DUAL INDUCTION LOG

Company Outlaw Well Service, LLC.
Well Shaw IKE
Field Unknowen
County Decatur State KS

Location: API # : 15 039 21244

1645' FSL & 1910' FEL

SEC 20 TWP 5S RGE 29W

Other Services
ML
CDNL

Elevation
K.B. 2811'
D.F. 2810'
G.L. 2802'

Permanent Datum Ground Level Elevation 2803'
Log Measured From KB 8' AGL
Drilling Measured From KB

Company Outlaw Well Service, LLC.
Well Shaw IKE
Field Unknowen
County Decatur
State KS

Date	1-13-18		
Run Number	One		
Depth Driller	4150'		
Depth Logger	4151'		
Bottom Logged Interval	4149'		
Top Log Interval	210'		
Casing Driller	8 5/8" @ 221'		
Casing Logger	221'		
Bit Size	7 7/8"		
Type Fluid in Hole	Chemical Mud		
Density / Viscosity	8.9/46		
pH / Fluid Loss	9.5/6.8		
Source of Sample	Pit		
Rm @ Meas. Temp	1.7@74degf		
Rmf @ Meas. Temp	1.36@74degf		
Rmc @ Meas. Temp	2.18@674degf		
Source of Rmf / Rmc	Calculated		
Rm @ BHT	1.22@103degf		
Time Circulation Stopped	6:00 p.m.		
Time Logger on Bottom	8:00 p.m.		
Maximum Recorded Temperature	103degf		
Equipment Number	T127		
Location	Hays, KS.		
Recorded By	C.Patterson		
Witnessed By	Mr. Herb Deines		

<<< Fold Here >>>

Comments

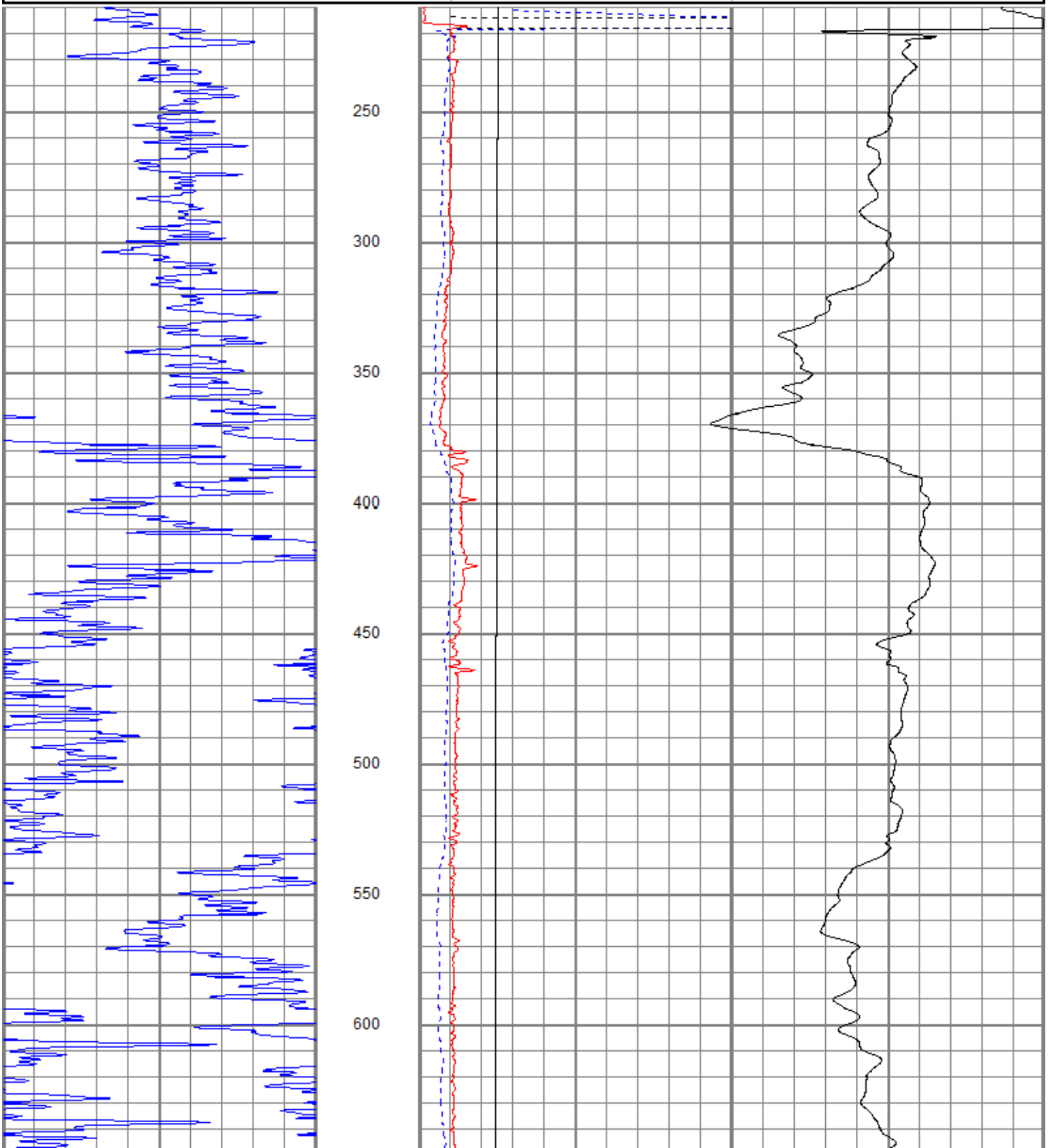
W side of selden go N on Kentucky Ave/Rd 70 W for about 5 mi.
Then west 1.3 mi on Rd. North into

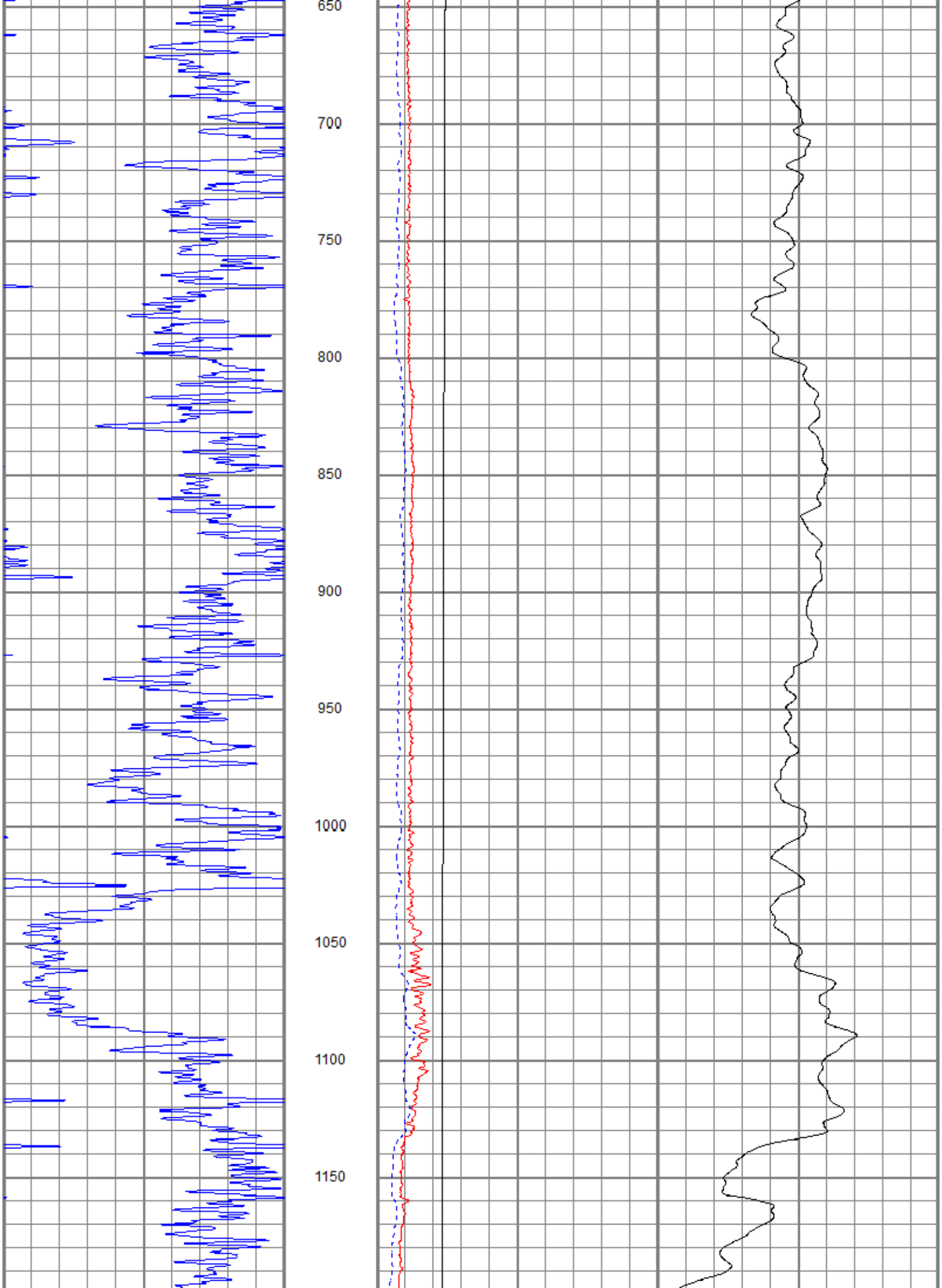
Thank you for using Gemini Wireline
785-625-1182

