Company PIONEER NATURAL RESOURCES
Well BAYER ET AL ATU-1
Field HUGOTON-PANOMA
County GRANT State KS

HALLIBURTON

DUAL SPACED NEUTRON

SCALE 1:240

Company	PIONEER NATURAL RESOURCES
Well	BAYER ET AL ATU-1
Field	HUGOTON-PANOMA
County	GRANT State KS

API No.: 15-067-21746 Serv #: 900587675

Location:
23 FNL & 212 FWL
NW-NW-NW-NW

Sec: Twp: Rge:

Other Services
CBL/
4.71
GAUGE RING

Permanent Datum	GROUND LEVEL	Elevation 3007		Elevation
Log Measured From	KB , 12 Ft. above perm. datum		K.B.	3019
Drilling Measured From	KB		D.F.	3017
			G.L.	3007

Date @ Time Logged	15 JUL, 2013 14:24	Type Fluid in Hole	WATER
Run No.	ONE	Density of Fluid	8.4
Depth - Driller	2875	Fluid Level	SURFACE
Depth - Logger	2806	Cement Top Est. Logged	
Bottom - Logged Interval	2805	Equipment / Location	10971679 / LIBERAL
Top - Log Interval	650	Recorded by	T HANSON
Max. Recorded Temp.	N/A	Witnessed by	D MARTINEZ

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented	N/A	N/A		
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record				Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
				8.625	24	SURFACE	648
				5.5	15.5	SURFACE	2860

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

NO CORRELATION LOG
LOG ZEROED AT KB

NO FREE PIPE
FREE PIPE CALIBRATION PERFORMED USING INTERNAL REFERENCE CAL

SHORT JOINT @ 2206 - 2227

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES
YOUR CREW TODAY R GONZALEZ, J STROHM, T HANSON

Service Ticket No. 900587675 API No. 15-067-21746 PGM Ver WARRIOR 7.0

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

CBL		GR/CCL		DSN			
Run No.	ONE	Run No.	ONE	Run No.	ONE	Run No.	
Serial No.	060714	Serial No.	070555	Serial No.	060816	Serial No.	
Model No.	PRB_275	Model No.	PRB_275	Model No.	PRB_275	Model No.	
Diameter	2.75	Diameter	2.75	Diameter	2.75	Diameter	

LOGGING DATA

General Data

Pass	Depths		Well Head	Speed	Logging Run Comments
No.	From	To	Pressure	Ft/Min	
8	2815	10	0	35	MAIN PASS

	GR		TT		AMP		MSG	
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
ALL PASSES	0	150	174	274	0	100	200	1200
	150	300			0	10		

