PATRIOT
WELL SOLUTIONS

Radial Cement Bond
Gamma Ray
CCL Log

Company	Bayswater Exploration & Production LLC
Well	Ward S-20-19HN
Field	Wattenberg
County	Weld
State	Colorado

Company Bayswater Exploration & Production LLC
Well Ward S-20-19HN
Field Wattenberg
County Weld State Colorado
Location: API # : 05-123-43660
334' FSL & 213' FEL
SEC 20 TWP 6N RGE 66W
Other Services
None

Permanent Datum Ground Level Elevation 4728'
Log Measured From Kelly Bushing 25 FT
Drilling Measured From Kelly Bushing

Elevation
K.B. 4753'
D.F. 4752'
G.L. 4728'

Date	1-Dec-2017
Run Number	One
Depth Driller	17787 FT
Depth Logger	7300 FT
Bottom Logged Interval	7295 FT
Top Log Interval	Surface
Open Hole Size	8.5"
Type Fluid	Water
Density / Viscosity	8.33 lb/gal
Max. Recorded Temp.	233°F
Estimated Cement Top	1445 FT
Time Well Ready	18:00
Time Logger on Bottom	20:30
Equipment Number	1013
Location	Brighton
Recorded By	B. Kalkwarf
Witnessed By	B. Bivens

Borehole Record				Casing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Surface	13.5	Surface	1500'	9 5/8"	36#	Surface	1500'
Production	8.5"	Surface	17787'	5 1/2"	20#	Surface	17787'
				Float Collar	7263'		

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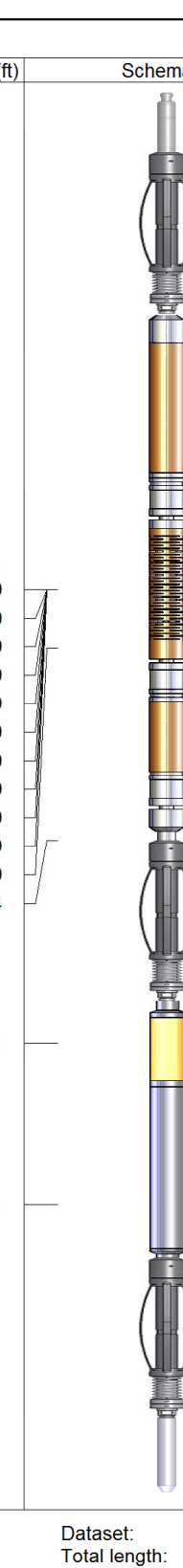
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Log ran as per customer request.
Depth refrenced to Float Collar @ 7263 FT
Log ran as deep as possible to surface.
Log was ran with 0 psi surface induced pressure.
Adjusted 4 FT to correlate with Float Collar.

Thank You for choosing Patriot Well Solutions!!

Sensor	Offset (ft)	Description	Length (ft)	O.D. (in)	Weight (lb
		Cable_Head-1_7/16 Titan 1 7/16" Cable Head	1.02	1.44	3.31
		Centralizers-8071-275-200 Tekco 2 3/4" Adjustable Centralizer	2.73	2.75	25.00
WVFS8 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVFCAL WVF3FT WVF5FT HEADVOLT	15.29 15.29 15.29 15.29 15.29 15.29 15.29 15.29 15.29 15.29 14.29 11.04	RBT-RBTC3 (FW1704-053) RADIAL BOND TOOL	8.92	2.75	90.00
		Centralizers-8071-275-200 Tekco 2 3/4" Adjustable Centralizer	2.73	2.75	25.00
CCL	7.61				
GR	4.88	GR-Probe (275) Probe 2.75" 4 Channel Pulse	4.33	2.75	30.00
		Centralizers-8071-275-200 Tekco 2 3/4" Adjustable Centralizer	2.73	2.75	25.00
		Bull_Plug-1_7/16_Temp_Tool Titan 1 7/16" Female Bull Plug	1.25	1.44	1.00



Dataset: bayswater_ward_s_20_19hn_rcbl.db: field/well/run1/MAIN
Total length: 23.70 ft
Total weight: 199.31 lb
O.D.: 2.75 in

Calibration Report

Database File bayswater_ward_s_20_19hn_rcbl.db
Dataset Pathname MAIN
Dataset Creation Fri Dec 01 20:29:42 2017

Gamma Ray Calibration Report

Serial Number:	275	
Tool Model:	Probe	
Performed:	Thu Aug 07 09:00:19 2008	
Calibrator Value:	100.0	GAPI
Background Reading:	35.0	cps
Calibrator Reading:	160.0	cps
Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1704-053	
Tool Model:	RBTC3	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	38.215	ft

Master Calibration, performed Fri Dec 01 13:15:25 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.017	0.724	1.000	71.921	100.279	-0.681
CAL	0.016	0.765				
5'	0.010	0.697	1.000	71.921	103.222	-0.053
SUM						
S1	0.008	0.737	0.000	100.000	137.029	-1.050
S2	0.017	0.751	0.000	100.000	136.347	-2.343
S3	0.017	0.745	0.000	100.000	137.330	-2.273
S4	0.017	0.740	0.000	100.000	138.269	-2.306
S5	0.017	0.736	0.000	100.000	138.956	-2.307
S6	0.017	0.740	0.000	100.000	138.362	-2.336
S7	0.017	0.737	0.000	100.000	138.880	-2.333
S8	0.017	0.725	0.000	100.000	141.210	-2.377

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.016	0.765	1.000	0.000

Air Zero Calibration, performed Fri Dec 01 13:11:01 2017:

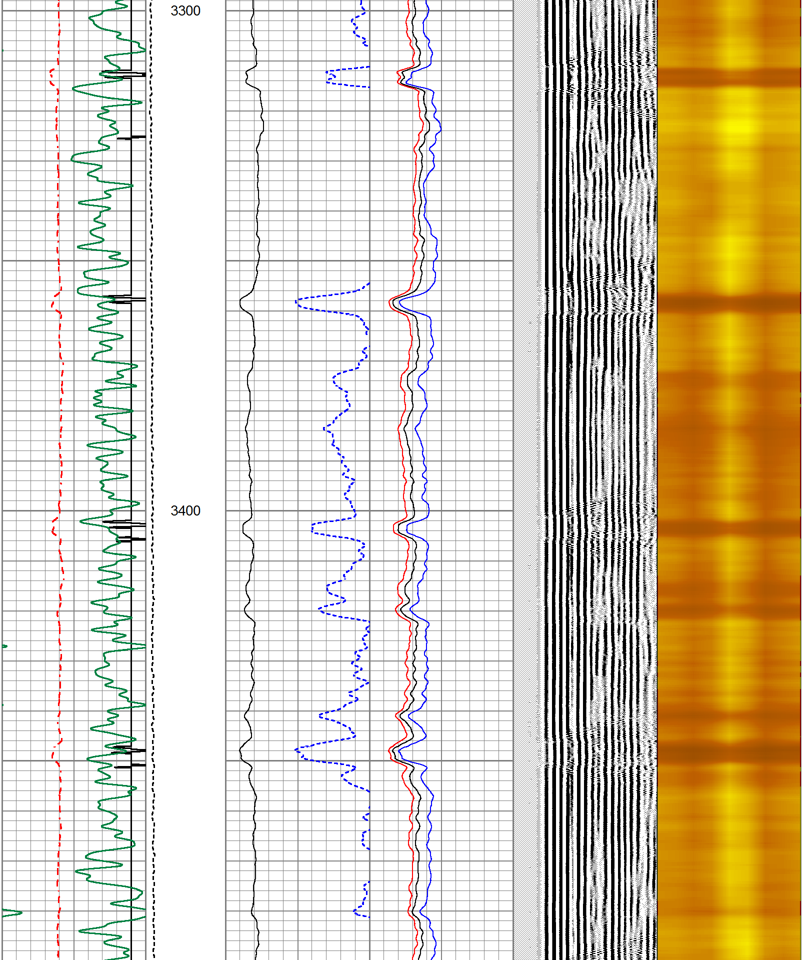
	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

