HALLIBURTON

CEMENT BOND LOG
GR-CCL

Company LARAMIE ENERGY II,LLC
Well HAWXHURST 19-13A
Field BUZZARD CREEK
County MESA State CO

Company	LARAMIE ENERGY II,LLC
Well	HAWXHURST 19-13A
Field	BUZZARD CREEK
County	MESA
State	CO

API No.: 05077101660000 Serv #: 9076868
Location: SHL:1349' FSL & 602'FEL
BHL: 1080' FNL & 647' FEL

Other Services
NONE

Sec: 24 Twp: 9S Rge: 95W

Permanent Datum	GL	Elevation	6354'	Elevation
Log Measured From	KB	21' Ft. above perm. datum		K.B. 6375' D.F. 6474' G.L. 6354'
Drilling Measured From	KB			
Date @ Time Logged	NOV-20-2011	Type Fluid in Hole	WATER	
Run No.	ONE	Density of Fluid	8.4 PPG	
Depth - Driller	10613'	Fluid Level	FULL	
Depth - Logger	10543'	Cement Top Est. Logged		
Bottom - Logged Interval	10540'	Equipment / Location	8537 / RS	
Top - Log Interval	SURFACE	Recorded by	PEDRO G. BAQUEIRO	
Max. Recorded Temp.	N/A	Witnessed by	L.CARTER	

CEMENTING DATA	Surface	Protection	Production	Liner
	String	String	String	
Date / Time Cemented				
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
ONE	26	SURFACE	40'	16"	75#	SURFACE	40'
TWO	12.25	40'	1542'	9.625"	36#	SURFACE	1542'
THREE	8.75	1542'	6395'	7"	23#	SURFACE	6395'
				4.5"	15.1#	SURFACE	10613'

<<< Fold Here >>>

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 WHCIH 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

HES RESERVOIR MONITOR LOG CORRELATED BY HES DUAL SPACED NEUTRON SPECTRAL DENSITY DATED 05-OCT-2011 AT 6250 FT
LOG INTERVAL PER COSTUMER REQUEST

CBL AMPLITUDE EXPECTED ON 4.5" CASING IN FREE PIPE= 82mv

THANKS FOR CHOOSING HALLIBURTON ENERGY ROCK SPRING WY

Service Ticket No. 9076868 API No. 05077101660000 PGM Ver 101102_R1

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

EQUIPMENT DATA

GR CCL		CBL					
Run No.	ONE	Run No.	ONE	Run No.		Run No.	
Serial No.	07664	Serial No.	070718	Serial No.		Serial No.	
Model No.	GR PROBE	Model No.	CBL PROBE	Model No.		Model No.	
Diameter	2.75	Diameter	2.75	Diameter		Diameter	

LOGGING DATA

General Data

Pass No.	Depths From	Depths To	Well Head Pressure	Speed Ft/Min	Logging Run Comments
ONE	10537'	SURFACE		60	

Pass	GR Scale		SGIN Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
ONE	0	200	0	60				

DIRECTIONAL INFORMATION

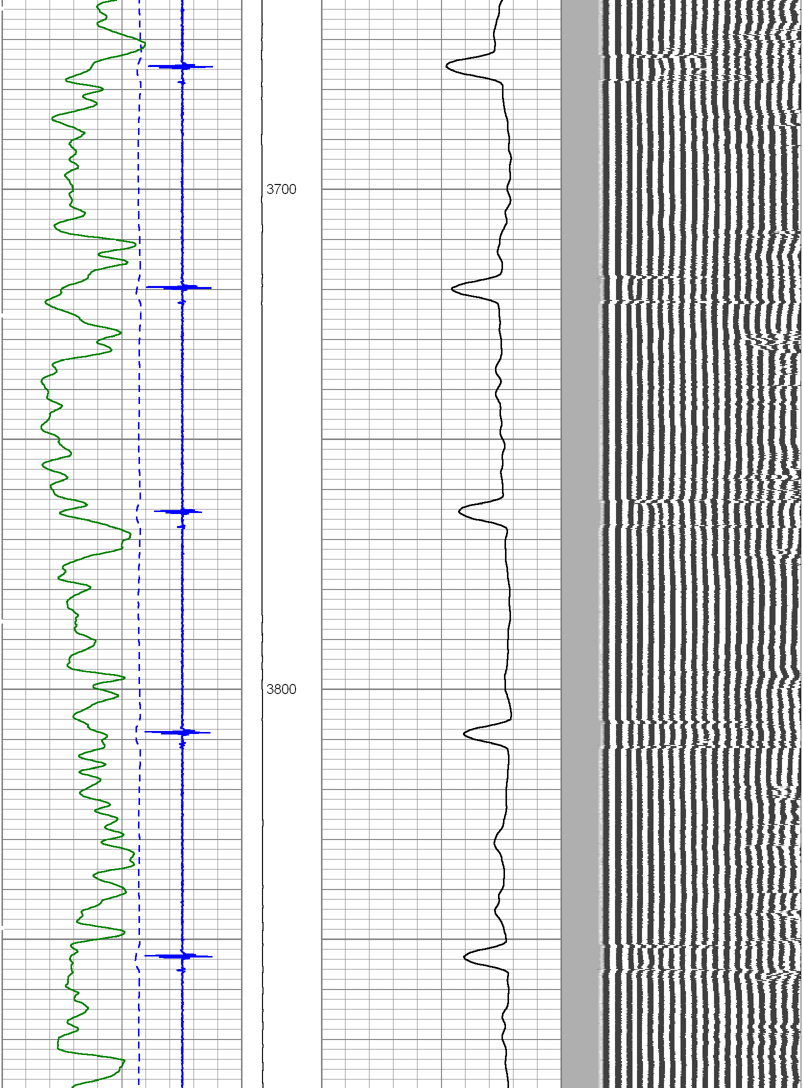
Maximum Deviation		deg. @		KOP		

HALLIBURTON

MAIN LOG SECTION

5"=100'

