TWG THE WIRELINE GROUP

Radial Cement Bond Log

Company	Occidental Petroleum Corp.
Well	Lizzy North 36-9HZ
Field	Wattenberg
County	Weld
State	Colorado
Country	USA

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Location: API #: 0512352254
SHL: 2224' FNL & 993' FEL SENE
Lat/Long: 40.008774 / -104.946103
SEC 36 TWP 1N RGE 68W

Other Services
Gauge ring

Permanent Datum	GL	Elevation	5110'
Log Measured From	KB	20' above GL	
Drilling Measured From	KB		

Elevation
K.B. 5130'
D.F. N/A
G.L. 5110'

Date	4 March 2024
Run Number	One
Depth Driller	19315'
Depth Logger	7800'
Bottom Logged Interval	7798'
Top Log Interval	Surface
Open Hole Size	7.875"
Type Fluid	Fresh water
Density / Viscosity	8.3#
Max. Recorded Temp.	232° F
Estimated Cement Top	See log
Time Well Ready	ROA
Time Logger on Bottom	09:00
Equipment Number	8048
Location	Windsor, CO
Recorded By	Schuman
Witnessed By	Mr Justin Meixsell

Borehole Record			Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36ppf L80 8rd	Surface	2172'
Prot. String				
Production String	5.5"	17ppf P110 ICY LTC	Surface	19300'
Liner				

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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

Correlated to casing tally marker joint at 7776'
Log ran under 2800 PSI surface-induced pressure.
Thank you for choosing The Wireline Group!!!

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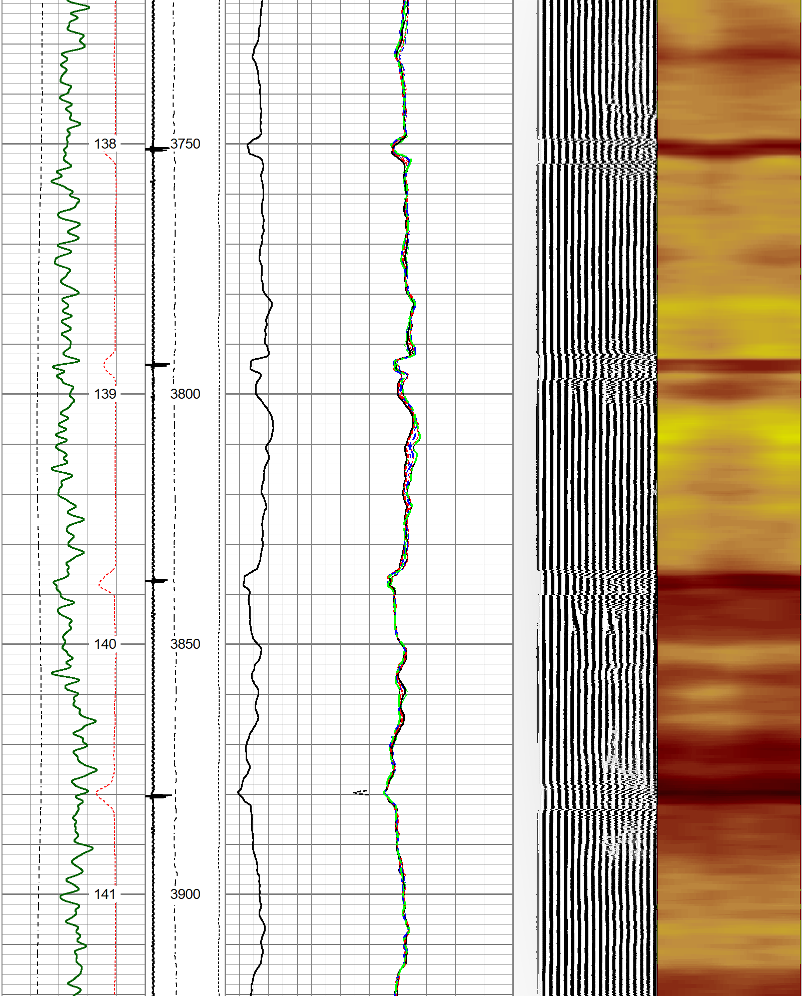
Main Pass

Log ran under 2800 PSI surface-induced pressure
5"=100'