PATRIOT
WELL SOLUTIONS

MAIN PASS

LOG RAN WITH 0 PSI SURFACE INDUCED PRESSURE

Database File bayswater_ward_s_20_19hn_rcbl.db
Dataset Pathname MAIN
Presentation Format 1patriotradii
Dataset Creation Fri Dec 01 20:29:42 2017
Charted by Depth in Feet scaled 1:240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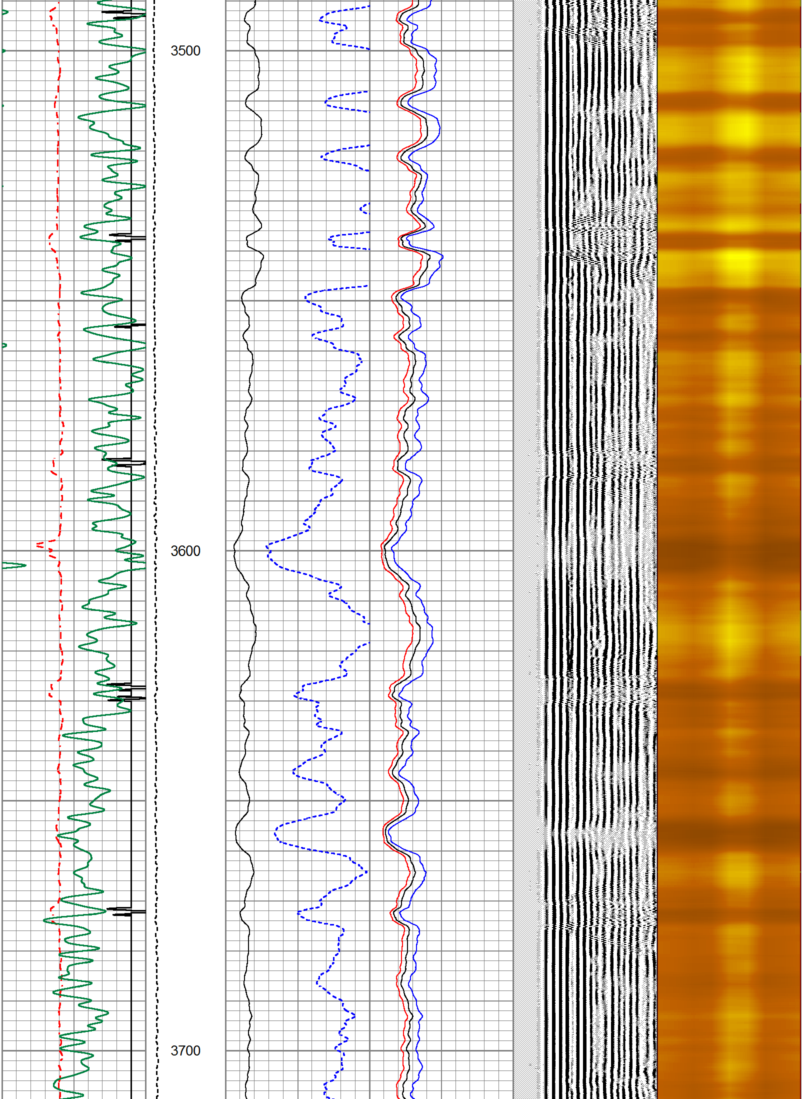
