
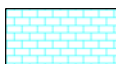








LOG created using LPLOT VH Version 3.0, October 06, 2011, Copyright (C) 1999-2009 Pason Systems Corp.

**OPERATOR:** CARRIZO OIL & GAS  
**WELL:** ORLANDO HILL 26-44-8-61  
**LOCATION:** SEC 26-T8N-R61W  
**COUNTY:** WELD  
**STATE:** COLORADO  
**SPOT:** 700' FSL X 950' FEL  
**ELEVATION:** GB: 4982'; KB: 4998'  
**FIELD:** WILDCAT  
**SPUD DATE:** MAY 2, 2011  
**TD DATE:** MAY 21, 2011  
**DATES LOGGED:** 05/10/2011 - 05/21/2011  
**DEPTHS LOGGED:** 3500' - 7080'  
**LOGGERS:** JENNY DODDS & ZACH UBER  
**DRILLING FLUID:** WATER; LSND @ 5289' MD  
**DRILLING RIG:** CADE 22  
**API:** 05-123-32317  
**LOG TYPE:** VERTICAL  
**SCALE:** 1:240 (5 inches per 100 feet)  
**REMARKS:** VERTICAL WELL 3500' MD -  
 CORING FROM 6240' MD -


**LITHOLOGIES**

 Chalk	 Limestone	 Marl	 Sandstone
 Shale	 Shaly Sandstone	 Siltstone	 Silty Shale

**MODIFIERS**

<b>B</b> Bentonite	<b>X</b> Crystals	<b>F</b> Fossils
<b>⌘</b> Fractures	<b>▣</b> Sandstone Stringers	

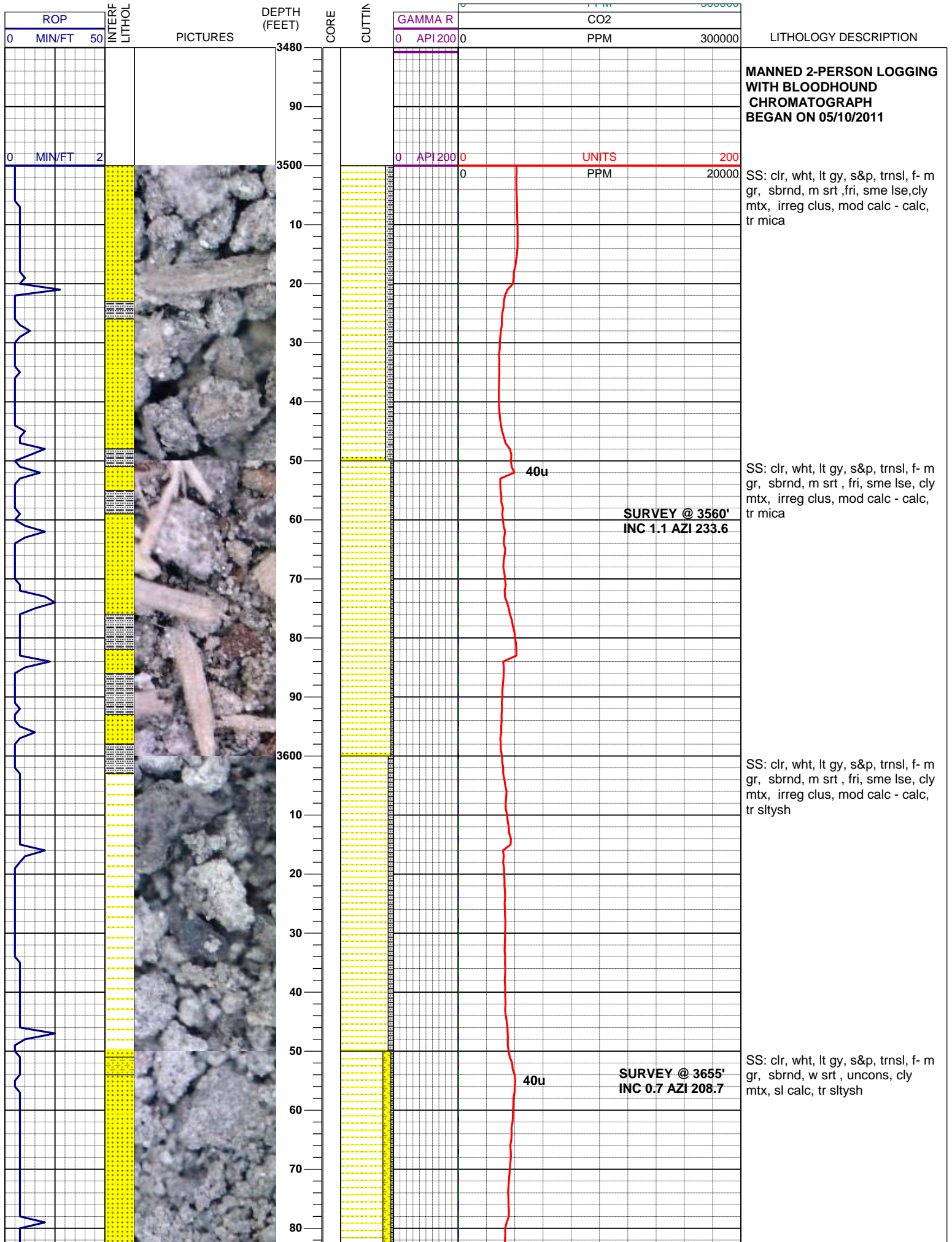
**ENGINEERING SYMBOLS**

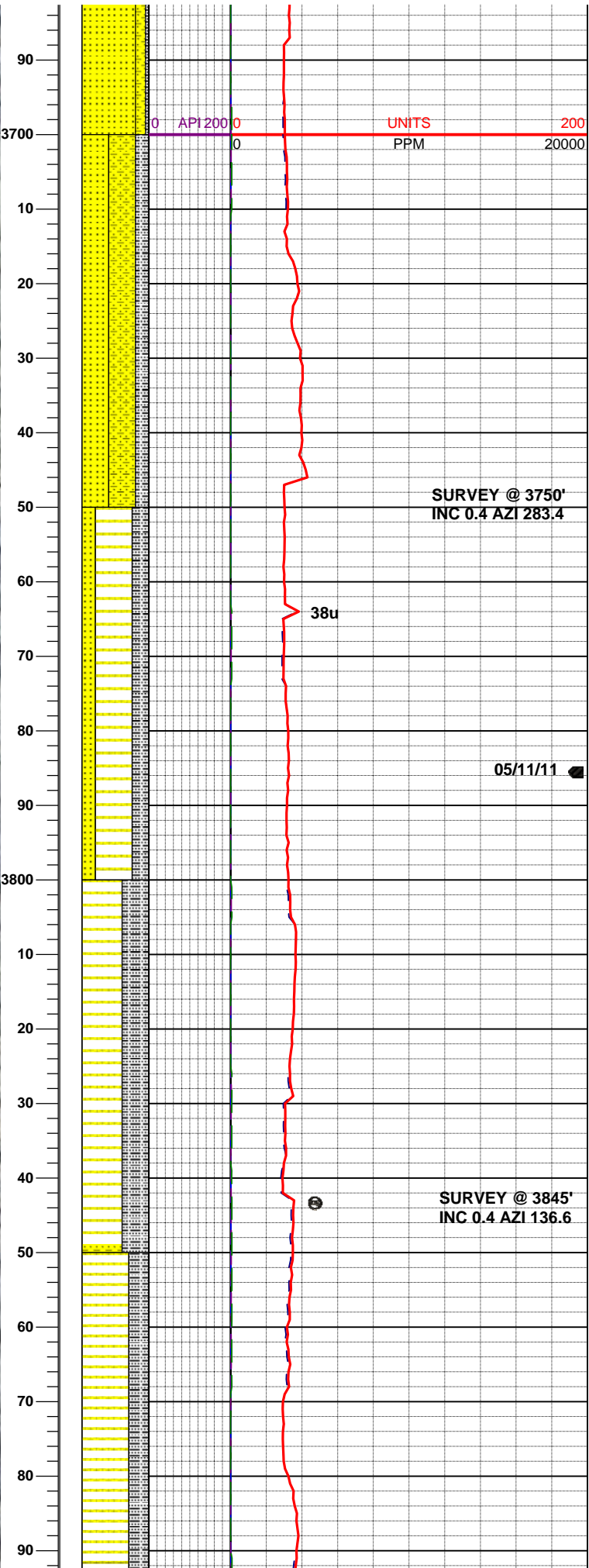
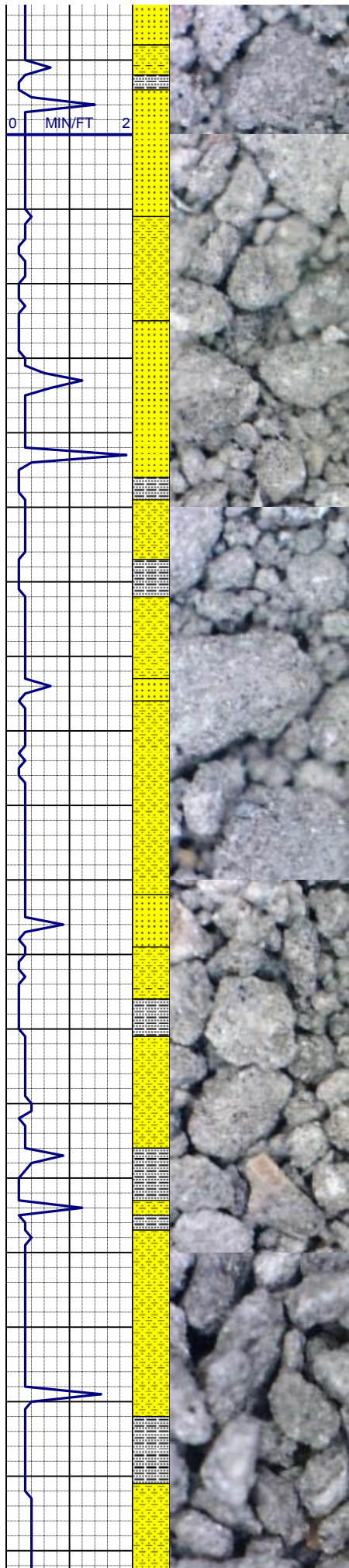
 Bit Change	 Connection Gas	 Midnight Depth	 Trip Gas
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RETIVE  
OGY

IGS

GAS		
0	UNITS	3000
-----		
C1		
0	PPM	300000
-----		
C2		
0	PPM	300000
-----		
C3		
0	PPM	300000
-----		
C4		
0	PPM	300000
-----		
C5		
0	PPM	300000



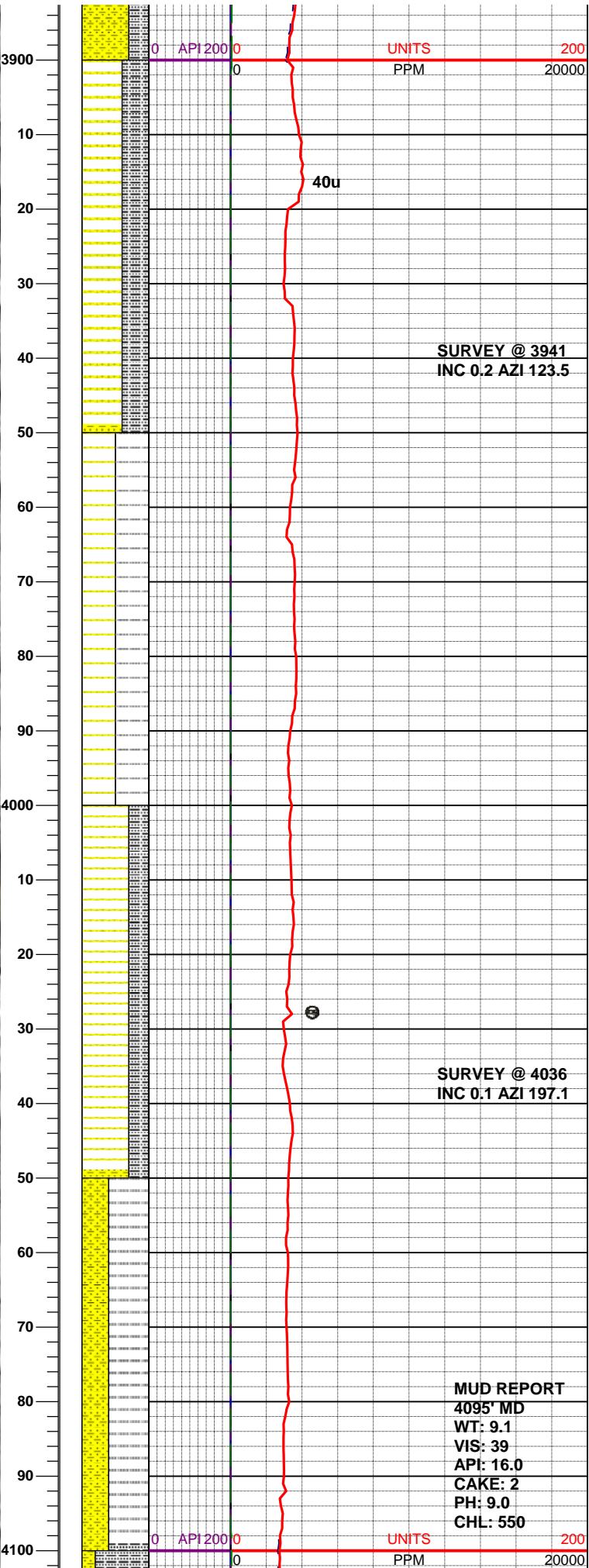
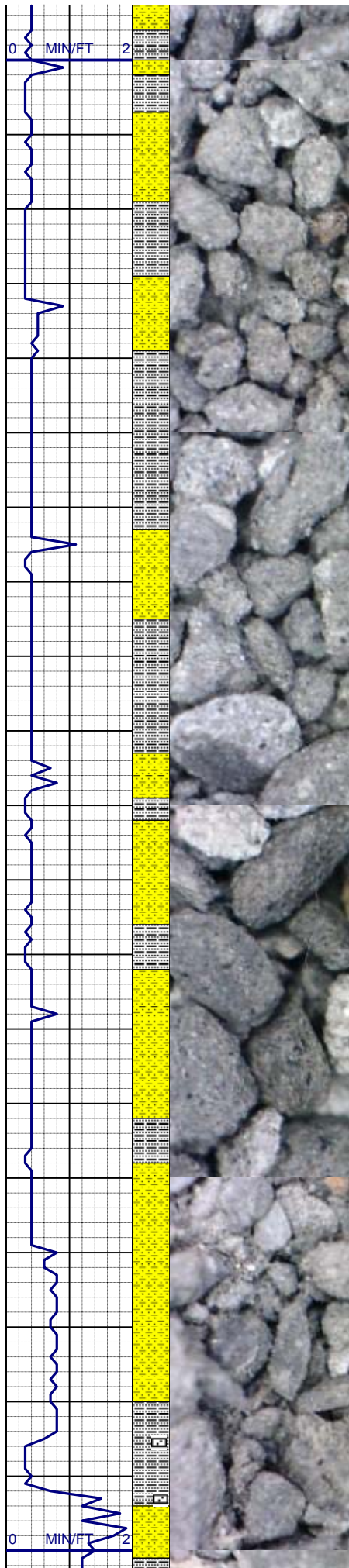


