 40.117142, Long: -104.742716



Survey Elevation

Survey Plan



LITHOLOGIES

Chalk

Marl

Silty Shale

MODIFIERS

B

 Bentonite

Sandstone Stringers

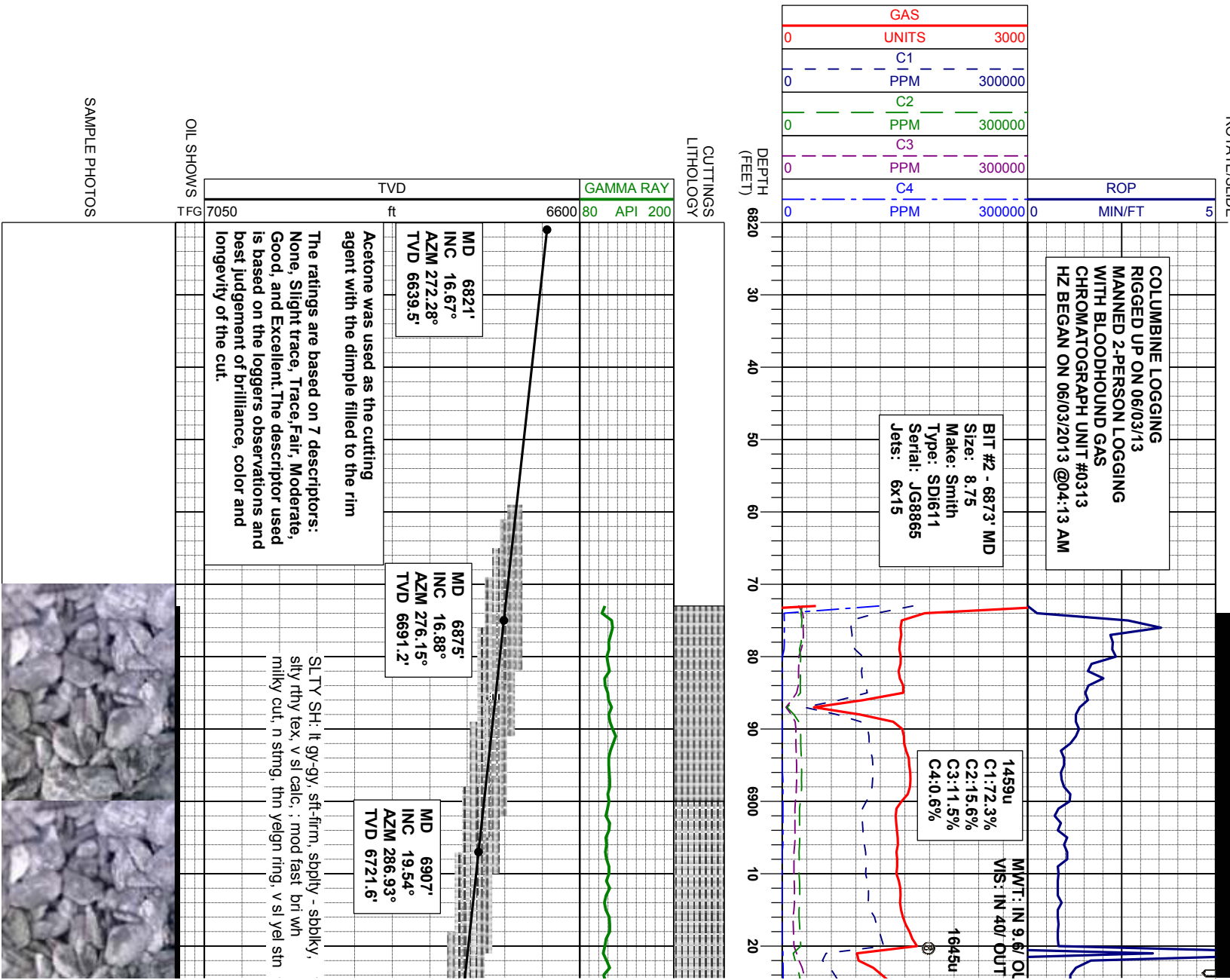
ENGINEERING SYMBOLS

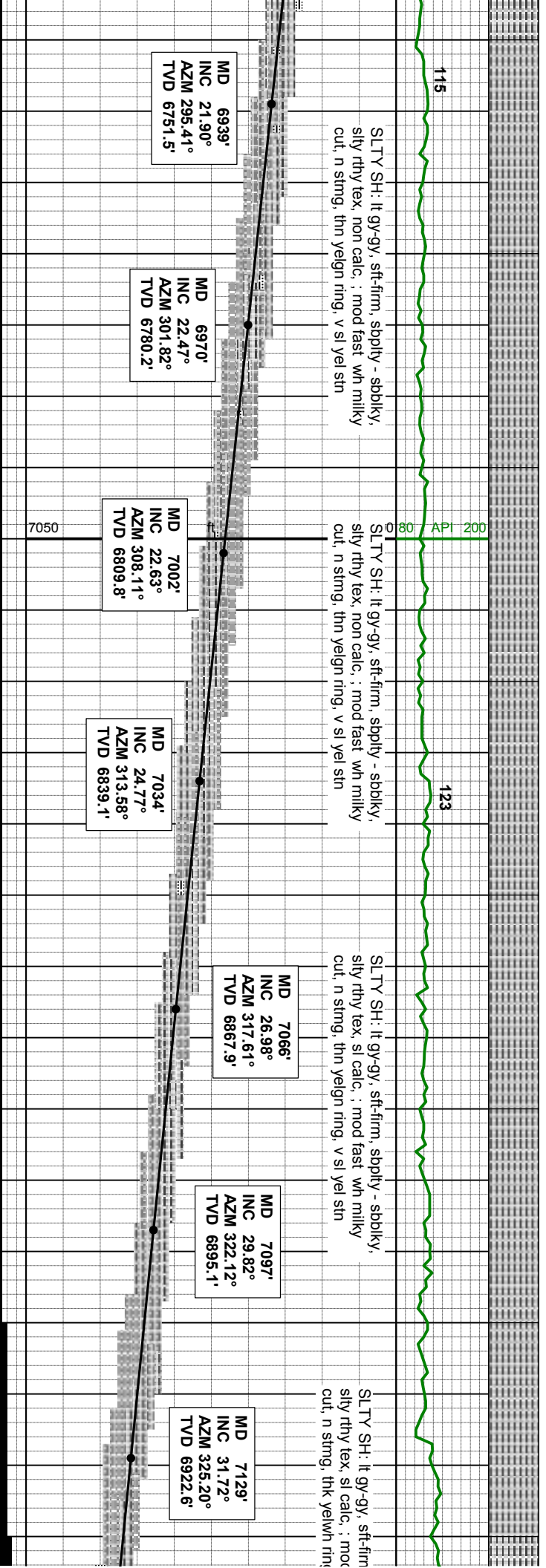
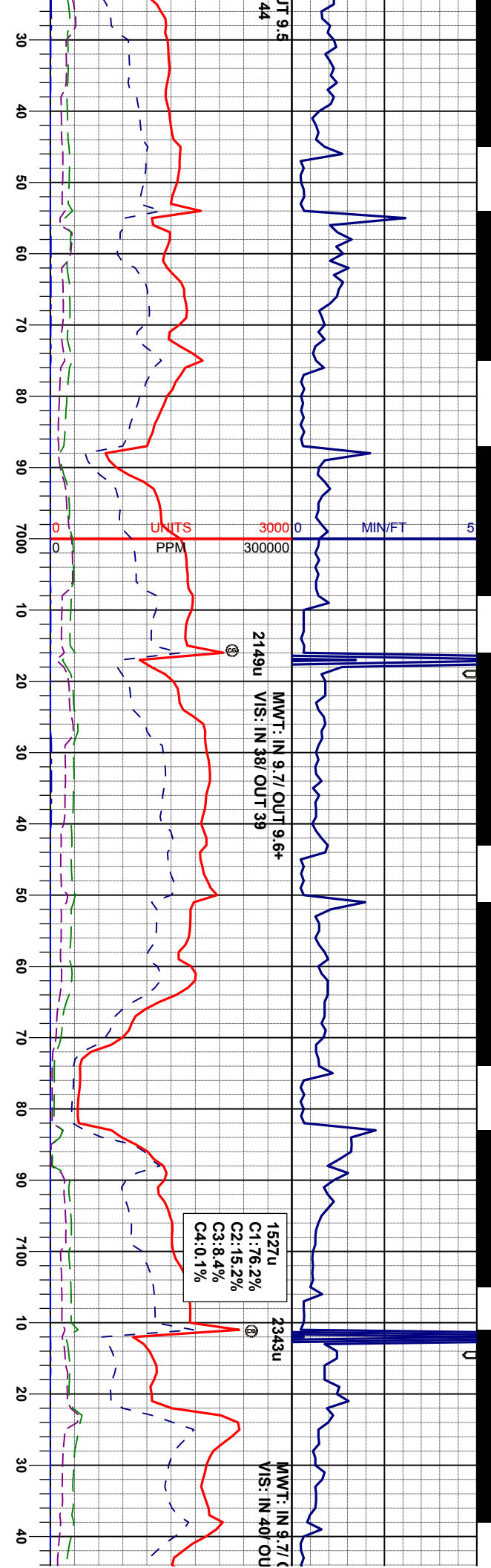
Connection