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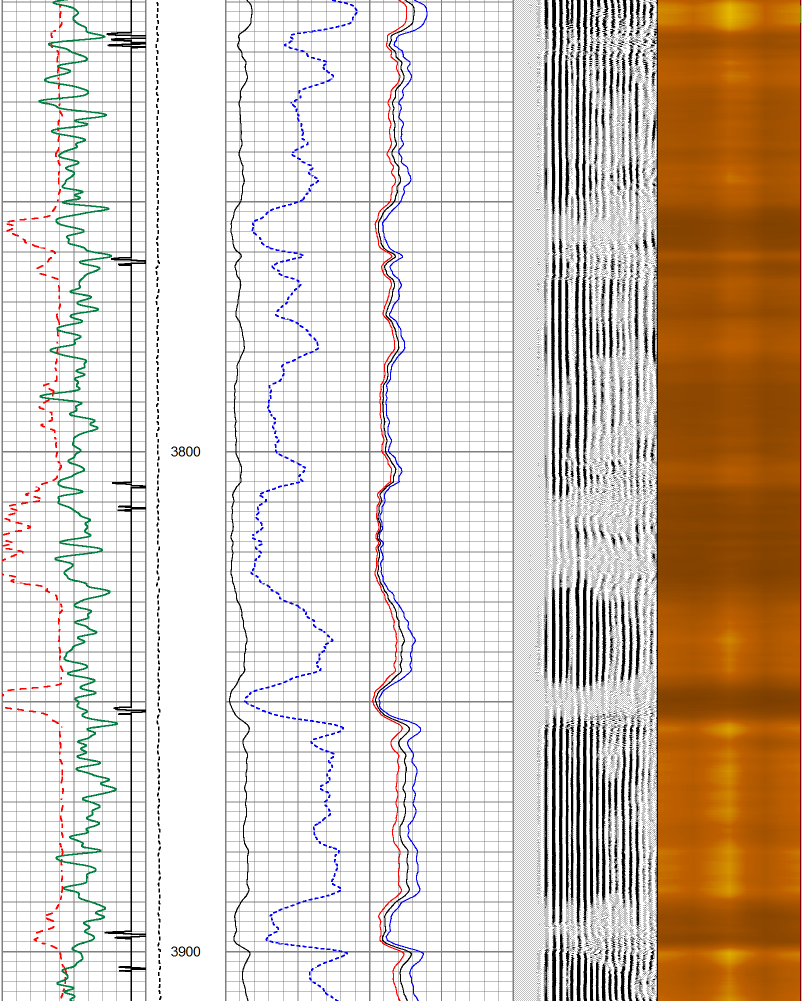
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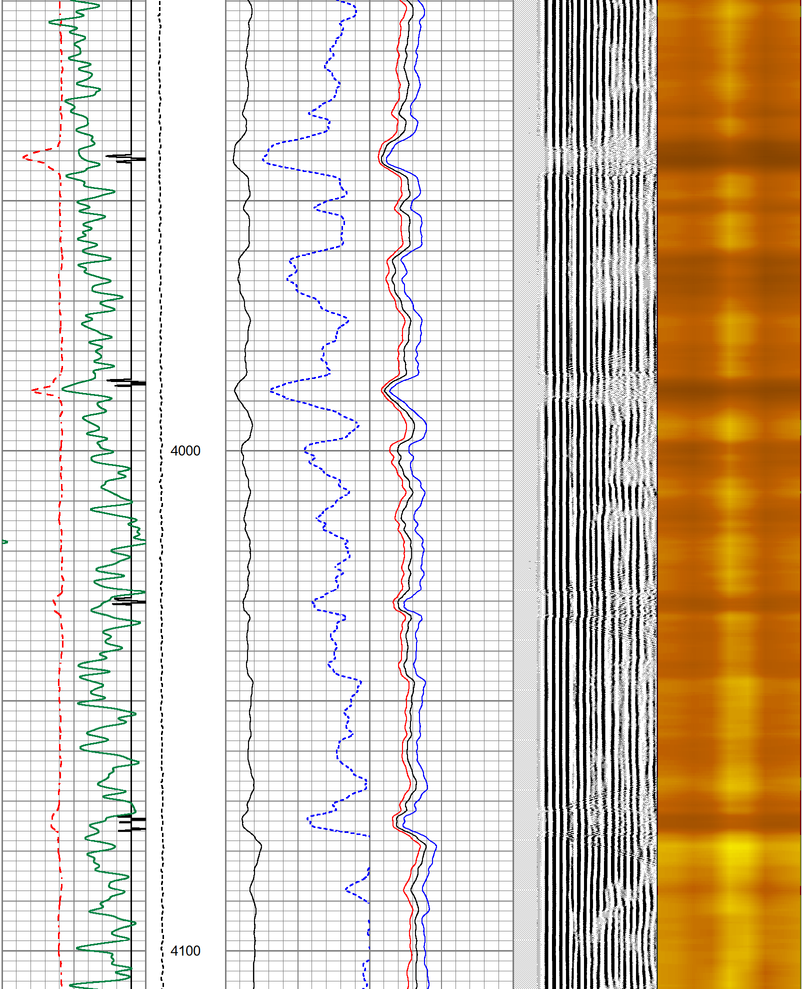
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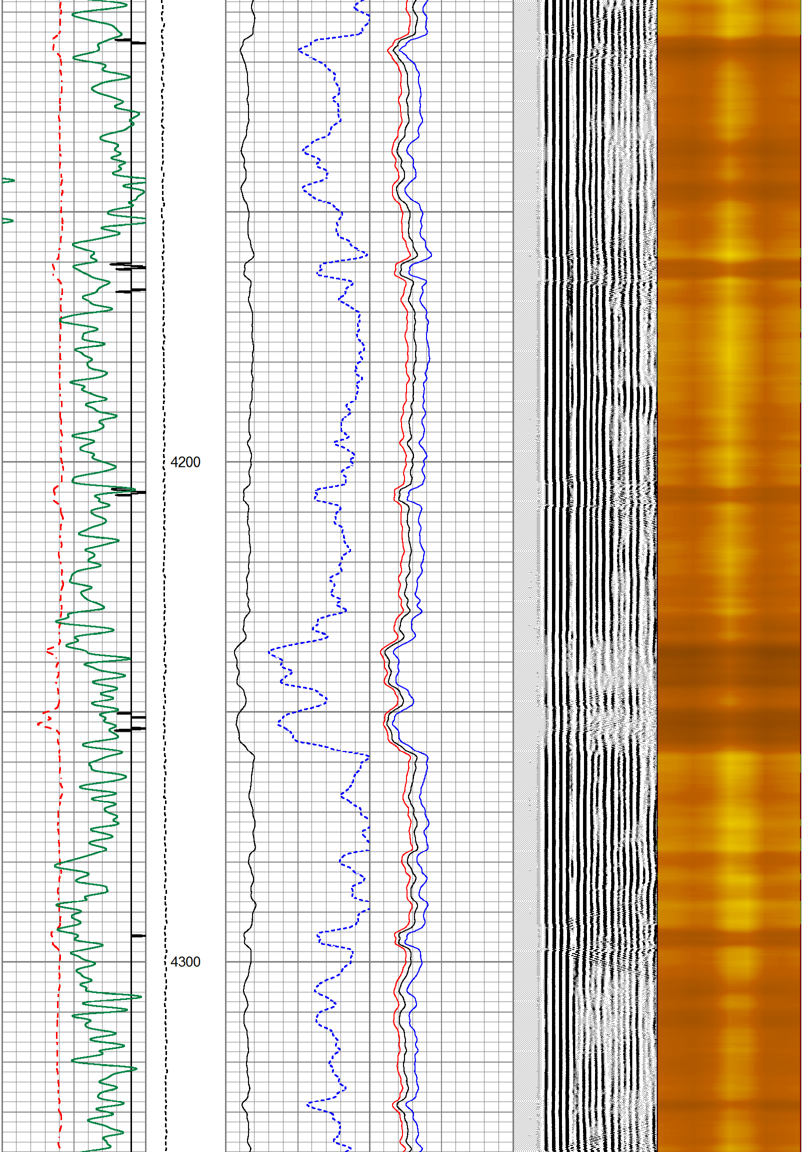
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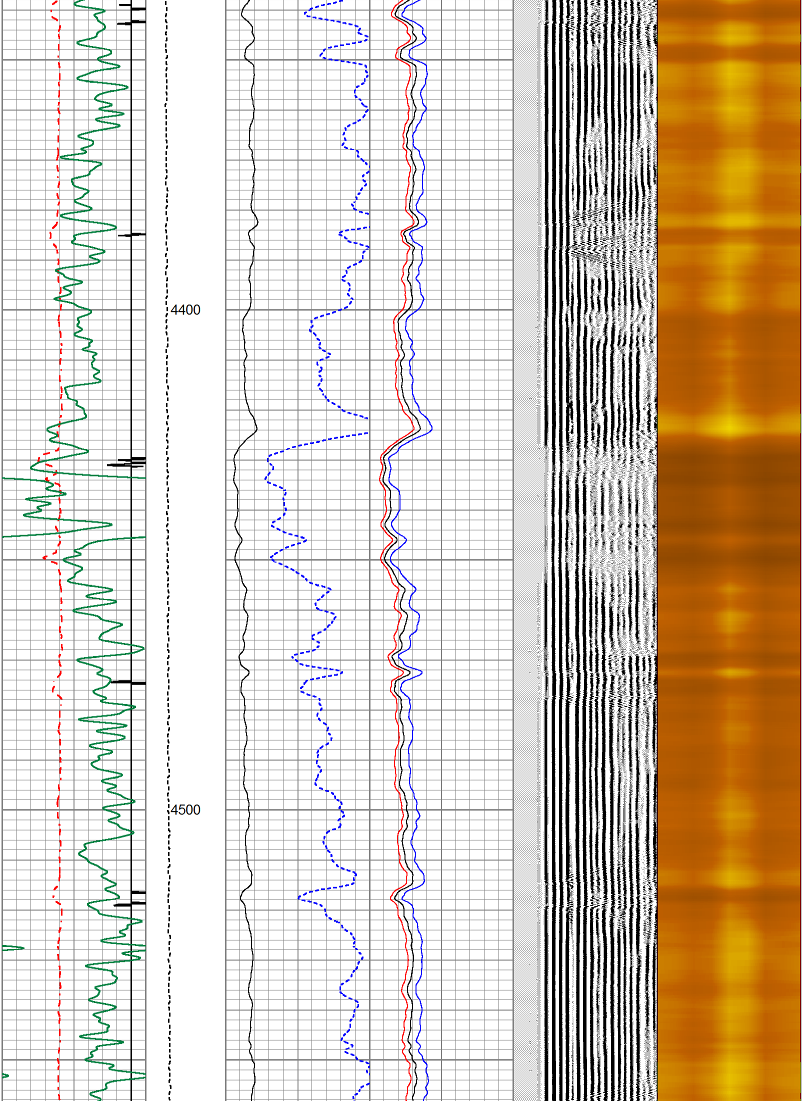
