



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1207822
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

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
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

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

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical 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

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

1207822

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

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

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

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
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	STERNBERGER B 1
Doc ID	1207822

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
SURFACE	17.5	13.375	48	224	CLASS A	300	
INTERMEDIATE	12.25	8.625	24	840	CLASS A	375	
PRODUCTION	7.875	5.5	15.5	5324	POZMIX	50	
PRODUCTION	7.875	5.5	15.5	5324	CLASS H	125	SEE ATTACHED

HYDRAULIC FRACTURING FLUID PRODUCT COMPONENT INFORMATION DISCLOSURE

Fracture Date:	3/6/2014
County:	Barber
Operator Name:	Woolsey Operating
Well Name and Number:	Sternberger B-1
Total Base Fluid Volume (gal)*:	369900

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS#)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**
Plexslick 957	Chemplex	Friction Reducer	Petroleum Hydrotreated Light Distillate	64742-47-8	25%	0.0200169%
Plexsurf 580 ME	Chemplex	Product Stabilizer	Methyl Alcohol	67-56-1	10%	0.0025000%
Plexsurf 580 ME	Chemplex	Product Stabilizer	2-Butoxyethanol	111-76-2	50%	0.0125000%
Claymax	Chemplex	Clay Stabilizer	No hazardous ingredient	N/A	0%	0.0000000%
Plexcide B7	Chemplex	Biocide	Sodium Hydroxide	1310-73-2	5%	0.0002500%
Plexcide B7	Chemplex	Biocide	Alkaline Bromide Salts	N/A	0%	0.0000000%
Plexgel Breaker XPA	Chemplex	Breaker/Slickwater	Hydrogen Peroxide	7722-84-1	7%	0.0014189%
Plexset 730	Chemplex	Activator	Methanol	67-56-1	50%	0.7500000%
Plexset 730	Chemplex	Activator	Alcohol Ethoxylates	Mixture	60%	0.9000000%
Frac Sand	Uniman	Propant	Crystalline Silica in the form of Quartz	14808-60-7	60%	26.4%
Plexgel 907L-EB	Chemplex	Gelling Agent	Hydrocarbons	68476-34-6	100%	0.5000000%
Plexgel Breaker 10L	Chemplex	Breaker/Gel	No Hazardous Ingredient	N/A	0%	0.0000000%

ALLIED OIL & GAS SERVICES, LLC 062434

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Medicine Lodge, KS

DATE <u>2-1-2014</u>	SEC. <u>12</u>	TWP. <u>35S</u>	RANGE <u>12W</u>	CALLLED OUT <u>7:00 pm</u>	ON LOCATION <u>12:00 pm</u>	JOB START <u>4:00 pm</u>	JOB FINISH <u>4:45 pm</u>
LEASE <u>Sternberg B</u>		WELL# <u>1</u>	LOCATION <u>H94thner, ks 3 1/2 Essz</u>		COUNTY <u>Bsibar</u>	STATE <u>KS</u>	
OLD OR <u>(NEW)</u> (Circle one)			<u>S/into</u>				

CONTRACTOR Fossil

TYPE OF JOB SURFACE

HOLE SIZE _____ T.D. 226'

CASING SIZE 13 3/8 DEPTH 210'

TUBING SIZE LS 8 5/8 DEPTH 15'

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 20'

PERFS. _____

DISPLACEMENT 31 bbls Fresh water

EQUIPMENT

OWNER Woolsey Operating

CEMENT

AMOUNT ORDERED 3003y C/955 B + 3%60

2% Gel

COMMON <u>300</u> <u>5x (A)</u>	@ <u>17.90</u>	<u>5370.00</u>
POZMIX _____	@ _____	_____
GEL <u>6</u> <u>5x</u>	@ <u>23.40</u>	<u>140.40</u>
CHLORIDE <u>11</u> <u>5x</u>	@ <u>64.00</u>	<u>704.00</u>
ASC _____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
HANDLING <u>324.40</u>	@ <u>2.48</u>	<u>804.51</u>
MILEAGE <u>14.50/23/2.60</u>	@ _____	<u>885.33</u>
TOTAL		<u>7904.24</u>

PUMP TRUCK CEMENTER Darin F

548-545 HELPER Justin B

BULK TRUCK

819-823 DRIVER Anthony TWS

BULK TRUCK

_____ DRIVER _____

REMARKS:

Pipe on bottom & bresic circulation

pump 3 bbls Fresh water, mix 8003y

Cement, dispise 31 bbls Fresh water

Shut in Cement via Circulate

FEB 28 2014

SERVICE

DEPTH OF JOB 225'

PUMP TRUCK CHARGE 1512.25

EXTRA FOOTAGE _____ @ _____

MILEAGE 23 @ 7.70 177.10

MANIFOLD 8 5/8 S Service @ _____

20 23 @ 4.40 101.20

_____ @ _____

TOTAL 1791.05

CHARGE TO: Woolsey Operating

STREET _____

CITY _____ STATE _____

WELL FILE

Regulatory Correspondence & IP

Drig / Comp Workovers

Tests / Meters Operations

PLUG & FLOAT EQUIPMENT

None @ _____

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

TOTAL _____

To: Allied Oil & Gas Services, 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 9695.29

DISCOUNT _____ IF PAID IN 30 DAYS

Net 7950.03

PRINTED NAME X MIKE THARP

SIGNATURE X Mike Tharp

ALLIED OIL & GAS SERVICES, LLC 062435

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Medicine Lodge, KS

DATE <u>2-2-2014</u>	SEC. <u>12</u>	TWP. <u>35s</u>	RANGE <u>12w</u>	CALLED OUT <u>11:00 am</u>	ON LOCATION <u>1:00 pm</u>	JOB START <u>6:30 pm</u>	JOB FINISH <u>7:30 pm</u>
Stornbers LEASE <u>B</u>	WELL # <u>1</u>	LOCATION <u>Heratner, ks 3 1/2 east</u>			COUNTY <u>Berhar</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW <input type="radio"/> (Circle one)		SOUTH INTO					

CONTRACTOR Fossil
 TYPE OF JOB Intermed. core
 HOLE SIZE 12 1/4 T.D. 910'
 CASING SIZE 8 5/8 DEPTH 868'
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 41'
 CEMENT LEFT IN CSG. _____
 PERFS. _____
 DISPLACEMENT 51 bbls of fresh water
 EQUIPMENT _____

PUMP TRUCK CEMENTER Darin F.
 # 548-545 HELPER Justin B.
 BULK TRUCK
 # 561-553 DRIVER James B.
 BULK TRUCK
 # _____ DRIVER _____

REMARKS:

Pipe on bottom & break circulation
Pump 3 bbls fresh water & heavy mix
5% less cement, mix 100-500 ps
cement, shut down, release plug, start
displace cement, pump 51 bbls fresh water
bump plus 97 100-500 ps, return
lost and shoring cement did circulate

OWNER Woolsey Operating
 CEMENT
 AMOUNT ORDERED 225 sk 6.5, 35, 16% GEL
3% GEL + 1/2 # Plossol, 150 sk C1925 A
3% GEL + 2% GEL + 1/2 # Plossol
 COMMON A 150 sk @ 17.90 2685.00
 POZMIX @ _____
 GEL 15 sk @ 23.40 351.00
 CHLORIDE 13 sk @ 64.00 832.00
 ASC @ _____
AW 225 sk @ 16.50 3712.50
Flossal 36 @ 2.97 166.32
 @ _____
 @ _____
 @ _____
 @ _____
 @ _____
 HANDLING 420.85 @ 2.48 1043.70
 MILEAGE 18.09/23/2.60 1081.78
 TOTAL 9872.30

SERVICE

DEPTH OF JOB 868'
 PUMP TRUCK CHARGE 2058.50
 EXTRA FOOTAGE @ _____
 MILEAGE 23 @ 7.70 177.10
 MANIFOLD Heratner @ 275.00
dk 23 @ 4.40 101.20
 @ _____

TOTAL 2611.80

PLUG & FLOAT EQUIPMENT

6 5/8
 1- Rubber plug @ 131.00
 1- Fiber hubble @ 320.00
 1- Basket @ 560.00
 @ _____
 @ _____
 TOTAL 1011.00

SALES TAX (If Any) _____
 TOTAL CHARGES 13,495.10
 DISCOUNT _____ IF PAID IN 30 DAYS

(Net) 11,123.12

CHARGE TO: Woolsey Operating

STREET _____
 CITY _____ STATE _____ ZIP _____
WELL FILE FEB 28 2014

Regulatory Correspondence
 (Orig) Comp Workovers
 Tests / Meters Operations

To: Allied Oil & Gas Services, 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.