Database File: laramiehawxhurst_19-13a_cbl.db
Dataset Pathname: BC/19-13A/run1/MAIN
Presentation Format: cbl_main
Dataset Creation: Sun Nov 20 13:57:19 2011 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240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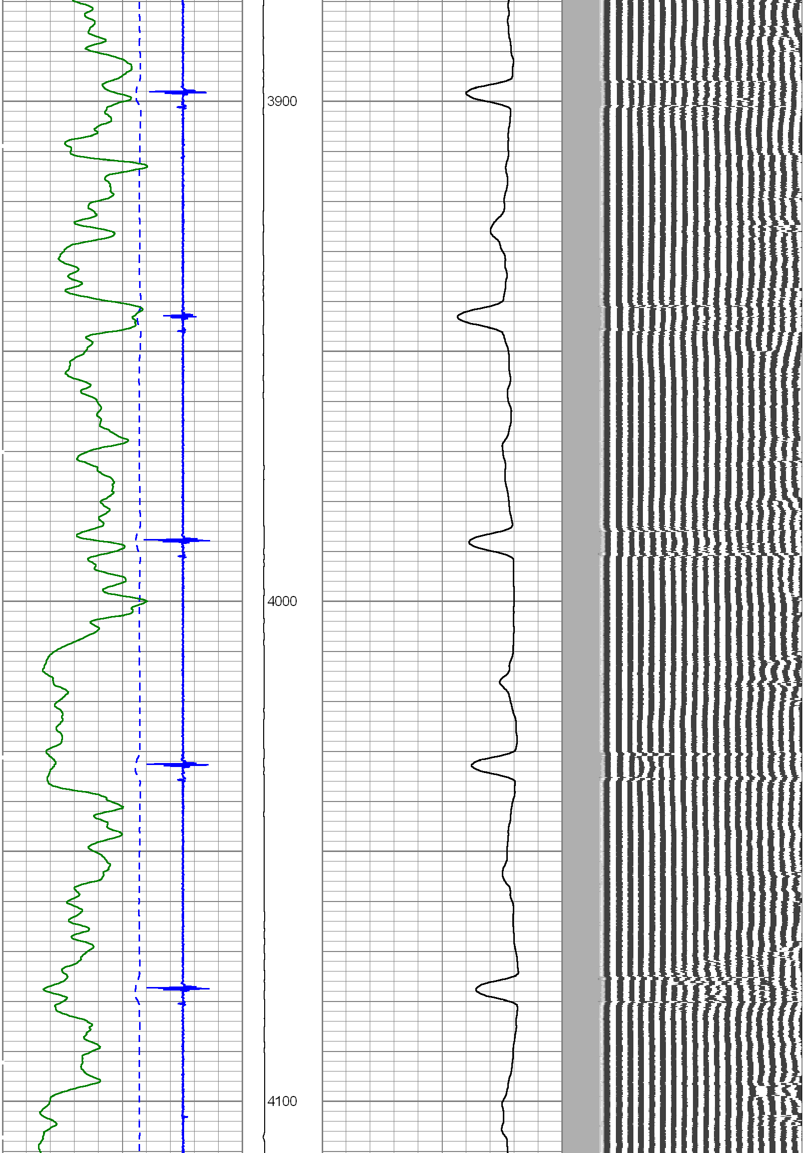
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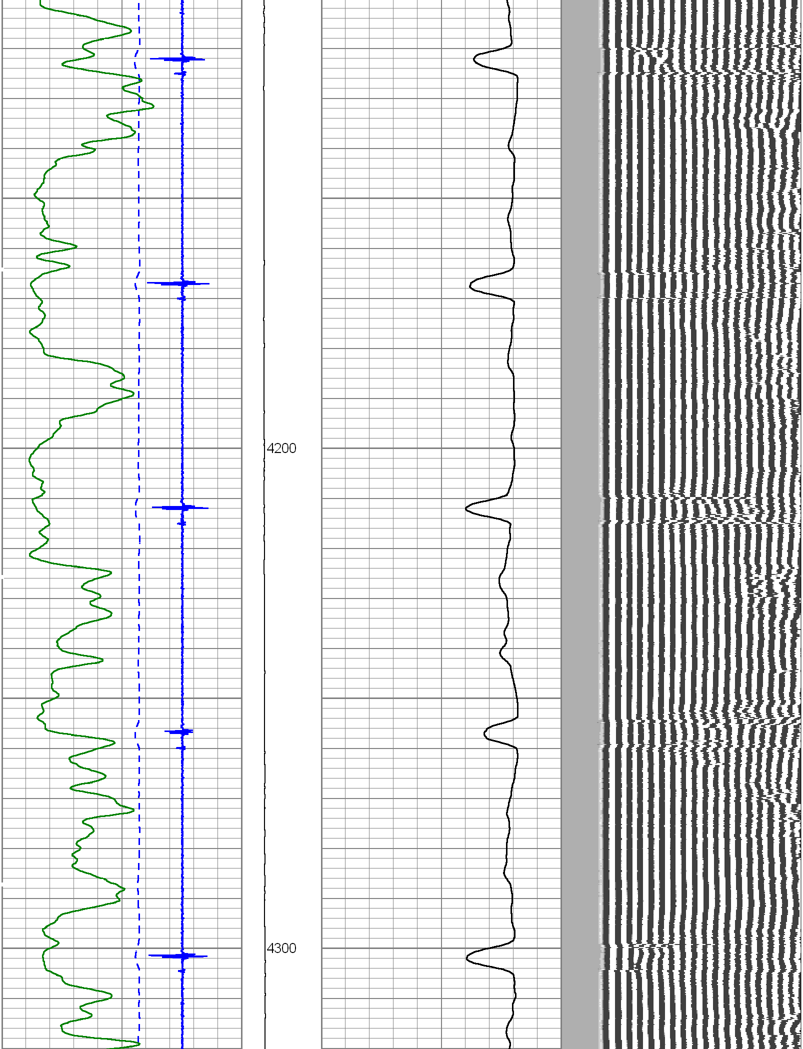
