KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1053000

Form ACO-1
June 2009
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 # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: BILLY KLAVER
Purchaser: ATLAS / PLAINS

Designate Type of Completion:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [ ] Oil
- [ ] WSW
- [ ] SWD
- [ ] SIOW
- [x] 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 #:

12/04/2010	12/18/2010	02/28/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-077-21723-00-00
Spot Description:
__ - SW - SW - SE Sec. 31 Twp. 33 S. R. 8 [ ] East [x] West
330 Feet from [ ] North / [x] South Line of Section
2310 Feet from [x] East / [ ] West Line of Section

Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [x] SE [ ] SW

County: Harper
Lease Name: KOBLITZ Well #: 1
Field Name: HIBBARD NE
Producing Formation: MISSISSIPPIAN
Elevation: Ground: 1297 Kelly Bushing: 1308
Total Depth: 5170 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 200 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] 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: 19000 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: ALLEN C-1 License #: 33168
Quarter SW Sec. 33 Twp. 34 S. R. 13 [ ] East [x] West
County: BARBER Permit #: D-30360

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

- [x] **Letter of Confidentiality Received**
  Date: 04/01/2011
- [x] **Confidential Release Date:** 03/31/2013
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [x] **I** [ ] **II** [ ] **III** **Approved by:** NAOMI JAMES **Date:** 04/04/2011

Side Two

1053000

Operator Name: Woolsey Operating Company, LLC Lease Name: KOBLITZ Well #: 1

Sec. 31 Twp. 33 S. R. 8 ☐ East ☑ West County: Harper

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:

Array Compensated True Resistivity
Dual Spaced Neutron Spectral Density
Microlog

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

Name	Top	Datum
Attached	Attached	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
Attached	Attached	Attached	Attached	Attached	Attached	Attached	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	-			
	-			

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
Attached	Attached	Attached	Attached

TUBING RECORD: Size: 2.875 Set At: 4651 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 3/4/2011

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	70	175	94	2500	

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:
4520-4594

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

Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	KOBLITZ 1
Doc ID	1053000

Tops

Name	Top	Datum
CHASE	1547	-239
HEEBNER	3368	-2060
HASKELL LIME	3683	-2375
PAWNEE	4339	-3031
MISSISSIPPIAN	4506	-3198
VIOLA	4892	-3584
SIMPSON	4945	-3637
ARBUCKLE	5111	-3803

Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	KOBLITZ 1
Doc ID	1053000

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	4584-4594	500 GAL 10%MIRA	4584-4594
		1000 GAL 10% NE/FE	4584-4594
4	4546-4552, 4558-4574	1100 GAL 10% MIRA	4546-4552, 4558-4574
		2200 GAL 10% NE/FE	4546-4552, 4558-4574
4	4520-4536	800 GAL 10% MIRA	4520-4536
		1600 GAL 10% NEFE	4520-4536

Form	ACO1 - Well Completion
Operator	Woolsey Operating Company, LLC
Well Name	KOBLITZ 1
Doc ID	1053000

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Tyep and Percent Additives
CONDUCTOR	30	20	52.75	40	GROUT	5	5 YDS (NOT 5 SX)
SURFACE	14.875	10.875	32.75	200	CLASS A	230	2%GEL, 3%CC
PRODUCTION	7.875	5.5	15.5	5053	60/40 POZ	50	4% gel, 1/4# Celoflake
PRODUCTION	7.875	5.5	15.5	5053	CLASS H	180	10% salt, 10% Gypseal,1/4# Celoflake, .8% fluid loss

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/

Thomas E. Wright, Chairman
Ward Loyd, Commissioner

Sam Brownback, Governor

April 01, 2011

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

Re: ACO1
API 15-077-21723-00-00
KOBLITZ 1
SE/4 Sec.31-33S-08W
Harper 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. 040584

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Medicine Lodge, KS

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
12-4-2010	31	33s	8w	2:30 pm	6:00 pm	11:00 pm	11:30 pm

LEASE	WELL #	LOCATION	COUNTY	STATE
Kobler 2	1	Hwy 2 & Attics Rd, 2 South, 1/2 East, N into	Harper	KS

OLD OR (NEW) (Circle one)

CONTRACTOR Duke #10

OWNER Woolsey Operating

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 215'

CASING SIZE 8 5/8 DEPTH 215'

TUBING SIZE 10 3/4 DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 20'

PERFS.

DISPLACEMENT 12 1/2 bbls of fresh water

CEMENT

AMOUNT ORDERED 230 sx Class A + 3% cc + 2% Gel

COMMON	230 sx Class A	@ 15.45	3,553.50
POZMIX		@	
GEL	4 sx	@ 20.80	83.20
CHLORIDE	8 sx	@ 58.20	465.60
ASC		@	
HANDLING	242 sx	@ 2.40	580.80
MILEAGE	242 x 25 x .10		605.00

TOTAL 5,288.10

EQUIPMENT

PUMP TRUCK #414-302 CEMENTER Derin F.
HELPER Ron G
BULK TRUCK # 364 DRIVER Jason T
BULK TRUCK # DRIVER

WELL FILE
Regulatory Correspondence
Drlg Comp Workovers
Tests / Meters Operations

REMARKS:

Pipe on bottom & break circulation Pump 3 bbls of fresh water, Shed, mix 230 sx of cement, Displace 12 1/2 bbls of fresh water, Shut in, Cement did circulate

SERVICE

DEPTH OF JOB 215'

PUMP TRUCK CHARGE			1,018.00
EXTRA FOOTAGE		@	
MILEAGE	25	@ 7.00	175.00
MANIFOLD		@	

TOTAL 1,193

CHARGE TO: Woolsey Operating

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

DISCOUNT IF PAID IN 30 DAYS

PRINTED NAME MIKE THEO

SIGNATURE

Thank You!!!

ALLIED CEMENTING CO., LLC. 040628

Federal Tax I.D.# 20-5975804

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

SERVICE POINT: Medicine Lodge KS

DATE 12-19-10	SEC. 31	TWP. 33s	RANGE 8w	CALLED OUT	ON LOCATION	JOB START 3:00 pm	JOB FINISH 4:00 pm
LEASE Kobf+2	WELL # 1		LOCATION Highway #2 + Africa Rd, 2 South 1/2 east North into			COUNTY Harper	STATE KS
OLD OR (NEW) (Circle one)							

CONTRACTOR Duke Drlg #10

OWNER Woolsey Operating

TYPE OF JOB production

HOLE SIZE 7 7/8 T.D. 5170'

CASING SIZE 5 1/2 DEPTH 5052'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX 1900 psi MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 41'

PERFS.

DISPLACEMENT 119.5 bbls 2% KCL

EQUIPMENT

PUMP TRUCK # 414-302 CEMENTER Matt Thimesch
HELPER Raymond R

BULK TRUCK # 381-252 DRIVER Raymond (TWS)

BULK TRUCK # DRIVER

REMARKS:

Rig up to 5 1/2 csg. mix 20 sx for Rathole mix 15 sx for mousehole mix 60 sx scavenger then mix 180 sx cement stop wash pump + lines release plug. disp. 119.5 bbls 2% KCL bump plug from 1200 psi to 1900 psi plug held

CHARGE TO: Woolsey

STREET

CITY STATE ZIP

CEMENT

AMOUNT ORDERED 180 sx Class H + 10% gypseal + salt + 6# Kolseal + .8% FL 160 + 1/4# Floseal
85 sx 60:40:4 + 1/4# floseal

COMMON A	51 sx	@ 15.45	787.95
POZMIX	34 sx	@ 8.00	272.00
GEL	3 sx	@ 20.80	62.40
CHLORIDE		@	
ASC		@	
Class H	180 sx	@ 16.75	3015.00
Gypseal	17 sx	@ 29.20	496.40
Salt	20 sx	@ 12.00	240.00
Kolseal	1080#	@ .89	961.20
FL-160	135.36#	@ 13.30	1800.28
Floseal	45#	@ 2.50	112.50
Clapper	12 Gals	@ 31.25	375.00
		@	
HANDLING	331	@ 2.40	794.40
MILEAGE	331/25/.10		827.50

TOTAL 9744.63

WELL FILE
Regulatory Correspondence
Drlg Comp Workovers
Tests / Meters Operations

SERVICE

DEPTH OF JOB	5052		
PUMP TRUCK CHARGE		2185.00	
EXTRA FOOTAGE		@	
MILEAGE	25	@ 7.00	175.00
MANIFOLD		@	
		@	
		@	

TOTAL 2360.00

PLUG & FLOAT EQUIPMENT

1-AFU Float Shoe		@	214.20
1-latch down Plug		@	163.80
37 scratchers		@ 23.94	885.78
8 turbolizers		@ 40.60	324.80
2 centralizers		@ 32.20	64.40

TOTAL 1652.98

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

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.

PRINTED NAME Herb Durant

SIGNATURE Herb Durant

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039259 **DST#: 1**

Test Start: 2010.12.11 @ 09:46:15

GENERAL INFORMATION:

Formation: **Kansas City "Iola"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:12:45
Time Test Ended: 18:52:45

Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45

Interval: 4002.00 ft (KB) To 4025.00 ft (KB) (TVD)
Total Depth: 4025.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

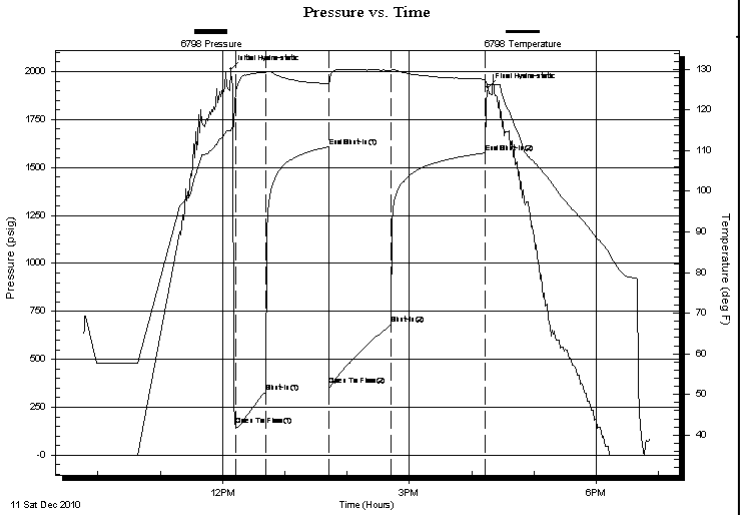
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 684.12 psig @ 4003.00 ft (KB)
Start Date: 2010.12.11 End Date: 2010.12.11
Start Time: 09:46:16 End Time: 18:52:45

Capacity: 8000.00 psig
Last Calib.: 2010.12.11
Time On Btm: 2010.12.11 @ 12:08:15
Time Off Btm: 2010.12.11 @ 16:15:30

TEST COMMENT: IF: Strong Blow , BOB in 1 minute
ISI: Bled Off, Blow back Built to BOB in 9 minutes
FF: Strong Blow , BOB in 3 minutes
FSI: Bled Off, Blow back Built to 8 inches, GTS in 81 minutes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2011.49	114.98	Initial Hydro-static
5	154.05	123.83	Open To Flow (1)
33	330.27	129.25	Shut-In(1)
94	1607.57	126.53	End Shut-In(1)
94	363.34	125.88	Open To Flow (2)
155	684.12	129.74	Shut-In(2)
245	1576.45	127.55	End Shut-In(2)
248	1918.19	126.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2389 GIP	0.00
1395.00	GSY Water 5%G 95%W	19.38
93.00	GMCW 5%G 10%M 85%W	1.30
113.00	GWCM 5%G 25%W 70%M	1.59

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: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039259 **DST#: 1**

Test Start: 2010.12.11 @ 09:46:15

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:	90000 ppm
Viscosity:	46.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

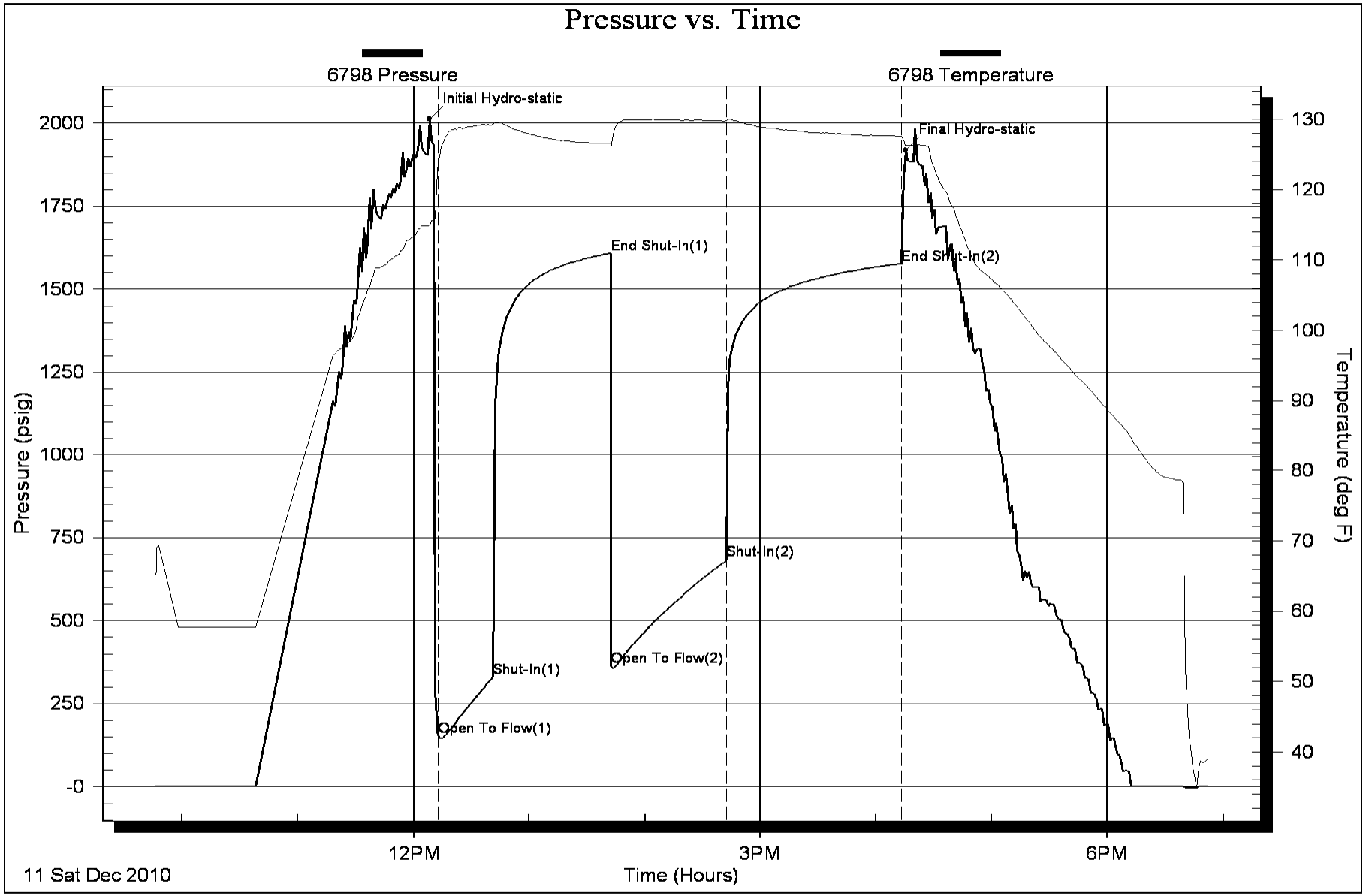
Length ft	Description	Volume bbl
0.00	2389 GIP	0.000
1395.00	GSY Water 5%G 95%W	19.376
93.00	GMCW 5%G 10%M 85%W	1.305
113.00	GWCM 5%G 25%W 70%M	1.585

Total Length: 1601.00 ft Total Volume: 22.266 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure (psig)
2000
1750
1500
1250
1000
750
500
250
-0
Temperature (deg F)
130
120
110
100
90
80
70
60
50
40
12PM
3PM
6PM
11 Sat Dec 2010
Time (Hours)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039260 **DST#: 2**

Test Start: 2010.12.13 @ 15:08:29

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:10:29
Time Test Ended: 00:05:29

Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45

Interval: 4364.00 ft (KB) To 4520.00 ft (KB) (TVD)
Total Depth: 4520.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