PRINTED NAME x MIKE THARP
 SIGNATURE x [Signature]

Thank you!!!

ALLIED OIL & GAS SERVICES, LLC 062327

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT:
Med Lodge

DATE <u>2/15/14</u>	SEC <u>12</u>	TWP <u>35</u>	RANGE <u>12</u>	CALLED OUT <u>4:00 AM</u>	ON LOCATION <u>6:00 AM</u>	JOB START <u>9:00</u>	JOB FINISH <u>2:15 AM</u>
LEASE <u>STEINBERGER</u>	WELL# <u>B-1</u>	LOCATION <u>Hnedtner Ks 3 1/2 E Sinto</u>			COUNTY <u>BARBER</u>	STATE <u>Ks</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR <u>Fossil</u>	OWNER <u>Woolsey Oper Co.</u>
TYPE OF JOB <u>Production</u>	
HOLE SIZE <u>7 7/8</u>	T.D. <u>5460</u>
CASING SIZE <u>5 1/2</u>	DEPTH <u>5323</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT <u>45.07</u>
CEMENT LEFT IN CSG. <u>45.07</u>	
PERFS.	
DISPLACEMENT <u>125.6 Bbls</u>	<u>2% KCL</u>
EQUIPMENT	

CEMENT	AMOUNT ORDERED <u>60/40 4% GEL</u>
	<u>125% H²O 10% GYP 10% SALT 6" Kasol</u>
	<u>.8% EL 160 1/4" Flosoal</u>
COMMON <u>Class A</u>	<u>54sx @ 17.90 966.60</u>
POZMIX	<u>36sx @ 9.35 366.60</u>
GEL	<u>3sx @ 23.90 70.20</u>
CHLORIDE	@
ASC	@
<u>Class H</u>	<u>125sx @ 21.20 2650.00</u>
<u>Salt</u>	<u>13sx @ 26.35 342.55</u>
<u>Kasol</u>	<u>750# @ .98 735.00</u>
<u>Cypsol</u>	<u>23sx @ 37.60 864.80</u>
<u>Flosoal</u>	<u>32# @ 2.97 95.04</u>
<u>FL-160</u>	<u>94# @ 18.90 1776.60</u>
<u>Claplo</u>	<u>14gals @ 34.40 481.60</u>
	@
HANDLING <u>265 #s</u>	@ <u>2.48 657.20</u>
MILEAGE <u>11.31 x 23 v2.60</u>	<u>676.34</u>
TOTAL <u>9682.83</u>	

PUMP TRUCK	CEMENTER <u>T. SEBA</u>
# <u>471-265</u>	HELPER <u>JASON TI</u>
BULK TRUCK	
#	DRIVER <u>David F.</u>
BULK TRUCK	
#	DRIVER

REMARKS:
Run 1103H's 5 1/2 15.5" csq + LS
= 5323 85' 45.07
ATU FSHOE 1.20 BOTTLE
Cent 1-3-4-6-8-9-10-11-12-13-14
Rec. Scatchbees 9-10-11-12-13
50SX 60/40 Slavayce 14.1 gal
125% 2 1/4" gal
Plug down 1.27 1500' Release & Hold
0000 dia thro 703

SERVICE	
DEPTH OF JOB	<u>5323</u>
PUMP TRUCK CHARGE	<u>2765.15</u>
EXTRA FOOTAGE	@
MILEAGE	<u>23 @ 7.70 177.10</u>
MANIFOLD	@ <u>275.00</u>
	<u>23 @ 4.40 101.20</u>
	@
TOTAL <u>3318.45</u>	

CHARGE TO: Woolsey Oper. Co.
 STREET _____
 CITY _____ STATE _____ ZIP _____
WELL FILE
 Regulatory Correspondence
 Drig / Comp Workovers
 Tests / Meters Operations

PLUG & FLOAT EQUIPMENT	
<u>Weather Pro 5 1/2</u>	
<u>1 EA Float shoe ATU</u>	@ <u>545.00</u>
<u>1 EA L.D Plug & Bottle</u>	@ <u>660.00</u>
<u>20 EA Rec. Scatchbees</u>	@ <u>95.00 1900.00</u>
<u>11 EA Fuelled 2 PCs</u>	@ <u>89.00 979.00</u>
	@
TOTAL <u>4084.00</u>	

To: Allied Oil & Gas Services, LLC.
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SALES TAX (If Any) _____
 TOTAL CHARGES 17,084.28
 DISCOUNT _____ IF PAID IN 30 DAYS
Net 14484.78

PRINTED NAME MIRE THOMP
 SIGNATURE M. J. Thompson



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Woolsey Operating Co. LLC

12-35s-12w Barber Ks

125 N. Market ,Ste.1000
Wichita Ks.67202

Sternberger B-1

Job Ticket: 51800

DST#: 1

ATTN: Bill Klaver/ Joel Ge

Test Start: 2014.02.11 @ 05:19:16

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:01:01

Time Test Ended: 14:41:16

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 56

Interval: 4720.00 ft (KB) To 4855.00 ft (KB) (TVD)

Reference Elevations: 1369.00 ft (KB)

Total Depth: 4855.00 ft (KB) (TVD)

1357.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 8352 Inside

Press@RunDepth: 169.35 psig @ 4721.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.02.11

End Date:

2014.02.11

Last Calib.:

2014.02.11

Start Time: 05:19:21

End Time:

14:41:16

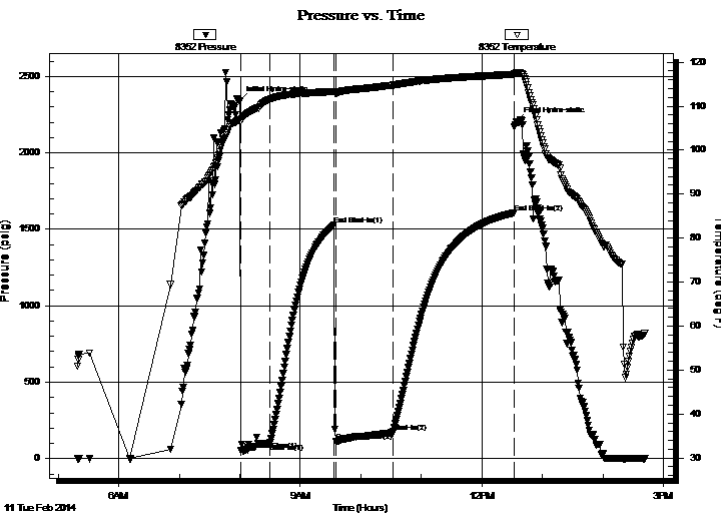
Time On Btm:

2014.02.11 @ 08:00:16

Time Off Btm:

2014.02.11 @ 12:34:16

TEST COMMENT: IF: Strong blow . B.O.B. in 1 min.
IS: Weak blow . 1/2 - 3".
FF: Strong blow . B.O.B. in 3 secs. GTS in 25 mins. (see gas flow report)
FS: Weak blow . 1/2 - 1".



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2339.82	106.92	Initial Hydro-static
1	53.42	106.60	Open To Flow (1)
30	99.59	111.54	Shut-In(1)
94	1529.24	113.34	End Shut-In(1)
95	110.36	112.93	Open To Flow (2)
152	169.35	114.77	Shut-In(2)
272	1606.99	117.24	End Shut-In(2)
274	2201.45	117.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	GOCM 11%g 11%o 78%m	0.89
150.00	GOCM 16%g 3%o 81%m	2.10

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	2.00	6.06
Last Gas Rate	0.13	4.00	6.81
Max. Gas Rate	0.13	4.00	6.81



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co. LLC

12-35s-12w Barber Ks

125 N. Market ,Ste.1000
Wichita Ks.67202

Sternberger B-1

Job Ticket: 51800

DST#: 1

ATTN: Bill Klaver/ Joel Ge

Test Start: 2014.02.11 @ 05:19:16

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

2000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
180.00	GOCM 11%g 11%o 78%m	0.885
150.00	GOCM 16%g 3%o 81%m	2.104

