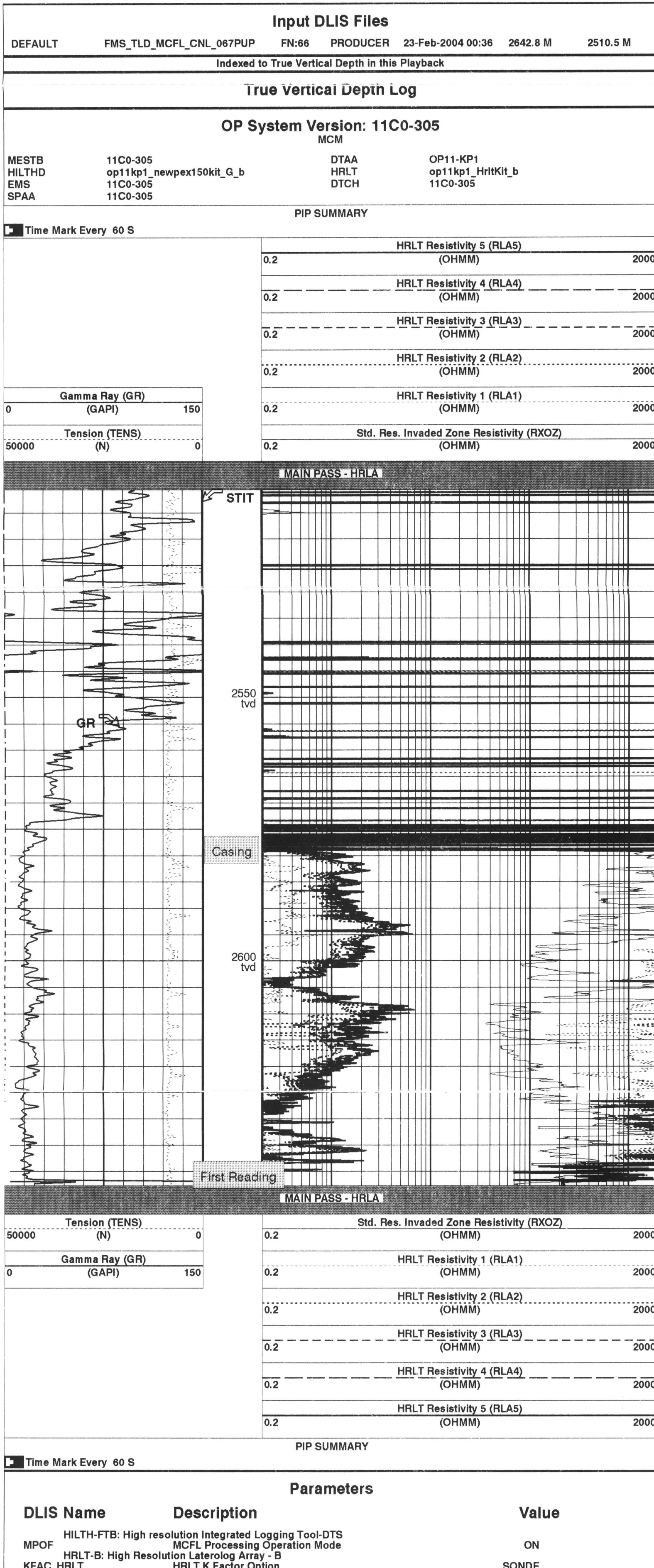
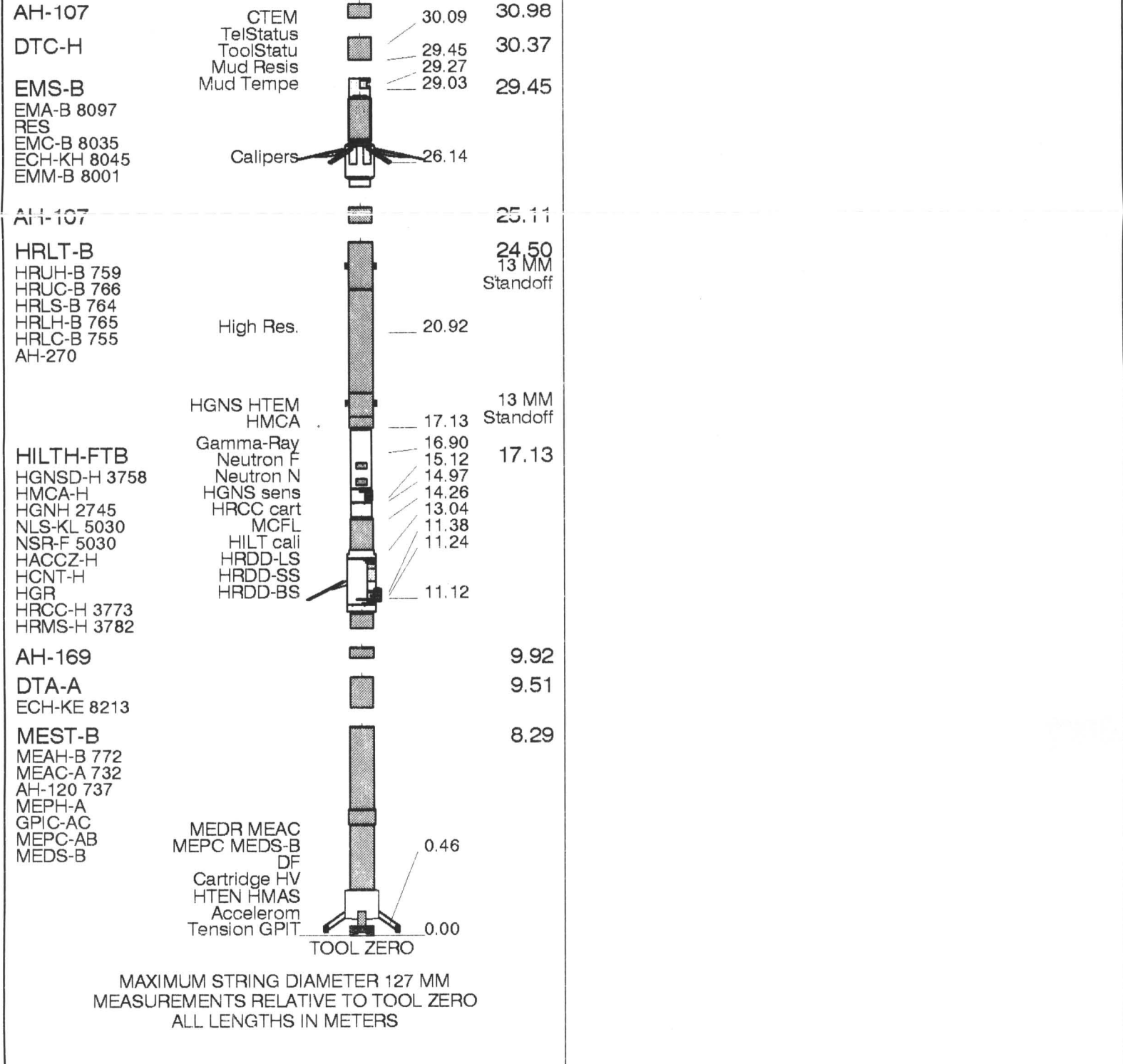




LOOPGAIN S	DIR: Directional Survey Computation	HRLT Loop Gain for Shallow Modes	0.200	
SPVD	TVD of Starting Point		0.000	m
TIMD	Along-hole depth of Tie-in Point		75.200	m
TIVD	TVD of Tie-in Point		75.200	m
STI: Stuck Tool Indicator				
STKT	STI Stuck Threshold		1.524	m
TDD	Total Depth - Driller		3700.0	m
TDL	Total Depth - Logger		3692.0	m
System and Miscellaneous				
ALTDCHAN	Name of alternate depth channel	TRUEVERTICALDEPTH		
BS	Bit Size		156.0	mm
PBVSADP	Use alternate depth channel for playback		YES	

Format: HRLT-S2-CAN Vertical Scale: 1:600 Graphics File Created: 23-Feb-2004 01:50

OP System Version: 11C0-305

MCM

MESTB	11C0-305	DTAA	OP11-KP1
HILTHD	op11kp1_newpex150kit_G_b	HRLT	op11kp1_HrltKit_b
EMS	11C0-305	DTCH	11C0-305
SPAA	11C0-305		

True Vertical Depth Log

Indexed to True Vertical Depth in this Playback

Input DLIS Files

DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M	2510.5 M
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Input DLIS Files

DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M	2510.5 M
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Indexed to True Vertical Depth in this Playback

True Vertical Depth Log

OP System Version: 11C0-305

MCM

MESTB	11C0-305	DTAA	OP11-KP1
HILTHD	op11kp1_newpex150kit_G_b	HRLT	op11kp1_HrltKit_b
EMS	11C0-305	DTCH	11C0-305
SPAA	11C0-305		

PIP SUMMARY

Time Mark Every 60 S

		HRLT Resistivity 5 (RLA5)	
0.2	(OHMM)		2000
		HRLT Resistivity 4 (RLA4)	
0.2	(OHMM)		2000
		HRLT Resistivity 3 (RLA3)	
0.2	(OHMM)		2000
		HRLT Resistivity 2 (RLA2)	
0.2	(OHMM)		2000
		HRLT Resistivity 1 (RLA1)	
0.2	(OHMM)		2000
		Std. Res. Invaded Zone Resistivity (RXOZ)	
0.2	(OHMM)		2000

