RADIAL SECTOR BOND LOG WITH GAMMA RAY

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Pioneer Energy Services

Company	**EnCana Oil & Gas (USA) Inc.**
Well	**Edith Ann-Duckworth 4G-21H-O268**
Field	**Wattenberg**
County	**Weld**
State	**Colorado**

Location: API #: 05123380740000
SHL: 283' FSL & 1308' FEL
SWSW
SEC 21 TWP 2N RGE 67W

Other Services: None

Permanent Datum	GL	Elevation 4926	Elevation
Log Measured From	KB		K.B. 4954.5
Drilling Measured From	KB		D.F. 4954.5
			G.L. 4926

Company EnCana Oil & Gas (USA) Inc.
Well Edith Ann-Duckworth 4G-21H-O268
Field Wattenberg
County Weld State Colorado

Date of Service	June 11, 2014
Run Number	1
Depth Driller or PBTD	16702
Depth Logger	7737
Bottom Log Interval	7736
Top Log Interval	Surface
Open Hole Size	8-3/4"
Type Fluid	OBM
Fluid Level	Surface
Fluid Density	10.5 / 47
Max. Recorded Temperature	NA
Max. Wellhead Pressure	0
Wellhead Connection	NA
Estimated Cement Top	510
Unit Number	49
Wireline Size	7/16"
Location	Ft. Morgan, CO
Recorded By	Schuman
Witnessed By	Mr. Caleb Hobbs

	Size	Wt/Ft	Top	Bottom
Tubing Record				
Surface Casing	9-5/8"	40	Surface	NA
Production Casing	7"	26 lbs	Surface	7860
Liner Record	4.5"	13.5	NA	NA

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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

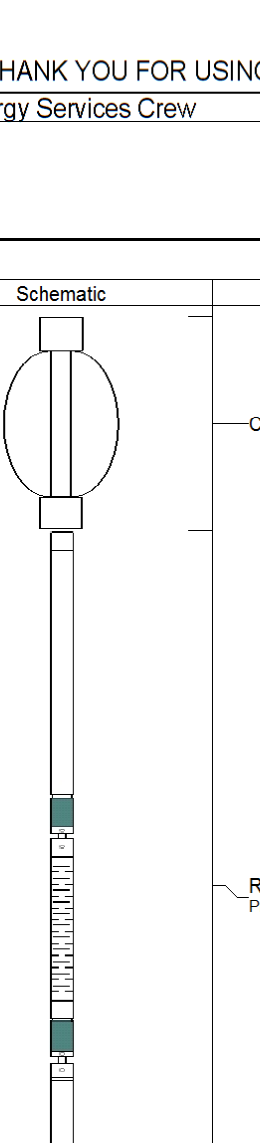
N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
Log Correlated to 7" Casing Tally

Patterson UTI Drilling Rig 272

SO# 2-013576

THANK YOU FOR USING PIONEER Energy SERVICES

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: Shaun	Sector CBL	111206
Operator: Geno		
Operator: Igor		
Operator:		



Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
		CENT #2 -A (1)	2.83	2.75	20.00
IntTemp	14.66				
TEMP	13.58				
WVF3FT	11.41	RBT-RBT-C3 (11206) Probe Radii Bond Tool with Digital Telemetry	9.33	2.75	90.00
WVFCAL	11.41				
WVFS1	11.41				
WVFS2	11.41				
WVFS3	11.41				
WVFS4	11.41				
WVFS5	11.41				
WVFS6	11.41				
WVFS7	11.41				
WVFS8	11.41				
WVF5FT	10.41				
		CENT-A (1)	2.83	2.75	20.00
CCL	3.92				
		GR-probe 2.75 (111205) proble Digital CCL Gamma	4.33	2.75	100.00
GR	1.13				

Dataset: edith ann-duckworth 4g-21h-o268.db: field/well/run1/pass1
Total Length: 19.32 ft
Total Weight: 230.00 lb
O.D. 2.75 in

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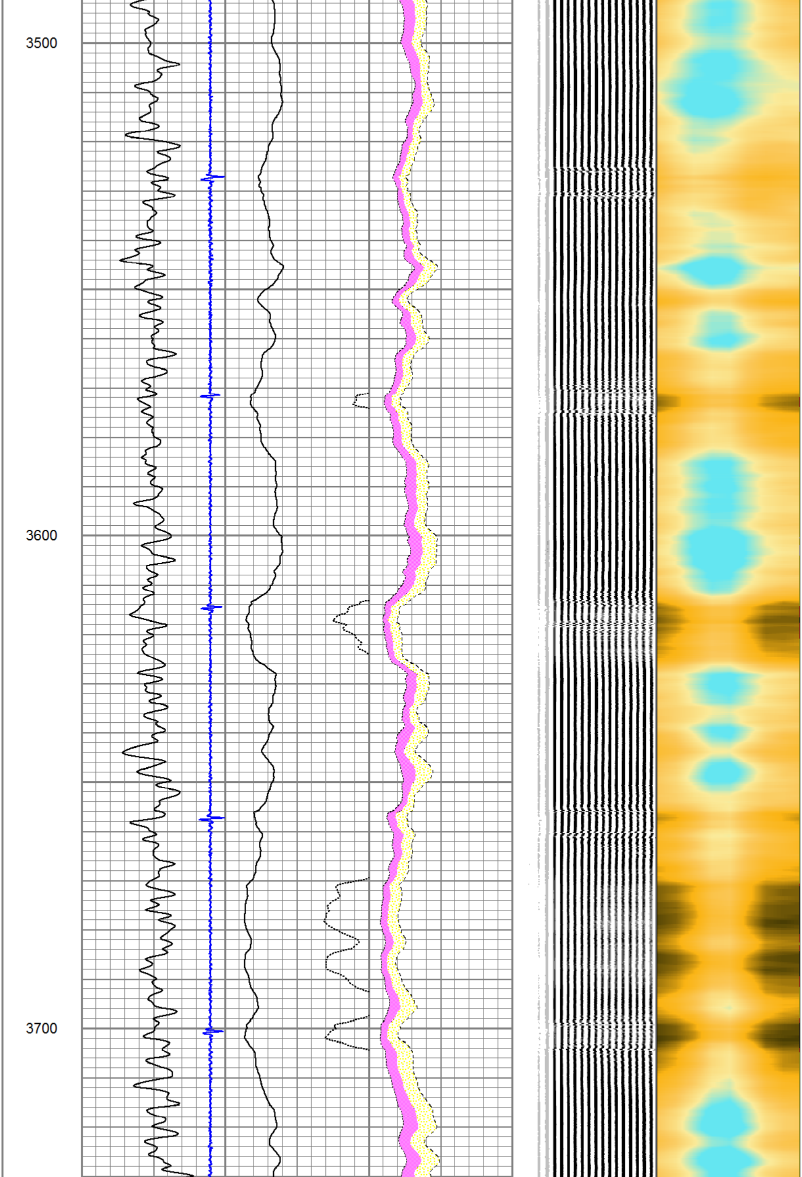
Main Pass

