



Multiple Propagation Resistivity, Azimuthal Propagation Resistivity, Extra Deep Azimuthal Propagation Resistivity, Neutron Porosity, Bulk Density, Azimuthal Density Image, Caliper, Gamma Ray, Near Bit Gamma Ray

LWD MEMORY LOG - COMPOSITE

Scale:

1:200

Measured Depth

Depth Reference:

Driller's Depth

Company: #####
Well: #####
Field: #####
Region: #####

Country: #####

Other Services:

Status: **Final Print**

Surface Location:

Latitude:

Longitude:

UTM:

 #####
 #####

Zone: #####

PresSTEQ

AzCal

Permanent Datum (P.D.): Mean Sea Level

Elevation:

0.00 ft

KB:

DF:

GL:

N/A
 259.70 ft
 -260.30 ft

Log Measured From: Rotary Table

Above P.D.

259.70 ft

GL:

Dates

Interval Drilled

Magnetic Field Reference

In Hole: 2016-12-08 Top: (ft) 12249.0000

Azi Reference North: Grid Dip Angle: (deg)

70.36

Out of Hole: 2016-12-16 Bottom: (ft) 15033.0000

Total Magnetic Field Strength: (nT)

50249

Spud Date: 2016-06-06

0.03 W

Borehole Record

Casing Record

Hole Size (in)	From (ft)	To (ft)	Size (in)	Weight (lb/ft)	From (ft)	To (ft)
26.000	520.00	1607.00	24.000	303.6	146.00	634.00
17.5 x 20	1607.00	3285.00	20.000	129.3	634.00	1582.00
16.000	3285.00	5585.00	17.000	77.5	1511.00	3280.00
12.25 x 13.5	5585.00	11275.00	13.625	88.2	146.00	5585.00
9.5 x 11.25	11275.00	12249.00	10.750	65.7	5338.00	11270.00
8.500	12249.00	15033.00	8.625	46.0	1110.00	12243.00

Mud Record

Deviation Record

Type	From (ft)	To (ft)	Hole Size (in)	Interval (ft)	Inc Az (Start)	Inc Az (End)
Oil Based, EMS-4600	12249.00	15033.00	8.500	2784.00	73.94 111.80	77.80 107.50

Acquisition System

Software Version

Other

Advantage Plot Studio

2.20U4
12.1.0.1

Rig: #####
 Contractor: #####
 District: #####

Unit: #####

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Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (ft)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
						1	8	8.500	Kymera	4.625	AutoTrak	
2	9	8.500	Kymera	4.625	AutoTrak	13709.50	15022.50	13960.00	15033.00	2016-12-13 12:40	2016-12-16 03:03	53.50

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
#####	2016-12-04	N/A	#####	2016-12-04	N/A	#####	2016-12-03	N/A

Witness

Name	Run
#####	2
#####	1.2
#####	1,2

Mud Properties Record

Date / Time	Run No.	Measured Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil % / Water %	Source	Total Chlorides (ppm)	K+ (%)
2016-12-07 21:00	1	11500.00	EMS-4600 OBM	13.80	25	11-12	2.2	75 / 25	Active Mud Pit	21517	0.00
2016-12-09 04:00	1	12224.00	EMS-4600 OBM	8.10	24	11-12	4.0	71/29	Active Mud Pit	34529	0.00
2016-12-09 09:00	1	12259.00	EMS-4600 OBM	8.20	26	11-12	4.0	71/29	Active Mud Pit	33167	0.00
2016-12-09 15:00	1	12290.00	EMS-4600 OBM	8.20	25	11-12	4.0	72/28	Active Mud Pit	32957	0.00
2016-12-09 22:00	1	12409.00	EMS-4600 OBM	8.30	25	11-12	4.0	74/26	Active Mud Pit	32826	0.00
2016-12-10 04:00	1	12869.00	EMS-4600 OBM	8.40	26	11-12	4.0	74/26	Active Mud Pit	32826	0.00
2016-12-10 10:00	1	13177.00	EMS-4600 OBM	8.40	27	11-12	4.0	73/27	Flowline	32497	0.00
2016-12-10 16:00	1	13504.00	EMS-4600 OBM	8.40	25	11-12	3.8	73/27	Active Mud Pit	33153	0.00
2016-12-10 21:00	1	13792.00	EMS-4600 OBM	8.40	26	11-12	3.2	73/27	Active Mud Pit	33153	0.00
2016-12-10 23:55	1	13880.00	EMS-4600 OBM	9.00	26	11-12	3.2	73/27	Active Mud Pit	33153	0.00
2016-12-13 12:00	2	11240.00	EMS-4600 OBM	9.80	32	11-12	3.5	74/26	Active Mud Pit	30029	0.00
2016-12-13 22:00	2	14164.00	EMS-4600 OBM	9.80	30	11-12	3.5	75/25	Active Mud Pit	29448	0.00
2016-12-14 02:15	2	14354.00	EMS-4600 OBM	10.00	35	11-12	2.5	76/24	Active Mud Pit	31360	0.00
2016-12-14 04:00	2	14459.00	EMS-4600 OBM	10.00	32	11-12	3.0	72/28	Active Mud Pit	29448	0.00
2016-12-14 09:00	2	14532.00	EMS-4600 OBM	10.00	33	11-12	3.8	74/26	Active Mud Pit	29772	0.00
2016-12-14 15:45	2	14582.00	EMS-4600 OBM	10.70	32	11-12	3.5	74/26	Active Mud Pit	30029	0.00
2016-12-14 21:00	2	14704.00	EMS-4600 OBM	10.70	32	11-12	3.4	75/25	Active Mud Pit	26901	0.00

Mud Resistivity Record

Date / Time	Run No.	Measured Depth (ft)	Surface Temp (degF)	Surface			BHCT (degF)	Downhole		
				Rm (ohm.m)	Rmf (ohm.m)	Rmc (ohm.m)		Rm @ BHCT (ohm.m)	Rmf @ BHCT (ohm.m)	Rmc @ BHCT (ohm.m)

2016-12-07 21:00	1	11500.00	152.0	100.000	100.000	100.000	152.0	100.000	100.000	100.000
2016-12-09 04:00	1	12224.00	152.0	100.000	100.000	100.000	152.0	100.000	100.000	100.000
2016-12-13 12:00	2	11240.00	122.0	100.000	100.000	100.000	122.0	100.000	100.000	100.000
2016-12-14 15:45	2	14582.00	122.0	100.000	100.000	100.000	199.0	100.000	100.000	100.000

Comments

1 DOWNHOLE SENSOR DESCRIPTION
2 =====
3 Natural Gamma Ray sensor OnTrak™, Nal Scintillation counter
4 Multiple Propagation Resistivity OnTrak™, 2 MHz and 400 kHz electromagnetic wave
5 Extra Deep Resistivity VisiTrak™, 50 kHz & 20 kHz electromagnetic wave
6 Acoustic sensors SoundTrak™, Omni directional source, 24 receivers
7 Neutron Porosity sensors CCN™, 2 Li-6 Scintillation counters
8 Density Lithology sensors ORD™, 2 Nal Scintillation counters
9 Caliper Sensors ORD™, Tri-axial Acoustic Caliper sensors
10 Internal and External pressure OnTrak™, Strain Gauges
11 Formation Pressure TesTrak™, Quartz Gauge
12 ORD WEAR INDICATOR DESCRIPTION
13 =====
14 Stabilizer Wear Indicator: 2 Levels = < 1.5mm
15 1 Level = 1.5 - 3.0mm
16 0 Levels = > 3.0mm
17 Source Window Wear Indicator: 4 Holes = 0 - 0.5mm
18 3 Holes = 0.5 - 1.0mm
19 2 Holes = 1.0 - 1.5mm
20 1 Hole = 1.5 - 2.0mm
21 0 Holes = > 2.0mm
22 LS Detector Window Wear Indicator: 4 Holes = 0 - 0.5mm
23 3 Holes = 0.5 - 1.0mm
24 2 Holes = 1.0 - 1.5mm
25 1 Hole = 1.5 - 2.0mm
26 0 Holes = > 2.0mm
27 LOG ENVIRONMENTAL CORRECTIONS
28 =====
29 Natural Gamma Ray Corrected calibrated to LWD-API units and corrected for mud radiation, mud weight and normalized to 10in. water-filled borehole.
30 Multiple Propagation Resistivity corrected for tool size, nominal hole size, mud resistivity (Rm), and formation dielectric properties by use of CRIM
31 compensation of the measurements obtained by use of a dual transmitter configuration.
32 CCN Neutron Porosity corrected for tool size, borehole size from acoustic caliper, salinity and mud weight. Presented in limestone units.
33 ORD Bulk Density calibrated to gauge hole. Density computed by applying a patented weighting algorithm. This technique minimizes errors associated with
34 density measurements due to standoff, and statistical uncertainty from count rates. Correction-curve presented by use of dual spaced detectors and
35 "Spine and Ribs" algorithm.
36 A weak Hanning filter is applied to presented Density and Neutron Porosity curves. For presented Gamma Ray all values below 0 and above 300 are removed
37 and gamma filtered is applied in the process, denoted by the F character in the curve's mnemonic.
38 LOG COMMENTS
39

39 =====

40 Depth reference is driller's depth. All depths are measured depths (MD).

41 8 5/8" Liner shoe was reported at 12243ft (MD) and logged at 12247ft (MD) in LWD Run#01.

42 All azimuthal data recorded before the first good was taken has been deleted.

43 Resistivity, Density and Neutron data recorded inside casing has been deleted.

44 ORD version 2.7 was used in LWD Run#01 with an ORD Wear Indicator:

45 Pre Run#01: Stabilizer: N/A, Source: 4, Long Space Receiver: 4

46 Post Run#01: Stabilizer: N/A, Source: 4, Long Space Receiver: 4

47 ORD version 2.7 was used in LWD Run#02 with an ORD Wear Indicator:

48 Pre Run#02: Stabilizer: N/A, Source: 4, Long Space Receiver: 4

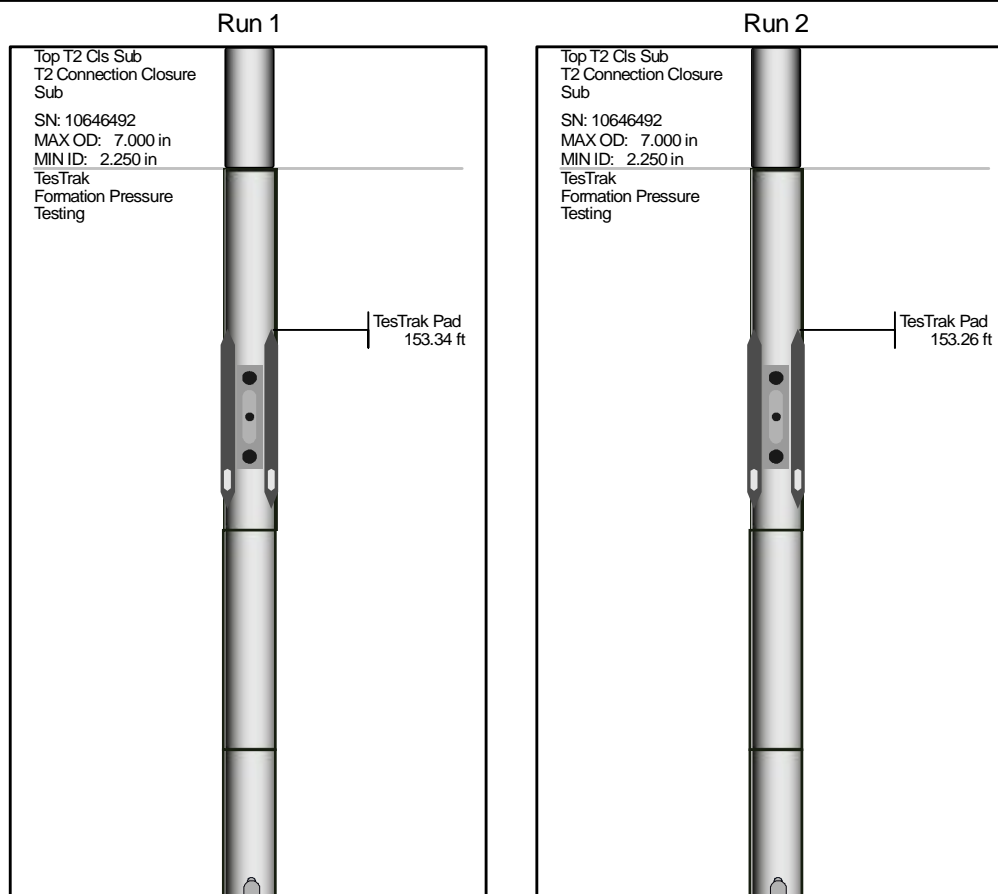
49 Post Run#02: Stabilizer: N/A, Source: 4, Long Space Receiver: 4


50 Logger's TD for Well 2/4-Z-5 T3 at 15032.67ft (MD).

Remarks

Number	Measured Depth (ft)	Date/Time	Run No.	Remark
1	45761.15	N/A	1	No memory data recorded for the last 12 ft drilled due to BCPM failure. Relogged in LWD Run#2.
2	45685.70	N/A	2	Intermittent AziTrak Signal Strength/Target Direction failure related to survey broadcast.
3	47490.16	N/A	2	Caliper reading lower than hole size, due to severe washout.

Tool Diagram






SN: 10092731
MAX OD: 8.250 in
MIN ID: 2.250 in
Stabilizer
Modular Stabilizer

SN: 12573794
MAX OD: 8.375 in
MIN ID: 2.250 in
VisiTrak TX
Deep Azimuthal
Propagation Resistivity
Transmitter

SN: 13773193
MAX OD: 7.000 in
MIN ID: 2.250 in
LithoTrak
Neutron Porosity

Neutron Porosity
115.75 ft

SN: 13053999
MAX OD: 8.250 in
MIN ID: 2.250 in
LithoTrak
Density and Caliper



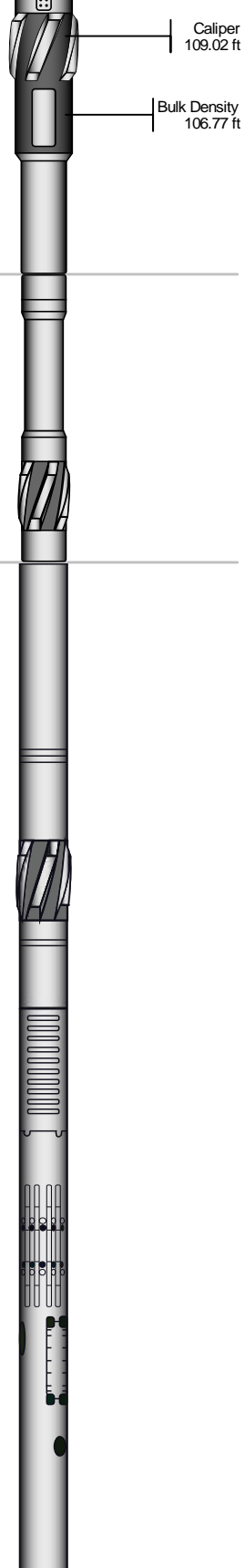
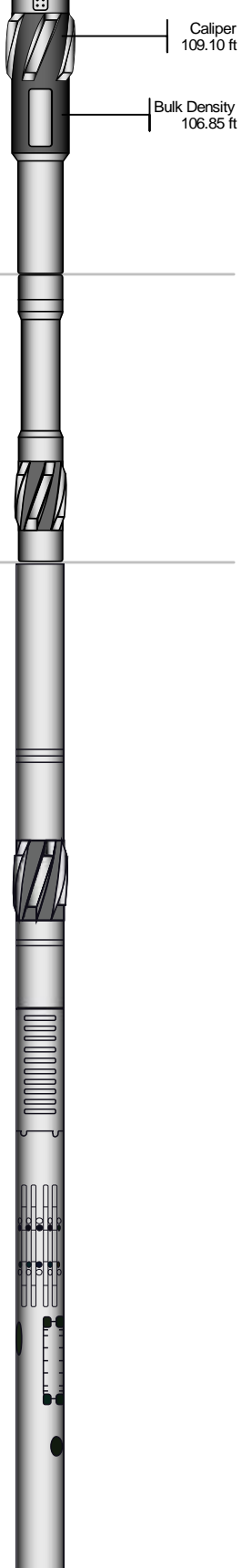
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MAX OD: 8.250 in
MIN ID: 2.250 in
Stabilizer
Modular Stabilizer

