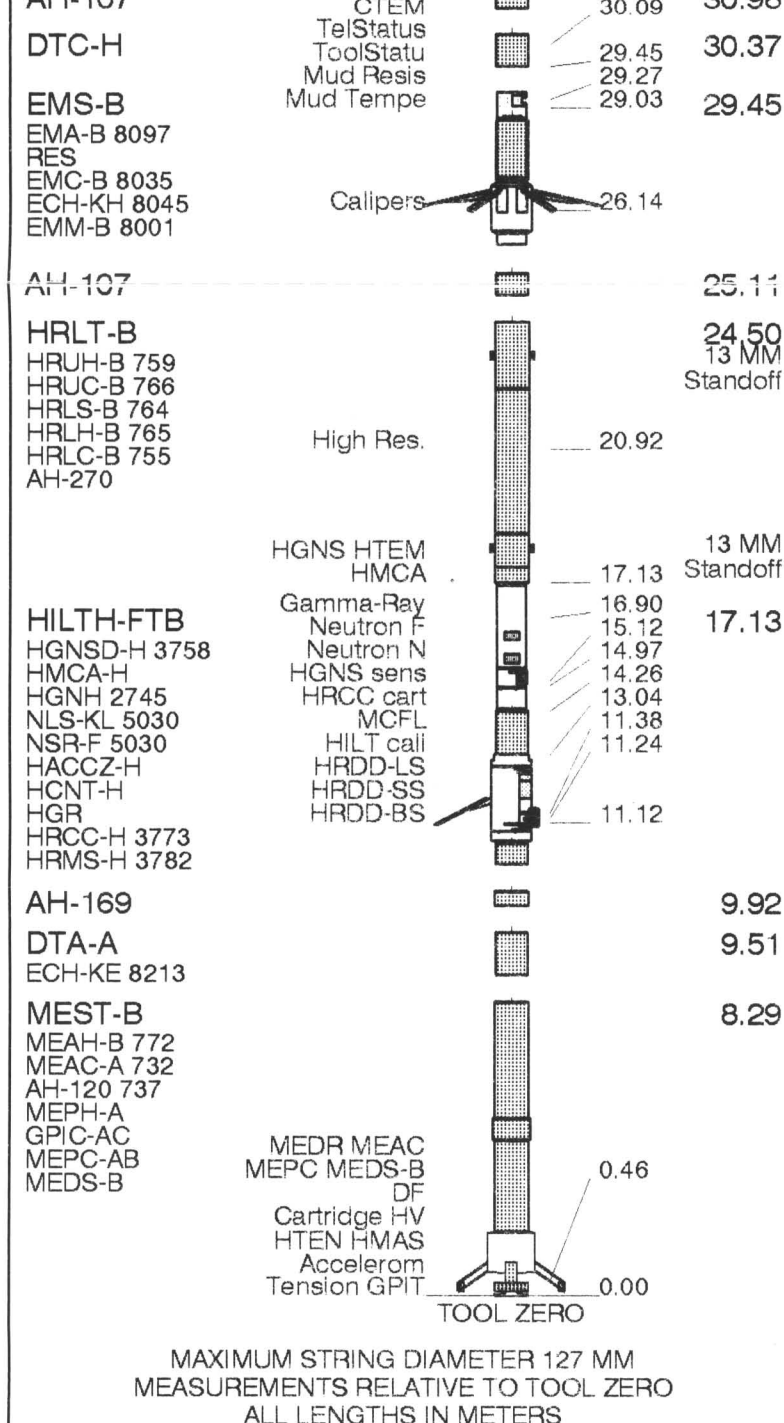




Company: CHEVRON CANADA RESOURCES LTD. Well: CHEVRON ET AL LIARD 3K-29

Input DLIS Files

DEFAULT FMS_TLD_MCFL_CNL_065PUP FN:64 PRODUCER 23-Feb-2004 00:24 3692.2 M 2781.0 M