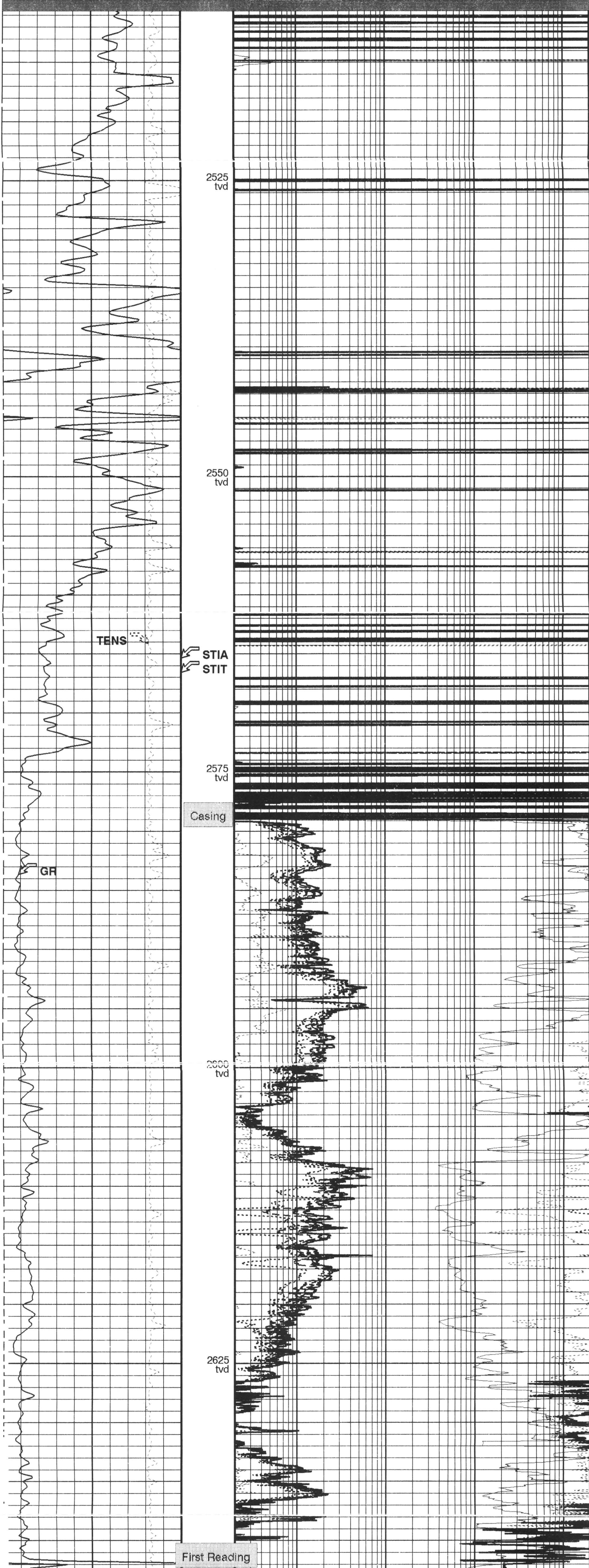
Gamma Ray (GR)
(GAPI)

0150

Tension (TENS)
(N)

500000

MAIN PASS - HRLA



Tension (TENS)		
50000	(N)	0
Gamma Ray (GR)		
0	(GAPI)	150

Std. Res. Invaded Zone Resistivity (RXOZ)		
0.2	(OHMM)	2000
HRLT Resistivity 1 (RLA1)		
0.2	(OHMM)	2000
HRLT Resistivity 2 (RLA2)		
0.2	(OHMM)	2000
HRLT Resistivity 3 (RLA3)		
0.2	(OHMM)	2000
HRLT Resistivity 4 (RLA4)		
0.2	(OHMM)	2000
HRLT Resistivity 5 (RLA5)		
0.2	(OHMM)	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
MPOF	HILTH-FTB: High resolution Integrated Logging Tool-DTS MCFL Processing Operation Mode	ON	
KFAC	HRLT-B: High Resolution Laterolog Array - B	SONDE	
LOOPGAIN	HRLT K Factor Option	0.200	
DIR	HRLT Loop Gain for Shallow Modes		
SPVD	DIR: Directional Survey Computation		
TIMD	TVD of Starting Point	0.000	m
TIVD	Along-hole depth of Tie-in Point	75.200	m
STI	TVD of Tie-in Point	75.200	m
STKT	STI: Stuck Tool Indicator		
TDD	STI Stuck Threshold	1.524	m
TDL	Total Depth - Driller	3700.0	m
	Total Depth - Logger	3692.0	m
System and Miscellaneous			
ALTDPCCHAN	Name of alternate depth channel	TRUEVERTICALDEPTH	
BS	Bit Size	156.0	mm
PBVSADP	Use alternate depth channel for playback	YES	

Format: HRLT-S5-CAN Vertical Scale: 1:240

Graphics File Created: 23-Feb-2004 01:50

OP System Version: 11C0-305

MCM

MESTB	11C0-305	DTAA	OP11-KP1
HILTHD	op11kp1_newpex150kit_G_b	HRLT	op11kp1_HrltKit_b
EMS	11C0-305	DTCH	11C0-305
SPAA	11C0-305		

True Vertical Depth Log

Indexed to True Vertical Depth in this Playback

Input DLIS Files

DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M	2510.5 M
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Input DLIS Files

DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M	2510.5 M
DEFAULT	FMS_TLD_MCFL_CNL_070PUP	FN:70	PRODUCER	23-Feb-2004 00:54	2599.2 M	2571.6 M

Indexed to True Vertical Depth in this Playback

True Vertical Depth Log

OP System Version: 11C0-305

MCM

MESTB	11C0-305	DTAA	OP11-KP1
HILTHD	op11kp1_newpex150kit_G_b	HRLT	op11kp1_HrltKit_b
EMS	11C0-305	DTCH	11C0-305
SPAA	11C0-305		

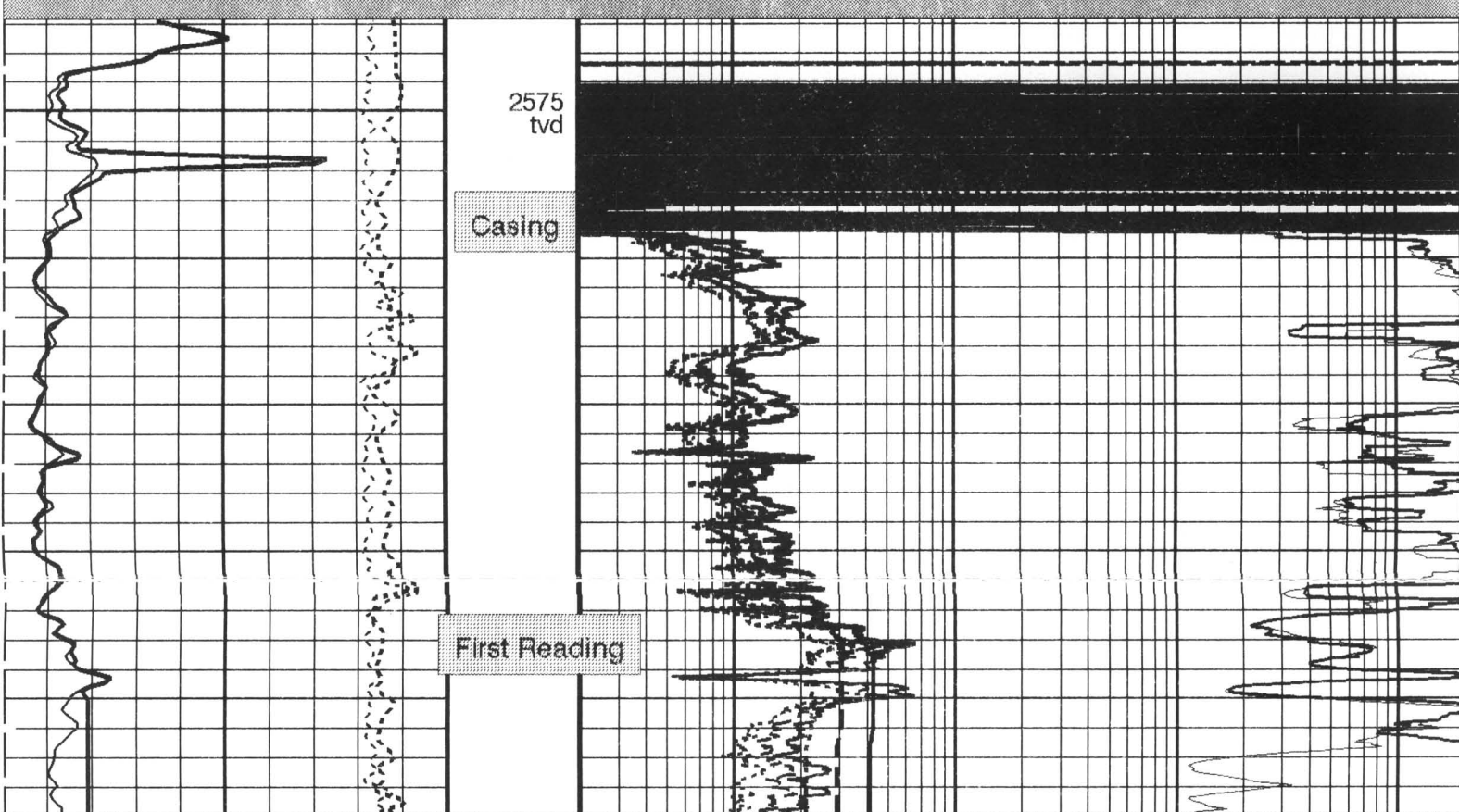
PIP SUMMARY

Time Mark Every 60 S

TENS REP Curve (TENS_REP)		
50000	(N)	0
GR REP Curve (GR_REP)		
0	(GAPI)	150

RLA5 REP Curve (RLA5_REP)		
0.2	(OHMM)	2000
RLA3 REP Curve (RLA3_REP)		
0.2	(OHMM)	2000
RLA2 REP Curve (RLA2_REP)		
0.2	(OHMM)	2000
RXOZ REP Curve (RXOZ_REP)		
0.2	(OHMM)	2000

REPEAT ANALYSIS - HRLA



REPEAT ANALYSIS - HRLA

GR REP Curve (GR_REP)		
0	(GAPI)	150
TENS REP Curve (TENS_REP)		
50000	(N)	0

RXOZ REP Curve (RXOZ_REP)		
0.2	(OHMM)	2000
RLA2 REP Curve (RLA2_REP)		
0.2	(OHMM)	2000
RLA3 REP Curve (RLA3_REP)		
0.2	(OHMM)	2000
RLA5 REP Curve (RLA5_REP)		
0.2	(OHMM)	2000

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
MPOF	HILTH-FTB: High resolution Integrated Logging Tool-DTS MCFL Processing Operation Mode	ON	
KFAC	HRLT-B: High Resolution Laterolog Array - B	SONDE	
LOOPGAIN	HRLT K Factor Option	0.200	
DIR	HRLT Loop Gain for Shallow Modes		
SPVD	DIR: Directional Survey Computation		
TIMD	TVD of Starting Point	0.000	m
TIVD	Along-hole depth of Tie-in Point	75.200	m
	TVD of Tie-in Point	75.200	m
System and Miscellaneous			
ALTDPCCHAN	Name of alternate depth channel	TRUEVERTICALDEPTH	
BS	Bit Size	156.0	mm
PBVSADP	Use alternate depth channel for playback	YES	

Format: HRLT-S5-CAN_REP Vertical Scale: 1:240

Graphics File Created: 23-Feb-2004 01:18

OP System Version: 11C0-305

MCM

MESTB	11C0-305	DTAA	OP11-KP1
HILTHD	op11kp1_newpex150kit_G_b	HRLT	op11kp1_HrltKit_b
EMS	11C0-305	DTCH	11C0-305
SPAA	11C0-305		