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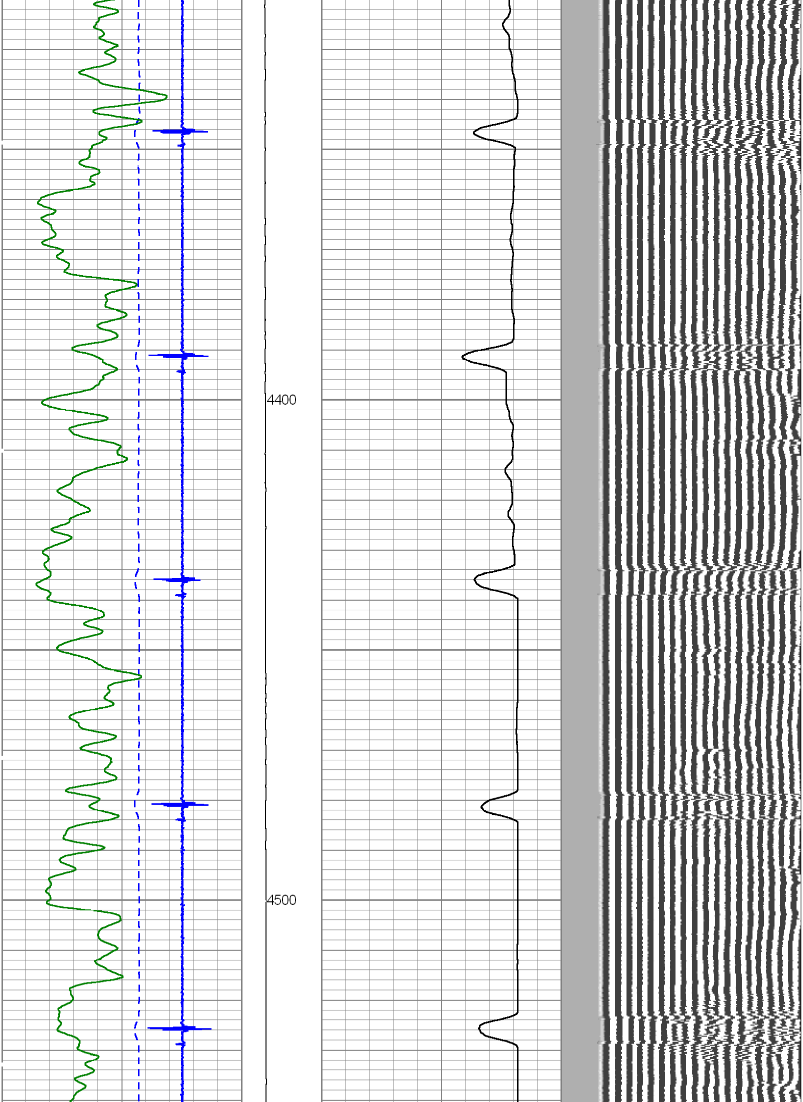
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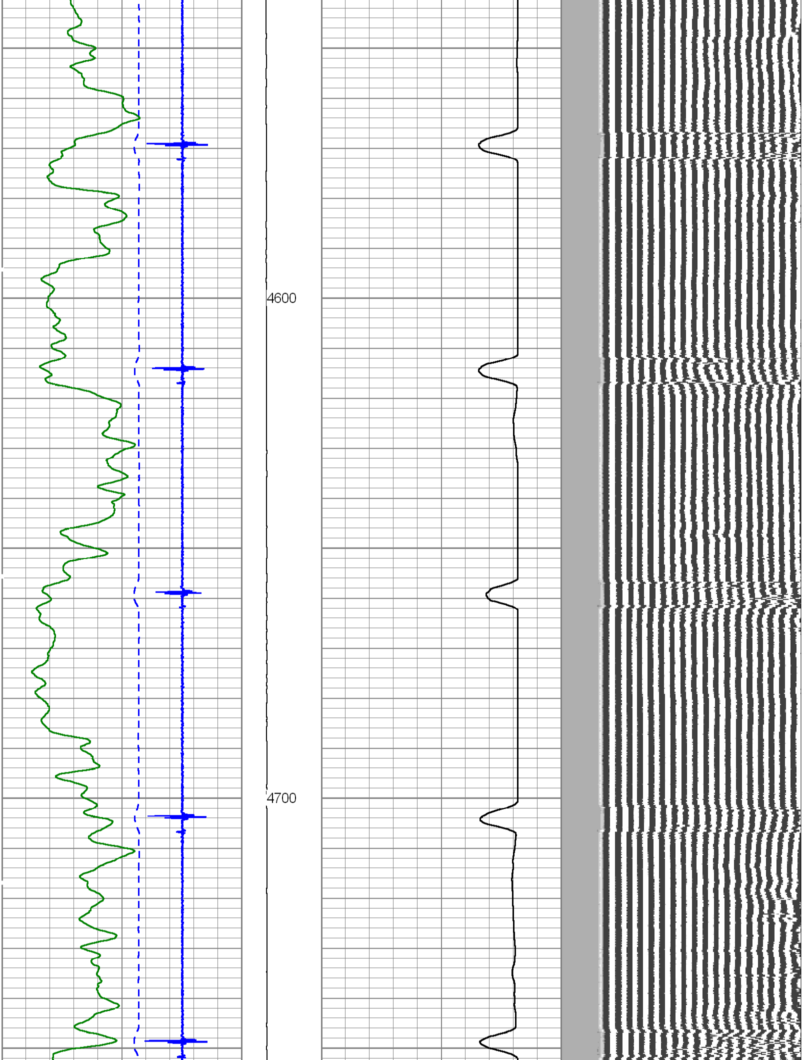
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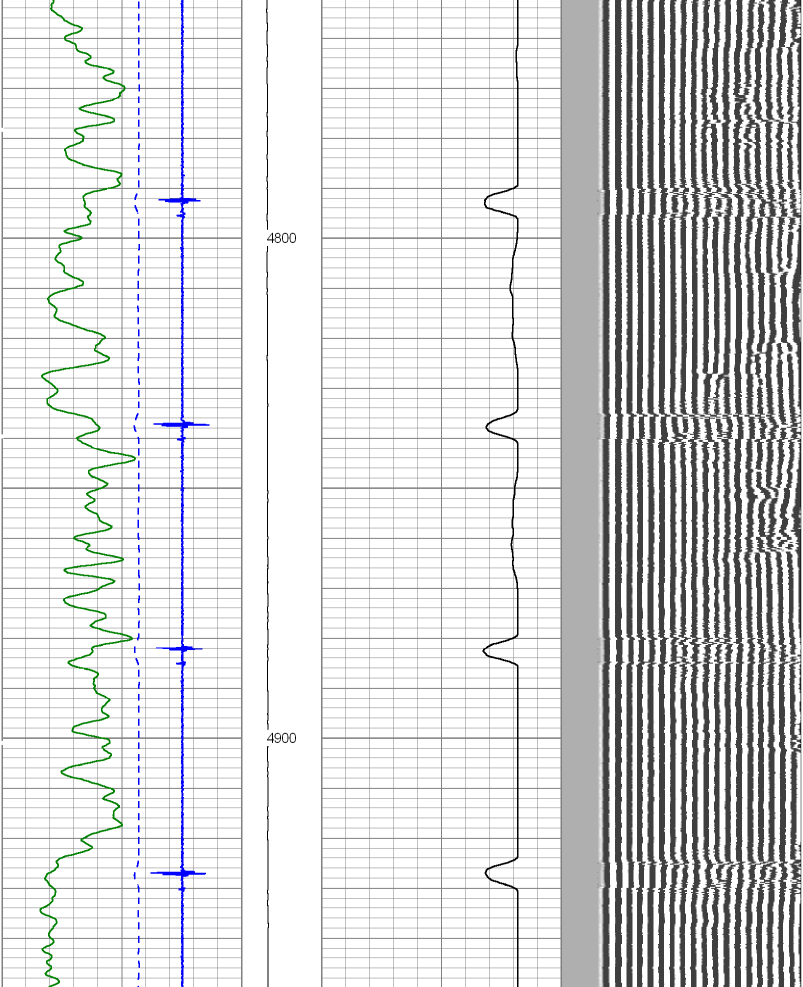
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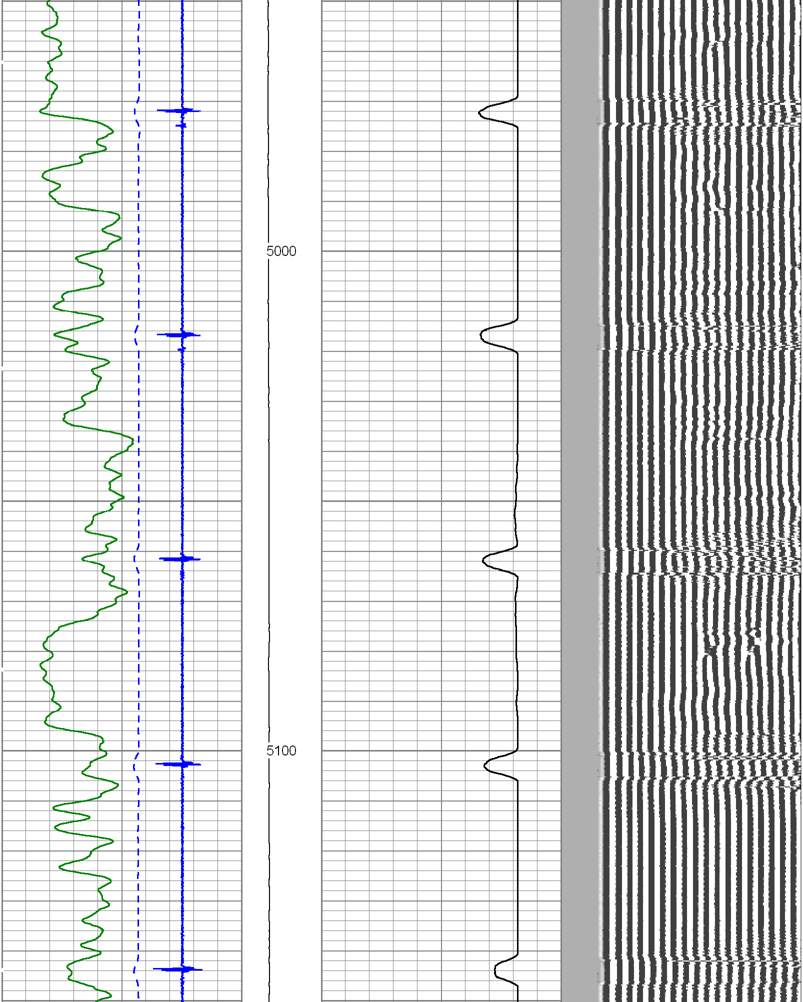
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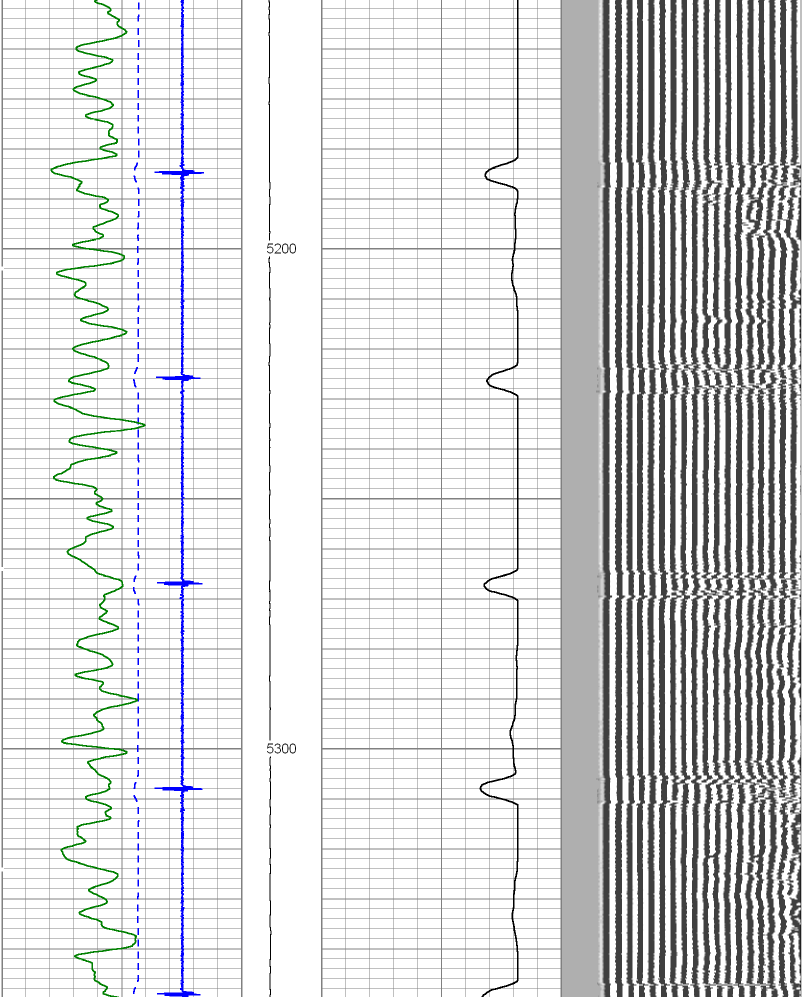