Logged with 0 PSI applied at surface

Database File: edith ann-duckworth 4g-21h-o268.db
Dataset Pathname: pass4.2
Presentation Format: scbl02
Dataset Creation: Wed Jun 11 05:59:22 2014 by Calc 0
Charted by: Depth in Feet scaled 1:240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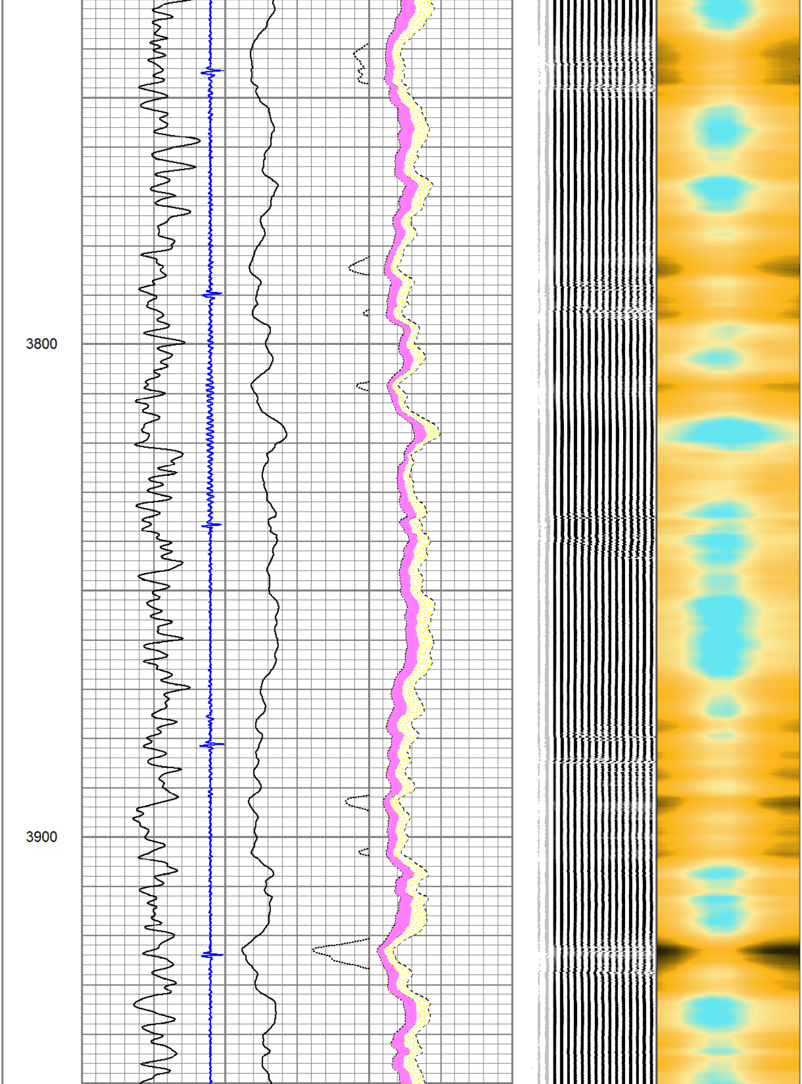