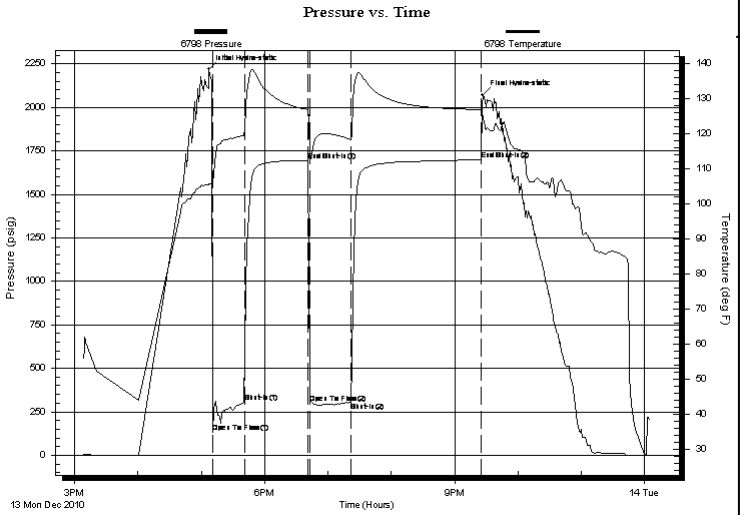
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 306.04 psig @ 4365.00 ft (KB)
Start Date: 2010.12.13 End Date: 2010.12.14
Start Time: 15:08:30 End Time: 00:05:29

Capacity: 8000.00 psig
Last Calib.: 2010.12.14
Time On Btm: 2010.12.13 @ 17:07:14
Time Off Btm: 2010.12.13 @ 21:26:29

TEST COMMENT:
IF: Strong Blow, BOB in 2 minutes, GTS in 9 minutes, Guaged Gas and took sample
ISI: Bled Off, No Blow back
FF: Strong Blow, BOB and GTS Immediate, Guaged Gas
FSI: Bled Off, No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2218.83	105.51	Initial Hydro-static
4	133.18	105.82	Open To Flow (1)
34	304.17	119.34	Shut-In(1)
94	1693.02	126.77	End Shut-In(1)
96	301.75	112.57	Open To Flow (2)
135	306.04	118.10	Shut-In(2)
258	1698.25	126.79	End Shut-In(2)
260	2073.59	124.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4169 Feet GIP	0.00
196.00	GCM 8%G 92%M	2.56

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	80.00	637.47
Last Gas Rate	1.00	34.00	1394.32
Max. Gas Rate	0.50	100.00	772.38

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039260 **DST#: 2**

Test Start: 2010.12.13 @ 15:08:29

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:	ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4169 Feet GIP	0.000
196.00	GCM 8%G 92%M	2.557

Total Length: 196.00 ft Total Volume: 2.557 bbl

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

Laboratory Name: Caraway Laboratory Location: Liberal, KS

Recovery Comments:

DRILL STEM TEST REPORT

GAS RATES

TRILOBITE TESTING, INC.

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039260 **DST#: 2**

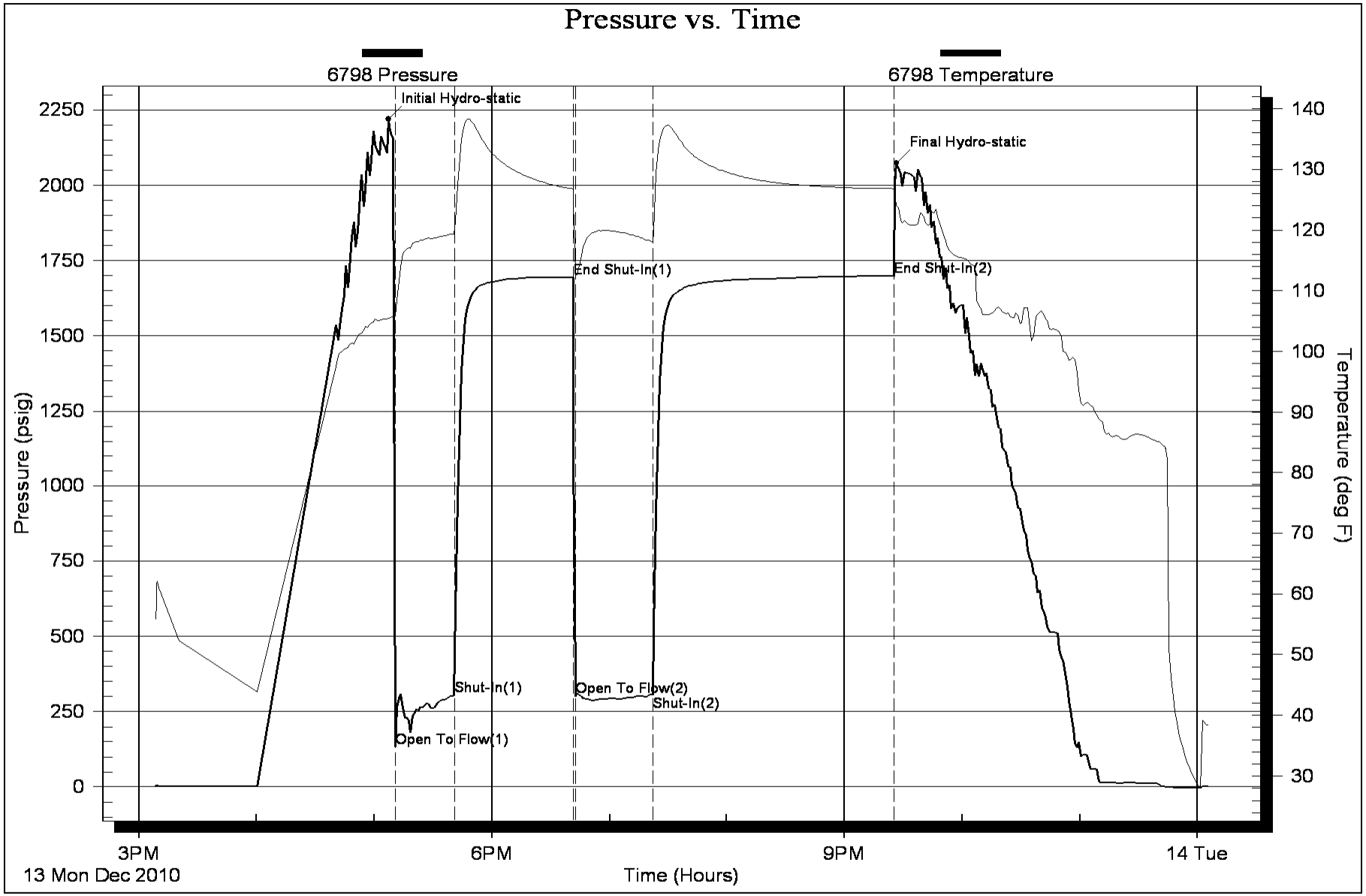
Test Start: 2010.12.13 @ 15:08:29

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)
1	10	0.50	80.00	637.47
1	20	0.50	89.00	698.18
1	30	0.50	100.00	772.38
2	10	1.00	29.00	1250.57
2	20	1.00	31.00	1308.07
2	30	1.00	31.00	1308.07
2	40	1.00	34.00	1394.32


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Open To Flow(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
140
130
120
110
100
90
80
70
60
50
40
30
3PM
13 Mon Dec 2010
6PM
9PM
14 Tue
Time (Hours)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039261 **DST#: 3**

Test Start: 2010.12.14 @ 08:27:08

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:59:38
Time Test Ended: 17:48:53

Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45

Interval: 4520.00 ft (KB) To 4540.00 ft (KB) (TVD)
Total Depth: 4540.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

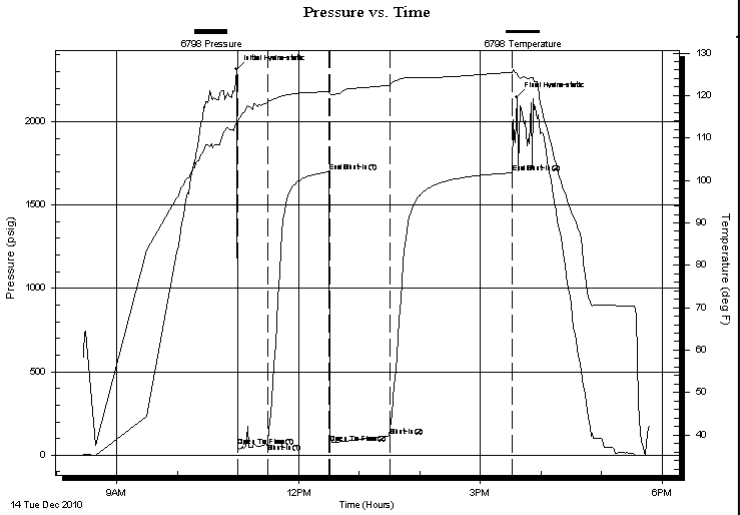
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 115.89 psig @ 4521.00 ft (KB)
Start Date: 2010.12.14 End Date: 2010.12.14
Start Time: 08:27:09 End Time: 17:48:53

Capacity: 8000.00 psig
Last Calib.: 2010.12.14
Time On Btm: 2010.12.14 @ 10:58:23
Time Off Btm: 2010.12.14 @ 15:35:53

TEST COMMENT: IF: Strong Blow , BOB in 5 minutes
ISI: Bled Off, No Blow back
FF: Strong Blow , BOB immediate, GTS in 20 minutes, Gauged Gas & Caught Sample
FSI: Bled Off, No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2313.92	113.62	Initial Hydro-static
2	54.94	113.68	Open To Flow (1)
32	68.80	118.26	Shut-In(1)
92	1698.74	120.92	End Shut-In(1)
92	69.33	120.48	Open To Flow (2)
152	115.89	122.42	Shut-In(2)
273	1693.22	125.49	End Shut-In(2)
278	2148.85	125.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	4283 Feet GIP	0.00
240.00	OGCM 6%O 40%G 54%M	3.17

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	3.50	28.56
Last Gas Rate	0.25	5.00	30.94
Max. Gas Rate	0.25	5.00	30.94

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039261 **DST#: 3**

Test Start: 2010.12.14 @ 08:27:08

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:	ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	4283 Feet GIP	0.000
240.00	OGCM 6%O 40%G 54%M	3.174

Total Length: 240.00 ft Total Volume: 3.174 bbl

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

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: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039261 **DST#: 3**

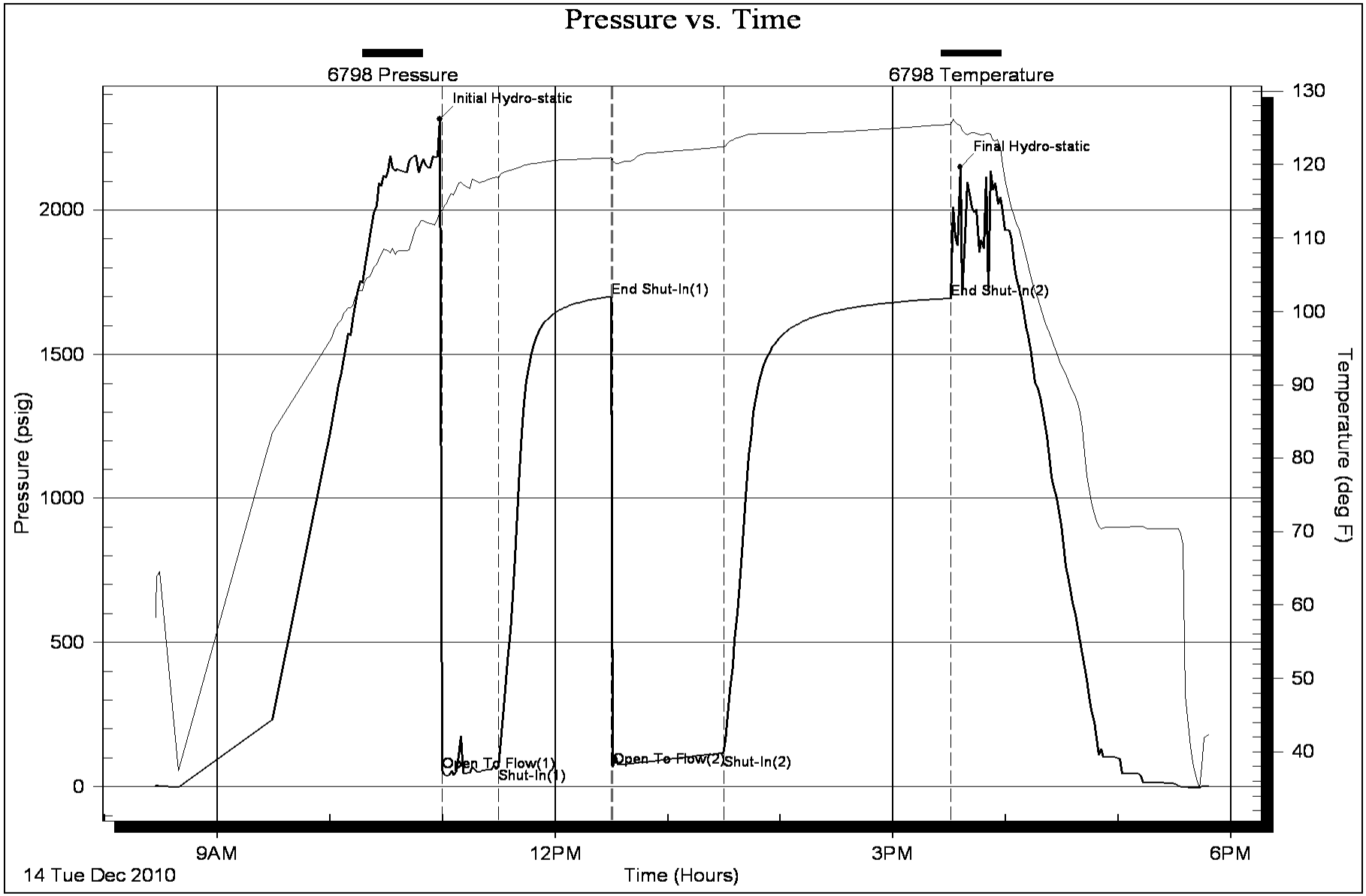
Test Start: 2010.12.14 @ 08:27:08

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)
2	30	0.25	3.50	28.56
2	30	0.25	3.50	28.56
2	40	0.25	4.00	29.35
2	50	0.25	5.00	30.94


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
2000
1500
1000
500
0
130
120
110
100
90
80
70
60
50
40
9AM
12PM
3PM
6PM
14 Tue Dec 2010
Time (Hours)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039262 **DST#: 4**

Test Start: 2010.12.15 @ 04:40:16

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:20:01
Time Test Ended: 12:40:01

Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45

Interval: 4544.00 ft (KB) To 4575.00 ft (KB) (TVD)
Total Depth: 4575.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

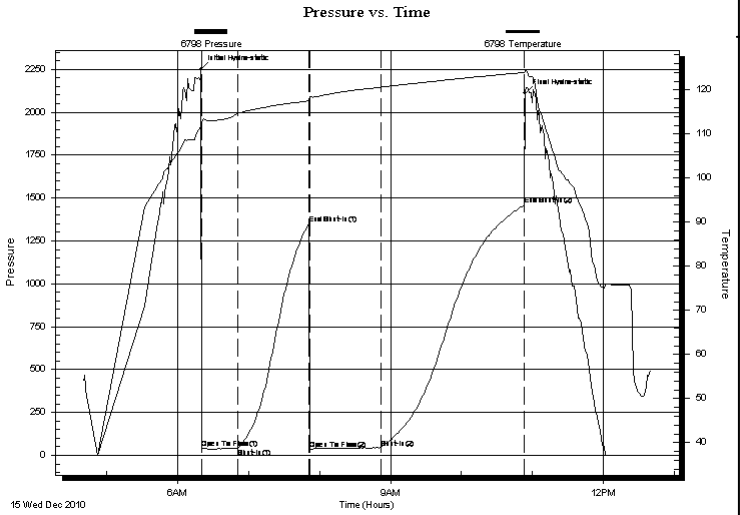
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 43.57 psig @ 4545.00 ft (KB)
Start Date: 2010.12.15 End Date: 2010.12.15
Start Time: 04:40:17 End Time: 12:40:01

Capacity: 8000.00 psig
Last Calib.: 2010.12.15
Time On Btm: 2010.12.15 @ 06:19:31
Time Off Btm: 2010.12.15 @ 10:53:31

TEST COMMENT:
IF: Fair Blow, Built to 7 inches
ISI: Bled Off, No Blow back
FF: Fair Blow, BOB in 58 minutes
FSI: Bled Off, No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2249.99	111.62	Initial Hydro-static
1	39.46	112.49	Open To Flow (1)
31	39.80	114.66	Shut-In(1)
92	1350.11	117.54	End Shut-In(1)
93	35.87	118.49	Open To Flow (2)
152	43.57	120.62	Shut-In(2)
274	1458.04	123.97	End Shut-In(2)
274	2110.05	124.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	200 Feet GIP	0.00
70.00	SOCM 1%O 99%M	0.79