SHLYSS: It - md gy, tan - m brn, sb blkly - sb plty, sme vf - f gr, grty - rthy. mtx; arg - slty, n - sl calc

SHLYSS: It - md gy, predom sbrd, m srt, sme vf - f gr, grty - rthy lstr, mtx; arg - slty, sl calc; SLTY SH: lt gy - gy, occ mgy - dkgy, plty - sbplty, sme intd ss, sbbkly, frm, grty - rthy, mtx; arg -slty, non calc

SHLYSS: It - md gy, predom sbrd, sme vf - f gr, grty - rthy lstr, mtx; arg - slty, sl calc; SLTY SH: lt gy - gy, occ mgy - dkgy, sbang - sbplty, sbbkly, frm, grty - rthy, mtx; arg -slty, non calc

SHLYSS: It - md gy, predom sbrd, sme vf - f gr, grty - rthy lstr, mtx; arg - slty, sl calc; SLTY SH: lt gy - gy, occ mgy - dkgy, plty - sbplty, grty - rthy, mtx; arg -slty, non calc



SHLYSS: lt - md gy, predom sbrd - sbang, sme vf - f gr, grty - rthy lstr, mtx; arg - slty, sl calc; SLTY SH: lt gy - gy, occ mgy - dkgy, plty - sbplty, grty - rthy, mtx; arg -slty, non calc

**SURVEY @ 3941  
INC 0.2 AZI 123.5**

SLTY SH: lt gy - gy, occ mgy - dkgy, plty - sbplty, sme intd ss, sbblky, frm, grty - rthy, mtx; arg -slty, non calc; SHLYSS: lt - md gy, sb blkly - sb plty, sme vf - f gr, grty - rthy. mtx; arg - slty, sl calc

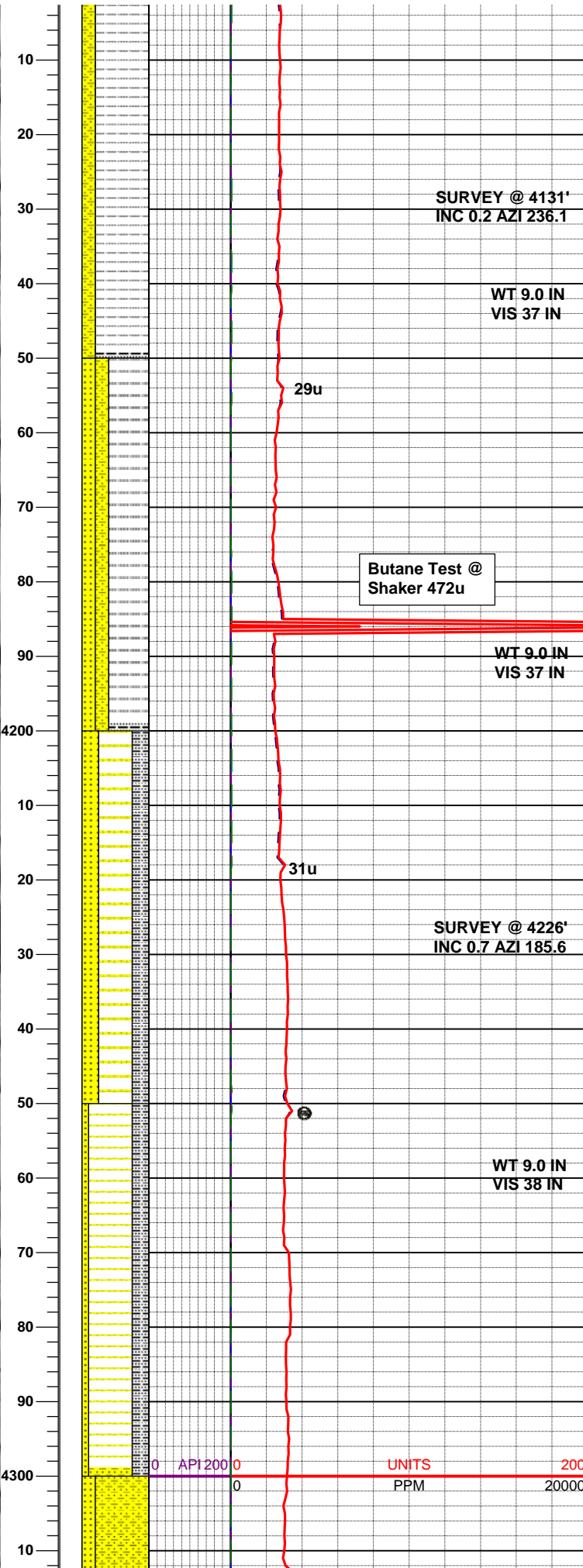
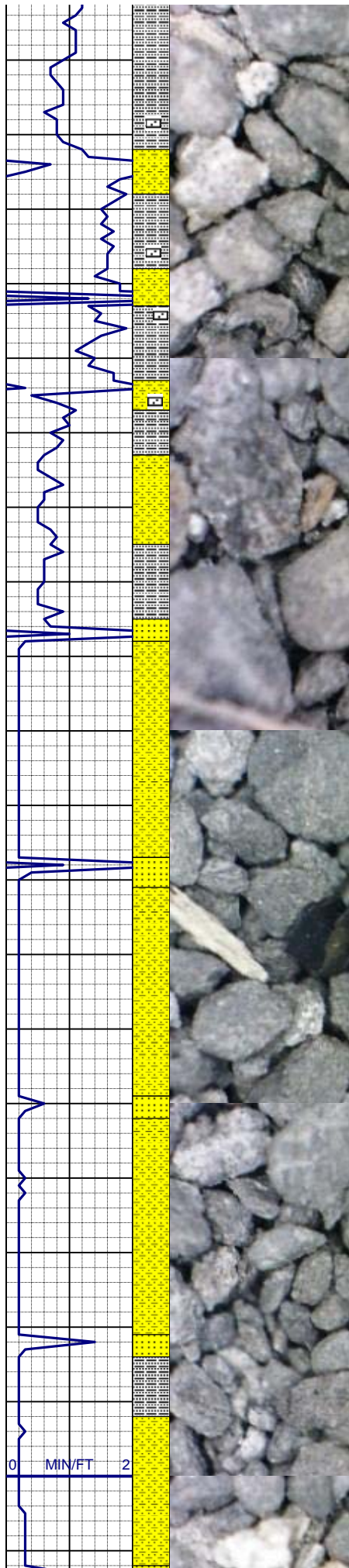
SHLYSS: lt - md gy, predom sbrd - sbang, sme vf - f gr, grty - rthy, mtx; arg - slty, sl calc; SLTY SH: lt gy - gy, occ mgy - dkgy, plty - sbplty, grty - rthy, mtx; arg -slty, sl calc, tr fos

**SURVEY @ 4036  
INC 0.1 AZI 197.1**

SHLYSS: lt - md gy, predom sbrd - sbang, sme vf - f gr, grty - rthy, mtx; arg - slty, sl calc; SLTY SH: lt gy - gy, occ mgy - dkgy, plty - sbplty, grty - rthy, mtx; arg -slty, sl calc, tr fos

**MUD REPORT  
4095' MD  
WT: 9.1  
VIS: 39  
API: 16.0  
CAKE: 2  
PH: 9.0  
CHL: 550**

SLTY SH: lt gy, gy, pl gy -offwht,



occ sbply - sbbly, sft - mod sft -  
 occ mod firm , gt - rthy mtx ; arg -  
 slty, sl-m calc , grdg - sh

SURVEY @ 4131'  
 INC 0.2 AZI 236.1

WT 9.0 IN  
 VIS 37 IN

SS: clr, trnsl, wht, s&p, f- m gr,  
 sbrnd - sbang, mod w srt , lse  
 consol, cly mtx, sl calc

Butane Test @  
 Shaker 472u

WT 9.0 IN  
 VIS 37 IN

SS: clr, trnsl, wht, s&p, oc bl gn,  
 occ pk, f- c gr , sbrnd - sbang,  
 mod p srt , lse unconsol qtz xl,  
 lse consol gr, cly mtx, sl calc

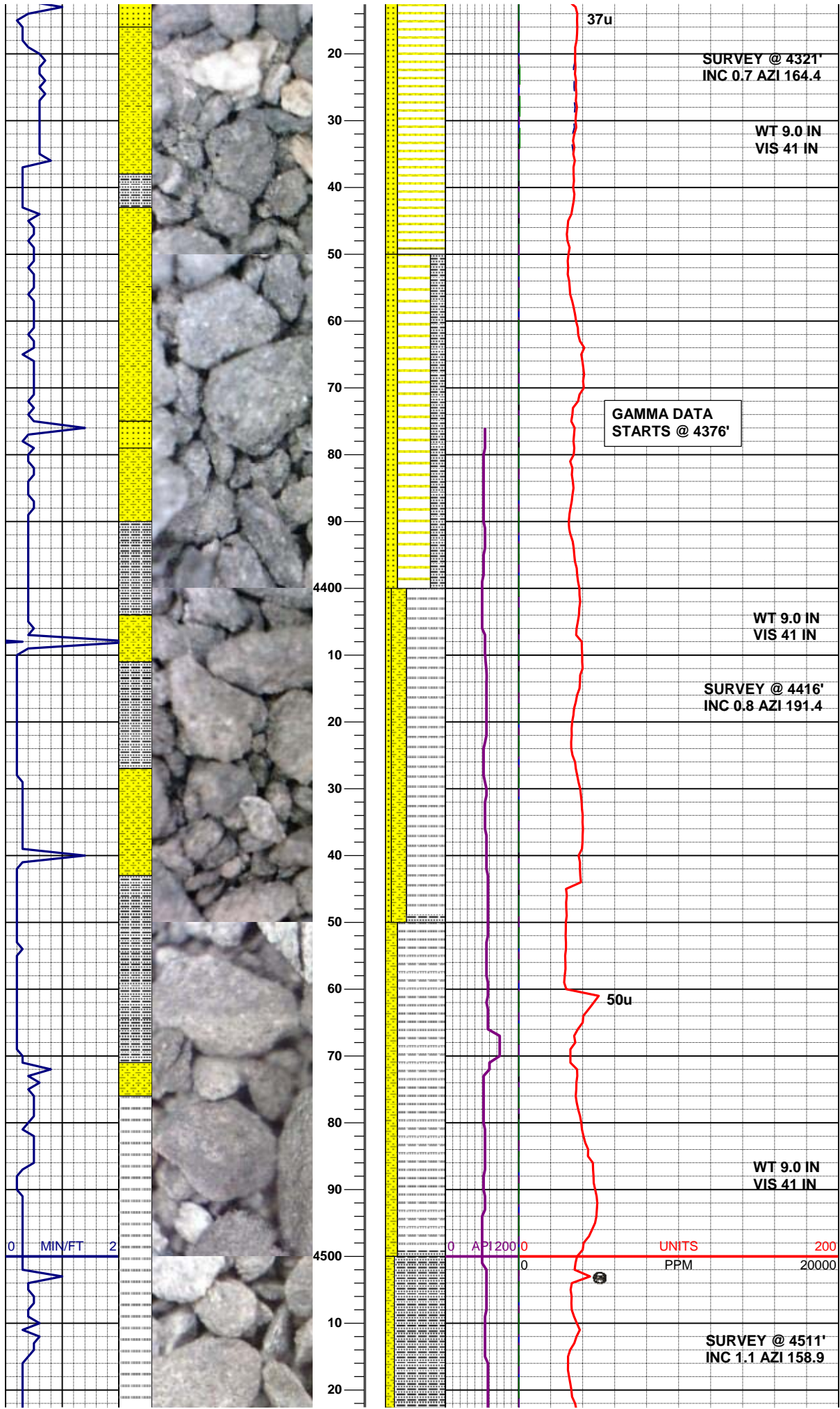
SURVEY @ 4226'  
 INC 0.7 AZI 185.6

WT 9.0 IN  
 VIS 38 IN

SLTY SH: lt gy, gy, pale gy -  
 offwht, sme gybrn, sbbly, sme  
 sbply, mod sft , gt -rthy- sbwxy,  
 mtx ; arg -slty, sl calc, abnt fos