Database File	0512352254_lizzy north 36-9hz_oxy.db
Dataset Pathname	cbl/pass2
Presentation Format	rbt-gct8acc
Dataset Creation	Mon Mar 04 09:02:11 2024
Charted by	Depth in Feet scaled 1:240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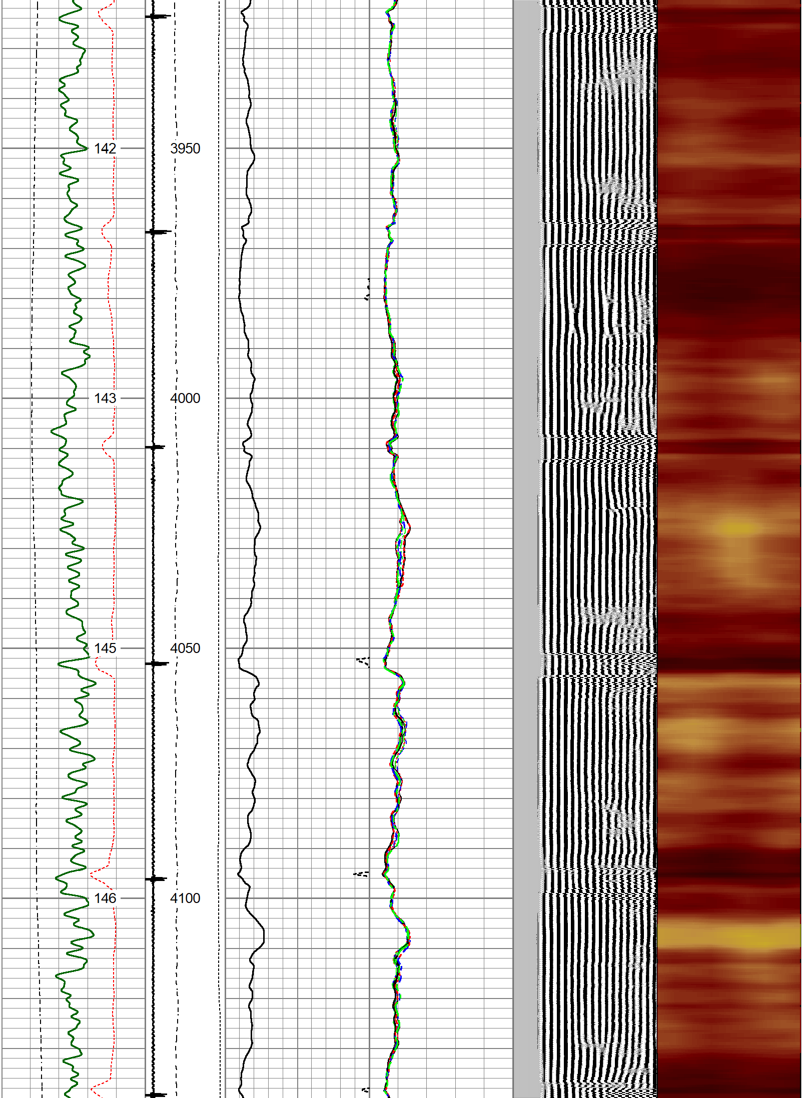
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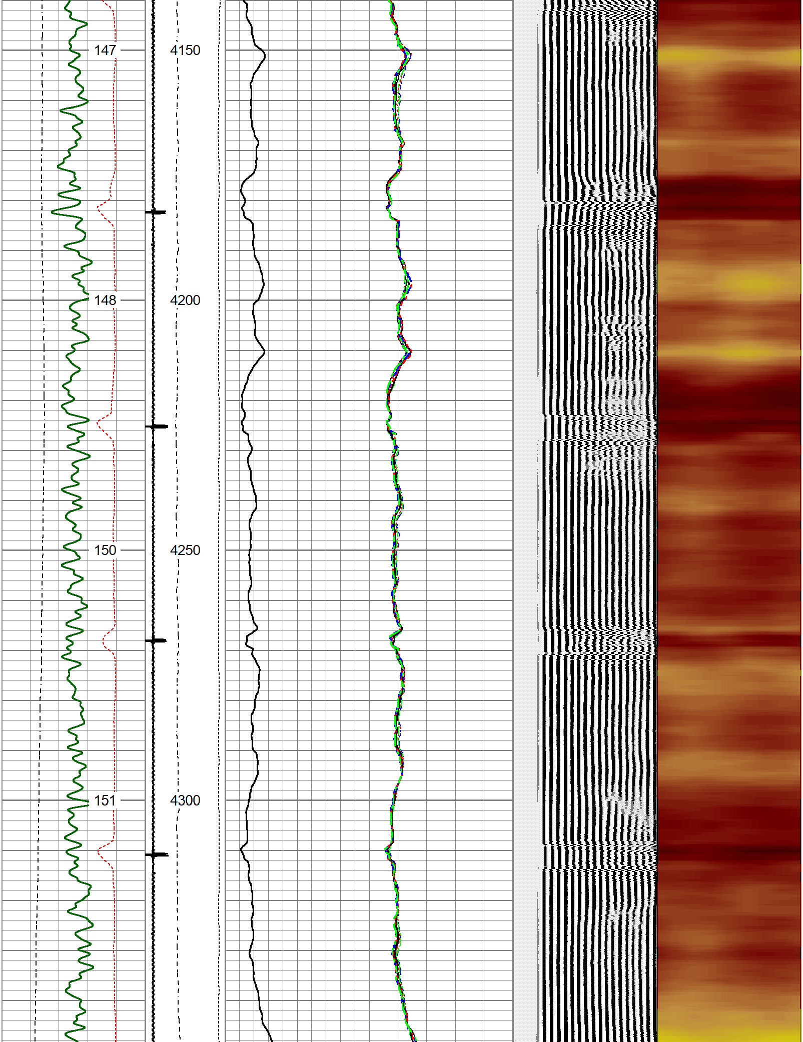
