



Woolsey Operating Company, LLC

Scale 1:240 (5"=100') Imperial

Measured Depth Log

Well Name: Cundiff A-1
Location: Section 25 - Township 34 South - Range 13 West
License Number: API: 15-007-24055-00-00 Region: Barber County, KS
Spud Date: August 24, 2013 Drilling Completed: September 4, 2013
Surface Coordinates: 1025' FNL & 2170' FEL
Approx. SW NW NE

Bottom Hole
Coordinates:
Ground Elevation (ft): 1501' K.B. Elevation (ft): 1513'
Logged Interval (ft): 3500' To: 5525' Total Depth (ft): 5525'
Formation: Topeka -----> Simpson Group
Type of Drilling Fluid: Chemical Mud

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Woolsey Operating Company, LLC
Address: 125 N. Market, Suite 1000
Wichita, KS 67202

GEOLOGIST

Name: Bill Klaver
Company: Woolsey Operating Co. LLC
Address: 125 N. Market, Wichita Kansas, 67202

COMMENTS

Surface Casing: Spud at 3 pm on 8/24/2013, set 5 joints of new 13 3/8" X 48#/ft casing to 223' KB (tally 211') with 230 sx Class A, 2% gel, 3% cc. Plug down 9 pm on 8/24/2013, cement did circulate.

Production Casing: 5 1/2" X 15.5#/ft

Deviation Surveys: 1/2 at 223', 1/4 at 941', 1 at 1479', 1/2 at 1988', 1 at 2497', 1 at 3001', 1/2 at 3505', 1/2 at 4043', 1 at 4550', 1 at 4906', 1 1/2 at 5525'.

Pipe Strap @ 4906', Board: 4930.20', Strap: 4933.99', Strap 3.79' long. No correction was made to the board.

Fossil Drilling Rig 3 Bit Record:

- 1) 17 1/2 Smith Tool Co. RR in at 0', out at 223'. 3.25 hours
- 2) 7 7/8" Varel HE 29 in at 223' out at 4906'. 97 hours
- 3) 7 7/8" Smith FHI 18 BPUS in at 4906' out at 5525', 40.5 hours

Gas Detector: Woolsey Operating Co. Gas Trailer #2

Mud System: Mud Co./Service Mud, Brad Bortz, Engineer

DSTs: Trilobite Testing, Leal Cason, Tester Deluxe.

E-Logs: Nabors Completion and Production Services, Dual Induction Laterolog w/SP, CNL-FDC w/PE, GR and Caliper. Jeff Luebbbers, Logging Engineer,

COMMENTS

Simpson crude added at 4202' clouded and contaminated Tooke gas reading throughout this test. Tooke was recalibrated and equipment cleaned to no avail.


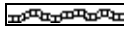
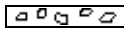
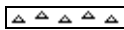
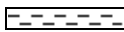










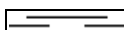








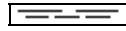







DSTs

DST #1) 4780'-4906' SB BOB in 1 minute, GTS in 12 minutes. IFP 20" 164.5 MCF, 30" 137.6 MCF, FFP 10" 198.3 MCF, 20" 137.6 MCF, 30" 60.9 MCF, 40" 62.5 MCF, 50-60" 70.4 MCF. Rec: 4098' GIP, 122' GSY OWCM (5% Gas, 20% Oil, 20% Mud, 55% Water), 248' GSY OWCM (15% Gas, 5% Oil, 30% Water 50% Mud), 124' GSY WOCM (35% Gas, 20% Oil, 15% Water, 30% Mud), 185' GCM (20% Gas, 80% Mud). IHP 2427, IFP 271-246, ISIP 612, FFP 319-412, FSIP 608, FHP 2431. BHT 128 degrees. Recovery fluid Rw .07 @ 84 degrees, chlorides 95,000 ppm.















































































CREWS

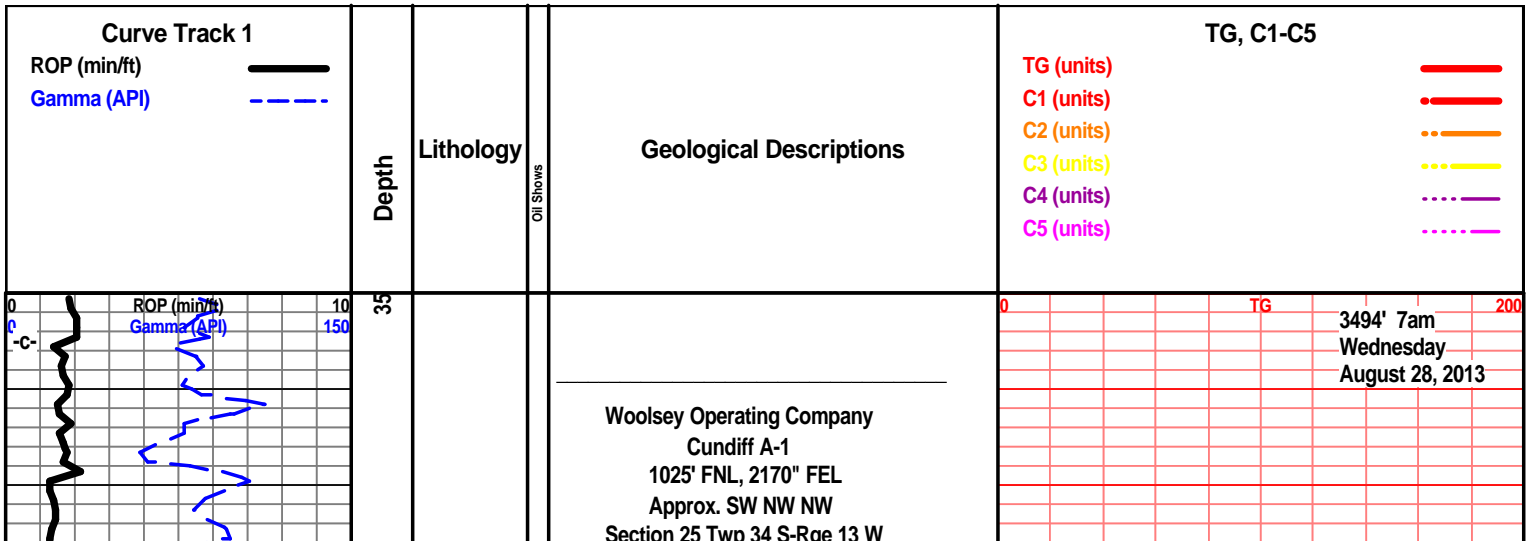
Jimmy Wenrich, Tool Pusher
Andres Maestas, Mornings
Daniel Otolantia, Daylights
Ron Burns, Evening
Allen Collins, Relief

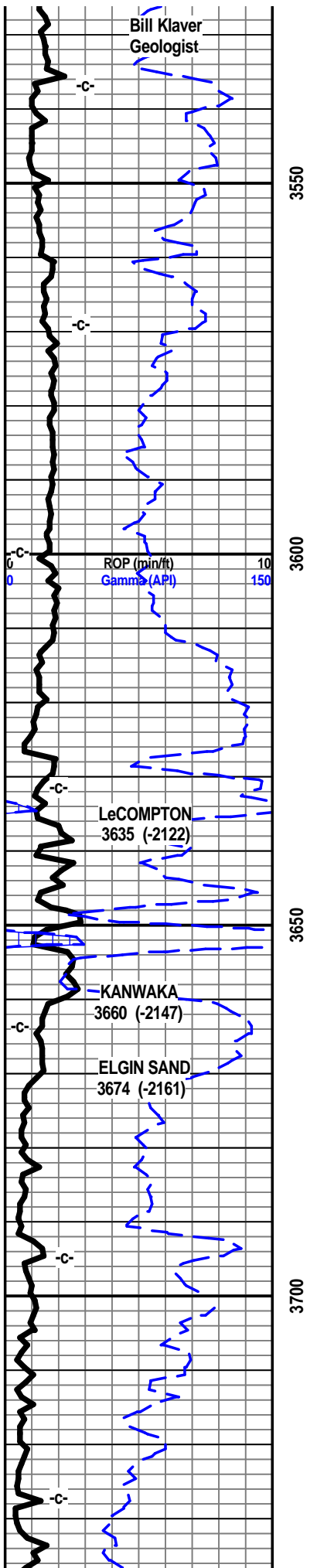
ROCK TYPES

 Anhy  Bent  Brec  Cht  Clyst  Coal  Congl  Sdy dolo	 Shy dolo  Dol  Gyp  Sdy lmst  Lmst  Mrlst  Salt  Shale	 Sltst  Ss  Black sh  Gry sh  Shale  Shysltst  Sltyssh  Ss 2	 Shale 3  Silty dol  Dol lmst  Dol 2  Granite wash  Lmst  Calc dol  Shale 3
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ACCESSORIES

MINERAL  Anhy  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Ferrpel  Ferr  Glau  Gyp  Marl  Nodule  Phos  Pyr  Salt  Sandy  Silt	 Chlorite  Dol  Sand  Silty FOSSIL  Algae  Amph  Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Gastro  Oolite  Ostra	 Pelec  Pellet  Pisolite  Plant  Strom  Fuss  Oomoldic STRINGER  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst  Sltstrg  Ssstrg  Carbsh  Clystn  Dol	 Grysh  Gryslt  Lms  Sandylms  Sh  Sltstn TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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Hardtner Field
Barber County, Kansas
API # 15-007-24055-00-00

Offset comparison wells for structural control included the following: Woolsey Operating Co's Hardtner Homes #1, E/2 NW NW, 25-34S-13W, Pickrell Drig's Allen E #1, N/2 NE NW, 25-34S-13W. Iron Drilling's McArthur #1, SW SE NW, 25-34S-13W.

vis. 48 wt. 8.8

One foot drill time was recorded from 3500' to RTD. 10' samples were gathered from 3800' to RTD. All samples were delivered to the Kansas Geological Survey at the completion of the test.