DIRECTIONAL INFORMATION

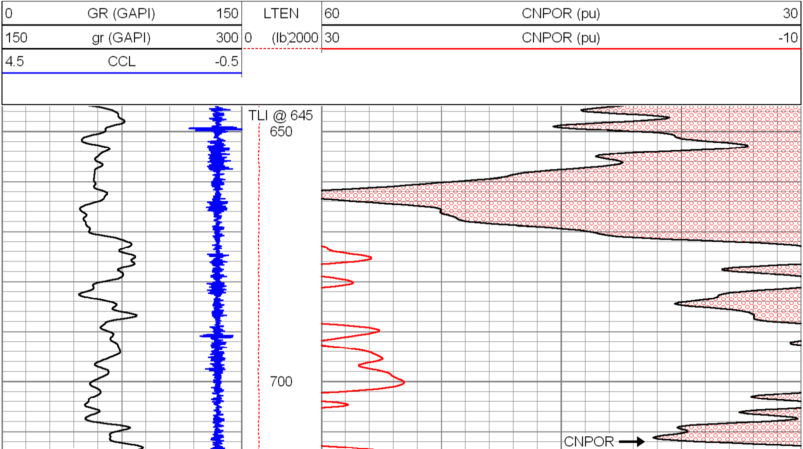
Maximum Deviation		deg. @		KOP		

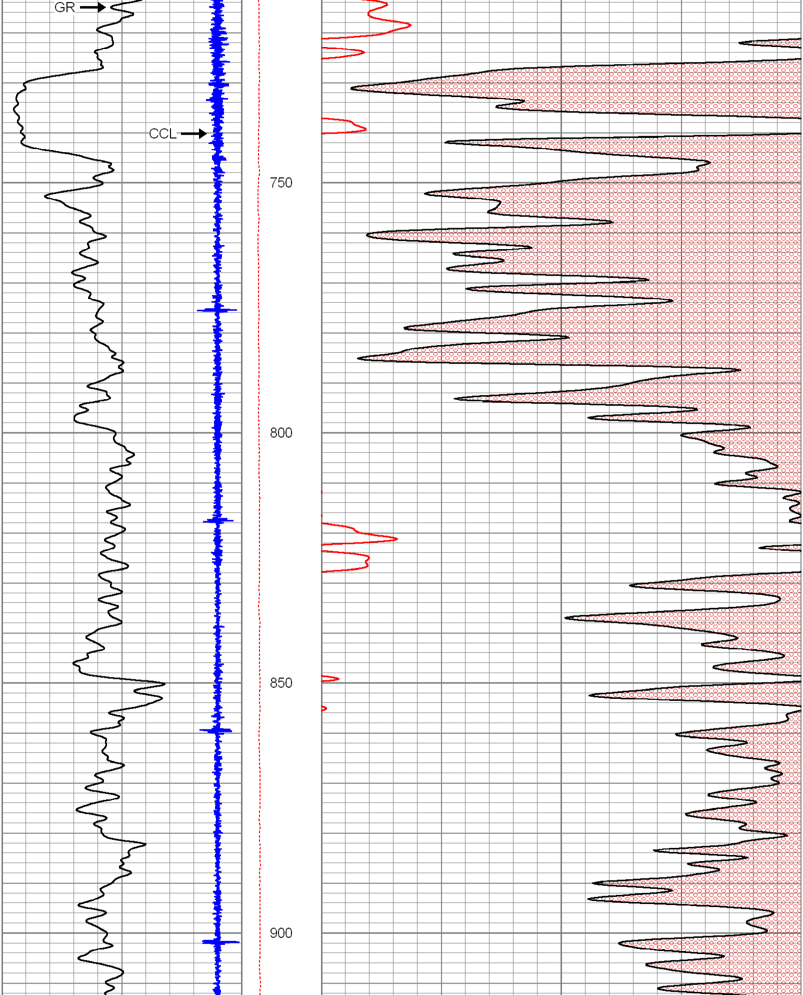
HALLIBURTON

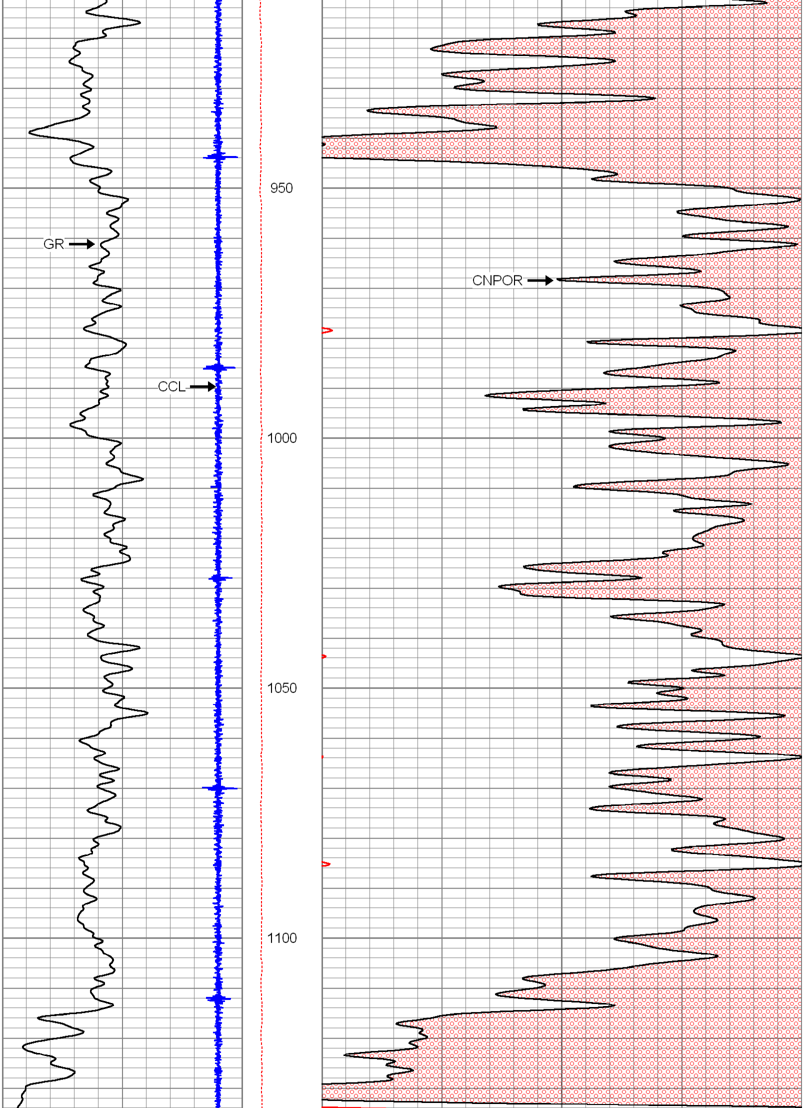
MAIN PASS

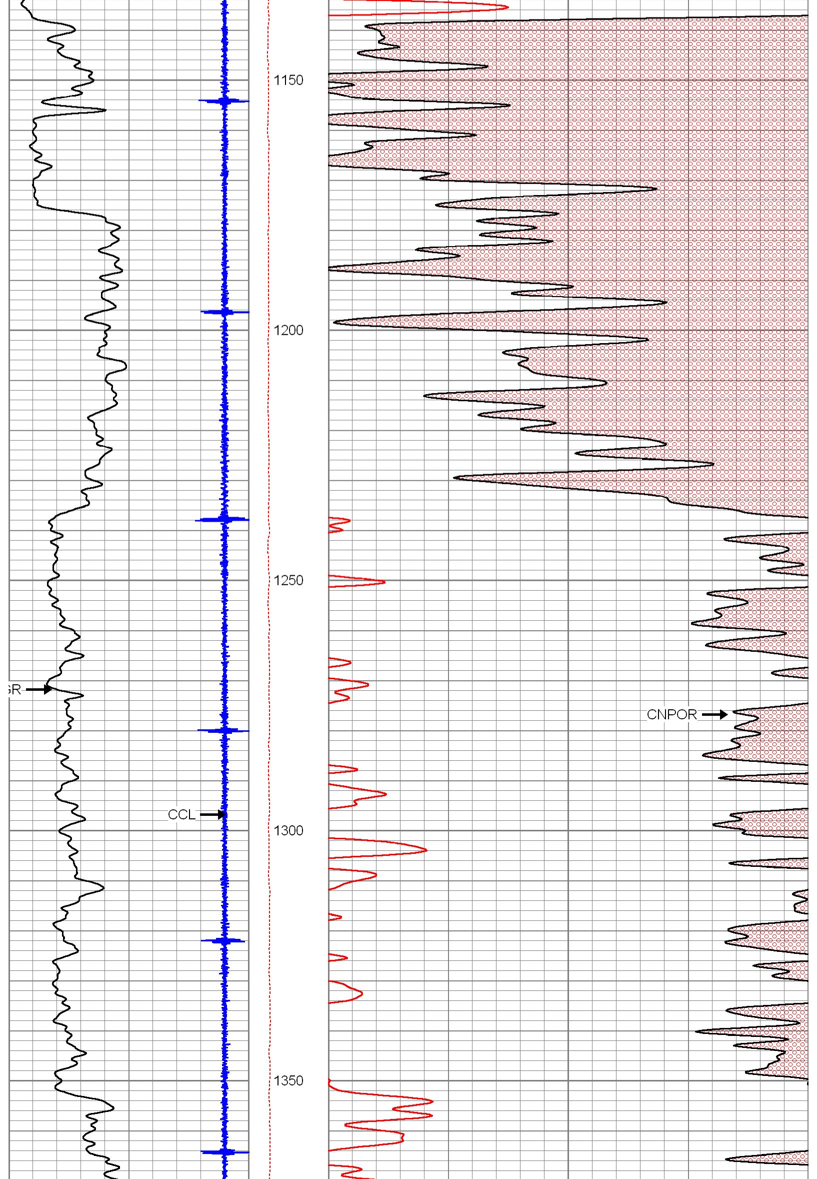