OP System Version: 11C0-305

MCM

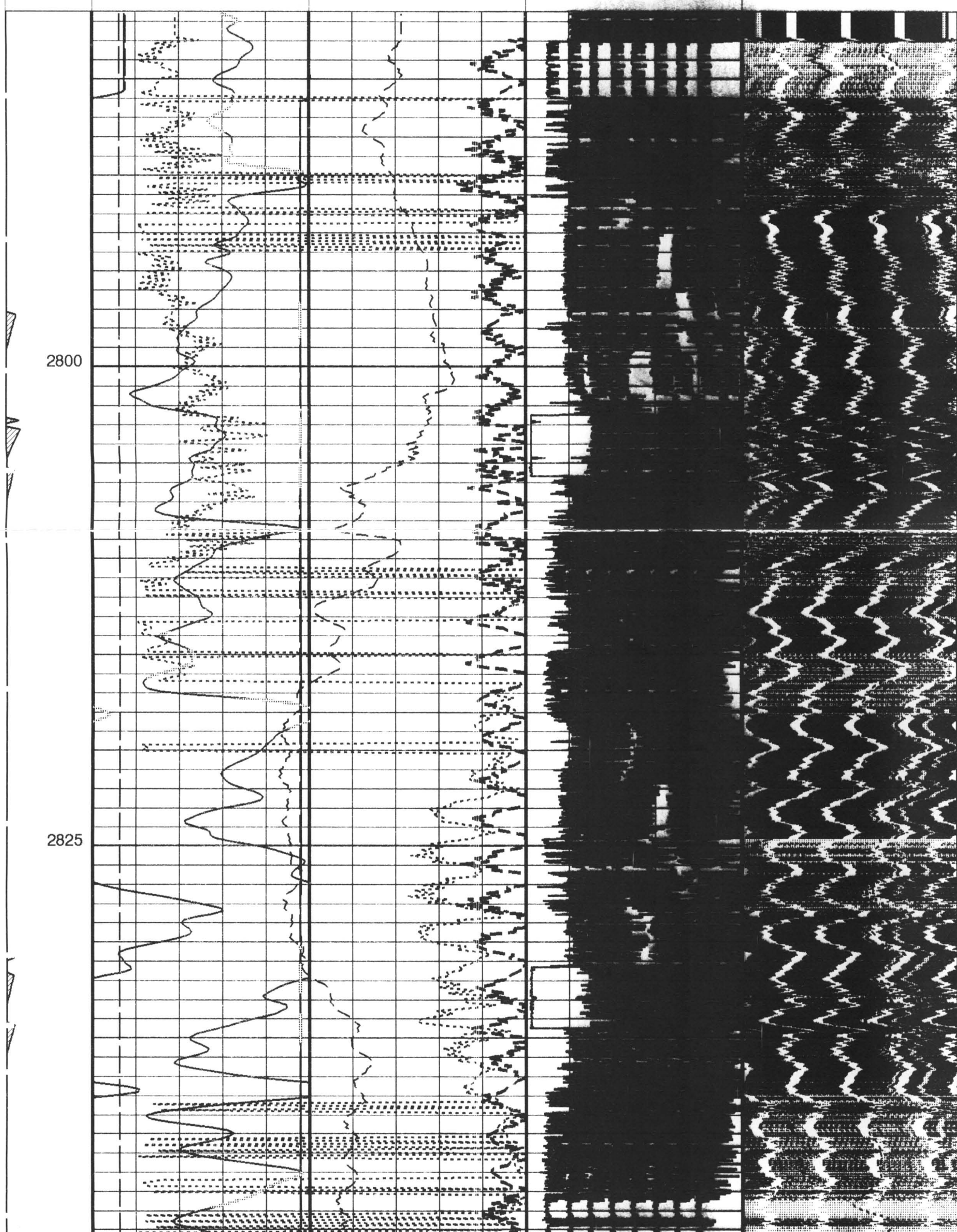
MEST-B 11C0-305 DTA-A OP11-KP1
HILTH-FTB op11kp1_newpex150kit_G_b HRLT-B op11kp1_HrltKit_b
EMS-B 11C0-305 DTC-H 11C0-305
SPA-A 11C0-305

