Schlumberger

Company: **Lamont Doherty**

Well: **NGHP–1–10D**
Field: **Krishna Godavari Basin**
Rig: **Joides Resolution** Ocean: **Indian Ocean**

Rig: Joides Resolution
Field: Krishna Godavari Basin
Location: Rig: Joides Resolution
Well: NGHP–1–10D
Company: Lamont Doherty

Dipole Sonic

LOCATION

Rig: Joides Resolution		Elev.:	K.B. 11.3 m
			G.L. –1050.4 m
			D.F. 11 m
Permanent Datum:	Mean Sea Level	Elev.:	0 m
Log Measured From:	Rig Floor	11.0 m	above Perm. Datum
Drilling Measured From:	Rig Floor		

API Serial No.	Max. Hole Devi.	Longitude	Latitude
		81* 50.0709E	15* 51.8647 N

Logging Date				21–Jun–2006							Logging Date
Run Number				One							Run Number
Depth Driller				1254.2 m							Depth Driller
Schlumberger Depth				1208 m							Schlumberger Depth
Bottom Log Interval				1206 m							Bottom Log Interval
Top Log Interval				1058.5 m							Top Log Interval
Casing Driller Size @ Depth				0.000 in	@	1098.6 m		@			Casing Driller Size @ Depth
Casing Schlumberger				1096 m							Casing Schlumberger
Bit Size				9.875 in							Bit Size
Type Fluid In Hole				SepioLite/Barite							Type Fluid In Hole
MUD	Density	Viscosity		1.26 g/cm3							MUD Density Viscosity
MUD	Fluid Loss	PH		0 cm3							MUD Fluid Loss PH
MUD	Source Of Sample			Pit							MUD Source Of Sample
RM @ Measured Temperature				0.177 ohm.m	@	23 degC		@			RM @ Measured Temperature
RMF @ Measured Temperature				0.000 ohm.m	@			@			RMF @ Measured Temperature
RMC @ Measured Temperature				0.000 ohm.m	@			@			RMC @ Measured Temperature
Source RMF		RMC									Source RMF RMC
RM @ MRT		RMF @ MRT		0.199	@ 18		@ 18	@		@	RM @ MRT RMF @ MRT
Maximum Recorded Temperatures				18 degC							Maximum Recorded Temperatures
Circulation Stopped			Time	21–Jun–2006			1300				Circulation Stopped Time
Logger On Bottom			Time	21–Jun–2006			see log				Logger On Bottom Time
Unit Number		Location		2082	Webster, TX						Unit Number Location
Recorded By				Steve Kittredge							Recorded By
Witnessed By				Gilles Guerin							Witnessed By

DISCLAIMER

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OTHER SERVICES1	OTHER SERVICES2
OS1: DITE/HLDS/APS/HNGS	OS1:
OS2: VSI	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
All parameters and presentations as per IODP standards	
Tool ran as per tool sketch below.	
Had problems getting tool out of pipe.	
Tool Stopped at 1208 MBRF.	
All logs in Meters Below Rig Floor (MBRF).	
Caliper closed before logging head entered drill pipe.	
Hole filled with 10.5 ppg barite mud.	
No DSI on 3rd run.	

RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:		12C0–301	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

