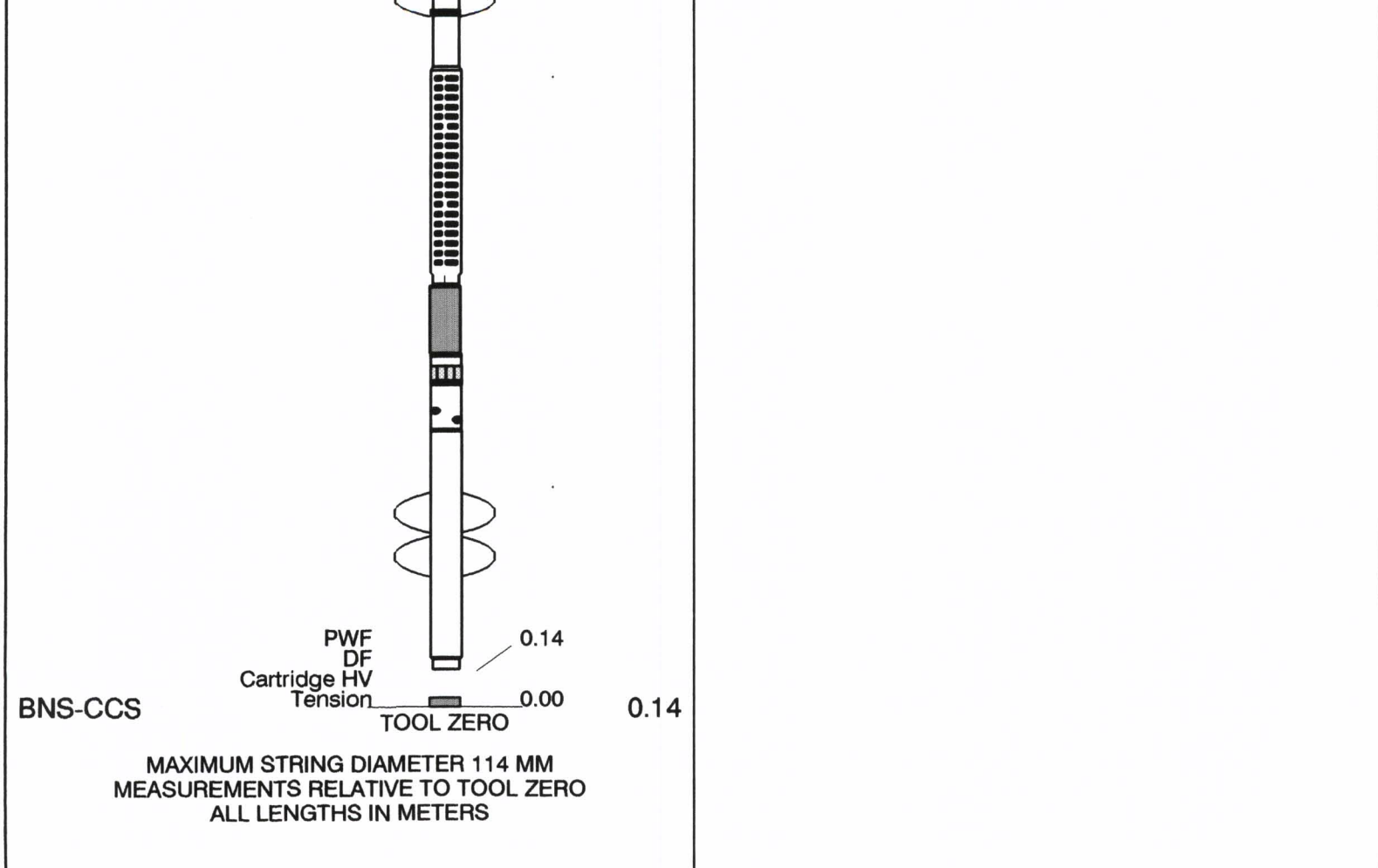


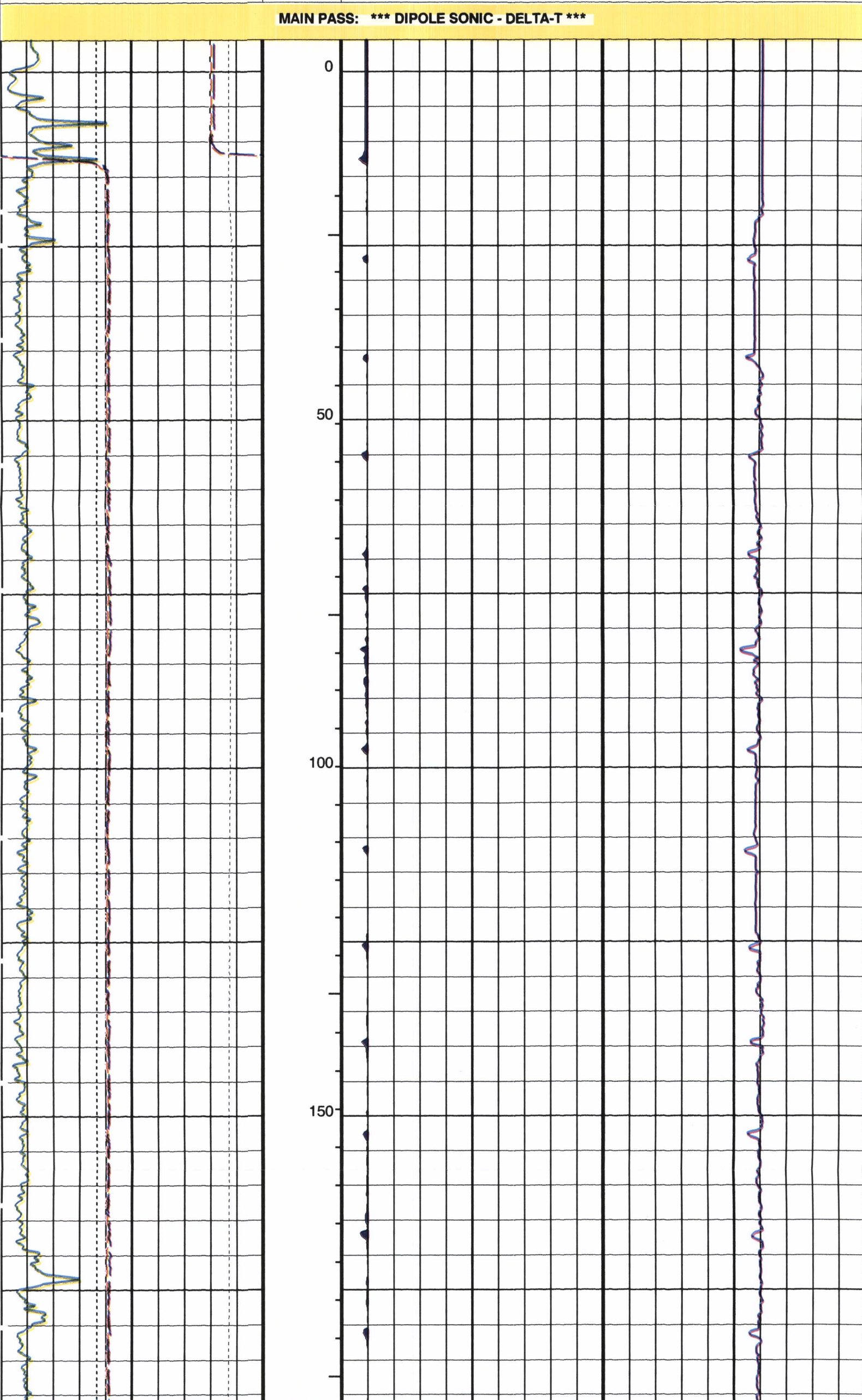


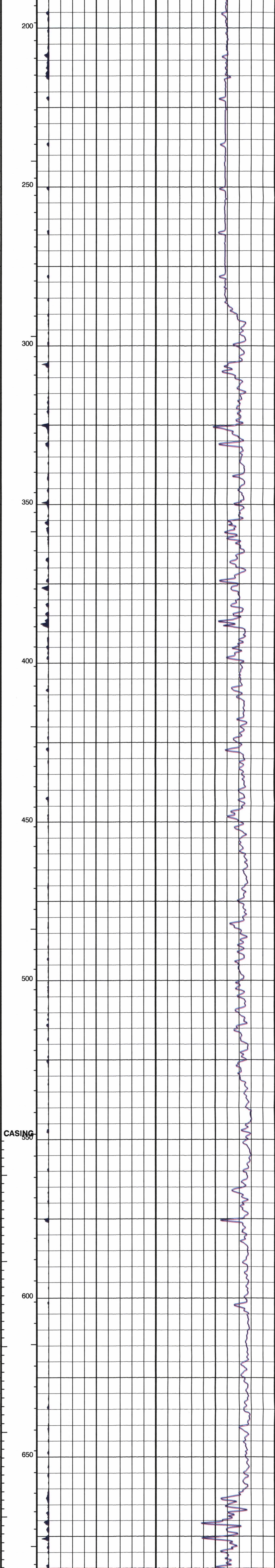
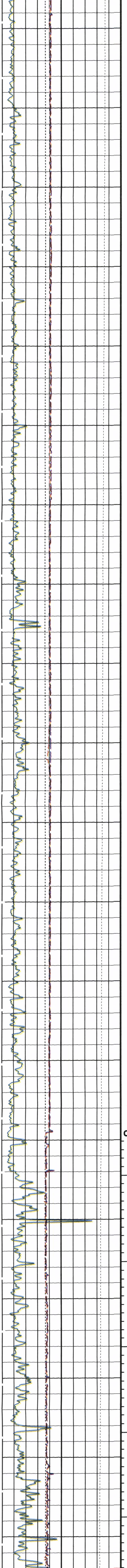
Output DLIS Files						
DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16	1407.0 M	-4.6 M
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26	1407.0 M	-4.6 M
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16	1407.0 M	-4.6 M

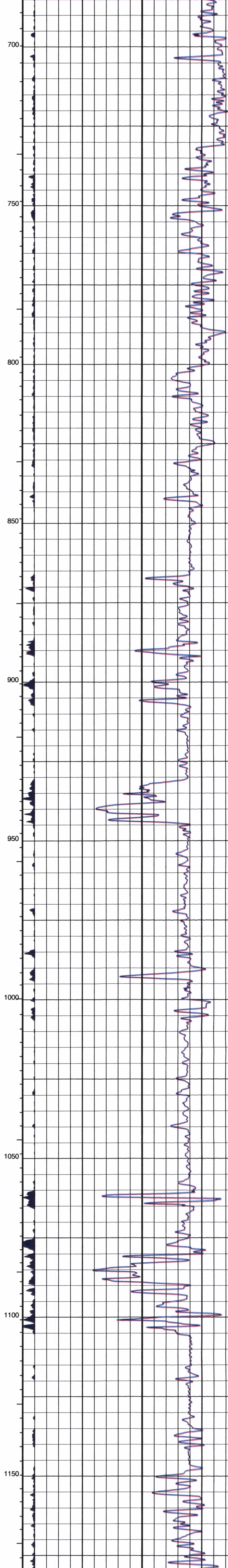
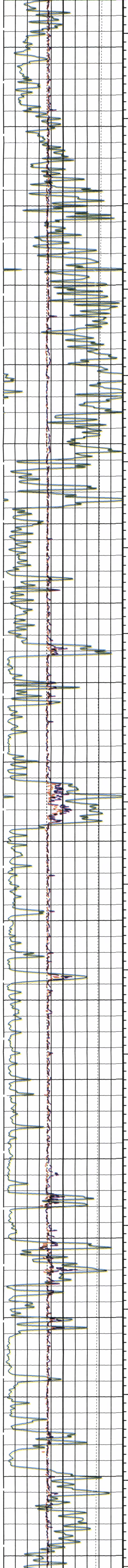
Integrated Hole/Cement Volume Summary						
Hole Volume = 31.49 M3						
Cement Volume = 10.24 M3 (assuming 177.80 MM casing O.D.)						
Computed from 1403.9 M to 548.0 M using data channel(s) RD1 RD2 RD3 RD4 RD5 RD6						