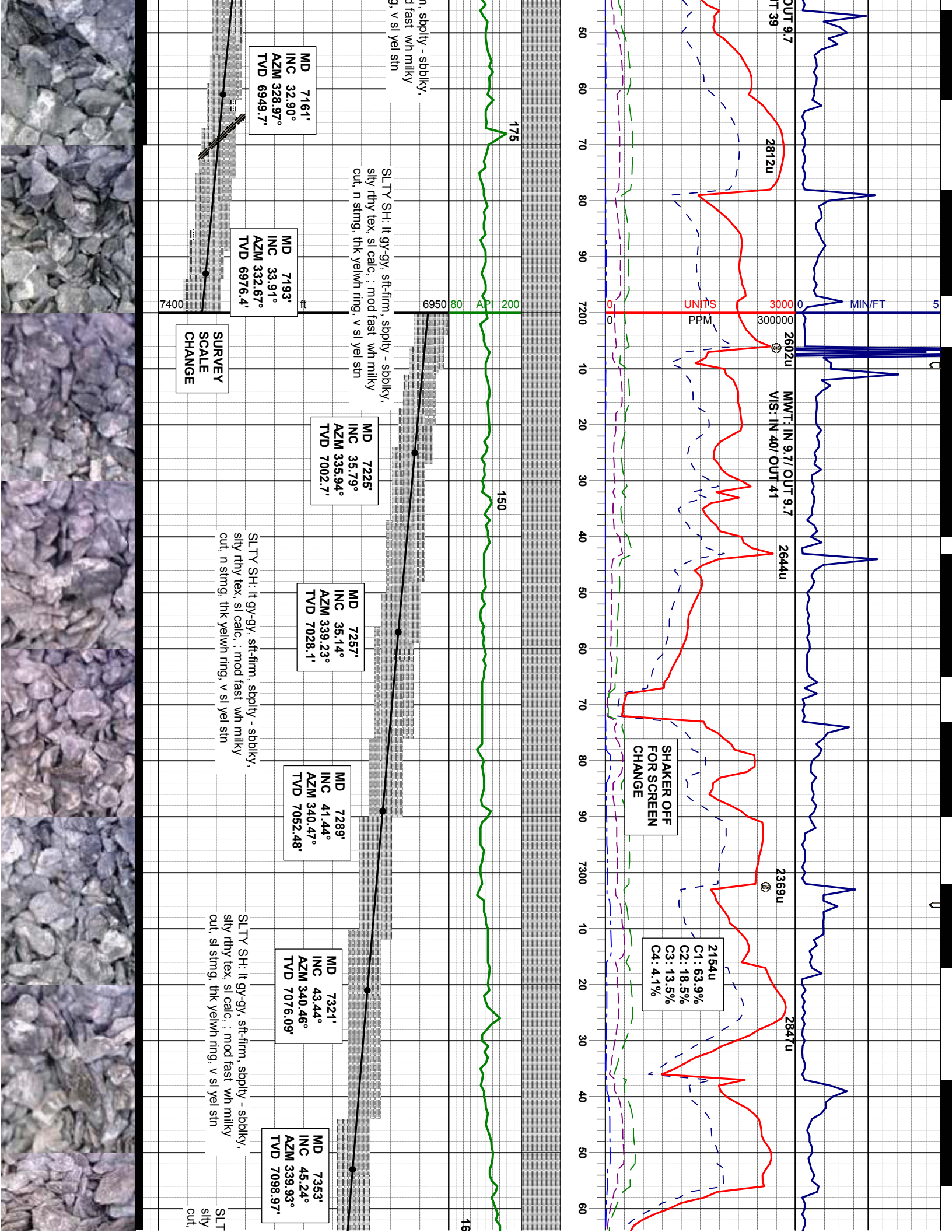
Connection Gas

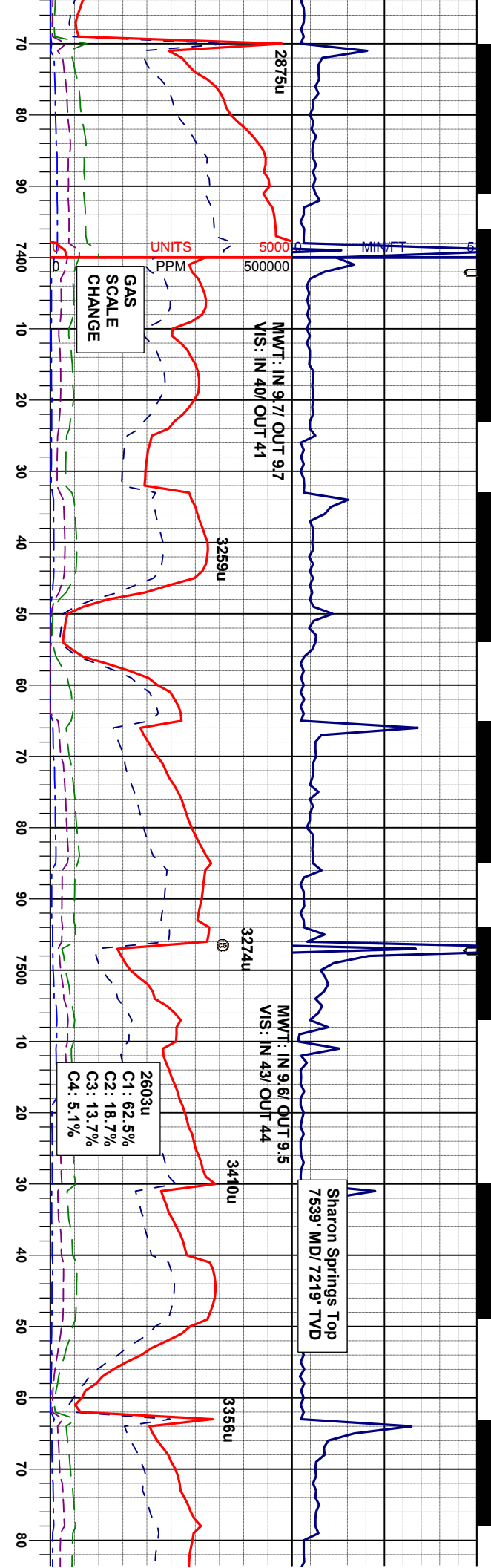
Midnight Depth

Normal Fault









Sharon Springs Top
7539' MD/ 7219' TVD

GAS
SCALE
CHANGE

C1: 62.5%
C2: 18.7%
C3: 13.7%
C4: 5.1%

SLTY SH: lt gy-gy, sft-firm, sbply - sbbkly,
sily rthy tex, sl calc, ; mod fast wh-bl milky
cut, sl string, thk yel-bl ring, v sl yel stn

SLTY SH: lt gy-gy, sft-firm, sbply - sbbkly,
sily rthy tex, sl calc, tr bent @ 7530 MD, ;
mod fast wh-bl milky cut, sl string, thk yel-bl
ring, v sl yel stn

SLTY SH: lt gy-gy, sft-firm, sbply - sbbkly,
sily rthy tex, sl calc, mod bent ; tr ss lt gy-
gy, sbang - sbmnd ; ; mod fast wh-bl milky
cut, sl string, thk yel-bl ring, v sl yel stn

MD 7385'
INC 46.98°
AZM 343.56°
TVD 7121.16'

MD 7417'
INC 48.41°
AZM 346.5°
TVD 7142.70'

MD 7449'
INC 50.31°
AZM 349.79°
TVD 7163.54'

MD 7481'
INC 51.2°
AZM 352.45°
TVD 7183.8'

MD 7513'
INC 52.5°
AZM 353.71°
TVD 7203.6'

MD 7545'
INC 54.19°
AZM 355.09°
TVD 7222.7'

MD 7576'
INC 56.31°
AZM 355.63°
TVD 7240.3'