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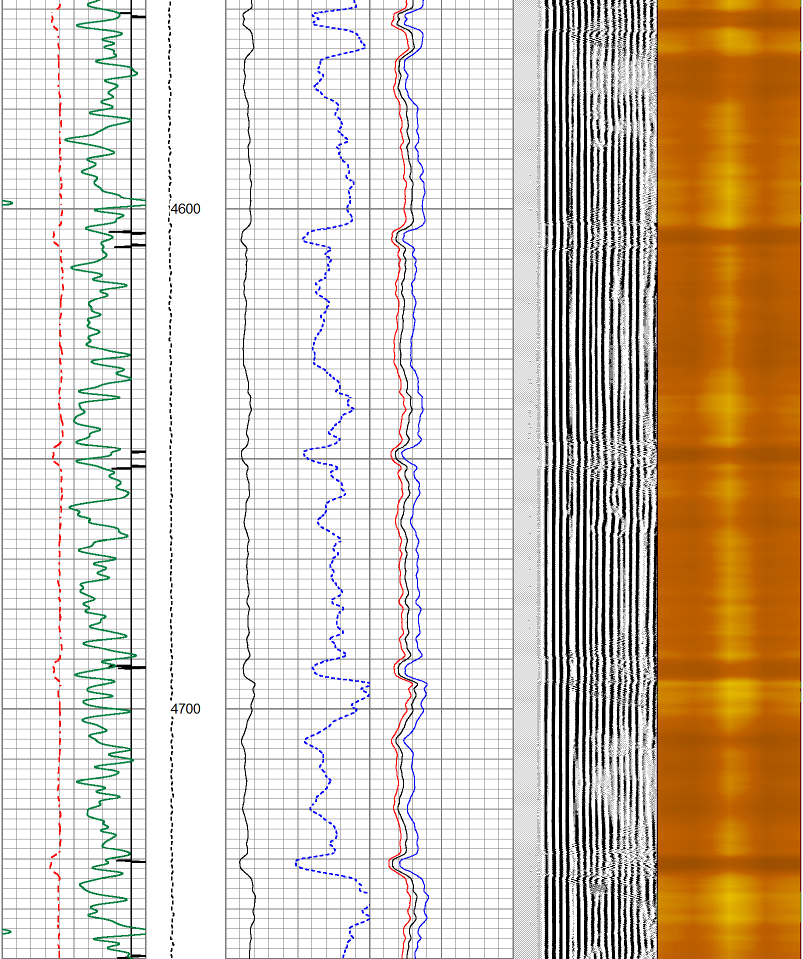
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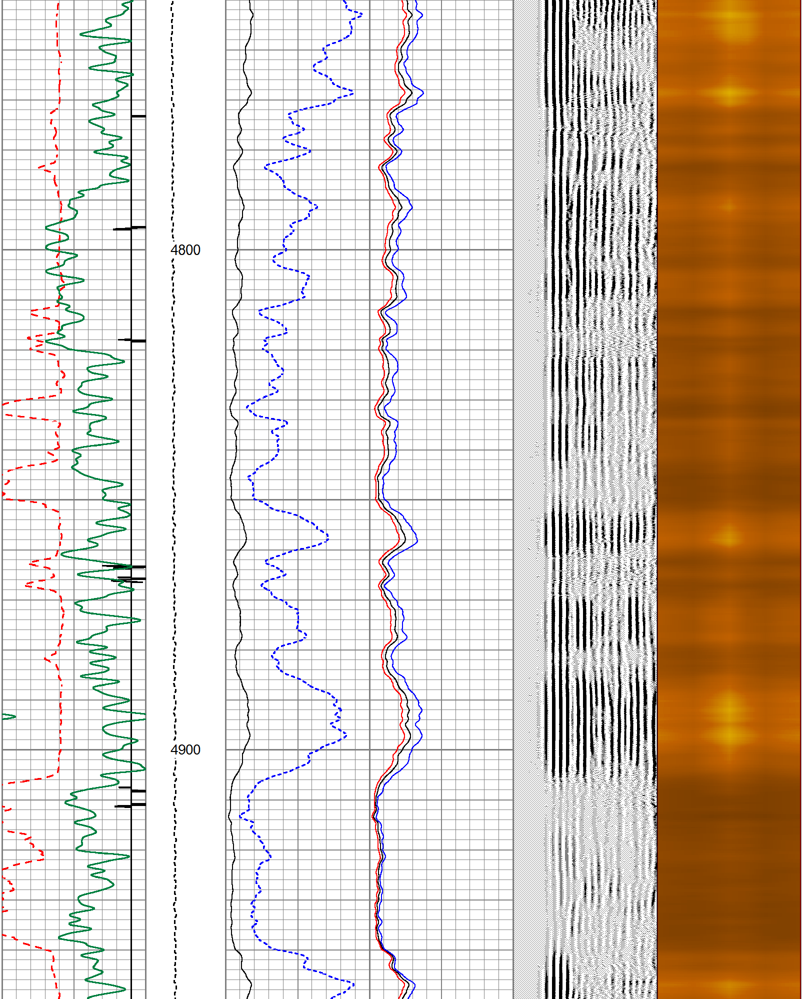
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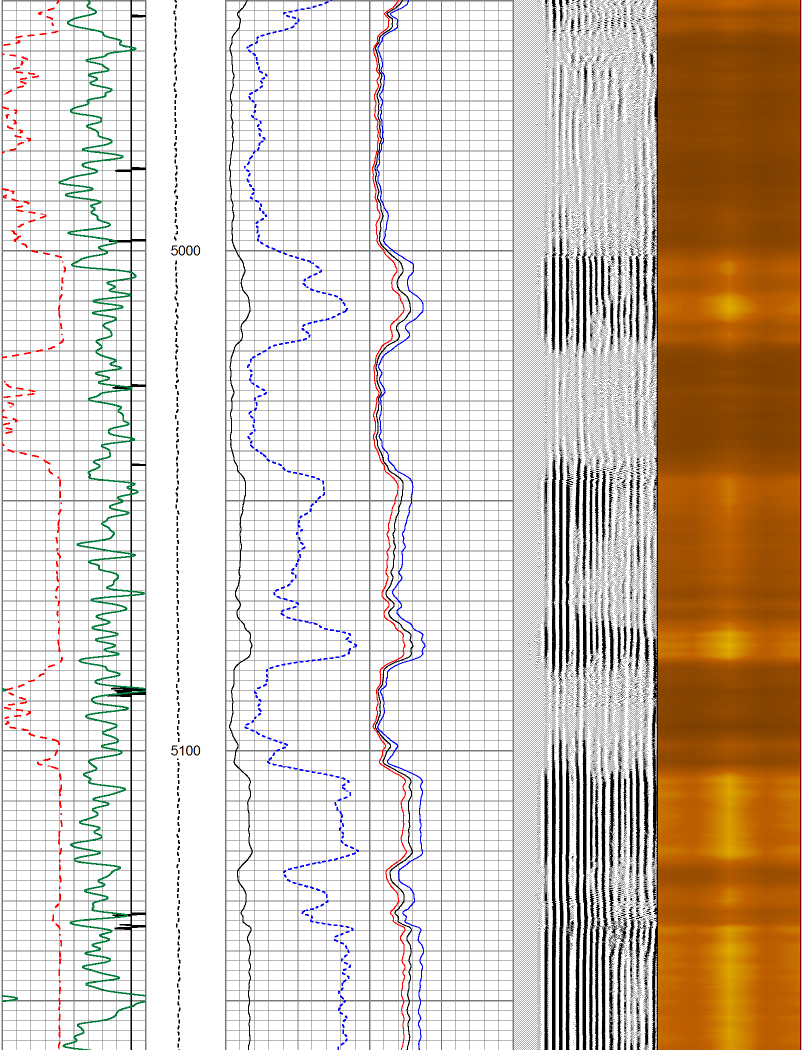