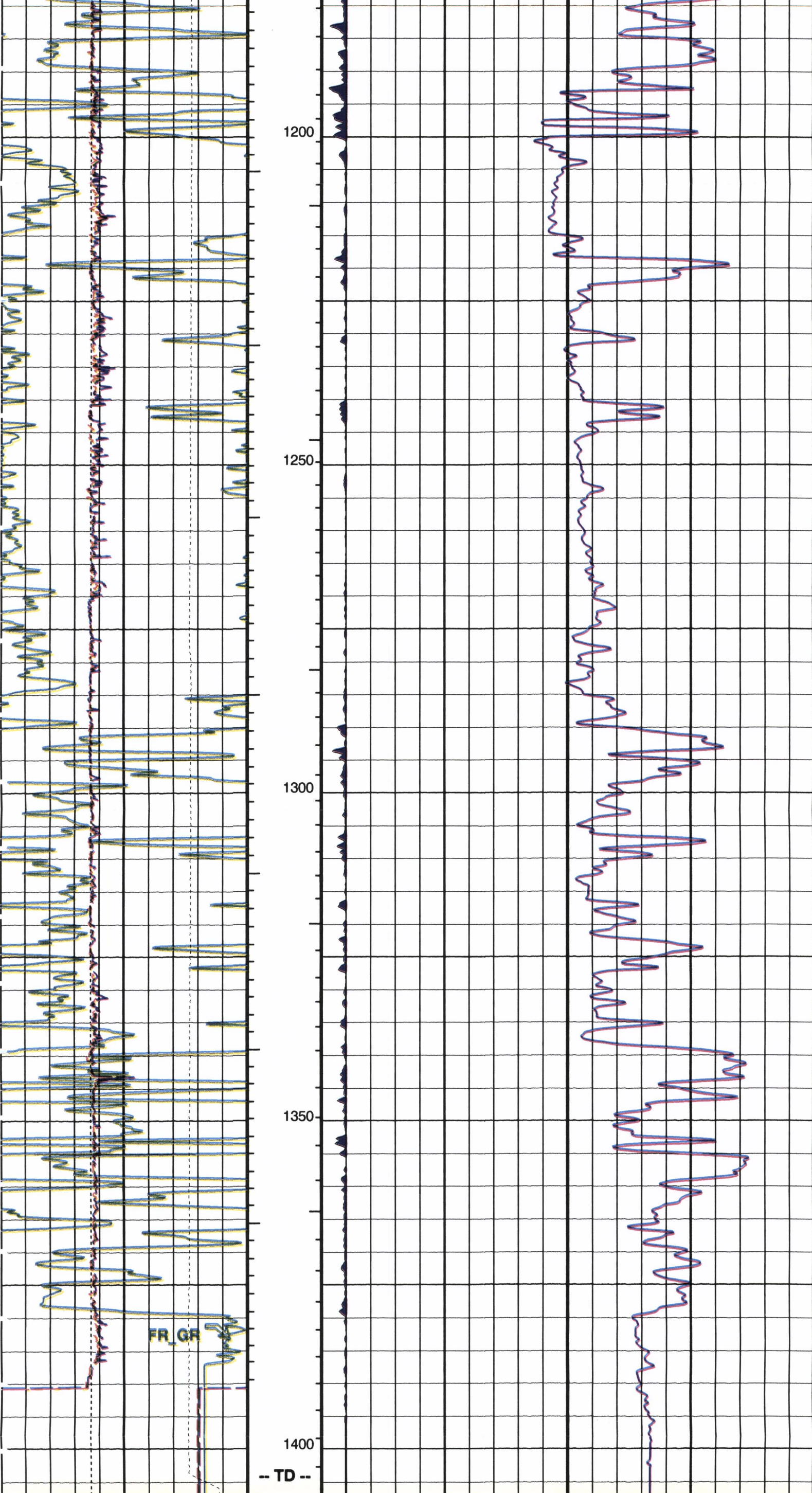
OP System Version: 11C0-305			
MCM			
DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

PIP SUMMARY			
└ Integrated Hole Volume Minor Pip Every 0.1 M3			
└ Integrated Hole Volume Major Pip Every 1 M3			
└ Integrated Transit Time Minor Pip Every 1 MS			
└ Integrated Transit Time Major Pip Every 10 MS			
Time Mark Every 60 S			
Tension (TENS)		0	
25000 (N)			
Gamma Ray (GR)		150	
(GAPI)			
Hole Diameter Maximum (HDMX)		375	
125 (MM)			
Hole Diameter Minimum (HDMI)		375	
125 (MM)			
Bit Size (BS)		375	
125 (MM)			
Stuck Stretch (STIT)		20	
0 (M)			
Delta-T Comp - P & S (DT4P)		100	
500 (US/M)			









MAIN PASS: *** DIPOLE SONIC - DELTA-T ***

Bit Size (BS) (MM)		Stuck Stretch (STIT) (M)	Delta-T Comp - P & S (DT4P) (US/M)	
125	375	020	500	100
Hole Diameter Minimum (HDMI) (MM)		Low Comp Coherence Flag		
125	375			
Hole Diameter Maximum (HDMX) (MM)				
125	375			
Gamma Ray (GR) (GAPI)				
0	150			
Tension (TENS) 25000 (N)		0		

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
BHS	Borehole Status	OPEN
CASF	Label Casing Function - Monopole P&S	50
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	100 US/M
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	700 US/M
DTF	Delta-T Fluid	620.079 US/M
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR
ITTS	Integrated Transit Time Source	DTCO
LFC	Label Formation Character - Monopole P&S	DYNAMIC
MCS	Mean Casing Slowness	187.008 US/M
MTXG	Monopole Transmitter Geometry	4724 MM
NWI4	Number Waveform Items 4	8
RSMN	Label Shear/Compressional Minimum Ratio - Monopole P&S	1.4
RSMX	Label Shear/Compressional Maximum Ratio - Monopole P&S	2.12
RX1G	Receiver 1 Geometry	7468 MM
RX2G	Receiver 2 Geometry	7620 MM
RX3G	Receiver 3 Geometry	7772 MM
RX4G	Receiver 4 Geometry	7925 MM
RX5G	Receiver 5 Geometry	8077 MM
RX6G	Receiver 6 Geometry	8230 MM
RX7G	Receiver 7 Geometry	8382 MM
RX8G	Receiver 8 Geometry	8534 MM
SAS4	STC Sonic Array Status - Monopole P&S	255
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	250 US/M
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	700 US/M
SSW4	STC Source Waveform - Monopole P&S	WF_SAM4
STLL	Label Slowness Lower Limit - Monopole Stoneley	590.551 US/M
STUL	Label Slowness Upper Limit - Monopole Stoneley	2559.06 US/M
TWI4	STC Integration Time Window - Monopole P&S	500 US
EMS-B: Environment		
ECOF	Measurement Sonde	
EFC	EMS Caliper Offset	50.8 MM
FCD	EMS Fixed Caliper Operation	OFF
HVCS	Future Casing (Outer) Diameter	177.8 MM
	Integrated Hole Volume Caliper Selection	EMS_Calipers
SGT-N: Scintillation Gamma-Ray - N		
BHS	Borehole Status	OPEN
HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN
FCD	Future Casing (Outer) Diameter	177.8 MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers
STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL
STKT	STI Stuck Threshold	1.524 M
TDD	Total Depth - Driller	1404.20 M
TDL	Total Depth - Logger	1404.00 M
System and Miscellaneous		
BS	Bit Size	216.000 MM
DORL	Depth Offset for Repeat Analysis	0.0 M
TD	Total Depth	1404 M

Format: SONI_S2 Vertical Scale: 1:600 Graphics File Created: 19-Mar-2004 10:16

OP System Version: 11C0-305

MCM

DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

Output DLIS Files

DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16

Output DLIS Files

DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16	1407.0 M	-4.6 M
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26	1407.0 M	-4.6 M
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16	1407.0 M	-4.6 M

Integrated Hole/Cement Volume Summary

Hole Volume = 31.49 M3
Cement Volume = 10.24 M3 (assuming 177.80 MM casing O.D.)
Computed from 1403.9 M to 548.0 M using data channel(s) RD1 RD2 RD3 RD4 RD5 RD6

OP System Version: 11C0-305

MCM

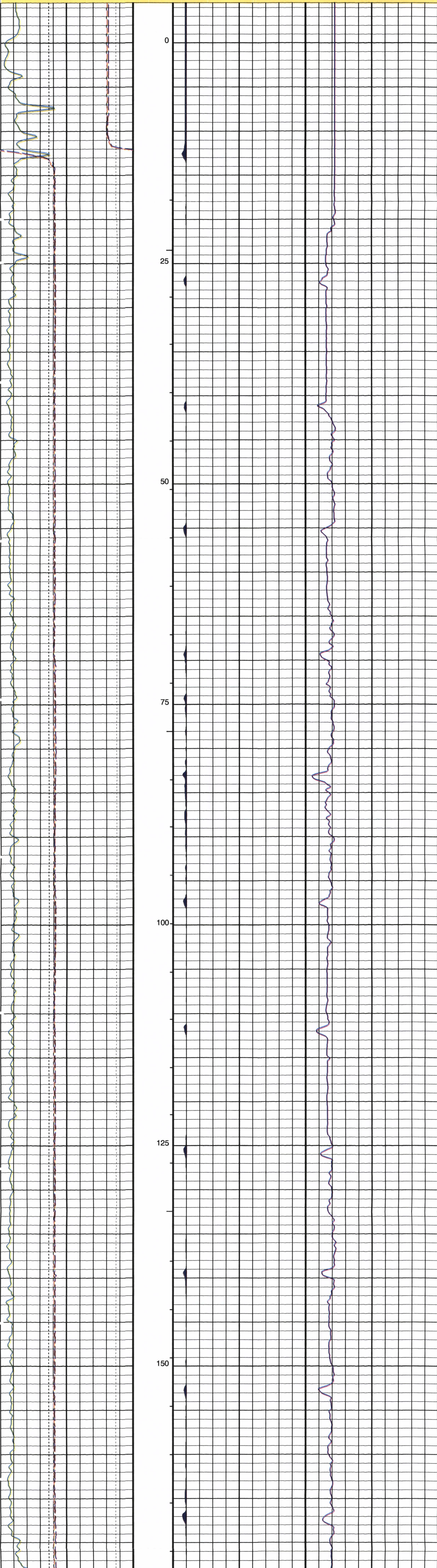
DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

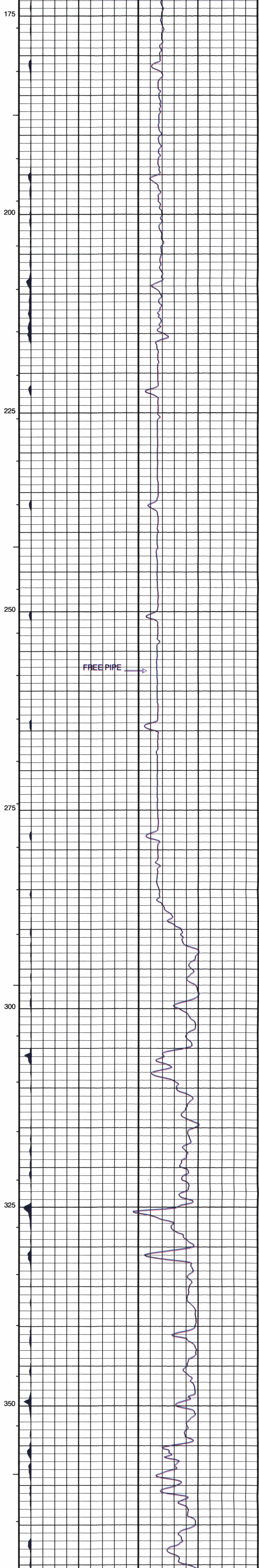
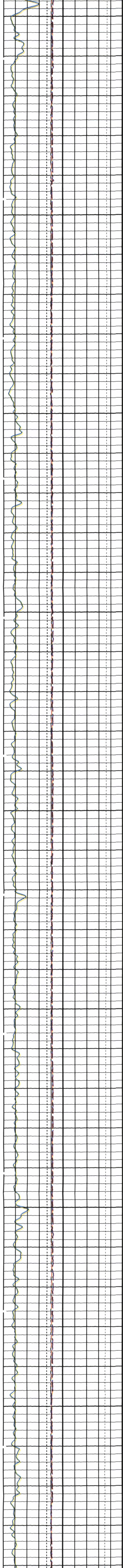
PIP SUMMARY

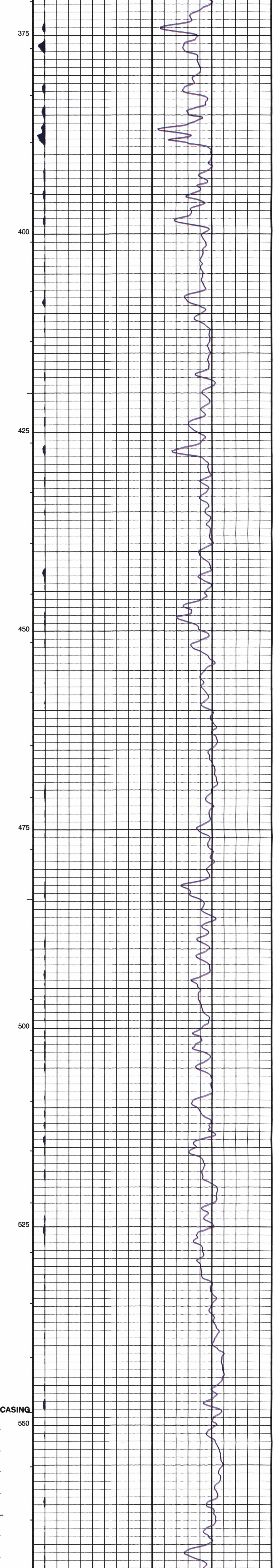
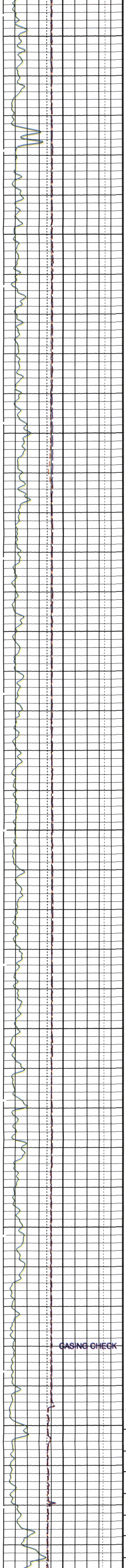
- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Transit Time Minor Pip Every 1 MS

