

Province: NORTHWEST TERRITORIES				Well: PETRO-CANADA BLACKWATER KWIJIKA M-59			
Field: KWIJIKA				Province: NORTHWEST TERRITORIES			
Location: LSD: M-59				Well: PETRO-CANADA BLACKWATER KWIJIKA M-59			
Well: PETRO-CANADA BLACKWATER KWIJIKA M-59				Field: KWIJIKA			
Company: PETRO-CANADA				Province: NORTHWEST TERRITORIES			
SONIC IMAGER LOG				*** MD ***			
DIPOLE SHEAR				NE B COPY			
LSD: M-59				Elev.: K.B. 252.1 m			
UWID: 300M596440122300				G.L. 245.9 m			
Permanent Datum: GROUND LEVEL				D.F. 251.8 m			
Log Measured From: KELLY BUSHING				Elev.: 245.9 m			
Drilling Measured From: KELLY BUSHING				6.2 m above Perm. Datum			
API Serial No. 1165							
Logging Date 5-Mar-2008							
Run Number TWO							
Depth Driller 1640 m							
Schlumberger Depth 1641 m							
Bottom Log Interval 1625.3 m							
Top Log Interval 1198 m							
Casing Driller Size @ Depth 177.800 mm @ 1198 m							
Casing Schlumberger 1198 m							
Bit Size 156.000 mm							
Type Fluid In Hole KCL POLYMER							
Density 1315 kg/m3							
Fluid Loss 6.5 cm3							
Source Of Sample FLOWLINE							
FM @ Measured Temperature 0.048 ohm.m @ 15 degC							
RMF @ Measured Temperature 0.044 ohm.m @ 15 degC							
RMC @ Measured Temperature 0.103 ohm.m @ 17 degC							
Source RMF PRESSED							
RM @ MRT 0.032 @ 34 0.029 @ 34							
Maximum Recorded Temperatures 34 degC							
Circulation Stopped Time 4-Mar-2008 12:15							
Logger On Bottom Time 5-Mar-2008 10:56							
Unit Number 4301							
Recorded By J.ROLLINGS / R. JACOBS							
Witnessed By G. TIMMONS / G. DEON							

DEPTH SUMMARY LISTING			
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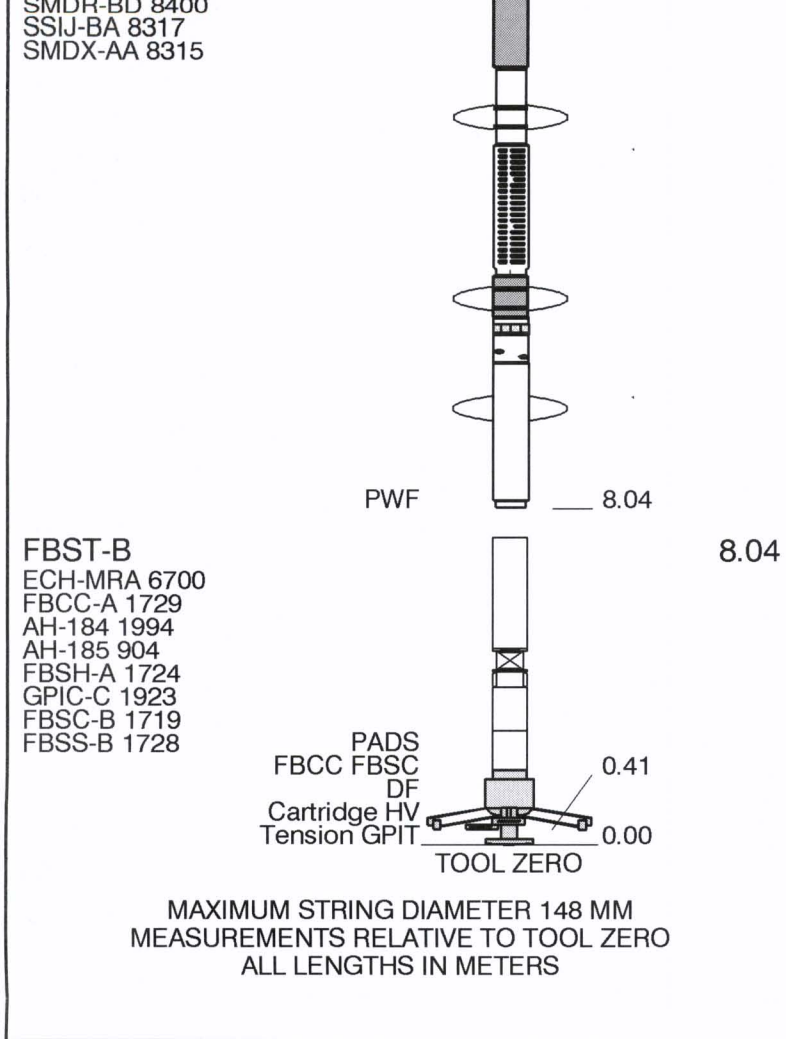
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Depth System Equipment		
Depth Measuring Device		Logging Cable
Type: IDW-B	Type: CMTD-B/A	Type: 7-46A XXS
Serial Number: 6423	Serial Number: 2565	Serial Number: 6199
Calibration Date: 15-FEB-2008	Calibration Date: 15-FEB-2008	Length: 7800.14 M
Calibrator Serial Number: 4	Calibrator Serial Number: -999	Conveyance Method: Wireline
Calibration Cable Type: 7-46P	Calibration Gain: 0.88	Rig Type: LAND
Wheel Correction 1: -4	Calibration Offset: 336.00	
Wheel Correction 2: -5		

Depth Control Parameters	
Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	PLATFORM EXPRESS COMPENSATED NEUTRON DUAL LITHOLOGY DENSITY LOG
Reference Log Run Number:	ONE
Reference Log Date:	23-FEB-2008
Subsequent Trip Down Log Correction:	1.40 M
Depth Control Remarks	
1. IDW IS PRIMARY DEPTH MEASUREMENT	
2. Z-CHART USED AS A SECONDARY DEPTH MEASUREMENTS	
3. MAIN PASS TIED INTO PREVIOUS RUN AS PER SLB DEPTH CONTROL PROCEDURES	
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 OS1: PEX-HRLA-TLD2-CMR-ML OS2: MSCT OS3: FMI-DSI-HNGS-EMS OS4: MDT OS5: VSP			OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:		
REMARKS: RUN NUMBER 1			REMARKS: RUN NUMBER 2		
ALL PRESENTATIONS AS PER LOGGING PROGRAM DATED FEB 6, 2008					
INTERVALS CONFIRMED ON LOCATION BY WELLSITE GEOLOGIST					
MAXIMUM TEMPERATURE TAKEN FROM HEAD THERMOMETER					
ALL INTERVALS FROM TD-ICS					
FMI GPIT MAGNETIC FIELD INCLINATION AFFECTED FROM IRON IN BASEMENT ROCK					
P&S MODE, LOWER & UPPER DIPOLE MODES LOGGED FOR DSI					
PRESENTED BEST OF DIPOLE DATA FOR FINAL PRINT					
MLT RAN AGAIN FOR OPTIMAL RESULTS					
FMI LOG STOPPED BEFORE CASING TO PREVENT DAMAGE TO TOOL					
SONIC RELABELLED IN FIELD FOR FINAL PRINTS					
EMS CALIPERS USED FOR CEMENT & HOLE VOLUMES					
RIG: AKITA 51					
CREW: BILLY LIM, LARRY DUDUS					
RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:			PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION	
RUN 1	
SURFACE EQUIPMENT	
GSR-U 1237	
GSR-U/Y 11	
WITM (DTS)-A	
DOWNHOLE EQUIPMENT	
LEH-QT 2657	39.38
DTC-H	38.21
SAH-F 1874	38.49
SAH-F 1874	37.58
SGT-N	37.58
SGH-K 3169	35.81
SGC-TB 10388	36.09
MLT-B	34.41
MLT-B 109	33.37
HNGS-BA	32.10
HNGS-BA 163	31.40
HNSH-BA 160	31.19
HNGC-B	29.07
HNGH-A 346	29.60
AH-184 2713	28.54
EMS-B	27.75
EMA-B 8018	27.50
RES	27.93
EMC-B 8035	
ECH-KH 8045	
EMM-B 8052	
DSST-B	24.61
SPAC-B 8321	
ECH-SD 8303	
	23.59



Input DLIS Files						
DEFAULT	FMI_DSI_EMS_NGS_040LUP	FN:62	PRODUCER	05-Mar-2008 11:09	1643.6 M	1123.9 M
Output DLIS Files						
DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M
REDUCED	FMI_DSI_EMS_NGS_045PUP	FN:73	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M

