



Woolsey Operating Company, LLC

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

Well Name: Miller #5
Location: W/2 W/2 NW
License Number: API: 15-007-23604-00-00
Spud Date: October 22, 2010
Surface Coordinates: 1420' FNL, 330' FWL Section 31-Twp 34 South - Rge 11 West
Stranathan
Bottom Hole Coordinates: Vertical Hole
Region: Barber County, Kansas
Drilling Completed: November 1, 2010
Ground Elevation (ft): 1370
K.B. Elevation (ft): 1379
Logged Interval (ft): 4100 To: 5300
Total Depth (ft): 5300
Formation: McLish Shale
Type of Drilling Fluid: Chemical Mud, Displace at 3400'
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: W. Scott Alberg
Company: Alberg Petroleum, LLC
Address: 609 Meadowlark Lane
Pratt, Kansas 67124

FORMATION TOPS

	SAMPLE TOPS	LOG TOPS
HUSHPUCKNEY SHALE	4469(-3090)	4468(-3089)
B/KC	4517(-3138)	4517(-3168)
PAWNEE	4616(-3237)	4616(-3237)
CHEROKEE GROUP	4663(-3284)	4662(-3283)
CHEROKEE SAND	4688(-3309)	4687(-3308)
MISSISSIPPIAN	4694(-3315)	4694(-3315)
COMPTON LIMESTONE	4922(-3543)	4924(-3545)
KINDERHOOK SHALE	4937(-3558)	4938(-3559)
WOODFORD SHALE	5016(-3637)	5016(-3637)
MISNER SAND	5043(-3664)	5043(-3664)
VIOLA	5048(-3669)	5048(-3669)
SIMPSON GROUP	5189(-3810)	5190(-3811)
SIMPSON WILCOX	5215(-3836)	5216(-3837)
MCLISH SHALE	5259(-3880)	5258(-3879)
MCLISH SAND	NDE	
RTD	5300(-3921)	
LTD		5302(-3923)

COMMENTS

Surface Casing: Set 6 joints 10 3/4" at 233' with 230 sxs Class A, 2% gel, 3% cc, plug down at 11:55 pm on October 22, 2010. Cement did Circulate.

Production Casing: 4 1/2" casing set at

Deviation Surveys: 240' 3/4, 1218 3/4, 1756' 1, 2266' 1 1/4, 2777 3/4, 3283' 1/2, 3761' 1, 4300 1 3/4, 4459' 3/4, 5002' 1 1/4, 5300' 1 3/4.

**Contractor Bit Record: 1- 14 3/4" out at 240'.
 2- 7 7/8" out at 5055'.
 3- 7 7/8" out at 5300'.**

Gas Detector: Woolsey Operating Company, Trailer #2

Mud System: Mud Co, Brad Bortz, Engineer

DSTs: See DSt Results Below

DSTs

DST #1 4932 to 5055' Misener

Times 30-60-30-60

Initial Opening - Strong Blow GTS 3 min,, 1/2 to 1" blow back on shut in

2nd Opening - GTS Immediately, 1-4" blow back

IHP 2408 FHP 2366

IFP 522 to 594# FFP 567 to 663#

ISIP 1807# FSIP 1809#

Recovery: 180' GCM/ w trace of oil, 17% g 83% m

230' SGCM 5%g 95% m

GTS 3 min

10 min 2,139 mcfpd

20 min 2,541 mcfpd

30 min 2,714 mcfpd

2nd opening

10 min 2,513 mcfpd

20 min 2,886 mcfpd

30 min 3,001 mcfpd

CREWS

H2 Drilling Rig #3


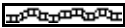
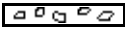