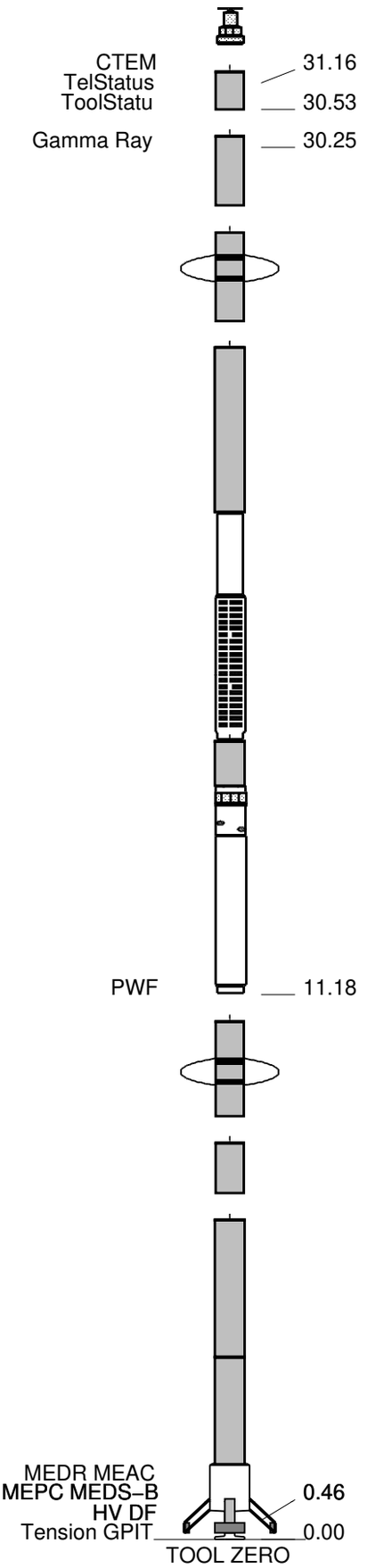
EQUIPMENT DESCRIPTION

RUN 1 RUN 2

SURFACE EQUIPMENT

GSR–U/Y 166
WITM (DTS)–A

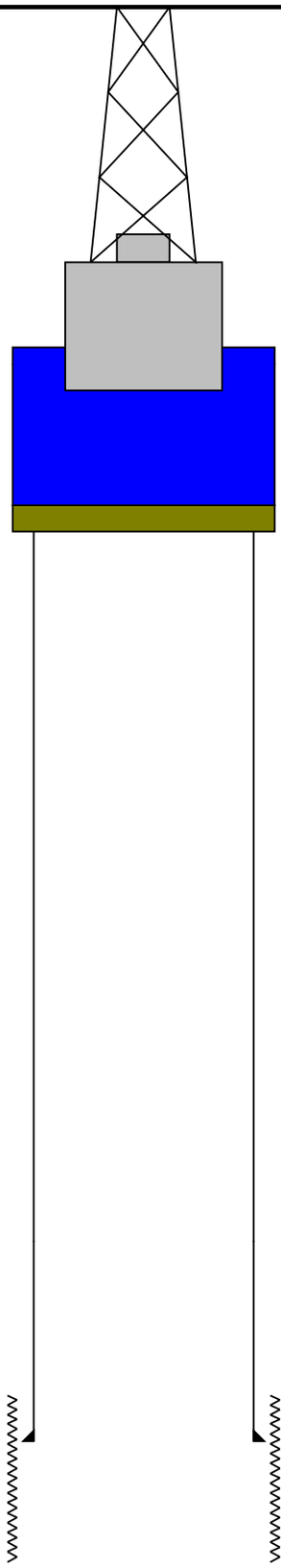
DOWNHOLE EQUIPMENT



LEH–QT LEH–QT	32.33
DTC–H ECH–KC	31.44
SGT–N SGH–K 2443 SGC–TB 9582 SGD–TAA	30.53
AH–MCD AH–MCD	28.85
DSST–B SPAC–B 8128 ECH–SD 8128 SMDR–BD 8076 SSIJ–BA 8127 SMDX–AA 8148	26.73
AH–MCD AH–MCD	11.18
DTA–A ECH–KE DTA–A 8231	8.90
MEST–B MEAH–B 769 MEAC–A 875 MEPH–A 702 GPIC–A 719 MEPC–AB 806 MEDS–B 771	7.68

MAXIMUM STRING DIAMETER 4.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String	(in) OD	(in) ID	(ft) MD	Well Schematic	(ft) MD	(in) OD	(in) ID	Casing String
Kelly Bushing Elevation			11.3					
Derrick Floor Elevation			11.0					
Mean Sea Level			0.0					
					−11.0	8.250		Casing String
					1050.4	9.875		Borehole Segment
					1098.6	8.250		Casing Shoe
					1254.2	9.875		Borehole Segment Bottom