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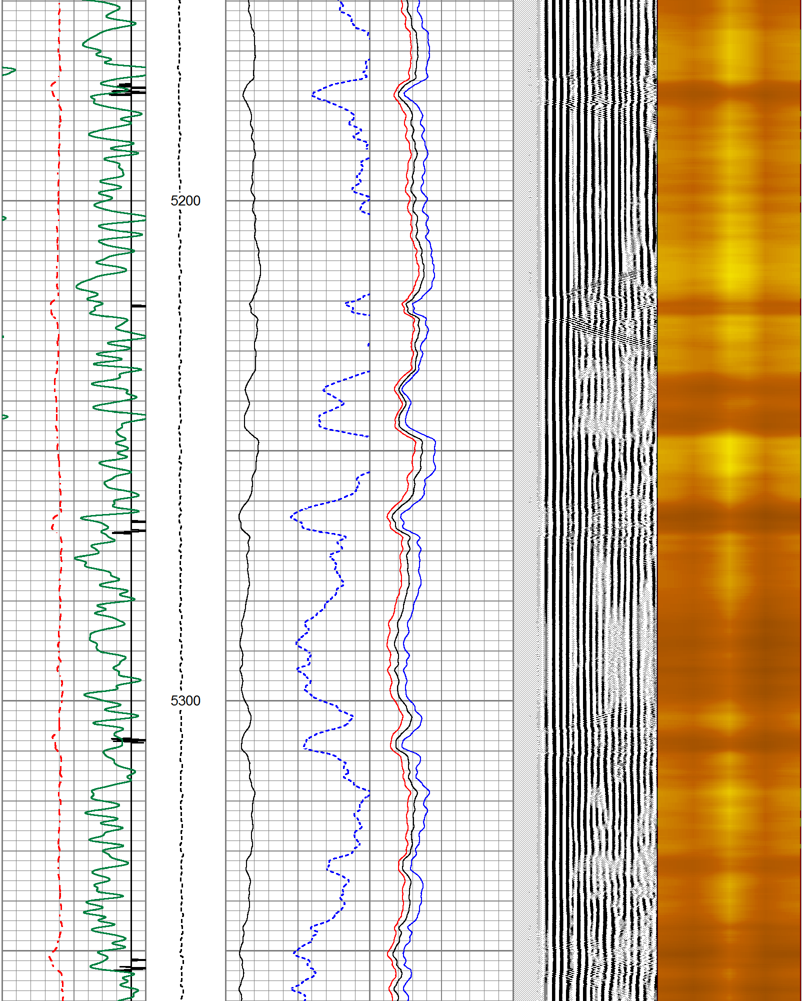
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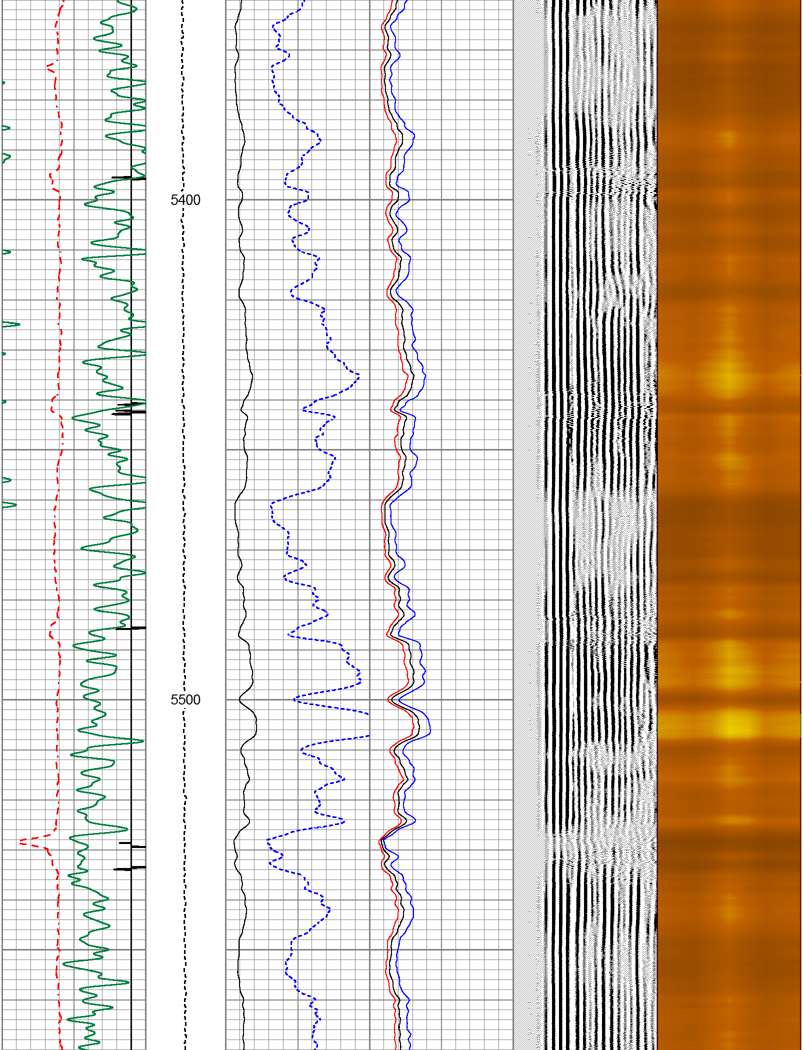
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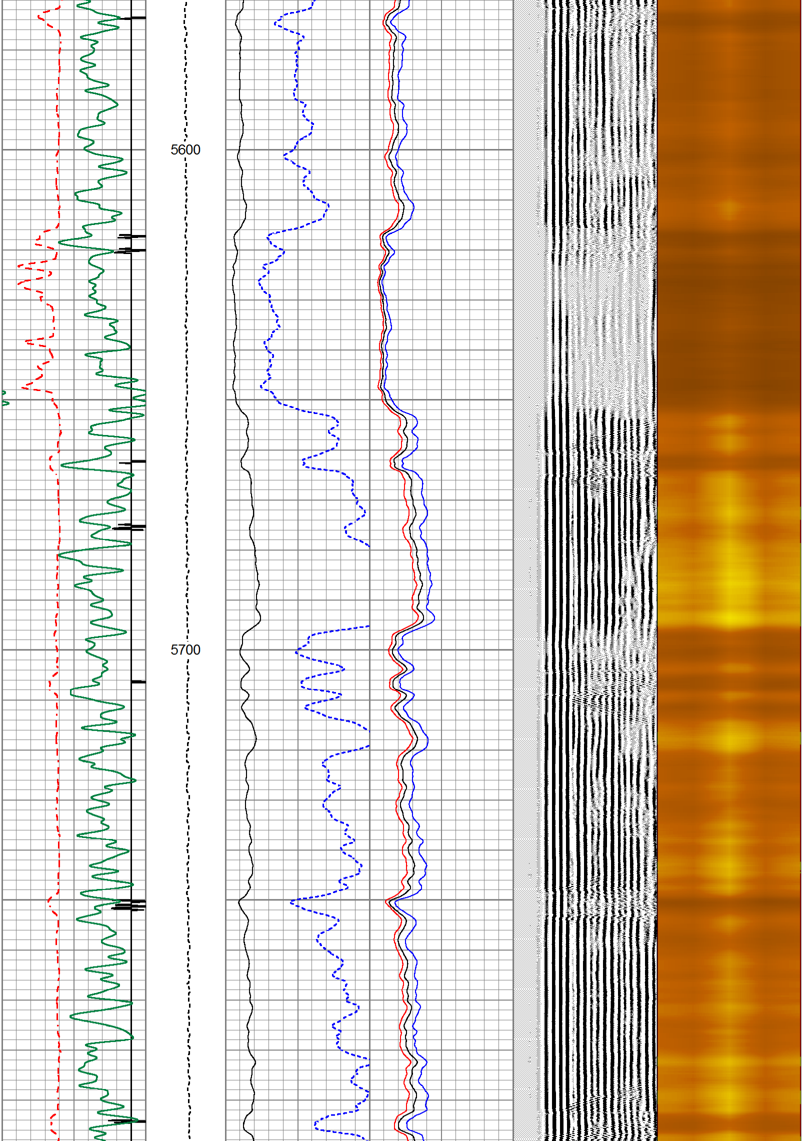
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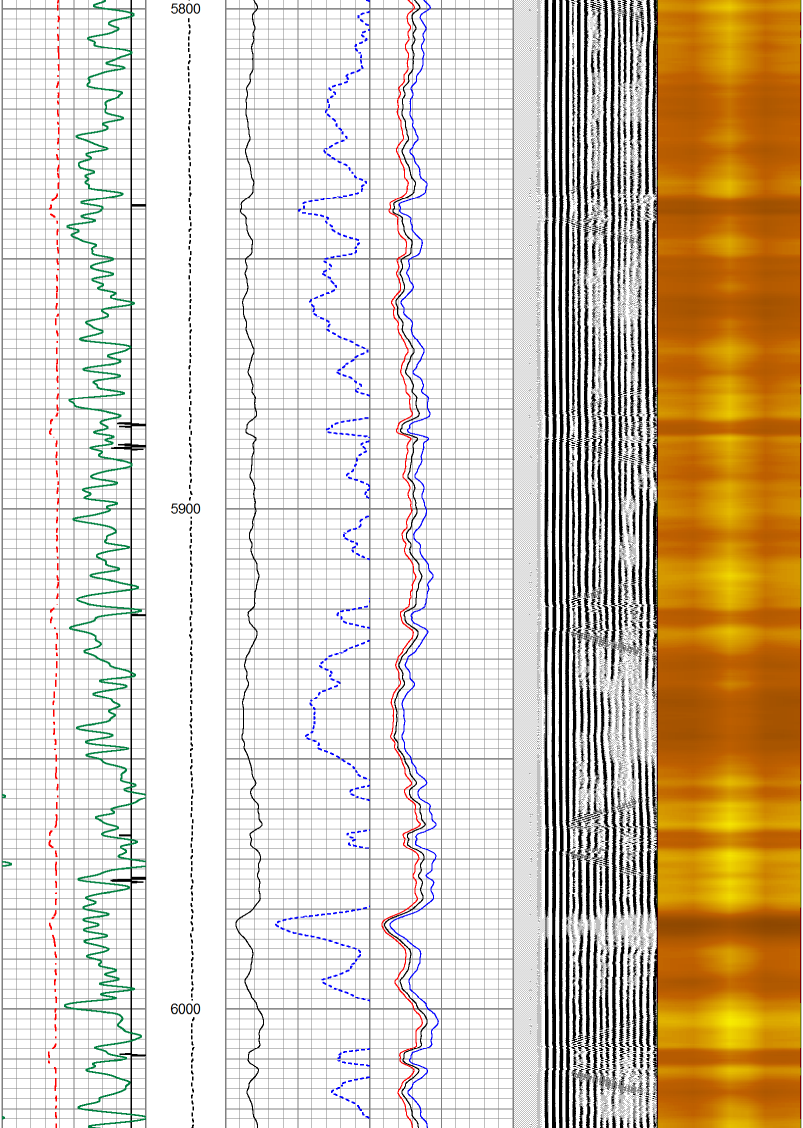