SN: 12573794
MAX OD: 8.375 in
MIN ID: 2.250 in
VisiTrak TX
Deep Azimuthal
Propagation Resistivity
Transmitter

SN: 13773193
MAX OD: 7.000 in
MIN ID: 2.250 in
LithoTrak
Neutron Porosity

Neutron Porosity
115.67 ft

SN: 13053999
MAX OD: 8.250 in
MIN ID: 2.250 in
LithoTrak
Density and Caliper





Resistivity
76.46 ft



Azimuthal Resistivity
68.26 ft

SN: 13480041
MAX OD: 8.375 in
MIN ID: 2.250 in
Stabilizer
Modular Stabilizer

SN: 13561417
MAX OD: 8.375 in
MIN ID: 2.250 in
BCPM II
Bi-Directional
Communication and
Power Module



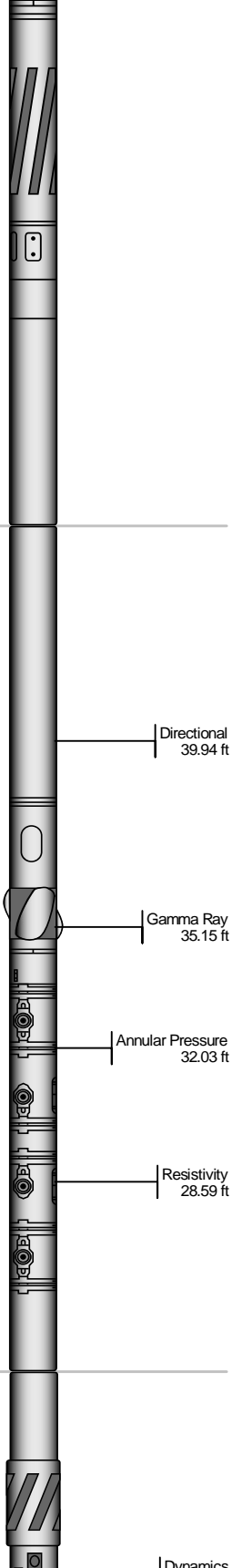
Resistivity
76.38 ft



Azimuthal Resistivity
68.33 ft

SN: 13480041
MAX OD: 8.375 in
MIN ID: 2.250 in
Stabilizer
Modular Stabilizer

SN: 13561417
MAX OD: 8.375 in
MIN ID: 2.250 in
BCPM II
Bi-Directional
Communication and
Power Module



SN: 12515216
MAX OD: 7.000 in
MIN ID: 2.250 in
AziTrak
Integrated MWD, LWD
and Azimuthal
Propagation Resistivity

Directional
39.94 ft

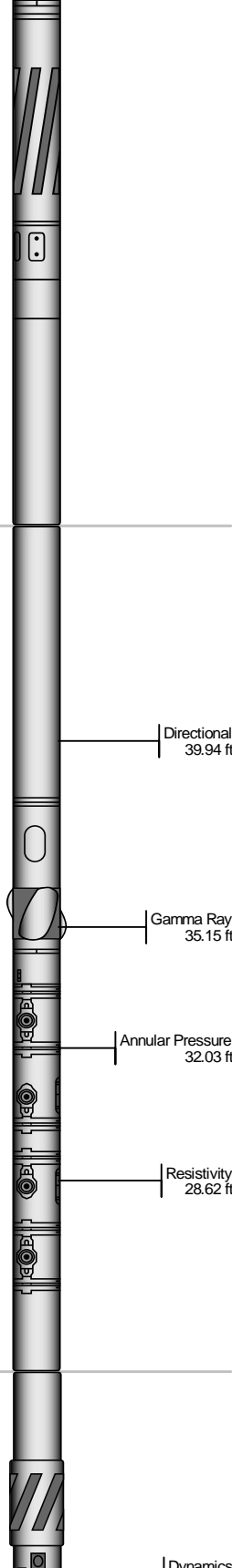
Gamma Ray
35.15 ft

Annular Pressure
32.03 ft

Resistivity
28.59 ft

SN: 11683570
MAX OD: 7.000 in
MIN ID: 2.250 in
CoPilot
Drilling Dynamics

Dynamics



SN: 13222639
MAX OD: 7.000 in
MIN ID: 2.250 in
AziTrak
Integrated MWD, LWD
and Azimuthal
Propagation Resistivity

Directional
39.94 ft

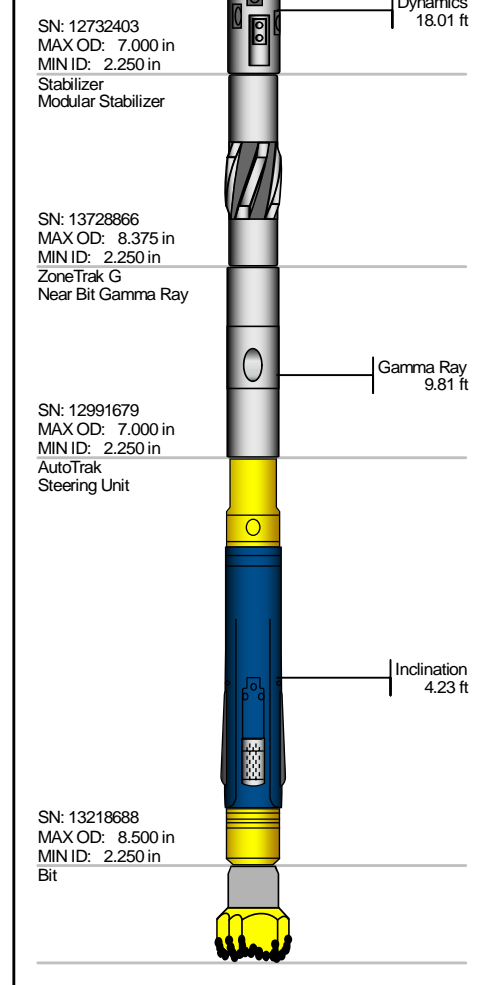
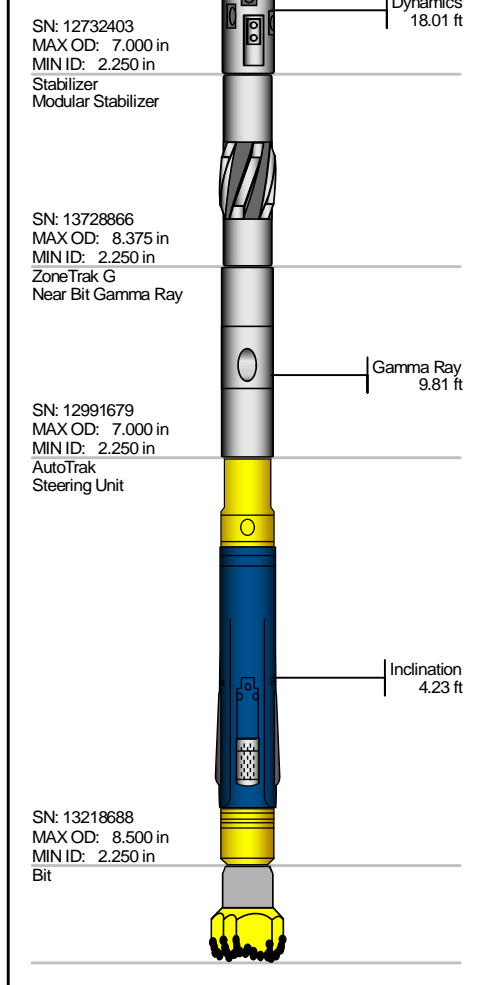
Gamma Ray
35.15 ft

Annular Pressure
32.03 ft

Resistivity
28.62 ft

SN: 11683570
MAX OD: 7.000 in
MIN ID: 2.250 in
CoPilot
Drilling Dynamics

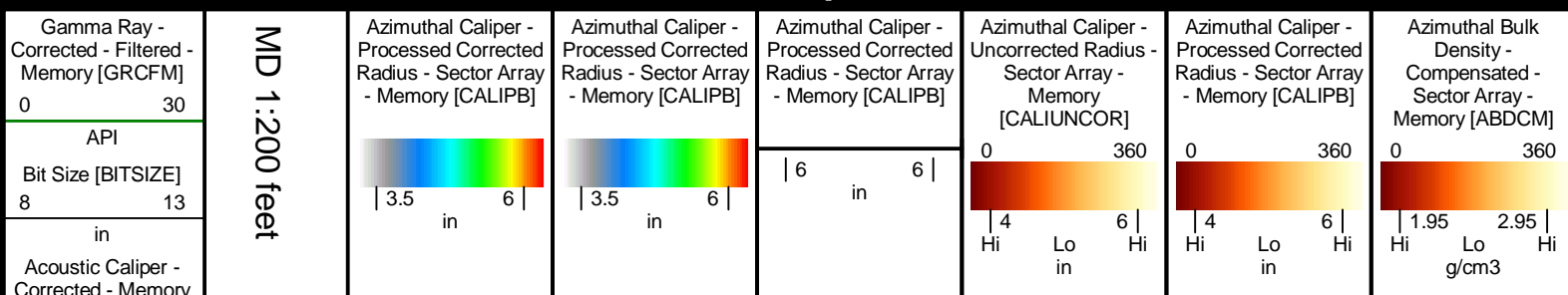
Dynamics

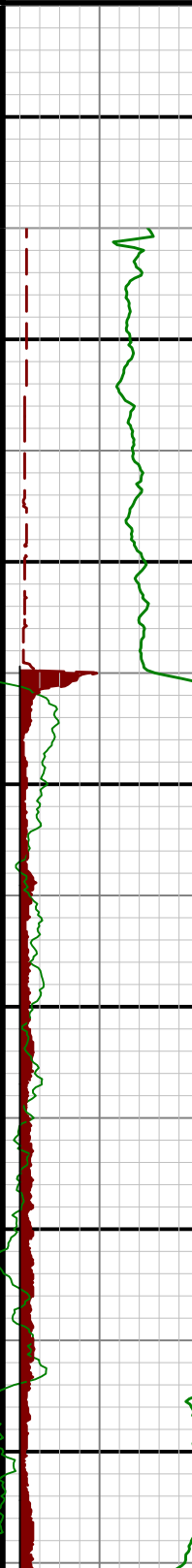


Curve Mnemonics

Presented Curves	Description	Units
BITSIZE	Bit Size	in
CALCM	Acoustic Caliper - Corrected - Memory	in
GRCFM	Gamma Ray - Corrected - Filtered - Memory	API
CALIPB	Azimuthal Caliper - Processed Corrected Radius - Sector Array - Memory	in
CALIUNCOR	Azimuthal Caliper - Uncorrected Radius - Sector Array - Memory	in
ABDCM	Azimuthal Bulk Density - Compensated - Sector Array - Memory	g/cm3

Azimuthal Caliper Memory Log Measured Depth 1:200

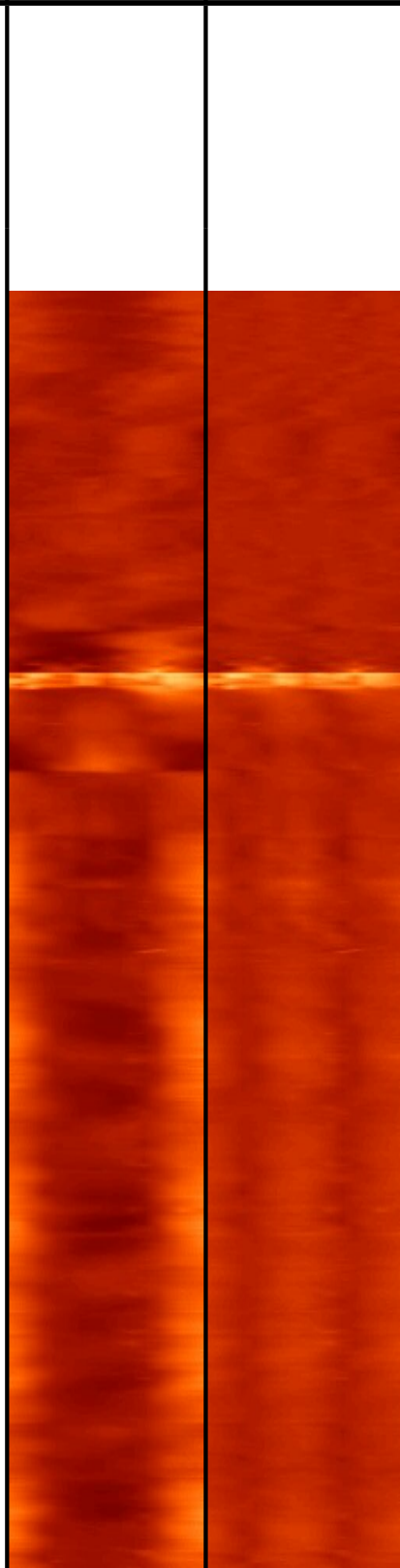
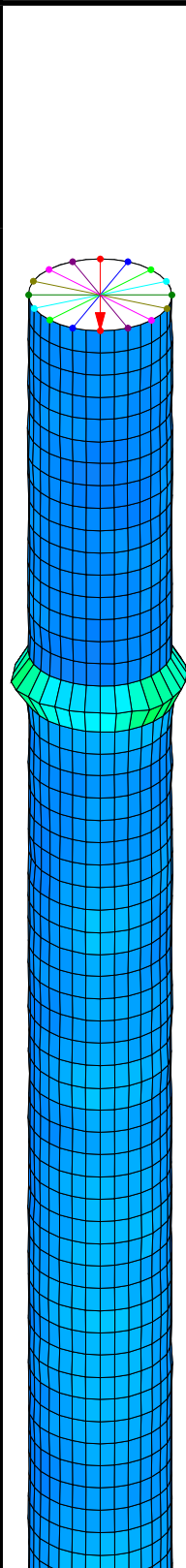
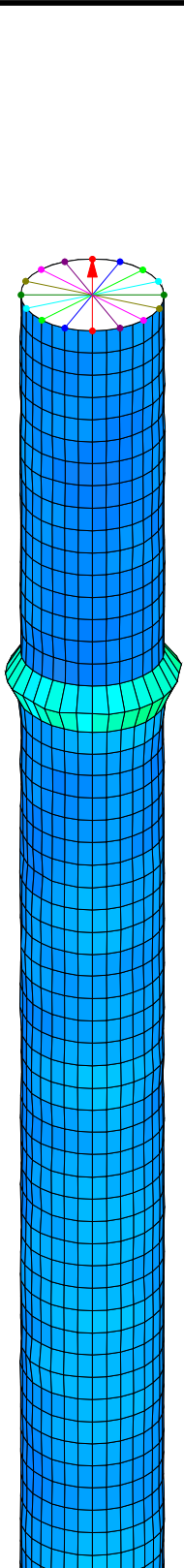


