



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1069025

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
---	---

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method: Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
-----------------------------------	-----------	---------	-------------	---------------	---------

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
---	--	--

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Ward Loyd, Commissioner
Thomas E. Wright, Commissioner

Sam Brownback, Governor

November 28, 2011

DEAN PATTISSON
Woolsey Operating Company, LLC
125 N MARKET STE 1000
WICHITA, KS 67202-1729

Re: ACO1
API 15-007-23742-00-00
LOGAN 10-X
SW/4 Sec.18-34S-11W
Barber County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
DEAN PATTISSON

ALLIED CEMENTING CO., LLC. 042124

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Medicine Lodge KS

DATE <i>08-01-11</i>	SEC. <i>18</i>	TWP. <i>34s</i>	RANGE <i>11w</i>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <i>9:45 PM</i>
LEASE <i>Logan</i>	WELL # <i>10X</i>	LOCATION <i>Medicine Lodge KS, S on 281 to Hargis</i>			COUNTY <i>Barber</i>	STATE <i>KS</i>	
OLD OR <u>NEW</u> (Circle one)			<i>E / in to</i>				

CONTRACTOR *H-2 #3*

TYPE OF JOB *Surface*

HOLE SIZE *14 3/4* T.D. *225*

CASING SIZE *10 3/4* DEPTH *221 + 12 8 1/2*

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX *250#* MINIMUM *—*

MEAS. LINE SHOE JOINT *N/A*

CEMENT LEFT IN CSG. *20'*

PERFS.

DISPLACEMENT *20 B6ls Fresh H²O*

OWNER *Woolsey Oper.*

CEMENT AMOUNT ORDERED *240s x class A + 3% cc + 2% gel*

COMMON	<i>240</i>	@	<i>16.25</i>	<i>39.00.-</i>
POZMIX		@		
GEL	<i>5</i>	@	<i>21.25</i>	<i>106.25</i>
CHLORIDE	<i>9</i>	@	<i>58.20</i>	<i>523.80</i>
ASC		@		

EQUIPMENT

PUMP TRUCK CEMENTER *D. Felis*

360-265 HELPER *J. Thimesch*

BULK TRUCK

421- DRIVER *D. Elam / A. Miller*

BULK TRUCK

DRIVER

WELL FILE

Regulatory	Correspondence	@		
<u>Drig</u> / Comp	Workovers	@		
Tests / Meters	Operations	@		
		@		
		@		
HANDLING	<i>254</i>	@	<i>2.25</i>	<i>571.50</i>
MILEAGE	<i>151.11/254</i>			<i>419.10</i>
			TOTAL	<i>5520.65</i>

REMARKS:

Pipe on Bttm, Break Circ. w/ Mix 240s x A 342 cement, Start Disp. / Fresh H²O, Wash up Truck, Slow Rate, See Steady increase in PSI, Stop Pump at 20 B6ls total Disp. Shut in, cement Did Circ.

SERVICE

DEPTH OF JOB	<i>225</i>			
PUMP TRUCK CHARGE				<i>1125.-</i>
EXTRA FOOTAGE		@		
MILEAGE	<i>30</i>	@	<i>7.00</i>	<i>210.-</i>
MANIFOLD	<i>N/A</i>	@	<i>N/C</i>	
<i>Light Vehicle</i>	<i>30</i>	@	<i>4.00</i>	<i>120.-</i>
			TOTAL	<i>1455.-</i>

CHARGE TO: *Woolsey Oper.*

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

None

	@		
	@		
	@		
	@		
	@		
			TOTAL _____

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) _____

TOTAL CHARGES *6975.65*

DISCOUNT _____ IF PAID IN 30 DAYS

PRINTED NAME *MIKE THARP*

SIGNATURE *Mike Tharp*

ALLIED CEMENTING CO., LLC. 037780

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Medicine Lodge, KS

DATE <i>08-09-11</i>	SEC <i>18</i>	TWP. <i>34s</i>	RANGE <i>11w</i>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <i>11:30 PM</i>
LEASE <i>Logan</i>	WELL # <i>10X</i>	LOCATION <i>US 201 # Hargis Rd 1/2 into</i>			COUNTY <i>Barber</i>	STATE <i>KS</i>	
OLD OR NEW (Circle one)							

CONTRACTOR *H-2 #3*

TYPE OF JOB *Production Casing*

HOLE SIZE <i>7 7/8</i>	T.D. <i>5220</i>
CASING SIZE <i>5 1/2</i>	DEPTH <i>5090</i>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX <i>1700</i>	MINIMUM <i>-</i>
MEAS. LINE	SHOE JOINT <i>42</i>
CEMENT LEFT IN CSG. <i>42'</i>	
PERFS.	
DISPLACEMENT <i>121 Bbls 2% KCL Water</i>	

EQUIPMENT

PUMP TRUCK # <i>414-302</i>	CEMENTER <i>D. Felio</i>
BULK TRUCK # <i>21-252</i>	HELPER <i>R. Gilley</i>
BULK TRUCK #	DRIVER <i>A. Miller / D. Franklin</i>
BULK TRUCK #	DRIVER

OWNER *Woolsey Oper.*

CEMENT

AMOUNT ORDERED *75sx 60:40:4% gel & 150sx class H + 10% gyp + 10% salt + 6# Kol-Seal + .8% FL-160 + 1/4# Floseal & 12 gals Clapro*

