Company PDC ENERGY INC

Well LEDFORD 22Y-401
Field WATTENBERG
County WELD State CO

Pioneer Energy Services

GAMMA RAY COMPENSATED NEUTRON

Company	**PDC ENERGY INC**		
Well	**LEDFORD 22Y-401**		
Field	**WATTENBERG**		
County	**WELD**	**State**	**CO**

Location: API # : 05-123-39618
SHL: 321' FSL & 268' FEL
SESE
SEC 22 TWP 5N RGE 64W

Other Services
NONE

			Elevation
Permanent Datum	GL	Elevation	K.B.
Log Measured From	GL		D.F.
Drilling Measured From	KB		G.L.

Date of Service	AUGUST 21, 2015
Run Number	1
Depth Driller or PBTD	N/A
Depth Logger	6150'
Bottom Log Interval	6150'
Top Log Interval	SURFACE
Open Hole Size	8.75"
Type Fluid	WATER
Fluid Level	560'
Fluid Density	N/A
Max. Recorded Temperature	N/A
Max. Wellhead Pressure	0
Wellhead Connection	N/A
Estimated Cement Top	N/A
Unit Number	P52
Wireline Size	7/16"
Location	FT. MORGAN CO
Recorded By	SHAUN STUMP
Witnessed By	N/A

	Size	Wt/Ft	Top	Bottom
Tubing Record	N/A	N/A	N/A	N/A
Surface Casing	9.625"	36	N/A	N/A
Production Casing	7.000"	26	N/A	N/A
Liner Record	4.500"	13.5	N/A	N/A

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
LOG CORRELATED TO GL
SO# 2-013996

THANK YOU FOR USING PIONEER ENERGY SERVICES

Your Pioneer Energy Services Crew

Engineer: SHAUN STUMP
Operator:
Operator: MIKE GARCIA
Operator: CLINT CHRISTENSEN

Tool Data - Services	Serial Number
CNT	PSI 856
GR	PSI 939

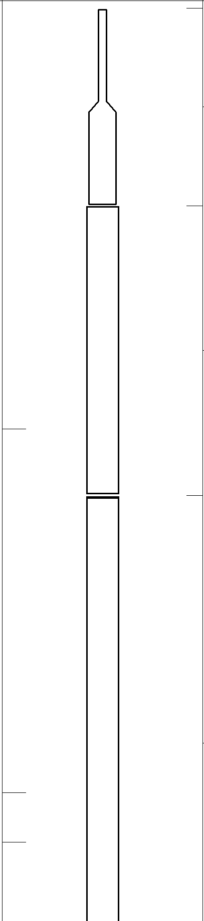
Log Variables

Database C:\ProgramData\Warrior\Data\2-013996.db
Dataset field/well/run1/pass2/_vars_

Top - Bottom

SZCOR	NPORSEL	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF
Off	Sandstone	0	0	7	0	0	189

BOREID in
8.75

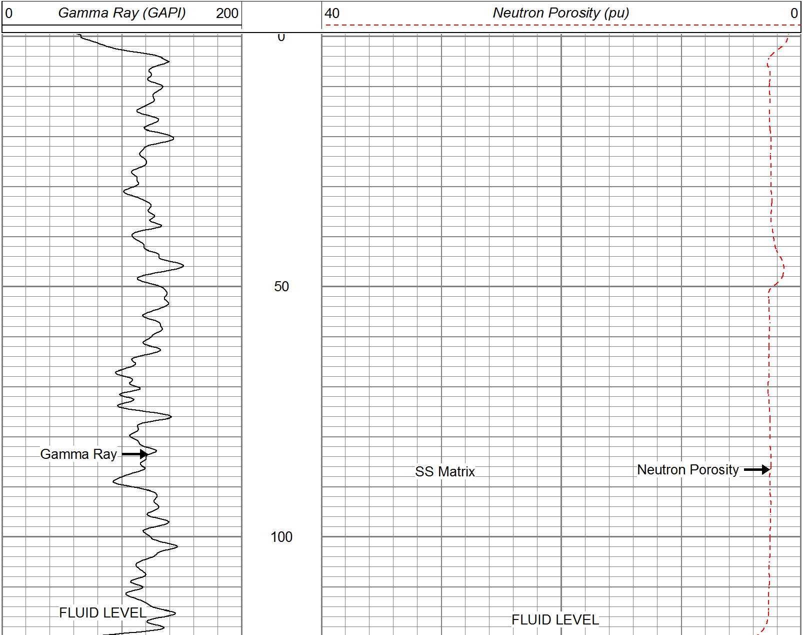
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			CHD (~0)	2.00	3.50	30.00
			GR-PSI (939)	2.92	3.50	40.00
GR	5.67					
			CNT-PSI (856)	5.00	3.50	70.00
CNLSC	2.00					
CNSSC	1.50					

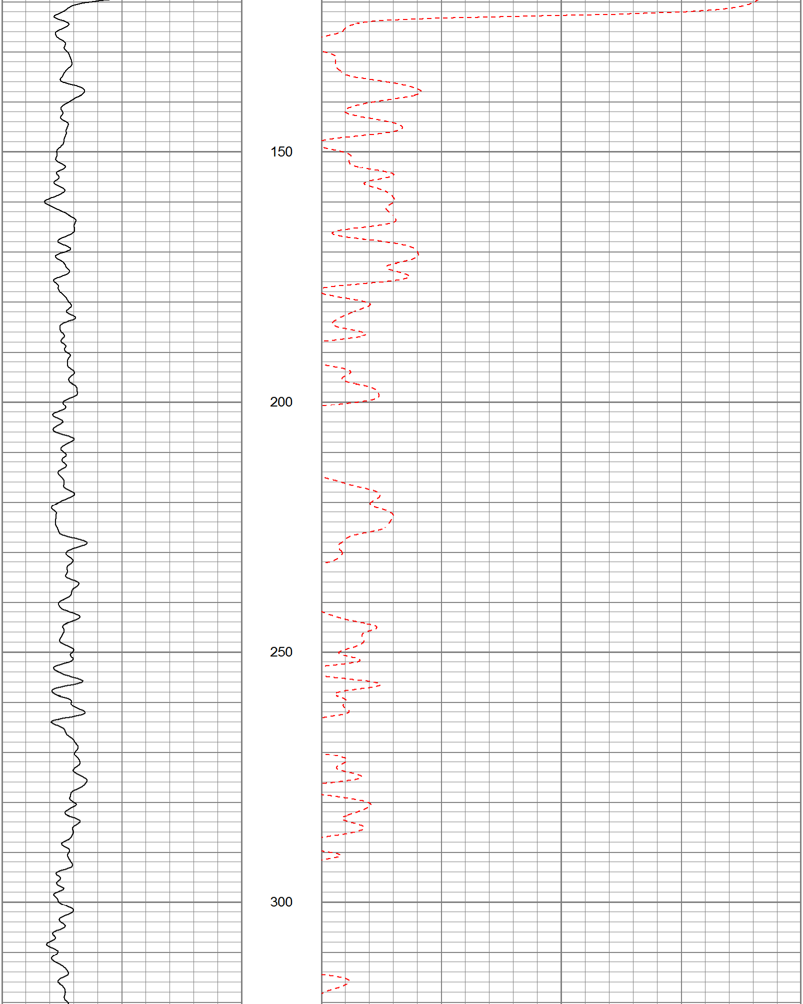
Dataset: 2-013996.db: field/well/run1/pass2
Total length: 9.92 ft
Total weight: 140.00 lb
O.D.: 3.50 in

