Woolsey Operating Company, LLC

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

Well Name: HARDER #2
API: 15-095-22330-0000
Location: Section 31 - Township 30 South - Range 6 West
License Number: 33168 **Region:** Kingman County, Kansa
Spud Date: May 17, 2019 **Drilling Completed:**
Surface Coordinates: E/2 - W/2 - E/2
2540' FSL & 1700' FEL
Bottom Hole Coordinates:
Ground Elevation (ft): 1580' **K.B. Elevation (ft):** 1592'
Logged Interval (ft): 3300' **To:** 4850' **Total Depth (ft):** 4850'
Formation: Topeka >>> Simpson
Type of Drilling Fluid: Chemical Mud

Printed by MudLog 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 12:45 pm on May 18, 2019, set 6 joints 8 5/8" X 23#/ft casing at 265' KB (tally 253') with 260 sx 60/40 poz mix by Basic. Plug down 8 pm on May 18, 2019. Cement did circulate.
Production Casing: None ran

Deviation Surveys: 1 at 270', .75 at 999', .75 at 1507', see detail section for additional surveys.
Pipe Strap @ 4345', Strap: 4361.98', Board: 4157.17, Strap 4.81' long. No correction was made to the board.
Fossil Drilling Rig 3 Bit Record:
1) 12 1/4" Varel RR in at 0' out at 270', 3.75 hours
2) 7 7/8" Huges Tool T-506 PDC in at 270' out at 4543'
3) 7 7/8" Huges Tool DP 606X PDC in at 4543' out at 4850'

Gas Detector: Pason Systems
Mud System: Mud-Co., Brad Bortz, Matt Smith, Mud Engineers
DSTs: Trilobite Testing, Leal Cason, Tester
E-Logs: ELI, Dual Induction Laterolog w/SP, CNL-FDC w/PE, Gamma Ray and Caliper, Sonic Log w/Gamma Ray. Jeff Luebbers, Engineer
Company Man, Alan Dick Woolsey Operating Co.

DSTs

DST #1 Mississippi, 4335'-4345', 30"-60"-60"-90", SB BOB in 90 seconds, Rec: 682' GIP, 1' clean oil, 62' GOWCM (20% G, 10% O, 24% W, 36% M) API Rw 0.1 @ 80 deg, chlorides 68,000 ppm, IHP 2204, IFP 22-31, ICIP 766, FFP 23-45, FCIP 843, FHP 2069, BHT 134 deg.

DST #2 Mississippi, 4343'-4355', 30"-60"-60"-90", SB BOB in 8 minutes, Rec: 209' GIP, 121' MCW (90% W, 10% M), API Rw .12 @ 64 degrees, chlorides 72,000 ppm, IHP 2225, IFP 52-61, ICIP 1053, FFP 66*95, FCIP 1030, FHP 2135, BHT 134 drgrees.

CREWS

Rick Barringer, Tool Pusher
Pablo Luna, Days
Chris Staats, Evening
Raul Orozco

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
- Sltysh
- Ss 2
- Shale 3
- Silty dol
- Dol lmst
- Dol 2
- Granite wash
- Lmst
- Calc dol
- Shale 3

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
- Slty

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

- BS Boundst
- C Chalky
- CX Cryxln
- E Earthy
- FX Finexln
- GS Grainst
- L Lithogr
- MX Microxln
- MS Mudst
- PS Packst
- WS Wackest

Curve Track 1

ROP (min/ft)

Gamma (API)

Depth

Lithology

Oil Shows

Geological Descriptions

TG, C1-C5

TG (units)

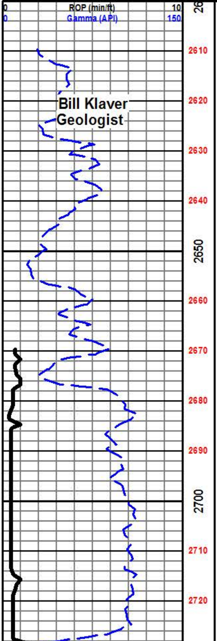
C1 (units)

C2 (units)

C3 (units)

C4 (units)

C5 (units)



Woolsey Operating Company LLC
Harder #2
E/2 W/2 E/2
2540' FSL & 1700' FEL
Section 31 - Twp 30S - Rge 6W
KIngman County, Kansas
Maple Grove South Field
GL 1580' KB 1592'
API # 15-095-22330-0000

Pason recorded drill time from 0' to rotary total depth. Manual drill time was recorded from 3300' foot to rotary total depth. Samples were roughneck gathered from 3400' to rotary total depth. All samples were delivered to the Survey at the completion of the test.

The following tests were used for structural control: WOC's Harder #1, S/2 SE SE NW, 31-30S-6W, Coastal Oil & Gas Durant #4, C SE NE, 36-30S-7W, Aylward Drlg"s Kalivoda #1, C SW SW 29-30S-6W.

