REC'D OCT 14 2011

Schlumberger

Company: OXY US LA BASIN

CONFIDENTIAL

Well: DOM-001
Field: Dominguez
County: Los Angeles State: California

County: Los Angeles
Field: Dominguez
Location: SURFACE LAMBERT COORDIN
Well: DOM-001
Company: OXY US LA BASIN

COMBINABLE MAGNETIC RESONANCE
GAMMA RAY TIE IN

LOCATION

SURFACE LAMBERT COORDINATES
N: 4 062 754.8
E: 4 214 067.32

Elev.: K.B. 194.09 ft
G.L. 168.97 ft
D.F. 194.09 ft

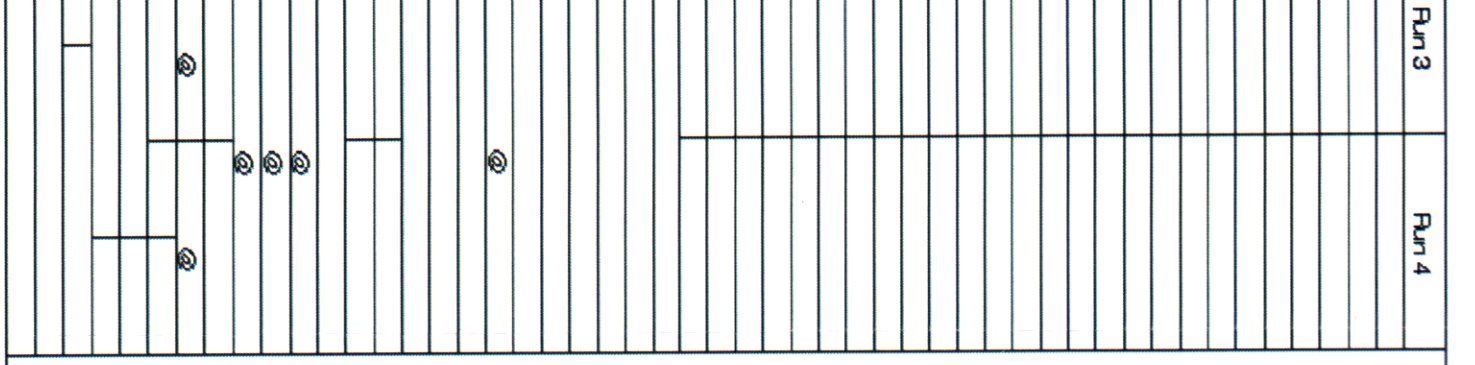
Permanent Datum: GROUND LEVEL
Log Measured From: DERRICK FLOOR
Drilling Measured From: DERRICK FLOOR

Elev.: 168.97 ft
25.03 ft above Perm. Datum

API Serial No.	Section	Township	Range
037-27124	33	3S	13W

Logging Date			1-Jan-2011								
Run Number			EIGHT								
Depth Driller			11113 ft								
Schlumberger Depth			11127 ft								
Bottom Log Interval			11121 ft								
Top Log Interval			8495 ft								
Casing Driller Size @ Depth			9.625 in	@	8494 ft		@				
Casing Schlumberger			8495 ft								
Bit Size			8.500 in								
Type Fluid In Hole			8% KCL - GELITE								
MUD	Density	Viscosity	11.5 lbm/gal	50 s							
MUD	Fluid Loss	PH	4.2 cm3	7.9							
MUD	Source Of Sample		FLOWLINE								
RM @ Measured Temperature			0.187 ohm.m	@	54 degF		@				
RMF @ Measured Temperature			0.174 ohm.m	@	47 degF		@				
RMC @ Measured Temperature			0.290 ohm.m	@	49 degF		@				
Source RMF	RMC		MUD PRESS	MUD PRESS							
RM @ MRT	RMF @ MRT		0.044 @ 255	0.036 @ 255			@		@		
Maximum Recorded Temperatures			255 degF								
Circulation Stopped	Time		30-Dec-2010		16:00						
Logger On Bottom	Time		1-Jan-2011		9:32						
Unit Number	Location		2363	BAKERSFIELD							
Recorded By			JARROD LONG								
Witnessed By			MARIEKE GAUDET								

			Run 1		Run 2	
Logging Date						
Run Number						
Depth Driller						
Schlumberger Depth						
Bottom Log Interval						
Top Log Interval						
Casing Driller Size @ Depth					@	
Casing Schlumberger						
Bit Size						
Type Fluid In Hole						
MUD	Density	Viscosity				
MUD	Fluid Loss	PH				
MUD	Source Of Sample					
RM @ Measured Temperature					@	
RMF @ Measured Temperature					@	
RMC @ Measured Temperature					@	
Source RMF	RMC					
RM @ MRT	RMF @ MRT		@			@
Maximum Recorded Temperatures						
Circulation Stopped	Time					
Logger On Bottom	Time					
Unit Number	Location					
Recorded By						
Witnessed By						



DEPTH SUMMARY LISTING

Date Created: 31-DEC-2010 17:41:14

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	7-48A SUS
Serial Number:	5905	Serial Number:	1377	Serial Number:	708176
Calibration Date:	2-DEC-2010	Calibration Date:	02-DEC-2010	Length:	19900 FT
Calibrator Serial Number:	33	Calibrator Serial Number:	6250	Conveyance Method:	Wireline
Calibration Cable Type:	7-48A SUS	Number of Calibration Points:	10	Rig Type:	LAND
Wheel Correction 1:	-5	Calibration RMS:	23		
Wheel Correction 2:	-5	Calibration Peak Error:	37		

Depth Control Parameters

Log Sequence: Subsequent Log In the Well

Reference Log Name: PLATFORM EXPRESS
Reference Log Run Number: SIX
Reference Log Date: 31-DEC-2010

Depth Control Remarks

1. ALL SCHLUMBERGER DEPTH CONTROL PROCEDURES FOLLOWED.
2. IDW USED AS PRIMARY DEPTH REFERENCE, Z-CHART USED AS SECONDARY.
3.
4.
5.
6.

DISCLAIMER
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1: FMI-MSIP	OS1:
OS2: PEX-HRLA	OS2:
OS3: XPT	OS3:
OS4: CST	OS4:
OS5: ECS-HNGS	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
SUBSEQUENT TRIP TO WELL	
LOG CORRELATED TO PLATFORM EXPRESS	
DATED 31-DEC-2010	

CMR RAN IN AUTOTUNE- EXPERT MODE

STRIPS OF METAL FROM CASING PRESENT IN WELL

RIG: H&P 262

THANK YOU FOR USING SCHLUMBERGER!

RUN 1		RUN 2	
SERVICE ORDER #:	AUYB-00230	SERVICE ORDER #:	
PROGRAM VERSION:	18C0-147	PROGRAM VERSION:	
FLUID LEVEL:		FLUID LEVEL:	

LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

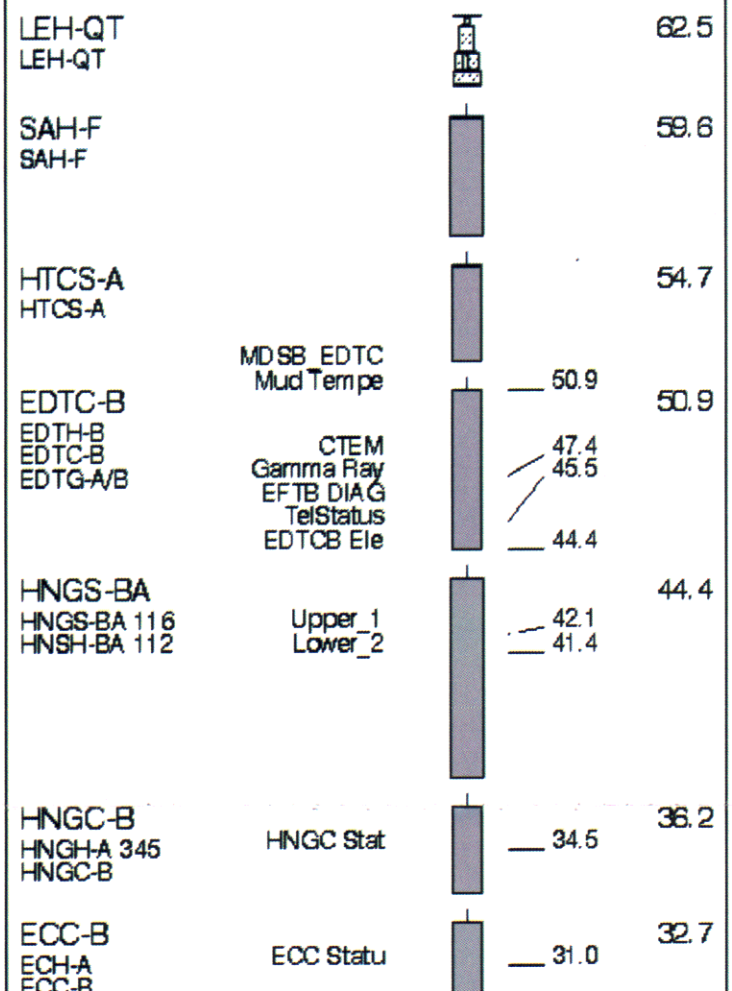
EQUIPMENT DESCRIPTION

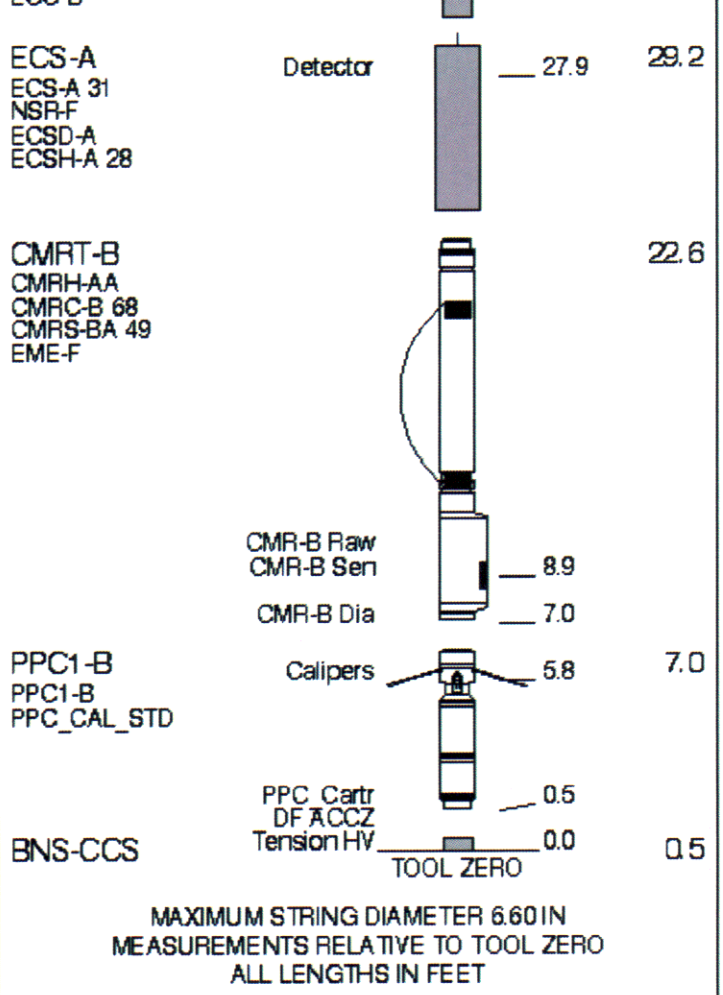
RUN 1 | RUN 2

SURFACE EQUIPMENT

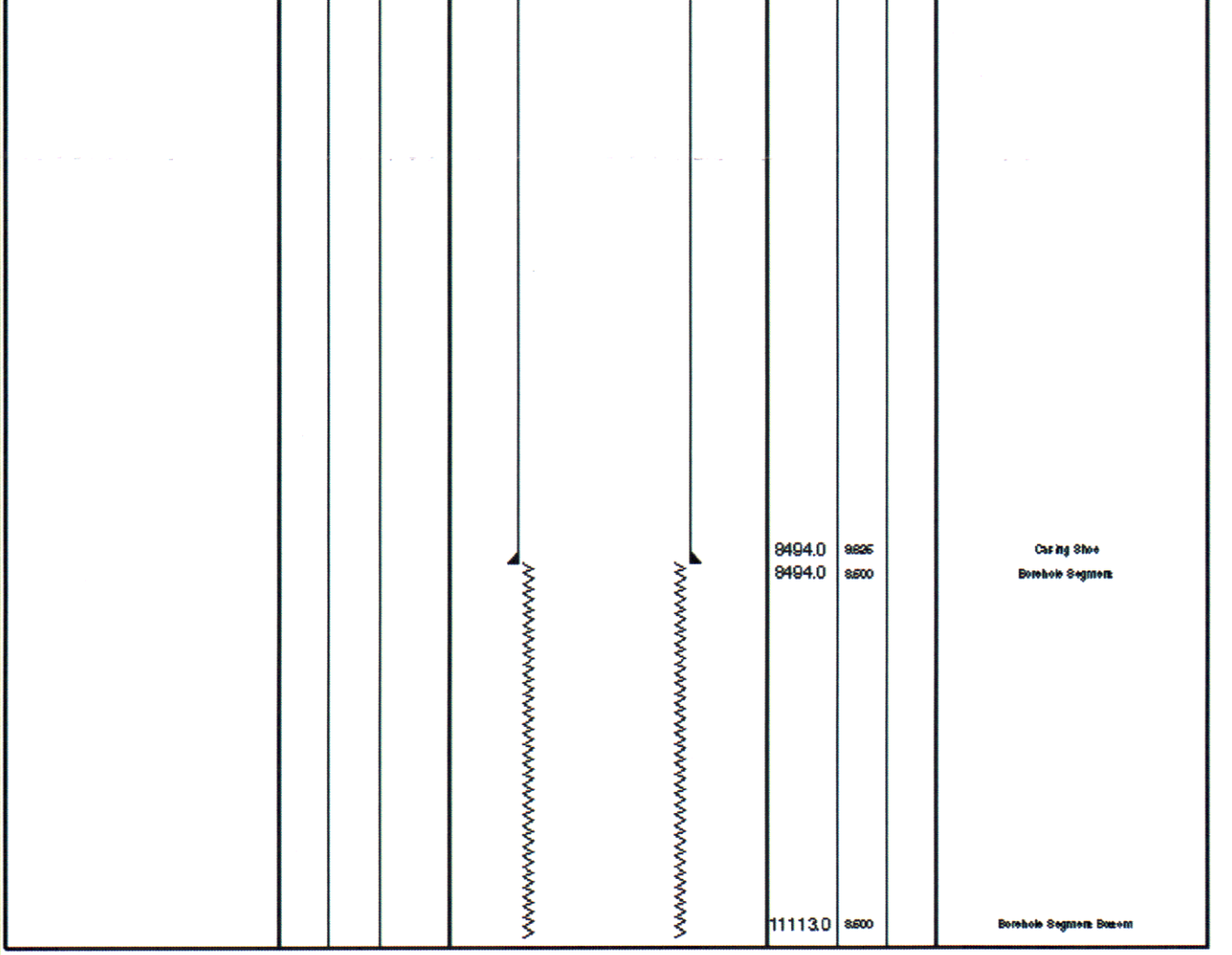
GSR-U
WITM (EDTS)-A

DOWNHOLE EQUIPMENT





Production String	(in) OD	(in) ID	(ft) MD	Well Schematic	(ft) MD	(in) OD	(in) ID	Casing String
					0.0	13.375		Caring Saring
					1997.0	13.375		Caring Shoe
					1997.0	8.625		Caring Saring
					1997.0	13.375	8.625	Liner Hanger



ALL DEPTHS ARE DRILLER'S DEPTHS

Schlumberger

CMR LOG

MAXIS Field Log

Company: OXY US LA BASIN **Well: DOM-001**

Input DLIS Files

DEFAULT	CAL_CMR_ECS_NGS_123PUP	FN:223	PRODUCER	01-Jan-2011 12:37	11140.0 FT	8500.5 FT

Output DLIS Files

DEFAULT	CAL_CMR_ECS_NGS_125PUP	FN:229	PRODUCER	01-Jan-2011 12:54	11137.5 FT	8500.5 FT

RTB	CAL_CMR_ECS_NGS_125PUP	FN:230	PRODUCER	01-Jan-2011 12:54	11137.5 FT	8500.5 FT
CLIENT	CAL_CMR_ECS_NGS_125PUC	FN:231	CUSTOMER	01-Jan-2011 12:55	11137.5 FT	8500.5 FT

CMR DEPTH LOG REPORT

PARAMETER SUMMARY

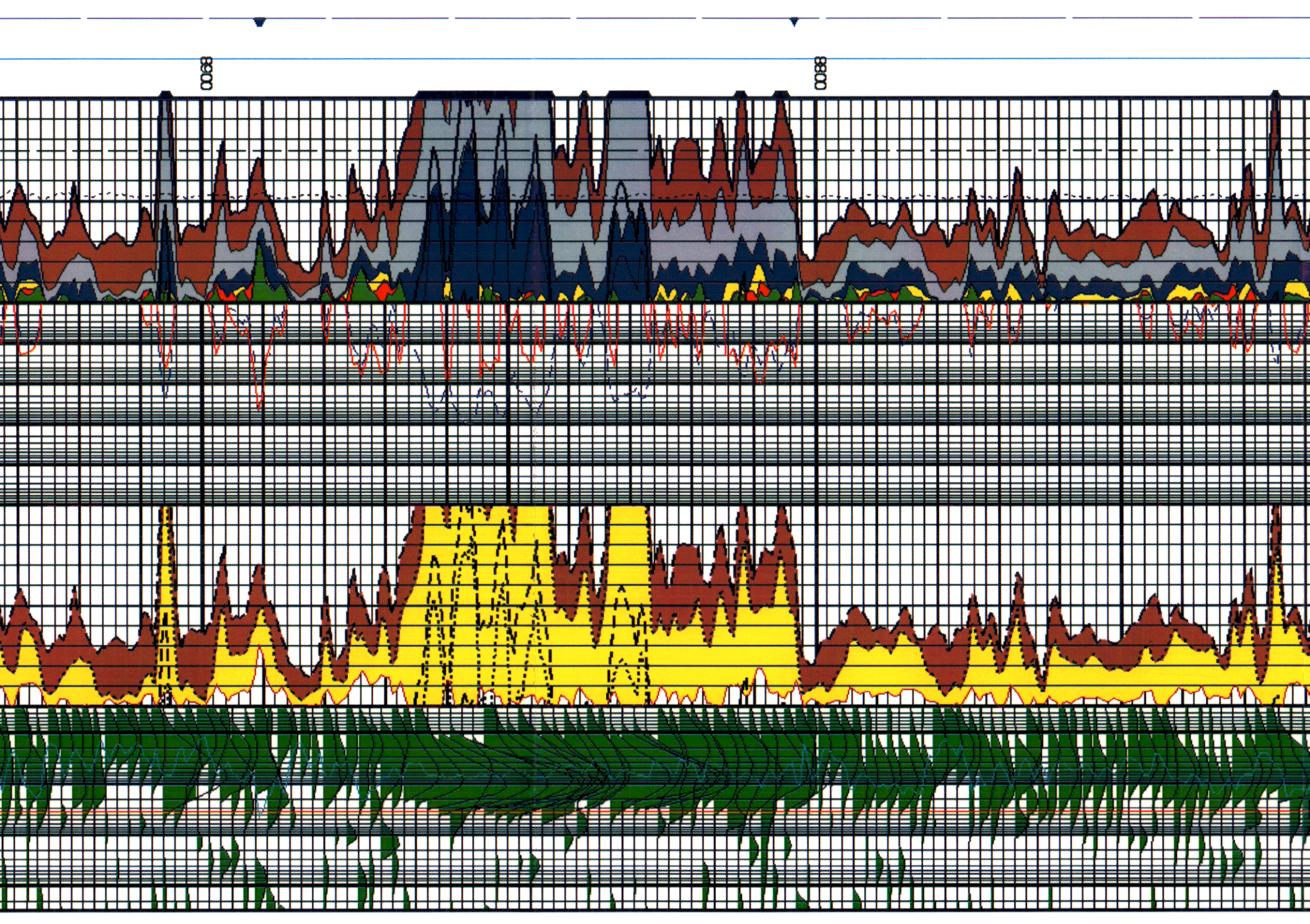
Tool Type: CMR-Plus	Cart. Number: 68	Sonde Number: 49	
Kit Number: 28	DHC Version : 16.4	DSP Version : 13	SP Version : 10182006
Mode: Expert Depth Log - B Mode		LFST Freq(khz) : 2123	LFST Temp(degc) : 129.34
Log Direction: Up	Polarization Correction: On	EPM: Yes	EPM T1/T2: Auto
Despiking: Off	High Res: Off	KBFV: Off	DMRP: Off
Echo Spacing(us):	(200 200)		
Polarization Times(sec) for:	T1=1s: (3.052 0.02)	T1=3s: (3.555 0.02)	T1=5s: (3.634 0.02)
Number of Echoes:	(1800 30)		
Repetition:	(1 10)	Duty Cycle (highest): 0.0326	
Regularization:	Auto		
T2 Min(msec): 0.3	T2 Max(msec): 3000	T2 Cutoff(msec): 33	T1/T2: 2
Number of Components: 30	Downhole Stacking: 3	Uphole Stacking: 1	First Echo Used: No
Multiple T2 Cutoffs(msec):	(0.3 1 3 10 33 100 300 1000 3000)		
Sample Int.(in): 7.5	Req Log Speed (f/h): 1400		