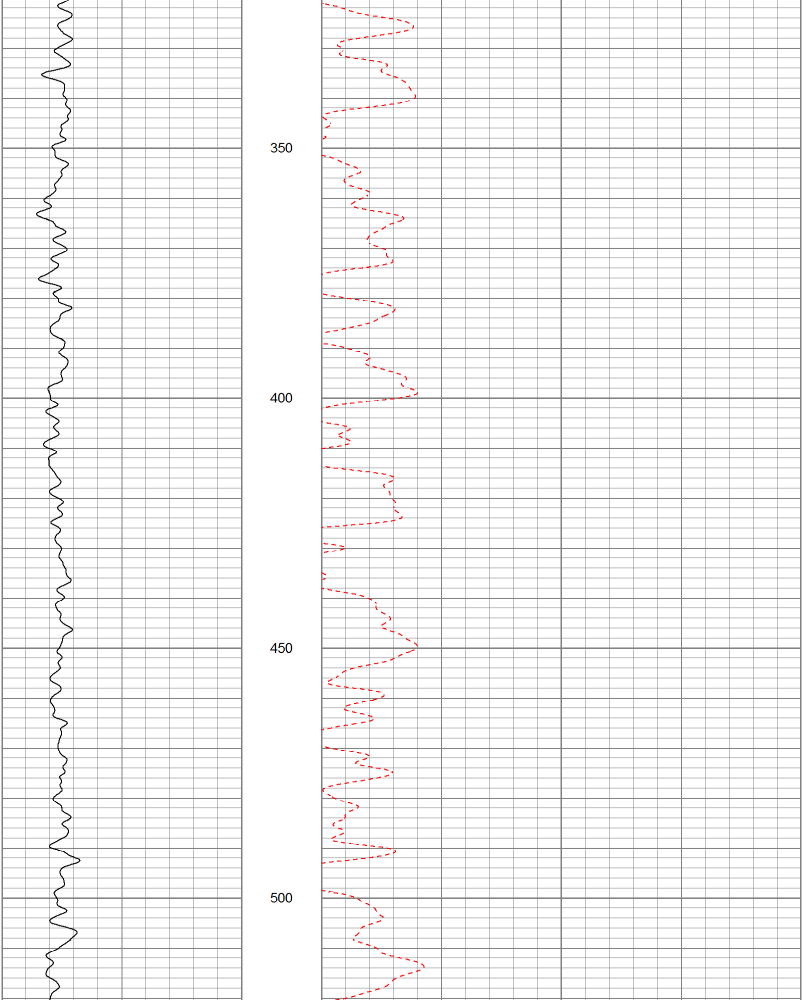
Pioneer Energy Services

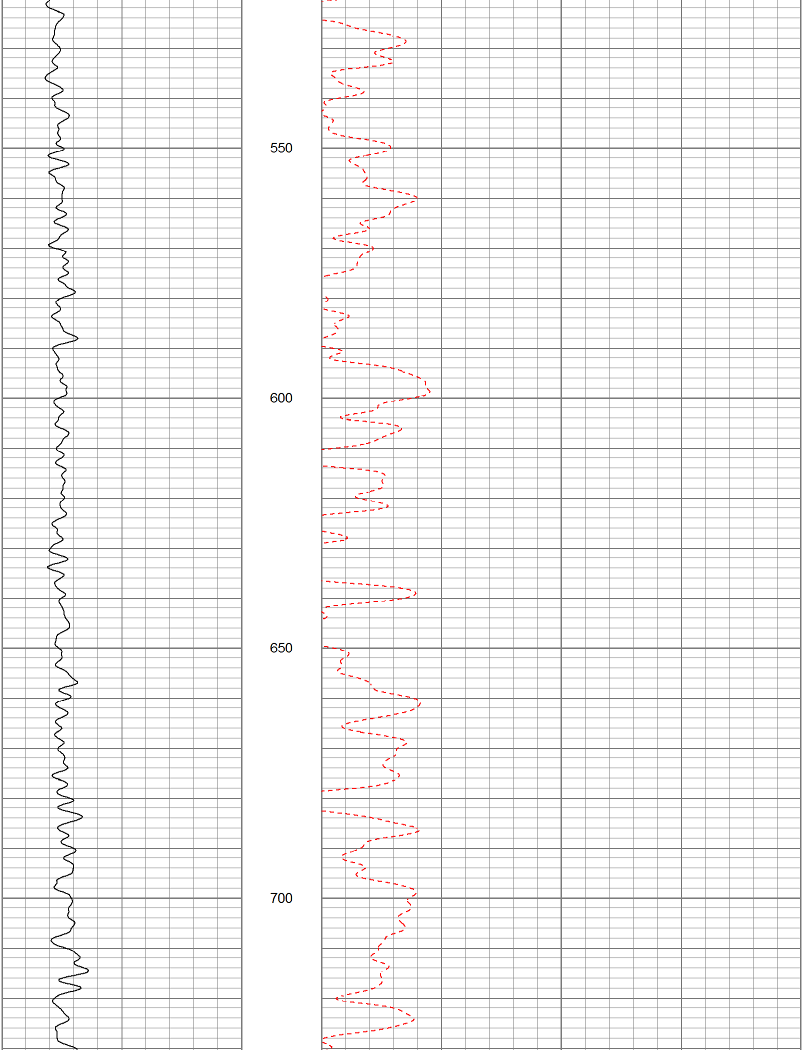
MAIN PASS

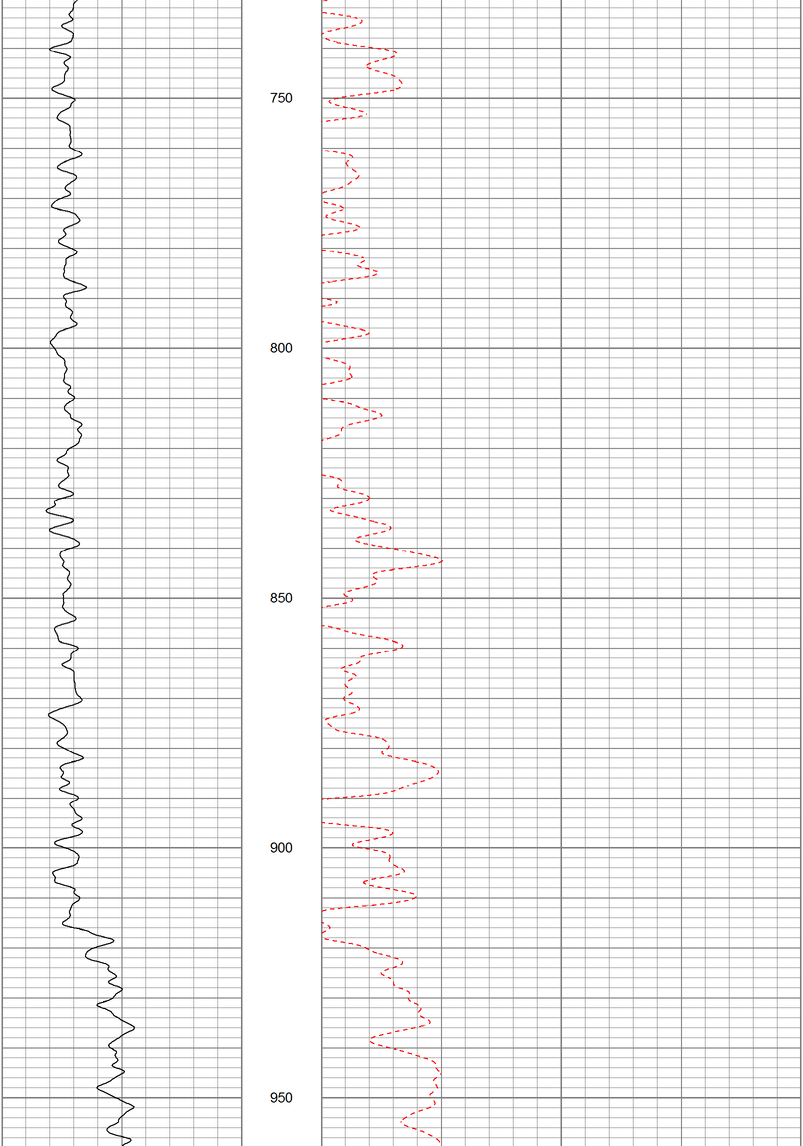
Database File	2-013996.db
Dataset Pathname	pass2
Presentation Format	den_neu
Dataset Creation	Fri Aug 21 10:23:25 2015
Charted by	Depth in Feet scaled 1:240