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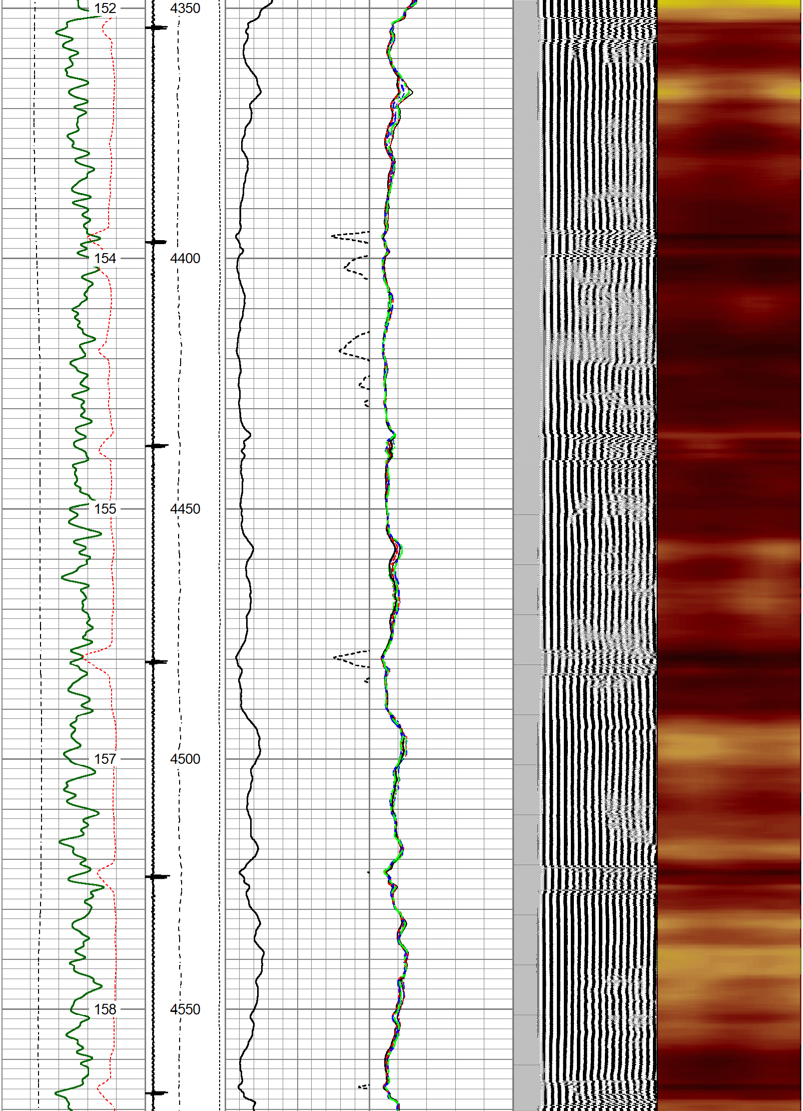
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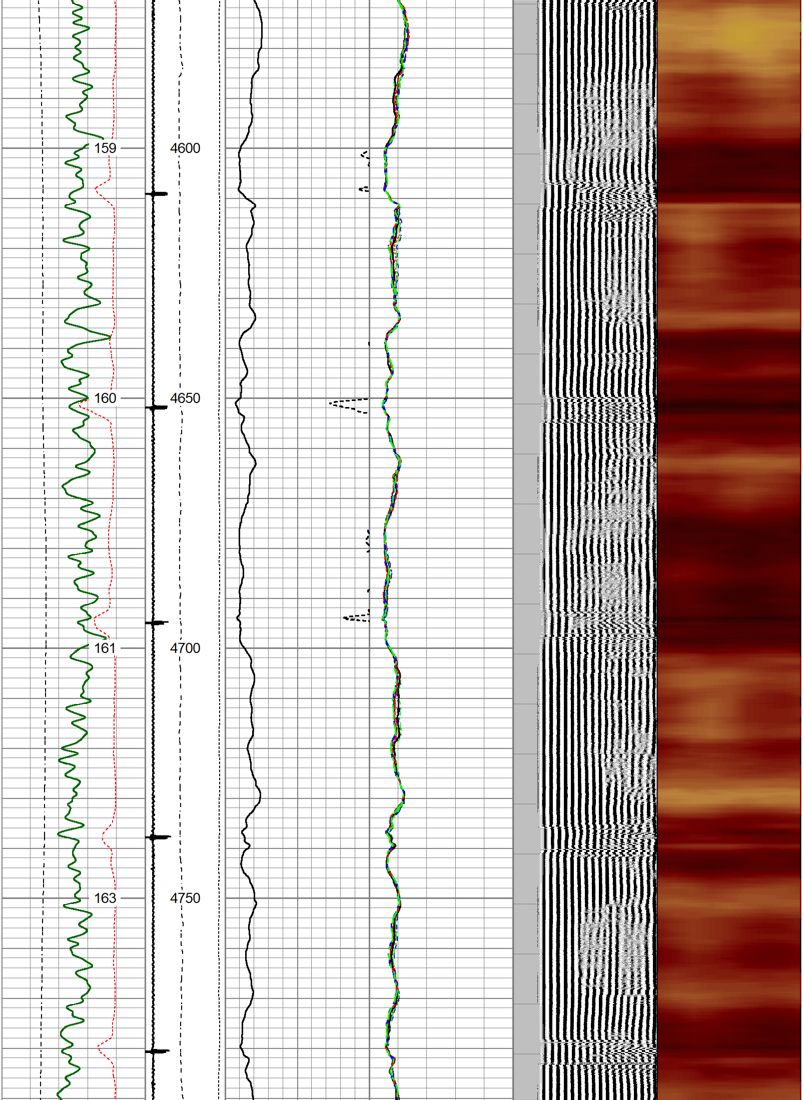
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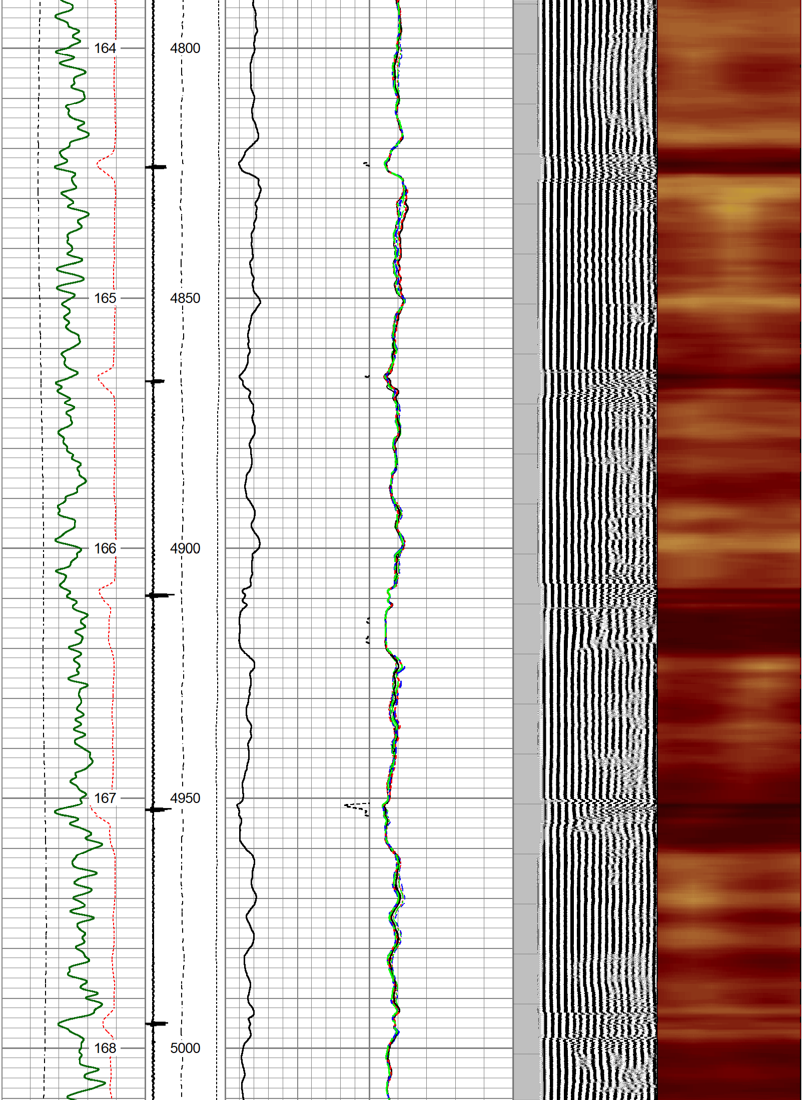
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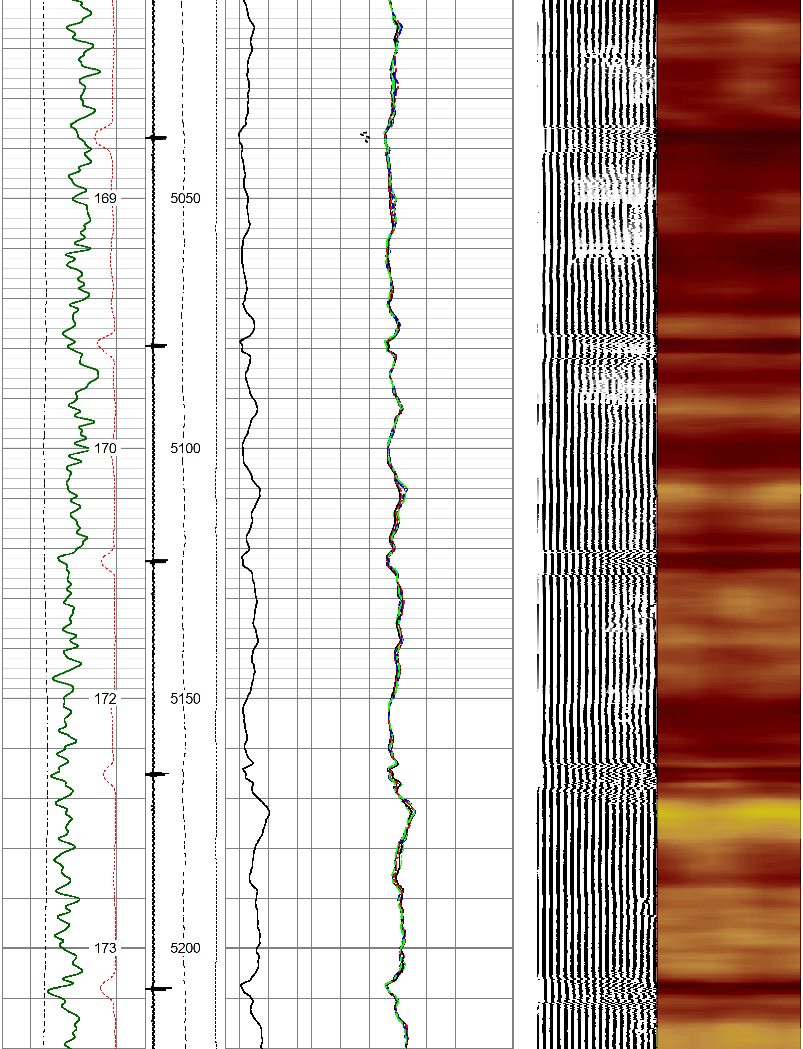