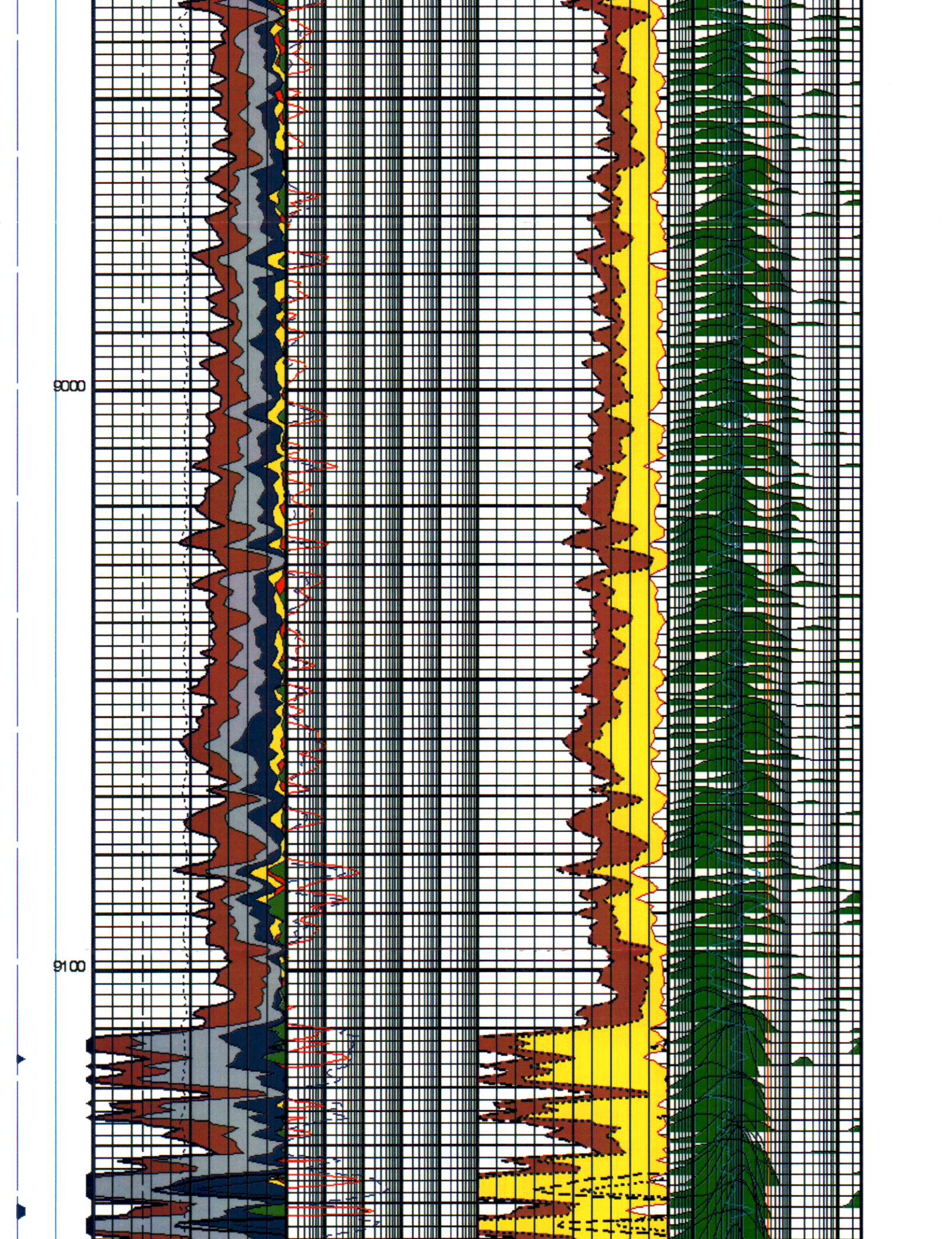
PIP SUMMARY

Time Mark Every 60 S

	Bins 7-8			
	Bin 6			
	Bin 5			
Tuning Mode (TUNING_MODE) -1 (---) 3	Bin 4			
(NO_UPDATE_COUNT) 0 (---) 10	Bin 3		Small Pore Porosity	
Noise Out of Tolerance	Bins 1-2		Capillary Bound Fluid Porosity	
Caution Moderate Noise	Tension (TENS) 10000 (LBF) 0		Total CMR Porosity (TCMR) 0.4 (V/V) 0	T2 Distribution (T2_DIST_MW) 60 (US) 89
Insuff. WT Flag	CMR Free Fluid Porosity for T2 Cutoff 2 (CFF2) 0.4 (V/V) 0	Timur/Coates Permeability (KTIM) 0.1 (MD) 10000	CMR 3ms Porosity (CMRP_3MS) 0.4 (V/V) 0	T2 Logarithmic Mean (T2LM) 0.3 (MS) 3000