Schlumberger

Main Up Log

MAXIS Field Log

Output DLIS Files

DEFAULT	FMS_DSI_019LUP	FN:12	PRODUCER	21–Jun–2006 07:41	1211.3 M	1058.6 M

OP System Version: 12C0–301

MCM

MEST–B	12C0–301	DTA–A	12C0–301
DSST–B	12C0–301	SGT–N	12C0–301
DTC–H	12C0–301		

PIP SUMMARY

Time Mark Every 60 S

Waveform Data Copy Indicator 4 – Monopole P&S (WCI4)
0 (----) 10

Peak Coherence / RA – P & S Shear (CHRS)
–1 (----) 9

Peak Coherence / RA – P & S Comp (CHRP)
0 (----) 10

Peak Coherence / RA – Upper Dipole (CHR2)
0 (----) 10

Tension (TENS)
10000 (LBF) 0

Gamma Ray (GR)
0 (GAPI) 100

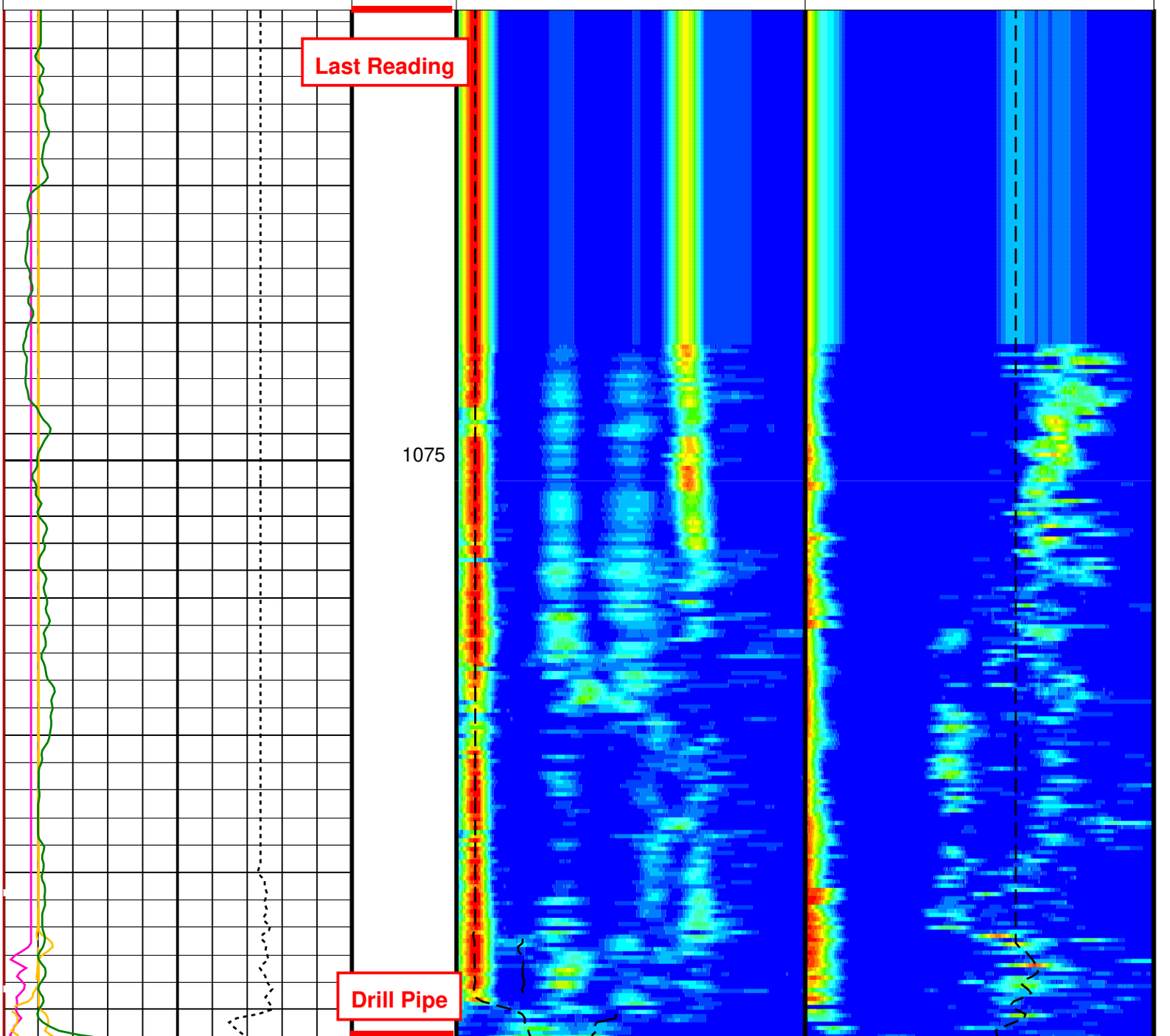
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 440

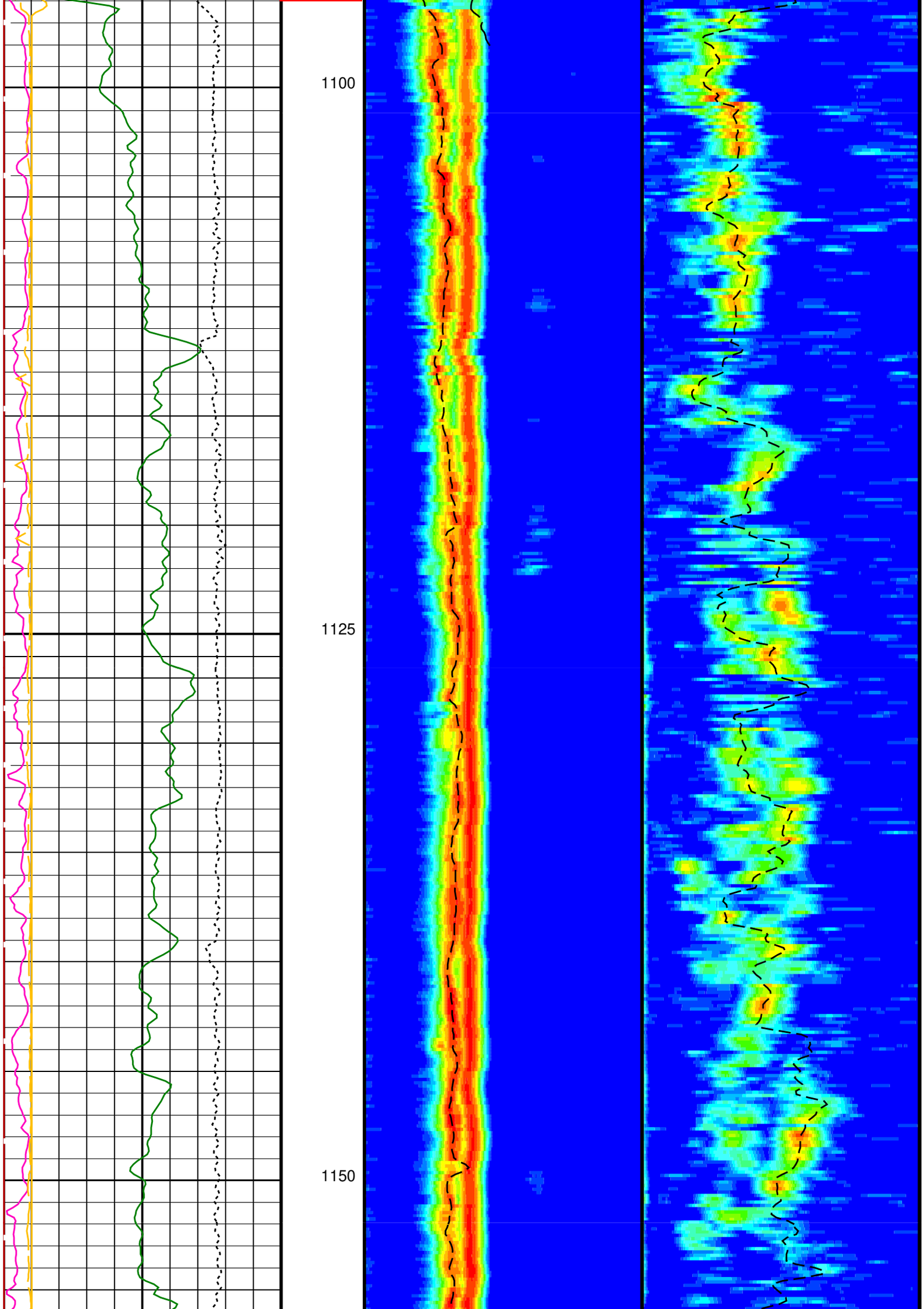
Delta–T Shear / RA – P & S (DTRS)
40 (US/F) 440