7 am Progress:

August 24, 2013 MIRT/SPUD
August 25, 2013 Drilling at 284'
August 26, 2013 Drilling at 1828'
August 27, 2013 2870' Rig Repairs
August 28, 2013 Drilling at 3490'
August 29, 2013 Drilling at 4185'
August 30, 2013 Rig repairs at 4202'
August 31, 2013 Drilling at 4440'
September 1, 2013 CFS at 4850'
September 2, 2013 DST 1 at 4906'
September 3, 2013 Drilling at 5237'
September 4, 2013 Drilling at 5505'
RTD at 9 am on September 4, 2013

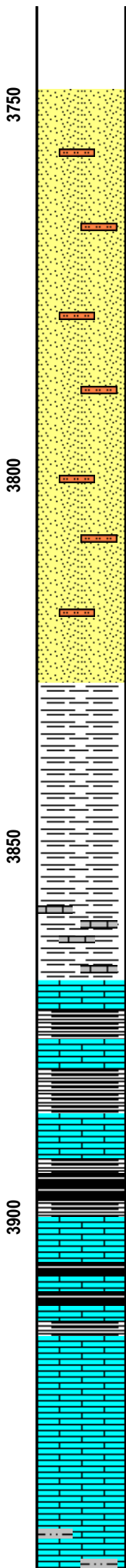
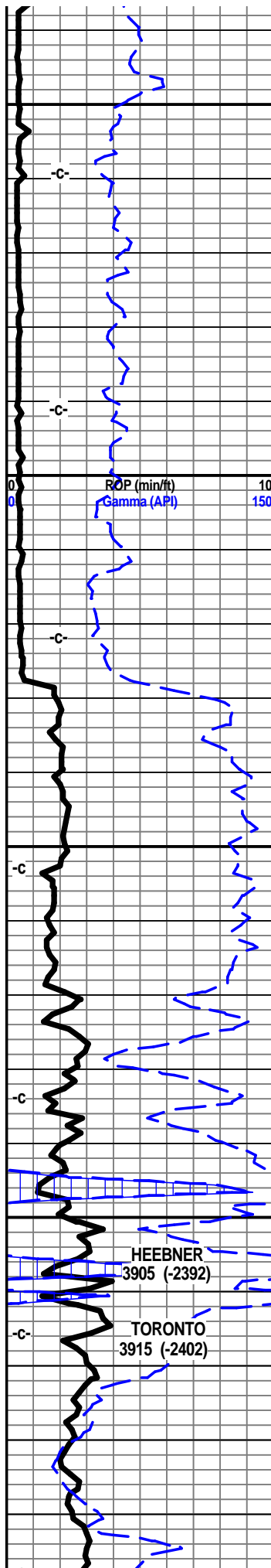
Scale Change
TG

100

vis. 42 wt. 9.0

E-log Tops:

Herington 1972 (-460)
Onaga 2880 (-1368)
Wabaunsee 2934 (-1422)
LeCompton 3634 (-2122)
Kanwaka 3657 (-2145)
Elgin Sand 3668 (-2156)
Heebner 3903 (-2391)
Toronto 3919 (-2407)
Douglas Shale 3970 (-2458)
Haskell (Brown) Lime 4106 (-2594)
Lansing 'A' 4115 (-2603)
Kansas City lola 'G' 4448 (-2936)
Kansas City Dennis 'I' 4530 (-3018)
Stark 4582 (-3069)
Swope 4587 (-3075)
Hushpuckney 4608 (-3095)
Hertha 4621 (-3109)
B/Kansas City 4663 (-3151)
Pawnee 4771 (-3259)
Cherokee Group 4822 (-3310)
Cherokee Sand 4836 (-3324)



Mississippi Unc. 4861 (-3349)
 C3 4861 (-3349)
 C2A 4871 (-3359)
 C2 4904 (-3392)
 Compton Lime 5199 (-3687)
 Kinderhook Shale 5236 (-3724)
 Woodford 5304 (-3792)
 Misener Sand 5354 (-3841)
 Viola 5358 (-3846)
 Simpson Group 5454 (-3942)
 Wilcox 5469 (-3957)
 McLish Shale (not seen)

Oil & Gas Show Legend
 ☒ Gas
 ● Even Stain/Saturation
 ○ Spotted Stain/Saturation
 ○ Questionable
 □ Dead/Gilsonitic

sst off wht lt gry f grnd, sub ang grns, w/srtd, sub fria to fria, fair to w/cem, calc cem, blk mineral specks, tr/some arg clay fill, tr blk carb flks

sst off wht lt gry, f grnd, sub ang grns, fair to prly srtd, fair to prly cem, calc cem, sub fria, blk min, tr clay fill

shl gry med drk gry, silty gritty, platey, soft fiss

shl gry gry, gry blk slick silty soft gritty, spls mosly sst aa

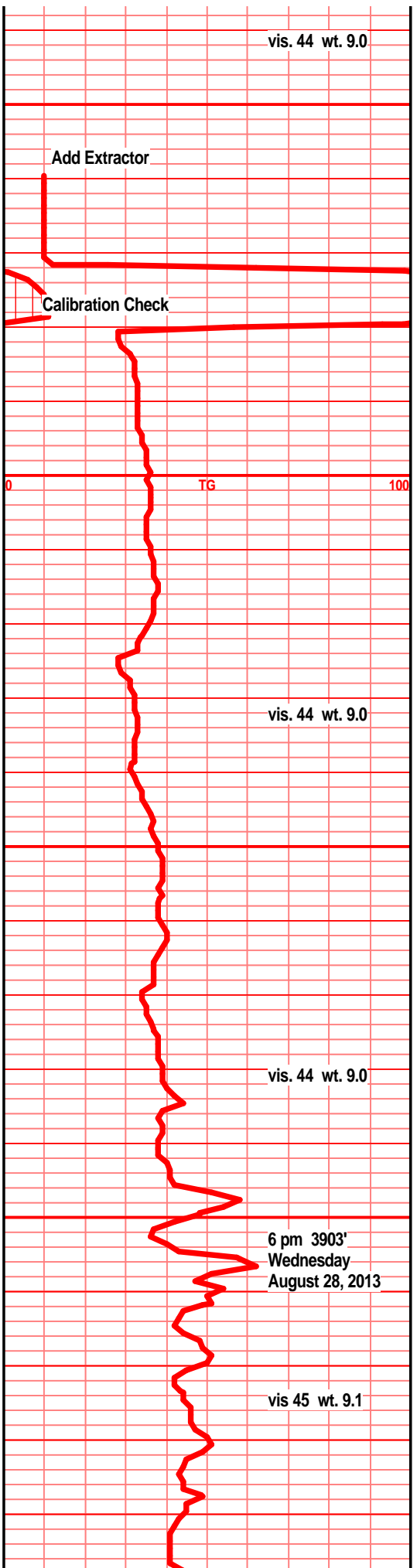
shl gry drk gry tr blk, soft, gritty, tr calc w lst tan brn f vf xln dns hrd blkly ang pcs, calc fill tr foss frags,