Bad Hole Flag	Bit Size (BS) 6 (IN) 16	SDR Permeability (KSDR) 0.1 (MD) 10000	CMR Free Fluid Porosity (CMFF) 0.4 (V/V) 0	Bound Fluid Cutoff (T2CUTOFF) 0.3 (MS) 3000

8600
8700

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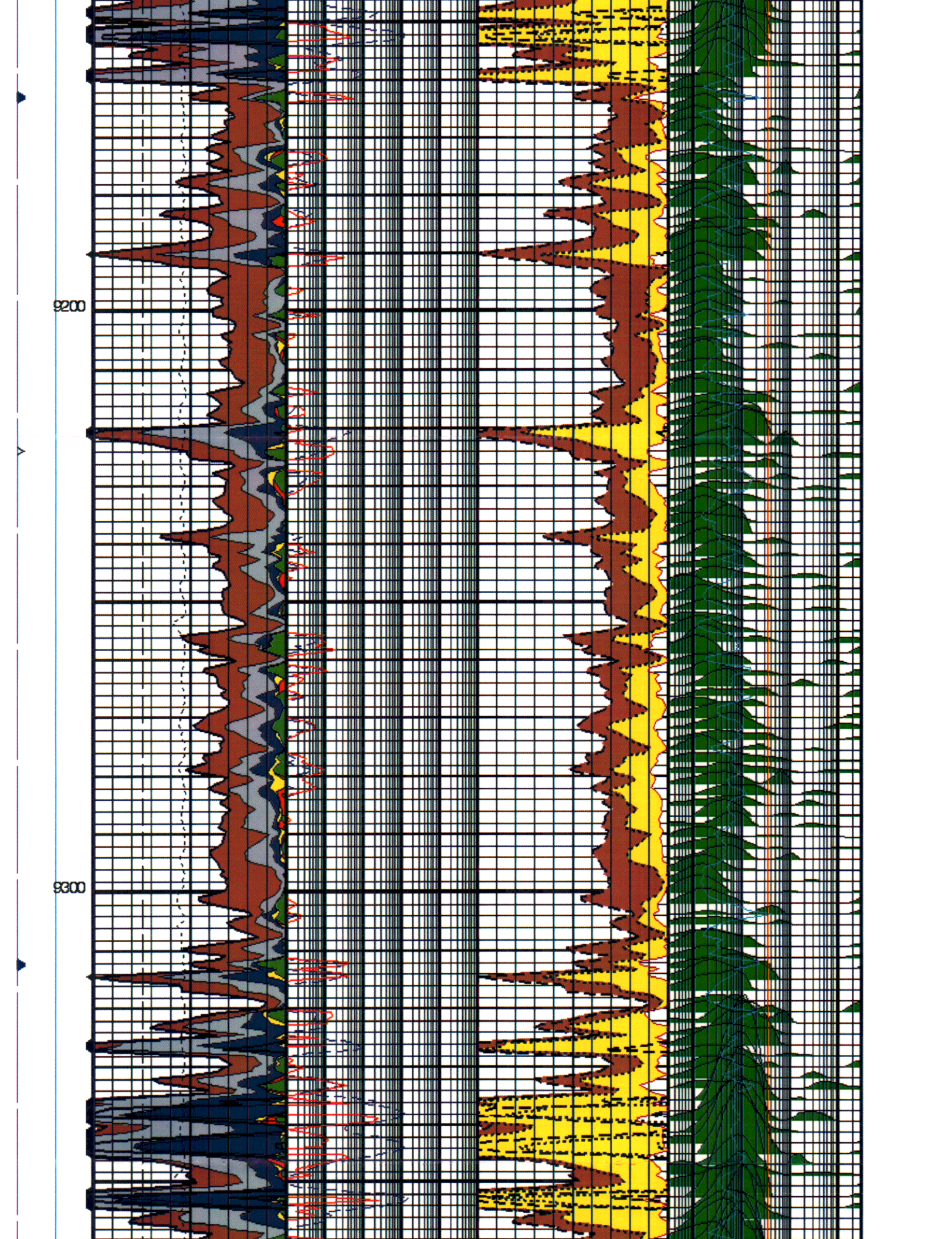
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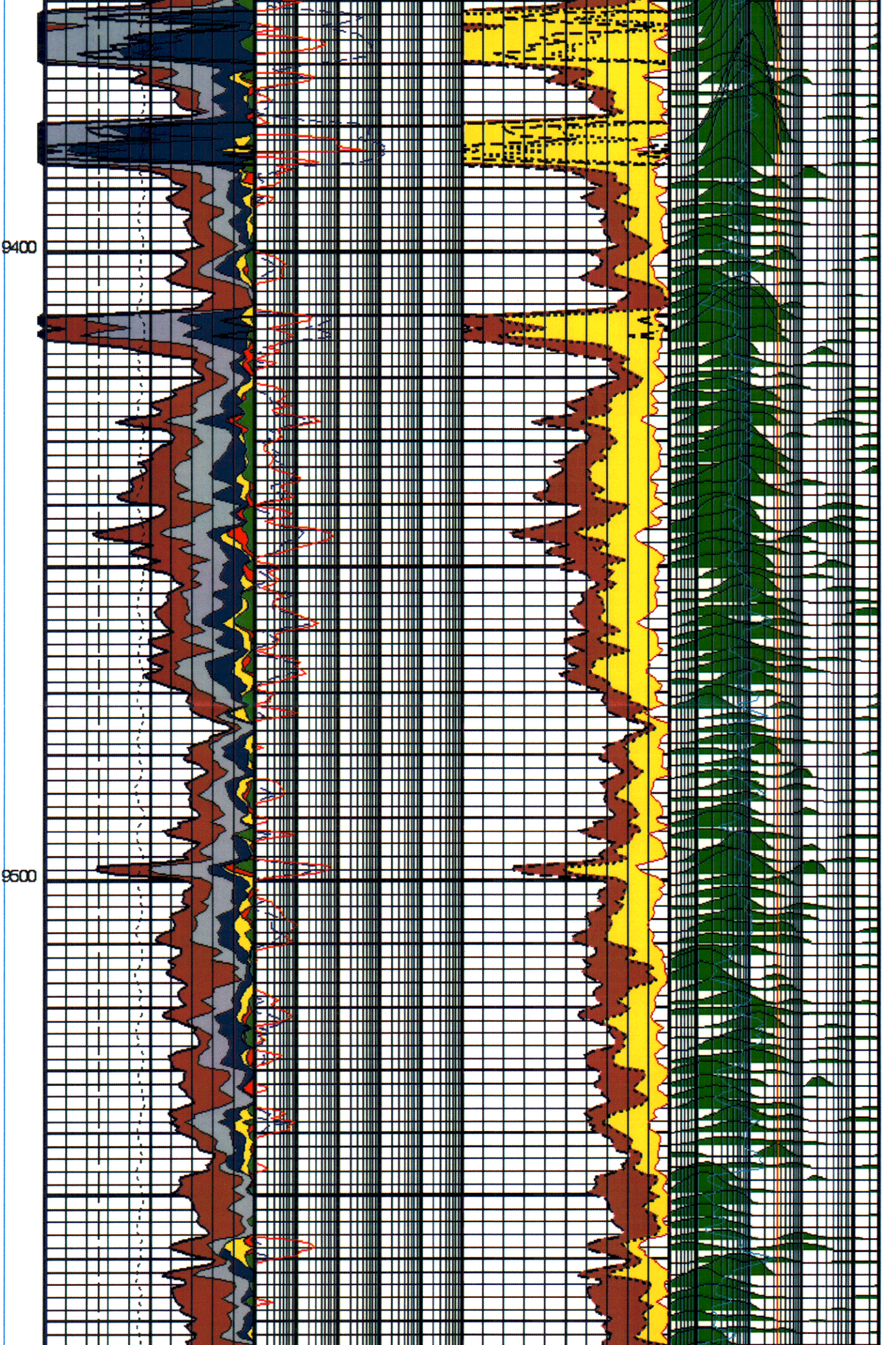
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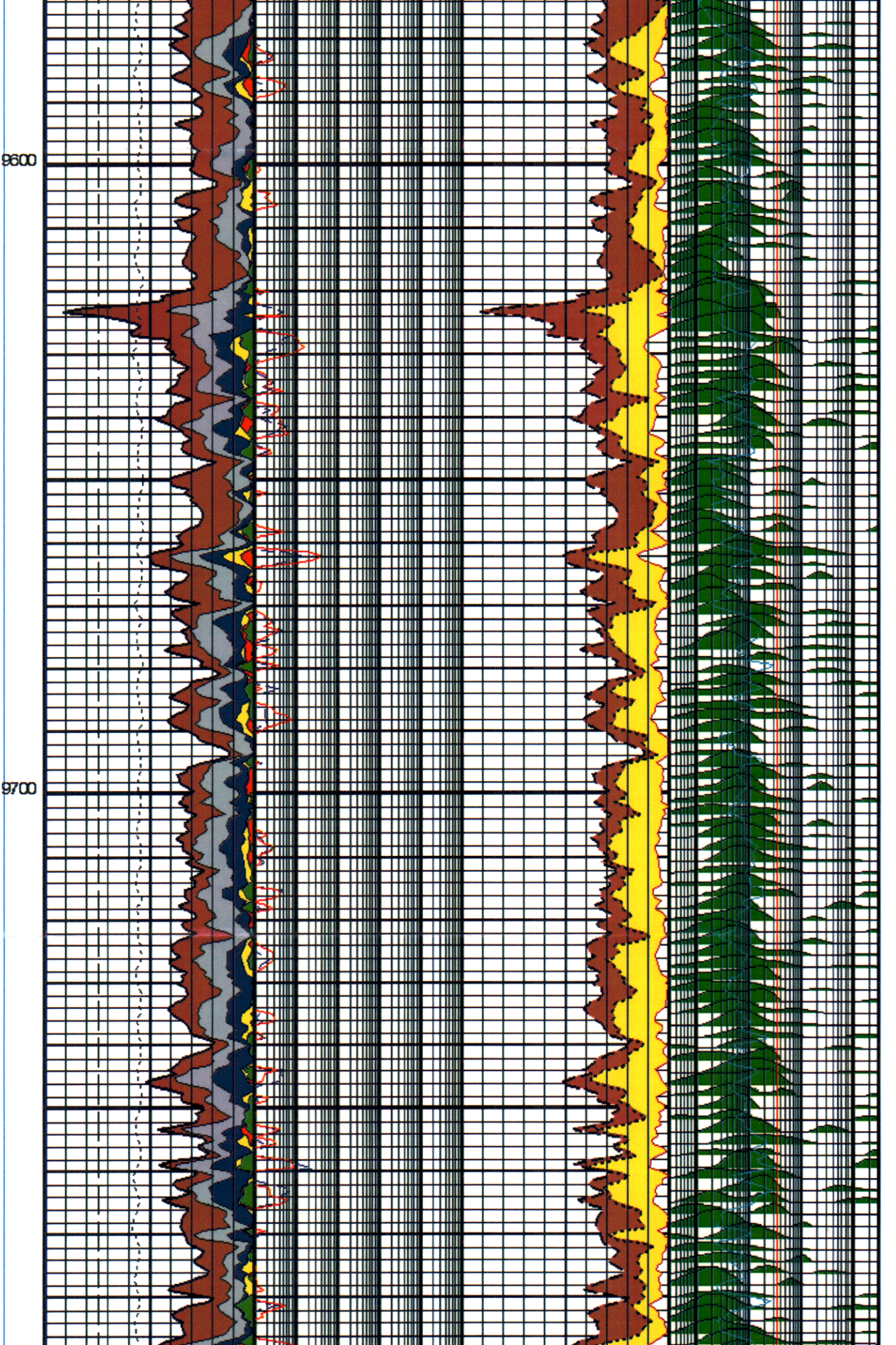
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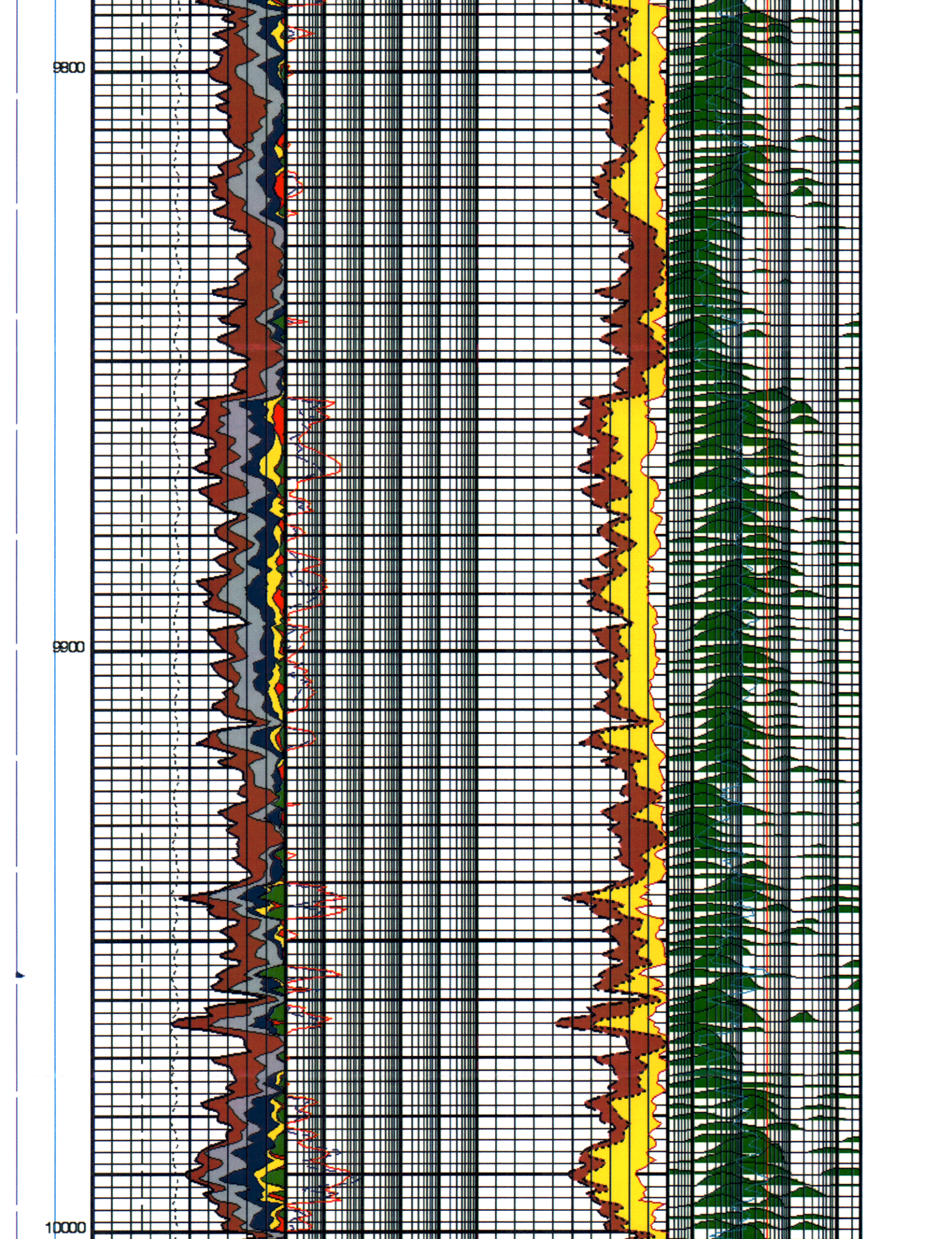
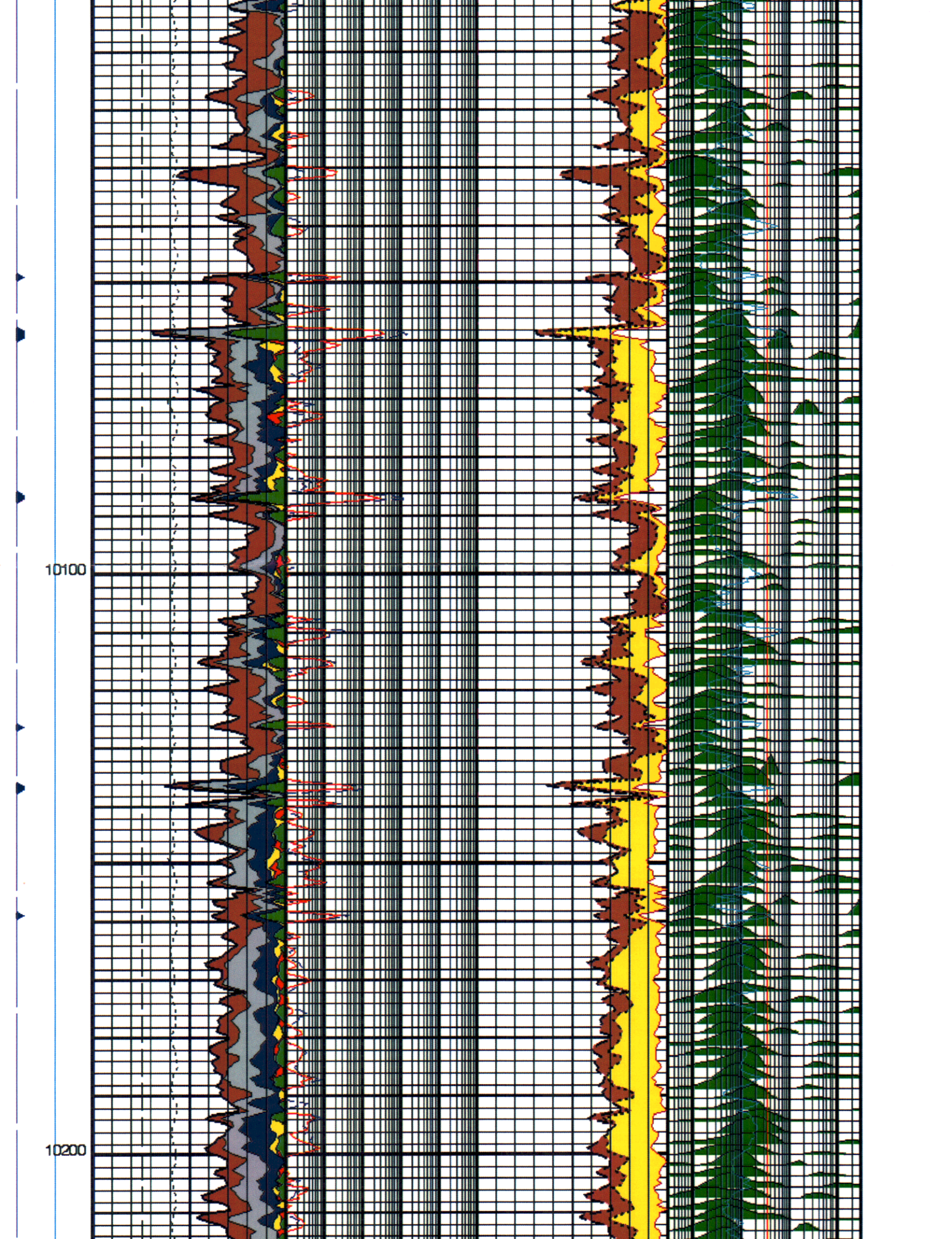