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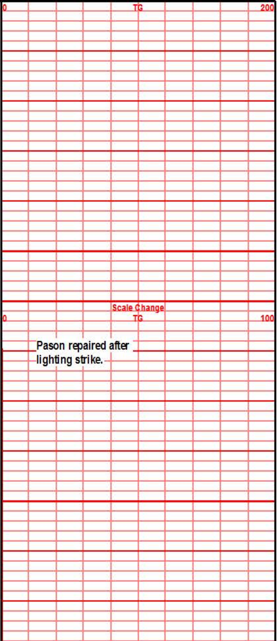
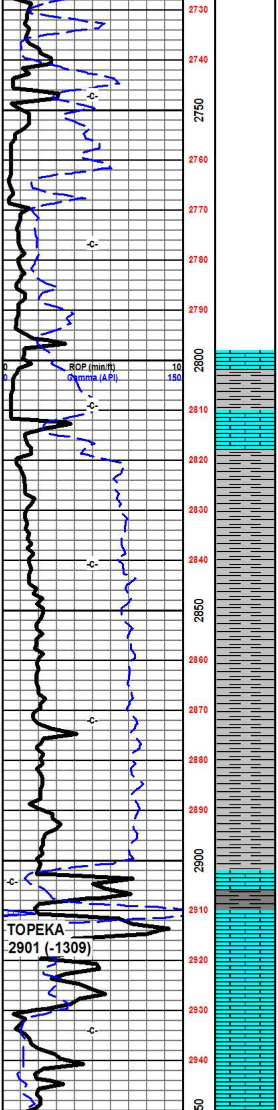
7 am Drilling Progress
May 16, 2019 MIRT
May 17, 2019 MIRT/Spud
May 18, 2019 Rig repairs
May 19, 2019 Drilling at 346'
May 20, 2019 Drilling at 1842'
May 21, 2019 Drilling at 2836'
May 22, 2019 Drilling at 3165'
May 23, 2019 Drilling at 3832'
May 24, 2019 Drilling at 4245'
May 25, 2019 DST #1 at 4345'
May 26, 2019 Drilling at 4428'
May 27, 2019 Rig up loggers

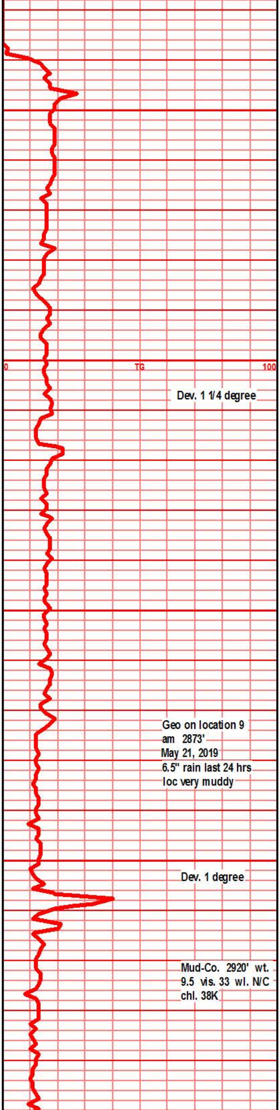




TOPEKA
2901 (-1309)

E-Log Tops
Onaga 2253 (-661)
Wabaunsee 2301 (-709)
Topeka 2902 (-1310)
Heebner 3256 (-1664)
Douglas 3315 (-1723)
Haskell Lime 3552 (-1960)
Stalnaker Sand 3608 (-2016)
Kansas City 3777 (-2185)
Stark Shale 3916 (-2324)
Hushpuckney Shale 3949 (-2357)
B/Kansas City 4005 (-2413)
Marmaton 4072 (-2480)
Pawnee 4136 (-2544)
Cherokeee Group 4193 (-2601)
Mississippia Unc. 4329 (-2737)
Mississippi Osage 4350 (-2758)
Kinderhook 4620 (-3028)
Simpson 4743 (-3151)
McLish Shale 4796 (-3204)
LTD 4855 (-3263)

Taking weight off bit at 2902'

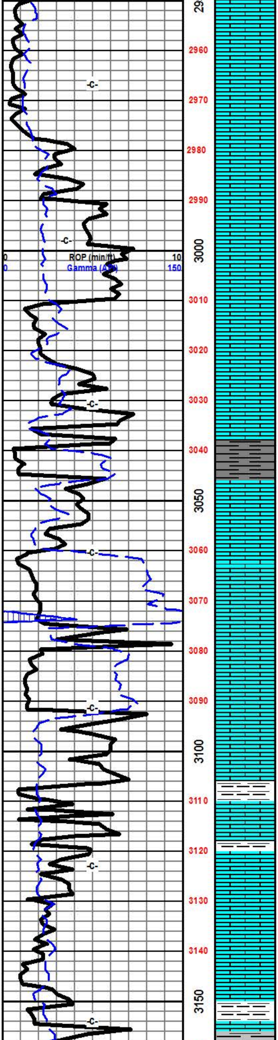


Dev. 1 1/4 degree

Geo on location 9
am 2873'
May 21, 2019
6.5" rain last 24 hrs
loc very muddy

Dev. 1 degree

Mud-Co. 2920' wt.
9.5 vis. 33 wl. N/C
chl. 38K



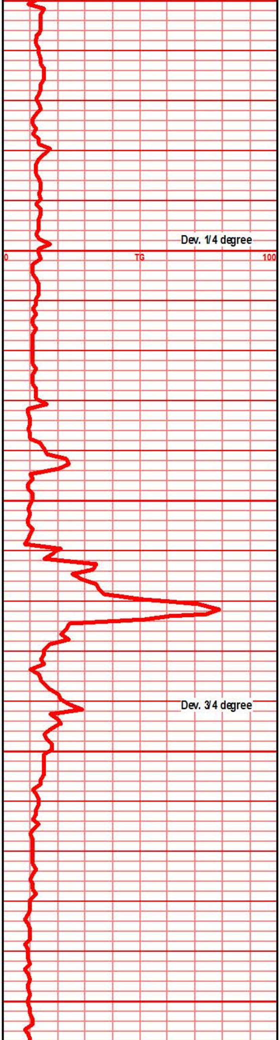
lst crm gry tan f xln gran soft foss frags, inter xln por, shls gry med gry