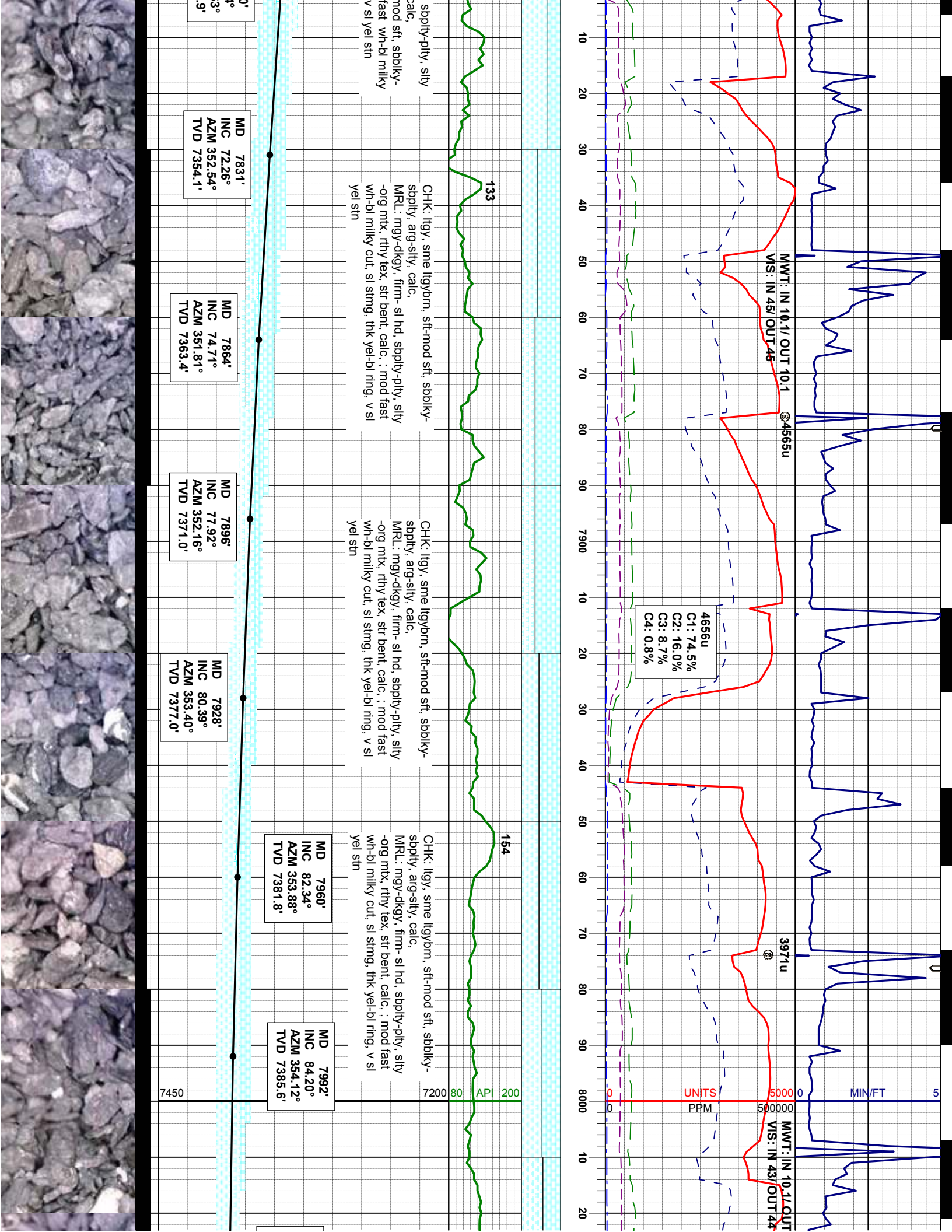
7400

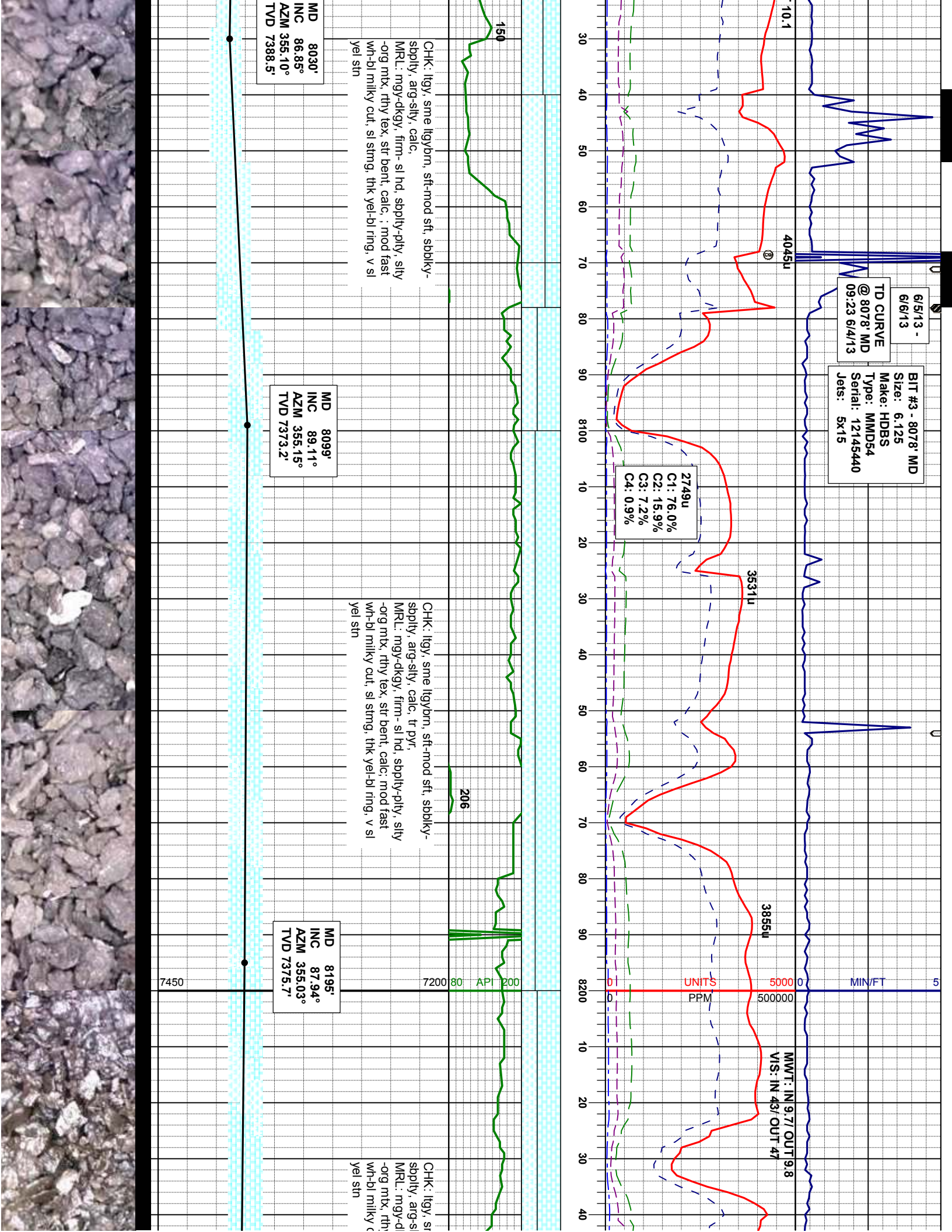
6950 80 API 200

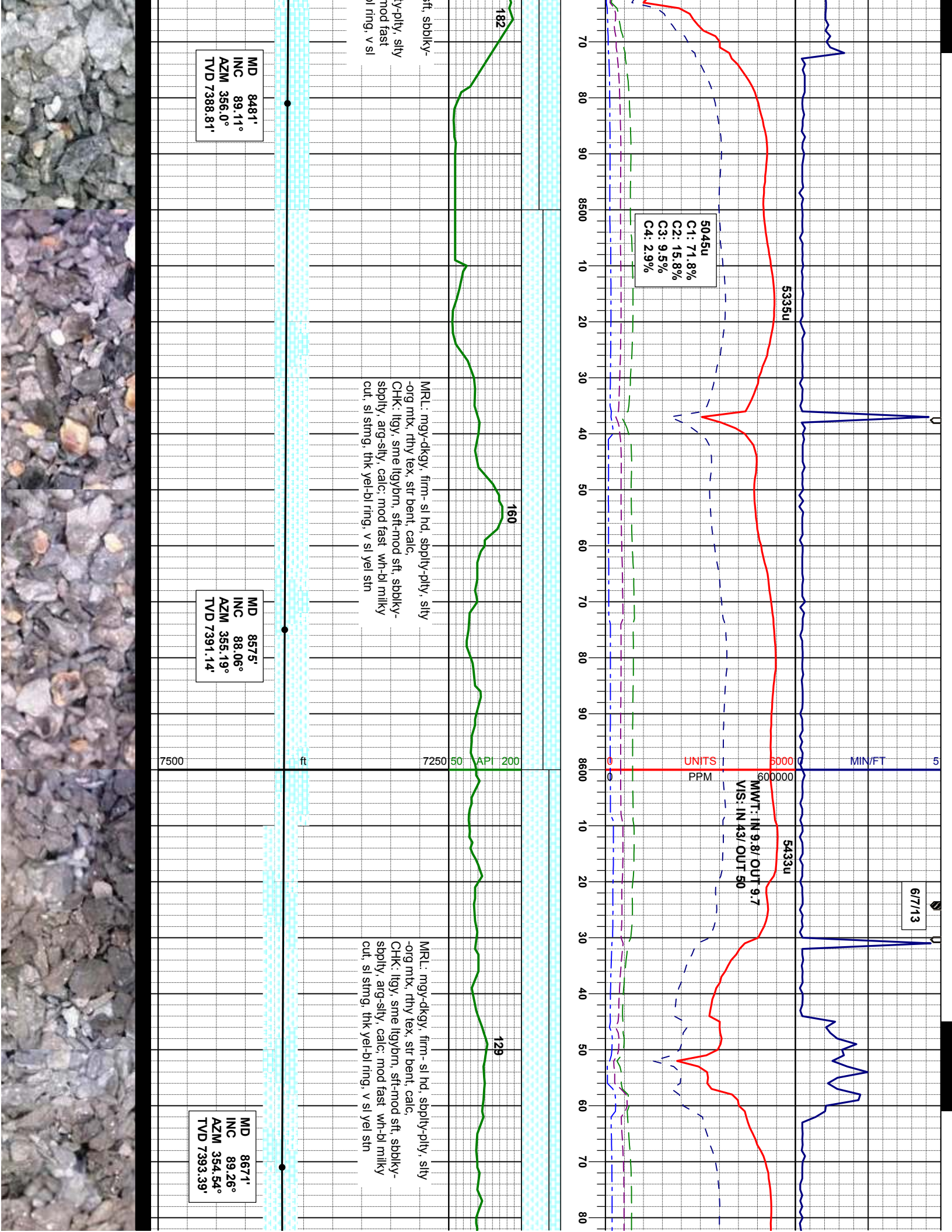
175

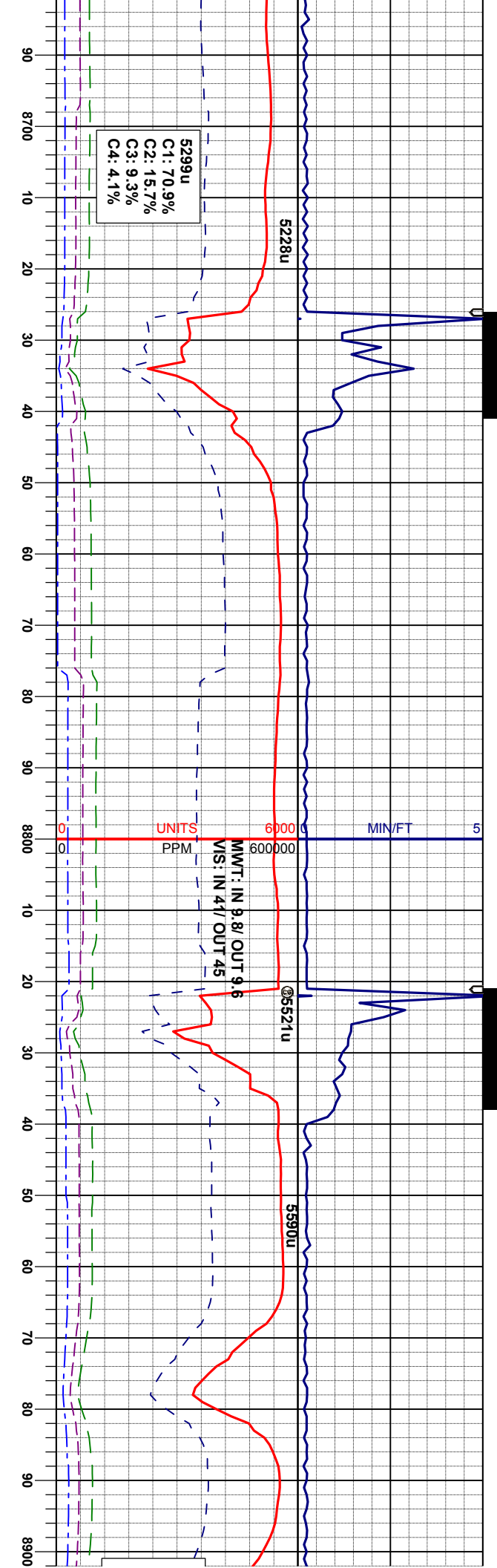
220











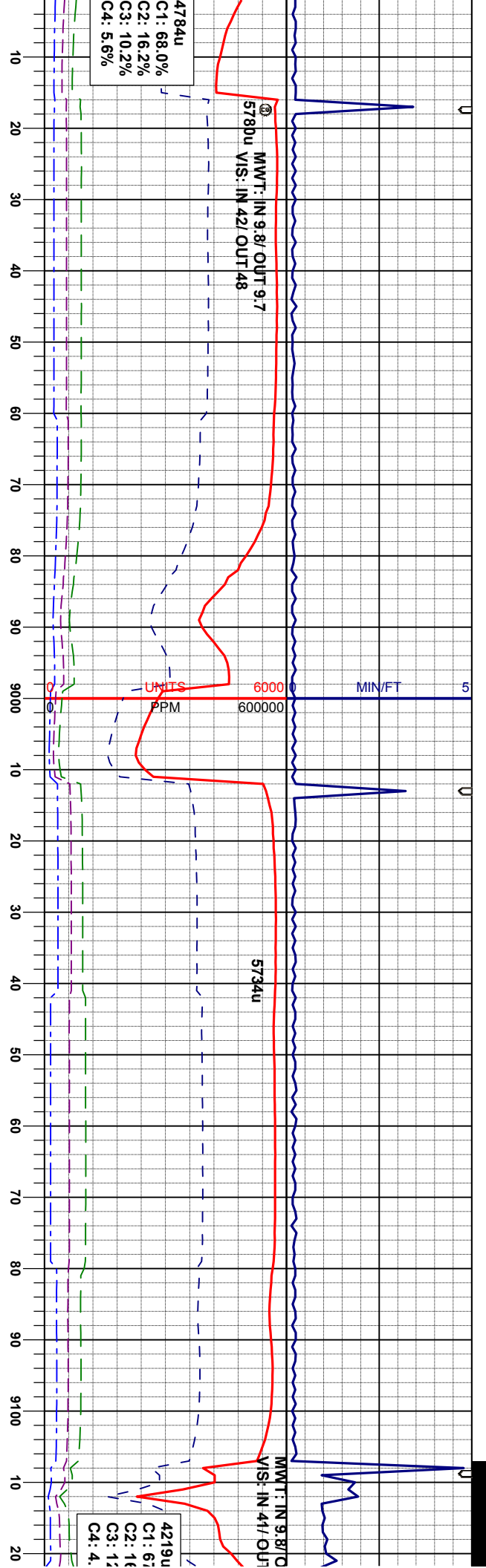
MRL: mgy-dkgy, firm-si hd, sbply-pily, stly
-org mtx, rthy tex, str bent, calc,
CHK: lly, sme llybrn, sft-mod sft, sbply-
sbply, arg-sily, calc, ; mod fast wh-bl milky
cut, sl stmg, thk yel-bl ring, v sl yel stn

MD 8766'
INC 91.66°
AZM 356.75°
TVD 7392.62'

MRL: mgy-dkgy, firm-si hd, sbply-pily, stly
-org mtx, rthy tex, calc,
CHK: lly, sme llybrn, sft-mod sft, sbply-
sbply, arg-sily, calc, ; mod fast wh-bl milky