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: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039262 **DST#: 4**

Test Start: 2010.12.15 @ 04:40:16

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:	ppm
Viscosity:	47.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2500.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

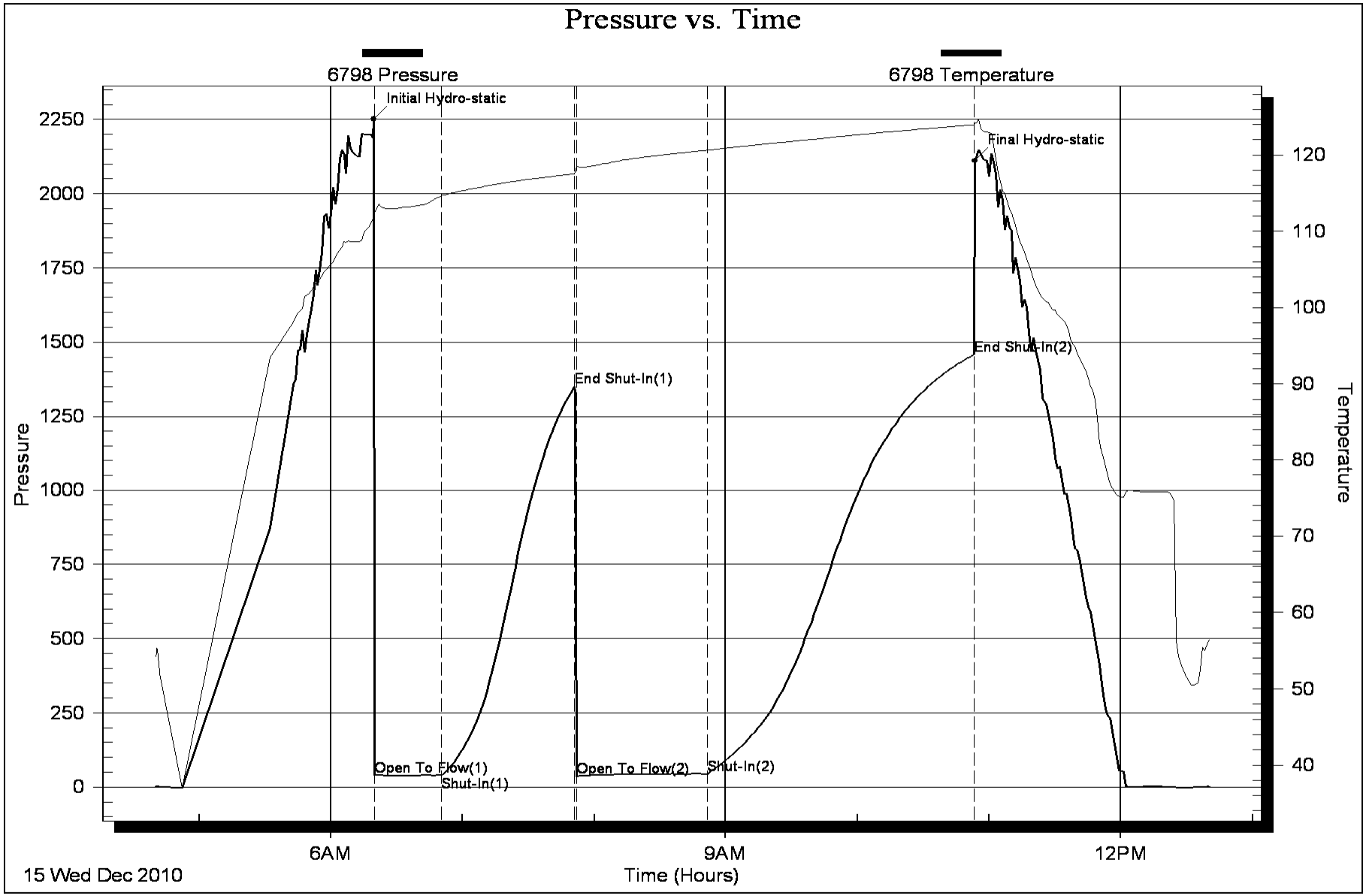
Length ft	Description	Volume bbl
0.00	200 Feet GIP	0.000
70.00	SOCM 1%O 99%M	0.790

Total Length: 70.00 ft Total Volume: 0.790 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
2250
2000
1750
1500
1250
1000
750
500
250
0
120
110
100
90
80
70
60
50
40
6AM
9AM
12PM
15 Wed Dec 2010
Time (Hours)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Woolsey Operating Co

125 N Market Ste 1000
Wichita, KS 67202

ATTN: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039263 **DST#: 5**

Test Start: 2010.12.15 @ 21:18:05

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:33:20
Time Test Ended: 05:36:50

Test Type: Conventional Bottom Hole
Tester: Leal Cason
Unit No: 45

Interval: 4578.00 ft (KB) To 4598.00 ft (KB) (TVD)
Total Depth: 4598.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

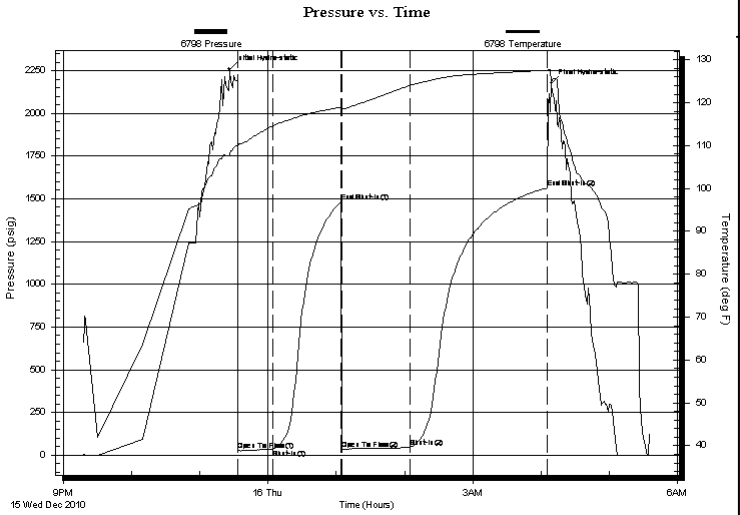
Reference Elevations: 1308.00 ft (KB)
1297.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 44.06 psig @ 4579.00 ft (KB)
Start Date: 2010.12.15 End Date: 2010.12.16
Start Time: 21:18:06 End Time: 05:36:50

Capacity: 8000.00 psig
Last Calib.: 2010.12.16
Time On Btm: 2010.12.15 @ 23:26:05
Time Off Btm: 2010.12.16 @ 04:08:50

TEST COMMENT:
IF: Weak Blow , Built to 3 1/2 inches
ISI: Bled Off , No Blow back
FF: Weak Blow , Built to 2 inches
FSI: Bled Off , No Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2257.01	107.77	Initial Hydro-static
8	26.63	109.73	Open To Flow (1)
38	33.44	114.58	Shut-In(1)
98	1483.34	118.99	End Shut-In(1)
99	32.11	118.62	Open To Flow (2)
159	44.06	124.02	Shut-In(2)
280	1562.75	127.60	End Shut-In(2)
283	2176.62	124.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SOSM -1%O +99%M	0.04

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: Bill Klaver

Koblitz #1

31-33S-8W Harper

Job Ticket: 039263 **DST#: 5**

Test Start: 2010.12.15 @ 21:18:05

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:	ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.59 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	0.20 inches				

Recovery Information

Recovery Table

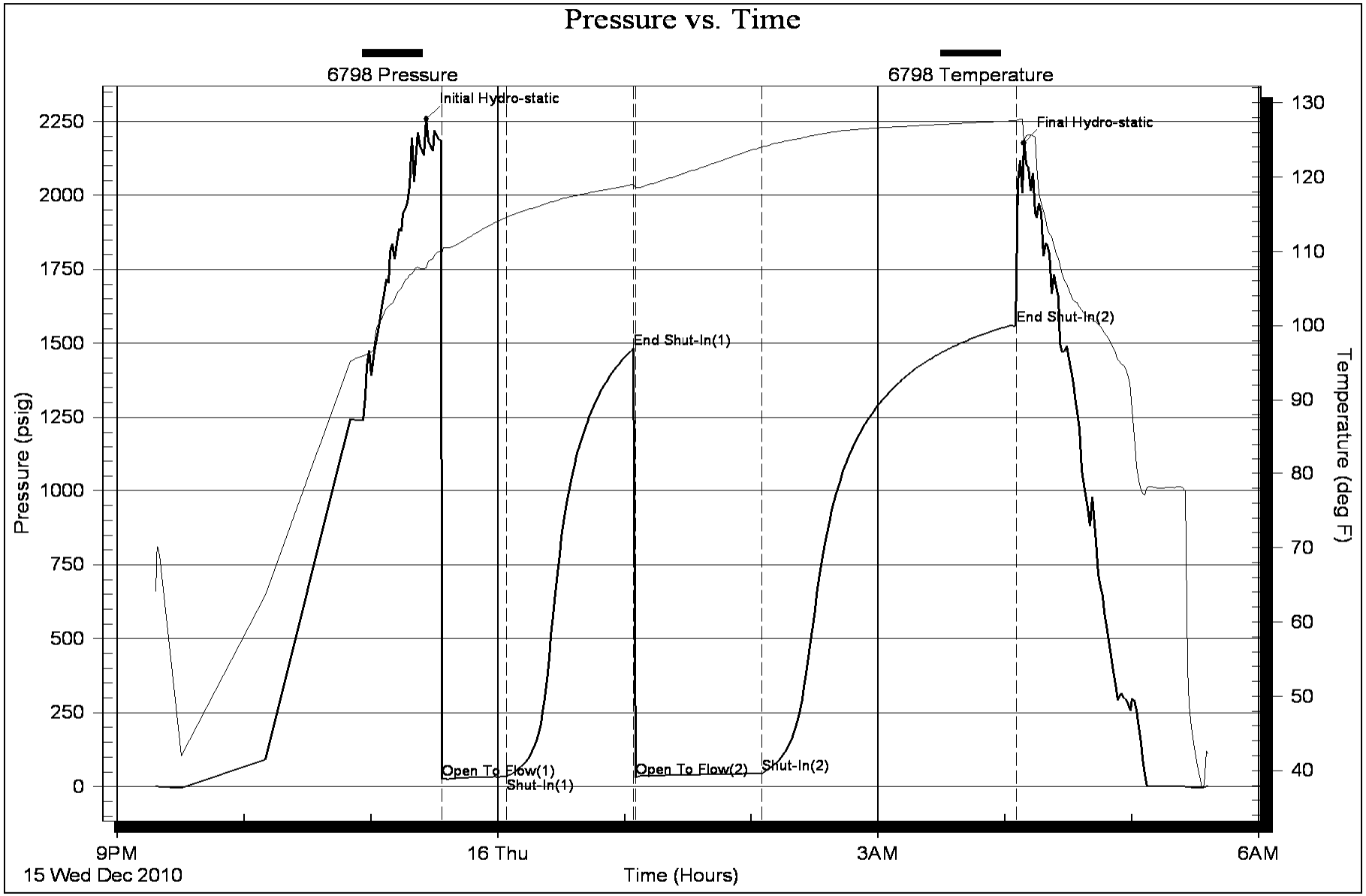
Length ft	Description	Volume bbl
5.00	SOSM -1%O +99%M	0.038

Total Length: 5.00 ft Total Volume: 0.038 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
6798 Pressure
6798 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
2250
2000
1750
1500
1250
1000
750
500
250
0
130
120
110
100
90
80
70
60
50
40
9PM
15 Wed Dec 2010
16 Thu
3AM
6AM
Time (Hours)

Woolsey Operating Company, LLC

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

Well Name:	Koblitz #1		
Location:	SW SW SE		
License Number:	15-077-21723	Region:	Harper Co, KS
Spud Date:	December 4, 2010	Drilling Completed:	December 18, 2010
Surface Coordinates:	330' FSL & 2310' FEL Sec 31 Twp 33S-Rge 8W Field: Hibbard NE		
Bottom Hole Coordinates:	Verticle Hole		
Ground Elevation (ft):	1297'	K.B. Elevation (ft):	1308'
Logged Interval (ft):	TD To: Surface	Total Depth (ft):	5170'
Formation:	Total Depth in Arbuckle		
Type of Drilling Fluid:	Chemical Displaced at 3097'		

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: Bill Klaver
Company: Woolsey Operating Co. LLC
Address: 125 N. Market, Wichita Kansas, 67202

COMMENTS

Surface Casing: Set 20" conductor at 40' with 5 yds grout, Ran 6 joints 10 3/4" X 32.75# casing to 200' KB (tally 215') with 230 sx Class A, 2% gel, 3% cc. Cement did circulate.
Production Casing: 5 1/2"

Deviation Surveys: 1 at 215', 1 at 940', 3/4 at 1407', 3/4 at 1908', 3/4 at 2410', 3/4 at 3411', 3/4 at 3910', 3/4 at 4520', 1 at 5170'
Pipe Strap @ 4520', Strap: 4518.26', Board: 4520.01', Strap 1.74' short. No correction made to the board.
Duke Drilling Rig 10 Bit Record:
#1 14 3/4" Varel RR in @ 40', out @ 215' 175'/2.25 hours
#2 7 7/8" Varel HE29 in at 215' out at 5170'. 4955'/168 hours

Gas Detector: Woolsey Operating Co. Gas Trailer #2
Mud System: Mud Co. Brad Bortz, Aaron Rush, Engineers
DSTs: Trilobite Testing, Leal Cason, Tester
OH Logs: Halliburton, Dual Inducton Laterolog-Micro Log w/SP, CNL-FDC w/PE GR and Caliper. Full Wave Sonic w/GR

DSTs

DST #1 Kansas City, 4002'-4025', 30"-60"-60"-90". SB BOB in 1 minute. Rec: 2389' GIP, 113' GWCM (5%G, 25%W, 70%M), 93' GMCW (5%G, 10%M,85%W), 1395' GCW (5%G, 95%W). IHP 2011,IFP 154-330, ISIP 1607, FFP 363-684, FSIP 1576, FHP 1918. BHT 127.

DST #2, Mississippi, 4364'-4520'. 30"-60"-40"-120", SB BOB in 2 minutes, GTS in 9 minutes. Rec: 4169' GIP, 196' GCM (8%G, 92%M). IHP 2218, IFP 133-304, ISIP 1693, FFP 301-306, FSIP 1698, FHP 2073. BHT 127. IFP: 10" 637 MCF, 20" 698 MCF, 30" 772 MCF. FFP: 10" 1,250 MCF, 20"-30" 1,308 MCF, 40" 1,394 MCF

DST #3 Mississippi. 4520'-4540", 30"-60"-60"-120", SB BOB in 5 minutes, GTS in 50 minutes. Rec: 4283' GIP, 240' OGCM (6%O, 40%G, 54%M). IHP 2313, IFP 54-68, ISIP 1698, FFP 69-115, FSIP 1693, FHP 2148. BHT 135. FFP: 30" 28.5 MCF, 40" 29.3 MCF, 50" 30.9 MCF, 60" 31.7 MCF.

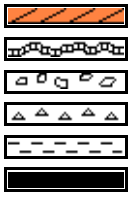
DST #4 Mississippi, 4544'-4575', 30"-60"-60"-120". SB BOB in 58 minutes. Rec: 200' GIP, 70' SOCM (1%O, 99%M), IHP 2249, IFP 39-39, ISIP 1350, FFP 31-43, FSIP 1458, FHP 2121. BHT 125.