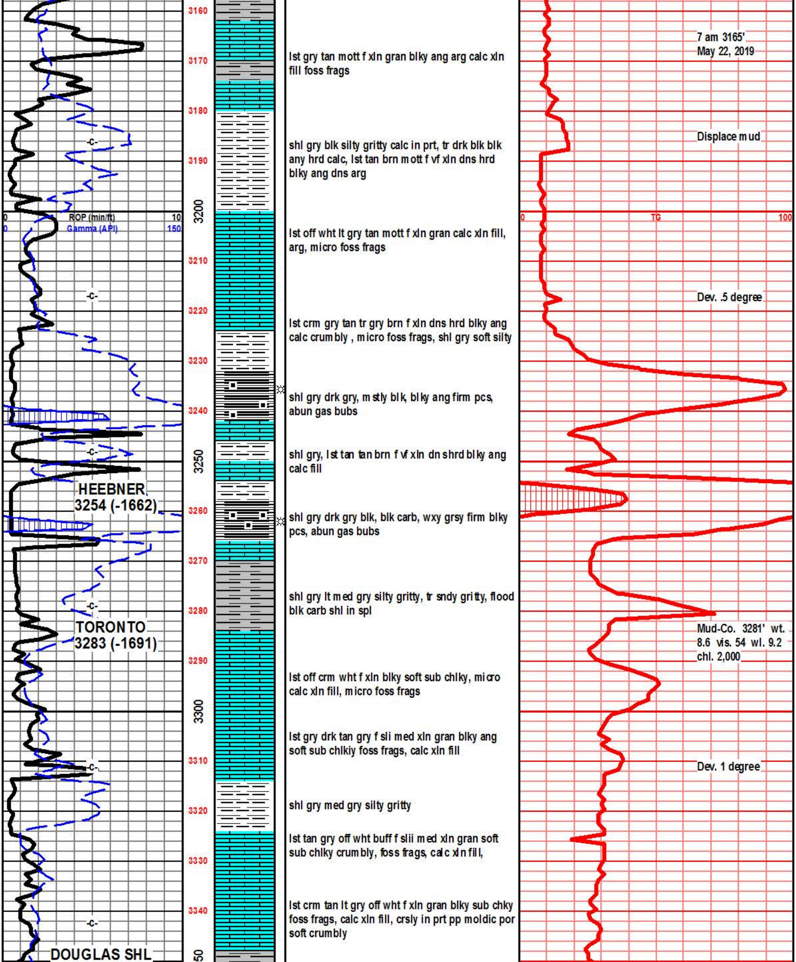
shl gry gry drk gry blk, lst tan gry f xln gran ang arg silty, micro foss frags

shl gry blk, shl grry brn, lst tan grry off wht f xln gran ang arg micro foss frags

lst gry tan lt brn mott f xln gran soft ang arg, micro foss frags,

lst off wht lt gry crm f xln gran ang arg, silty foss frags, micro foss frags, shl gry drk gry blk





lst gry tan mott f xln gran blky ang arg calc xln fill foss frags

shl gry blk silty gritty calc in prt, tr drk blk blk any hrd calc, lst tan brn mott f vf xln dns hrd blky ang dns arg

lst off wht lt gry tan mott f xln gran calc xln fill, arg, micro foss frags

lst crm gry tan tr gry brn f xln dns hrd blky ang calc crumbly , micro foss frags, shl gry soft silty

shl gry drk gry, m stly blk, blky ang firm pcs, abun gas bubs

shl gry, lst tan tan brn f vf xln dn shrd blky ang calc fill

shl gry drk gry blk, blk carb, wxy grsy firm blky pcs, abun gas bubs

shl gry lt med gry silty gritty, tr sndy gritty, flood blk carb shl in spl

lst off crm wht f xln blky soft sub chlky, micro calc xln fill, micro foss frags

lst gry drk tan gry f sli med xln gran blky ang soft sub chlkiy foss frags, calc xln fill

shl gry med gry silty gritty

lst tan gry off wht buff f slii med xln gran soft sub chlky crumbly, foss frags, calc xln fill,

lst crm tan lt gry off wht f xln gran blky sub chky foss frags, calc xln fill, crsly in prt pp moldic por soft crumbly

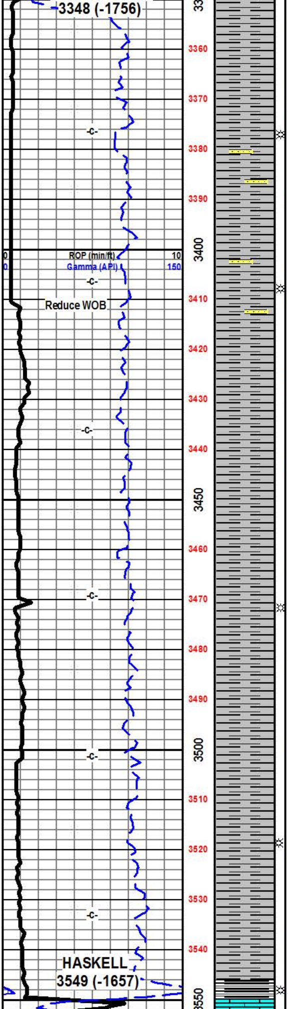
7 am 3165'
May 22, 2019

Displace mud

Dev. .5 degree

Mud-Co. 3281' wt. 8.6 vis. 54 wl. 9.2 chl. 2,000

Dev. 1 degree



shl gry lt med gry, silty fnly sndy, blk carb flecks

shl gry med gry silty gritty, sndy, snd grn inclu, vf grnd sub ang w/srtd, mic, much blk carb flecks, tr gas bubs on close inspection

shl gry med lt gry silty gritty sndy, snd grn inclu, vf grnd, sub nag/ang grns, mic, much blk carb material/flecks

shl gry med gry silty gritty, sndy, snd grn inclu, snd grn ang/sub ang, mic, blk carb flecks, gas bubs

shl gry med gry silty gritty sndy, snd grn inclu aa, mic aa blk carb material, sst lt gry vf grnd, sub ang, sub fria, w/cem, packed tite, silty arg, mic