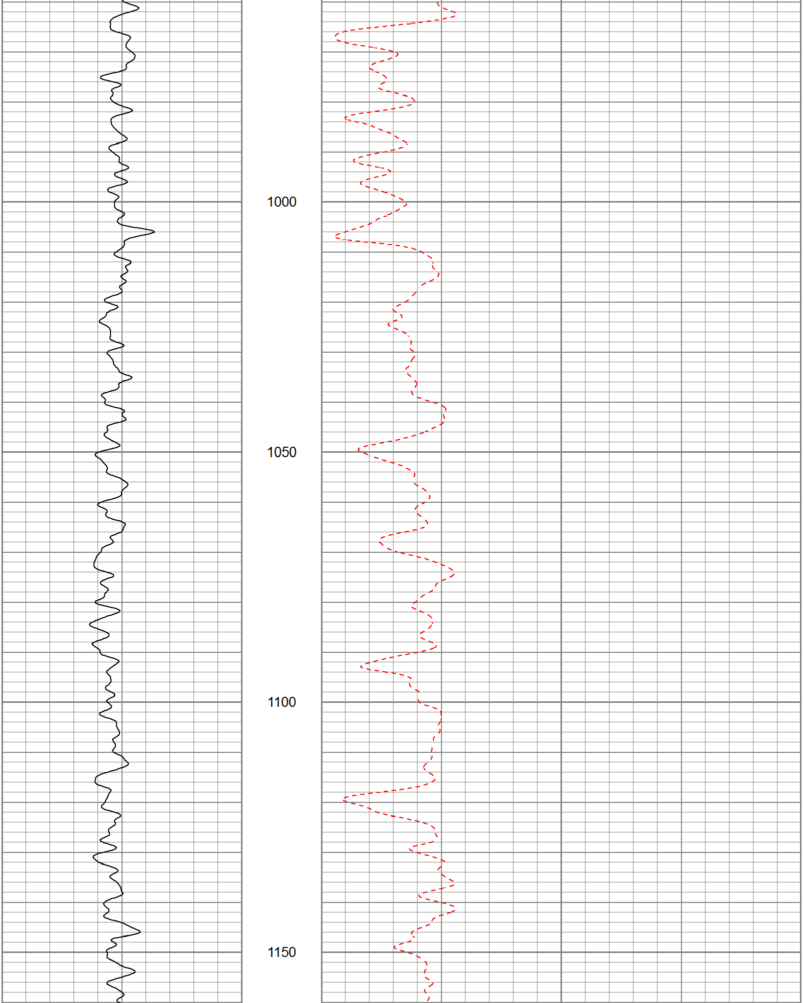


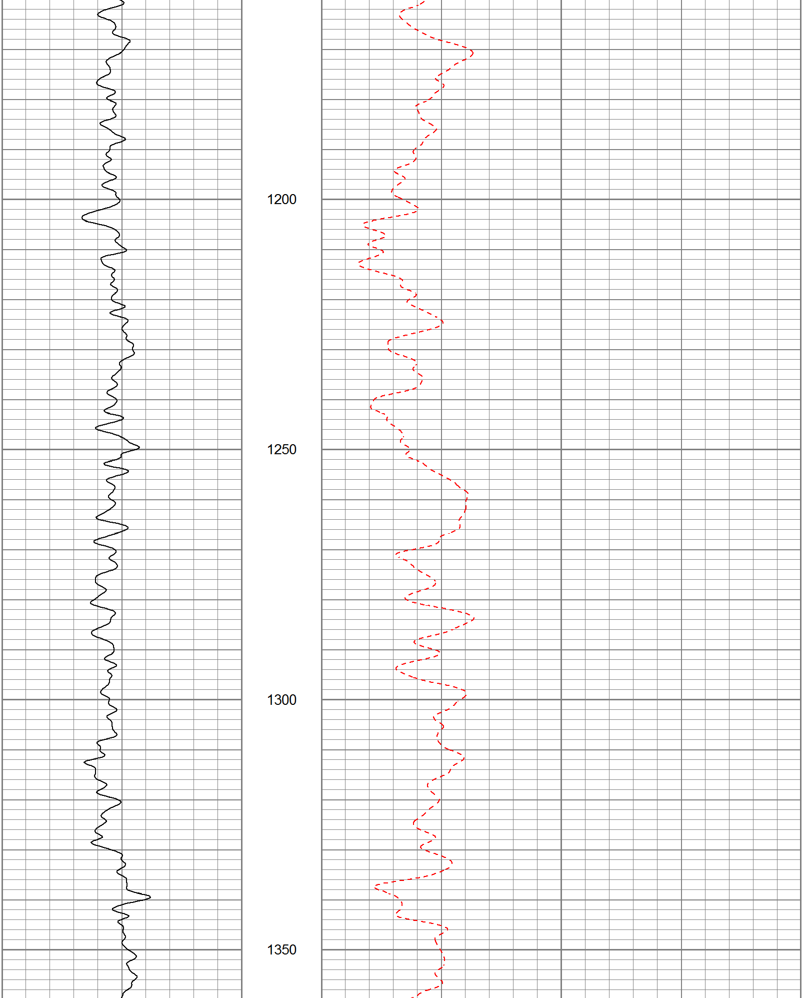


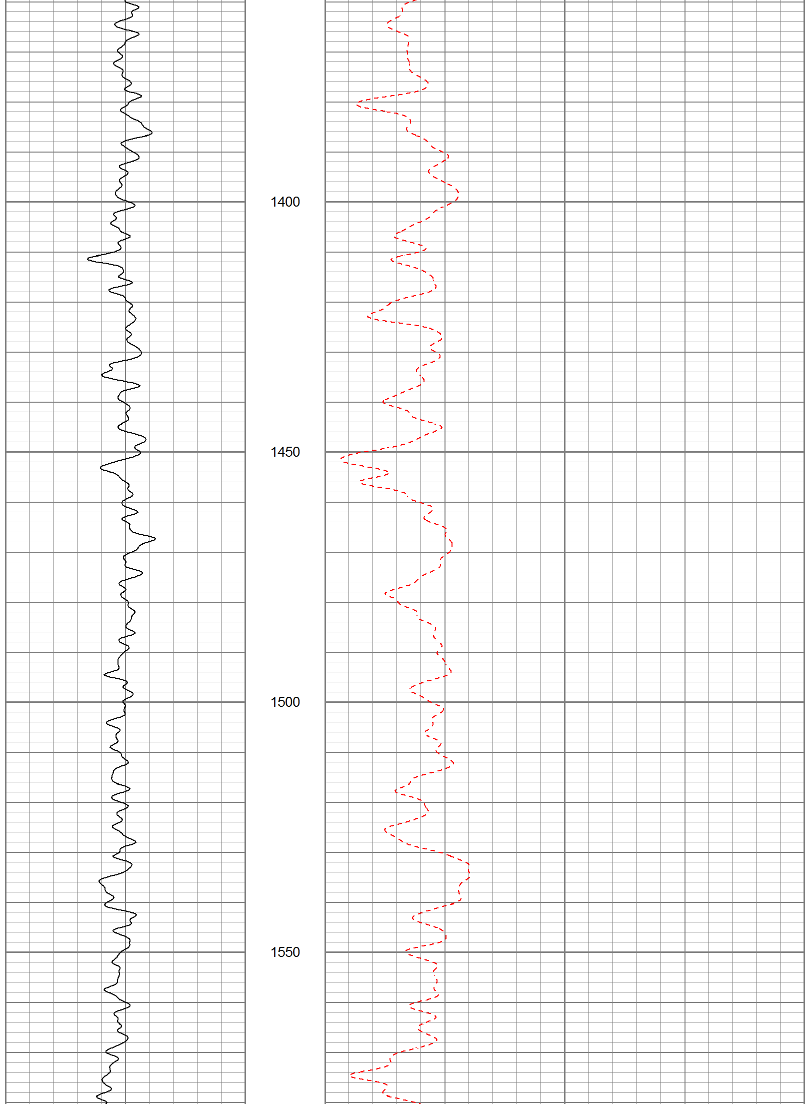


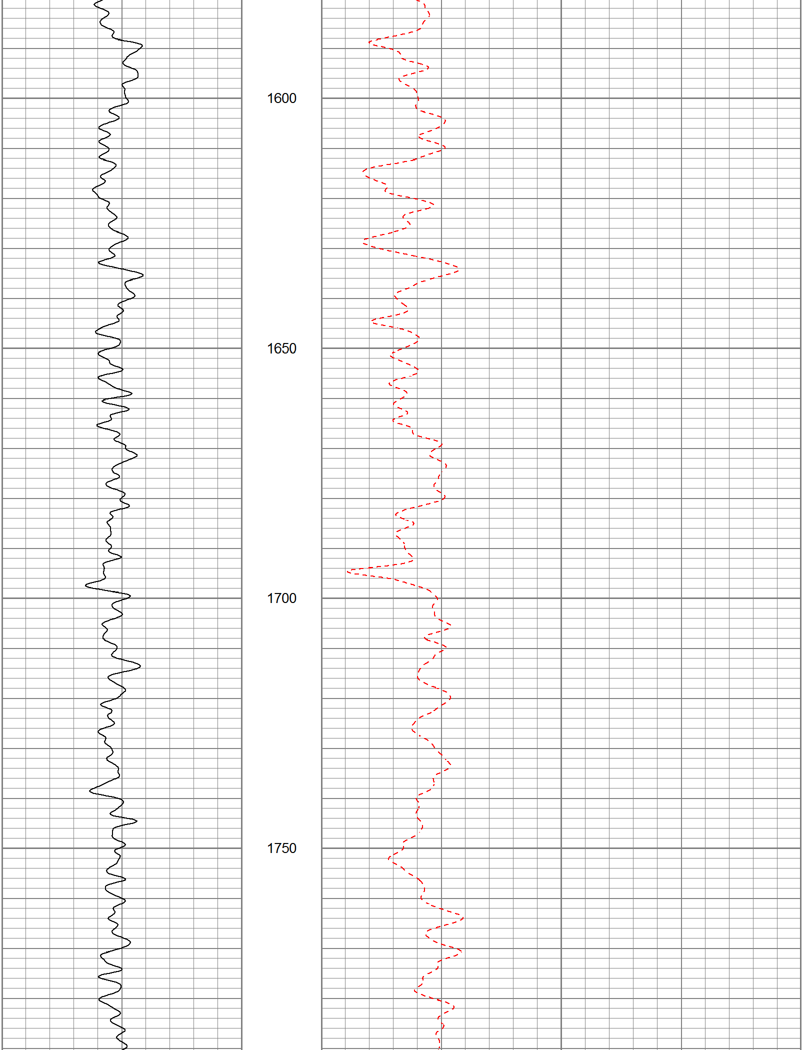


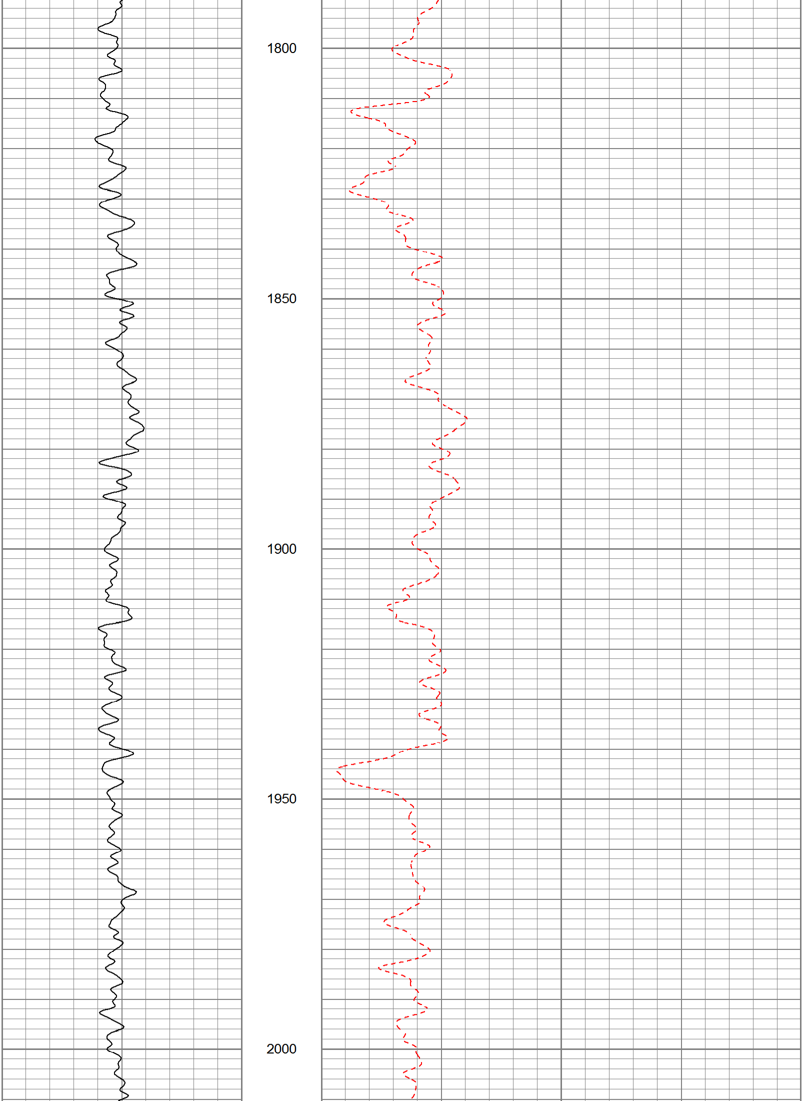


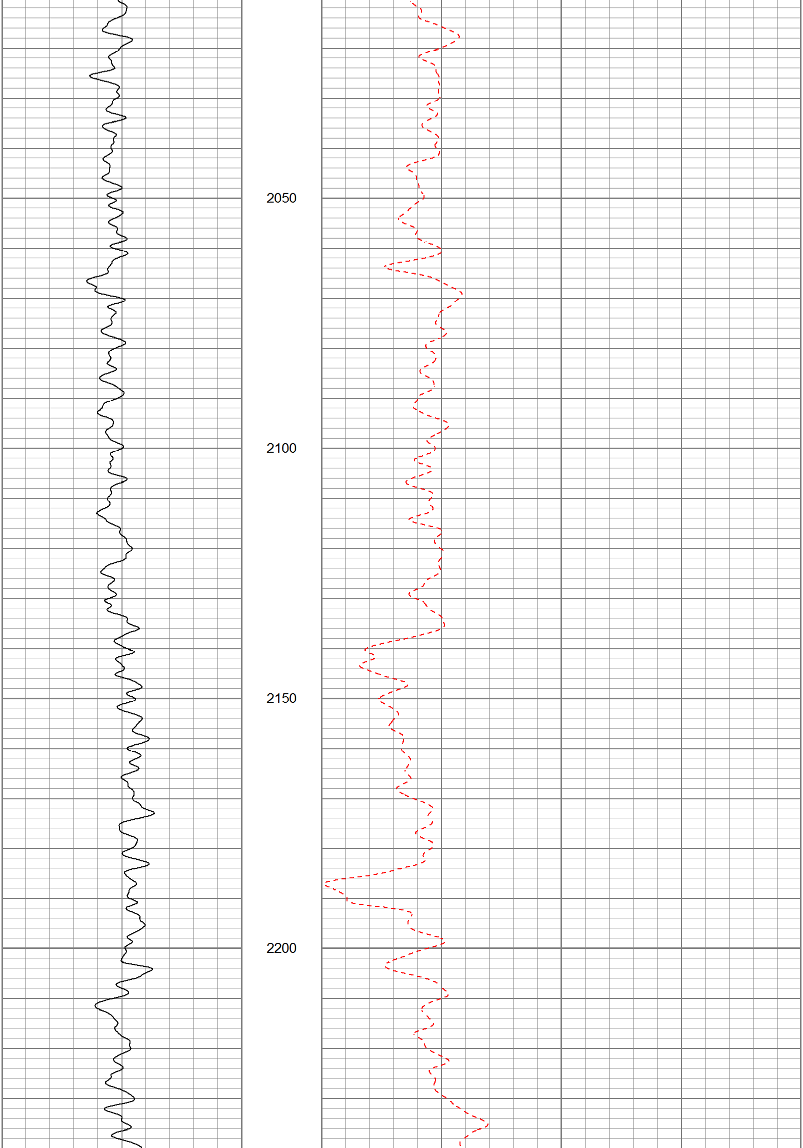


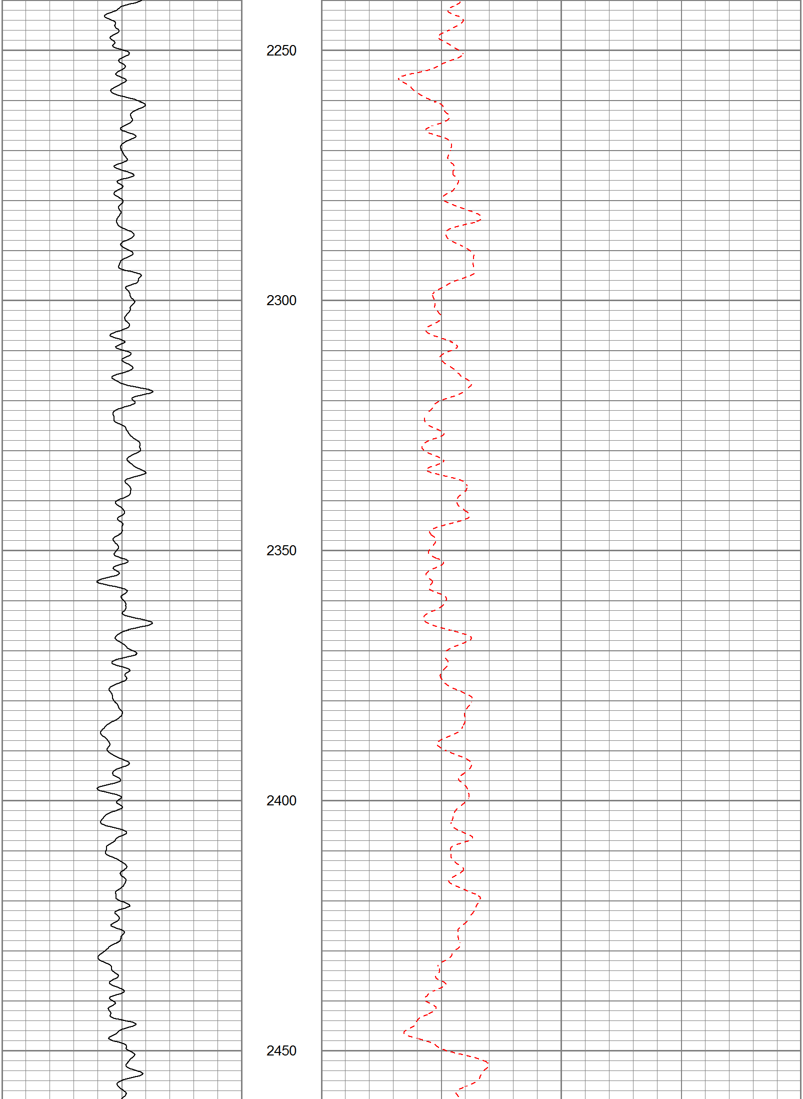


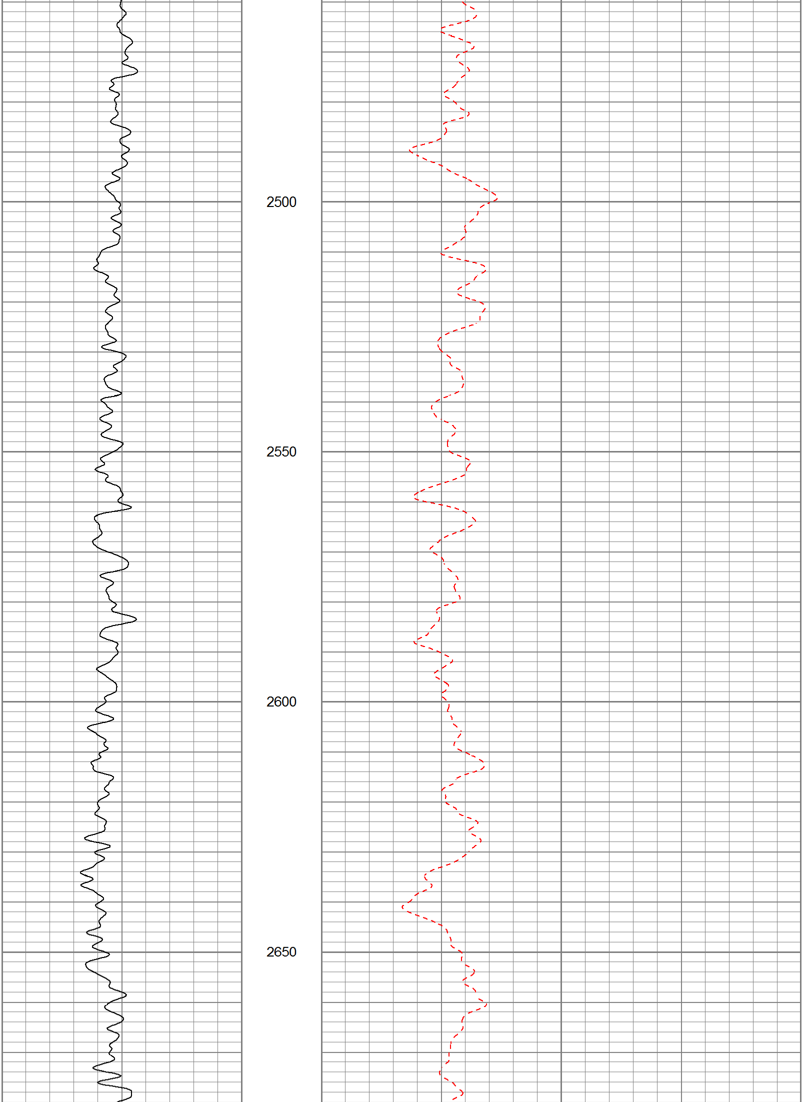