COMMON <i>45sx A</i>	@ <i>16.25</i>	<i>731.25</i>
POZMIX <i>30sx</i>	@ <i>8.50</i>	<i>255.00</i>
GEL <i>3sx</i>	@ <i>20.25</i>	<i>60.75</i>
CHLORIDE	@	
ASC # <i>150 sx</i>	@ <i>19.25</i>	<i>2887.50</i>
<i>gyp seal 1410#</i>	@ <i>34.20</i>	<i>478.80</i>
<i>Salt 16 sx</i>	@ <i>12.00</i>	<i>192.00</i>
<i>Kolseal 900</i>	@ <i>.89</i>	<i>801.00</i>
<i>FL-160</i>	@ <i>112.80</i>	<i>1940.16</i>
<i>Floseal 37</i>	@ <i>2.70</i>	<i>99.90</i>
<i>Clapro 12 gal.</i>	@ <i>31.25</i>	<i>375.00</i>
	@	
	@	
HANDLING <i>280</i>	@ <i>2.25</i>	<i>630.00</i>
MILEAGE <i>280/15/.11</i>		<i>462.00</i>
		TOTAL <i>8913.36</i>

REMARKS:

Pipe on Bttm, Break Concr. Plug Rat Hole w/ 25sx 60:40 cement, Pump 50sx Scavenger Cement, mix 150sx for cement, Stop Pump, Wash Pump & lines, Release Plug, Start Disp. w/ 2% KCL Water, See increase in PSI, Slow Rate, Pump Plug at 121 Bbls total Disp. at 1700# Release PSI, Float Did Hold

SERVICE

DEPTH OF JOB <i>5090</i>	
PUMP TRUCK CHARGE	<i>2695.00</i>
EXTRA FOOTAGE	@
MILEAGE <i>30</i>	@ <i>7.00</i> <i>210.00</i>
MANIFOLD <i>Head Rental</i>	@ <i>200.00</i> <i>200.00</i>
<i>Light Vehicle 30</i>	@ <i>4.00</i> <i>120.00</i>
	@
TOTAL <i>3225.00</i>	

CHARGE TO: *Woolsey Oper.*

STREET _____

WELL FILE

CITY _____ STATE _____ ZIP _____

Regulatory Correspondence
Drig / Comp Workovers
Tests / Meters Operations

PLUG & FLOAT EQUIPMENT

<i>1-AFU Float Shoe</i>	@ <i>286.00</i>	<i>286.00</i>
<i>1-Latch down Plug ABS4.</i>	@ <i>277.00</i>	<i>277.00</i>
<i>12-turbalizers</i>	@ <i>80.00</i>	<i>960.00</i>
<i>24-Recip. Scatchers</i>	@ <i>76.00</i>	<i>1824.00</i>
	@	

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SEP 22 2011 TOTAL *3347.00*

SALES TAX (If Any) _____

TOTAL CHARGES *15485.36*

DISCOUNT _____ IF PAID IN 30 DAYS

PRINTED NAME *MIKE THARP*

SIGNATURE *Mike Tharp*



Woolsey Operating Company, LLC

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

Measured Depth Log

Well Name: LOGAN 10-X
Location: Aprox NE SE SW
License Number: API: 15-007-23742-00-00
Spud Date: August 1, 2011
Surface Coordinates: 990' FSL & 2385' FWL Section 18-Twp 34 South - Rge 11 West
Rhodes South Field
Bottom Hole Coordinates: Vertical Hole
Ground Elevation (ft): 1416
Logged Interval (ft): 4000 To: RTD
Formation: McLish Shale
Type of Drilling Fluid: Chemical Mud, Displace at 3400'

Region: Barber County, Kansas

Drilling Completed: August 9, 2011

K.B. Elevation (ft): 1425

Total Depth (ft): 5220

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
STARK SHALE	4395(-2970)	4394(-2969)
HUSHPUCKNEY SHALE	4426(-3001)	4426(-3001)
B/KC	4482(-3057)	4480(-3055)
PAWNEE	4566(-3141)	4566(-3141)
CHEROKEE GROUP	4616(-3191)	4616(-3191)
CHEROKEE SAND	4634(-3209)	4631(-3206)
MISSISSIPPIAN	4645(-3220)	4542(-3217)
KINDERHOOK SHALE	4874(-3449)	4879(-3454)
WOODFORD SHALE	4958(-3533)	4959(-3534)
MAQUOKETA	4992(-3575)	4992(-3575)
VIOLA	5012(-3587)	5007(-3582)
SIMPSON SHALE	5113(-3688)	5114(-3689)
SIMPSON SAND	5134(-3709)	5132(-3707)
MCLISH SHALE	5172(-3747)	5169(-3744)
RTD	5220(-3795)	
LTD		5222(-3797)

COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 223' with 240 sxs Class A, 2% gel, 3% cc, plug down at 9:45 pm on August 1, 2011. Cement did Circulate.

Production Casing: Ran 5 1/2" Casing.

Deviation Surveys: 1- 225', 3/4 - 1229', 1 - 1700, 3/4 - 2201', 3/4 - 2700', 1/2 - 3202', 1 - 3673', 3/4 - 3929', 1 - 4014', 1 - 4114', 1/2 - 4808', 3/4 5096'.

Contractor Bit Record:

1- 14 3/4" out at 225'.