MAIN PASS

Database File	owsshawikeoh.db
Dataset Pathname	pass3.1
Presentation Format	kdillinn
Dataset Creation	Sat Jan 13 21:24:25 2018
Charted by	Depth in Feet scaled 1:600

0	GR (GAPI)	150
1000	CILD (mmho/m)	0
10000	LTEN (lb)	0
0	RILD (Ohm-m)	50
0	RLL3 (Ohm-m)	50
50	RILD x 10 (Ohm-m)	500
50	RLL3 x 10 (Ohm-m)	500

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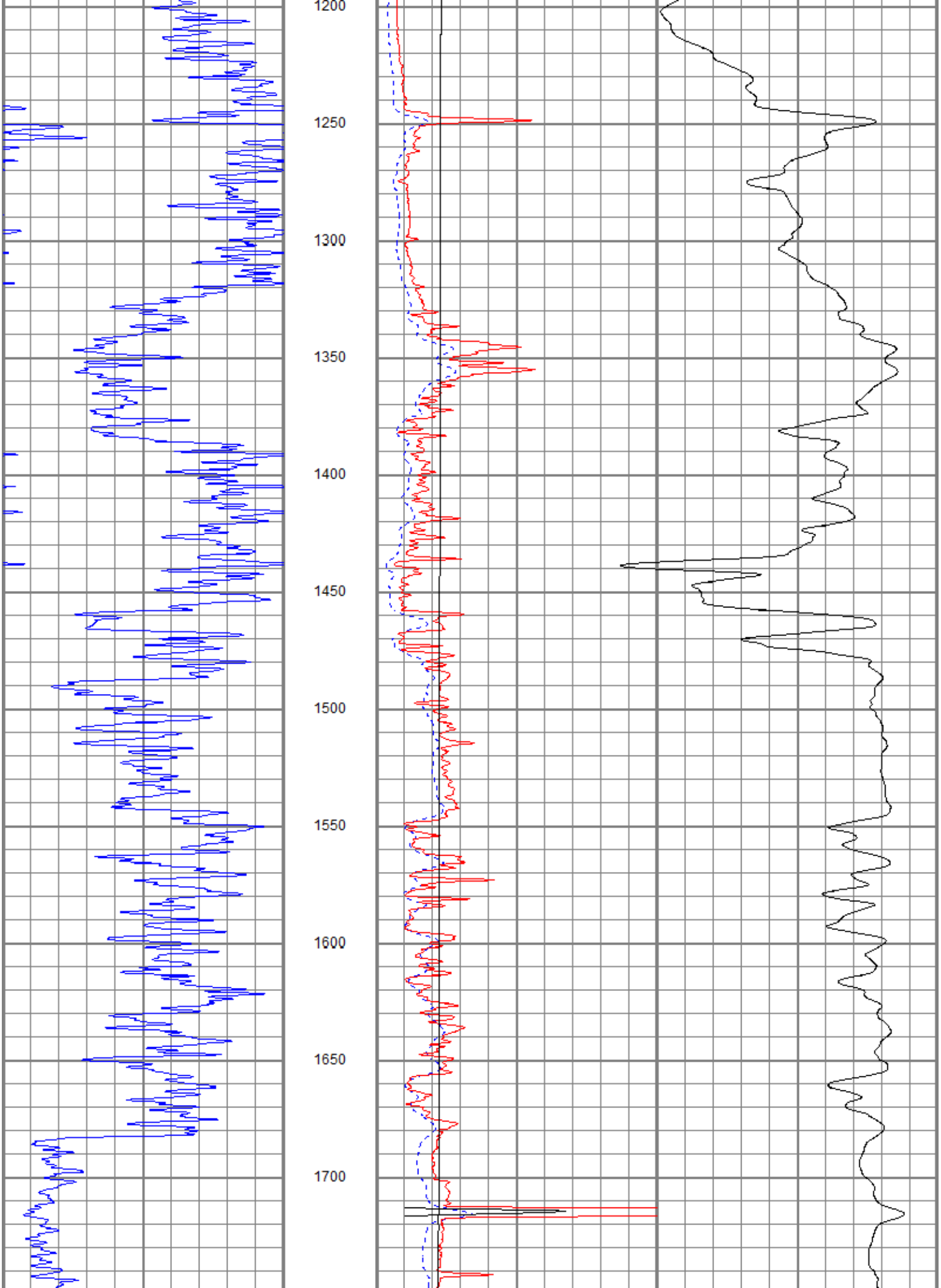
700
750
800
850
900
950
1000
1050
1100
1150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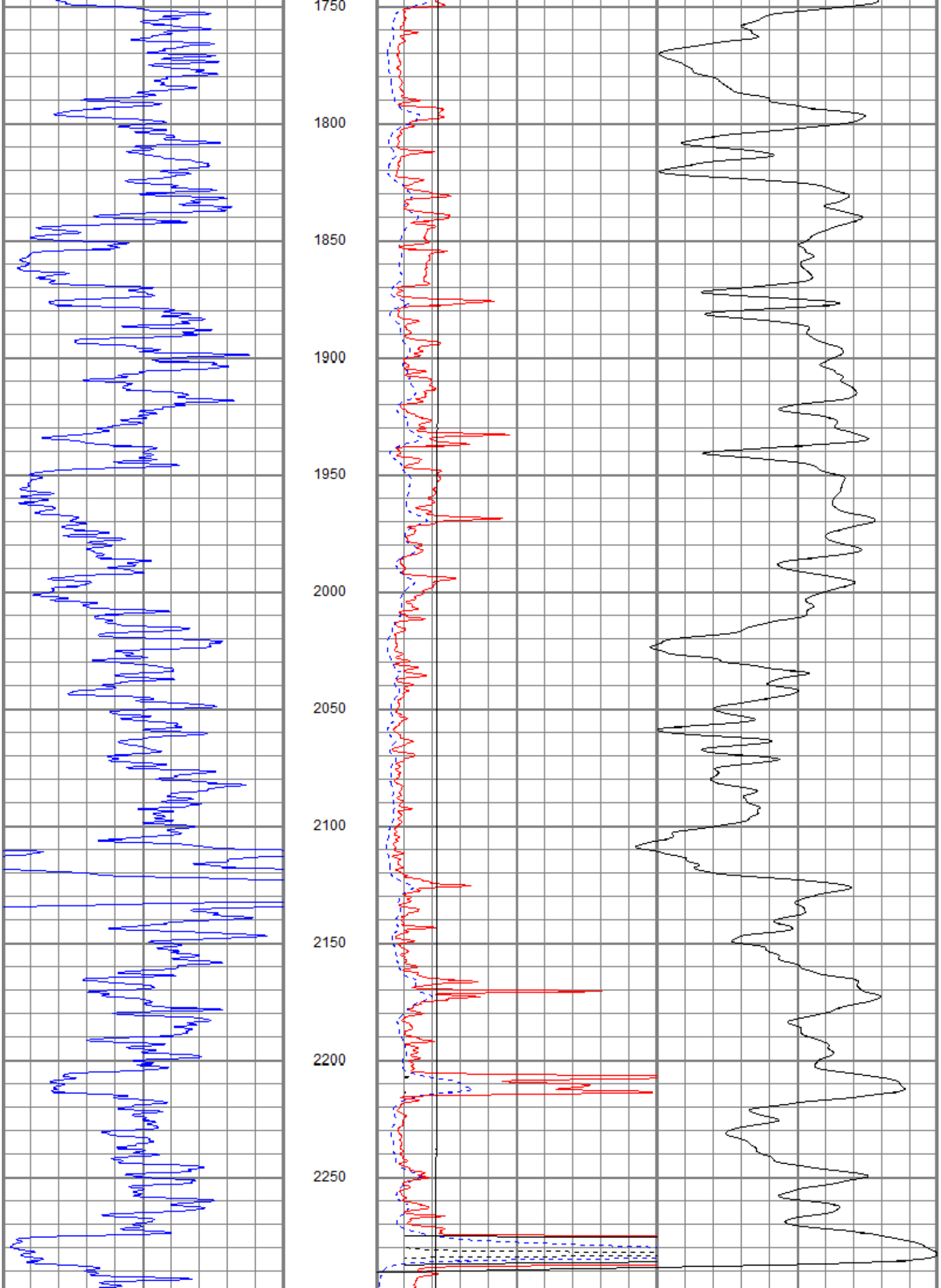
1300
1350
1400
1450
1500
1550
1600
1650
1700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