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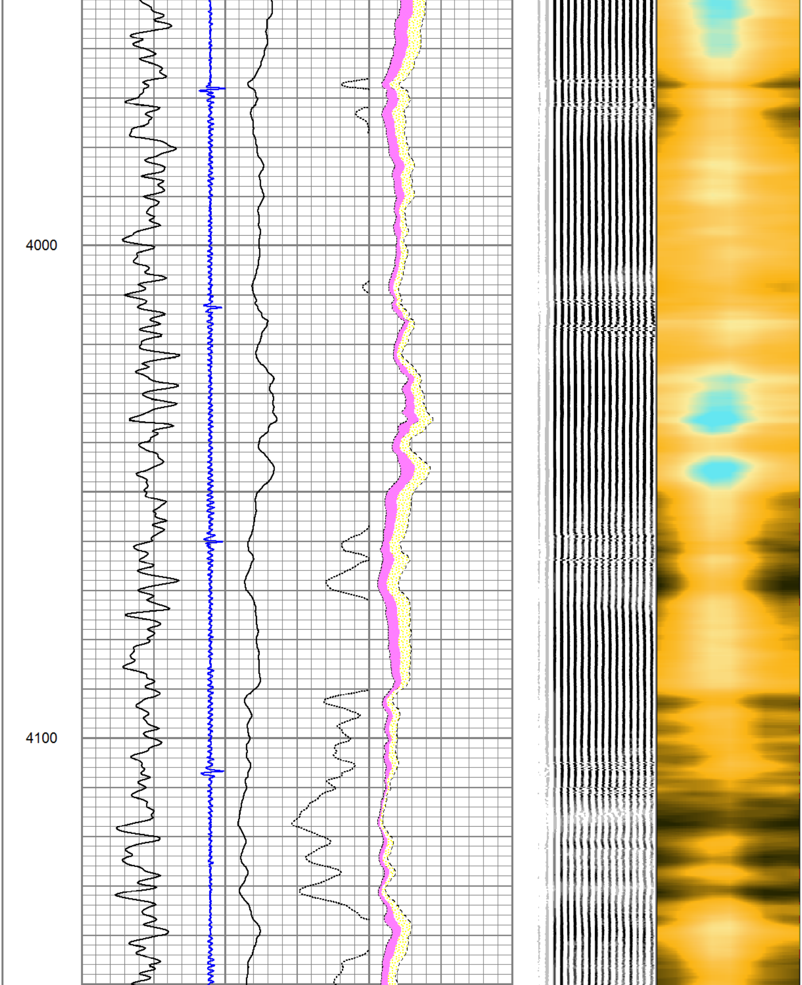
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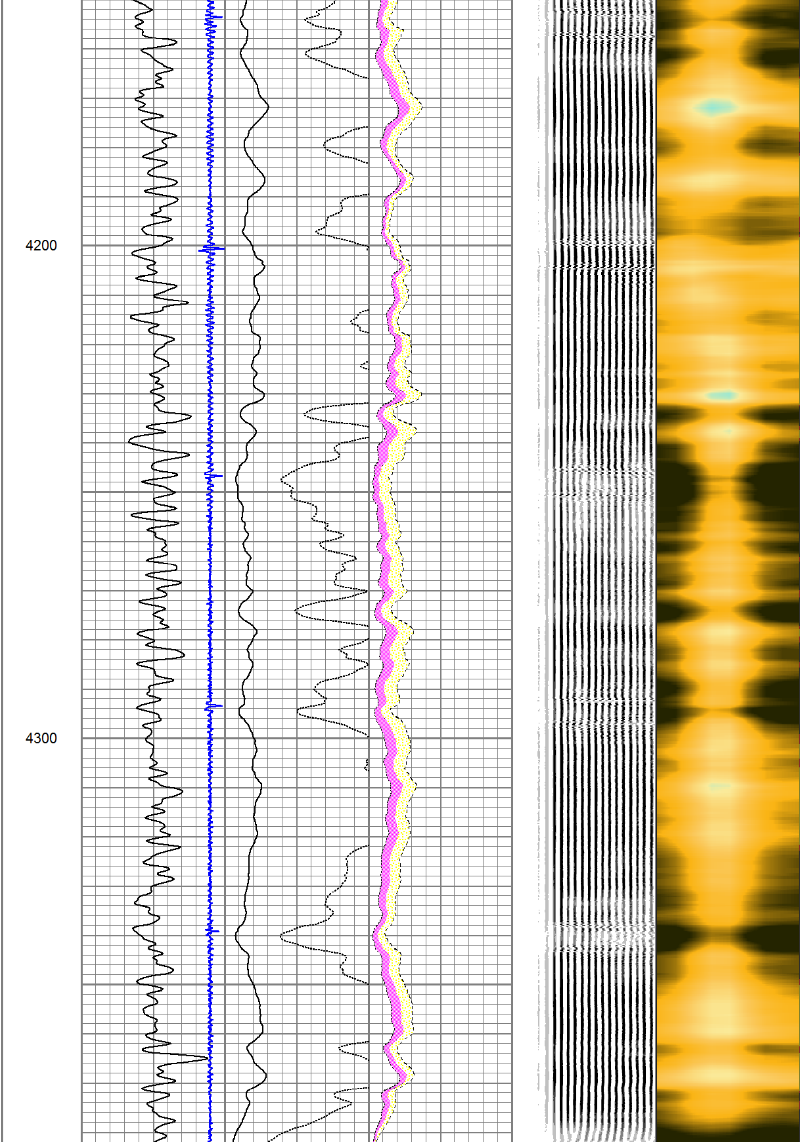
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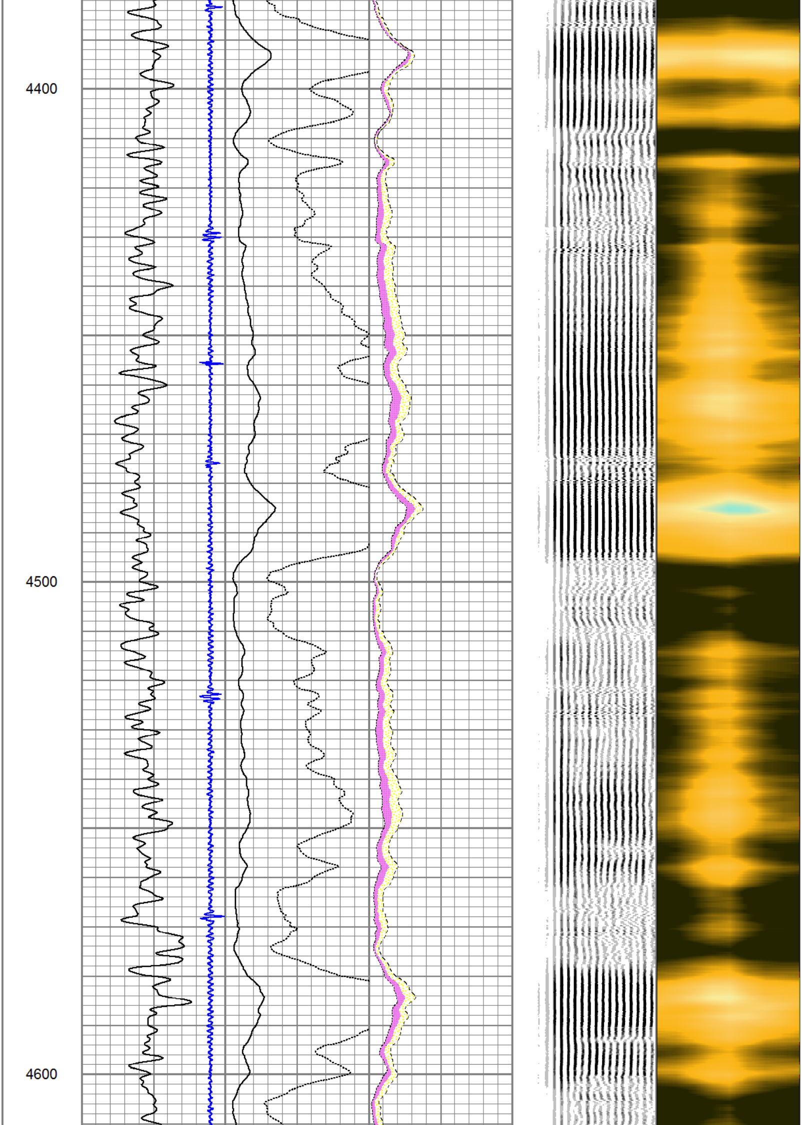