DST #5 Mississippi. 4578'-4598', 30"-60"-60"-120". Weak 3 1/2" blow on IFP, weak 2" blow on FFP. Rec: 5' SOCM (1%O, 99%M). IHP 2257, IFP 26-33, ISIP 1483, FFP 32-44, FSIP 1562, FHP 2176. BHT 128

CREWS

Joe Livingston, Tool Pusher (Semi-Retired)
Alex Ordonez, Mornings
Scott Edwards, Days
Colby Crawford, Evening
Ron Burns, Relief

ROCK TYPES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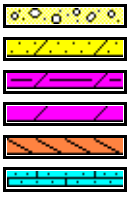
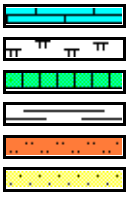
Bent
Brec
Cht
Clyst
Coal


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

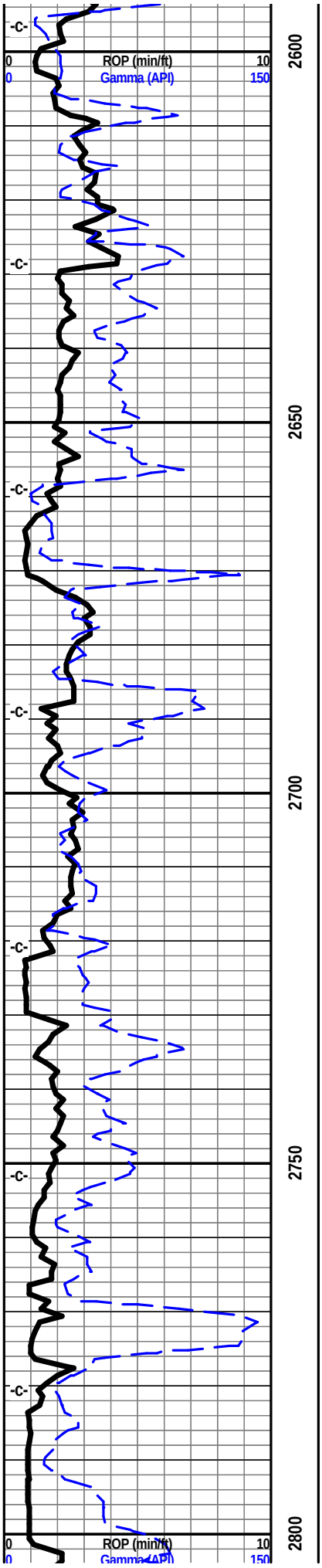
STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

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

Curve Track 1	Depth	Lithology	Oil Shows	Geological Descriptions	TG, C1-C5
ROP (min/ft) 0–10; Gamma (API) 0–150; Bill Klaver Geologist; -C-	25			Reference wells: Griffin's Dena 3-B OWWO, E 1/2 SW 1/4, 31-T33S-8W. Hartman's Zimmerman 2-C, S 1/2 N 1/2 NW, 5-T34S-R8W. Kirby's Platt #1, NE 1/4 SE 1/4 NW 1/4, 31-T33S-R8W	TG (units) 0–200
-C-	2550			One minute drill time was recorded from 2500' to rotary total depth. Drilling samples were gathered from 3050' to rotary total depth. All samples were delivered to the Survey.	
				7 am Progress: December 3, 2010 MIRT December 4, 2010 SPUD December 5, 2010 Drilling at 565' December 6, 2010 Drilling at 1763'	

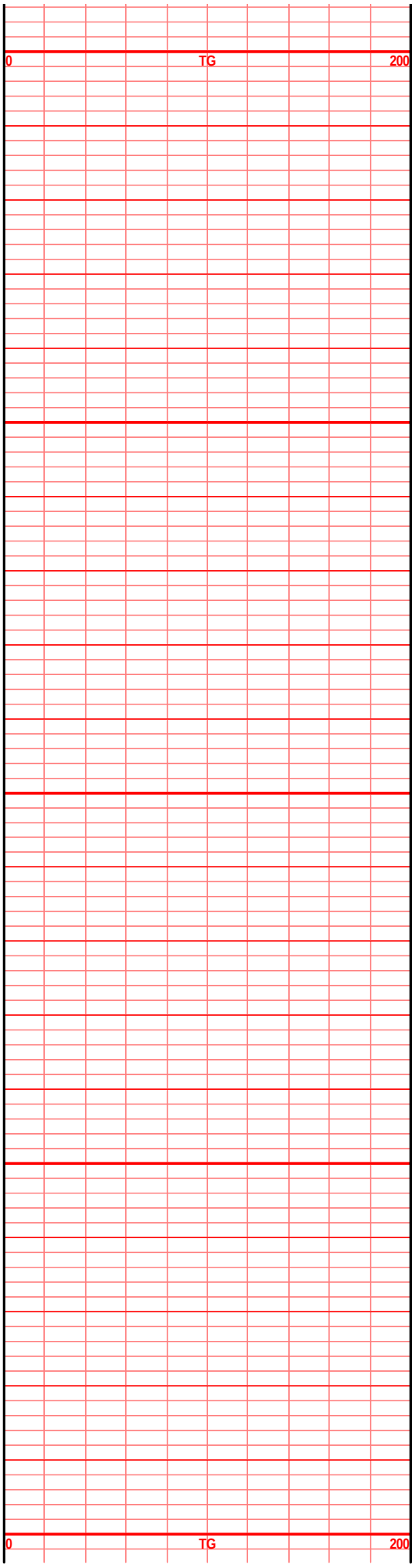
Curve Track 1: ROP (min/ft); Gamma (API)

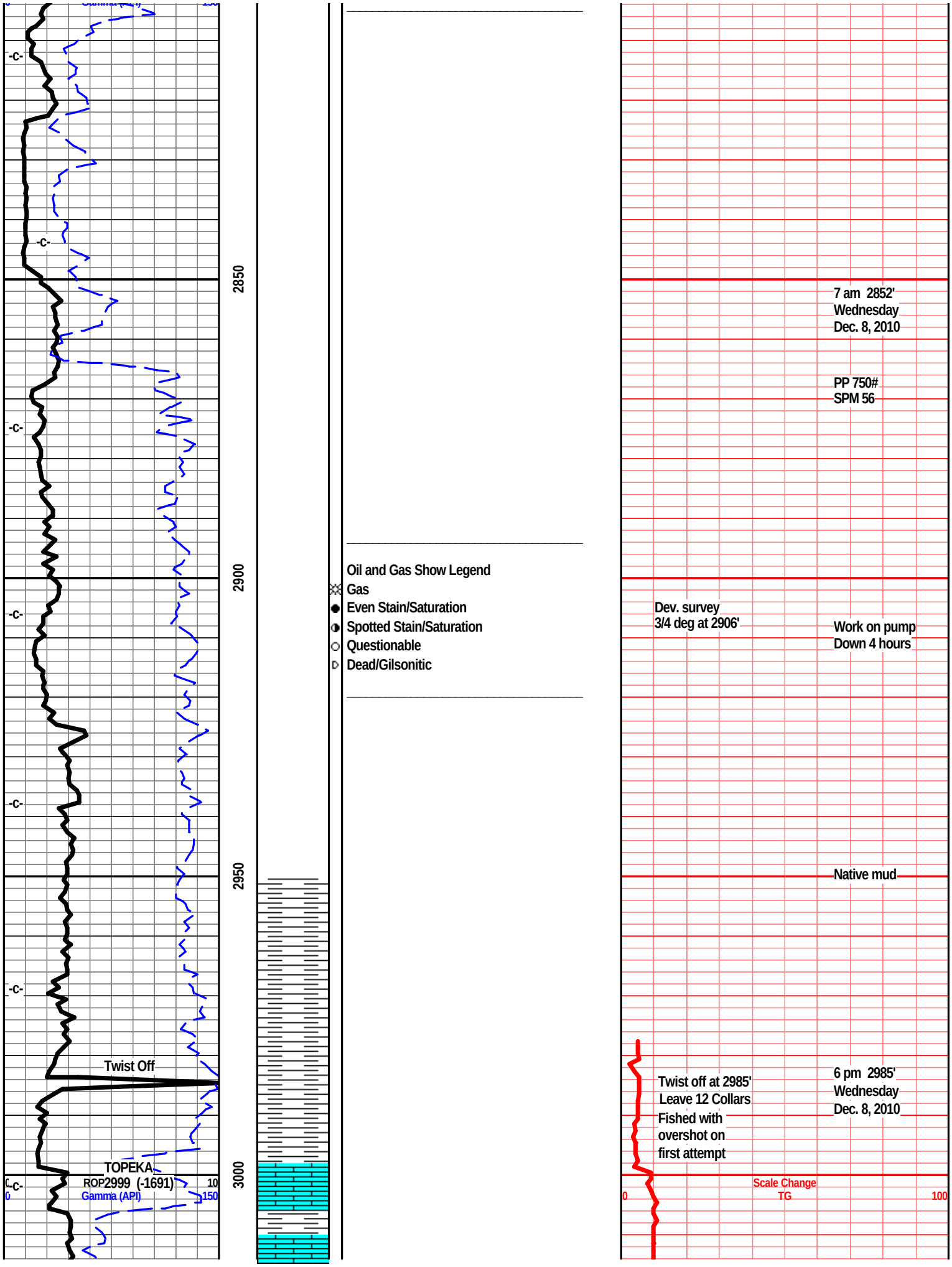
TG, C1-C5: TG (units); C1 (units); C2 (units); C3 (units); C4 (units); C5 (units)

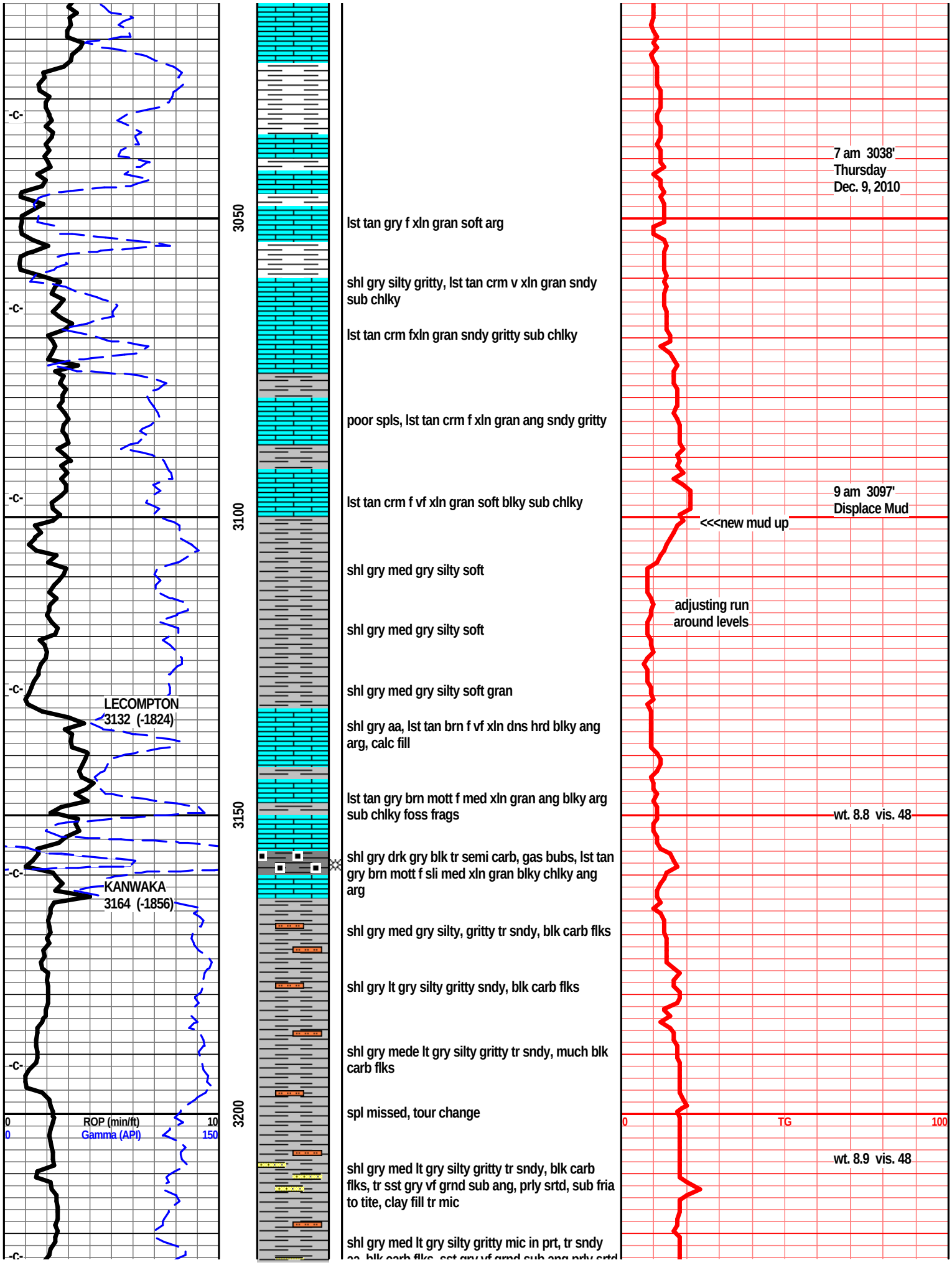


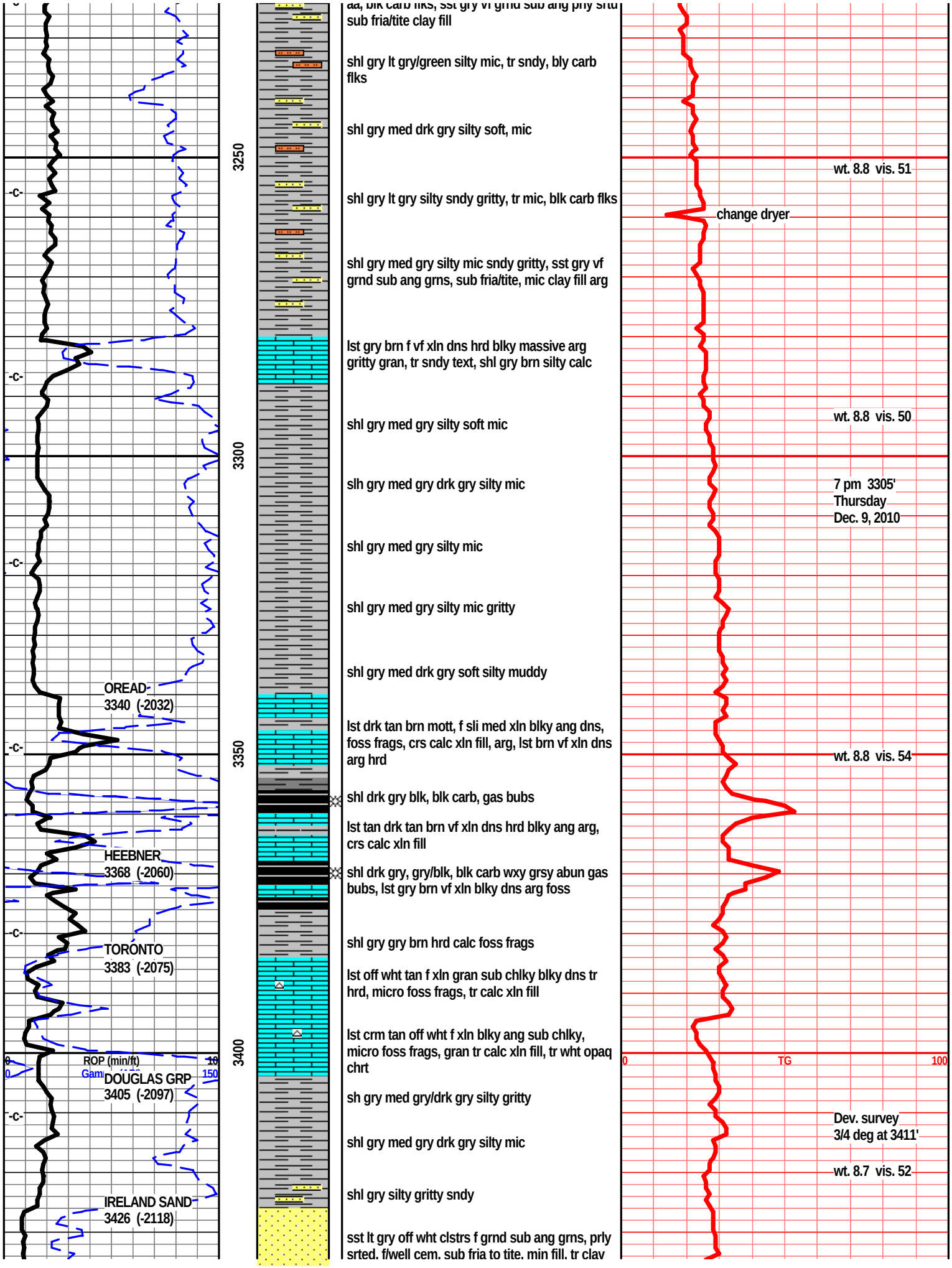
December 7, 2010 Drilling at 2414'
December 8, 2010 Drilling at 2852'
December 9, 2010 Drilling at 3038'
December 10, 2010 Drilling at 3634'
December 11, 2010 DST #1 at 4025'
December 12, 2010 Drilling at 4168'
December 13, 2010 Drilling at 4464'
December 14, 2010 DST #3 at 4540'
December 15, 2010 DST #4 at 4575'
December 16, 2010 DST #5 at 4598'
December 17, 2010 Drilling at 4918'
December 18, 2010 RTD of 5170' at 7:15 am, logs out 10 pm