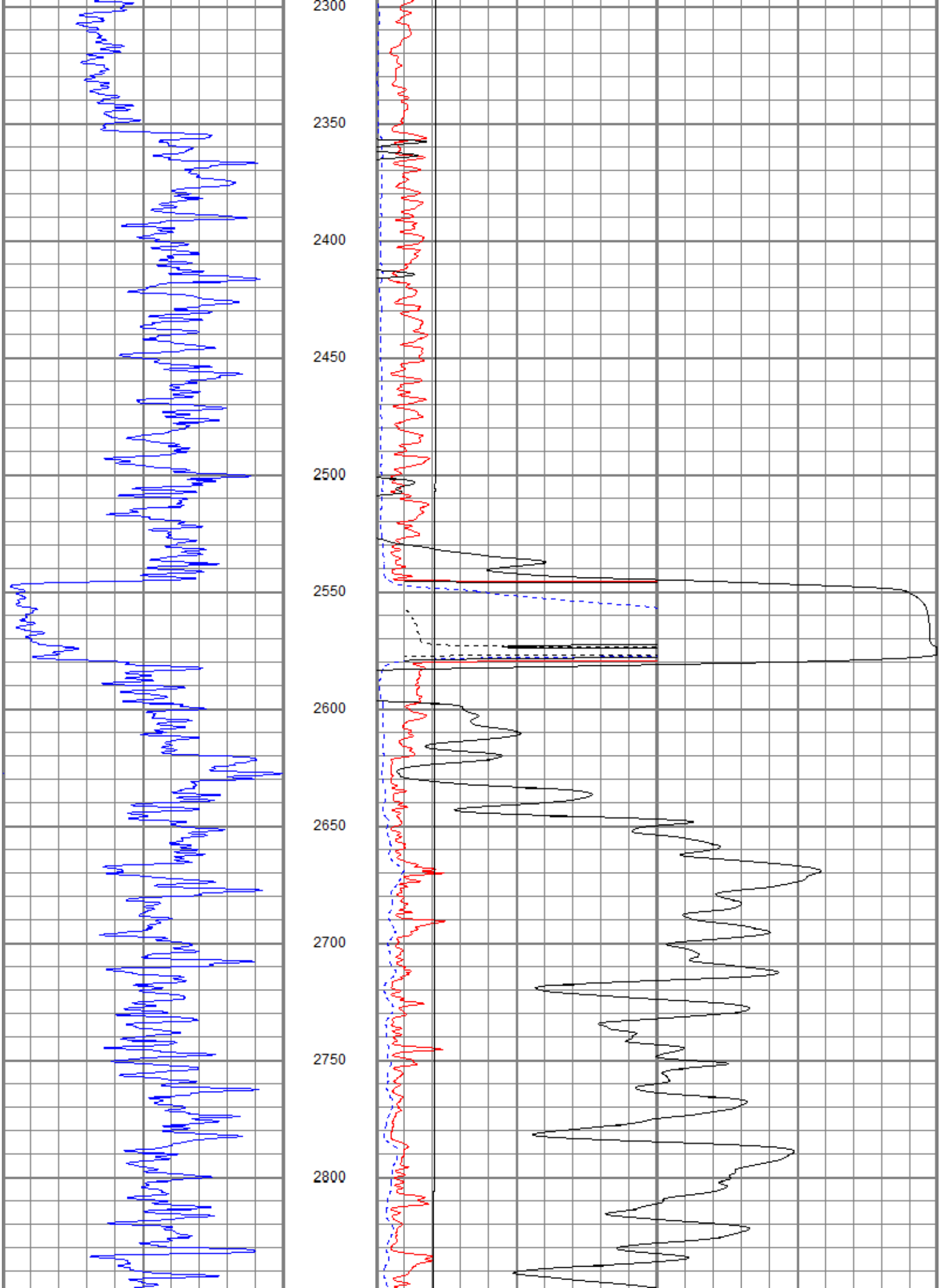
1900
1950
2000
2050
2100
2150
2200
2250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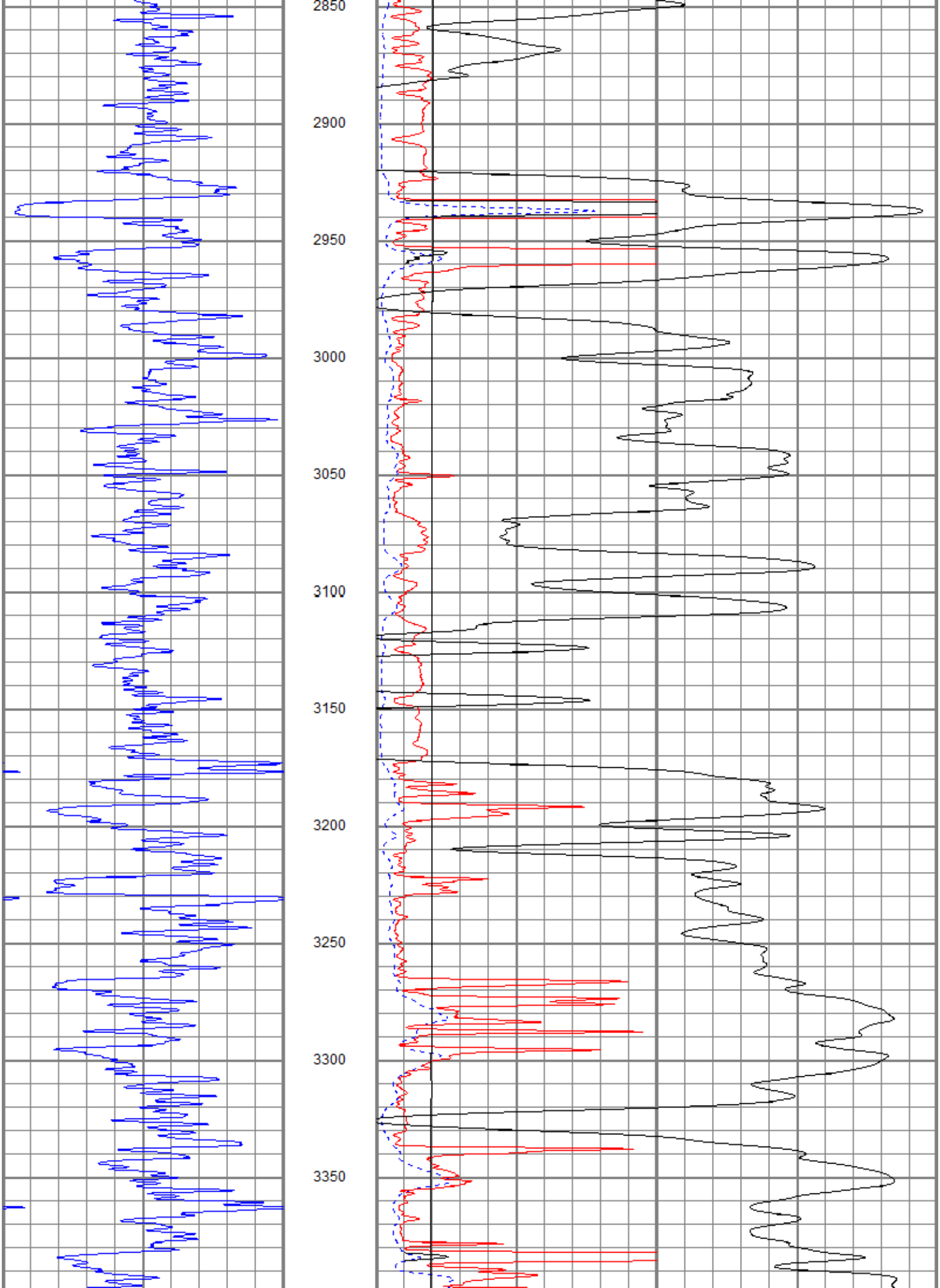
2350
2400
2450
2500
2550
2600
2650
2700
2750
2800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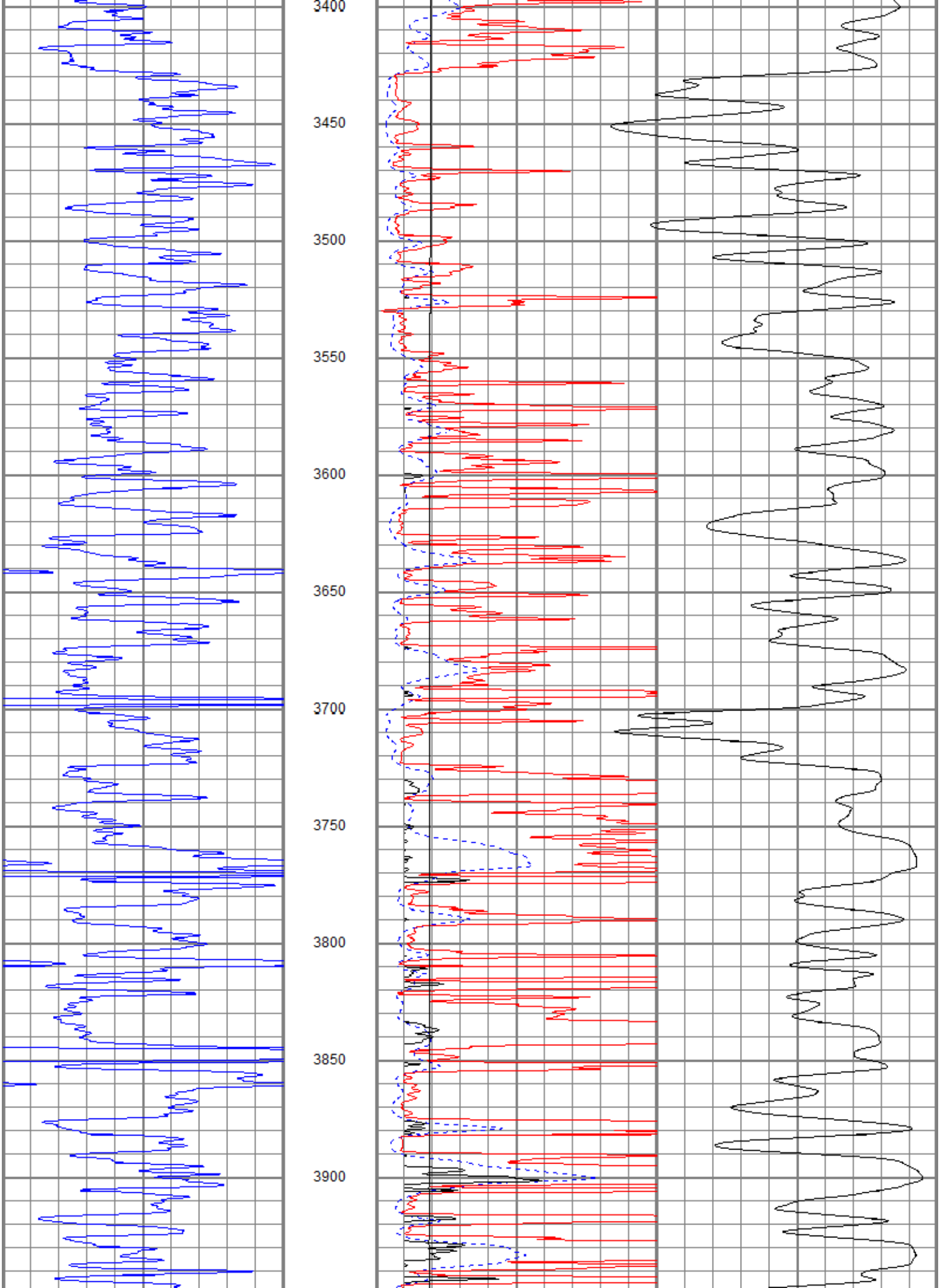