SS: clr-wht-trnsl-s&p, f-m gr,  
 sbrnd occ rnd, fri-firm, dom tgt  
 clus occ lse, mod srt, sl calc,  
 NFSOC

0 AP1200 0 UNITS 200  
 0 PPM 20000

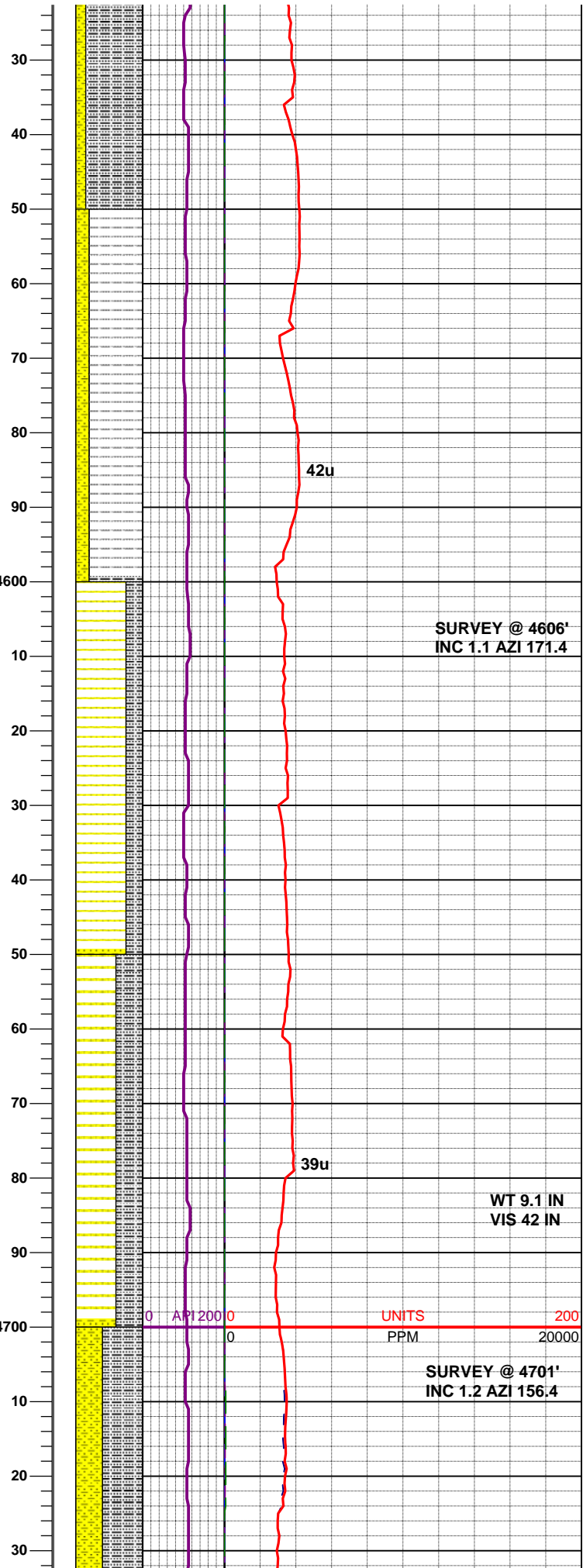
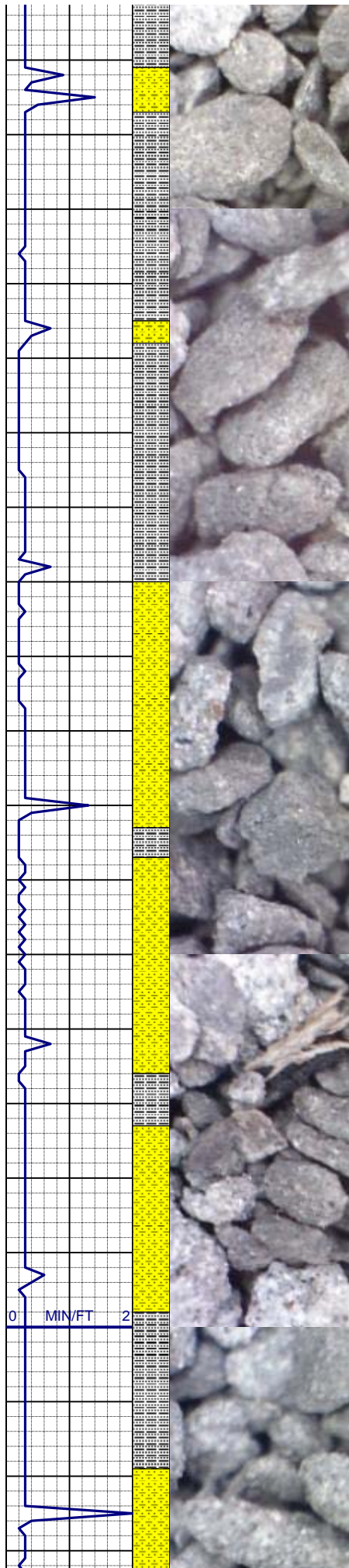


SLTY SH: lt gy, gy, pale gy - offwht, sme gybrn, sbbkly, sme sbply, mod sft , gt -rthy- sbwxy, mtx ; arg -sly, sl calc, abnt fos

SLTY SH: lt gy, gy, occ gybrn, sbbkly, sme sbply, mod sft , gt -rthy- sbwxy, mtx ; arg -sly, sl calc, sme fos

SLTY SH: lt gy, gy, pale gy - offwht, sme gybrn, sbbkly, sme sbply, mod sft , gt -rthy- sbwxy, mtx ; arg -sly, sl calc, abnt fos, tr ss, grdg to sh

SLTY SH: lt gy, gy, sme gybrn, sbbkly - sbply, mod sft , gt -rthy- sbwxy, mtx ; arg -sly, v sl calc, abnt fos, tr ss



SLTY SH: lt gy, gy, pale gy, sme gybrn, sbbky - sbply, mod sft - occ firm , gt -rthy- sbwxy, mtx ; arg -sly, sl calc, abnt fos

**SURVEY @ 4606'**  
**INC 1.1 AZI 171.4**

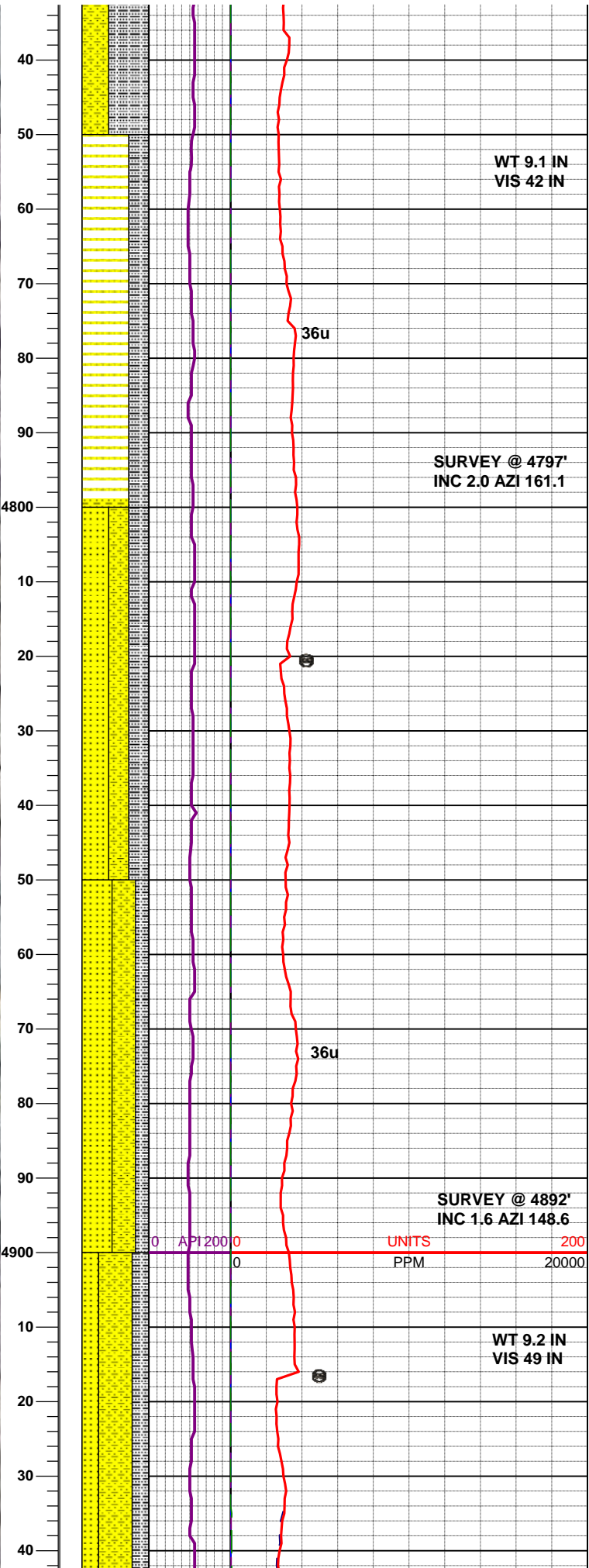
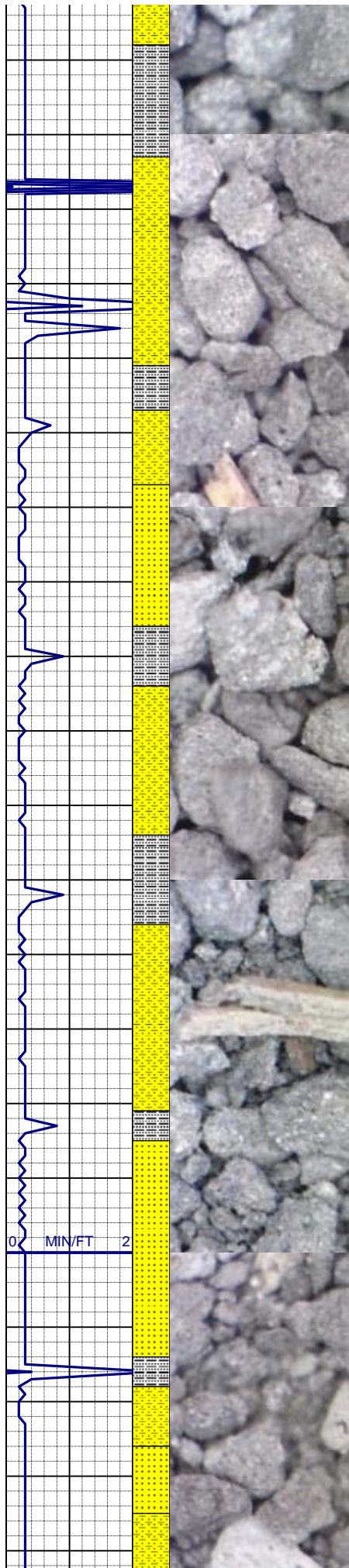
SHLYSS: lt-m gy, vf - f gr, sb rnd-sbang, mod srt, tgt irreg-sbbky clus, calc/arg cmt, grdg to sh

**WT 9.1 IN**  
**VIS 42 IN**

**SURVEY @ 4701'**  
**INC 1.2 AZI 156.4**

SHLYSS: lt-m gy, vf - f gr, sb rnd-sbang, mod srt, tgt irreg-sbbky clus, calc/arg cmt, grdg to sh

SLTY SH: lt gy, gy, pale gy, sme gybrn, sbbky - sbply, mod sft - occ firm , gt -rthy- sbwxy, mtx ; arg -sly, sl calc, sme fos