Total Length: 330.00 ft

Total Volume: 2.989 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co. LLC

12-35s-12w Barber Ks

125 N. Market ,Ste.1000
Wichita Ks.67202

Sternberger B-1

Job Ticket: 51800

DST#: 1

ATTN: Bill Klaver/ Joel Ge

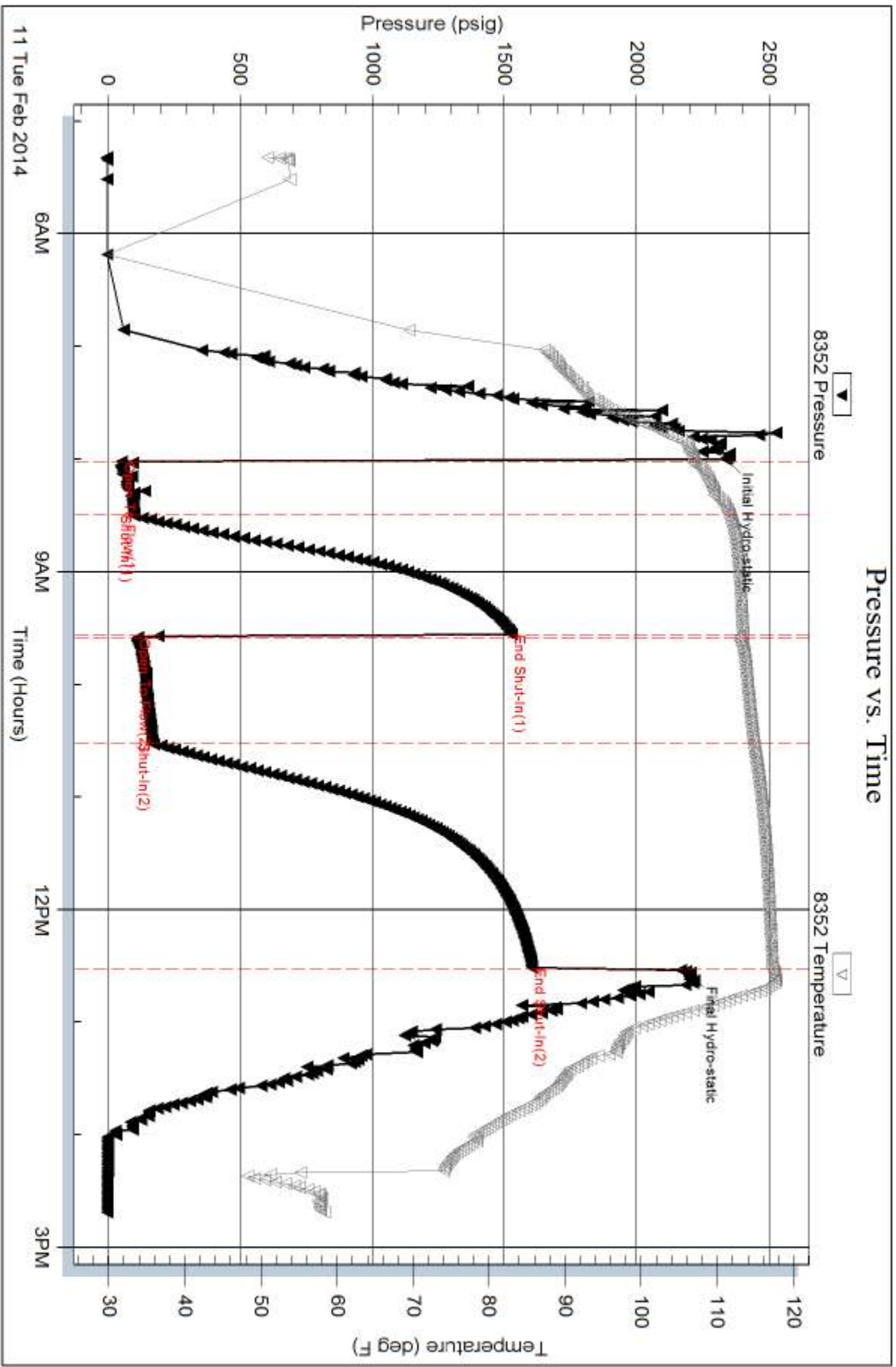
Test Start: 2014.02.11 @ 05:19:16

Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	30	0.13	2.00	6.06
2	40	0.13	3.00	6.44
2	50	0.13	4.00	6.81
2	60	0.13	4.00	6.81





Woolsey Operating Company, LLC

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

Measured Depth Log

Well Name: Sternberger #B-1
Location: Section:12 Township: 35S Range: 12W
License Number: 15-007-24128-0000
Spud Date: 01/31/2014
Region: Barber Co., Kansas
Drilling Completed: 02/14/2014
Surface Coordinates: SE SW SW
330' FSL, 1090' FWL
Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 1357 K.B. Elevation (ft): 1369
Logged Interval (ft): 4300 To: 5460 Total Depth (ft): 5460
Formation: Brown Limestone--->SIMPSON
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: Joel Gearhart
Company: Woolsey Operating Co. LLC
Address: 125 N. Market, Wichita Kansas, 67202

COMMENTS

Surface Casing: Set 5 jts 13 3/8" x 48#/ft new surface casing at 224' (tally 21.61') w/ 300 sx Class A, 2% gel, 3% cc (by Allied). Plug down at 4:45 am on 2/1. Cmt did circ.

Production Casing: Set 118 jts (tally 5312.53') 5 1/2" x 15.5#/ft production casing at 5324' w/ 50 sx 60/40 pozmix, 4% gel, 1/4# Celoflake and 125 sx Class H, 10% salt, 10% Gypseal, 6# Gilsonite, 1/4# Celoflake, .8% fluid loss (by Allied). Plug down at 1:30 pm on 2/15

Deviation Surveys: 1-226', 1-1112', 1/4-1658', 1-2222', 1/4-2698', 1-3173', 3/4-3680', 1-4186', 1-4695', 1-4855'
Strap: 4882.36', Board: 4885.75', Strap is 3.39' short to the Board. No corrections were made to the Board.

Contractor Bit Record: Fossil Drilling Rig #3

- 1.) 17 1/2" STC RR in-0' out-226'; 4 hrs
- 2.) 7 7/8" Varel HE-21 in-226' out-796'; in-884' out-4855'; 139.25 hrs
- 3.) 12 1/4" Varel RR in 796' out-884'; 8 hrs
- 4.) 7 7/8" Varel HE-29 in-4855' out-5460'; 56 hrs

Gas Detector: Woolsey Operating Company LLC., Gas Trailer #2

Mud System: Mud-Co., Brad Bortz, Engineer

DSTs: Trilobite Testing, Gary Pevoteaux

E-Logs: Nabors Completion and Production services, Dual Induction Laterlog w/ SP, CNL-FDC w/ PE, Gamma and Caliper

DSTs

DST #1 Mississippi 4710-4855

30-60-60-120, IFP: Strong Blow, BOB in 1 min. ISI: Weak Blow 1/2-3", FFP: Strong Blow, BOB in 3 sec, GTS/25", Ga 6-7 MCFGPD, FSI: Weak Blow 1/2-1", REC: 150' GOCM (16%G 3%O 81%M), 180' GOCM (11%G, 11%O 78%M), IHP: 2340, FHP: 2201, ISIP: 1529, FSIP: 1607, FP: 53-100/110-169