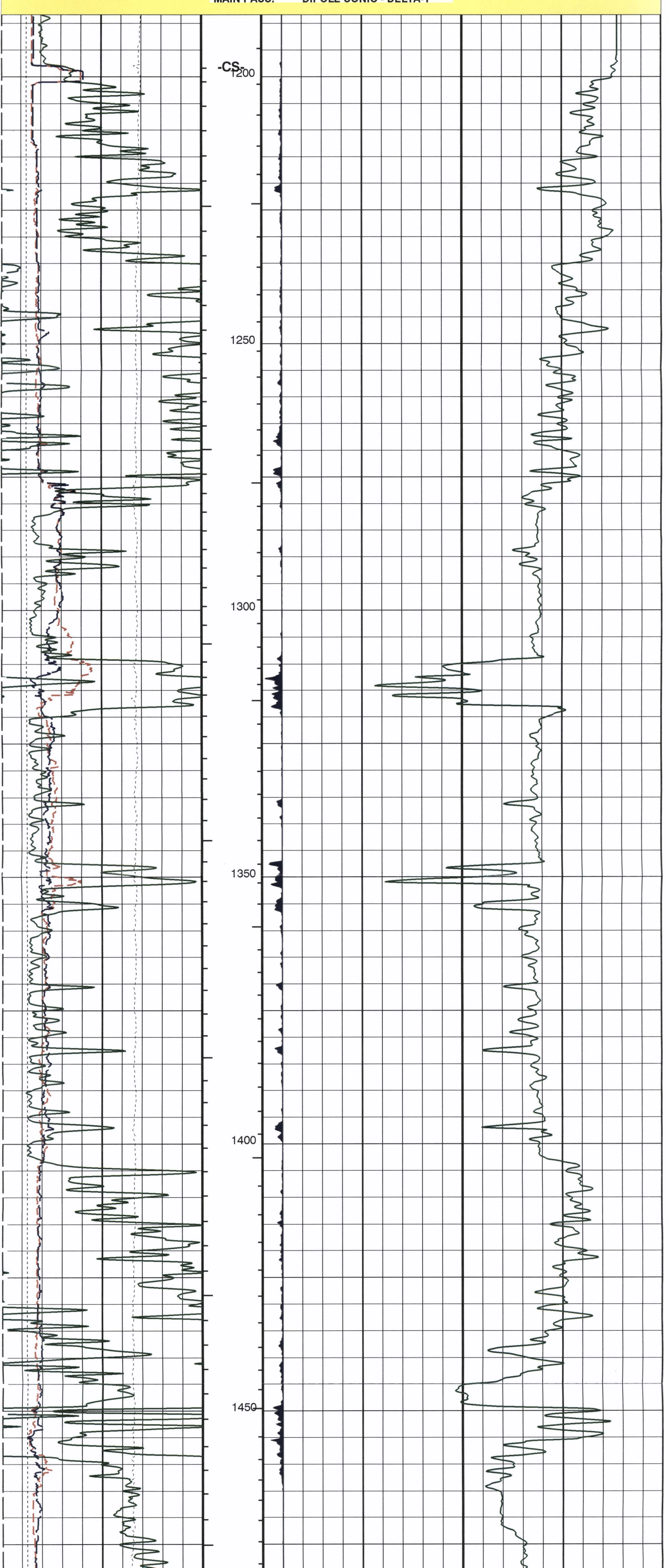
Integrated Hole/Cement Volume Summary						
Hole Volume = 9.61 M3						
Cement Volume = 5.06 M3 (assuming 114.30 MM casing O.D.)						
Computed from 1640.9 M to 1198.0 M using data channel(s) RD1 RD2 RD3 RD4 RD5 RD6						

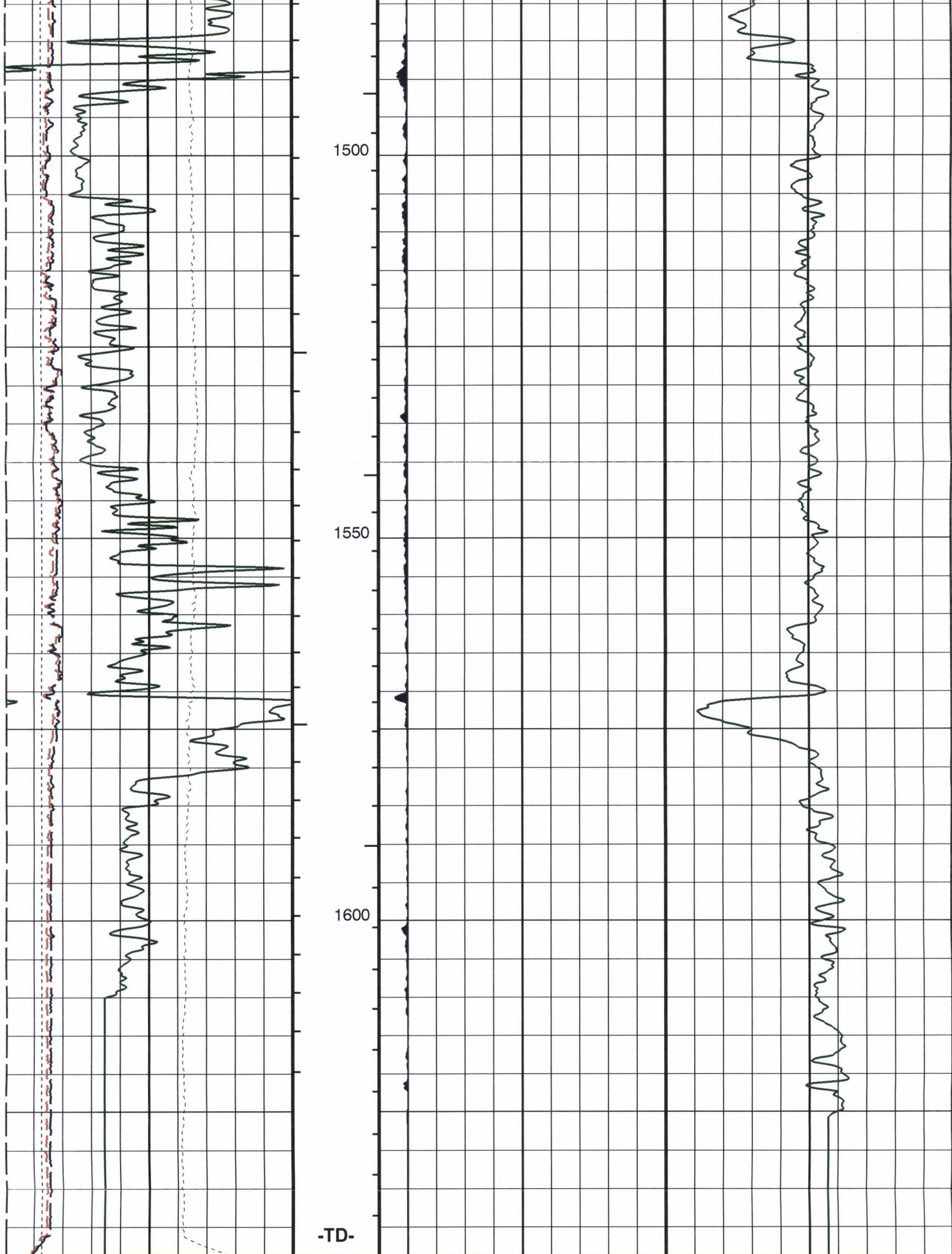
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MCM				
FBST-B	15C0-309	DSST-B	15C0-309	
EMS-B	15C0-309	HNGC-B	SPC-3530-NUCL	
HNGS-BA	SPC-3530-NUCL	MLT-B	15C0-309	
SGT-N	15C0-309	DTC-H	15C0-309	

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)	25000 (N) 0
Gamma Ray (GR)	0 (GAPI) 150
Caliper 2 (C2)	125 (MM) 375
Caliper 1 (C1)	125 (MM) 375
Bit Size (BS)	125 (MM) 375
Low Comp Coherence Flag	
Delta-T Comp - P & S (DT4P)	
500	(US/M) 100

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





Bit Size (BS)			Delta-T Comp - P & S (DT4P)		
125	(MM)	375	500	(US/M)	100
Caliper 1 (C1)			Low Comp Coherence Flag		
125	(MM)	375			
Caliper 2 (C2)					
125	(MM)	375			
Gamma Ray (GR)					
0	(GAPI)	150			
		Tension (TENS)			
		25000 (N)	0		

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	131.234 US/M
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	590 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	COMP_FIRST
MCS	Mean Casing Slowness	187.008 US/M
MTXG	Monopole Transmitter Geometry	4724 MM
NW14	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	246.063 US/M
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	590.551 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
TW14	STC Integration Time Window - Monopole P&S	500 US
EMS-B: Environment Measurement Sonde		
FCD	Future Casing (Outer) Diameter	114.3 MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers
HNGS-BA: Hostile Natural Gamma Ray Sonde		
BHS	Borehole Status	OPEN
SGT-N: Scintillation Gamma Ray Tool - N		
BHS	Borehole Status	OPEN
HOLEV: Integrated Hole/Cement Volume		
FCD	Future Casing (Outer) Diameter	114.3 MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers
STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	STI
STKT	STI Stuck Threshold	1.524 M
TDD	Total Depth - Driller	1640.00 M
TDL	Total Depth - Logger	1641.00 M
DIR: Directional Survey Computation		
SPVD	TVD of Starting Point	0 M
TIMD	Along-hole depth of Tie-in Point	1198 M
TIVD	TVD of Tie-in Point	1198 M
System and Miscellaneous		
BS	Bit Size	156.000 MM
DO	Depth Offset for Playback	0.0 M
DORL	Depth Offset for Repeat Analysis	0.0 M
PP	Playback Processing	RECOMPUTE
TD	Total Depth	1641 M