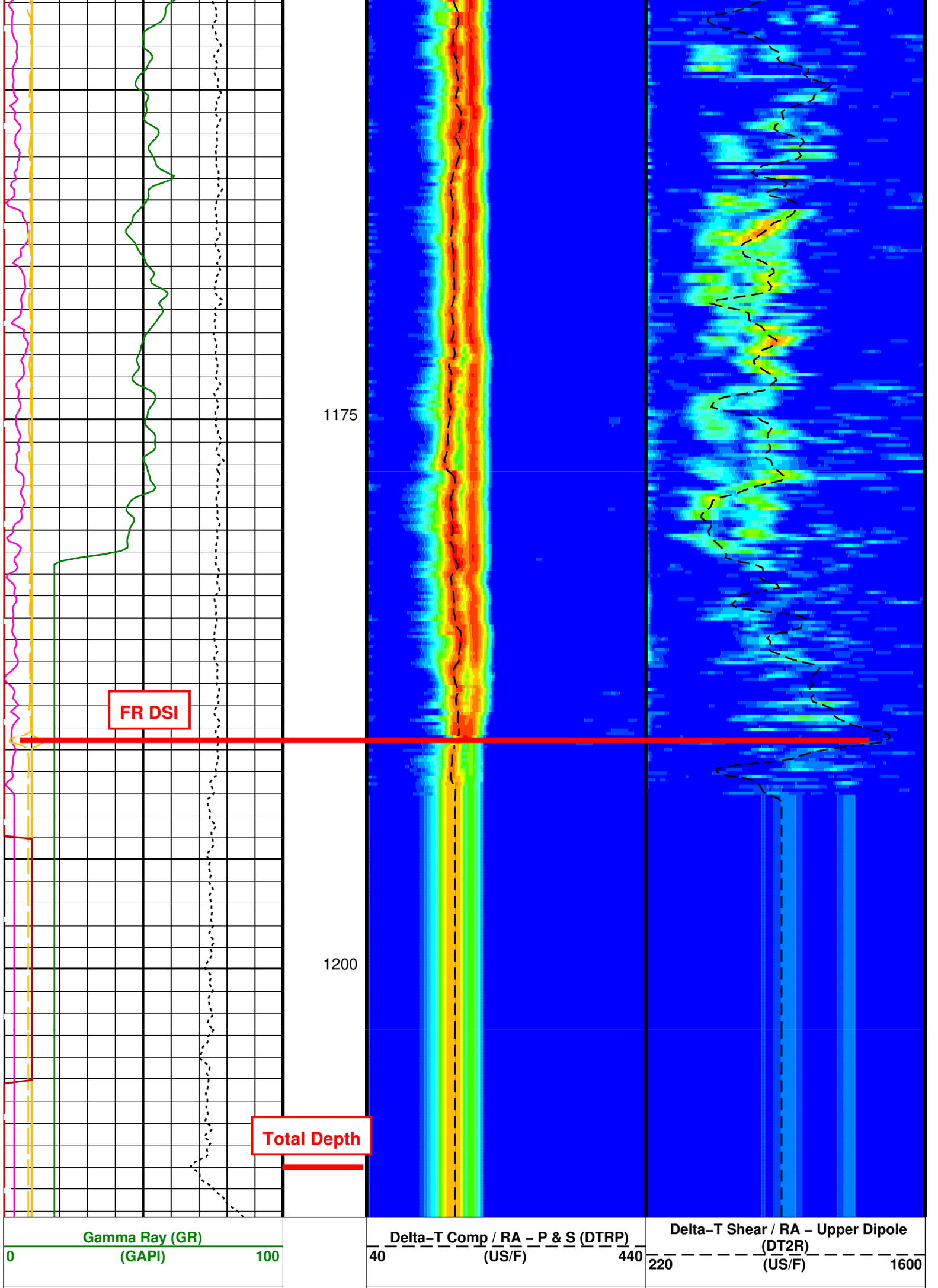
Delta–T Comp / RA – P & S (DTRP)
40 (US/F) 440

Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
220 (US/F) 1600

Delta–T Shear / RA – Upper Dipole (DT2R)
220 (US/F) 1600




1100
1125
1150


1175
1200
FR DSI
Total Depth
Gamma Ray (GR)
0
(GAPI)
100
Delta–T Comp / RA – P & S (DTRP)
40
(US/F)
440
Delta–T Shear / RA – Upper Dipole
(DT2R)
220
(US/F)
1600

Tension (TENS)
10000 (LBF) 0

Peak Coherence / RA – Upper Dipole (CHR2)
0 (----) 10

Peak Coherence / RA – P & S Comp (CHRP)
0 (----) 10

Peak Coherence / RA – P & S Shear (CHRS)
–1 (----) 9

Waveform Data Copy Indicator 4 – Monopole P&S (WCI4)
0 (----) 10

Delta–T Shear / RA – P & S (DTRS)
40 (US/F) 440

Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
220 (US/F) 1600

Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 440

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	40	US/F
COUL	Label Slowness Upper Limit – Monopole P&S Compressional	240	US/F
DDE2	Digitizing Delay 2	0	US
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source – Dipole Shear	USE	
DSHL	Label Slowness Lower Limit – Dipole Shear	220	US/F
DSHU	Label Slowness Upper Limit – Dipole Shear	1600	US/F
DSI2	Digitizer Sample Interval 2	10	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta–T Source for DTCO Channel	PS_COMP	
DTF	Delta–T Fluid	189	US/F
DWC2	Digitizer Word Count 2	512	
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	COMP_FIRST	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI2	Number Waveform Items 2	0	
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	32	
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	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	OFF	
SAM4	DSST Sonic Acquisition Mode 4 – High Frequency Monopole Mode for P&S	LFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X – Both Dipoles or Monopole Mode for Expert	BCR	
SAS2	STC Sonic Array Status – Upper Dipole	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO4	STC Search Band Offset – Monopole P&S	500	US
SBR4	STC Baseline Removal – Monopole P&S	ON	
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC4	STC Formation Character – Monopole P&S	SELECTABLE	

SFM2	STC Filter – Upper Dipole	B1–3K	
SFM4	STC Filter – Monopole P&S	B3–12K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	75	US/F
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	240	US/F
SLL2	STC Slowness Lower Limit – Upper Dipole	220	US/F
SLL4	STC Slowness Lower Limit – Monopole P&S	40	US/F
SST2	STC Slowness Step – Upper Dipole	4	US/F
SST4	STC Slowness Step – Monopole P&S	2	US/F
SSW2	STC Source Waveform – Upper Dipole	ODD_IN_SAMX	
SSW4	STC Source Waveform – Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit – Monopole Stoneley	220	US/F
STUL	Label Slowness Upper Limit – Monopole Stoneley	1600	US/F
SUL2	STC Slowness Upper Limit – Upper Dipole	1600	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	440	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBF2	STC Time for Baseline Fill – Upper Dipole	0	US
TBF4	STC Time for Baseline Fill – Monopole P&S	300	US
TLL2	STC Time Lower Limit – Upper Dipole	1420	US
TLL4	STC Time Lower Limit – Monopole P&S	150	US
TST2	STC Time Step – Upper Dipole	200	US
TST4	STC Time Step – Monopole P&S	50	US
TUL2	STC Time Upper Limit – Upper Dipole	20440	US
TUL4	STC Time Upper Limit – Monopole P&S	5110	US
TWD2	STC Time Width – Upper Dipole	2000	US
TWD4	STC Time Width – Monopole P&S	1000	US
TWI2	STC Integration Time Window – Upper Dipole	1600	US
TWI4	STC Integration Time Window – Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
SGT–N: Scintillation Gamma–Ray – N			
BHS	Borehole Status	OPEN	

Format: DSST_P_S_UPPER_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 21–Jun–2006 07:41