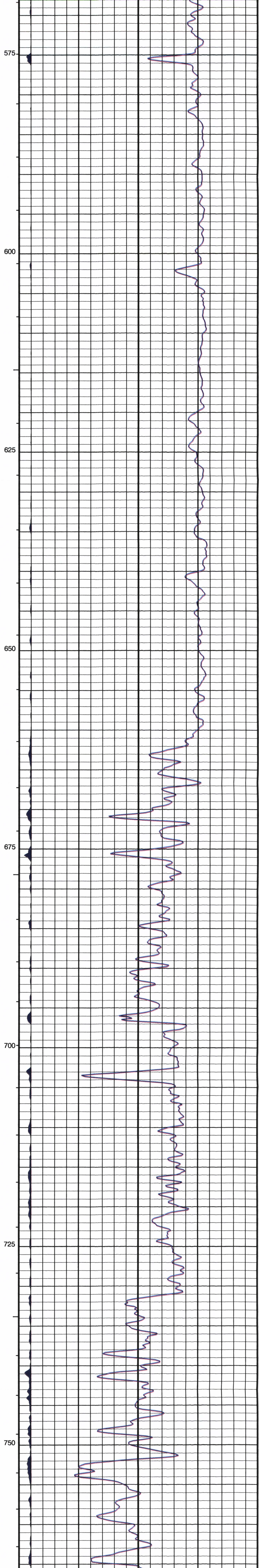
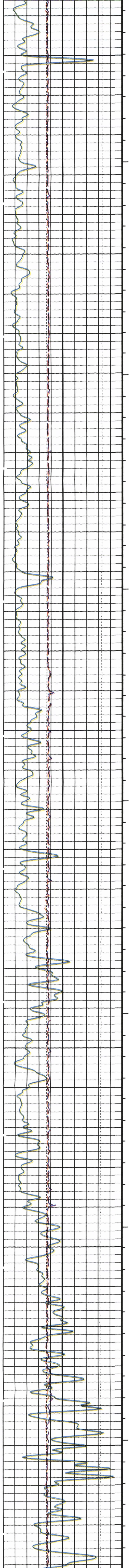
Tension (TENS)		25000 (N)		0	
Gamma Ray (GR)		(GAPI)		150	
Hole Diameter Maximum (HDMX)		(MM)		375	
Hole Diameter Minimum (HDMI)		(MM)		375	
		Low Comp Coherence Flag			
Bit Size (BS)		(MM)		375	
Stuck Stretch (STIT)		(M)		20	
Delta-T Comp - P & S (DT4P)		(US/M)		100	

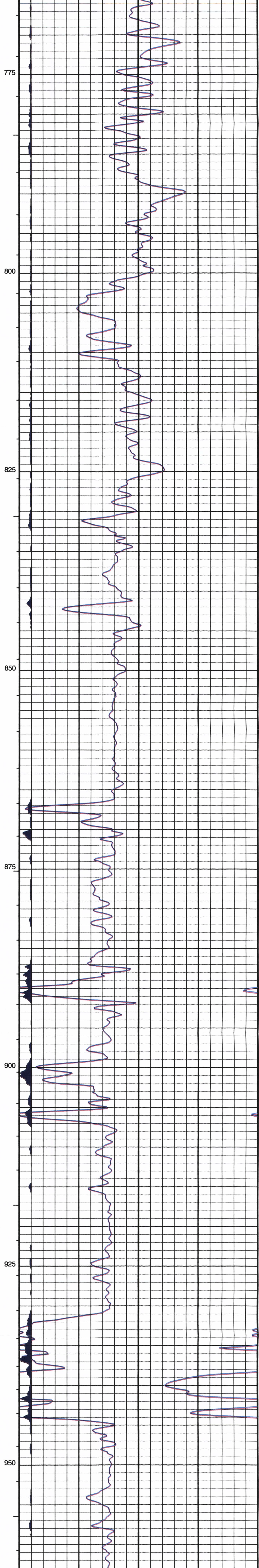
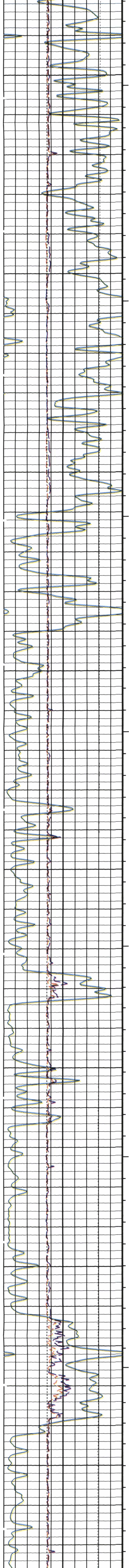
MAIN PASS: *** DIPOLE SONIC - DELTA-T ***

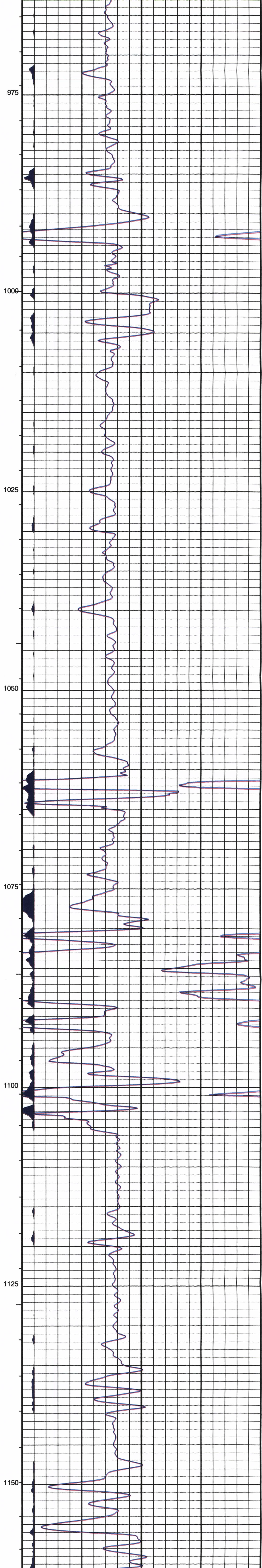
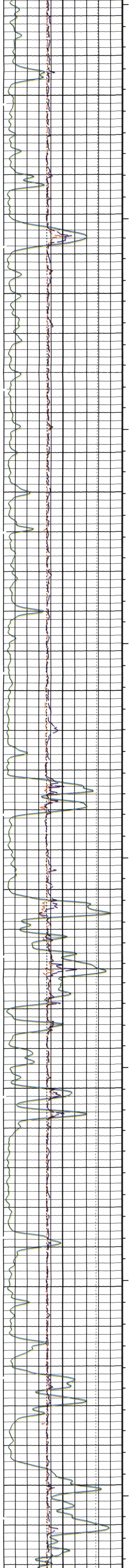


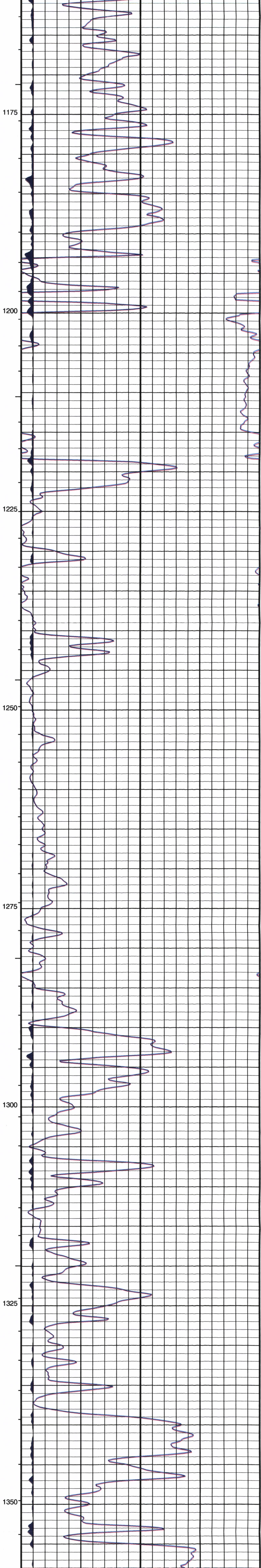
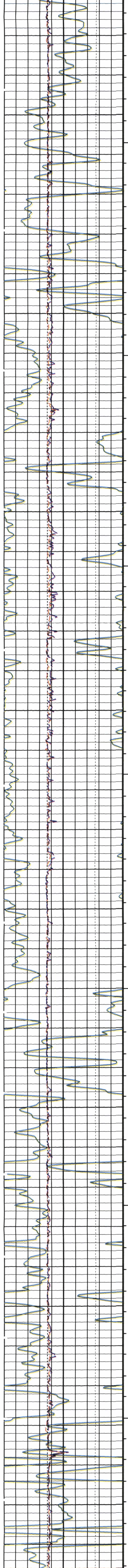


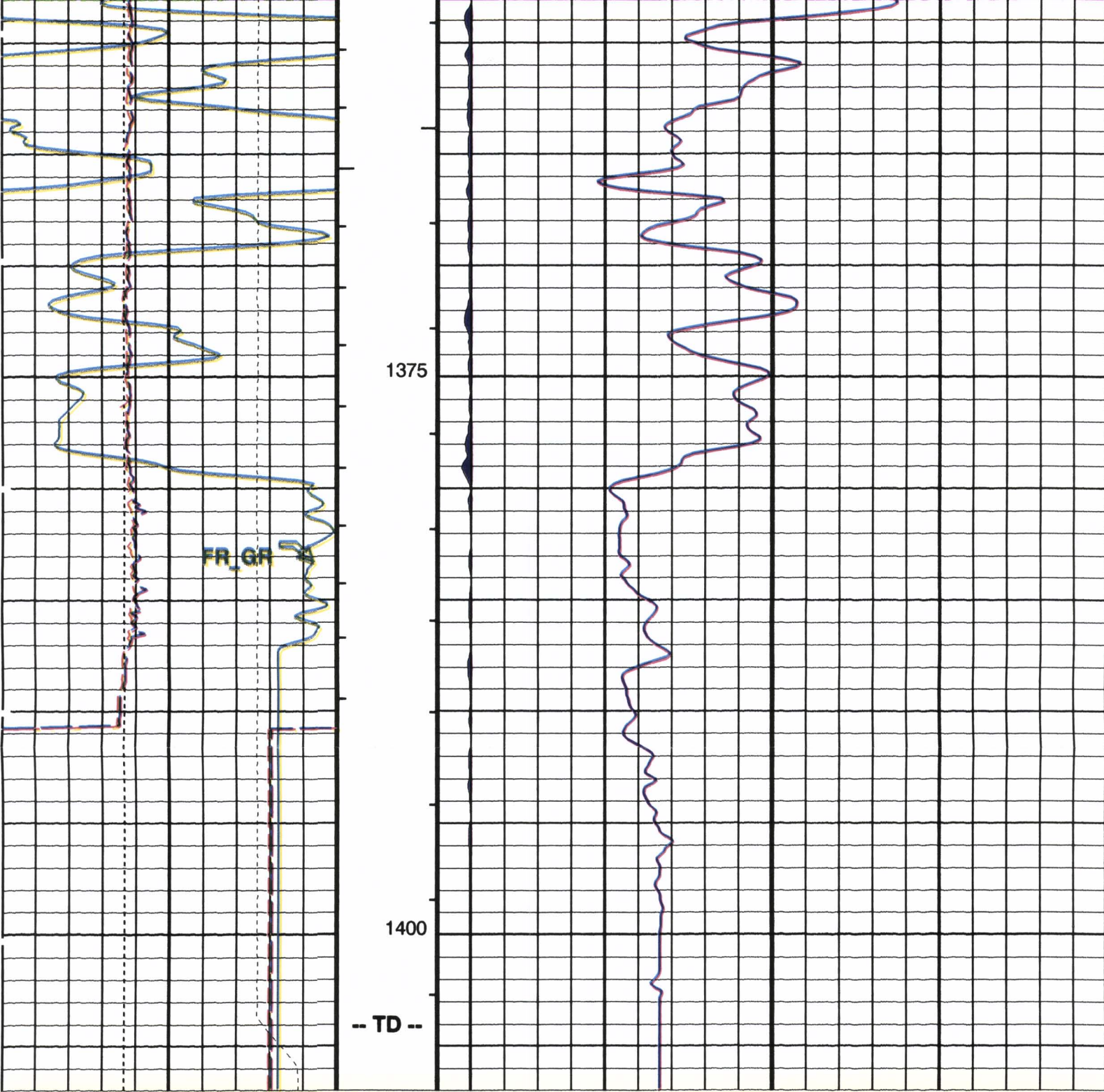












MAIN PASS: *** DIPOLE SONIC - DELTA-T ***

Bit Size (BS)		Stuck Stretch (STIT)	Delta-T Comp - P & S (DT4P)	
125	375		300	100
(MM)		0 (M) 20	(US/M)	
Hole Diameter Minimum (HDMI)		Low Comp Coherence Flag		
125	375			
(MM)				
Hole Diameter Maximum (HDMX)				
125	375			
(MM)				
Gamma Ray (GR)				
0	150			
(GAPI)				
Tension (TENS)				
25000	0			
(N)				