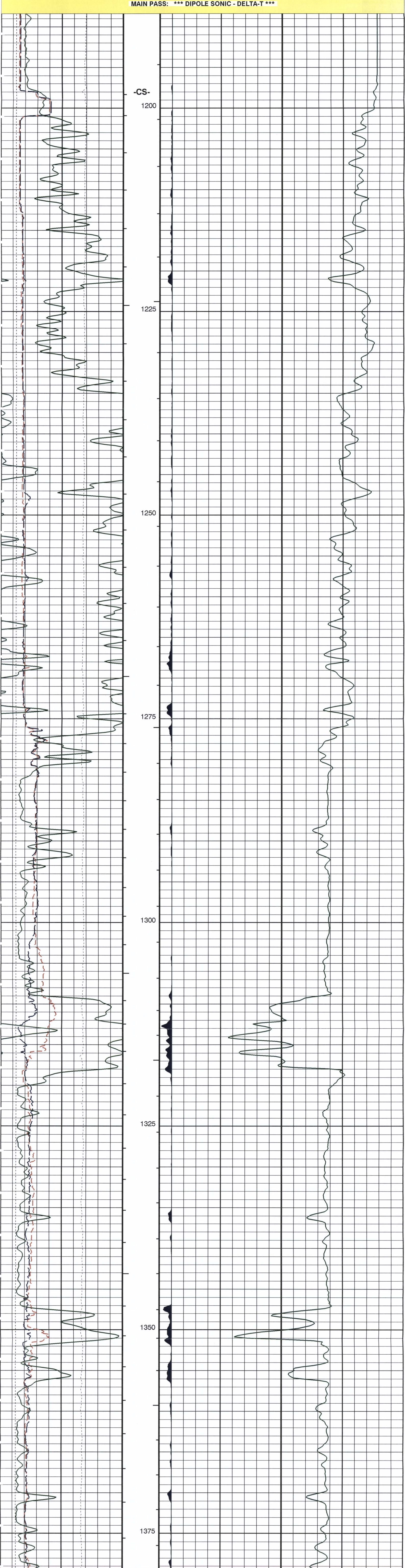
OP System Version: 15C0-309			
MCM			
FBST-B	15C0-309	DSST-B	15C0-309
EMS-B	15C0-309	HNGC-B	SPC-3530-NUCL
HNGS-BA	SPC-3530-NUCL	MLT-B	15C0-309
SGT-N	15C0-309	DTC-H	15C0-309

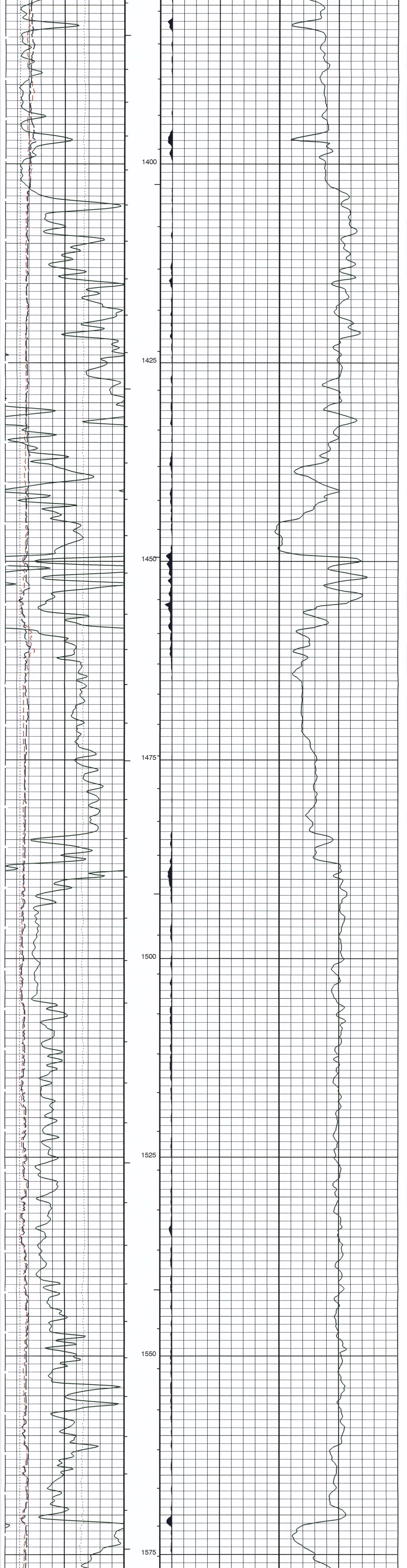
Input DLIS Files						
DEFAULT	FMI_DSI_EMS_NGS_040LUP	FN:62	PRODUCER	05-Mar-2008 11:09	1643.6 M	1123.9 M
Output DLIS Files						
DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M
REDUCED	FMI_DSI_EMS_NGS_045PUP	FN:73	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M

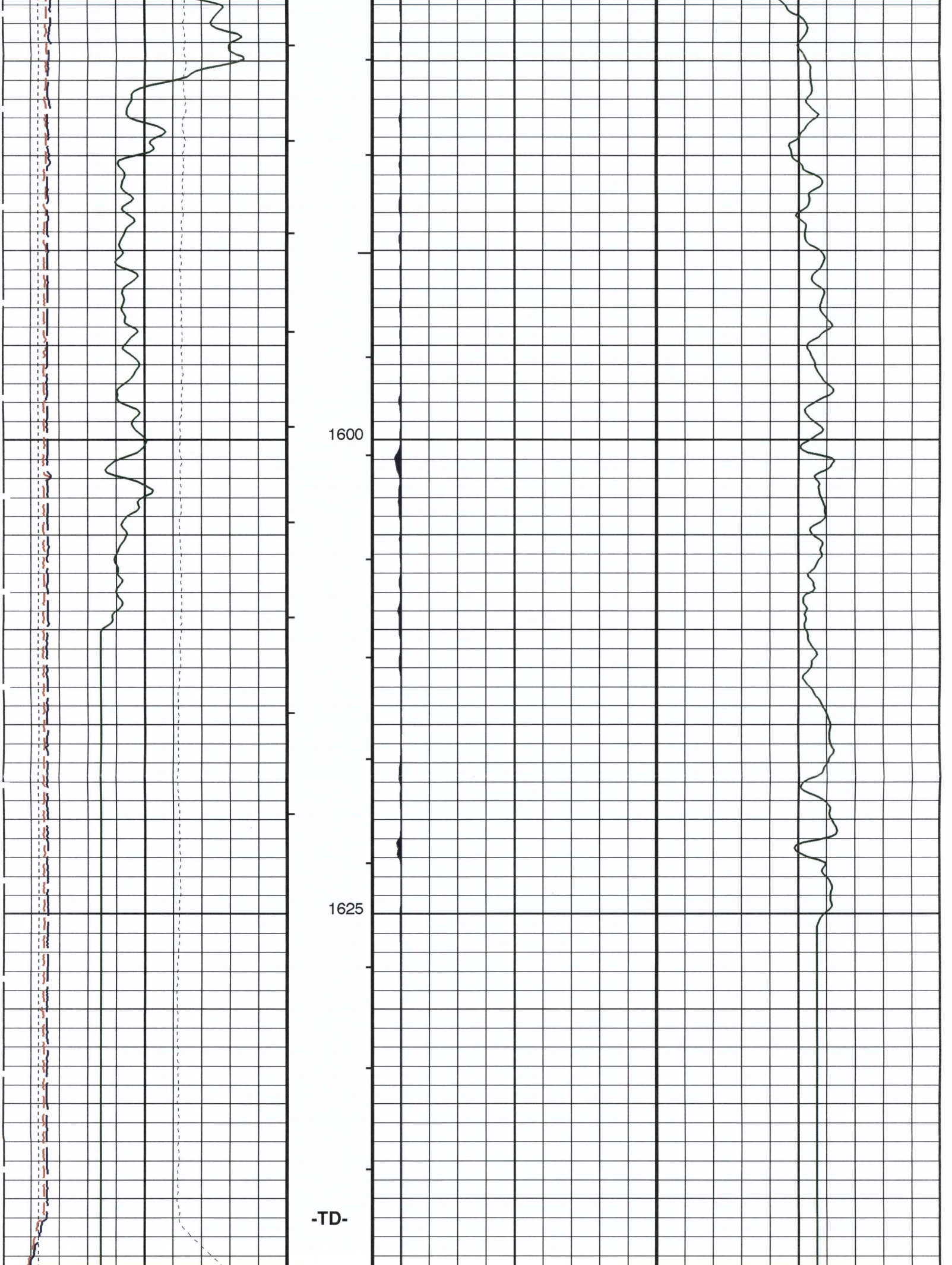
Hole Volume = 9.61 M3 Cement Volume = 5.06 M3 (assuming 114.30 MM casing O.D.) Computed from 1640.9 M to 1198.0 M using data channel(s) RD1 RD2 RD3 RD4 RD5 RD6			
OP System Version: 15C0-309 MCM			
FBST-B	15C0-309	DSST-B	15C0-309
EMS-B	15C0-309	HNGC-B	SPC-3530-NUCL
HNGS-BA	SPC-3530-NUCL	MLT-B	15C0-309
OST-B	15C0-309	RTG-B	15C0-309

[illegible]

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







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

Bit Size (BS) (MM)		Delta-T Comp - P & S (DT4P) (US/M)	
125	375	500	100
Caliper 1 (C1) (MM)		Low Comp Coherence Flag	
125	375		
Caliper 2 (C2) (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	131.234	US/M
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	590	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	COMP_FIRST	
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	246.063	US/M
SHUL	Label Slowness Upper Limit - Monopole P&S Shear	590.551	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			
FCD	Future Casing (Outer) Diameter	114.3	MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers	
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BHS	Borehole Status	OPEN	
SGT-N: Scintillation Gamma Ray Tool - N			
BHS	Borehole Status	OPEN	
HOLEV: Integrated Hole/Cement Volume			
FCD	Future Casing (Outer) Diameter	114.3	MM
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	1.524	M
TDD	Total Depth - Driller	1640.00	M
TDL	Total Depth - Logger	1641.00	M
DIR: Directional Survey Computation			
SPVD	TVD of Starting Point	0	M
TIMD	Along-hole depth of Tie-in Point	1198	M
TIVD	TVD of Tie-in Point	1198	M
System and Miscellaneous			
BS	Bit Size	156.000	MM
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	1641	M