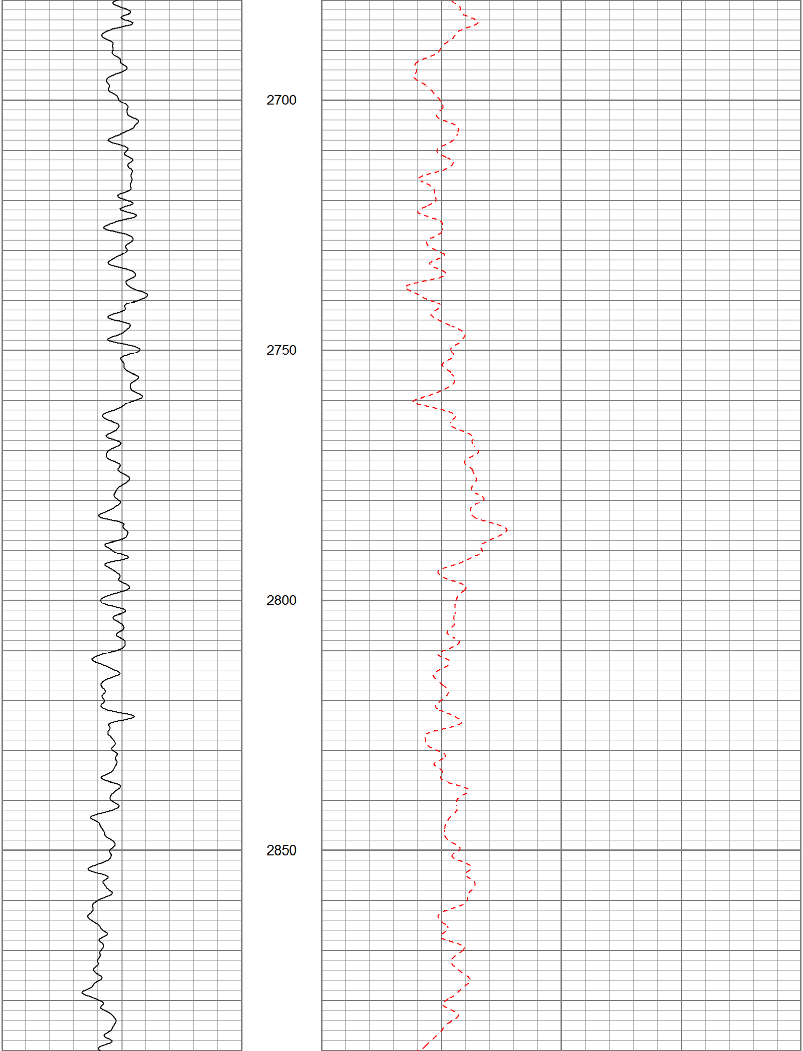


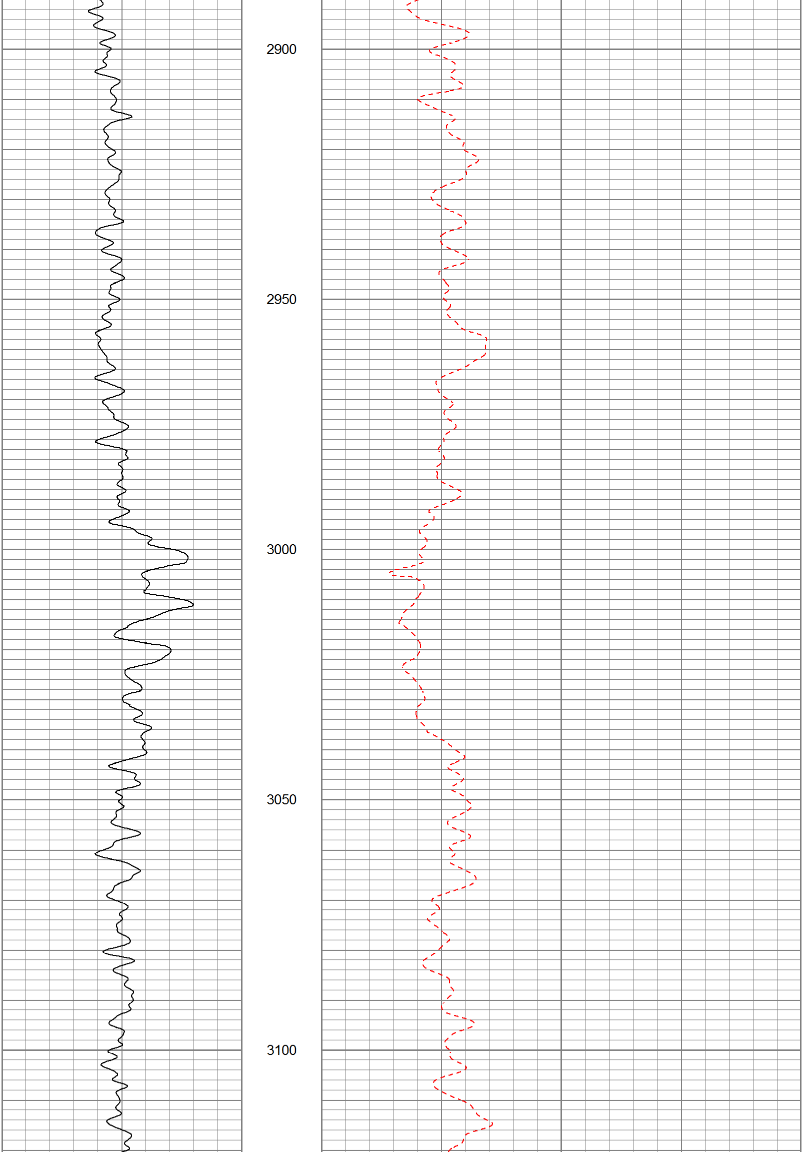


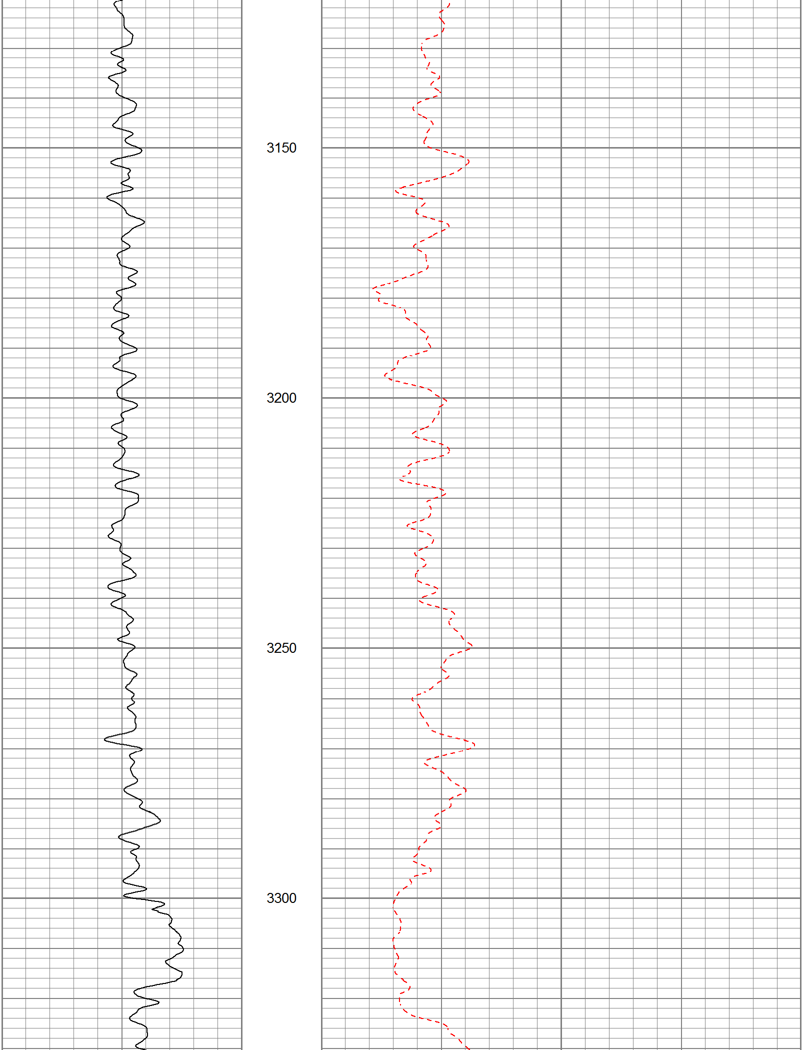


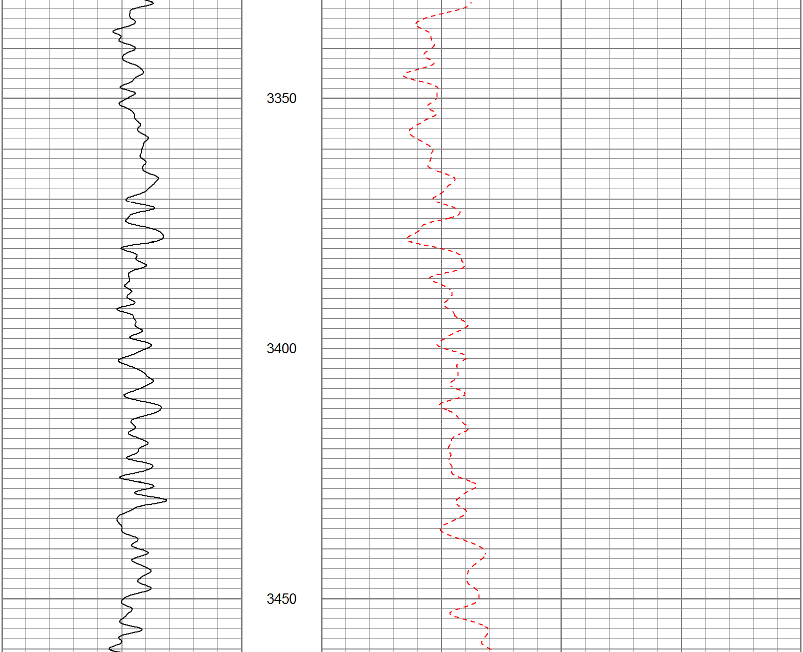


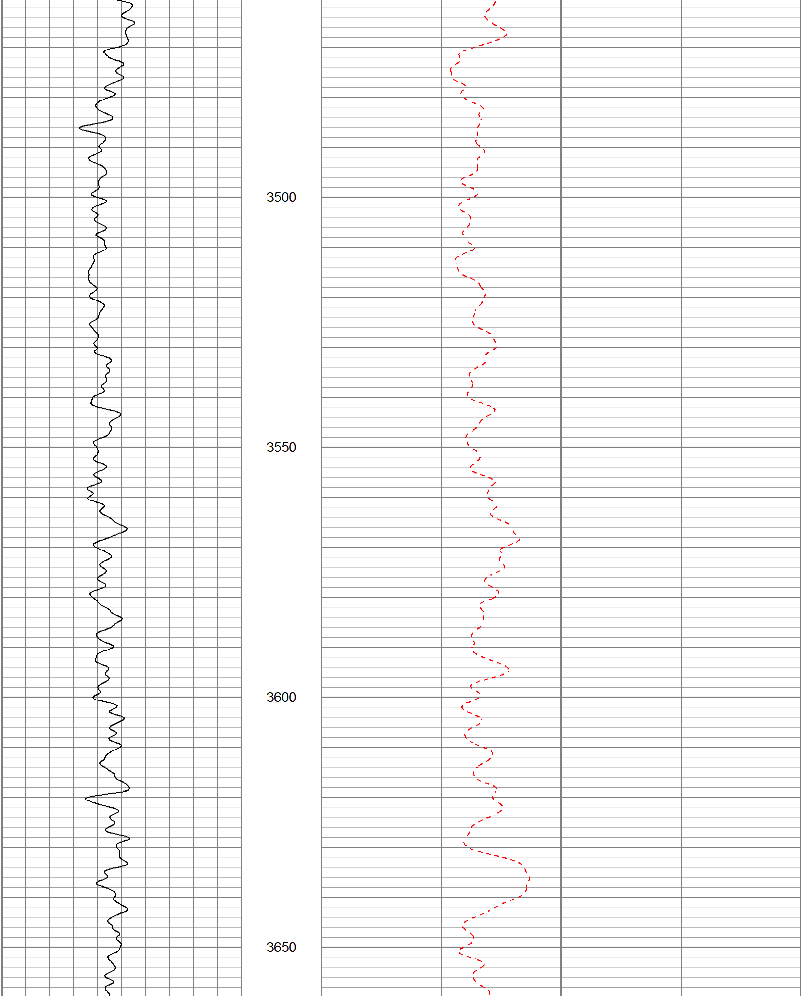


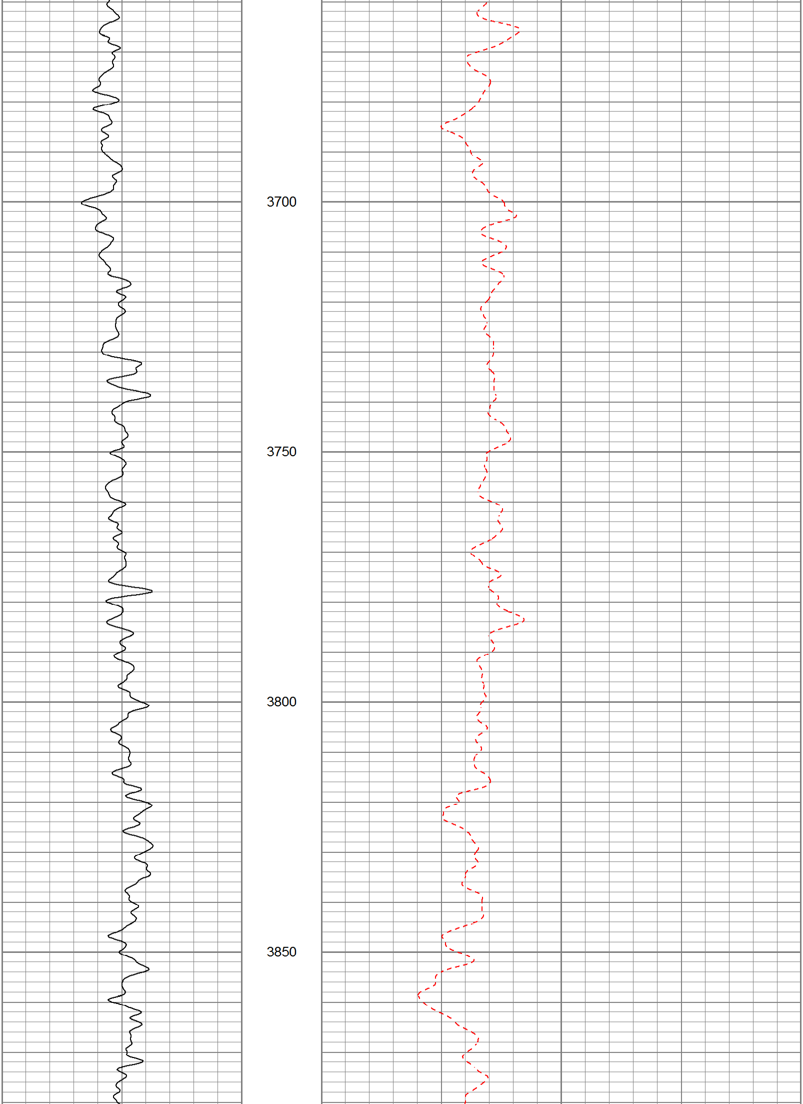


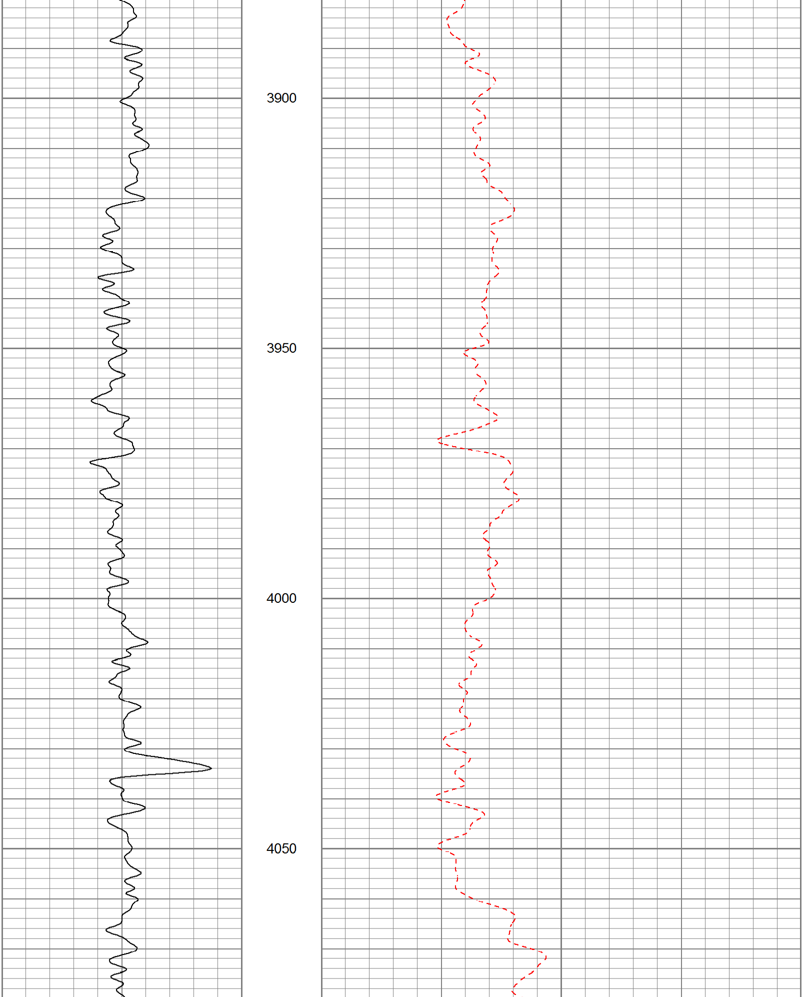


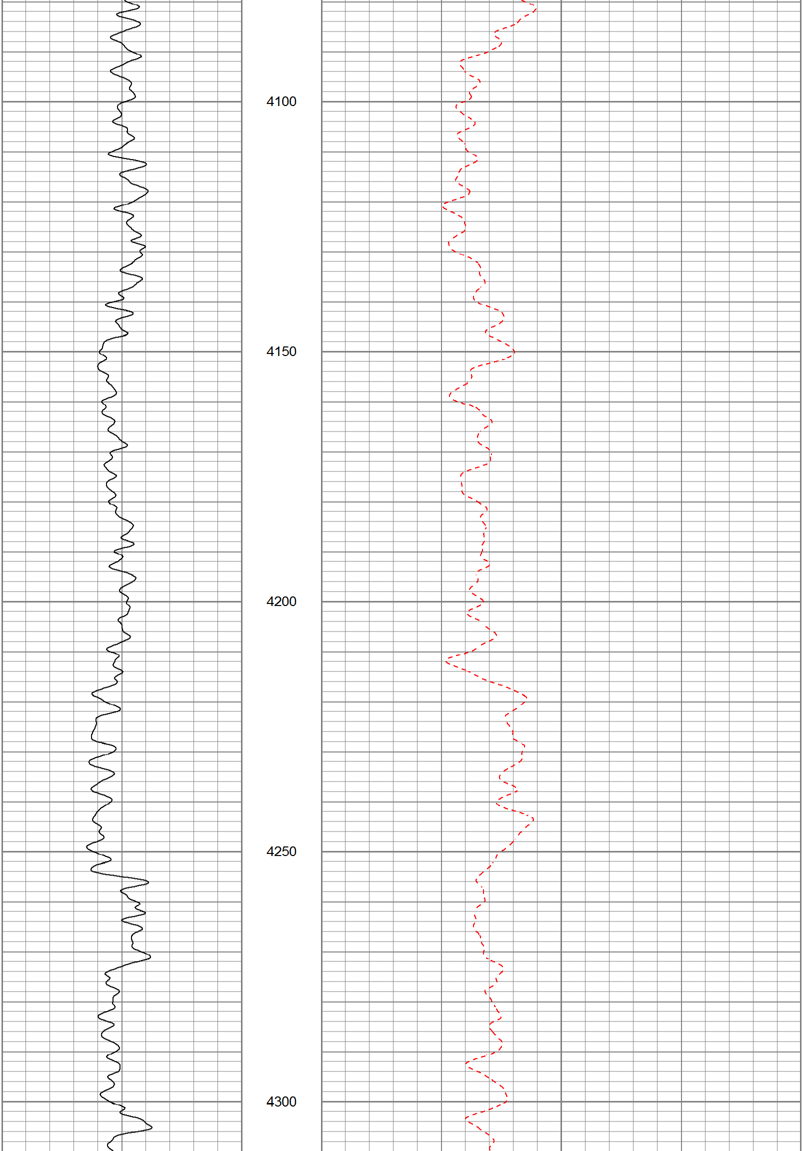