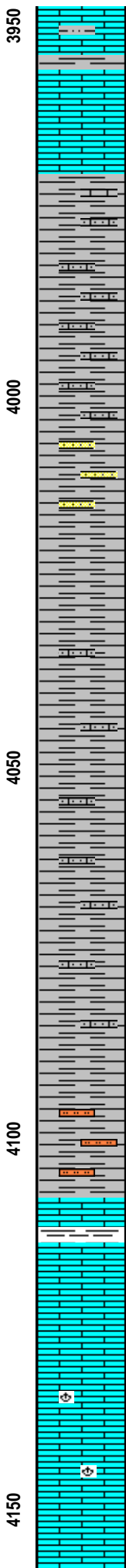
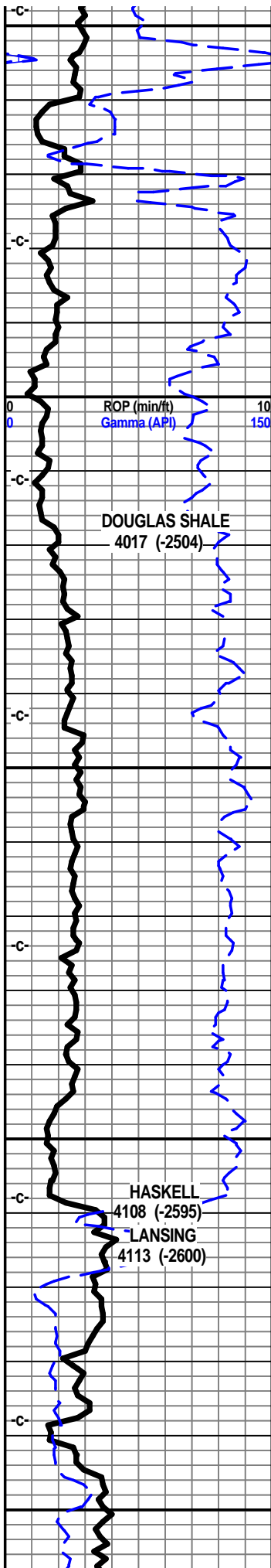
shl drk gry blk, carb in prt, platey blkly ang pcs, tr gas, lst tan gry brn f vf xln dns hrd blkly ang, calc fill

shl gry drk gry blk, carb wxy grsy, tr gas bubs, lst gry brn f vf xln dns hrd blkly arg in prt

lst off wht tan f xln blkly ang sub chlky, micro foss frags, calc xln fill, tr lst tan lt brn f vf xln dns hrd blkly pcs, calc fill, foss frags micro foss in prt

lst off wht tan f xln gran soft sub chlky ang pcs, tr foss frags, calc xln fill, micro xln in prt





lst off wht tan f xln blk ang sub chlky, micro foss frags, calc xln fill, spls wsh wht,

shl lt gry, med gry silty gritty, tr sndy, snd grn inclu, calc in prt, lst med gry, f/med xln, gritty sndy calc,

shl gry lt/med gry silty gritty sndy in prt tr gry sst, vf grnd sub ang, gran, prly srtd sub fria, calc fill, prly cem, some foss content

shl lt/med sli greenish gry, sndy gritty, snd grn inclu, sst lt gry f vf grnd, fair srtd, sub fria, gran text, sub ang grns, calc cem, clay fill

shl gry gry green, silty gritty, sndy text, snd grn inclu

shl gry gry/green, silty gritty, some sndy text, gry/brn sndy gritty lst, fn grnd w/snd grn inclu

shl gry, gry/green silty gritty, soft gran text, sndy gritty text, blk carb flecks

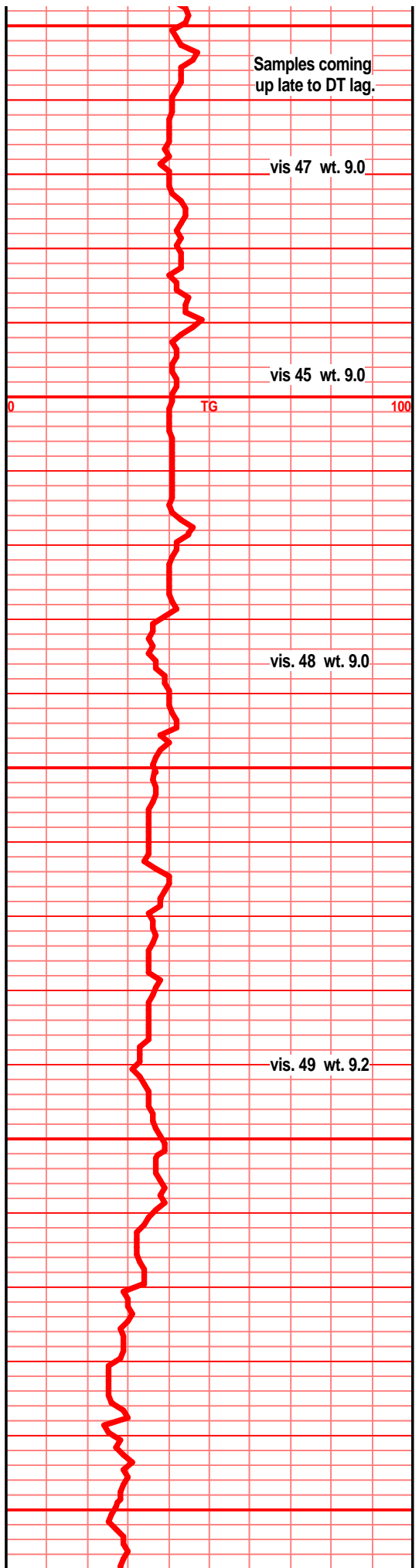
shl gry, gry, gry/drk green/blk, silty soft

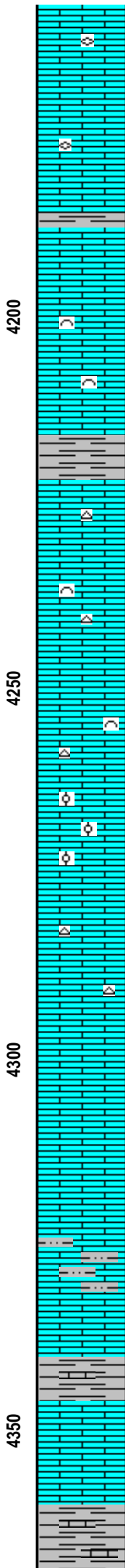
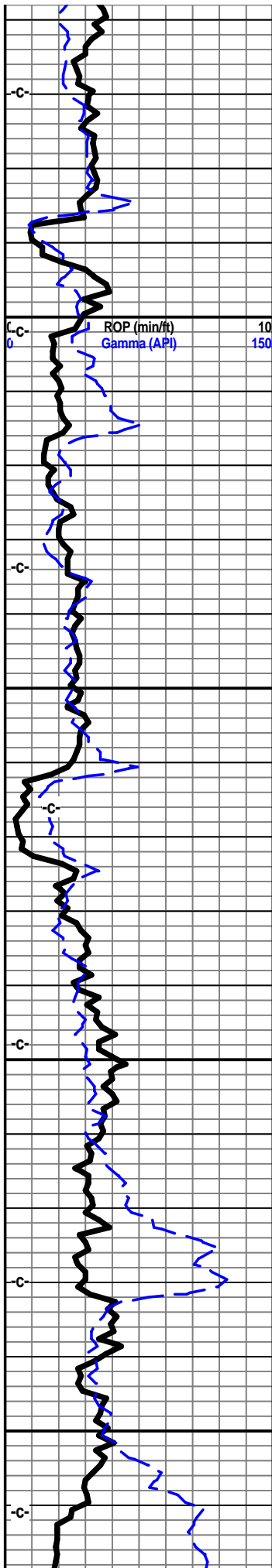
lst crm tan tr lt brn f xln, dns hrd blk, tr sub chlky, tr calc fill,

lst crm tan lt gry f vf xln blk ang hrd dns, tr sub chlky, calc xln fill, micro foss frags,

lst crm tan lt gry f xln blk ang sub chlky dns, micro foss frags,

lst off wht lt gry f vf xln hrd blk ang dns, some sub chlky, micro foss frags, some calc xln fill





Ist off wht lt gry tan f vf xln blk ang hrd dns foss frag, mirco ool, tr sub chlky in prt,

Ist crn tan lt gry/tan f xln blk ang hrd dns sub chlky, micro foss frags, calc xln fill

Ist crm lt gry tan fxln, gran soft, sub chlky, foss frags, pp foss mold por, calc xln fill,

Ist crm lt gry tan f vf xln blk ang dns micro foss frags, calc xln fill, shl gry silty calc foss frags

Ist crm tan lt gry f some vf xln tr sub chlky tr foss frags, micro foss frags, calc xln fill

Ist crm tan lt gry f xln dns hrd blk ang dns pcs, tr sub chlky, micro foss frags, tr inter foss frags por, mstly dns hrd

Ist tan crm off wht lt gry f vf xln dns hrd blk ang pcs, tr sub chlky, micro foss frags, calc xln fill tr lt gry opa q chrt

Ist off wht lt gry tr crm f sli med xln gran calc fill, foss frags, foss ool, crsly in prt, oomold por, inter ool por, inter xln por