PIP SUMMARY

Time Mark Every 60 S

FMS MAIN PASS

	Relative Bearing (RB) (DEG)	Data Button 8 - Varies with RBS (U-MEST_RB8)
-180	180	-80 (----) 20
	Pad One Azimuth (P1AZ MEST) (DEG)	Data Button 7 - Varies with RBS (U-MEST_RB7)
-40	360	-70 (----) 30
	Hole Azimuth (HAZIM) (DEG)	Data Button 6 - Varies with RBS (U-MEST_RB6)
-40	360	-60 (----) 40
	Gamma Ray (GR) (GAPI)	Data Button 5 - Varies with RBS (U-MEST_RB5)
0	150	-50 (----) 50
	Deviation (DEVIM) (DEG)	Data Button 4 - Varies with RBS (U-MEST_RB4)
0	10	-40 (----) 60
Tool/Tot. Drag From D4T to STIA	Caliper 2 (C2) (MM)	Data Button 3 - Varies with RBS (U-MEST_RB3)
100	500	-30 (----) 70
Cable Drag From D4T to STIT	Caliper 1 (C1) (MM)	Data Button 2 - Varies with RBS (U-MEST_RB2)
100	500	-20 (----) 80
Stuck Stretch (STIT)	Bit Size (BS) (MM)	Data Button 1 - Varies with RBS (U-MEST_RB1)
0	125 375	-10 (----) 90
	EMEX Voltage (EV) (V)	Tension (TENS) (N)
0	50	20000 0