cut, stmg, thk yel ring, v sl yel stn

MD 8861'
INC 91.14°
AZM 358.20°
TVD 7390.30'





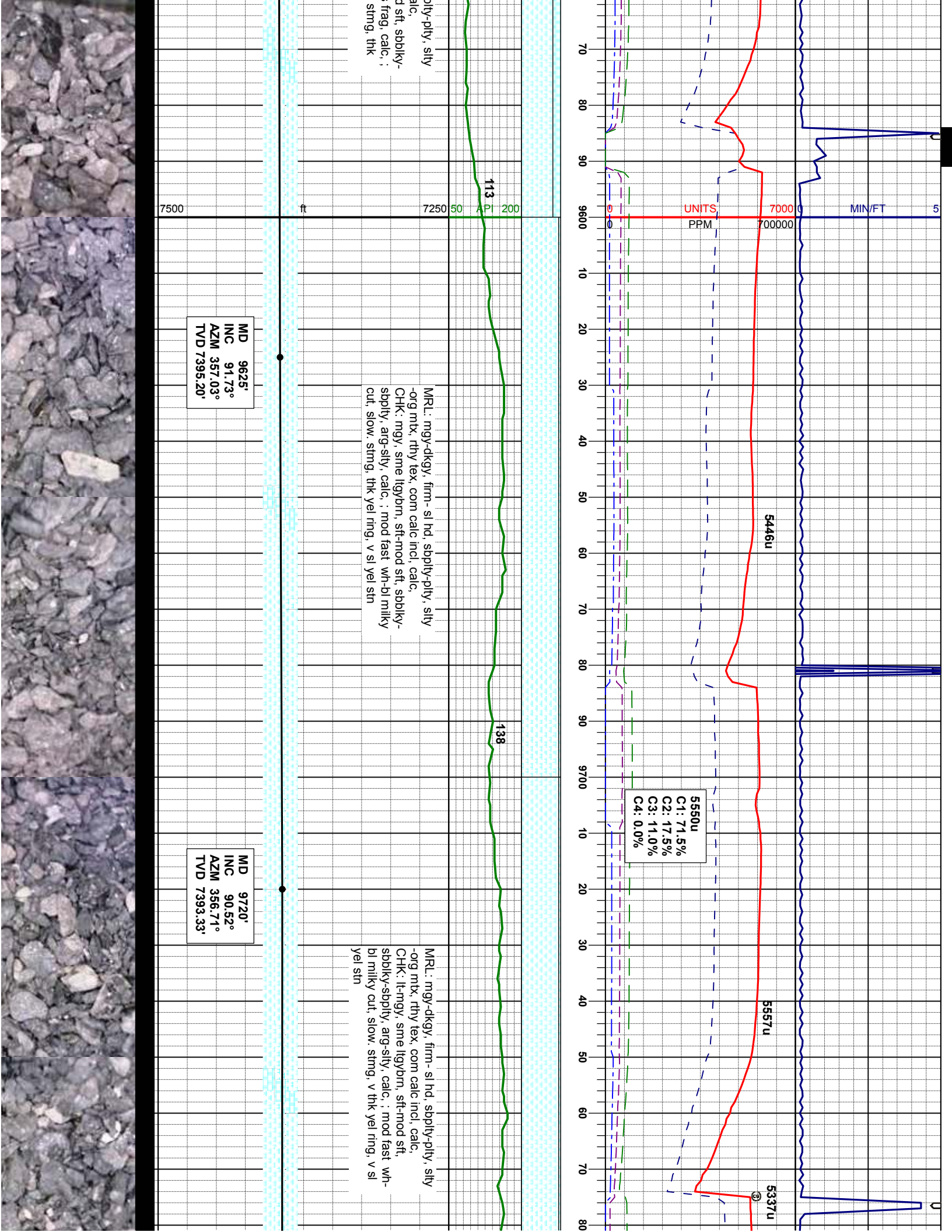
MRL: ngy-dkgy, firm-si hd, sbply-pty, stly
-org mx, rthy tex, tr calc incl, calc.
CHK: lly, sme llybrn, sft-mod sft, sbply-
sbply, arg-sily, calc, ; mod fast wh-bl milky
cut, stmg, thn yel ring, v sl yel stn

MD 8957'
INC 90.89°
AZM 356.51°
TVD 7388.59'

CHK: lly, sme llybrn, sft-mod sft, sbply-
sbply, arg-sily, calc.
MRL: ngy-dkgy, firm-si hd, sbply-pty, stly
-org mx, rthy tex, tr calc incl, calc, ; mod
fast wh-bl milky cut, stmg, thk yel-bl ring, v
sl yel stn

MD 9052'
INC 90.68°
AZM 356.02°
TVD 7387.29'