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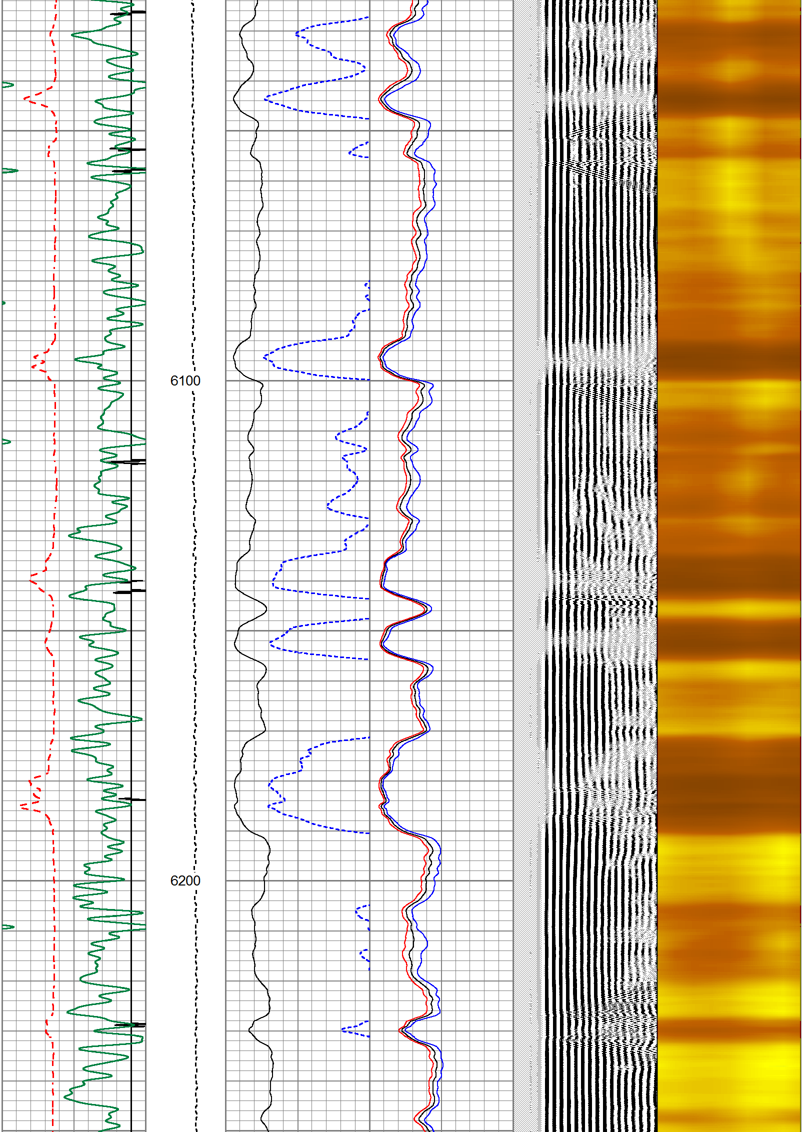
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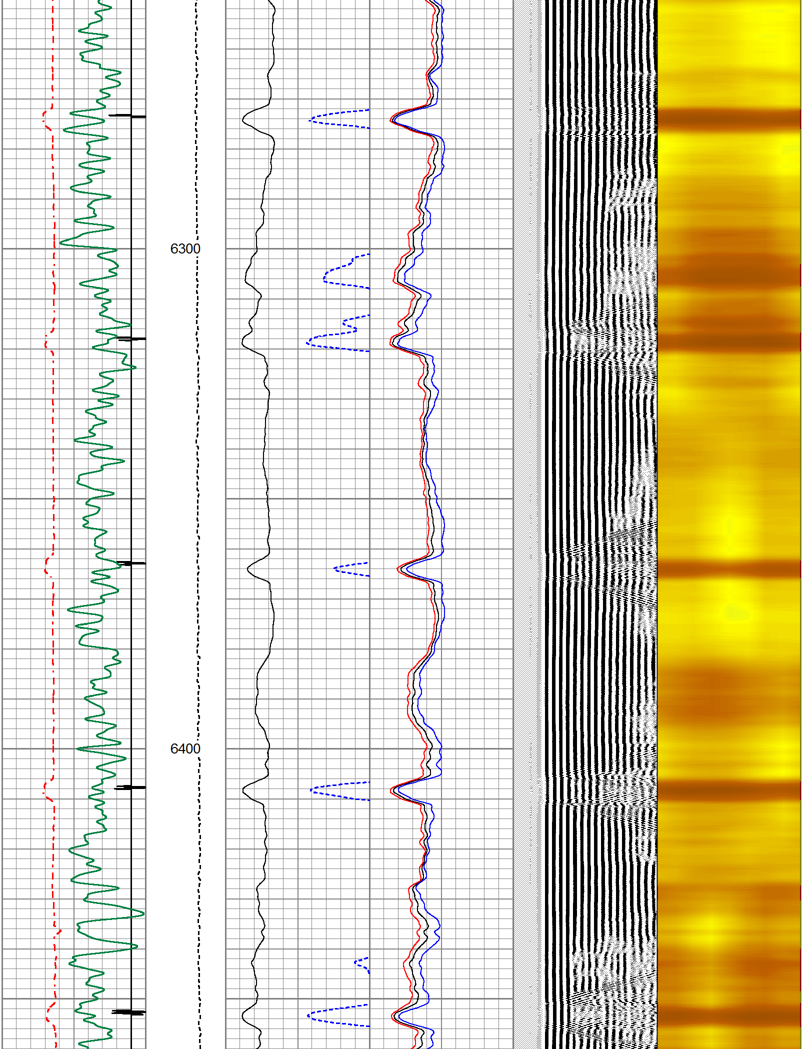
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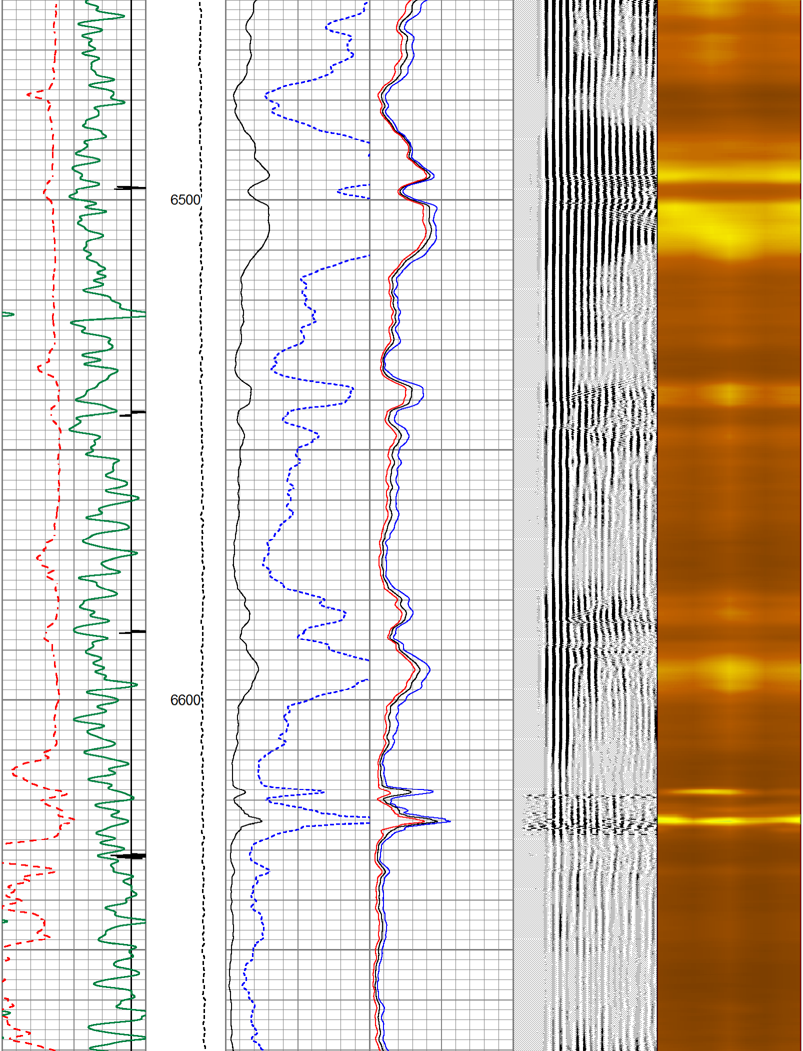
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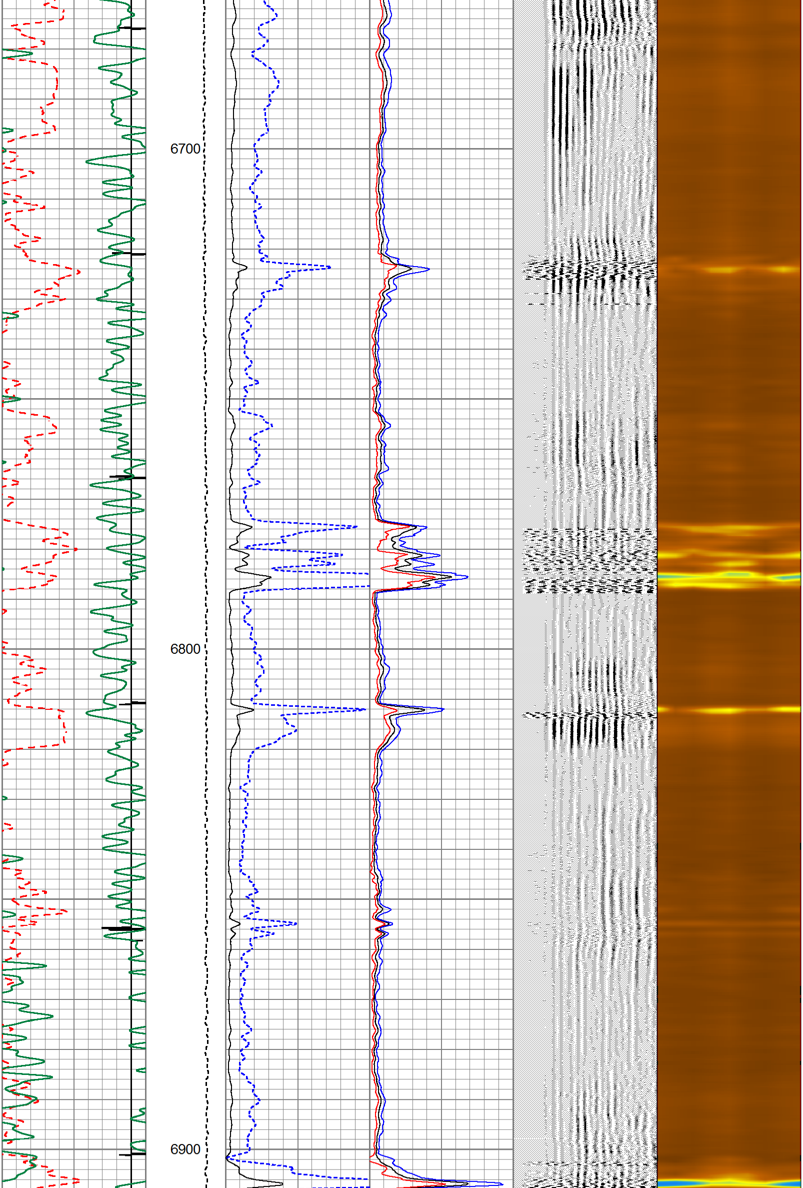