True Vertical Depth Log

Indexed to True Vertical Depth in this Playback

Input DLIS Files

DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M	2510.5 M
DEFAULT	FMS_TLD_MCFL_CNL_070PUP	FN:70	PRODUCER	23-Feb-2004 00:54	2599.2 M	2571.6 M

Input DLIS Files

DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M	2510.5 M
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Indexed to True Vertical Depth in this Playback

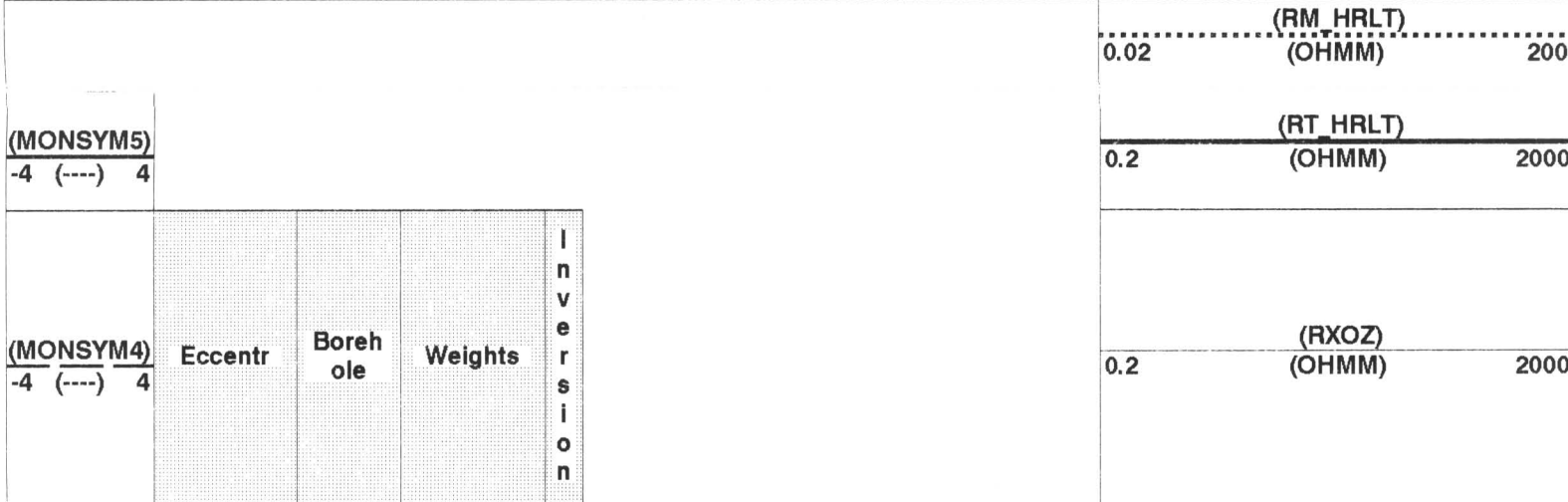
OP System Version: 11C0-305

MCM

MEST-B	11C0-305	DTA-A	OP11-KP1
HILTH-FTB	op11kp1_newpex150kit_G_b	HRLT-B	op11kp1_HrltKit_b
EMS-B	11C0-305	DTCH	11C0-305
SPA-A	11C0-305		

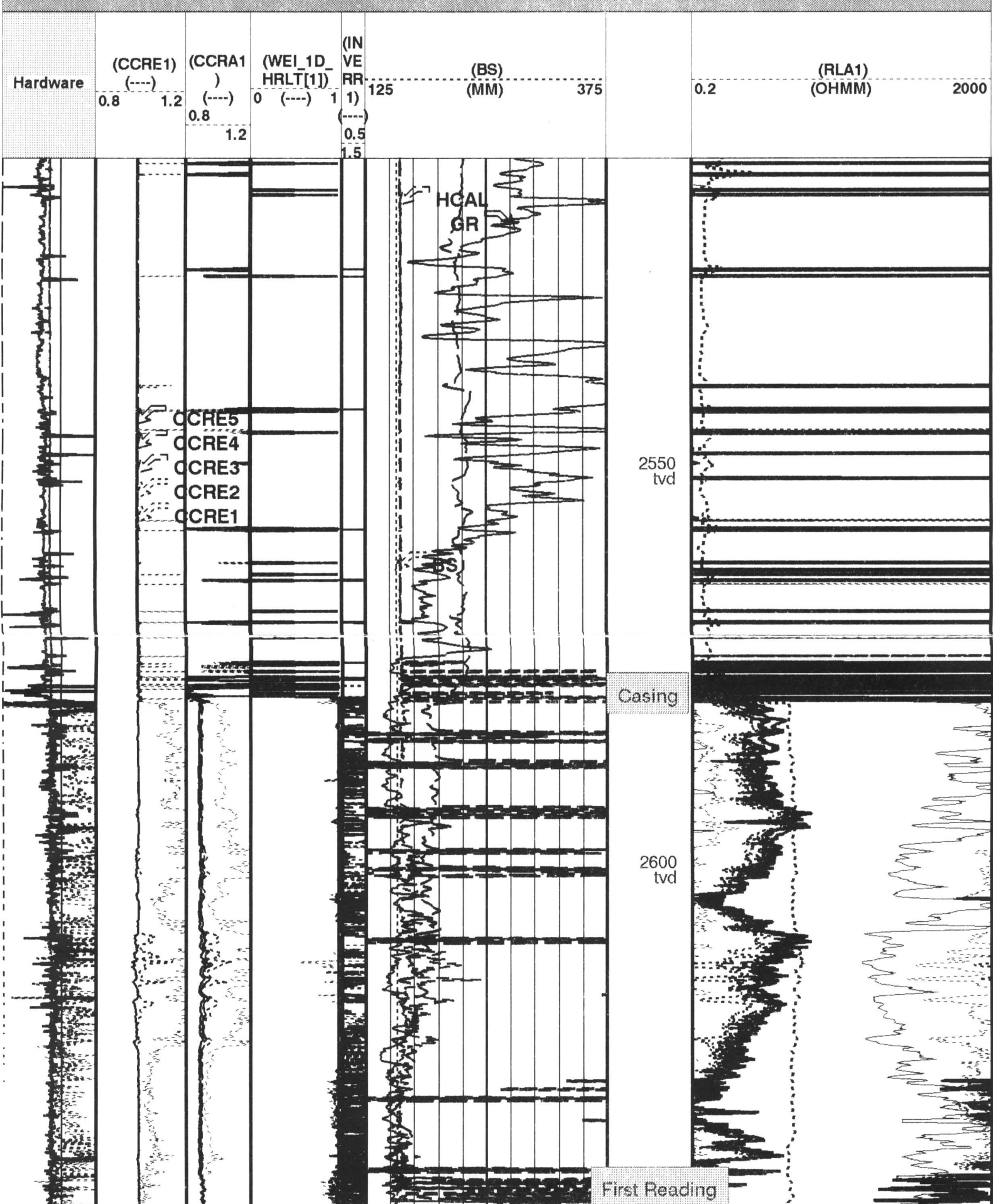
PIP SUMMARY

Time Mark Every 60 S



(MONSYM3) -4 (---) 4	(CCRE5) (---) 0.8 1.2	(CCRA5) (---) 0.8 1.2	(WEI_1D_HRLT[5]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(SP) (MV) -80 20	(RLA5) (OHMM) 0.2 2000
(MONSYM2) -4 (---) 4	(CCRE4) (---) 0.8 1.2	(CCRA4) (---) 0.8 1.2	(WEI_1D_HRLT[4]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(DI_HRLT) (MM) 125 375	(RLA4) (OHMM) 0.2 2000
(MONSYM0) -4 (---) 4	(CCRE3) (---) 0.8 1.2	(CCRA3) (---) 0.8 1.2	(WEI_1D_HRLT[3]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(HCAL) (MM) 125 375	(RLA3) (OHMM) 0.2 2000
(MONSYM1) -4 (---) 4	(CCRE2) (---) 0.8 1.2	(CCRA2) (---) 0.8 1.2	(WEI_1D_HRLT[2]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(GR) (GAPI) 0 150	(RLA2) (OHMM) 0.2 2000

LOG QUALITY CONTROL - HRLA



Hardware	(CCRE1) (---) 0.8 1.2	(CCRA1) (---) 0.8 1.2	(WEI_1D_HRLT[1]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(BS) (MM) 125 375	(RLA1) (OHMM) 0.2 2000
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LOG QUALITY CONTROL - HRLA

(MONSYM1) -4 (---) 4	(CCRE2) (---) 0.8 1.2	(CCRA2) (---) 0.8 1.2	(WEI_1D_HRLT[2]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(GR) (GAPI) 0 150	(RLA2) (OHMM) 0.2 2000
(MONSYM0) -4 (---) 4	(CCRE3) (---) 0.8 1.2	(CCRA3) (---) 0.8 1.2	(WEI_1D_HRLT[3]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(HCAL) (MM) 125 375	(RLA3) (OHMM) 0.2 2000
(MONSYM2) -4 (---) 4	(CCRE4) (---) 0.8 1.2	(CCRA4) (---) 0.8 1.2	(WEI_1D_HRLT[4]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(DI_HRLT) (MM) 125 375	(RLA4) (OHMM) 0.2 2000
(MONSYM3) -4 (---) 4	(CCRE5) (---) 0.8 1.2	(CCRA5) (---) 0.8 1.2	(WEI_1D_HRLT[5]) (---) 0 (---) 1	(IN_VE_RR) (---) 1 (---) 0.5 1.5	(SP) (MV) -80 20	(RLA5) (OHMM) 0.2 2000
(MONSYM4) -4 (---) 4	Eccentr	Borehole	Weights	Inversion		(RXOZ) (OHMM) 0.2 2000
(MONSYM5) -4 (---) 4						(RT_HRLT) (OHMM) 0.2 2000
						(RM_HRLT) (OHMM) 0.02 200