PIP SUMMARY

- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
BHS	Borehole Status	OPEN
CASF	Label Casing Function - Monopole P&S	50
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	100 US/M
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	700 US/M
DTF	Delta-T Fluid	620.079 US/M
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR
ITTS	Integrated Transit Time Source	DTCO
LFC	Label Formation Character - Monopole P&S	DYNAMIC
MCS	Mean Casing Slowness	187.008 US/M
MTXG	Monopole Transmitter Geometry	4724 MM
NWI4	Number Waveform Items 4	8
RSMN	Label Shear/Compressional Minimum Ratio - Monopole P&S	1.4
RSMX	Label Shear/Compressional Maximum Ratio - Monopole P&S	2.12
RX1G	Receiver 1 Geometry	7468 MM
RX2G	Receiver 2 Geometry	7620 MM
RX3G	Receiver 3 Geometry	7772 MM
RX4G	Receiver 4 Geometry	7925 MM
RX5G	Receiver 5 Geometry	8077 MM
RX6G	Receiver 6 Geometry	8230 MM
RX7G	Receiver 7 Geometry	8382 MM
RX8G	Receiver 8 Geometry	8534 MM
SAS4	STC Sonic Array Status - Monopole P&S	255
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	250 US/M
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	700 US/M
SSW4	STC Source Waveform - Monopole P&S	WF_SAM4
STLL	Label Slowness Lower Limit - Monopole Stoneley	590.551 US/M
STUL	Label Slowness Upper Limit - Monopole Stoneley	2559.06 US/M
TWI4	STC Integration Time Window - Monopole P&S	500 US
EMS-B: Environment Measurement Sonde		
ECOF	EMS Caliper Offset	50.8 MM
EFC	EMS Fixed Caliper Operation	OFF
FCD	Future Casing (Outer) Diameter	177.8 MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers
SGT-N: Scintillation Gamma-Ray - N		
BHS	Borehole Status	OPEN
HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN
FCD	Future Casing (Outer) Diameter	177.8 MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers
STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL
STKT	STI Stuck Threshold	1.524 M
TDD	Total Depth - Driller	1404.20 M
TDL	Total Depth - Logger	1404.00 M
System and Miscellaneous		
BS	Bit Size	216.000 MM
DORL	Depth Offset for Repeat Analysis	0.0 M
TD	Total Depth	1404 M

Format: SONI_S5 Vertical Scale: 1:240

Graphics File Created: 19-Mar-2004 10:16

OP System Version: 11C0-305

MCM

DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

Output DLIS Files

DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16

Input DLIS Files

DEFAULT	DSI_EMS_017PUP	FN:36	PRODUCER	19-Mar-2004 10:15	1406.8 M	1247.9 M
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Output DLIS Files

DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16

OP System Version: 11C0-305

MCM

DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

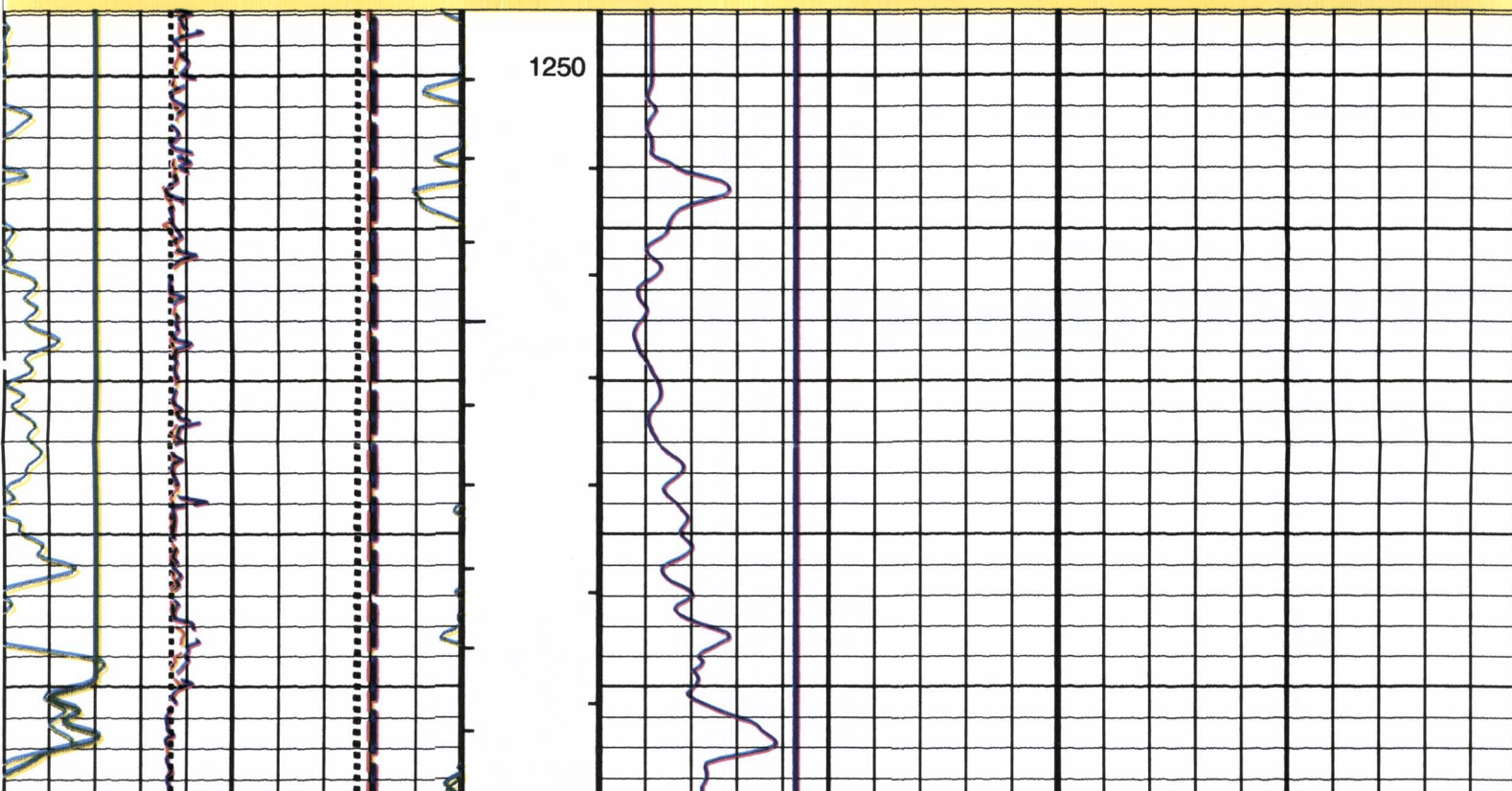
PIP SUMMARY

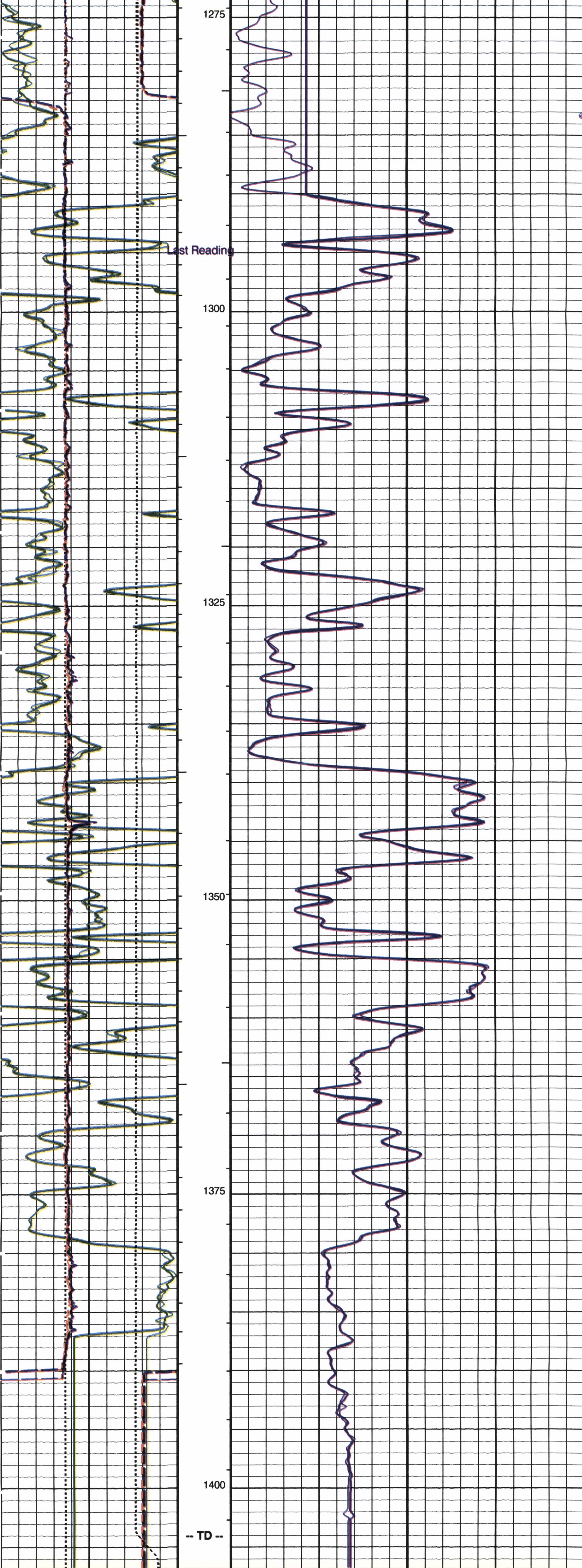
- Integrated Hole Volume Minor Pip Every 0.1 M3
- Integrated Hole Volume Major Pip Every 1 M3
- Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

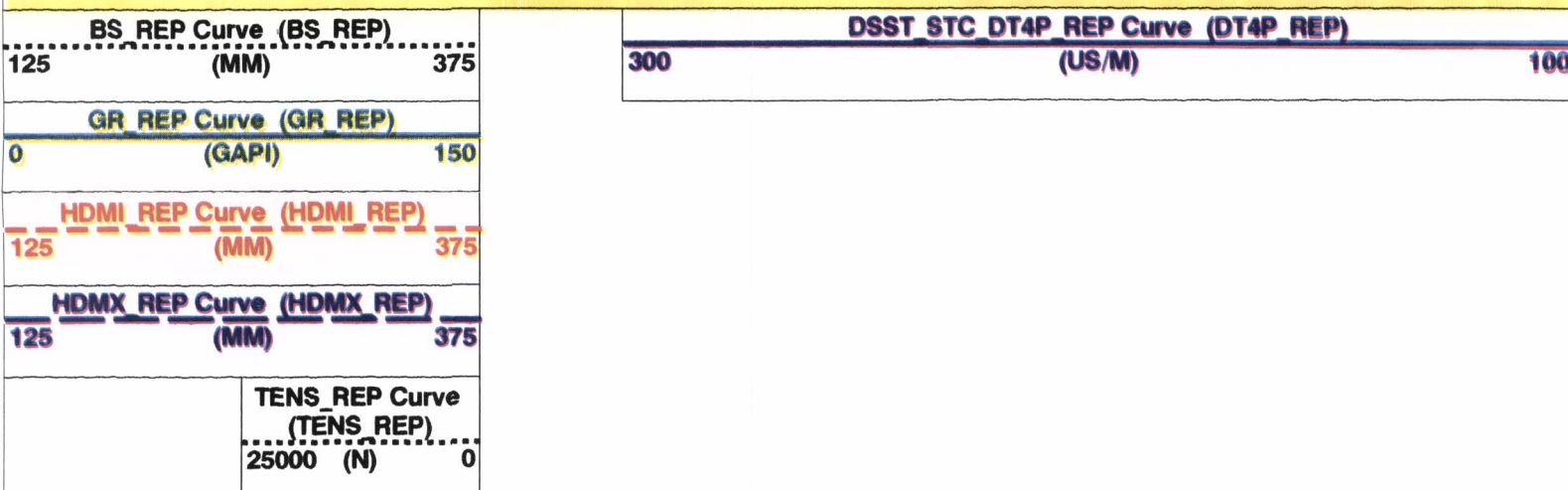
TENS REP Curve (TENS REP) 25000 (N)		DSST STC DT4P REP Curve (DT4P REP) (US/M)	
0		300	
HDMX REP Curve (HDMX REP) (MM)		100	
125			
HDMI REP Curve (HDMI REP) (MM)			
125			
GR REP Curve (GR REP) (GAPI)			
0			
BS REP Curve (BS REP) (MM)			
125			

REPEAT ANALYSIS: *** DIPOLE SONIC ***





REPEAT ANALYSIS: *** DIPOLE SONIC ***



PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 0.1 M3
- └ Integrated Hole Volume Major Pip Every 1 M3
 - └ Integrated Transit Time Minor Pip Every 1 MS
 - └ Integrated Transit Time Major Pip Every 10 MS

Time Mark Every 60 S

Parameters			
DLIS Name	Description	Value	
DSST-B: Dipole Shear Imager - B			
ITTS	Integrated Transit Time Source	DTCO	
RX1G	Receiver 1 Geometry	7468	MM
RX2G	Receiver 2 Geometry	7620	MM
RX3G	Receiver 3 Geometry	7772	MM
RX4G	Receiver 4 Geometry	7925	MM
RX5G	Receiver 5 Geometry	8077	MM
RX6G	Receiver 6 Geometry	8230	MM
RX7G	Receiver 7 Geometry	8382	MM
RX8G	Receiver 8 Geometry	8534	MM
EMS-B: Environment Measurement Sonde			
ECOF	EMS Caliper Offset	50.8	MM
EFC	EMS Fixed Caliper Operation	OFF	
FCD	Future Casing (Outer) Diameter	177.8	MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers	
HOLEV: Integrated Hole/Cement Volume			
FCD	Future Casing (Outer) Diameter	177.8	MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers	
System and Miscellaneous			
BS	Bit Size	216.000	MM
DORL	Depth Offset for Repeat Analysis	0.0	M
TD	Total Depth	1404	M