shl gry med gry silty gritty, sndy, mic, blk carb fill/flecks, trace rare gas bub

shl gry med drk gry soft silty gritty sndy mic, blk carb flecks, tr gas bubs

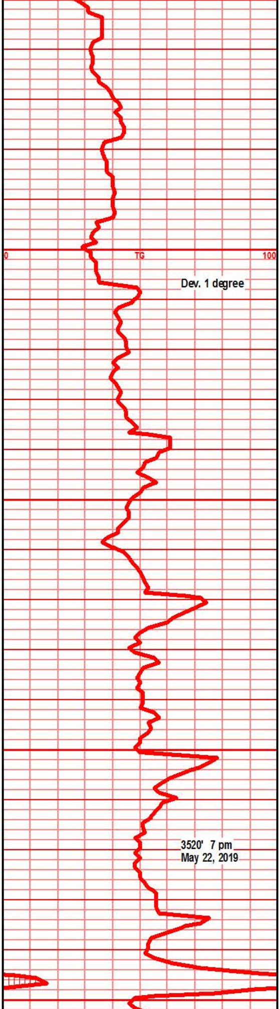
shl gry med gry drk gry, silty gritty soft, mic, blk carb content

shl gry med drk gry silty gritty soft/firm, blky ang pcs, mic, snd grn inclu, mic, blk carb flecks

shl gry med gry blky ang firm pcs, mic, silty gritty, tr sndy, blk carb flecks, tr gas bubs

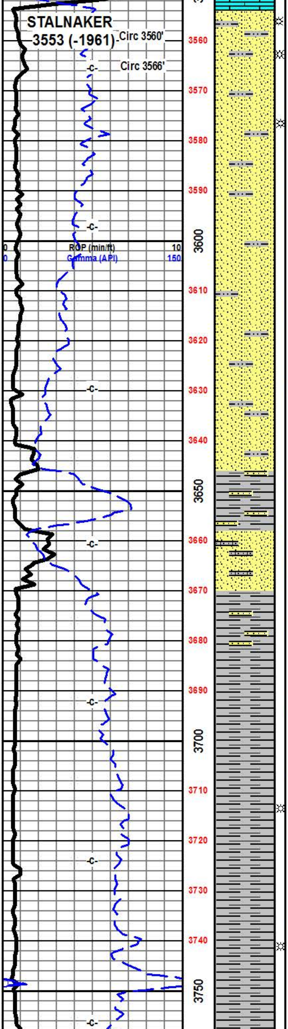
shl gry med lt gry silty, tr sndy, gritty, mic blk carb flecks, sst/sltstn lt gry vf grnd, sub ang grns, prly srtd, packed tite dns clstrs, shl drk gry blk, blky ang firm pcs

lst tan brn f mic xln dns hrd blky ang dns, calc fill, micro foss frags



Dev. 1 degree

3520' 7 pm
May 22, 2019



sst off wht lt gry clstrs, f grnd sub rded to rded grns, f/srtd, sub fria to tite, f/cem, calc cem, tr mic, tr glau, tr gas bubs, NSFO, nodor

sst off wht lt gry f grnd, sub rded, w/prly srtd, sub fria, mic glau, inter grn por, calc cem and fill, gas bubs, nodor

sst wht off wht clstrs, f grnd, sub ang sub rded grns, fair to well srtd sub fria, prlly to w/cem, tr mic, calc fill tr blk carb flecks, tr glau, rare gas bub

sst off wht, wht lt gry wht clstrs, f grnd, sub ang sub rded grns, fair to prly srtd, tr fria, tr tite blky ang hrd clstrs, tr mic, calc fill and cem, tr glau

sst wht off wht clstrs, f grnd, sub ang sub rded grns, sub fria to w/cem, calc fill and cem, fair to prly srtd, tr mic, tr blk carb flecks, clay fill aome arg in prt

sst wht off wht lt gry wht, f grnd, sub rded to sub ang grns, prly srtd, calc cem and fill, well cem in most, arg clay fill in prt, tr mic some glau

sst wht off wht tr lt gry f grnd sub ang sub rded, fair to prly srted, packed dns clsts, calc cem and fill, tr mic, tr glau, clay fill arg

sst wht off wht f vf grnd sub ang sub rded grns, prly to well srtd, sub fria to tite, calc cem and fill, some clay fill arg text, tr mic tr blk carb flecks

shl grm med gry blky firm ang pcs, sndy gritty text in prt

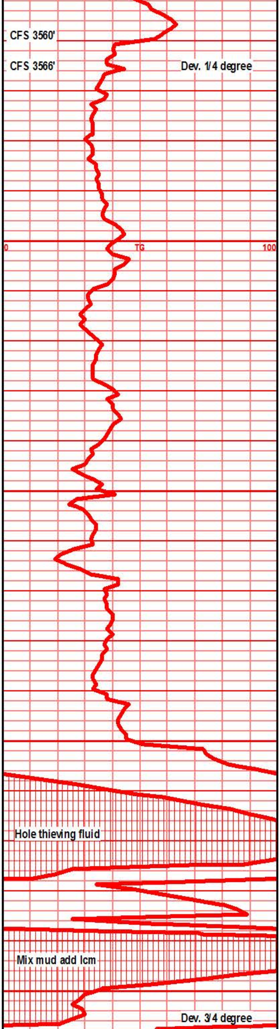
shl gry med gry soft mushy tr gritty, fn snd grn inclu