PIP SUMMARY

Time Mark Every 60 S

Parameters			
DLIS Name	Description	Value	
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHT	Bottom Hole Temperature (used in calculations)	149	DEGC
GCSE	Generalized Caliper Selection	HCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	EMS_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MPOF	MCFL Processing Operation Mode	ON	
SHT	Surface Hole Temperature	20	DEGC
HRLT-B: High Resolution Laterolog Array - B			
BHT	Bottom Hole Temperature (used in calculations)	149	DEGC
GCSE	Generalized Caliper Selection	HCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	EMS_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
KFAC HRLT	HRLT K Factor Option	SONDE	
PROCNV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	RXOZ	
PROCMSO	Mechanical Standoff Fin Size	12.7	MM
PROCRM	Processing Mud Resistivity Select	External_GRSE	
PROCSPO	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	20	DEGC
EMS-B: Environment Measurement Sonde			
BHT	Bottom Hole Temperature (used in calculations)	149	DEGC
GCSE	Generalized Caliper Selection	HCAL	
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	EMS_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
SHT	Surface Hole Temperature	20	DEGC
SPA-A: SP ADAPTOR			
SPNV	SP Next Value	0	MV
DIR: Directional Survey Computation			
SPVD	TVD of Starting Point	0	M
TIMD	Along-hole depth of Tie-in Point	75.2	M
TIVD	TVD of Tie-in Point	75.2	M
System and Miscellaneous			
BS	Bit Size	156.000	MM
DO	Depth Offset for Playback	0.0	M
MST	Mud Sample Temperature	23.53	DEGC
PP	Playback Processing	OFF	
TD	Total Depth	3692	M

Format: HRLT-LQC-CAN

Vertical Scale: 1:600

Graphics File Created: 23-Feb-2004 01:54

OP System Version: 11C0-305
MCM

MEST-B	11C0-305	DTA-A	OP11-KP1
HILTH-FTB	op11kp1_newpex150kit_G_b	HRLT-B	op11kp1_HrltKit_b
EMS-B	11C0-305	DTC-H	11C0-305
SPA-A	11C0-305		

True Vertical Depth Log

Indexed to True Vertical Depth in this Playback

Input DLIS Files

DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M	2510.5 M
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Input DLIS Files

DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M	2510.5 M
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Indexed to True Vertical Depth in this Playback

HRDD Processing Flags Statistical Analysis:

No data available: Log is too short, Processing Mode does not provide statistics,
or Playback Mode is OFF

OP System Version: 11C0-305

MCM

MEST-B	11C0-305	DTA-A	OP11-KP1
HILTH-FTB	op11kp1_newpex150kit_G_b	HRLT-B	op11kp1_HrltKit_b
EMS-B	11C0-305	DTC-H	11C0-305
SPA-A	11C0-305		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
BHS	CASED	CASED	2642.8 01:54:49

PIP SUMMARY

Time Mark Every 60 S

HILT Caliper (HCAL) (MM)	125	375	Pe Correction (HPRA) (----)	-3	3
HGNS Deviation (GDEV) (DEG)	-5	45	BS Delta Rho (HDRB) (G/C3)	-0.5	0.5
Gamma Ray (ECGR) (GAPI)	0	150	Density Correction (HDRA) (K/M3)	450	-50
Std. Res. Density Standoff (DSOZ) (MM)	65	0	Hdrx (HDRX) (----)	0.5	1.5
Bit Size (BS) (MM)	125	375	Delta Neutron Porosity (DNPH) (V/V)	-0.1	0.1
Stuck Stretch (STIT) (M)	0	20	GR Borehole Correction Factor (CFGR) (----)	0.5	1.5
Std. Res. Resistivity Standoff (RSOZ) (MM)	65	0			
Tension (TENS) (N)	25000	0			

LOG QUALITY: *** PLATFORM EXPRESS ***

*** Flag Tracks ***

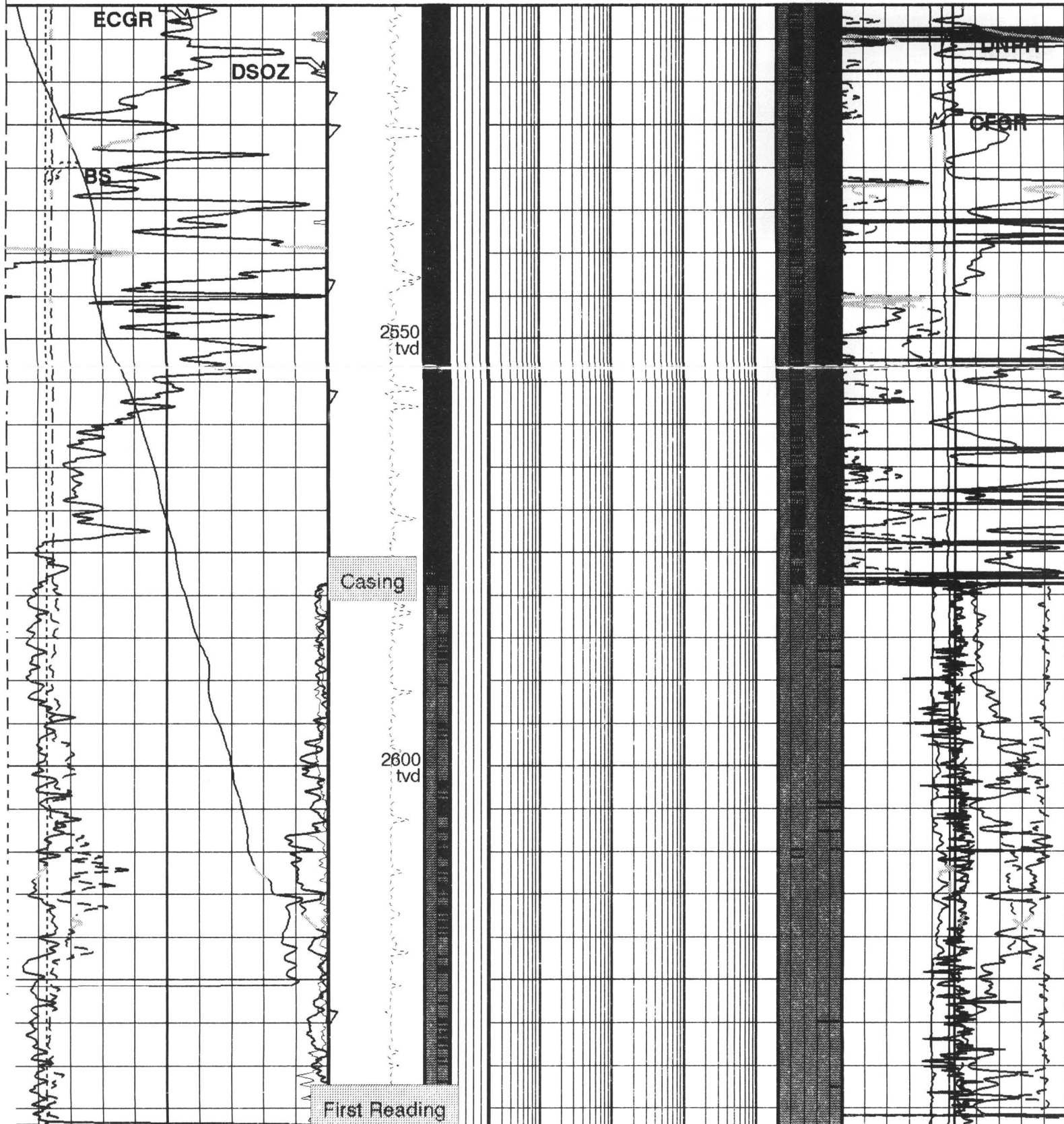
White = Absent Green = Good Yellow = Warn Red/Black = Bad

RESISTIVITY TRACK :

1. MCFL Hardware
2. RXO Processing
3. HAIT Hardware
4. HAIT Array[1-2]
5. HAIT Array[3-4]
6. HAIT Array[5-6]
7. HAIT Array[7-8]

NUCLEAR TRACK :

1. Accelerometer
2. Density Detector
3. Neutron Porosity
4. Density Computation
5. Pef Computation



*** Flag Tracks ***

White = Absent Green = Good Yellow = Warn Red/Black = Bad

RESISTIVITY TRACK :

1. MCFL Hardware
2. RXO Processing
3. HAIT Hardware
4. HAIT Array[1-2]
5. HAIT Array[3-4]
6. HAIT Array[5-6]
7. HAIT Array[7-8]

NUCLEAR TRACK :

1. Accelerometer
2. Density Detector
3. Neutron Porosity
4. Density Computation
5. Pef Computation

LOG QUALITY: *** PLATFORM EXPRESS ***

Std. Res. Resistivity Standoff (RSOZ) (MM)	65	0	GR Borehole Correction Factor (CFGR) (----)	0.5	1.5
Bit Size (BS) (MM)	125	375	Delta Neutron Porosity (DNPH) (V/V)	-0.1	0.1
Std. Res. Density Standoff (DSOZ) (MM)	65	0	Hdrx (HDRX) (----)	0.5	1.5
Gamma Ray (ECGR) (GAPI)	0	150	Density Correction (HDRA) (K/M3)	450	-50
HGNS Deviation (GDEV) (DEG)	-5	45	BS Delta Rho (HDRB) (G/C3)	-0.5	0.5
HILT Caliper (HCAL) (MM)	125	375	Pe Correction (HPRA) (----)	-3	3

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HILTH-FTB	High resolution Integrated Logging Tool-DTS	
BHFL	Borehole Fluid Type	WATER
BHS	Borehole Status	CASED
BSCO	Borehole Salinity Correction Option	NO
CCCO	Casing & Cement Thickness Correction Option	NO
DHC	Density Hole Correction	BS
FSAL	Formation Salinity	-50000 PPM
FSCO	Formation Salinity Correction Option	NO
GCSE	Generalized Calliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	40 DEG
GGRD	Geothermal Gradient	0.018227 DC/M
HSCO	Hole Size Correction Option	YES
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE
MCCO	Mud Cake Correction Option	NO
MCOR	Mud Correction	NATU
MPOF	MCFL Processing Operation Mode	ON
MWCO	Mud Weight Correction Option	NO
NAAC	HRDD APS Activation Correction	OFF
NMT	HRDD Nuclear Mud Type	NOBARITE
NPRM	HRDD Processing Mode	HiRes
NSAR	HRDD Depth Sampling Rate	25.4 MM
PTCO	Pressure/Temperature Correction Option	NO