Ist lgry tan f sli med lxn gran soft tr sub chlky foss frags, micro ool, crsly in prt, inter ool por, inter xln por

Ist tan off gry f xln blk ang hrd pcs, sub chlky micro foss frags, foss ool, calc xln fill, tr inter xln por

Ist crm tan lt gry f xln blk ang sub chlky pcs, foss frags, calc xln fill, inter xln, pp por

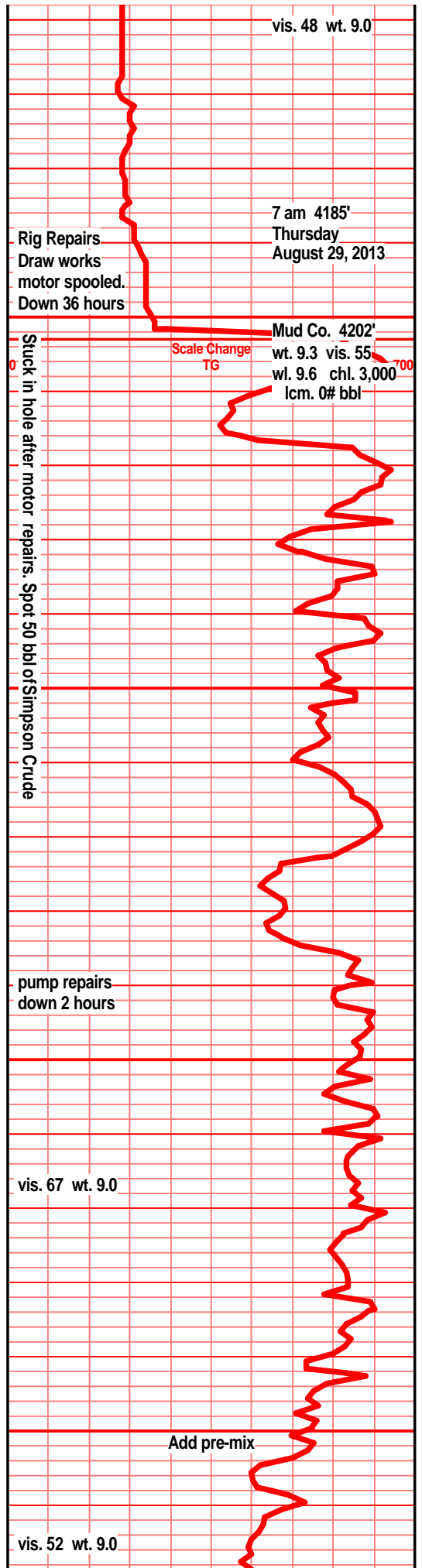
Ist tan lt gry f vf xln dns hrd blk ang sub chlky pcs, foss frags, micro foss frags, bec arg in prt

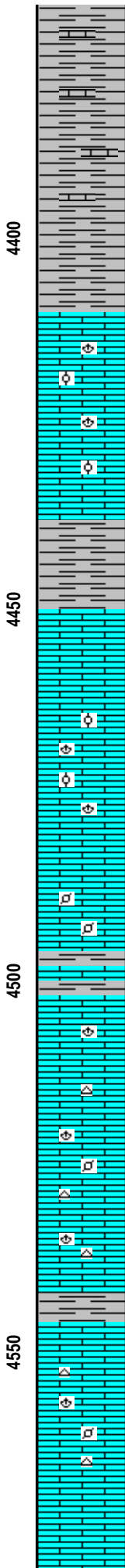
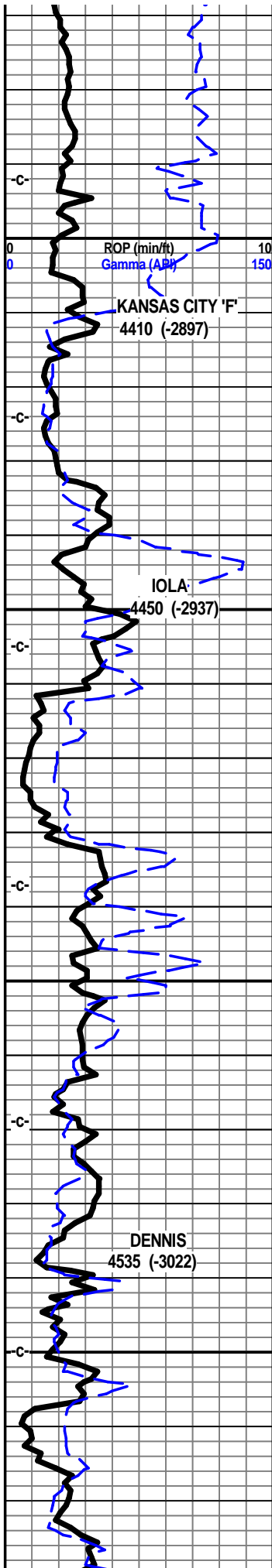
Ist gry tan tr crm f xln dns hrd blk, sub chlky foss frags, micro foss, tr lt gry opa q chrt,

Ist gry drk gry f vf xln blk dns arg, massive, tr sub chlky, mstly dns hrd blk pcs,

Ist gy bec drk gry f vf xln dns hrd blk ang arg, silty,

shl gry drk gry calc, silty





shl gry dkr med drk gry, silty arg, calc fill, foss frag fill, micro foss frags.

shl gry drk med drk gry, silty, arg, calc fill/frags, tr foss frags, micro foss frags.

shl drk gry blk, silty tr gritty, calc in prt, calc fill/frags

shl gry drk med drk gry silty calc,

lst crm tan off wht f sli med xln, gran, blk pcs, tr sub chlky, foss frags, tr foss ool, micro foss frags, blk calc xln fill, inter foss mold por, inter xln por, pp por, gran soft mushy in prt

lst crm tan off wht f sli med xln gran blk ang sub chlky tr soft pcs, foss frags, micro ool, inter xln por, moldic/pp por,

shl gry med drk gry, calc, lst gry tan vf xln dns hrd silty arg gritty

lst crm off wht lt grn f sli med xln gran, sub chlky, foss frags, foss ool, micro foss frags, calc xln fill, foss mold por inter xln por,

lst crm tan off wht f sli med xln blk ang gran sub chlky pcs. foss frags, calc xln fill, moldic por, inter xln por, foss ool

lst drk tan gry f vf xln dns hrd blk pcs, arg/soft sub chlky, foss frags tr calc xln fill,

lst crm gry tan f vf xln dns hrd gran in prt, soft sub chlky, tr foss frags, tr calc xln fill, tr arg, shly

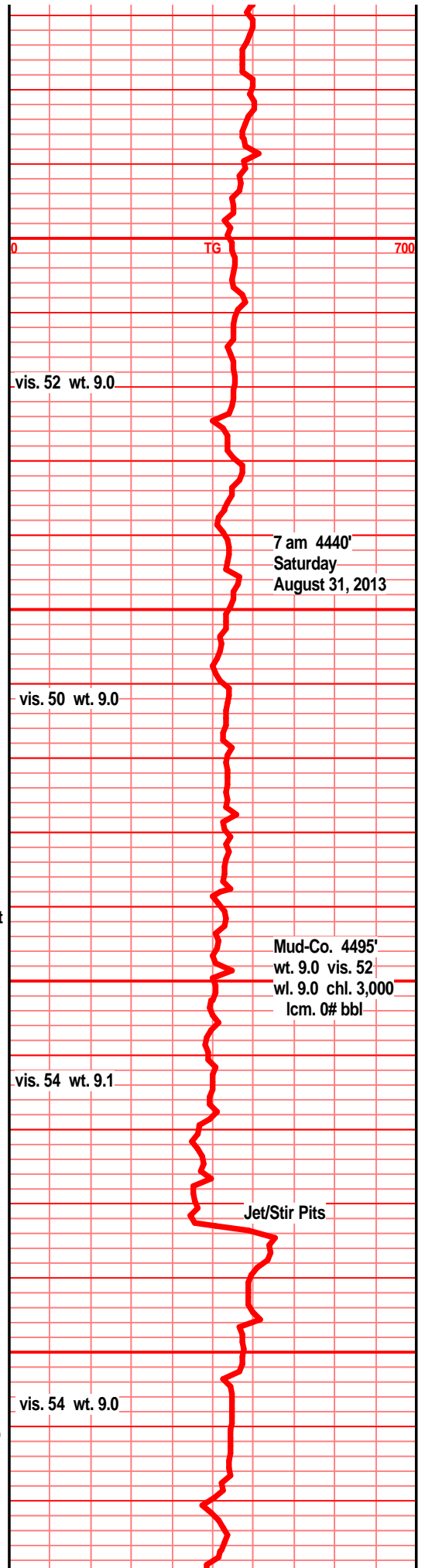
lst crm tan lt gry f vf xln dns hrd blk ang sub chlky foss frags, crsly in prt, calc xln fill