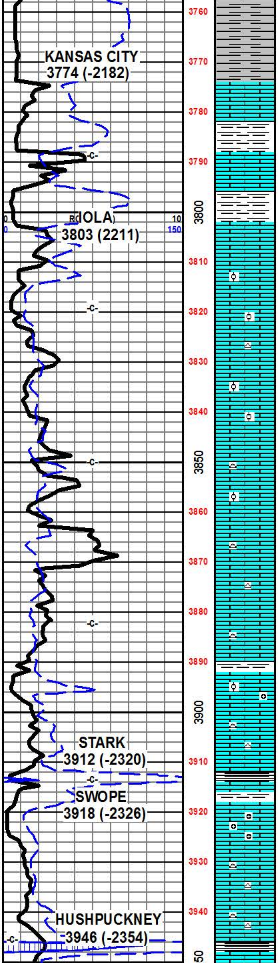
shl drk gry med gry soft silty gritty in prt, smpls wsh drk muddy gry

shl gry, drk gry, gry brn blk, blky ang firm pcs, abun gas bubs, spls wsh gry

shl drk gry blk, gry reddish brn, carb text, silty gritty in prt, abun gas bubs

shl drk gry brn, gry blk brn, blky ang firm pcs, abun gas bubs





shl gry drk gry, gry brn silty gritty, blky ang firm pcs

lst grry brn f vf xln dns hrd blky ang micro foss frags, sub chky in prt, arg in prt

shls gry blk, gry/brn, lst crm tan lt brn vf xln dns hrd blky ang arg, micro foss frags, tr chlky edge

lst crm tan f sli med xln blky ang sub chlky pcs, foss frags, calc xln fill, tr inter xln por, tr foss mold por

lst crm tan buff f sli med xln blkyang sub chlky in prt, foss frags, micro foss frags, calc xln fill, inter xln por, tr foss mold por,

lst crm wht tan f xln sli med xln blky sub chlky, tr gran, calc xln fill, foss frags, foss mold, inter xln por

lst crm tan buff f sli med xln gran sub chlky foss frags, foss mold, inter xln por, chrt wht opaq shrp frsh

lst crm wht tan f xln sli med xln, sub chlky, foss frags, foss mold inter xln por, calc xln fill, tr gran, soft, chrt wht shrp frsh opaq

lst crm tan lt brn tr lt gry f sli med xln gran blky dns sub chky foss frags, calc xln fill, foss mold, tr oomold por, inter xln por

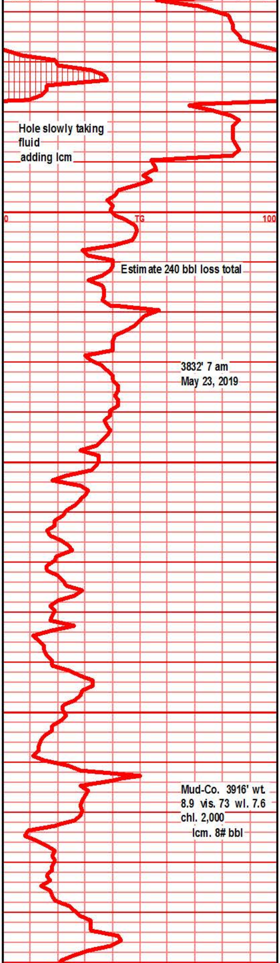
lst crm tan lt gry brn f med xln gran soft sub chlky foss frags, foss mold por, tr oomold por, inter xln por chrt wht off wht shrp frsh opaq

lst wht off wht lt crrm/gry f sli med xln blky ang dns sub chlky, foss frags, foss mold and inter xln por, chrt wht shrp

shl blk carb, wxy grsy blky firm pcs, lst gry brn f vf xln dns hrd blky ang sli arg micro foss frags, calc xln fill

lst tan brn f med xln blky ang tr sub chlky, crsly ool, crsly oomoldic, foss mold oomold por, calc xln fiii, inter xln por, gran in prt

shl gry blk, tr blk carb?, lst tan brn gry mott f vf xln dns hrd blky ang sub chlky, calc xln fill,

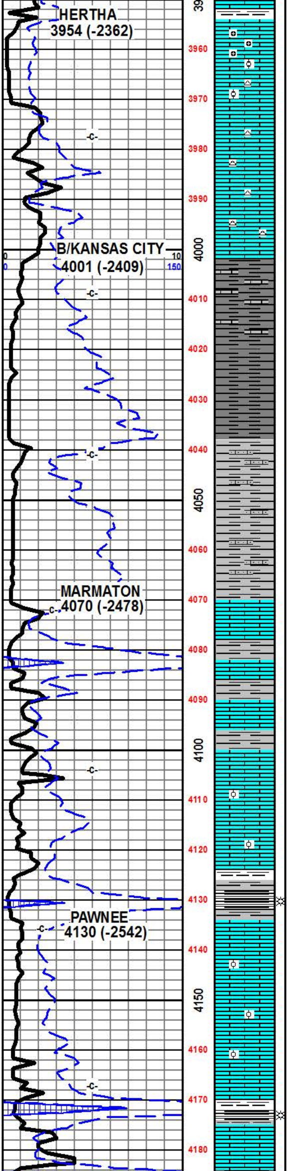


Hole slowly taking
fluid
adding lcm

Estimate 240 bbl loss total

3832' 7 am
May 23, 2019

Mud-Co. 3916' wt.
8.9 vis. 73 wl. 7.6
chl. 2,000
lcm. 8# bbl



lst drk tan brn f med xln blky ang pcs, crsly oomoldic, tr chlky soft crumbly, mostly firm, calc xln fill, foss mold por, inter xln por NS

lst gry tan lt brn f xln dns hrd blky ang sub chlky foss frags, foss ool, calc xln fill foss mold por, chrt wht shrp opaq

lst tan drk crm/tan brn/gry f vf xln dns hrd blky sub chlky, foss frags, calc xln fill, pp inter xln por, mstly dns hrd sli arg in prt

shl drk gry blk, lst drk brn blk, f mic xln dns hrd blky ang arg hrd, micro foss frags,

shl drk gry blk, calc, lst drk gry, drk brn blk, f mic xln dns hrd blky ang arg, micro foss frags,

shl drk gry blk, silty gritty calc, lst drk gy/blk vf xln gritty dns hrd,

slh gry drk gry mslty blk silty gritty calc, tr sndy, w/snd grn inclu,

shl gry blk, trr gry brn mott, lt gry/green silty sndy, snd gran inclu, gritty tr calc

shl gry green blk silty gritty gran, snd gry inclu, calc dns hrd blky ang firm pcs

shl green med green blky firm pcs, pyritic, calc in prt, lst buff crm f xln blky ang dns hrd, calc xln fill micro foss, micro ool