Format: DSI_REP Vertical Scale: 1:240

Graphics File Created: 19-Mar-2004 10:16

OP System Version: 11C0-305

MCM

DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

Input DLIS Files

DEFAULT	DSI_EMS_017PUP	FN:36	PRODUCER	19-Mar-2004 10:15	1406.8 M	1247.9 M
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Output DLIS Files

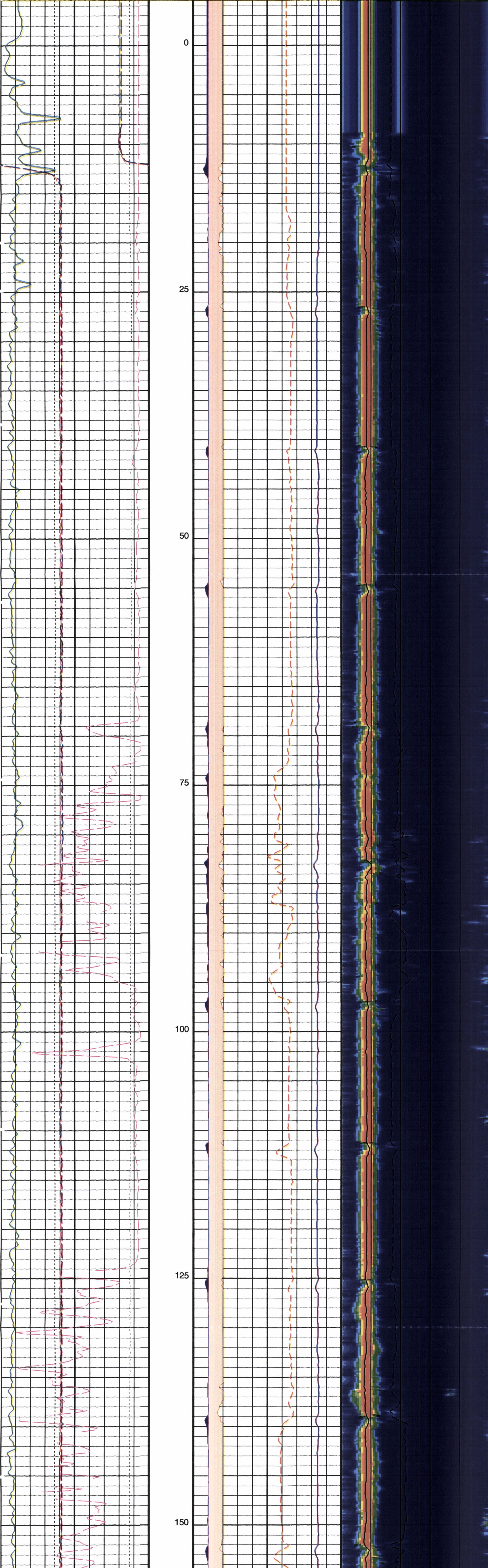
DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16

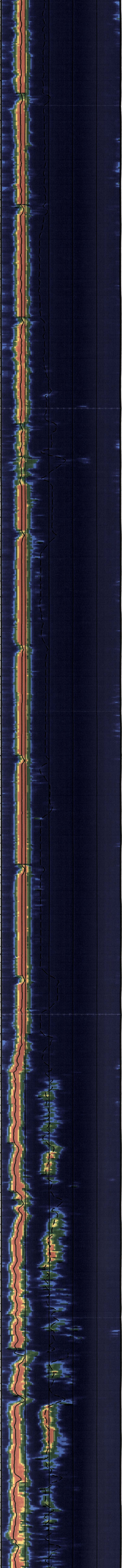
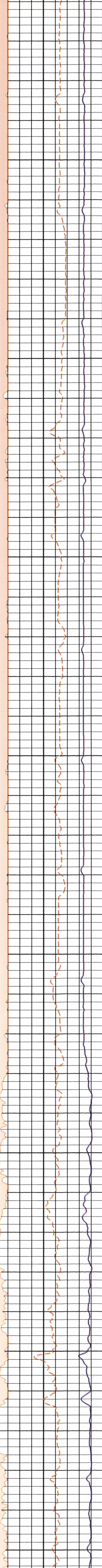
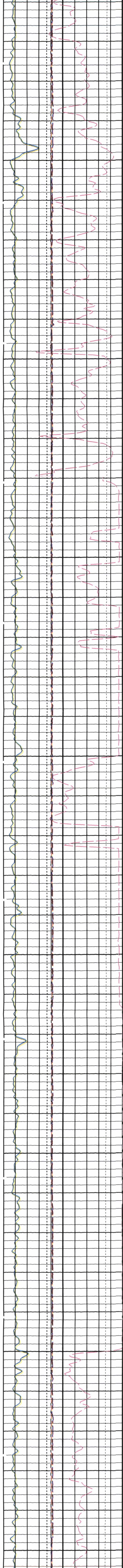
Output DLIS Files						
DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16	1407.0 M	-4.6 M
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26	1407.0 M	-4.6 M
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16	1407.0 M	-4.6 M

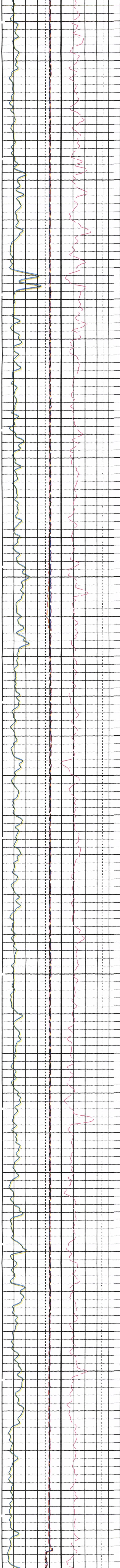
OP System Version: 11C0-305			
MCM			
DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

PIP SUMMARY			
Time Mark Every 60 S			
Tension (TENS)			
25000 (N)		0	
Gamma Ray (GR)			
0 (GAPI)		150	
Hole Diameter Maximum (HDMX)			
125 (MM)		375	
Hole Diameter Minimum (HDMI)			
125 (MM)		375	
Poisson's Ratio (PR)			
0 (---		0.5	
Bit Size (BS)			
125 (MM)		375	
Stuck Stretch (STIT)			
0 (M)		20	
Delta-T Shear - P & S (DT4S)			
600 (US/M)		100	
Delta-T Shear / RA - P & S (DTRS)			
100 (US/M)		600	
Delta-T Comp - P & S (DT4P)			
600 (US/M)		100	
Delta-T Comp / RA - P & S (DTRP)			
100 (US/M)		600	

MAIN PASS: *** DIPOLE SONIC - P & S IMAGE ***







CASING
550

375

400

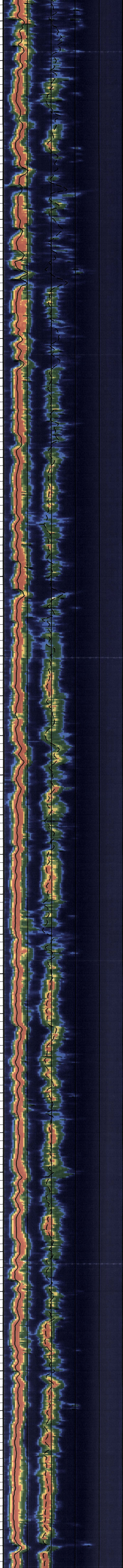
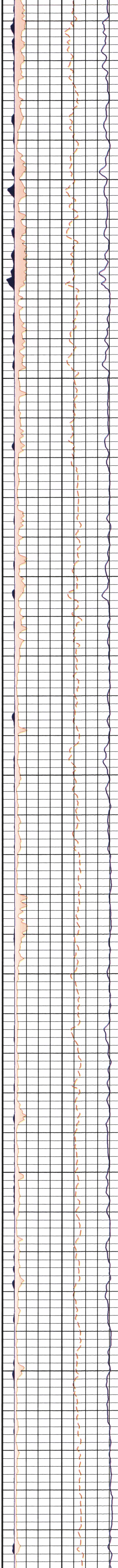
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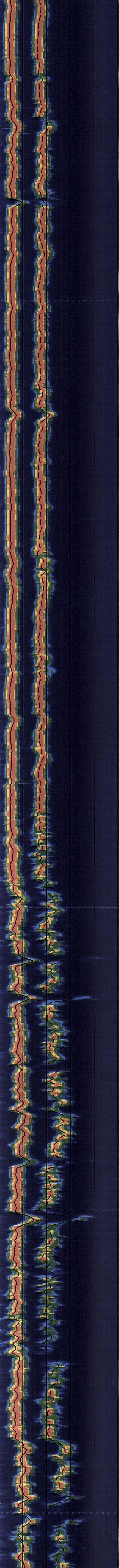
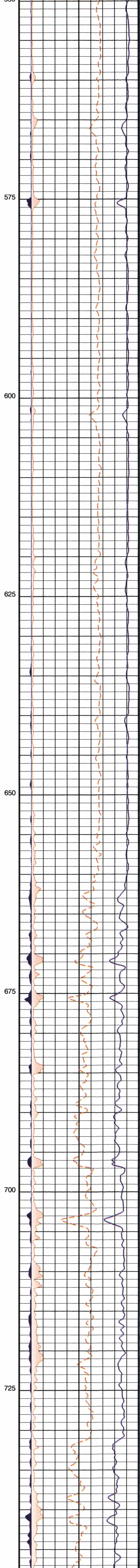
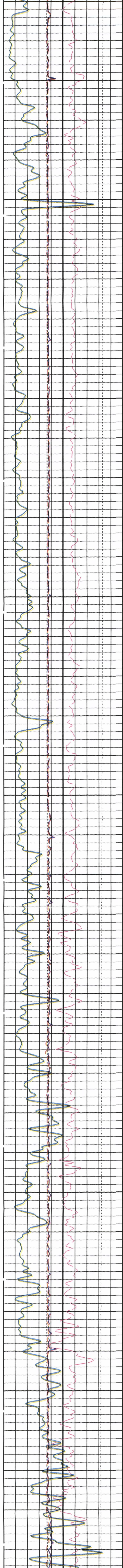
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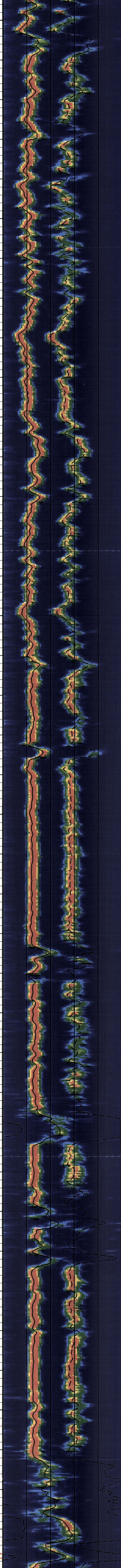
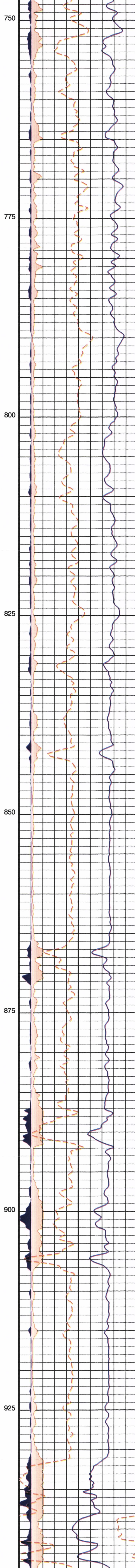
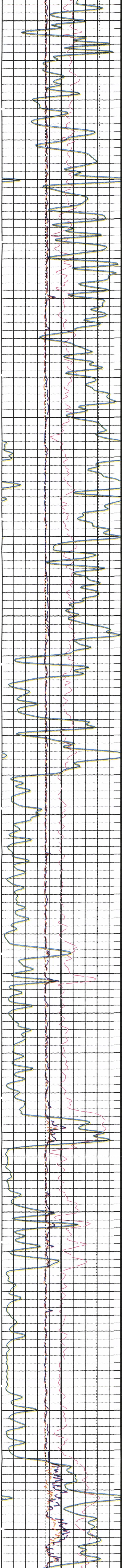
475