Tool Pusher - Randy Smith







Drillers - Mark Staats



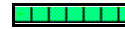



Gary Axtell






Cesar Regalado

ROCK TYPES

 Anhy
 Bent
 Brec
 Cht
 Clyst
 Coal

 Congl
 Sdy dolo
 Shy dolo
 Dol
 Gyp
 Sdy lmst

 Lmst
 Mrlst
 Salt
 Shale
 Slstst
 Ss

 Black sh
 Gry sh
 Shale
 Shyslstst
 Sltysh

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

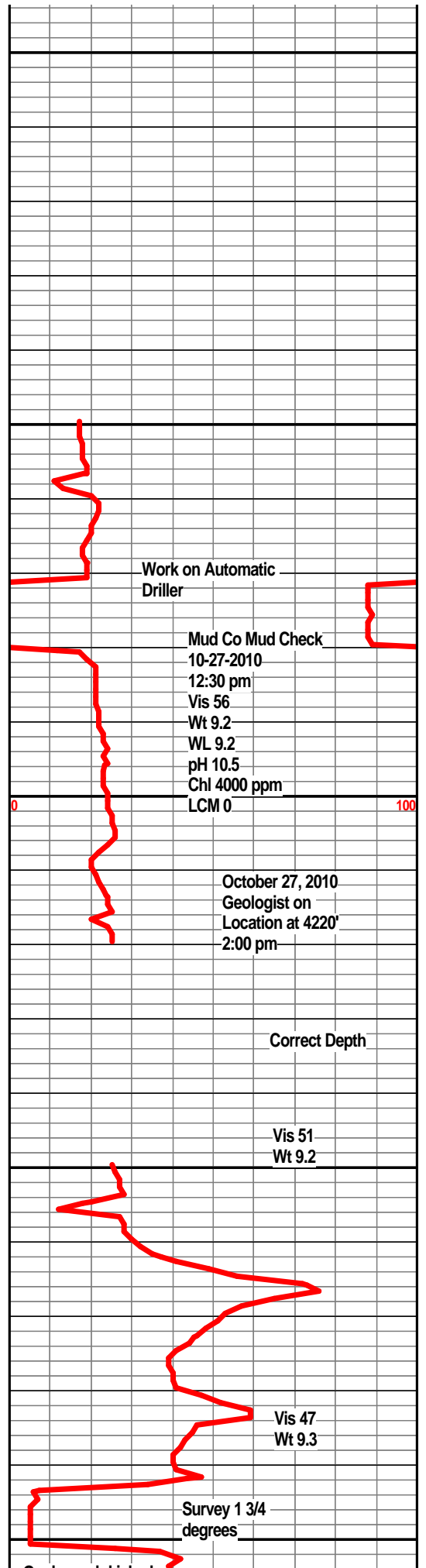
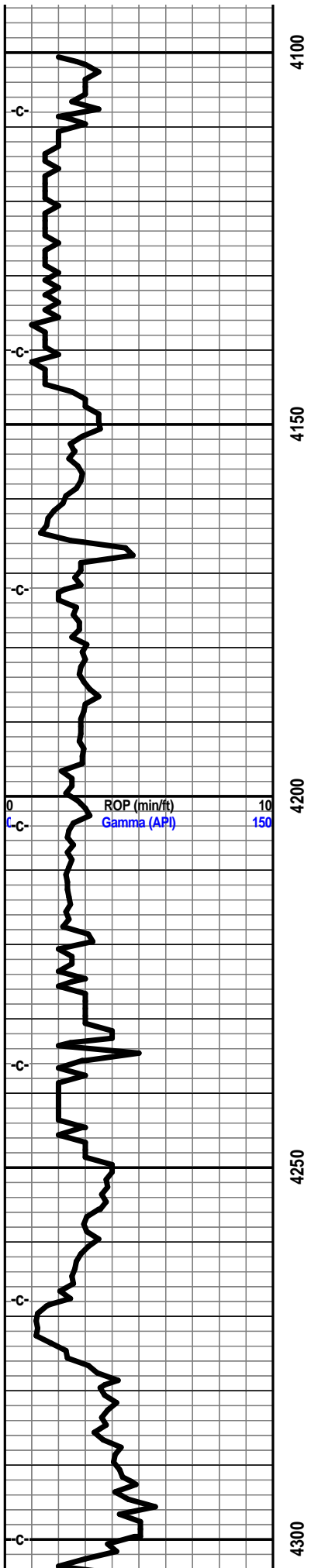
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Slststrg
- Ssststrg
- Carbsh
- Clystn
- Dol