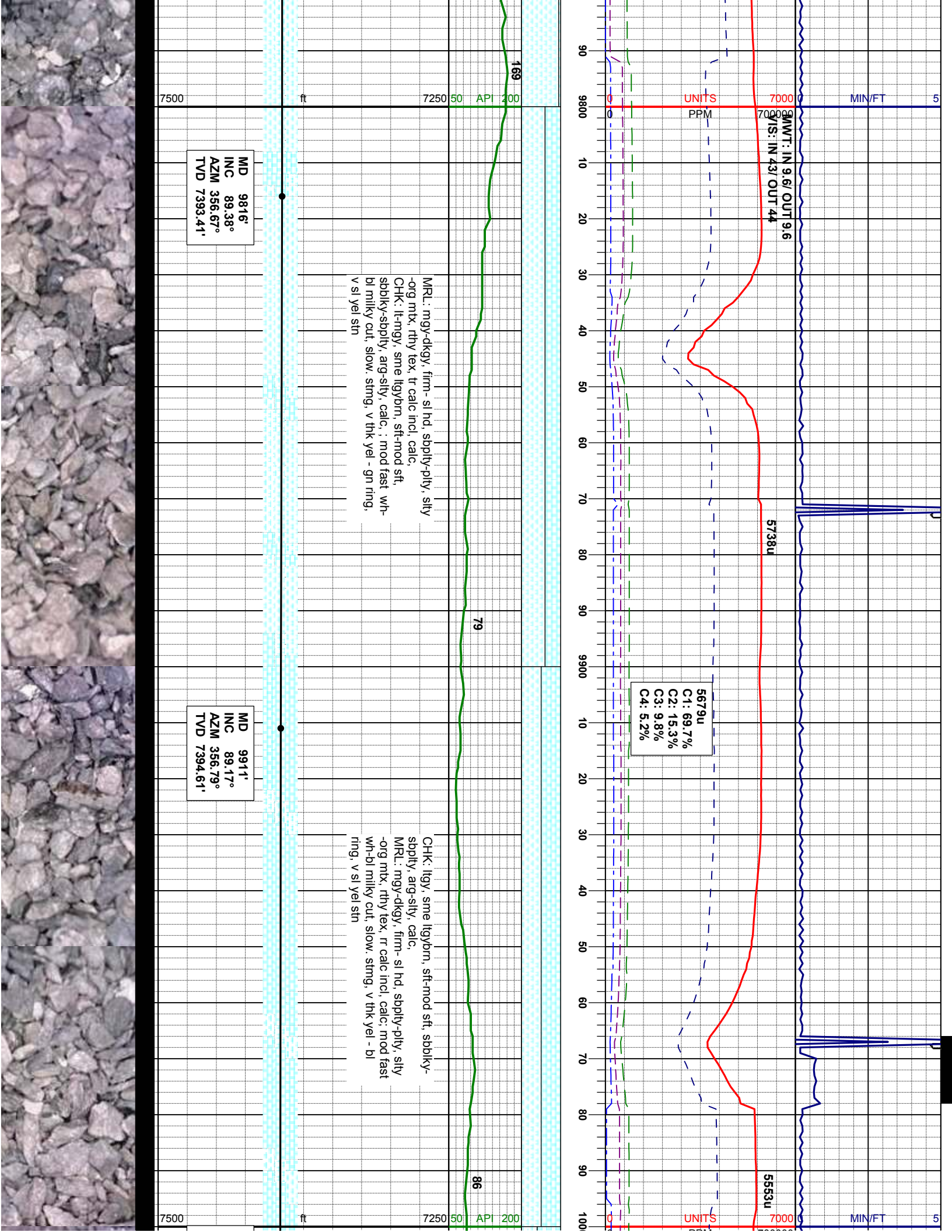




MR: mgy-dkgy, firm-si hd, sbply-ply, silty
org mtx, rthy tex, com calc incl, calc
CHK: mgy, sme llyb/m, sft-mod sft, sbply-
sbply, arg-silty, calc, ; mod fast wh-bl milky
cut, slow, string, thk yel ring, v sl yel stn

MR: mgy-dkgy, firm-si hd, sbply-ply, silty
org mtx, rthy tex, com calc incl, calc
CHK: lt-mgy, sme llyb/m, sft-mod sft,
sbply-sbply, arg-silty, calc, ; mod fast wh-
bl milky cut, slow, string, v thk yel ring, v sl
yel stn

5550u
C1: 71.5%
C2: 17.5%
C3: 11.0%
C4: 0.0%



7500

ft

7250

50

API

200

MD 9816'
INC 89.38°
AZM 356.67°
TVD 7393.41'

MRL: mgy-dkgy, firm-si hd, sbply-pty, sily
-org mty, rhy tex, tr calc incl, calc,
CHK: lt-mgy, sme ltgybrn, sft-mod sft,
sbply-sbply, arg-sily, calc, ; mod fast wh-
bl milky cut, slow, stmg, v thk yel - gn ring,
v sl yel sin

79

7500

ft

7250

50

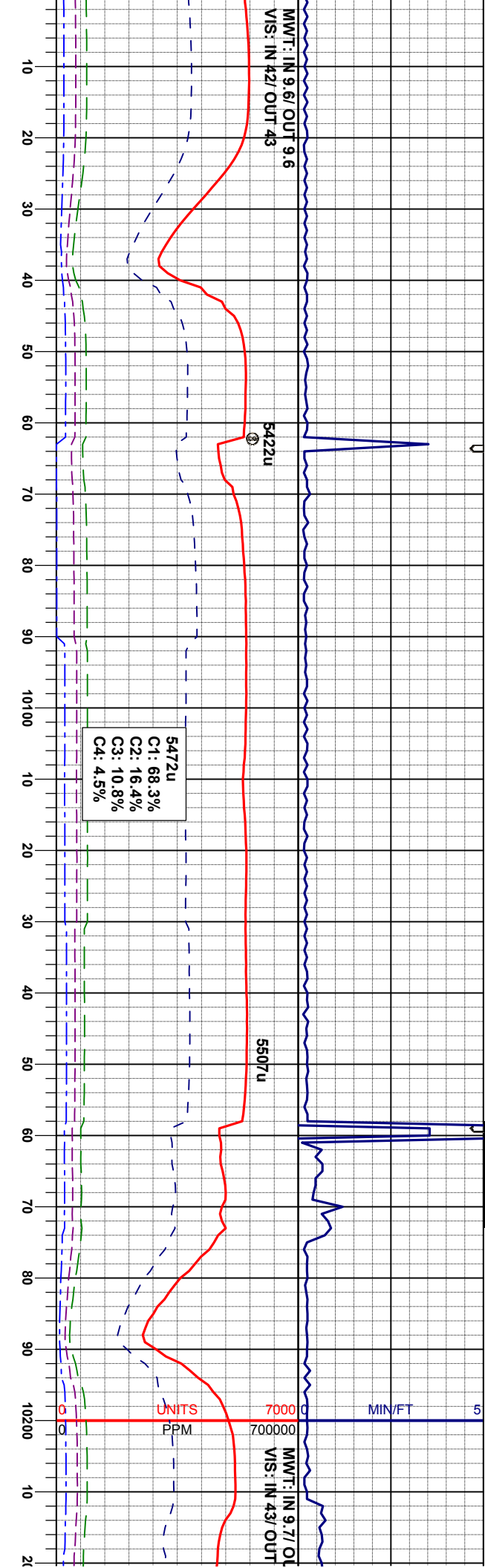
API

200

MD 9911'
INC 89.17°
AZM 356.79°
TVD 7394.61'

CHK: ltgy, sme ltgybrn, sft-mod sft, sbply-
sbply, arg-sily, calc,
MRL: mgy-dkgy, firm-si hd, sbply-pty, sily
-org mty, rhy tex, tr calc incl, calc, mod fast
wh-bl milky cut, slow, stmg, v thk yel - bl
ring, v sl yel sin

86



CHK: lly, sme llybrn, sft-mod sft, sbdky-
sbply, arg-sily, calc.
MRL: mgy-dkgy, firm-sl hd, sbply-ply, sily
-org mtx, rthy tex, rr calc incl, calc, mod fast
wn-bl milky cut, slow, stimg, v thk yel - bl
ring, v sl yel stn

CHK: lly, sme llybrn, sft-mod sft, sbdky-
sbply, arg-sily, calc.
MRL: mgy-dkgy, firm-sl hd, sbply-ply, sily
-org mtx, rthy tex, rr calc incl, calc, : mod
fast wn-bl milky cut, slow, stimg, v thk yel -
gn ring, v sl yel stn

MD 10007'
INC 90.40°
AZM 357.75°
TVD 7394.97'

MD 10103'
INC 89.78°
AZM 357.46°
TVD 7394.82'