SDAT	Standoff Data Source	SOCN	20	DEGC
SHT	Surface Hole Temperature			
SOCN	Standoff Distance		3.175	MM
SOCO	Standoff Correction Option		YES	
HRLT-B: High Resolution Laterolog Array - B				
BHS	Borehole Status	CASED		
GCSE	Generalized Caliper Selection	HCAL	1.524	
GDEV	Average Angular Deviation of Borehole from Normal	40		DEG
GGRD	Geothermal Gradient	0.018227		DC/M
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
SHT	Surface Hole Temperature	20		DEGC
EMS-B: Environment Measurement Sonde				
BHS	Borehole Status	CASED		
GCSE	Generalized Caliper Selection	HCAL	1.524	
GDEV	Average Angular Deviation of Borehole from Normal	40		DEG
GGRD	Geothermal Gradient	0.018227		DC/M
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
SHT	Surface Hole Temperature	20		DEGC
DIR: Directional Survey Computation				
SPVD	TVD of Starting Point	0		M
TIMD	Along-hole depth of Tie-in Point	75.2		M
TIVD	TVD of Tie-in Point	75.2		M
STI: Stuck Tool Indicator				
LBFR	Trigger for MAXIS First Reading Label	TDL		
STKT	STI Stuck Threshold	1.500		M
TDD	Total Depth - Driller	3700.00		M
TDL	Total Depth - Logger	3692.00		M
System and Miscellaneous				
BS	Bit Size	156.000		MM
BSAL	Borehole Salinity	-50000.00		PPM
CSIZ	Current Casing Size	177.800		MM
CWEI	Casing Weight	38.70		KG/M
DFD	Drilling Fluid Density	1050.00		K/M3
DO	Depth Offset for Playback	0.0		M
MST	Mud Sample Temperature	23.53		DEGC
PP	Playback Processing	OFF		
RMFS	Resistivity of Mud Filtrate Sample	1.2110		OHMM

Format: PEX_LQC		Vertical Scale: 1:600		Graphics File Created: 23-Feb-2004 01:54			
OP System Version: 11C0-305							
MCM							
MEST-B	11C0-305	DTA-A	OP11-KP1				
HILTH-FTB	op11kp1_newpex150kit_G_b	HRLT-B	op11kp1_HrltKit_b				
EMS-B	11C0-305	DTC-H	11C0-305				
SPA-A	11C0-305						
Indexed to True Vertical Depth in this Playback							
Input DLIS Files							
DEFAULT	FMS_TLD_MCFL_CNL_067PUP	FN:66	PRODUCER	23-Feb-2004 00:36	2642.8 M 2510.5 M		

Calibration and Check Summary							
Measurement	Nominal	Master	Before	After	Change	Limit	Units
Micro Electrical Scanner - B (Slim) Wellsite Calibration - Caliper Calibration							
Before: 17-Feb-2004 15:15							
Caliper 1 Zero Measurement	203.2	N/A	205.8	N/A	N/A	N/A	MM
Caliper 2 Zero Measurement	203.2	N/A	217.4	N/A	N/A	N/A	MM
Caliper 1 Plus Measurement	304.8	N/A	308.9	N/A	N/A	N/A	MM
Caliper 2 Plus Measurement	304.8	N/A	318.2	N/A	N/A	N/A	MM
Micro Electrical Scanner - B (Slim) Wellsite Calibration - CROUZET ACCELEROMETER				PROM HAS BEEN READ CORRECTLY			
Before: 22-Feb-2004 15:35							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	2	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	1	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	470	N/A	N/A	N/A	
Micro Electrical Scanner - B (Slim) Wellsite Calibration - CROUZET MAGNETOMETER				PROM HAS BEEN READ CORRECTLY			
Before: 22-Feb-2004 15:35							
TEMPERATURE REFERENCE :	N/A	N/A	23	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	98	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	10	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	275	N/A	N/A	N/A	
High resolution Integrated Logging Tool-DTS Wellsite Calibration - Stab Measurement Summary							
Before: 20-Feb-2004 14:18							
BS Window Ratio	0.7664	N/A	0.7637	N/A	N/A	N/A	CPS
BS Window Sum	28520	N/A	28520	N/A	N/A	N/A	
SS Window Ratio	0.4825	N/A	0.4805	N/A	N/A	N/A	
SS Window Sum	12620	N/A	12600	N/A	N/A	N/A	CPS
LS Window Ratio	0.3047	N/A	0.3027	N/A	N/A	N/A	CPS
LS Window Sum	1334	N/A	1323	N/A	N/A	N/A	
High resolution Integrated Logging Tool-DTS Wellsite Calibration - Photo-multiplier High Voltages Calibrations							
Before: 20-Feb-2004 14:18							
BS PM High Voltage (Command)	1421	N/A	1447	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1394	N/A	1404	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1361	N/A	1359	N/A	N/A	N/A	V
High resolution Integrated Logging Tool-DTS Wellsite Calibration - Crystal Quality Resolutions Calibration							
Before: 20-Feb-2004 14:18							
BS Crystal Resolution	10.63	N/A	10.62	N/A	N/A	N/A	%
SS Crystal Resolution	9.427	N/A	9.446	N/A	N/A	N/A	%
LS Crystal Resolution	9.081	N/A	9.019	N/A	N/A	N/A	%
High resolution Integrated Logging Tool-DTS Wellsite Calibration - MCFL Calibration							
Before: 20-Feb-2004 14:04							
Raw B0 Resistivity	3875	N/A	3828	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3774	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3784	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool-DTS Wellsite Calibration - HILT Caliper Calibration							
Before: 20-Feb-2004 14:00							
HILT Caliper Zero Measurement	203.2	N/A	199.1	N/A	N/A	N/A	MM
HILT Caliper Plus Measurement	304.8	N/A	306.7	N/A	N/A	N/A	MM
High resolution Integrated Logging Tool-DTS Wellsite Calibration - Detector Calibration							
Before: 20-Feb-2004 14:09							
Gamma Ray Background	30.00	N/A	66.14	N/A	N/A	N/A	GAPI
Gamma Ray (Jig - Bkg)	156.3	N/A	156.3	N/A	N/A	14.21	GAPI
Gamma Ray (Calibrated)	167.0	N/A	167.0	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool-DTS Wellsite Calibration - Accelerometer Calibration							
Before: 22-Feb-2004 7:44							
Z-Axis Acceleration	9.810	N/A	9.825	N/A	N/A	N/A	M/S2
High resolution Integrated Logging Tool-DTS Master Calibration - Inversion results							
Master: 2-Feb-2004 21:43							
Rho Aluminum	2596	2602	--	--	--	--	K/M3
Rho Magnesium	1686	1687	--	--	--	--	K/M3
Pe Aluminum	2.570	2.545	--	--	--	--	
Pe Magnesium	2.650	2.618	--	--	--	--	
High resolution Integrated Logging Tool-DTS Master Calibration - Deviation Summary							
Master: 2-Feb-2004 21:43							
BS Average Deviation	0	0.3931	--	--	--	--	%
BS Max Deviation	0	1.134	--	--	--	--	%
SS Average Deviation	0	0.4284	--	--	--	--	%
SS Max Deviation	0	1.624	--	--	--	--	%
LS Average Deviation	0	0.8353	--	--	--	--	%
LS Max Deviation	0	1.817	--	--	--	--	%
High resolution Integrated Logging Tool-DTS Master Calibration - Zero Measurement							
Master: 18-Feb-2004 19:21							
CNTC Background	26.80	26.80	--	--	--	--	CPS
CFTC Background	28.50	28.50	--	--	--	--	CPS
High resolution Integrated Logging Tool-DTS Master Calibration - Tank Measurement							
Master: 18-Feb-2004 19:21							
Thermal Near Corr. (Tank)	6031	5189	--	--	--	--	CPS
Thermal Far Corr. (Tank)	2793	2196	--	--	--	--	CPS
CNTC/CFTC (Tank)	2.159	2.365	--	--	--	--	
High Resolution Laterolog Array - B Wellsite Calibration - HRLT M01							
Before: 22-Feb-2004 15:35							
HRLT M0-M1 Voltage Plus - 0	0	N/A	-317.5	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 1	0	N/A	-327.8	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 2	0	N/A	-328.6	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 3	0	N/A	-332.3	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 4	0	N/A	-322.7	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 5	0	N/A	-324.6	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 6	0	N/A	318.4	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 7	0	N/A	-322.7	N/A	N/A	9.681	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT M12							
Before: 22-Feb-2004 15:35							
HRLT M1-M2 Voltage Plus - 0	0	N/A	1751	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 1	0	N/A	1807	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 2	0	N/A	1808	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 3	0	N/A	1829	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 4	0	N/A	1777	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 5	0	N/A	1789	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 6	0	N/A	-1763	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 7	0	N/A	1781	N/A	N/A	53.42	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT M23							
Before: 22-Feb-2004 15:35							
HRLT M2-M3 Voltage Plus - 0	0	N/A	1741	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 1	0	N/A	1812	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 2	0	N/A	1812	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 3	0	N/A	1836	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 4	0	N/A	1778	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 5	0	N/A	1790	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 6	0	N/A	-1757	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 7	0	N/A	1781	N/A	N/A	53.42	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT V34							
Before: 22-Feb-2004 15:35							
HRLT A3-A4 Voltage Plus - 0	0	N/A	68860	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 1	0	N/A	71390	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 2	0	N/A	71660	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 3	0	N/A	72830	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 4	0	N/A	70460	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 5	0	N/A	70950	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 6	0	N/A	-68200	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 7	0	N/A	70000	N/A	N/A	2100	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT V45							
Before: 22-Feb-2004 15:35							
HRLT A4-A5 Voltage Plus - 0	0	N/A	68600	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 1	0	N/A	70950	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 2	0	N/A	71300	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 3	0	N/A	72580	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 4	0	N/A	70350	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 5	0	N/A	70880	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 6	0	N/A	-67740	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 7	0	N/A	70000	N/A	N/A	2100	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT V56							
Before: 22-Feb-2004 15:35							
HRLT A5-A6 Voltage Plus - 0	0	N/A	68740	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 1	0	N/A	71380	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 2	0	N/A	71660	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	72870	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	70520	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	71020	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-68190	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 7	0	N/A	70000	N/A	N/A	2100	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP							
Before: 22-Feb-2004 15:35							
HRLT Torpedo-M0 Voltage - 0	0	N/A	-67950	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-70990	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-71280	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-72490	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-70180	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-70660	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	67790	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV
High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD							
Before: 22-Feb-2004 15:35							
HRLT Bridle#9-M0 Voltage - 0	0	N/A	-67960	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-71010	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-71290	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-72520	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-70190	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-70670	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	67800	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV

Before: 22-Feb-2004 15:35							
HRLT Source Current Plus - 0	0	N/A	283.3	N/A	N/A	8.520	UA
HRLT Source Current Plus - 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 7	0	N/A	281.1	N/A	N/A	8.520	UA
High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV							
Before: 22-Feb-2004 15:35							
HRLT Vertical Voltage Pl - 0	0	N/A	-317.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl - 1	0	N/A	-320.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl - 2	0	N/A	-320.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl - 3	0	N/A	-322.6	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl - 4	0	N/A	-310.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl - 5	0	N/A	-327.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl - 6	0	N/A	324.3	N/A	N/A	9.681	UV
HRLT Vertical Voltage Pl - 7	0	N/A	-322.7	N/A	N/A	9.681	UV
The GLS-VJ source activity is acceptable.							
The HGNS Neutron Master Calibration was done with the following parameters :							
NCT-B Water Temperature	17.7	DEGC.					
Thermal Housing Size	85.700	MM.					
NSR-F serial number	5030						