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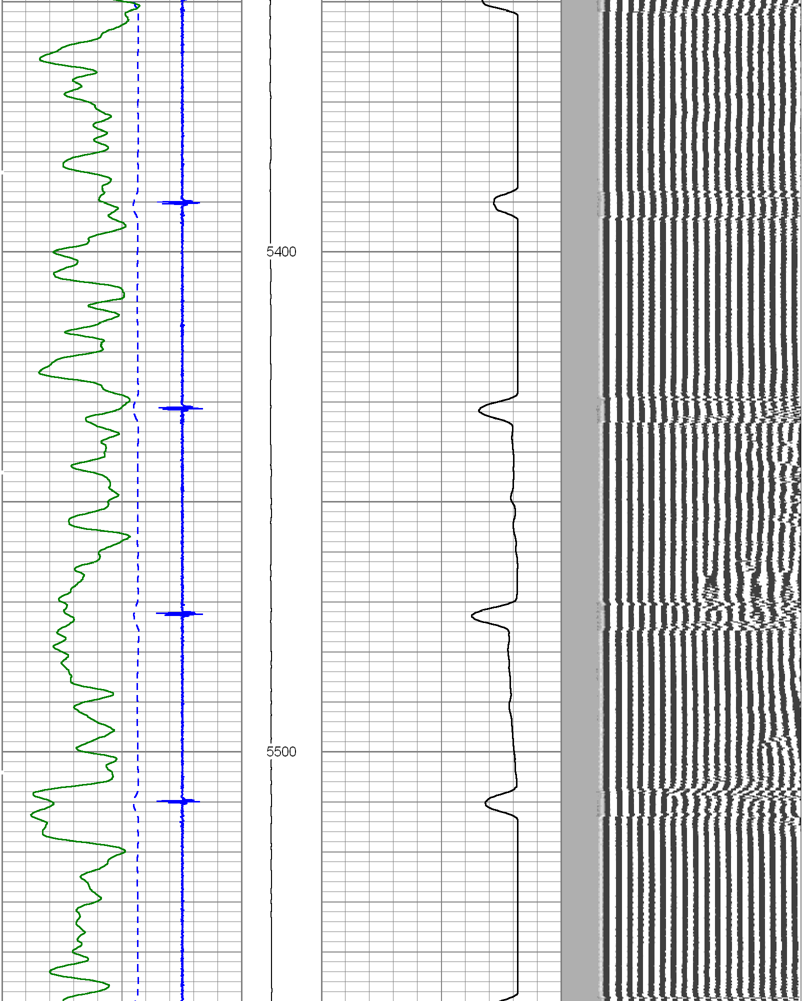
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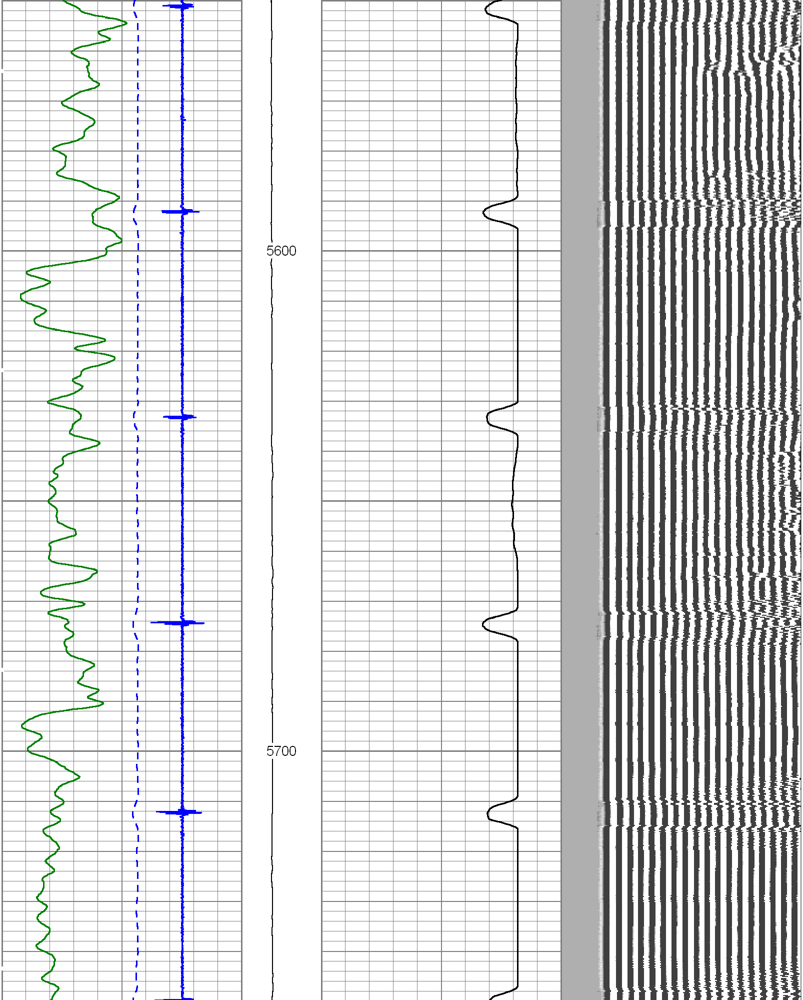
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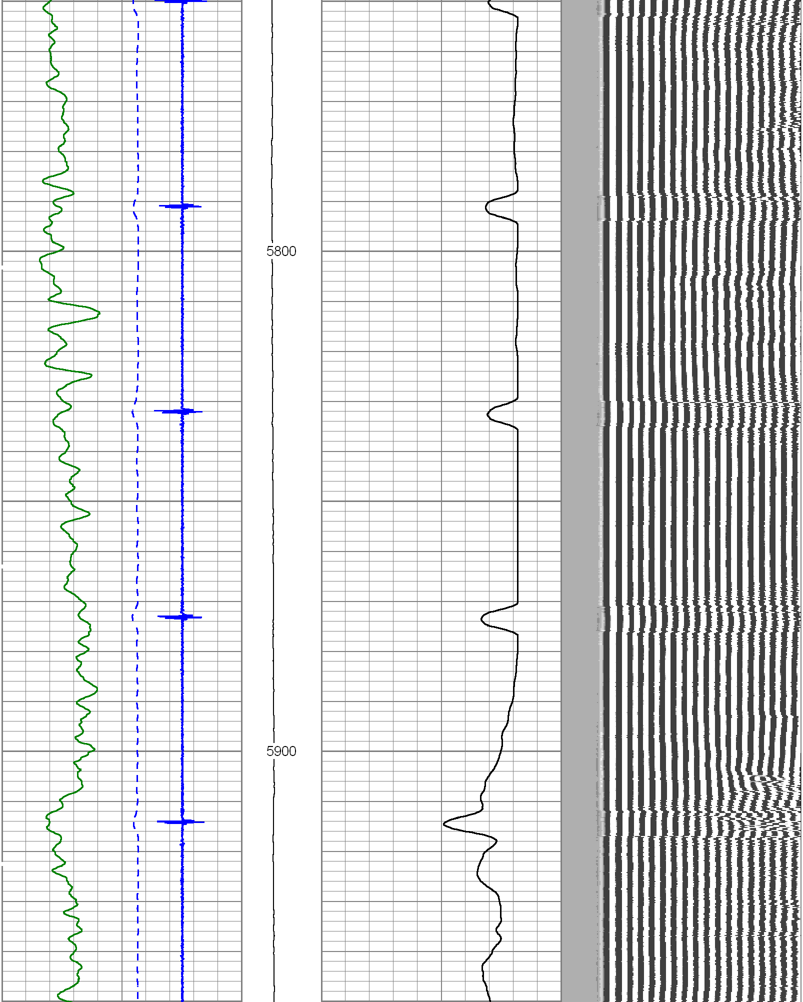
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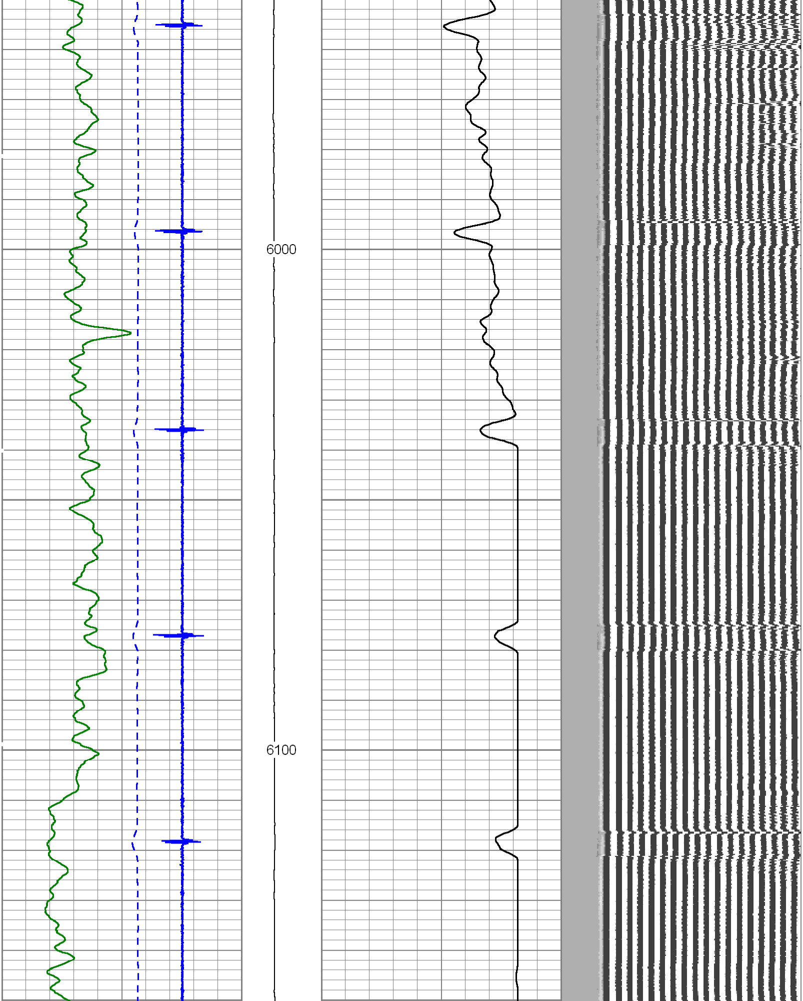
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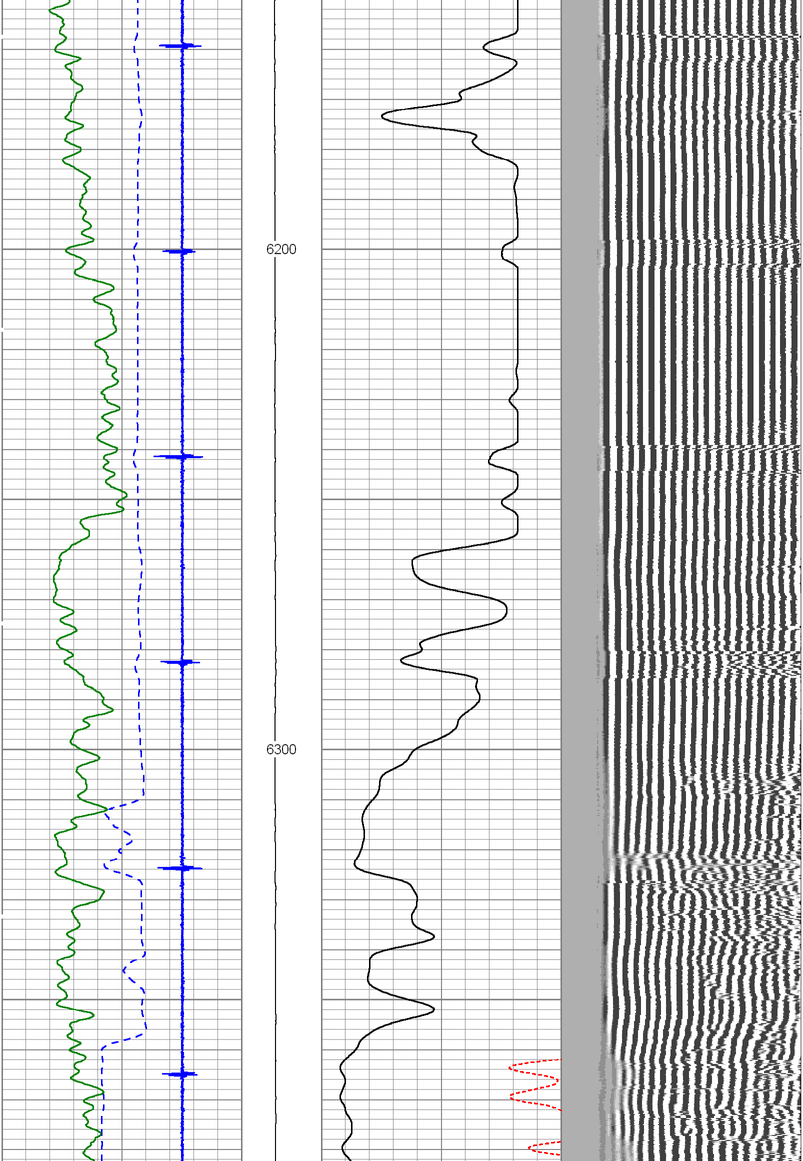