9800
9900
10000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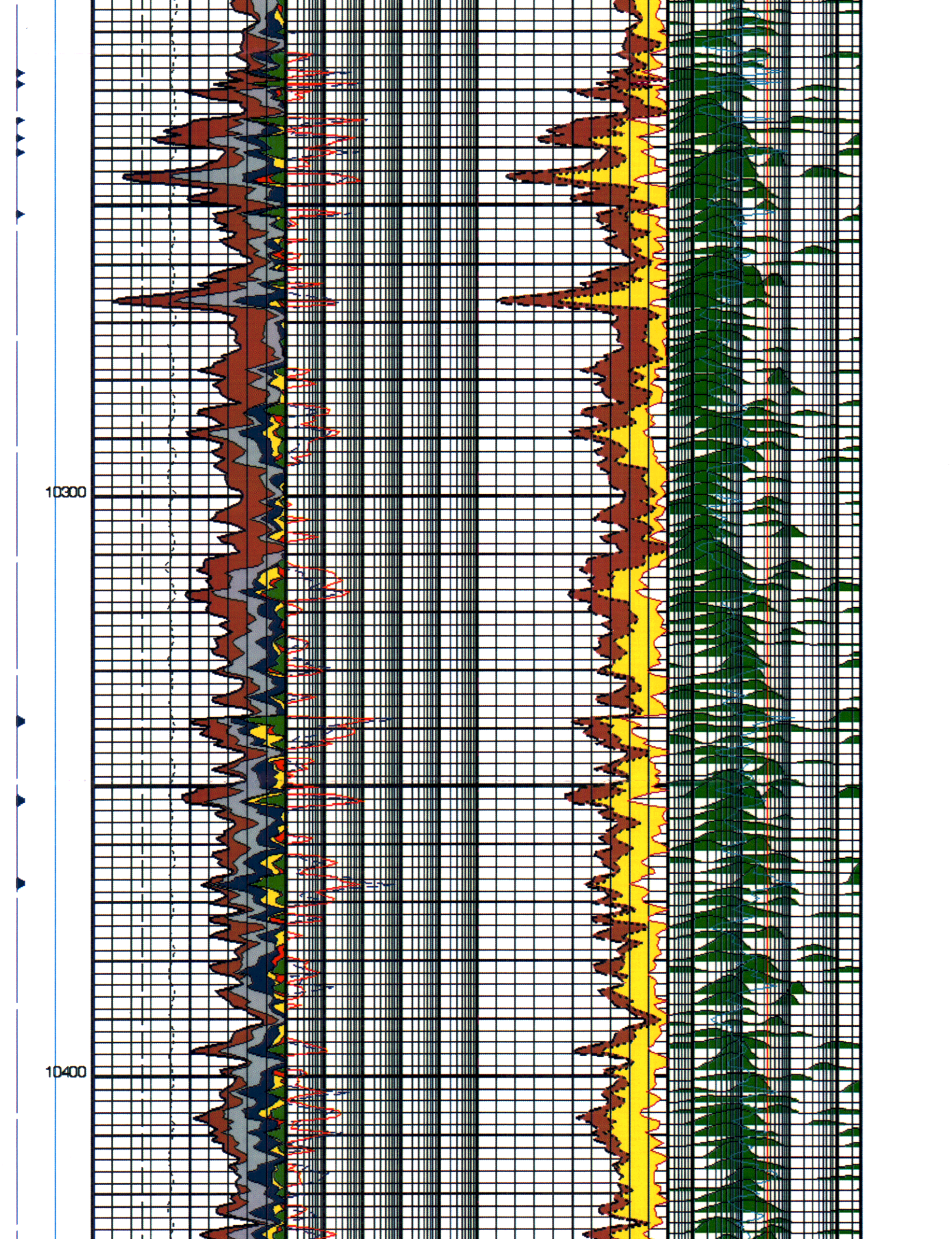
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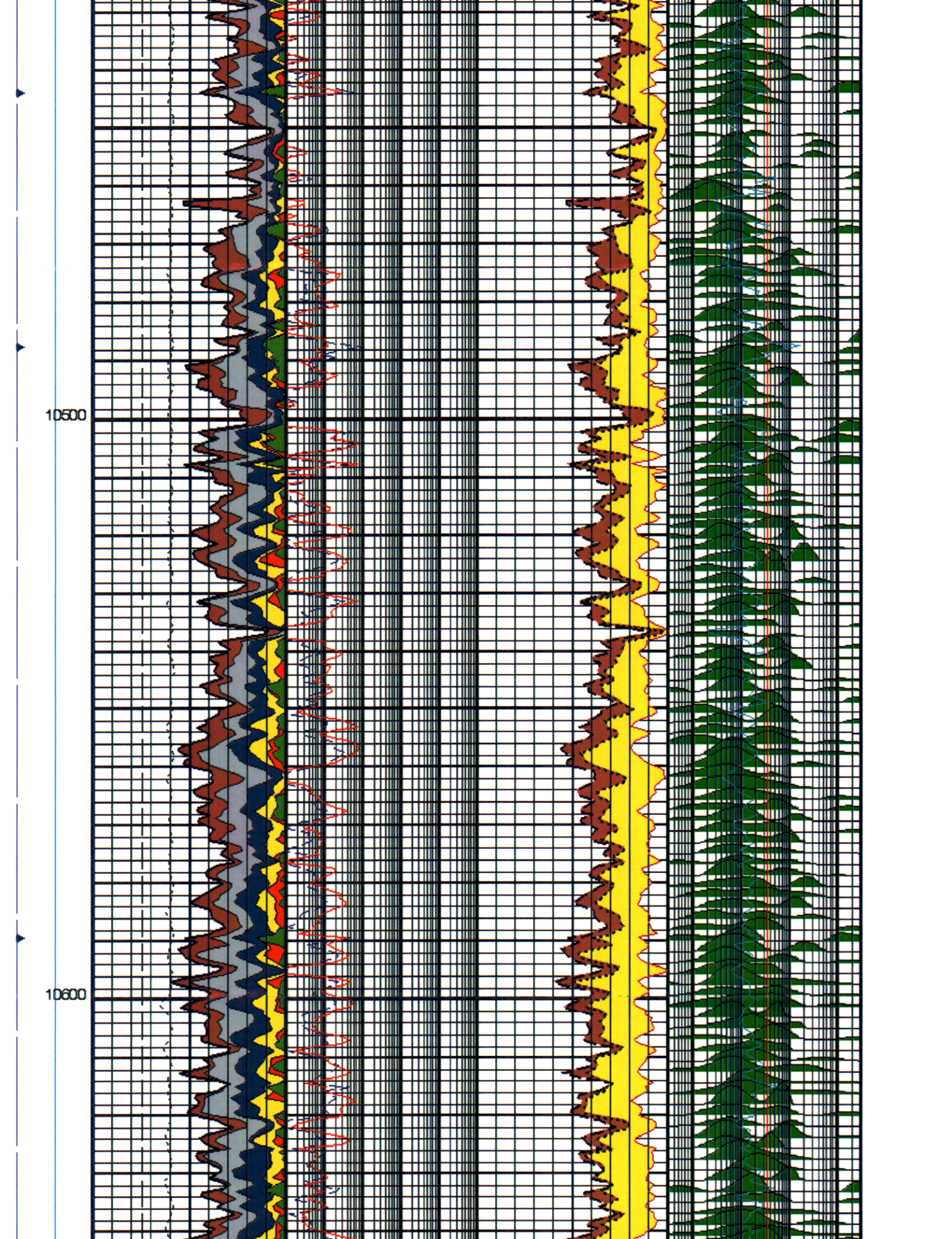
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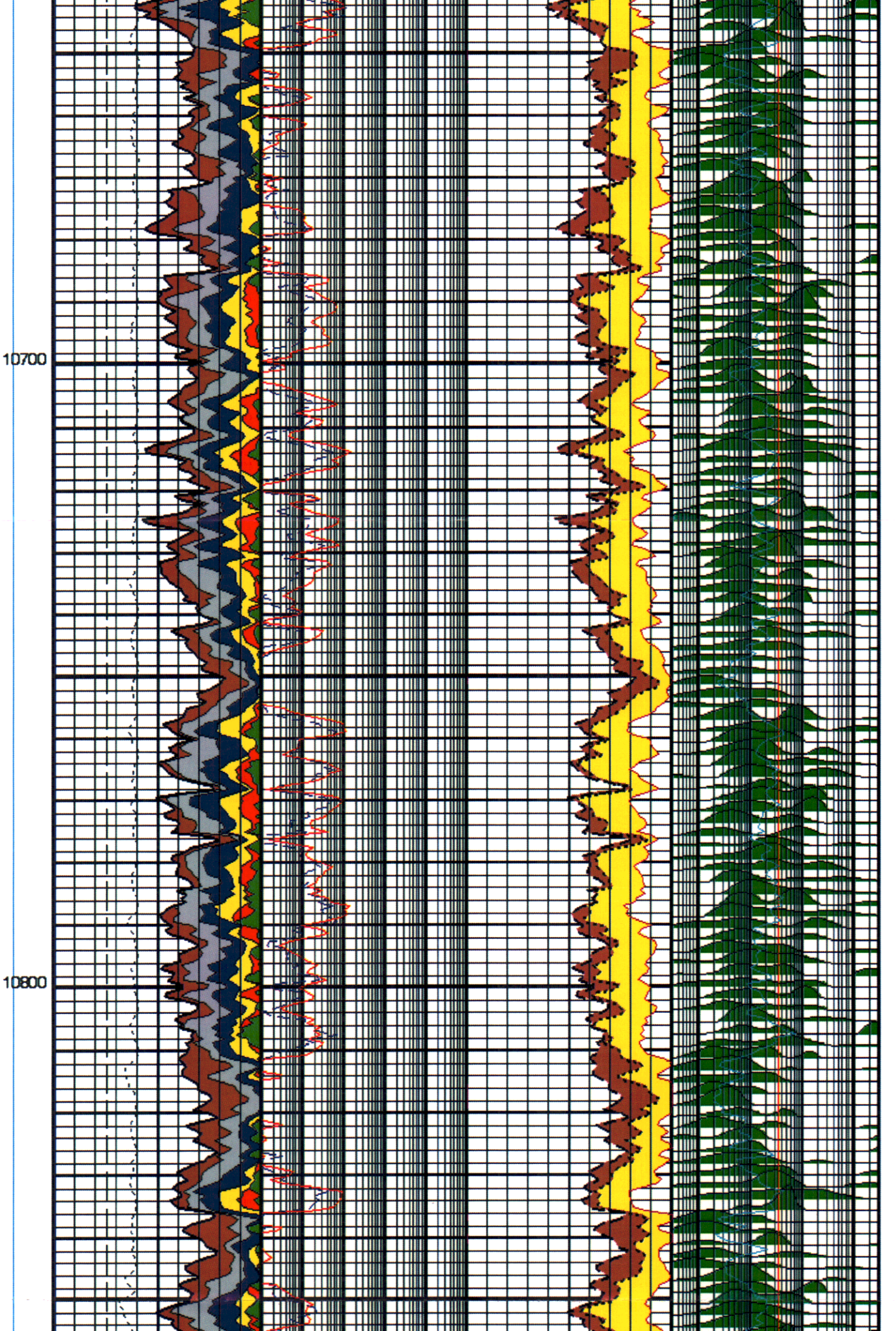
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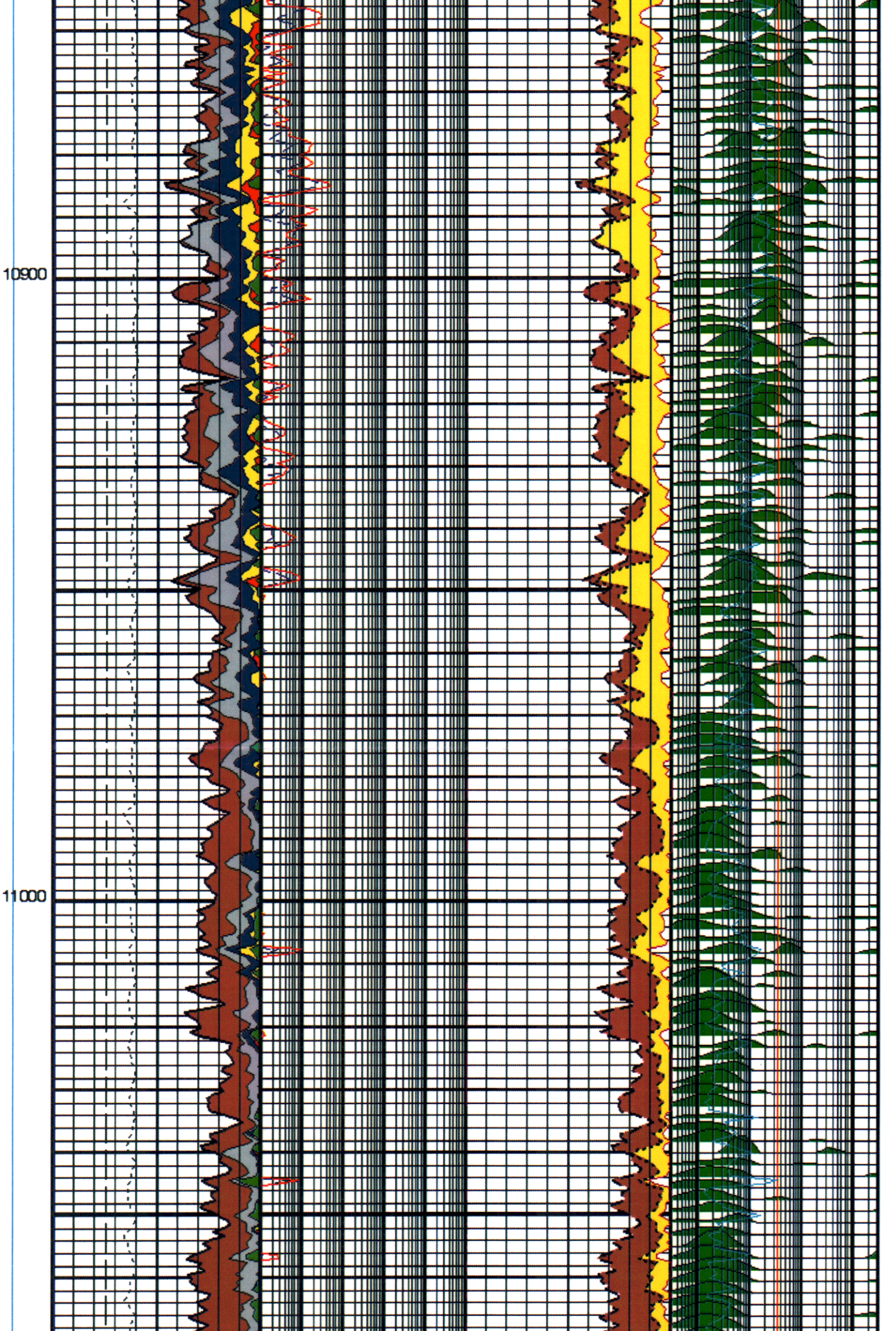
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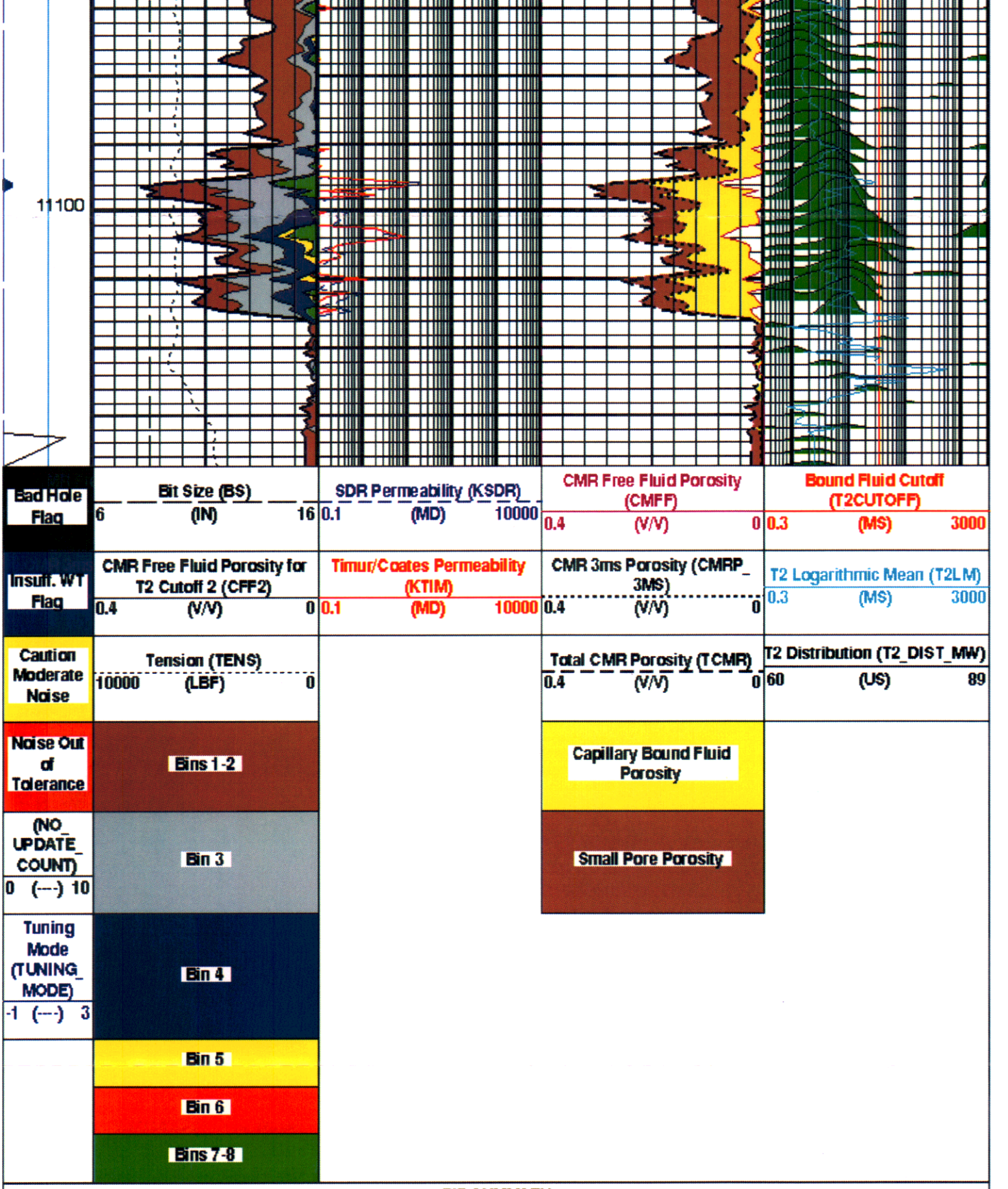


PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
System and Miscellaneous			
BS	Bit Size	8.500	IN
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	RECOMPUTE	

Format: CMRT_BIN_POR_DEPTH_LOG Vertical Scale: 5" per 100' Graphics File Created: 01-Jan-2011 12:54

OP System Version: 18C0-147

PPC1-B	18C0-147	CMRT-B	18C0-147
ECS-A	18C0-147	ECC-B	18C0-147
HNGC-B	18C0-147	HNGS-BA	18C0-147
EDTC-B	18C0-147		

Input DLIS Files

DEFAULT	CAL_CMR_ECS_NGS_123PUP	FN:223	PRODUCER	01-Jan-2011 12:37	11140.0 FT	8500.5 FT

Output DLIS Files

DEFAULT	CAL_CMR_ECS_NGS_125PUP	FN:229	PRODUCER	01-Jan-2011 12:54
RTB	CAL_CMR_ECS_NGS_125PUP	FN:230	PRODUCER	01-Jan-2011 12:54
CLIENT	CAL_CMR_ECS_NGS_125PUC	FN:231	CUSTOMER	01-Jan-2011 12:55

Schlumberger

LOGGING TUNE

MAXIS Field Log

CMRT LARMOR FREQUENCY SEARCH REPORT - Sat Jan 01 09:19:05 2011

Search Accepted

ALF Offset: value, std dev (deg): -3.7, 1.91
Offset relative to master value (deg): -3.7

Search Results:

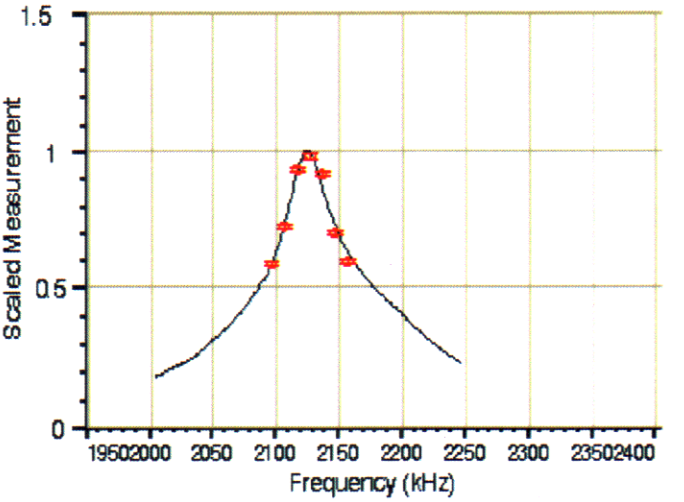
Larmor Frequency (kHz): **2123**
Temperature (degc): **129.3**

Search Parameters:

Central Frequency (kHz): 2125
Central Frequency Selection: Current Freq
Echo Count Used: 32

Measured Data:

Frequency	Amplitude	RMS Noise	Std Deviation
2095	72.00	2.07	2.0878
2105	89.00	2.32	2.0881
2115	115.00	2.16	2.0902
2125	121.00	2.41	2.0836
2135	113.00	1.88	2.0984
2145	86.00	1.88	2.0829
2155	73.00	1.82	2.0826



Related Data:

Depth(ft):	10916.1
Average Cable Speed (ft/h):	195.0
Delta Temperature (degc):	0.8
Measurement Time (sec):	510.4
HV Peak Current (mA):	3068.6
Previous LFST Freq (at Temp):	2124
Frequency Std Deviation (kHz):	0.49
Number of Echoes:	300
Polarization Time (sec):	0.400

Freq estimate from Temp (kHz):	0
Tune Table Offset (kHz):	0.5
Sonde Number:	49
Cartridge Number:	68

Echo Spacing (usec):	200.0	System Gain:	0.473

CMRT LARMOR FREQUENCY SEARCH REPORT - Sat Jan 01 09:09:30 2011

Search Accepted

ALF Offset: value, std dev (deg):	4.2 , 3.76
Offset relative to master value (deg):	4.0

Search Results:

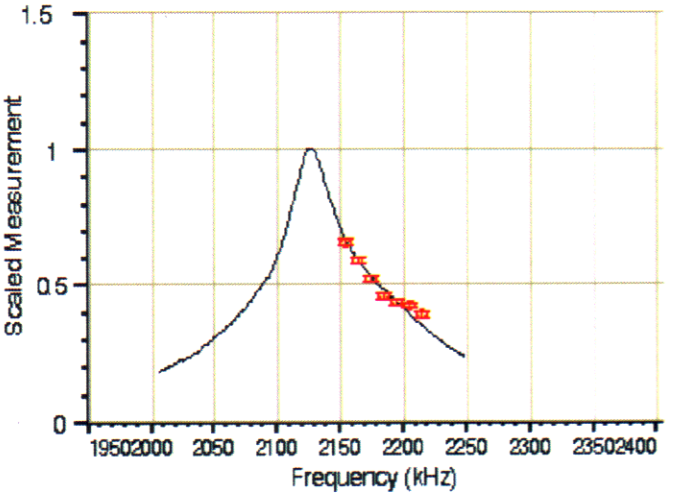
Larmor Frequency (kHz):	**2125**
Temperature (degc):	**128.2**

Search Parameters:

Central Frequency (kHz):	2182
Central Frequency Selection:	Current Freq
Echo Count Used:	32

Measured Data:

Frequency	Amplitude	RMS Noise	Std Deviation
2152	59.00	1.59	1.7452
2162	53.00	1.56	1.7484
2172	47.00	1.83	1.7482
2182	41.00	1.83	1.7449
2192	39.00	2.17	1.7497
2202	38.00	1.65	1.7563
2212	35.00	1.53	1.7578



Related Data:

Depth(ft):	10951.2
Average Cable Speed (ft/h):	196.5
Delta Temperature (degc):	1.4
Measurement Time (sec):	575.5
HV Peak Current (mA):	3784.6
Previous LFST Freq (at Temp):	2182
Frequency Std Deviation (kHz):	5.90
Number of Echoes:	300
Polarization Time (sec):	0.400
Echo Spacing (usec):	200.0

Freq estimate from Temp (kHz):	0
Tune Table Offset (kHz):	0.2
Sonde Number:	49
Cartridge Number:	68
System Gain:	0.468

CMRT LARMOR FREQUENCY SEARCH REPORT - Sat Jan 01 08:58:51 2011

Search Accepted

Search Results:

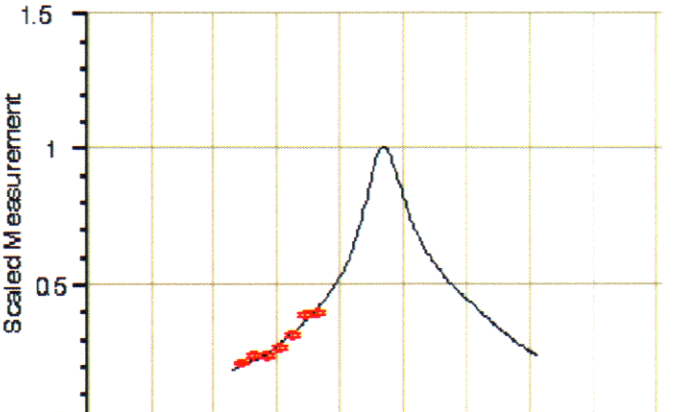
Larmor Frequency (kHz):	**2183**
Temperature (degc):	**126.4**

Search Parameters:

Central Frequency (kHz):	2101
Central Frequency Selection:	Current Freq
Echo Count Used:	32

Measured Data:

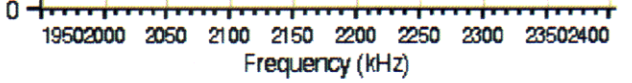
Frequency	Amplitude	RMS Noise	Std Deviation
2071	31.00	1.50	1.7567
2081	35.00	1.63	1.7567
2091	35.00	1.55	1.7499
2101	39.00	1.71	1.7472
2111	46.00	1.80	1.7484
2121	57.00	2.13	1.7654
2131	58.00	1.87	1.7455



