Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1153389

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 # 33168
Name: Woolsey Operating Company, LLC
Address 1: 125 N MARKET STE 1000
Address 2:
City: WICHITA State: KS Zip: 67202 + 1729
Contact Person: DEAN PATTISSON
Phone: (316) 267-4379
CONTRACTOR: License # 34484
Name: Fossil Drilling, Inc.
Wellsite Geologist: SCOTT ALBERG
Purchaser: PLAINS MARKETING / ATLAS PIPELINE

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 #:

04/01/2013	04/10/2013	05/03/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-007-24004-00-00
Spot Description:
E2 - NW - SW - NE Sec. 33 Twp. 32 S. R. 12 ☐ East ☑ West
1650 Feet from ☑ North / ☐ South Line of Section
2210 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☑ NE ☐ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Barber
Lease Name: BARTHOLOW GU Well #: 2
Field Name: MEDICINE LODGE-BOGGS
Producing Formation: MISSISSIPPIAN
Elevation: Ground: 1607 Kelly Bushing: 1619
Total Vertical Depth: 4900 Plug Back Total Depth: 4756
Amount of Surface Pipe Set and Cemented at: 217 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: 33000 ppm Fluid volume: 1800 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: WOOLSEY OPERATING COMPANY LLC
Lease Name: WECKWORTH 6 SWD License #: 33168
Quarter SW Sec. 9 Twp. 35 S. R. 12 ☐ East ☑ West
County: BARBER Permit #: D-31019

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: 07/30/2013
☑ **Confidential Release Date:** 07/30/2015
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 07/31/2013

1153389

Operator Name: Woolsey Operating Company, LLC Lease Name: BARTHOLOW GU Well #: 2

Sec. 33 Twp. 32 S. R. 12 ☐ East ☑ West County: Barber

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Compensated Density/Comp Neutron PE
Dual Induction

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ 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
SURFACE	14.75	10.75	32.75	217	CLASS A	240	2% GEL, 3% CC
PRODUCTION	7.875	5.5	15.5	4802	60/40 POZMIX	50	4% GEL, 1/4# CELOFLAKE
PRODUCTION	7.875	5.5	15.5	4802	CLASS H	175	SEE ATTACHED

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	-			
	-			

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 *(Amount and Kind of Material Used)*	Depth
4	4452-4480 MISSISSIPPIAN	3400 GAL 10% MIRA ACID	4452-4520 OA
2	4484-4520 MISSISSIPPIAN	369,100 gal 2% KCl slick water &	
		110,100# 30/50 sd, 48,400# 16/30 sd &	
		12,000# 16/30 resin coated sd	4452-4520 OA

TUBING RECORD: Size: 2.375 X 4.7 Set At: 4584 Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. 07/09/2013

Producing Method: ☐ Flowing ☑ Pumping ☑ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	20	55	80	2750	

DISPOSITION OF GAS: ☐ Vented ☑ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)*

PRODUCTION INTERVAL: 4452-4520 OA

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	BARTHOLOW GU 2
Doc ID	1153389

Tops

Name	Top	Datum
CHASE	1928	-309
ONAGA	2736	-1117
HEEBNER	3698	-2079
HASKELL BROWN LIME	3892	-2273
SWOPE LS	4285	-2666
MISSISSIPPIAN	4450	-2831
VIOLA	4716	-3097
SIMPSON	4822	-3203

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

Kansas
Corporation Commission

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

July 29, 2013

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

Re: ACO1
API 15-007-24004-00-00
BARTHOLOW GU 2
NE/4 Sec.33-32S-12W
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 OIL & GAS SERVICES, LLC 059760

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Medicine Lodge, KS

DATE 4-1-2013	SEC. 33	TWP. 32S	RANGE 12W	CALLED OUT	ON LOCATION	JOB START 8:30 pm	JOB FINISH 9:00 pm
LEASE Bargholow GU	WELL # 2		LOCATION 160s & Gypsum Rd, S to Rea Rd E			COUNTY Barber	STATE KS
OLD OR (NEW) (Circle one)			east to Pisgs, S/into				

CONTRACTOR Fossil #3
TYPE OF JOB Surface
HOLE SIZE 14 3/4 T.D. 218
CASING SIZE 10 3/4 DEPTH 202'
TUBING SIZE 8 5/8 LJ DEPTH 15'
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 20'
PERFS.
DISPLACEMENT 19 bbls of Fresh water

OWNER Woolsey Operating

CEMENT

AMOUNT ORDERED 240sx Class A + 3%cc 2%Gel

EQUIPMENT

PUMP TRUCK CEMENTER Darin F
#558-535 HELPER Scott P.
BULK TRUCK
#364 DRIVER Justin B.
BULK TRUCK
DRIVER

COMMON	A 240 sx	@ 17.90	4296.00
POZMIX		@	
GEL	4.5	@ 23.40	105.30
CHLORIDE	8.5	@ 64.00	544.00
ASC		@	
HANDLING	259.52	@ 2.40	622.84
MILEAGE	11.84/10/260		307.84
		TOTAL	5875.98

REMARKS:

Cement did Circulate

SERVICE

DEPTH OF JOB 217'
PUMP TRUCK CHARGE 1512-25
EXTRA FOOTAGE @
MILEAGE 10 @ 7.70 77.00
MANIFOLD @
LV 10 @ 4.40 44.00
@
TOTAL 1633.25

CHARGE TO: Woolsey Operating
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

none

TOTAL

SALES TAX (If Any)
TOTAL CHARGES 7509.23
DISCOUNT IF PAID IN 30 DAYS
(N2+) 6007.38

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 Donald Boyd
SIGNATURE x Donald Boyd

Thank You!!!

ALLIED OIL & GAS SERVICES, LLC 059811

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Medicine Lodge, KS

DATE 04-11-13	SEC. 33	TWP. 32S	RANGE 12W	CALLED OUT	ON LOCATION	JOB START	JOB FINISH 9:30 AM
LEASE Barthelow	WELL # GV #2		LOCATION 160 & Gyp Hill Rd, South to Red Rock Rd, E & South into			COUNTY Barber	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR Fossil #3
TYPE OF JOB Production Casing
HOLE SIZE 7⅞ T.D.
CASING SIZE 5½ 15.5# DEPTH 4802
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX 1700# MINIMUM —
MEAS. LINE SHOE JOINT 43.73
CEMENT LEFT IN CSG. 44'
PERFS.
DISPLACEMENT 114 Bbls 2% KCL water

OWNER Woolsey

EQUIPMENT

PUMP TRUCK # 360-265 CEMENTER D. Felio
HELPER J. Heard / J. Bowser
BULK TRUCK # 421-250 DRIVER J. Bowen
BULK TRUCK # DRIVER

CEMENT

AMOUNT ORDERED 90sx 60:40:4% gel & 175sx Class H + 10% salt + 10% gyp + 6# Kolseal + .8% FL-160 + ¼# Flosea

COMMON	54 sx	@ 17.90	966.60
POZMIX	36 sx	@ 9.35	336.60
GEL	6 sx	@ 23.40	140.40
CHLORIDE		@	
ASC		@	
H	175 sx	@ 21.20	3710.00
Gypseal	33 sx	@ 18.80	620.40
Salt	19 sx	@ 26.25	498.01
Kolseal	1050#	@ .98	1029.00
FL-160	131.6	@ 18.90	2487.24
Flosea	44	@ 2.97	179.93
Clapro	12 Gal	@ 34.40	412.80
		@	
HANDLING	333.35	@ 2.48	827.20
MILEAGE	14,152 / 10 /	2.60	368.08
		TOTAL	11,526.26

REMARKS:

See Job Log.

Bumped Plug - Floats held

THX :)

SERVICE

DEPTH OF JOB	4802		
PUMP TRUCK CHARGE			2265.75
EXTRA FOOTAGE		@	
MILEAGE	10	@ 7.00	72.00
MANIFOLD	Head Rental	@	275.00
Light Vehicle	10	@ 4.40	44.00
		@	
		TOTAL	3161.75

CHARGE TO: Woolsey Oper.
STREET
CITY STATE ZIP

WELL FILE
Regulatory, Correspondence
Drlg / Comp Workovers
Tests / Meters Operations

5½"

PLUG & FLOAT EQUIPMENT

1-AFU Float Shoe	@		408.35
1-Latchdown Plug Assy.	@		324.09
10-Turbolizers	@	93.60	936.00
40-Reciprocating Scratchers	@	88.92	3556.80
	@		
		TOTAL	5225.22

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 19,913.23
DISCOUNT $3982.65 IF PAID IN 30 DAYS
(Net) 15,930.58

PRINTED NAME Donald Boyd

SIGNATURE Donald Boyd

DRILL STEM TEST REPORT

Woolsey Operating Co.

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

ATTN: Scott Alberg

33-32s-12w Barber Ks

Bartholow GU#2

Job Ticket: 50959 **DST#: 1**

Test Start: 2013.04.05 @ 15:19:10

GENERAL INFORMATION:

Formation: **Snyderville**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:49:25
Time Test Ended: 00:21:10

Test Type: Conventional Bottom Hole (Initial)
Tester: Gary Pevoteaux
Unit No: 56

Interval: 3818.00 ft (KB) To 3736.00 ft (KB) (TVD)
Total Depth: 3746.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

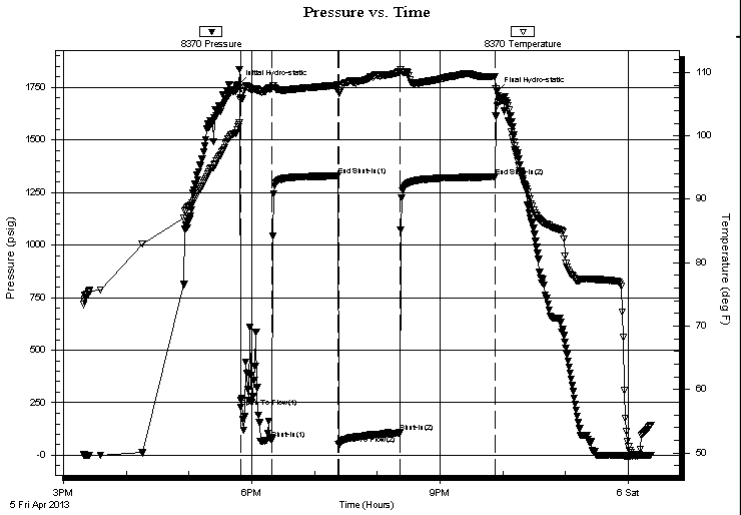
Reference Elevations: 1619.00 ft (KB)
1607.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8370 **Inside**

Press@RunDepth: 109.93 psig @ 3719.00 ft (KB)
Start Date: 2013.04.05 End Date: 2013.04.06
Start Time: 15:19:15 End Time: 00:21:10

Capacity: 8000.00 psig
Last Calib.: 2013.04.06
Time On Btm: 2013.04.05 @ 17:47:40
Time Off Btm: 2013.04.05 @ 21:54:10

TEST COMMENT: IF:Strong blow . B.O.B. in 30 secs.GTS in 14 mins.(see gas flow report)
Comment:16+ ft. of hard fill on btm. Slid tool 12 - 13 ft.
ISI:No blow .
FF:Strong blow . (see gas flow report)



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1764.55	101.81	Initial Hydro-static
2	229.70	106.00	Open To Flow (1)
32	78.47	107.43	Shut-In(1)
95	1328.65	108.01	End Shut-In(1)
96	53.50	106.78	Open To Flow (2)
154	109.93	110.07	Shut-In(2)
245	1323.93	109.32	End Shut-In(2)
247	1730.82	104.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
122.00	GOCMW 22%g 13%o 29%m 36%w	0.60
0.00	Rw .13 ohms@52 deg	0.00
61.00	GOCWM 22%g 6%o 14%w 58%m	0.30
50.00	GCM 4%g 96%m	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	5.00	71.07
Last Gas Rate	0.38	32.00	169.97
Max. Gas Rate	0.38	32.00	169.97

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co.