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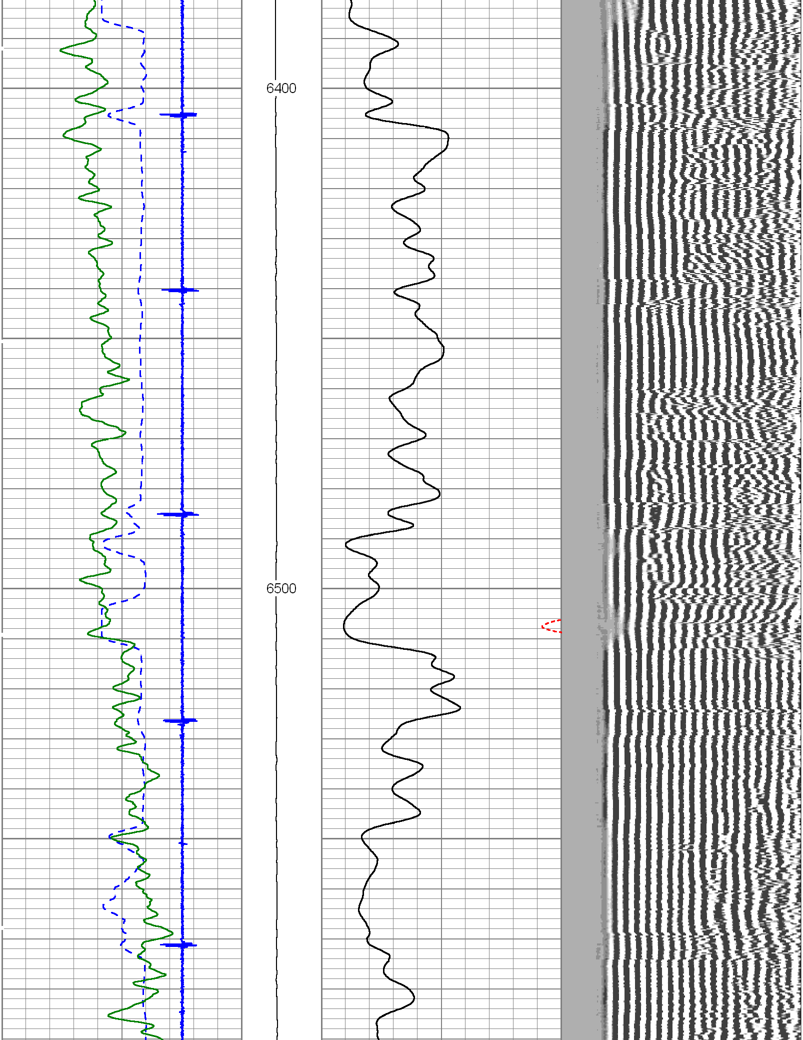
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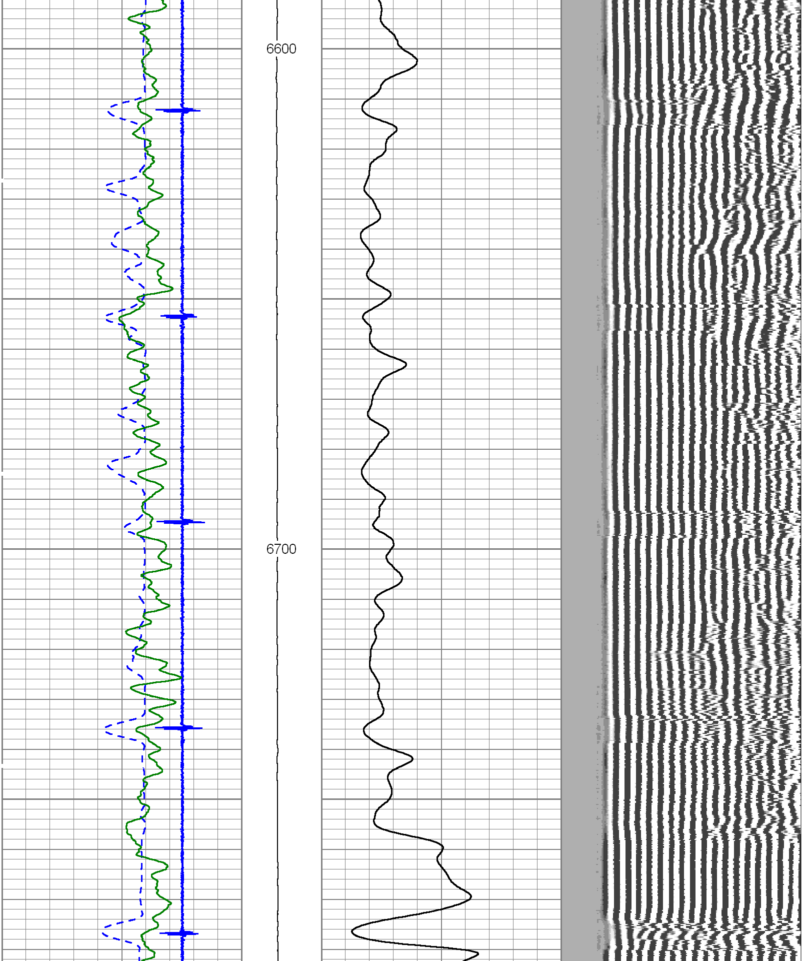
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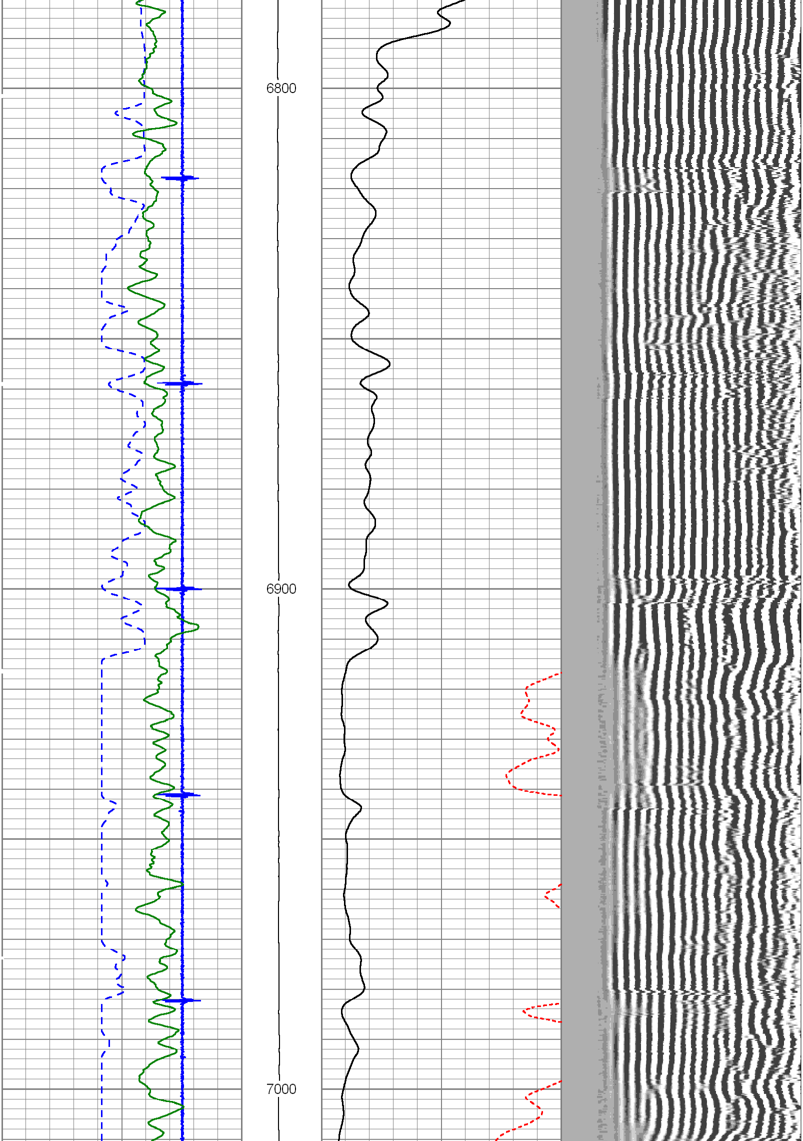
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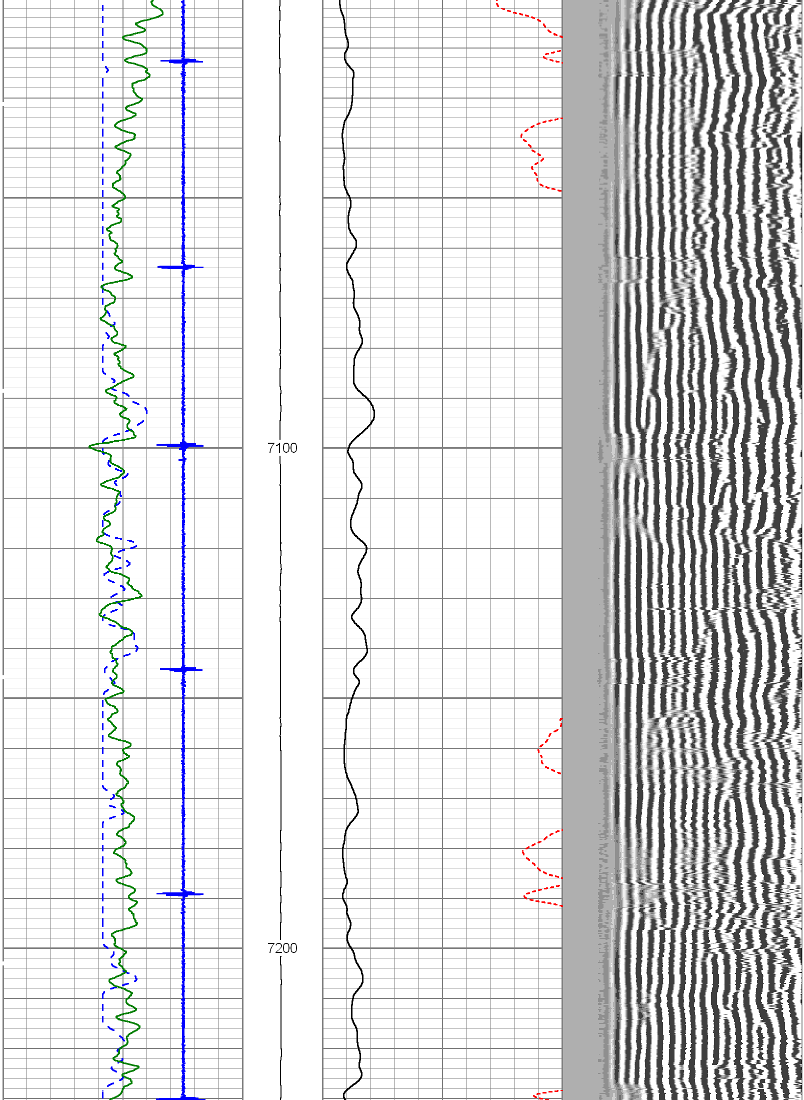
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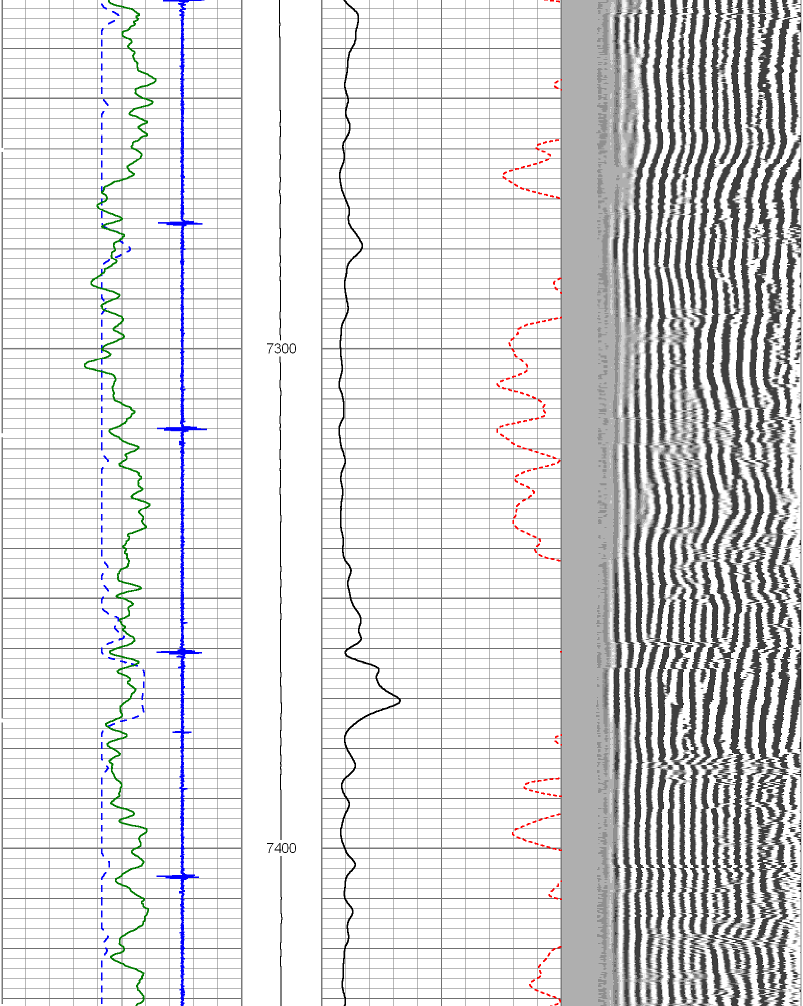