Micro Electrical Scanner - B (Slim) / Equipment Identification							
Primary Equipment:							
MEST Sonde - B			MEDS - B				
MEST Preamplifier Cartridge - AB			MEPC - AB				
GPIT Cartridge - AC			GPIC - AC				
MEST Acquisition Cartridge - A			MEAC - A	732			
Auxiliary Equipment:							
MEST-B Preamplifier Cartridge Housing			MEPH - A				
MEST Acquisition Cartridge Housing (Slim)			MEAH - B	772			

High resolution Integrated Logging Tool-DTS / Equipment Identification							
Primary Equipment:							
HILT high-Resolution Mechanical Sonde			HRMS - H	3782			
HILT Rxo Gamma-ray Device			HRGD - H	3794			
HILT Micro Cylindrically Focused Log Dev			MCFL - H				
GR Logging Source			GLS - VJ	7801			
HILT High Res. Control Cartridge			HRCC - H	3773			
HILT Gamma-Ray Neutron Sonde-DTS			HGNS - H	3758			
HILT Gamma-Ray Device			HGR -				
HILT Neutron Detector with Alpha Source			HCNT - H				
Auxiliary Equipment:							
Neutron Calibration Tank			NCT - B				
Gamma Source Radioactive			GSR - U/Y				

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Stab Measurement Summary							
Phase	BS Window Ratio	Value	Phase	SS Window Ratio	Value	Phase	LS Window Ratio
Before		0.7637	Before		0.4805	Before	
	0.7281 (Minimum)	0.7664 (Nominal)		0.4584 (Minimum)	0.4825 (Nominal)		0.2894 (Minimum)
		0.8048 (Maximum)			0.5066 (Maximum)		0.3047 (Nominal)
							0.3199 (Maximum)
Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS
Before		28520	Before		12800	Before	
	27090 (Minimum)	28520 (Nominal)		11990 (Minimum)	12620 (Nominal)		1267 (Minimum)
		29940 (Maximum)			13250 (Maximum)		1334 (Nominal)
							1401 (Maximum)
Before: 20-Feb-2004 14:18							

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Photo-multiplier High Voltages Calibrations							
Phase	BS PM High Voltage (Command) V	Value	Phase	SS PM High Voltage (Command) V	Value	Phase	LS PM High Voltage (Command) V
Before		1447	Before		1404	Before	
	1321 (Minimum)	1421 (Nominal)		1284 (Minimum)	1394 (Nominal)		1261 (Minimum)
		1521 (Maximum)			1494 (Maximum)		1361 (Nominal)
							1461 (Maximum)
Before: 20-Feb-2004 14:18							

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Crystal Quality Resolutions Calibration							
Phase	BS Crystal Resolution %	Value	Phase	SS Crystal Resolution %	Value	Phase	LS Crystal Resolution %
Before		10.62	Before		9.446	Before	
	9.633 (Minimum)	10.63 (Nominal)		8.427 (Minimum)	9.427 (Nominal)		8.081 (Minimum)
		11.63 (Maximum)			10.43 (Maximum)		9.081 (Nominal)
							10.08 (Maximum)
Before: 20-Feb-2004 14:18							

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
MCFL Calibration							
Phase	Raw B0 Resistivity OHMM	Value	Phase	Raw B1 Resistivity OHMM	Value	Phase	Raw B2 Resistivity OHMM
Before		3828	Before		3774	Before	
	3565 (Minimum)	3875 (Nominal)		3524 (Minimum)	3830 (Nominal)		3524 (Minimum)
		4185 (Maximum)			4136 (Maximum)		3830 (Nominal)
							4136 (Maximum)
Before: 20-Feb-2004 14:04							

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
HILT Caliper Calibration							
Phase	HILT Caliper Zero Measurement MM	Value	Phase	HILT Caliper Plus Measurement MM	Value		
Before		199.1	Before		306.7		
	152.4 (Minimum)	203.2 (Nominal)		228.6 (Minimum)	304.8 (Nominal)		
		254.0 (Maximum)			361.0 (Maximum)		
Before: 20-Feb-2004 14:00							

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Detector Calibration							
Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig - B/kg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI
Before		66.14	Before		156.3	Before	
	0 (Minimum)	30.00 (Nominal)		142.1 (Minimum)	156.3 (Nominal)		152.0 (Minimum)
		120.0 (Maximum)			170.5 (Maximum)		167.0 (Nominal)
							182.0 (Maximum)
Before: 20-Feb-2004 14:09							

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Accelerometer Calibration							
Phase	Z-Axis Acceleration M/S2	Value					
Before		9.825					
	9.610 (Minimum)	9.810 (Nominal)					
		10.01 (Maximum)					
Before: 22-Feb-2004 7:44							

High resolution Integrated Logging Tool-DTS Master Calibration							
Inversion results							
Phase	Rho Aluminum K/M3	Value	Phase	Rho Magnesium K/M3	Value		
Master		2602	Master		1687		
	2586 (Minimum)	2596 (Nominal)		1676 (Minimum)	1686 (Nominal)		
		2606 (Maximum)			1696 (Maximum)		
Phase	Pe Aluminum	Value	Phase	Pe Magnesium	Value		
Master		2.545	Master		2.618		
	2.470 (Minimum)	2.570 (Nominal)		2.550 (Minimum)	2.650 (Nominal)		
		2.670 (Maximum)			2.750 (Maximum)		
Master: 2-Feb-2004 21:43							

High resolution Integrated Logging Tool-DTS Master Calibration							
Deviation Summary							
Phase	BS Average Deviation %	Value	Phase	SS Average Deviation %	Value	Phase	LS Average Deviation %
Master		0.3931	Master		0.4284	Master	
	-0.6000 (Minimum)	0 (Nominal)		-1.000 (Minimum)	0 (Nominal)		-1.500 (Minimum)
		0.6000 (Maximum)			1.000 (Maximum)		
							1.500 (Maximum)
Phase	BS Max Deviation %	Value	Phase	SS Max Deviation %	Value	Phase	LS Max Deviation %
Master		1.134	Master		1.624	Master	
	-1.600 (Minimum)	0 (Nominal)		-2.500 (Minimum)	0 (Nominal)		-3.500 (Minimum)
		1.600 (Maximum)			2.500 (Maximum)		
							3.500 (Maximum)
Master: 2-Feb-2004 21:43							

High resolution Integrated Logging Tool-DTS Master Calibration							
Zero Measurement							
Phase	CNTC Background CPS	Value	Phase	CFTC Background CPS	Value		
Master		26.80	Master		28.50		
	5.000 (Minimum)	26.80 (Nominal)		5.000 (Minimum)	28.50 (Nominal)		
		40.00 (Maximum)			40.00 (Maximum)		
Master: 18-Feb-2004 19:21							

High resolution Integrated Logging Tool-DTS Master Calibration							
Tank Measurement							
Phase	Thermal Near Corr. (Tank) CPS	Value	Phase	Thermal Far Corr. (Tank) CPS	Value	Phase	CNTC/CFTC (Tank)
Master		5189	Master		2196	Master	
	5000 (Minimum)	6031 (Nominal)		2075 (Minimum)	2793 (Nominal)		2120 (Minimum)
		7200 (Maximum)			3125 (Maximum)		2159 (Nominal)
							2540 (Maximum)
Master: 18-Feb-2004 19:21							

High Resolution Laterolog Array - B / Equipment Identification							
Primary Equipment:							
HRLT Sonde			HRLS - B	764			
Auxiliary Equipment:							
HRLT lower Housing			HRLL - B	765			
HRLT Lower Cartridge			HRLC - B	755			
HRLT upper Housing			HRUH - B	759			
HRLT Upper Cartridge			HRUC - B	766			

High Resolution Laterolog Array - B Wellsite Calibration							
HRLT M01							
Idx	Phase	HRLT M0-M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		-317.5	-322.7	-280.7	-379.7	
1	Before		-327.8	-322.7	-280.7	-379.7	
2	Before		-328.6	-322.7	-280.7	-379.7	
3	Before		-332.3	-322.7	-280.7	-379.7	
4	Before		-322.7	-322.7	-280.7	-379.7	
5	Before		-324.6	-322.7	-280.7	-379.7	
6	Before		318.4	322.7	379.7	280.7	
7	Before		-322.7	-322.7	-280.7	-379.7	
		(Minimum) (Nominal) (Maximum)					
Before: 22-Feb-2004 15:35							

High Resolution Laterolog Array - B Wellsite Calibration							
HRLT M12							
Idx	Phase	HRLT M1-M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum	
0	Before		1751	1781	2095	1549	
1	Before		1807	1781	2095	1549	
2	Before		1808	1781	2095	1549	

3	Before		1829	1781	2095	1549
4	Before		1777	1781	2095	1549
5	Before		1789	1781	2095	1549
6	Before		-1763	-1781	-1549	-2095
7	Before		1781	1781	2095	1549
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

High Resolution Laterolog Array - B Wellsite Calibration						
HRLT M23						
Idx	Phase	HRLT M2-M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1741	1781	2095	1549
1	Before		1812	1781	2095	1549
2	Before		1812	1781	2095	1549
3	Before		1836	1781	2095	1549
4	Before		1778	1781	2095	1549
5	Before		1790	1781	2095	1549
6	Before		-1757	-1781	-1549	-2095
7	Before		1781	1781	2095	1549
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

High Resolution Laterolog Array - B Wellsite Calibration						
HRLT V34						
Idx	Phase	HRLT A3-A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68660	70000	82360	60900
1	Before		71390	70000	82360	60900
2	Before		71660	70000	82360	60900
3	Before		72830	70000	82360	60900
4	Before		70460	70000	82360	60900
5	Before		70950	70000	82360	60900
6	Before		-68200	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

High Resolution Laterolog Array - B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4-A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68600	70000	82360	60900
1	Before		70950	70000	82360	60900
2	Before		71300	70000	82360	60900
3	Before		72580	70000	82360	60900
4	Before		70350	70000	82360	60900
5	Before		70880	70000	82360	60900
6	Before		-67740	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

High Resolution Laterolog Array - B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5-A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68740	70000	82360	60900
1	Before		71380	70000	82360	60900
2	Before		71680	70000	82360	60900
3	Before		72870	70000	82360	60900
4	Before		70520	70000	82360	60900
5	Before		71020	70000	82360	60900
6	Before		-68190	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