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

ATTN: Scott Alberg

33-32s-12w Barber Ks

Bartholow GU#2

Job Ticket: 50959 **DST#: 1**

Test Start: 2013.04.05 @ 15:19:10

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:	87000 ppm
Viscosity:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.59 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
122.00	GOCMW 22%g 13%o 29%m 36%w	0.600
0.00	Rw .13 ohms@52 deg	0.000
61.00	GOCWM 22%g 6%o 14%w 58%m	0.300
50.00	GCM 4%g 96%m	0.701

Total Length: 233.00 ft Total Volume: 1.601 bbl

Num Fluid Samples: 0 Num Gas Bombs: 1 Serial #: gp-1

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments:

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co.

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

ATTN: Scott Alberg

33-32s-12w Barber Ks

Bartholow GU#2

Job Ticket: 50959 **DST#: 1**

Test Start: 2013.04.05 @ 15:19:10

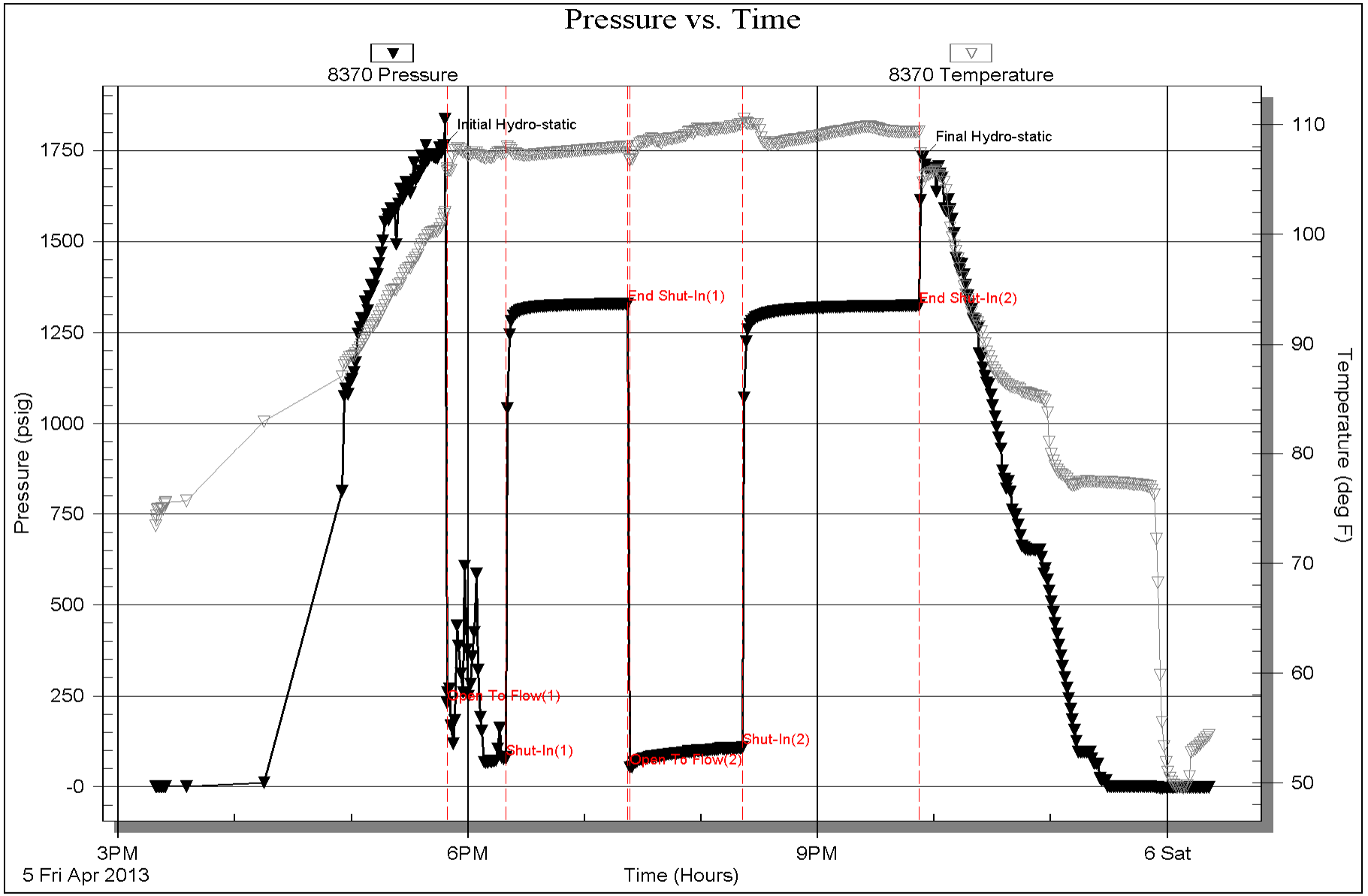
Gas Rates Information

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)
1	20	0.38	5.00	71.07
1	30	0.38	10.00	89.38
2	10	0.38	17.00	115.03
2	20	0.38	23.00	137.00
2	30	0.38	27.00	151.66
2	40	0.38	30.00	162.65
2	50	0.38	31.00	166.31
2	60	0.38	32.00	169.97

Serial #: 8370 **Inside** Woolsey Operating Co. Bartholow GU#2 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 50959 Printed: 2013.04.08 @ 06:21:44

DRILL STEM TEST REPORT

Woolsey Operating Co.

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

ATTN: Scott Alberg

33-32s-12w Barber Ks

Bartholow GU#2

Job Ticket: 50960 **DST#: 2**

Test Start: 2013.04.08 @ 01:21:34

GENERAL INFORMATION:

Formation: **Miss.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:40:34
Time Test Ended: 10:56:34

Test Type: Conventional Bottom Hole (Reset)
Tester: Gary Pevoteaux
Unit No: 56

Interval: 4442.00 ft (KB) To 4500.00 ft (KB) (TVD)
Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

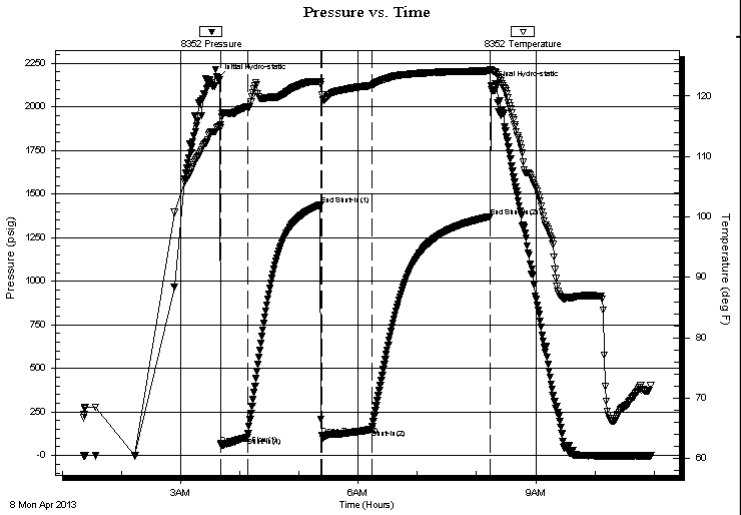
Reference Elevations: 1619.00 ft (KB)
1607.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8352 **Outside**

Press@RunDepth: 149.10 psig @ 4443.00 ft (KB)
Start Date: 2013.04.08 End Date: 2013.04.08
Start Time: 01:21:39 End Time: 10:56:34

Capacity: 8000.00 psig
Last Calib.: 2013.04.08
Time On Btm: 2013.04.08 @ 03:37:34
Time Off Btm: 2013.04.08 @ 08:14:34

TEST COMMENT: IF:Strong blow . B.O.B. in 1 min. GTS in 30 mins.
ISI:No blow .
FF:Strong blow . (see gas flow report)
FSI:Weak blow . 1/2 - 2".



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2160.52	114.90	Initial Hydro-static
3	64.93	115.30	Open To Flow (1)
30	105.43	118.26	Shut-In(1)
105	1439.02	122.45	End Shut-In(1)
106	113.34	120.18	Open To Flow (2)
156	149.10	121.72	Shut-In(2)
276	1371.04	124.17	End Shut-In(2)
277	2123.67	124.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
122.00	GM&WCO 24%g 6%m 22%w 48%o	0.60
188.00	GM&WCO 56%g 6%m 14%w 24%o	2.08
105.00	GOCM 18%g 17%o 65%m	1.47

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	2.00	26.02
Last Gas Rate	0.25	1.00	24.43
Max. Gas Rate	0.25	2.00	26.02

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co.

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

ATTN: Scott Alberg

33-32s-12w Barber Ks

Bartholow GU#2

Job Ticket: 50960 **DST#: 2**

Test Start: 2013.04.08 @ 01:21:34

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:	60000 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.19 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6700.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
122.00	GM&WCO 24%g 6%m 22%w 48%o	0.600
188.00	GM&WCO 56%g 6%m 14%w 24%o	2.081
105.00	GOCM 18%g 17%o 65%m	1.473

Total Length: 415.00 ft Total Volume: 4.154 bbl

Num Fluid Samples: 0 Num Gas Bombs: 1 Serial #: gp-2

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments: Rw .14 ohms@63deg

DRILL STEM TEST REPORT

GAS RATES

Woolsey Operating Co.