2- 7 7/8" out at 5096'.

3- 7 7/8" out at 5220'.

Gas Detector: Woolsey Operating Company, Trailer #1

Mud System: Mud Co, Brad Bortz, Engineer

DSTs: No DST's Taken

Logged by Superior Well Services.

LTD - 5222'

DSTs

No DST's Taken on this test well.

CREWS

H2 Drilling Rig #3


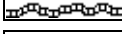
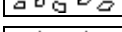



Tool Pusher - Randy Smith


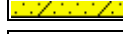


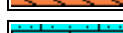

Drillers - Gary Axtell


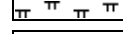



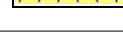
Luis Marquez



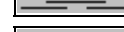
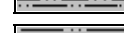

Cesor Regaldo

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
-  Shyslstst
-  Sltsh

















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


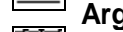











FOSSIL

-  Algae
-  Amph
-  Belm
-  Bioclst
-  Brach
-  Bryozoa
-  Cephal
-  Coral
-  Crin
-  Echin
-  Fish
-  Foram
-  Fossil
-  Gastro
-  Oolite
-  Ostra












-  Pelec
-  Pellet
-  Pisolite
-  Plant
-  Strom
-  Fuss
-  Oomoldic

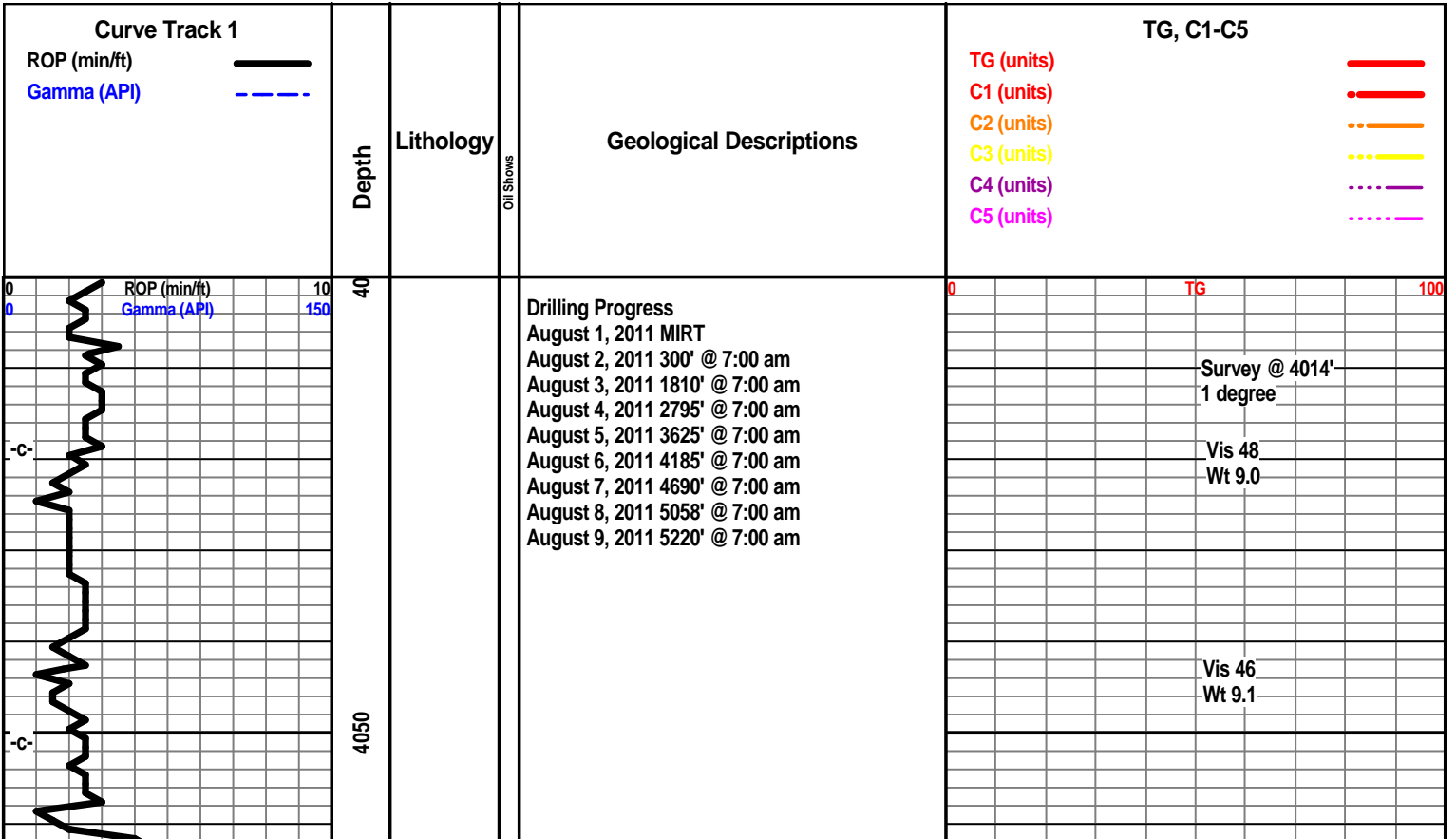
-  Grysh
-  Gryslt
-  Lms
-  Sandylms
-  Sh
-  Sltstn