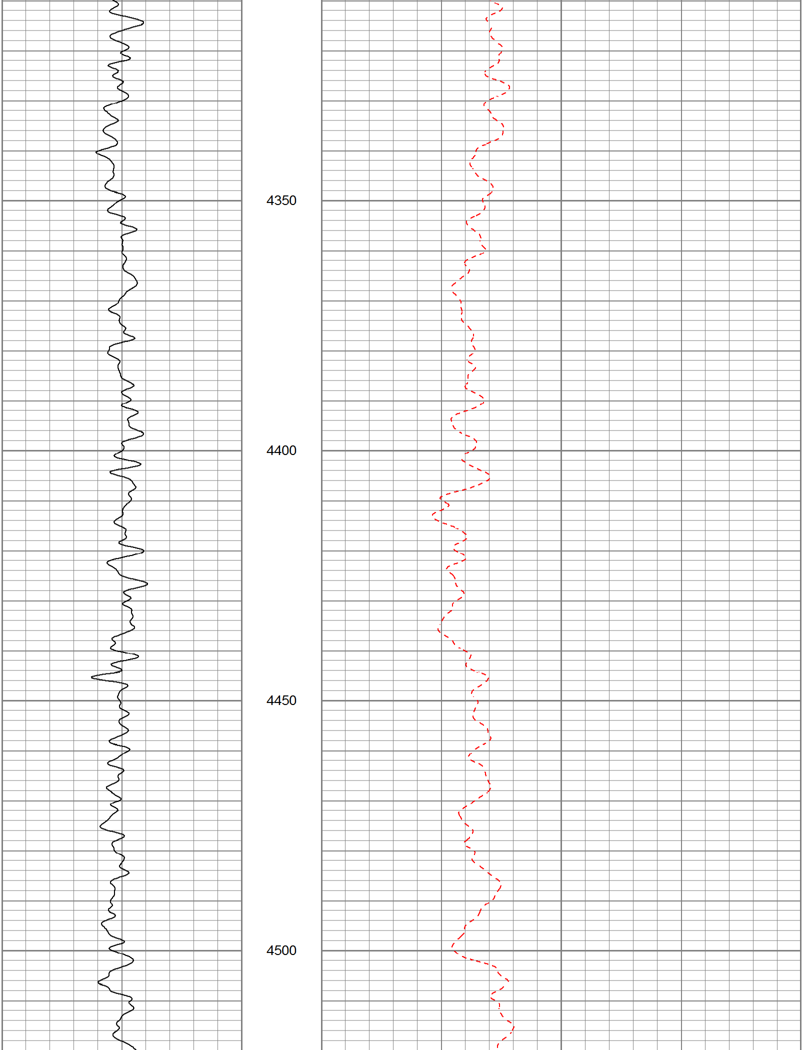


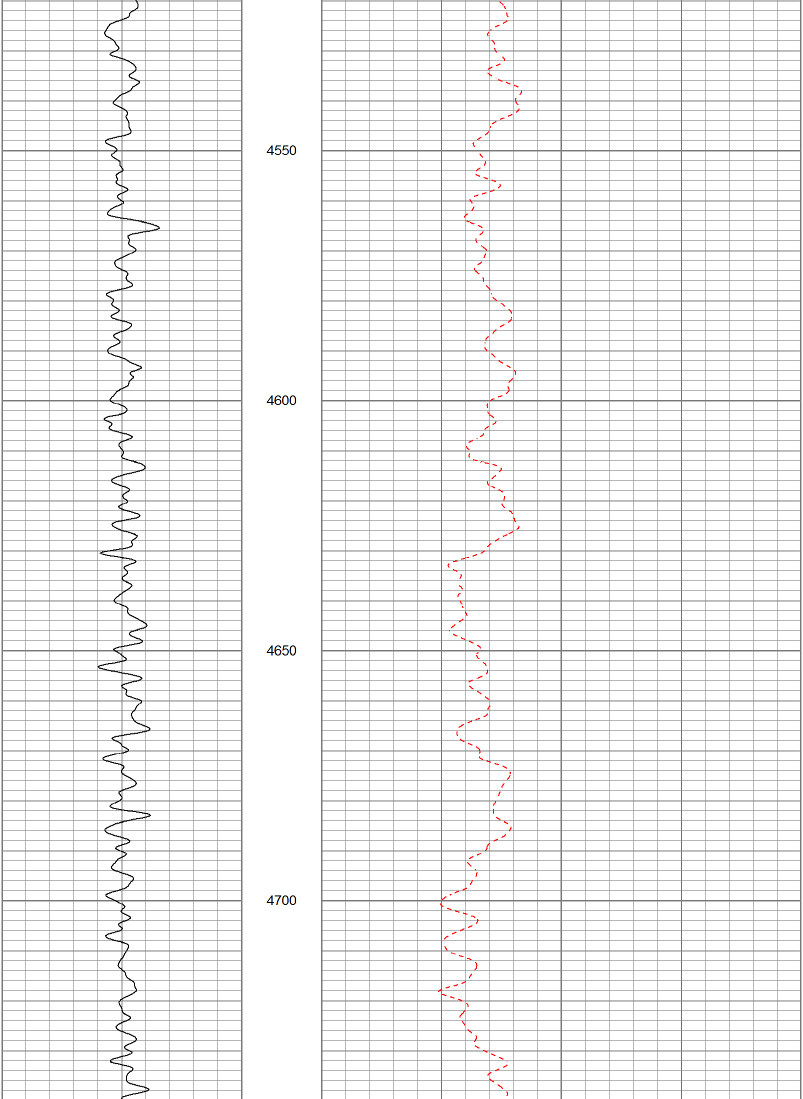


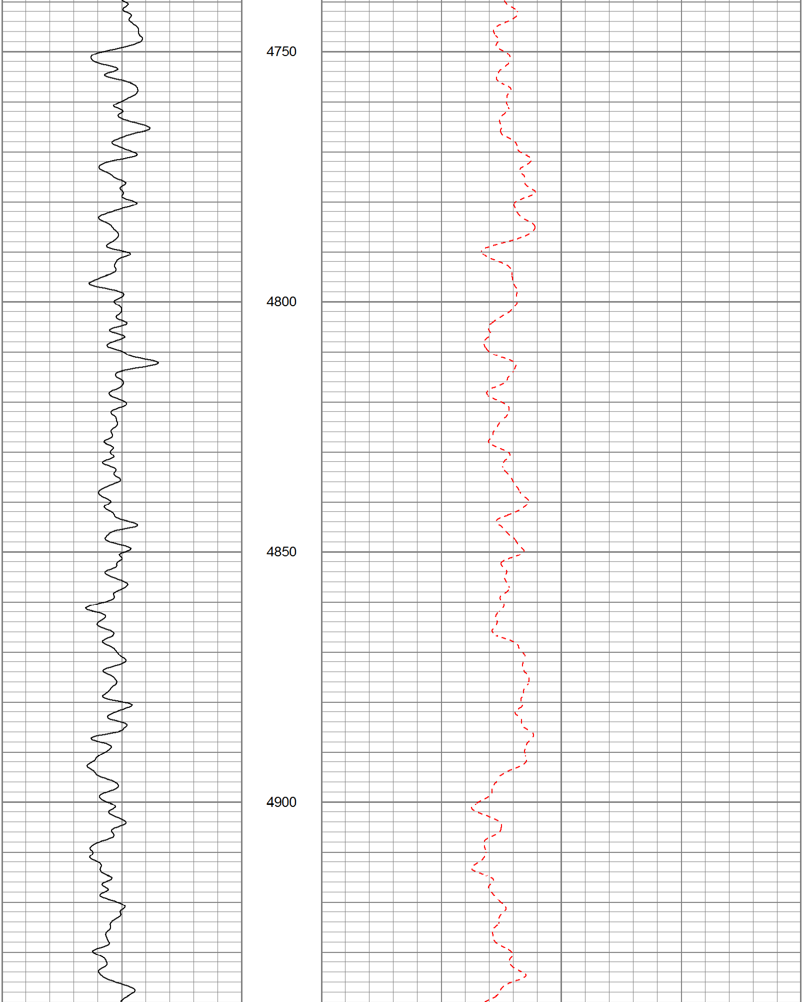


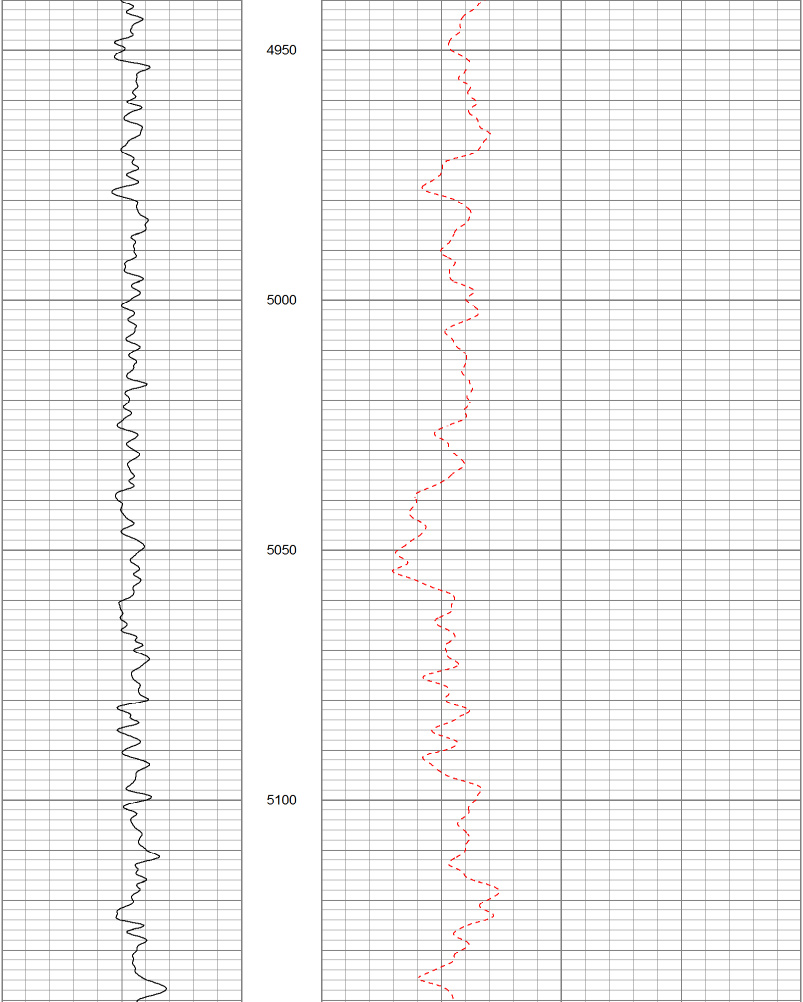


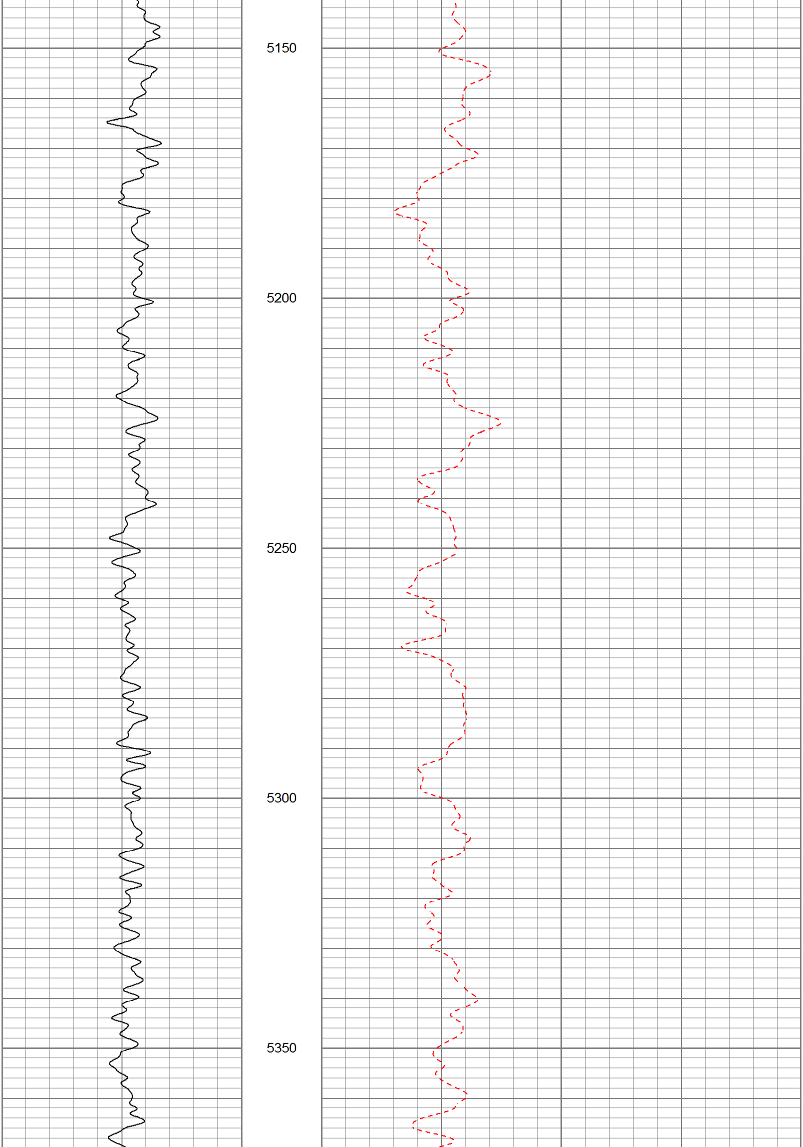


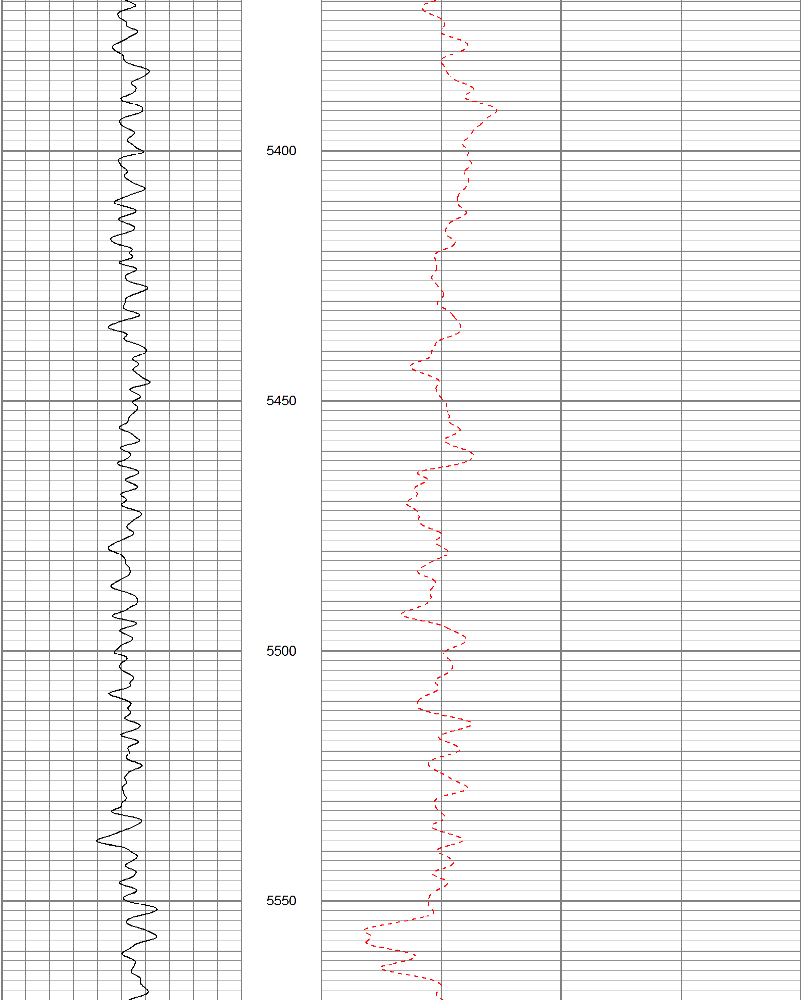


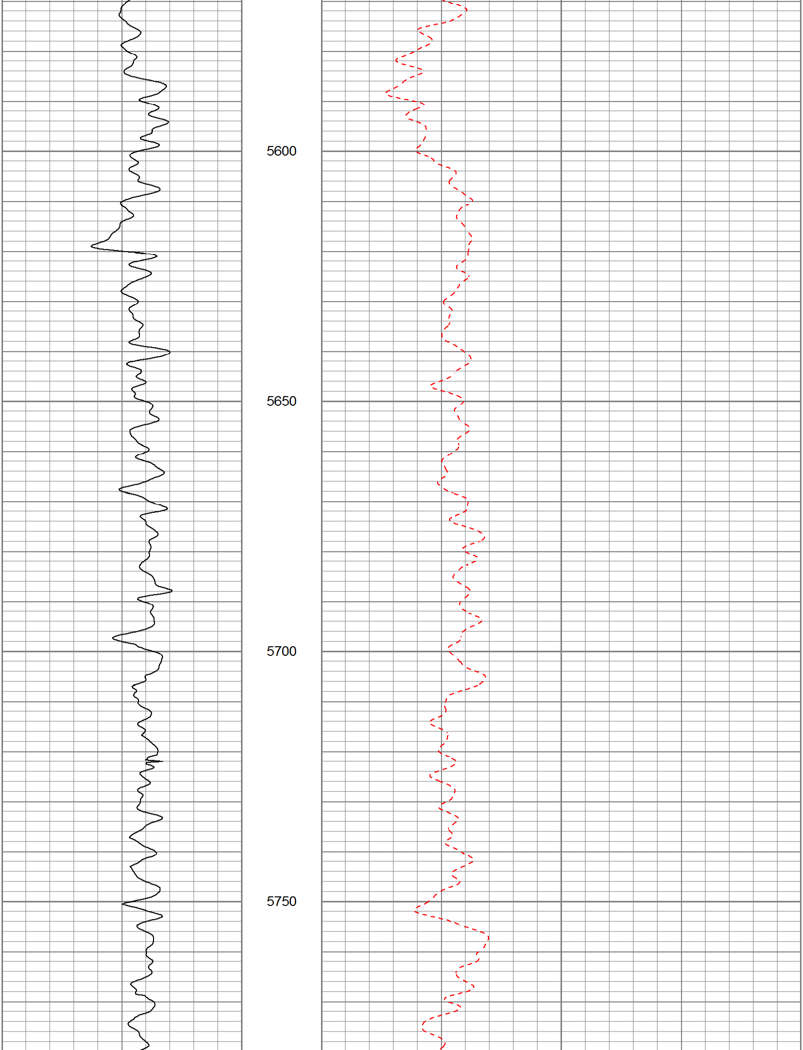


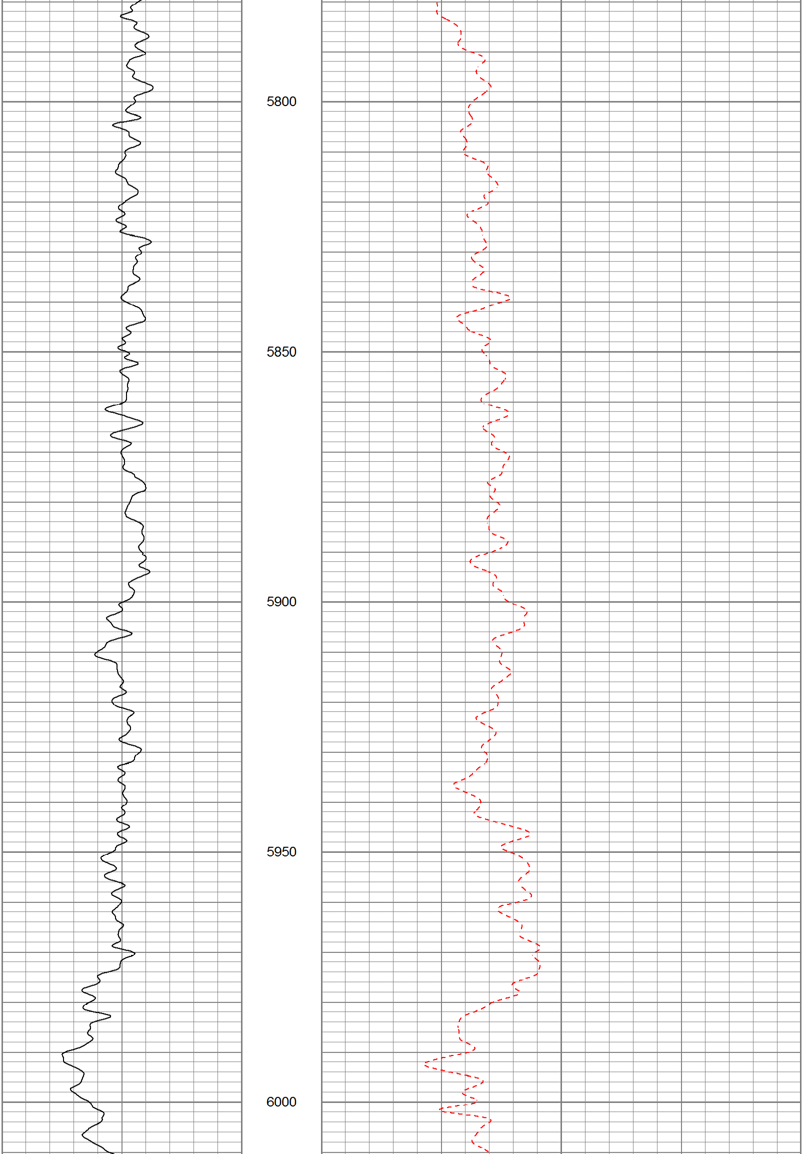