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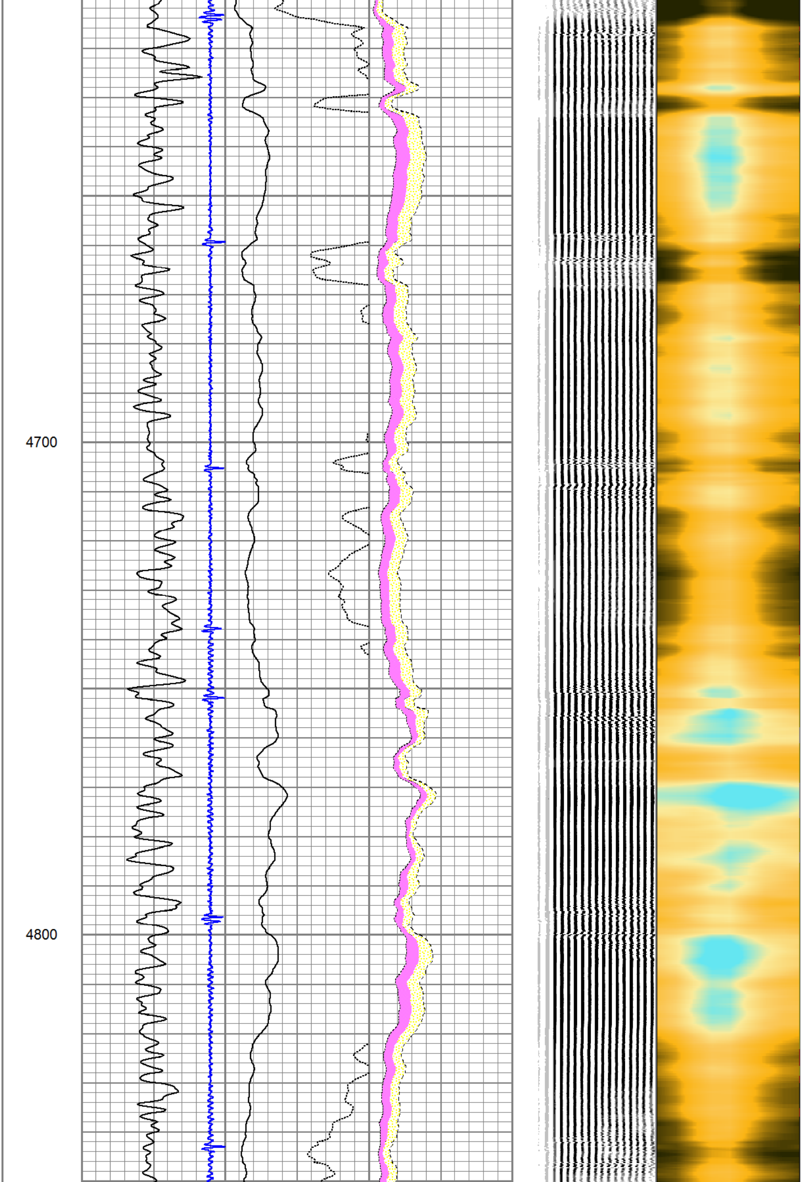
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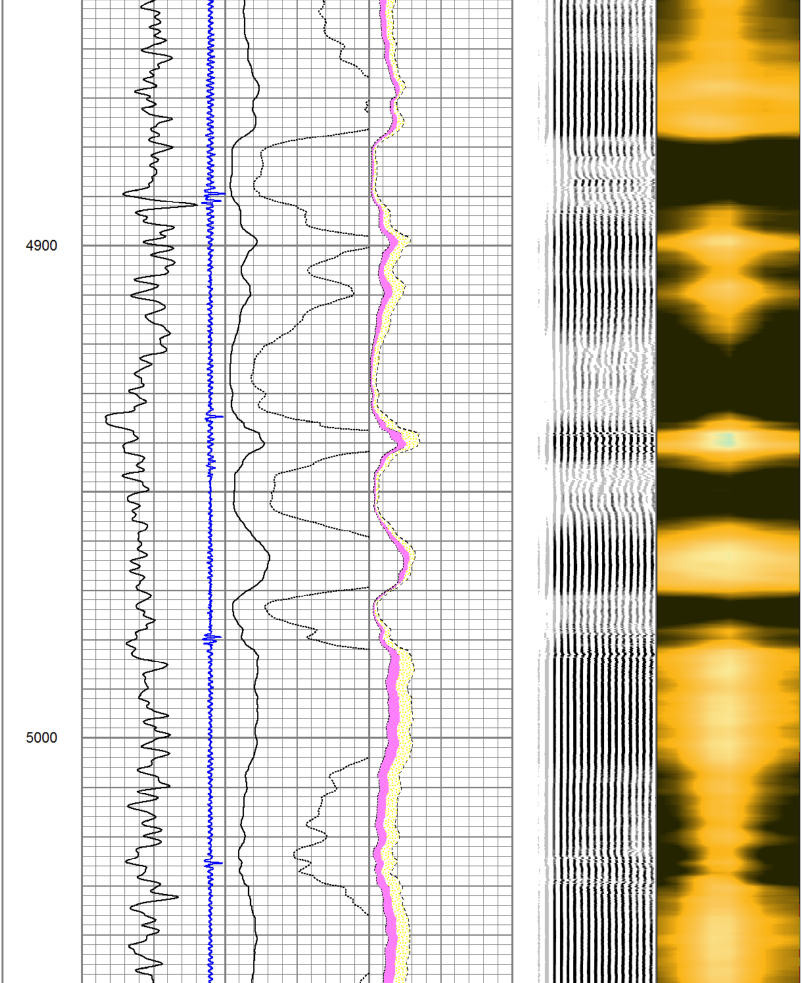
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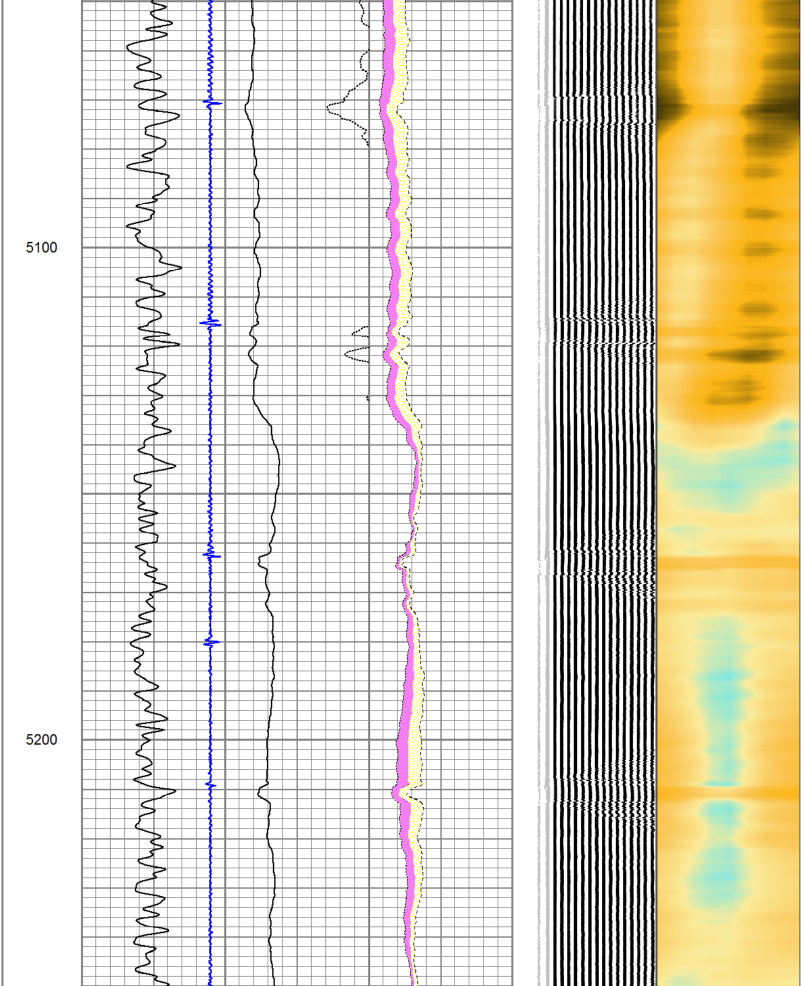
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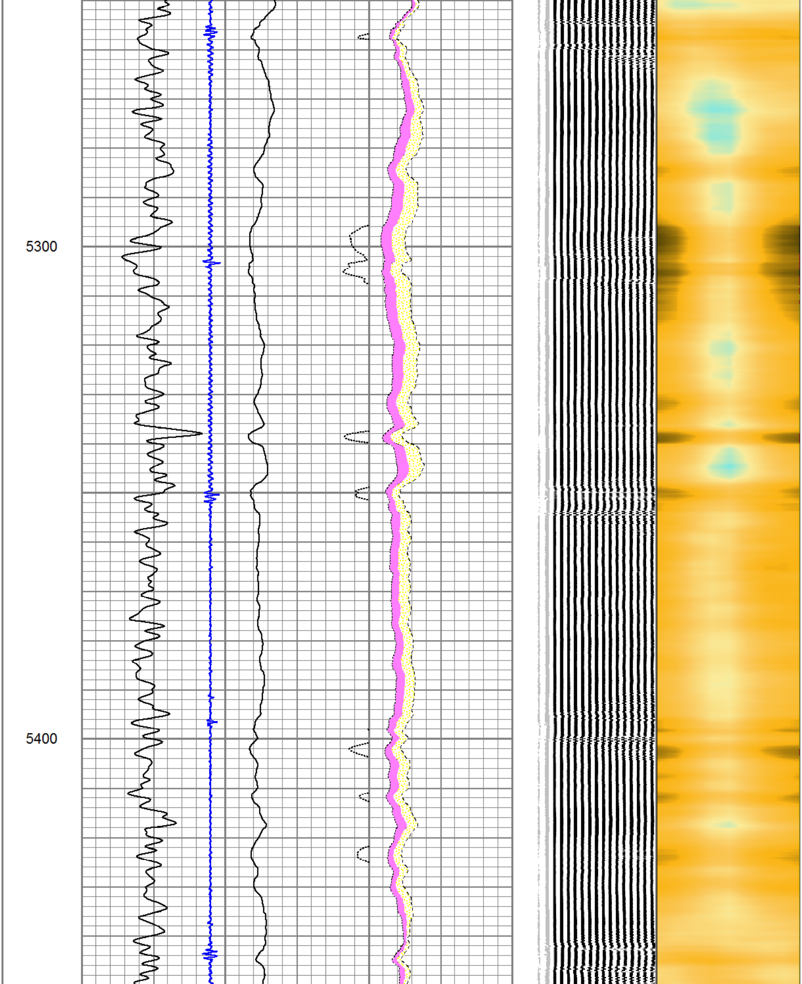