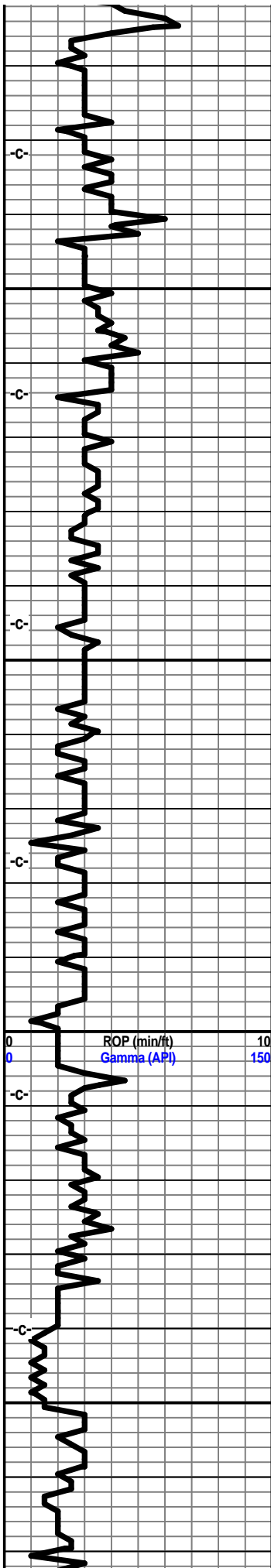
STRINGER

-  Anhy
-  Arg
-  Bent
-  Coal
-  Dol
-  Gyp
-  Ls
-  Mrst
-  Sltstrg
-  Ssstrg
-  Carbsh
-  Clystn
-  Dol

TEXTURE

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





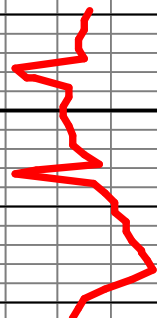
4100

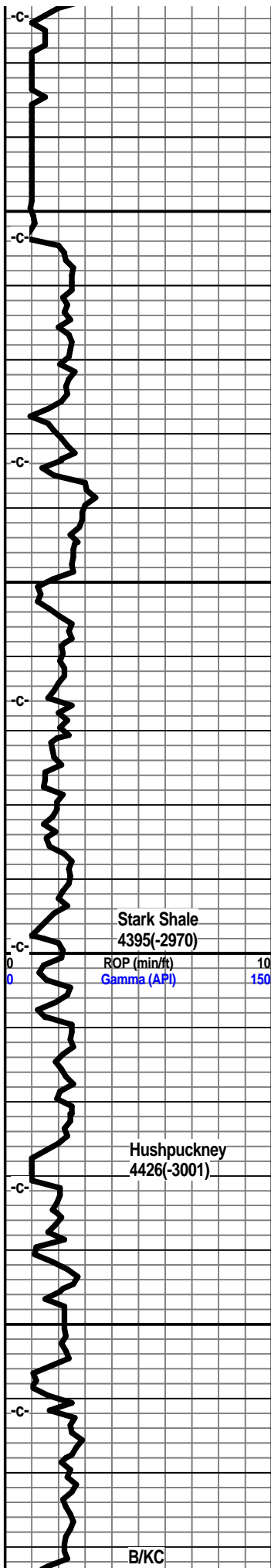
4150

4200

4250

	Vis 46 Wt 9.2 LCM 3#	
	Vis 48 Wt 9.2 LCM 3# Survey @ 4114' 1 degree	
	Vis 48 Wt 9.2 LCM 3#	
	Vis 50 Wt 9/0 LCM 2#	
	August 6, 2011 4185' @ 7:00 am	
	Vis 49 Wt 9.2 LCM 2#	
0	TG	100
	KB 1425'	
	Geologist on Location 4230' @ 8:30 am August 6, 2011	
	Survey at 4240' 1/2 degree	
	Start Gas Detector	





4300
4350
4400
4450



Shale, grey-black, carb

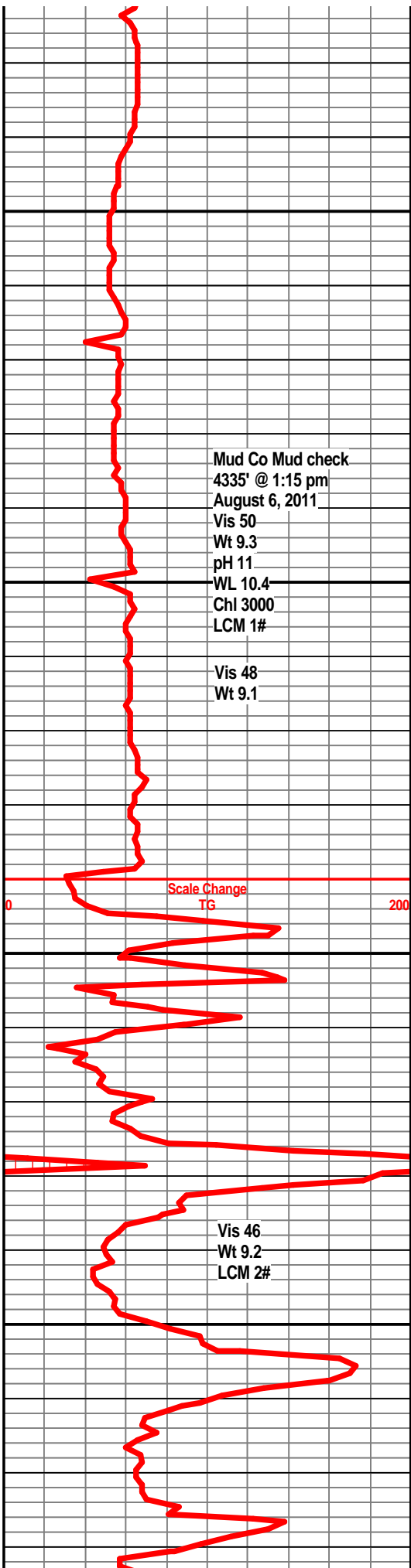
Limestone, tan-white, xln, oolitic, some fossil frags, cast porosity, slight show of oil & gas, scattered fluor, slight odor, trace of bleeding gas.