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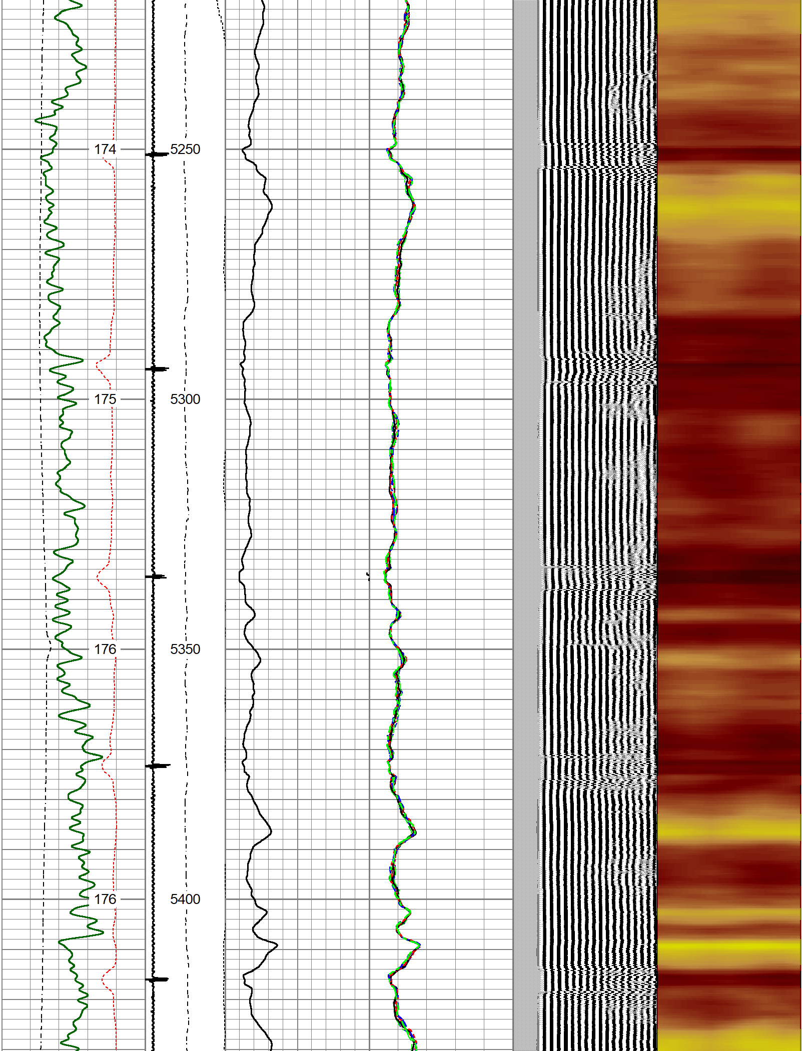
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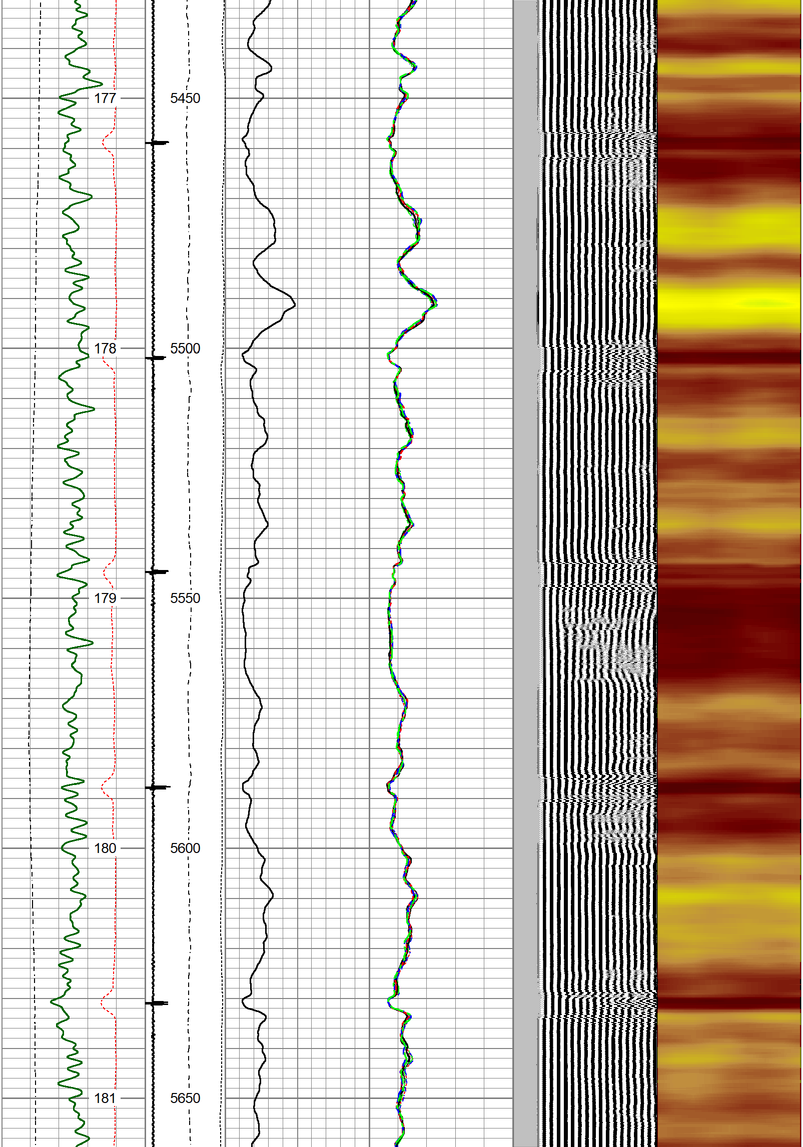
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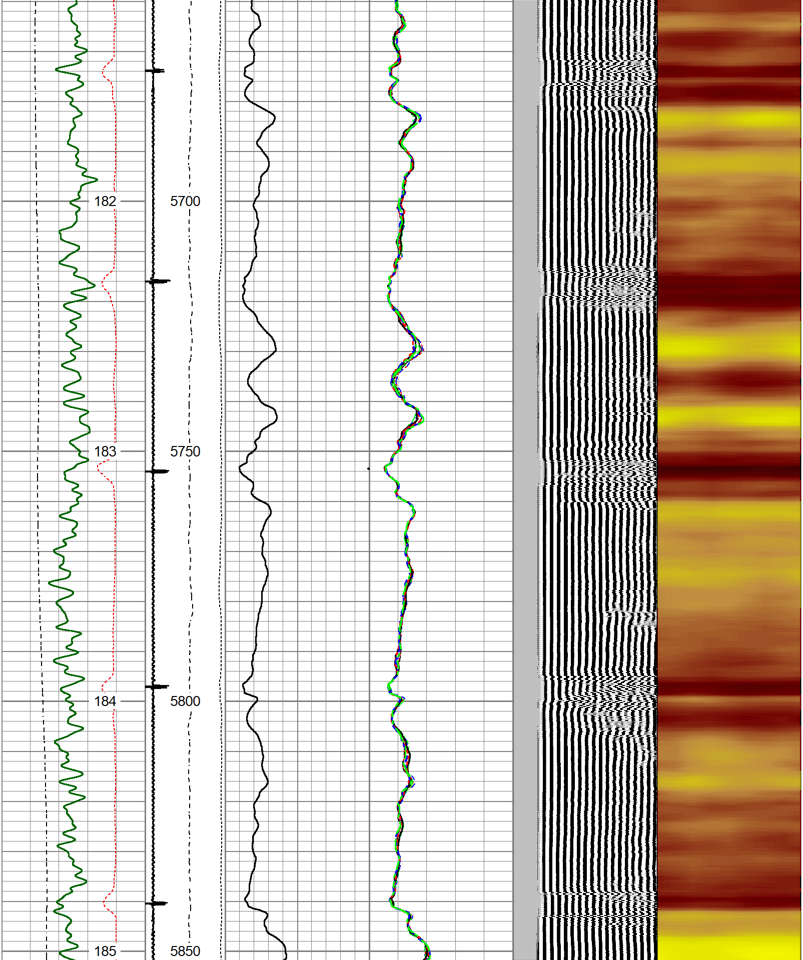
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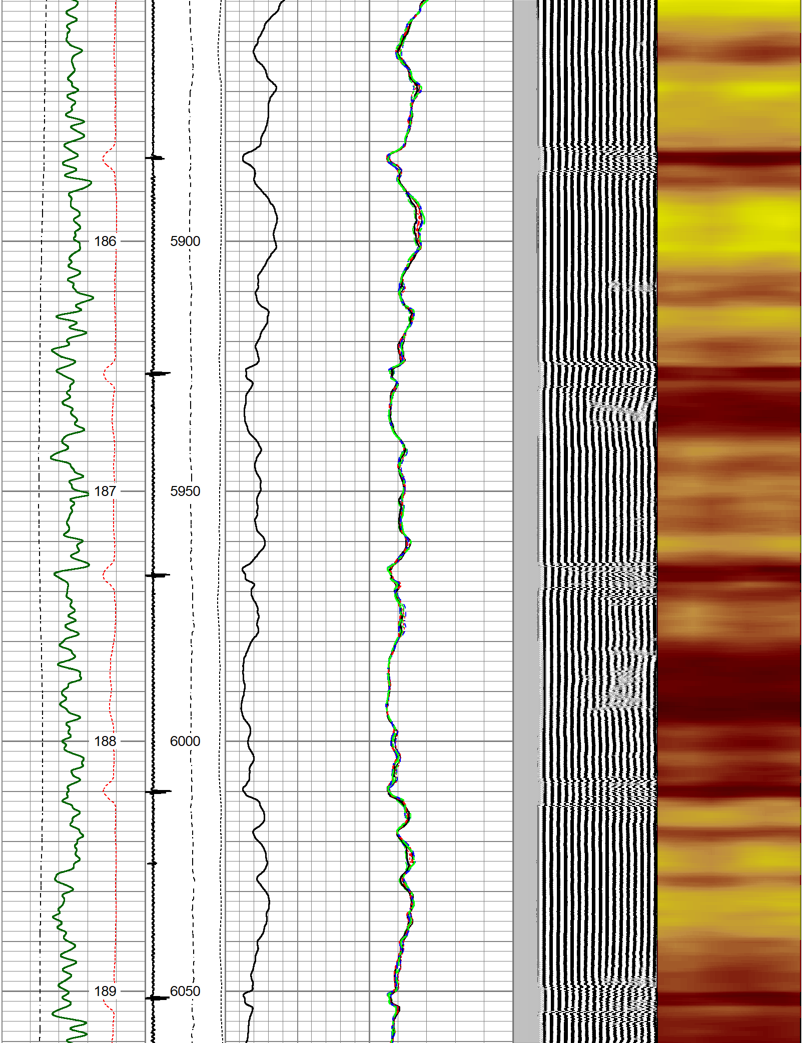
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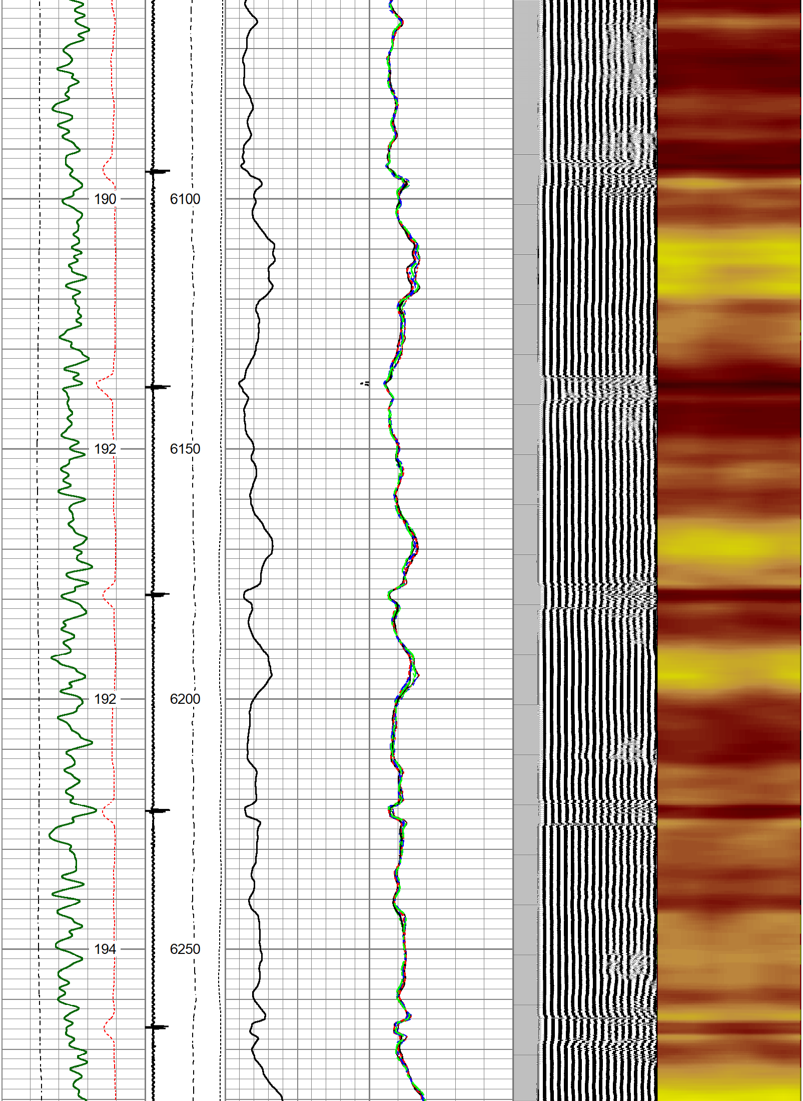