2950
3000
3050
3100
3150
3200
3250
3300
3350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3450
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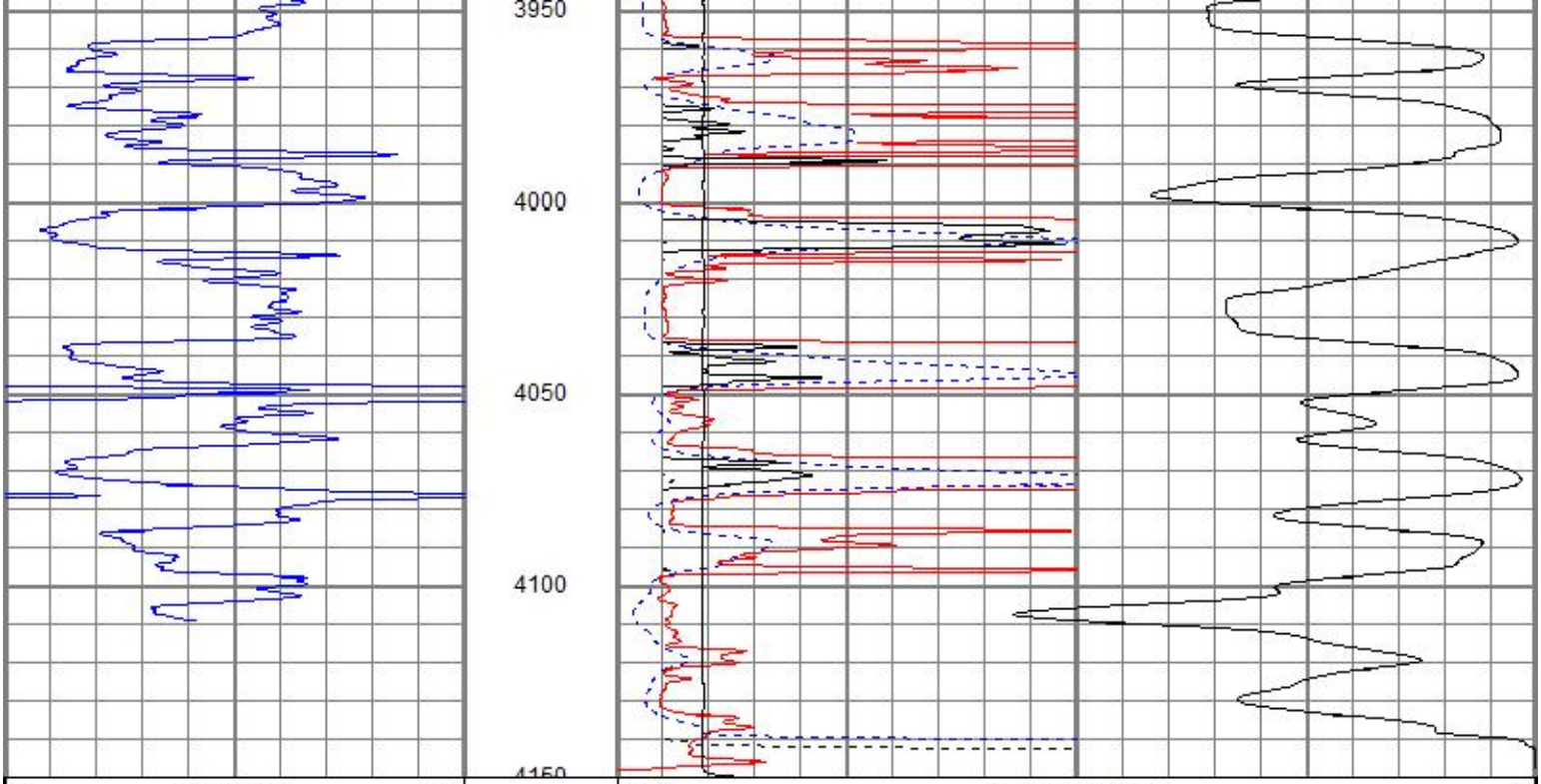
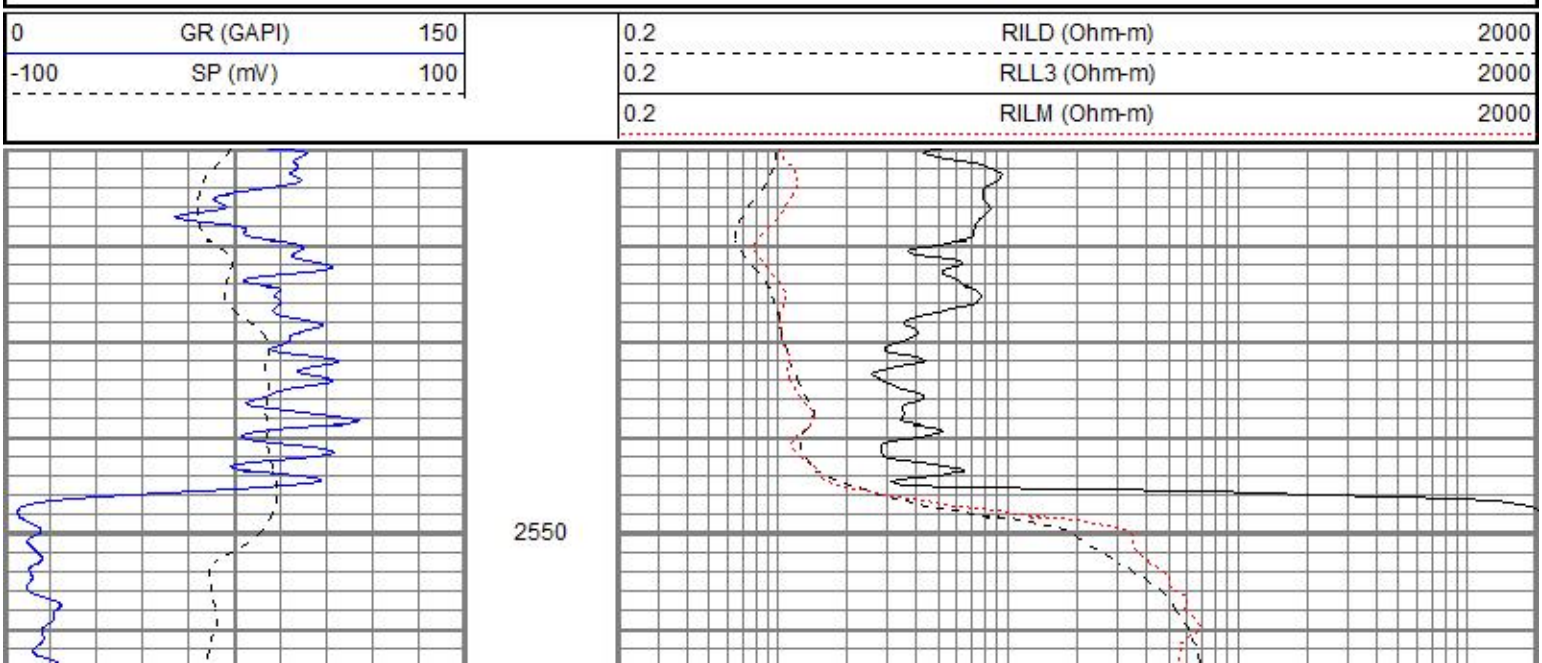
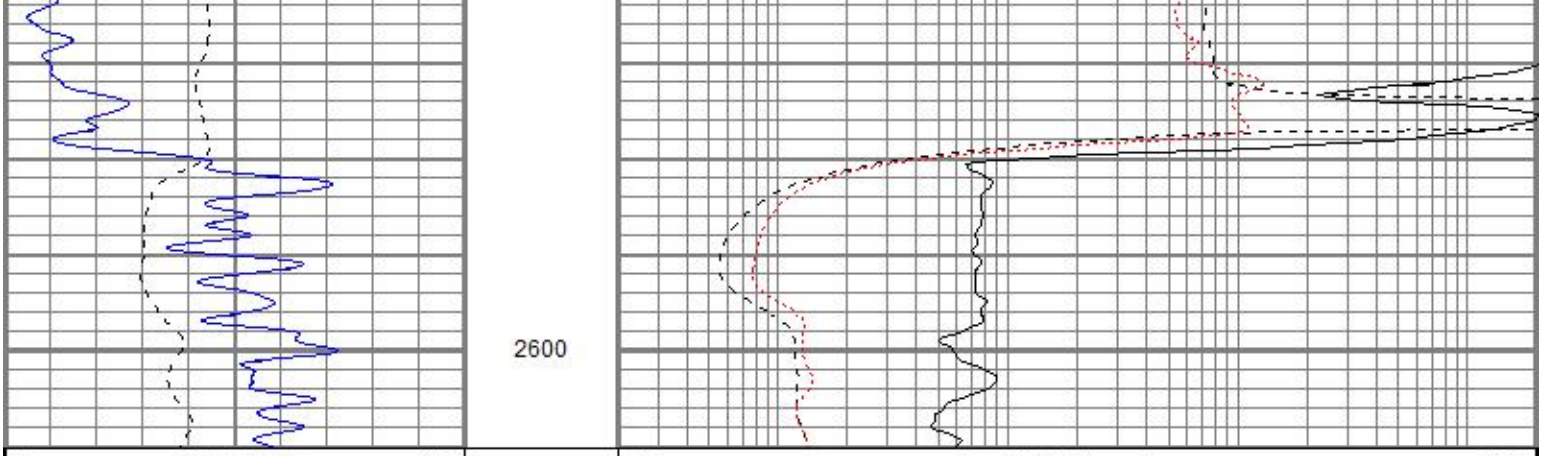
3650
3700
3750
3800
3850
3900