Related Data:

Depth(ft):	10994.1

Average Cable Speed (ft/h):	205.8
Delta Temperature (degc):	2.9
Measurement Time (sec):	663.2
HV Peak Current (mA):	3399.6
Previous LFST Freq (at Temp):	2099
Frequency Std Deviation (kHz):	1.35
Number of Echoes:	300
Polarization Time (sec):	0.400
Echo Spacing (usec):	200.0



Freq estimate from Temp (kHz):	0
Tune Table Offset (kHz):	1.2
Sonde Number:	49
Cartridge Number:	68
System Gain:	0.376

CMRT TUNE WORD SEARCH REPORT - Sat Jan 01 08:44:29 2011

Search Results:

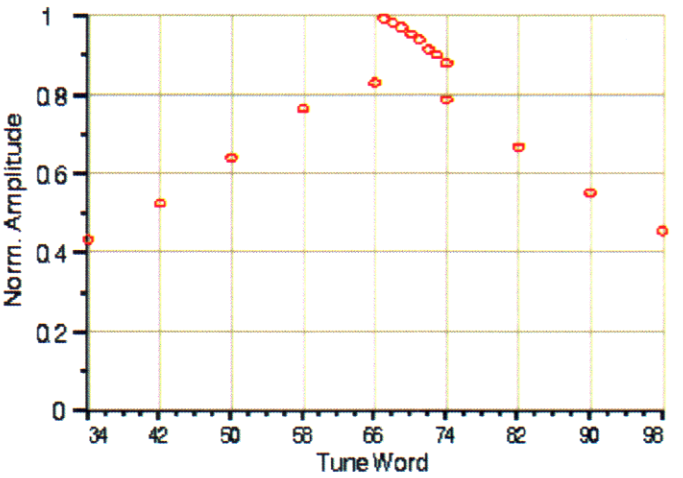
Tune Word:	**66**
Tune Word Offset:	**0**
Maximum Amplitude:	1486.5
Temperature(degF):	252.7
Depth (ft):	11007.4

Related Data:

Master Cal Test Loop Amp:	2450.4
Current LF Estimate (kHz):	2099
Sonde Number:	49
Cartridge Number:	68

Search Parameters:

Search Frequency (kHz):	2178
Search Mode:	Manual



CMRT TUNE WORD SEARCH REPORT - Sat Jan 01 08:41:55 2011

Search Results:

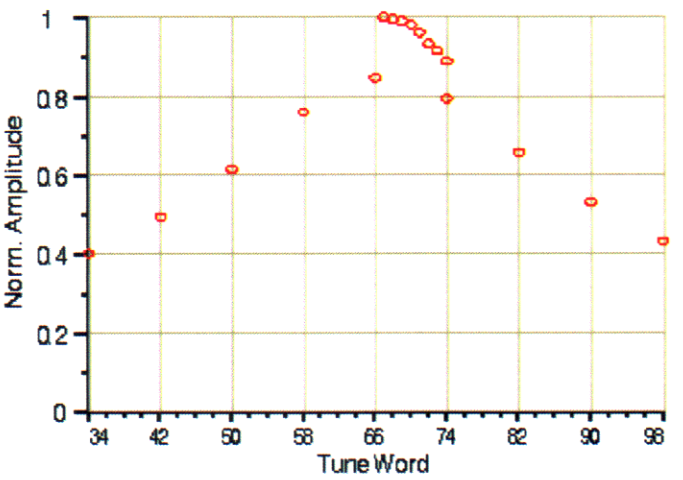
Tune Word:	**67**
Tune Word Offset:	**1**
Maximum Amplitude:	1623.0
Temperature(degF):	250.7
Depth (ft):	10993.5

Related Data:

Master Cal Test Loop Amp:	2450.4
Current LF Estimate (kHz):	2100
Sonde Number:	49
Cartridge Number:	68

Search Parameters:

Search Frequency (kHz):	2178
Search Mode:	Manual



CMRT TUNE WORD SEARCH REPORT - Sat Jan 01 08:40:36 2011

Search Results:

Search Parameters:

Search Results:

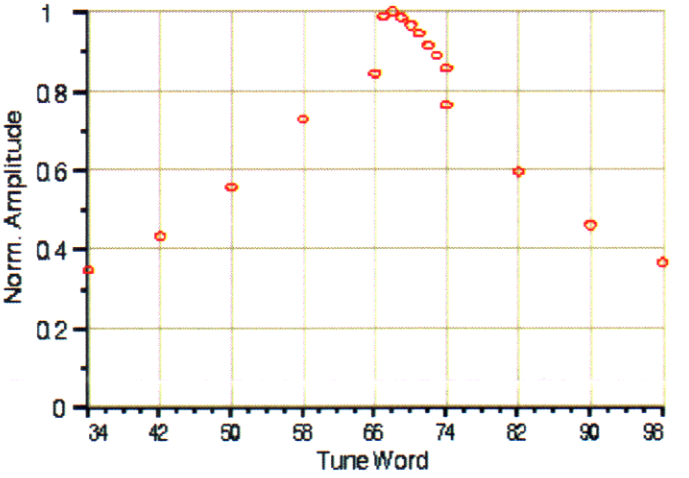
Tune Word:	**68**
Tune Word Offset:	**2**
Maximum Amplitude:	1986.3
Temperature(degF):	249.4
Depth (ft):	10997.3

Related Data:

Master Cal Test Loop Amp:	2450.4
Current LF Estimate (kHz):	2101
Sonde Number:	49
Cartridge Number:	68

Search Parameters:

Search Frequency (kHz):	2178
Search Mode:	Manual



CMRT TUNE WORD SEARCH REPORT - Sat Jan 01 08:39:13 2011

Search Results:

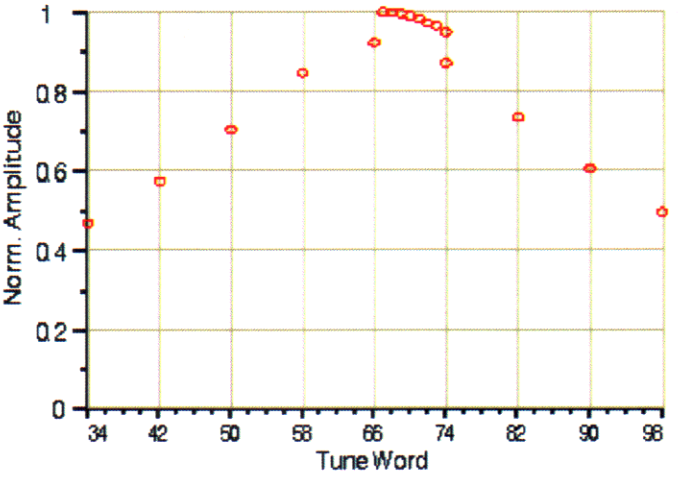
Tune Word:	**67**
Tune Word Offset:	**1**
Maximum Amplitude:	1384.3
Temperature(degF):	248.0
Depth (ft):	11001.2

Related Data:

Master Cal Test Loop Amp:	2450.4
Current LF Estimate (kHz):	2101
Sonde Number:	49
Cartridge Number:	68

Search Parameters:

Search Frequency (kHz):	2178
Search Mode:	Manual



CMRT TUNE WORD SEARCH REPORT - Sat Jan 01 08:37:50 2011

Search Results:

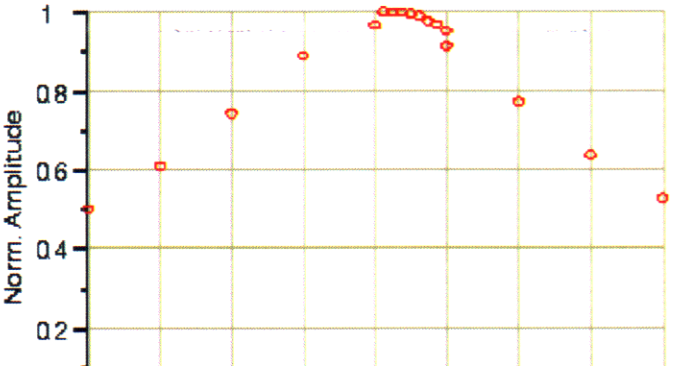
Tune Word:	**67**
Tune Word Offset:	**1**
Maximum Amplitude:	1293.0
Temperature(degF):	246.1
Depth (ft):	11005.3

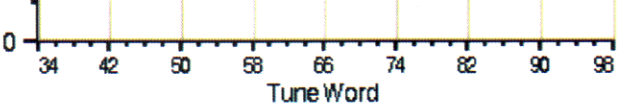
Related Data:

Master Cal Test Loop Amp:	2450.4
Current LF Estimate (kHz):	2102
Sonde Number:	49
Cartridge Number:	68

Search Parameters:

Search Frequency (kHz):	2178
Search Mode:	Manual





CMRT TUNE WORD SEARCH REPORT - Sat Jan 01 08:35:49 2011

Search Results:

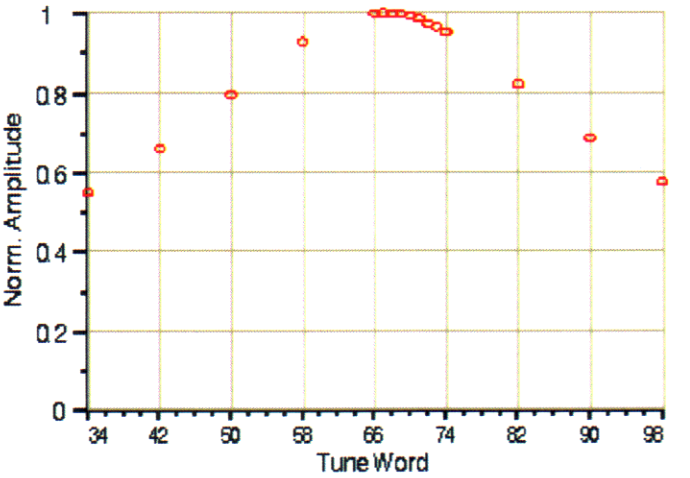
Tune Word:	67
Tune Word Offset:	1
Maximum Amplitude:	1146.3
Temperature(degF):	242.7
Depth (ft):	11011.3

Related Data:

Master Cal Test Loop Amp:	2450.4
Current LF Estimate (kHz):	2104
Sonde Number:	49
Cartridge Number:	68

Search Parameters:

Search Frequency (kHz):	2178
Search Mode:	Manual



Schlumberger

REPEAT SECTION

MAXIS Field Log

Company: OXY US LA BASIN **Well: DOM-001**

Input DLIS Files

DEFAULT	CAL_CMR_ECS_NGS_126PUP	FN:232	PRODUCER	01-Jan-2011 13:03	9873.5 FT	9574.5 FT

Output DLIS Files

DEFAULT	CAL_CMR_ECS_NGS_127PUP	FN:235	PRODUCER	01-Jan-2011 13:07	9870.0 FT	9574.5 FT
RTB	CAL_CMR_ECS_NGS_127PUP	FN:236	PRODUCER	01-Jan-2011 13:08	9870.0 FT	9574.5 FT
CLIENT	CAL_CMR_ECS_NGS_127PUC	FN:237	CUSTOMER	01-Jan-2011 13:07	9870.0 FT	9574.5 FT