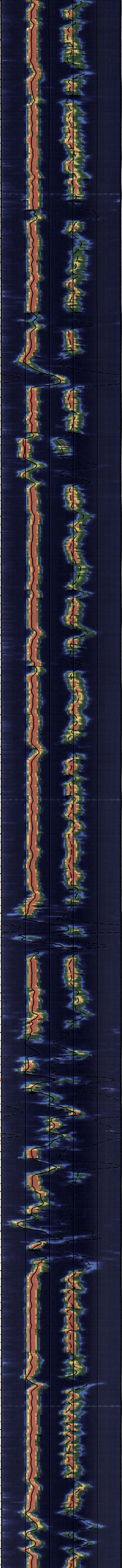
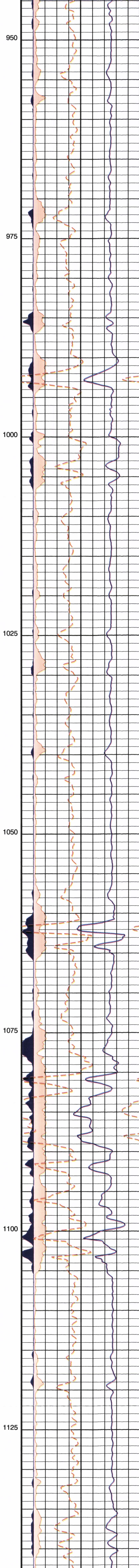
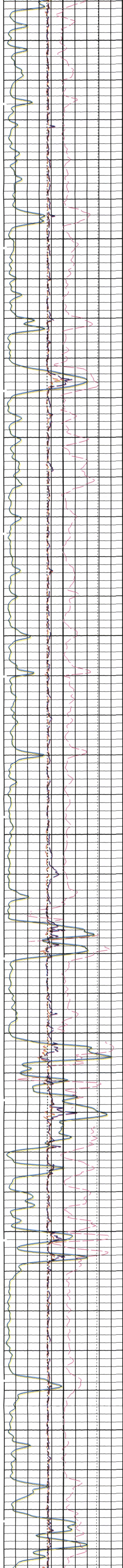
500

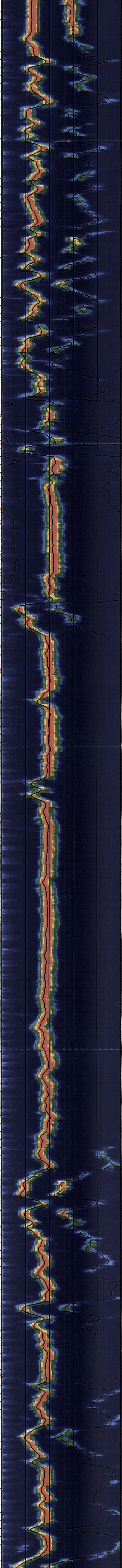
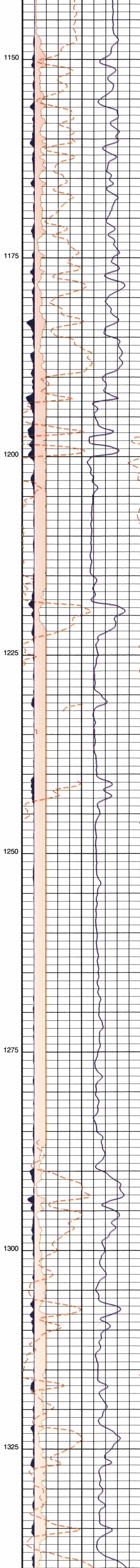
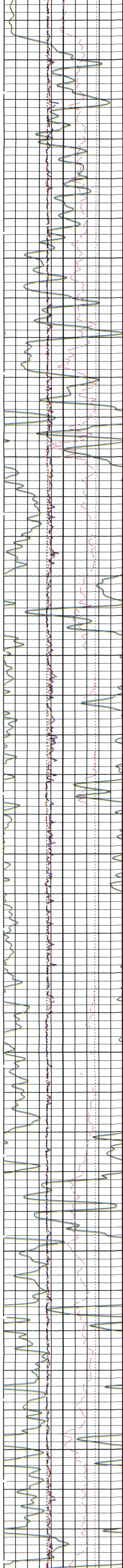
525

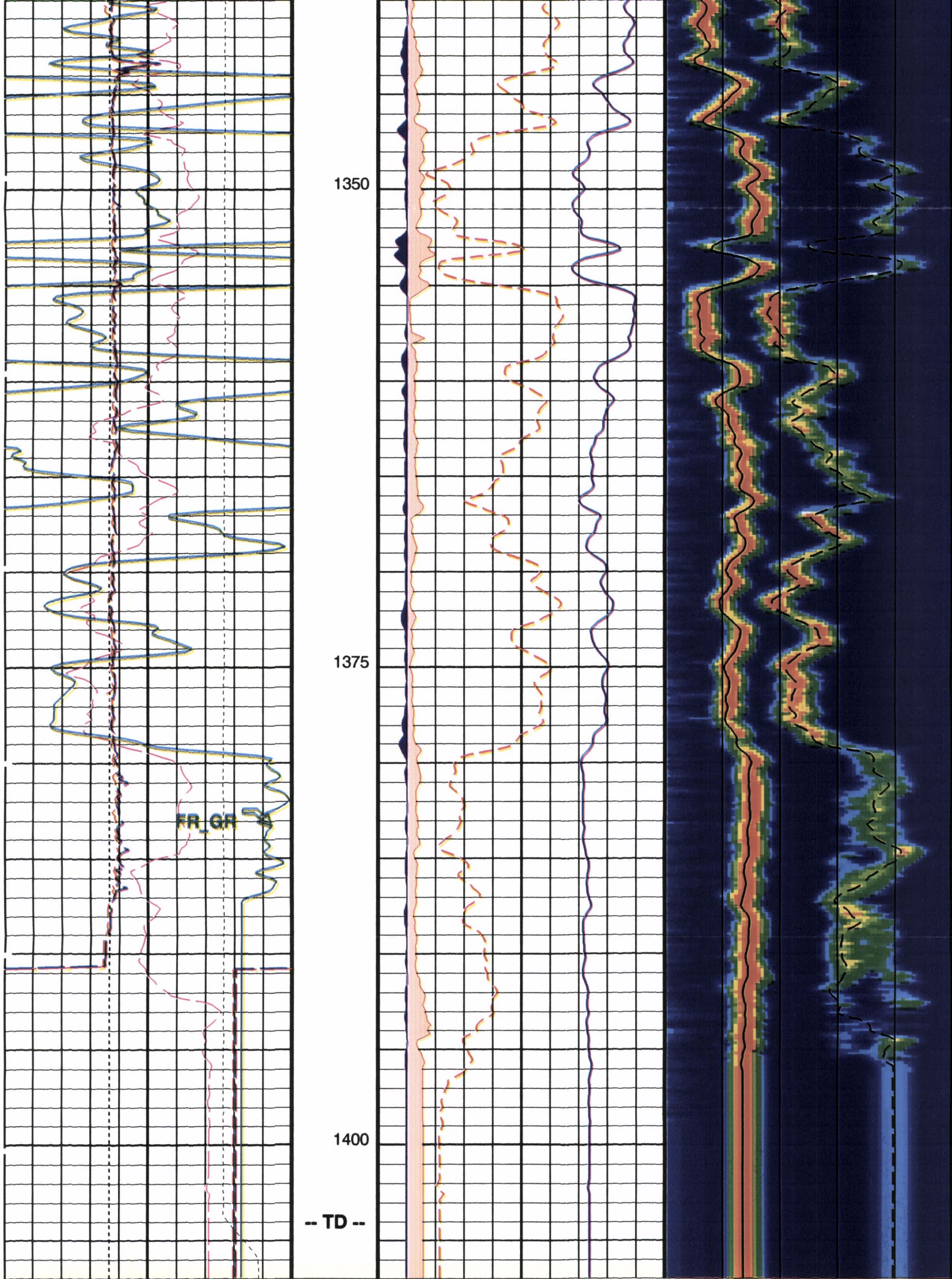












MAIN PASS: *** DIPOLE SONIC - P & S IMAGE ***

Bit Size (BS) (MM)	Stuck Stretch (STIT) (M)	Delta-T Comp - P & S (DT4P) (US/M)	Delta-T Comp / RA - P & S (DTRP) (US/M)
125 375	0 20	600 100	100 600
Poisson's Ratio (PR) (---)		Delta-T Shear - P & S (DT4S) (US/M)	Delta-T Shear / RA - P & S (DTRS) (US/M)
0 0.5		600 100	100 600
Hole Diameter Minimum (HDMI) (MM)		Low Comp Coherence Flag Low Shear Coherence Flag	Min Amplitude Max Rec.Array P&S Slow Proj. CVDL (SPR4) 100 (US/M) 600
125 375			
Hole Diameter Maximum (HDMX) (MM)			
125 375			
Gamma Ray (GR) (GAPI)			
0 150			
Tension (TENS) 25000 (N)	0		

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
BHS	Borehole Status	OPEN
CASF	Label Casing Function - Monopole P&S	50
COLL	Label Slowness Lower Limit - Monopole P&S Compressional	100 US/M
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	700 US/M
DDE4	Digitizing Delay 4	0 US
DDEX	Digitizing Delay X	0 US
DSI4	Digitizer Sample Interval 4	10 US
DSIX	Digitizer Sample Interval X	40 US
DTCS	Compressional Delta-T Source for DTCS Channel	PS_COMP
DTF	Delta-T Fluid	620.079 US/M
DTSS	Shear Delta-T Source for DTSS Channel	UPPER_DIPOLE
DWC4	Digitizer Word Count 4	512
DWCX	Digitizer Word Count X	512
FILG	Label Fill Gap Control - Monopole P&S	COMP_SHEAR
LFC	Label Formation Character - Monopole P&S	DYNAMIC
MCS	Mean Casing Slowness	187.008 US/M
MTXG	Monopole Transmitter Geometry	4724 MM
NW14	Number Waveform Items 4	8
NW1X	Number Waveform Items X	0
RSMN	Label Shear/Compressional Minimum Ratio - Monopole P&S	1.4
RSMX	Label Shear/Compressional Maximum Ratio - Monopole P&S	2.12
RX1G	Receiver 1 Geometry	7468 MM
RX2G	Receiver 2 Geometry	7620 MM
RX3G	Receiver 3 Geometry	7772 MM
RX4G	Receiver 4 Geometry	7925 MM
RX5G	Receiver 5 Geometry	8077 MM
RX6G	Receiver 6 Geometry	8230 MM
RX7G	Receiver 7 Geometry	8382 MM
RX8G	Receiver 8 Geometry	8534 MM
SAM4	DSST Sonic Acquisition Mode 4 - High Frequency Monopole Mode for P&S	ODD
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF
SAS4	STC Sonic Array Status - Monopole P&S	255
SBO4	STC Search Band Offset - Monopole P&S	500 US
SBR4	STC Baseline Removal - Monopole P&S	ON
SBW4	STC Search Bandwidth - Monopole P&S	2000 US
SFC4	STC Formation Character - Monopole P&S	SELECTABLE
SFM4	STC Filter - Monopole P&S	B3-20K
SHLL	Label Slowness Lower Limit - Monopole P&S Shear	250 US/M
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	700 US/M
SLL4	STC Slowness Lower Limit - Monopole P&S	100 US/M
SST4	STC Slowness Step - Monopole P&S	6.56168 US/M
SSW4	STC Source Waveform - Monopole P&S	WF_SAM4
STLL	Label Slowness Lower Limit - Monopole Stoneley	590.551 US/M
STUL	Label Slowness Upper Limit - Monopole Stoneley	2559.06 US/M
SUL4	STC Slowness Upper Limit - Monopole P&S	1500 US/M
SWD4	STC Slowness Width - Monopole P&S	32.8084 US/M
TBF4	STC Time for Baseline Fill - Monopole P&S	300 US
TLL4	STC Time Lower Limit - Monopole P&S	150 US
TST4	STC Time Step - Monopole P&S	50 US
TUL4	STC Time Upper Limit - Monopole P&S	5110 US
TWD4	STC Time Width - Monopole P&S	1000 US
TW14	STC Integration Time Window - Monopole P&S	500 US
TWSX	Transmitter Waveform Select X	0
EMSB: Environment	Measurement Sonde	
ECOF	EMS Caliper Offset	50.8 MM
EFC	EMS Fixed Caliper Operation	OFF
SGT-N: Scintillation Gamma-Ray - N		
BHS	Borehole Status	OPEN
HOLEV: Integrated Hole/Cement Volume		
BHS	Borehole Status	OPEN
STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL
STKT	STI Stuck Threshold	1.524 M
TDD	Total Depth - Driller	1404.20 M
TDL	Total Depth - Logger	1404.00 M
System and Miscellaneous		
BS	Bit Size	216.000 MM
DORL	Depth Offset for Repeat Analysis	0.0 M

Format: DSI_PS Vertical Scale: 1:240

Graphics File Created: 19-Mar-2004 10:16

OP System Version: 11C0-305

MCM

DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

Output DLIS Files

DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16

Output DLIS Files

DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16	1407.0 M	-4.6 M
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26	1407.0 M	-4.6 M
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16	1407.0 M	-4.6 M

OP System Version: 11C0-305

MCM

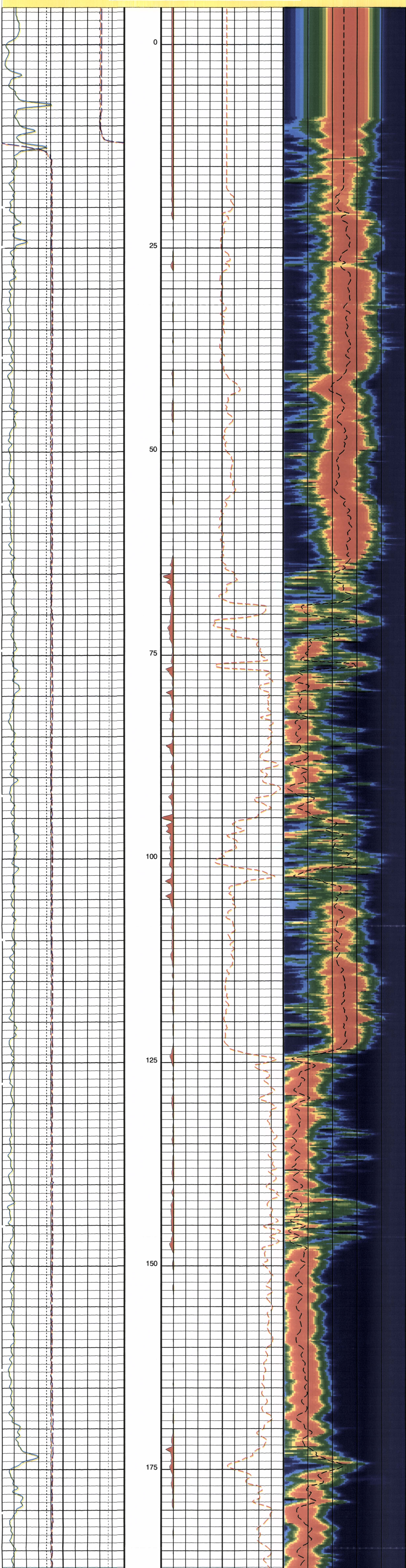
DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