High Resolution Laterolog Array - B Wellsite Calibration						
HRLT VTP						
Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-67950	-70000	-60900	-82360
1	Before		-70990	-70000	-60900	-82360
2	Before		-71280	-70000	-60900	-82360
3	Before		-72490	-70000	-60900	-82360
4	Before		-70180	-70000	-60900	-82360
5	Before		-70660	-70000	-60900	-82360
6	Before		67790	70000	82360	60900
7	Before		-70000	-70000	-60900	-82360
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

High Resolution Laterolog Array - B Wellsite Calibration						
HRLT VBD						
Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-67960	-70000	-60900	-82360
1	Before		-71010	-70000	-60900	-82360
2	Before		-71290	-70000	-60900	-82360
3	Before		-72520	-70000	-60900	-82360
4	Before		-70190	-70000	-60900	-82360
5	Before		-70670	-70000	-60900	-82360
6	Before		67800	70000	82360	60900
7	Before		-70000	-70000	-60900	-82360
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

High Resolution Laterolog Array - B Wellsite Calibration						
HRLT ISO						
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.3	284.0	334.1	247.0
1	Before		281.1	281.1	330.7	244.4
2	Before		281.1	281.1	330.7	244.4
3	Before		281.1	281.1	330.7	244.4
4	Before		281.1	281.1	330.7	244.4
5	Before		281.1	281.1	330.7	244.4
6	Before		281.1	281.1	330.7	244.4
7	Before		281.1	281.1	330.7	244.4
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

High Resolution Laterolog Array - B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-317.9	-322.7	-280.7	-379.7
1	Before		-320.7	-322.7	-280.7	-379.7
2	Before		-320.7	-322.7	-280.7	-379.7
3	Before		-322.6	-322.7	-280.7	-379.7
4	Before		-310.4	-322.7	-280.7	-379.7
5	Before		-327.4	-322.7	-280.7	-379.7
6	Before		324.3	322.7	379.7	280.7
7	Before		-322.7	-322.7	-280.7	-379.7
(Minimum) (Nominal) (Maximum)						

Before: 22-Feb-2004 15:35

Directional Survey Manually-Entered Inclinometry Summary

Tie In Point : Measured Depth True Vertical Depth North Departure East Departure						
	75.20 M		75.20 M	-0.24 M		-0.26 M
Depth	Deviation	Azimuth	True Vertical Depth	North Departure	East Departure	
75.20 M	0.54 DEG	227.19 DEG	75.20 M	-0.24 M	-0.26 M	
132.60 M	0.66 DEG	188.11 DEG	132.60 M	-0.77 M	-0.53 M	
184.30 M	1.98 DEG	248.60 DEG	184.28 M	-1.59 M	-1.31 M	
223.00 M	2.49 DEG	257.04 DEG	222.95 M	-2.03 M	-2.75 M	
241.80 M	2.11 DEG	246.27 DEG	241.74 M	-2.27 M	-3.47 M	
260.10 M	1.08 DEG	211.37 DEG	260.03 M	-2.59 M	-3.86 M	
269.20 M	1.62 DEG	169.13 DEG	269.13 M	-2.79 M	-3.89 M	
287.30 M	2.97 DEG	138.74 DEG	287.21 M	-3.43 M	-3.56 M	
315.80 M	4.23 DEG	138.28 DEG	315.66 M	-4.77 M	-2.37 M	
334.80 M	5.04 DEG	139.26 DEG	334.59 M	-5.93 M	-1.36 M	
354.20 M	6.33 DEG	147.85 DEG	353.90 M	-7.47 M	-0.23 M	
373.60 M	7.13 DEG	156.68 DEG	373.16 M	-9.48 M	0.83 M	
393.20 M	8.38 DEG	167.97 DEG	392.58 M	-12.00 M	1.62 M	
412.40 M	10.46 DEG	178.21 DEG	411.52 M	-15.02 M	1.99 M	
431.80 M	12.72 DEG	179.99 DEG	430.53 M	-19.12 M	2.05 M	
451.20 M	14.53 DEG	179.88 DEG	449.38 M	-23.59 M	2.06 M	