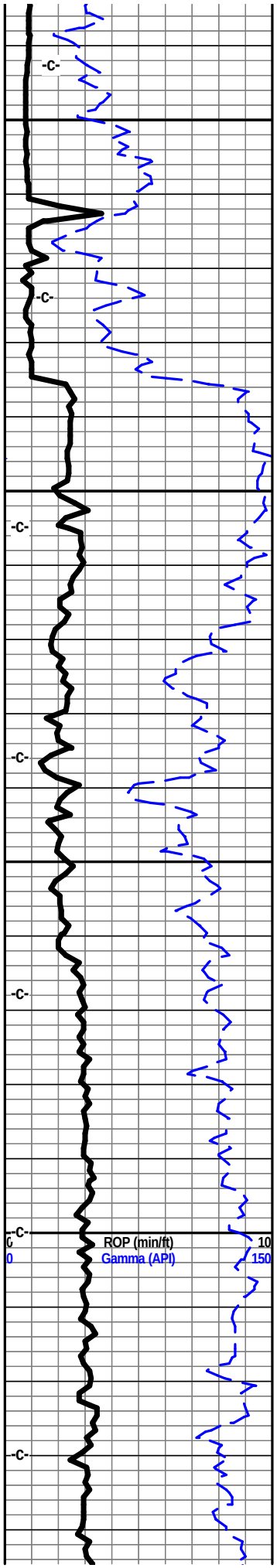
E-Log Tops:
Chase 1547 (-239)
Wabaunsee 2399 (-1091)
LeCompton 3132 (-1824)
Kanwaka 3162 (-1854)
Oread 3338 (-2030)
Heebner 3367 (-2059)
Toronto 3381 (-2073)
Douglas Shl 3484 (-2176)
Ireland Sand 3426 (-2118)
Haskell 3682 (-2374)
Stalnaker 3723 (-2415)
Quindaro 3972 (-2664)
KC 'F' 3979 (-2671)
KC 'Iola' 3995 (-2687)
KC 'Dennis" 4972 (-2764)
Stark 4122 (-2814)
KC 'Swope' 4144 (-2836)
Hushpuckney 4168 (-2860)
KC 'Hertha' 4177 (-2869)
B/Kansas City 4225 (-2917)
Altamont 4284 (-2976)
Pawnee 4339 (-3031)
Cherokee Grp 4385 (-3077)
Mississippi 4506 (-3198)
Compton 4801 (-3493)
Kinderhook 4807 (-3499)
Woodford 4867 (-3559)
Viola 4892 (-3584)
Simpson Grp 4944 (-3636)
Wilcox 4958 (-3650)
McLish Shl 5021 (-3713)
McLish Sd 5096 (-3788)
Arbuckle 5110 (-3802)

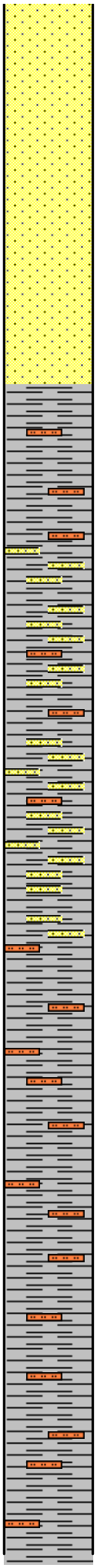



-C-
2850
2900
2950
3000
Twist Off
TOPEKA
ROP2999 (-1691)
Gamma (API)
0
10
150
Oil and Gas Show Legend
Gas
Even Stain/Saturation
Spotted Stain/Saturation
Questionable
Dead/Gilsonitic
7 am 2852'
Wednesday
Dec. 8, 2010
PP 750#
SPM 56
Dev. survey
3/4 deg at 2906'
Work on pump
Down 4 hours
Native mud
Twist off at 2985'
Leave 12 Collars
Fished with
overshot on
first attempt
6 pm 2985'
Wednesday
Dec. 8, 2010
Scale Change
TG
0
100


-C-
LECOMPTON
3132 (-1824)
KANWAKA
3164 (-1856)
0
ROP (min/ft)
10
0
Gamma (API)
150
3050
3100
3150
3200
lst tan gry f xln gran soft arg
shl gry silty gritty, lst tan crm v xln gran sndy sub chlky
lst tan crm fxln gran sndy gritty sub chlky
poor spls, lst tan crm f xln gran ang sndy gritty
lst tan crm f vf xln gran soft blky sub chlky
shl gry med gry silty soft
shl gry med gry silty soft
shl gry med gry silty soft gran
shl gry aa, lst tan brn f vf xln dns hrd blky ang arg, calc fill
lst tan gry brn mott f med xln gran ang blky arg sub chlky foss frags
shl gry drk gry blk tr semi carb, gas bubs, lst tan gry brn mott f sli med xln gran blky chlky ang arg
shl gry med gry silty, gritty tr sndy, blk carb flks
shl gry lt gry silty gritty sndy, blk carb flks
shl gry mede lt gry silty gritty tr sndy, much blk carb flks
spl missed, tour change
shl gry med lt gry silty gritty tr sndy, blk carb flks, tr sst gry vf grnd sub ang, prly srtd, sub fria to tite, clay fill tr mic
shl gry med lt gry silty gritty mic in prt, tr sndy
7 am 3038'
Thursday
Dec. 9, 2010
9 am 3097'
Displace Mud
<<<new mud up
adjusting run
around levels
wt. 8.8 vis. 48
0
TG
100
wt. 8.9 vis. 48


aa, blk carb flks, sst gry vf grnd sub ang prly srtd sub fria/tite clay fill
shl gry lt gry/green silty mic, tr sndy, bly carb flks
shl gry med drk gry silty soft, mic
3250
wt. 8.8 vis. 51
shl gry lt gry silty sndy gritty, tr mic, blk carb flks
change dryer
shl gry med gry silty mic sndy gritty, sst gry vf grnd sub ang grns, sub fria/tite, mic clay fill arg
lst gry brn f vf xln dns hrd blky massive arg gritty gran, tr sndy text, shl gry brn silty calc
shl gry med gry silty soft mic
wt. 8.8 vis. 50
3300
slh gry med gry drk gry silty mic
7 pm 3305'
Thursday
Dec. 9, 2010
shl gry med gry silty mic
shl gry med gry silty mic gritty
shl gry med drk gry soft silty muddy
OREAD
3340 (-2032)
lst drk tan brn mott, f sli med xln blky ang dns, foss frags, crs calc xln fill, arg, lst brn vf xln dns arg hrd
3350
wt. 8.8 vis. 54
shl drk gry blk, blk carb, gas bubs
lst tan drk tan brn vf xln dns hrd blky ang arg, crs calc xln fill
HEEBNER
3368 (-2060)
shl drk gry, gry/blk, blk carb wxy grsy abun gas bubs, lst gry brn vf xln blky dns arg foss
shl gry gry brn hrd calc foss frags
TORONTO
3383 (-2075)
lst off wht tan f xln gran sub chlky blky dns tr hrd, micro foss frags, tr calc xln fill
lst crm tan off wht f xln blky ang sub chlky, micro foss frags, gran tr calc xln fill, tr wht opaq chrt
3400
ROP (min/ft)
0
10
Gam
0
150
TG
0
100
DOUGLAS GRP
3405 (-2097)
sh gry med gry/drk gry silty gritty
Dev. survey
3/4 deg at 3411'
shl gry med gry drk gry silty mic
wt. 8.7 vis. 52
shl gry silty gritty sndy
IRELAND SAND
3426 (-2118)
sst lt gry off wht clstrs f grnd sub ang grns, prly srted. f/well cem. sub fria to tite. min fill. tr clay





fill, mic in prt

sst off wht tan clstrs, f grnd sub ang grns, f/well cem, calc cem, sub fria to tite, min fill,

aa

sst off wht lt tan clstrs, fn grnd, sub anc grns, prly srtd, f/well cem, sub fria, mslty tite hrd blky clstrs.

sst tan off wht f grnd clstrs, sub ang grns, prly srtd, f/well cem, sub fria to tite, clay fill, blk min fill

sst off wht tan clstrs, f grnd, sub ang to ang grns, prly srtd, f/well cem, calc cem, sub fria to tite, clay fill, min fill, tr mic