SCALE 1:240

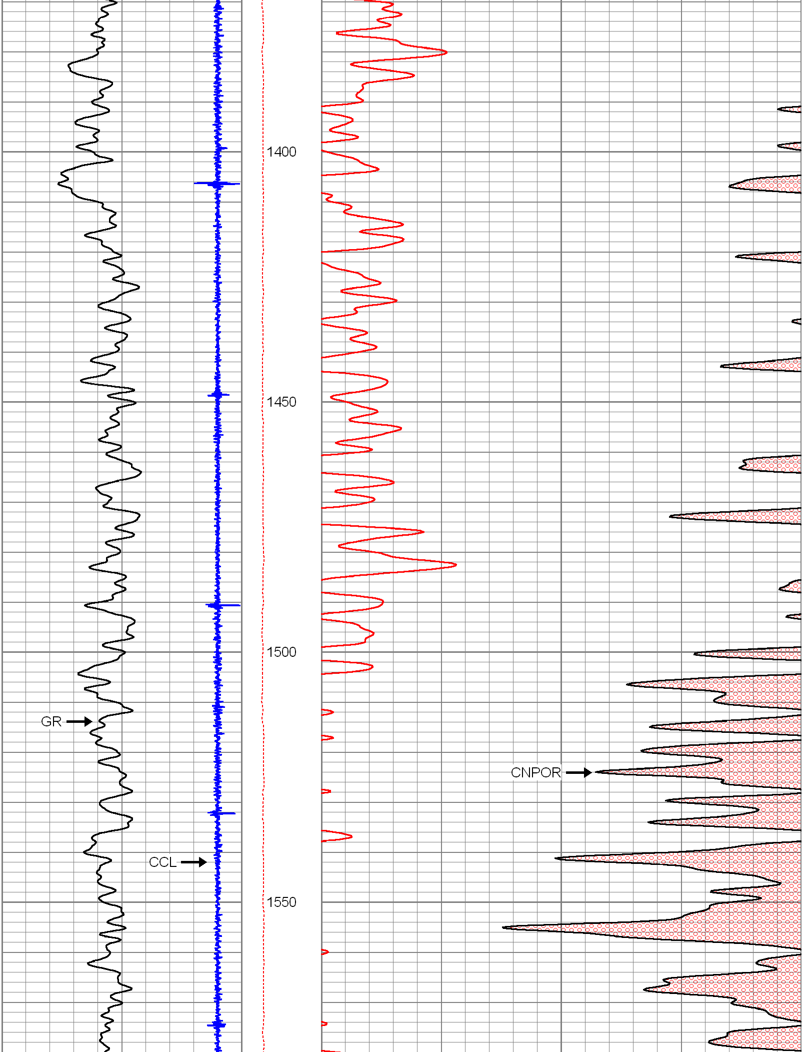
Database File: pioneer_bayer_et_al_atu1.db
Dataset Pathname: pass8
Presentation Format: cnt
Dataset Creation: Sat Jul 14 14:23:57 2012 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