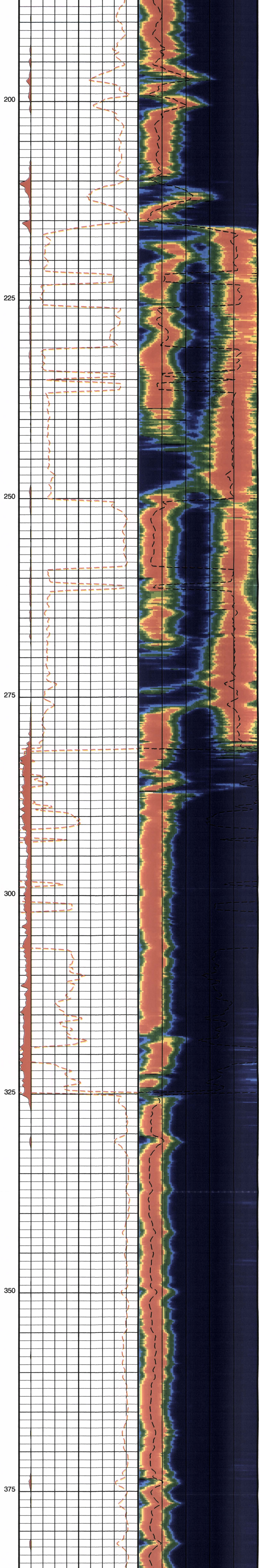
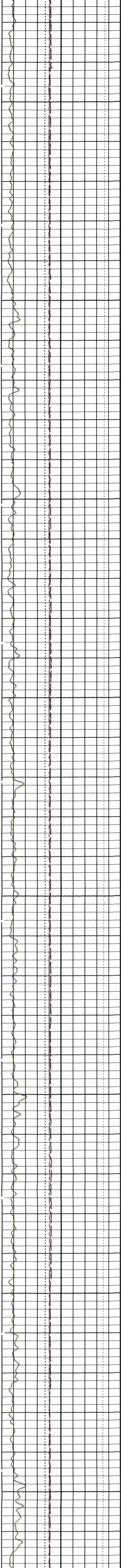
PIP SUMMARY

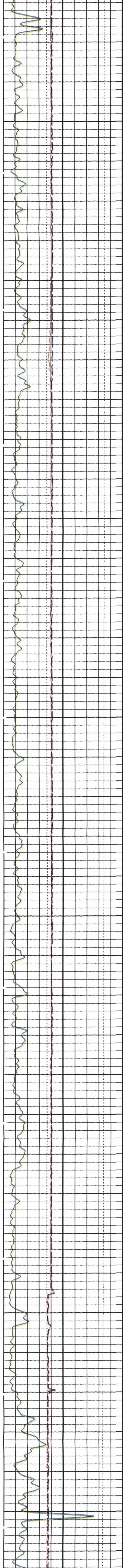
Time Mark Every 60 S

Tension (TENS) 25000 (N)	0	Low Shear Coherence Flag	Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 200 (US/M) 1200
Gamma Ray (GR) (GAPI)	0 150		
Hole Diameter Maximum (HDMX) (MM)	125 375		
Hole Diameter Minimum (HDMI) (MM)	125 375		
Stuck			

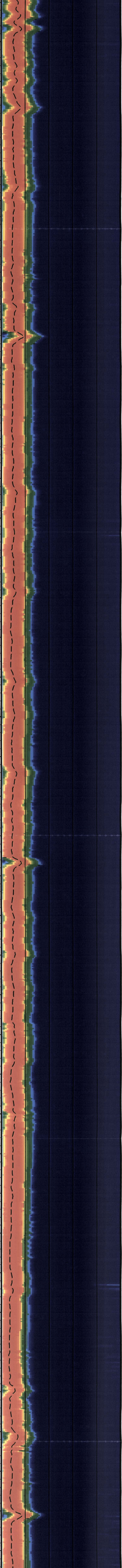
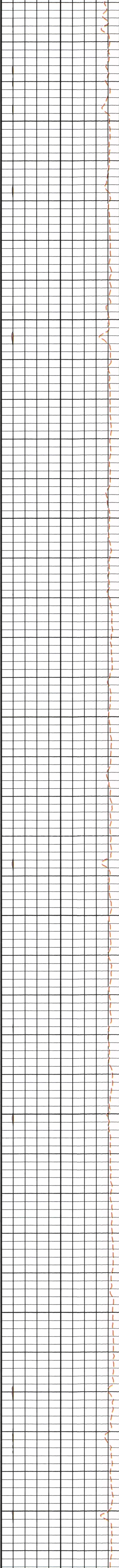
MAIN PASS: *** DIPOLE SONIC - UPPER DIPOLE IMAGE ***

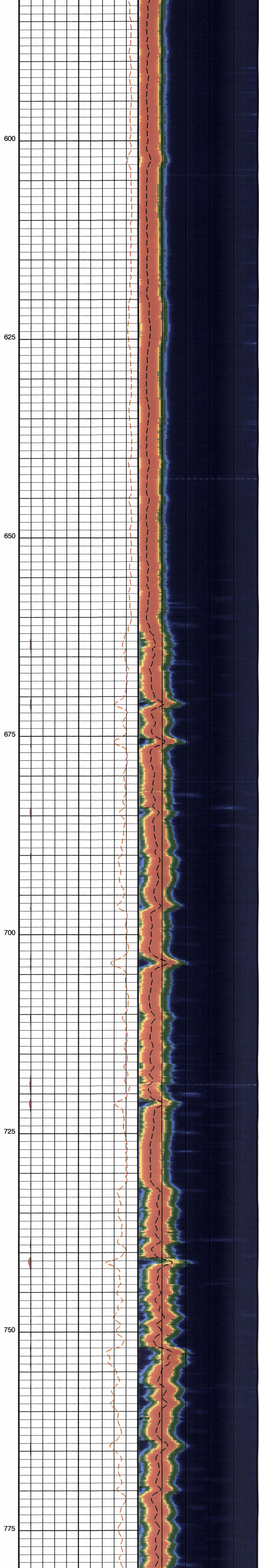
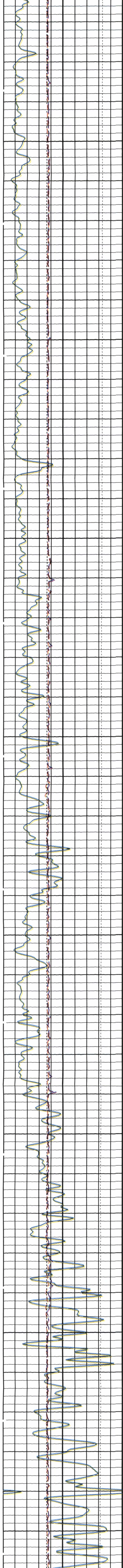


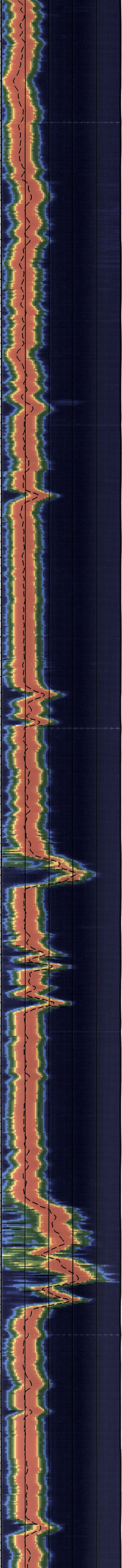
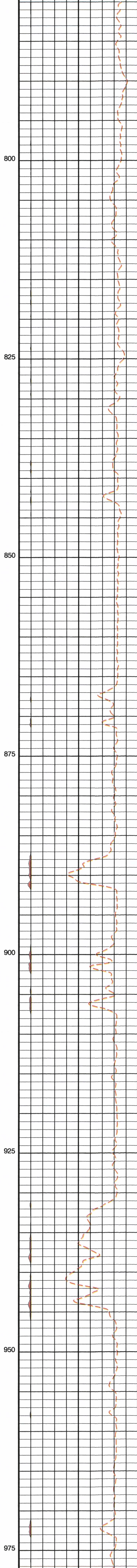
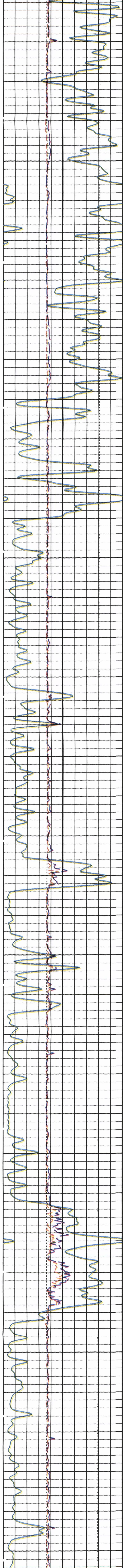


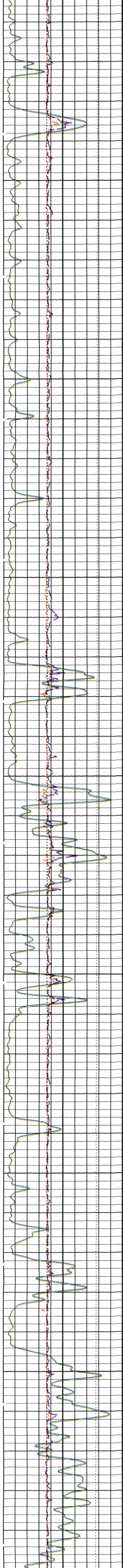


CASING

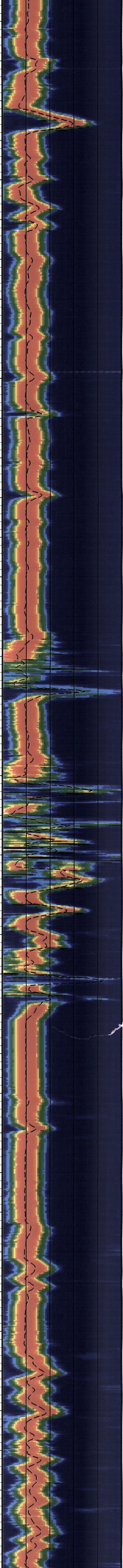
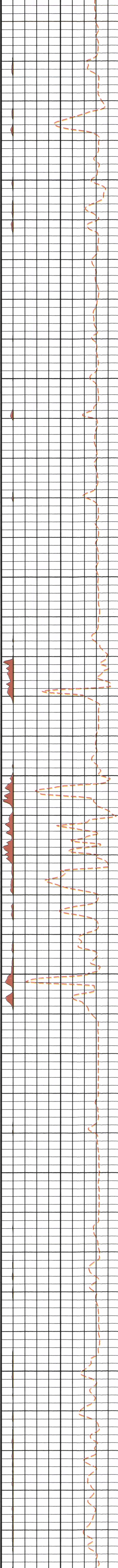


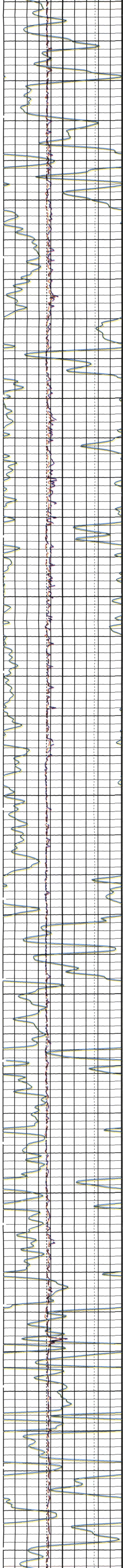




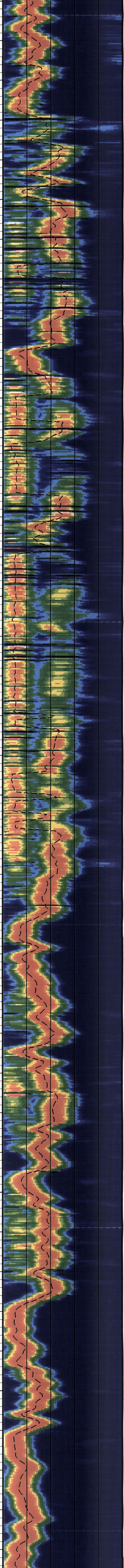
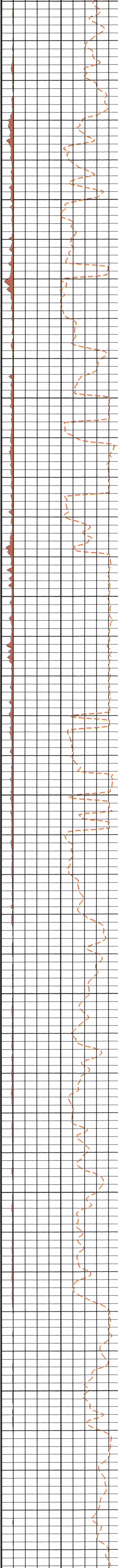