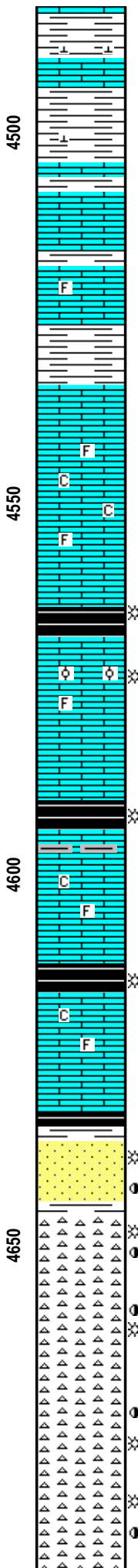
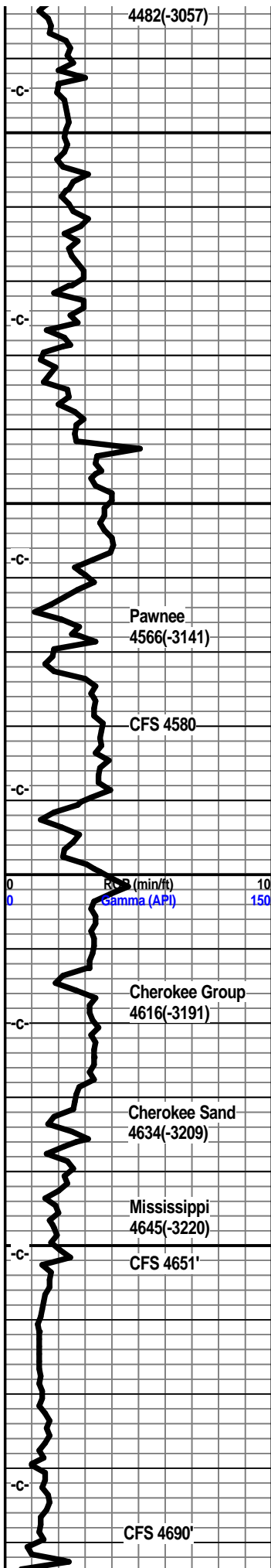
Shale, grey-black, carb.

Limestone, grey-white, buff, xln, foss, subchalky in part, some grey shales, no visible shows.
 Limestone, a/a, trace of grey chert.

Shale, grey-black, carb.

Limestone, buff, grey, xln, dense, chalky, slightly foss.
 Shale, grey.
 Limestone, grey-white, xln, slightly mottled, chalky in part, trace foss., trace xln porosity, ??? odor, possible slight light brown staining, no visible above gas blk??





NO visible shows, gas kick??

Shale, grey-green, slightly calcitic.

Limestone, grey-green, shaley.

Shale, grey, green.

Limestone, tan-brown, xln, trace xln porosity, ?? odor, no vis shows, scattered min fluor.

Limestone, tan, buff-white, xln, sub-chalky, slightly foss.

Shale, grey-green.

Limestone, buff-white, tan, xln, dense, slightly foss, traces chalky.

Shale, grey-black, carb.

Limestone, tan-white, fxln, sub-chlaky, fine oolites, fossils, some small cast porosity, rare show gas bubble, slight golden stain, fair even fluor.

Shale, grey-black, carb.

Limestone, grey, tan-white, xln, dense, slightly chalky in part, trace of foss, no visible shows.

Shale, grey-black, carb.

Limestone, grey-white, tan, xln, dense, sub-chalky, no visible shows.

Shale, grey-black, trace grey-green.