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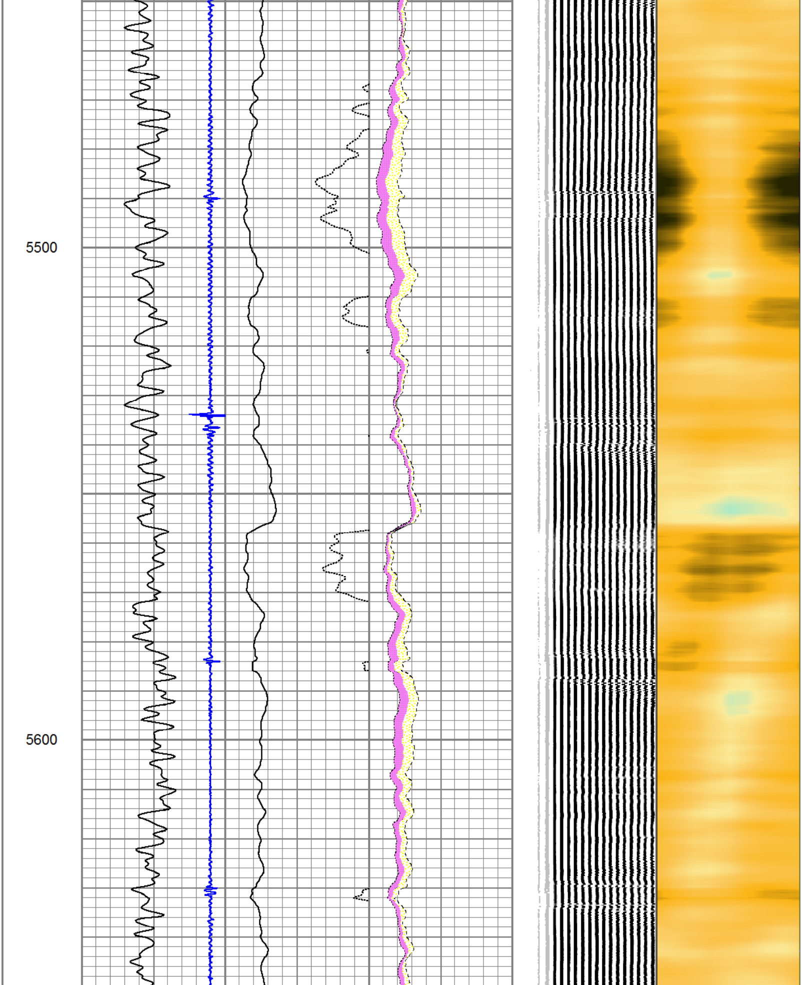
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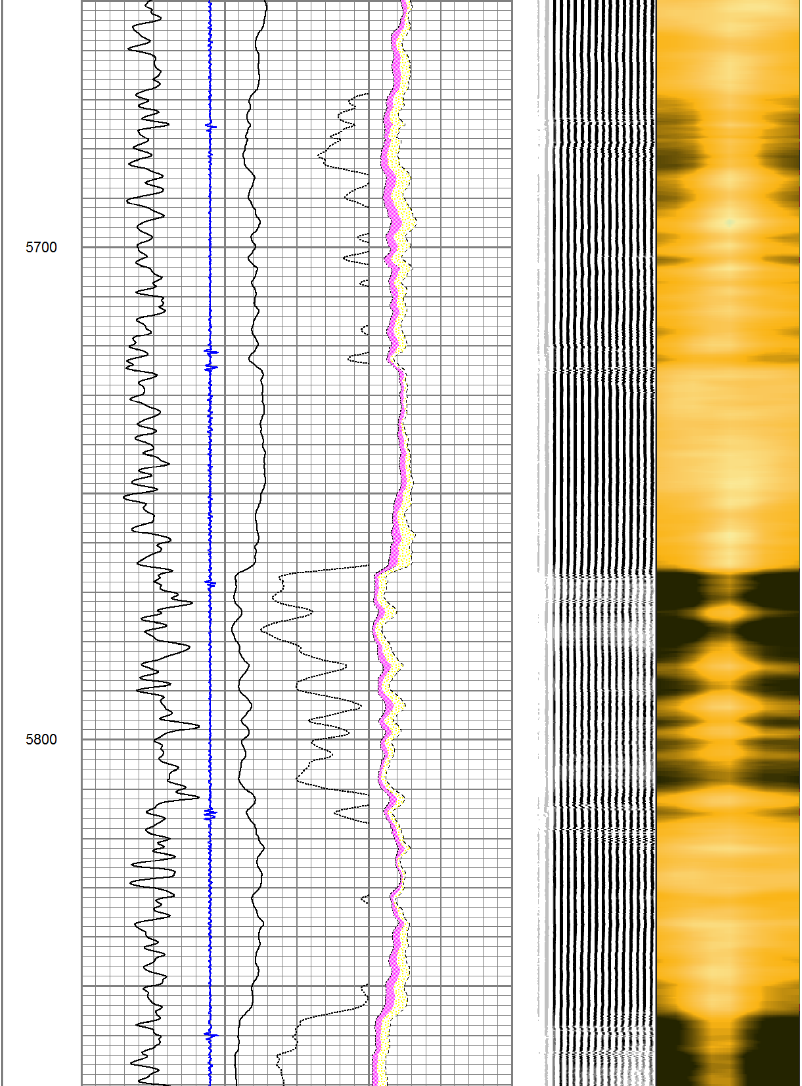
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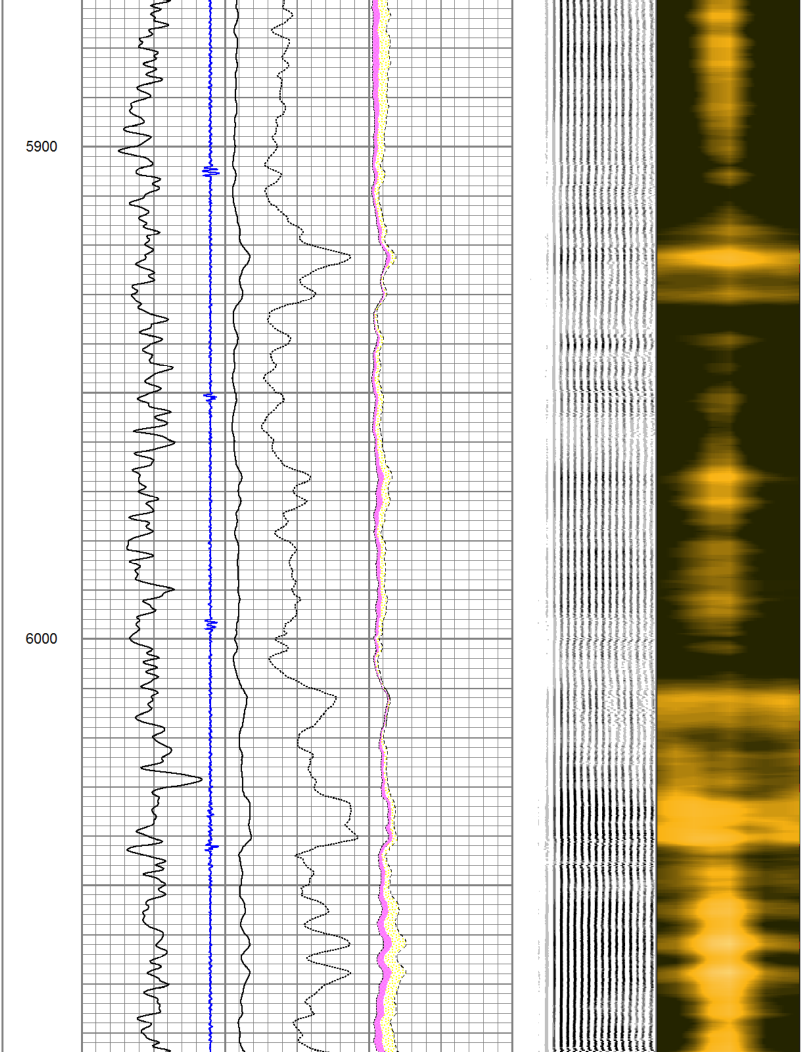