shl gry med gry silty sndy gritty, mic, blk carb inclu

shl gry med gry silty gritty mic

shl gry med gry silty tr sndy gritty, blk carb incl

shl gry med gry silty gritty tr sndy, mic

shl gry med gry silty gritty, blk carb fill

shl gry med gry silty sndy, blk car fill

shl gry drk gry med gry silty gritty

shl gry med gry

shl gry med tr med drk gry silty blky ang pcs

shl gry med drk gry silty

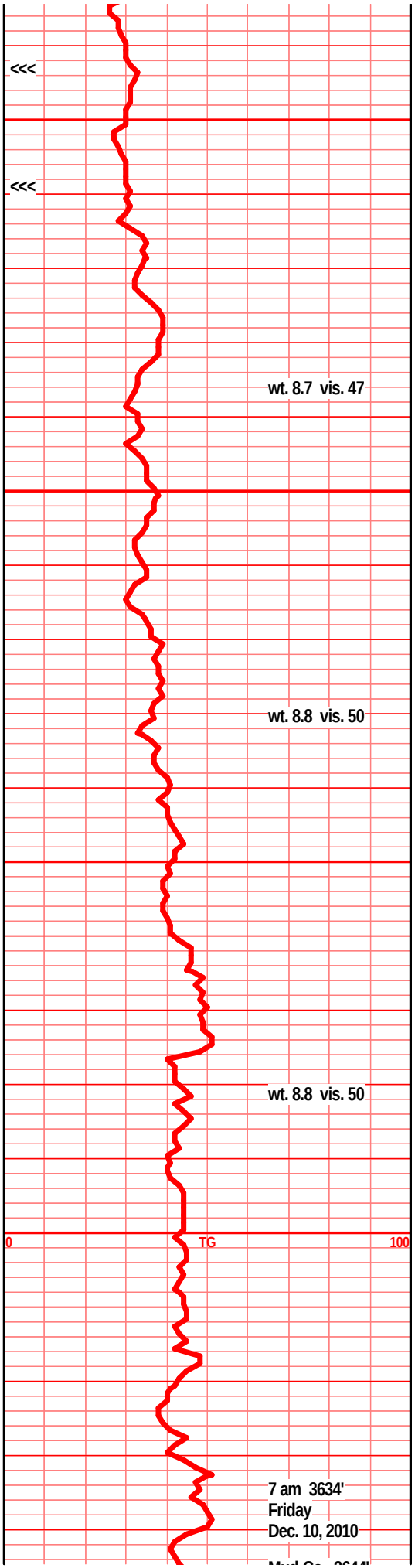
shl gry med to drk gry blky ang pcs

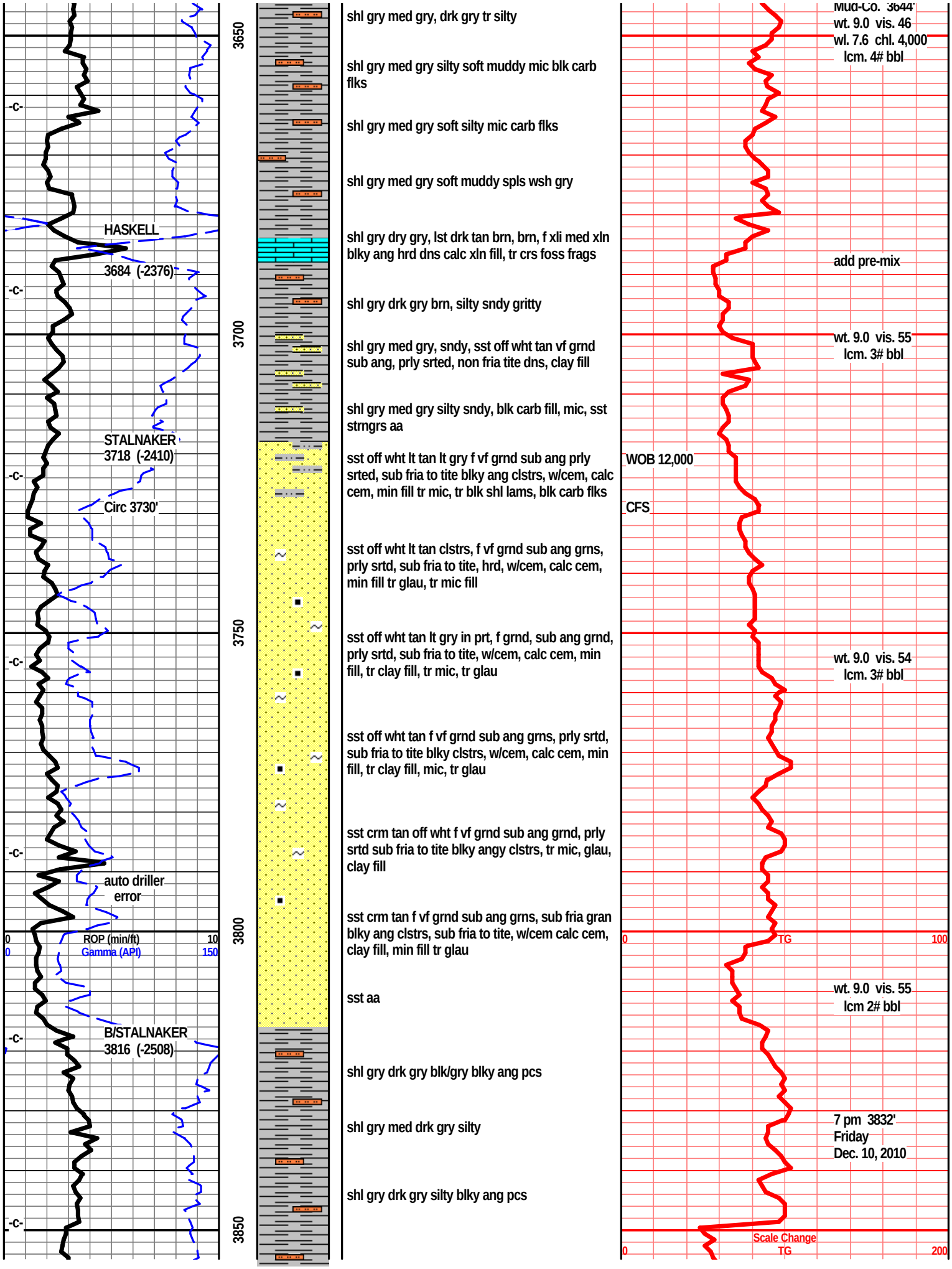
shl gry med gry tr silty soft

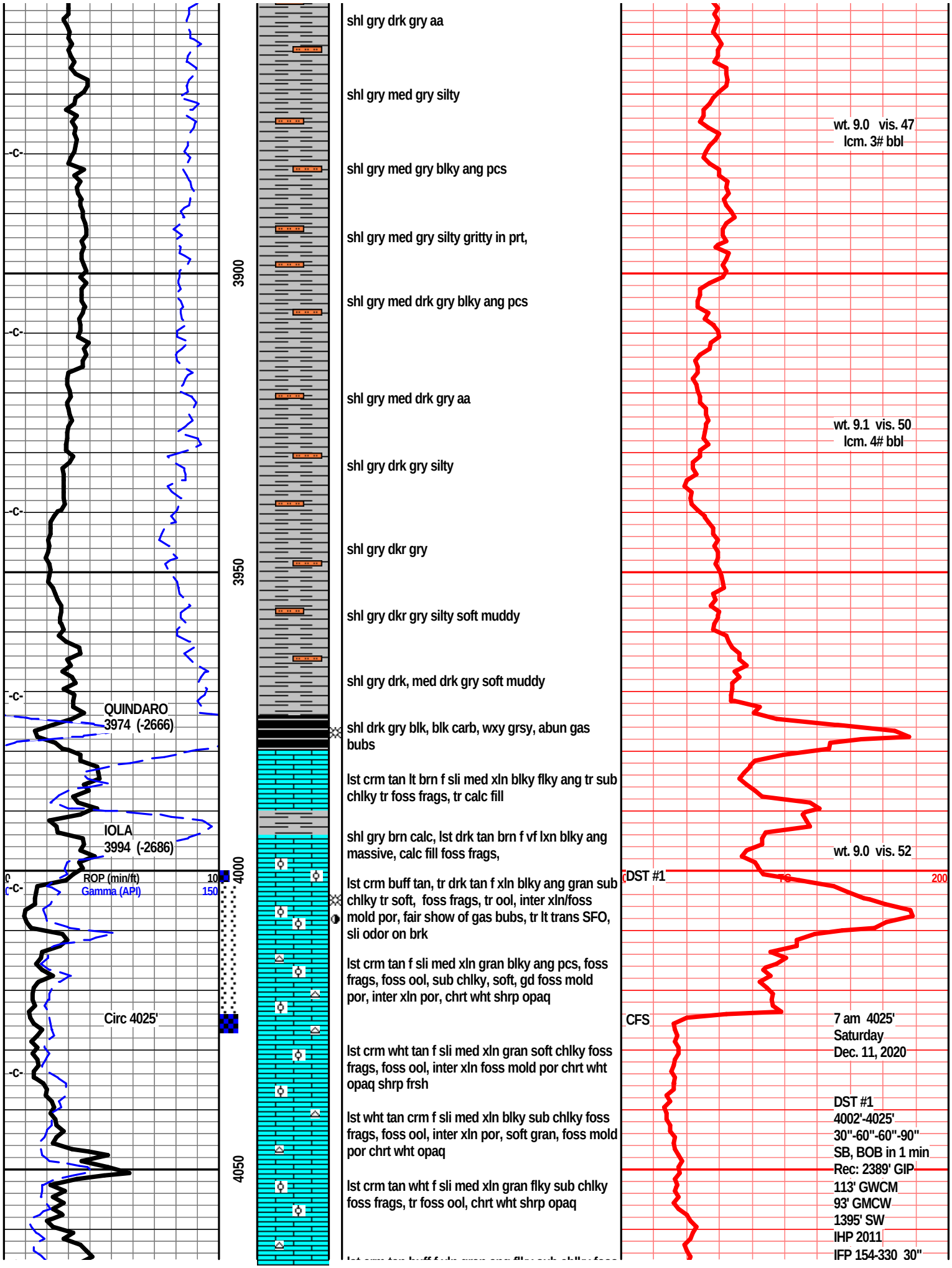
shl gry med gry

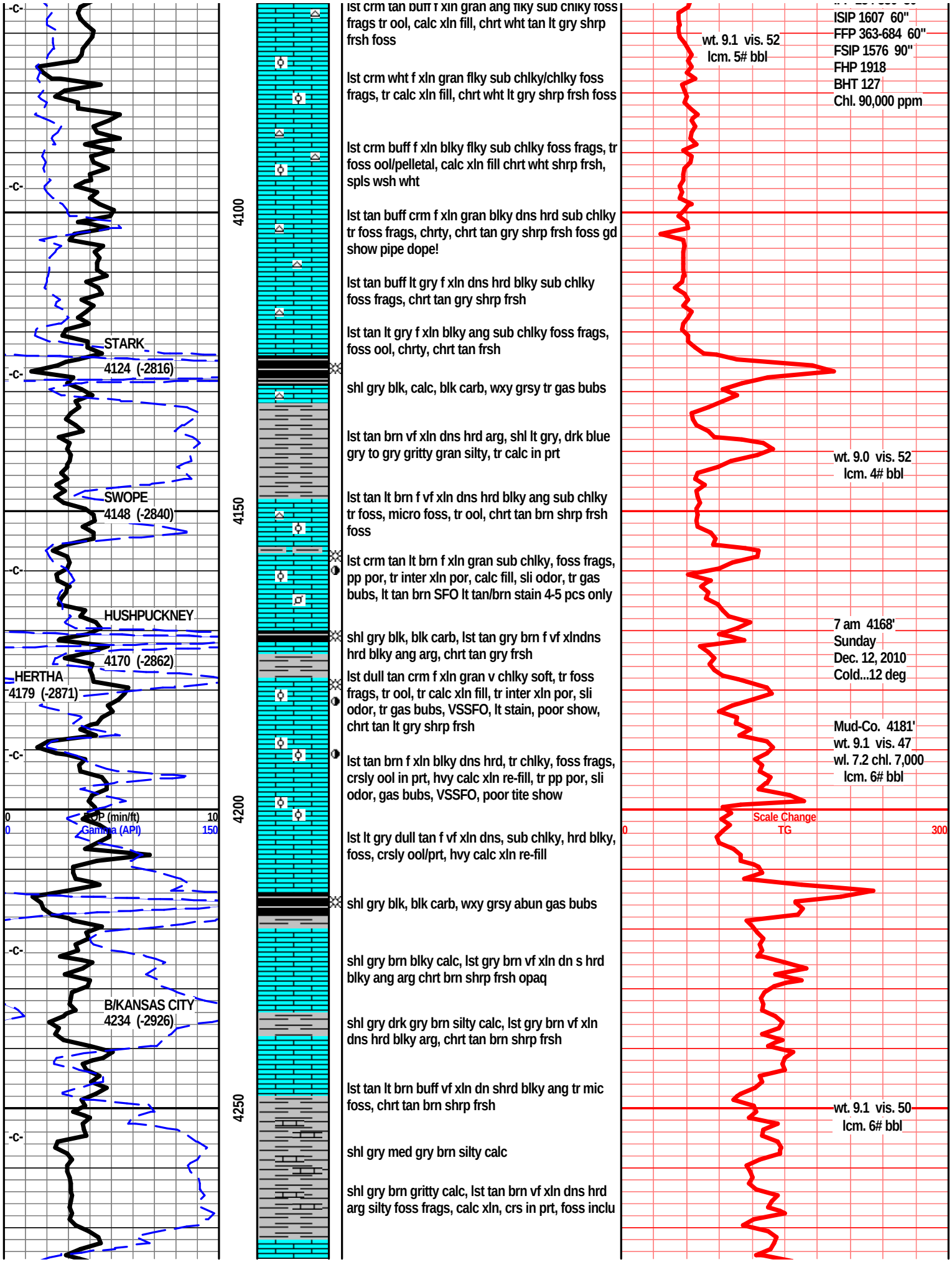
shl gry med/drk gry silty blky ang pcs

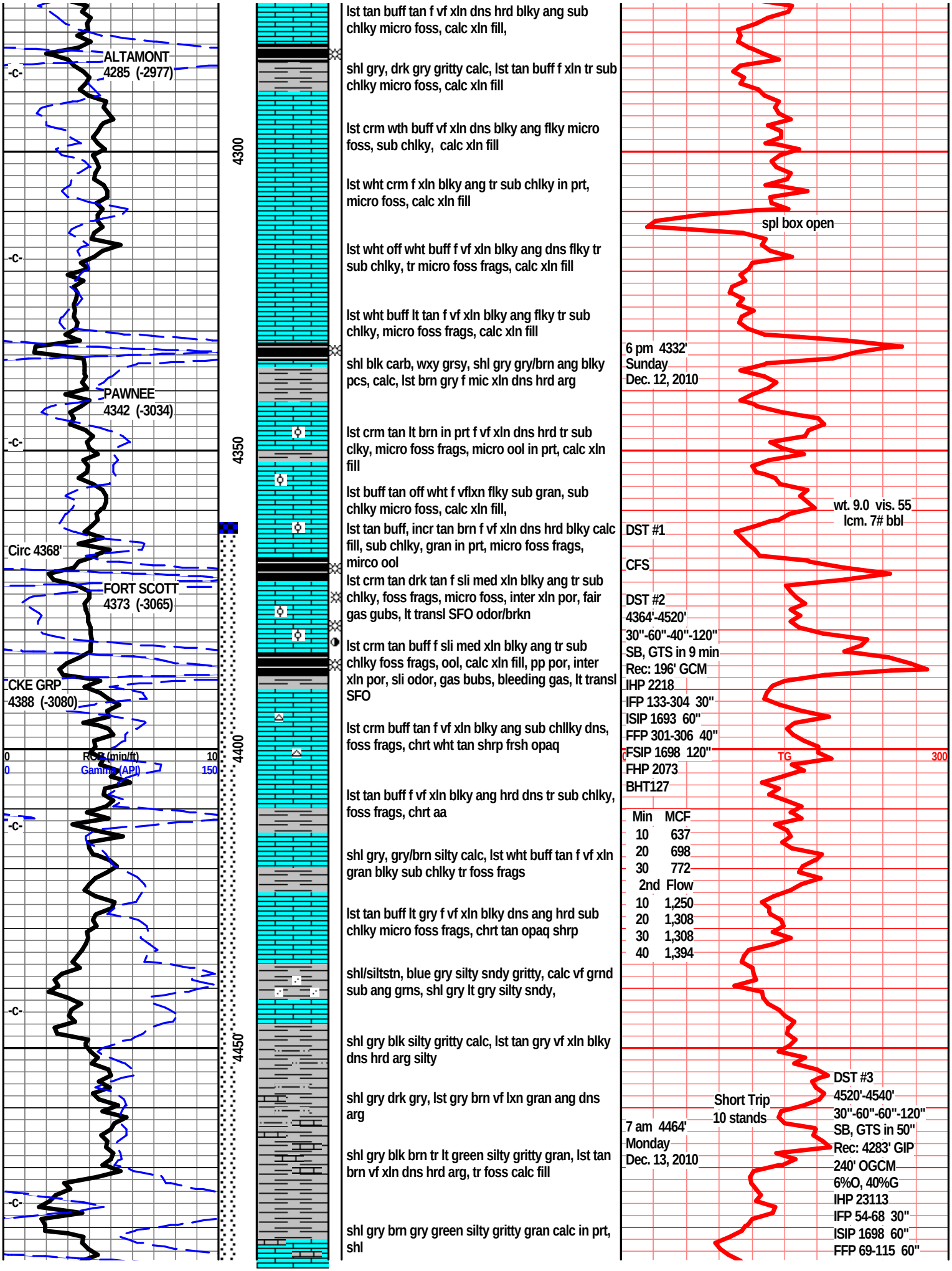
shl gry med gry

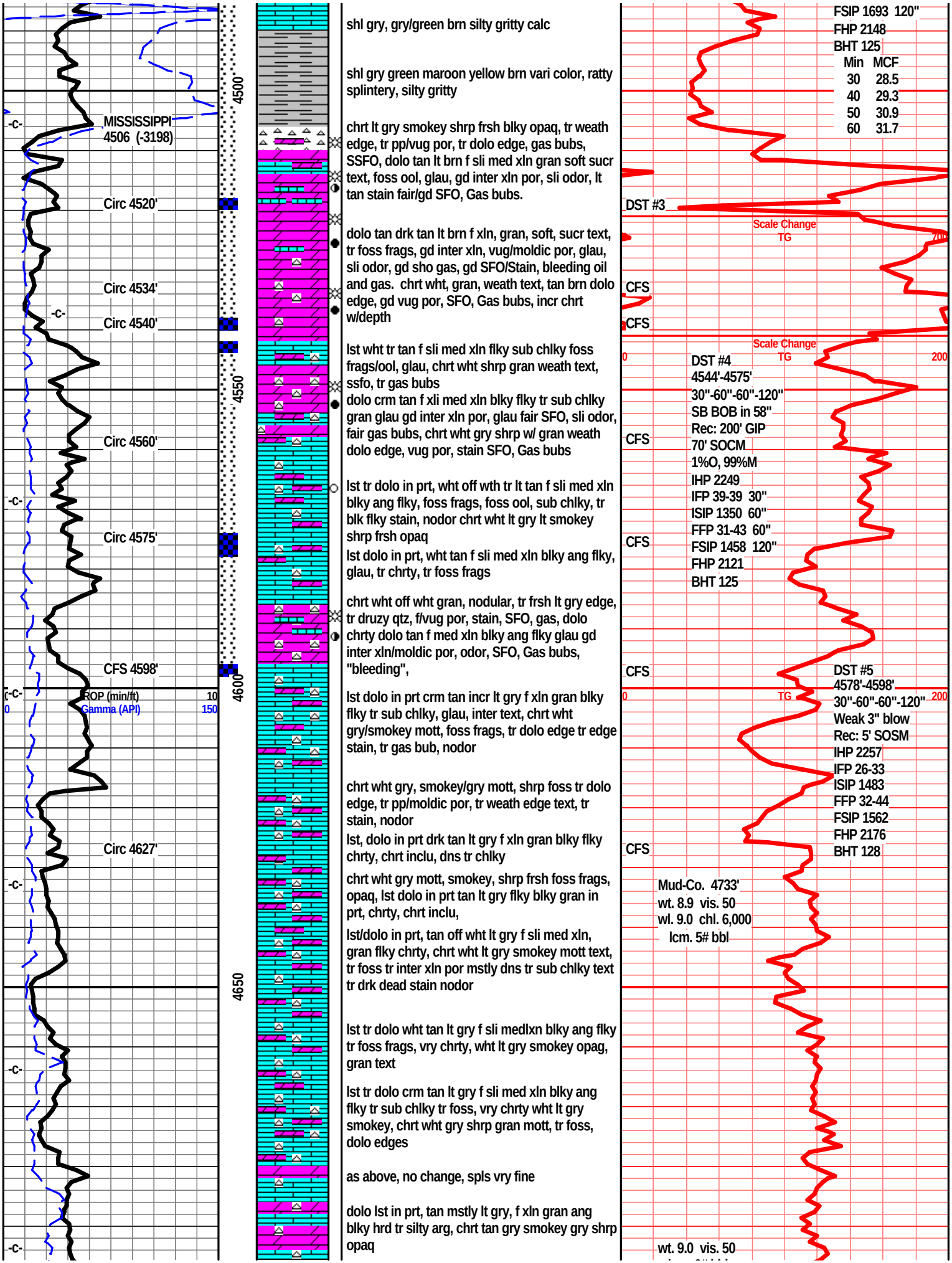


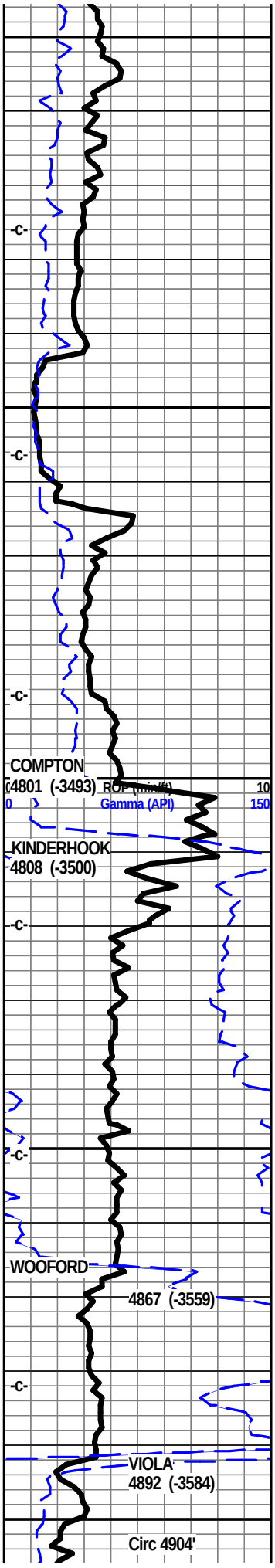

3650
3700
3750
3800
3850
-C-
HASKELL
3684 (-2376)
STALNAKER
3718 (-2410)
Circ 3730'
auto driller error
B/STALNAKER
3816 (-2508)
0 ROP (min/ft) 10
0 Gamma (API) 150
shl gry med gry, drk gry tr silty
shl gry med gry silty soft muddy mic blk carb flks
shl gry med gry soft silty mic carb flks
shl gry med gry soft muddy spls wsh gry
shl gry dry gry, lst drk tan brn, brn, f xli med xln blky ang hrd dns calc xln fill, tr crs foss frags
shl gry drk gry brn, silty sndy gritty
shl gry med gry, sndy, sst off wht tan vf grnd sub ang, prly srted, non fria tite dns, clay fill
shl gry med gry silty sndy, blk carb fill, mic, sst strngrs aa
sst off wht lt tan lt gry f vf grnd sub ang prly srted, sub fria to tite blky ang clstrs, w/cem, calc cem, min fill tr mic, tr blk shl lams, blk carb flks
sst off wht lt tan clstrs, f vf grnd sub ang grns, prly srtd, sub fria to tite, hrd, w/cem, calc cem, min fill tr glau, tr mic fill
sst off wht tan lt gry in prt, f grnd, sub ang grnd, prly srtd, sub fria to tite, w/cem, calc cem, min fill, tr clay fill, tr mic, tr glau
sst off wht tan f vf grnd sub ang grns, prly srtd, sub fria to tite blky clstrs, w/cem, calc cem, min fill, tr clay fill, mic, tr glau
sst crm tan off wht f vf grnd sub ang grnd, prly srtd sub fria to tite blky angy clstrs, tr mic, glau, clay fill
sst crm tan f vf grnd sub ang grns, sub fria gran blky ang clstrs, sub fria to tite, w/cem calc cem, clay fill, min fill tr glau
sst aa
shl gry drk gry blk/gry blky ang pcs
shl gry med drk gry silty
shl gry drk gry silty blky ang pcs
Mud-Co. 3644'
wt. 9.0 vis. 46
wl. 7.6 chl. 4,000
lcm. 4# bbl
add pre-mix
wt. 9.0 vis. 55
lcm. 3# bbl
WOB 12,000
CFS
wt. 9.0 vis. 54
lcm. 3# bbl
0 TG 100
wt. 9.0 vis. 55
lcm 2# bbl
7 pm 3832'
Friday
Dec. 10, 2010
Scale Change
0 TG 200