WT 9.1 IN  
VIS 42 IN

SHLYSS: lt-m gy, occ dkgy, vf - f gr, sb rnd-sbang, mod srt, calc/arg cmt

SURVEY @ 4797'  
INC 2.0 AZI 161.1

SS: clr, wht, trnsl, sl-abnt s&p, sme sl drty, f-m gr, sb rd - sb ang, brit, m - sme w srt, mtx ; sl - mod calc; SLTY SH: lt gy, gy, pale gy, sme gybrn, sbbkly - sbply, mod sft - occ firm, gt - rthy- sbwxy, mtx ; arg -slty, sl calc, sme fos

SS: clr, wht, trnsl, sl-abnt s&p, sme sl drty, f-m gr, sb rd, brit, m - sme w srt, sl - mod calc

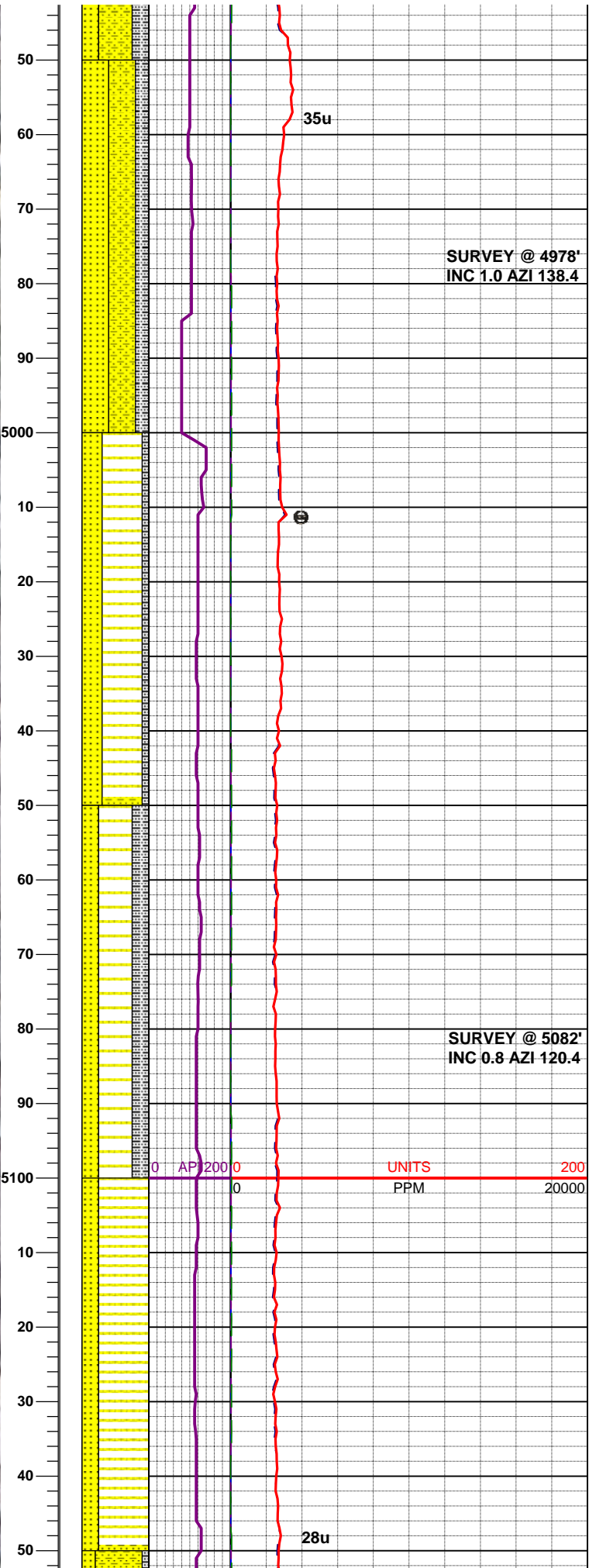
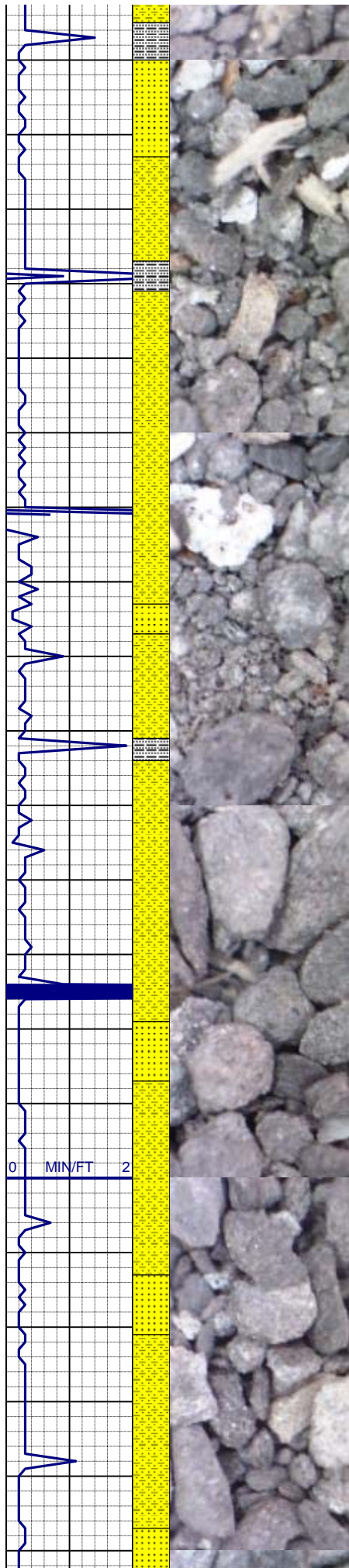
SURVEY @ 4892'  
INC 1.6 AZI 148.6

SHLYSS: lt-m gy, vf - f gr, occ m gr, sbrd-sbang, mod - w srt, tt irreg-sbbkly clus, calc/arg cmt: SS: clr-wht-trnsl, f-m gr, sbrnd occ rnd, fri-firm, mod srt, sl calc

WT 9.2 IN  
VIS 49 IN

0 API 200 0 UNITS 200  
0 PPM 20000

0 MIN/FT 2

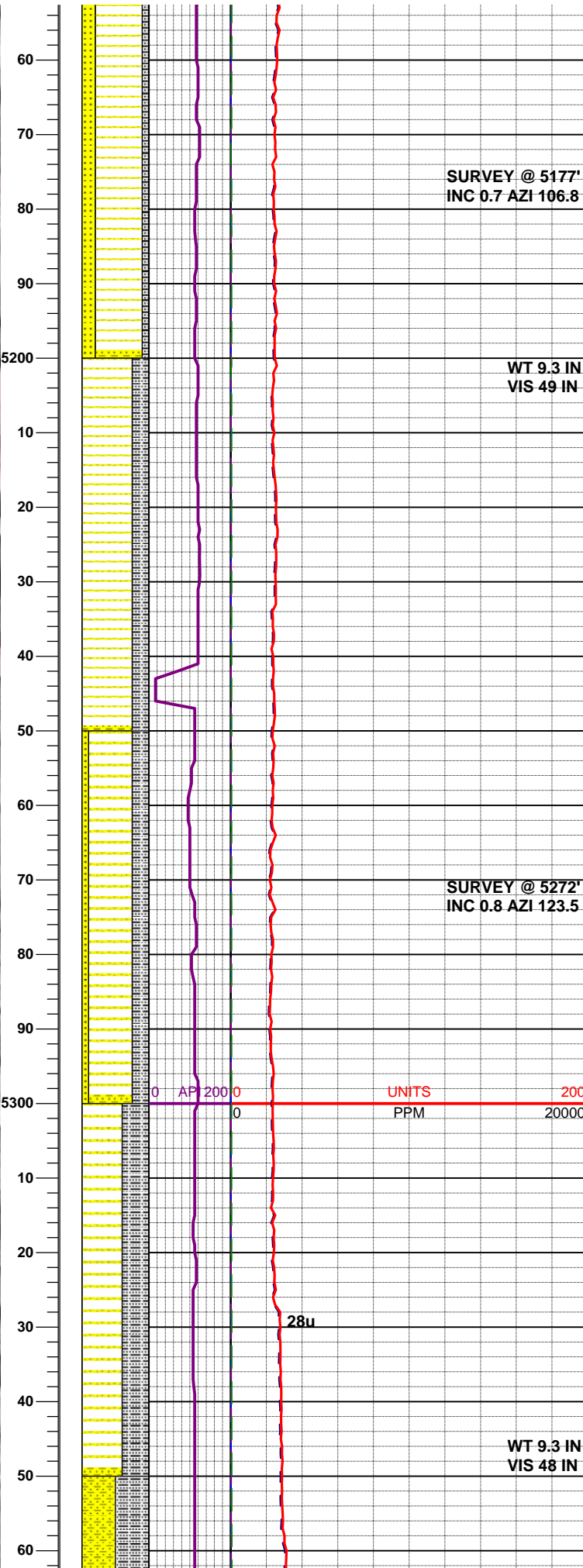
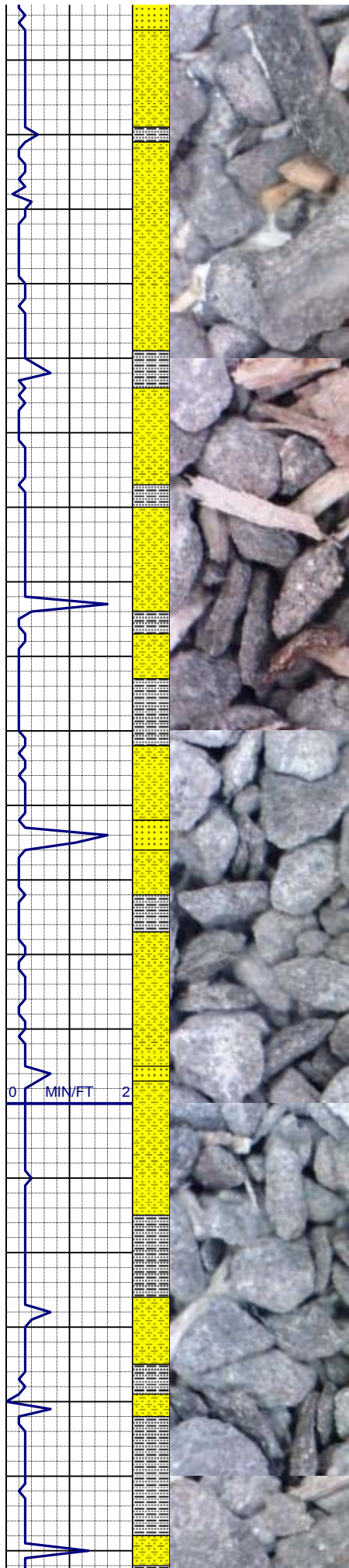


SS: clr-wht-trnsl, f-m gr, sbrnd occ rnd, fri-firm, mod - w srt, sl calc; SHLYSS: lt-m gy, occ dkgy, vf - f gr, sme m gr, sbrnd-sbang, mod - w srt, calc/arg cmt:

SHLYSS: lt-m gy, vf - f gr, occ m gr, sbrnd-sbang, mod - w srt, calc/arg cmt: SS: clr-wht-trnsl, f-m gr, sbrnd - rnd, fri-firm, mod srt, sl calc

SHLYSS: lt-m gy, vf - f gr, occ m gr, sbrnd-sbang, mod - w srt, calc/arg cmt: SLTY SH: lt gy, pale gy, sbblky - sbply, mod sft - occ firm, gt -rthy- sbwxy, mtx; arg -sly, sl calc

SHLYSS: lt-m gy, occ dkgy, vf - f gr, sb rnd-sbang, mod srt, calc/arg cmt; SS: clr-wht-trnsl, f-m gr, sbrnd - rnd, fri-firm, mod srt, sl calc



SHLYSS: lt-m gy, occ dkgy, vf - f gr, sb rnd-sbang, mod srt, calc/arg cmt, grdg - sh; SS: clr-wht-trnsl, f-m gr, sbrnd - rnd, fri-firm, mod srt, sl calc

**SURVEY @ 5177'**  
**INC 0.7 AZI 106.8**

**WT 9.3 IN**  
**VIS 49 IN**

SHLYSS: lt-m gy, occ dkgy, vf - f gr, sb rnd-sbang, mod srt, calc/arg cmt, sl calc, grdg - sh; SLTY SH: lt gy, gy, sbbiky - sbply, mod sft - occ firm, gt - rthy- sbwxy, mtx; arg -sly, sl calc

SHLYSS: lt-m gy, occ dkgy, vf - f gr, sb rnd-sbang, mod srt, calc/arg cmt, sl calc, grdg - sh; SLTY SH: lt gy, gy, occ dkgy, sbbiky - sbply, mod sft - occ firm, gt - rthy- sbwxy, mtx; arg -sly, non calc