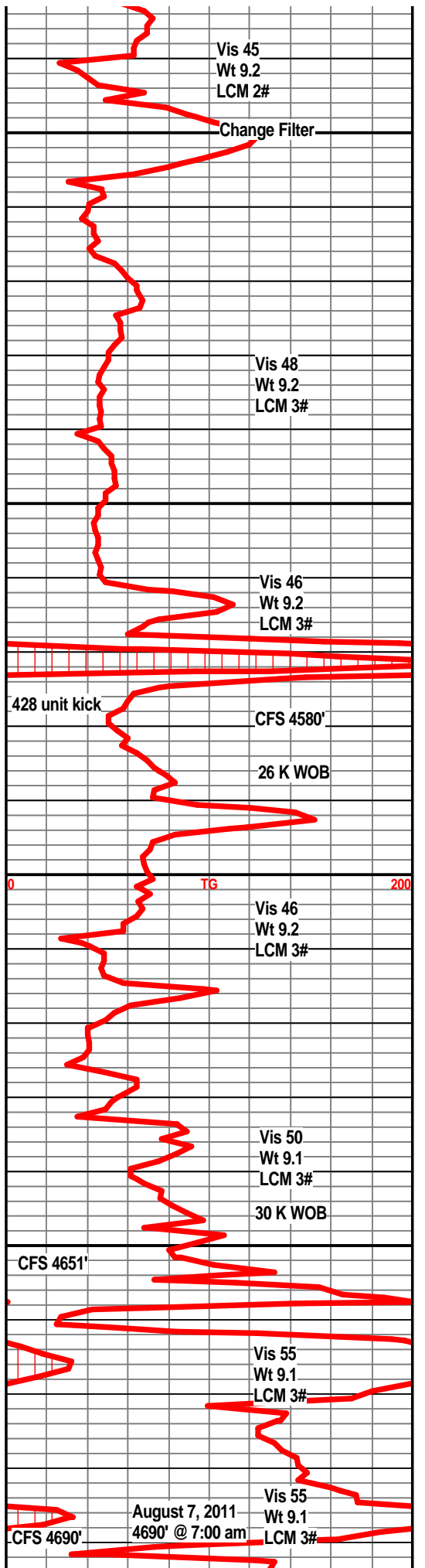
Sandstone, tan, tan-lt brown, dark brown-black, v fn grained, well sorted, friable, some well cemented, fair odor, even golden brown staining, slight show light oil, trace of bleeding gas, spotty dull fluor.

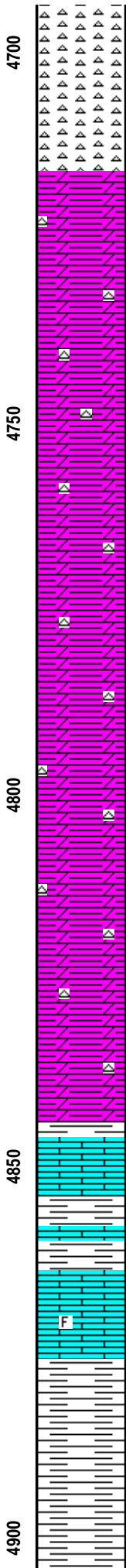
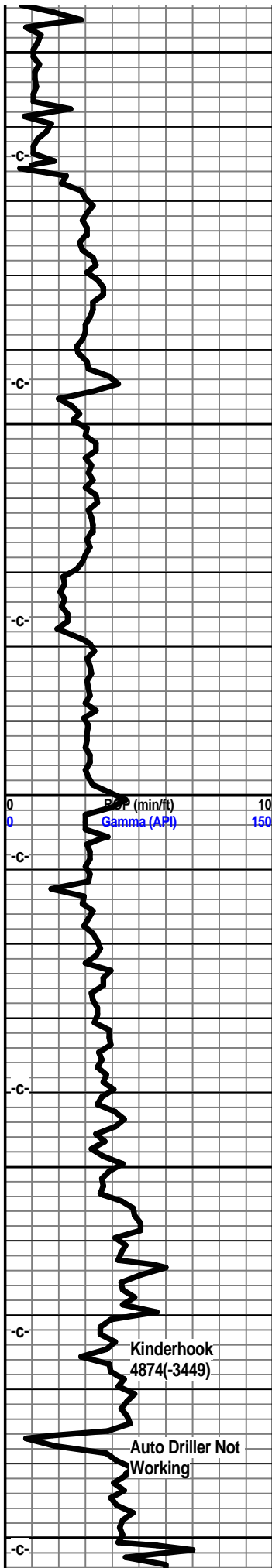
Chert, (in 60" sample), off-white to tan-white, sharp, fresh, some weathered with spotty stain, fair odor(from sand?), trace show of oil, dull fluor.

Chert, white, off-white, tan, sharp to weathered, pp porosity, small scattered vugs, spotty brown staining, good odor, show of free oil & gas, spotty fluor, some grey shales.

Chert, off-white, tan, weathered, pp porosity, small vugs, good odor, good show free oil and bleeding gas, some grey green shales, spotty fluor.

Chert, off-white to tan, weathered, pp porosity, fair brown staining, good odor, increasing amounts of grey-green shales, trace grey dolo.





4700 Chert, off-white, tan, trans, some sharp, mostly weathered, spotty brown staining, fair odor, fair show of oil & gas, dull fluor, some grey-green shales.

Dolo, greywhite, xln, dense, weathered cherts with light staining, slight spotty show oil, p-f odor, abundeant grey-grey dolo shales.

Dolo, light grey, xln, some fresh cherts, grey-green shales, few fossil frags.

Dolo, grey-white, tan, xln, slightly limey, glauc., weathered cherts, spotty staining, faint show of oil, faint odor, abundant grey-green shales.

Dolo, grey-white, xln, dense, some weathered cherts, spotty staining, fresh, sharp, grey-green shales.