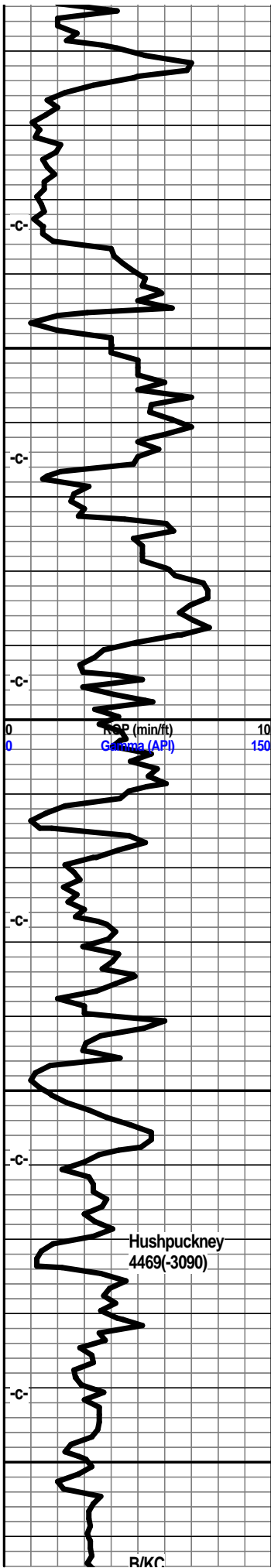
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Slststn

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

Curve Track 1			Depth	Lithology	Oil Shows	Geological Descriptions	TG, C1-C5		
ROP (min/ft)	Gamma (API)						TG (units)	C1 (units)	C2 (units)
0	0	10	40			Daily Progress @ 7:00 am	0	TG	100
		150				October 22, 2010 Finish RU Spud			
						October 23, 2010 240' WOC			
						October 24, 2010 1500' Drilling Ahead			
						October 25, 2010 2382' Drilling Ahead			
						October 26, 2010 3300' Drilling Ahead			
						October 27, 2010 4060' Drilling Ahead			
						October 28, 2010 4459' Running Survey			
						October 29, 2010 4745' Rig Check			
						October 30, 2010 5002', Bit Trip			
						October 31, 2010 5055' DST #1			
			4050			November 1, 2010 5300' CTCH for Log			
						October 27, 2010 4060' @ 7:00 am Drilling Ahead			



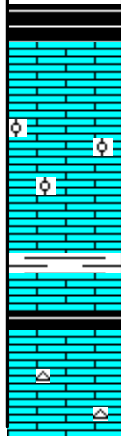


4350

4400

4450

4500



Shale, grey-black, carb.

Limestone, cream-white to tan, xln, sl. oolitic, ool. porosity, chalky in part.

Shale, lt. grey

Shale, grey-black, sl. carb.

Limestone, tan, xln, dense, sl foss, chalky in part, trace of tan chert.