OP System Version: 12C0–301

MCM

MEST–B	12C0–301	DTA–A	12C0–301
DSST–B	12C0–301	SGT–N	12C0–301
DTC–H	12C0–301		

Output DLIS Files

DEFAULT	FMS_DSI_019LUP	FN:12	PRODUCER	21–Jun–2006 07:41

Schlumberger

Repeat Up Log

MAXIS Field Log

Output DLIS Files

DEFAULT	FMS_DSI_017LUP	FN:10	PRODUCER	21–Jun–2006 07:06	1211.3 M	1101.7 M

OP System Version: 12C0–301

MCM

MEST–B	12C0–301	DTA–A	12C0–301
DSST–B	12C0–301	SGT–N	12C0–301
DTC–H	12C0–301		

PIP SUMMARY

Time Mark Every 60 S

Waveform Data Copy Indicator 4 – Monopole P&S (WCI4)
0 (----) 10

Peak Coherence / RA – P & S Shear (CHRS)
–1 (----) 9

Peak Coherence / RA – P & S Comp (CHRP)
0 (----) 10

Peak Coherence / RA – Upper Dipole (CHR2)
0 (----) 10

Tension (TENS)
10000 (LBF) 0

Gamma Ray (GR)
0 (GAPI) 100

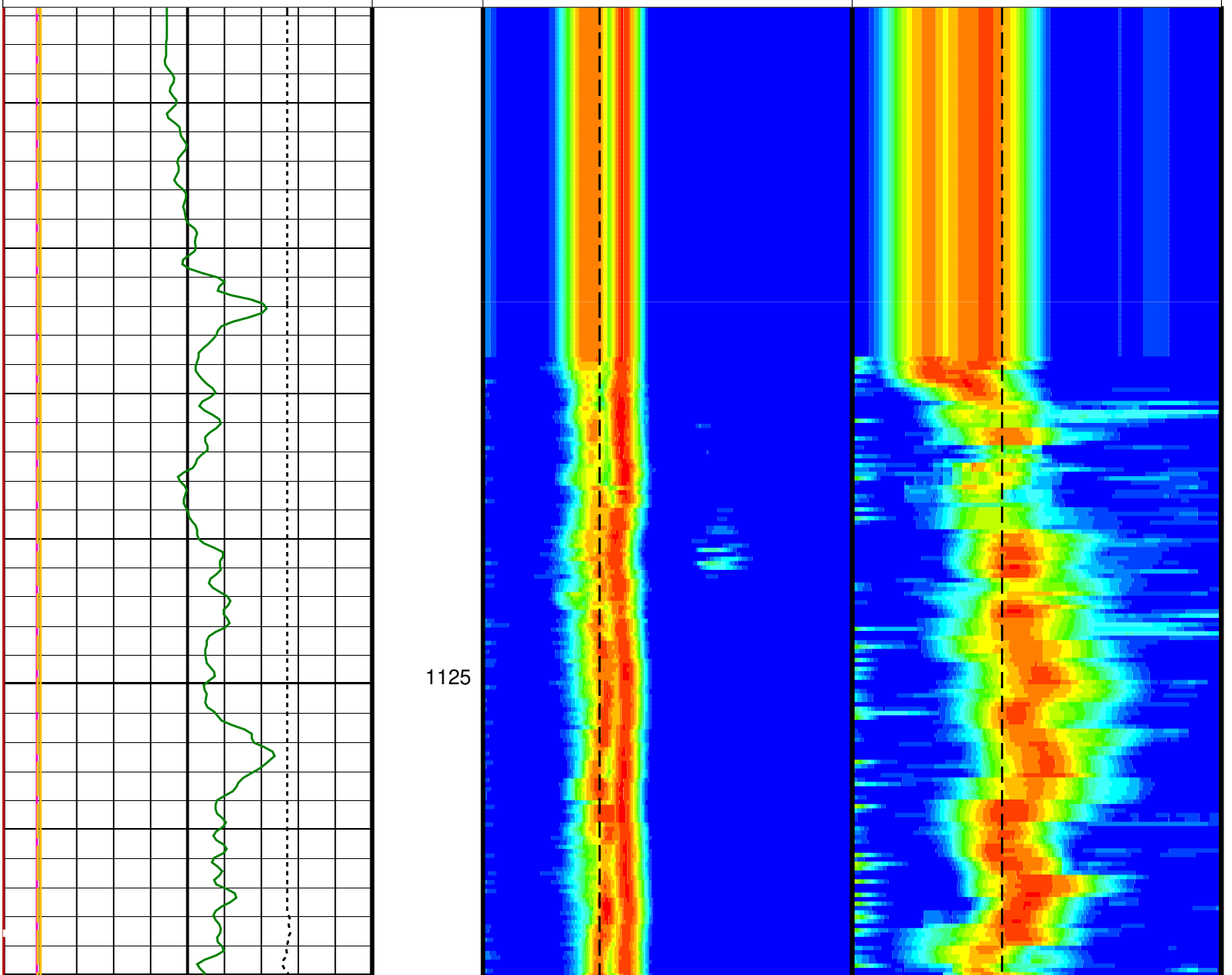
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 440