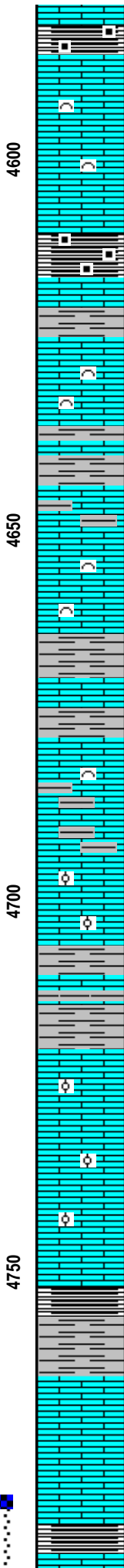
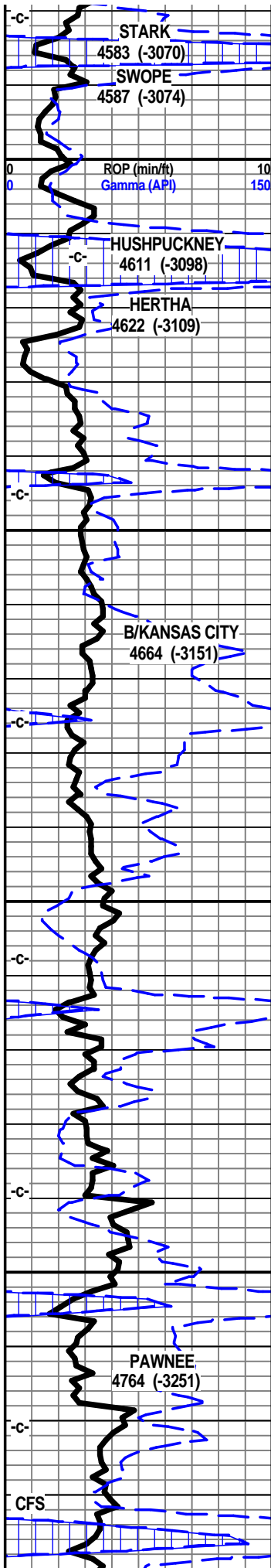
lst crm gry tan f vf xln dns blk sub chlky foss frags, crsly in rpt, hvy calc xln fill, chrt tan gry shrp frsh opa

lst crm tan off wht lt gry in prt, f xln blk ang, sub chlky, foss frags, crsly foss in prt, calc xln fill, chrt tan gry shrp opa

lst tan gry crm f xln soft chrly sub chlky in prt, foss frags, crsly in prt, hvy calc xln fill in some, chrt tan gry shrp frsh opa

lst crm lt gry tan f xln soft chlky tr soft sub chlky, foss frags, micro foss frags, chrt gry tan shrp frsh opa





shl gry blk, blk carb, wxy grsy, gas bubs, blkly ang pcs

lst tan mstly gry f vf xln blkly ang dns, soft chlky, micro foss frags, arg, silts, chrt dull gry tan sharp frsh opa

lst crm gry mstly gry f vf xln dns blkly ang, sub chlky to soft chlky foss frags, calc fill, chrt tan gry shrp frsh opa

shl gry drk gry blk, carb, wxy grsh text, blkly ang big pcs, abun gas bubs

lst crm tan lt gry f vf xln mstly gran soft sub chlky, foss frags, foss ool, micro ool, micro foss, inter xln por, moldic por,

shl gry drk gry blk/brn, calc, dns hrd, ang blkly spears, lst tan drk gry brn vf xln dns hrd blkly ang arg silts, micro foss

lst drk gry, gry brn tr brn blk, f vf lxn dns hrd blkly ang arg, silty, tr micro foss frags, chrt drk gry blk, shrp frsh opa

shls gry brn tr blue green, silty gritty splintery, calc, lst tan drk gry/brn tr blk, f vf xln dns hrd blkly ang arg, silts

shls blue gry green, silty clays, soft mushy, lst tangry green brn f vf xln dns hrd arg, silts,

lst gry tan lt gry/brn f vf xln dns hrd blkly ang dns, tr sub chlky, foss, micro foss frags, calc xln fill

shl gry blk, calc, blkly ang pcs, lst tan crm tan buff f xln blkly ang foss frag, micro foss frags tr ool, calc xln fill

lst crm tan buff f xln blkly ang dns hrd, foss frags, micro foss frags, foss ool, calc xln fill, tr sub chlky

lst buff tan f xln blkly ang tr sub chlky, foss frags, micro ool, calc xln fill, tr pp inter xln por mstly vry tite

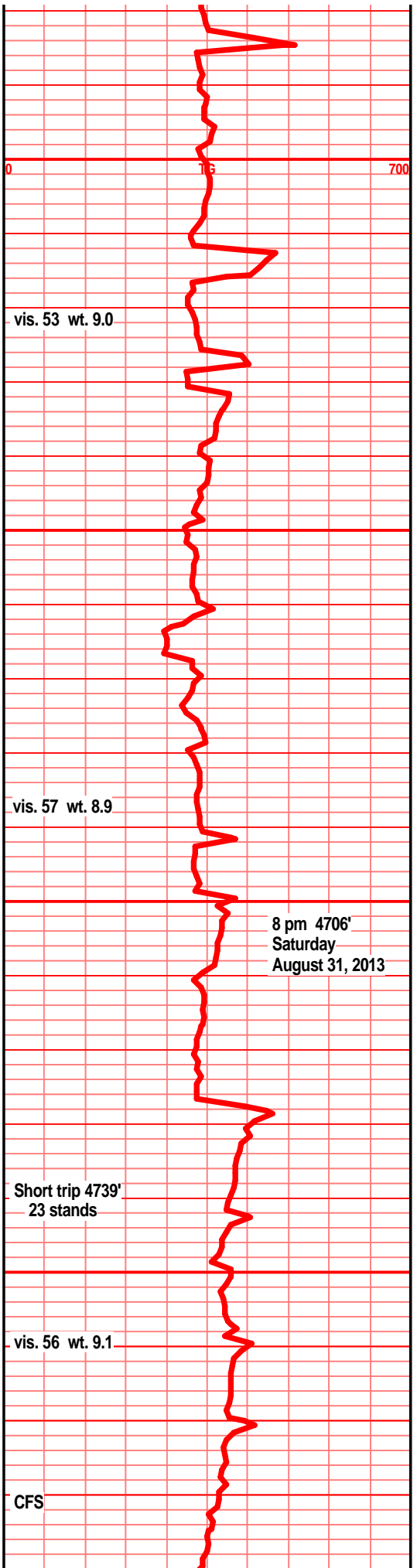
lst crm tan buff f vf xln blkly ang dns hrd, micro foss frags, micro ool, calc xln fill some sub chlky

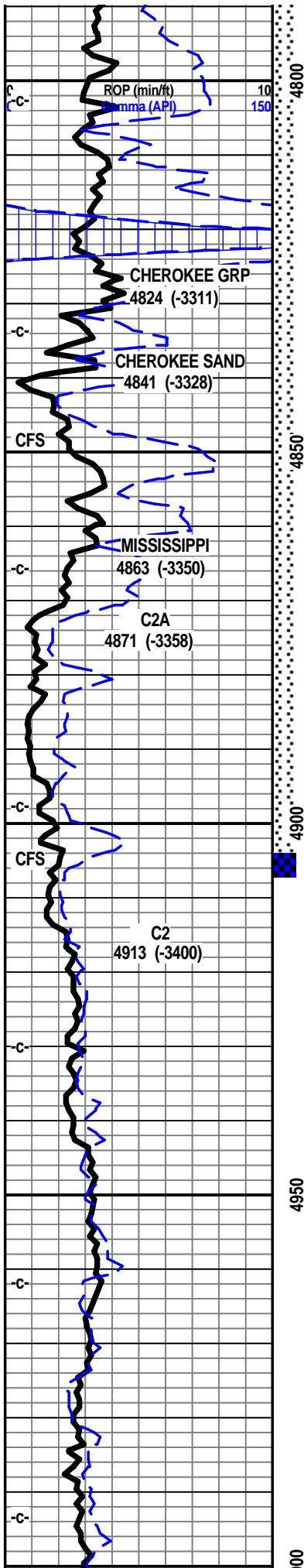
shl gry, drk gry blk, carb text in prt, blkly ang pcs, wxy grsy text, shl gry blk shrp spintery

shls gry drk gry blk, soft mushy platey, tr splintery, lst crm buff dull tan, f vf xln dns hrd blkly, tr sub chlky, semi arg in prt, mstly tite dns, tr micro foss frags

lst crm drk buff dull tan/gry f xln blkly ang dns pcs, sub chlky, tr micro foss frags, mstly tite dns sli arg

shl gry dkr gry blk, blk carb, gritty blkly ang





pcs, tr wxy grsy text, tr gas bubs, lst buff tan lt gry f vf xln dns hrd blkly ang pcs, tr micro foss frags, mstly dns hrd tite, sli arg in most

shl gry drk gry blk, shl gry brn silty dns hrd, calc, lst tan drk gry brn vf xln dns hrd blkly ang arg, micro xln in prt

shl gry, drk gry, blk, blk carb in prt, blkly ang pcs, wxy grsy text, gas bubs 4840' spl, lst gry tan brn vf xln dns hrd blkly, highly arg, micro xln in mst

more blk carb shl, wxy grsy, tr gas, shl drk gry blk, lst drk tan gry f vf xln, blkly ang dns arg

sst drk tan, brn and semi blk cistrs, vf grnd, sub ang grns, w/srted, w/cem, blkly ang hrd/dns clstrs, tr sub fria to gran, minute white chrt flecks, tan brn stain, gas bubs on brk, SSFO, odor, grsy SFO

shl gry blue green silty gritty, tr stray chrt chip, clays, soft sticky mushy

chrt wht off wht, lt gry/blue smokey, frsh shrp blkly ang pcs, tr weath edge text, tan brn stain, pp moldic por, SFO/Gas bubbles.