Geograph kicked out. 20,000# on bit

5' Marker kicked in Geograph

Correct Depth

0 TG 100

Vis 51
Wt 9.2

Vis 48
Wt 9.2

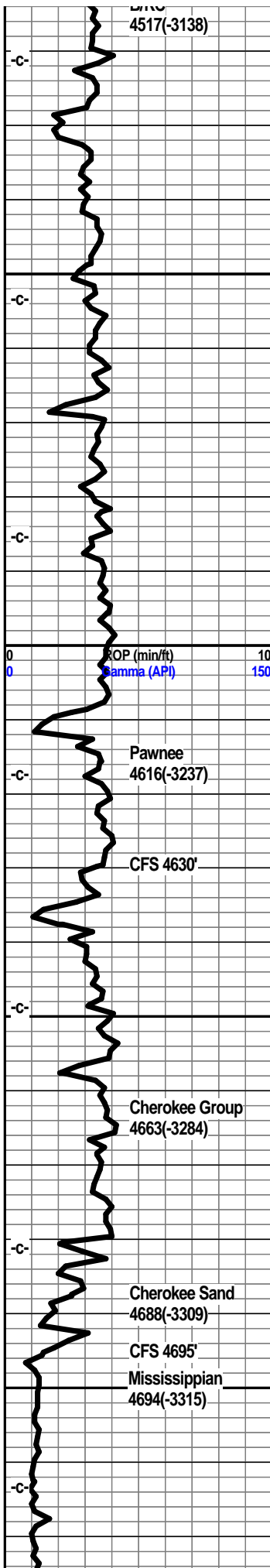
October 28, 2010
4459' @ 7:00 am
Running Survey
Survey 3/4 degree

WOB 33,000#

Change Filter @
Extractor

Start Samples

Mud Co Mud Check
10-28-2010



Shale, lt. grey.

Limestone, tan-grey, xln, shaley in part.

Shale, grey.

Limestone, tan- cream-white, fxln, sl foss, sub-chalky.

Ls a/a, shaley towards base.

Shale, grey-green, traces of pyrite.

Limestone, cream, tan, xln, dense, trace of foss., cherty in part.

Shale, grey-green.

Limestone, grey-tan, xln shaley in part.

Shale, grey-green.

Limestone, cream, tan-white, fxln, dense, sub-chalky, sl. foss., traces of chert.

Limestone, tan, grey-tan, fxln, dense, traces of tan-white chert.

Shale, Grey-Black, carb.

Limestone, tan-white, cream, xln, foss. porosity, some xln-pp porosity, v. sl show gas, dull mineral fluor., no odor, good kick.

Limestone, crm-tan, xln, foss, trace tan chert.

Shale, dk grey.

Limestone, cream-tan, xln foss in part, sub-chalky, trace of tan chert.

Shale, grey, dark grey.

Limestone, cream, tan, xln, foss in part, traces of chert, sub-chalky.

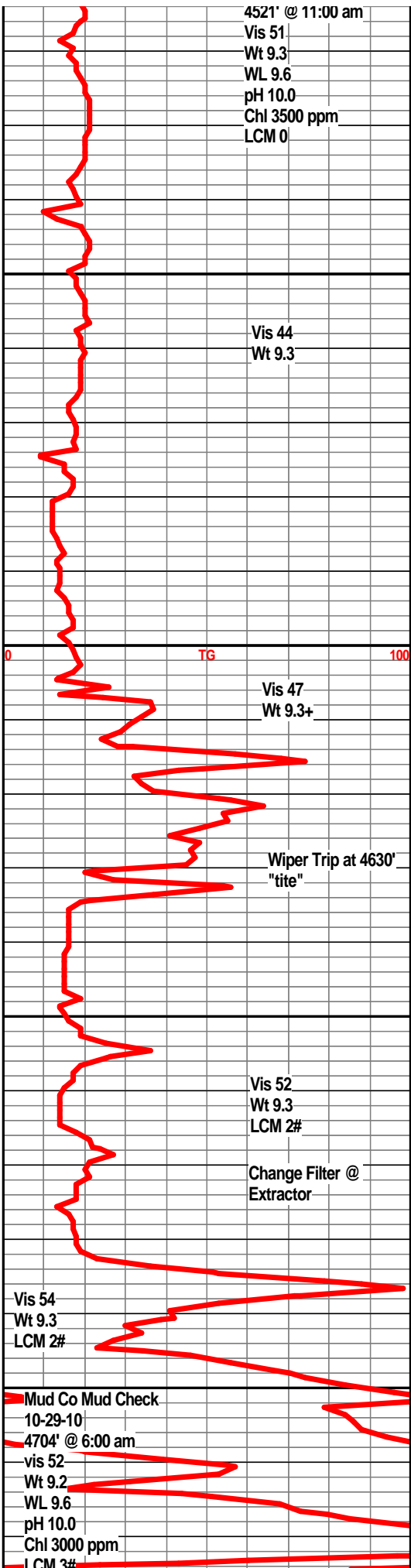
Limestone, cream to tan-white, xln, sl foss., sub-chalky, shaley in part.