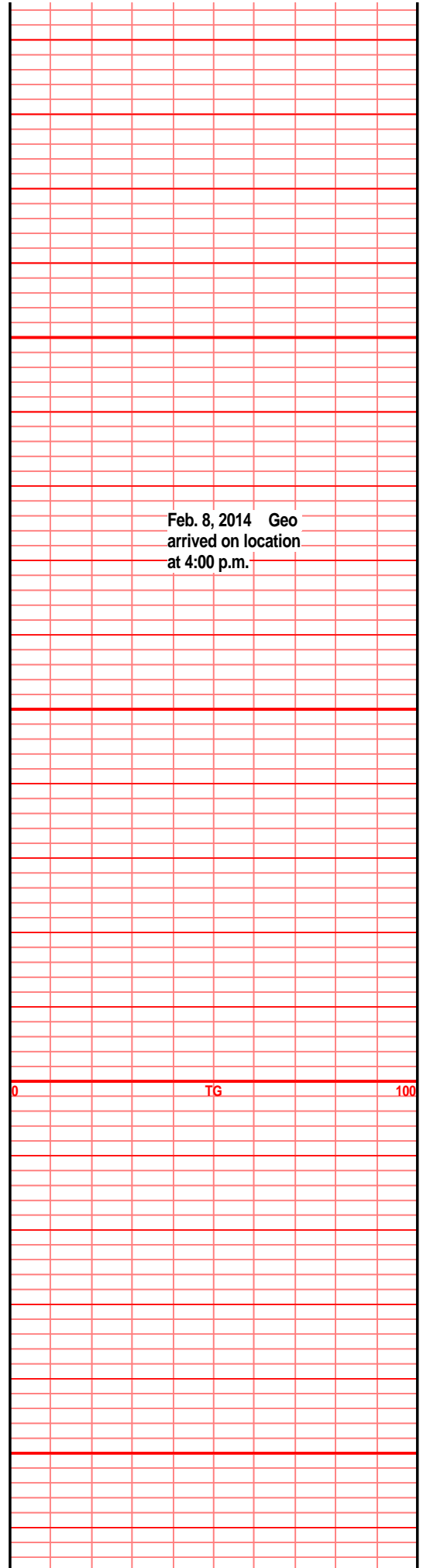
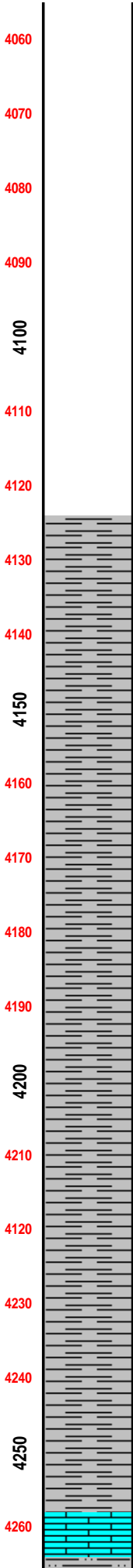
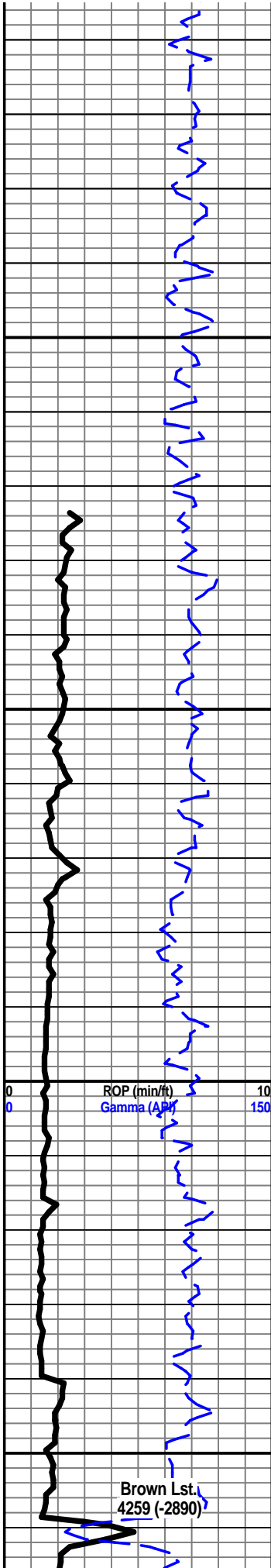
CREWS

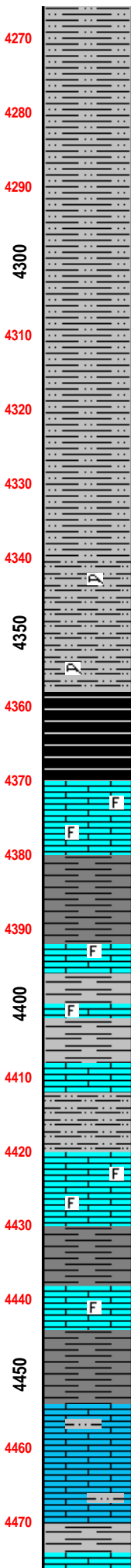
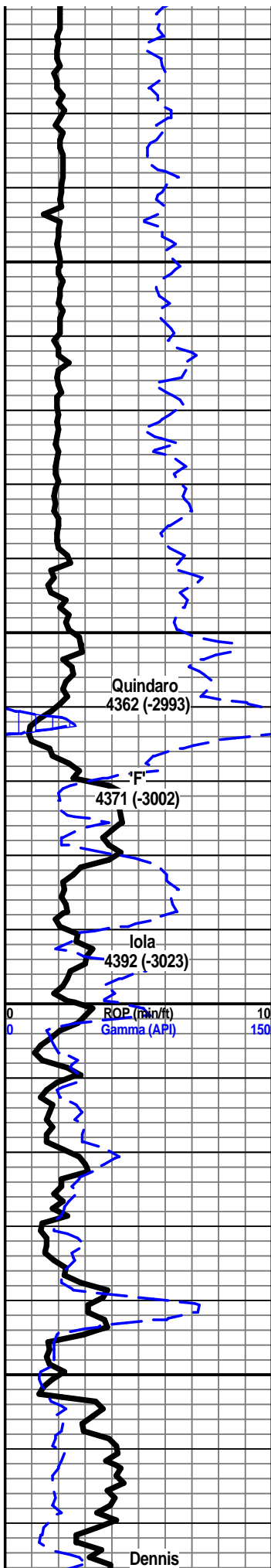
Fossil Drilling Rig #3

Jim Wenrick, Toolpusher
Doug Dimitt, Morning
Daniel Orrantia, Daylight
Ron Burns, Evening
Andres Maestas, Relief

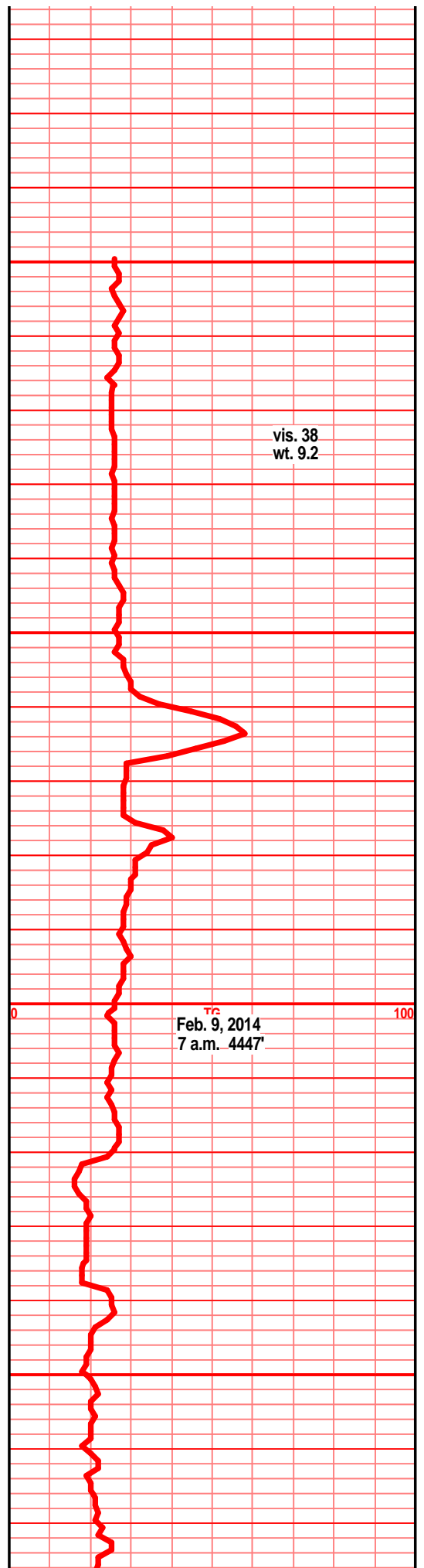
- Hertha 1873 (-504)
- Council Grove 2261 (-892)
- Onaga 2746 (-1377)
- Wabunsee 2803 (-1434)
- LeCompton 3594 (-2225)
- Kanwaka 3620 (-1854)
- Heebner 3812 (-2443)
- Toronto 3824 (-2455)
- Douglas Grp 3851 (-2482)
- Douglas Shl 3918 (-2549)
- Haskell 4256 (-2887)
- Quindaro 3972 (-2988)
- KC 'F' 4367 (-2998)
- KC 'Iola' 4387 (-3018)
- KC 'Drum' 4440 (-3071)
- KC 'Dennis' 4474 (-3105)
- Stark 4511 (-3142)
- Swope 4523 (-3154)
- Hushpuckney 4543 (-3174)
- Hertha 4556 (-3187)
- BKC 4592 (-3223)
- Pawnee 4702 (-3333)
- Cherokee Grp 4747 (-3378)
- Mississippi Unc. 4810 (-3441)
- C2A 4810 (-3441)
- C2A Base 4857 (-3488)
- C2 4863 (-3494)
- C2 Base 4912 (-3543)
- C1 4917 (-3548)
- C1 Base 4939 (-3570)
- Osage 5044 (-3675)
- Northview Shl 5047 (-3678)
- Compton 5052 (-3683)
- Kinderhook 5060 (-3691)
- Woodford 5158 (-3789)
- Misener Sd 5159 (3790)
- Viola 5179 (-3810)
- Simpson Grp 5317 (-3948)
- Simpson Sd 5324 (-3955)
- Wilcox 5335 (-3966)
- McLish Shl 5420 (-4051)