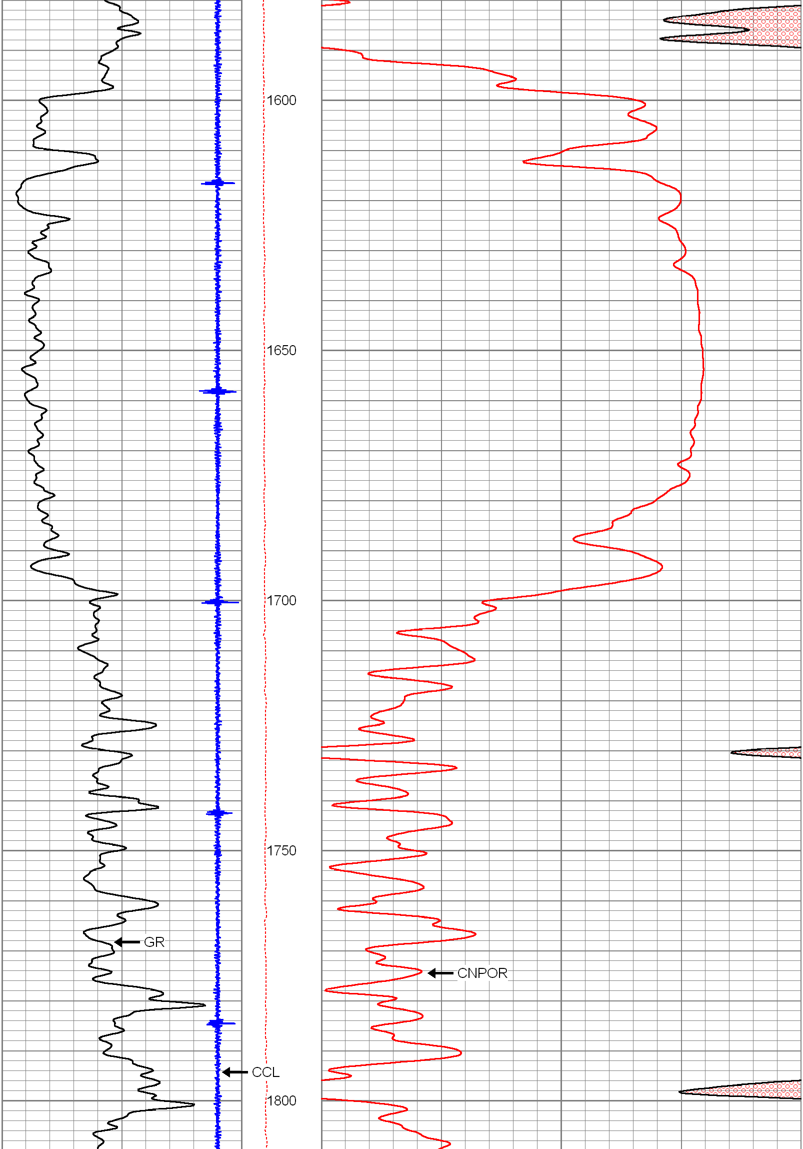


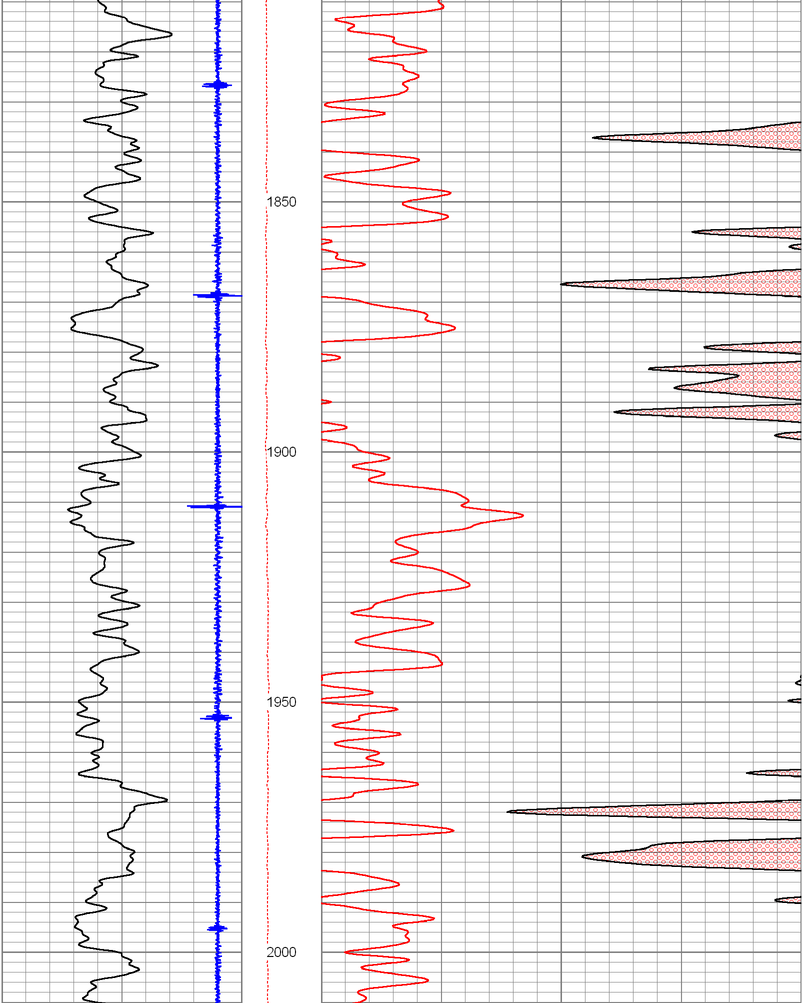


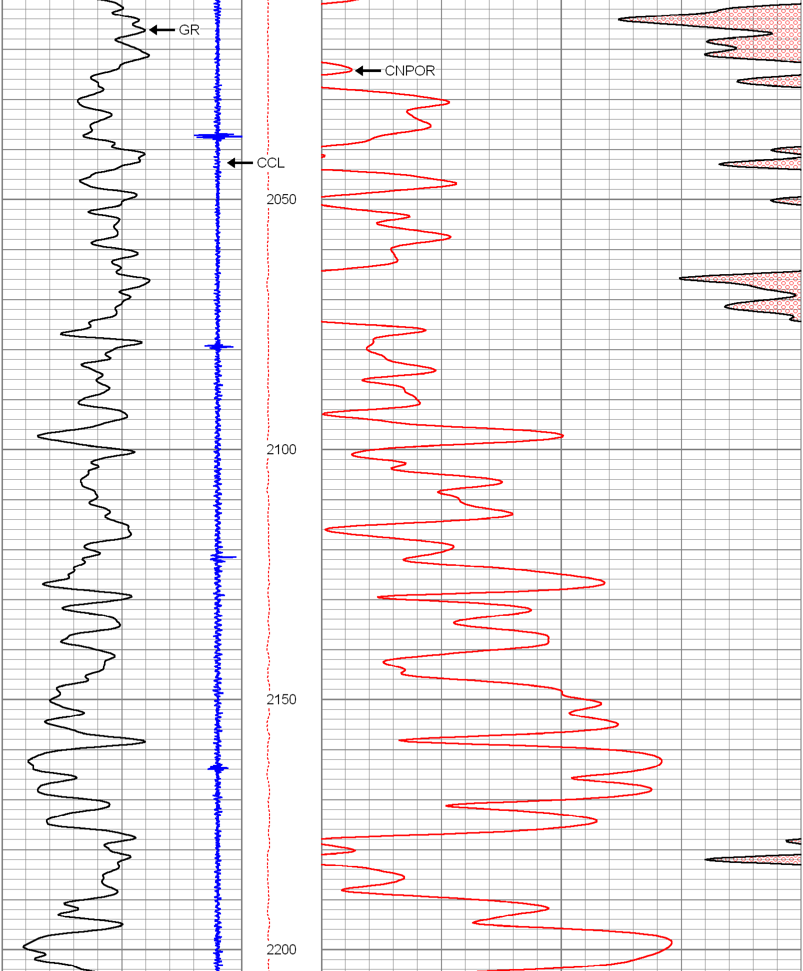


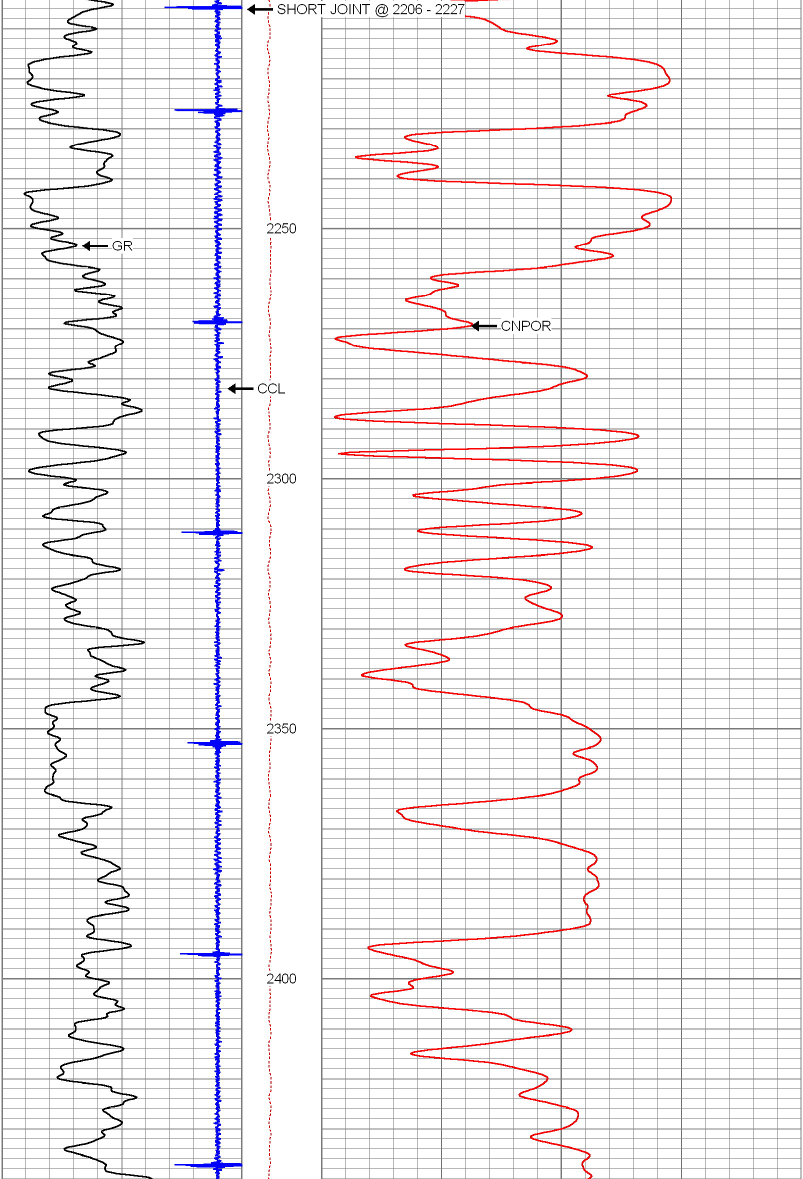


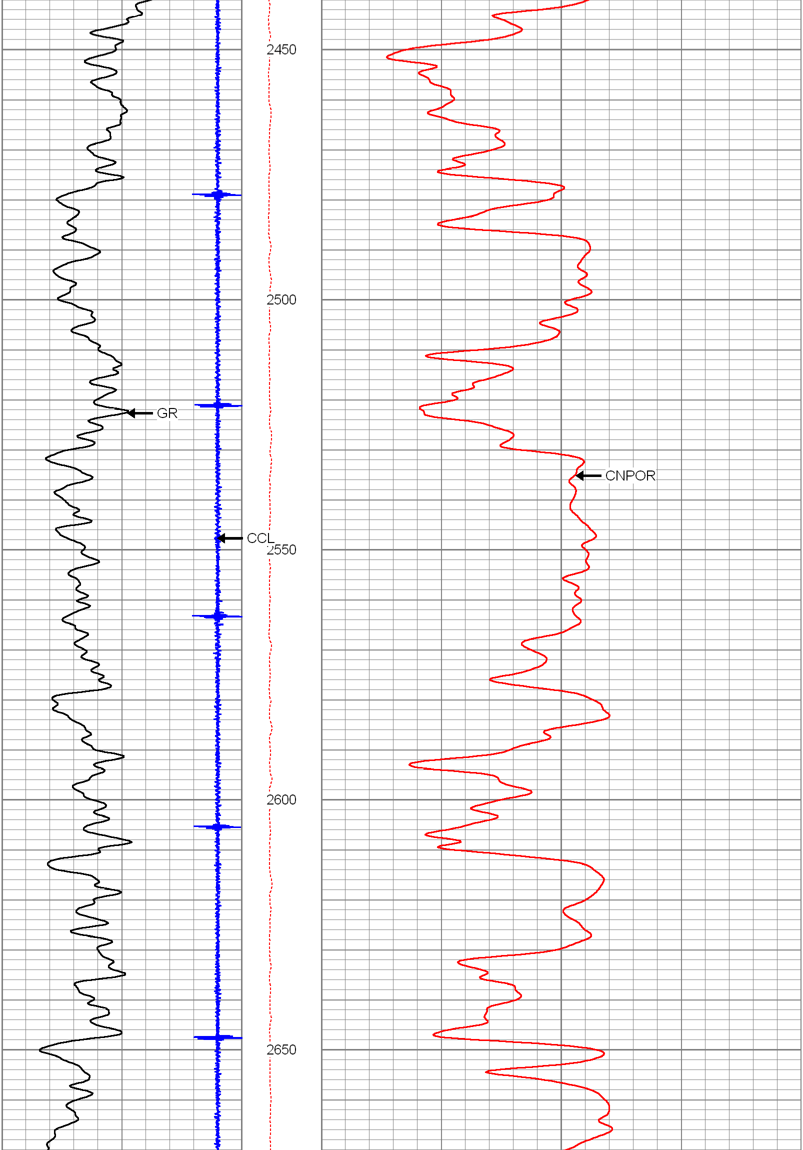


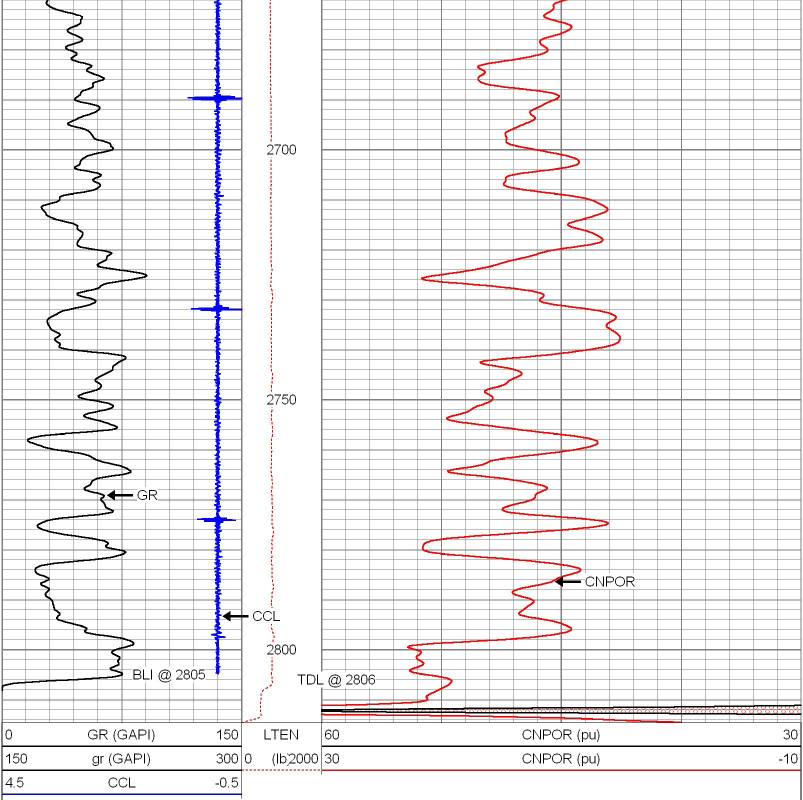












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MAIN PASS

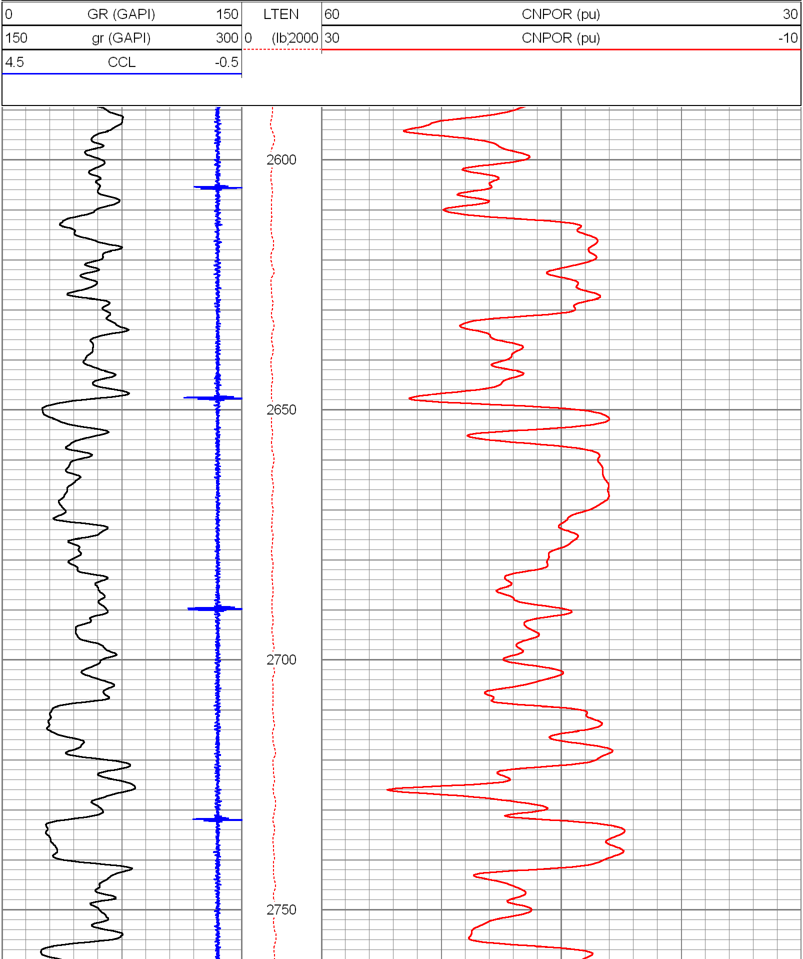
SCALE 1:240

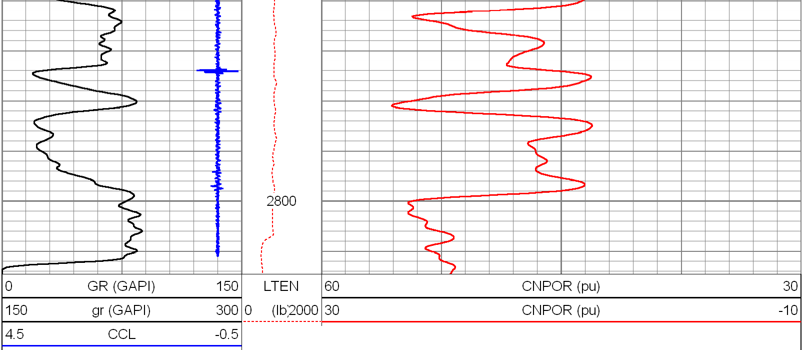
HALLIBURTON

REPEAT PASS

SCALE 1:240

Database File:	pioneer_bayer_et_al_atu1.db
Dataset Pathname:	pass7
Presentation Format:	cnt