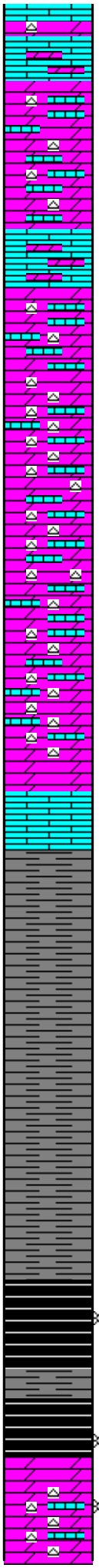

-C-
-C-
-C-
-C-
-C-
-C-
3900
3950
4000
4050
QUINDARO
3974 (-2666)
IOLA
3994 (-2686)
ROP (min/ft)
Gamma (API)
10
150
Circ 4025'
shl gry drk gry aa
shl gry med gry silty
shl gry med gry blky ang pcs
shl gry med gry silty gritty in prt,
shl gry med drk gry blky ang pcs
shl gry med drk gry aa
shl gry drk gry silty
shl gry dkr gry
shl gry dkr gry silty soft muddy
shl gry drk, med drk gry soft muddy
shl drk gry blk, blk carb, wxy grsy, abun gas bubs
lst crm tan lt brn f sli med xln blky flky ang tr sub chlky tr foss frags, tr calc fill
shl gry brn calc, lst drk tan brn f vf lxn blky ang massive, calc fill foss frags,
lst crm buff tan, tr drk tan f xln blky ang gran sub chlky tr soft, foss frags, tr ool, inter xln/foss mold por, fair show of gas bubs, tr lt trans SFO, sli odor on brk
lst crm tan f sli med xln gran blky ang pcs, foss frags, foss ool, sub chlky, soft, gd foss mold por, inter xln por, chrt wht shrp opaq
lst crm wht tan f sli med xln gran soft chlky foss frags, foss ool, inter xln foss mold por chrt wht opaq shrp frsh
lst wht tan crm f sli med xln blky sub chlky foss frags, foss ool, inter xln por, soft gran, foss mold por chrt wht opaq
lst crm tan wht f sli med xln gran flky sub chlky foss frags, tr foss ool, chrt wht shrp opaq
wt. 9.0 vis. 47
lcm. 3# bbl
wt. 9.1 vis. 50
lcm. 4# bbl
wt. 9.0 vis. 52
DST #1
TG
200
CFS
7 am 4025'
Saturday
Dec. 11, 2020
DST #1
4002'-4025'
30"-60"-60"-90"
SB, BOB in 1 min
Rec: 2389' GIP
113' GWCM
93' GMCW
1395' SW
IHP 2011
IFP 154-330 30"


-C-
STARK
4124 (-2816)
SWOPE
4148 (-2840)
HUSHPUCKNEY
4170 (-2862)
HERTHA
4179 (-2871)
B/KANSAS CITY
4234 (-2926)
0
ROP (min/ft)
10
0
Gamma (API)
150
4100
4150
4200
4250
lst crm tan buff f xln gran ang flky sub chlky foss frags tr ool, calc xln fill, chrt wht tan lt gry shrp frsh foss
lst crm wht f xln gran flky sub chlky/chlky foss frags, tr calc xln fill, chrt wht lt gry shrp frsh foss
lst crm buff f xln blky flky sub chlky foss frags, tr foss ool/pelletal, calc xln fill chrt wht shrp frsh, spls wsh wht
lst tan buff crm f xln gran blky dns hrd sub chlky tr foss frags, chrty, chrt tan gry shrp frsh foss gd show pipe dope!
lst tan buff lt gry f xln dns hrd blky sub chlky foss frags, chrt tan gry shrp frsh
lst tan lt gry f xln blky ang sub chlky foss frags, foss ool, chrty, chrt tan frsh
shl gry blk, calc, blk carb, wxy grsy tr gas bubs
lst tan brn vf xln dns hrd arg, shl lt gry, drk blue gry to gry gritty gran silty, tr calc in prt
lst tan lt brn f vf xln dns hrd blky ang sub chlky tr foss, micro foss, tr ool, chrt tan brn shrp frsh foss
lst crm tan lt brn f xln gran sub chlky, foss frags, pp por, tr inter xln por, calc fill, sli odor, tr gas bubs, lt tan brn SFO lt tan/brn stain 4-5 pcs only
shl gry blk, blk carb, lst tan gry brn f vf xlndns hrd blky ang arg, chrt tan gry frsh
lst dull tan crm f xln gran v chlky soft, tr foss frags, tr ool, tr calc xln fill, tr inter xln por, sli odor, tr gas bubs, VSSFO, lt stain, poor show, chrt tan lt gry shrp frsh
lst tan brn f xln blky dns hrd, tr chlky, foss frags, crsly ool in prt, hvy calc xln re-fill, tr pp por, sli odor, gas bubs, VSSFO, poor tite show
lst lt gry dull tan f vf xln dns, sub chlky, hrd blky, foss, crsly ool/prt, hvy calc xln re-fill
shl gry blk, blk carb, wxy grsy abun gas bubs
shl gry brn blky calc, lst gry brn vf xln dn s hrd blky ang arg chrt brn shrp frsh opaq
shl gry drk gry brn silty calc, lst gry brn vf xln dns hrd blky arg, chrt tan brn shrp frsh
lst tan lt brn buff vf xln dn shrd blky ang tr mic foss, chrt tan brn shrp frsh
shl gry med gry brn silty calc
shl gry brn gritty calc, lst tan brn vf xln dns hrd arg silty foss frags, calc xln, crs in prt, foss inclu
wt. 9.1 vis. 52
lcm. 5# bbl
ISIP 1607 60"
FFP 363-684 60"
FSIP 1576 90"
FHP 1918
BHT 127
Chl. 90,000 ppm
wt. 9.0 vis. 52
lcm. 4# bbl
7 am 4168'
Sunday
Dec. 12, 2010
Cold...12 deg
Mud-Co. 4181'
wt. 9.1 vis. 47
wl. 7.2 chl. 7,000
lcm. 6# bbl
Scale Change
0
TG
300
wt. 9.1 vis. 50
lcm. 6# bbl


ALTAMONT
4285 (-2977)
-c-
PAWNEE
4342 (-3034)
Circ 4368'
FORT SCOTT
4373 (-3065)
CKE GRP
4388 (-3080)
0
ROP (min/ft)
10
0
Gamma (API)
150
4300
4350
4400
4450
lst tan buff tan f vf xln dns hrd blky ang sub chlky micro foss, calc xln fill,
shl gry, drk gry gritty calc, lst tan buff f xln tr sub chlky micro foss, calc xln fill
lst crm wth buff vf xln dns blky ang flky micro foss, sub chlky, calc xln fill
lst wht crm f xln blky ang tr sub chlky in prt, micro foss, calc xln fill
lst wht off wht buff f vf xln blky ang dns flky tr sub chlky, tr micro foss frags, calc xln fill
lst wht buff lt tan f vf xln blky ang flky tr sub chlky, micro foss frags, calc xln fill
shl blk carb, wxy grsy, shl gry gry/brn ang blky pcs, calc, lst brn gry f mic xln dns hrd arg
lst crm tan lt brn in prt f vf xln dns hrd tr sub clky, micro foss frags, micro ool in prt, calc xln fill
lst buff tan off wht f vflxn flky sub gran, sub chlky micro foss, calc xln fill,
lst tan buff, incr tan brn f vf xln dns hrd blky calc fill, sub chlky, gran in prt, micro foss frags, mirco ool
lst crm tan drk tan f sli med xln blky ang tr sub chlky, foss frags, micro foss, inter xln por, fair gas gubs, lt transl SFO odor/brkn
lst crm tan buff f sli med xln blky ang tr sub chlky foss frags, ool, calc xln fill, pp por, inter xln por, sli odor, gas bubs, bleeding gas, lt transl SFO
lst crm buff tan f vf xln blky ang sub chllky dns, foss frags, chrt wht tan shrp frsh opaq
lst tan buff f vf xln blky ang hrd dns tr sub chlky, foss frags, chrt aa
shl gry, gry/brn silty calc, lst wht buff tan f vf xln gran blky sub chlky tr foss frags
lst tan buff lt gry f vf xln blky dns ang hrd sub chlky micro foss frags, chrt tan opaq shrp
shl/siltstn, blue gry silty sndy gritty, calc vf grnd sub ang grns, shl gry lt gry silty sndy,
shl gry blk silty gritty calc, lst tan gry vf xln blky dns hrd arg silty
shl gry drk gry, lst gry brn vf lxn gran ang dns arg
shl gry blk brn tr lt green silty gritty gran, lst tan brn vf xln dns hrd arg, tr foss calc fill
shl gry brn gry green silty gritty gran calc in prt, shl
spl box open
6 pm 4332'
Sunday
Dec. 12, 2010
wt. 9.0 vis. 55
lcm. 7# bbl
DST #1
CFS
DST #2
4364'-4520'
30"-60"-40"-120"
SB, GTS in 9 min
Rec: 196' GCM
IHP 2218
IFP 133-304 30"
ISIP 1693 60"
FFP 301-306 40"
FSIP 1698 120"
FHP 2073
BHT127
TG
300
Min MCF
10 637
20 698
30 772
2nd Flow
10 1,250
20 1,308
30 1,308
40 1,394
Short Trip
10 stands
7 am 4464'
Monday
Dec. 13, 2010
DST #3
4520'-4540'
30"-60"-60"-120"
SB, GTS in 50"
Rec: 4283' GIP
240' OGCM
6%O, 40%G
IHP 23113
IFP 54-68 30"
ISIP 1698 60"
FFP 69-115 60"


MISSISSIPPI
4506 (-3198)
Circ 4520'
Circ 4534'
Circ 4540'
Circ 4560'
Circ 4575'
CFS 4598'
Circ 4627'
ROP (min/ft) 10
Gamma (API) 150
4500
4550
4600
4650
shl gry, gry/green brn silty gritty calc
shl gry green maroon yellow brn vari color, ratty splintery, silty gritty
chrt lt gry smokey shrp frsh blky opaq, tr weath edge, tr pp/vug por, tr dolo edge, gas bubs, SSFO, dolo tan lt brn f sli med xln gran soft sucr text, foss ool, glau, gd inter xln por, sli odor, lt tan stain fair/gd SFO, Gas bubs.
dolo tan drk tan lt brn f xln, gran, soft, sucr text, tr foss frags, gd inter xln, vug/moldic por, glau, sli odor, gd sho gas, gd SFO/Stain, bleeding oil and gas. chrt wht, gran, weath text, tan brn dolo edge, gd vug por, SFO, Gas bubs, incr chrt w/depth
lst wht tr tan f sli med xln flky sub chlky foss frags/ool, glau, chrt wht shrp gran weath text, ssfo, tr gas bubs
dolo crm tan f xli med xln blky flky tr sub chlky gran glau gd inter xln por, glau fair SFO, sli odor, fair gas bubs, chrt wht gry shrp w/ gran weath dolo edge, vug por, stain SFO, Gas bubs
lst tr dolo in prt, wht off wth tr lt tan f sli med xln blky ang flky, foss frags, foss ool, sub chlky, tr blk flky stain, nodor chrt wht lt gry lt smokey shrp frsh opaq
lst dolo in prt, wht tan f sli med xln blky ang flky, glau, tr chrty, tr foss frags
chrt wht off wht gran, nodular, tr frsh lt gry edge, tr druzy qtz, f/vug por, stain, SFO, gas, dolo chrty dolo tan f med xln blky ang flky glau gd inter xln/moldic por, odor, SFO, Gas bubs, "bleeding",
lst dolo in prt crm tan incr lt gry f xln gran blky flky tr sub chlky, glau, inter text, chrt wht gry/smokey mott, foss frags, tr dolo edge tr edge stain, tr gas bub, nodor
chrt wht gry, smokey/gry mott, shrp foss tr dolo edge, tr pp/moldic por, tr weath edge text, tr stain, nodor
lst, dolo in prt drk tan lt gry f xln gran blky flky chrty, chrt inclu, dns tr chlky
chrt wht gry mott, smokey, shrp frsh foss frags, opaq, lst dolo in prt tan lt gry flky blky gran in prt, chrty, chrt inclu,
lst/dolo in prt, tan off wht lt gry f sli med xln, gran flky chrty, chrt wht lt gry smokey mott text, tr foss tr inter xln por mstly dns tr sub chlky text tr drk dead stain nodor
lst tr dolo wht tan lt gry f sli medlxn blky ang flky tr foss frags, vry chrty, wht lt gry smokey opag, gran text
lst tr dolo crm tan lt gry f sli med xln blky ang flky tr sub chlky tr foss, vry chrty wht lt gry smokey, chrt wht gry shrp gran mott, tr foss, dolo edges
as above, no change, spls vry fine
dolo lst in prt, tan mstly lt gry, f xln gran ang blky hrd tr silty arg, chrt tan gry smokey gry shrp opaq
FSIP 1693 120"
FHP 2148
BHT 125
Min MCF
30 28.5
40 29.3
50 30.9
60 31.7
DST #3
Scale Change
TG
CFS
CFS
Scale Change
TG
0
200
DST #4
4544'-4575'
30"-60"-60"-120"
SB BOB in 58"
Rec: 200' GIP
70' SOCM
1%O, 99%M
IHP 2249
IFP 39-39 30"
ISIP 1350 60"
FFP 31-43 60"
FSIP 1458 120"
FHP 2121
BHT 125
CFS
CFS
CFS
0
TG
200
DST #5
4578'-4598'
30"-60"-60"-120"
Weak 3" blow
Rec: 5' SOSM
IHP 2257
IFP 26-33
ISIP 1483
FFP 32-44
FSIP 1562
FHP 2176
BHT 128
Mud-Co. 4733'
wt. 8.9 vis. 50
wl. 9.0 chl. 6,000
lcm. 5# bbl
wt. 9.0 vis. 50





dolo lt gry tan vf xln dns hrd blky silty gran, chrt gry shrp frsh semi opaq,

dolo tr silty dolo, tan lt gry vf xln gran tr silic text, blky dns, chrty, gry opaq shrp frsh chrt inclu, chrt lt gry smokey shrp frsh opaq with dolo edge.

dolo, lst in prt f xln gran blky ang tr flky tr arg, silty, glau, chrty chrt tan gry shrp dull opaq

dolo dull tan lt gry f vf xln blk ang silty glau, tr silic text, chrt, chrt tan dull gry tan shrp opaq tr foss

dolo silty dolo, tan lt gry vf xln blky ang hrd, arg, chrty, chrt dull tan gry shrp frsh opaq with dolo edge tr glau

lst tr dolo wht tan lt gry f xln gran soft crumbly, inter xln por, chrty gran soft, chrt wht tan gran text, chrt tan lt gry shrp opaq blky ang

chrt wht off wht tan, dolo in mst, f vf xln gan soft crumbly text, chrt gry tan smokey shrp frsh opaq

chrty dolo, off wht tan tr lt gry f xln gran crumbly chrty, chrt wht tan lt gry shrp frsh opaq, chrt wht gran text, dolo edge

dolo chrty dolo crm off wht tan tr lt gry gran blky ang pcs, chrt wht lt gry shrp frsh opaq

chrty dolo, crm off wht tan f xln gran ang blky, chrt lt gry wht shrp frsh opaq gran

lst off wht lt tan f vf xln blky ang hrd dns tr foss frags, tr shl, green silty gritty

shl gry med drk gry, silty, platey, smooth

shl gry med gry/drk green silty

shl gry drk/med gry/drk green silty smooth platey, bedded

shl gry med gry silty gritty bedded

shl gry med/drk grey, gry drk gry/green silty gritty, platey, bedded

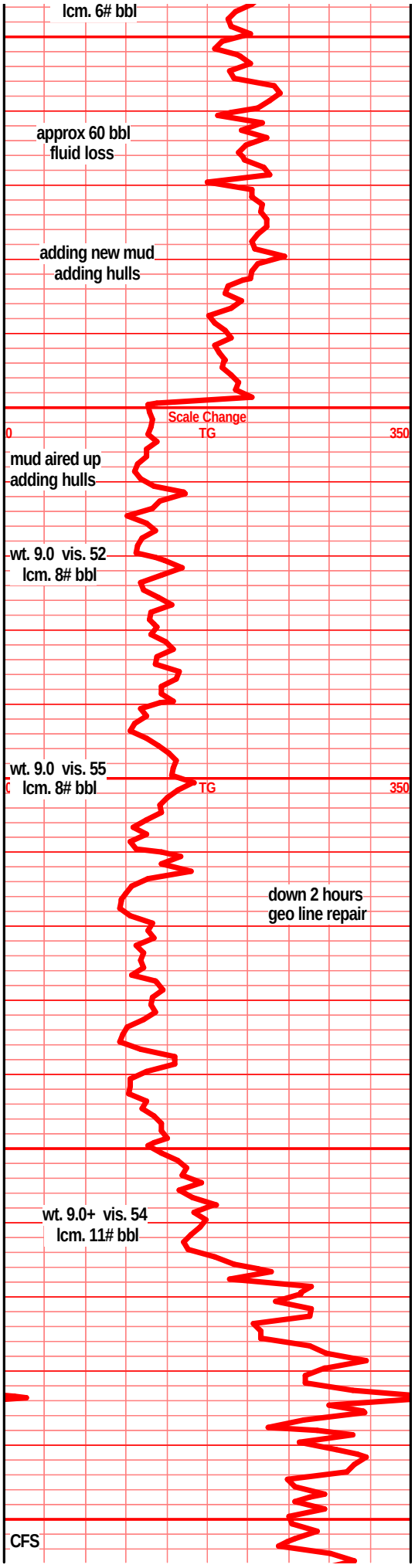
shl gry med drk gry silty bedded banded, shl gry blk