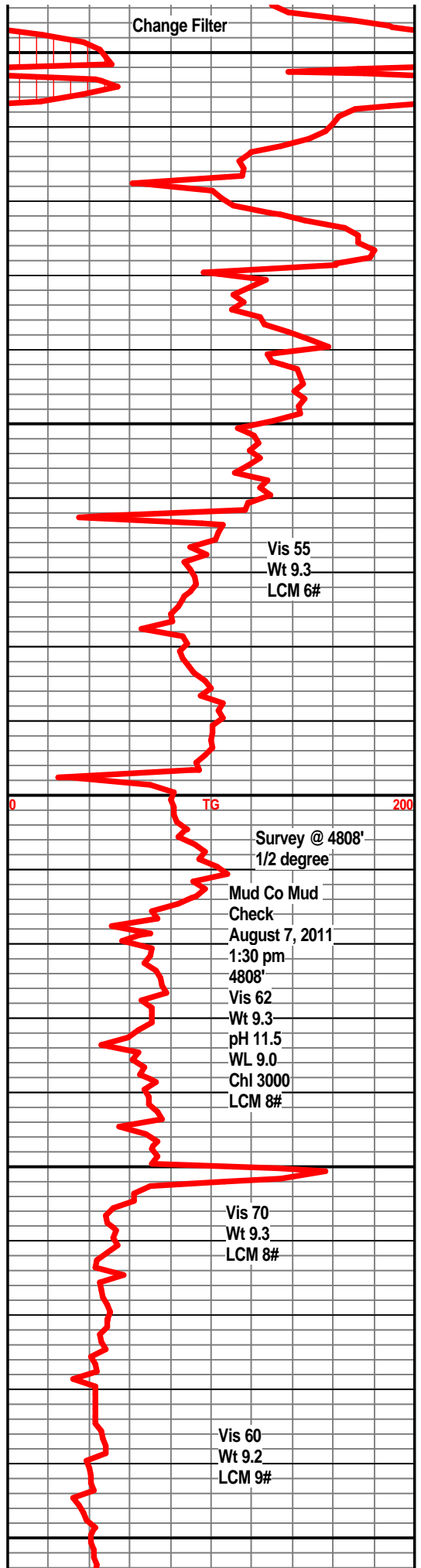
Dolo, grey-white, xln, dense, glauc., cherty, still carrying slight shows in cherts, grey-green shales.

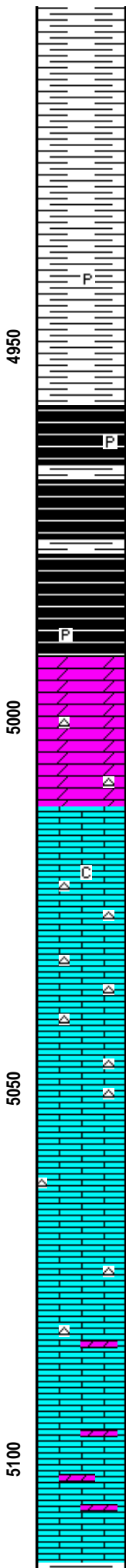
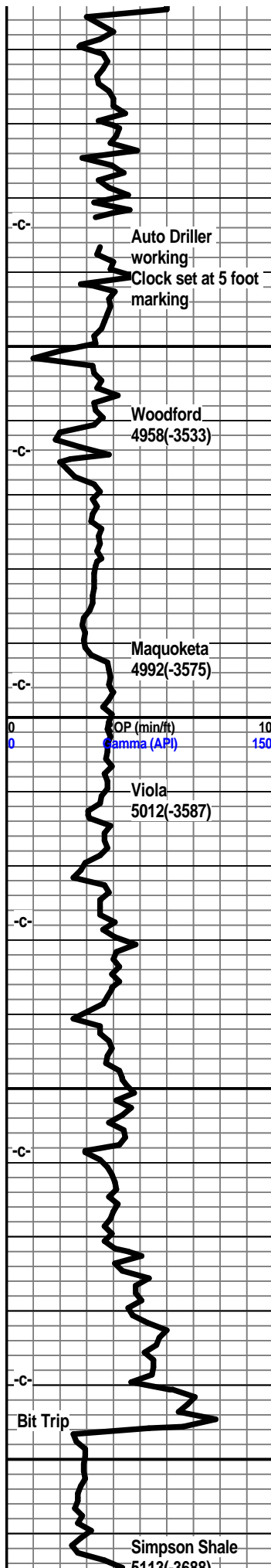
Dolo, grey-white, tan, xln, dense, decreasing cherts, grey-green shales.

4850 Limestone, cream-white, tan, xln, slightly foss, trace of chert, possible gas indication, no visible shows found.
Shale, light green, calcitic, some grey-black carb shale.

Limestone, cream-white, tan, fxln, dense, slightly chalky, trace of foss.

4900 Shale, grey, dark green, splintery.





Shale, dark grey, green, firm, splintery.

Shale, dark grey, dark green, firm.

Shale, dark grey, traces of pyrite.

Shale, grey-black, some coffee brown, carb.

Shale, grey-black, coffee brown, carb., traces of brown sand imbedded in shale towards base.

Dolo, light grey-white, fxln, soft, traces of white to off-white dolo, traces of white chert.