CMR DEPTH LOG REPORT

PARAMETER SUMMARY

Tool Type: CMR-Plus **Cart. Number: 68** **Sonde Number: 49**

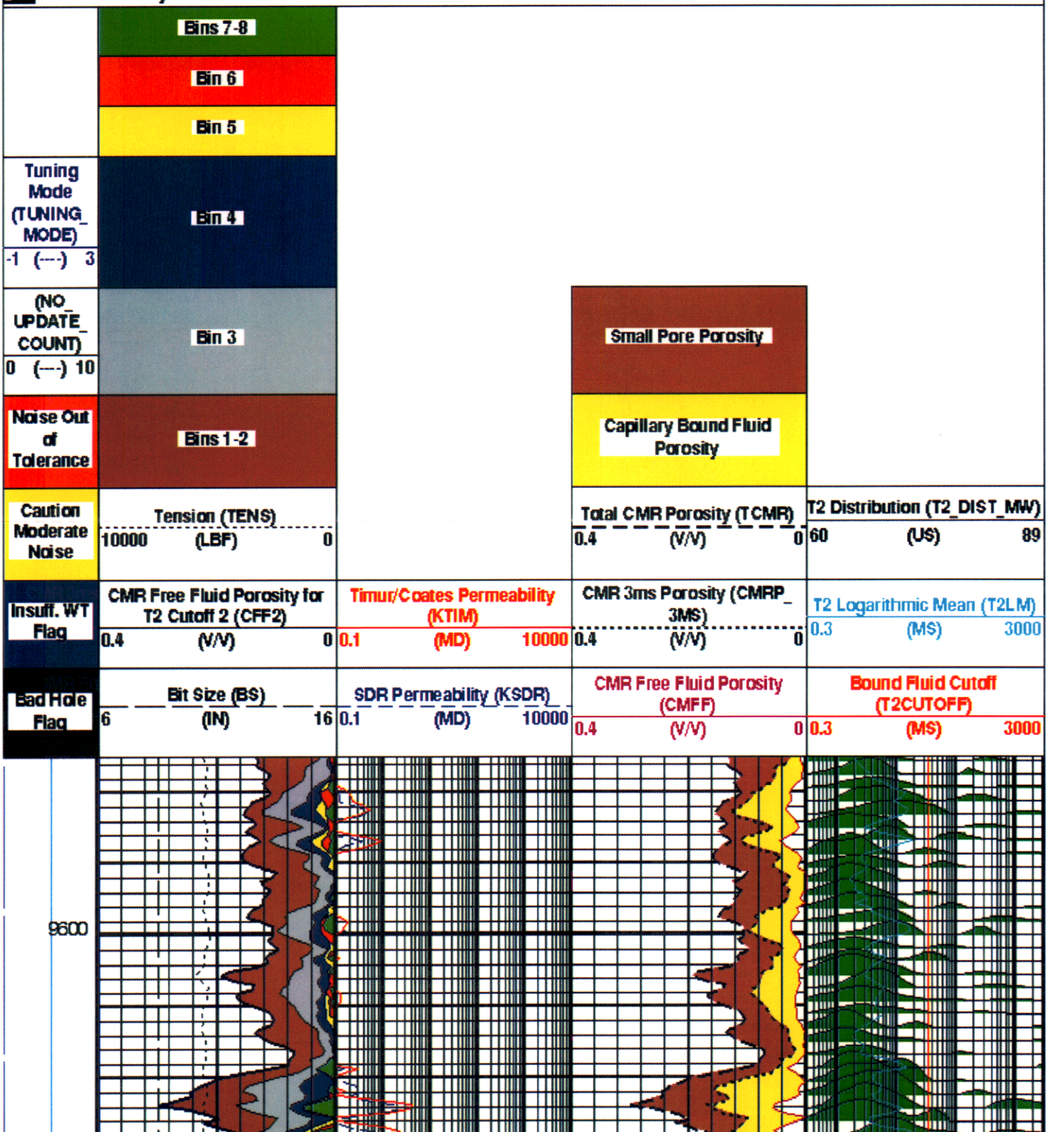
Kit Number: 28 **DHC Version : 16.4** **DSP Version : 13** **SP Version : 10182006**

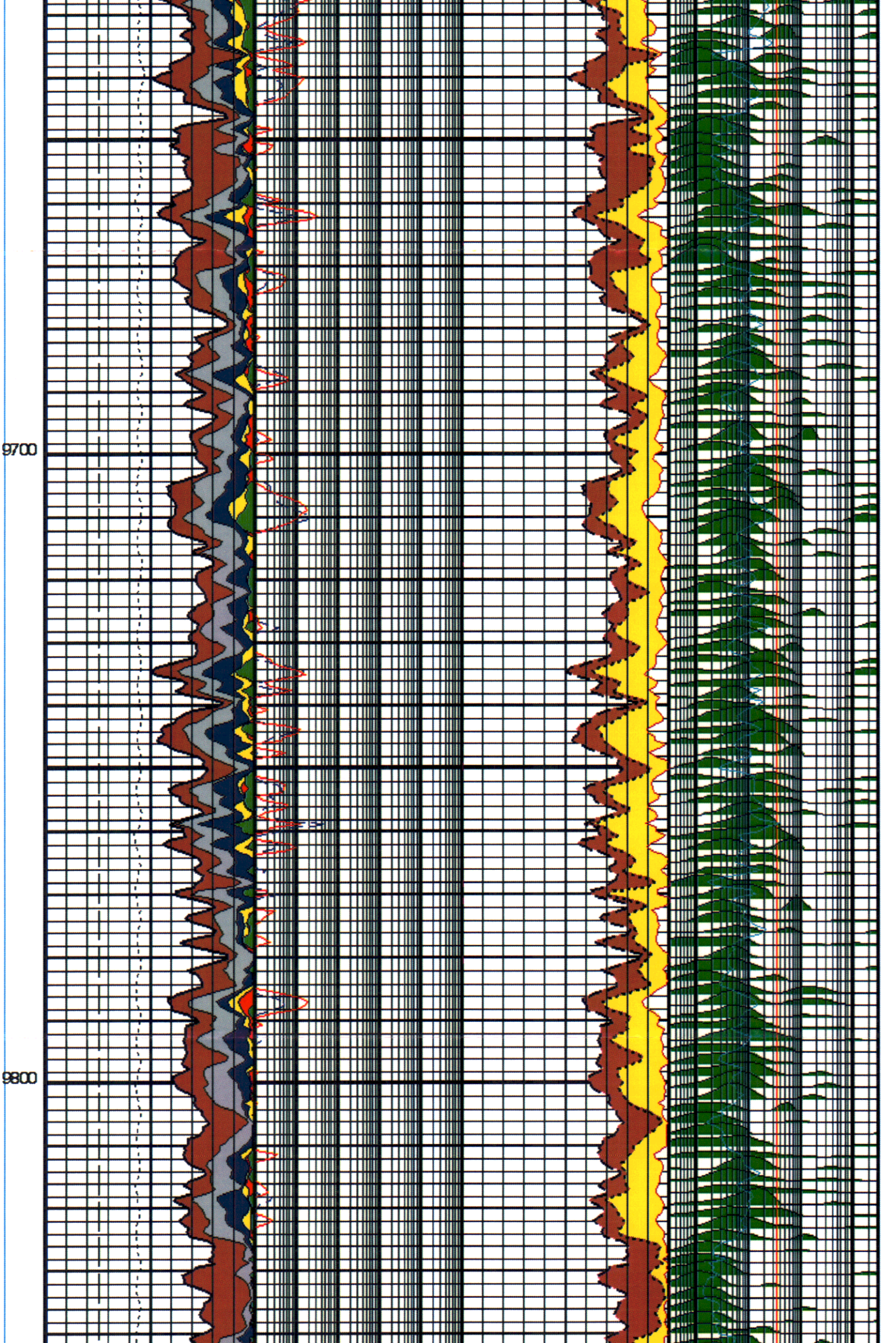
Mode: Expert Depth Log - B Mode **LFST Freq(khz) : 2123** **LFST Temp(degc) : 129.34**

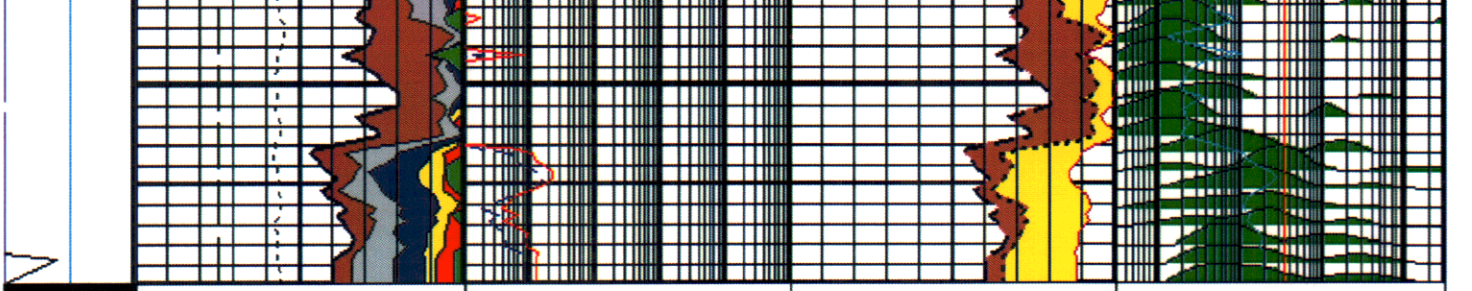
Log Direction: Up	Polarization Correction: On	EPM: Yes	EPM T1/T2: Auto
Despiking: Off	High Res: Off	KBFV: Off	DMRP: Off
Echo Spacing(us):	(200 200)		
Polarization Times(sec) for:	T1=1s: (3.052 0.02)	T1=3s: (3.555 0.02)	T1=5s: (3.634 0.02)
Number of Echoes:	(1800 30)		
Repetition:	(1 10)	Duty Cycle (highest): 0.0326	
Regularization:	Auto		
T2 Min(msec): 0.3	T2 Max(msec): 3000	T2 Cutoff(msec): 33	T1/T2: 2
Number of Components: 30	Downhole Stacking: 3	Uphole Stacking: 1	First Echo Used: No
Multiple T2 Cutoffs(msec):	(0.3 1 3 10 33 100 300 1000 3000)		
Sample Int.(in): 7.5	Req Log Speed (f/h): 1400		

PIP SUMMARY

Time Mark Every 60 S




9700
9800



Bad Hole Flag	Bit Size (BS) 6 (IN) 16	SDR Permeability (KSDR) 0.1 (MD) 10000	CMR Free Fluid Porosity (CMFF) 0.4 (V/V) 0	Bound Fluid Cutoff (T2CUTOFF) 0.3 (MS) 3000
Insuff. WT Flag	CMR Free Fluid Porosity for T2 Cutoff 2 (CFF2) 0.4 (V/V) 0	Timur/Coates Permeability (KTIM) 0.1 (MD) 10000	CMR 3ms Porosity (CMRP_3MS) 0.4 (V/V) 0	T2 Logarithmic Mean (T2LM) 0.3 (MS) 3000
Caution Moderate Noise	Tension (TENS) 10000 (LBF) 0		Total CMR Porosity (TCMR) 0.4 (V/V) 0	T2 Distribution (T2_DIST_MW) 60 (US) 89
Noise Out of Tolerance	Bins 1-2		Capillary Bound Fluid Porosity	
(NO_UPDATE_COUNT) 0 (---) 10	Bin 3		Small Pore Porosity	
Tuning Mode (TUNING_MODE) -1 (---) 3	Bin 4			
	Bin 5			
	Bin 6			
	Bins 7-8			

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
System and Miscellaneous			
BS	Bit Size	8.500	IN
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	RECOMPUTE	

Format: CMRT_BIN_POR_DEPTH_LOG Vertical Scale: 5" per 100' Graphics File Created: 01-Jan-2011 13:07

OP System Version: 18C0-147

PPC1-B	18C0-147	CMRT-B	18C0-147
ECS-A	18C0-147	ECC-B	18C0-147
HNGC-B	18C0-147	HNGS-BA	18C0-147
EDTC-B	18C0-147		

Input DLIS Files

DEFAULT	CAL_CMR_ECS_NGS_126PUP	FN:232	PRODUCER	01-Jan-2011 13:03	9873.5 FT	9574.5 FT

Output DLIS Files

DEFAULT	CAL_CMR_ECS_NGS_127PUP	FN:235	PRODUCER	01-Jan-2011 13:07
RTB	CAL_CMR_ECS_NGS_127PUP	FN:236	PRODUCER	01-Jan-2011 13:08
CLIENT	CAL_CMR_ECS_NGS_127PUC	FN:237	CUSTOMER	01-Jan-2011 13:07

Company: OXY US LA BASIN

Schlumberger

Well: DOM-001
Field: Dominguez
County: Los Angeles
State: California

COMBINABLE MAGNETIC RESONANCE
GAMMA RAY TIE IN