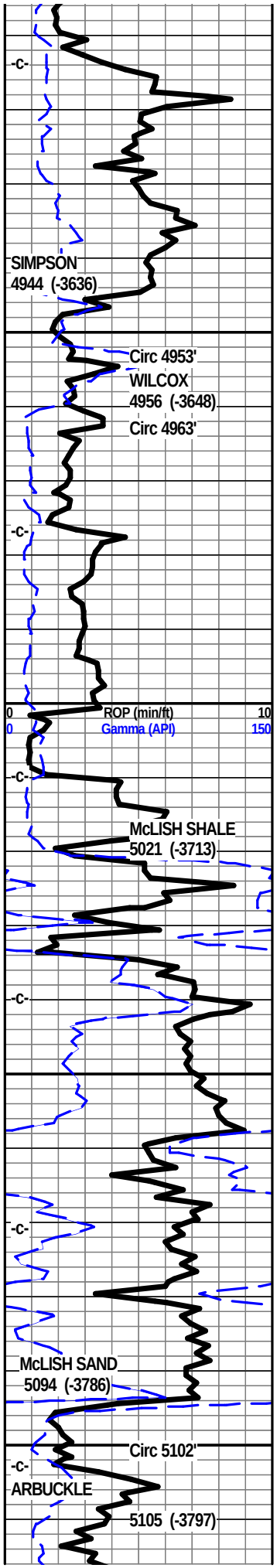
shl blk, carb wxy grsy, blky ang pcs, abun gas bubs, bleeding gas

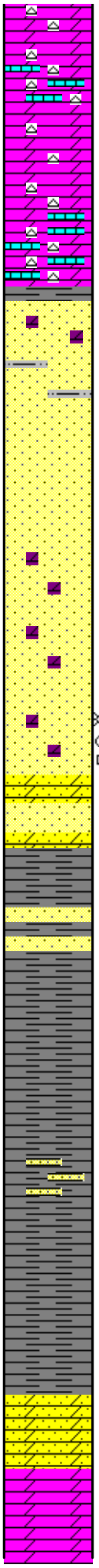
shl drk gry blk, blk carb wxy grsy abun gas bubbles, bleeding gas

shl drk gry, grn/red, blk, gritty, silty, gran in prt, blk carb abun gas bubs

dolo tan lt brn f med xln, sndy, blky ang pcs, sucr text, inter xln por, chrt dull tan lt gry shrp frsh opaq, tr gas bubs 3-4 sndy dolo, pcs, nodor, NSFO/Stain







dolo tan brn f sli med xln, gran text, sucr in prt, sndy in prt, gd inter xln por, chrt lt gry dull tan shrp frsh opaq

dolo tan lt brn brn f vf xln gran blky ang dns tr inter xln por, chrty in prt, much chrt-lt gry dull tan shrp frsh opaq foss

dolo tan lt gry/brn f vf xln gran blku tr sucr text, inter xln por, tr sucr text, much chrt-lt gry dull tan shrp frsh foss opaq

dolo/chrt as above, lst off wht lt gry mott f med xln blky flky, pyritic, chrt wht lt gry shrp frsh, foss frags, calc xln fill

sst lt gry/clr clstrs fn grnd sub rded grns, w/srtd, f/cem, silic cem, sub fria to fria, inter grn por, tr dolo NS

sst off wht clr, tr lt gry clstrs, fn grnd, sub rd grns, w/srtd, f/cem, silic cem, sub fria to fria, inter grn por, tr min fill, NS

sst lt gry clr clstrs f grnd sub rded grns, tr sub ang grns, w/srted, f to well cem. sub fria silic cem tr min fill

sst lt gry clr clstrs, f grnd sub ang grns, w/srtd, f to well cem, silc cem, sub fria to tite dns, tr min fill tr glau

sst lt gry clstrs fn grnd sub rded grns, w/strd, w/cem, sub fria, tite blky ang clstrs, min fill, tr dolo, silic fill

sst tan lt brn, dolo in prt, f grnd sub rded grns, w/srtd, prly cem, fria, gran dolo clstrs, silic cem, silic fill, tr gas bubs, SSFO (drk brn blk hvy oil smears), nodor, dead flky gilson stain

shl gry, green silty, sndy, pyritic, sst wht gry green clstrs, f grnd sub rded, w/srtd, prly cem, fria, v/glau, min fill, clay fill, silty

shl gry drk gry, green, silty, wxy, grsy, pyritic, snd grn inclu, sst wht clr clstrs fn grnd w/srtd, fria, glau, min fill silty clay fill

shl gry green silty, wxy grsy, pyritic, bedded, banded, sst clr green clstrs, f grnd sub rded grns, w/srtd, prly cem, glau, min fill, arg, clay fill

shl gry green, yllw green silty wxy grsy, snd grn incu, pyritic bands, sst aa

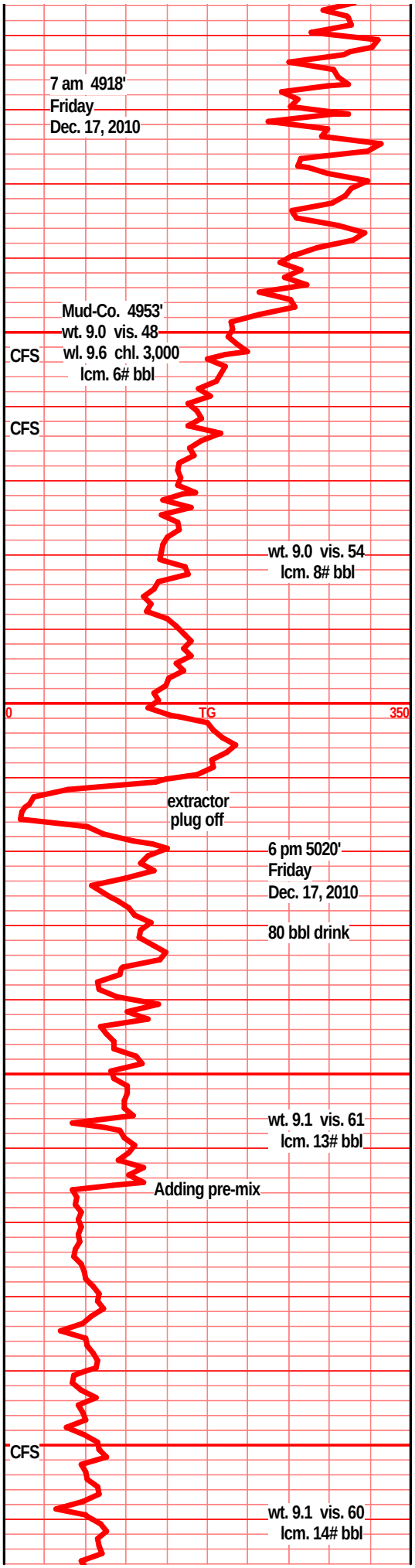
shl green drk teal green silty sndy in prt, snd grn inclu

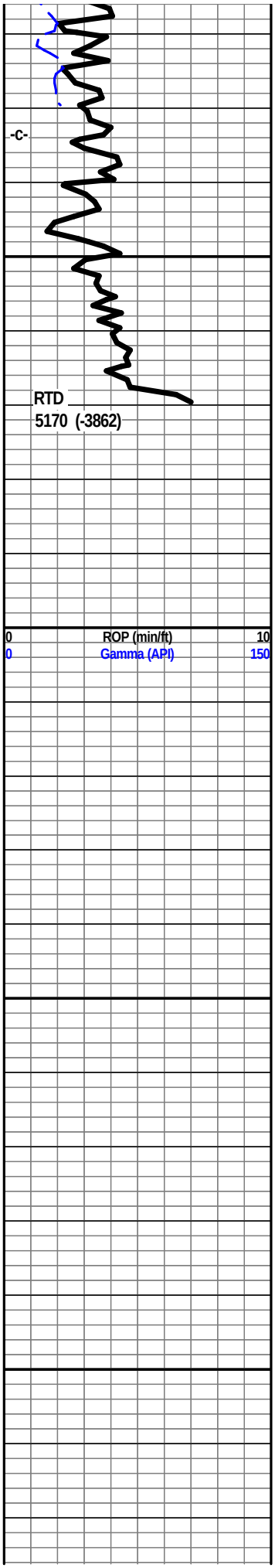
shl green, teal green, sst gry green clstrs, f grnd sub ang tr sub rded grns, w/srtd, w/cem, hvy glau fill, min fill

shl gry, drk gry green, teal green sst aa

sst wht clr clstrs, f vf grnd, sub ang, sub rded grns, fairly srtd, vw/cem, silic cem, dolo in prt, quartzitic text, hard blky ang clstrs, min fill, v/glau in prt, dolo tan lt brn vf xln blky ang hrd, sucr text, sndy gritty

dolo crm tan tr lt brn f xln dn shrd blky ang xln surc text, sli silic in prt, sndy gritty text





5150

5200

5250

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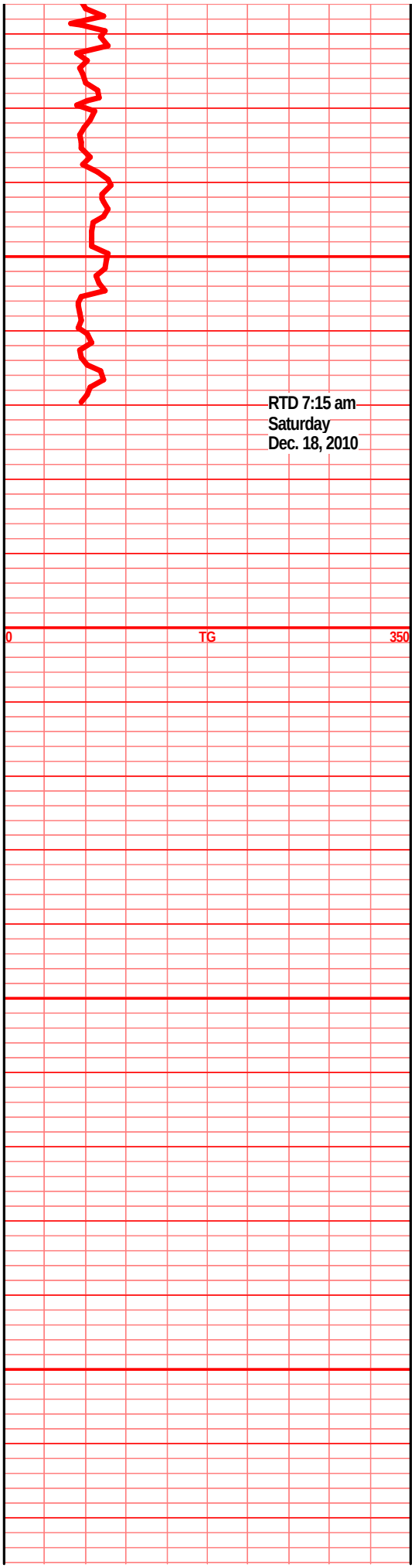
dolo crm tan lt brn f xln blky ang dns. sucr text in prt, inter xln por, silic text in prt,

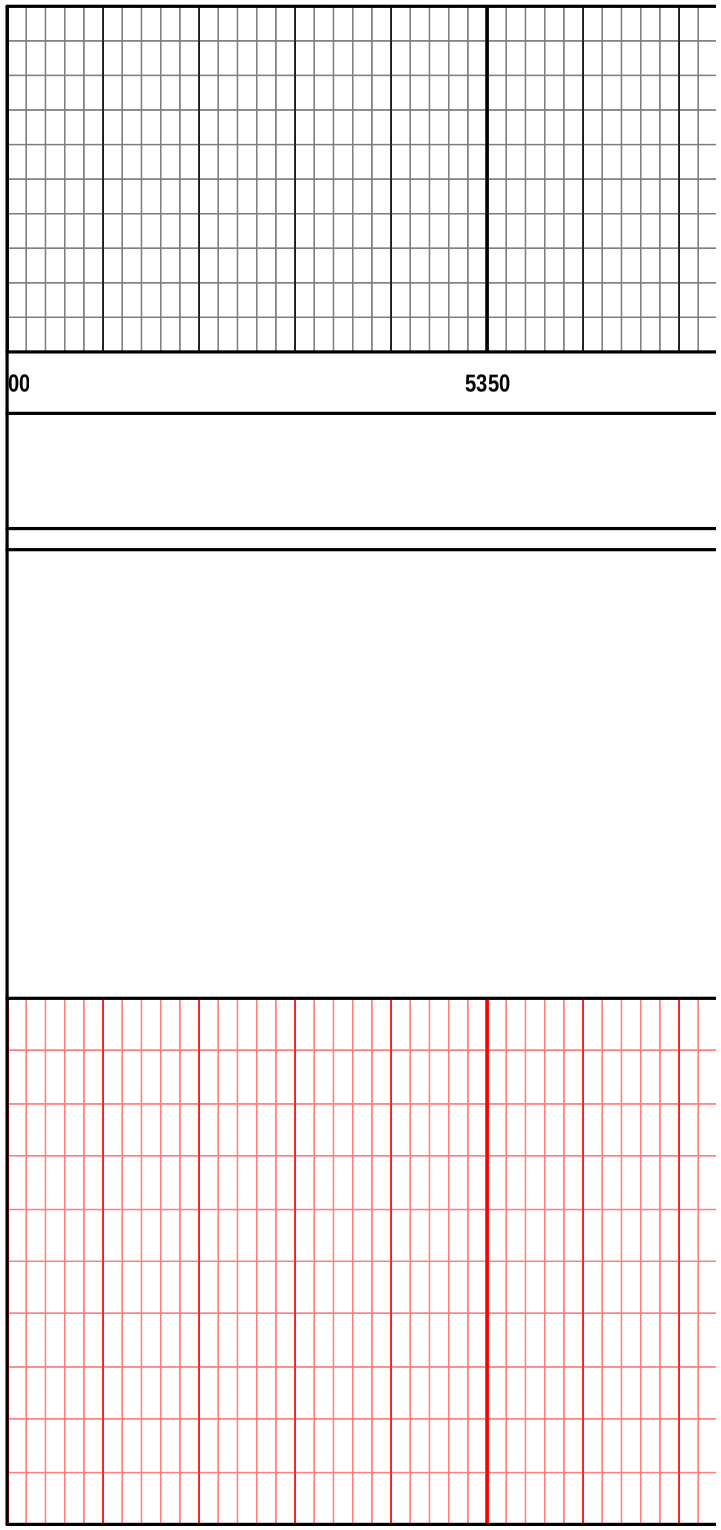
dolo tan drk tan lt brn fnly xln dns hrd blky ang sucr text, tr foss frags in prt, tr sndy text,

dolo crm tan drk tan, f xln gran blky ang hrd pcs, inter xln por, tr rhom xln text, sndy in prt, snd grn inclu in prt

dolo crm tan lt brn f vf xln blky ang gran sucr text in prt, silic in prt, inter xln por in most, glau, sndy gritty text, snd grn inclutions

dolo crm tna brn f vf xln gran blky ang sucr text in prt, inter xln por, glau, sndy gritty text, snd grn inclu, tr rhom xln text

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5350