Dataset Creation:	Sat Jul 14 13:59:35 2012 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240





HALLIBURTON

REPEAT PASS

SCALE 1:240

Log Variables

Database:D:\Warrior_Data\pioneer_bayer_et_al_atu1.db
Dataset: field/well/run1/pass8

Top - Bottom

PPT usec 0	MAXAMPL mV 72	MINAMPL mV 0.5	MINATTN db/ft 0.8	CMTTKCOR On	CSTKCOR On	SZCOR On	CASED? Yes
LTH Limestone	CMNTTHCK in 1.1875	CASETHCK in 0.275	CASEOD in 5.5	PERFS 0	TDEPTH ft 2806	BOTTEMP degF 100	BITSIZE in 7.875

Calibration Report

Database File: pioneer_bayer_et_al_atu1.db
Dataset Pathname: pass8
Dataset Creation: Sat Jul 14 14:23:57 2012 by Log Halliburton Casedho

Compensated Neutron Calibration Report

Serial Number: 60816
Tool Model: 275Dig

CALIBRATION Fri Jan 16 11:33:08 2009

Detector	Readings		Target		Normalization
Short Space	811.56	cps	0.00	cps	1.0000
Long Space	70.64	cps	0.00	cps	1.0000

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

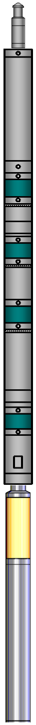
Gamma Ray Calibration Report

Serial Number:	070555	
Tool Model:	Probe	
Performed:	Sun Jun 13 14:33:21 1993	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	060714	