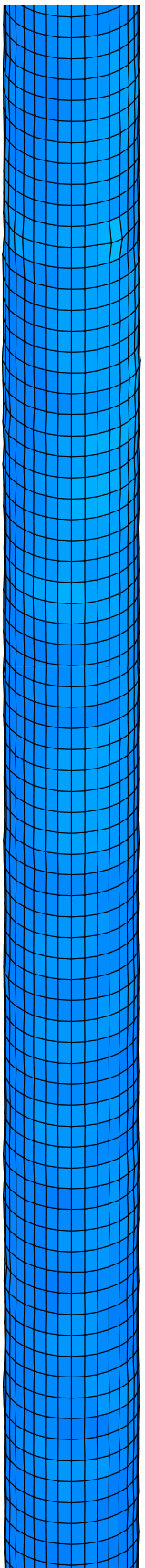
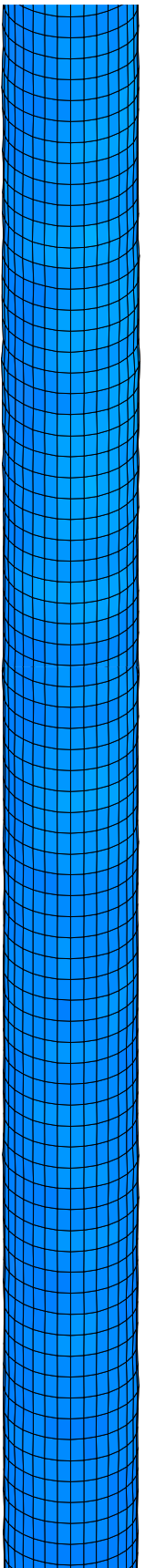
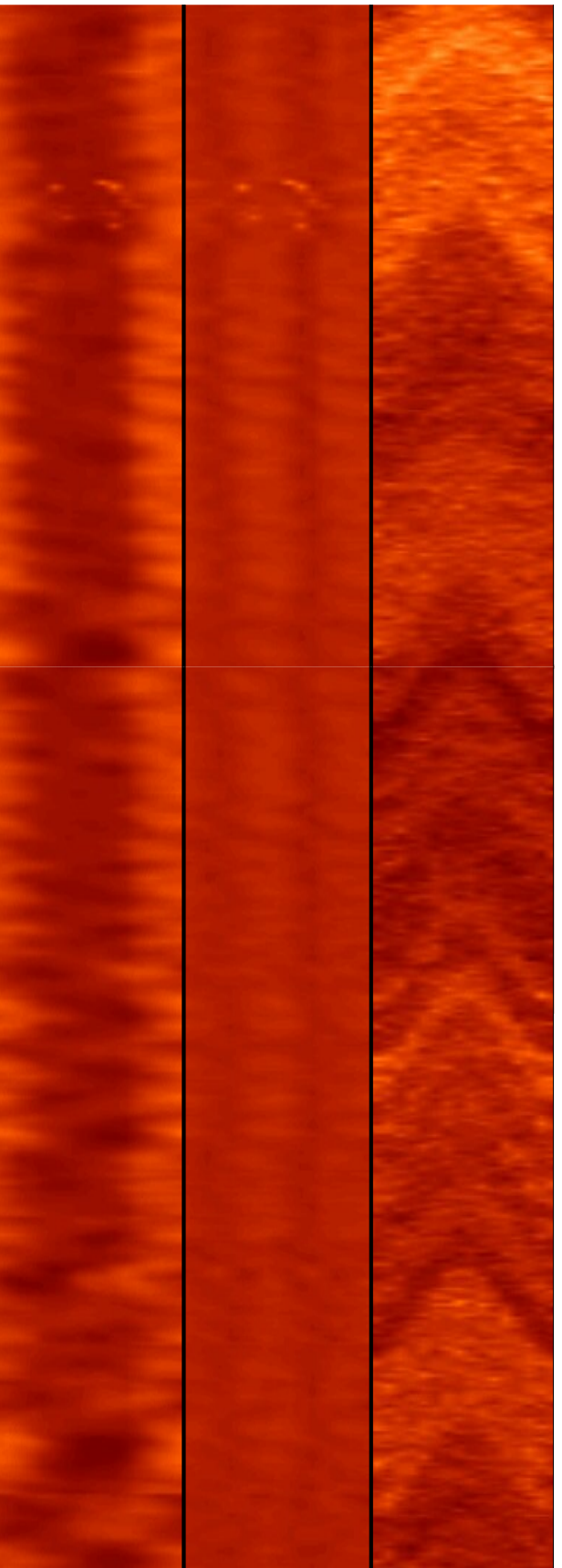


12200
12220
12240
12260
12280
12300
12320

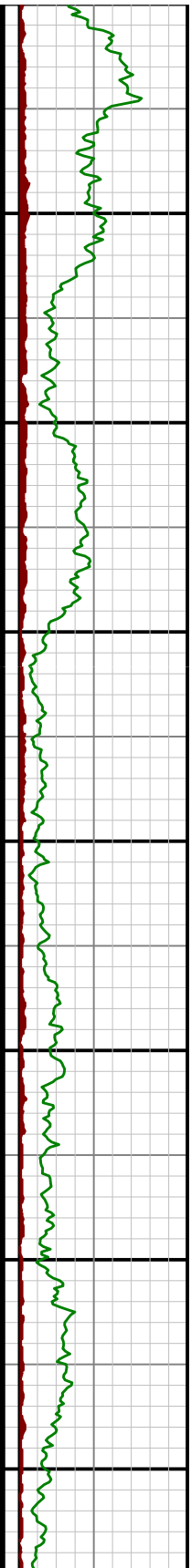
Casing 8.625 in

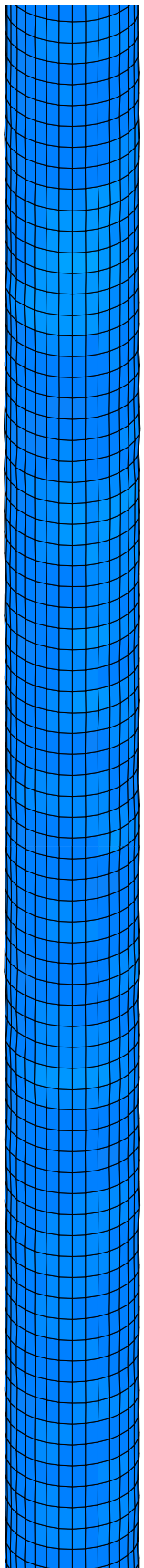
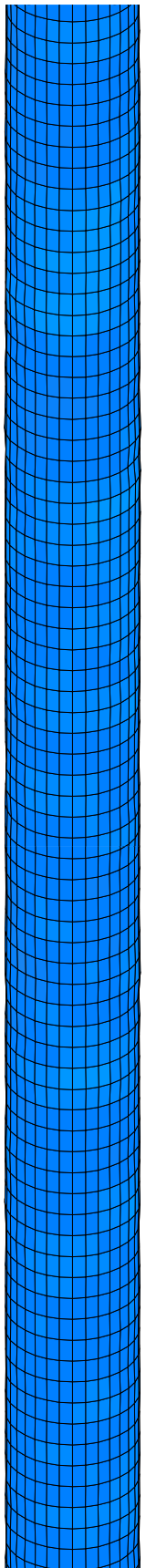
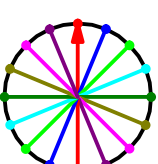
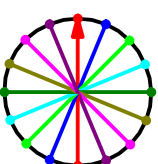
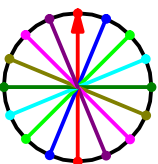
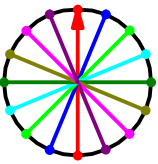
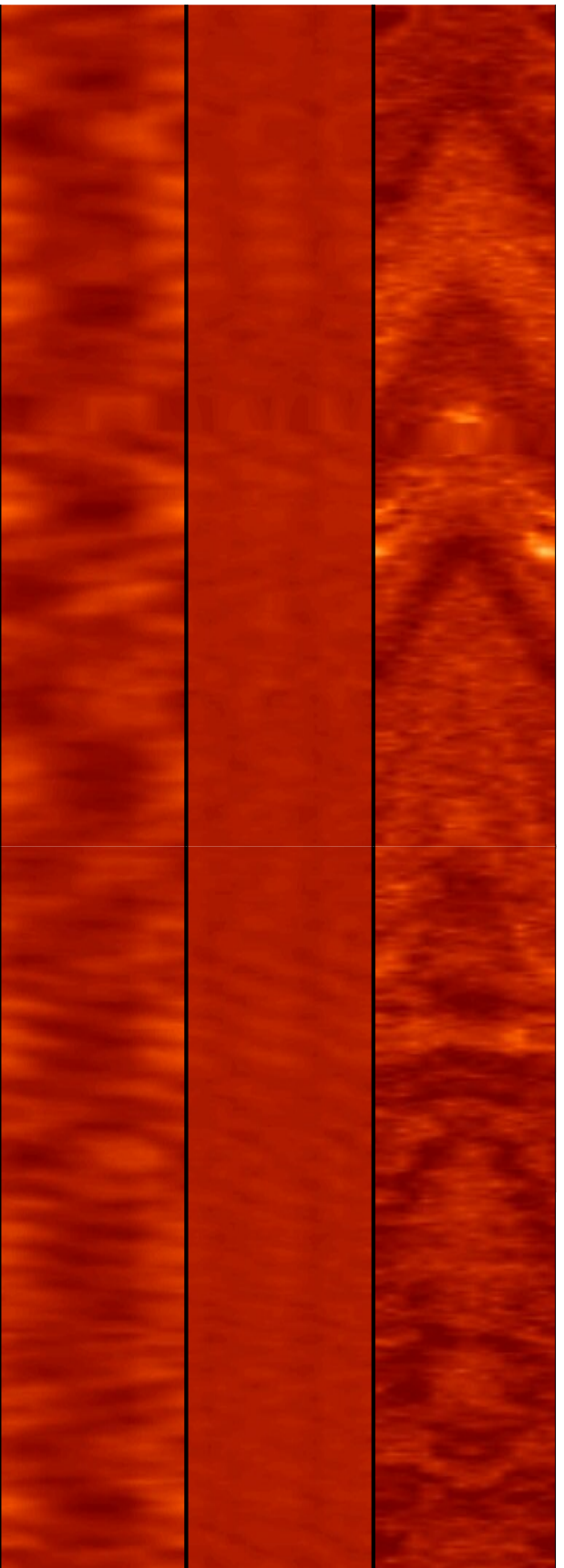
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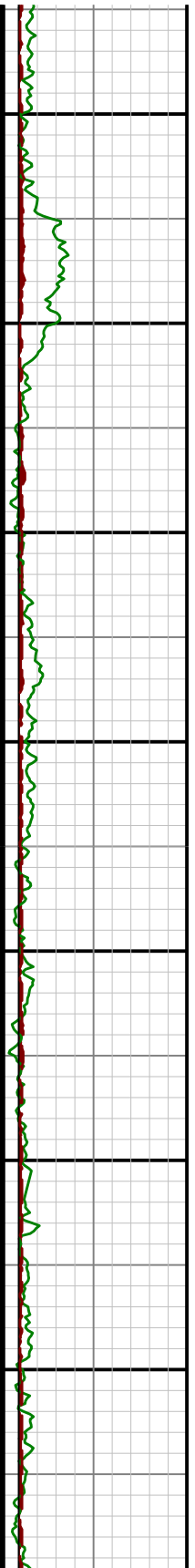


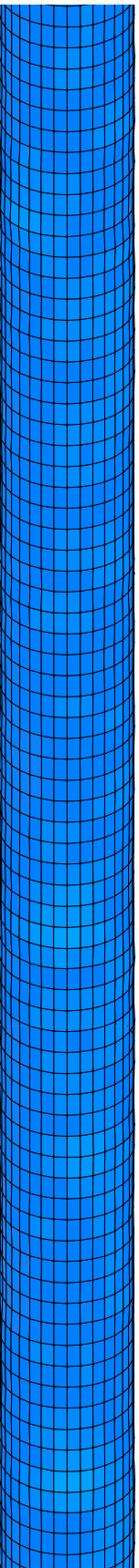
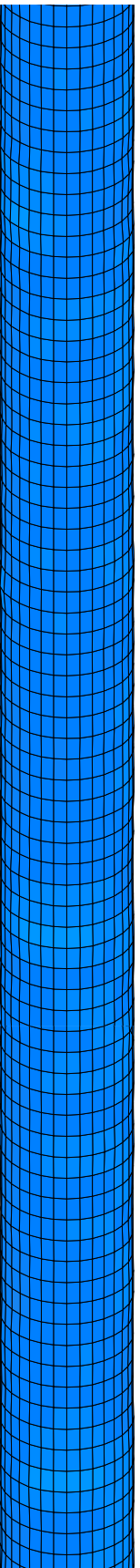
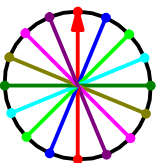
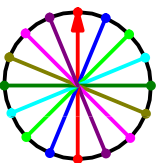
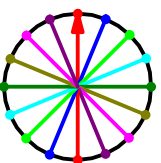
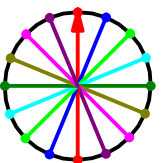
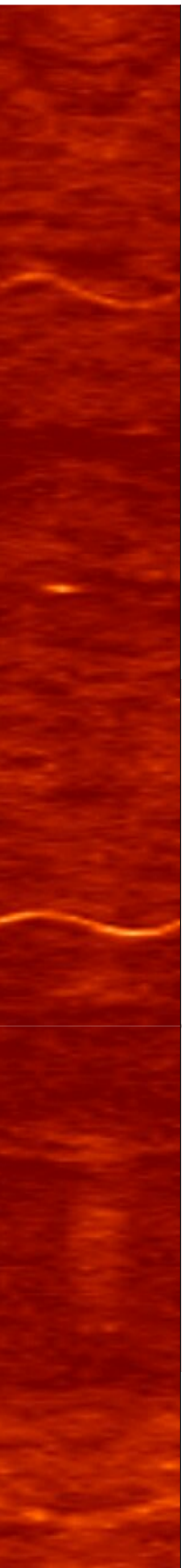
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12640 12660 12680 12700 12720 12740 12760 12





780

12800

12820

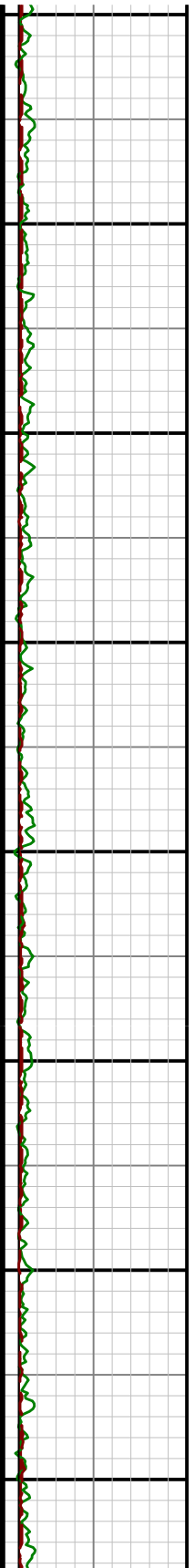
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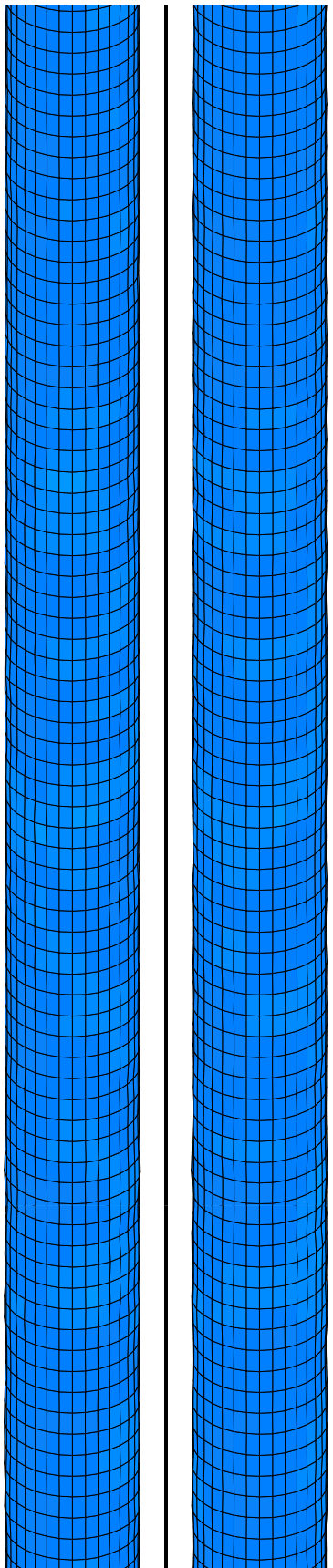
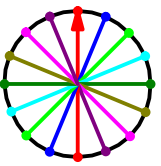
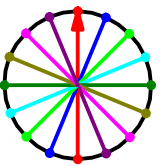
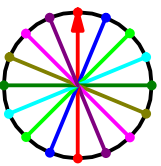
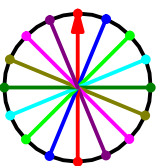
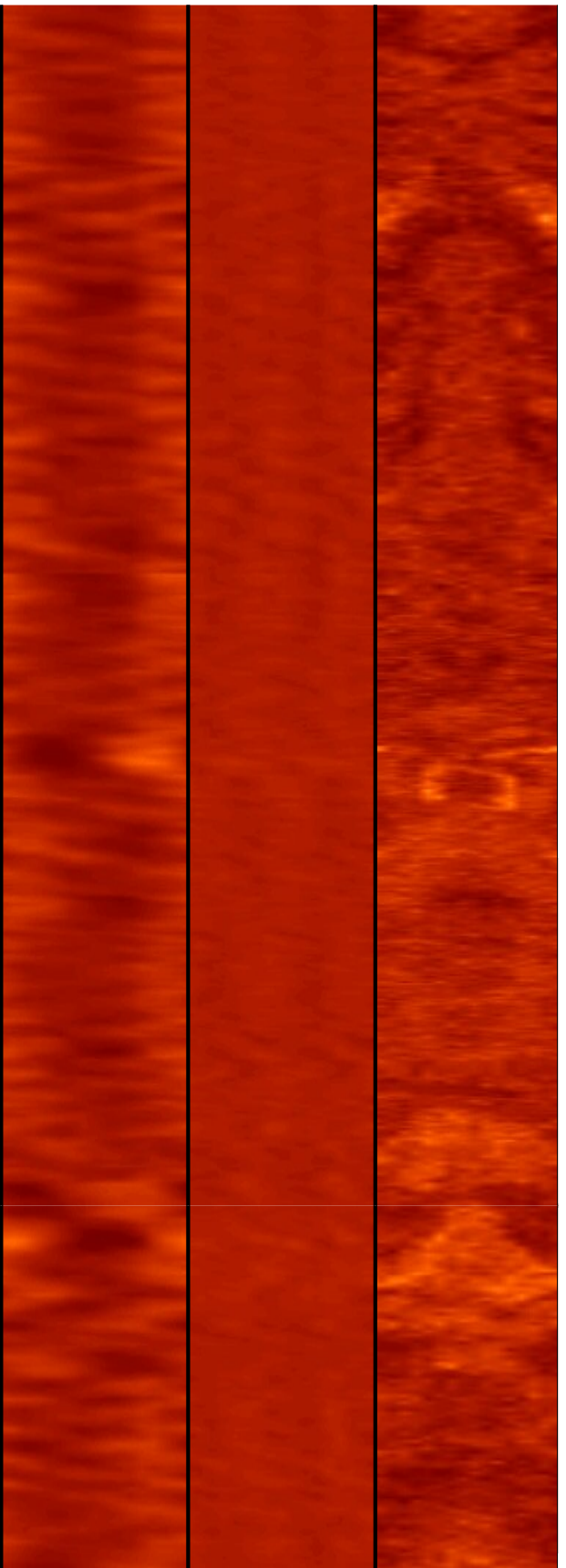
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12880