chrt off with tan frsh blkly ang pcs w/gran weath text edges, soft weath text, pp moldic por, fair odor, fair SFO/Gas bubbles, filmy SFO, filmy scum on spl water, chrt blue gry smokey shrp frsh opa blkly with gran weath edge, pp moldic vug por, drk blk hvy grsy stain, lighter stain, SSFO, gas bubs

chrt wht off wht gry smokey, shrp frsh, opa, blkly ang pcs w/weath gran text edges, pp moldic por, drk stain, tr hvy SFO, lighter stain, SFO/Gas on break, filmy scum on spl water, fair to good odor in all. Scatt dull UV in all

dolo off with lt gry f vf xln dns blkly ang, tr gran, tr fine inter xln por, mstly tite dns, tr inter xln stain, tr chrt, tan wht chrt inclu, tr chrt with stained dolo edge, sli odor

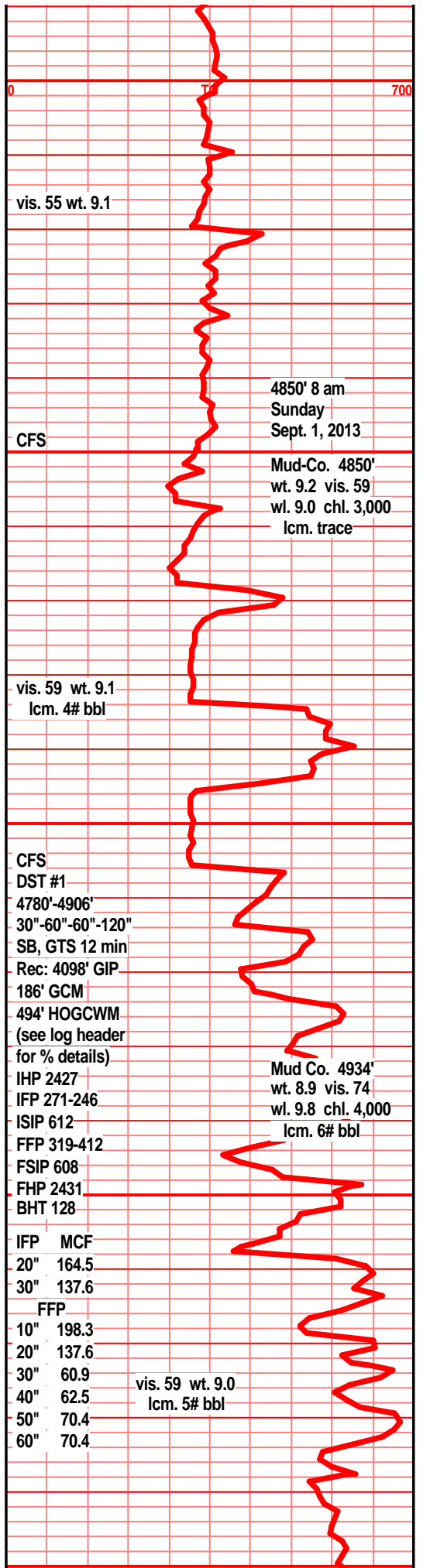
dolo, chrtly dolo, off wht lt gry f vf xln dns blkly ang chrtly, chrtly inclu, chrt with lt gry tan dolo edge, pp moldic por, stained dolo edge SFO, gas bubs on gran dolo edge, odor

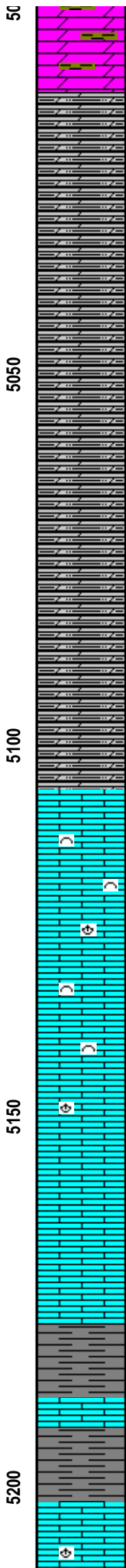
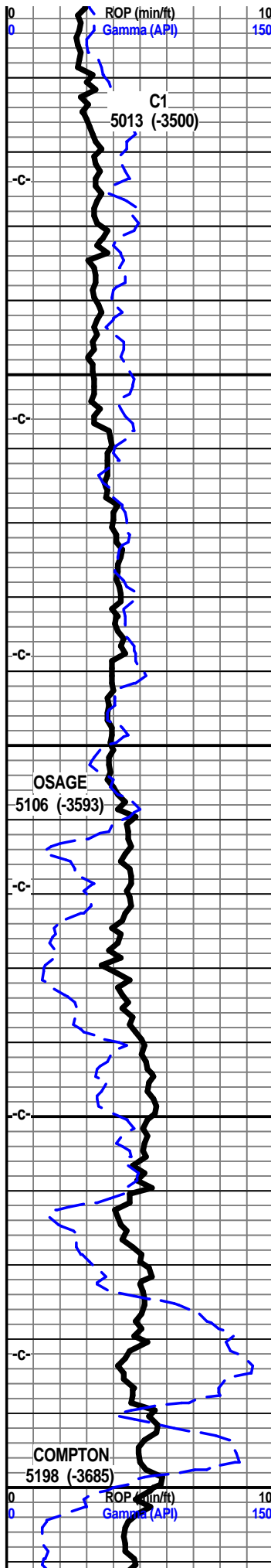
dolo off wht lt gry f vf xln blkly ang dns hrd pcs, tr chrtly, chrt inclu, wht shrp blkly ang opa, tr edge stain along dolo chrt contact

dolo off wht lt gry bec drkr gry f vf xln dns hrd blkly, bec sli arg, chrt inclu, chrt gry shrp frsh,

dolo drk crm gry f vf xln dns hrd blkly ang, tr sli suc text in prt, mstly not, gran tr pp por, scat stain, tr chrt inclu in prt,

dolo drk crm gry f vf xln dns hrd blkly ang, tr gran text, silty in prt, tr pp por, mstly hrd dns,





tr chrt inclu, incr arg in prt

dolo drk crm gry, drk gry tan f vf xln dns hrd blk ang pcs, tr gran por msly dns hrd, scatt chrt in prt, arg silty in some, shls med gry drk gry blk silty calc

dolo lt med gry, f vf xln dns blk ang sli gran in prt, silty gritty in prt, shls gry drk gry blk, silty calc, gritty

dolo gry med to drk gry, f vf xln, sli gran, silty gritty, hard blk dns arg, shl drk gry some gry blk, silty gritty dolo text,

dolo/shl arg dolo, drk gry green blk, f vf xln dns hrd blk ang silty gritty, silty dolo shls/dolo stn, silty gritty, gran in prt

dolo, silty shly dolo stn, med gry tr drkr gry, silty, gritty, calc in prt, dolo lt med grn f vf xln dns blk ang hrd, silty gritty

lst wht off wht tan, tr tan/gry f xln, sli med xln in prt, blk ang pcs, foss frags, crs foss frags in prt, wht off wht frsh chrt inclu, chrt wht off wht shrp frsh blk, glau in some, some sub chlky to soft gran, tr arg