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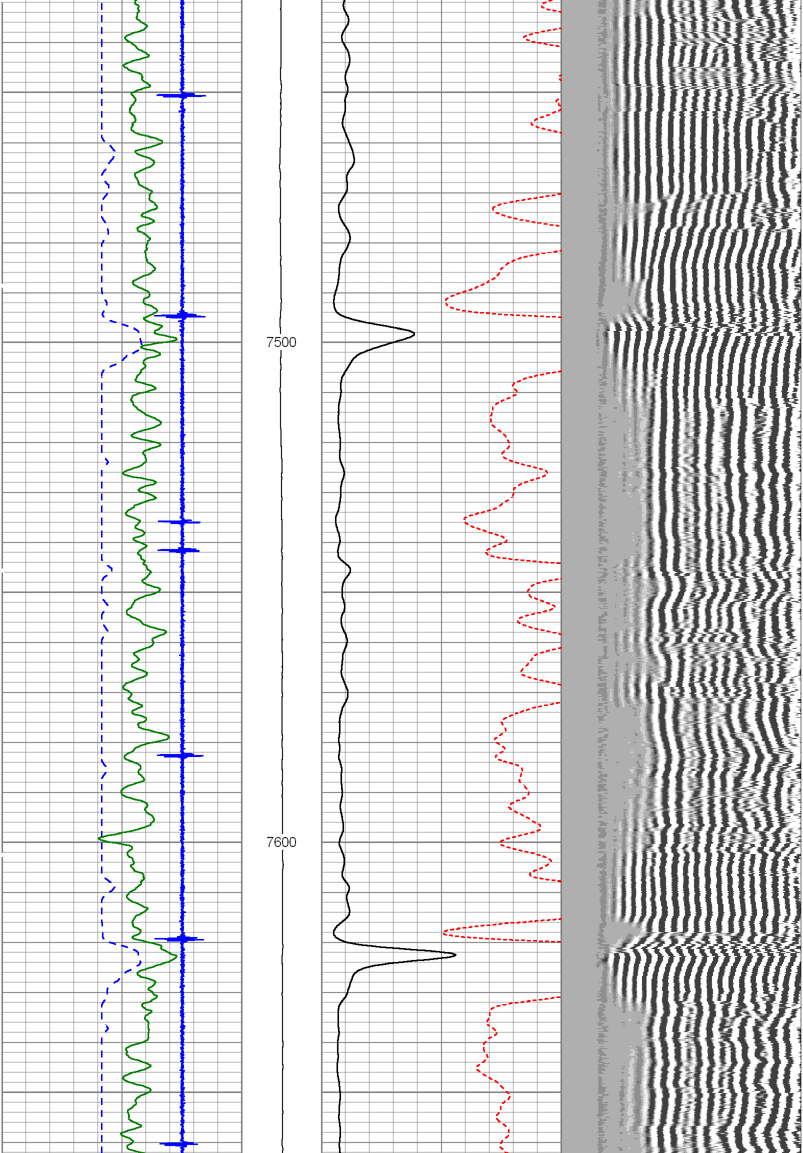
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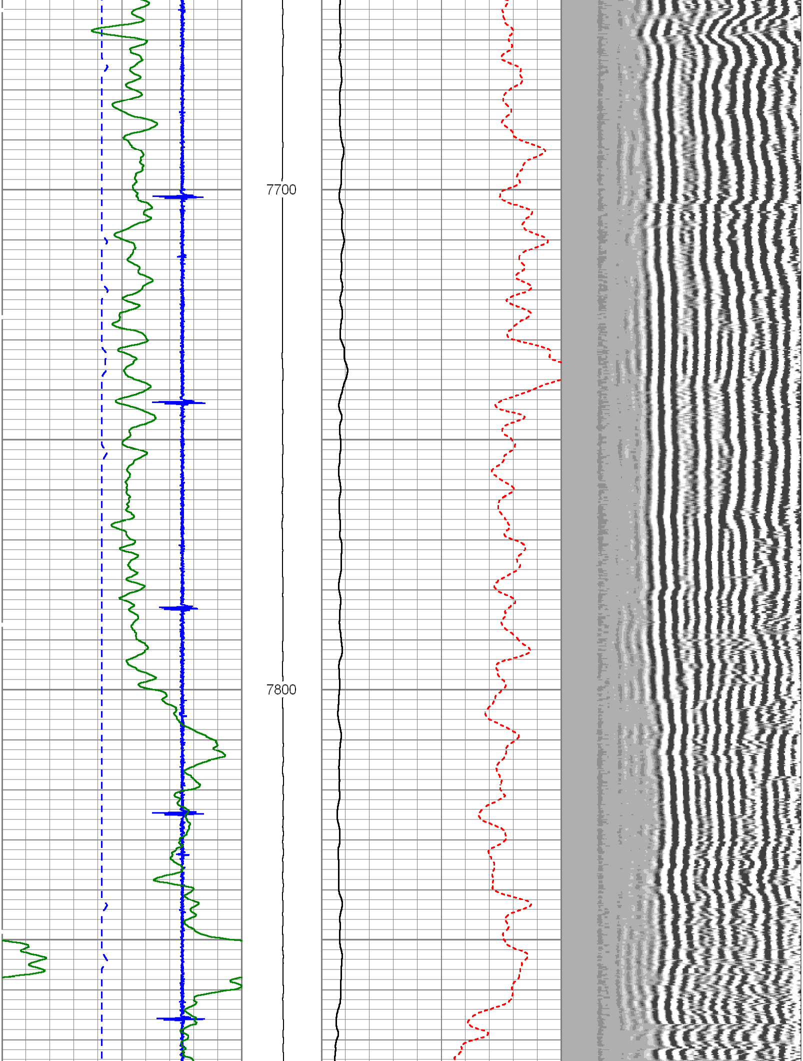
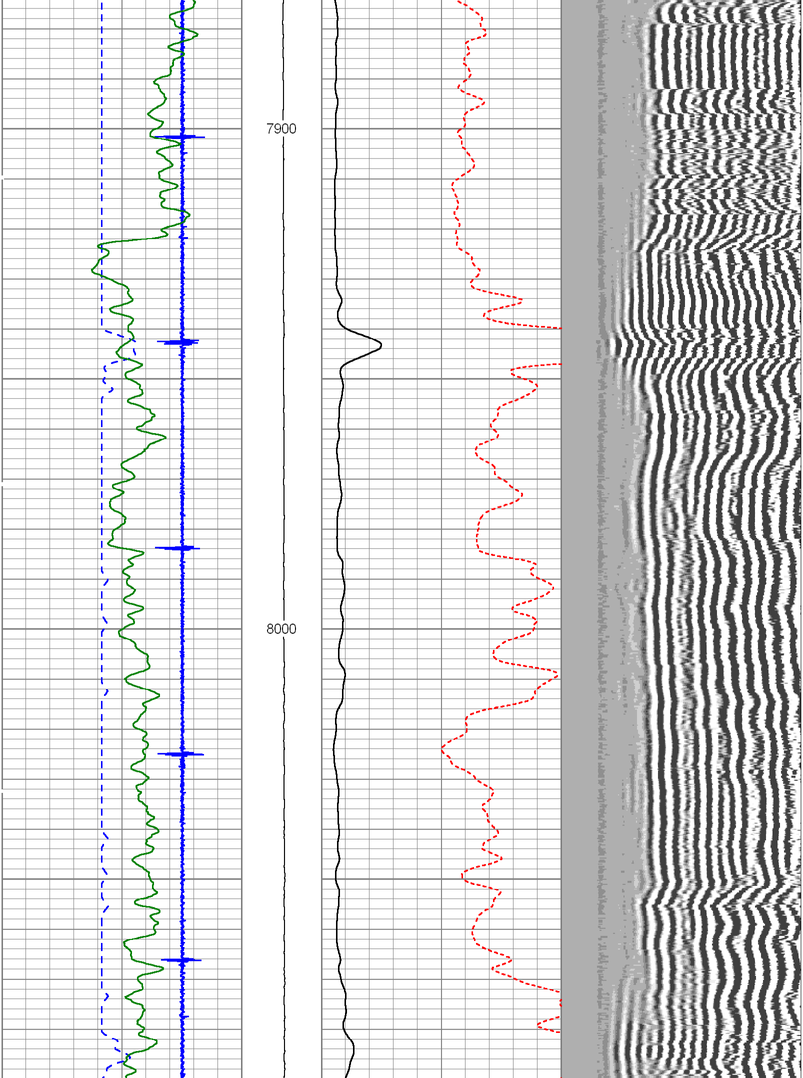
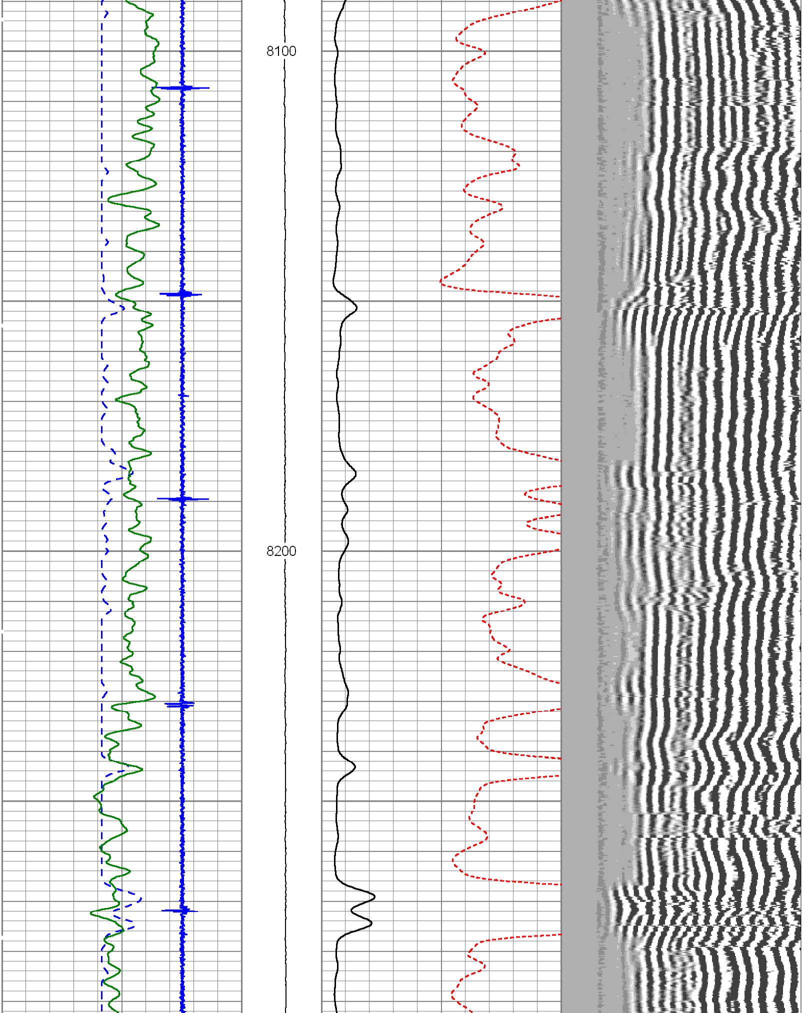
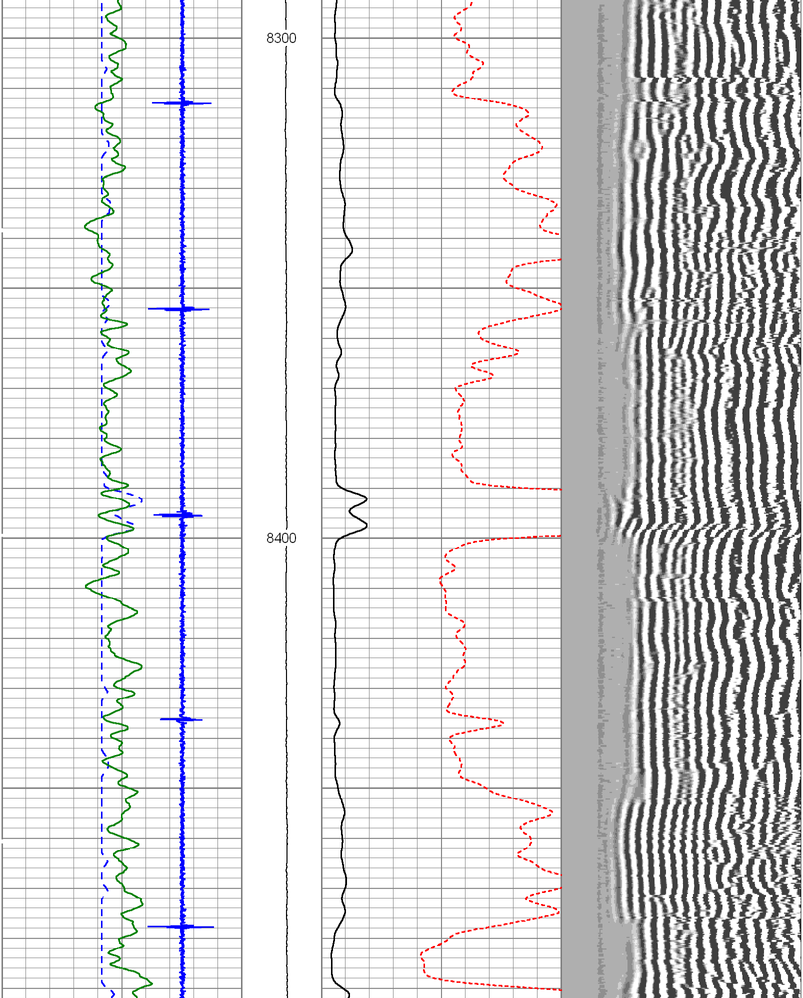
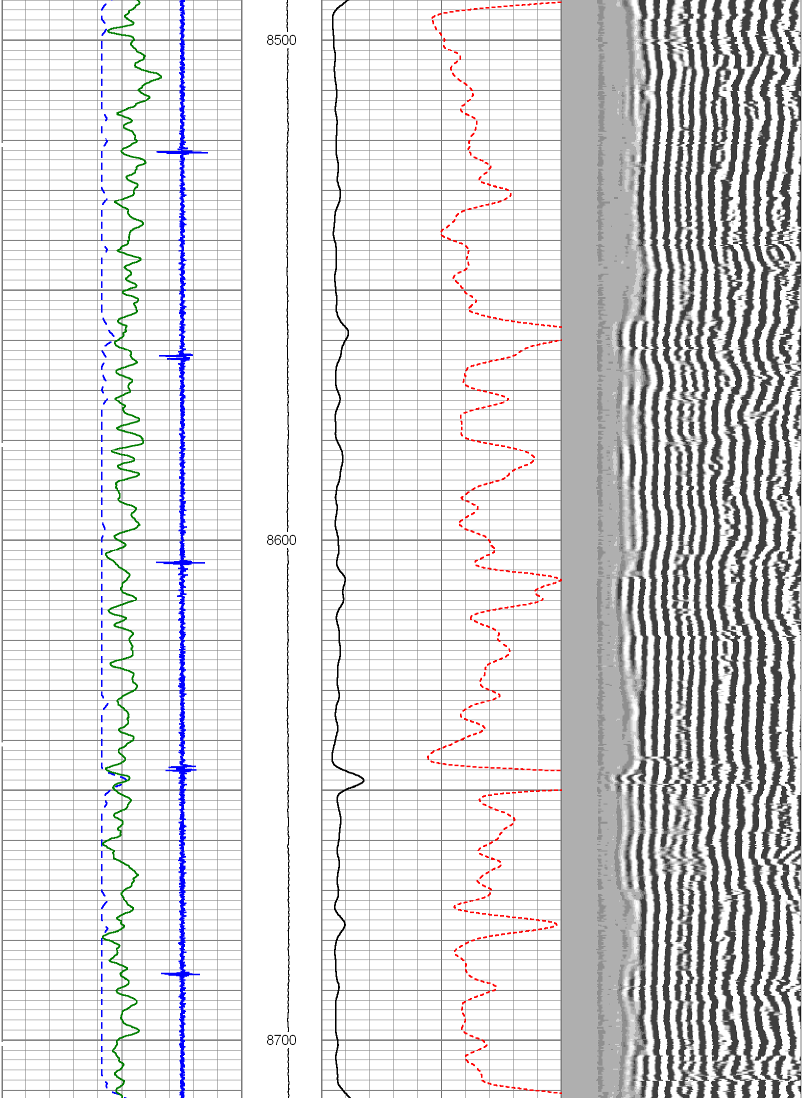
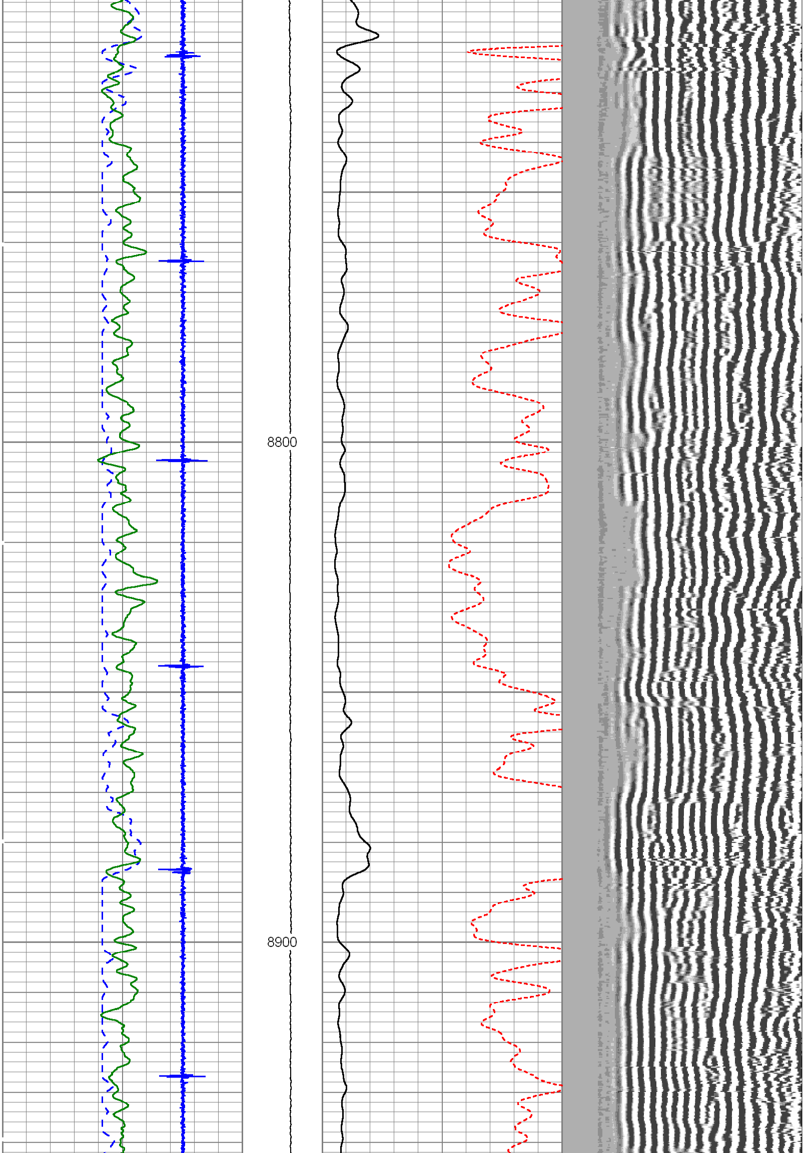