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

ATTN: Scott Alberg

33-32s-12w Barber Ks

Bartholow GU#2

Job Ticket: 50960 **DST#: 2**

Test Start: 2013.04.08 @ 01:21:34

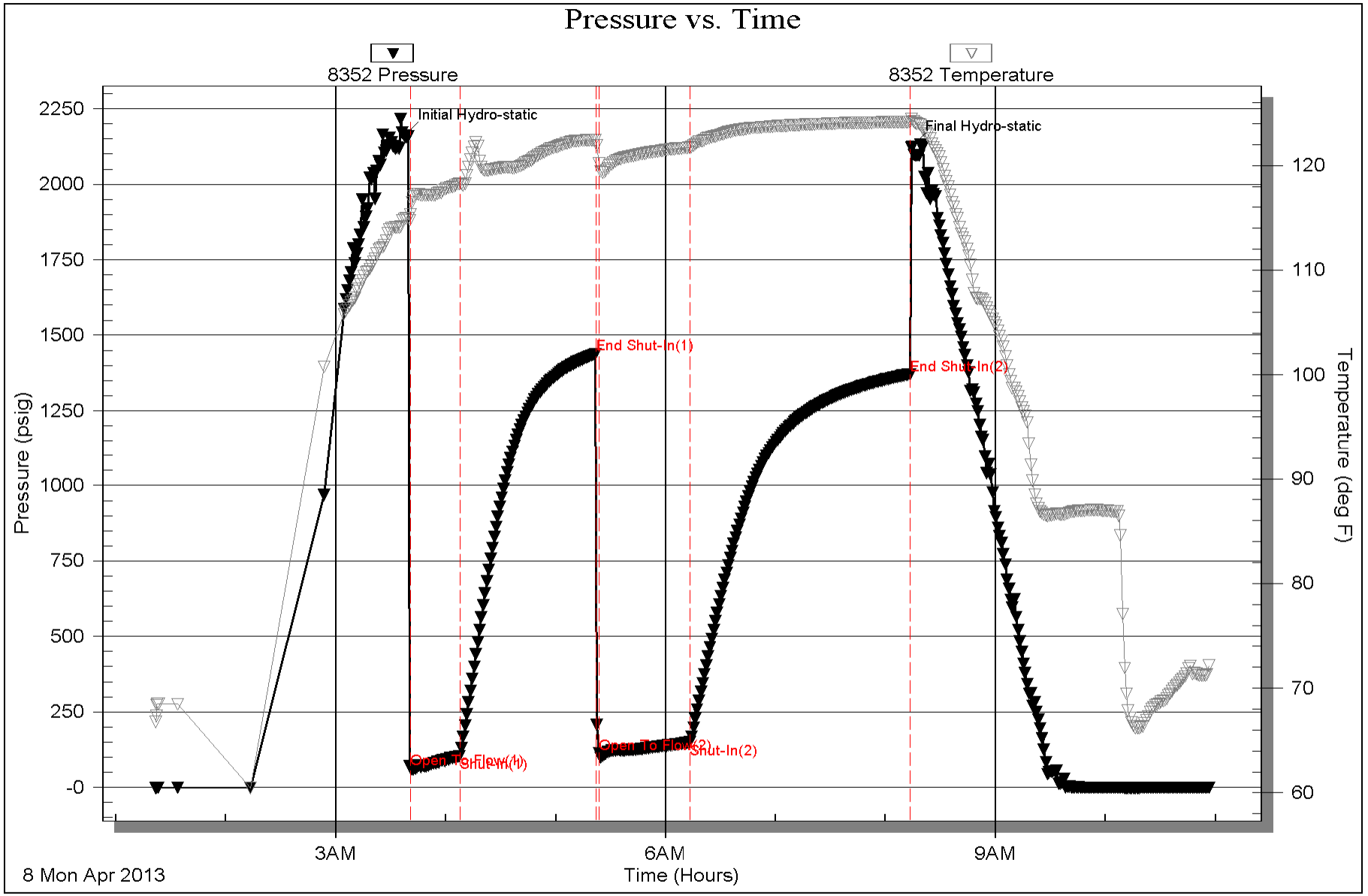
Gas Rates Information

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	10	0.25	2.00	26.02
2	10	0.25	2.00	26.02
2	10	0.25	2.00	26.02
2	20	0.25	1.00	24.43
2	30	0.25	1.00	24.43
2	40	0.25	1.00	24.43

Serial #: 8352 **Outside** Woolsey Operating Co. Bartholow GU#2 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 50960 Printed: 2013.04.08 @ 12:00:15

DRILL STEM TEST REPORT

Woolsey Operating Co.

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

ATTN: Scott Alberg

33-32s-12w Barber Ks

Bartholow GU#2

Job Ticket: 50961 **DST#: 3**

Test Start: 2013.04.09 @ 07:41:30

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:30:00
Time Test Ended: 16:25:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Gary Pevoteaux
Unit No: 56

Interval: 4715.00 ft (KB) To 4742.00 ft (KB) (TVD)
Total Depth: 4742.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

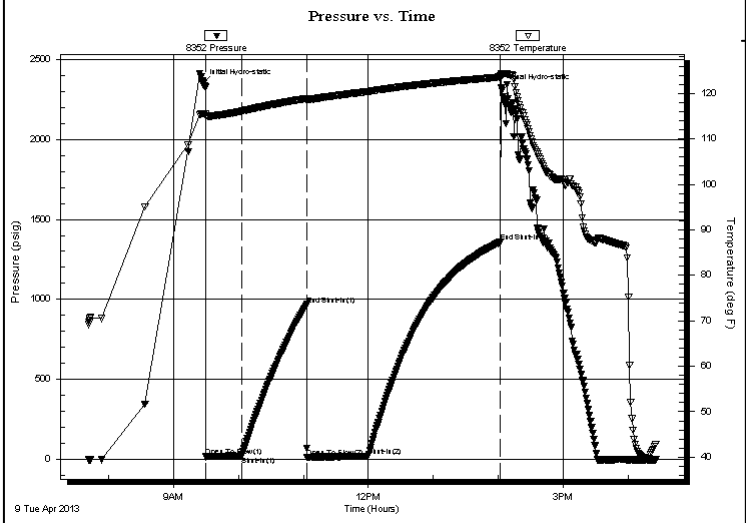
Reference Elevations: 1619.00 ft (KB)
1607.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8352 **Outside**

Press@RunDepth: 19.97 psig @ 4716.00 ft (KB)
Start Date: 2013.04.09 End Date: 2013.04.09
Start Time: 07:41:35 End Time: 16:25:30

Capacity: 8000.00 psig
Last Calib.: 2013.04.09
Time On Btm: 2013.04.09 @ 09:27:15
Time Off Btm: 2013.04.09 @ 14:03:00

TEST COMMENT: IF:Strong blow . B.O.B. in 2 1/2 mins.
ISI:No blow .
FF:Strong blow . B.O.B. in 2 - 3 secs.
FSI:No blow .



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2345.38	115.50	Initial Hydro-static
3	17.31	115.02	Open To Flow (1)
36	20.60	116.06	Shut-In(1)
96	967.57	118.89	End Shut-In(1)
97	12.92	118.59	Open To Flow (2)
153	19.97	120.39	Shut-In(2)
275	1358.23	123.58	End Shut-In(2)
276	2320.15	123.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	GCM (trace of oil) 12%g 88%m	0.20
0.00	1700'GIP	0.00

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co.

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

ATTN: Scott Alberg

33-32s-12w Barber Ks

Bartholow GU#2

Job Ticket: 50961 **DST#: 3**

Test Start: 2013.04.09 @ 07:41:30

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:	4500 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.79 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4500.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	GCM (trace of oil) 12%g 88%m	0.197
0.00	1700'GIP	0.000

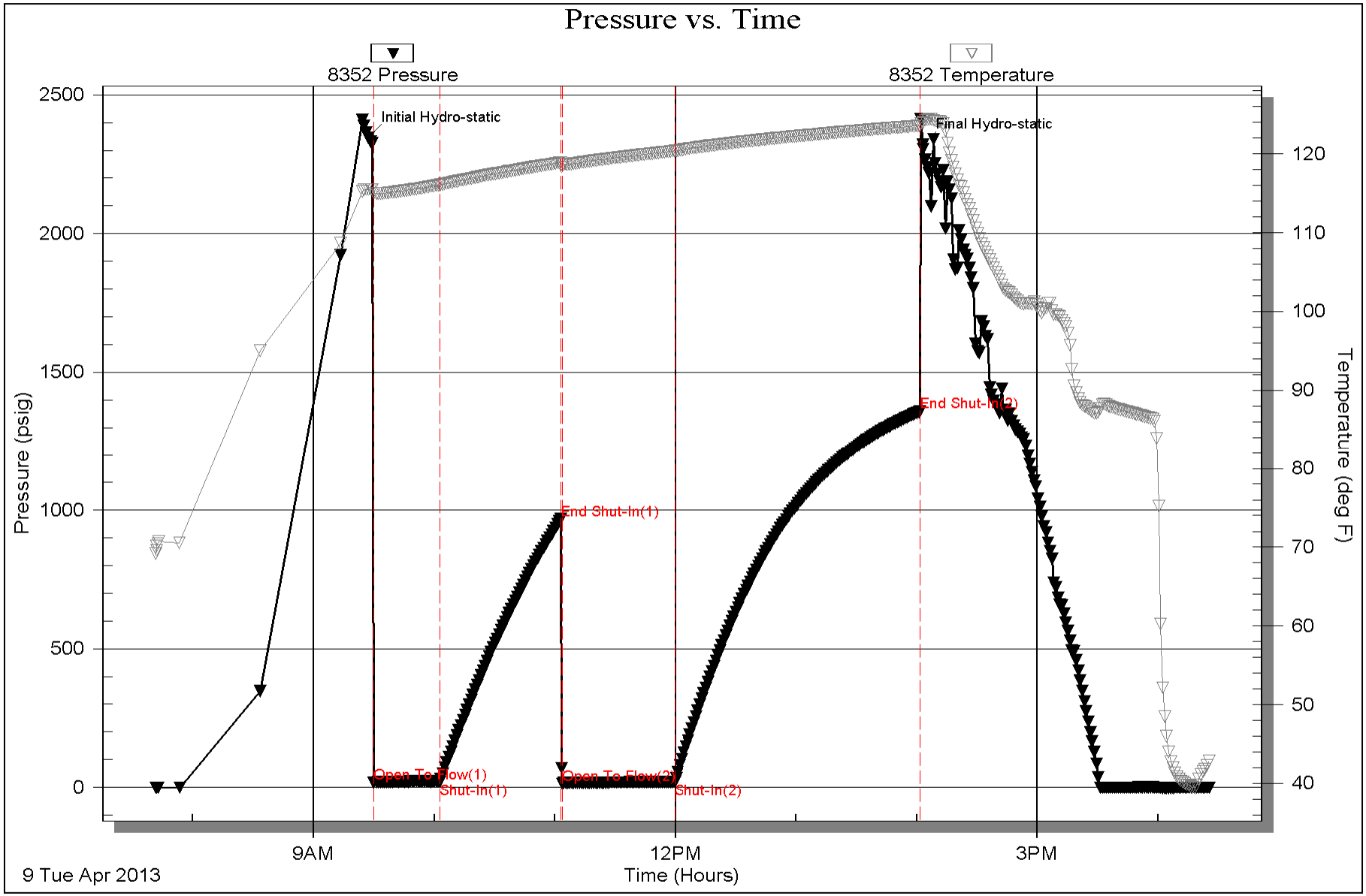
Total Length: 40.00 ft Total Volume: 0.197 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 8352 **Outside** Woolsey Operating Co. Bartholow GU#2 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 50961 Printed: 2013.04.11 @ 13:08:45

Woolsey Operating Company, LLC

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

Well Name:	**BARTHOLOW GU #2**		
Location:	**APPROX NW SW NE**		
License Number:	**API: 15-007-24004-00-00**	**Region:**	**Barber County, Kansas**
Spud Date:	**April 1, 2013**	**Drilling Completed:**	**April 10, 2013**
Surface Coordinates:	**Section 33-T32S-R12W, 1650' FNL, 2210' FEL** **Medicine Lodge-Boggs**		
Bottom Hole Coordinates:	**Vertical Hole**		
Ground Elevation (ft):	**1607**	**K.B. Elevation (ft):**	**1619**
Logged Interval (ft):	**3000 To: RTD**	**Total Depth (ft):**	**4900**
Formation:	**Simpson**		
Type of Drilling Fluid:	**Chemical Mud, Displace at 3410'.**		

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
KANWAKA	3519(-1900)	3519(-1900)
HEEBNER	3701(-2082)	3701(-2082)
SYNDERVILLE	3717(-2098)	3718(-2099)
BROWN LIME	3890(-2271)	3890(-2271)
LANSING	3896(-2277)	3896(-2277)
STARK SHALE	4277(-2658)	4277(-2658)
HUSHPUCKNEY SHALE	4310(-2691)	4310(-2691)
B/KC	4368(-2749)	4366(-2747)
MISSISSIPPIAN	4450(-2831)	4450(-2831)
KINDERHOOK SHALE	4614(-2995)	4614(-2995)
WOODFORD SHALE	4679(-3060)	4681(-3062)
VIOLA	4714(-3095)	4715(-3096)
SIMPSON SHALE	4819(-3200)	4821(-3202)
SIMPSON SAND	4834(-3215)	4834(-3215)
RTD	4900(-3281)	
LTD		4901(-3281)

COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 217' with 240 sxs Class A, 2% gel, 3% cc, plug down at 9:00 pm on April 1, 2013. Cement did Circulate.
Production Casing: Ran 4 1/2" Casing
Deviation Surveys:1 - 218', 3/4- 1127', 3/4 - 1634', 3/4 - 2140', Missrun at 2679', 3/4 - 2679', 1/4 - 3329', 3/4 - 3736', 1 3/4 - 4233', 1 1/4 - 4297', 1/4 - 4500', 1-4900'.
Contractor Bit Record:

1- 14 3/4" out at 218'.
2- 7 7/8" out at 4500'.
3- 7 7/8" out at 4742'.
4 -7 7/8" out at 4900'.