Tool Model:	Probe275Digital	
Performed:	Sat Jul 14 13:46:52 2012	
Depth:	1149.28	ft
Casing Diameter:	5.5	in

	3' Spacing	5' Spacing	
Signal Zero:	0	0	mV
Calibrated Amplitude:	71.921	71.921	mV
Reading at Signal Zero:	-0.00578613	-0.00273438	V
Reading in Free Pipe:	0.540137	0.566333	V
Gain:	131.742	126.384	
Offset:	0.762277	0.345581	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			STND_CH 1.4375 IN CABLE HEAD	0.92	1.44	1.00
WVF3	14.29		CBL-Probe275Digital (060714) Digital 3' 5' CBL Move voltage to +/- 150 for cal mode	8.75	2.75	92.00
WVF5	13.29					
CCL	9.21					
GR	7.83		GR-Probe (070555) Probe 2.75" 4 Channel Pulse	4.75	2.75	30.00
			CNT-275Dig (60816) Probe Digital CNL	5.29	2.75	40.00
CNLSC	1.91					
CNSSC	1.48					
LLMTEN	0.00					

Dataset:	pioneer_bayer_et_al_atu1.db: field/well/run1/pass8
Total Length:	19.70 ft
Total Weight:	163.00 lb
O.D.	2.75 in

Company	PIONEER NATURAL RESOURCES
Well	BAYER ET AL ATU-1
Field	HUGOTON-PANOMA
County	GRANT
State	KS

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DUAL SPACED NEUTRON

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