2850

2875

2900

Casing

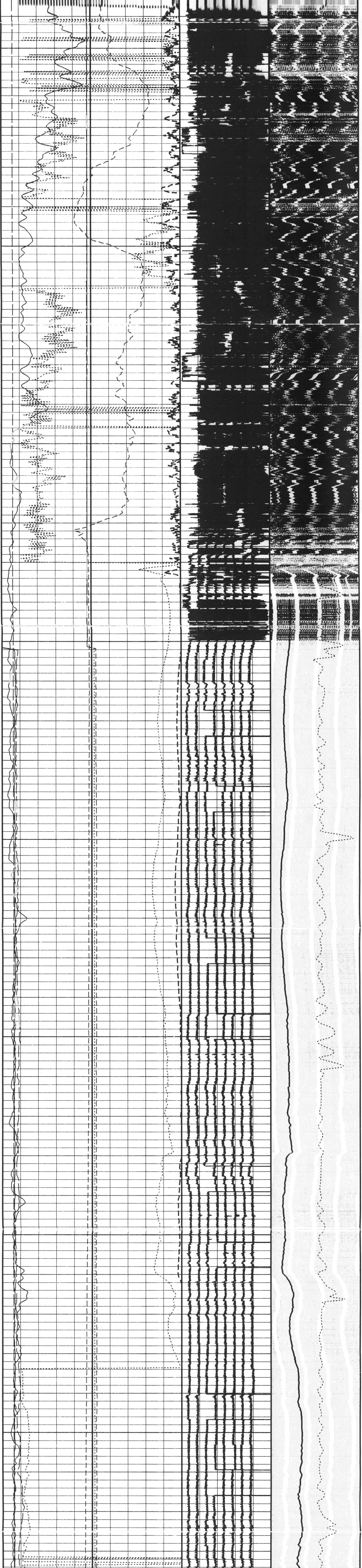
2925

2950

2975

3000

3025



3050

3075

3100

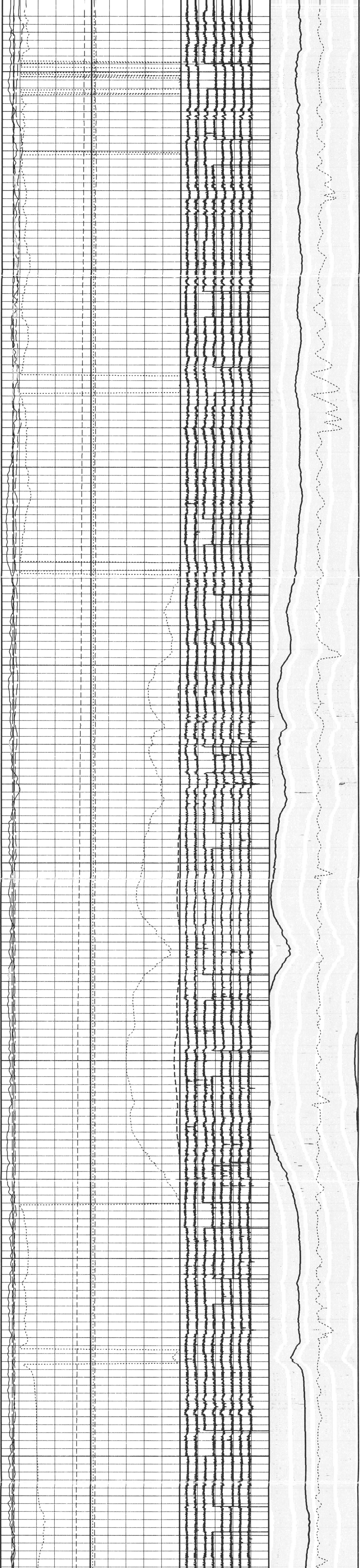
3125

3150

3175

3200

3225



3250

3275

3300

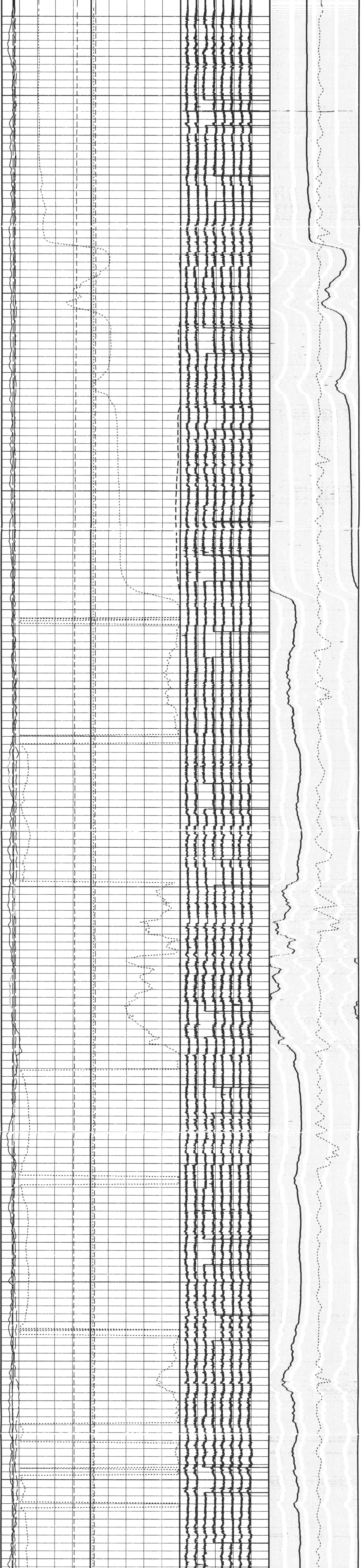
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3350