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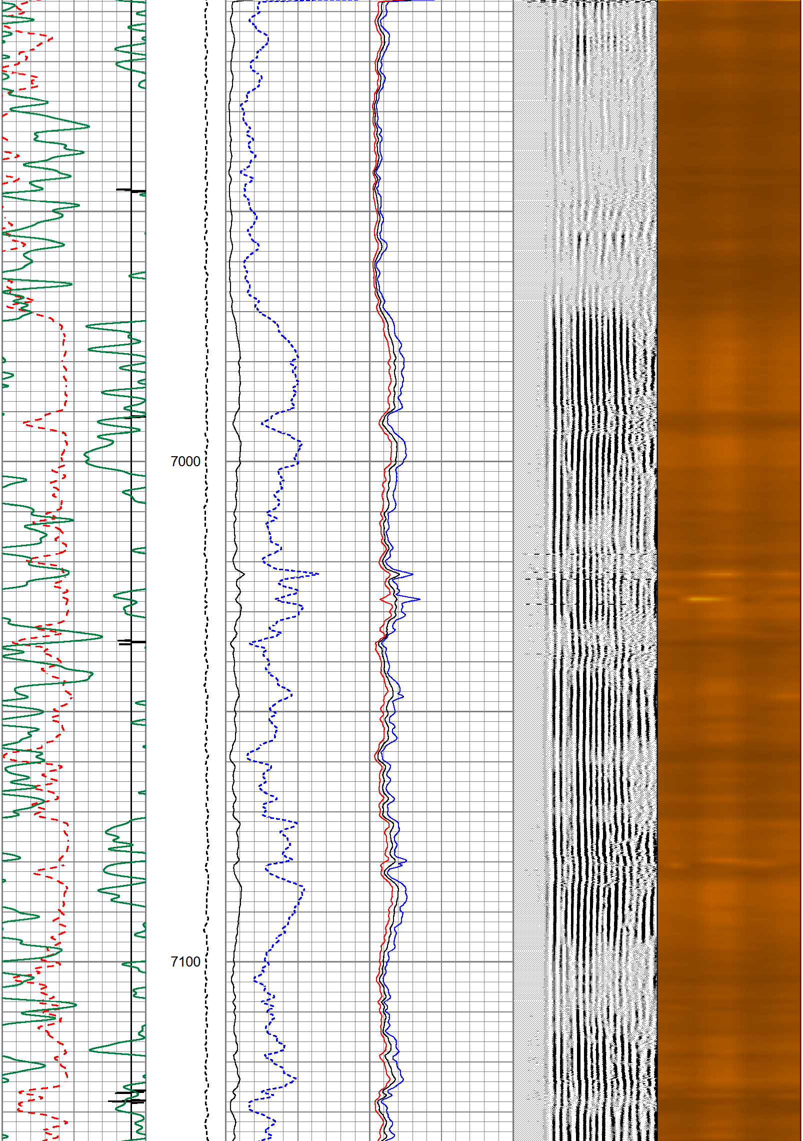
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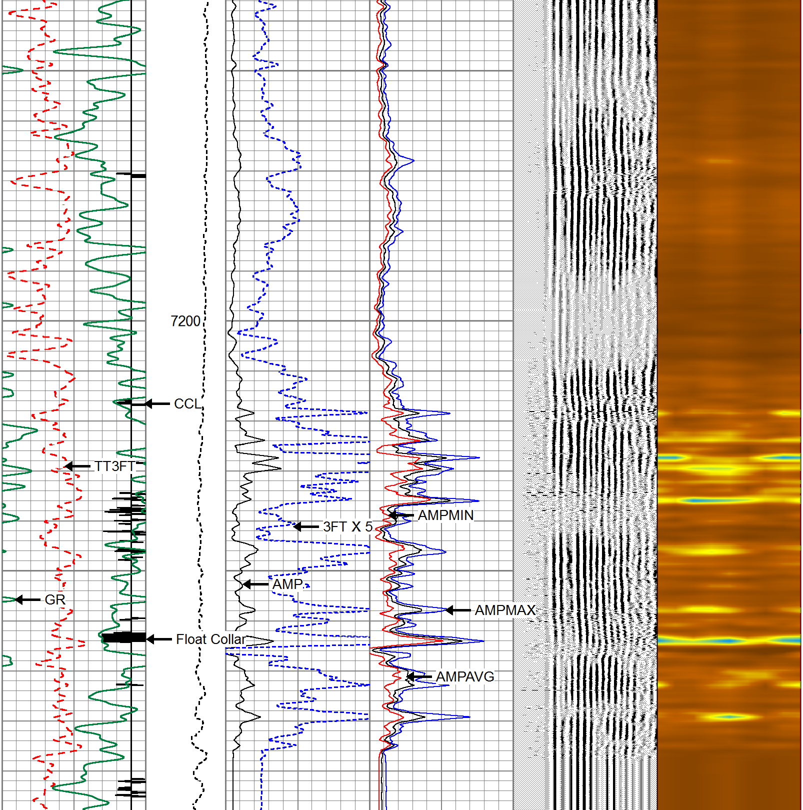
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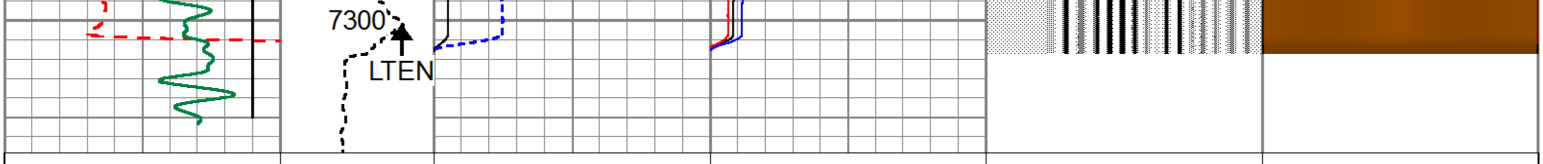
CCL
TT3FT
GR
Float Collar
3FT X 5
AMP
AMPMIN
AMPMAX
AMPAVG