**SURVEY @ 5272'**  
**INC 0.8 AZI 123.5**

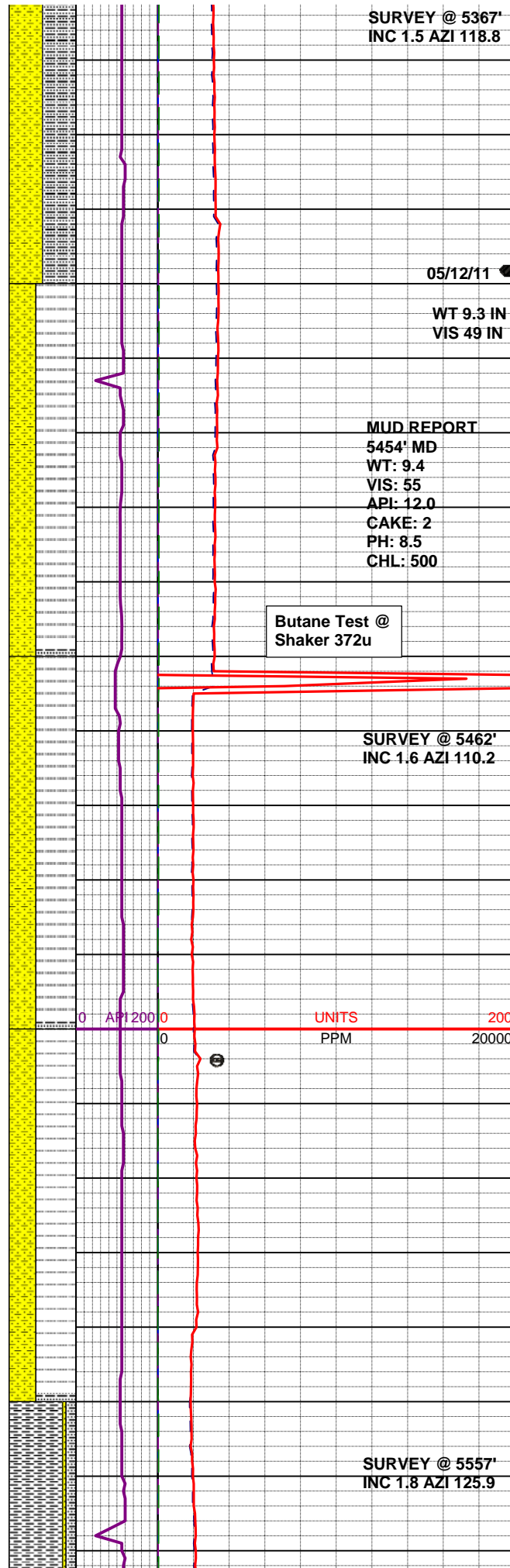
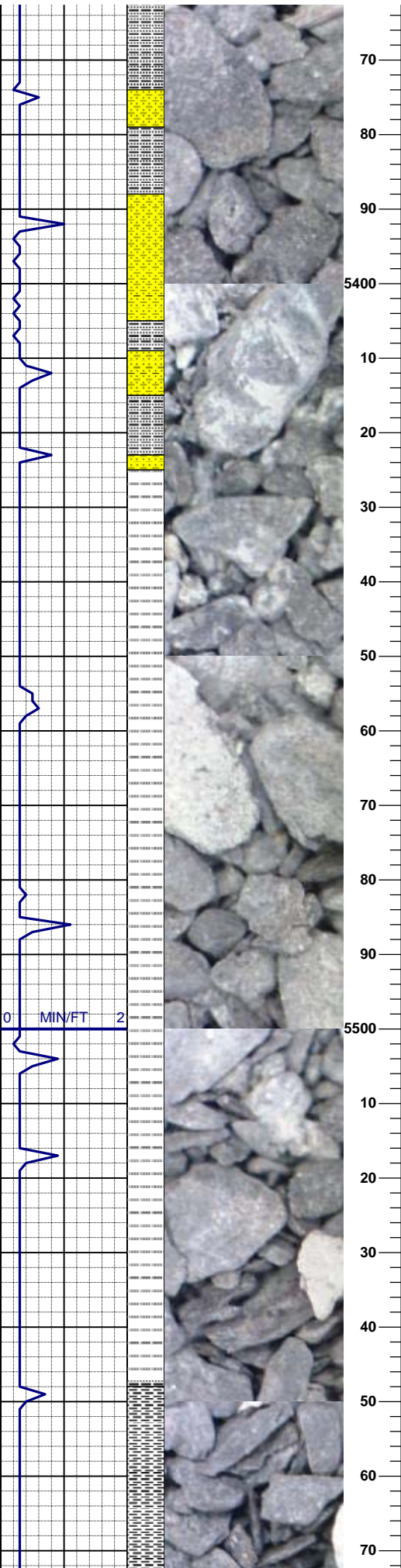
0 AP 2000 0 UNITS 200  
0 PPM 20000

28u

**WT 9.3 IN**  
**VIS 48 IN**

SLTY SH: gy - dkgy - gybrn, occ litbrn, sbbiky - sbply, frm -v frm, sme mot, rthy - grty, mtx; arg -sly, sme aren, non calc

SURVEY @ 5367'  
INC 1.5 AZI 118.8



05/12/11

WT 9.3 IN  
VIS 49 IN

**MUD REPORT**

5454' MD  
WT: 9.4  
VIS: 55  
API: 12.0  
CAKE: 2  
PH: 8.5  
CHL: 500

Butane Test @  
Shaker 372u

SLTY SH: gy - dkgy, sme ltbrn, sbblky - sbply, frm - v frm, sme mot, rthy - grty, mtx; arg - slty, sme aren, non calc; SHLYSS: lt-m gy, occ dkgy, vf - f gr, sb rnd-sbang, mod srt, calc/arg cmt, grdg - sh

5454' - DT to troubleshoot & call engineer to fix hopper  
00:36 - 08:47

SURVEY @ 5462'  
INC 1.6 AZI 110.2

SLTY SH: ltgy - dkgy, sbblky - sbply, brit - frm, sme mot, rthy - grty, mtx; arg - slty, sme aren, non calc; SHLYSS: lt-m gy, occ dkgy, vf - f gr, sb rnd-sbang, mod srt, calc/arg cmt, grdg - sh

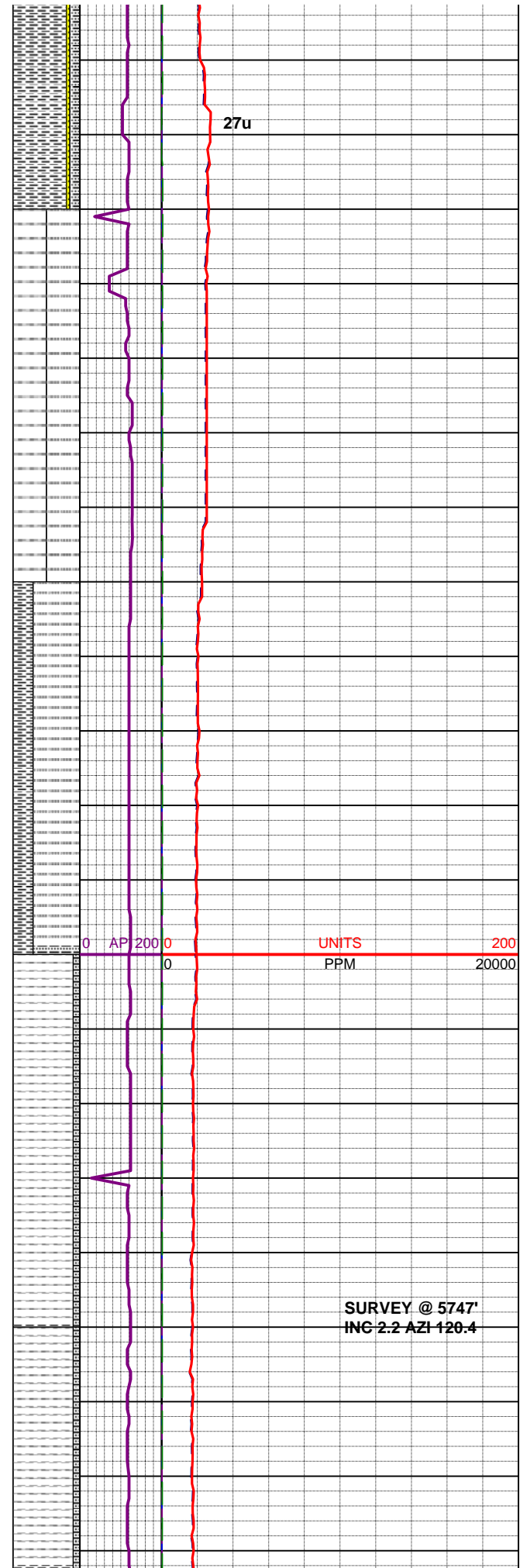
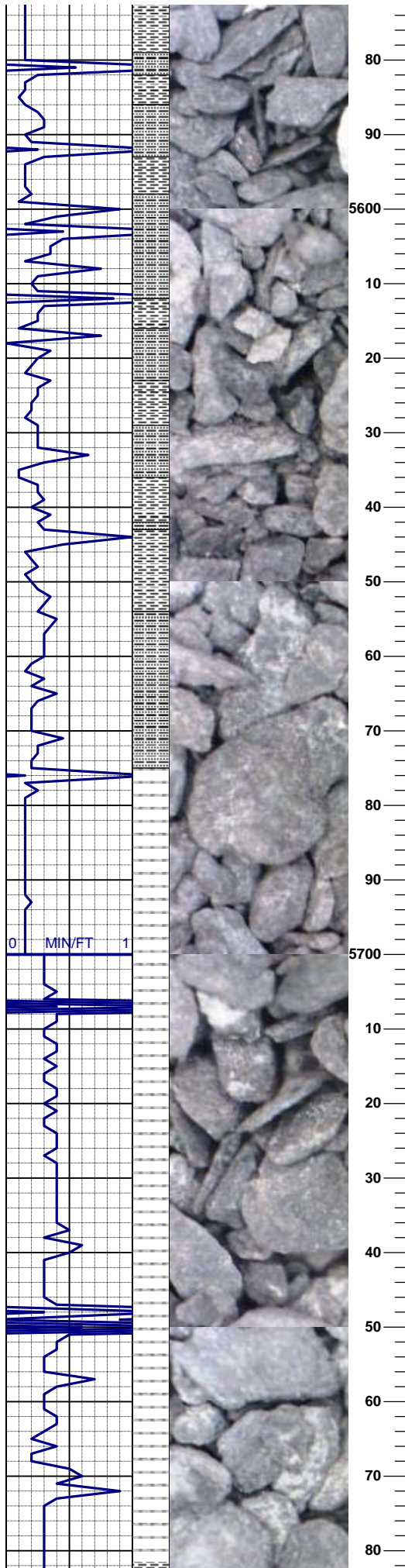
5484' - DT to troubleshoot & fix the pupms  
09:03 - 13:00

0 AP1200 0 UNITS 200  
0 PPM 20000

SLTY SH: ltgy - dkgy, sbblky - sbply, brit - frm, sme mot, rthy - grty, mtx; arg - slty, sme aren, non calc; SHLYSS: lt-m gy, occ dkgy, vf - f gr, sb rnd-sbang, mod srt, calc/arg cmt, grdg - sh

SURVEY @ 5557'  
INC 1.8 AZI 125.9

SH: lt gy - m gy, sbply - sbrrnd, mod brit - mod sft, rthy - sbwxy - occ gty, sl calc, tr qtz xtl, tr py