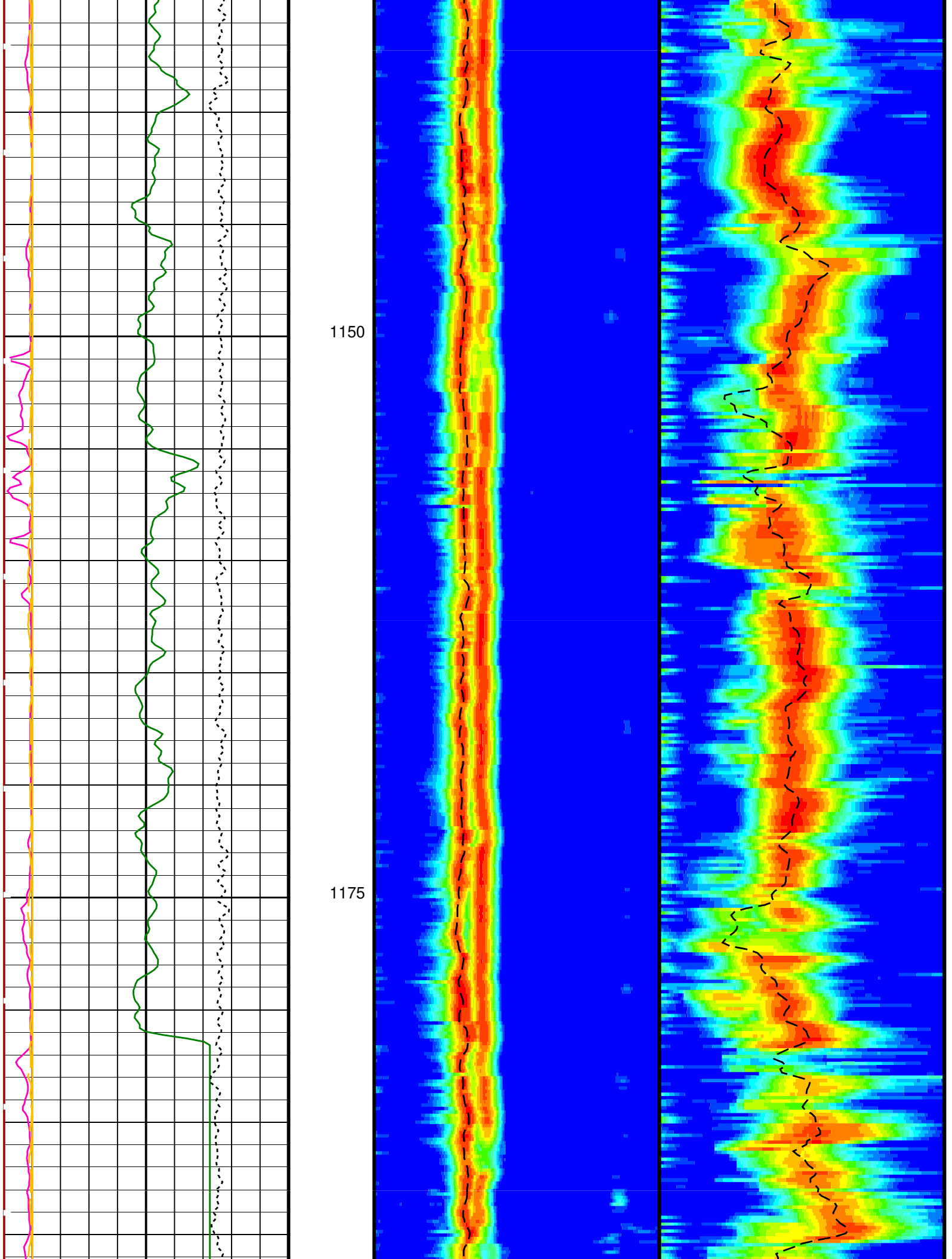
Delta–T Shear / RA – P & S (DTRS)
40 (US/F) 440

Delta–T Comp / RA – P & S (DTRP)
40 (US/F) 440

Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
220 (US/F) 1600

Delta–T Shear / RA – Upper Dipole (DT2R)
220 (US/F) 1600

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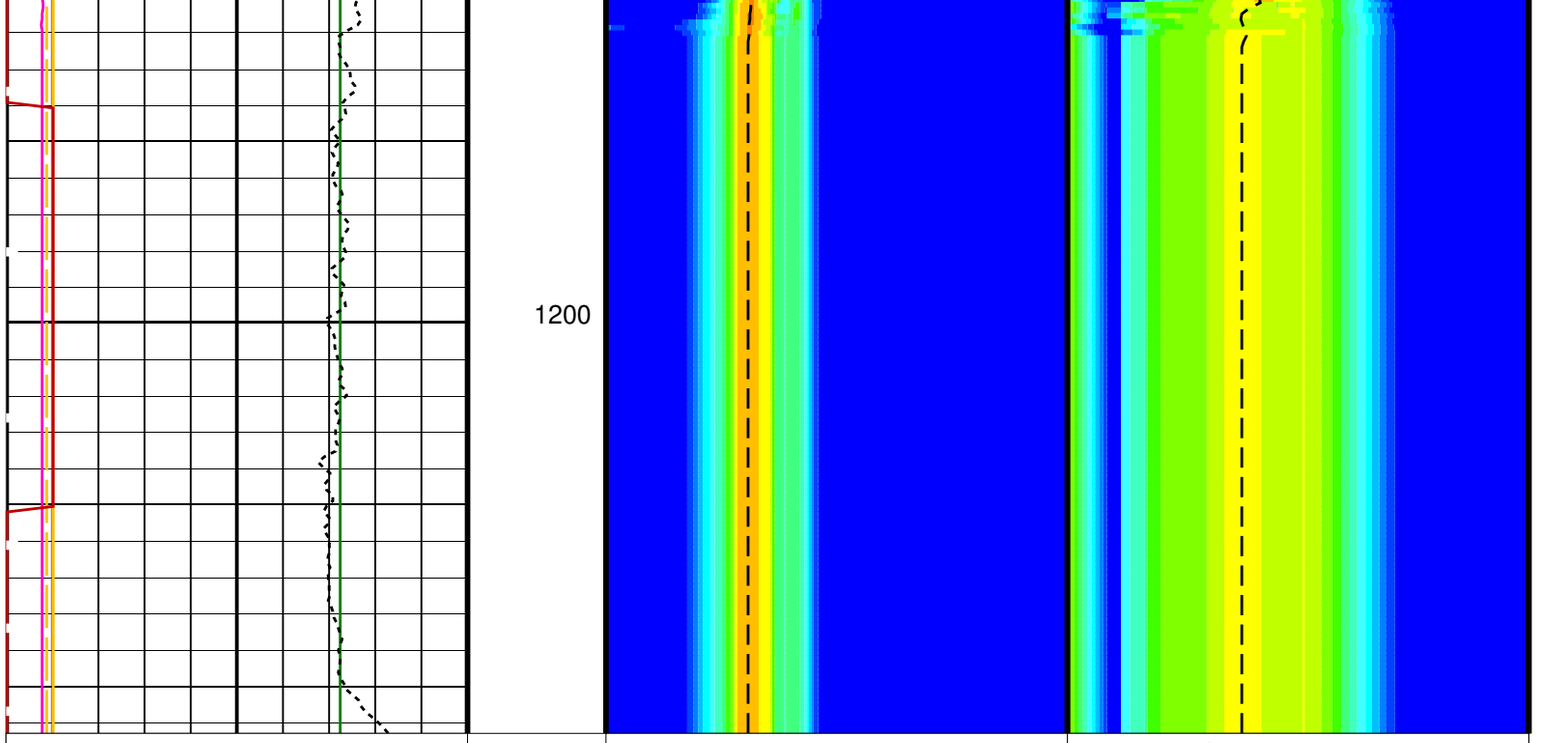
1175