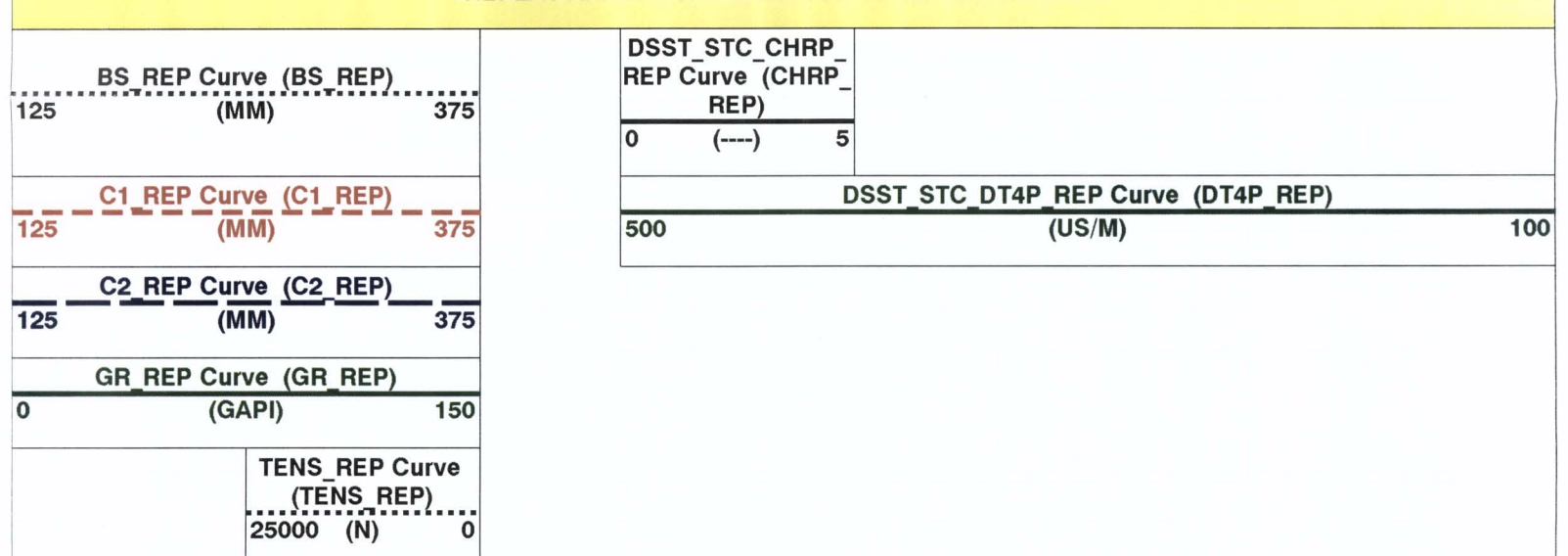
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EMS-B	15C0-309		HNGC-B	SPC-3530-NUCL		
HNGS-BA	SPC-3530-NUCL		MLT-B	15C0-309		
SGT-N	15C0-309		DTC-H	15C0-309		
Input DLIS Files						
DEFAULT	FMI_DSI_EMS_NGS_040LUP	FN:62	PRODUCER	05-Mar-2008 11:09	1643.6 M	1123.9 M
Output DLIS Files						
DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17		
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17		
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Input DLIS Files					
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Output DLIS Files					
DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17	
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17	
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SGT-N	15C0-309	DTC-H	15C0-309		
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)		DSST_STC_DT4P_REP Curve (DT4P_REP)			
25000 (N)		500 (US/M)			
0		100			
GR_REP Curve (GR_REP)		DSST_STC_CHRP REP Curve (CHRP)			
0 (GAPI)					
150					
C2_REP Curve (C2_REP)					
125 (MM)					
375					
C1_REP Curve (C1_REP)					
125 (MM)					
375					
BS_REP Curve (BS_REP)					

REPEAT ANALYSIS: *** DIPOLE SONIC - DELTA-T ***



REPEAT ANALYSIS: *** DIPOLE SONIC - DELTA-T ***



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STUL	Label Slowness Upper Limit - Monopole Stoneley	2559.06 US/M
TWI4	STC Integration Time Window - Monopole P&S	500 US
FMS-B: Environment Measurement Sonde		

FCD	EMS-D: Directional Survey	Future Casing (Outer) Diameter	114.3	MM
HVCS	HNGS-BA: Hostile Natural Gamma Ray Sonde	Integrated Hole Volume Caliper Selection	EMS_Calipers	
BHS	SGT-N: Scintillation Gamma Ray Tool - N	Borehole Status	OPEN	
BHS	HOLEV: Integrated Hole/Cement Volume	Borehole Status	OPEN	
FCD		Future Casing (Outer) Diameter	114.3	MM
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SPVD		TVD of Starting Point	0	M
TIMD		Along-hole depth of Tie-in Point	1198	M
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	System and Miscellaneous			
BS		Bit Size	156.000	MM
DO		Depth Offset for Playback	0.0	M
DORL		Depth Offset for Repeat Analysis	0.0	M
PP		Playback Processing	RECOMPUTE	
TD		Total Depth	1641	M

Format: DSI_S5_REP

Vertical Scale: 1:240

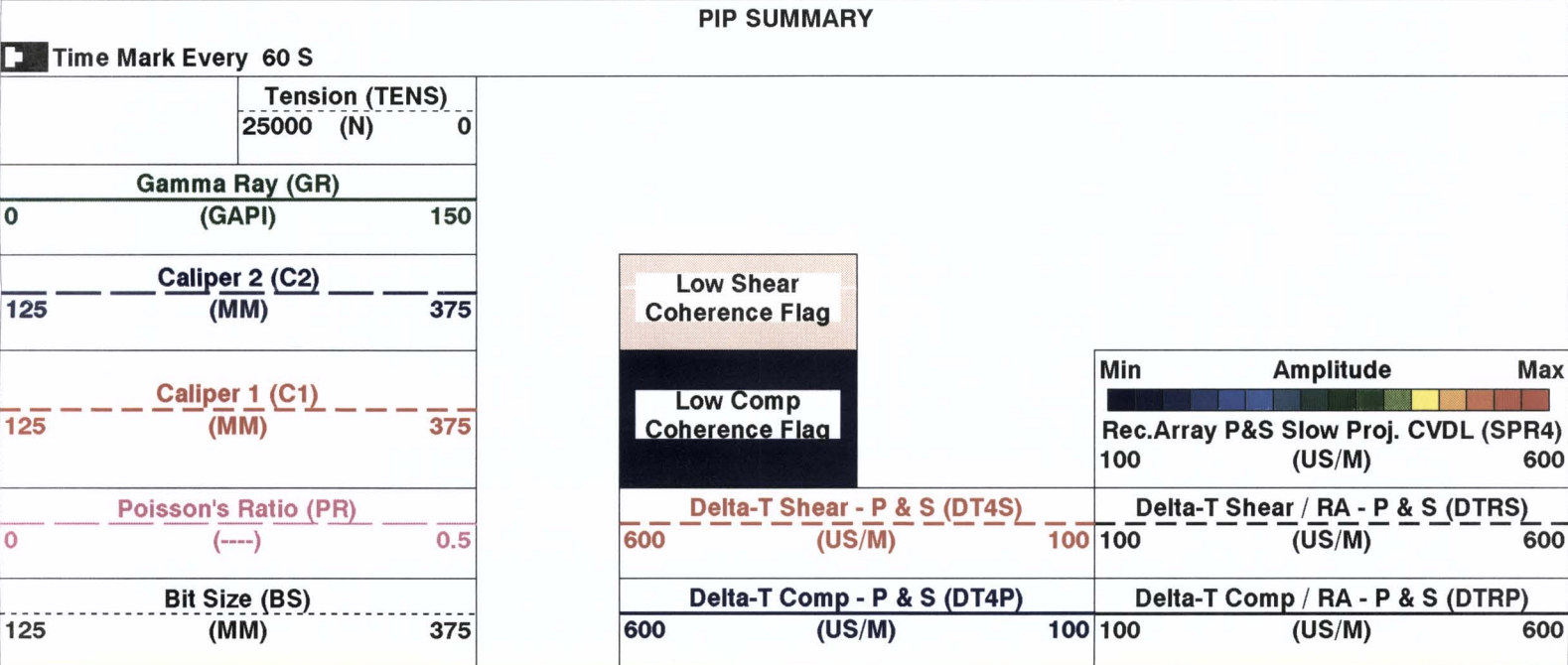
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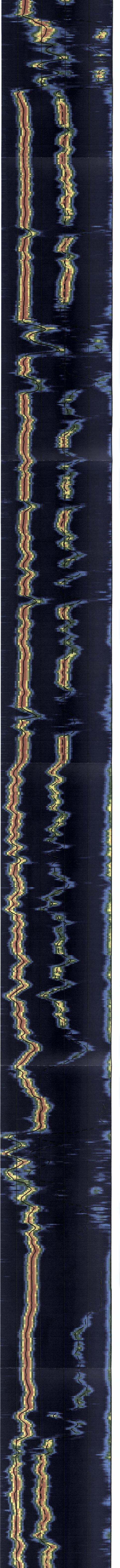
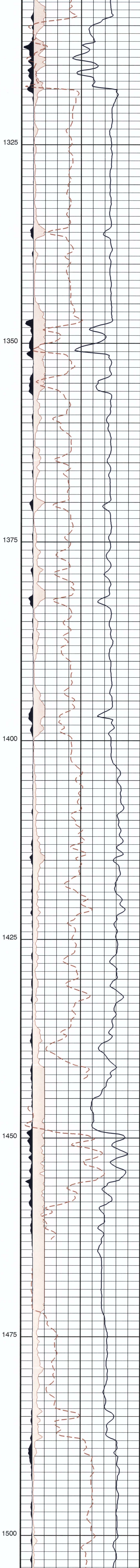
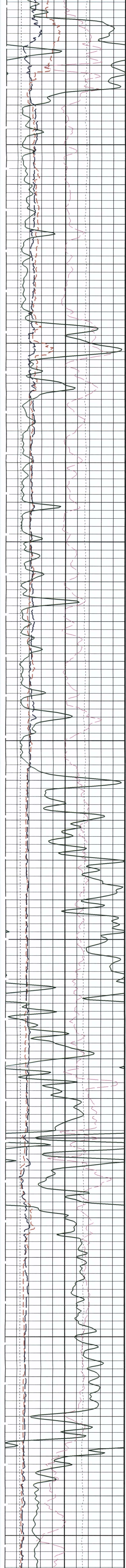
OP System Version: 15C0-309				
MCM				
FBST-B	15C0-309	DSST-B	15C0-309	
EMS-B	15C0-309	HNGC-B	SPC-3530-NUCL	
HNGS-BA	SPC-3530-NUCL	MLT-B	15C0-309	
SGT-N	15C0-309	DTC-H	15C0-309	