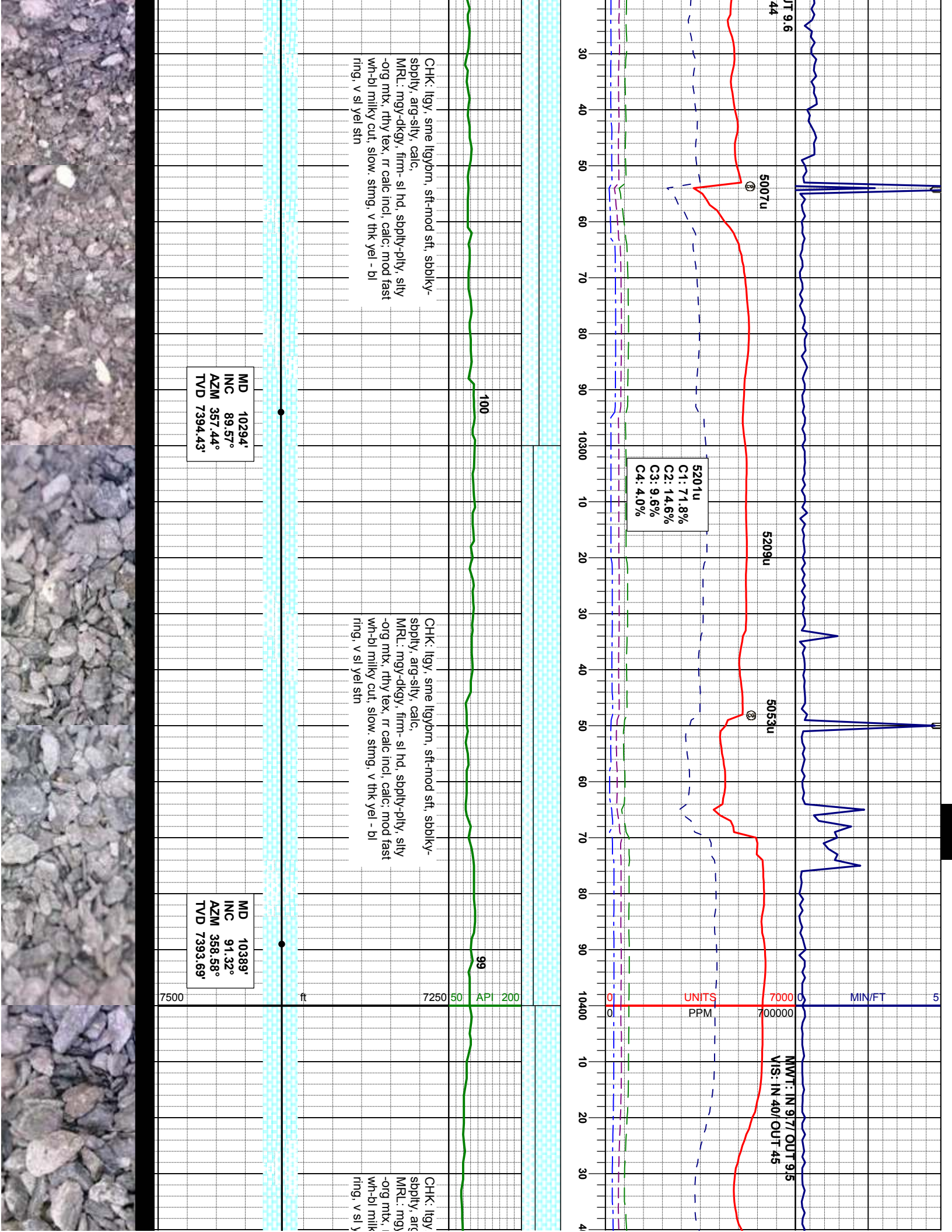
MD 10198'
INC 90.56°
AZM 359.48°
TVD 7394.54'

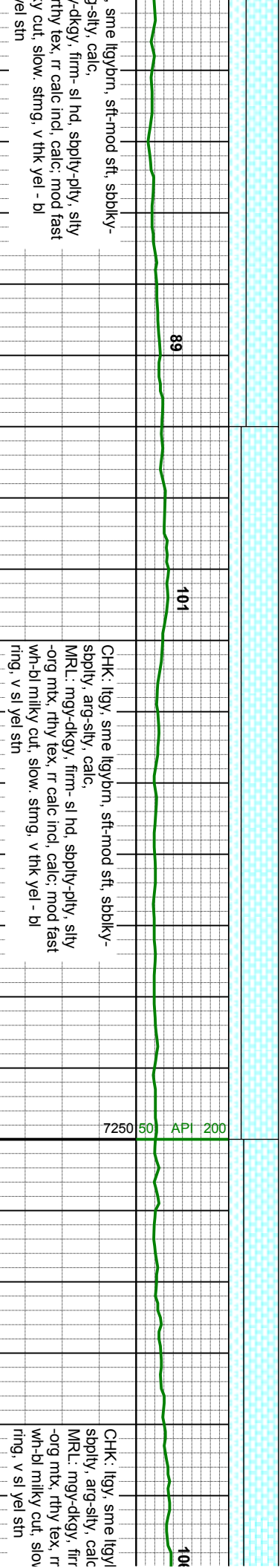
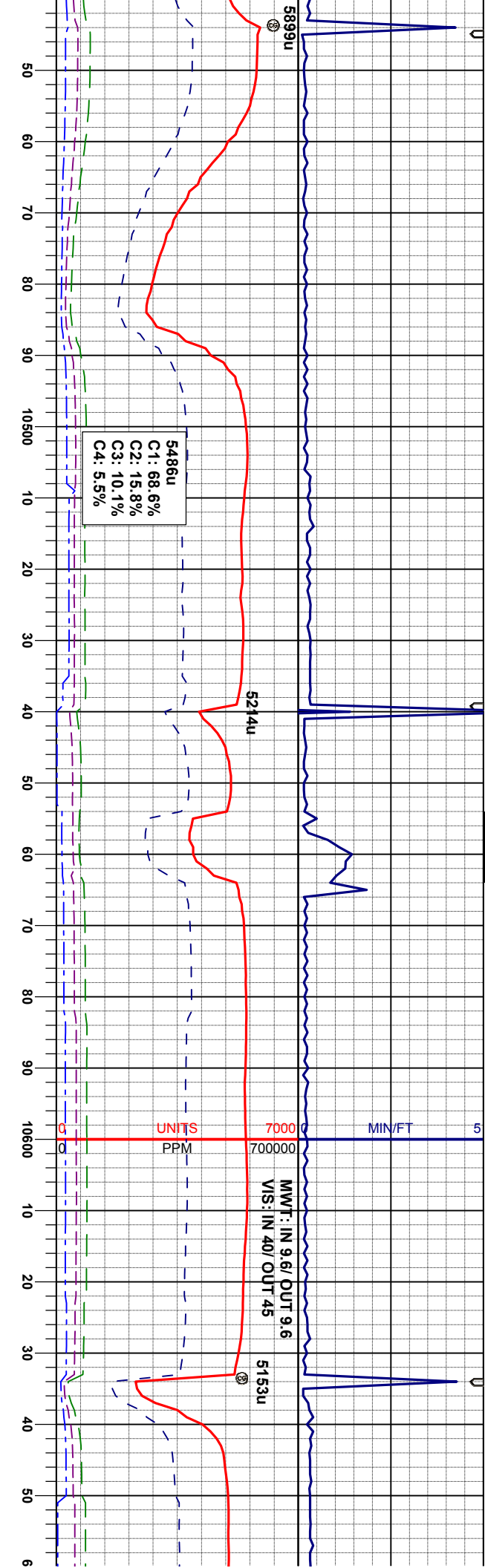
7500