12900

12920





12940

12960

12980

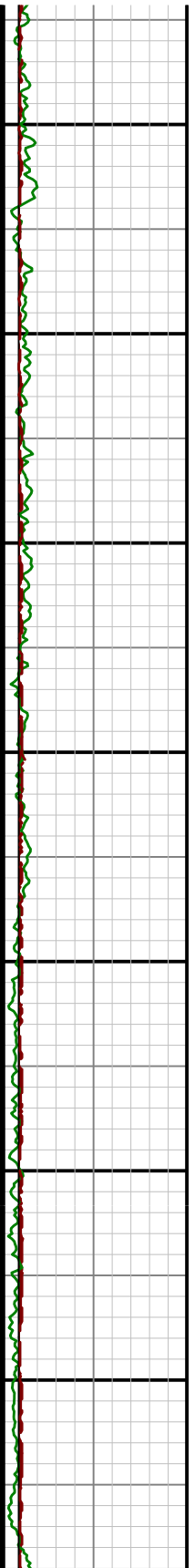
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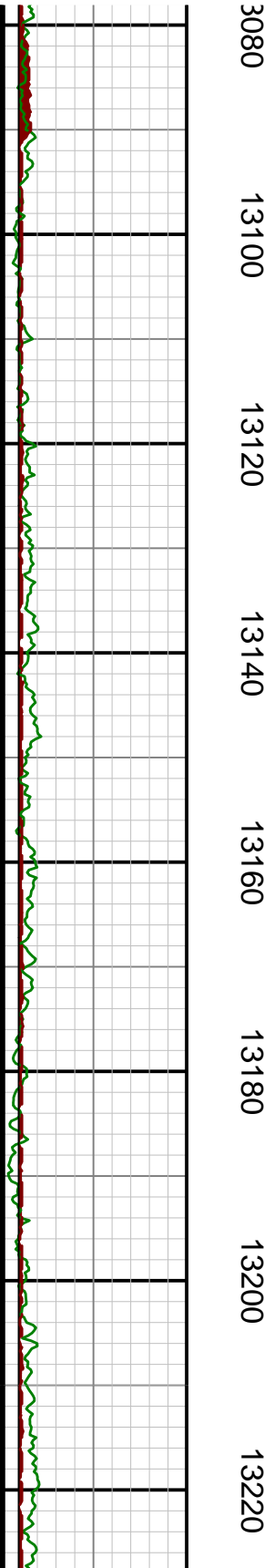
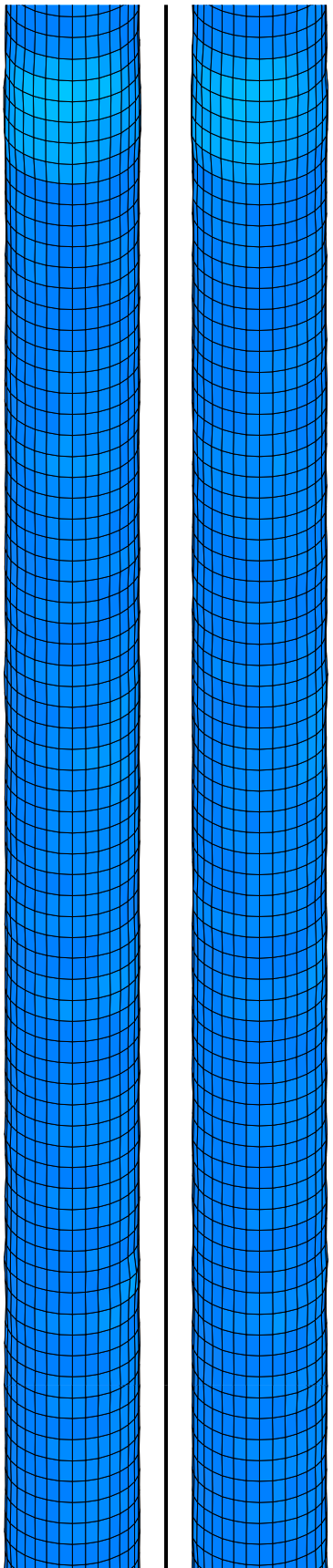
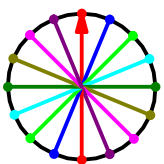
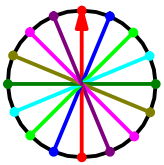
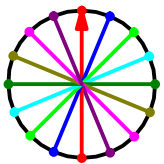
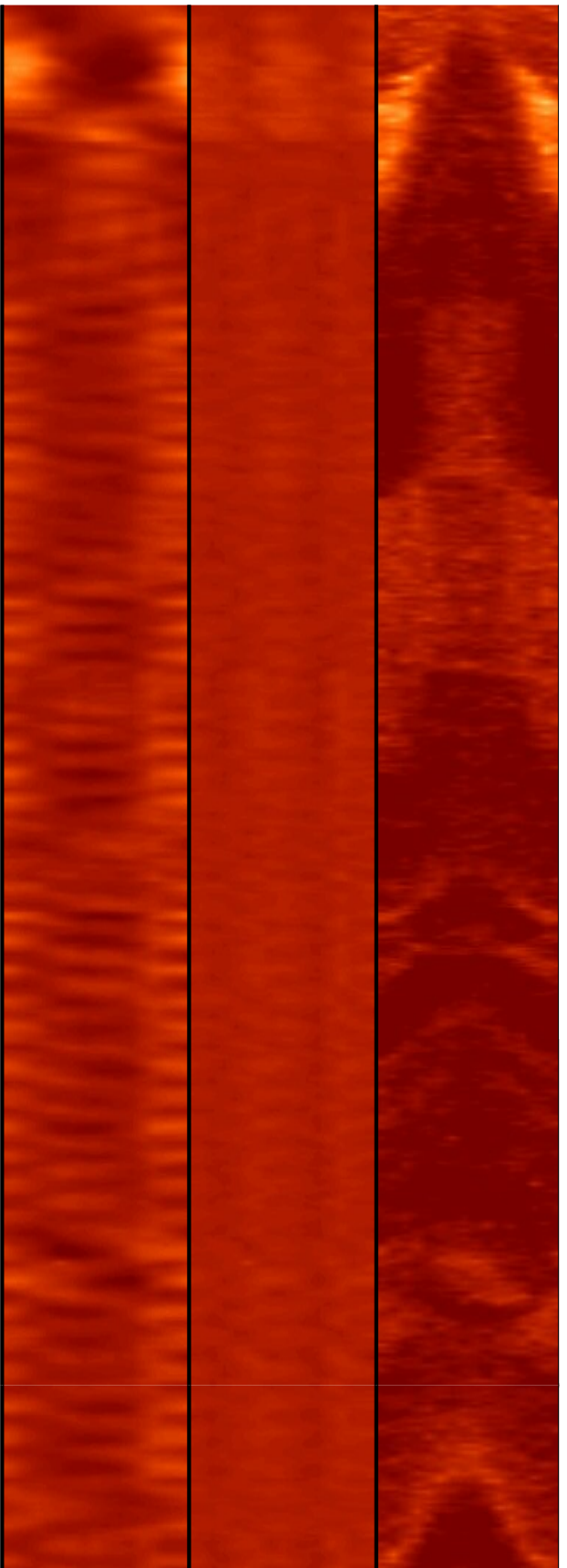
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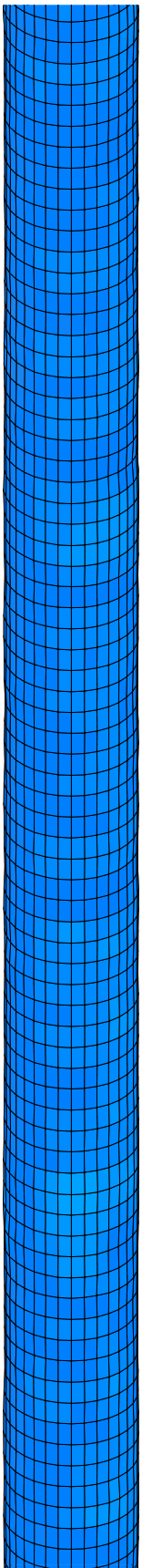
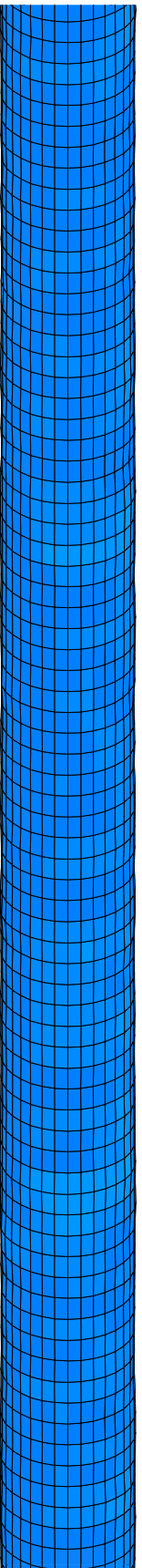
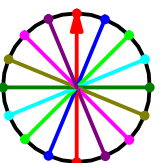
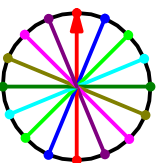
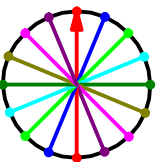
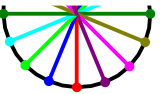
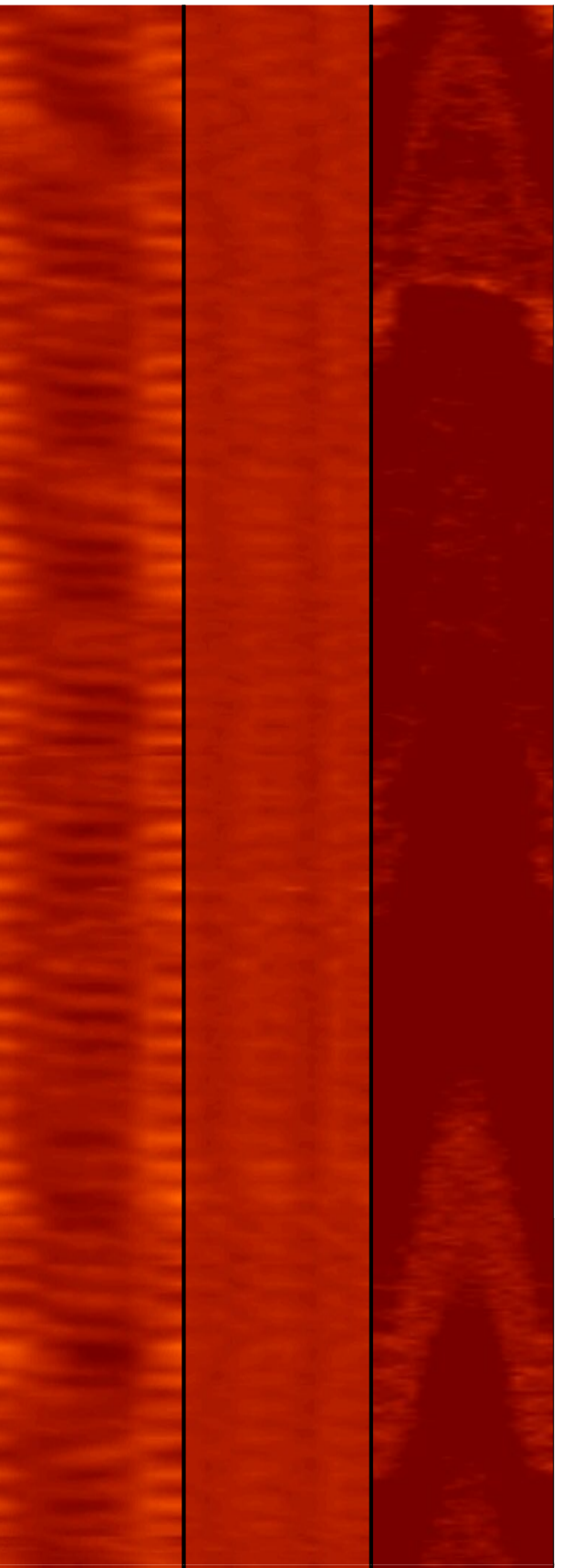
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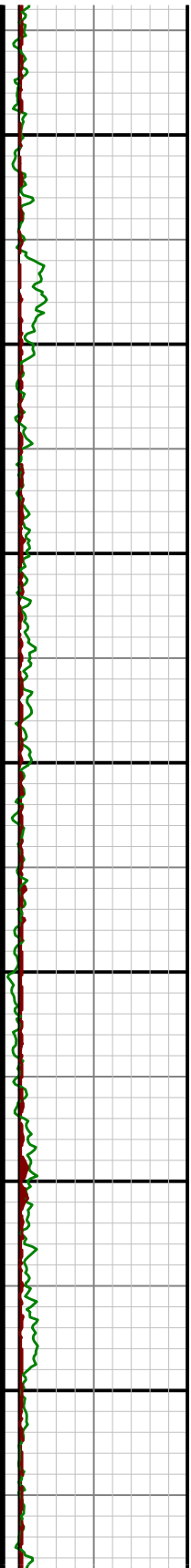
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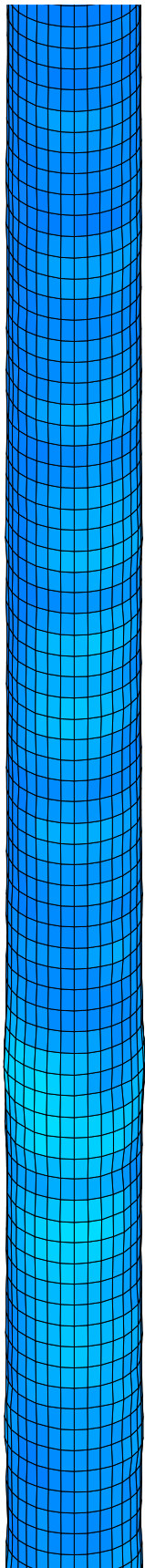
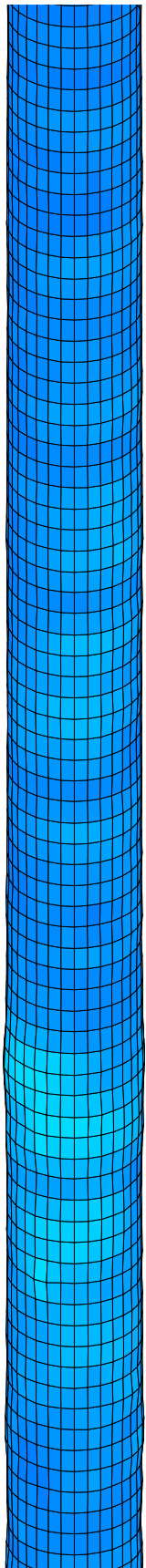
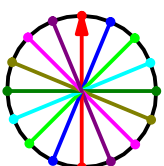