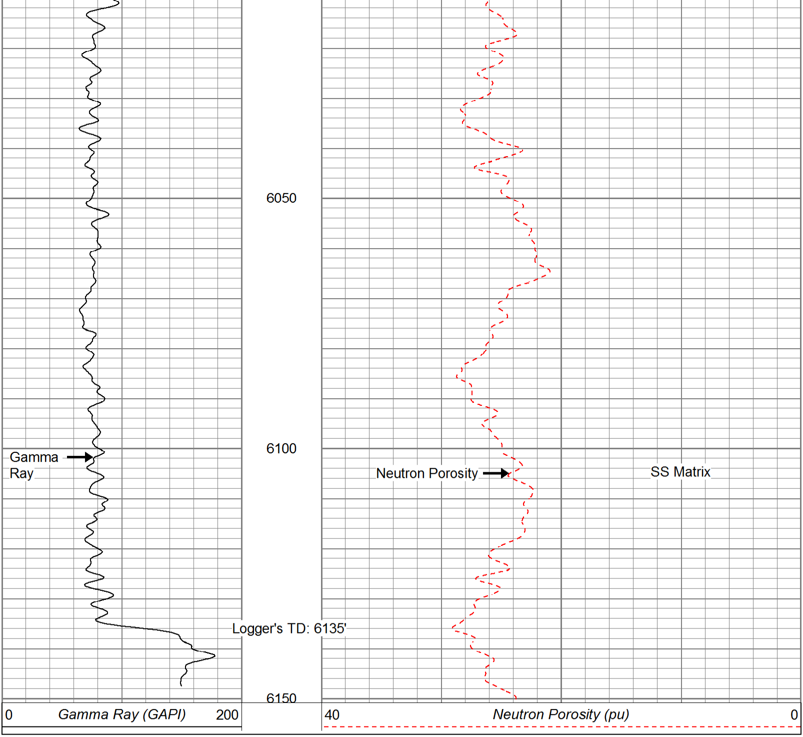










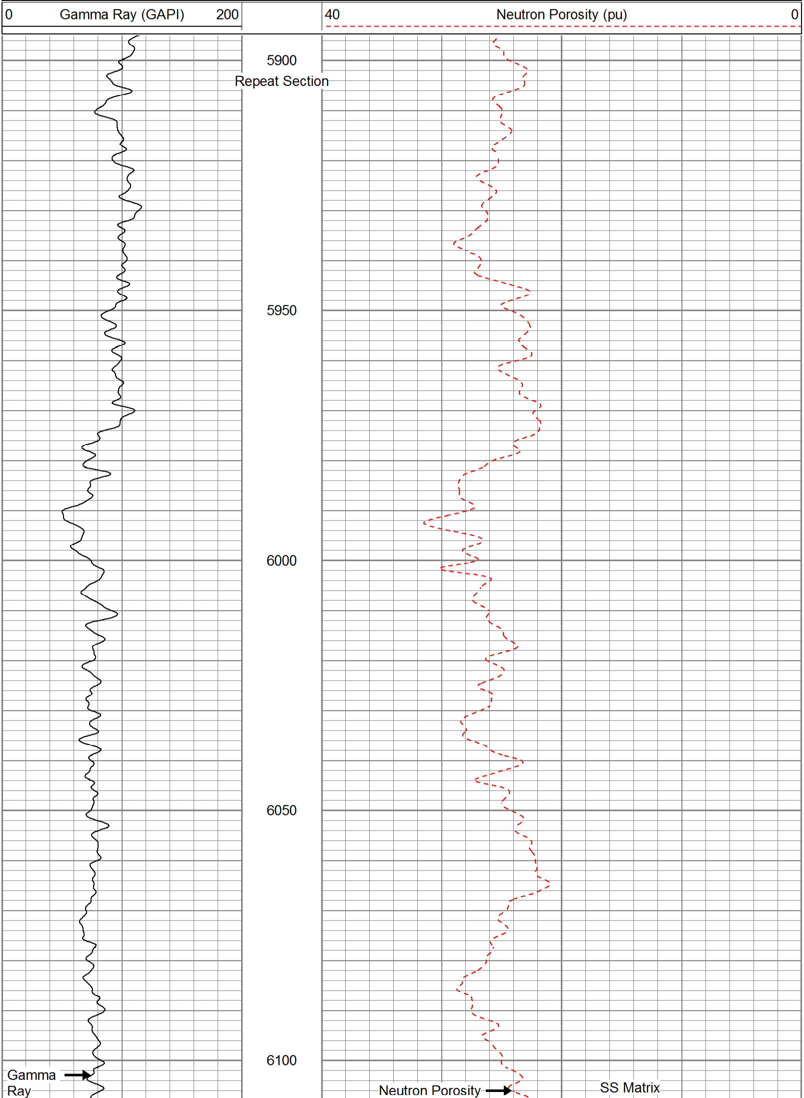


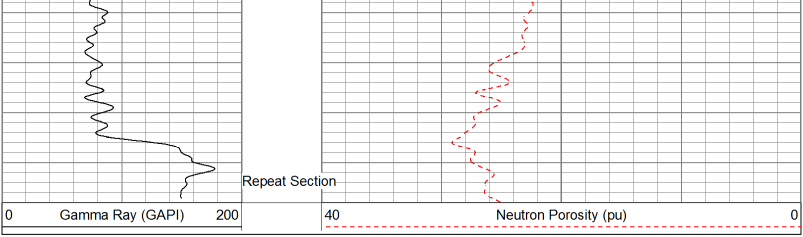
PIONEER

Pioneer Energy Services

REPEAT SECTION

Database File	2-013996.db
Dataset Pathname	pass2.1
Presentation Format	den_neu
Dataset Creation	Fri Aug 21 12:29:42 2015
Charted by	Depth in Feet scaled 1:240





Calibration Report

Database File	2-013996.db
Dataset Pathname	pass2.1
Dataset Creation	Fri Aug 21 12:29:42 2015

Compensated Neutron Calibration Report

Serial Number:	856
Tool Model:	PSI

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	7623.00	cps	14500.00	cps	1.9021
Long Space	558.00	cps	1200.00	cps	2.1505

Gamma Ray Calibration Report

Serial Number:	939	
Tool Model:	PSI	
Performed:	Thu Jul 30 13:50:58 2015	
Calibrator Value:	150.0	GAPI
Background Reading:	45.0	cps
Calibrator Reading:	295.0	cps
Sensitivity:	0.9000	GAPI/cps

PIONEER

Pioneer Energy Services

Company	PDC ENERGY INC
Well	LEDFORD 22Y-401
Field	WATTENBERG
County	WELD
State	CO