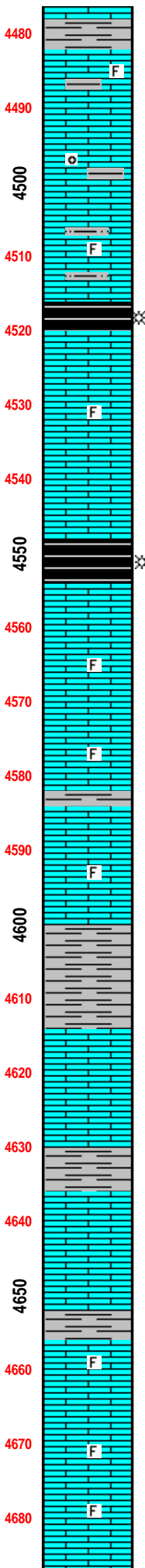
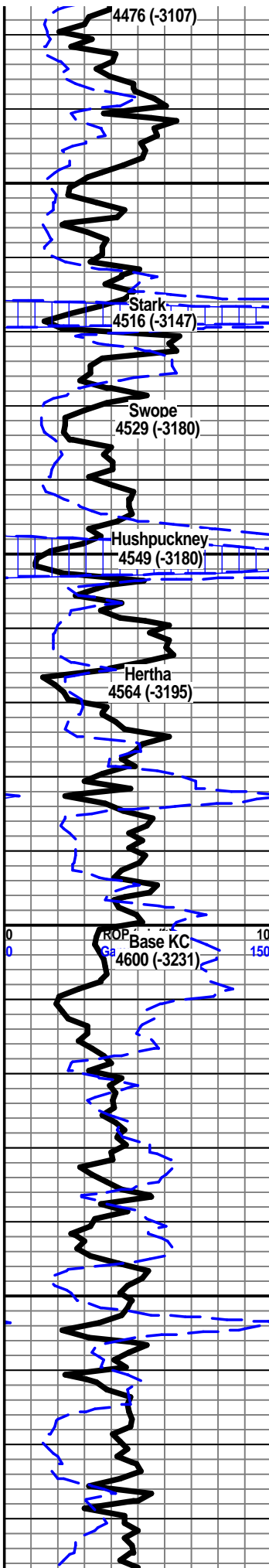
Feb. 8, 2014 Geo
 arrived on location
 at 4:00 p.m.





4270
4280
4290
4300 gry-drk gry shl, slty, tabular, micas
4310 gry-drk gry shl, slty, tabular, micas
4320 gry-drk gry shl, slty, tabular, micas, bedding
4330 gry-drk gry shl, slty, tabular, micas, bedding, increasingly getting more silty
4340 gry-drk gry silt, shly, gritty text, tabular, micas
4350 gry-drk gry silt, shly, gritty text, tabular, micas
4360 blk shl, slty, carb, hrd, sub ang, gas bubs on brk, nso
4370 blk shl, slty, carb, hrd, sub ang, gas bubs on brk, nsooff wt-gry wt lst, chrty, xln, sub ang, hrd off wt-lt brn chrt, sft, sub ang
4380 off wt-brn lst, chrty, xln, sub ang, foss frags, off wt-lt brn chrt, sft, sub ang, brn chrt, xln, shrp edges, hrd
4390 drk gry shl, slty, tabular, hrd
4400 off wt-brn lst, chrty, xln, sub ang, hrd, foss frags
4410 off wt-lt brn lst, chrty, vry xln, rough, sub ang, foss frags, calc fill, gry shl, silty, tabular
4420 off wt lst, xln, chrty, sub ang, hrd, gry-drk gry slt, shly, pyritic, sub ang
4430 off wt lst, chrty, xln, hrd, sub ang, foss frags
4440 off wt lst, chrty, xln, hrd, sub ang, foss frags, drk gry shl, slty, sub ang blks, hrd
4450 gry shl, slty, sub ang blks, hrd
4460 drk brn-gry brn lst, xln, hrd, sub ang, foss frags, ltlt chrty, drk gry sh, silty, pyritic, sub ang, hrd
4470 drk gray tan lst, xln, gritty text, ltlt chrty, silt lams, hrd, gry shy slt, sub ang, hrd
drk gray tan lst, xln, gritty text, ltlt chrty, silt lams, hrd, gry shy slt, sub ang, hrd





off wt-gry tan lst, xin, chrty, lttl sily, foss frags, sub ang, hrd, gry tabular shl, hrd

gry brn lst, vxln, sub ang, hrd, foss frags, calc fill, gritty txt, oomoldic, shl frags

gry brn lst, vxln, sub ang, hrd, foss frags, calc fill, gritty txt, oomoldic, clay clasts

gry brn-brn lst, lttl chrty, xin, sub ang, hrd, foss frags, lttl silty, drk gry shl, silty, pyritic

blk shl, carb, sub ang, hrd, gas bubs on brk, nso

off wt lst, xin, chrty, wt chrt, pinpoint porosity, foss frags, clay clasts, sub ang, hrd

off wt-lt tan lst, xin, chrty, wt chrt, sub ang, hrd/brittle, gry-drk gry shl, tabular, pyritic, hrd

drk gry-blk shl, tabular, hrd, gas bubs on brk, nso

off wt-lt tan lst, xin, lttl chrty/chlky brk, wt chrt, sub ang, hrd

lt tan-gry tan lst, xin, chrty/chlky brk, sub ang, hrd, foss frags

lt tan-gry tan lst, xin, chrty/chlky brk, sub ang, hrd, foss frags

off wt lst, xin, chrty, wt chrt, foss frags, calc fill, sub ang, hrd, gry-drk gry shl, tabular, hrd

off wt-tan lst, xin, chrty, wt xin chrt, foss frags, clay clasts, sub ang, hrd

drk gry-gry grn shl, silty, gritty, sub ang, waxy brk

gry tan lst, fxln, chrty, wt chlky chrt, dirty appearance, sub ang, hrd, grn spots

gry grn-grn lst, vry xin, oolitic, calc fill, wt calc growth, sub ang, hrd, gry grn shl, vfn snd inclusions, sub ang

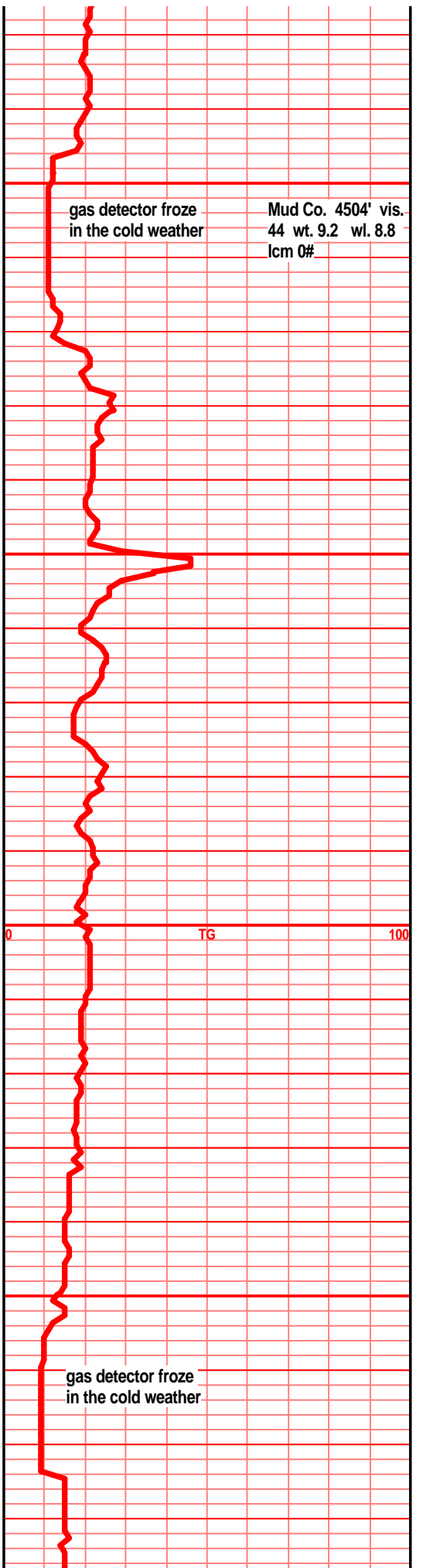
gry-gry tan lst, xin, veins of chrt, off wt-lt brn chrt, sub ang, hrd, pyritic