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

lst crm buff tan, tr tan gry mott f vf xln dns hrd blky ang firm, sli sub chlky, micro foss frag, calc xln fill

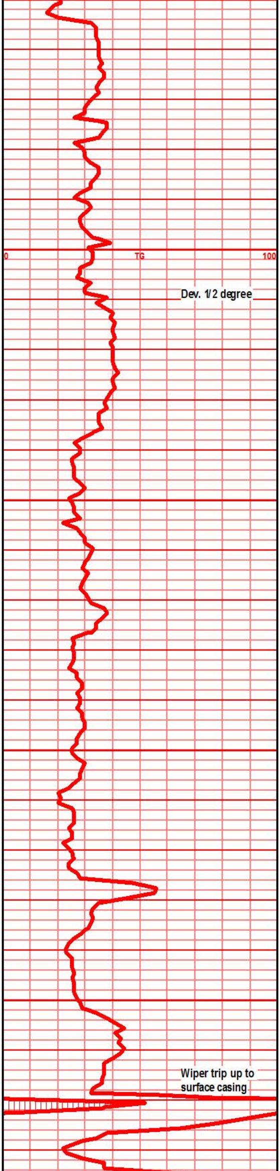
shl lt tan buff, gry tan mott in prt, f vf xln dns hrd blky ang pcs, sub chlky in prt, micro foss frags, calc xln fill

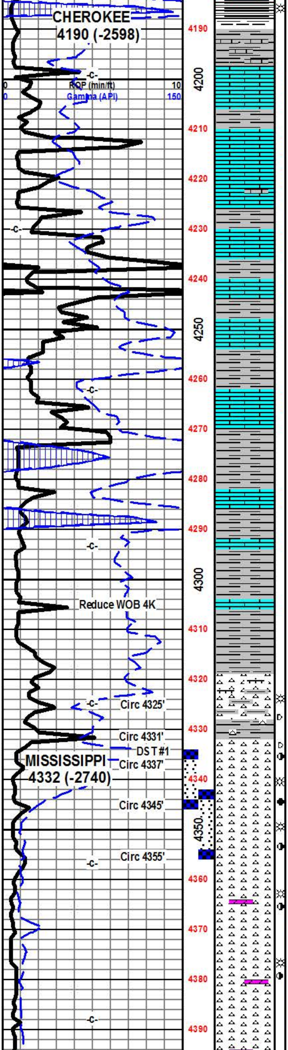
shl gry drk gry blk, blk ang firm wxy grsy carb pcs, tr gas bub

lst lt gry buff crm tan f vf xln blky ang dns pcs, sub chlky, micro foss frags, tr pyritic, micro ool foss

lst crm buff f vf xln blky ang tr flky sub chlky in prt, foss frags, micro foss, calc xln fill, aa

shl gry drk gry blk, tr carb text, lst tan crm buff f xln blky ang hrrd sub chlk in prt, foss frags





shl gry drk gry blk, carb text in prt, shlgry med grry firm blky pcs, calc in prt

lst crm gry f vf xln dns hrd blky ang pcs, gritty silty arg in prt, micro foss frags, abun gry blk frim blky shl pcs in spls

lst gry tan, gry f vf xln dns hrd blky ang dns, micro foss frags, tr sub chlky, tr w/calc xln fill,

shl gry med gry blk/gry, lst tan buff gry f vf xln dns hrd blky ang tr arg, micro foss frags, tr calc xln fill

shl gry gry/blk, calc in prt, lst tan buff tan/gry mott f xln dns hrd blky ang arg, micro foss frags, calc xln fill in prt, spls ground vry small

slh gry blk, lst tan gry tr tan gry mott, f xln blky ang sub chlky dns hrd foss frags, arg in prt smpls milled vry fine!

lst tan crm buff f xln dn shrd blky ang micro foss frags, calc xln fill, shls aa, poor fnly milled spls

shl, gry/blk green silty gritty tr sndy, platey soft

shl gry gry green brn tr red maroon, bec ratty silty gritty, platey

shl gry gryblk, red gry maroon tr yellow, silty gritty tr sndy,

chrt wht off wht, sli frshw/gran text, sli soft weath edges, wht sndy clay fill chly edge (snd grn inclu), pp moldic por gas bubs, blk stain, blk hvy SFO (30" spl) abun vari color shls