Pipe Strap at 3736'
Board 3759.65'
Strap 3760.23'
Strap Short .58'

Gas Detector: Woolsey Operating Company, Trailer #1
Mud System: Mud Co, Brad Bortz, Engineer
DSTs: Trilobite Testing, Gary Pevoteaux
Logged by Nabors Completion and Production Services
LTD - 4901'.

DSTs

DST #1 Synderville, Times 30-60-60-90
1st Opening - Tool Slid 13', Strong Blow, BOB 30 Seconds, GTS 14 Minutes, No Blow Back
2nd Opening - Strong Blow, BOB immediately, No Blow Back
Recovery: 50' GCM(4% G, 96%M), 61' GOCWM(22%G, 6% O, 14% W, 58% M), 122' GOCMW(22% G, 13% O, 36% W, 29% M)
GTS 14 Min 1st opening 20 min 71 MCFPD
30 min 89 MCFPD
2nd Opening 10 min 115 MCFPD
20 min 137 MCFPD
30 min 152 MCFPD
40 min 163 MCFPD
50 min 166 MCFPD
60 min 170 MCFPD
IFP 230-78# - Plugging FFP 54-110#
ISIP 1329# FSIP 1324#
IHP 1765# FHP 1731#
Temp 10, Chlorides 87,000 ppm

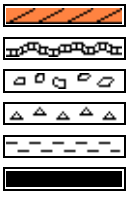
DST #2 4442 to 4500' Mississippi Times 30-60-60-120
1st Opening, Strong Blow BOB 1 Minute, GTS 30 Minutes, no blow back
2nd Opening, Strong Blow GTS, See Gauge, 1/2" - 2" blow back
Recovery: Gas Gauge - 2nd opening: 10 minutes 26 MCFPD
20 minutes 24.4 MCFPD
30 minutes 24.4 MCFPD
40 minutes 24.4 MCFPD
50 minutes 24.4 MCFPD
60 minutes 23.6 MCFPD
415' Total Fluid
105' GOCM (18% Gas, 17% Oil, 65%Mud)
188' GM&WCO (56% Gas, 24% Oil, 14% Water, 6% Mud)
122' GM&WCO (24% Gas, 48% Oil, 22% Water, 6% Mud)
IHP 2161# FHP 2124#
IFP 65-105# FFP 113-149#
ISIP 1439# FSIP 1371# (Both Still Building)
Chlorides 60,000 ppm, Temp 124 degrees

DST #3 4714 to 4742 Viola, Times 30-60-60-120
1st Opening, Strong Blow, BOB 2 1/2 min, no blow back
2nd Opening, Strong Blow, BOB 2-3 seconds, no blow back
Recovery: 1700' GIP, 40' GCM(12% G, 88% M) Trace Oil
IHP 2345# FHP 2320#
IFP 17-21# FFP 13-20#
ISIP 968# FSIP 1358# Both still building
Temp 124

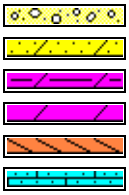
CREWS

Fossil Drilling, Inc Rig #3
Tool Pusher - Craig Eubank
Drillers - Days - Daniel Orranta
Evening - Kerry Clark - Jim Wenrich
Morning - Andres Maestas

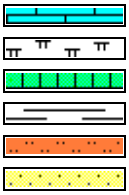
ROCK TYPES



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

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

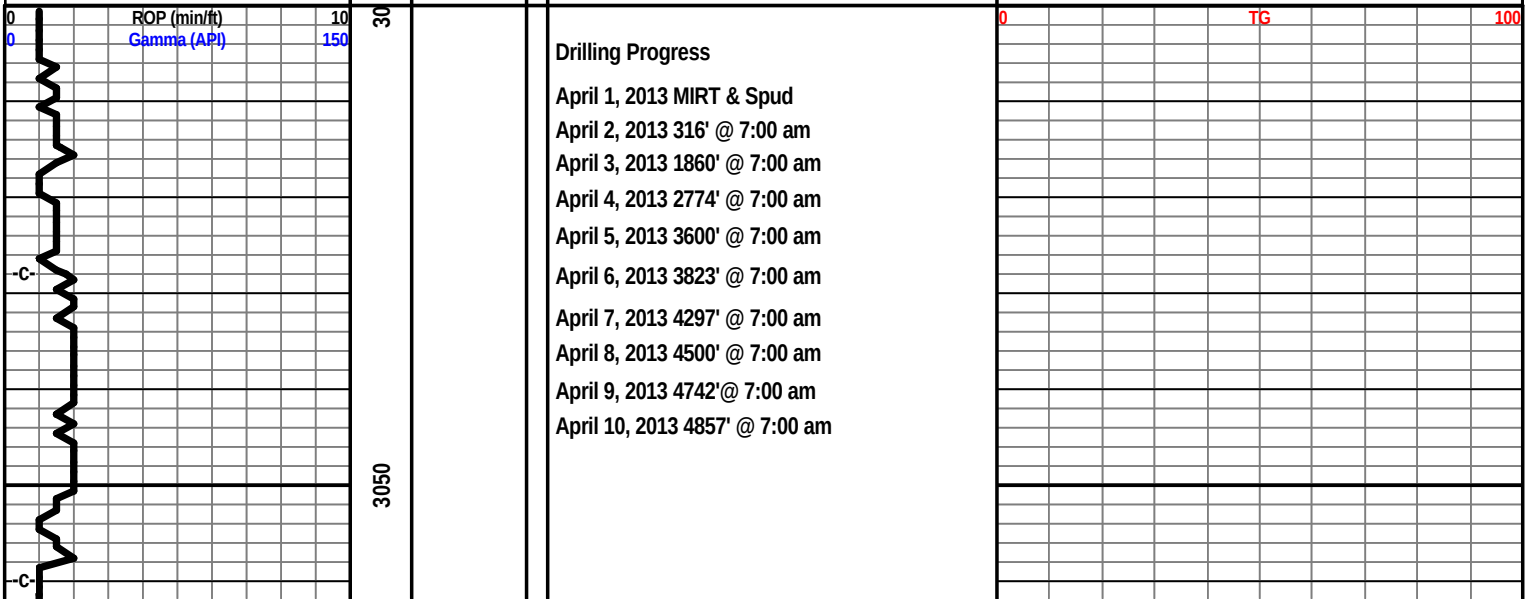
STRINGER

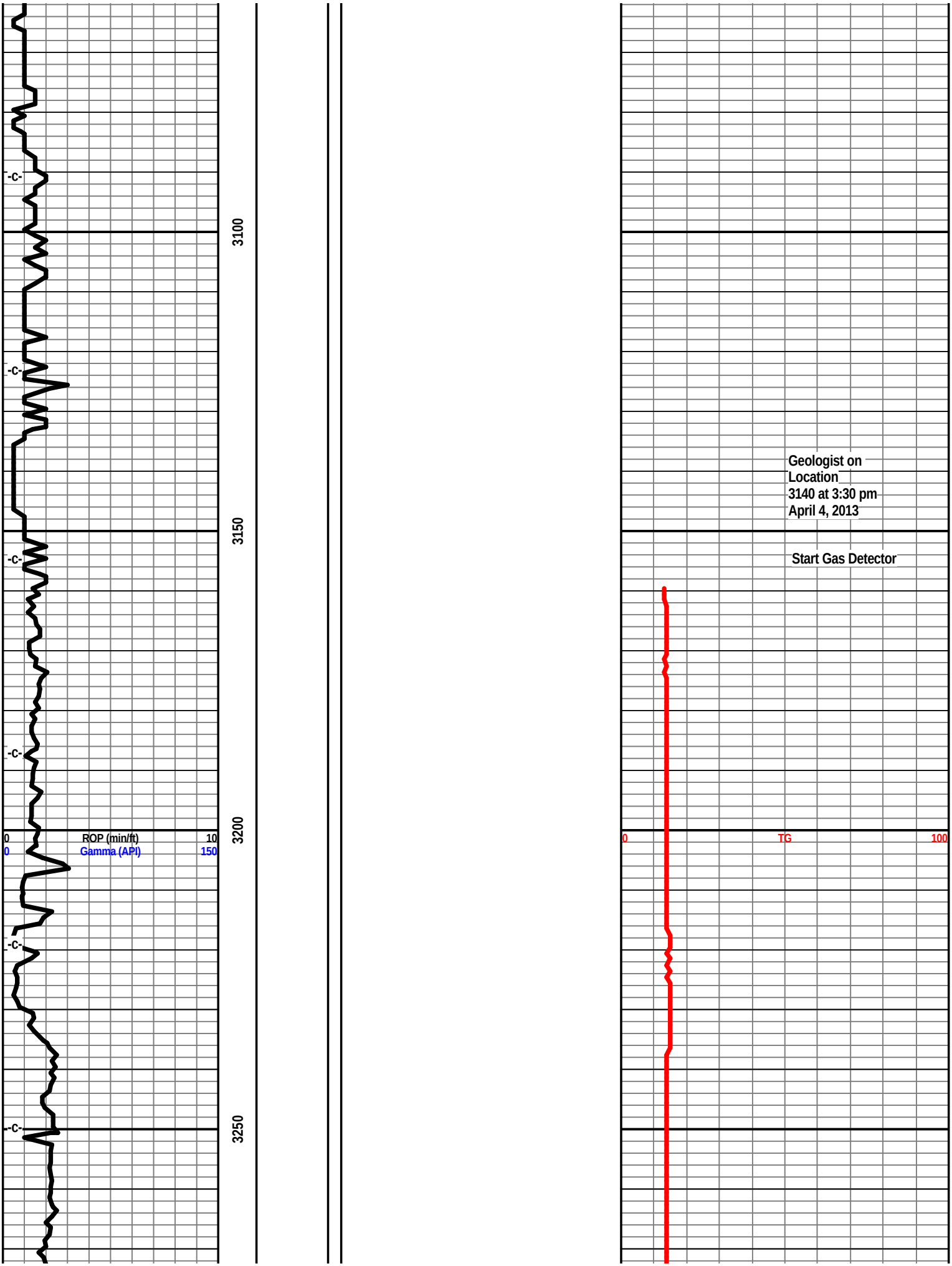
Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
Carbsh
Clystn
Dol