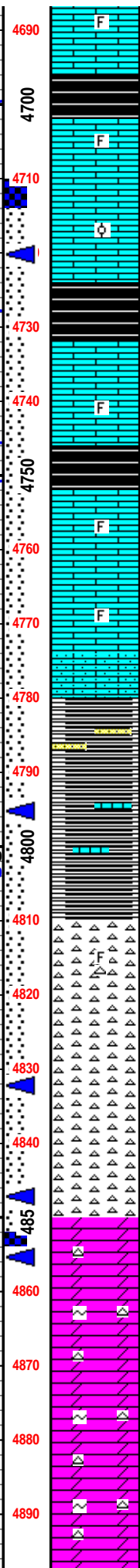
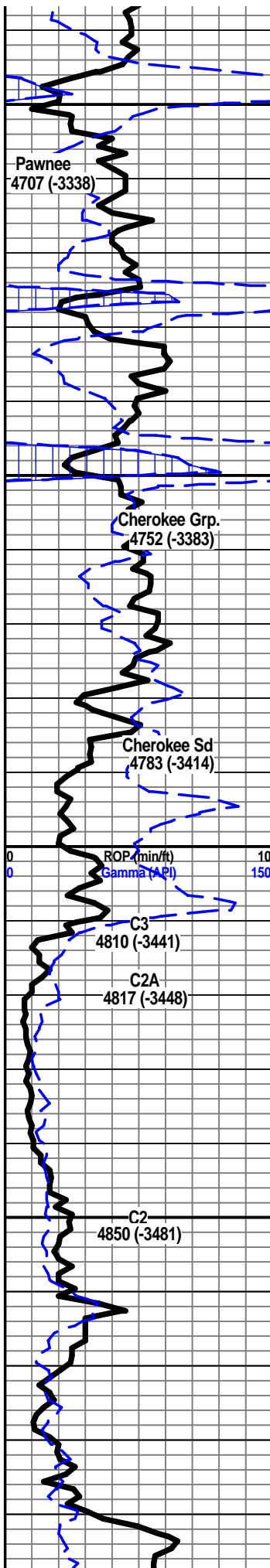
brn-gry brn lst, xin, sub ang, hrd, foss frags, drk gry shl, tabular

tan-gry tan lst, fxln, lttl chrty, off wt, trace foss, sub ang, hrd

tan-gry tan lst, fxln, lttl chrty, off wt, trace foss, sub ang, hrd

tan-gry tan lst, fxln, lttl chrty, off wt, trace foss, sub ang, hrd





tan-gry tan lst, fxln, lltl chrt, off wt, trace foss, sub ang, hrd

blk shl, carb, sub ang, hrd, pyritic, occasional gas bubs on brk

tan lst, dirty look, xln, trace off wt chrt, foss frags, sub ang, hrd, occasional gas bubs on brk, nso

tan lst, dirty look, xln, trace off wt chrt, foss frags, sub ang, hrd, micro oolites

blk shl, sub ang, hrd, gas bubs on brk

tan lst, chrt, xln, off wt chlky chrt, foss frags, ltl calc fill, sub ang, hrd

blk shl, sub ang, hrd, gas bubs on brk

tan lst, xln, trace foss, ltl off wt chrt clky, sub ang, hrd, chunks of lt brn chrt, brks to brt wt

tan lst, xln, trace foss, ltl off wt chrt clky, sub ang, hrd, chunks of lt brn chrt, brks to brt wt

drk brn sndy lst, fxln, sub ang, hrd, poor srted sub ang grns, nsg, nso, teal-blu sndy shl w/ lst inclusions, fn grns, drk gry clay clasts, brt wt edges, sub ang, hrd, small clusters of sstn, lt gry, transparent, clay clasts, well cmntd, poor srted, sub ang grns

lt blu shl, sft, waxy brk, w/ traces of fn snd inclusions, blu shl, hrd, lmy inclusions

yellow grn shl, sft, sub ang, lt blu shl, hrd, sub ang

brt wt chrt, xln, shrp edges, foss frags, ang, hrd, drk brn stain, dead looking stain

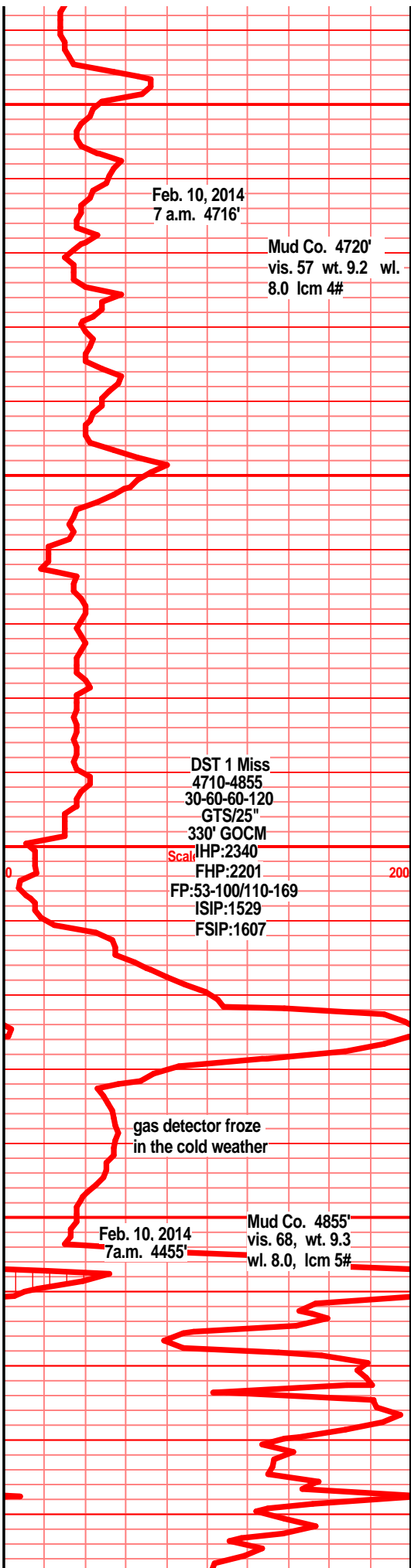
brt wt chrt, spongy/weathered text, pinpoint porosity, hrd, brittle, sub ang, good strong odor, spits oil w/ gas bubs, gsfo, gsg, brn stain

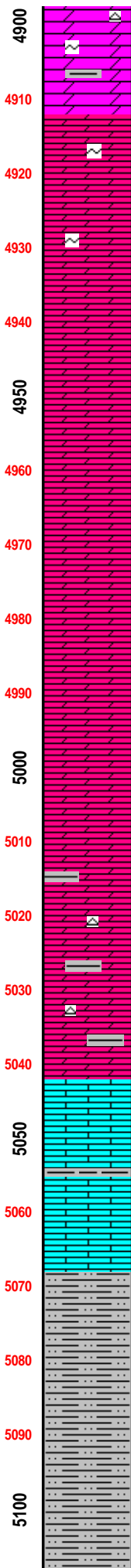
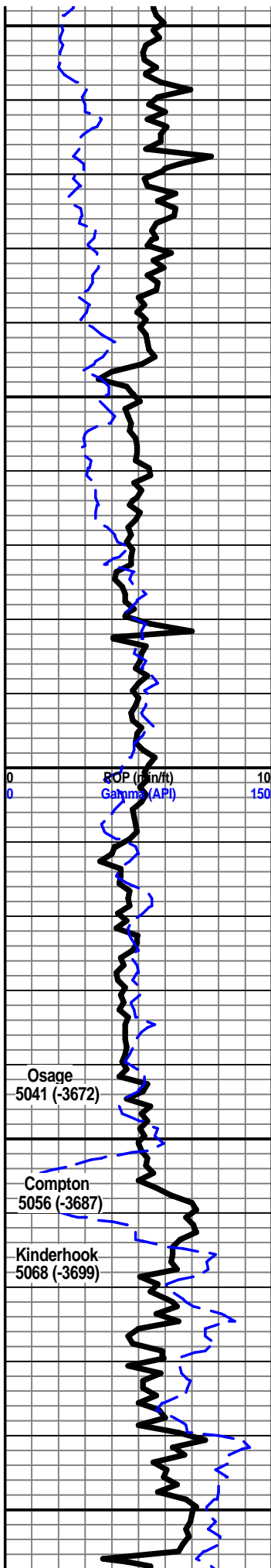
brt wt chrt, spongy/weathered text, pinpoint porosity, hrd, sub ang, good strong odor, spits oil w/ gas bubs, gsfo, gsg, drk brn-blk stain