489.80 M	17.69 DEG	183.62 DEG	486.46 M	-34.29 M	1.72 M
528.40 M	20.38 DEG	182.09 DEG	522.95 M	-46.86 M	1.09 M
547.90 M	21.11 DEG	179.24 DEG	541.18 M	-53.77 M	1.02 M
566.90 M	22.94 DEG	176.66 DEG	558.79 M	-60.89 M	1.27 M
586.20 M	24.35 DEG	175.98 DEG	576.47 M	-68.61 M	1.77 M
605.50 M	26.35 DEG	177.97 DEG	593.91 M	-76.86 M	2.20 M
624.40 M	27.41 DEG	178.69 DEG	610.77 M	-85.40 M	2.45 M
644.00 M	27.64 DEG	180.94 DEG	628.15 M	-94.46 M	2.48 M
663.30 M	27.68 DEG	181.35 DEG	645.25 M	-103.42 M	2.30 M
682.80 M	28.51 DEG	179.84 DEG	662.45 M	-112.60 M	2.21 M
702.00 M	29.15 DEG	179.83 DEG	679.27 M	-121.86 M	2.23 M
721.20 M	29.29 DEG	177.11 DEG	696.03 M	-131.23 M	2.48 M
740.10 M	29.44 DEG	176.54 DEG	712.50 M	-140.48 M	3.00 M
787.50 M	27.58 DEG	174.50 DEG	754.15 M	-163.04 M	4.76 M
831.20 M	24.42 DEG	167.18 DEG	793.42 M	-181.94 M	7.79 M
850.10 M	27.28 DEG	165.79 DEG	810.43 M	-189.95 M	9.71 M
868.40 M	28.23 DEG	164.74 DEG	826.62 M	-198.19 M	11.88 M
887.10 M	28.38 DEG	170.19 DEG	843.09 M	-206.84 M	13.80 M
904.00 M	27.50 DEG	171.76 DEG	858.02 M	-214.66 M	15.05 M
923.90 M	27.63 DEG	172.29 DEG	875.66 M	-223.78 M	16.32 M
942.70 M	28.68 DEG	175.41 DEG	892.23 M	-232.60 M	17.27 M
959.60 M	28.28 DEG	177.56 DEG	907.09 M	-240.64 M	17.77 M
980.00 M	28.25 DEG	176.81 DEG	925.06 M	-250.29 M	18.24 M
1002.40 M	28.30 DEG	176.81 DEG	944.78 M	-260.89 M	18.83 M
1021.60 M	28.08 DEG	176.44 DEG	961.71 M	-269.94 M	19.37 M
1040.80 M	27.55 DEG	176.31 DEG	978.69 M	-278.88 M	19.93 M
1060.40 M	28.20 DEG	174.59 DEG	996.01 M	-288.02 M	20.66 M
1078.90 M	28.50 DEG	176.34 DEG	1012.29 M	-296.77 M	21.35 M
1098.50 M	28.38 DEG	174.81 DEG	1029.53 M	-306.08 M	22.07 M
1117.40 M	28.50 DEG	174.14 DEG	1046.15 M	-315.04 M	22.94 M
1136.60 M	28.40 DEG	172.99 DEG	1063.03 M	-324.13 M	23.97 M
1155.80 M	27.83 DEG	173.91 DEG	1079.96 M	-333.12 M	25.00 M
1174.90 M	28.18 DEG	175.01 DEG	1096.83 M	-342.04 M	25.87 M
1193.40 M	27.85 DEG	174.79 DEG	1113.16 M	-350.70 M	26.64 M
1213.00 M	28.15 DEG	172.21 DEG	1130.46 M	-359.84 M	27.68 M
1231.90 M	27.55 DEG	174.79 DEG	1147.18 M	-368.61 M	28.68 M
1251.20 M	27.85 DEG	174.61 DEG	1164.26 M	-377.54 M	29.51 M
1270.20 M	27.20 DEG	175.21 DEG	1181.11 M	-386.29 M	30.29 M
1289.30 M	28.10 DEG	172.86 DEG	1198.03 M	-395.11 M	31.21 M
1308.40 M	28.25 DEG	173.51 DEG	1214.87 M	-404.06 M	32.28 M
1327.60 M	28.10 DEG	174.26 DEG	1231.79 M	-413.07 M	33.25 M
1347.00 M	28.45 DEG	173.74 DEG	1248.88 M	-422.21 M	34.21 M
1365.50 M	28.75 DEG	173.54 DEG	1265.12 M	-431.02 M	35.19 M
1384.90 M	29.00 DEG	177.46 DEG	1282.11 M	-440.35 M	35.92 M
1404.00 M	28.85 DEG	176.06 DEG	1298.83 M	-449.58 M	36.45 M
1422.20 M	28.90 DEG	175.49 DEG	1314.76 M	-458.34 M	37.09 M
1442.20 M	28.63 DEG	173.26 DEG	1332.30 M	-467.92 M	38.04 M
1461.10 M	28.80 DEG	175.41 DEG	1348.87 M	-476.95 M	38.93 M
1480.30 M	28.63 DEG	176.96 DEG	1365.71 M	-486.16 M	39.55 M
1497.60 M	28.58 DEG	176.76 DEG	1380.90 M	-494.43 M	40.00 M
1518.50 M	28.15 DEG	173.59 DEG	1399.29 M	-504.32 M	40.84 M
1537.50 M	28.33 DEG	176.01 DEG	1416.03 M	-513.27 M	41.65 M
1556.80 M	28.18 DEG	175.89 DEG	1433.03 M	-522.39 M	42.30 M
1575.90 M	28.35 DEG	175.44 DEG	1449.85 M	-531.41 M	42.98 M
1594.90 M	28.48 DEG	173.41 DEG	1466.56 M	-540.40 M	43.86 M
1614.30 M	27.83 DEG	175.11 DEG	1483.67 M	-549.51 M	44.77 M
1633.40 M	27.83 DEG	174.26 DEG	1500.56 M	-558.39 M	45.60 M
1652.10 M	28.23 DEG	173.01 DEG	1517.06 M	-567.12 M	46.58 M
1671.50 M	28.38 DEG	174.26 DEG	1534.14 M	-576.26 M	47.60 M
1690.50 M	28.30 DEG	172.74 DEG	1550.87 M	-585.23 M	48.62 M
1709.70 M	28.95 DEG	173.31 DEG	1567.72 M	-594.36 M	49.73 M
1728.80 M	28.33 DEG	177.69 DEG	1584.48 M	-603.48 M	50.45 M
1747.80 M	28.33 DEG	177.56 DEG	1601.21 M	-612.49 M	50.83 M
1764.50 M	28.20 DEG	177.81 DEG	1615.92 M	-620.39 M	51.15 M
1782.80 M	28.20 DEG	174.99 DEG	1632.04 M	-629.02 M	51.69 M
1801.40 M	27.45 DEG	174.31 DEG	1648.49 M	-637.66 M	52.50 M
1820.90 M	26.80 DEG	174.16 DEG	1665.85 M	-646.51 M	53.39 M
1839.90 M	26.43 DEG	179.26 DEG	1682.83 M	-655.00 M	53.88 M
1858.60 M	26.85 DEG	179.06 DEG	1699.55 M	-663.39 M	54.00 M
1878.20 M	27.68 DEG	176.39 DEG	1716.97 M	-672.36 M	54.36 M
1897.30 M	28.18 DEG	177.99 DEG	1733.85 M	-681.29 M	54.80 M
1916.30 M	27.95 DEG	174.66 DEG	1750.61 M	-690.21 M	55.37 M
1935.70 M	28.00 DEG	174.84 DEG	1767.74 M	-699.28 M	56.20 M
1954.80 M	28.48 DEG	171.96 DEG	1784.57 M	-708.25 M	57.24 M
1973.30 M	28.05 DEG	171.06 DEG	1800.87 M	-716.92 M	58.54 M
2002.40 M	28.65 DEG	175.21 DEG	1826.48 M	-730.63 M	60.19 M
2020.10 M	28.63 DEG	173.36 DEG	1842.01 M	-739.07 M	61.03 M
2040.60 M	28.10 DEG	174.49 DEG	1860.05 M	-748.76 M	62.06 M
2059.40 M	28.35 DEG	174.46 DEG	1876.61 M	-757.61 M	62.92 M
2078.80 M	28.20 DEG	173.34 DEG	1893.70 M	-766.75 M	63.89 M
2097.90 M	28.43 DEG	174.41 DEG	1910.51 M	-775.75 M	64.86 M
2116.80 M	27.98 DEG	174.91 DEG	1927.17 M	-784.65 M	65.69 M
2136.00 M	27.85 DEG	173.16 DEG	1944.13 M	-793.59 M	66.63 M
2155.20 M	27.88 DEG	173.61 DEG	1961.11 M	-802.50 M	67.66 M
2174.30 M	27.53 DEG	176.01 DEG	1978.02 M	-811.34 M	68.46 M
2193.50 M	27.60 DEG	173.81 DEG	1995.04 M	-820.19 M	69.25 M
2212.40 M	27.68 DEG	177.74 DEG	2011.78 M	-828.94 M	69.90 M
2231.40 M	27.43 DEG	177.46 DEG	2028.63 M	-837.72 M	70.27 M
2250.70 M	27.17 DEG	177.09 DEG	2045.78 M	-846.56 M	70.69 M
2269.80 M	27.30 DEG	175.24 DEG	2062.76 M	-855.28 M	71.27 M
2288.20 M	27.18 DEG	176.16 DEG	2079.12 M	-863.68 M	71.90 M
2307.90 M	27.38 DEG	173.56 DEG	2096.63 M	-872.67 M	72.71 M
2327.10 M	27.13 DEG	173.26 DEG	2113.70 M	-881.41 M	73.72 M
2345.60 M	26.85 DEG	171.21 DEG	2130.18 M	-889.72 M	74.86 M
2367.40 M	26.45 DEG	171.59 DEG	2149.67 M	-899.39 M	76.32 M
2386.40 M	26.08 DEG	172.41 DEG	2166.70 M	-907.72 M	77.49 M
2405.50 M	26.27 DEG	174.21 DEG	2183.85 M	-916.09 M	78.48 M
2424.50 M	25.89 DEG	172.93 DEG	2200.91 M	-924.39 M	79.41 M
2443.80 M	25.90 DEG	172.76 DEG	2218.27 M	-932.75 M	80.46 M
2462.40 M	25.60 DEG	173.46 DEG	2235.02 M	-940.77 M	81.43 M
2481.90 M	25.77 DEG	173.96 DEG	2252.60 M	-949.17 M	82.36 M
2501.10 M	26.10 DEG	171.34 DEG	2269.86 M	-957.50 M	83.43 M
2520.00 M	26.23 DEG	169.89 DEG	2286.83 M	-965.72 M	84.79 M
2539.30 M	25.85 DEG	171.04 DEG	2304.17 M	-974.08 M	86.19 M
2558.40 M	26.00 DEG	168.91 DEG	2321.35 M	-982.30 M	87.65 M
2577.50 M	27.08 DEG	171.04 DEG	2338.43 M	-990.70 M	89.13 M
2596.60 M	29.00 DEG	170.86 DEG	2355.29 M	-999.57 M	90.54 M
2615.70 M	28.98 DEG	168.09 DEG	2372.00 M	-1008.67 M	92.24 M
2636.20 M	28.70 DEG	162.91 DEG	2389.95 M	-1018.24 M	94.71 M
2655.40 M	31.20 DEG	157.63 DEG	2406.59 M	-1027.26 M	97.95 M
2674.50 M	30.23 DEG	156.34 DEG	2423.01 M	-1036.24 M	101.76 M
2692.70 M	29.35 DEG	152.93 DEG	2438.80 M	-1044.41 M	105.64 M
2711.70 M	30.30 DEG	149.18 DEG	2455.29 M	-1052.67 M	110.21 M
2731.70 M	33.85 DEG	146.96 DEG	2472.23 M	-1061.68 M	115.83 M
2750.90 M	38.02 DEG	147.68 DEG	2487.77 M	-1071.17 M	121.91 M
2770.00 M	43.57 DEG	149.83 DEG	2502.23 M	-1081.83 M	128.38 M
2789.70 M	46.51 DEG	152.92 DEG	2516.15 M	-1094.07 M	135.05 M
2808.10 M	51.29 DEG	156.48 DEG	2528.24 M	-1106.60 M	140.97 M
2826.60 M	56.96 DEG	156.25 DEG	2539.08 M	-1120.33 M	146.98 M
2845.70 M	58.43 DEG	154.26 DEG	2549.28 M	-1134.99 M	153.73 M
2864.60 M	60.51 DEG	154.75 DEG	2558.88 M	-1149.68 M	160.74 M
2884.40 M	65.01 DEG	155.49 DEG	2567.94 M	-1165.65 M	168.14 M
2921.50 M	69.91 DEG	155.80 DEG	2582.16 M	-1196.85 M	182.27 M
2941.30 M	71.55 DEG	155.72 DEG	2588.70 M	-1213.90 M	189.94 M
2959.60 M	73.46 DEG	154.72 DEG	2594.20 M	-1229.74 M	197.26 M
2979.10 M	75.84 DEG	153.37 DEG	2599.36 M	-1246.65 M	205.49 M
2998.00 M	76.03 DEG	151.71 DEG	2603.95 M	-1262.92 M	213.94 M
3017.10 M	77.46 DEG	150.61 DEG	2608.33 M	-1279.20 M	222.91 M
3036.60 M	79.14 DEG	148.09 DEG	2612.29 M	-1295.63 M	232.64 M
3055.70 M	79.70 DEG	146.23 DEG	2615.79 M	-1311.40 M	242.82 M
3074.40 M	81.13 DEG	144.60 DEG	2618.91 M	-1326.58 M	253.29 M
3093.80 M	82.27 DEG	142.15 DEG	2621.71 M	-1341.98 M	264.74 M
3112.90 M	82.06 DEG	141.49 DEG	2624.31 M	-1356.86 M	276.44 M
3131.60 M	83.10 DEG	140.09 DEG	2626.72 M	-1371.23 M	288.16 M
3151.10 M	85.27 DEG	139.08 DEG	2628.70 M	-1385.99 M	300.74 M
3170.30 M	85.54 DEG	135.98 DEG	2630.24 M	-1400.11 M	313.66 M
3189.20 M	86.71 DEG	134.60 DEG	2631.52 M	-1413.51 M	326.92 M
3208.50 M	89.14 DEG	133.04 DEG	2632.21 M	-1426.86 M	340.84 M
3227.80 M	90.34 DEG	130.88 DEG	2632.30 M	-1439.77 M	355.19 M
3246.70 M	90.03 DEG	130.57 DEG	2632.24 M	-1452.10 M	369.51 M
3266.10 M	90.31 DEG	130.37 DEG	2632.18 M	-1464.69 M	384.27 M
3294.80 M	88.15 DEG	128.00 DEG	2632.57 M	-1482.82 M	406.51 M
3314.10 M	88.35 DEG	126.73 DEG	2633.16 M	-1494.53 M	421.84 M
3333.10 M	88.56 DEG	126.91 DEG	2633.67 M	-1505.91 M	437.05 M
3352.90 M	88.77 DEG	126.15 DEG	2634.13 M	-1517.69 M	452.95 M
3371.80 M	88.15 DEG	127.14 DEG	2634.64 M	-1528.97 M	468.11 M
3390.20 M	88.12 DEG	125.36 DEG	2635.24 M	-1539.84 M	482.94 M
3410.04 M	87.91 DEG	125.43 DEG	2635.93 M	-1551.33 M	499.10 M
3429.50 M	87.18 DEG	127.10 DEG	2636.76 M	-1562.83 M	514.78 M
3448.50 M	88.18 DEG	128.12 DEG	2637.53 M	-1574.41 M	529.82 M
3467.90 M	89.62 DEG	126.67 DEG	2637.90 M	-1586.19 M	545.23 M
3487.60 M	88.25 DEG	124.87 DEG	2638.27 M	-1597.70 M	561.21 M
3506.60 M	87.70 DEG	126.00 DEG	2638.94 M	-1608.71 M	576.68 M
3525.80 M	88.77 DEG	125.93 DEG	2639.53 M	-1619.98 M	592.21 M
3545.10 M	89.42 DEG	126.21 DEG	2639.84 M	-1631.34 M	607.81 M
3563.90 M	89.49 DEG	126.78 DEG	2640.01 M	-1642.52 M	622.92 M
3583.40 M	88.53 DEG	126.65 DEG	2640.35 M	-1654.18 M	638.55 M
3602.50 M	88.08 DEG	127.94 DEG	2640.92 M	-1665.75 M	653.74 M
3621.70 M	88.97 DEG	128.37 DEG	2641.41 M	-1677.61 M	668.83 M
3641.00 M	89.38 DEG	129.21 DEG	2641.69 M	-1689.70 M	683.87 M
3660.30 M	89.79 DEG	127.17 DEG	2641.83 M	-1701.63 M	699.04 M
3682.80 M	87.57 DEG	124.73 DEG	2642.35 M	-1714.83 M	717.25 M
3700.00 M</					

Company: **CHEVRON CANADA RESOURCES LTD.**

Schlumberger

Well: **CHEVRON ET AL LIARD 3K-29**

Field: **LIARD**

Territory: **NORTHWEST TERRITORIES**

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