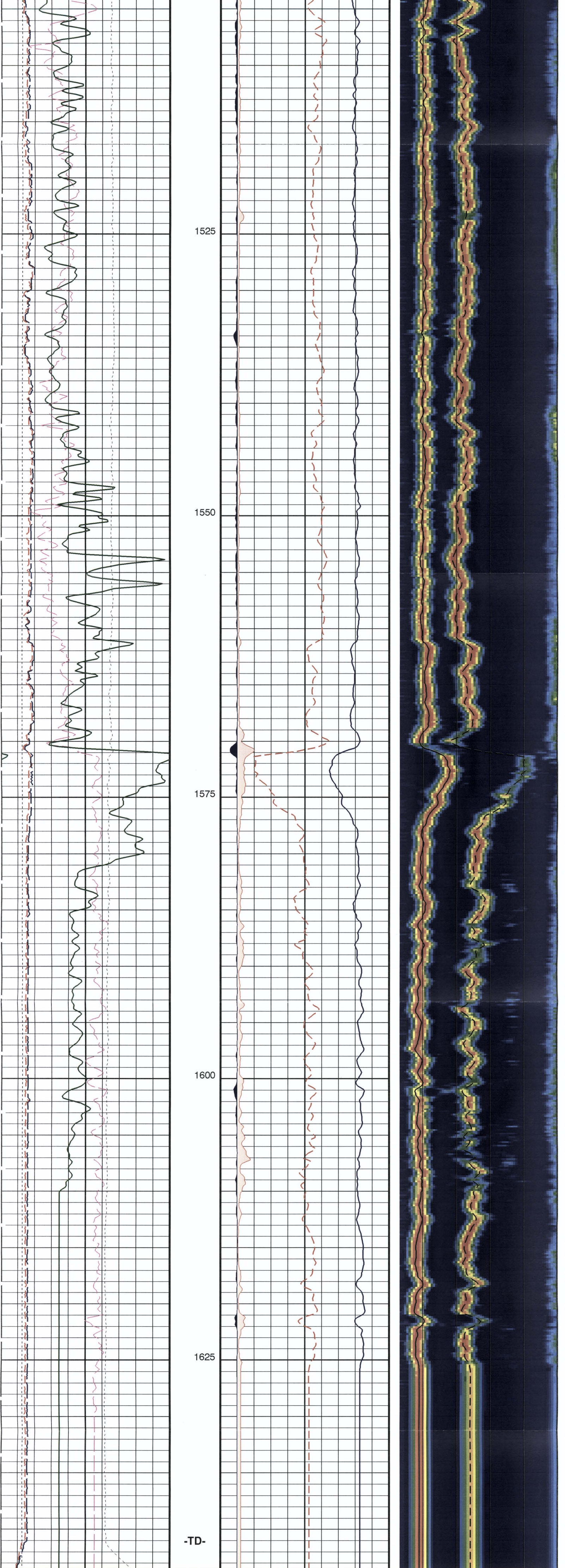
Input DLIS Files						
DEFAULT	FMI_DSI_EMS_NGS_044PUP	FN:68	PRODUCER	05-Mar-2008 13:05	1579.9 M	1441.4 M
DEFAULT	FMI_DSI_EMS_NGS_040LUP	FN:62	PRODUCER	05-Mar-2008 11:09	1643.6 M	1123.9 M
Output DLIS Files						
DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17		
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17		
REDUCED	FMI_DSI_EMS_NGS_045PUP	FN:73	PRODUCER	05-Mar-2008 13:17		

Input DLIS Files				
DEFAULT	FMI_DSI_EMS_NGS_040LUP	FN:62	PRODUCER	05-Mar-2008 11:09 1643.6 M 1123.9 M
Output DLIS Files				
DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17 1643.6 M 1136.4 M
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17 1643.6 M 1136.4 M
REDUCED	FMI_DSI_EMS_NGS_045PUP	FN:73	PRODUCER	05-Mar-2008 13:17 1643.6 M 1136.4 M

OP System Version: 15C0-309				
MCM				
FBST-B	15C0-309	DSST-B	15C0-309	
EMS-B	15C0-309	HNGC-B	SPC-3530-NUCL	
HNGS-BA	SPC-3530-NUCL	MLT-B	15C0-309	
SGT-N	15C0-309	DTC-H	15C0-309	







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

Bit Size (BS) 125 (MM)375			Delta-T Comp - P & S (DT4P) 600 (US/M)100			Delta-T Comp / RA - P & S (DTRP) 100 (US/M)600		
Poisson's Ratio (PR) 0 (----)0.5			Delta-T Shear - P & S (DT4S) 600 (US/M)100			Delta-T Shear / RA - P & S (DTRS) 100 (US/M)600		
Caliper 1 (C1) 125 (MM)375			Low Comp Coherence Flag			MinAmplitudeMax Rec.Array P&S Slow Proj. CVDL (SPR4) 100 (US/M)600		
Caliper 2 (C2) 125 (MM)375								
Gamma Ray (GR) 0 (GAPI)150			Low Shear Coherence Flag					
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	131.234	US/M
COUL	Label Slowness Upper Limit - Monopole P&S Compressional	590	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 DTCO Channel	PS_COMP	
DTF	Delta-T Fluid	620.079	US/M
DTSS	Shear Delta-T Source for DTSM Channel	LOWER_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	COMP_FIRST	
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	EVEN	
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

Format: DSI P&S MODE Vertical Scale: 1:240 Graphics File Created: 05-Mar-2008 13:17

OP System Version: 15C0-309

MCM

FBST-B	15C0-309	DSST-B	15C0-309
EMS-B	15C0-309	HNGC-B	SPC-3530-NUCL
HNGS-BA	SPC-3530-NUCL	MLT-B	15C0-309
SGT-N	15C0-309	DTC-H	15C0-309

Input DLIS Files

DEFAULT	FMI_DSI_EMS_NGS_040LUP	FN:62	PRODUCER	05-Mar-2008 11:09	1643.6 M	1123.9 M
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Output DLIS Files

DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17
REDUCED	FMI_DSI_EMS_NGS_045PUP	FN:73	PRODUCER	05-Mar-2008 13:17

Input DLIS Files

DEFAULT	FMI_DSI_EMS_NGS_040LUP	FN:62	PRODUCER	05-Mar-2008 11:09	1643.6 M	1123.9 M
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Output DLIS Files

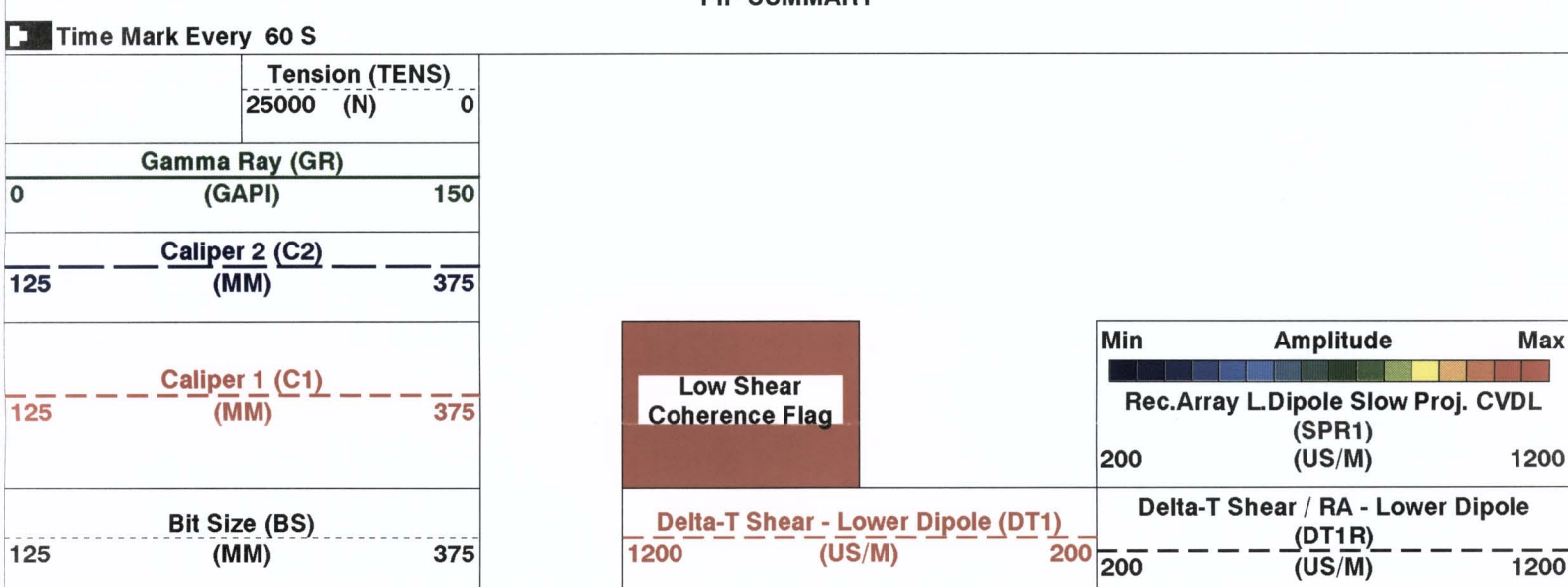
DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M
REDUCED	FMI_DSI_EMS_NGS_045PUP	FN:73	PRODUCER	05-Mar-2008 13:17	1643.6 M	1136.4 M