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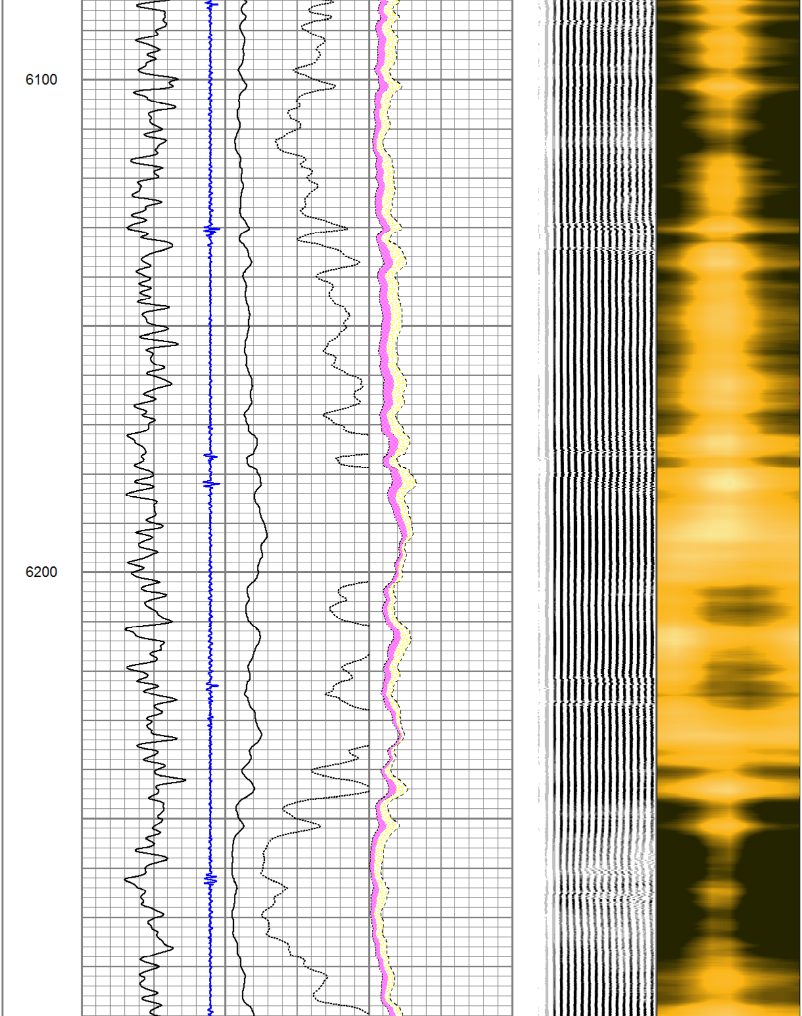
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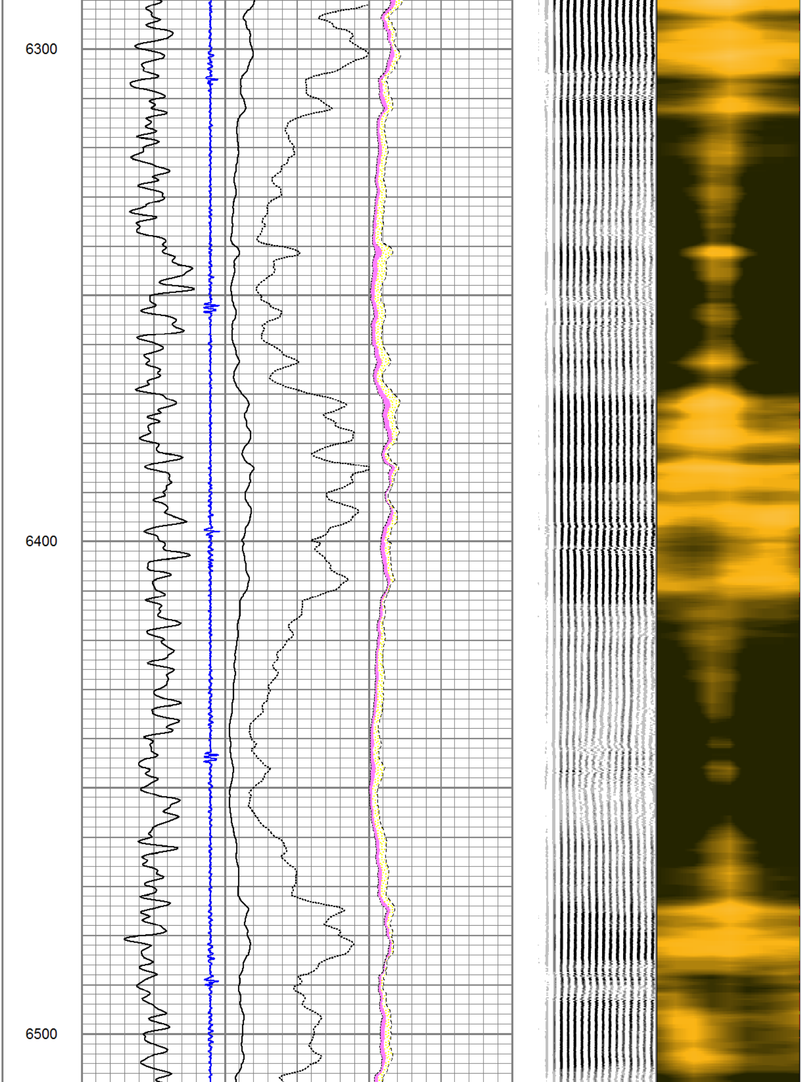
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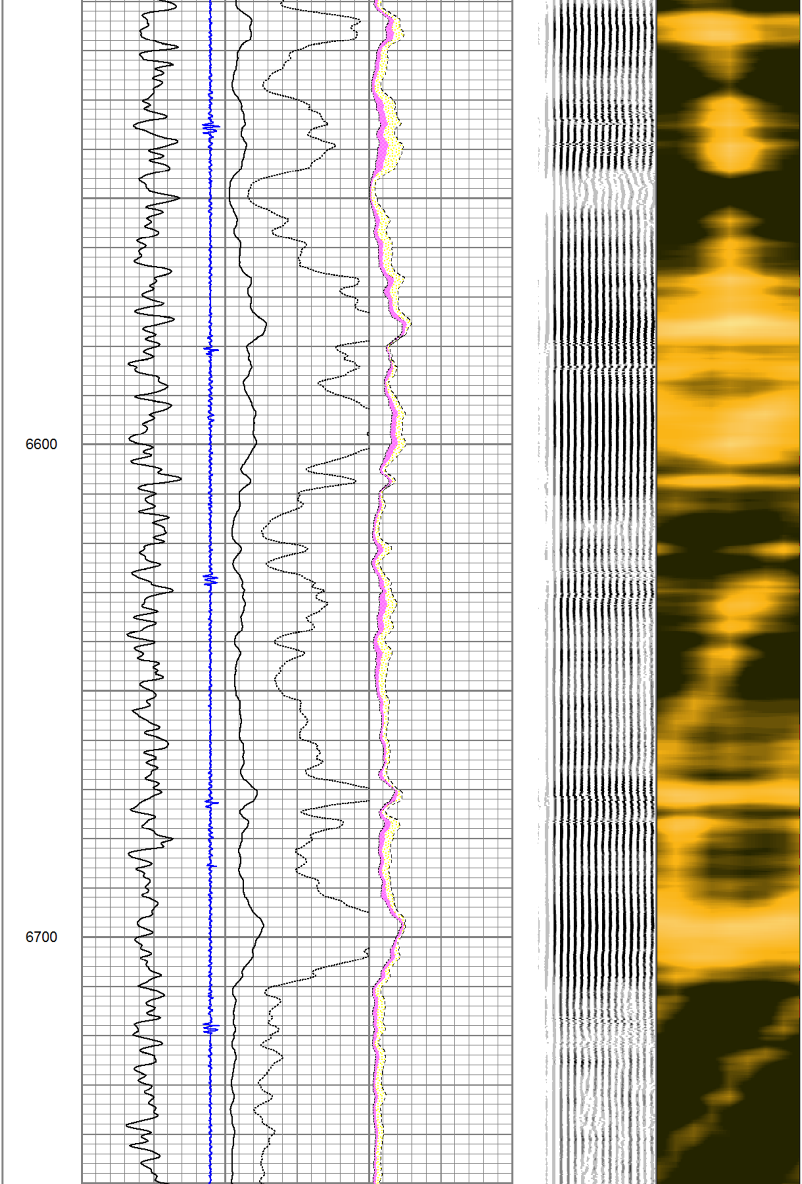
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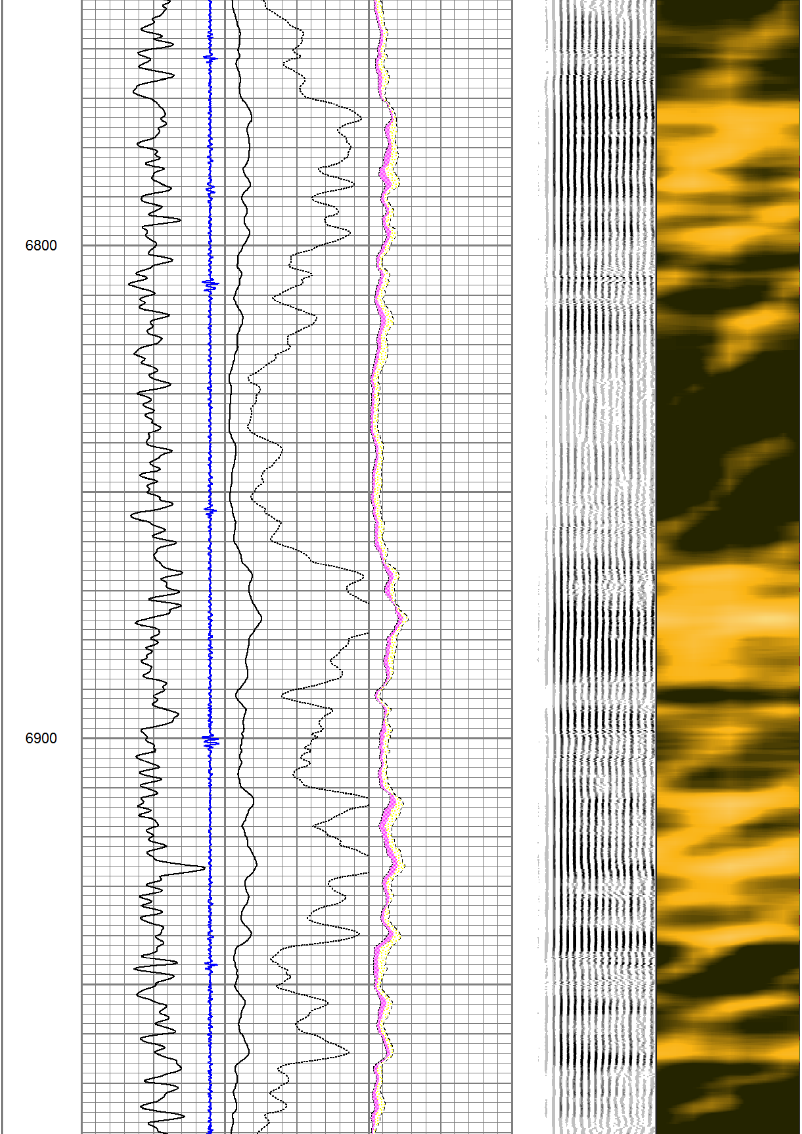