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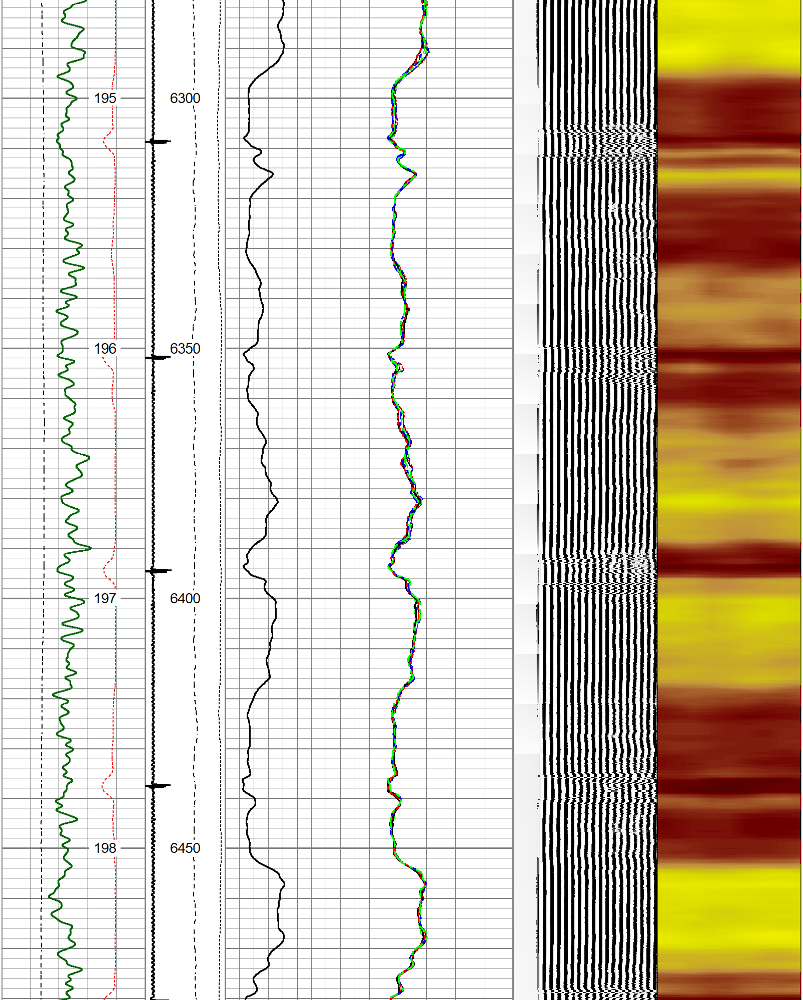
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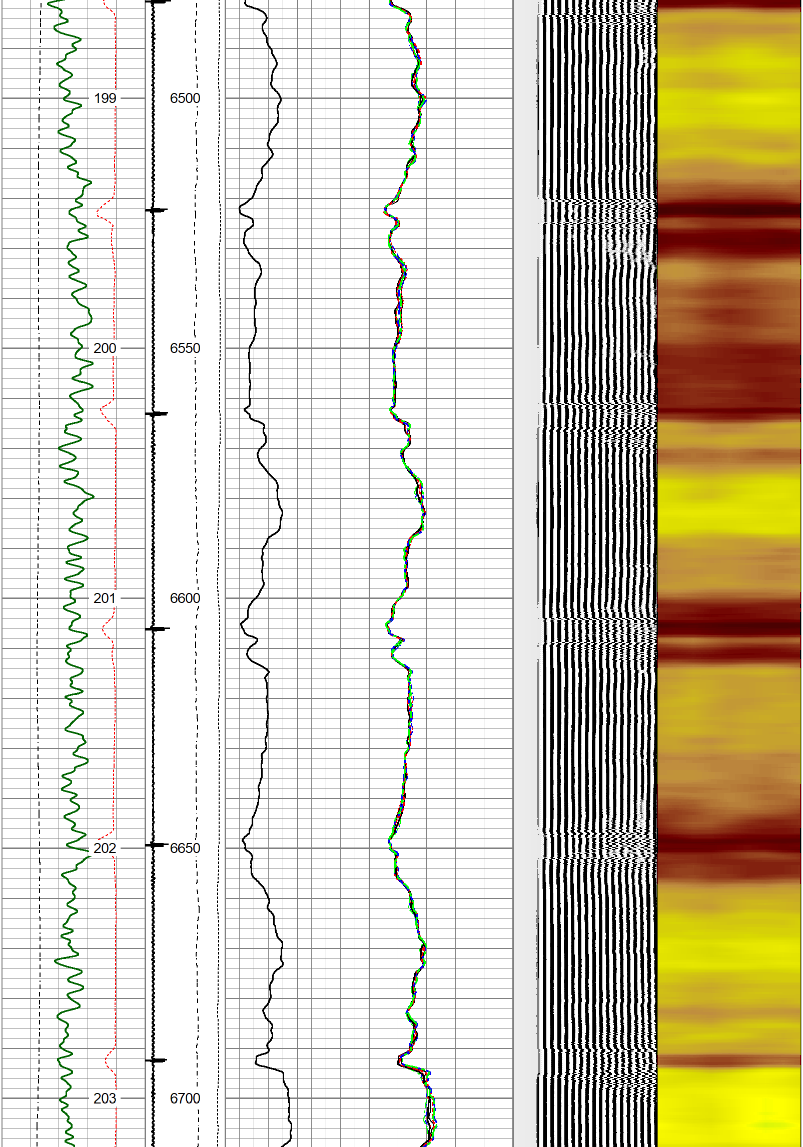
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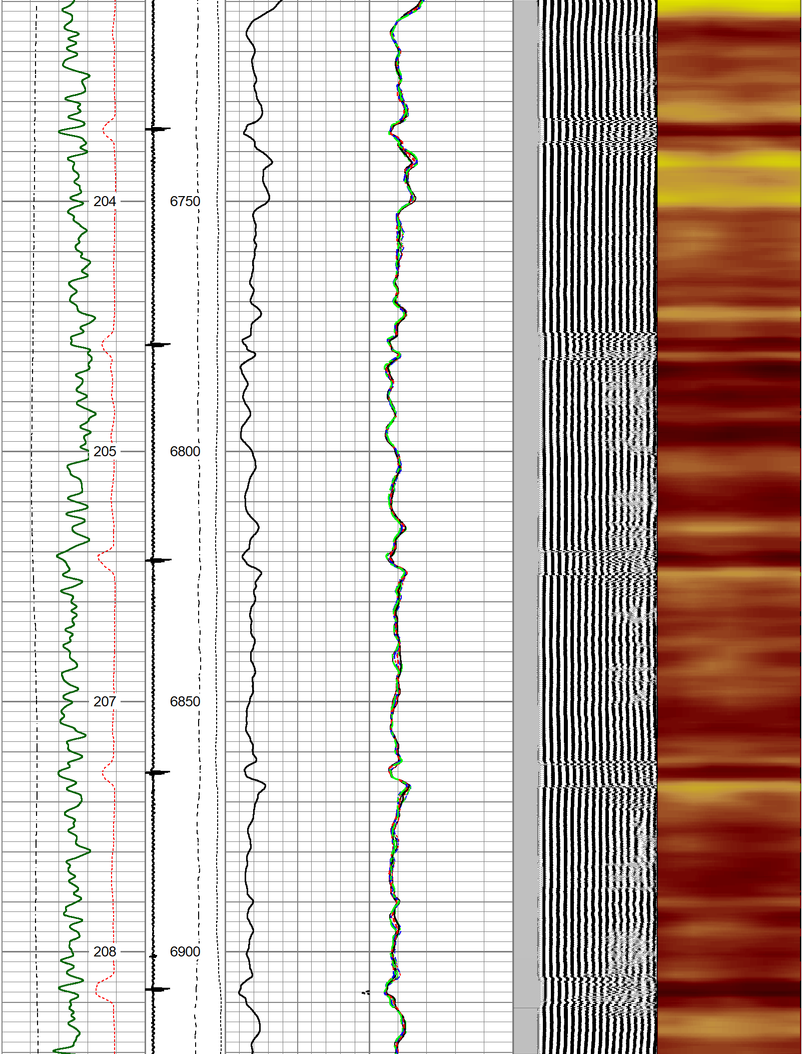
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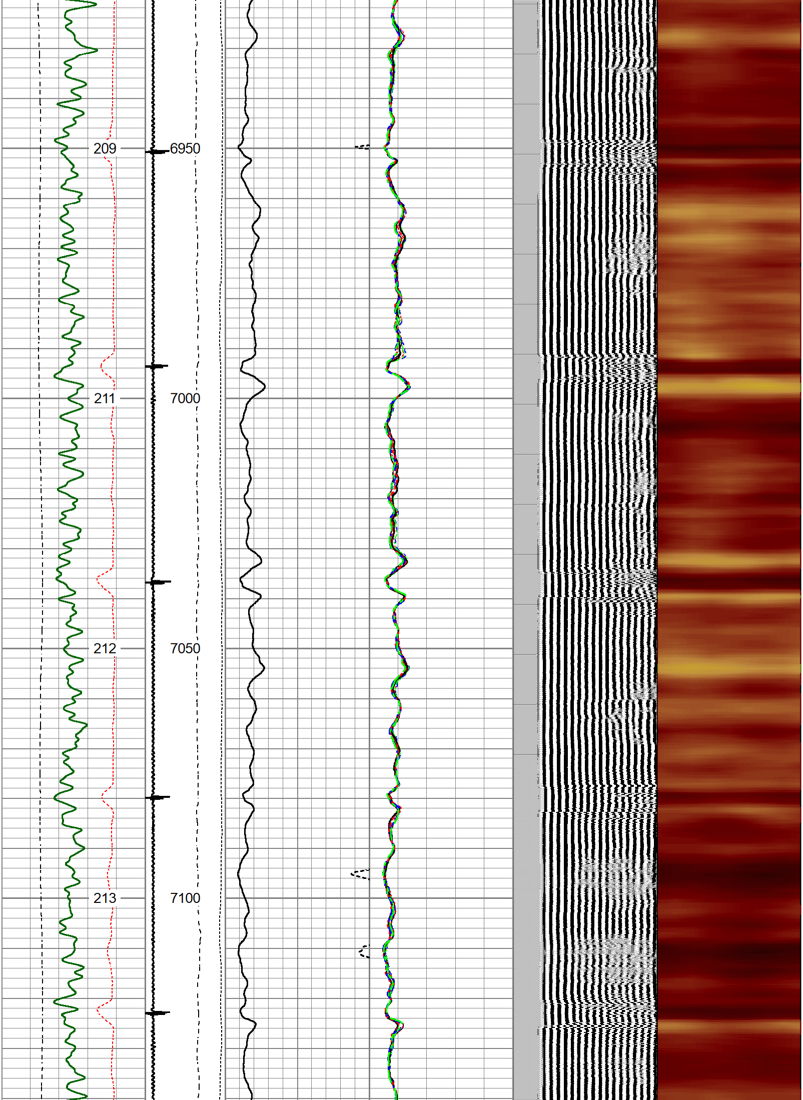