OP System Version: 15C0-309

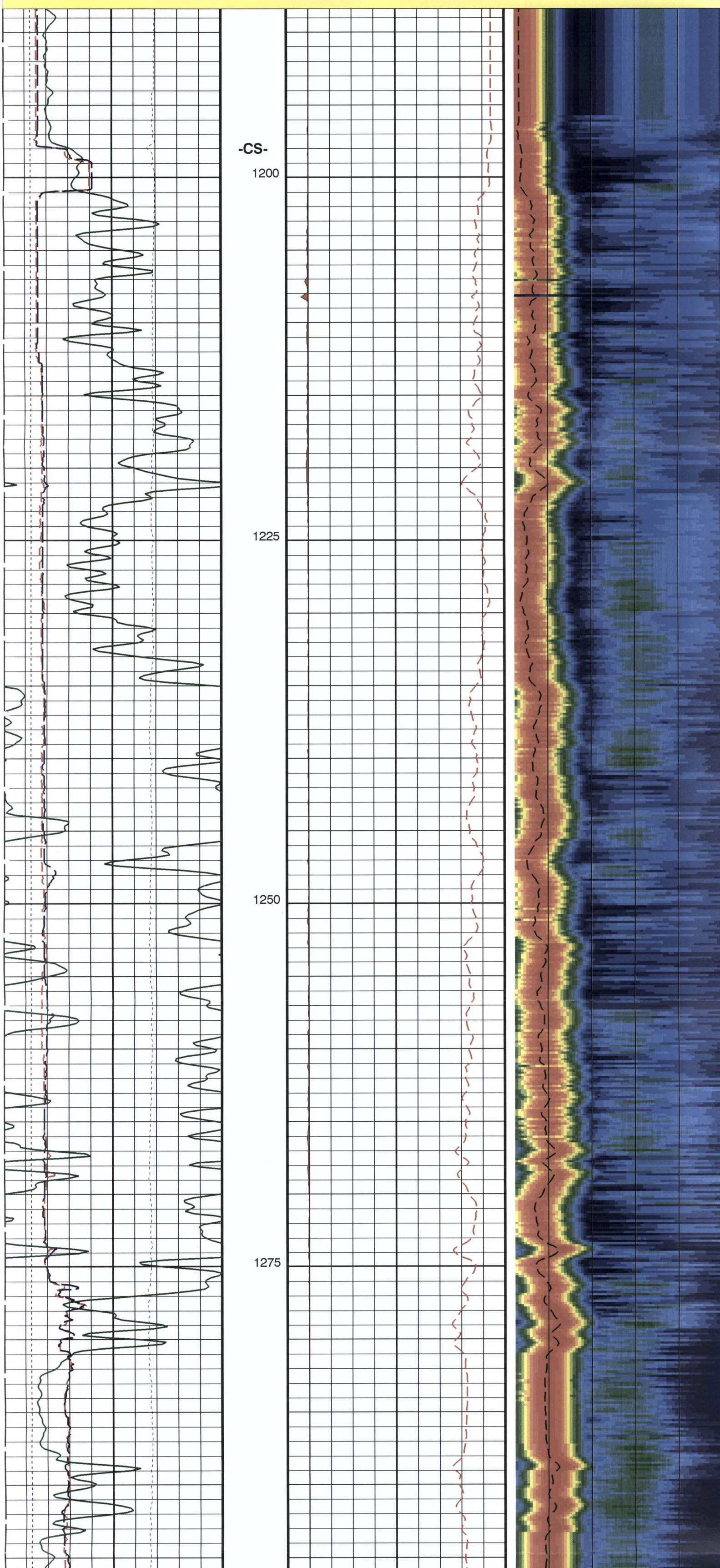
MCM

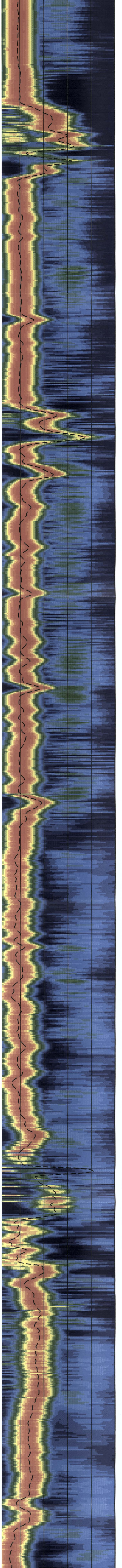
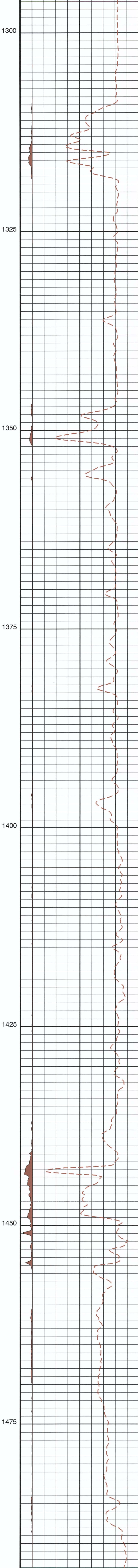
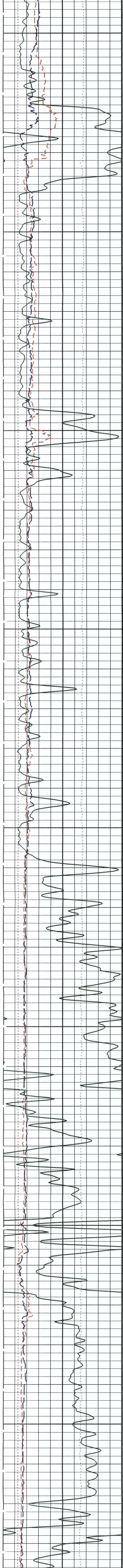
FBST-B	15C0-309	DSST-B	15C0-309
EMS-B	15C0-309	HNGC-B	SPC-3530-NUCL
HNGS-BA	SPC-3530-NUCL	MLT-B	15C0-309
SGT-N	15C0-309	DTC-H	15C0-309

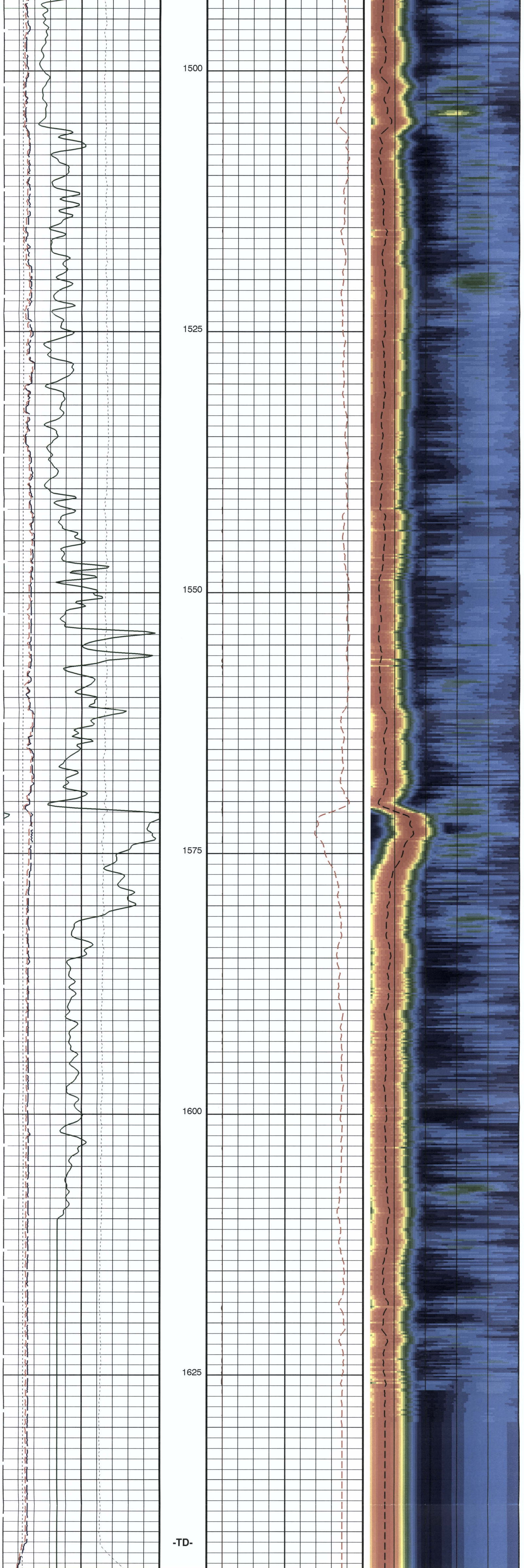
PIP SUMMARY



MAIN BASS: * DIPOLE SONIC - LOWER DIPOLE IMAGE *****







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

Bit Size (BS) (MM)		125	375
Caliper 1 (C1) (MM)		125	375
Caliper 2 (C2) (MM)		125	375
Gamma Ray (GR) (GAPI)		0	150
Tension (TENS) 25000 (N)		0	0
Delta-T Shear - Lower Dipole (DT1) (US/M)		1200	200
Delta-T Shear / RA - Lower Dipole (DT1R) (US/M)		200	1200
Low Shear Coherence Flag		Min Amplitude Max Rec.Array L.Dipole Slow Proj. CVDL (US/M)	
		200	1200

PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
DSST-B: Dipole Shear Imager - B		
DDE1	Digitizing Delay 1	0 US
DDEX	Digitizing Delay X	0 US
DLCS	Label Compressional Source - Dipole Shear	DONT_USE
DSHL	Label Slowness Lower Limit - Dipole Shear	246.063 US/M
DSHU	Label Slowness Upper Limit - Dipole Shear	2542.65 US/M
DSI1	Digitizer Sample Interval 1	40 US
DSIX	Digitizer Sample Interval X	40 US
DTCS	Compressional Delta-T Source for DTCO Channel	PS_COMP
DWC1	Digitizer Word Count 1	512
DWCX	Digitizer Word Count X	512
LTXG	Lower Dipole Transmitter Geometry	3962 MM
NWI1	Number Waveform Items 1	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
SAM1	DSST Sonic Acquisition Mode 1 - Lower Dipole Mode	EVEN
SAMX	DSST Sonic Acquisition Mode X - Both Dipoles or Monopole Mode for Expert	OFF
SAS1	STC Sonic Array Status - Lower Dipole	255

SBO1	STC Search Band Offset - Lower Dipole	3000	US
SBW1	STC Search Bandwidth - Lower Dipole	8000	US
SFC1	STC Formation Character - Lower Dipole	SELECTABLE	
SFM1	STC Filter - Lower Dipole	B1-3K	
SLL1	STC Slowness Lower Limit - Lower Dipole	246.063	US/M
SST1	STC Slowness Step - Lower Dipole	13.1234	US/M
SSW1	STC Source Waveform - Lower Dipole	WF SAM1	
SUL1	STC Slowness Upper Limit - Lower Dipole	2542.65	US/M
SWD1	STC Slowness Width - Lower Dipole	131.234	US/M
TBF1	STC Time for Baseline Fill - Lower Dipole	0	US
TLL1	STC Time Lower Limit - Lower Dipole	600	US
TST1	STC Time Step - Lower Dipole	200	US
TUL1	STC Time Upper Limit - Lower Dipole	15912.5	US
TWD1	STC Time Width - Lower Dipole	2000	US
TW1	STC Integration Time Window - Lower Dipole	1600	US
TWSX	Transmitter Waveform Select X	0	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	1.524	M
TDD	Total Depth - Driller	1640.00	M
TDL	Total Depth - Logger	1641.00	M
DIR: Directional Survey Computation			
SPVD	TVD of Starting Point	0	M
TIMD	Along-hole depth of Tie-in Point	1198	M
TIVD	TVD of Tie-in Point	1198	M
System and Miscellaneous			
BS	Bit Size	156.000	MM
DO	Depth Offset for Playback	0.0	M
DORL	Depth Offset for Repeat Analysis	0.0	M
PP	Playback Processing	RECOMPUTE	

Format: DSI_LOWER_DIPOLE

Vertical Scale: 1:240

Graphics File Created: 05-Mar-2008 13:17

OP System Version: 15C0-309

MCM

FBST-B	15C0-309	DSST-B	15C0-309
EMS-B	15C0-309	HNGC-B	SPC-3530-NUCL
HNGS-BA	SPC-3530-NUCL	MLT-B	15C0-309
SGT-N	15C0-309	DTC-H	15C0-309

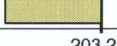
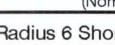
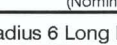
Input DLIS Files					
DEFAULT	FMI_DSI_EMS_NGS_040LUP	FN:62	PRODUCER	05-Mar-2008 11:09	1643.6 M 1123.9 M
Output DLIS Files					
DEFAULT	FMI_DSI_EMS_NGS_045PUP	FN:71	PRODUCER	05-Mar-2008 13:17	
BACKUP	FMI_DSI_EMS_NGS_045PUP	FN:72	PRODUCER	05-Mar-2008 13:17	
REDUCED	FMI_DSI_EMS_NGS_045PUP	FN:73	PRODUCER	05-Mar-2008 13:17	

Calibration and Check Summary								
Measurement	Nominal	Master	Before	After	Change	Limit	Units	
Full-Bore Scanner - B Wellsite Calibration - Caliper Calibration								
Before: 16-Feb-2008 15:30								
Caliper 1 Small Jig	203.2	N/A	195.0	N/A	N/A	N/A	MM	
Caliper 2 Small Jig	203.2	N/A	193.4	N/A	N/A	N/A	MM	
Caliper 1 Large Jig	304.8	N/A	289.7	N/A	N/A	N/A	MM	
Caliper 2 Large Jig	304.8	N/A	289.1	N/A	N/A	N/A	MM	
Full-Bore Scanner - B Wellsite Calibration - CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY								
Before: 5-Mar-2008 9:14								
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC	
YEAR OF CALIBRATION :	N/A	N/A	6	N/A	N/A	N/A		
MONTH OF CALIBRATION :	N/A	N/A	12	N/A	N/A	N/A		
SERIAL NUMBER :	N/A	N/A	1076	N/A	N/A	N/A		
Full-Bore Scanner - B Wellsite Calibration - CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY								
Before: 5-Mar-2008 9:14								
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC	
YEAR OF CALIBRATION :	N/A	N/A	6	N/A	N/A	N/A		
MONTH OF CALIBRATION :	N/A	N/A	5	N/A	N/A	N/A		
SERIAL NUMBER :	N/A	N/A	725	N/A	N/A	N/A		
Environment Measurement Sonde Wellsite Calibration - EMS Caliper Calibration								
Before: 16-Feb-2008 15:25								
Radius 1 Short Radius	101.6	N/A	81.34	N/A	N/A	5.080	MM	
Radius 1 Long Radius	203.2	N/A	187.4	N/A	N/A	5.080	MM	
Radius 2 Short Radius	101.6	N/A	79.42	N/A	N/A	5.080	MM	
Radius 2 Long Radius	203.2	N/A	184.6	N/A	N/A	5.080	MM	
Radius 3 Short Radius	101.6	N/A	79.37	N/A	N/A	5.080	MM	
Radius 3 Long Radius	203.2	N/A	184.5	N/A	N/A	5.080	MM	
Radius 4 Short Radius	101.6	N/A	87.87	N/A	N/A	5.080	MM	
Radius 4 Long Radius	203.2	N/A	190.2	N/A	N/A	5.080	MM	
Radius 5 Short Radius	101.6	N/A	83.27	N/A	N/A	5.080	MM	
Radius 5 Long Radius	203.2	N/A	186.9	N/A	N/A	5.080	MM	
Radius 6 Short Radius	101.6	N/A	78.00	N/A	N/A	5.080	MM	
Radius 6 Long Radius	203.2	N/A	183.6	N/A	N/A	5.080	MM	
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check								
Master: 4-Jan-2008 9:55 Before: 3-Mar-2008 14:57								
Na 511 Peak Loc	40.00	39.78	39.64	N/A	N/A	1.000		
Na 511 Peak Res	15.50	15.38	14.71	N/A	N/A	2.000	%	
High Voltage	1150	1258	1196	N/A	N/A	N/A	V	
Na 1785 Peak Loc	142.6	143.7	144.3	N/A	N/A	7.000		
Na 1785 Peak Res	8.500	8.442	7.752	N/A	N/A	2.000	%	
Temperature	15.50	22.14	-19.41	N/A	N/A	N/A	DEGC	
Na Count Rate	45.00	35.30	35.42	N/A	N/A	8.000	CPS	
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 2 Check								
Master: 4-Jan-2008 9:55 Before: 3-Mar-2008 14:57								
Na 511 Peak Loc	40.00	39.66	39.58	N/A	N/A	1.000		
Na 511 Peak Res	15.50	14.86	14.28	N/A	N/A	2.000	%	
High Voltage	1150	1273	1211	N/A	N/A	N/A	V	
Na 1785 Peak Loc	142.6	142.7	142.6	N/A	N/A	7.000		
Na 1785 Peak Res	8.500	8.234	8.033	N/A	N/A	2.000	%	
Temperature	15.50	21.49	-20.13	N/A	N/A	N/A	DEGC	
Na Count Rate	45.00	35.28	35.35	N/A	N/A	8.000	CPS	
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Ratio Of Detector 1 To Detector 2								
Master: 4-Jan-2008 9:55 Before: 3-Mar-2008 14:57								
Coincidence Count Rate Ratio	1.000	1.001	1.001	N/A	N/A	0.05000		
Hostile Natural Gamma Ray Sonde Master Calibration - Detector 1 Calibration								
Master: 4-Jan-2008 9:50								
Na 511 Peak Set Point	40.00	41.00	--	--	--	--		
Th Peak Loc	209.6	211.0	--	--	--	--		
Th Peak Res	7.000	6.765	--	--	--	--	%	
Background Count Rate	142.5	82.05	--	--	--	--	CPS	
Gain Ratio	1.000	1.009	--	--	--	--		
Hostile Natural Gamma Ray Sonde Master Calibration - Detector 2 Calibration								
Master: 4-Jan-2008 9:50								
Na 511 Peak Set Point	40.00	41.00	--	--	--	--		
Th Peak Loc	209.6	211.2	--	--	--	--		
Th Peak Res	7.000	7.094	--	--	--	--	%	
Background Count Rate	142.5	80.00	--	--	--	--	CPS	
Gain Ratio	1.000	1.013	--	--	--	--		
MicroLog - B Wellsite Calibration - MLT Caliper Calibration								
Before: 3-Mar-2008 13:47								
MLT Caliper Small Ring	203.2	N/A	162.1	N/A	N/A	N/A	MM	
MLT Caliper Large Ring	304.8	N/A	265.8	N/A	N/A	N/A	MM	
MicroLog - B Wellsite Calibration - MLT Micro Inverse Calibration								
Before: 3-Mar-2008 13:45								
Micro Inverse Zero	0	N/A	0.0006272	N/A	N/A	0.2000	OHMM	
Micro Inverse Plus	5.000	N/A	4.872	N/A	N/A	0.2000	OHMM	
MicroLog - B Wellsite Calibration - MLT Micro Normal Calibration								
Before: 3-Mar-2008 13:45								
Micro Normal Zero	0	N/A	0.002347	N/A	N/A	0.2000	OHMM	
Micro Normal Plus	6.720	N/A	6.560	N/A	N/A	0.2000	OHMM	
Scintillation Gamma Ray Tool - N Wellsite Calibration - Detector Calibration								
Before: 3-Mar-2008 13:04								
Gamma Ray (Jig - Bkg)	159.4	N/A	159.4	N/A	N/A	14.49	GAPI	
Gamma Ray (Calibrated)	162.0	N/A	162.0	N/A	N/A	15.00	GAPI	