3375

3400

3425



3450

3475

3500

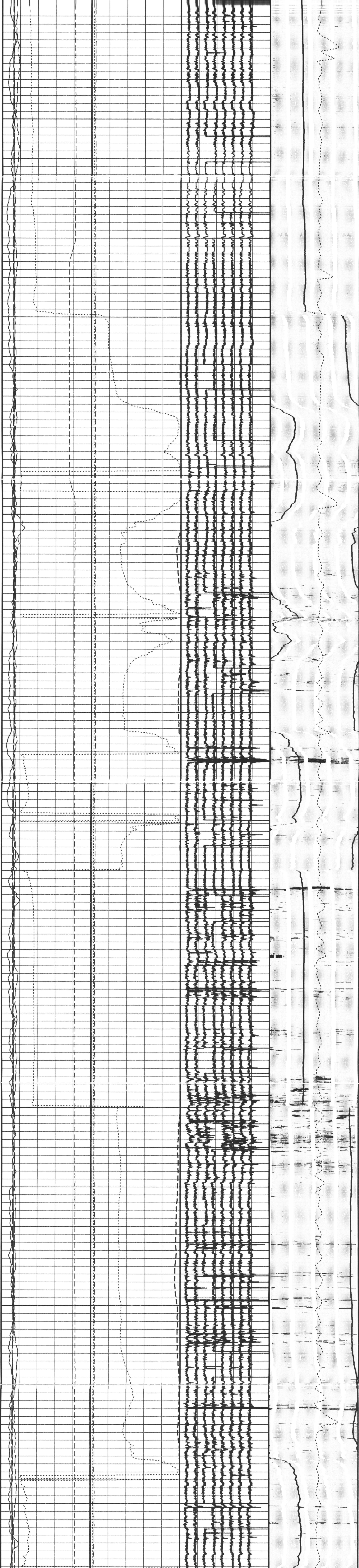
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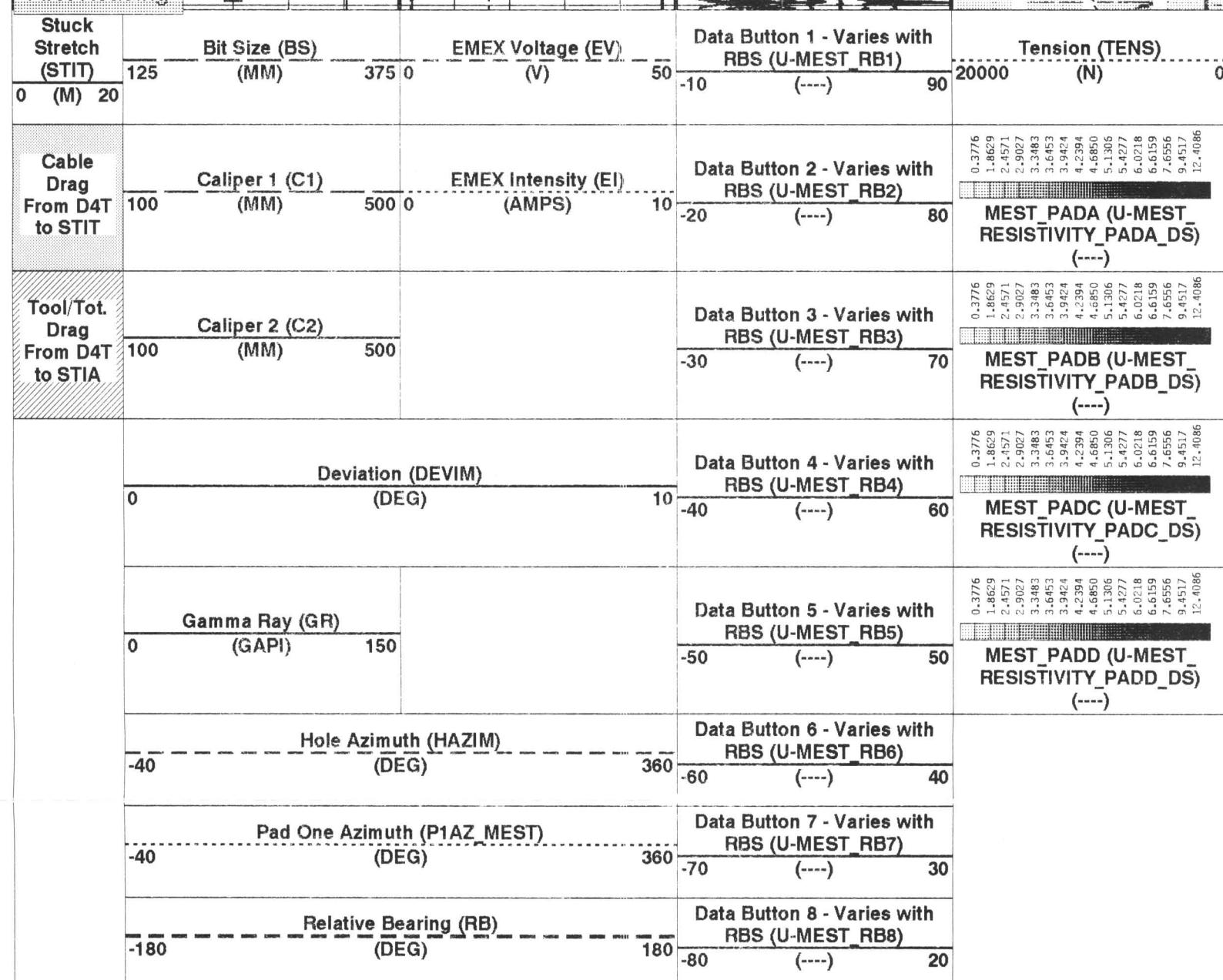
3550