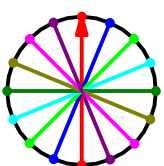
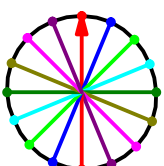
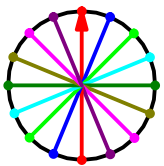
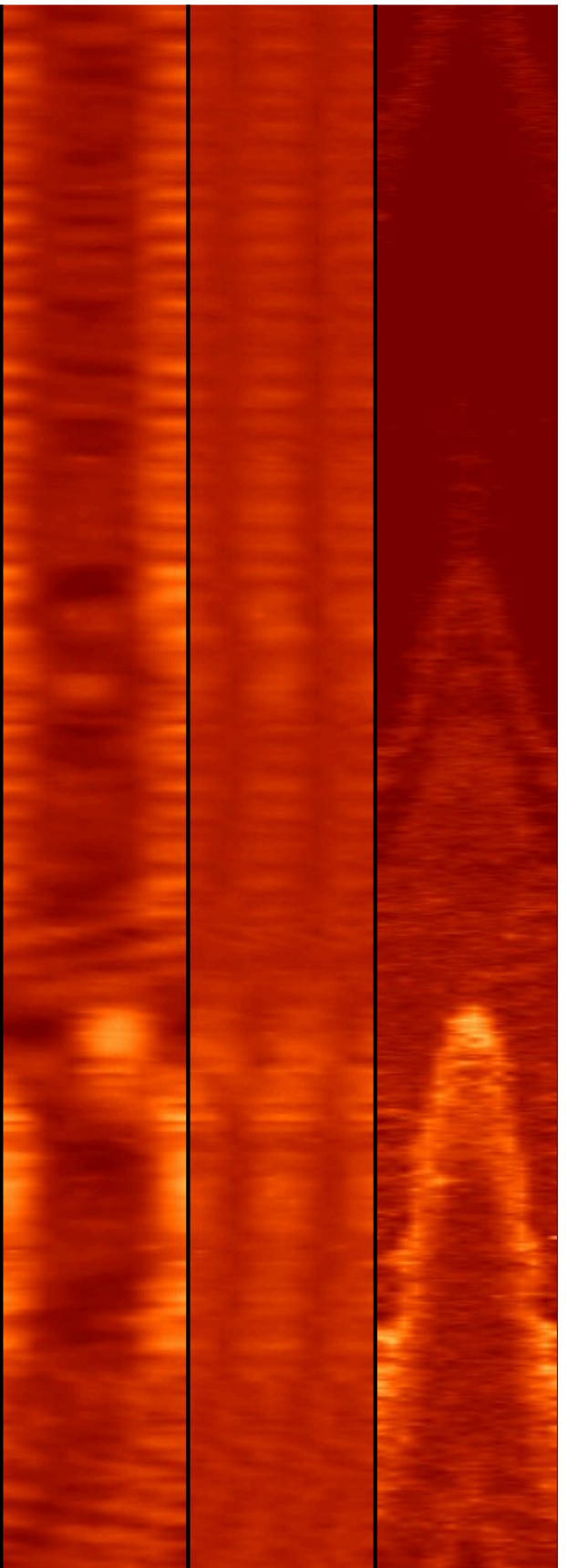
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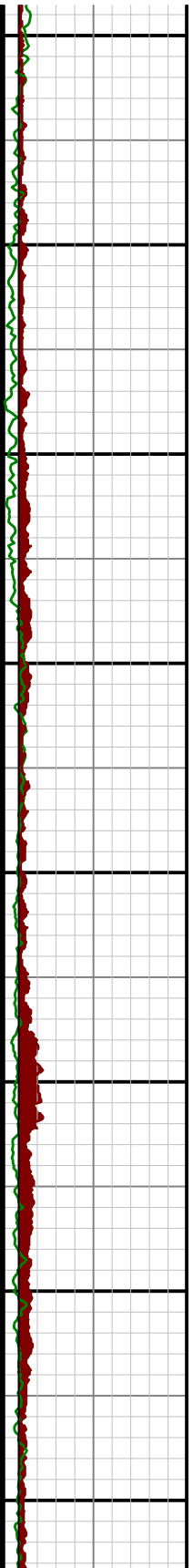
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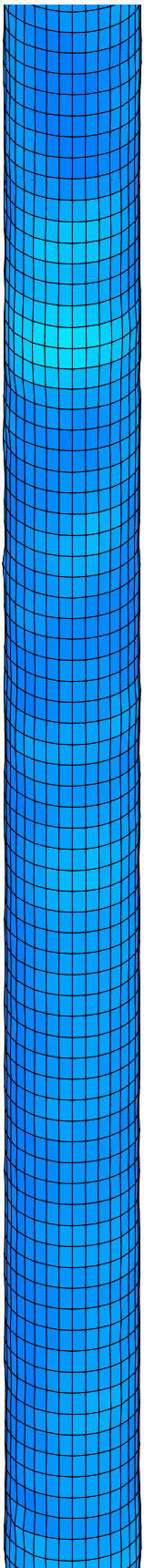
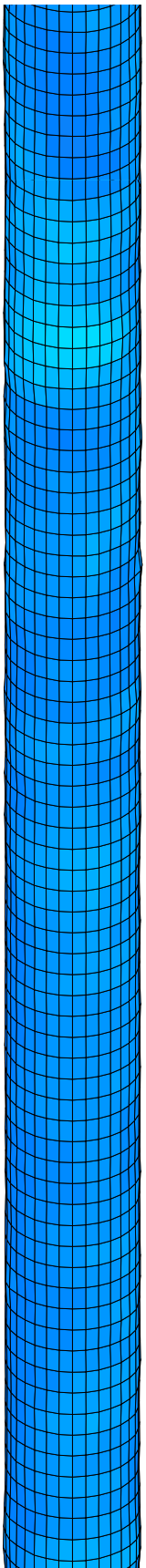
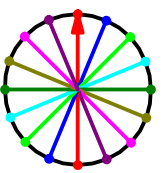
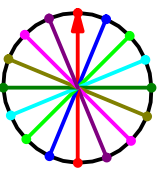
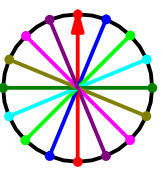
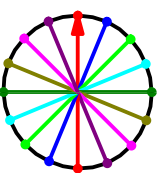
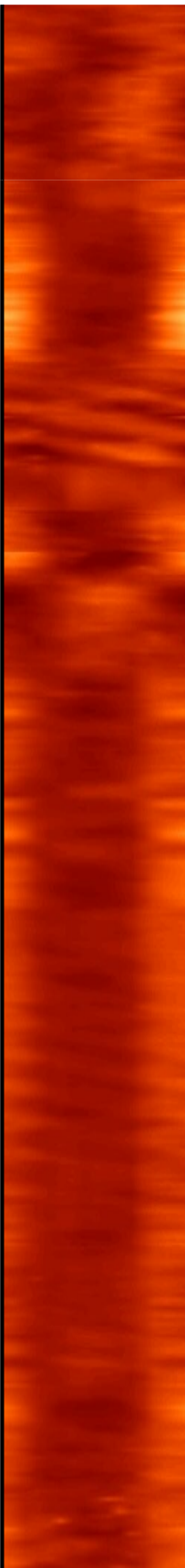
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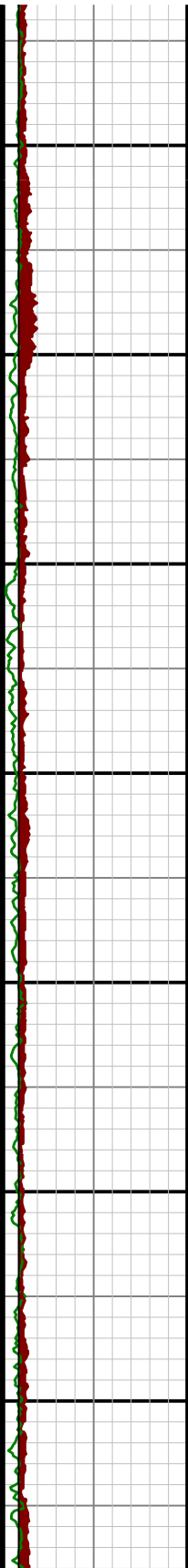
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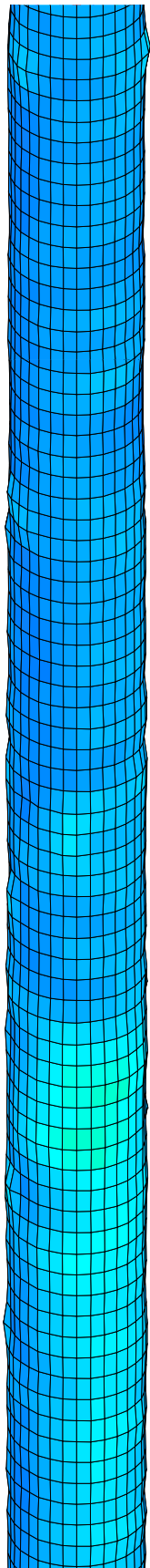
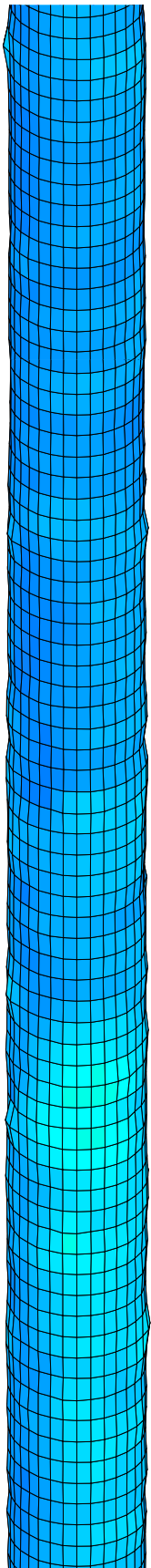
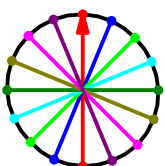
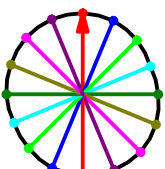
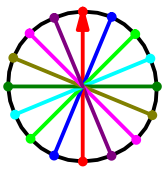
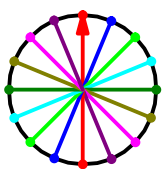