MAIN PASS

Database File	owsshawikeoh.db
Dataset Pathname	pass3.1
Presentation Format	kdil
Dataset Creation	Sat Jan 13 21:24:25 2018
Charted by	Depth in Feet scaled 1:240

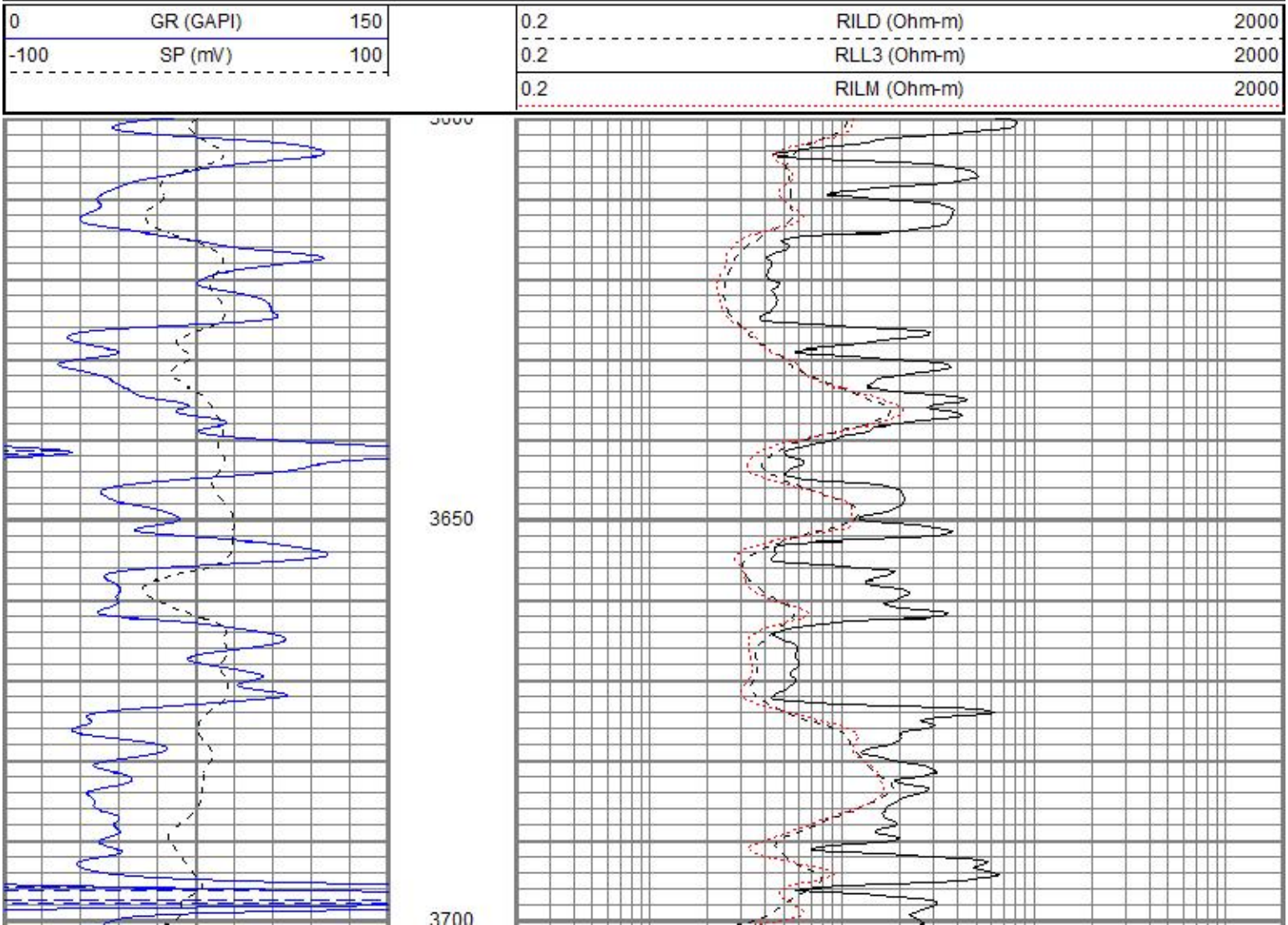


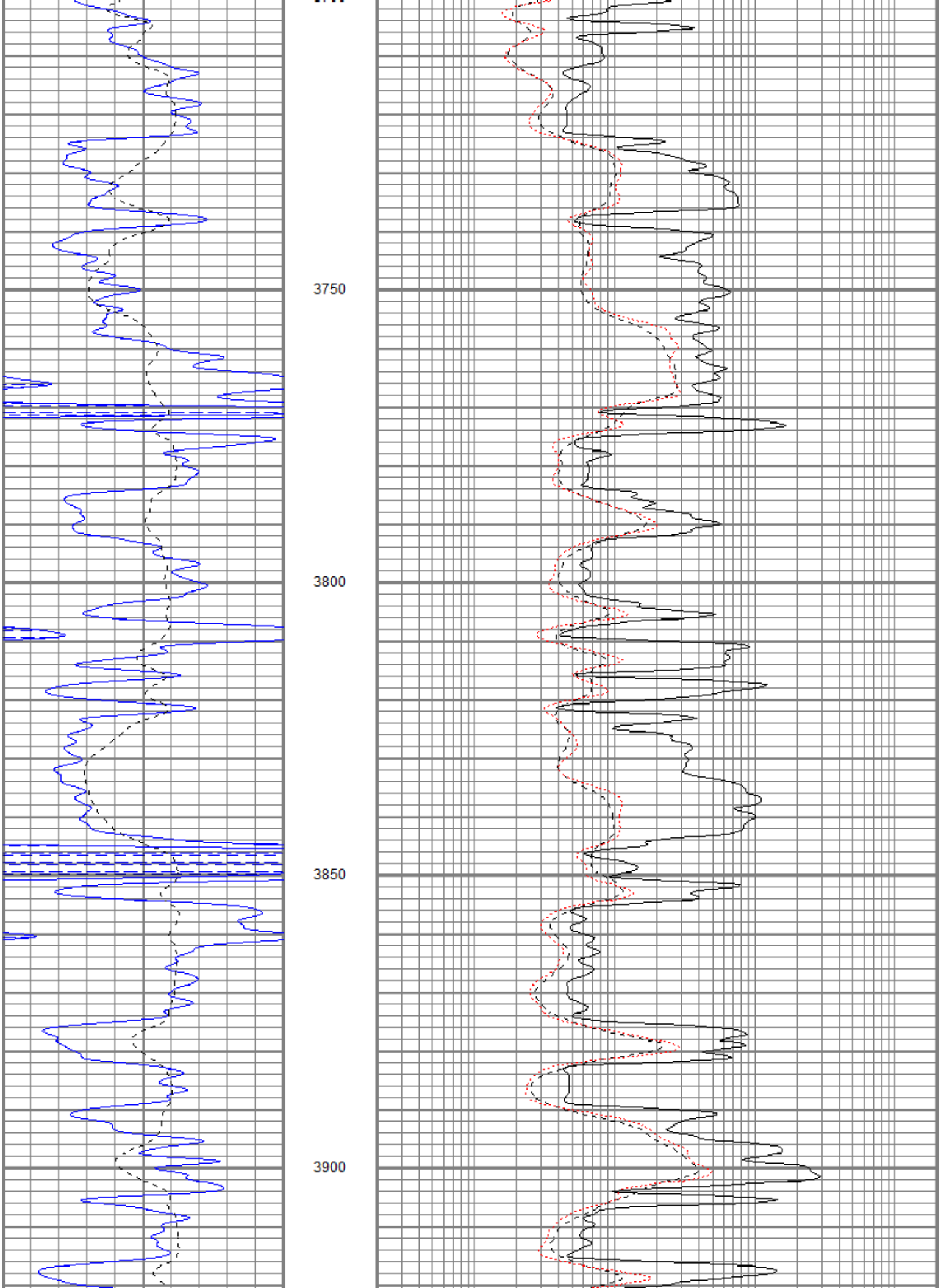


GEMINI WIRELINE

MAIN PASS

Database File	owsshawikeoh.db
Dataset Pathname	pass3.1
Presentation Format	kdil
Dataset Creation	Sat Jan 13 21:24:25 2018
Charted by	Depth in Feet scaled 1:240