off wt-lt tan chrt dolo, weathered, mottled txt, pinpoint por, lt br-drk br stn, occasional gas bub on brk, poor odor, nsfo, brt wt chrt, frsh, shrp, stain along dolo/chrt contact, sub ang clusters, hrd

off wt-tan chrt dolo, mottled txt, spongy look, ppt por, fxln, brn-lt brn stain, nsfo, chrt brt wt frsh, shrp, hrd, gd odor, ltl glauconite, off wt chrt, ltl mottled, lt brn stain, ppt por, nsfo, nsg, sub ang, hrd

wt wthrd chrt, mottled, ppt por, blk stn, tar like, good odor, nsfo, nsg, off wt-lt tan dolo, rough txt, drk brn stain, nsfo, nsg, good odor, sub





ang, hrd

tan-tan gry dolo, dirty look, lttl wthrd txt, lttl gritty look, sub ang, traces of wt chrt, traces of clay clasts, sub ang, hrd, brt wt frsh chrt, ang, shrp eds, hrd

lt gry-drk gry dolo, xln, silty, gritty, glauc, blk, sub ang, hrd

lt gry-drk gry silty dolo, trc vfn sand, gritty, glauc, dirty look, trc wt frsh chrt, blk, sub ang, hrd

lt gry-drk gry silty dolo, trc vfn sand, gritty, glauc, dirty look, trc wt frsh chrt, blk, sub ang, hrd

drk gry dolo, sandy, vfn grns, silty, gritty, blk, sub ang, hrd

drk gry dolo, silty, sndy, vfn snd grns, gritty, sub ang, blk, hrd

drk gry dolo, silty, sndy, vfn snd grns, gritty, sub ang, blk, hrd

drk gry dolo, silty, sndy, vfn snd grns, gritty, sub ang, blk, hrd

drk gry dolo, silty, sndy, vfn snd grns, gritty, sub ang, blk, hrd

drk gry dolo, silty, sndy, vfn snd grns, gritty, sub ang, blk, hrd

drk gry dolo, silty, sndy, vfn snd grns, gritty, sub ang, blk, hrd

drk gry dolo, silty, micro clay clasts, gritty, sub ang, hrd, trc drk gry dolo shl, tabular, hrd

drk gry dolo, shly, gritty, sub ang, hrd, drk gry dolo shls, trc frsh brt wt chrt, shrp ang, hrd

drk gry dolo, shly, gritty, sub ang, hrd, drk gry dolo shls, trc frsh brt wt chrt, shrp ang, hrd

drk gry dolo, shly, gritty, sub ang, hrd, drk gry dolo shls, trc frsh brt wt chrt, shrp ang, hrd

tan lst, trc chrt, wt chlky chrt, trc fossils, sub ang, hrd, silty in prt, vfn slit grns, vfn pyrite grns

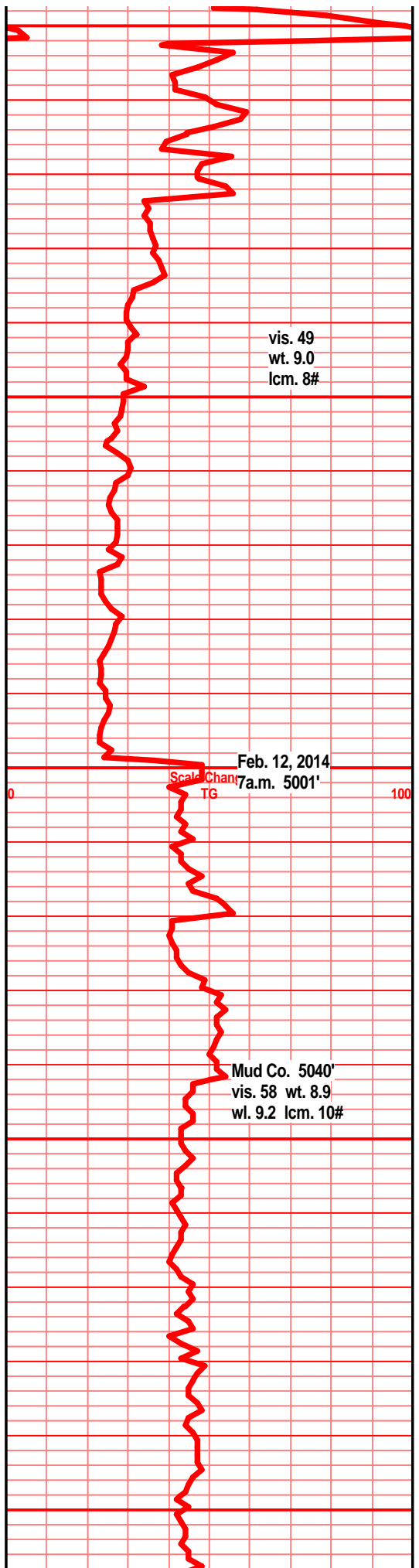
lt blu/grn shl, trc of silt, waxy look, tabular, trc foss, tan-tan brn lst, trc wt chrt, fn xln, foss frags, sub ang, hrd

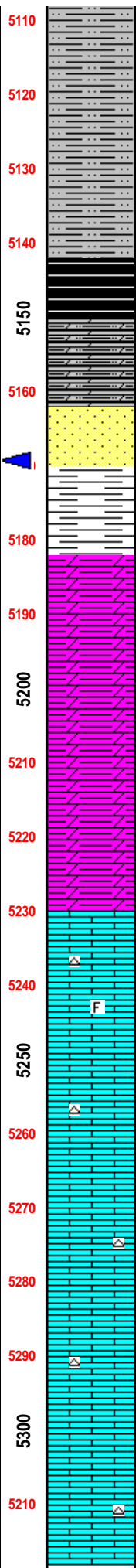
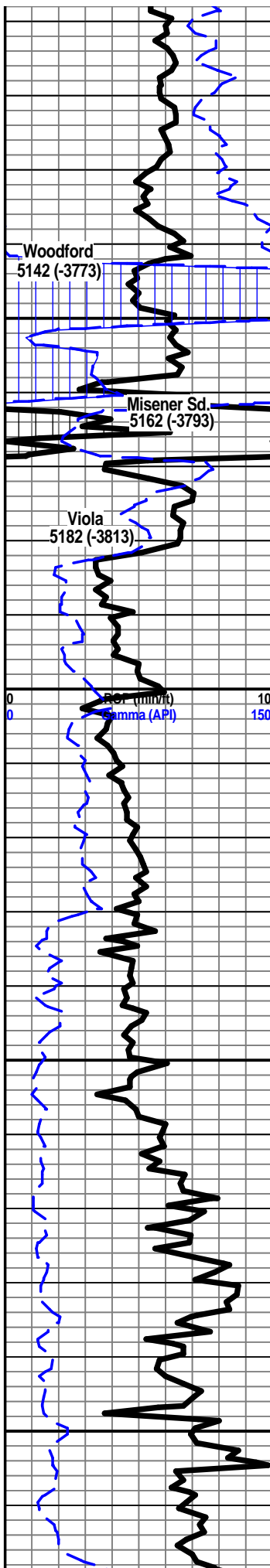
drk gry shl, silty, brwn hue, pyritic, blk, hrd

drk gry shl, silty, brwn hue, pyritic, blk, hrd

drk gry shl, silty, brwn hue, pyritic, blk

drk gry shl, silty, brwn hue, pyritic, blk





5110 gry-ark gry sni, silty, brwn hue, pyritic, blk, waxy brk

5120 gry-drk gry shl, silty, brwn hue, pyritic, blk, waxy brk

5130 gry-drk gry shl, silty, brwn hue, pyritic, blk, waxy brk

5140 drk gry silty, brn hue, pyritic, blk, ang, sub ang, waxy brk

5150 blk slty shl, carb, red hue, gas bubs on brk

5160 lt off wt-clear sst, clear grns, fn grnd, sub ang grns, fairly well cmntd, poor sortd, brn clay clasts, slight film of oil, no gas, hrd dnse sub ang clusters