Full-Bore Scanner - B / Equipment Identification	
Primary Equipment:	
FullBore Scanner Sonde	FBSS - B
FullBore Scanner Sonde Upper part	FBSH - A
FullBore Scanner Sonde Cartridge	FBSC - B
GPIT Cartridge - C	GPIC - C
Insulating Sub	AH - 185
Flex Joint	AH - 184
FullBore Scanner Control Cartridge	FBCC - A
Auxiliary Equipment:	
Electronics Cartridge Housing	ECH - MRA

Full-Bore Scanner - B Wellsite Calibration					
Caliper Calibration					
Phase	Caliper 1 Small Jig MM	Value	Phase	Caliper 2 Small Jig MM	Value
Before		195.0	Before		193.4
	172.7 (Minimum) 203.2 (Nominal) 233.7 (Maximum)			172.7 (Minimum) 203.2 (Nominal) 233.7 (Maximum)	
Phase	Caliper 1 Large Jig MM	Value	Phase	Caliper 2 Large Jig MM	Value
Before		289.7	Before		289.1
	259.1 (Minimum) 304.8 (Nominal) 350.5 (Maximum)			259.1 (Minimum) 304.8 (Nominal) 350.5 (Maximum)	
Before: 16-Feb-2008 15:30					

Environment Measurement Sonde / Equipment Identification	
Primary Equipment:	
EMS Mechanical	EMM - B
EMS Cartridge	EMC - B
EMS Adaptor	EMA - B
Resistivity Meter	RES -
Auxiliary Equipment:	
Electronics Cartridge Housing	ECH - KH

Environment Measurement Sonde Wellsite Calibration					
EMS Caliper Calibration					
Phase	Radius 1 Short Radius MM	Value	Phase	Radius 1 Long Radius MM	Value
Before		81.34	Before		187.4
	76.20 (Minimum) 101.6 (Nominal) 127.0 (Maximum)			177.8 (Minimum) 203.2 (Nominal) 228.6 (Maximum)	
Phase	Radius 2 Short Radius MM	Value	Phase	Radius 2 Long Radius MM	Value
Before		79.42	Before		184.6
	76.20 (Minimum) 101.6 (Nominal) 127.0 (Maximum)			177.8 (Minimum) 203.2 (Nominal) 228.6 (Maximum)	
Phase	Radius 3 Short Radius MM	Value	Phase	Radius 3 Long Radius MM	Value
Before		79.37	Before		184.5
	76.20 (Minimum) 101.6 (Nominal) 127.0 (Maximum)			177.8 (Minimum) 203.2 (Nominal) 228.6 (Maximum)	
Phase	Radius 4 Short Radius MM	Value	Phase	Radius 4 Long Radius MM	Value
Before		87.87	Before		190.2
	76.20 (Minimum) 101.6 (Nominal) 127.0 (Maximum)			177.8 (Minimum) 203.2 (Nominal) 228.6 (Maximum)	
Phase	Radius 5 Short Radius MM	Value	Phase	Radius 5 Long Radius MM	Value
Before		83.27	Before		186.9
	76.20 (Minimum) 101.6 (Nominal) 127.0 (Maximum)			177.8 (Minimum) 203.2 (Nominal) 228.6 (Maximum)	
Phase	Radius 6 Short Radius MM	Value	Phase	Radius 6 Long Radius MM	Value
Before		78.00	Before		183.6
	76.20 (Minimum) 101.6 (Nominal) 127.0 (Maximum)			177.8 (Minimum) 203.2 (Nominal) 228.6 (Maximum)	

Hostile Natural Gamma Ray Cartridge - B / Equipment Identification		
Primary Equipment: HNGC Cartridge	HNGC - B	405
Auxiliary Equipment: HNGC Housing	HNGH - A	346

Hostile Natural Gamma Ray Sonde / Equipment Identification		
Primary Equipment: HNGS Sonde	HNGS - BA	163
Auxiliary Equipment: HNGS Sonde Housing	HNSH - BA	160
Gamma Source Radioactive	GSR - U	1237

Hostile Natural Gamma Ray Sonde Wellsite Calibration								
Detector 1 Check								
Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		39.78	Master		15.38	Master		1258
Before		39.64	Before		14.71	Before		1196
37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)	12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)	900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		143.7	Master		8.442	Master		22.14
Before		144.3	Before		7.752	Before		-19.41
135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)	7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)	-28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)
Phase	Na Count Rate CPS	Value						
Master		35.30						
Before		35.42						
10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 4-Jan-2008 9:55			Before: 3-Mar-2008 14:57					

Hostile Natural Gamma Ray Sonde Wellsite Calibration								
Detector 2 Check								
Phase	Na 511 Peak Loc	Value	Phase	Na 511 Peak Res %	Value	Phase	High Voltage V	Value
Master		39.66	Master		14.86	Master		1273
Before		39.58	Before		14.28	Before		1211
37.50 (Minimum)	40.00 (Nominal)	43.50 (Maximum)	12.00 (Minimum)	15.50 (Nominal)	19.00 (Maximum)	900.0 (Minimum)	1150 (Nominal)	1600 (Maximum)
Phase	Na 1785 Peak Loc	Value	Phase	Na 1785 Peak Res %	Value	Phase	Temperature DEGC	Value
Master		142.7	Master		8.234	Master		21.49
Before		142.6	Before		8.033	Before		-20.13
135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)	7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)	-28.89 (Minimum)	15.50 (Nominal)	60.00 (Maximum)
Phase	Na Count Rate CPS	Value						
Master		35.28						
Before		35.35						
10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 4-Jan-2008 9:55			Before: 3-Mar-2008 14:57					

Hostile Natural Gamma Ray Sonde Wellsite Calibration		
Ratio Of Detector 1 To Detector 2		
Phase	Coincidence Count Rate Ratio	Value
Master		1.001
Before		1.001
0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)
Master: 4-Jan-2008 9:55		
Before: 3-Mar-2008 14:57		

Hostile Natural Gamma Ray Sonde Master Calibration														
Detector 1 Calibration														
Phase	Na 511 Peak Set Point		Value	Phase	Th Peak Loc		Value	Phase	Th Peak Res %		Value			
Master			41.00	Master			211.0	Master			6.765			
38.00 (Minimum)			40.00 (Nominal)	43.00 (Maximum)			201.0 (Minimum)	209.6 (Nominal)	218.3 (Maximum)					
Phase	Background Count Rate CPS		Value	Phase	Gain Ratio		Value							
Master			82.05	Master			1.009							
10.00 (Minimum)			142.5 (Nominal)	265.0 (Maximum)			0.9400 (Minimum)					1.000 (Nominal)	1.060 (Maximum)	
Master: 4-Jan-2008 9:50														

Hostile Natural Gamma Ray Sonde Master Calibration											
Detector 2 Calibration											
Phase	Na 511 Peak Set Point		Value	Phase	Th Peak Loc		Value	Phase	Th Peak Res %		Value
Master			41.00	Master			211.2	Master			7.094
38.00 (Minimum)		40.00 (Nominal)	43.00 (Maximum)	201.0 (Minimum)		209.6 (Nominal)	218.3 (Maximum)	5.000 (Minimum)		7.000 (Nominal)	9.000 (Maximum)
Phase	Background Count Rate CPS		Value	Phase	Gain Ratio		Value				
Master			80.00	Master			1.013				
10.00 (Minimum)		142.5 (Nominal)	265.0 (Maximum)	0.9400 (Minimum)		1.000 (Nominal)	1.060 (Maximum)				
Master: 4-Jan-2008 9:50											

MicroLog - B / Equipment Identification		
Primary Equipment: MicroLog - B (sonde)	MLT - B	
Auxiliary Equipment:		

MicroLog - B Wellsite Calibration							
MLT Micro Inverse Calibration							
Phase	Micro Inverse Zero OHMM		Value	Phase	Micro Inverse Plus OHMM		Value
Before			0.0006272	Before			4.872
	-2.000 (Minimum)	0 (Nominal)	2.000 (Maximum)		1.000 (Minimum)	5.000 (Nominal)	9.000 (Maximum)
Before: 3-Mar-2008 13:45							

MicroLog - B Wellsite Calibration					
MLT Micro Normal Calibration					
Phase	Micro Normal Zero OHMM	Value	Phase	Micro Normal Plus OHMM	Value
Before		0.002347	Before		6.560
-2.000 (Minimum)	0 (Nominal)	2.000 (Maximum)	2.720 (Minimum)	6.720 (Nominal)	10.72 (Maximum)
Before: 3-Mar-2008 13:45					

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

Scintillation Gamma Ray Tool - N Wellsite Calibration								
Detector Calibration								
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		10.45	Before		159.4	Before		162.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	144.9 (Minimum)	159.4 (Nominal)	173.9 (Maximum)	147.0 (Minimum)	162.0 (Nominal)	177.0 (Maximum)
Before: 3-Mar-2008 13:04								

DTS Telemetry Tool / Equipment Identification		
Primary Equipment: DTC-H Auxiliary Cartridge DTC-H Telemetry Cartridge	DTCH - A DTCH - A	
Auxiliary Equipment: DTCH Telemetry Cartridge Housing	ECH - KC	

Company:	PETRO-CANADA	Schlumberger
Well:	PETRO-CANADA BLACKWATER KWIJKA M-59	
Field:	KWIJKA	
Province:	NORTHWEST TERRITORIES	
	MD	***MD***
DIPOLE SHEAR SONIC IMAGER LOG		