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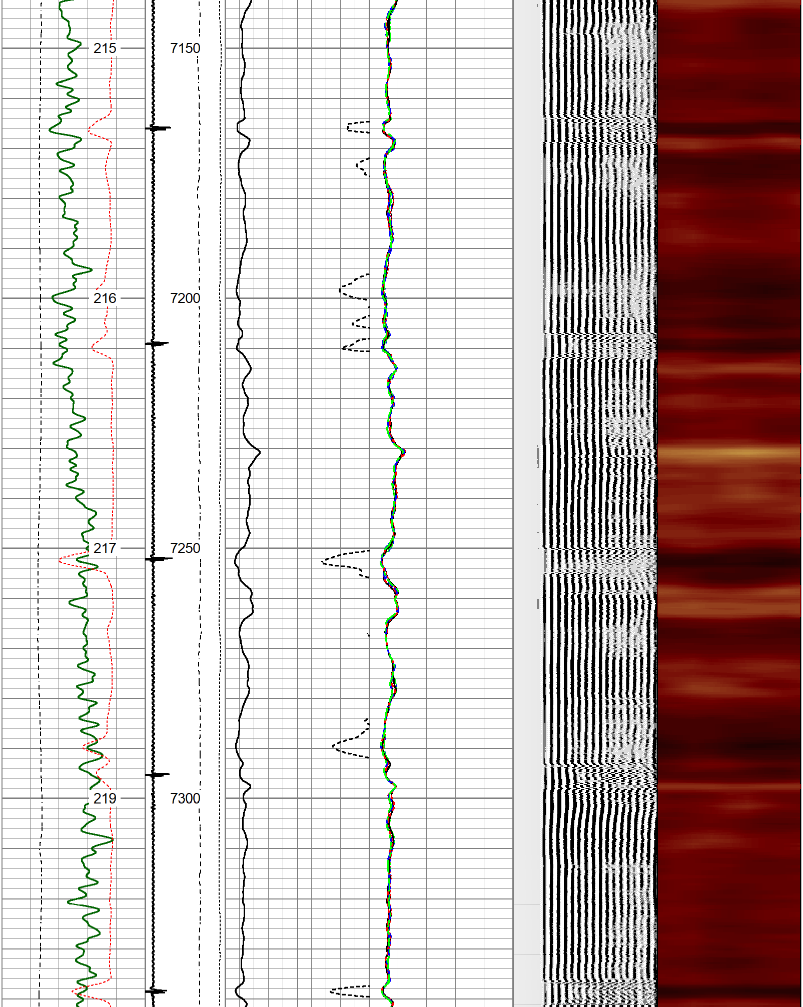
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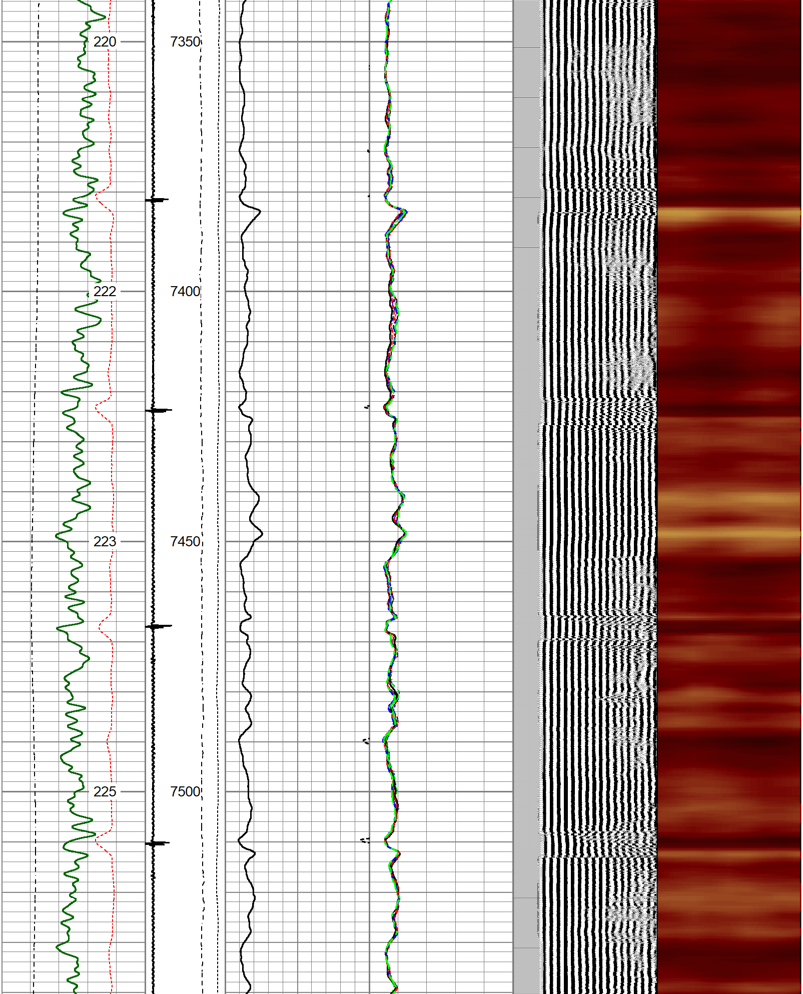
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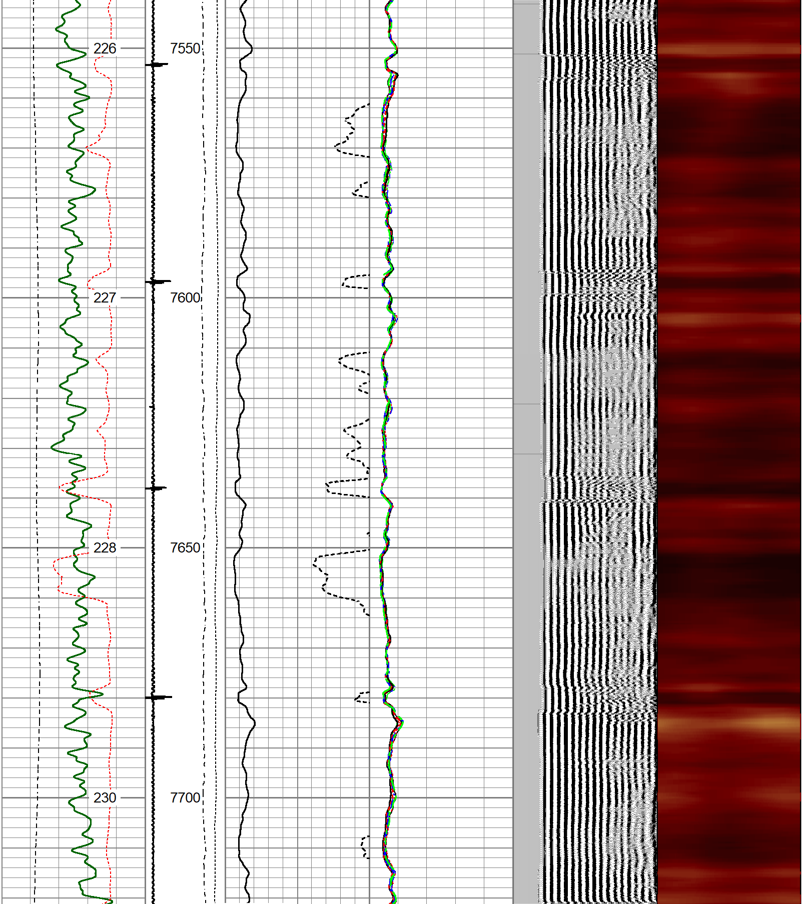
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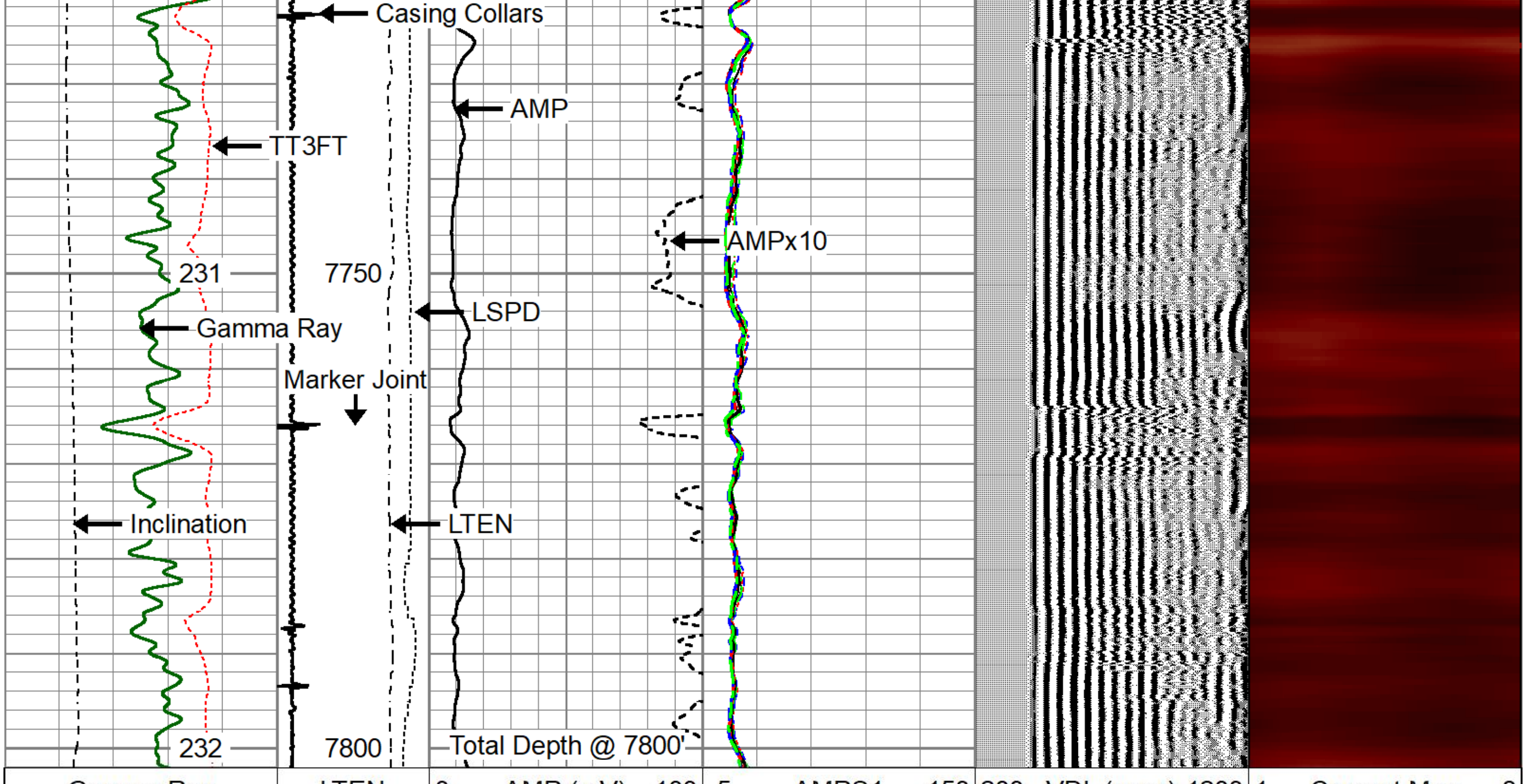