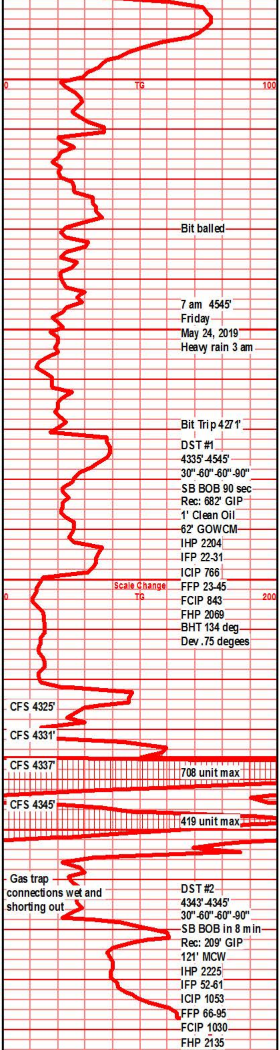
chrt wht shrp frsh blky ang, tr vit, tr weath edge, tr gran weath sli trrip edge, pp moldic por, odor, drk stain, lt brn SFO, gas bubs odor, tr tan lt gry dolo vf xln dn shrd blky tite NS, chrt tan lt brn weath spngy text, pp moldic por, stain gas bubs SFO brn stain

chrt wht tan frsh w/weath trrip text edge, pp moldic por stain good SFO, good SFO, abun gas bubs, chrt tan brn shrp mslty weath gran trip spongy text, gd vis pp moldic por, gd odor, gd SFO, lt tan to brn stain, abun gas bubs

chrt wht tan mott weath gran spongy trip text edge, soft sli chky gran text, gd vug moldic por, fairodor, gd edge stain, SFO, abun gas bubs

chrt wht off wht weath gran text, shrp frsh opaq chrt w/weath gran sli crumbly edges, pp moldic por, brn blk stain, odor?

chrt wht weath gran crumbly sli chlky text edges, chrt wht off wht shrp frsh opaq w/weath sli chlky crumbly edges, tr stain, tr gas bubs, spls wsh wht



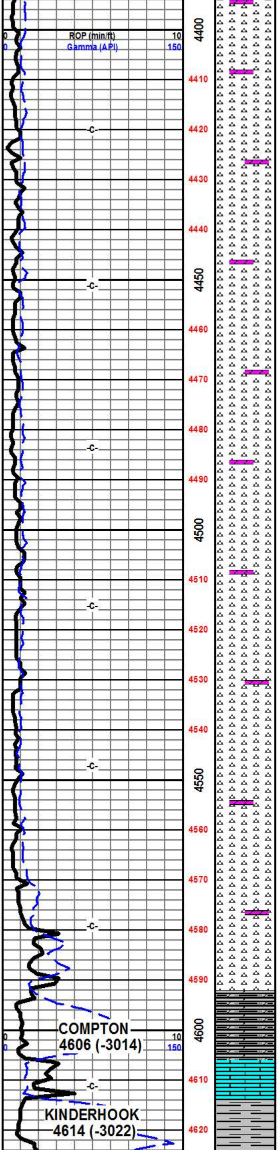
Bit balled

7 am 4545'
Friday
May 24, 2019
Heavy rain 3 am

Bit Trip 4271'

DST #1
4335'-4545'
30"-60"-60"-90"
SB BOB 90 sec
Rec: 682' GIP
1' Clean Oil
62' GOWCM
IHP 2204
IFP 22-31
ICIP 766
FFP 23-45
FCIP 843
FHP 2069
BHT 134 deg
Dev .75 degees

DST #2
4343'-4345'
30"-60"-60"-90"
SB BOB in 8 min
Rec: 209' GIP
121' MCW
IHP 2225
IFP 52-61
ICIP 1053
FFP 66-95
FCIP 1030
FHP 2135



chrt wht sli off wht, gran weath edges, soft sli chlky crumbly text, pp moldic por, tr rare blk stain nodor, dolo off wht lt gry mott f xln chlky gran chrty

chrt wht off wht shrp frsh opaq blky ang shrp pcs, chrt wht off wht grran soft sub chlky text edges, pp vug por, dolo chrt wht gry mott f xln gran sub chlky inter xln por

chrt wht off wht shrp frsh blky ang opaq pcs w/gran weath crumbly edge text, pp moldic por, dolo chrt off wht lt f xln gran sub chlky gran text

chrt wht off wht lt gry mott in prt, shrp blky ang opaq pcs, crumbly gran weath text, pp moldic por, dolo gry wht mott chrly chrty blky ang pcs, vis por

chrt wht shrp frsh blky ang opaq pcs, chrt wht off wht, gry wht mott shrp frsh with gran weath crumbly edges, dolo chrty dolo gry tan mott f xln gran soft crumbly

chrt wht, wht tan mott, blky ang hrd, chrt wht off wht shrp frsh opaq blky ang shrds, with gran weath text edges, dolo aa

chrt wht, wht tan mott shrp mstly weath gran hard, tr frsh shrp ang blky pcs with gran weeath text crumbly edges, dolo wht tan mott, chrty blky ang hrd

chrt wht tan wht tan mott blky ang hrd, tr frsh wht w/gran weath text edges, chrt wht shrp frsh opaq blky ang shrds

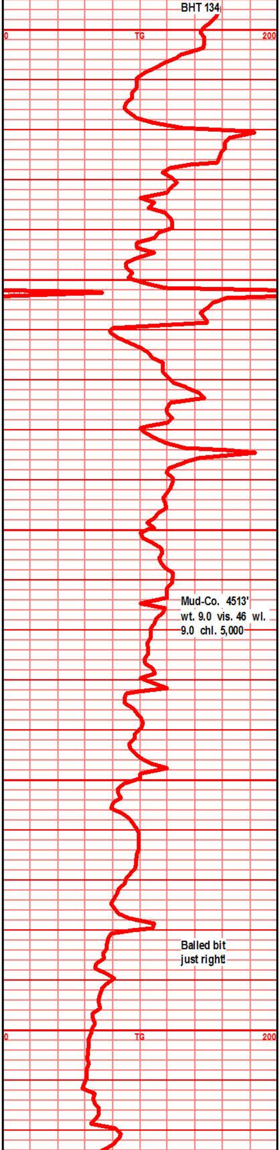
chrt off wht wht blky ang gran weath text, mstly hrd dns, chrt wht frsh shrp blky ang opaq pcs with sli weath crumb edges, chrty dolo tan f xln gran dns hrd blky chrty

chrt wht off wht gran blky tr sli chlky text, tr crumbly text, chrt wht shrp frsh blky ang opq blky shards, chrt dull tan shrp frsh semi opaq, dolo gry tan vf xln dns hard blky ang chrty

dolo, shly dolo, siltstn, med gry, gry green silty gritty dolo text, chrt dull gry shrp frsh semi opaq, tr glau

lst, tr dolomitic in prt, crm tan f vf xln dns hrd blky ang pcs, sndy text, tr foss frags, some semi soft