5180 gry-lt grn shl, waxy look, pyritic, trcs of fn snd, rough gritty txt, blk, sub ang, soft

5190 red brn shly dolo, silty, gritty, slightly carb, sub ang, sft, gas bubs on brk

5200 red brn shly dolo, silty, gritty, slightly carb, sub ang, sft, gas bubs on brk

5210 red brn shly dolo, silty-fn snd inclus, gritty, sub ang, brks easy, sub ang

5220 red brn shly dolo, silty-fn snd inclus, gritty, sub ang, brks easy, sub ang

5230 drk red brn shly dolo, silty-fn snd inclus, gritty, sub ang, brks easy, sub ang, tan lst, xln, trc of wthrd chlky wt chrt, trcs of clay clasts, foss frags, sub ang, hrd

5240 tan lst, xln-coarse xln, big calc xls, clay clasts, wt wthrd chrt on eds, foss frags, sub ang, hrd, off wt-wt chrt, xln, ang, hrd, trcs of brn on eds

5250 tan-gry tan lst, xln, silty, clay clasts, pyritic, mottled, gritty, trc wt chrt, sub ang, hrd, chunks of frsh wt chrt, xln, shrp, brn edges, hrd

5260 tan-gry tan lst, xln, silty, clay clasts, pyritic, mottled, gritty, trc wt chrt, sub ang, hrd, chunks of frsh wt chrt, xln, shrp, brn edges, hrd

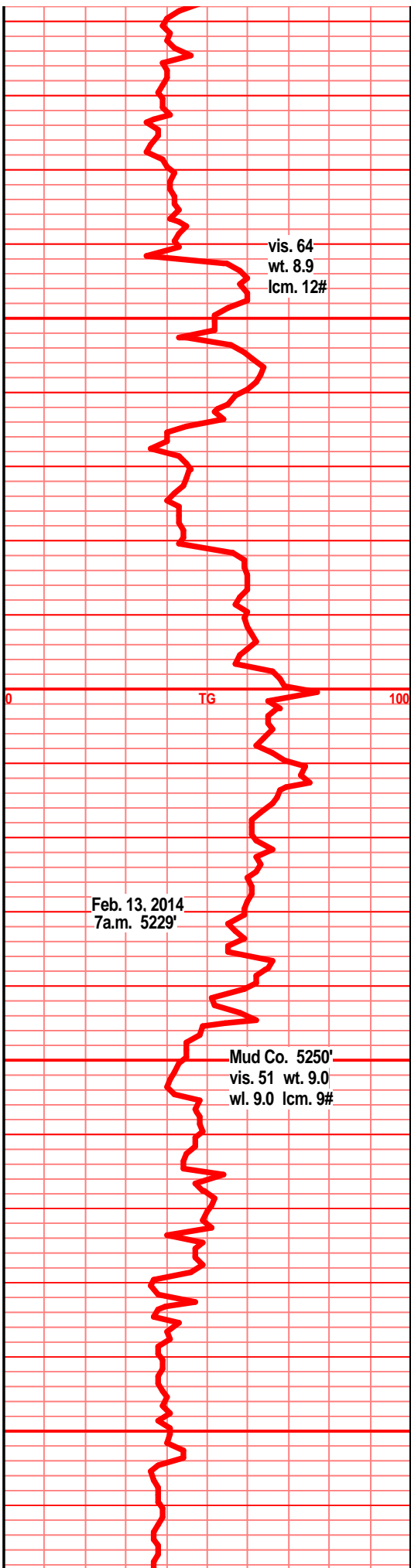
5270 tan-gry tan lst, xln, silty, clay clasts, pyritic, mottled, gritty, trc wt chrt, sub ang, hrd, chunks of frsh wt chrt, xln, shrp, brn edges, hrd

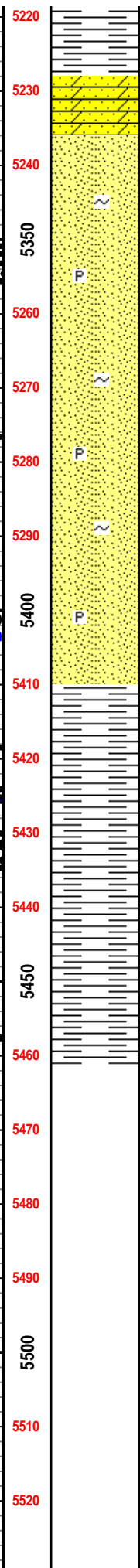
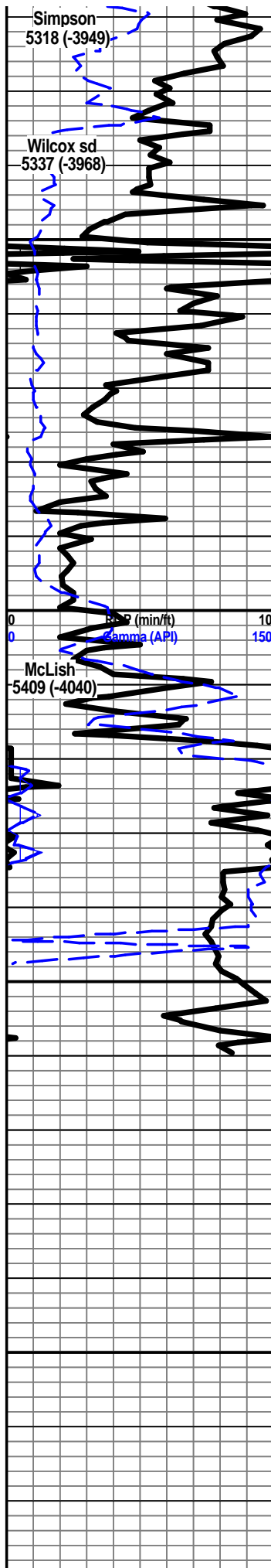
5280 gry-drk gry slty lst, gritty, trc fn snd inclus, xln, trc wt chlky chrt on eds, clay clasts, sub ang, hrd, dull brn xln chert, ang, shrp eds

5290 gry-drk gry slty lst, xln, gritty, trc fn snd inclus, trc wt chlky chrt on eds, clay clasts, sub ang, hrd, dull brn xln chert, ang, shrp eds

5300 gry-gry brn lst, xln, slightly dolo, silty, trc vfn snd inclus, trc chlky chrt on eds, clay clasts, sub ang, hrd, dull brn chrt, shrp, ang, hrd

5210 gry-gry brn lst, xln, slightly dolo, silty, trc vfn snd inclus, trc chlky chrt on eds, clay clasts, sub ang, hrd, dull brn chrt, shrp, ang, hrd





grn-teal grn shl, dolo look, fn snd grn inclus, pyritic, blk, blu grn dolo sst, fn grn, poor srtd, friable, clay clasts, sub ang grns, dnse clusters, grn shl, waxy, blk, sft

lt gry-off wt sst, fn grnd, well sorted, sub friable, sub ang-sub round grns, blk oil stain, brn oil smears on brk, gilsimitc show, trc gas, no odor, filmy show free oil, no uv

gry-off wt sst, fn grnd, clear grns, well sorted, sub fiabile, sub rounded grns, clay clasts, blk tar-like oil stain, nsfo, no gas, no odor

frost wt-off wt sst, fn grnd, clear grns, well sorted, sub fiabile, sub rounded grns

frost wt-off wt sst, fn grnd, clear grns, well sorted, sub fiabile, sub rounded grns, glauc, pyrite

frost wt-off wt sst, fn grnd, clear grns, well sorted, sub fiabile, sub rounded grns, glauc, pyrite

frost wt-off wt sst, fn grnd, clear grns, well sorted, sub fiabile, sub rounded grns, glauc, pyrite

frost wt-off wt sst, fn grnd, clear grns, well sorted, sub fiabile, sub rounded grns, glauc, pyrite, grn shl, fn snd inclus, blk shl clasts, tabular, hrd

grn shl, fn snd inclus, blk shl clasts, pyritic, tabular, hrd

grn shl, fn snd inclus, glauc, blk shl clasts, tabular, hrd

grn shl, fn snd inclus, blk shl clasts, tabular, hrd, lt grn shl, glauc tabular, waxy

lt grn shl, glauc, tabular, waxy, sft