Gamma Ray (GR)
0 (GAPI) 100

Tension (TENS)
10000 (LBF) 0

Peak Coherence / RA – Upper Dipole (CHR2)
0 (----) 10

Peak Coherence / RA – P & S Comp (CHRP)
0 (----) 10

Peak Coherence / RA – P & S Shear (CHRS)
–1 (----) 9

Waveform Data Copy Indicator 4 – Monopole P&S (WCI4)
0 (----) 10

Delta–T Comp / RA – P & S (DTRP)
40 (US/F) 440

Delta–T Shear / RA – P & S (DTRS)
40 (US/F) 440

Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 440

Delta–T Shear / RA – Upper Dipole (DT2R)
220 (US/F) 1600

Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
220 (US/F) 1600

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	40	US/F
COUL	Label Slowness Upper Limit – Monopole P&S Compressional	240	US/F
DDE2	Digitizing Delay 2	0	US
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source – Dipole Shear	USE	
DSHL	Label Slowness Lower Limit – Dipole Shear	220	US/F
DSHU	Label Slowness Upper Limit – Dipole Shear	1600	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta–T Source for DTCO Channel	PS_COMP	
DTF	Delta–T Fluid	189	US/F
DWC2	Digitizer Word Count 2	512	
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	COMP_FIRST	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI2	Number Waveform Items 2	8	

NWI4	Number Waveform Items 4	8	
NWIX	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	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	LFD_ODD	
SAM4	DSST Sonic Acquisition Mode 4 – High Frequency Monopole Mode for P&S	LFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X – Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status – Upper Dipole	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO4	STC Search Band Offset – Monopole P&S	500	US
SBR4	STC Baseline Removal – Monopole P&S	ON	
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC4	STC Formation Character – Monopole P&S	SELECTABLE	
SFM2	STC Filter – Upper Dipole	B.3–1.5K	
SFM4	STC Filter – Monopole P&S	B3–12K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	75	US/F
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	240	US/F
SLL2	STC Slowness Lower Limit – Upper Dipole	220	US/F
SLL4	STC Slowness Lower Limit – Monopole P&S	40	US/F
SST2	STC Slowness Step – Upper Dipole	4	US/F
SST4	STC Slowness Step – Monopole P&S	2	US/F
SSW2	STC Source Waveform – Upper Dipole	WF_SAM2	
SSW4	STC Source Waveform – Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit – Monopole Stoneley	220	US/F
STUL	Label Slowness Upper Limit – Monopole Stoneley	1600	US/F
SUL2	STC Slowness Upper Limit – Upper Dipole	1600	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	440	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBF2	STC Time for Baseline Fill – Upper Dipole	0	US
TBF4	STC Time for Baseline Fill – Monopole P&S	300	US
TLL2	STC Time Lower Limit – Upper Dipole	1420	US
TLL4	STC Time Lower Limit – Monopole P&S	150	US
TST2	STC Time Step – Upper Dipole	200	US
TST4	STC Time Step – Monopole P&S	50	US
TUL2	STC Time Upper Limit – Upper Dipole	20440	US
TUL4	STC Time Upper Limit – Monopole P&S	5110	US
TWD2	STC Time Width – Upper Dipole	2000	US
TWD4	STC Time Width – Monopole P&S	1000	US
TWI2	STC Integration Time Window – Upper Dipole	1600	US
TWI4	STC Integration Time Window – Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
SGT–N: Scintillation Gamma–Ray – N			
BHS	Borehole Status	OPEN	

Format: DSST_P_S_UPPER_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 21–Jun–2006 07:06

OP System Version: 12C0–301

MCM

MEST–B	12C0–301	DTA–A	12C0–301
DSST–B	12C0–301	SGT–N	12C0–301
DTC–H	12C0–301		

Output DLIS Files

DEFAULT FMS_DSI_017LUP FN:10 PRODUCER 21–Jun–2006 07:06

Company: **Lamont Doherty**

Schlumberger

Well: **NGHP–1–10D**

Field: **Krishna Godavari Basin**

Rig: **Joides Resolution**

Ocean: **Indian Ocean**

Dipole Sonic