3575

3600

3625



[illegible]

Time Mark Every 60 S

Format: MEST C WRAP BY P1AZ Vertical Scale: 1:240 Graphics File Created: 23-Feb-2004 01:42

McM

[illegible]

DEFAULT	EMS TLD MGEL ONL 065RUR	EN-01	PRODUCED	01 FEB 000100:01	0000 0 M	0701 0 M
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100% of the respondents were female, and 90% were aged 18-34. The majority of respondents were from the United States (60%), followed by Canada (20%), and the United Kingdom (10%). The majority of respondents were from the United States (60%), followed by Canada (20%), and the United Kingdom (10%).

Well: CHEVRON ET AL LIARD 3K-29

BEFORE: END THE MODEL CAN CHANGE ENJOY WERBASTE 10.7.1 10.7.2 10.7.3

050 - HALL OF RECORDS

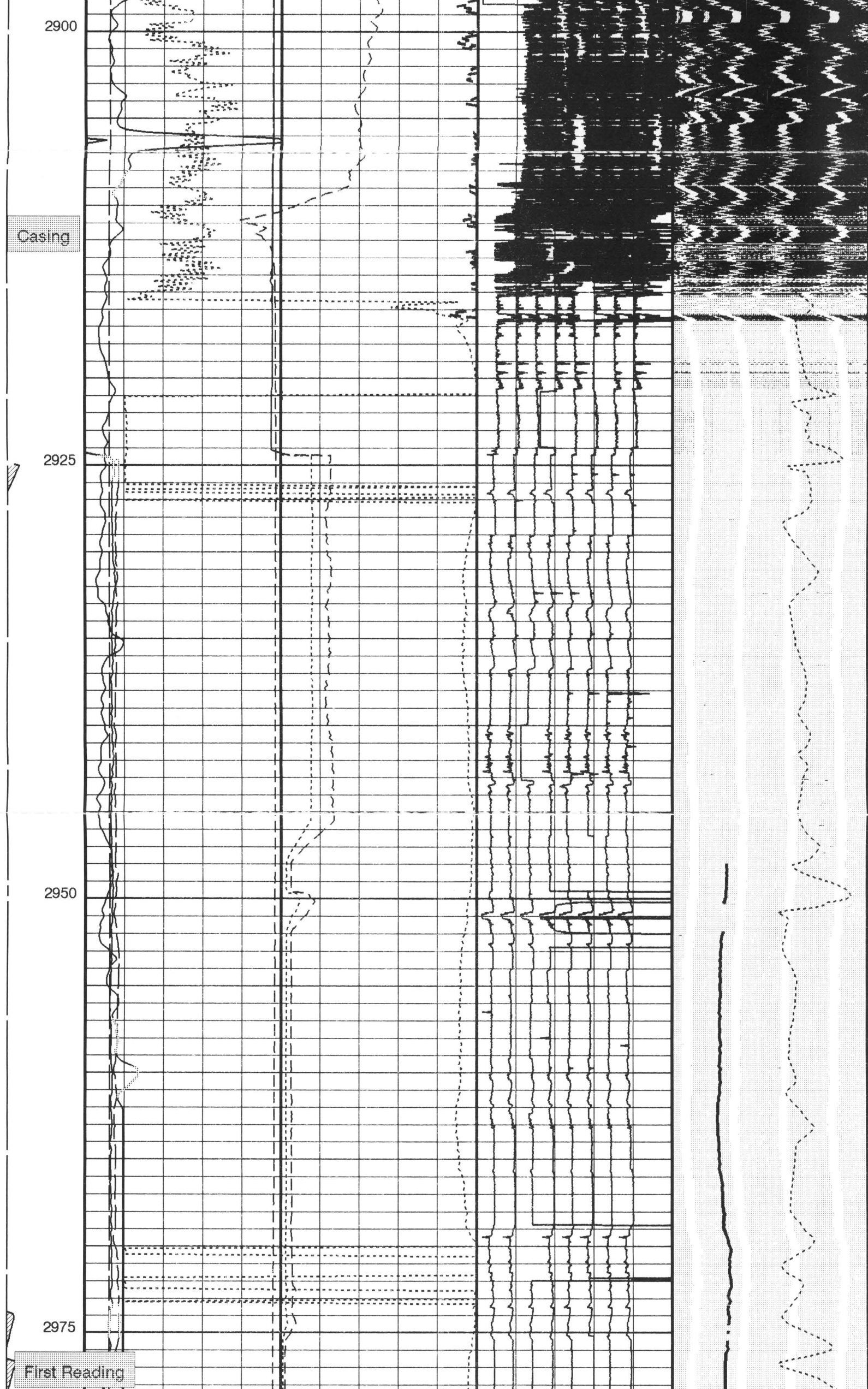
MCM

PIP SUMMARY

Figure 1

Time Mark Every 60 S





Stuck Stretch (STIT)	125	Bit Size (BS)	375	0	EMEX Voltage (EV)	50	Data Button 1 - Varies with RBS (U-MEST_RB1)	90	Tension (TENS)	0
0 (M)	20	(MM)			(V)		(----		(N)	
Cable Drag From D4T to STIT	100	Caliper 1 (C1)	500	0	EMEX Intensity (EI)	10	Data Button 2 - Varies with RBS (U-MEST_RB2)	80	MEST_PADA (U-MEST_RESISTIVITY_PADA_DS)	0.3776
		(MM)			(AMPS)		(----		(----	1.8629
Tool/Tot. Drag From D4T to STIA	100	Caliper 2 (C2)	500				Data Button 3 - Varies with RBS (U-MEST_RB3)	70	MEST_PADB (U-MEST_RESISTIVITY_PADB_DS)	2.4571
		(MM)					(----		(----	2.9027
Deviation (DEVIM)					Data Button 4 - Varies with RBS (U-MEST_RB4)					3.4963