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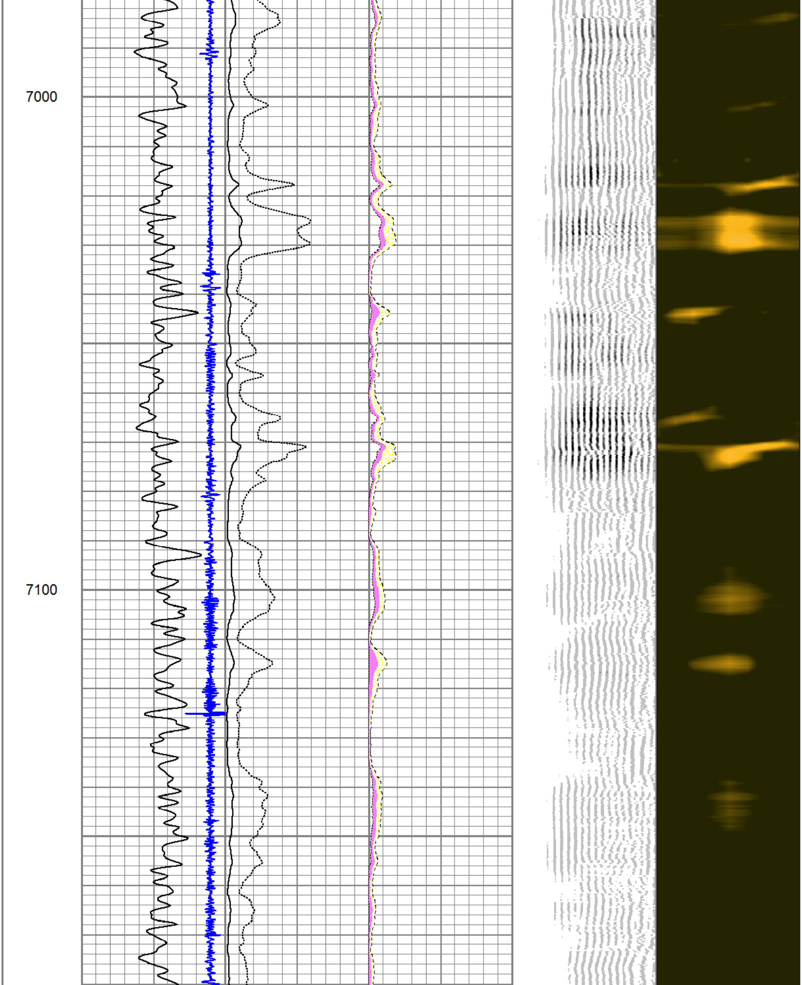
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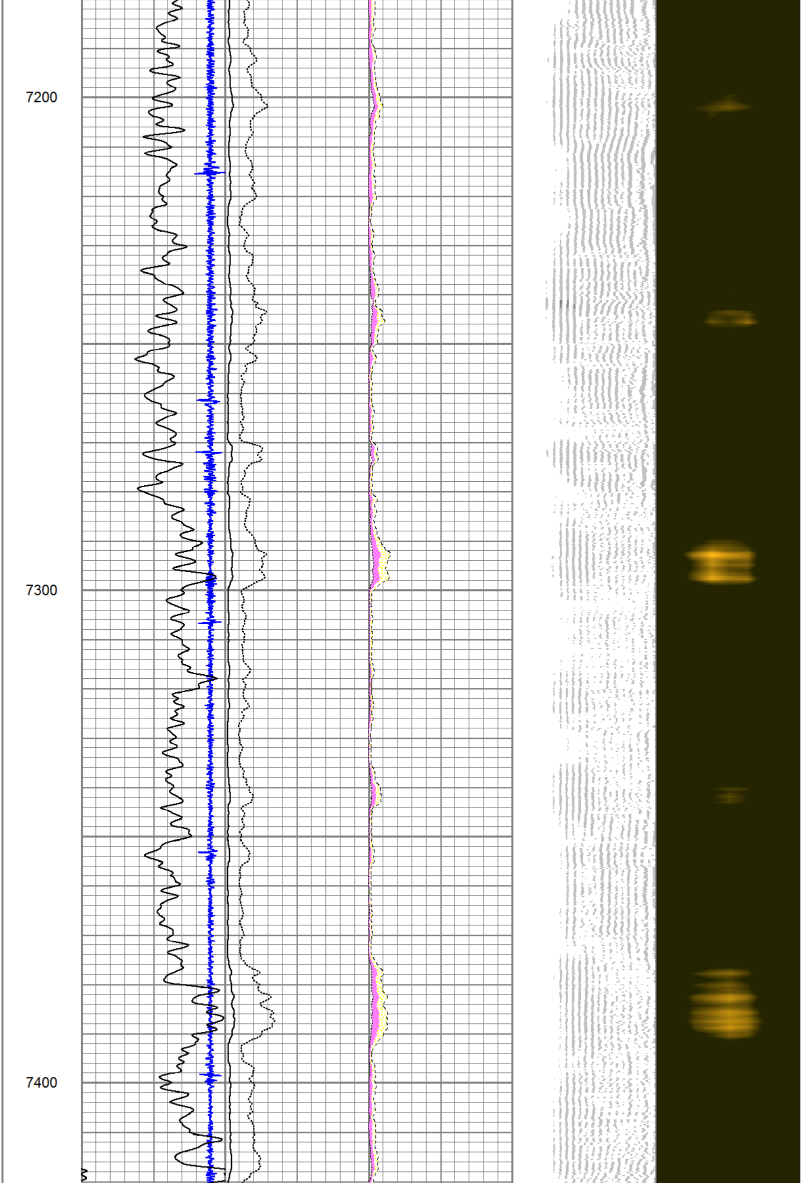
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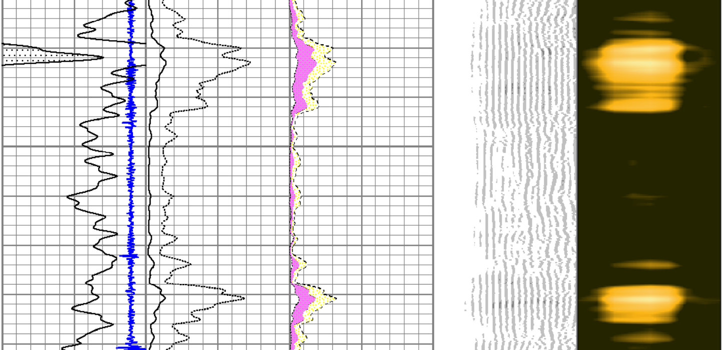