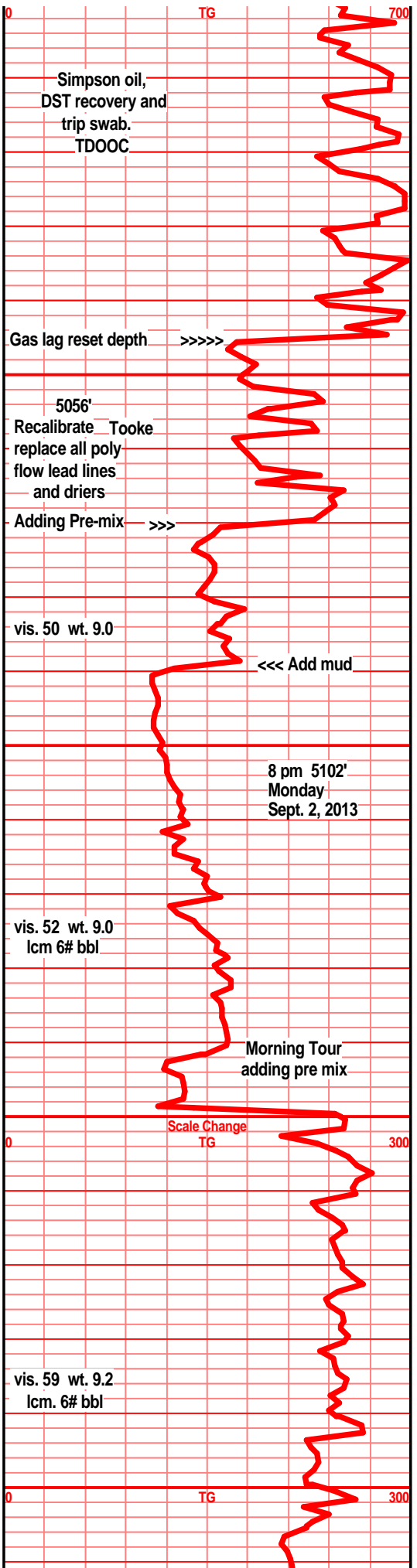
lst crm tan off wht, tr lt green tint, f xln, sli med xln in most, blk ang sub chlky in prt, tr glau, foss frags, crsly foss frags in prt, calc xln fill, chrt inclu, chrt wht shrp frsh

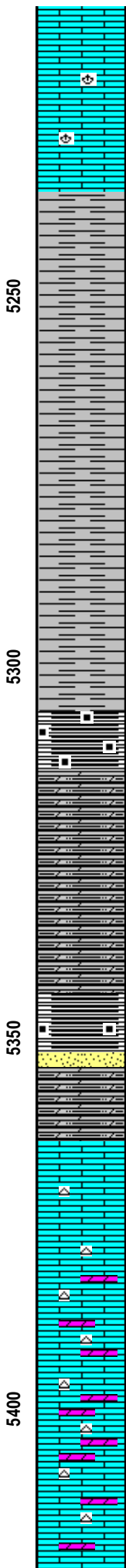
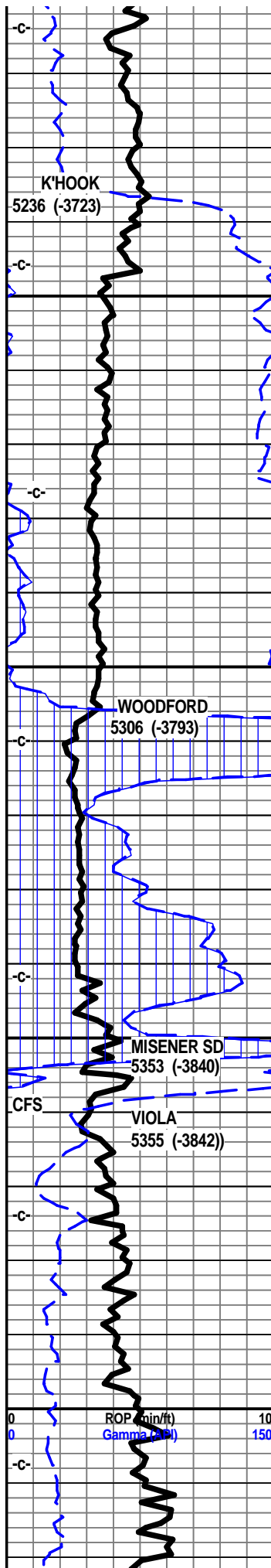
lst crm tan dull tan lt gry f xln, sli med xln in prt, sli arg, gran sli sub chlky in prt, crs brkn foss frags, shl drk gry green, much red/brn shl, soft gran gritty some mushy, calc xstl inclu, foss frag inclu

shl gry green, drk blue green, wxy grsy text, silty soft gran

shls, lt med gry, sli silty, some tr gritty, blue gry/green silty gritty

lst wht off wht med crm, f vf xln, micro xln in prt, blk ang pcs, micro foss frags, tr sub





chlky, mstly dns hrd

lst wht off wht tr lt crm, f vf xln, dns hrd, blk ang pcs, tr micro xln, tr micro foss frag, tr sub chlky

shl drk gry, reddish brn blk, silty, tr gritty, tr pyritic, some platy, bedded

shl gry drk gry, tr reddish tint/blk, silty tr pyritic, some platy, bedded, firm

shl gry drk med gry, silty soft mushy, tr pyritic, silty in prt, platey, bedded

shl gry, drk gry, drk w/depth, soft, sli silty/gritty tr pyritic, beds

shl drk gry, vivid blk, tr drk reddish tint, blk ang gassy pcs, abun gas bubs

shl, dolo shls, silty dol stone, drk brn, drk reddish/brn silty, gritty, blk ang pcs, abun gas bubs on break, filmy oil scum on break, "dry" filmy stain on spl water on break.

dolo shls, silty dol stn, drk brn, reddish brn/blk, silty gritty, blk ang vry firm pcs, filmy scum/gas bubs on break, "dry" filmy stain on spl water on break aa

sst clr, tan/brn clstrs, f sli med grnd, sub ang grns, prly srted, prly cem in most, silic cem, gd inter grain por, pyritic in prt, arg w/ tan brn clay fill, sst tan brn f sli med grns, quartzitic text, hrd blk ang clstrs, pyritic, blk min specks, arg NS

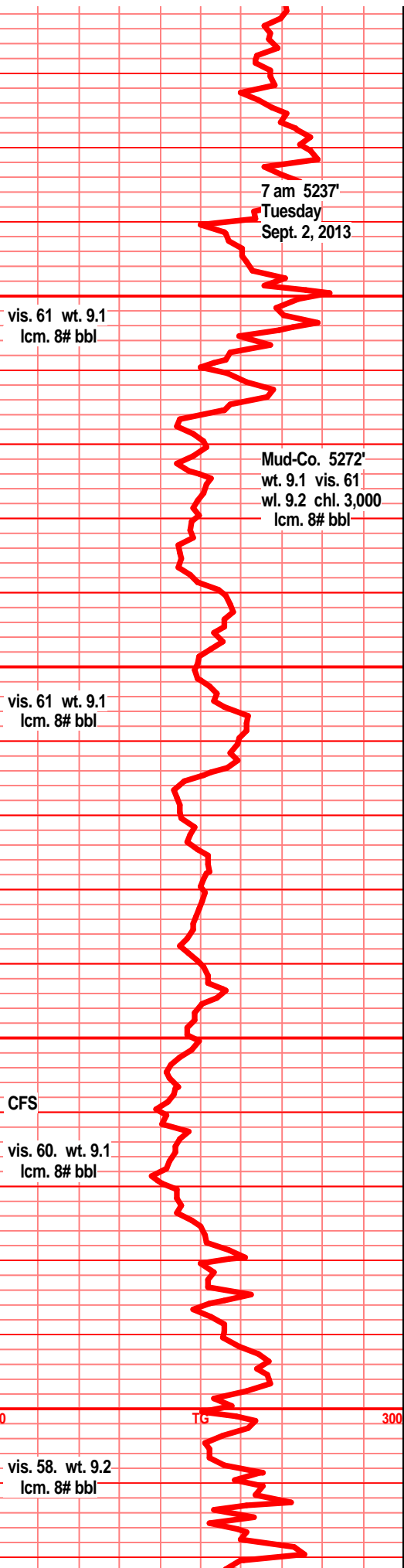
dolo, shly dolo, lt tan gry, soft gran, mushy w/gritty text, pastey