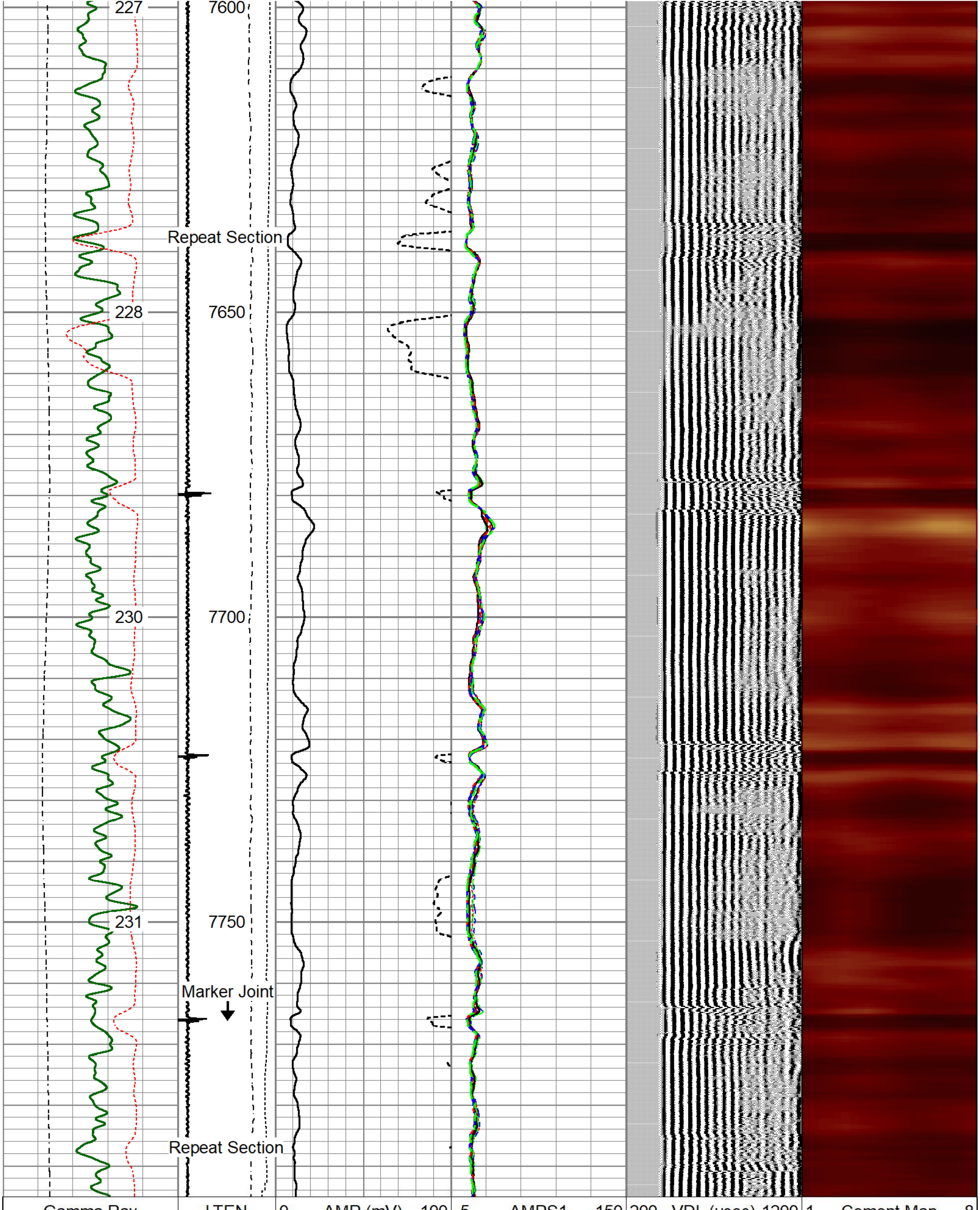
Gamma Ray	LTEN	0 AMP (mV) 100	-5 AMPS1 150	200 VDL (usec) 1200	1 Cement Map 8
0 (GAPI) 200	0 (lb 2500	0 AMPx10 (mV) 10	-5 AMPS2 150		
TT3FT	-1 CCL 9		-5 AMPS3 150		
330 (usec) 230	LSPD		-5 AMPS4 150		
0 Inclination (deg) 90	(ft/min)		-5 AMPS5 150		
TEMP	0 100		-5 AMPS6 150		
(degF)			-5 AMPS7 150		
			-5 AMPS8 150		