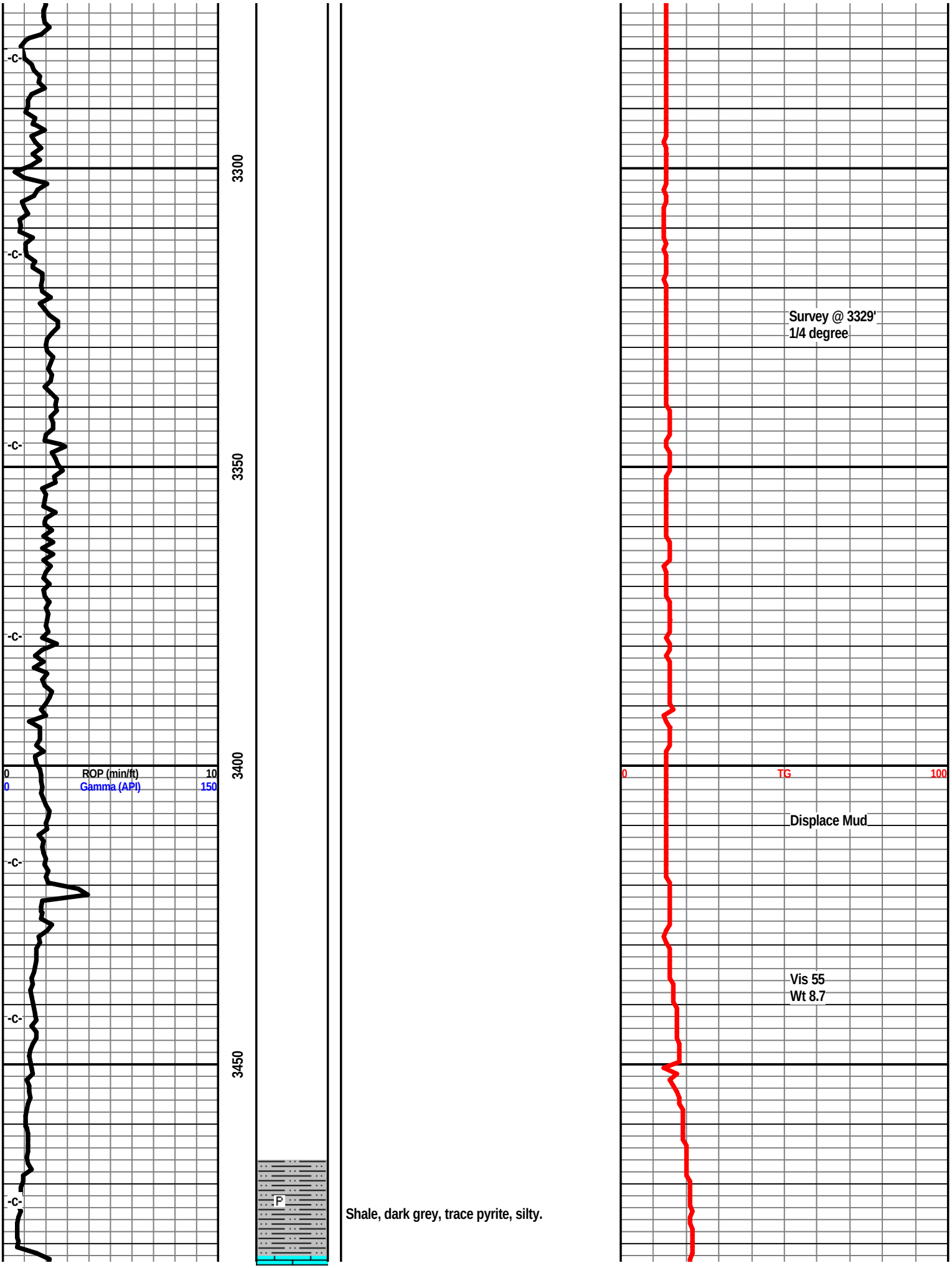
Grysh
Grysltt
Lms
Sandylms
Sh
Sltstn

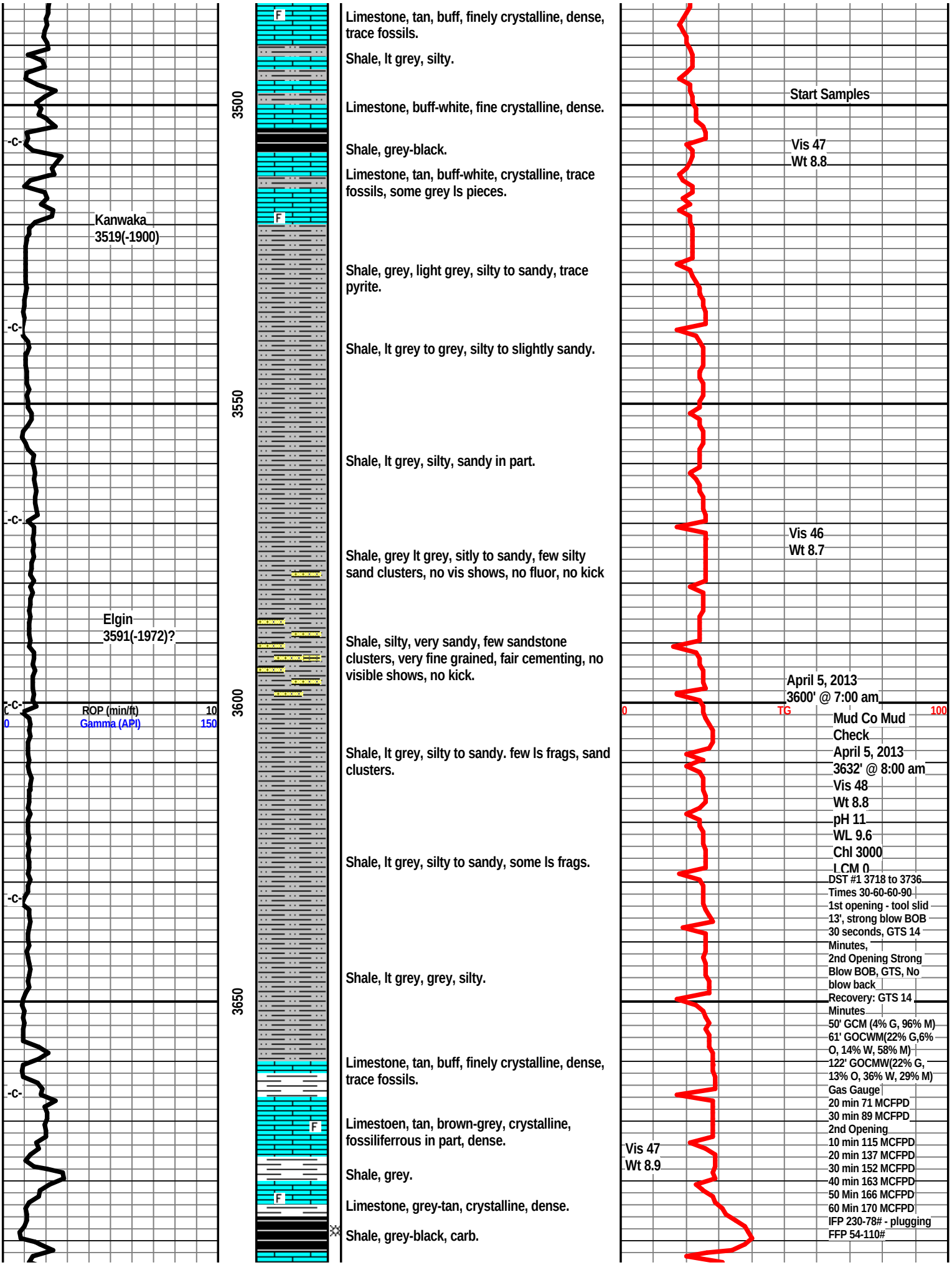
TEXTURE

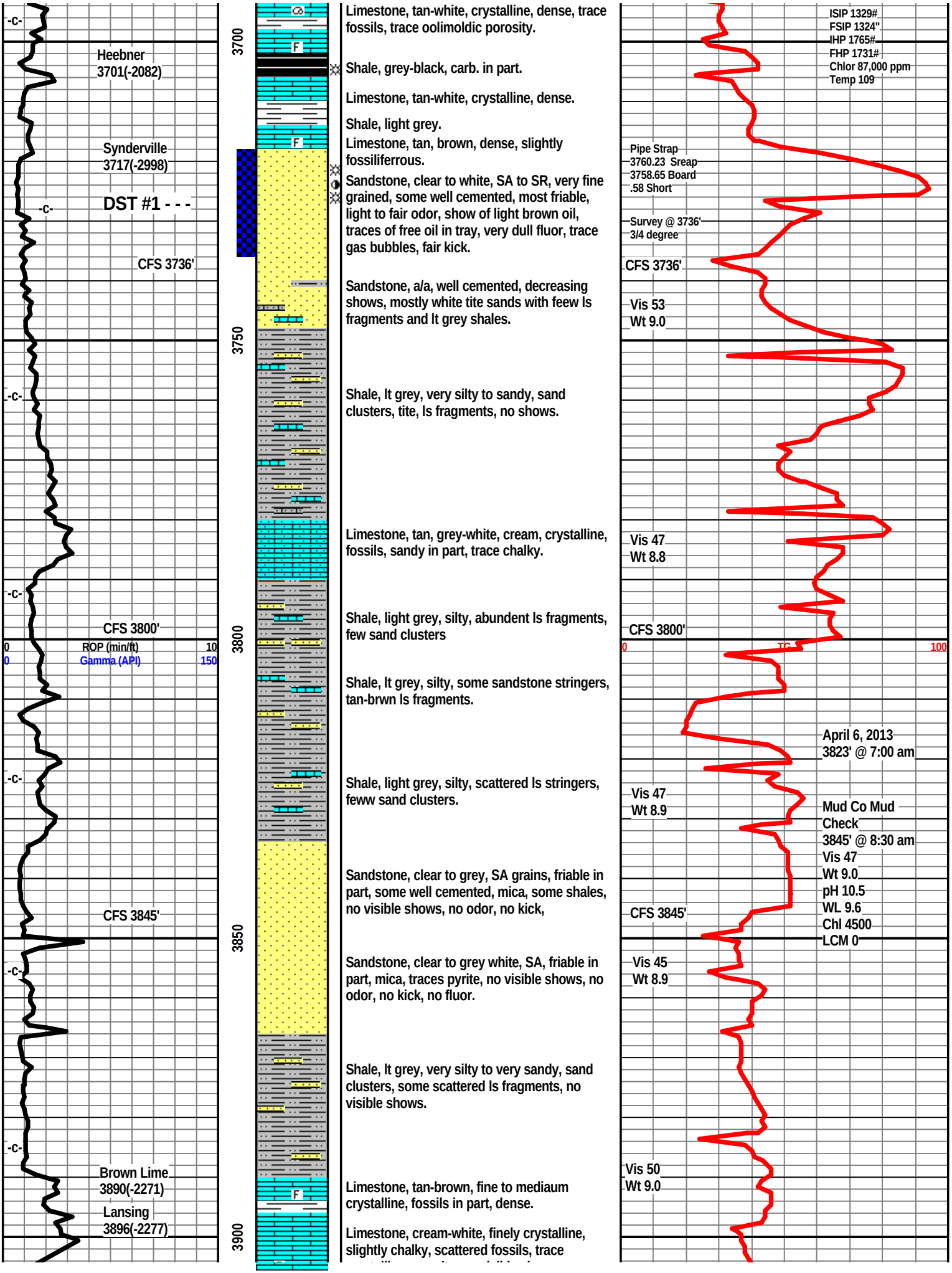
Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest

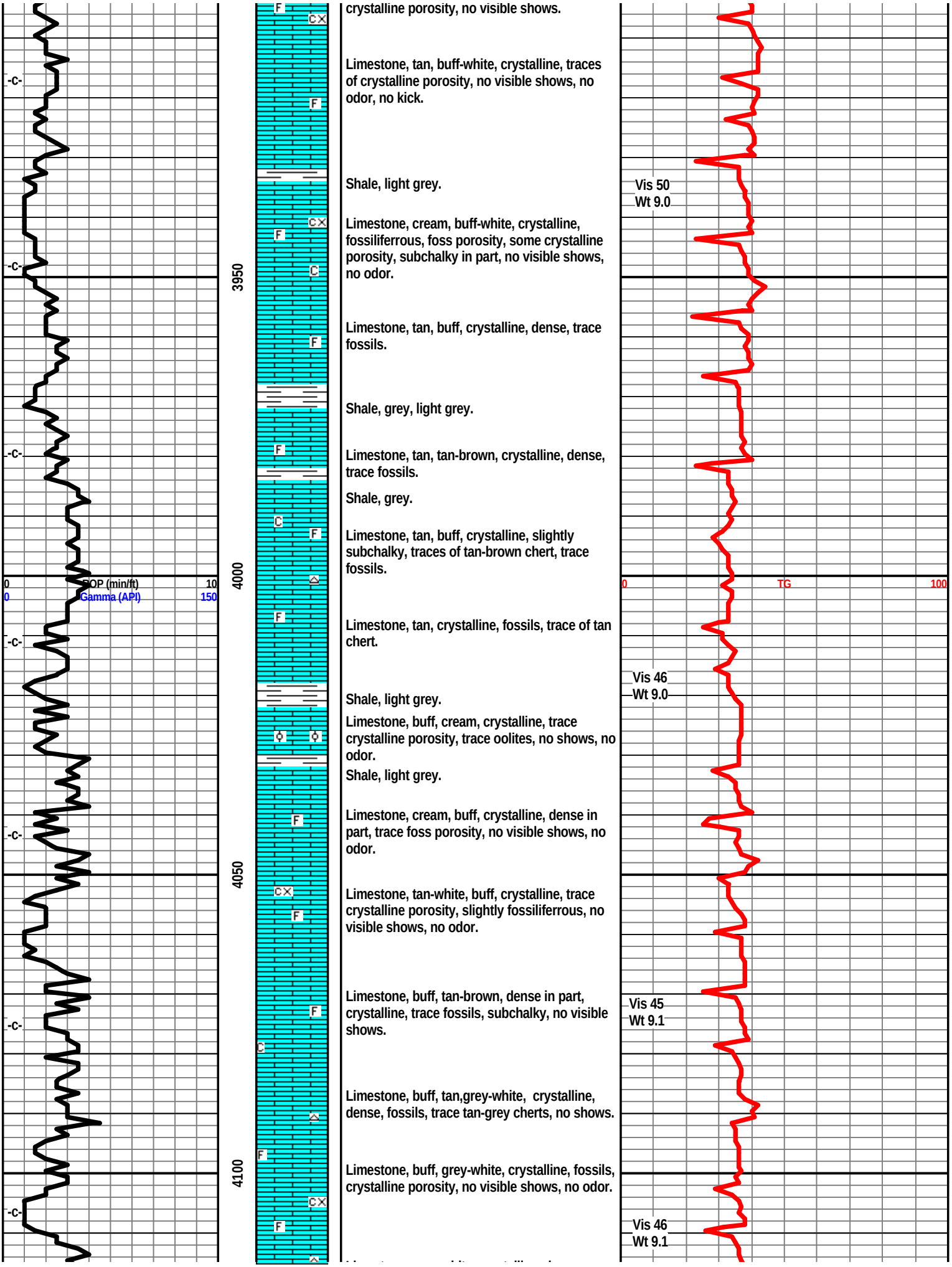


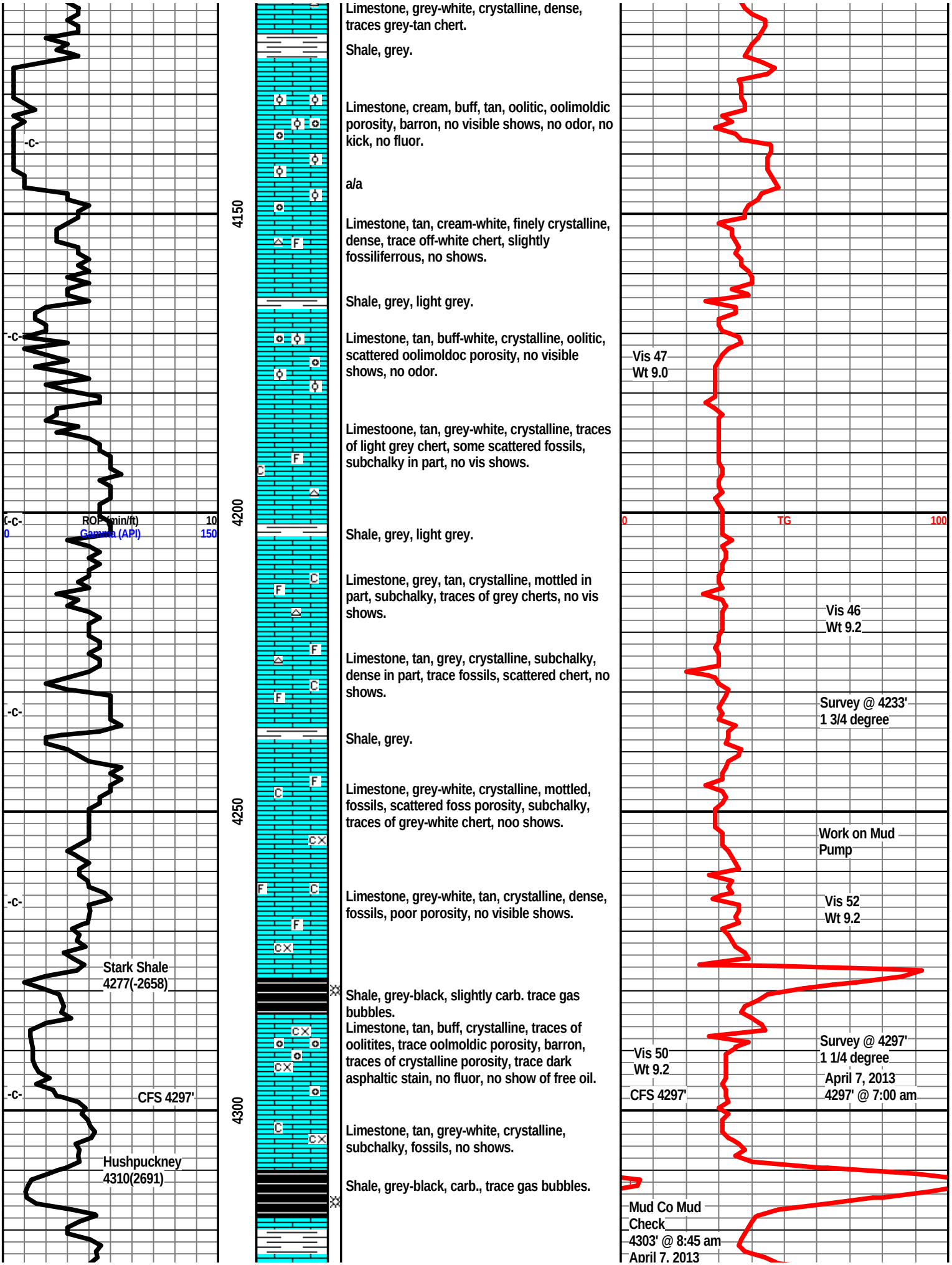

-C-
-C-
-C-
-C-
-C-
-C-
3100
3150
3200
3250
0
ROP (min/ft)
10
0
Gamma (API)
150
Geologist on
Location
3140 at 3:30 pm
April 4, 2013
Start Gas Detector
0
TG
100

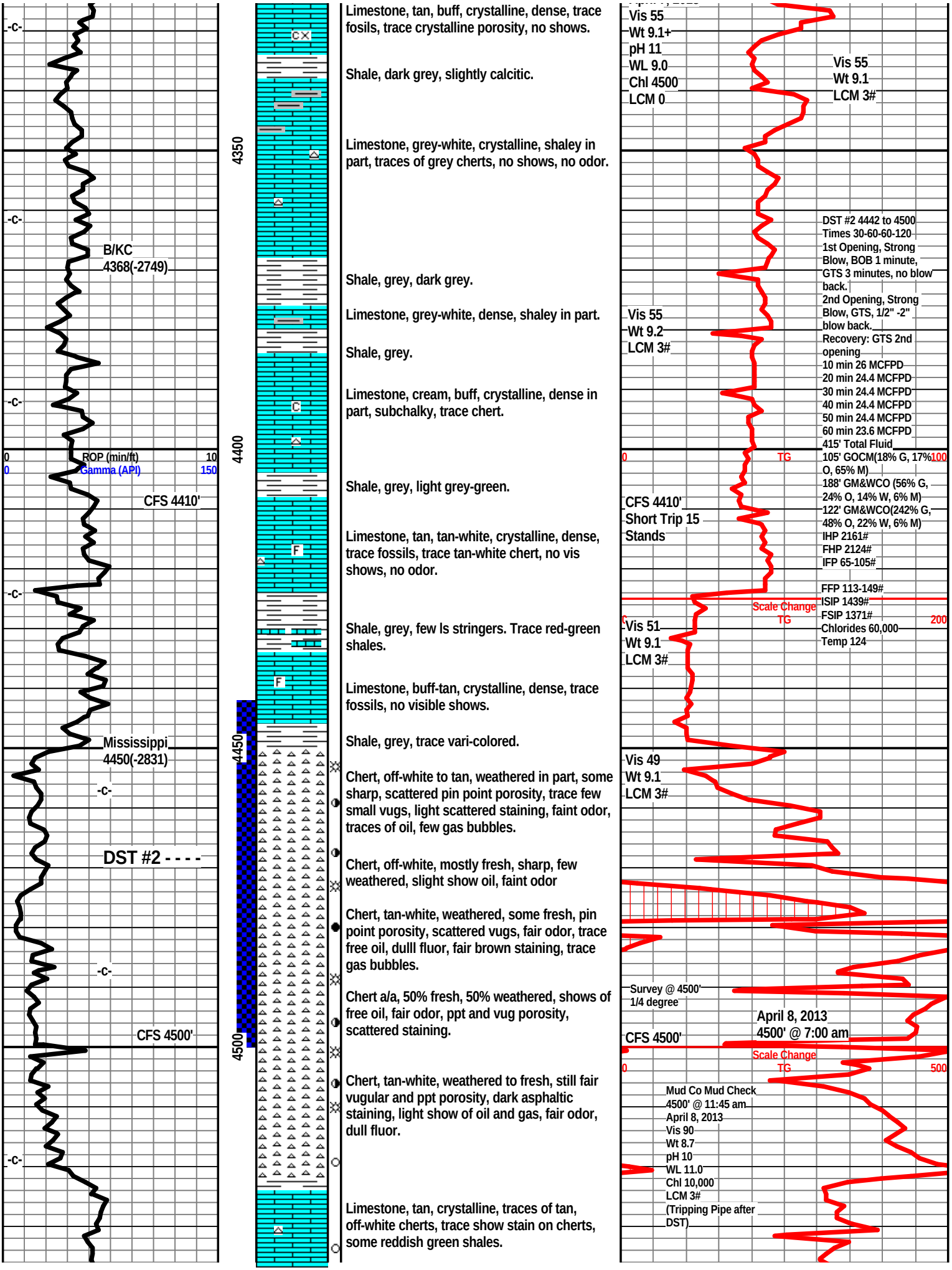

-C-
-C-
-C-
-C-
-C-
-C-
3300
3350
3400
3450
0
ROP (min/ft)
10
0
Gamma (API)
150
P
Shale, dark grey, trace pyrite, silty.
Survey @ 3329'
1/4 degree
0
TG
100
Displace Mud
Vis 55
Wt 8.7