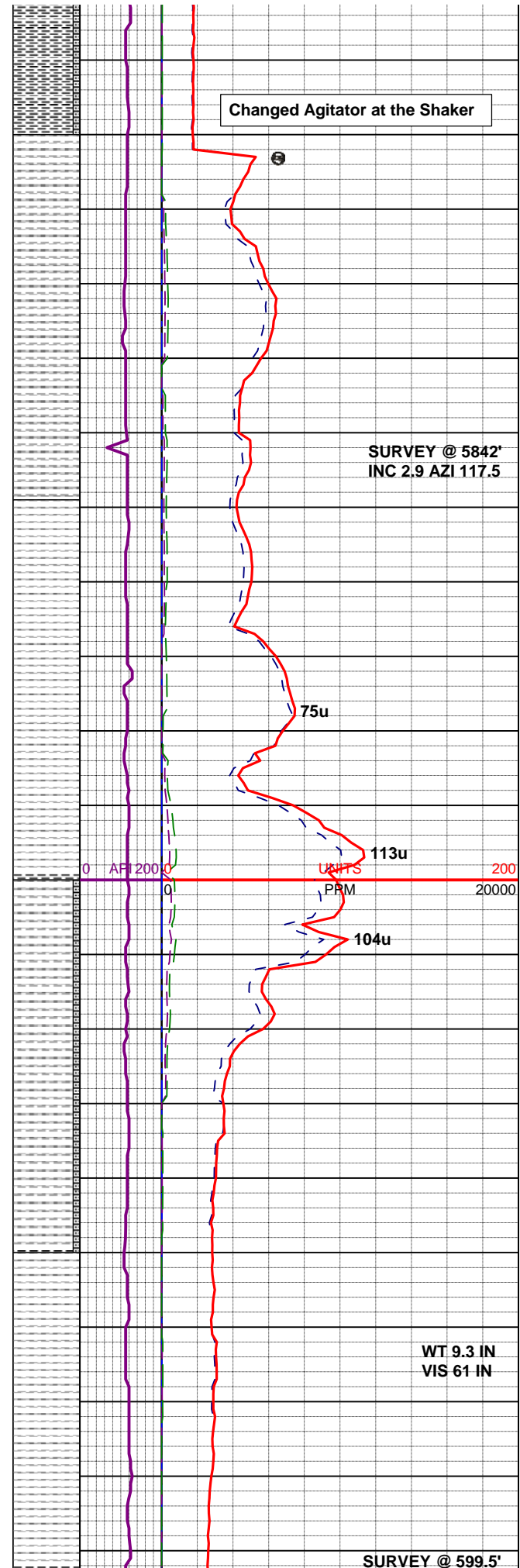
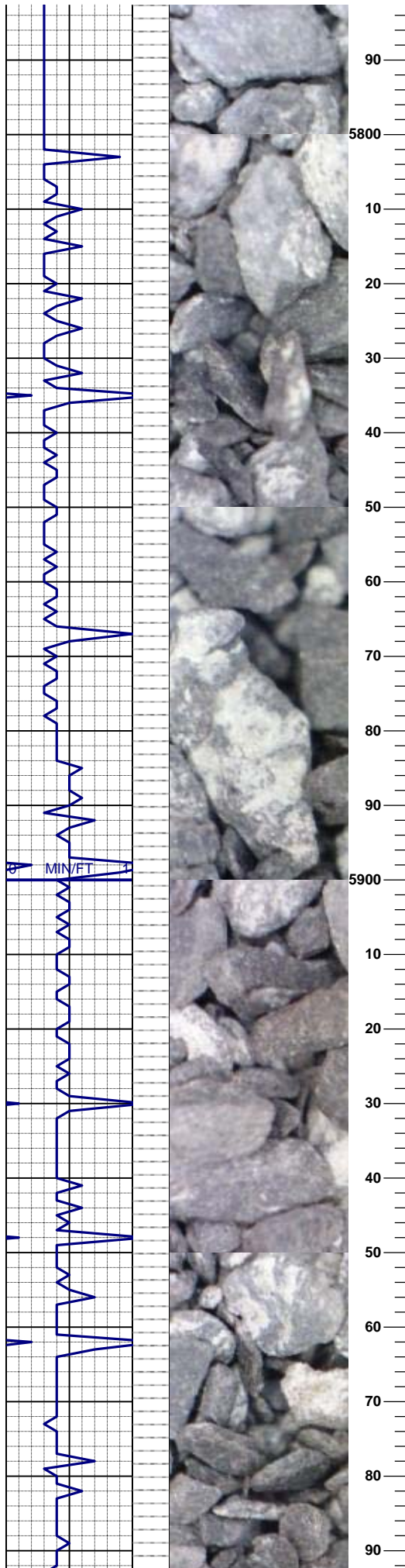
SH: lt gy - m gy, sbply - sbrnd, mod brit - mod sft, rthy - sbwxy - occ gt, non calc, tr qtz xtl, tr py

SLTY SH: ltgy - dkgy, sbblky - sbply, sme sbang, brit - frm, sme mt, rthy - grty, mt; arg - slty, sme aren, non calc; SH: lt gy - m gy, sbply - sbrnd, mod brit - mod sft, rthy - sbwxy - occ gt, non calc, tr qtz xtl, tr py

SH: gyblk,dkgy, gybrn, sbply -sb fis, occ , blk - sbblky, frm - vfrm, grny - rthy, sme sbbnd, mt; tr aren, arg -slty, calc, grdg to sltysh

**SURVEY @ 5747'**  
**ING 2.2 AZI 120.4**

SH: gyblk,dkgy, gybrn, sbply -sb fis, occ , blk - sbblky, frm - vfrm, grny - rthy, sme sbbnd, mt; tr aren, arg -slty, calc, grdg to sltysh



Changed Agitator at the Shaker

SURVEY @ 5842'  
INC 2.9 AZI 117.5

WT 9.3 IN  
VIS 61 IN

SURVEY @ 599.5'

SH: gyblk,dkgy, gybrn, sbplty -sb  
fis, occ , blkly - sbbkly, frm - vfrm,  
gry - rthy, sme sbbnd, mtx ; tr  
aren, arg -slty, calc, grdg to  
sltysh

SH: gyblk,dkgy, gybrn, sbplty -sb  
fis, occ , blkly - sbbkly, frm - vfrm,  
gry - rthy, sme sbbnd, mtx ; tr  
aren, arg -slty, calc, grdg to  
sltysh

SH: gyblk,dkgy, gybrn, sbplty -sb  
fis, occ , blkly - sbbkly, frm - vfrm,  
gry - rthy, sme sbbnd, mtx ; tr  
aren, arg -slty, calc, grdg to  
sltysh

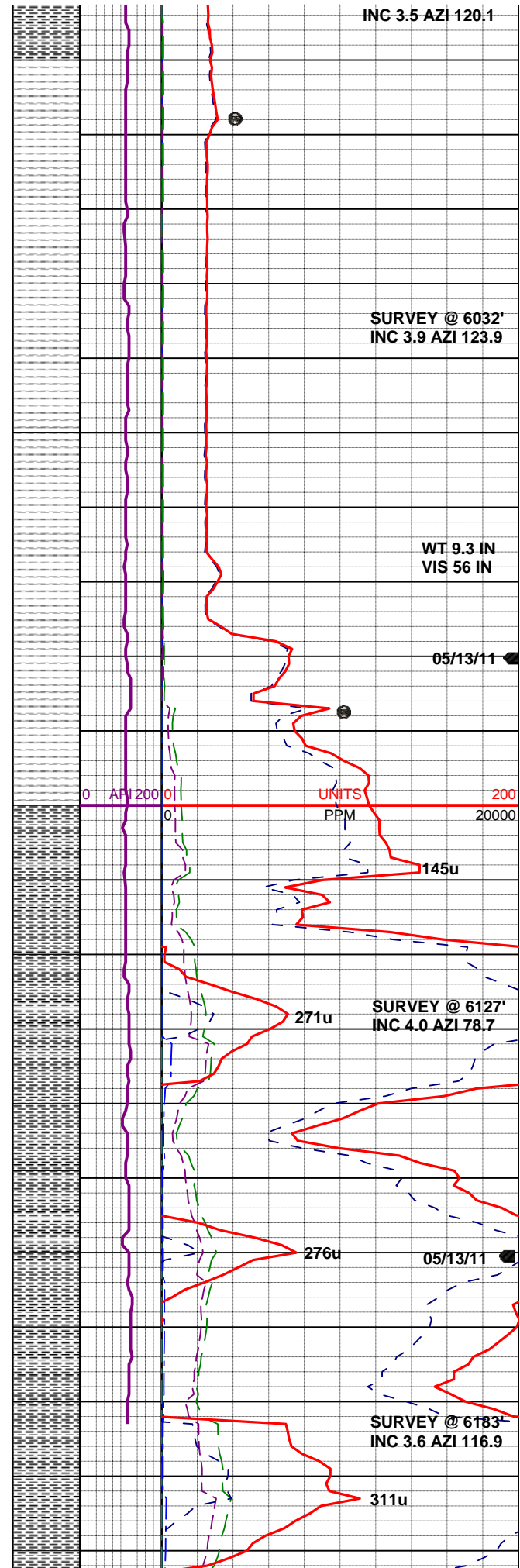
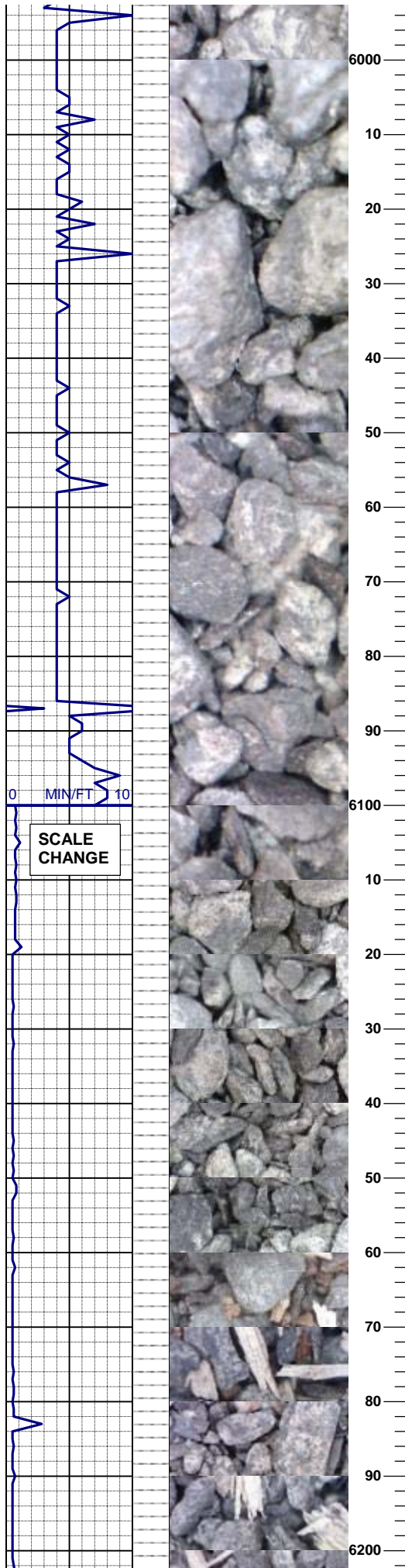
SH: gyblk,dkgy, gybrn, sbplty -sb  
fis, occ , blkly - sbbkly, frm - vfrm,  
gry - rthy, sme sbbnd, mtx ; tr  
aren, arg -slty, calc, grdg to  
sltysh

75u

113u

104u

0 API 200 0 UNITS 200  
PBM 20000



SH: gyblk,dkgy, gybrn, sbplty -sb fis, occ , blkly - sbbkly, frm - vfrm, grny - rthy, sme sbbnd, mtx ; tr aren, arg -slty, calc, grdg to sltysh

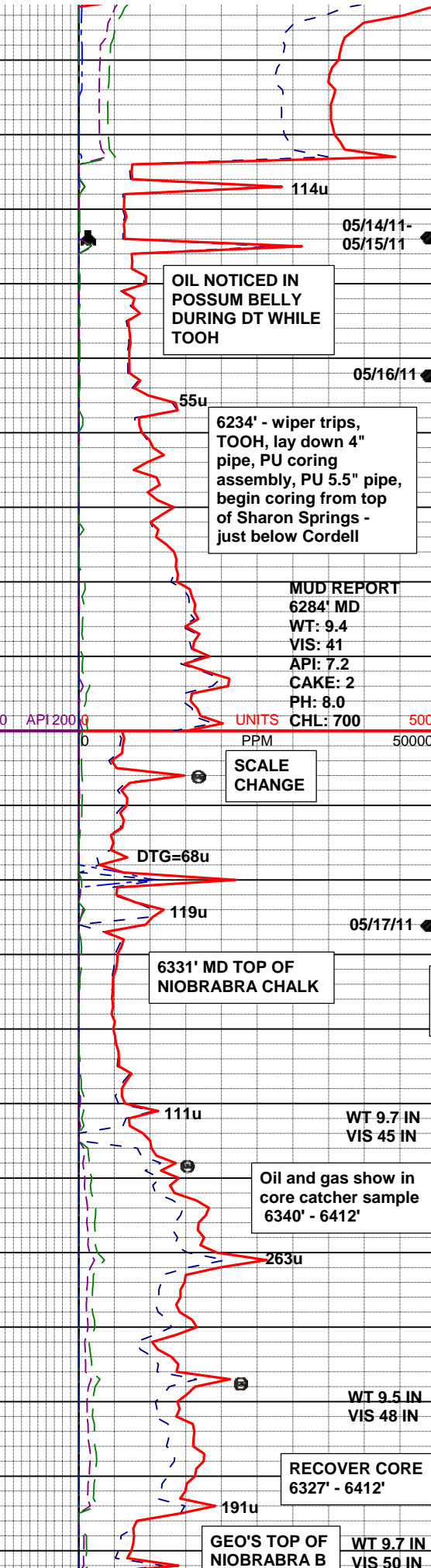
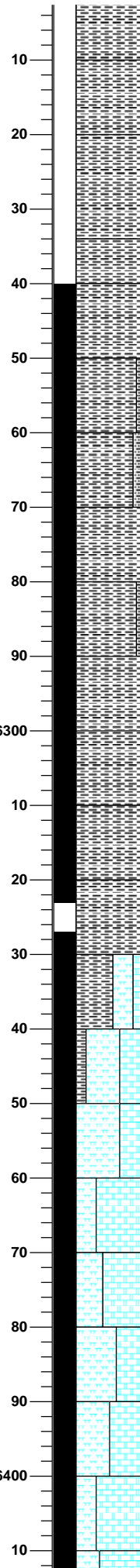
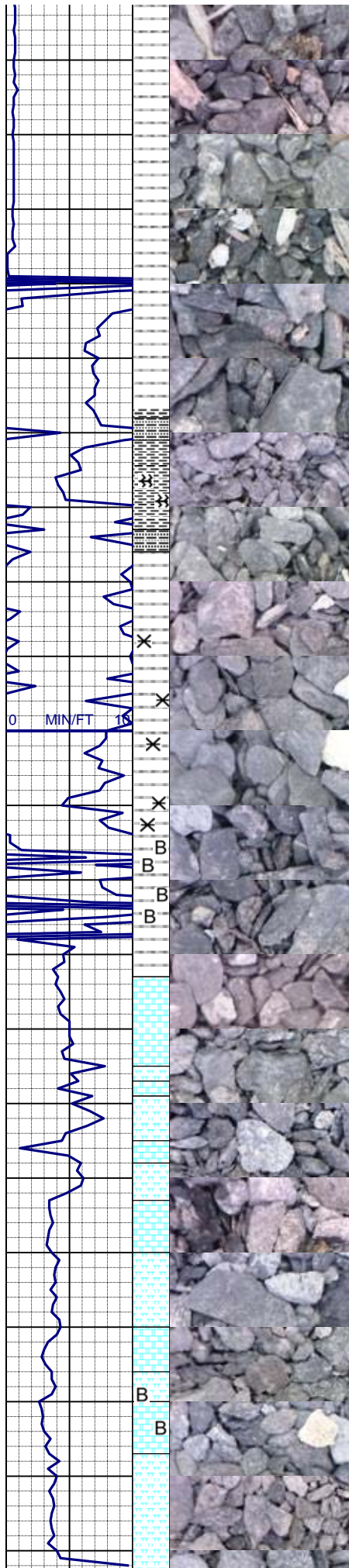
SH: gyblk,dkgy, gybrn, sbplty -sb fis, occ , blkly - sbbkly, frm - vfrm, grny - rthy, sme sbbnd, mtx ; tr aren, arg -slty, calc, grdg to sltysh