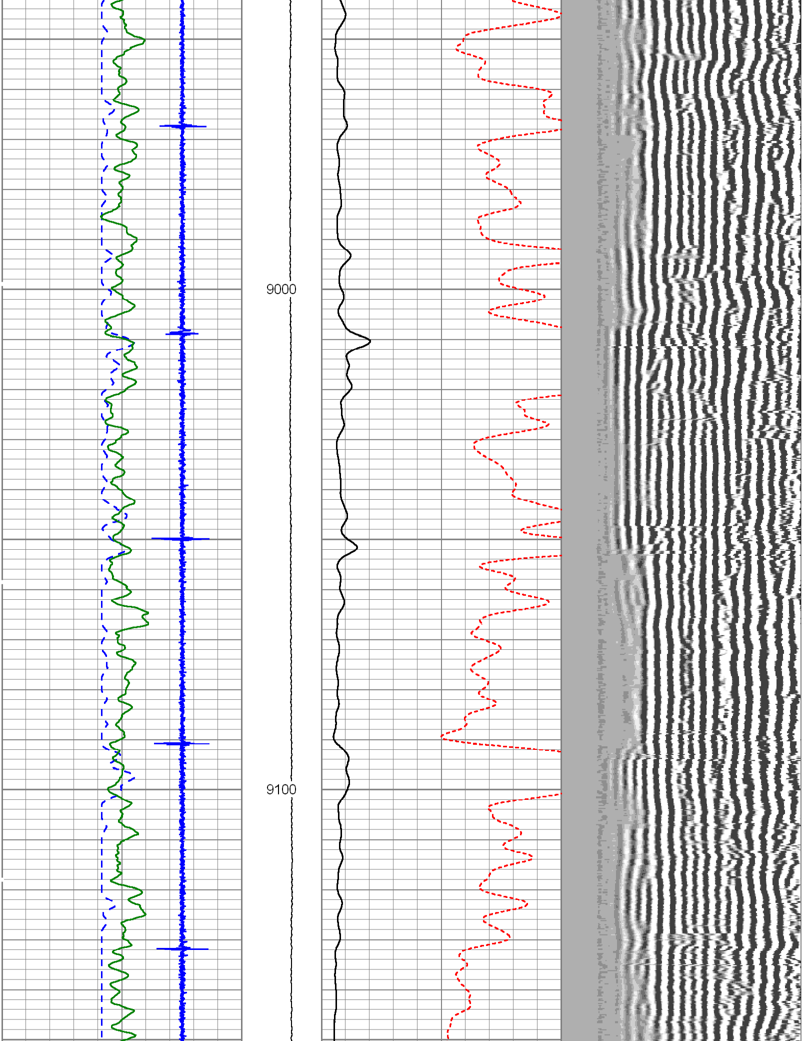


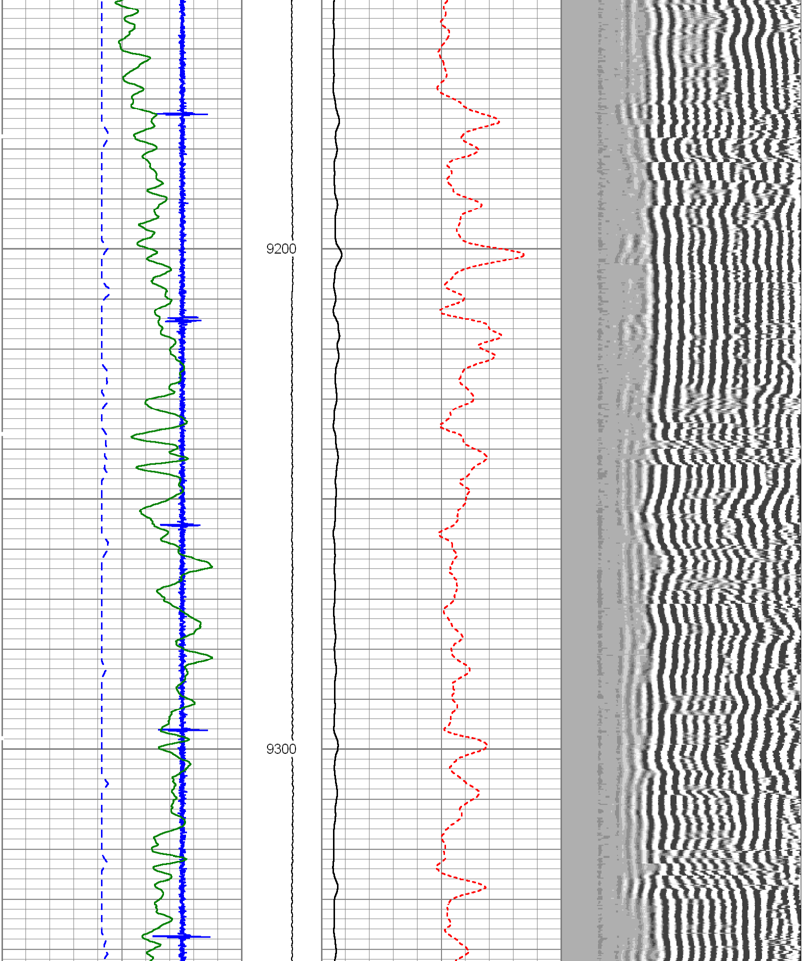


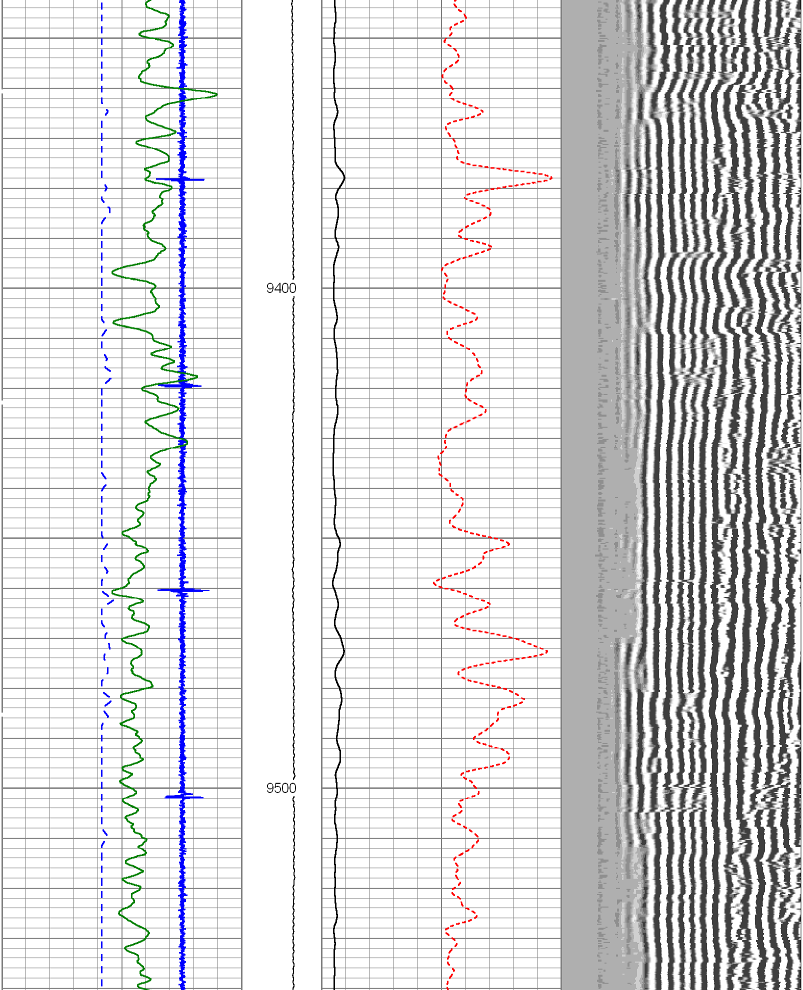


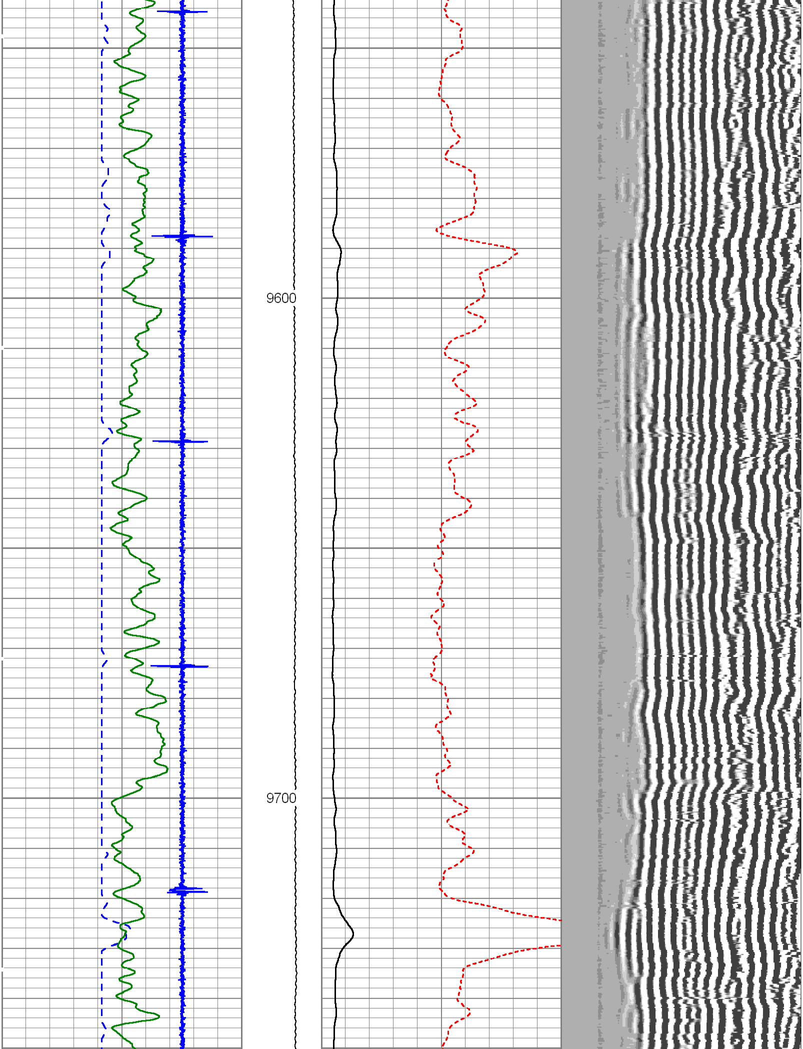


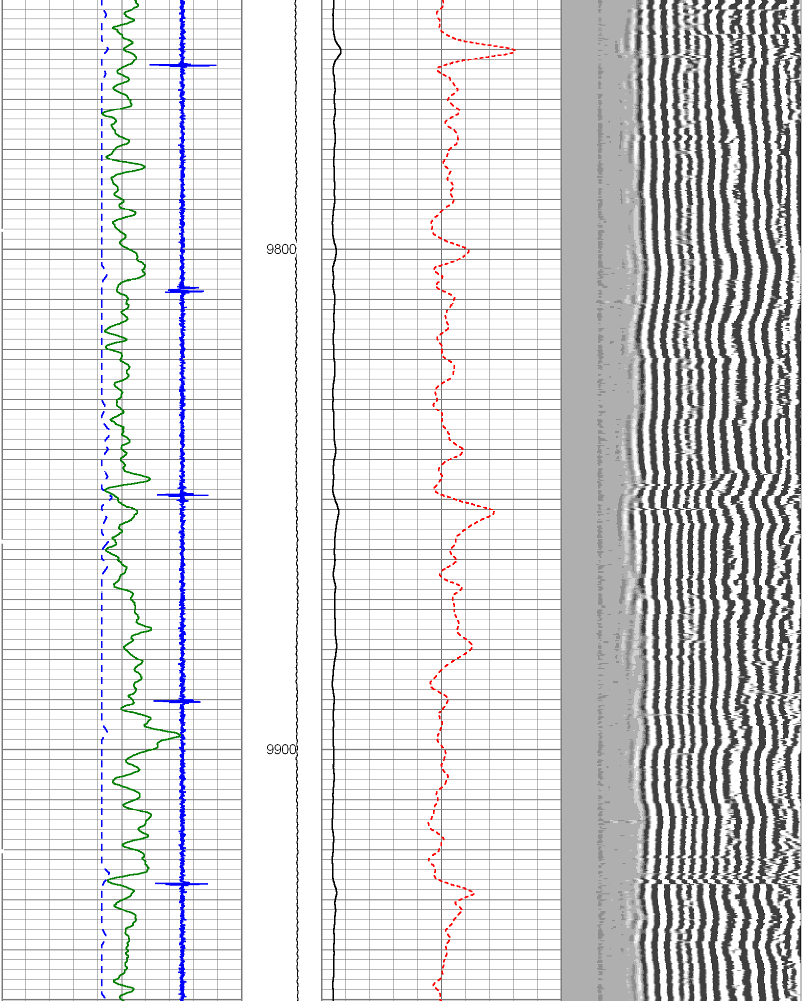


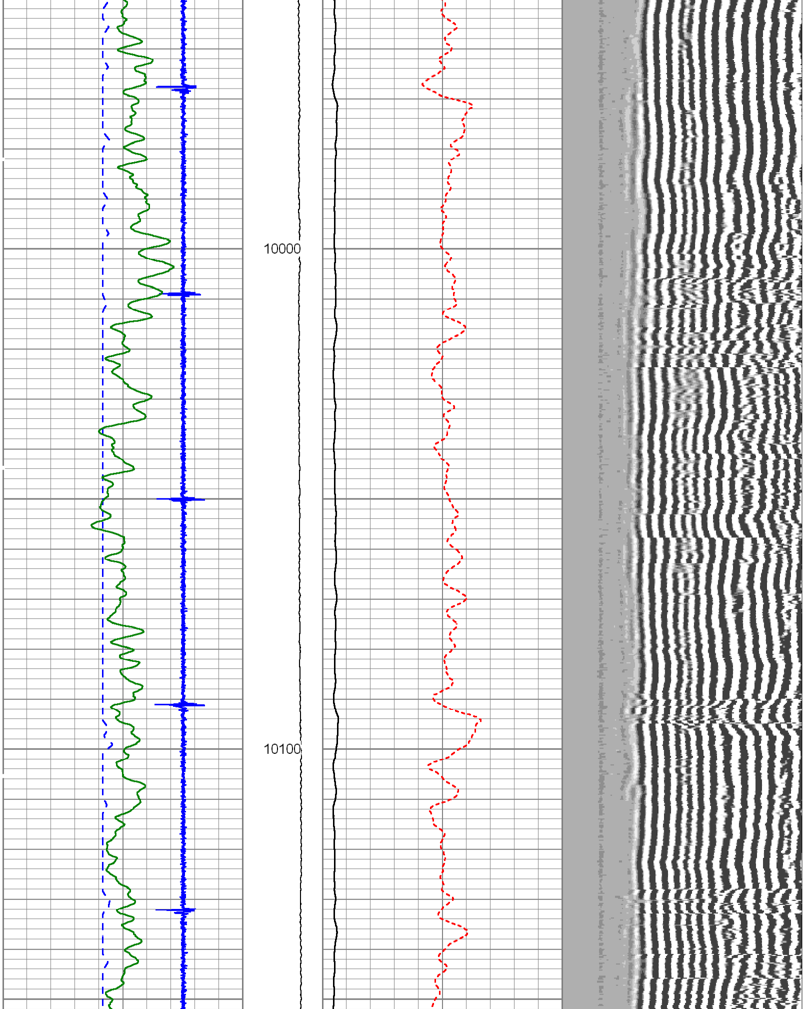


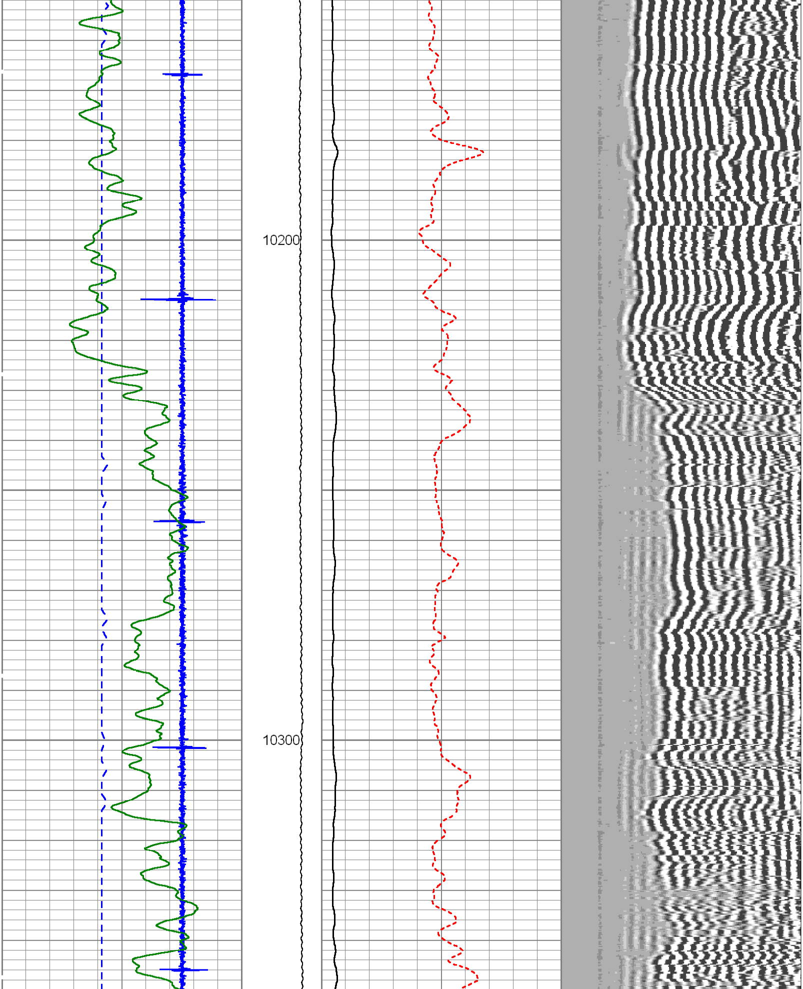


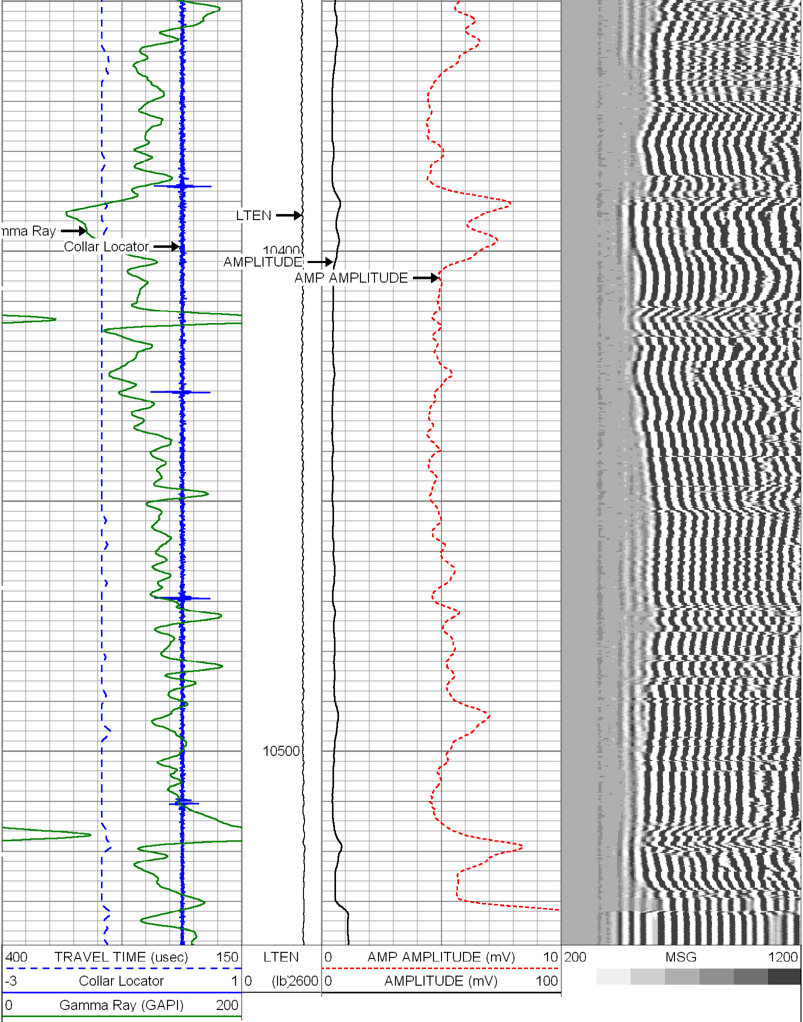












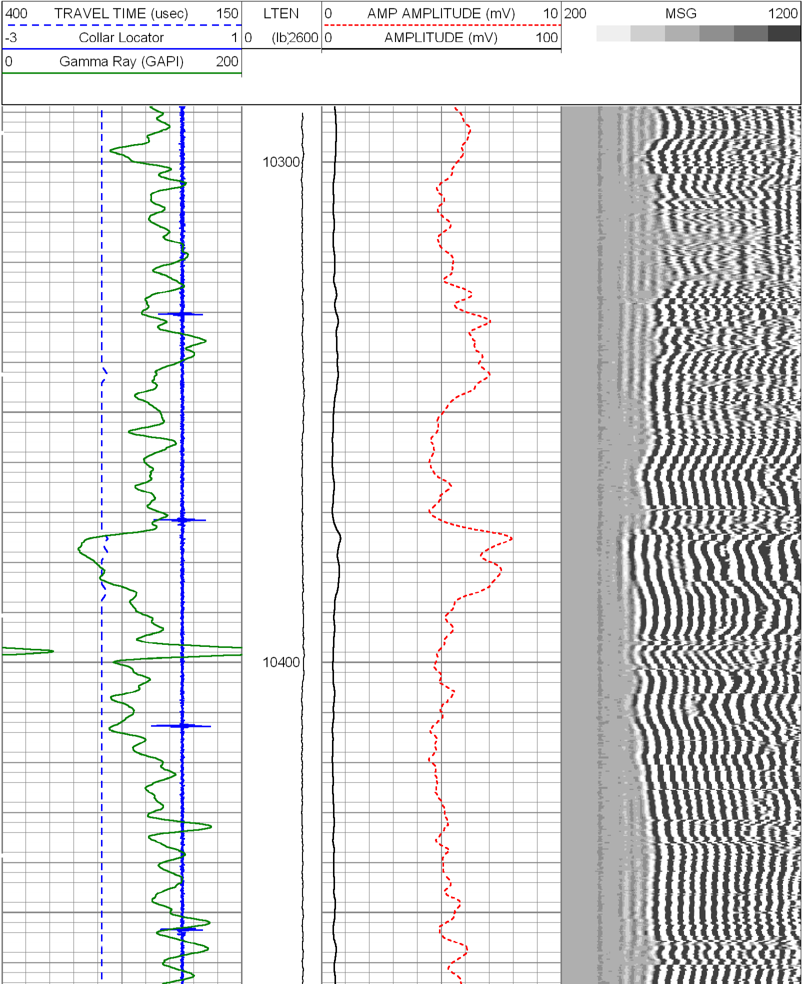
HALLIBURTON

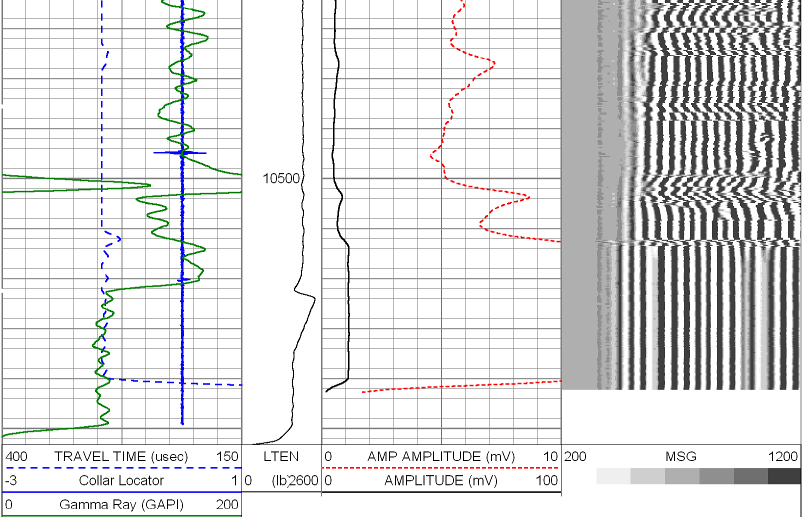
HALLIBURTON

REPEAT LOG SECTION

5"=100'

Database File:	laramiehawxhurst_19-13a_cbl.db
Dataset Pathname:	BC/19-13A/run1/REPEAT
Presentation Format:	cbl_main
Dataset Creation:	Sun Nov 20 13:46:41 2011 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240





HALLIBURTON

REPEAT LOG SECTION

5"=100'

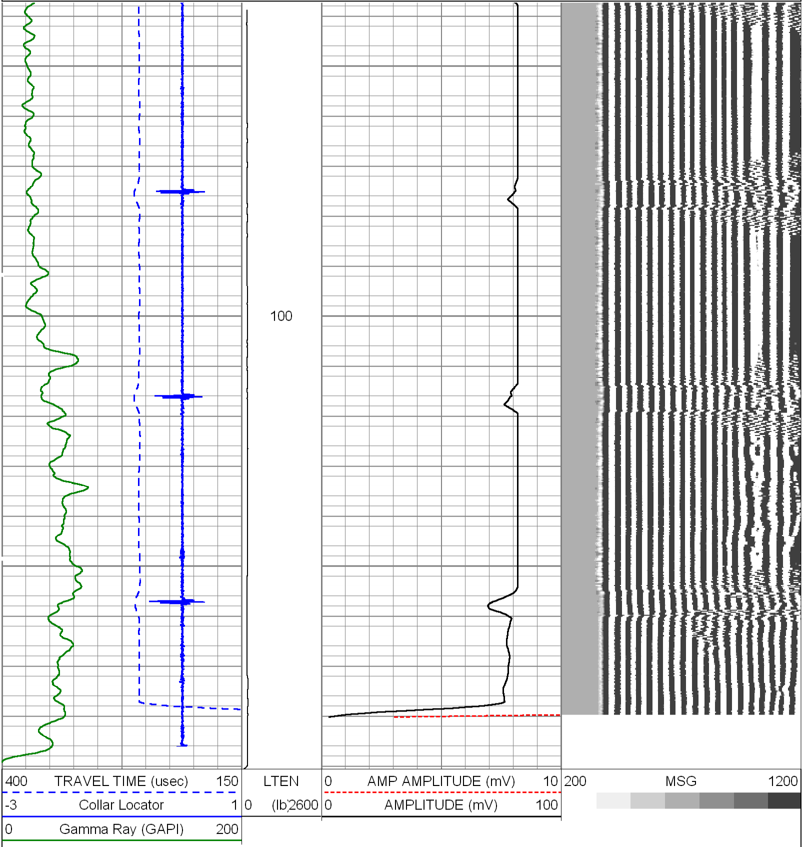
HALLIBURTON

FREE PIPE SECTION

5"=100'

Database File: laramiehawxhurst_19-13a_cbl.db
Dataset Pathname: BC/19-13A/run1/FREE
Presentation Format: cbl_main
Dataset Creation: Sun Nov 20 12:50:52 2011 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

400 TRAVEL TIME (usec) 150	LTEN	0 AMP AMPLITUDE (mV) 10	200 MSG 1200
-3 Collar Locator 1	0 (lb) 2600	0 AMPLITUDE (mV) 100	
0 Gamma Ray (GAPI) 200			



HALLIBURTON

FREE PIPE SECTION

5"=100'

Calibration Report

Database File: laramiehawxhurst_19-13a_cbl.db
Dataset Pathname: BC/19-13A/run1/MAIN
Dataset Creation: Sun Nov 20 13:57:19 2011 by Log Halliburton Casedho

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 70664