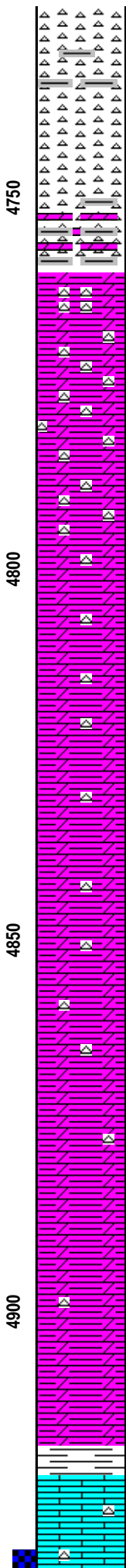
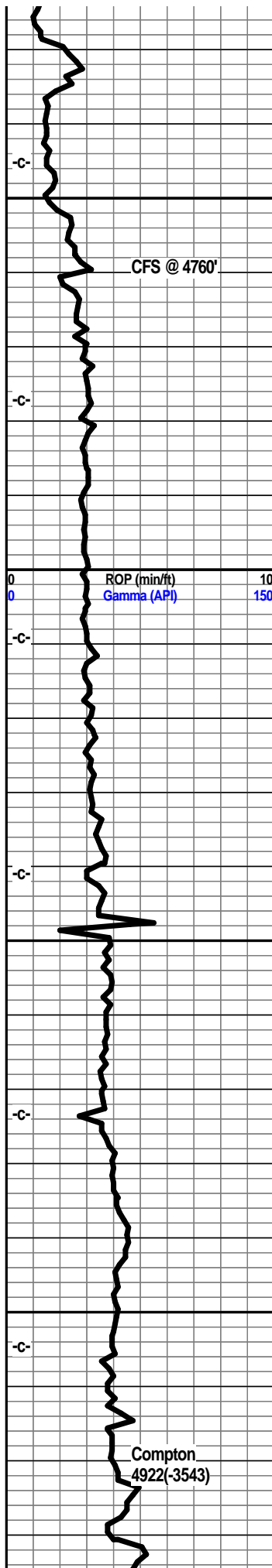
Shale, dark grey.

Sst, tan to clear, fn grained, friable, good sorting, fair cementation in part, light brown staining, slight to poor odor, light show of oil, v. faint fluor, trace of gas bubbles, good gas kick.

Chert, white, clear, some tan-white, fresh to weathered, pp porosity, trace of small vugs, fractured, dark staining along fractures, light brown staining on weathered pieces, v. dull fluor, slight show oil, good gas kick.

Chert, white, off-white, clear, tan, sharp, weathered, fractured, no & scattered small vugs





weathered, fractured, pp & scattered small vugs, fair odor, sl. show gas, trace free oil in tray, light brown staining, dark staining along fractured edges, good gas kick.

Chert, white, off-white, some tan, pale green, clear, fresh to weathered, pp & few small vugs, light brown staining on weathered pcs, dark staining along edges, fair odor, trace free oil in tray, slight show of gas, fair gas indication.

Chert, off-white, slightly dolo, light staining w light show of oil, grey shales inter bedded, decreasing shows, faint odor.

Chert, dolo, tan-white to off-white, some fresh chert with edge staining, decreasing odor, faint, weathered with light brown staining, dark grey shales present.

Dolo, cherty, grey, lt grey, some tan-white, fresh cherts, some lt brown staining, dark grey-green shales.

Dolo, lt grey to grey, cherty, fn grained, some faint staining on chert pcs, very shaley.

Dolo, Lt grey, grey, fn grained, cherty, shaley, most chert milky white to fresh trace of stain, no odor or visible shows.

Dolo, lt grey to grey, fn grained, silty, shaley, dk grey-green shales, trace pyrite.