10' samples @ 6100' to TD

SH: gyblk,dkgy, gybrn, sbplty -sb fis, occ , blkly - sbbkly, frm - vfrm, grny - rthy, sme sbbnd, mtx ; tr aren, arg -slty, calc, grdg to sltysh

SH: gyblk,dkgy, gybrn, sbplty -sb fis, occ , blkly - sbbkly, frm - vfrm, grny - rthy, sme sbbnd, mtx ; tr aren, arg -slty, calc, grdg to sltysh

SH: gyblk,dkgy, gybrn, sbplty -sb fis, occ , blkly - sbbkly, frm - vfrm, grny - rthy, sme sbbnd, mtx ; tr aren, arg -slty, calc, grdg to sltysh



SH: gyblk,dkgy, gybrn, sbply -sb fis, occ , blkly - sbbkly, frm - vfrm, grny - rthy, sme sbbnd, mtx ; tr aren, arg -slyt, sl calc, tr py , tr bent

**TOP OF SHARON SPRINGS**

SH: ltgy - gy - mgy, pty - sbply, sme sbbkly - blkly, frm - v frm, rthy - sl grty ip, non calc, tr bent

SH: ltgy - gy - mgy, pty - sbply, sme sbbkly - blkly, frm - v frm, rthy - sl grty ip, non calc, tr bent

SH: ltgy - gy - mgy, pty - sbply, sme sbbkly - blkly, frm - mod sft, rthy - sl grty - sbwxy, non calc - sl calc, tr bent, sme qtz xtl

SH: m gy brn - m brn, sbbkly - sbply, frm, hom - occ mot, rthy - gt, org, mtx; arg - slyt, non - occ sl calc, abnt qzt xtl, tr py, abnt bent, abnt yel flor

**RECOVER CORE 6240' - 6317'**

SH: m gy brn - m brn, sbbkly - sbply, frm, hom - occ mot, rthy - gt, org, mtx; arg - slyt, non - occ sl calc, abnt qzt xtl, tr py, abnt bent, abnt yel flor

**6323' - 6327'; core destroyed. Highly fractured along bedding planes assoc. w/ bent. layers**

MARL /CHK: gybrn - brnblk -gy blk, sbply - sbbkly, brit - v firm, mot-fol, rthy -sbwy- vit, mtx ; arg, v calc, dirty cly fiz with; chk dkgy mot sbply, tr foss, tr bent, tr orgn flor

CHK: m - dk gy, gy brn, brn, mot, sme wh frag, sbply - pty, brit - firm, chky - rthy, mtx; v calc , mod drty - mod cln fizz

CHK / MARL: gybrn, brnbuf, occ mot gy buff, sbply - sbbkly, brit - mod firm - firm, mtx; v calc mod - cln fiz, marl: m dkgyblk - dk gy sbply, sme bent w/ tr pyr

CHK / MARL: gybrn, brnbuf, occ mot gy buff, sbply - sbbkly, brit - mod firm - firm, mtx; v calc mod - cln fiz, marl: m dkgyblk - dk gy

UNITS 500

PPM 50000

WT 9.7 IN

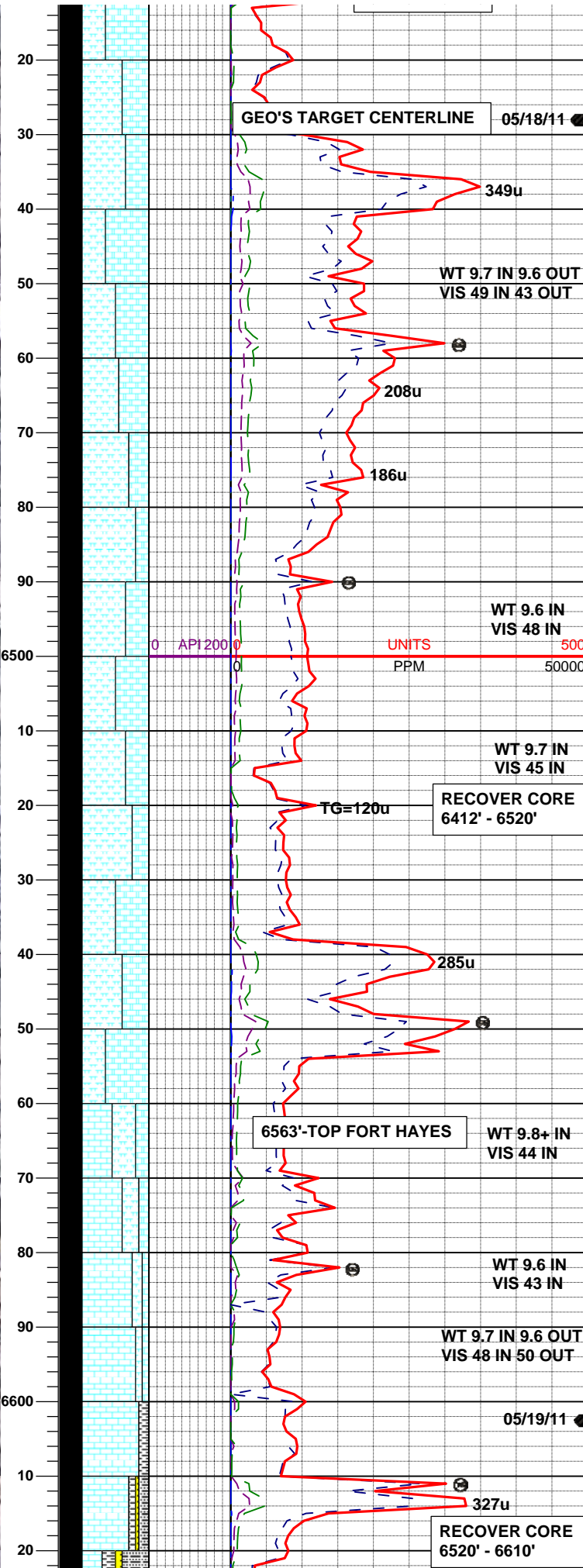
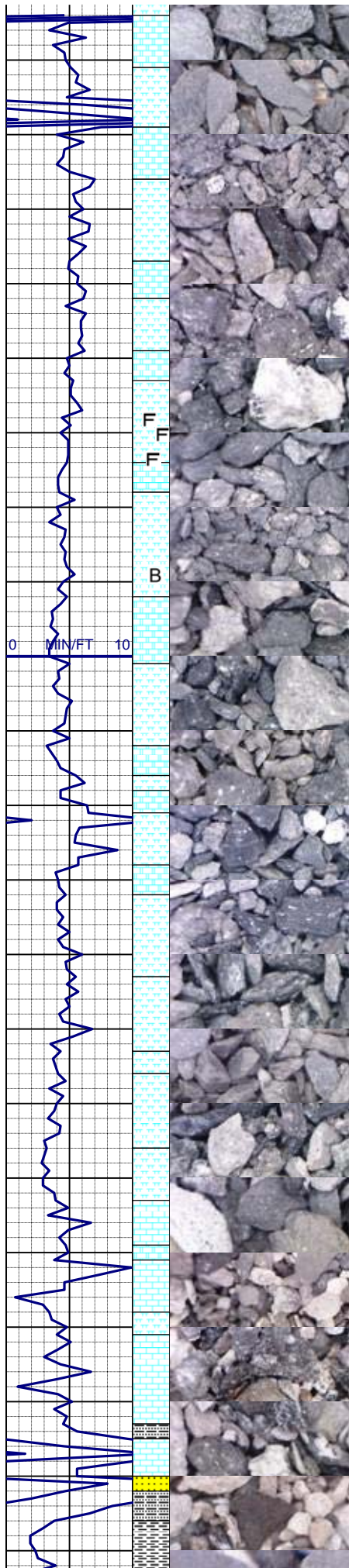
VIS 45 IN

WT 9.5 IN

VIS 48 IN

WT 9.7 IN

VIS 50 IN



05/18/11

**GEO'S TARGET CENTERLINE**

MARL: brnblk - blkgy, sme gybrn - dkgybrn, sbply - sbblky, sft - mod firm, rthy - grty, mtx; arg - slty, dirty fiz

MARL: brnblk - blkgy, sme gybrn - dkgybrn, sbply - sbblky, sft - mod firm, rthy - grty, mtx; arg - slty, dirty fiz

CHK: lt gy - m - dk gy, gy brn, brn, mot, sme wh frag, sbply - sb blk, brit - firm, chky - rthy, mtx; v calc, mod drty - mod cln fizz, abnt fos frag

MARL: brnblk - blkgy - dkgybrn, sbply - sbblky, sft - v firm, rthy - grty, mtx; arg - slty, dirty fiz - mod dirty fiz, tr foss, sme bent, sme yel flor

CHK / MARL: gybrn, brnbuf, occ mot gy buff, sbply - sbblky, brit - mod firm - firm, mtx; v calc mod - cln fiz, marl: m dkgyblk - dk gy sbply, sme bent, tr fos

MARL: brnblk - blkgy - dkgybrn, sbply - sbblky, sft - v firm, rthy - grty, mtx; arg - slty, dirty fiz - mod dirty fiz, tr foss, sme bent, sme yel flor

CHK / MARL: lt gy - m gy, gy brn, bf, mot, sbply - sb blk, brit - firm, chky - rthy, mtx; v calc, mod cln fizz, tr fos frag; marl: gybrn - brnblk - gy blk, sbply - sbblky, brit - v firm, mot-fol, rthy - sbwy- vit, mtx; arg, v calc, dirty cly fiz

LS: offwht, crm, bf - gybrn, sbply, irreg to sbblky, mtx; calc - fos, fnt spty yel - yel gld flor, n cut

LS: wh - offwht, crm, bf - gybrn, sbply, irreg to sbblky, mtx; calc - fos, fnt spty yel - yel gld flor, n cut; SH: dk gy - gybrn - dk brn, ply - sb blk, mod firm - firm, rthy - gty, sb wxy, calc