Repeat Section

Log ran under 2800 PSI surface-induced pressure
5"=100'

Database File	0512352254_lizzy north 36-9hz_oxy.db
Dataset Pathname	cbl/pass1
Presentation Format	rbt-gct8acc
Dataset Creation	Mon Mar 04 08:58:45 2024
Charted by	Depth in Feet scaled 1:240

Gamma Ray	LTEN	0 AMP (mV) 100	-5 AMPS1 150	200 VDL (usec) 1200	1 Cement Map 8
0 (GAPI) 200	0 (lb 2500	0 AMPx10 (mV) 10	-5 AMPS2 150		
TT3FT	-1 CCL 9		-5 AMPS3 150		
330 (usec) 230	LSPD		-5 AMPS4 150		
0 Inclination (deg) 90	(ft/min)		-5 AMPS5 150		
TEMP	0 100		-5 AMPS6 150		
(degF)			-5 AMPS7 150		
			-5 AMPS8 150		



Gamma Ray	LTEN	0 AMP (mV) 100	-5 AMPS1 150	200 VDL (usec) 1200	1 Cement Map 8
0 (GAPI) 200	0 (lb 2500	0 AMPx10 (mV) 10	-5 AMPS2 150		
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TEMP	0 100		-5 AMPS6 150		
(degF)			-5 AMPS7 150		
			-5 AMPS8 150		

Calibration Report

Database File	0512352254_lizzy north 36-9hz_oxy.db
Dataset Pathname	cbl/pass1
Dataset Creation	Mon Mar 04 08:58:45 2024

Gamma Ray Calibration Report

Serial Number:	FW1304-53	
Tool Model:	50-GCT275-0000	
Performed:	Mon Feb 26 11:20:49 2024	
Calibrator Value:	150.0	GAPI
Background Reading:	68.9	cps
Calibrator Reading:	282.0	cps
Sensitivity:	0.8868	GAPI/cps

Inclinometer Calibration Report

Performed: Tue Feb 14 16:38:09 2023

	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-903.00	899.00	-1.00	1.00	gee
Y Accelerometer	-904.00	899.00	-1.00	1.00	gee
Z Accelerometer	7.93	-896.20	0.00	1.00	gee

Segmented Cement Bond Log Calibration Report

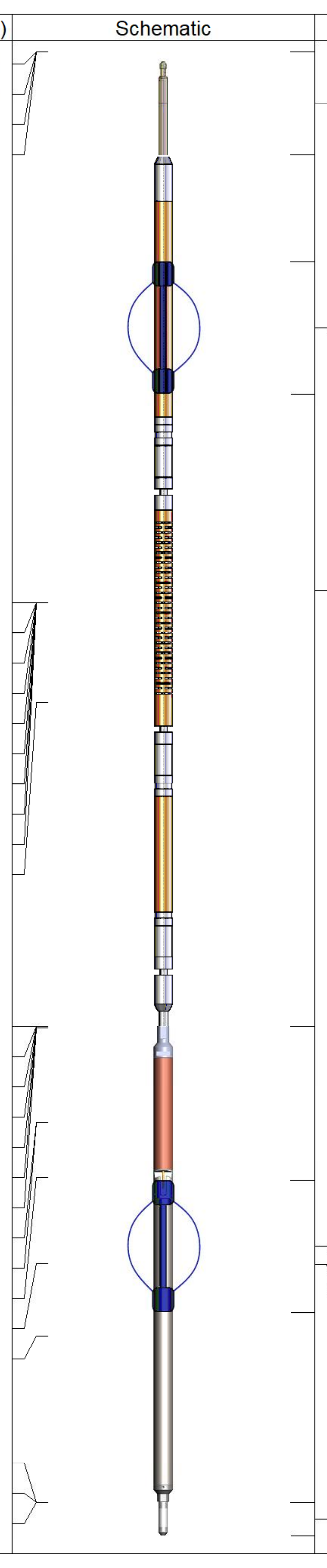
Serial Number:	100109_5.5	
Tool Model:	Probe275acc	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	2158.601	ft

Master Calibration, performed Mon Feb 26 12:59:15 2024:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.850	1.000	71.921	92.950	1.857
CAL	-0.014	1.001				
5'	0.000	0.820	1.000	71.921	86.125	1.050
SUM						
S1	0.000	0.828	0.000	100.000	130.687	-0.001
S2	0.000	0.789	0.000	100.000	137.905	-0.001
S3	0.000	0.812	0.000	100.000	136.347	-0.001
S4	0.000	0.859	0.000	100.000	126.285	-0.001
S5	0.000	0.917	0.000	100.000	123.614	-0.001
S6	0.000	0.937	0.000	100.000	118.836	-0.001
S7	0.000	0.910	0.000	100.000	123.156	-0.001
S8	0.000	0.874	0.000	100.000	126.488	-0.001

Sensor	Offset (ft)
GCT_FMWR	14.89
mSec_Count	14.89
RBT_Status	14.89
Error_Ct	14.89
WVFS8	9.35
WVFS7	9.35
WVFS6	9.35
WVFS5	9.35
WVFS4	9.35
WVFS3	9.35
WVFS2	9.35
WVFS1	9.35
WVF3FT	9.35
WVF5FT	8.35
RBT_HV	5.10
RBT_ACCZ	5.10
RBT_ACCY	5.10
RBT_ACCX	5.10
WVFSYNC	5.10
WVFCAL	5.10
GCT_HV	5.09
CCL$2	4.14
CCL$1	4.14
GCT_Temp	3.59
GR	2.72
GCT_IntTemp	2.00
GCT_ACCZ	0.33
GCT_ACCY	0.33
GCT_ACCX	0.33

Schematic



Description	Length (ft)	O.D. (in)	Weight (lb
Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00
SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
RBT8acc-Probe275acc (100109_5.5) 2.75" Radial Corrosion with accelerometer	8.75	2.75	110.00
SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
GCT_acc-50-GCT275-0000 (FW1304-53) Probe 2.75" Gamma Ray - CCL w/Temp (Single Pin)	4.77	2.75	55.00
Plug-FA108-0000 1.38" Bull Plug	0.33	1.38	1.00

Dataset:	0512352254_lizzy north 36-9hz_oxy.db: field/well/cbl/pass2
Total length:	14.89 ft
Total weight:	198.00 lb
O.D.:	3.25 in

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GROUP

Company	Occidental Petroleum Corp.		
Well	Lizzy North 36-9HZ		
Field	Wattenberg		
County	Weld		
State	Colorado	Country	USA