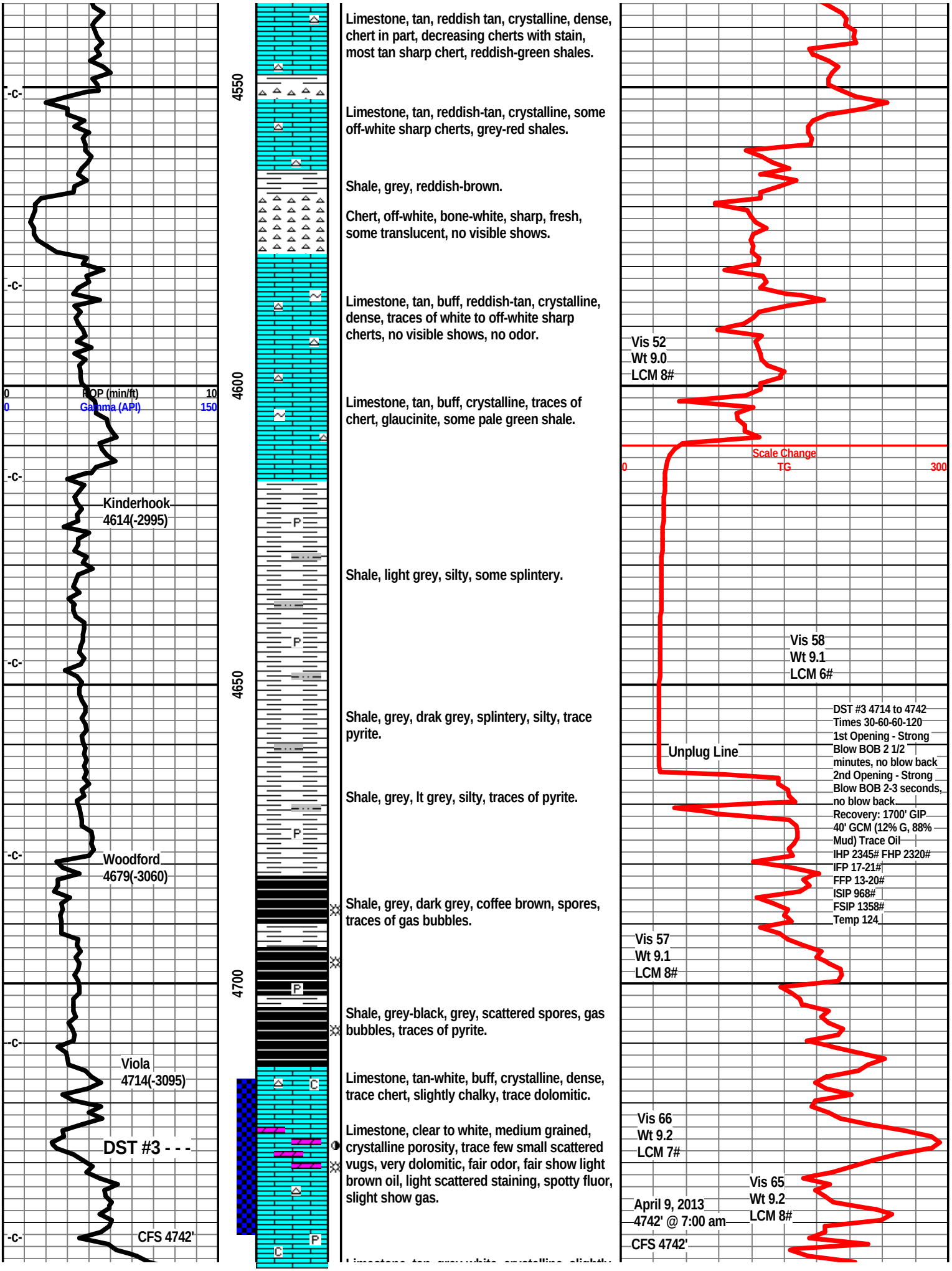

Kanwaka
3519(-1900)
Elgin
3591(-1972)?
-c-
ROP (min/ft)
10
0
Gamma (API)
150
3500
3550
3600
3650
F
Limestone, tan, buff, finely crystalline, dense, trace fossils.
Shale, lt grey, silty.
Limestone, buff-white, fine crystalline, dense.
Shale, grey-black.
Limestone, tan, buff-white, crystalline, trace fossils, some grey ls pieces.
Shale, grey, light grey, silty to sandy, trace pyrite.
Shale, lt grey to grey, silty to slightly sandy.
Shale, lt grey, silty, sandy in part.
Shale, grey lt grey, sitly to sandy, few silty sand clusters, no vis shows, no fluor, no kick
Shale, silty, very sandy, few sandstone clusters, very fine grained, fair cementing, no visible shows, no kick.
Shale, lt grey, silty to sandy. few ls frags, sand clusters.
Shale, lt grey, silty to sandy, some ls frags.
Shale, lt grey, grey, silty.
Limestone, tan, buff, finely crystalline, dense, trace fossils.
Limestoen, tan, brown-grey, crystalline, fossiliferrous in part, dense.
Shale, grey.
Limestone, grey-tan, crystalline, dense.
Shale, grey-black, carb.
Start Samples
Vis 47
Wt 8.8
Vis 46
Wt 8.7
April 5, 2013
3600' @ 7:00 am
0
TG
100
Mud Co Mud Check
April 5, 2013
3632' @ 8:00 am
Vis 48
Wt 8.8
pH 11
WL 9.6
Chl 3000
LCM 0
DST #1 3718 to 3736
Times 30-60-60-90
1st opening - tool slid 13', strong blow BOB 30 seconds, GTS 14 Minutes,
2nd Opening Strong Blow BOB, GTS, No blow back
Recovery: GTS 14 Minutes
50' GCM (4% G, 96% M)
61' GOCWM(22% G,6% O, 14% W, 58% M)
122' GOCMW(22% G, 13% O, 36% W, 29% M)
Gas Gauge
20 min 71 MCFPD
30 min 89 MCFPD
2nd Opening
10 min 115 MCFPD
20 min 137 MCFPD
30 min 152 MCFPD
40 min 163 MCFPD
50 Min 166 MCFPD
60 Min 170 MCFPD
IFP 230-78# - plugging
FFP 54-110#
Vis 47
Wt 8.9

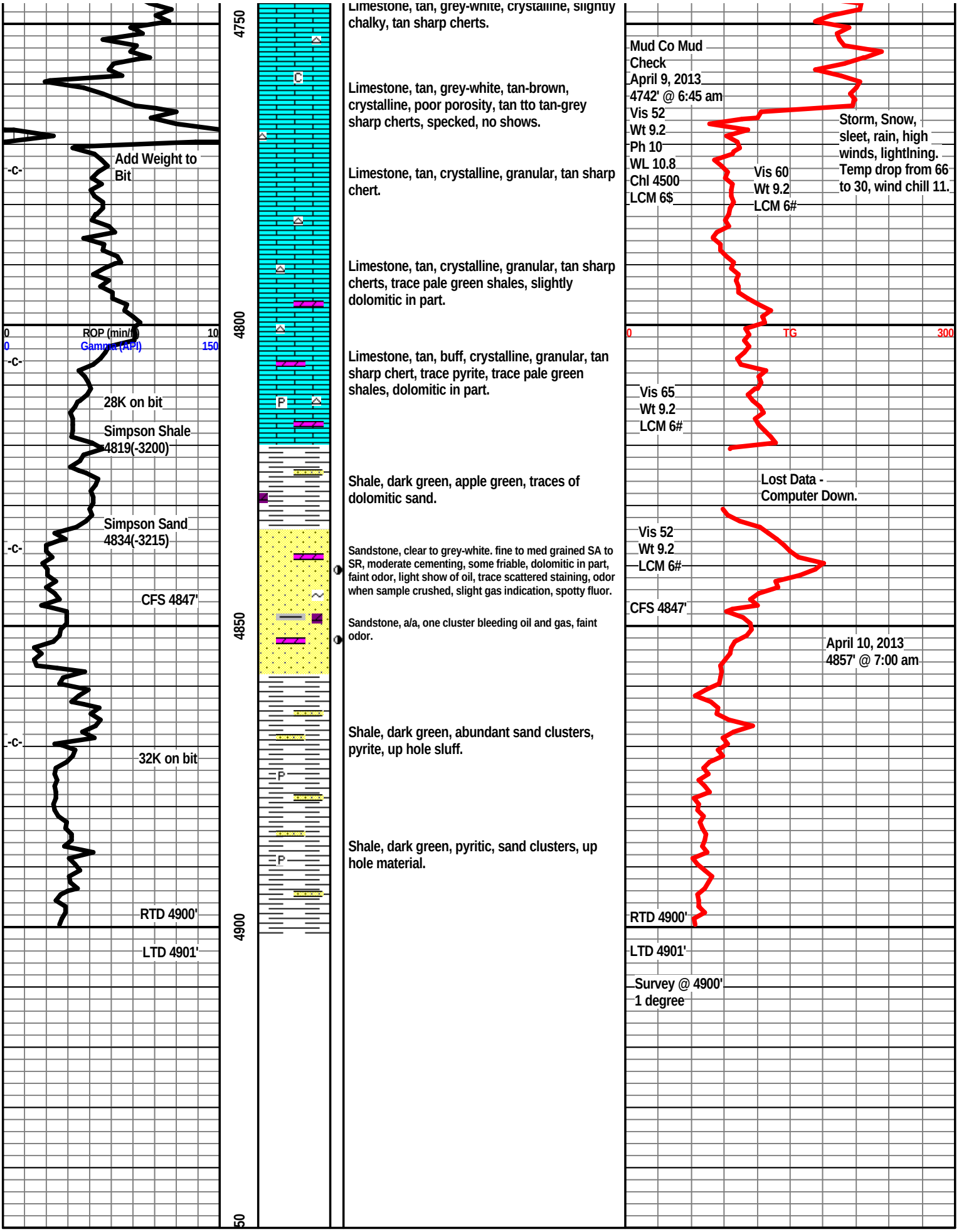

-c-
Heebner
3701(-2082)
Synderville
3717(-2998)
DST #1 - - -
-c-
CFS 3736'
-c-
-c-
CFS 3800'
0
ROP (min/ft)
10
0
Gamma (API)
150
-c-
CFS 3845'
-c-
-c-
Brown Lime
3890(-2271)
Lansing
3896(-2277)
3700
3750
3800
3850
3900
Co
F
F
F
Limestone, tan-white, crystalline, dense, trace fossils, trace oolimoldic porosity.
Shale, grey-black, carb. in part.
Limestone, tan-white, crystalline, dense.
Shale, light grey.
Limestone, tan, brown, dense, slightly fossiliferrous.
Sandstone, clear to white, SA to SR, very fine grained, some well cemented, most friable, light to fair odor, show of light brown oil, traces of free oil in tray, very dull fluor, trace gas bubbles, fair kick.
Sandstone, a/a, well cemented, decreasing shows, mostly white tite sands with feew ls fragments and lt grey shales.
Shale, lt grey, very silty to sandy, sand clusters, tite, ls fragments, no shows.
Limestone, tan, grey-white, cream, crystalline, fossils, sandy in part, trace chalky.
Shale, light grey, silty, abundent ls fragments, few sand clusters
Shale, lt grey, silty, some sandstone stringers, tan-brwn ls fragments.
Shale, light grey, silty, scattered ls stringers, feww sand clusters.
Sandstone, clear to grey, SA grains, friable in part, some well cemented, mica, some shales, no visible shows, no odor, no kick,
Sandstone, clear to grey white, SA, friable in part, mica, traces pyrite, no visible shows, no odor, no kick, no fluor.
Shale, lt grey, very silty to very sandy, sand clusters, some scattered ls fragments, no visible shows.
Limestone, tan-brown, fine to mediaum crystalline, fossils in part, dense.
Limestone, cream-white, finely crystalline, slightly chalky, scattered fossils, trace
ISIP 1329#
FSIP 1324"
IHP 1765#
FHP 1731#
Chlor 87,000 ppm
Temp 109
Pipe Strap
3760.23 Sreap
3758.65 Board
.58 Short
Survey @ 3736'
3/4 degree
CFS 3736'
Vis 53
Wt 9.0
Vis 47
Wt 8.8
CFS 3800'
0
TG
100
April 6, 2013
3823' @ 7:00 am
Vis 47
Wt 8.9
Mud Co Mud
Check
3845' @ 8:30 am
Vis 47
Wt 9.0
pH 10.5
WL 9.6
Chl 4500
LCM 0
CFS 3845'
Vis 45
Wt 8.9
Vis 50
Wt 9.0