ft

7250 50 API 200



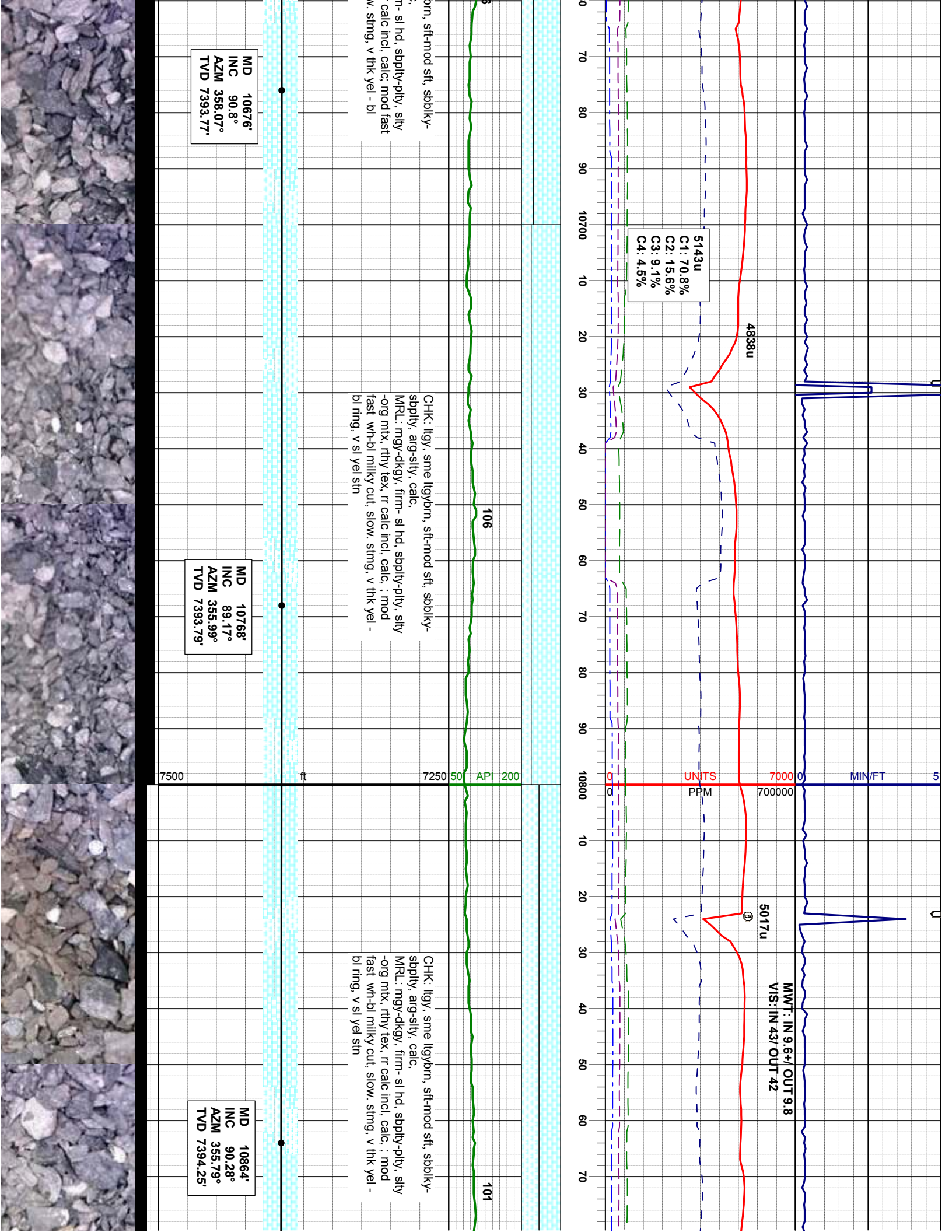


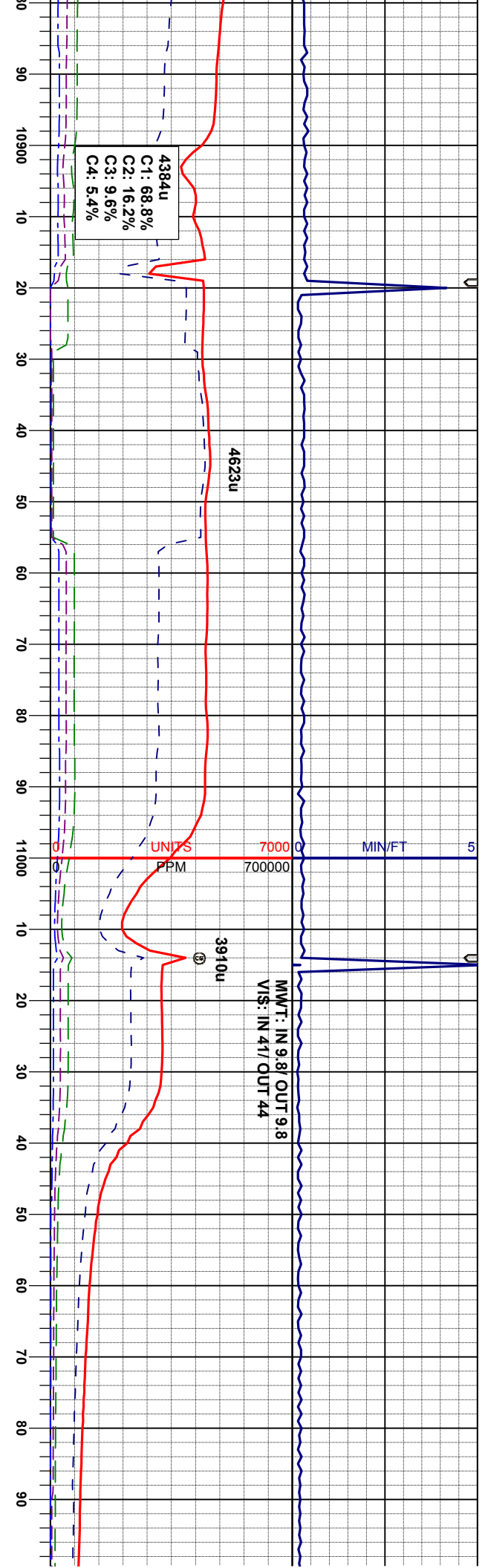


MD 10484'
INC 89.04°
AZM 357.85°
TVD 7393.39'

MD 10580'
INC 89.85°
AZM 357.68°
TVD 7394.32'







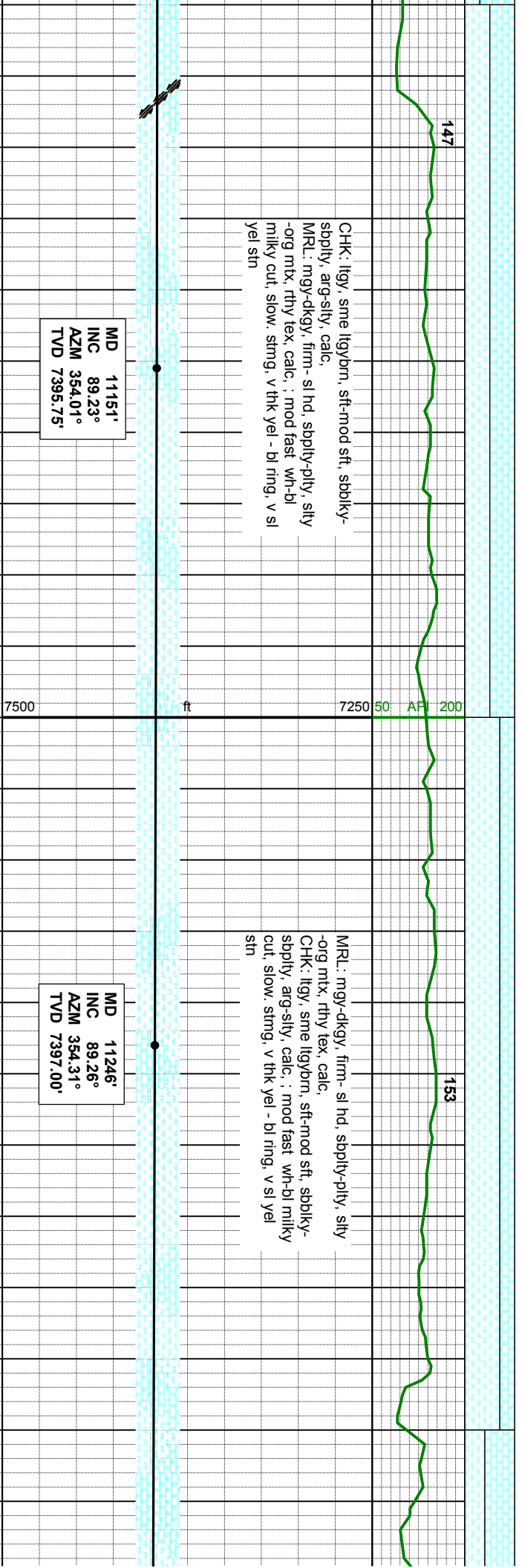
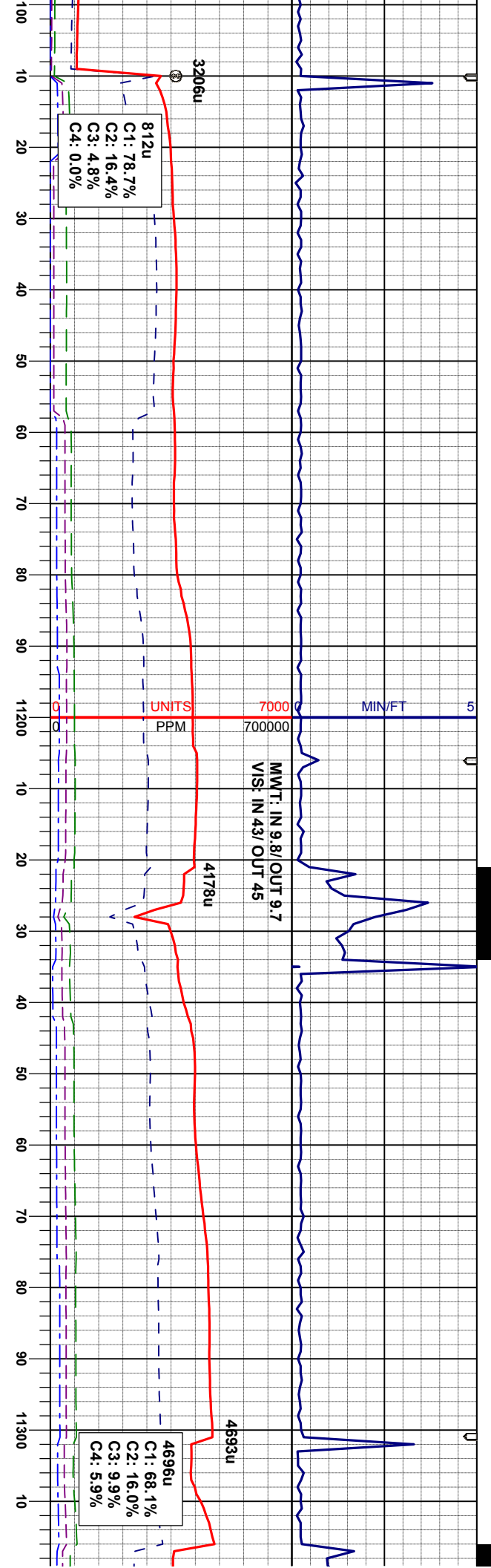
CHK: lgy, sme lgybrn, sft-mod sft, sbkly-sbply, arg-sily, calc.
MRL: mgy-dkgy, firm-si hd, sbply-plty, sily-org mtx, rthy tex, rr calc incl, calc, ; mod fast wh-bl milky cut, slow, string, v thk yel-bl ring, v si yel stn