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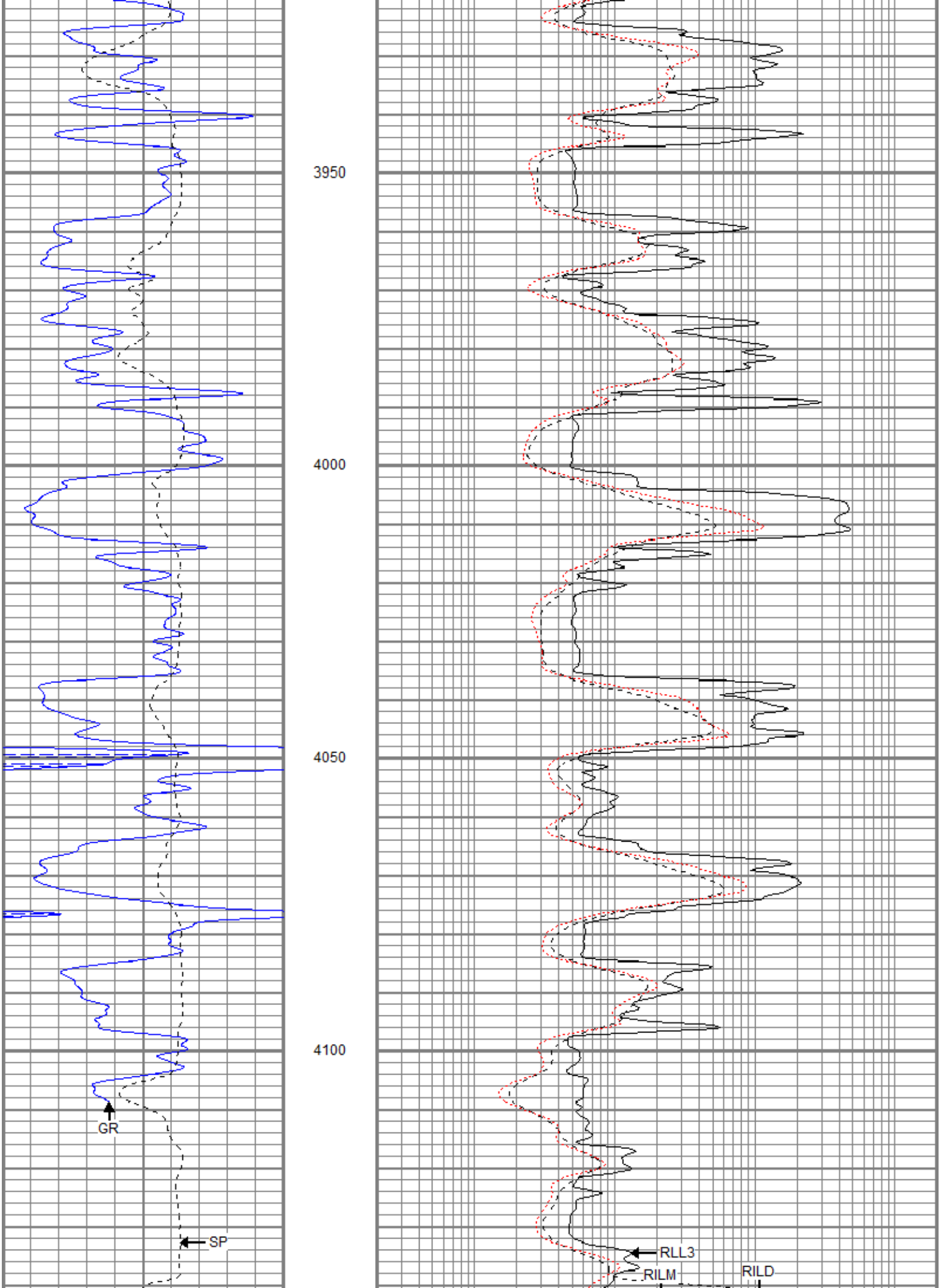
3800
3850
3900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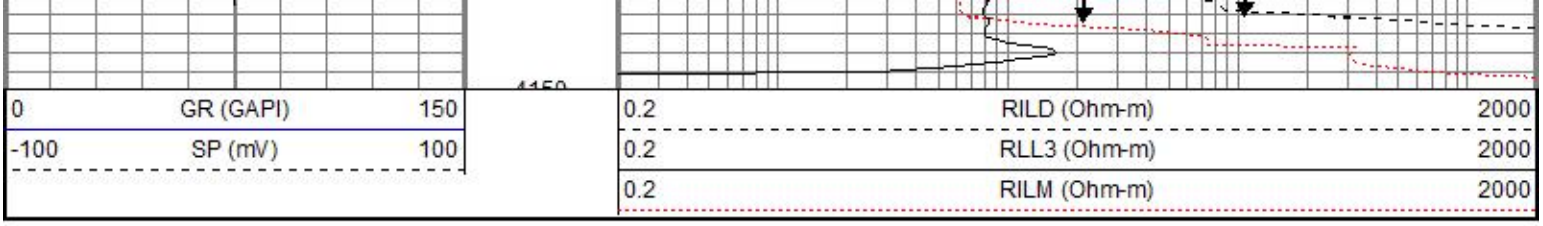
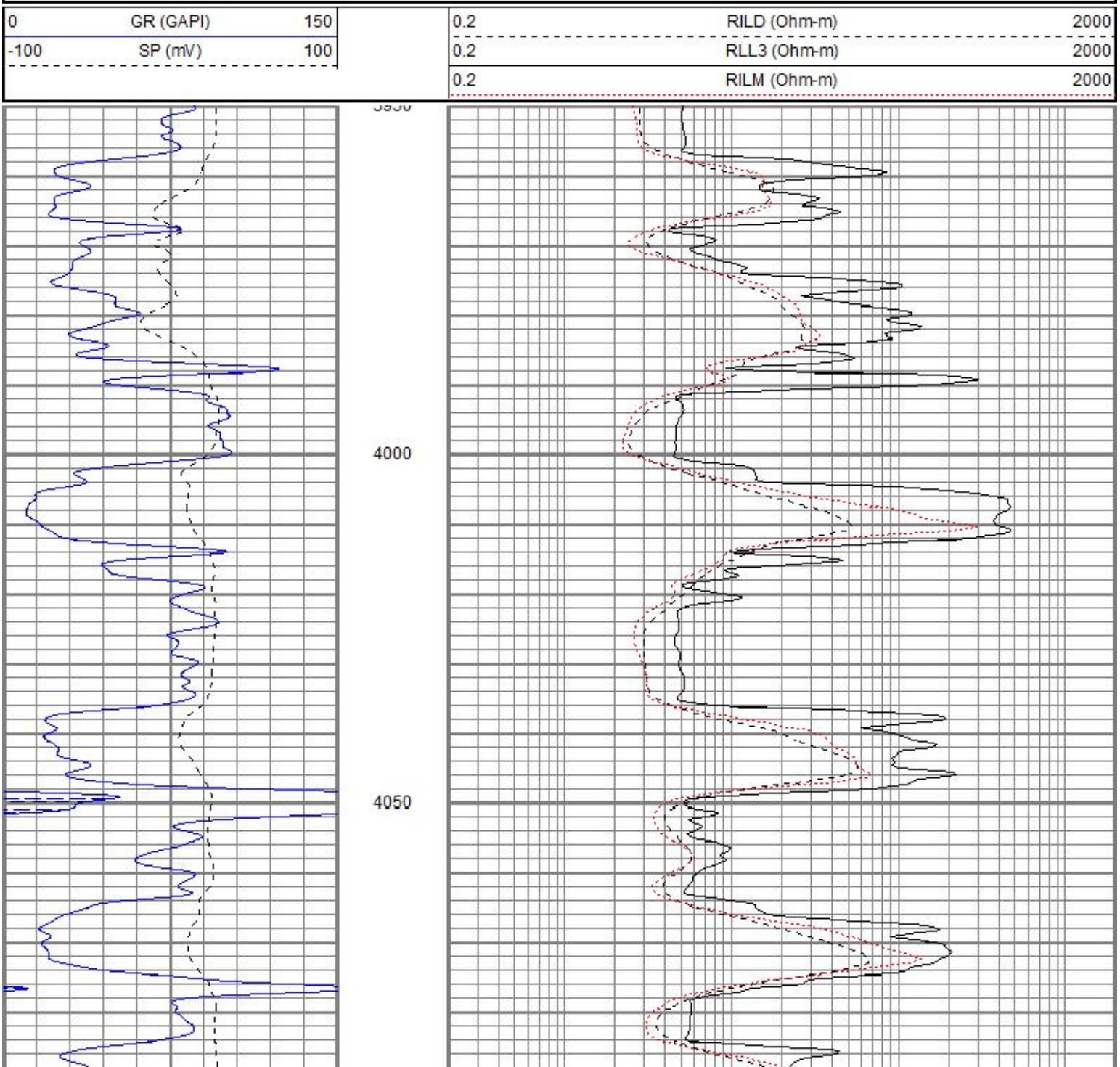
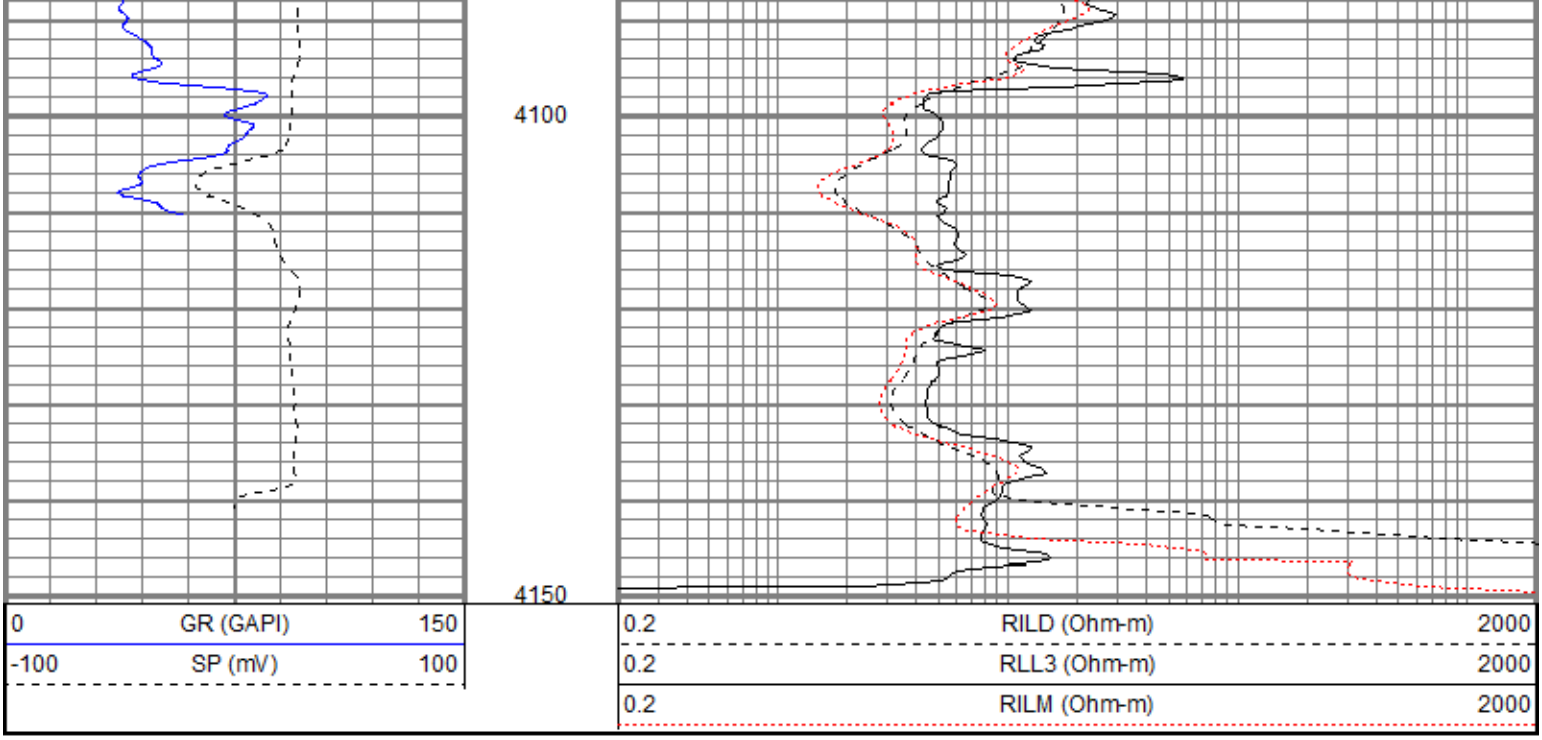
4050
4100
GR
SP
RLL3
RILM
RILD