0 (DEG)					-40 (----					3.5453
										3.9424
Gamma Ray (GR)					Data Button 5 - Varies with RBS (U-MEST_RB5)					4.2394
0 (GAPI)					-50 (----					4.6850
										5.1306
Hole Azimuth (HAZIM)					Data Button 6 - Varies with RBS (U-MEST_RB6)					5.4277
-40 (DEG)					-60 (----					6.0218
										6.4159
Pad One Azimuth (P1AZ MEST)					Data Button 7 - Varies with RBS (U-MEST_RB7)					6.8559
-40 (DEG)					-70 (----					7.2959
										9.4517
Relative Bearing (RB)					Data Button 8 - Varies with RBS (U-MEST_RB8)					12.4086
-180 (DEG)					-80 (----					

Time Mark Every 60 S PIP SUMMARY FMS REPEAT PASS

Parameters		
DLIS Name	Description	Value
AFMO	MEST-B: Micro Electrical Scanner - B (Slim)	
ICMO	Accelerometer Filtering Mode	MOVING AVERAGE
MDEC	Inclinometry Computation Mode	AUTOMATIC_SELECTION
MLM	Magnetic Field Declination	24.6572
RBS	MEST Logging Mode	SCAN1800
XGAI	Resistivity Button Selection	AUTO
XOFF	Gain	GAIN_3
	Offset	OFFSET_0
SPVD	DIR: Directional Survey Computation	
TIMD	TVD of Starting Point	0
TIVD	Along-hole depth of Tie-in Point	75.2
	TVD of Tie-in Point	75.2
LBFR	STI: Stuck Tool Indicator	
STKT	Trigger for MAXIS First Reading Label	TDL
TDD	STI Stuck Threshold	1.524
TDL	Total Depth - Driller	3700.00
	Total Depth - Logger	3692.00
BS	System and Miscellaneous	
DO	Bit Size	156.000
PP	Depth Offset for Playback	0.0
	Playback Processing	NORMAL

Format: MEST_C_WRAP_BY_P1AZ Vertical Scale: 1:240 Graphics File Created: 23-Feb-2004 02:42