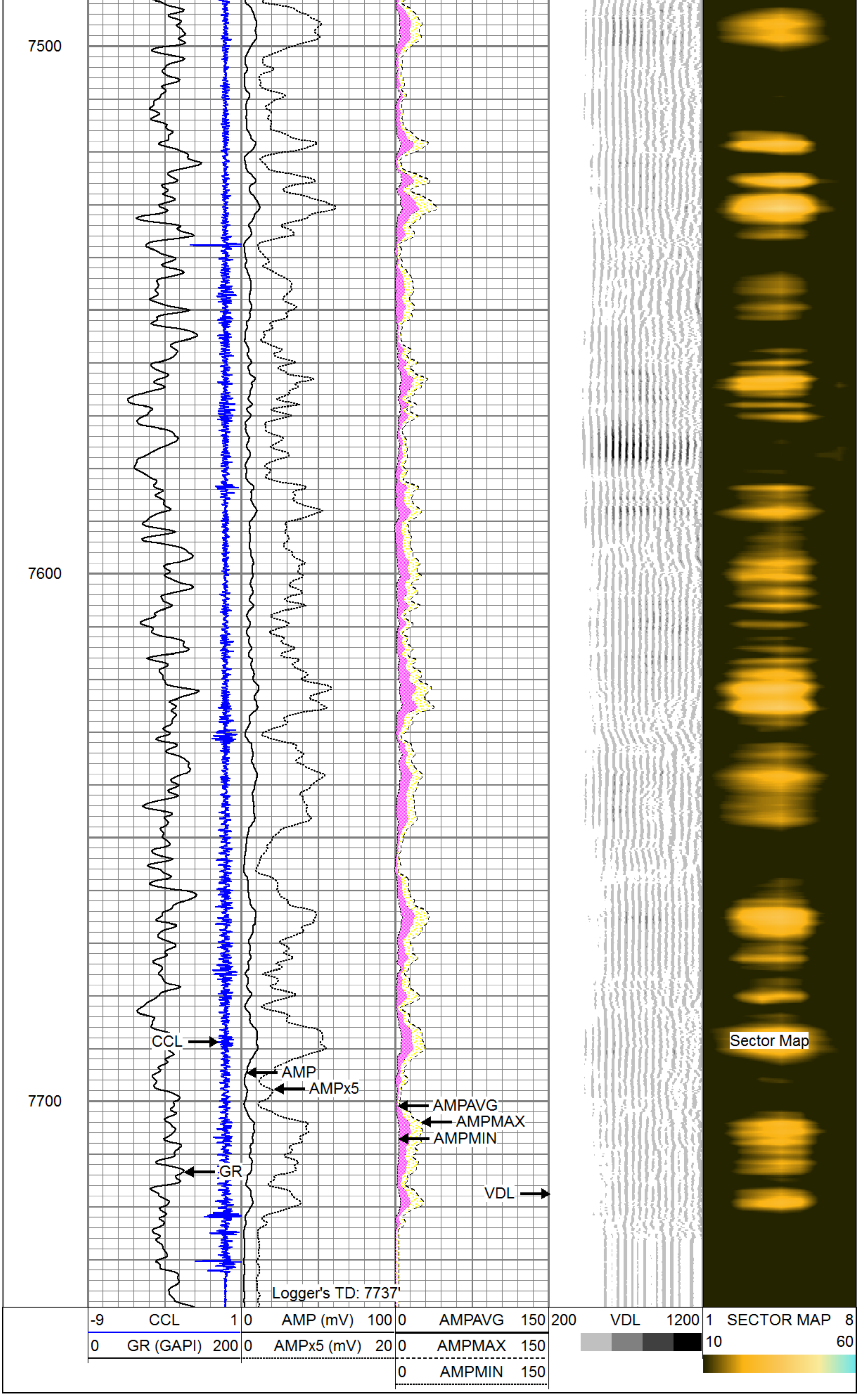

Calibration Report

Database File: edith ann-duckworth 4g-21h-o268.db
Dataset Pathname: pass3
Dataset Creation: Wed Jun 11 03:52:50 2014 by Log 0

Gamma Ray Calibration Report

Serial Number: 111205
Tool Model: probe 2.75
Performed: Sat May 03 17:02:46 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 11206
Tool Model: RBT-C3

Calibration Casing Diameter: 7.000 in
Calibration Depth: 435.128 ft

Master Calibration, performed Wed Jun 11 03:51:51 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.540	1.500	62.165	115.052	0.086
CAL	0.013	0.995				
5'	0.012	0.473	1.500	62.165	131.557	-0.119
SUM						
S1	0.010	0.553	0.000	100.000	184.372	-1.909
S2	0.012	0.560	0.000	100.000	182.621	-2.254
S3	0.012	0.555	0.000	100.000	184.251	-2.263
S4	0.012	0.545	0.000	100.000	187.580	-2.313
S5	0.012	0.535	0.000	100.000	191.237	-2.365
S6	0.012	0.527	0.000	100.000	194.252	-2.414
S7	0.012	0.525	0.000	100.000	195.229	-2.417
S8	0.012	0.541	0.000	100.000	189.131	-2.336

Internal Reference Calibration, performed Sat May 10 10:23:55 2014:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.013	0.995	1.000	0.000

Air Zero Calibration, performed Sat May 10 10:23:55 2014:

	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

Temperature Calibration Report

Serial Number: 11206
Tool Model: RBT-C3
Performed: Wed Jun 11 03:38:10 2014

	Reference	Reading
Low Reference:	0.00 degF	0.00 degF
High Reference:	1.00 degF	1.00 degF

Gain: 0.30
Offset: 12.00
Delta Spacing 1

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Company	EnCana Oil & Gas (USA) Inc.
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County	Weld
State	Colorado