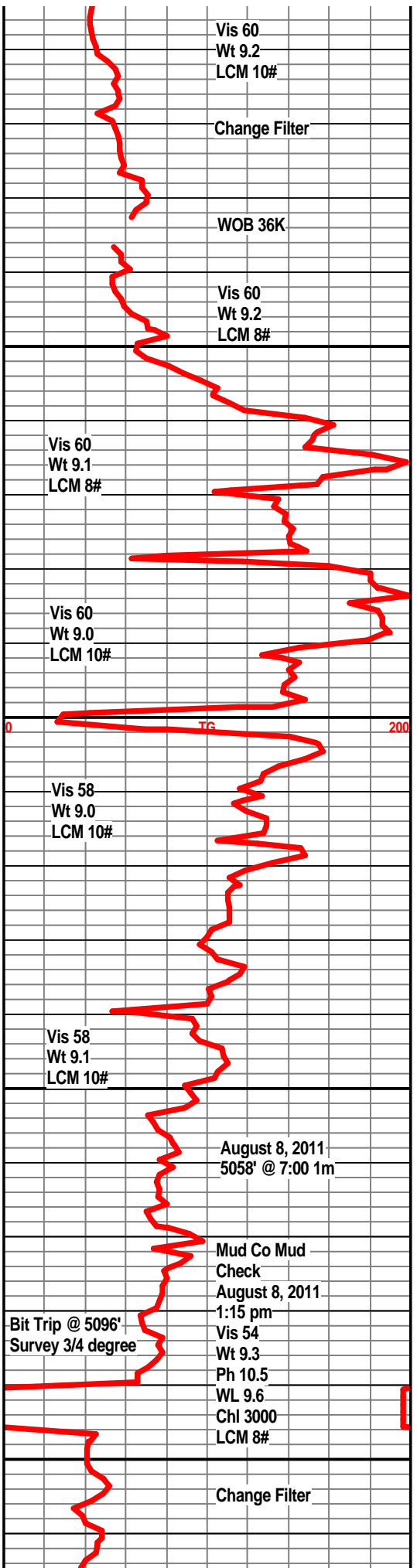
Limestone, cream to off-white, xln, trace of xln porosity, pp porosity, slight show of oil under uv light, subchalky in part, traces of white chert, no odor, possible increase in gas background.

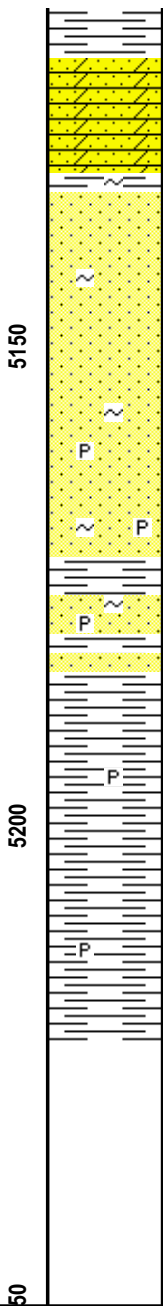
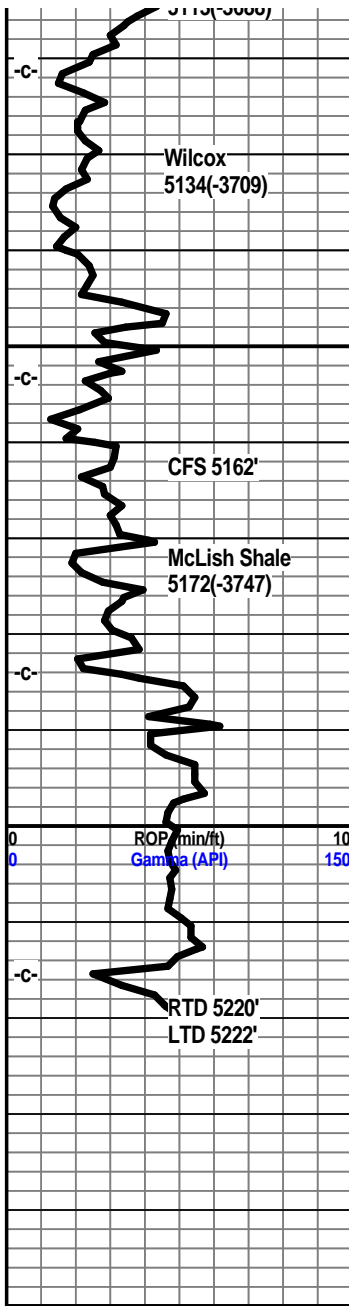
Limestone, tan-white, off-white, xln, some xln porosity, traces of tan-white specked cherts, trace chalky ls, dull scatered flour, no odor.

Limestone, tan-white, xln, dense, tan cherts, succ. texture, sub chalky in part.

Limestone, tan-white, xln succ, granular, tan sharp cherts, slightly dolo in part.

Limestone, tan, granular, xln, slightly dolo, sandy in part, tan sharp cherts. (poor samples, abundant uphole cavings)





Shale, teal green, firm, slightly sandy in part.

Sandstone, grey-white, SA, well cemented, some friable, p-f sorting, races of pyrite imbedded, trace glauc. no visible shows.

Sandstone, grey-white, frosted white, SA to SR, fair sorting friable in part, slight show of light oil, ??? odor, glauc, slightly dolo in part., slight scattered fluor.

Sandstone, grey-white, white, some tan, slight show light oil, some light brown staining, friable to well cemented, glauc.

Sandstone, grey-white to clear-white, SA to SR, fair sorting, friable in part, some well cemented, slight show oil, dull scattered fluor, ??? odor, some teal green shales.

Sandstone, a/a, decreasing shows in samples, no odor, dull spotty fluor in few samples.

Sandstone, clear to frosted white, SA to SR, fair sorting, friable in part, some well cemented, few shale inclusions, traces of pyrite, glauc.

Shale, teal green, firm, traces of pyrite, some scattered sand clusters.

Shale, teal green, firm.