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		

Input DLIS Files						
DEFAULT	FMS_TLD_MCFL_CNL_069PUP	FN:68	PRODUCER	23-Feb-2004 00:53	2978.4 M	2892.6 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 14:35							
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	
BS Window Sum	28520	N/A	28520	N/A	N/A	N/A	CPS
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	
LS Window Sum	1334	N/A	1323	N/A	N/A	N/A	CPS
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
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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	2.363	--	--	--	--	

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	68660	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

High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO

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 PI - 0	0	N/A	-317.9	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-320.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-320.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-322.6	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-310.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-327.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	324.3	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 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	Value
Before		0.7637	Before		0.4805	Before		0.3027
	0.7281 (Minimum) 0.7664 (Nominal) 0.8048 (Maximum)			0.4584 (Minimum) 0.4825 (Nominal) 0.5066 (Maximum)			0.2894 (Minimum) 0.3047 (Nominal) 0.3199 (Maximum)	
Phase	BS Window Sum CPS	Value	Phase	SS Window Sum CPS	Value	Phase	LS Window Sum CPS	Value
Before		28520	Before		12600	Before		1323
	27090 (Minimum) 28520 (Nominal) 29940 (Maximum)			11990 (Minimum) 12620 (Nominal) 13250 (Maximum)			1267 (Minimum) 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	Value
Before		1447	Before		1404	Before		1359
	1321 (Minimum) 1421 (Nominal) 1521 (Maximum)			1294 (Minimum) 1394 (Nominal) 1494 (Maximum)			1261 (Minimum) 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 %	Value
Before		10.62	Before		9.446	Before		9.019
	9.633 (Minimum) 10.63 (Nominal) 11.63 (Maximum)			8.427 (Minimum) 9.427 (Nominal) 10.43 (Maximum)			8.081 (Minimum) 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			Value
Before				3828	Before				3774	Before				3784
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	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)	254.0 (Maximum)			228.6 (Minimum)	304.8 (Nominal)	381.0 (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 (Jlg - Bkg) GAPI			Value	Phase	Gamma Ray (Calibrated) GAPI			Value
Before				66.14	Before				156.3	Before				167.0
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		142.1 (Minimum)	156.3 (Nominal)	170.5 (Maximum)		152.0 (Minimum)	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/S ²		Value
Before			9.825
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)		2606 (Maximum)		1676 (Minimum)		1686 (Nominal)		1696 (Maximum)
Phase		Pe Aluminum			Value	Phase		Pe Magnesium		Value
Master					2.545	Master				2.618
2.470 (Minimum)		2.570 (Nominal)		2.670 (Maximum)		2.550 (Minimum)		2.650 (Nominal)		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 %			Value
Master						0.3931	Master						0.4264	Master						0.8353
-0.6000 (Minimum)			0 (Nominal)			0.6000 (Maximum)	-1.000 (Minimum)			0 (Nominal)			1.000 (Maximum)	-1.500 (Minimum)			0 (Nominal)			1.500 (Maximum)
Phase			BS Max Deviation %			Value	Phase			SS Max Deviation %			Value	Phase			LS Max Deviation %			Value
Master						1.134	Master						1.624	Master						1.817
-1.600 (Minimum)			0 (Nominal)			1.600 (Maximum)	-2.500 (Minimum)			0 (Nominal)			2.500 (Maximum)	-3.500 (Minimum)			0 (Nominal)			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)	40.00 (Maximum)		5.000 (Minimum)	28.50 (Nominal)	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)		Value
Master				5189	Master				2196	Master			2.363
	5000 (Minimum)	6031 (Nominal)	7200 (Maximum)		2075 (Minimum)	2793 (Nominal)	3125 (Maximum)		2.120 (Minimum)	2.159 (Nominal)	2.540 (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	HRLH - B	765	
HRLT Lower Cartridge	HRLC - B	755	
HRLT upper Housing	HRLH - 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		70980	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		71660	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 Bridle#9-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						

Company: CHEVRON CANADA RESOURCES LTD.

Well: CHEVRON ET AL LIARD 3K-29

Field: LIARD

Territory: NORTHWEST TERRITORIES

Schlumberger

FORMATION MICRO-SCANNER LOG