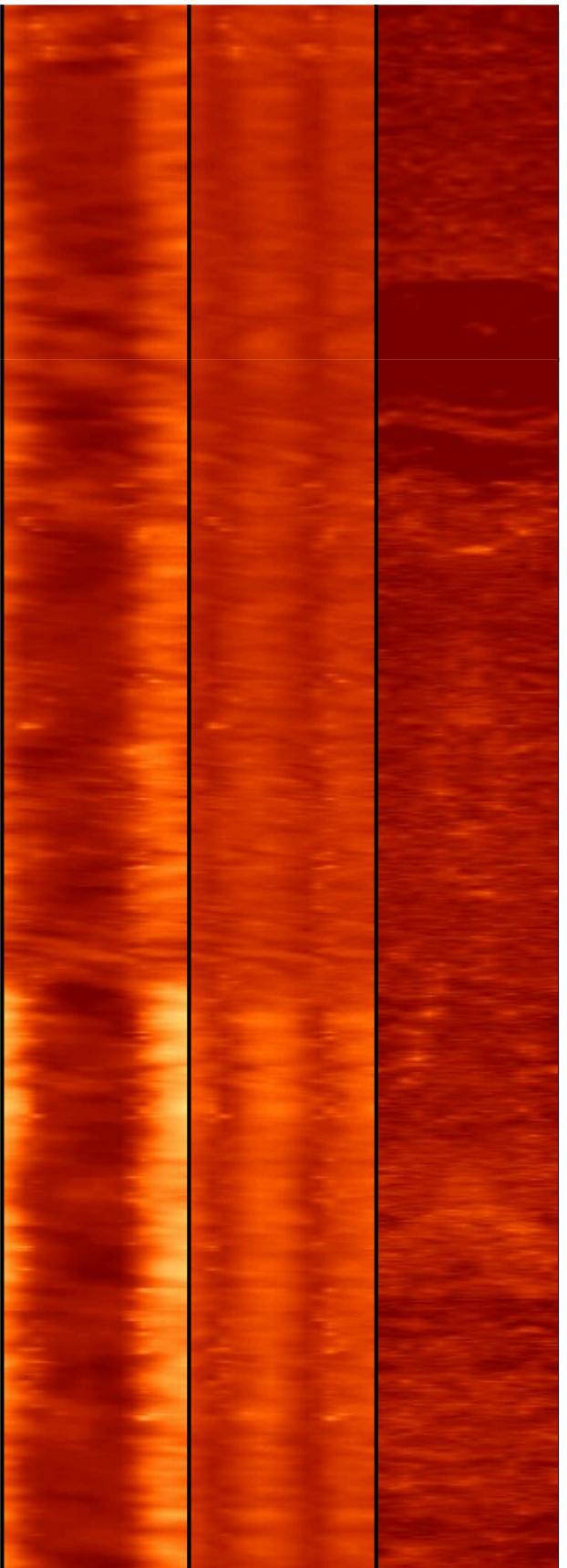
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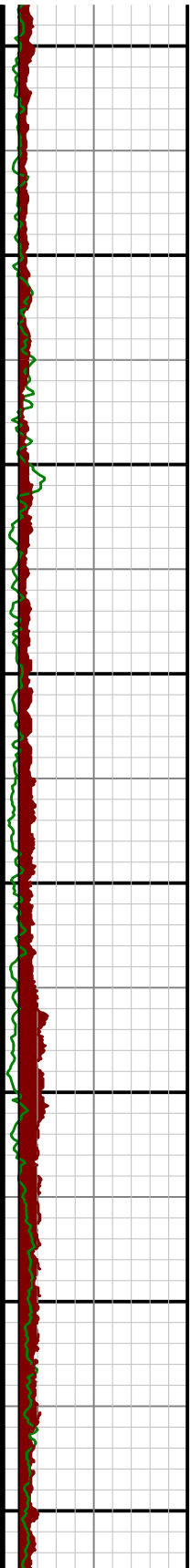
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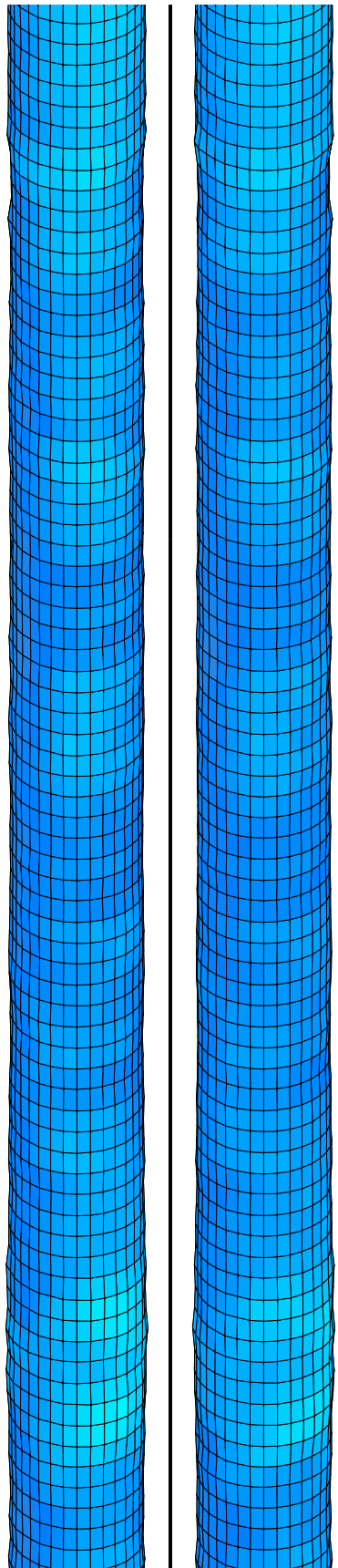
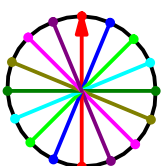
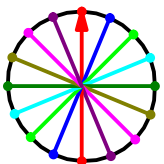
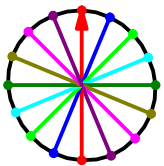
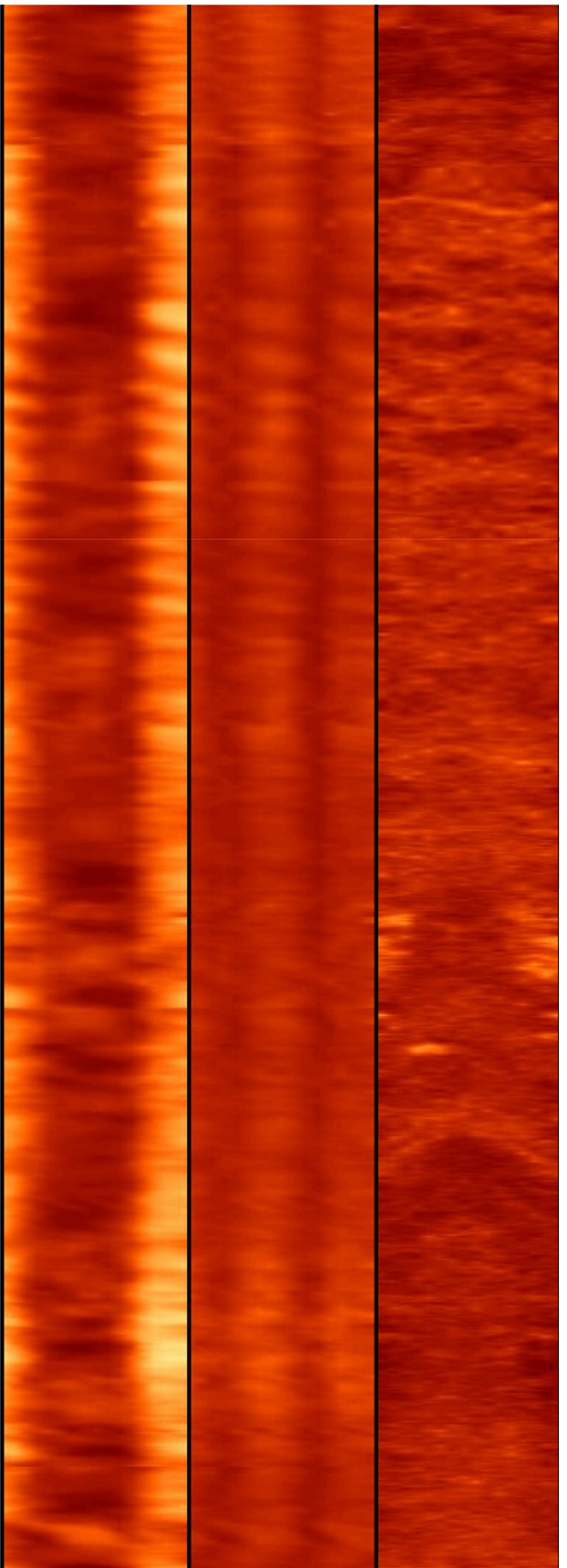
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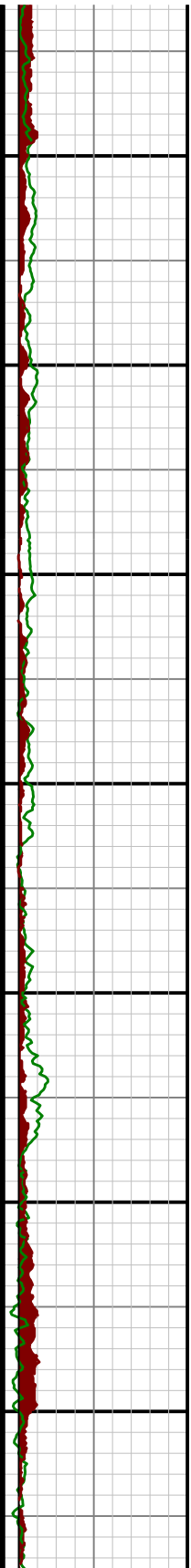
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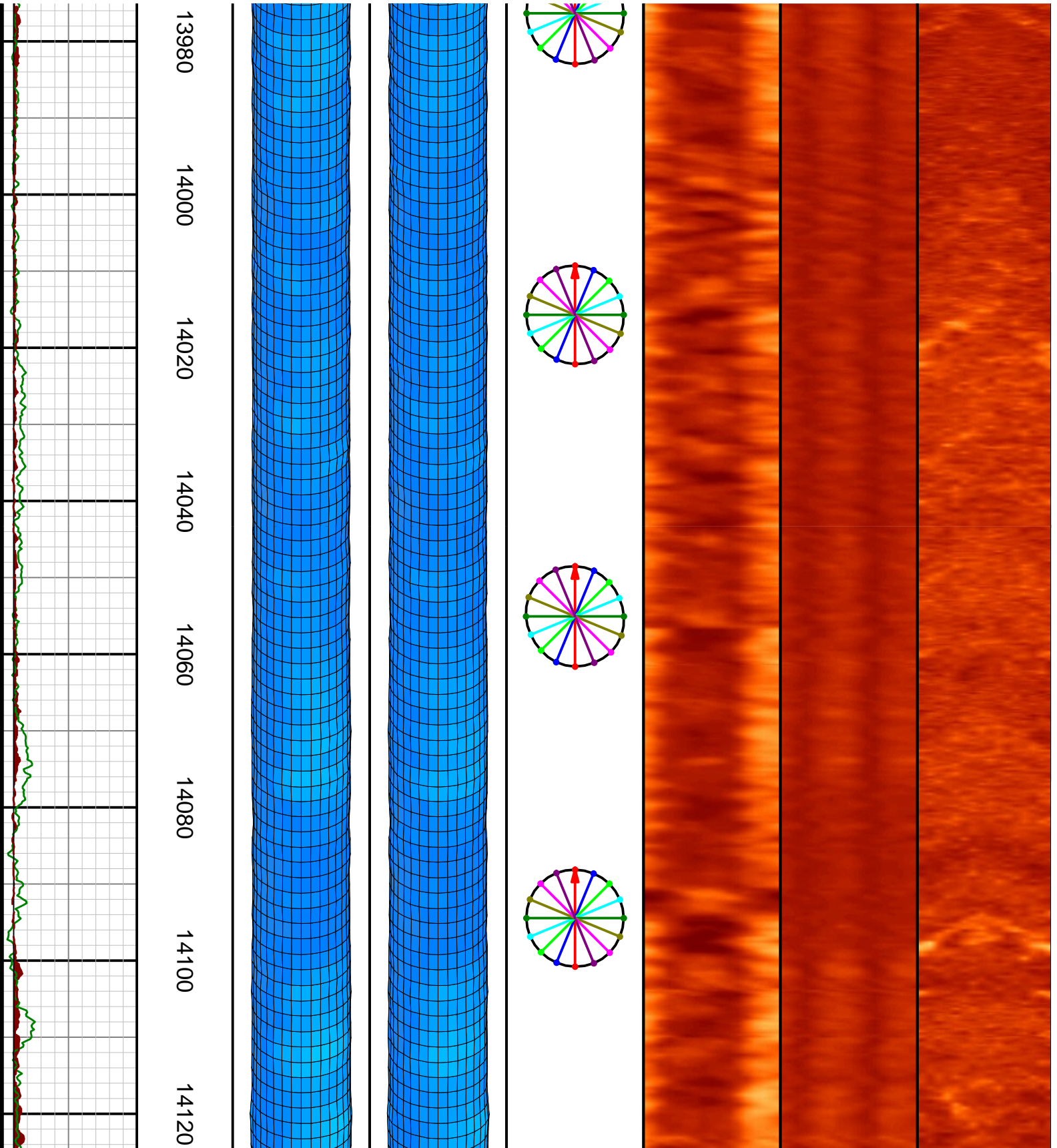
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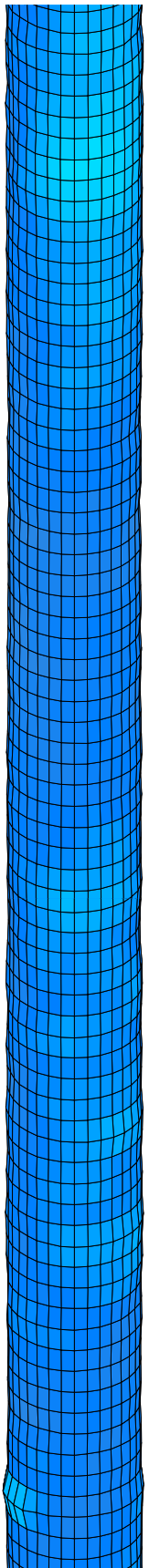
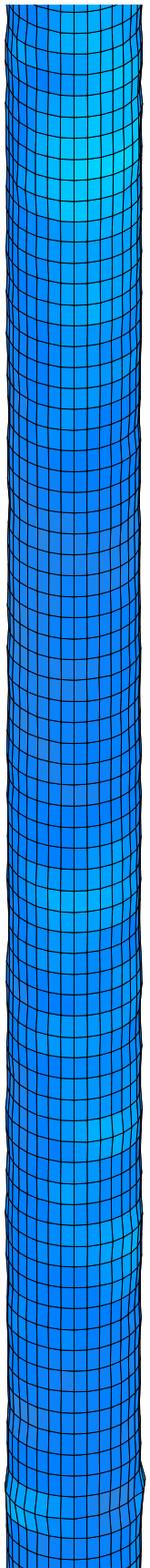
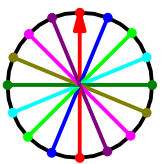
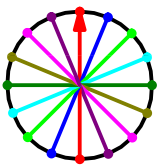
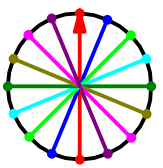
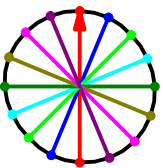
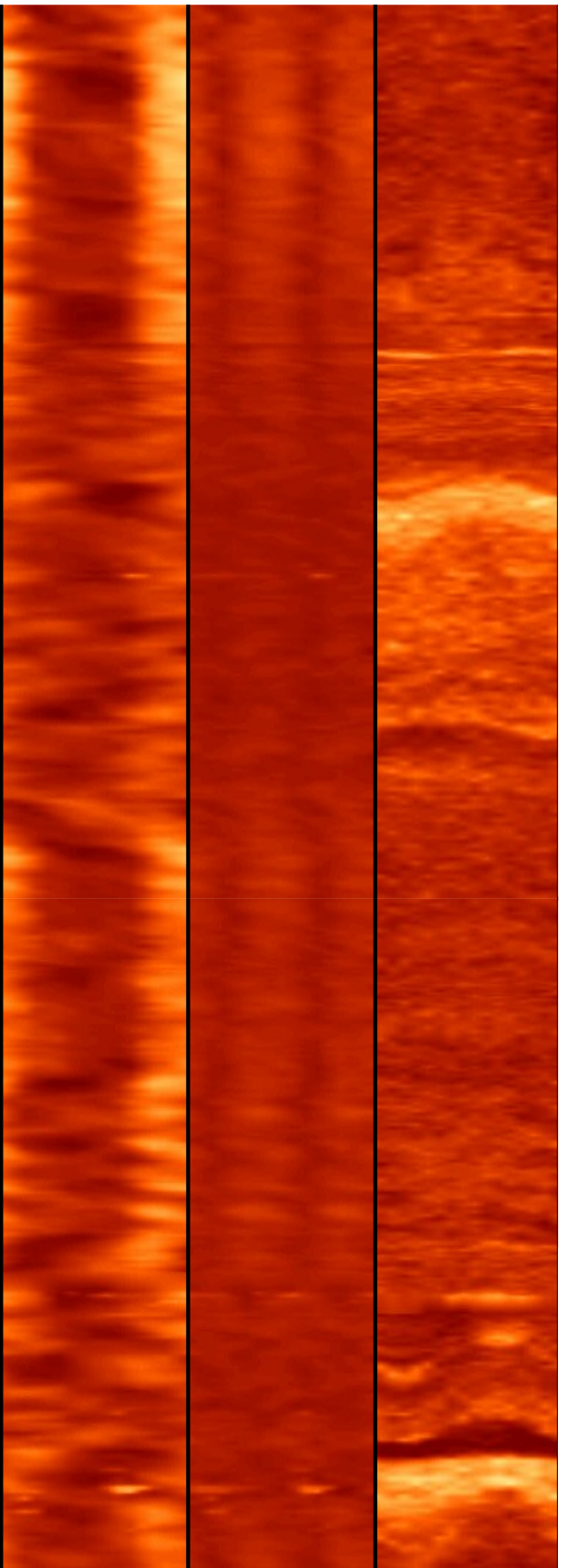
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13960