Dolo., lt grey to grey, fn grained, silty, cherty in part, dk grey-green shales.

Dolo., grey to lt grey, silty, fn grained, shaley in part, traces of fresh chert.

Dolo., lt grey, silty, shaley, cherty in part.

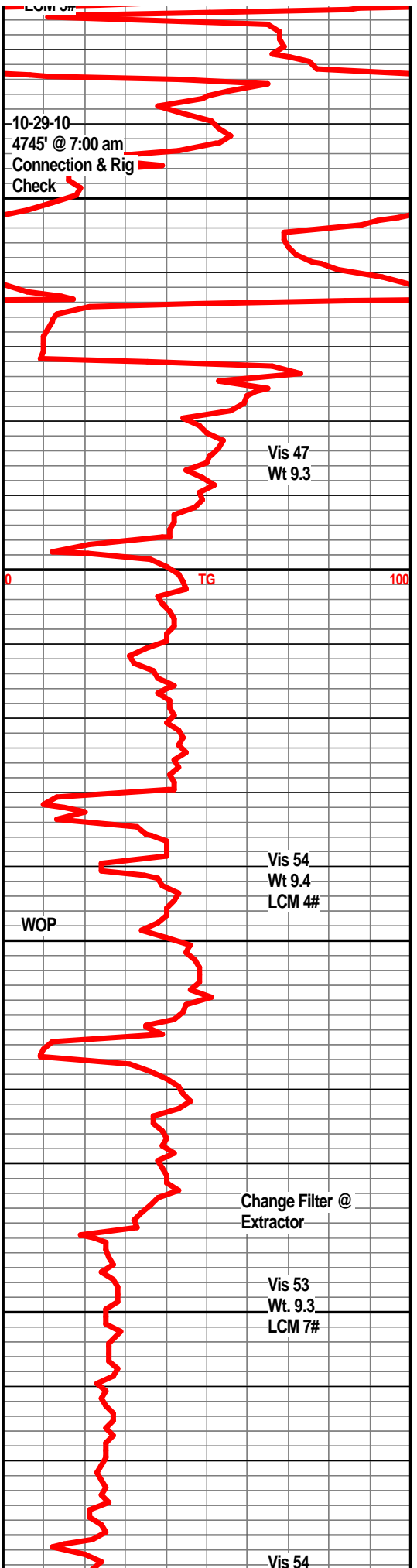
Dolo., grey, silty, fn grained, traces of chert, some dk grey shales.

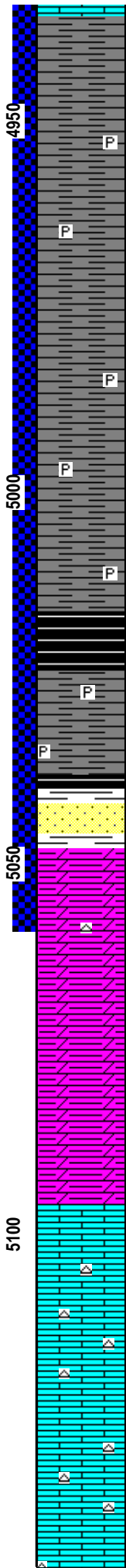
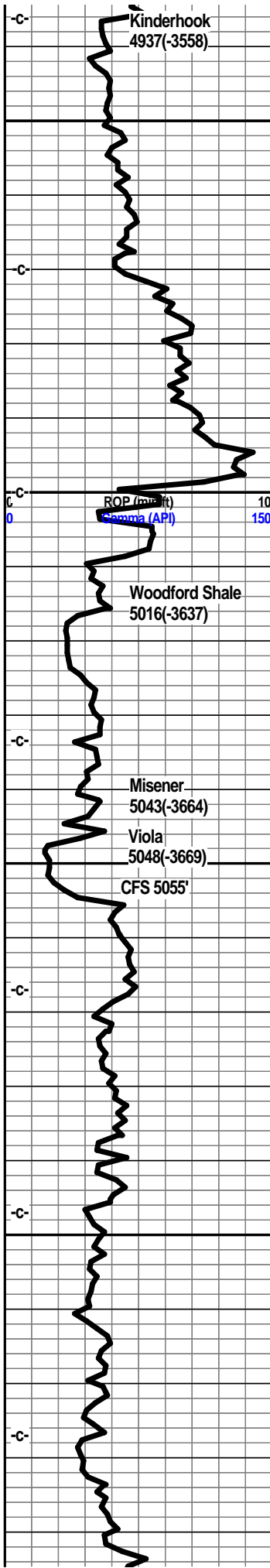
Dolo., lt grey to grey, xln, silty, fn grained, cherty in part, shaley.