SHOP CALIBRATION

Sat Nov 19 19:13:45 2011

	Counts/Sec.	Gain	Offset	Jig	Units
Background	42.0				cps
Calibrator	330.4				cps
		0.8425			GAPI/cps

PRIMARY VERIFICATION

Sat Nov 19 19:16:12 2011

	Counts/Sec.	Gain	Offset	Jig	Units
Background	39.9				cps
Calibrator	280.7				cps
Difference				240.9	GAPI

BEFORE SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

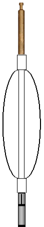
	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

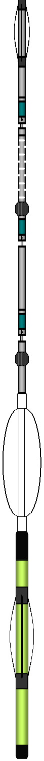
Serial Number: 070718
Tool Model: Probe
Performed: Sun Nov 20 12:48:41 2011

Depth: 51.9567 ft
Casing Diameter: 4.5 in

	3' Spacing	5' Spacing	
Signal Zero:	2	2	mV
Calibrated Amplitude:	82	82	mV
Reading at Signal Zero:	0.0154541	0.00322266	V
Reading in Free Pipe:	2.49878	2.49878	V
Gain:	32.2149	32.057	
Offset:	1.50215	1.89669	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			STND_CH 1.4375 IN CABLE HEAD	1.08	1.44	1.10
			CENT-Probe (MONO1) Probe 2 3/4 Centralizer	2.88	2.75	35.00

WVF3	11.82
WVF5	10.82
CCL	3.92
GR	2.54
LLMTEN	0.00



CBL-Probe (070718) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
GR-Probe275dig (70664) Probe Digital Gamma CCL	4.75	2.75	57.00

Dataset:	laramiehawxhurst_19-13a_cbl.db: BC/19-13A/run1/MAIN
Total Length:	20.52 ft
Total Weight:	188.10 lb
O.D.	2.75 in

Company LARAMIE ENERGY II,LLC
Well HAWXHURST 19-13A
Field BUZZARD CREEK
County MESA State CO

CEMENT BOND LOG
GR-CCL