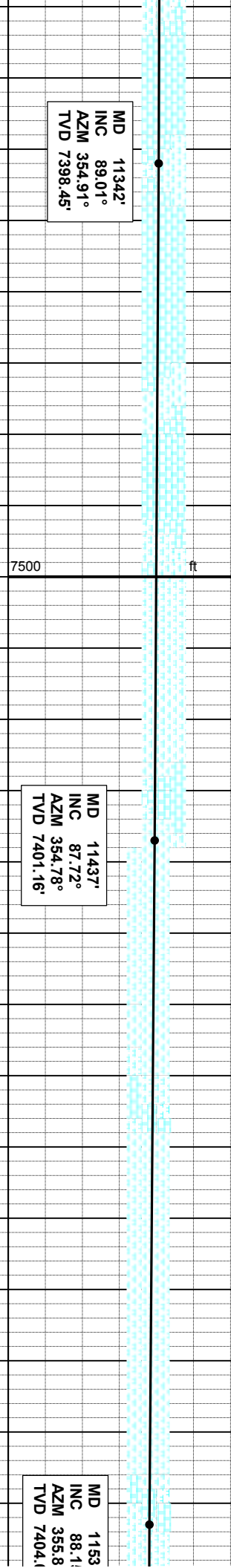
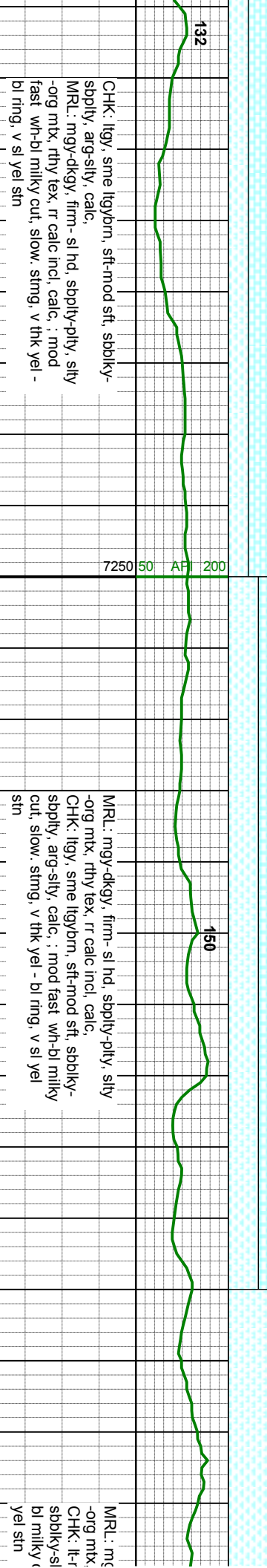
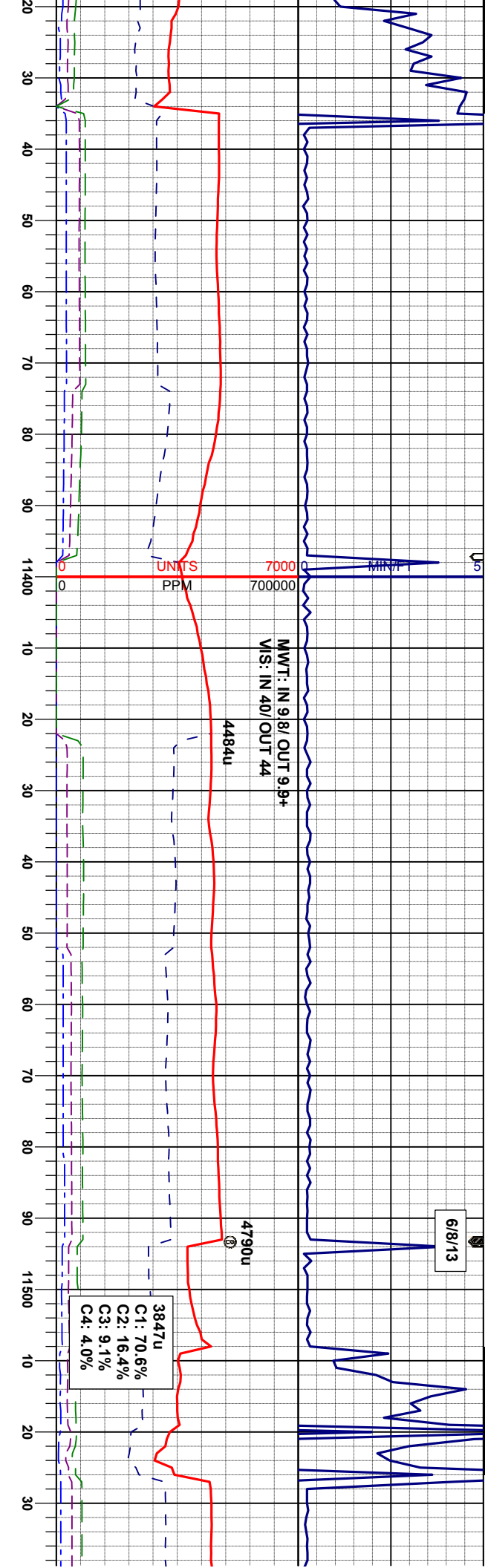
CHK: lgy, sme lgybrn, sft-mod sft, sbkly-sbply, arg-sily, calc.
MRL: mgy-dkgy, firm-si hd, sbply-plty, sily-org mtx, rthy tex, rr calc incl, calc, ; mod fast wh-bl milky cut, slow, string, v thk yel-bl ring, v si yel stn

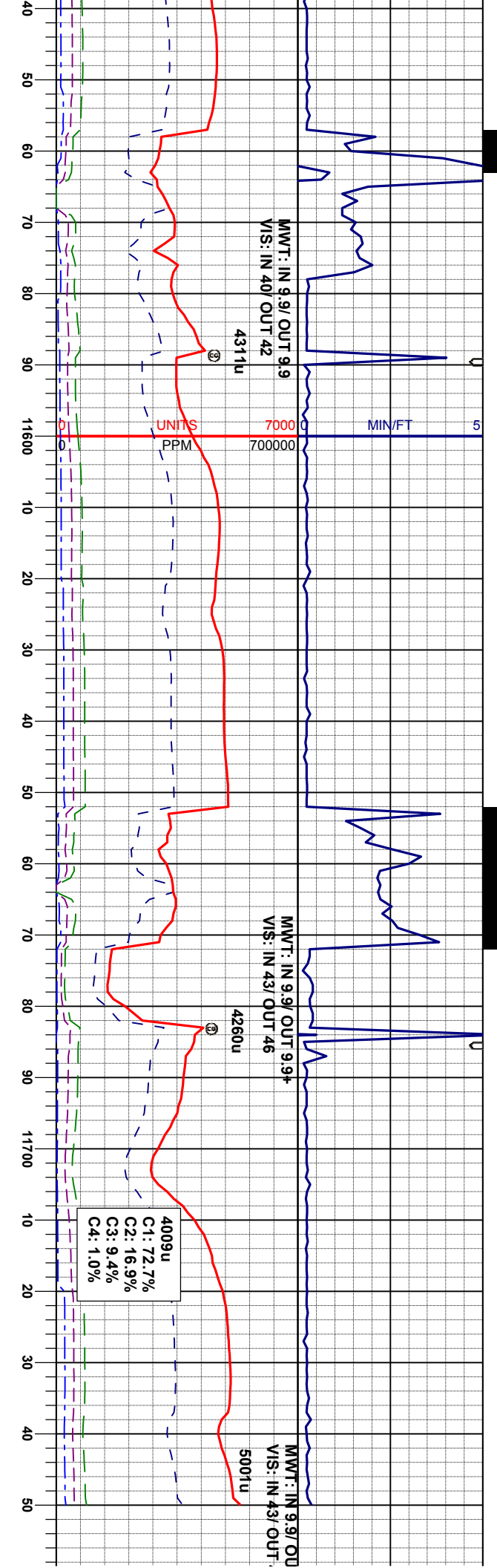
MD 10969'
INC 89.54°
AZM 354.77°
TVD 7394.41'

MD 11055'
INC 89.81°
AZM 355.17°
TVD 7394.95'







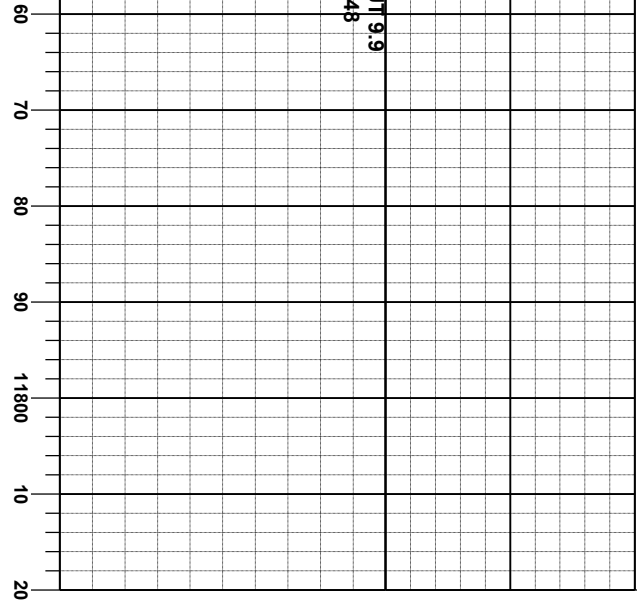


152
7250 50 API 200
113
MRL: mgy-dkgy, firm-si hd, sbply-pty, stly
-org mty, rthy tex, tr fos frag, calc,
CHK: lt-mgy, sme llybrn, sft-mod sft,
sbply-sbply, arg-sily, calc, : fast wh-bl
milky cut, fast stmg, thn yel ring, mod yel
stn

MRL: mgy-dkgy, firm-si hd, sbply-pty, stly
-org mty, rthy tex, tr fos frag, calc,
CHK: lt-mgy, sme llybrn, sft-mod sft,
sbply-sbply, arg-sily, calc, : fast wh-bl
milky cut, fast stmg, thn yel ring, mod yel
stn

3'
5°
5°
5°
MD 11597'
INC 89.62°
AZM 356.65°
TVD 7405.86'
75
MD 11695'
INC 90.40°
AZM 357.99°
TVD 7405.83'





ANADARKO
GOBLER 29N-23HZ
WELL TD'D @ 11750' MD
ON 06/08/13 @ 05:12 AM

THANK YOU FOR USING
COLUMBINE LOGGING INC.