Dolo., grey, lt grey, fn grained, silty, trace of chert, grey shales present.

Shale, dark grey.

Limestone, cream-white, xln, sl. foss., sub-chalky in part, dense, trace of chert.





Shale, dark grey, blk, firm.

Shale, dark grey to a lt grey, firm, blk, trace of pyrite.

Shale, dark grey, grey, firm, blk, pyrite.

Shale, grey, dark grey, firm. blk, traces of pyrite.

Shale, grey, dk grey, taces of pyrite, blk., firm.

Shale, grey, dk grey, firm, blk, traces of pyrite.

Shale, grey-black, some coffee brown, traces of gas bubbles.

Shale, dk grey-black, sl carb.

Shale, grey-black, carb, sl show gas bubbles.

Sandstone, clear to tan, fn grained sa to sr, poorly sorted, friable, blk gil flakes, sl lt bwn strn, poor odor, p-f odor when cluster broken, p show oil, scattered lt fluor. 60 min sample, fair odor, clear to tan clusters, friable, some tite, sl better show of oil, blk gil flakes, sl show gas bubbles.

Dolo, lt. grey fn grained, soft, silty, gritty, traces of ls. shaley.

Dolo, grey, lt grey, fn grained, soft, silty, shaley, traces of soft off-white ls.

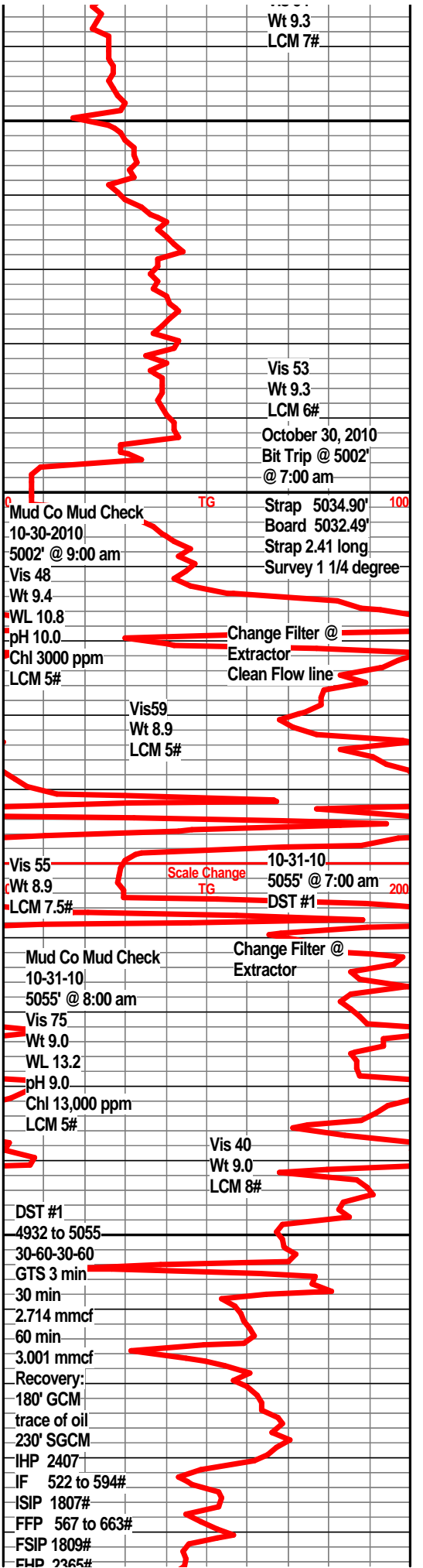
Dolo, lt grey to grey, fn grained, silty, soft, shaley, traces of soft chalky ls.