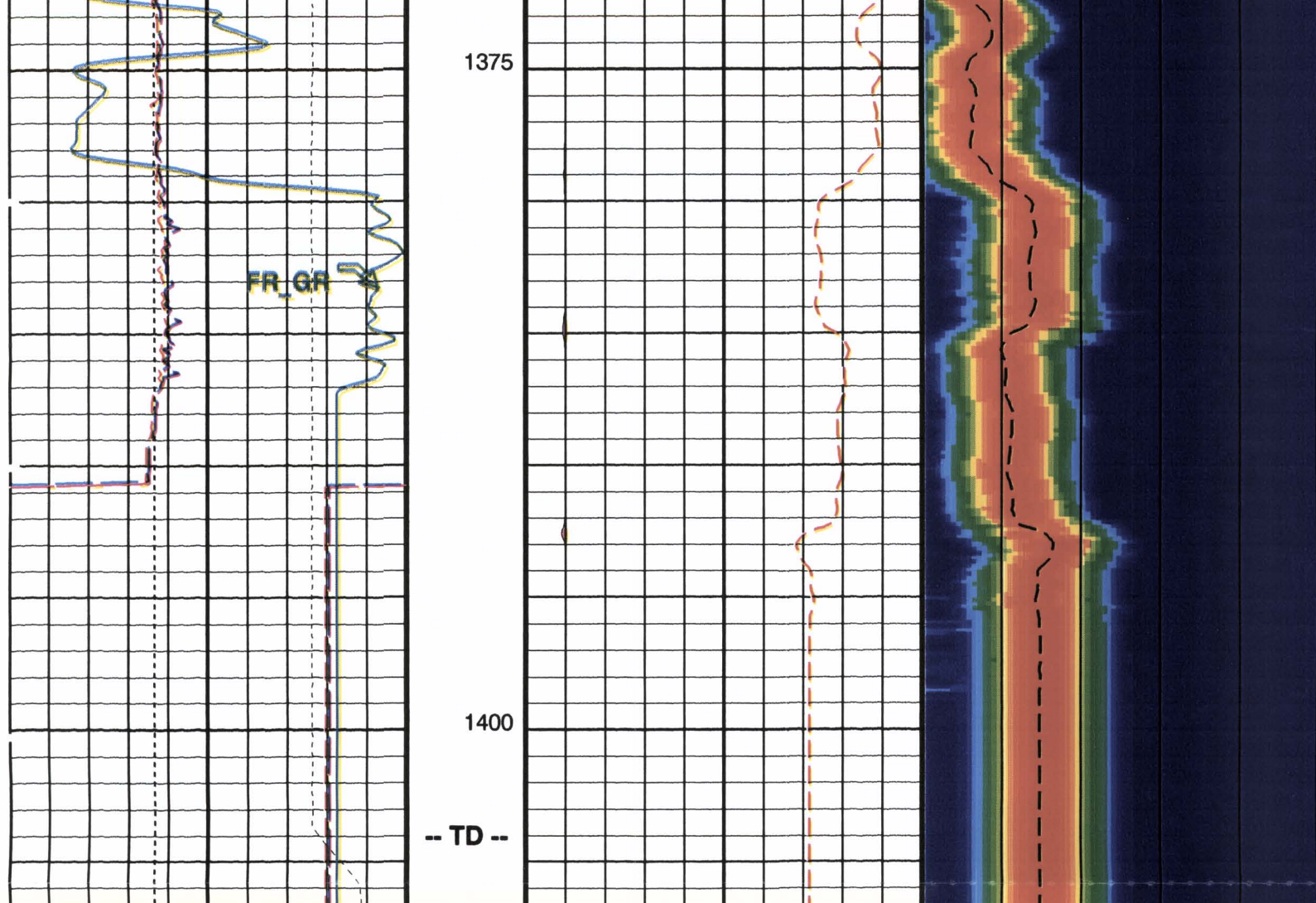
1000
1025
1050
1075
1100
1125
1150
1175





1175
1200
1225
1250
1275
1300
1325
1350





MAIN PASS: *** DIPOLE SONIC - UPPER DIPOLE IMAGE ***			
Bit Size (BS) (MM)	Stuck Stretch (STIT) (M)	Delta-T Shear - Upper Dipole (DT2) (US/M)	Delta-T Shear / RA - Upper Dipole (DT2R) (US/M)
125	375	1200	200
Hole Diameter Minimum (HDMI) (MM)	Low Shear Coherence Flag		Min Amplitude Max Rec.Array U.Dipole Slow Proj. CVDL (US/M)
125			200 1200
Hole Diameter Maximum (HDMX) (MM)			
125			
Gamma Ray (GR) (GAPI)			
0			
150			
Tension (TENS) (N)			
25000			
0			

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
DDE2	Digitizing Delay 2	0 US
DDEX	Digitizing Delay X	0 US
DLCS	Label Compressional Source - Dipole Shear	DONT_USE
DSHL	Label Slowness Lower Limit - Dipole Shear	200 US/M
DSHU	Label Slowness Upper Limit - Dipole Shear	2550 US/M
DSI2	Digitizer Sample Interval 2	40 US
DSIX	Digitizer Sample Interval X	40 US
DTCS	Compressional Delta-T Source for DTCS Channel	PS_COMP
DWC2	Digitizer Word Count 2	512
DWCX	Digitizer Word Count X	512
NWI2	Number Waveform Items 2	8
NWIX	Number Waveform Items X	0
RX1G	Receiver 1 Geometry	7468 MM
RX2G	Receiver 2 Geometry	7620 MM
RX3G	Receiver 3 Geometry	7772 MM
RX4G	Receiver 4 Geometry	7925 MM
RX5G	Receiver 5 Geometry	8077 MM
RX6G	Receiver 6 Geometry	8230 MM
RX7G	Receiver 7 Geometry	8382 MM
RX8G	Receiver 8 Geometry	8534 MM
SAM2	DSST Sonic Acquisition Mode 2 - Upper Dipole Mode	ODD
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF
SAS2	STC Sonic Array Status - Upper Dipole	255
SBO2	STC Search Band Offset - Upper Dipole	3000 US
SBW2	STC Search Bandwidth - Upper Dipole	8000 US
SFC2	STC Formation Character - Upper Dipole	SELECTABLE
SFM2	STC Filter - Upper Dipole	B1-3K
SLL2	STC Slowness Lower Limit - Upper Dipole	200 US/M
SST2	STC Slowness Step - Upper Dipole	13.1234 US/M
SSW2	STC Source Waveform - Upper Dipole	WF_SAM2
SUL2	STC Slowness Upper Limit - Upper Dipole	2550 US/M
SWD2	STC Slowness Width - Upper Dipole	131.234 US/M
TBF2	STC Time for Baseline Fill - Upper Dipole	0 US
TLL2	STC Time Lower Limit - Upper Dipole	600 US
TST2	STC Time Step - Upper Dipole	200 US
TUL2	STC Time Upper Limit - Upper Dipole	15549.6 US
TWD2	STC Time Width - Upper Dipole	2000 US
TWI2	STC Integration Time Window - Upper Dipole	1600 US
TWSX	Transmitter Waveform Select X	0
UTXG	Upper Dipole Transmitter Geometry	4115 MM
EMS-B: Environment Measurement Sonde		
ECOF	EMS Caliper Offset	50.8 MM
EFC	EMS Fixed Caliper Operation	OFF
STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL
STKT	STI Stuck Threshold	1.524 M
TDD	Total Depth - Driller	1404.20 M
TDL	Total Depth - Logger	1404.00 M
System and Miscellaneous		
BS	Bit Size	216.000 MM
DORL	Depth Offset for Repeat Analysis	0.0 M

Format: DSI_UD Vertical Scale: 1:240

Graphics File Created: 19-Mar-2004 10:16

OP System Version: 11C0-305

MCM

DSST-B	OP11-KP1	EMS-B	11C0-305
SGT-N	11C0-305	DTC-H	11C0-305

Output DLIS Files

DEFAULT	DSI_EMS_018LUP	FN:39	PRODUCER	19-Mar-2004 10:16
BACKUP	DSI_EMS_018LUP	FN:40	PRODUCER	19-Mar-2004 10:26
CUST	DSI_EMS_018LUP	FN:41	PRODUCER	19-Mar-2004 10:16

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
Environment Measurement Sonde Wellsite Calibration - EMS Caliper Calibration							
Before: 15-Mar-2004 4:43							
Radius 1 Short Radius	101.6	N/A	88.03	N/A	N/A	5.080	MM
Radius 1 Long Radius	203.2	N/A	192.0	N/A	N/A	5.080	MM
Radius 2 Short Radius	101.6	N/A	83.84	N/A	N/A	5.080	MM
Radius 2 Long Radius	203.2	N/A	188.6	N/A	N/A	5.080	MM
Radius 3 Short Radius	101.6	N/A	83.99	N/A	N/A	5.080	MM
Radius 3 Long Radius	203.2	N/A	187.4	N/A	N/A	5.080	MM
Radius 4 Short Radius	101.6	N/A	85.39	N/A	N/A	5.080	MM
Radius 4 Long Radius	203.2	N/A	189.0	N/A	N/A	5.080	MM
Radius 5 Short Radius	101.6	N/A	84.48	N/A	N/A	5.080	MM
Radius 5 Long Radius	203.2	N/A	186.6	N/A	N/A	5.080	MM
Radius 6 Short Radius	101.6	N/A	78.24	N/A	N/A	5.080	MM
Radius 6 Long Radius	203.2	N/A	183.6	N/A	N/A	5.080	MM
Scintillation Gamma-Ray - N Wellsite Calibration - Detector Calibration							
Before: 15-Mar-2004 4:38							
Gamma Ray (Jig - Bkg)	150.5	N/A	150.5	N/A	N/A	13.68	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

Environment Measurement Sonde / Equipment Identification			
Primary Equipment:			
EMS Mechanical	EMM - B	8062	
EMS Cartridge	EMC - B	8067	
Auxiliary Equipment:			
Electronics Cartridge Housing	ECH - KH	8550	

Environment Measurement Sonde Wellsite Calibration					
EMS Caliper Calibration					
Phase	Radius 1 Short Radius MM	Value	Phase	Radius 1 Long Radius MM	Value
Before		88.03	Before		192.0
	76.20 (Minimum)	101.6 (Nominal)		177.8 (Minimum)	203.2 (Nominal)
		127.0 (Maximum)			228.6 (Maximum)
Phase	Radius 2 Short Radius MM	Value	Phase	Radius 2 Long Radius MM	Value
Before		83.84	Before		188.6
	76.20 (Minimum)	101.6 (Nominal)		177.8 (Minimum)	203.2 (Nominal)
		127.0 (Maximum)			228.6 (Maximum)
Phase	Radius 3 Short Radius MM	Value	Phase	Radius 3 Long Radius MM	Value
Before		83.99	Before		187.4
	76.20 (Minimum)	101.6 (Nominal)		177.8 (Minimum)	203.2 (Nominal)
		127.0 (Maximum)			228.6 (Maximum)
Phase	Radius 4 Short Radius MM	Value	Phase	Radius 4 Long Radius MM	Value
Before		85.39	Before		189.0
	76.20 (Minimum)	101.6 (Nominal)		177.8 (Minimum)	203.2 (Nominal)
		127.0 (Maximum)			228.6 (Maximum)
Phase	Radius 5 Short Radius MM	Value	Phase	Radius 5 Long Radius MM	Value
Before		84.48	Before		186.6
	76.20 (Minimum)	101.6 (Nominal)		177.8 (Minimum)	203.2 (Nominal)
		127.0 (Maximum)			228.6 (Maximum)
Phase	Radius 6 Short Radius MM	Value	Phase	Radius 6 Long Radius MM	Value
Before		78.24	Before		183.6
	76.20 (Minimum)	101.6 (Nominal)		177.8 (Minimum)	203.2 (Nominal)
		127.0 (Maximum)			228.6 (Maximum)
Before: 15-Mar-2004 4:43					

Scintillation Gamma-Ray - N / Equipment Identification			
Primary Equipment:			
Scintillation Gamma Cartridge	SGC - TB	9586	
Scintillation Gamma Detector	SGD - TAA		
Auxiliary Equipment:			
Scintillation Gamma Housing	SGH - K	9396	
Gamma Source Radioactive	GSR - U/Y		

Scintillation Gamma-Ray - N Wellsite Calibration							
Detector Calibration							
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI
Before		21.82	Before		150.5	Before	
							165.0

0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	136.8 (Minimum)	150.5 (Nominal)	164.2 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 15-Mar-2004 4:38								

Company: **APACHE CANADA LTD.**

Schlumberger

Well: **APACHE PARAMOUNT WEST NOGHA K-14**

Field: **UNDEFINED**

Province: **NORTHWEST TERRITORIES**

**DIPOLE SONIC:
COMPRESSIONAL &
SHEAR SONIC LOG**