REPEAT SECTION

Database File	owsshawikeoh.db
Dataset Pathname	pass1.1
Presentation Format	kdil
Dataset Creation	Sat Jan 13 21:17:07 2018
Charted by	Depth in Feet scaled 1:240





Calibration Report

Database File	owsshawikeoh.db
Dataset Pathname	pass3.1
Dataset Creation	Sat Jan 13 21:24:25 2018

Dual Induction Calibration Report

Serial-Model:	1989-ADM
Surface Cal Performed:	Tue Nov 21 16:20:38 2017
Downhole Cal Performed:	Tue Nov 21 16:20:38 2017
After Survey Verification Performed:	Tue Nov 21 16:20:38 2017

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.014	0.657	V	0.000	400.000	mmho/m	622.290	-8.994
Medium	0.013	0.748	V	0.000	550.000	mmho/m	748.454	-9.561
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.014	0.658	V	0.000	400.000	mmho/m	620.940	-8.605
Medium	0.012	0.748	V	0.000	550.000	mmho/m	747.612	-9.133

Downhole Calibration

	Readings			References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	0.000	mmho/m	-0.371	400.499	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-0.418	550.202	mmho/m	1.000	0.000
Shallow	2.485	0.025	V	500.000	2.000	Ohm-m	202.442	-3.068

After Survey Verification

	Readings			Targets			Results	
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	1.000	0.000
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Neutron Calibration Report

Serial Number:	2017	
Tool Model:	lithogearhart	
Performed:	(Not Performed)	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Temperature Calibration Report

Serial Number:	WithOutMC			
Tool Model:	WOMC			
Performed:	(Not Performed)			
	Reference		Reading	
Low Reference:	0.00	degF	0.00	degF
High Reference:	1.00	degF	1.00	degF
Gain:	1.00			
Offset:	0.00			
Delta Spacing	1			

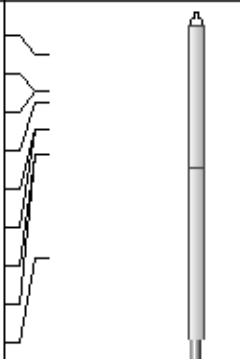
Inclinometer Calibration Report

Performed: Wed Dec 06 22:31:06 2017

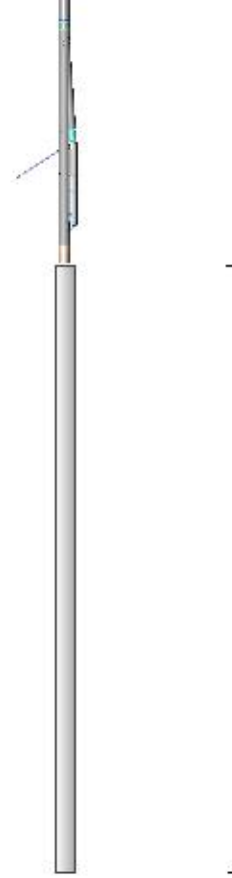
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	205.00	1843.00	-1.00	1.00	gee
Y Accelerometer	205.00	1843.00	-1.00	1.00	gee
Z Accelerometer					gee

Gamma Ray Calibration Report

Serial Number:	WithOutMC	
Tool Model:	WOMC	
Performed:	Wed Dec 06 22:30:58 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	38.31		CHD-STD	0.50	1.69	1.00
ACCY	37.15					
ACCX	37.15		ADT-WOMC (WithOutMC) Telemetry Without Mud Cell	4.58	3.50	120.00
SSTAT	36.73					
PSTAT	35.90					
ASTAT	35.90					
GRD	35.06		NEU-lithogearhart (2017)	5.65	3.50	85.00
TEMP	35.06					
NEU	31.70					

LStat	22.54
LS8	21.88
LS7	21.88
LS6	21.88
LS5	21.88
LS4	21.88
LS3	21.88
LS2	21.88
LS1	21.88
LSV	21.88
LSD	21.86
SSV	21.67
SS8	21.67
SS7	21.67
SS6	21.67
SS5	21.67
SS4	21.67
SS3	21.67
SS2	21.67
SS1	21.67
DCAL	21.61
SSD	21.27
SP	10.60
CILD	10.60
CILM	6.89
RLL3	1.70
TR_Mon	0.00



ADT1LITH-A (1) Admyr Litho Density Tool	9.29	3.50	240.00
DIL-ADM (1989) Dual Induction	19.71	4.00	300.00

Dataset:	owsshawikeoh.db: field/well/run1/pass3.1
Total length:	39.73 ft
Total weight:	746.00 lb
O.D.:	4.00 in