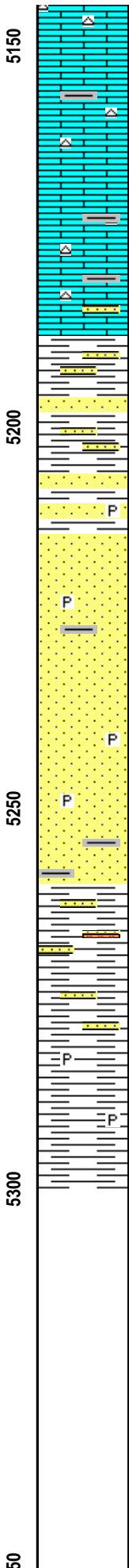
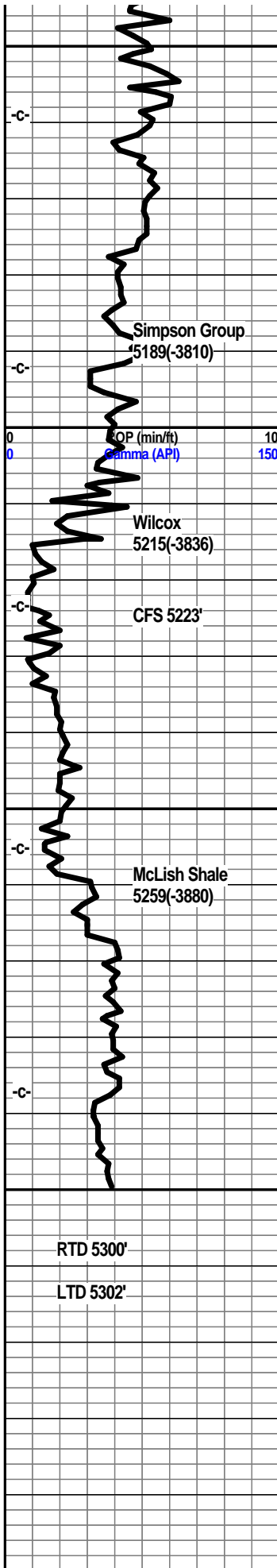
Ls, tan-white, fnxln, dense, sl foss, dolo in part.

Ls, white, tan, off-white, xln, foss, sub-chalky, traces of white to trans chert.

Ls, white to off-white, tan, xln, foss in part, sub-chalky, some xln porosity, traces of chert.

Ls, off-white, xln, dense, tan-white, foss, cherty in part.





Ls, tan-white to off-white, xln, sl. dolo, foss in part, some sub-chalky ls, traces of tan chert, grey-green shales present.

Ls, tan-white, fnxln, dense, sl foss., tan cherts, sharp, some interbedded grey-green shales.

Ls, tan-white, xln, sub-chalky, tan cherts, some green shales.

Shale, dk green, firm, sandy in part, sst stringers, well cemented.

Sst, clear to grey-white, sa to sr, poorly sorted well cemented, traces of pyrite, glauc., shaley in part.

Shale, dark green, firm, sandy in part, pyrite.

Sst, clear to white frosted grains, friable, some well cemented, fair sorting, sa to sr, traces of pyrite flakes, glauc, no visible shows, no odor.

Sst, clear to white, some tan, sa to sr, friable in part, some well cemented, poorly sorted, glauc, traces of pyrite, no visible shows, no odor.

Sst, tan, clear, sa to sr, poorly sorted, friable on part, some well cemented, glauc., pyrite, shaley in part.

Shale, dark green, firm, pyritic in part, traces of sand interbedded.

Shale, dark green, firm, pyrite.

Shale, dark green to green, firm, blk.

Shale, dark green-green, firm.