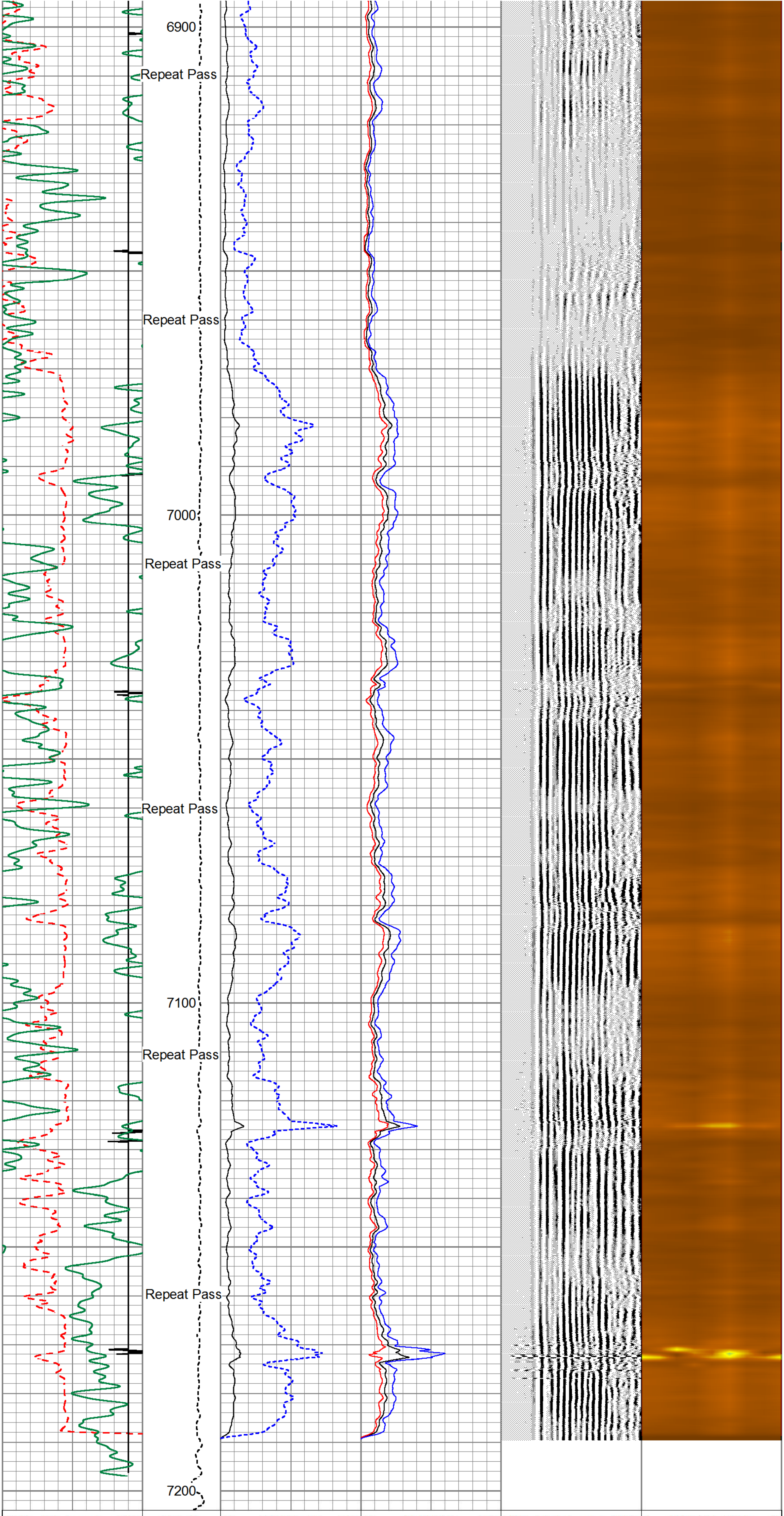
300 TT (usec) 200	LTEN	0 AMP (mV) 100	0 AMPAVG 100	200 VDL (usec) 1200	1 RADIAL MAP 8
9 CCL -1	0 (lb 1000	0 3FT X 5 (mV) 20	0 AMPMAX 100		
0 GR (GAPI) 150			0 AMPMIN 100		

REPEAT PASS

LOG RAN WITH 0 PSI SURFACE INDUCED PRESSURE

Database File	bayswater_ward_s_20_19hn_rcbl.db
Dataset Pathname	repeat
Presentation Format	1patriotradii
Dataset Creation	Fri Dec 01 20:20:35 2017
Charted by	Depth in Feet scaled 1:240

300 TT (usec) 200	LTEN	0 AMP (mV) 100	0 AMPAVG 100	200 VDL (usec) 1200	1 RADIAL MAP 8
9 CCL -1	0 (lb 1000	0 3FT X 5 (mV) 20	0 AMPMAX 100		
0 GR (GAPI) 150			0 AMPMIN 100		



300 TT (usec) 200	LTEN	0 AMP (mV) 100	0 AMPAVG 100	200 VDL (usec) 1200	1 RADIAL MAP 8
9 CCL -1	0 (lb 1000	0 3FT X 5 (mV) 20	0 AMPMAX 100		
0 GR (GAPI) 150			0 AMPMIN 100		

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