-C-
-C-
-C-
-C-
-C-
-C-
0
ROP (min/ft)
10
0
Gamma (API)
150
3950
4000
4050
4100
crystalline porosity, no visible shows.
Limestone, tan, buff-white, crystalline, traces of crystalline porosity, no visible shows, no odor, no kick.
Shale, light grey.
Limestone, cream, buff-white, crystalline, fossiliferrous, foss porosity, some crystalline porosity, subchalky in part, no visible shows, no odor.
Limestone, tan, buff, crystalline, dense, trace fossils.
Shale, grey, light grey.
Limestone, tan, tan-brown, crystalline, dense, trace fossils.
Shale, grey.
Limestone, tan, buff, crystalline, slightly subchalky, traces of tan-brown chert, trace fossils.
Limestone, tan, crystalline, fossils, trace of tan chert.
Shale, light grey.
Limestone, buff, cream, crystalline, trace crystalline porosity, trace oolites, no shows, no odor.
Shale, light grey.
Limestone, cream, buff, crystalline, dense in part, trace foss porosity, no visible shows, no odor.
Limestone, tan-white, buff, crystalline, trace crystalline porosity, slightly fossiliferrous, no visible shows, no odor.
Limestone, buff, tan-brown, dense in part, crystalline, trace fossils, subchalky, no visible shows.
Limestone, buff, tan,grey-white, crystalline, dense, fossils, trace tan-grey cherts, no shows.
Limestone, buff, grey-white, crystalline, fossils, crystalline porosity, no visible shows, no odor.
Vis 50
Wt 9.0
0
TG
100
Vis 46
Wt 9.0
Vis 45
Wt 9.1
Vis 46
Wt 9.1


ROP (min/ft)
10
Gamma (API)
0
150
-c-
4150
4200
4250
4300
Stark Shale
4277(-2658)
CFS 4297'
Hushpuckney
4310(2691)
Limestone, grey-white, crystalline, dense, traces grey-tan chert.
Shale, grey.
Limestone, cream, buff, tan, oolitic, oolimoldic porosity, barron, no visible shows, no odor, no kick, no fluor.
a/a
Limestone, tan, cream-white, finely crystalline, dense, trace off-white chert, slightly fossiliferrous, no shows.
Shale, grey, light grey.
Limestone, tan, buff-white, crystalline, oolitic, scattered oolimoldoc porosity, no visible shows, no odor.
Limestoone, tan, grey-white, crystalline, traces of light grey chert, some scattered fossils, subchalky in part, no vis shows.
Shale, grey, light grey.
Limestone, grey, tan, crystalline, mottled in part, subchalky, traces of grey cherts, no vis shows.
Limestone, tan, grey, crystalline, subchalky, dense in part, trace fossils, scattered chert, no shows.
Shale, grey.
Limestone, grey-white, crystalline, mottled, fossils, scattered foss porosity, subchalky, traces of grey-white chert, noo shows.
Limestone, grey-white, tan, crystalline, dense, fossils, poor porosity, no visible shows.
Shale, grey-black, slightly carb. trace gas bubbles.
Limestone, tan, buff, crystalline, traces of oolitites, trace oolmoldic porosity, barron, traces of crystalline porosity, trace dark asphaltic stain, no fluor, no show of free oil.
Limestone, tan, grey-white, crystalline, subchalky, fossils, no shows.
Shale, grey-black, carb., trace gas bubbles.
Vis 47
Wt 9.0
0
TG
100
Vis 46
Wt 9.2
Survey @ 4233'
1 3/4 degree
Work on Mud Pump
Vis 52
Wt 9.2
Survey @ 4297'
1 1/4 degree
April 7, 2013
4297' @ 7:00 am
Vis 50
Wt 9.2
CFS 4297'
Mud Co Mud Check
4303' @ 8:45 am
April 7, 2013


-C-
B/KC
4368(-2749)
-C-
-C-
0
ROP (min/ft)
10
0
Gamma (API)
150
CFS 4410'
-C-
Mississippi
4450(-2831)
-C-
DST #2 - - - -
-C-
CFS 4500'
-C-
4350
4400
4450
4500
C
C
F
F
Limestone, tan, buff, crystalline, dense, trace fosils, trace crystalline porosity, no shows.
Shale, dark grey, slightly calcitic.
Limestone, grey-white, crystalline, shaley in part, traces of grey cherts, no shows, no odor.
Shale, grey, dark grey.
Limestone, grey-white, dense, shaley in part.
Shale, grey.
Limestone, cream, buff, crystalline, dense in part, subchalky, trace chert.
Shale, grey, light grey-green.
Limestone, tan, tan-white, crystalline, dense, trace fossils, trace tan-white chert, no vis shows, no odor.
Shale, grey, few ls stringers. Trace red-green shales.
Limestone, buff-tan, crystalline, dense, trace fossils, no visible shows.
Shale, grey, trace vari-colored.
Chert, off-white to tan, weathered in part, some sharp, scattered pin point porosity, trace few small vugs, light scattered staining, faint odor, traces of oil, few gas bubbles.
Chert, off-white, mostly fresh, sharp, few weathered, slight show oil, faint odor
Chert, tan-white, weathered, some fresh, pin point porosity, scattered vugs, fair odor, trace free oil, dulll fluor, fair brown staining, trace gas bubbles.
Chert a/a, 50% fresh, 50% weathered, shows of free oil, fair odor, ppt and vug porosity, scattered staining.
Chert, tan-white, weathered to fresh, still fair vugular and ppt porosity, dark asphaltic staining, light show of oil and gas, fair odor, dull fluor.
Limestone, tan, crystalline, traces of tan, off-white cherts, trace show stain on cherts, some reddish green shales.
Vis 55
Wt 9.1+
pH 11
WL 9.0
Chl 4500
LCM 0
Vis 55
Wt 9.1
LCM 3#
DST #2 4442 to 4500
Times 30-60-60-120
1st Opening, Strong Blow, BOB 1 minute, GTS 3 minutes, no blow back.
2nd Opening, Strong Blow, GTS, 1/2" -2" blow back.
Recovery: GTS 2nd opening
10 min 26 MCFPD
20 min 24.4 MCFPD
30 min 24.4 MCFPD
40 min 24.4 MCFPD
50 min 24.4 MCFPD
60 min 23.6 MCFPD
415' Total Fluid
105' GOCM(18% G, 17% O, 65% M)
188' GM&WCO (56% G, 24% O, 14% W, 6% M)
122' GM&WCO(242% G, 48% O, 22% W, 6% M)
IHP 2161#
FHP 2124#
IFP 65-105#
FFP 113-149#
ISIP 1439#
FSIP 1371#
Chlorides 60,000
Temp 124
Vis 55
Wt 9.2
LCM 3#
0
TG
100
CFS 4410'
Short Trip 15 Stands
Scale Change
TG
200
Vis 51
Wt 9.1
LCM 3#
Vis 49
Wt 9.1
LCM 3#
Survey @ 4500'
1/4 degree
April 8, 2013
4500' @ 7:00 am
CFS 4500'
Scale Change
0
TG
500
Mud Co Mud Check
4500' @ 11:45 am
April 8, 2013
Vis 90
Wt 8.7
pH 10
WL 11.0
Chl 10,000
LCM 3#
(Tripping Pipe after DST)


ROP (min/ft)
0
10
Gamma (API)
0
150
-C-
Kinderhook
4614(-2995)
Woodford
4679(-3060)
Viola
4714(-3095)
DST #3 - - -
CFS 4742'
4550
4600
4650
4700
Limestone, tan, reddish tan, crystalline, dense, chert in part, decreasing cherts with stain, most tan sharp chert, reddish-green shales.
Limestone, tan, reddish-tan, crystalline, some off-white sharp cherts, grey-red shales.
Shale, grey, reddish-brown.
Chert, off-white, bone-white, sharp, fresh, some translucent, no visible shows.
Limestone, tan, buff, reddish-tan, crystalline, dense, traces of white to off-white sharp cherts, no visible shows, no odor.
Limestone, tan, buff, crystalline, traces of chert, glaucinite, some pale green shale.
Shale, light grey, silty, some splintery.
Shale, grey, drak grey, splintery, silty, trace pyrite.
Shale, grey, lt grey, silty, traces of pyrite.
Shale, grey, dark grey, coffee brown, spores, traces of gas bubbles.
Shale, grey-black, grey, scattered spores, gas bubbles, traces of pyrite.
Limestone, tan-white, buff, crystalline, dense, trace chert, slightly chalky, trace dolomitic.
Limestone, clear to white, medium grained, crystalline porosity, trace few small scattered vugs, very dolomitic, fair odor, fair show light brown oil, light scattered staining, spotty fluor, slight show gas.
P
C
Vis 52
Wt 9.0
LCM 8#
Scale Change
0
TG
300
Vis 58
Wt 9.1
LCM 6#
Unplug Line
DST #3 4714 to 4742
Times 30-60-60-120
1st Opening - Strong Blow BOB 2 1/2 minutes, no blow back
2nd Opening - Strong Blow BOB 2-3 seconds, no blow back
Recovery: 1700' GIP
40' GCM (12% G, 88% Mud) Trace Oil
IHP 2345# FHP 2320#
IFP 17-21#
FFP 13-20#
ISIP 968#
FSIP 1358#
Temp 124
Vis 57
Wt 9.1
LCM 8#
Vis 66
Wt 9.2
LCM 7#
Vis 65
Wt 9.2
LCM 8#
April 9, 2013
4742' @ 7:00 am
CFS 4742'


4750
4800
4850
4900
50
C
P
P
P
Limestone, tan, grey-white, crystalline, slightly chalky, tan sharp cherts.
Limestone, tan, grey-white, tan-brown, crystalline, poor porosity, tan tto tan-grey sharp cherts, specked, no shows.
Limestone, tan, crystalline, granular, tan sharp chert.
Limestone, tan, crystalline, granular, tan sharp cherts, trace pale green shales, slightly dolomitic in part.
Limestone, tan, buff, crystalline, granular, tan sharp chert, trace pyrite, trace pale green shales, dolomitic in part.
Shale, dark green, apple green, traces of dolomitic sand.
Sandstone, clear to grey-white. fine to med grained SA to SR, moderate cementing, some friable, dolomitic in part, faint odor, light show of oil, trace scattered staining, odor when sample crushed, slight gas indication, spotty fluor.
Sandstone, a/a, one cluster bleeding oil and gas, faint odor.
Shale, dark green, abundant sand clusters, pyrite, up hole sluff.
Shale, dark green, pyritic, sand clusters, up hole material.
-c-
Add Weight to Bit
0
ROP (min/ft)
10
0
Gamma (API)
150
-c-
28K on bit
Simpson Shale
4819(-3200)
Simpson Sand
4834(-3215)
-c-
CFS 4847'
-c-
32K on bit
RTD 4900'
LTD 4901'
Mud Co Mud Check
April 9, 2013
4742' @ 6:45 am
Vis 52
Wt 9.2
Ph 10
WL 10.8
Chl 4500
LCM 6$
Storm, Snow, sleet, rain, high winds, lightlning. Temp drop from 66 to 30, wind chill 11.
Vis 60
Wt 9.2
LCM 6#
0
TG
300
Vis 65
Wt 9.2
LCM 6#
Lost Data - Computer Down.
Vis 52
Wt 9.2
LCM 6#
CFS 4847'
April 10, 2013
4857' @ 7:00 am
RTD 4900'
LTD 4901'
Survey @ 4900'
1 degree