R1↔R2







14140

14160

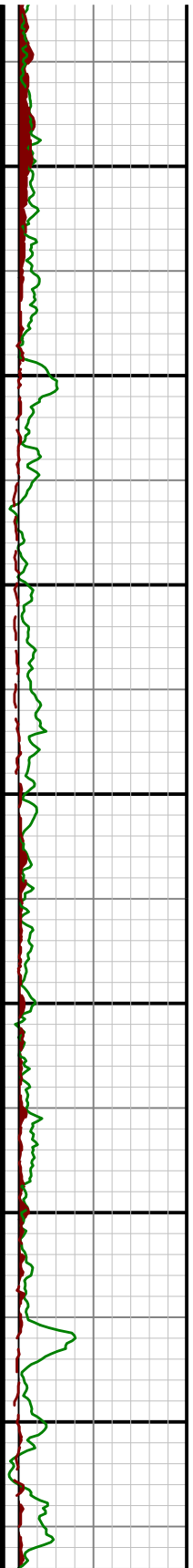
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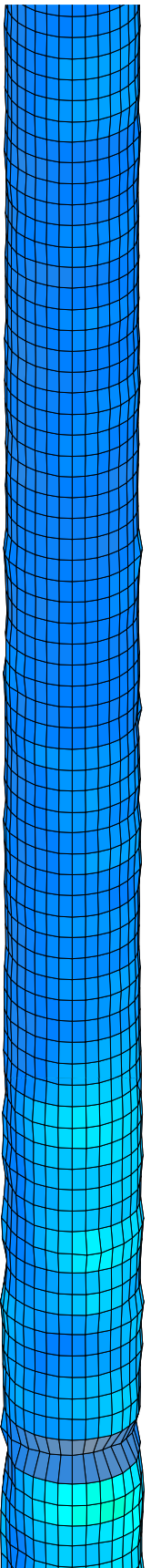
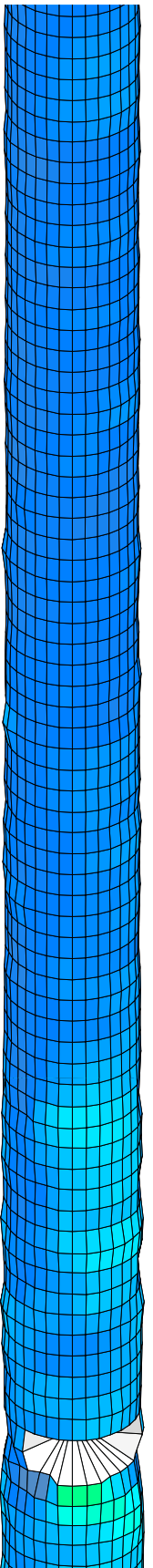
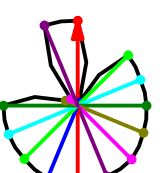
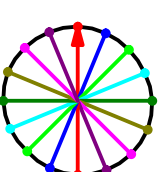
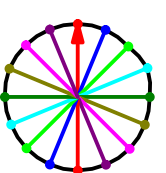
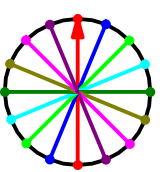
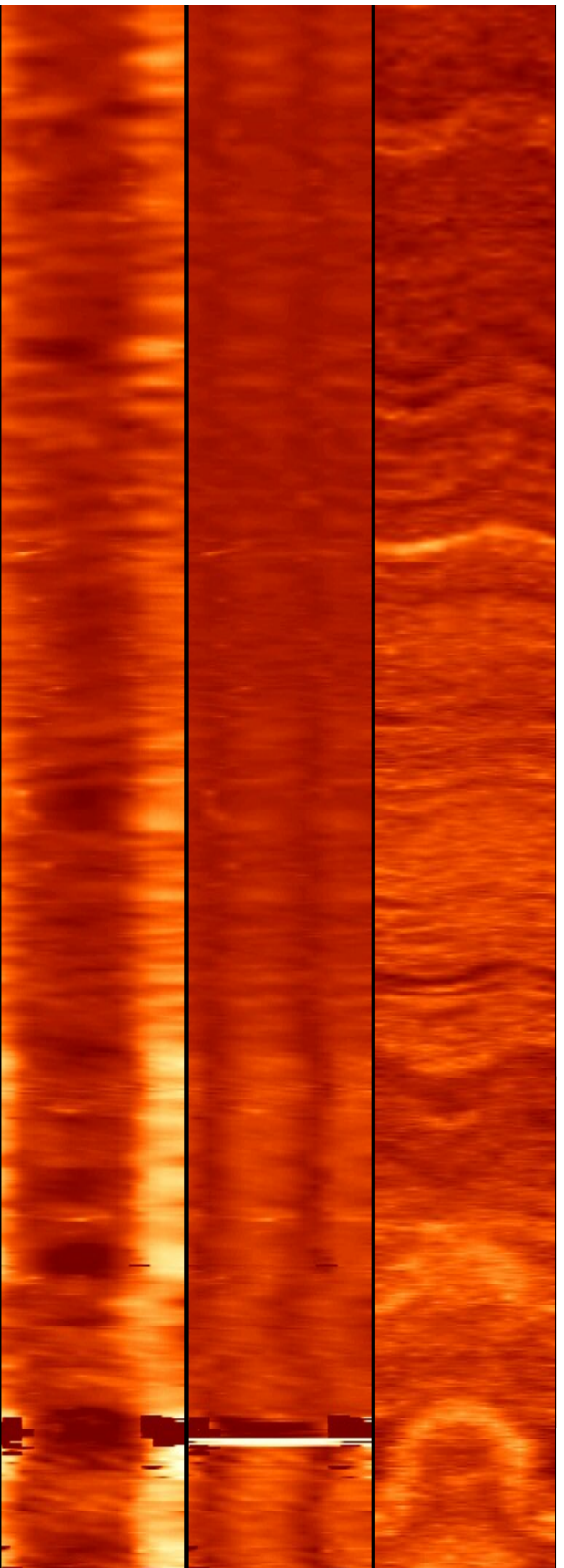
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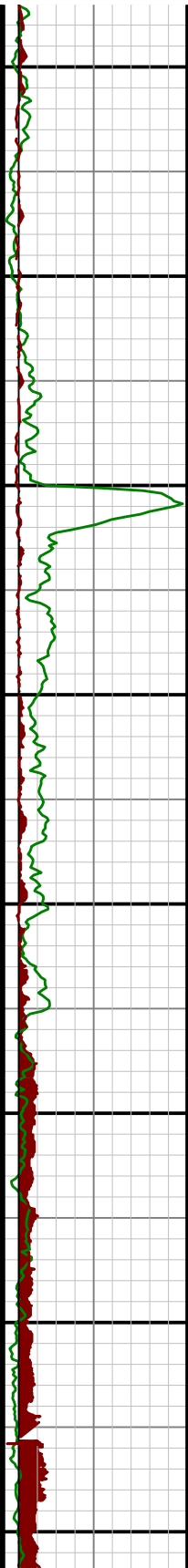
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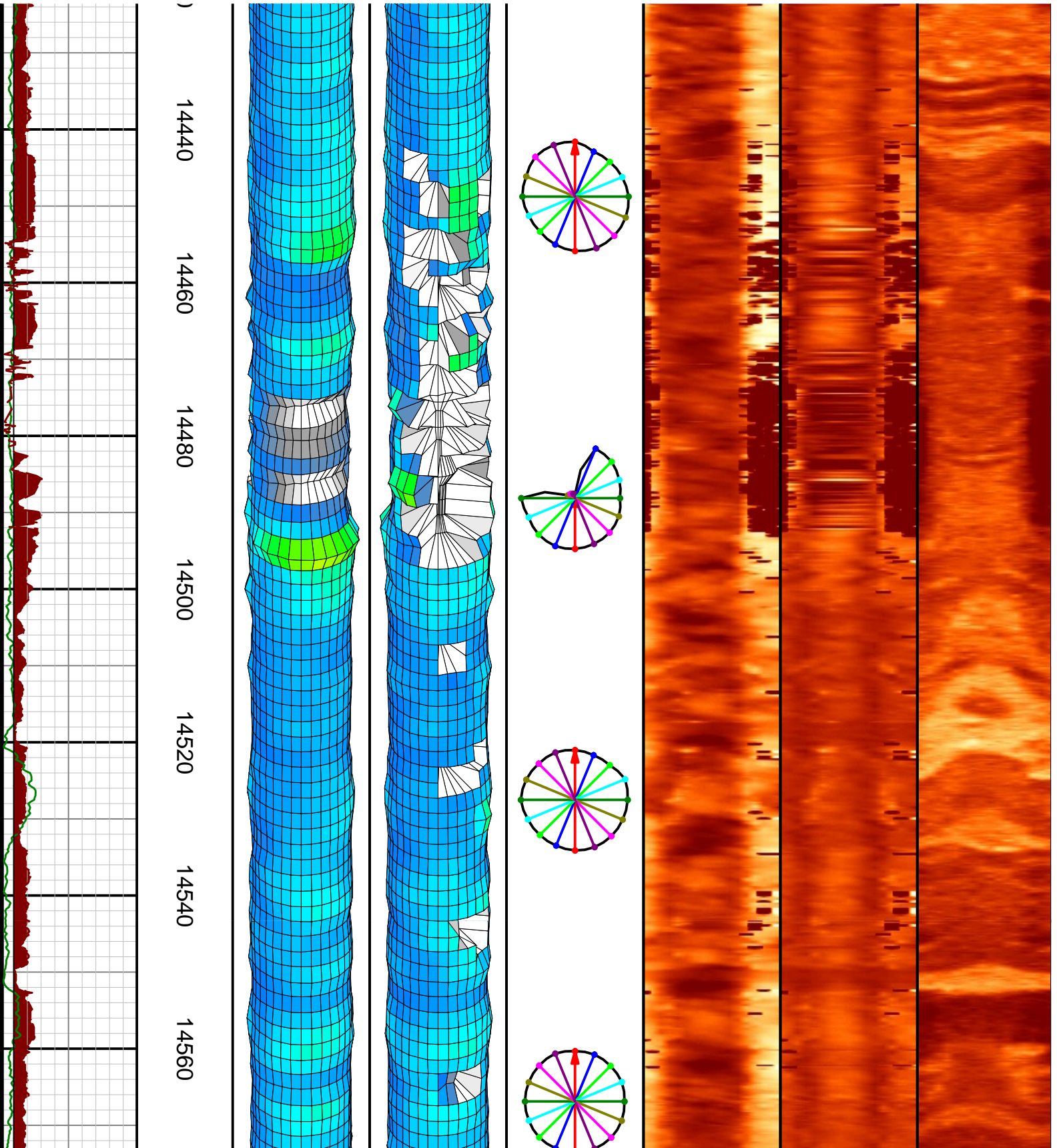
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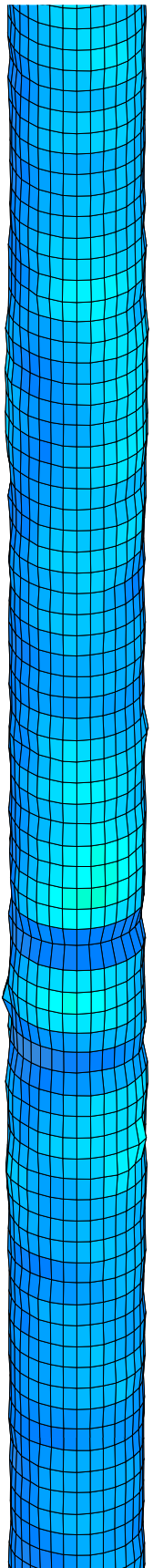
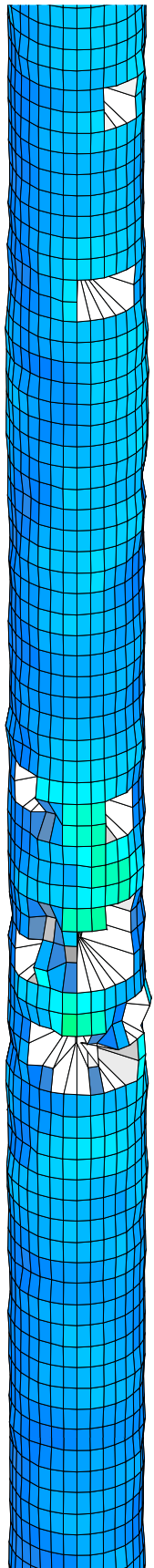
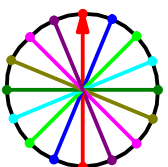
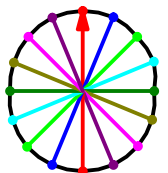
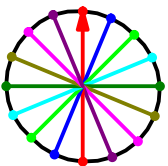
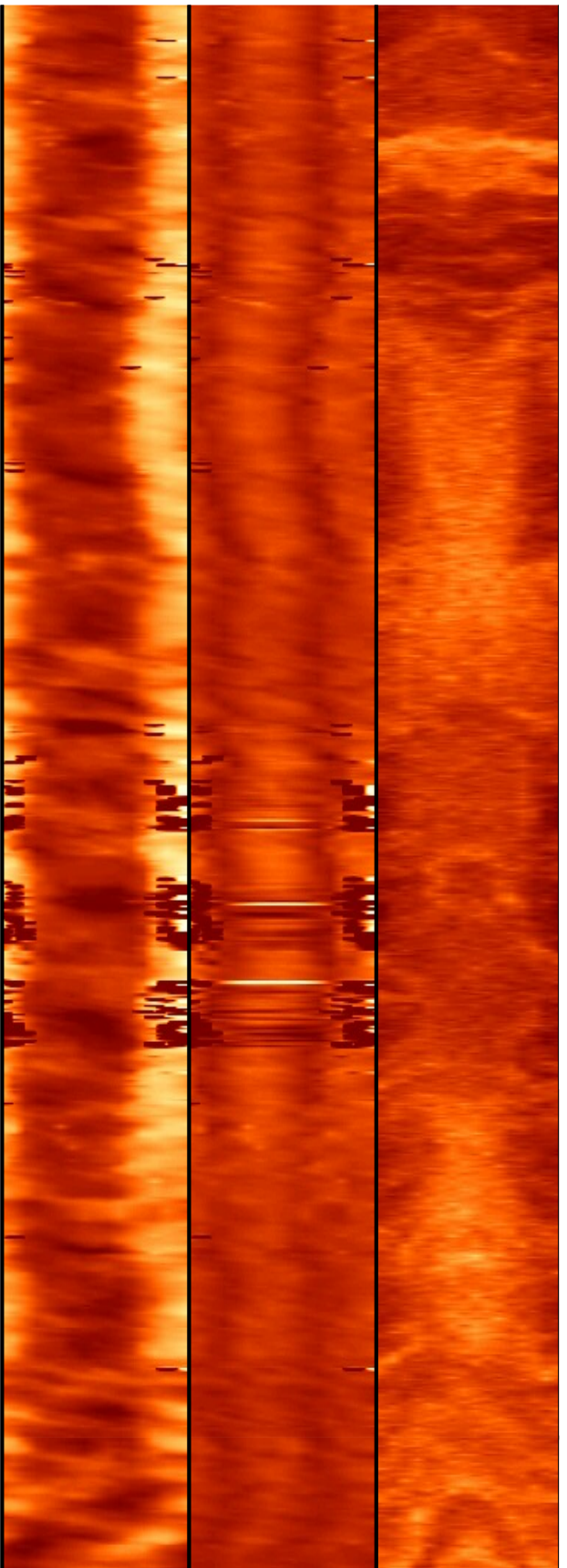