05/19/11

**6613'-TOP CODELL**

SLTY SH: brnblk, dkbrn-brn, sbply - sbblky, blkgy - occ nly, v

05/18/11

349u

WT 9.7 IN 9.6 OUT  
VIS 49 IN 43 OUT

208u

186u

WT 9.6 IN  
VIS 48 IN

0 API 2000 0 UNITS 500  
PPM 50000

WT 9.7 IN  
VIS 45 IN

**RECOVER CORE  
6412' - 6520'**

TG=120u

285u

**6563'-TOP FORT HAYES** WT 9.8+ IN  
VIS 44 IN

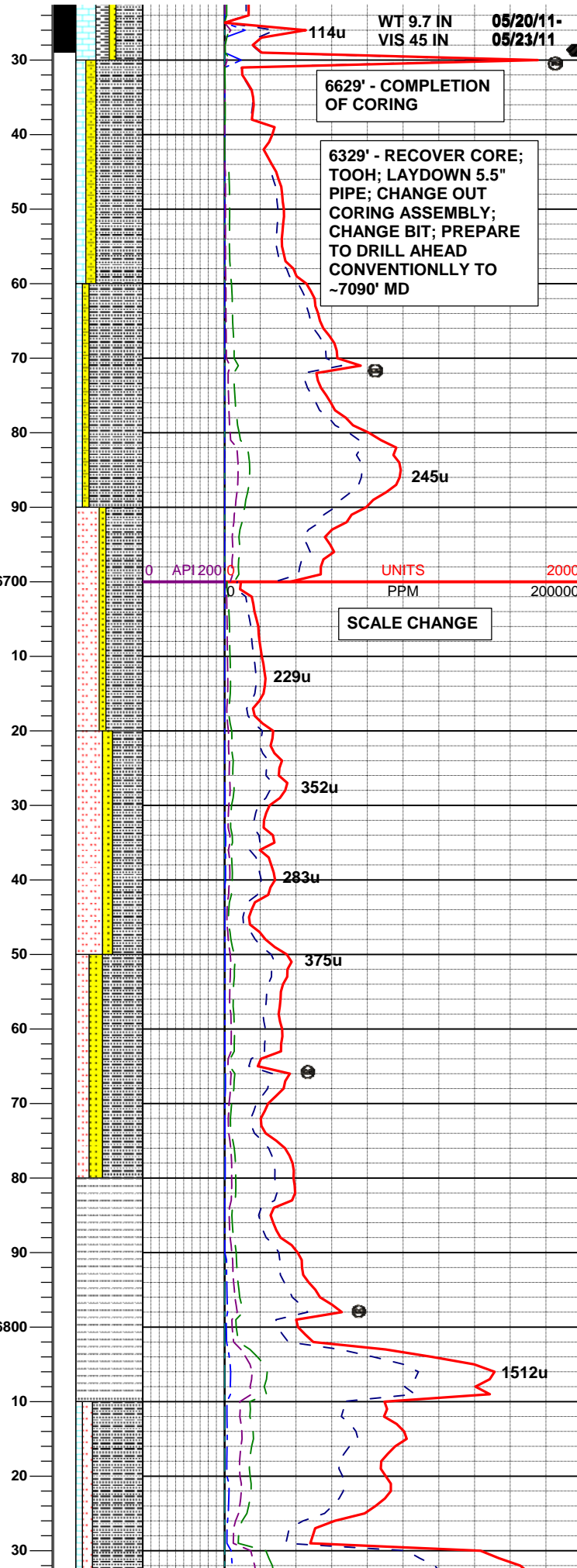
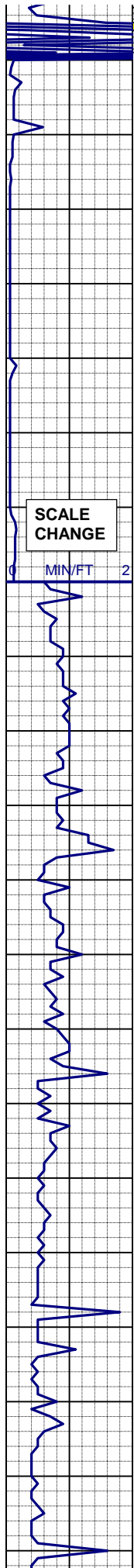
WT 9.6 IN  
VIS 43 IN

WT 9.7 IN 9.6 OUT  
VIS 48 IN 50 OUT

05/19/11

327u

**RECOVER CORE  
6520' - 6610'**



ssls, sbbly-blky - blk, v frm - frm, rthy-grty, mtx; arg - slty, calc, tr bent, tr ss

SLTY SH: m gy - dk gy, brnblk, sbfis, sbbly - blk, v frm - frm, rthy - v grty, mtx; arg - v slty, calc, tr bent, tr ss, grdg - slst

TOP GREENHORN LIME ANTICIPATED

SLTY SH: m gy - dk gy, brnblk, sbfis, sbbly - blk, v frm - frm, rthy - v grty, mtx; arg - v slty, calc, tr bent, tr ss, grdg - slst

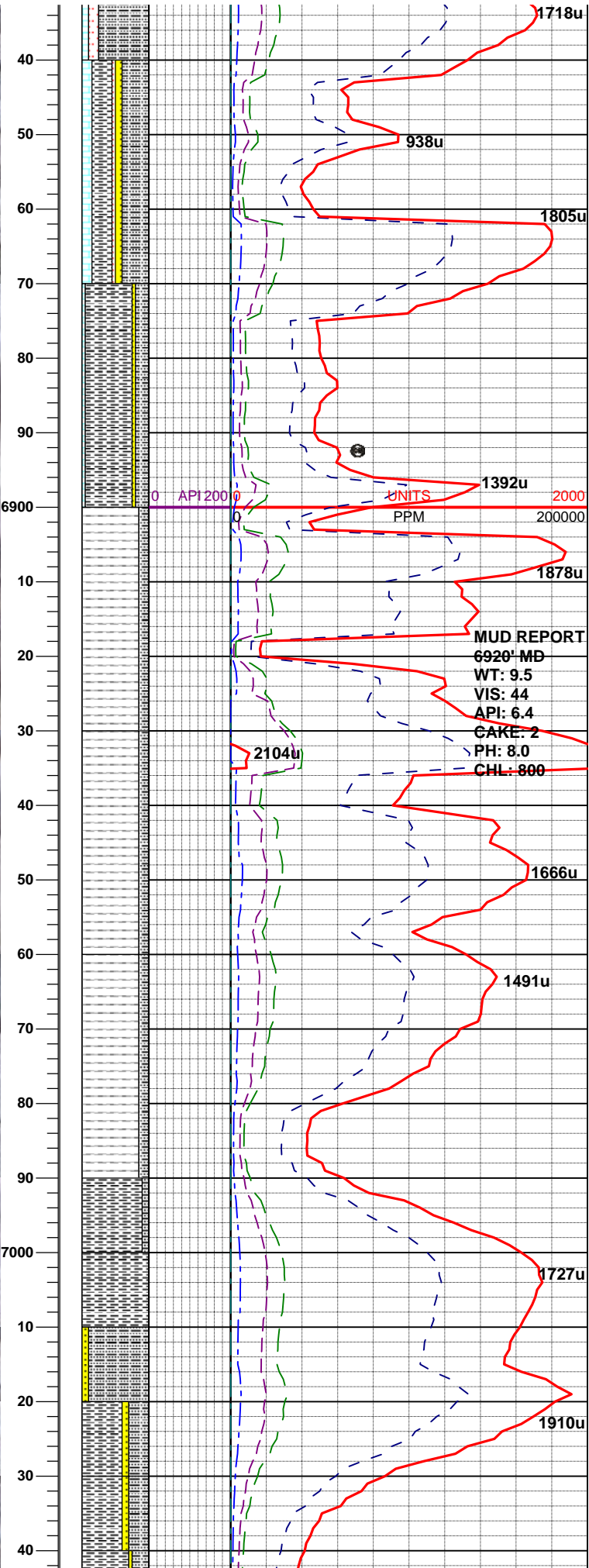
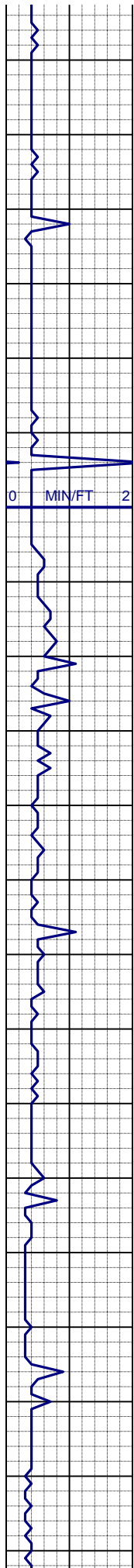
SLTST: lt gy - m gy - dk gy, sbbly, v frm, rthy - v gt, mtx: arg - v slty, calc, s tr bent, sme ss, grdg - ss, tr py

SS: lt gy - m gy, sbbly - blk, mod hd - hd. lse consol - consol, f - m gr, abnt py in mtx, sl calc - calc

SS: lt gy - m gy, sbbly - blk, mod hd - hd. lse consol - consol, f - m gr, abnt py in mtx, sl calc - calc, tr bent

SLTY SH: m gy - dk gy, brnblk, sbbly - blk, v frm - frm, rthy - v grty, mtx; arg - v slty, calc, tr ss, grdg - sh

SLTY SH: m gy - dk gy, brnblk, sbbly - blk, v frm - frm, rthy - v grty, mtx; arg - v slty, calc, tr ss, sme bent, tr py



SLTY SH: m gy - dk gy, brnblk, sbblky - blk, v frm - frm, rthy - vt grty, mtx ; arg - v slty, calc, tr ss, sme bent, tr py

SH: m gy - dk gy, mott dk gy - brn, mod firm - mod sft, rthy - gt ip, mtx, arg - slty, calc, tr bent, tr fos

SH: m gy - dk gy, mott dk gy - brn, mod firm - mod sft, rthy - gt ip, mtx, arg - slty, calc, tr bent, tr fos, tr ss

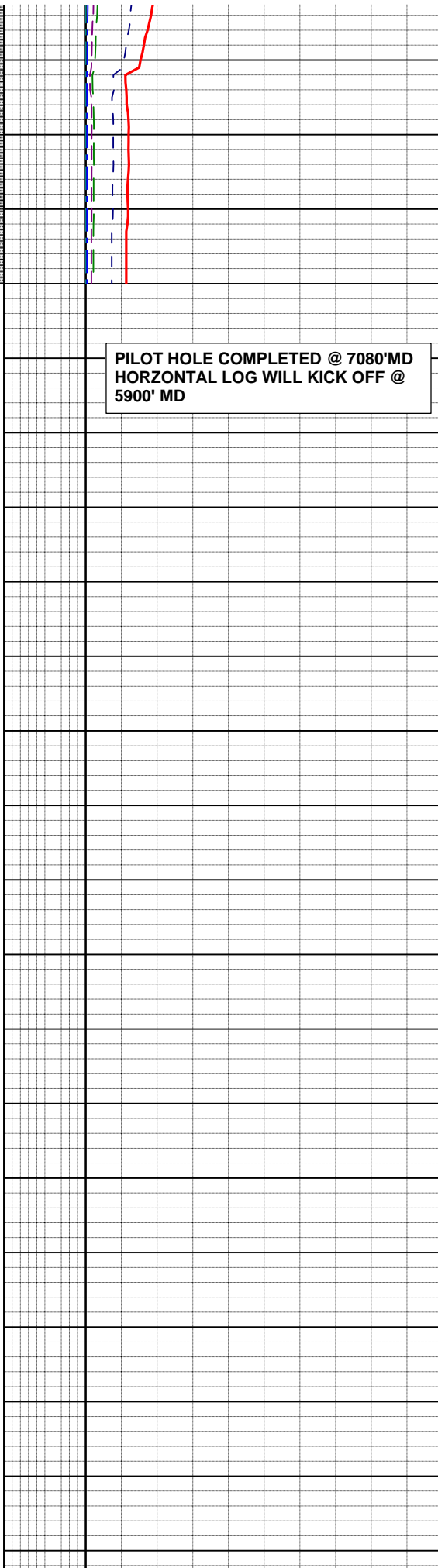
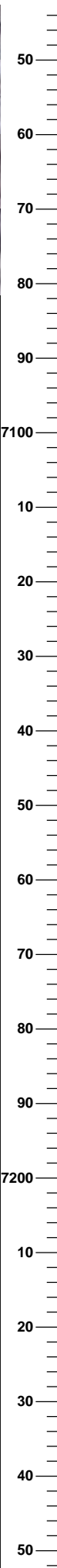
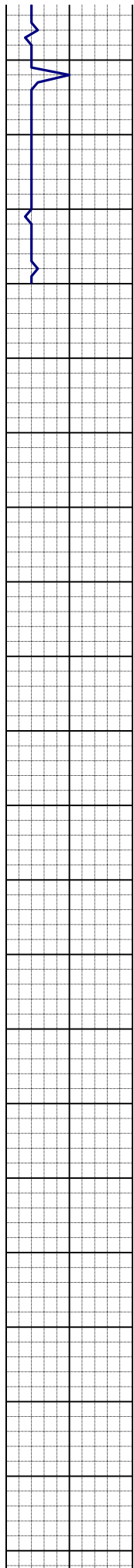
SH: m gy - dk gy, mott dk gy - brn, mod firm - mod sft, rthy - gt ip, mtx, arg - slty, calc, sme bent, tr fos, tr ss

SH: m gy - dk gy, mott dk gy - brn, mod firm - mod sft, rthy - gt ip, mtx, arg - slty, calc, sme bent, tr fos, tr ss

SH: m gy - dk gy, mott dk gy - brn, mod firm - mod sft, rthy - gt ip, mtx, arg - slty, sl - non calc

**D-SANDS**

SH: m gy - dk gy, mott dk gy - brn, mod firm - mod sft, rthy - gt ip, mtx, arg - slty, sl - non calc



**PILOT HOLE COMPLETED @ 7080'MD  
HORIZONTAL LOG WILL KICK OFF @  
5900' MD**

SS: lt gy - m gy, sbbiky - blkly,  
mod hd - hd. lse consol - consol,  
f - m gr, abnt py in mtx, sl calc -  
calc, tr bent

SS: lt gy - m gy, sbbiky - blkly,  
mod hd - hd. lse consol - consol,  
f - m gr, abnt py in mtx, sl calc -  
calc, tr bent

**7080' - TD OF PILOT WELL  
ON 05/21/2011 @ 06:39**