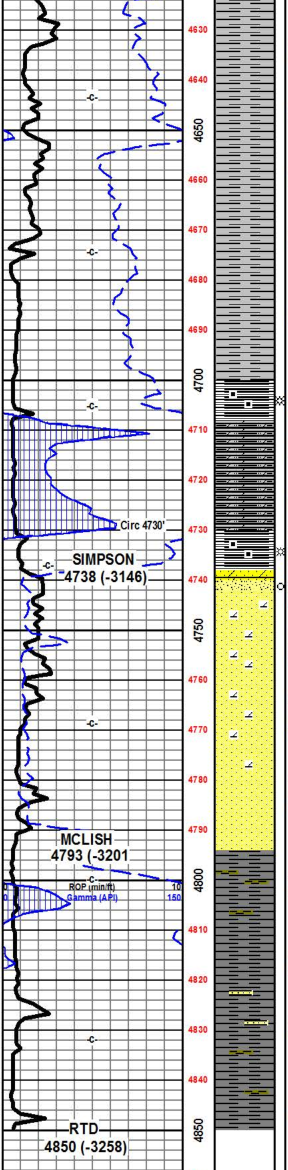
shl drk gry blk, fnly silty in prt, tr gritty, tr blk carb flecks, mostly soft some bedded



BHT 134

Mud-Co. 4513'
wt. 9.0 vis. 46 wl.
9.0 chl. 5,000

Balled bit
just right!



shl gry drk gry blk fnly silty, fnly gritty, tr blk carb flecks, soft, unfirm

shl gry drk gry blk, fnly silty, blk carb flecks, gas bubs on smash/brkn

shl gry blk gry bk tr brn, fnly silty, vry fnly sndy in prt, tr blk carb flecks

shl gry blk, gry blk tr blr/brn fnly silty, gritty, bedded/banded in prt/most

shl gry drk gry blk, silty ratty in prt, bedded banded,

shl drk gry blk, blk carb text, wxy grsy firm pcs, pyritic, gas bubs

shl gry drk gry blk, reddish brn blk, wxy grsy text, tr pyritic, gas bubs

shl gry drk gry blk, blk carb text, wxy grsy firm pcs, pyritic, fnly dolo in prt,

shl drk gryr blk wxy grsy firm pcs, tr pyritic, fimy cond show, gas bubs

sst tan vf grnd sub ang, sub rded grnd w/srtd, packed tite, fair to well cem clstrs, vry dolomitic in most, quartzitic text, tr pyritic, tite NS sst wht clstrs, f grnd blky ang hrd clstr, sub rnded, sub fria, tr intergrain por, vry faint transl SFO on break.

sst tan clrr clstrs f grnd sub reded, sub ang grns,f/srted, w/cem hrd blky clstrs, dolo in most, tr inter gran por, very little snd in spls

sst tan off wht clstrs, tr wht clstrs fn grns, sub ang/sub rded grans, fair srted, vry w/cem, silic cem, sst clr vf grnd clstrs, rded grns, w/srted, tite blky any hrd clstrs, tr dead flky stain

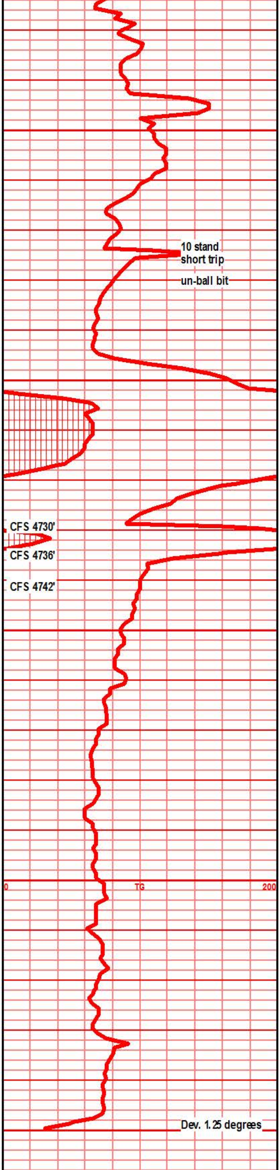
sst off wht tan clstrs f grnd sub rded, w/srted sub fria to soft crumbly, inter gran por, silic cem, tr prly srted, prly cem/fria

shl gry drk gry, blue gry slick wxy grsy sndy, snd grn inclu glau

shl blue green teal green silty griitty slick wxy grsy, snd grn inclu, glau

shl gry med gry, gry blue green slick wxy firm text, snd grn inclu, pyritic, sndy, glau

shl gry ddkr gry blue gry teal gry silty gritty slick wxy grsy



4860
4870
4880
4890
4900
4910
4920
4930
4940
4950
4960
4970
4980
4990
5000

0 ROP (min/ft) 10
0 Gamma (API) 150

0 TG 200

5010
5020
5030
5040
5050
5060
5070
5080
5090
00

Woolsey Operating Company LLC
Harder #1
E/2-W/2-E/2
2540' FSL & 1700' FEL
Section 31-Twp 30S-Rge 6 West
Kingman County, Kansas
Maple Grove South Field
GL 1580' KB 1592'
API # 15-095-22330-0000