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14580

14600

14620

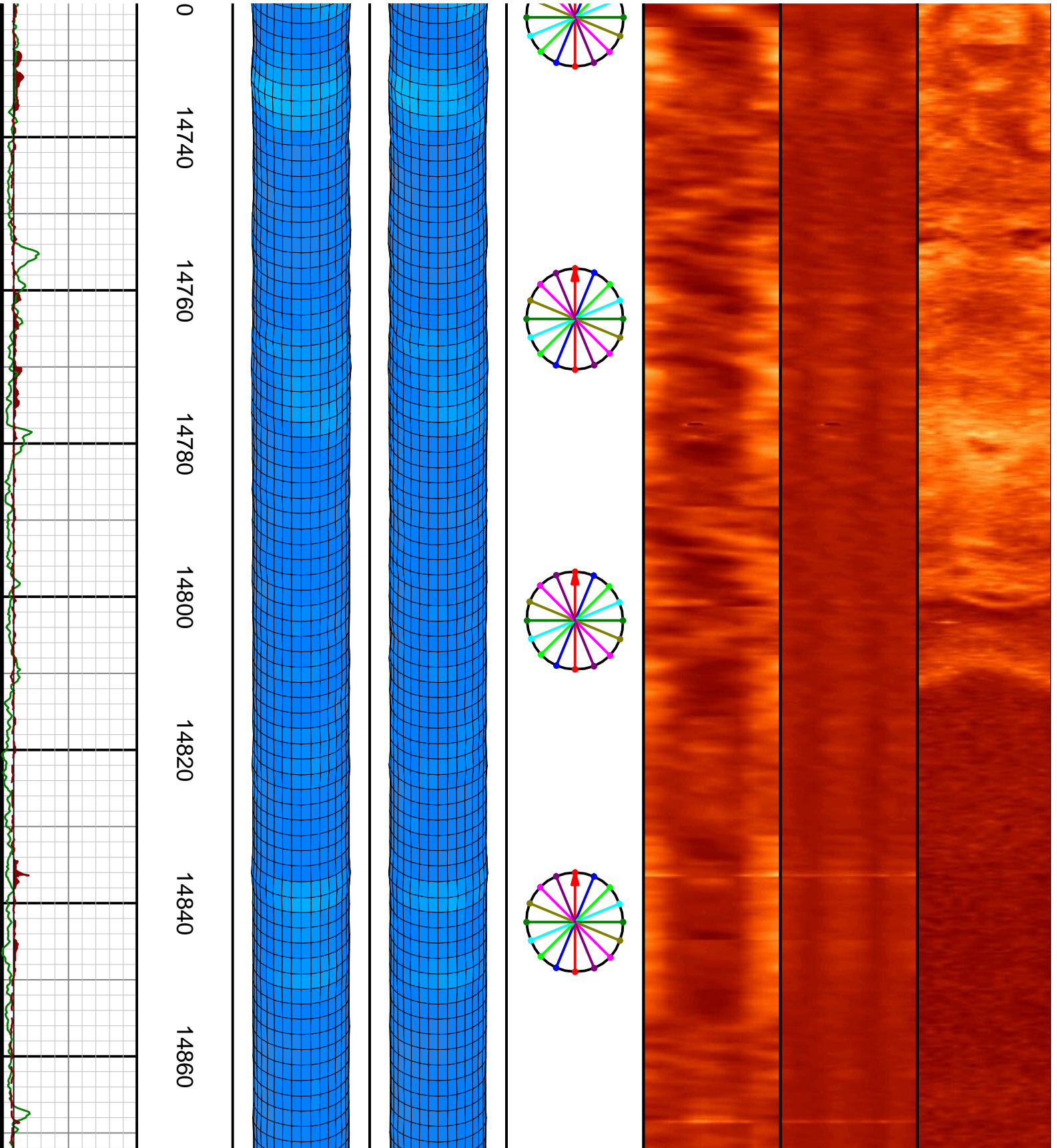
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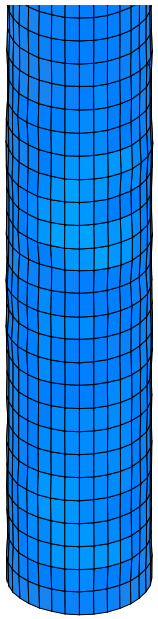
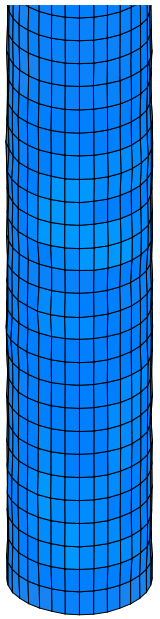
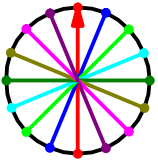
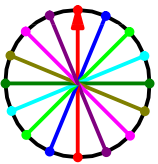
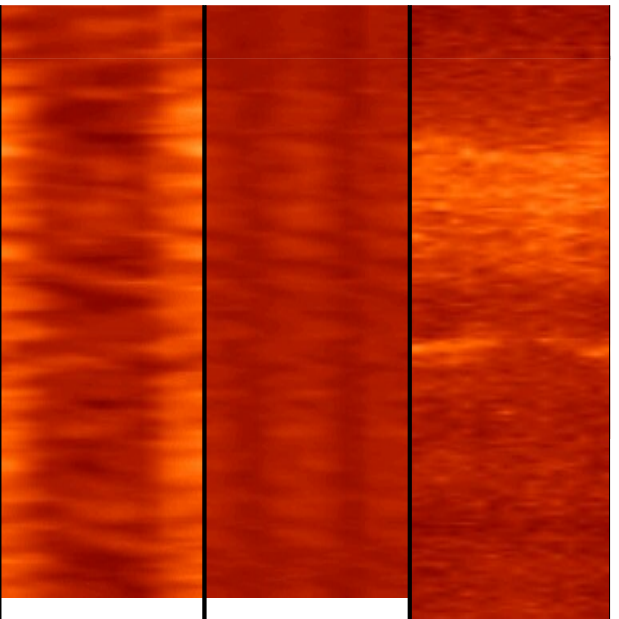
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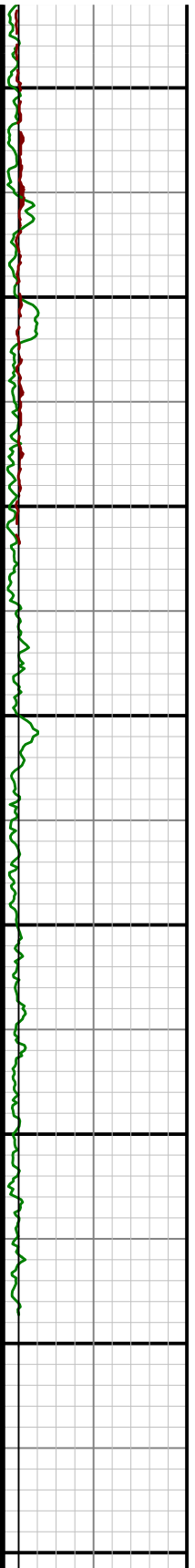
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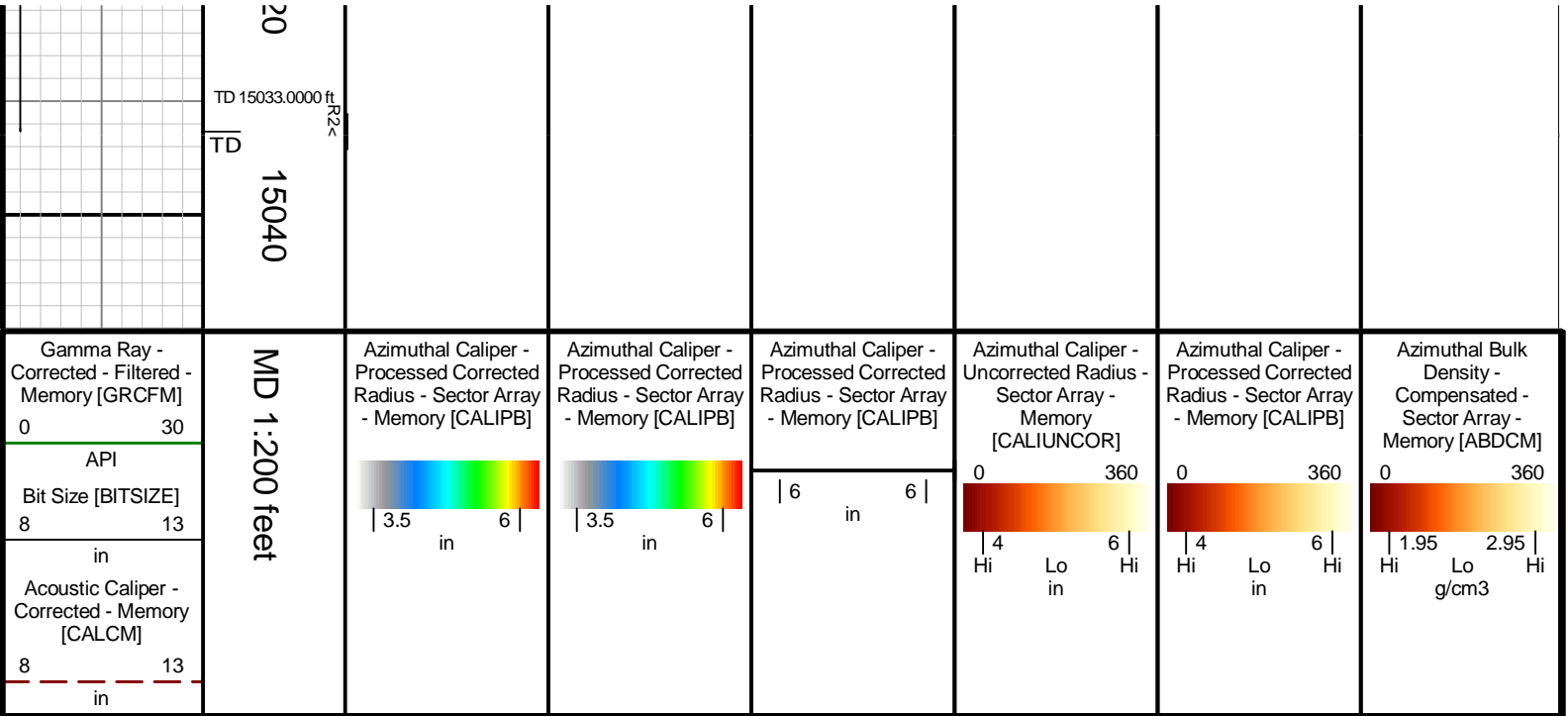
14722





14880 14900 14920 14940 14960 14980 15000 15020





Azimuthal Caliper Memory Log Measured Depth 1:200

Gamma Ray Primary Calibration Summary

Tool Size: (in)	6.750	Tool Type:	AZTK	Asset No:	11683570	Build No:	0	Date/Time:	2016-11-26 08:11
Tool Firmware:	00022FW229	Location:	STV	Calibrator Asset No:	001				
Test Software:	Gammacal	Unit:	NA	Detector:	Scintillator	Calibrator Value:	227.00		
	Background	Calibrator	CR	API	HV	Background	Calibrator	Calibrator	
	(cps)	On	Differential	Correction	(V)	(API)	On	(API)	
		(cps)	(cps)	Factor			(API)	(API)	
Sensor #1 (-90)	14.60	68.78	54.18	3.3000	1465.00	48.19	227.02	178.83	
				2.24 3.36	800.0 1800.0				
Sensor #2 (+90)	15.09	67.12	52.03	3.3800	1482.00	51.03	226.99	175.96	
				2.24 3.36	800.0 1800.0				

Gamma Ray Pre-run / Post-run Verification

Tool Size: (in)	6.750	Tool Type:	AZTK	Asset No:	11683570	Build No:	0
		Sensor #1 (-90)			Sensor #2 (+90)		
Post-run	Pre-run	Date/Time	Background	Standard	Background	Standard	
			(cps)	Deviation	(cps)	Deviation	
				0.1 10.0		0.1 10.0	
N/A	1	2016-12-08 13:28	2.14	0.38	1.64	0.34	
1	N/A	2016-12-13 00:23	3.94	0.61	2.55	0.48	
N/A	2	2016-12-13 00:33	4.17	0.47	2.50	0.41	

Propagation Resistivity Primary Calibration Summary

Tool Size: Tool Type: Asset No: Build No: Date/Time:
 Firmware: Location: Temp: Unit: Software:

2 MHz Air Offsets

	Transmitter 1	Transmitter 2	Transmitter 3	Transmitter 4
Phase R1 (deg)	<input type="text" value="-165.35"/>	<input type="text" value="-170.09"/>	<input type="text" value="-139.52"/>	<input type="text" value="-143.69"/>
Phase R2 (deg)	<input type="text" value="-158.80"/>	<input type="text" value="-163.80"/>	<input type="text" value="-133.21"/>	<input type="text" value="-137.24"/>
Attn. R1 (dB)	<input type="text" value="3.03"/>	<input type="text" value="8.94"/>	<input type="text" value="3.62"/>	<input type="text" value="11.57"/>
Attn. R2 (dB)	<input type="text" value="8.58"/>	<input type="text" value="3.38"/>	<input type="text" value="12.13"/>	<input type="text" value="3.04"/>
P. Diff T1 (deg)	<input type="text" value="-6.55"/>	<input type="text" value="6.29"/>	<input type="text" value="-6.31"/>	<input type="text" value="6.44"/>
Attn. T1 (dB)	<input type="text" value="5.55"/>	<input type="text" value="5.57"/>	<input type="text" value="8.51"/>	<input type="text" value="8.53"/>
CP T1T2 (deg)	<input type="text" value="-0.13"/>	<input type="text" value="5.56"/>	<input type="text" value="0.07"/>	<input type="text" value="8.52"/>
	-0.25 0.75	5.30 5.70	-0.40 0.60	8.30 8.70

400 kHz Air Offsets

	Transmitter 1	Transmitter 2	Transmitter 3	Transmitter 4
Phase R1 (deg)	<input type="text" value="179.85"/>	<input type="text" value="177.28"/>	<input type="text" value="-118.03"/>	<input type="text" value="-121.39"/>
Phase R2 (deg)	<input type="text" value="-176.87"/>	<input type="text" value="-179.68"/>	<input type="text" value="-114.75"/>	<input type="text" value="-118.42"/>
Attn. R1 (dB)	<input type="text" value="3.96"/>	<input type="text" value="8.97"/>	<input type="text" value="3.36"/>	<input type="text" value="11.69"/>
Attn. R2 (dB)	<input type="text" value="9.44"/>	<input type="text" value="3.33"/>	<input type="text" value="11.83"/>	<input type="text" value="3.07"/>
P. Diff T1 (deg)	<input type="text" value="-3.28"/>	<input type="text" value="3.03"/>	<input type="text" value="-3.29"/>	<input type="text" value="2.97"/>
Attn. T1 (dB)	<input type="text" value="5.48"/>	<input type="text" value="5.65"/>	<input type="text" value="8.47"/>	<input type="text" value="8.62"/>
CP T1T2 (deg)	<input type="text" value="-0.12"/>	<input type="text" value="5.56"/>	<input type="text" value="-0.16"/>	<input type="text" value="8.54"/>
	-0.50 0.50	5.30 5.70	-0.30 0.70	8.30 8.70

Propagation Resistivity Pre-run / Post-run Verification

Tool Size: Tool Type: Asset No: Build No:

Refer to heading remarks for any out of tolerance value

Post Run	Pre Run	Date/Time	2 MHz				400 kHz			
			CP T1T2	CA T1T2	CP T3T4	CA T3T4	CP T1T2	CA T1T2	CP T3T4	CA T3T4
N/A	1	2016-12-08 13:28	<input type="text" value="-0.32"/>	<input type="text" value="5.55"/>	<input type="text" value="0.03"/>	<input type="text" value="8.52"/>	<input type="text" value="-0.23"/>	<input type="text" value="5.57"/>	<input type="text" value="-0.18"/>	<input type="text" value="8.55"/>
1	N/A	2016-12-13 00:23	<input type="text" value="-0.18"/>	<input type="text" value="5.56"/>	<input type="text" value="0.05"/>	<input type="text" value="8.52"/>	<input type="text" value="-0.18"/>	<input type="text" value="5.56"/>	<input type="text" value="-0.18"/>	<input type="text" value="8.55"/>
N/A	2	2016-12-13 00:33	<input type="text" value="-0.19"/>	<input type="text" value="5.56"/>	<input type="text" value="0.06"/>	<input type="text" value="8.52"/>	<input type="text" value="-0.18"/>	<input type="text" value="5.56"/>	<input type="text" value="-0.17"/>	<input type="text" value="8.55"/>
2	N/A	2016-12-16 14:27	<input type="text" value="0.04"/>	<input type="text" value="5.62"/>	<input type="text" value="0.08"/>	<input type="text" value="8.54"/>	<input type="text" value="-0.03"/>	<input type="text" value="5.60"/>	<input type="text" value="-0.16"/>	<input type="text" value="8.56"/>

Density Primary Calibration Summary

Tool Size: Tool Type: Asset No: Build No: Date/Time:

Tool Size: 6.750 Tool Type: 2.70 Asset No: 10647144 Build No: 0 Date/Time: 2016-12-01 18:26

Tool Firmware: 00606FW618 Location: STV Stabilizer No: 12917248 Stabilizer OD: 8.370
 Test Software: 77763TC141 Unit: N/A Source No: 27769B Calibrator Asset: N/A

	Background		Calibration Factors			Pe Constants		
	Density Window (cps)	Lithology Window (cps)	Cesium Peak (Channel)	Alpha	Beta	APe	BPe	CPe
Short Spaced	258	46	200.13 197 203	0.740 0.50 0.78	14110	-4.540	2.520	0.120
Long Spaced	106	15	200.09 197 203	2.180 2.00 2.13	117001			

Density Pre-run / Post-run Function Check

Tool Size: 6.750 Tool Type: 2.70 Asset No: 10647144 Build No: 0
 Tool Firmware: 00606FW618 Stabilizer No: 12917248 Verifier No: SEED Stabilizer OD: 8.370

Refer to heading remarks for any out of tolerance value

Post Run	Pre Run	Date/Time	Short Spaced					Long Spaced				
			Shop Density Window (cps)	Field Density Window (cps)	Shop Lithology Window (cps)	Field Lithology Window (cps)	Cesium Peak (channel)	Shop Density Window (cps)	Field Density Window (cps)	Shop Lithology Window (cps)	Field Lithology Window (cps)	Cesium Peak (channel)
N/A	1	2016-12-07 11:47	258	256	46	46	199.89	106	103	15	15	199.96
1	N/A	2016-12-13 00:23	258	255	46	46	200.33	106	105	15	15	200.07
N/A	2	2016-12-13 00:33	258	257	46	46	199.84	106	103	15	14	199.89
2	N/A	2016-12-16 14:27	258	254	46	46	199.88	106	103	15	14	199.92

Neutron Primary Calibration Summary

Tool Size: 6.750 Tool Type: CCN 6 3/4" Asset No: 13053999 Build No: 0 Date/Time: 2016-11-30 17:32
 Tool Firmware: 00983FW101 Location: STV Stabilizer No: N/A Calibrator Asset: N/A
 Test Software: 77763SW126 Unit: N/A Source No: 91125B Calibrator Series: N/A

	High Porosity Calibrator				Low Porosity Calibrator			
	HVPS (V)	Centroid (channel)	Neutron CR (cps)	Near/Far Ratio	HVPS (V)	Centroid (channel)	Neutron CR (cps)	Near/Far Ratio
Near Detector	1131.1000	119.95	1146	15.30	1131.4000	120.13	1290	7.21
Far Detector	1277.7000	119.96	75	11.20 16.80	1279.0000	120.04	179	5.43 8

Calibration Factors Gain (A) 0.760 Offset (B) 0.470


Neutron Pre-run / Post-run Function Check

Tool Size:	6.750	Tool Type:	CCN 6 3/4"	Asset No:	13053999	Build No:	0
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Tool Firmware:	00983FW101	Verifier No:	10035252	Stabilizer No:	N/A
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Refer to heading remarks for any out of tolerance value

Post Run	Pre Run	Date/Time	Near Detector		Far Detector		
			Shop Count Rate (cps)	Field Count Rate (cps)	Shop Count Rate (cps)	Field Count Rate (cps)	
				39	52	145	171
N/A	1	2016-12-07 11:47	46	43	158	150	
1	N/A	2016-12-13 00:23	46	44	158	150	
N/A	2	2016-12-13 00:33	46	44	158	149	
2	N/A	2016-12-16 14:27	46	45	158	152	

LWD MEMORY LOG - COMPOSITE	
 <p>Multiple Propagation Resistivity, Azimuthal Propagation Resistivity, Extra Deep Azimuthal Propagation Resistivity, Neutron Porosity, Bulk Density, Azimuthal Density Image, Caliper, Gamma Ray, Near Bit Gamma Ray</p>	
Scale:	Company: #####
1:200 Measured Depth	Well: #####
Depth Reference:	Field: #####
Driller's Depth	Region: ##### Country: #####
Status:	Surface Location:
Final Print	Latitude: #####
	Longitude: #####
Job ID:	UTM: ##### Zone: #####
#####	#####
Elevations:	
Permanent Datum (P.D.): Mean Sea Level	Elevation: 0.00 ft Interval: 12249.0000 ft - 15033.0000 ft
Log Measured From: Rotary Table	Above P.D. 259.70 ft Created: 2021-05-05 21:06:15
	KB: N/A
	DF: 259.70 ft
	GL: -260.30 ft