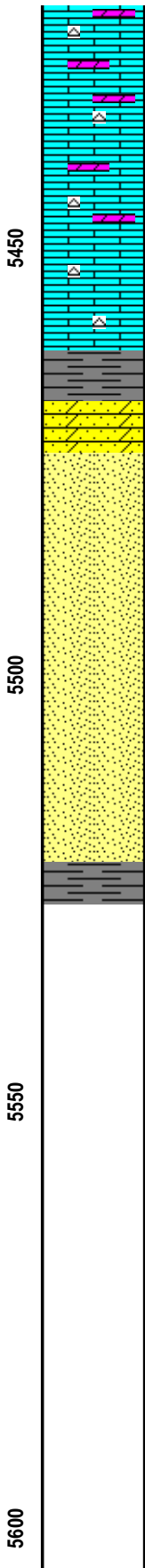
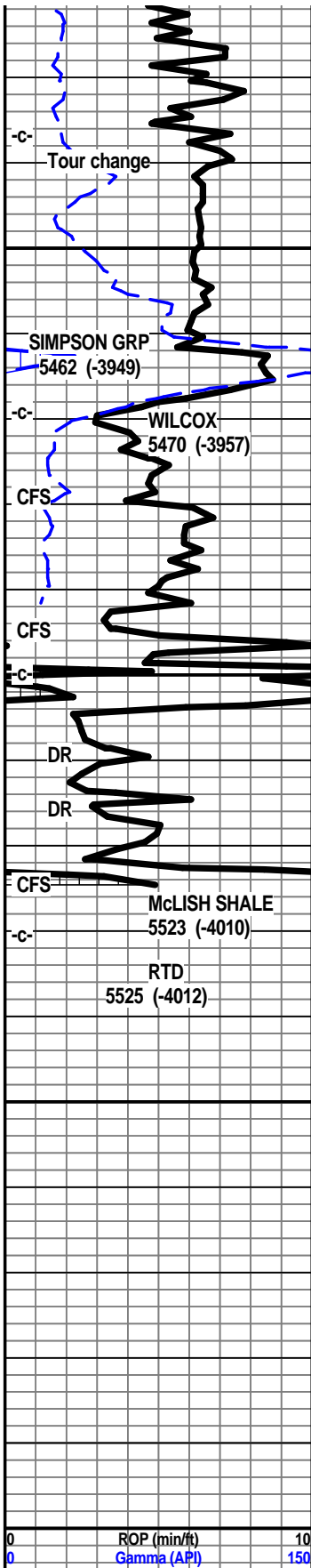
lst off wht lt gry mott, f sli med xln, blk ang dns pcs, sli sub chlky in prt, tr inter xln por, msty dns, pyritic, crs foss frags, NS

lst off wht gry mott, f sli med xln blk ang dns pcs, sli sub chlky, tr inter xln por, crs foss frags, dolo in prt gry f vf xln gran sndy text, chrt, dull gry tan chrt inclu, chrt dull gry tan shrp frsh opa

lst dolo in prt, dull gry tan f vf xln dns hrd blk ang dns, gritty sndy in prt, tr crs foss frags, chrt, dull gry tan chrt inclu, chrt gry dull tan shrp frsh opa

lst crm buff tan f xln, tr vf xln, dns hrd blk, some gran, tran sub chlky, micro foss frags, chrt in prt, chrt dull tan gry shrp frsh opa, tr





dolo, tan lt brn f vf xln gran sndy texty, snd grn inclu,

lst drk crm tan, lt brn, f vf xln dns hrd blkly ang pcs, micro foss frags, tr soft gran semi sub chlkly, tr chrt dull tan brn shrp frsh opa

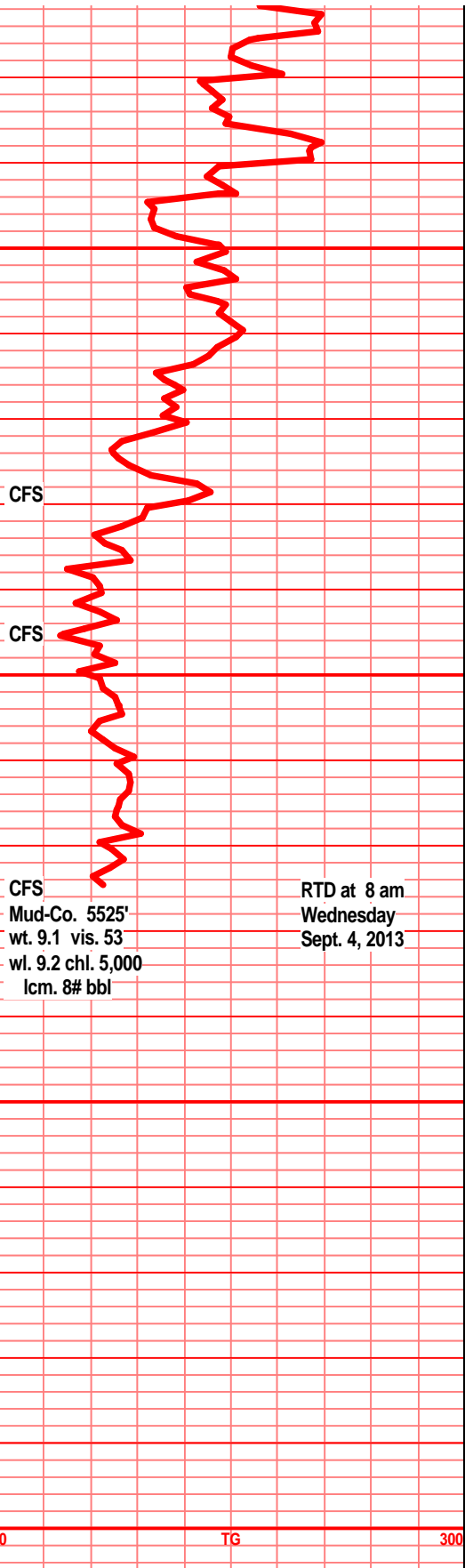
lst drk crm tan lt brn to brn f vf xln, dolo edged in prt, blkly ang tr hrd pcs, micro foss frags, tr soft gan sli sub chlkly, tr dull tan gry shrp frsh chrt

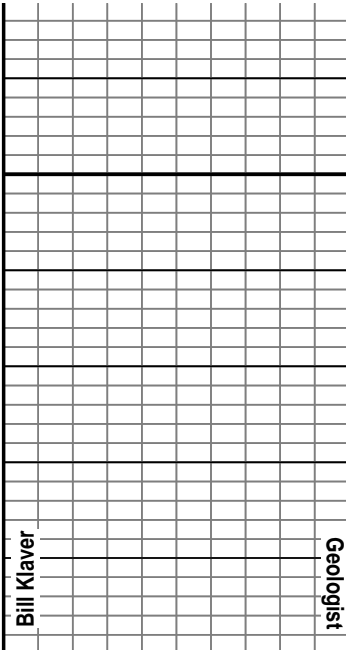
shl gry blue green, teal green, wxy grsy, slick, sst/dolo sst blue green f grnd, sub ang grns, w/srted vry w/cem, silic cem and fill, shls tr soft w/snd grn incu

ssst gry green, dolomitic, f grnd, sub ang/rded grns, prly sorted, vw/cem, silic cem, blkly ang dns clstrs

shl drk gry green, teal green, pyritic, snd grn inclu, sst clstrs, wht off wht, clr, f grnd sub ang/sub rded grns, fairly srtd, fair cem, silic cem, sub fria to fria, inter grn por, tr arg clay fill, blk flky gilsonitic stain, nodor, nsfo,

ssst wht clr and tan clstrs, f grnd, sub ang to sub rded grans, mstly well srtd, sub fria to tite, inter gran por, some flky gilsonitic stain, nodor, nsfo, sst tan lt brn clstrs, f grnd, sub ang/sub rded grains, bec prly stred, mstly tite, blkly ang hrd clstrs, tr pyritic, tr clay arg fill, shl drk gry green, teal green, pyritic, w/snd grn inclu



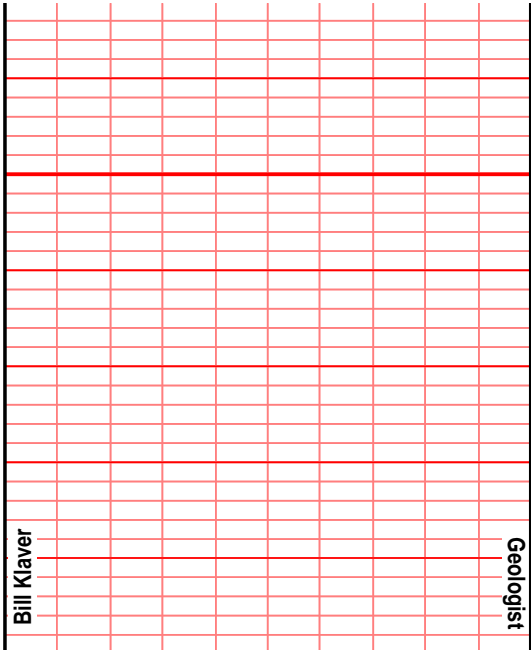


Bill Klaver
Geologist

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Woolsey Operating Company
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1025' FNL & 2170' FEL
Approx. SW NW NE
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Hardtner Field
Barber County, Kansas
API # 15-007-24055-00-00



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