

Company: Lamont Doherty

Well: IODP EXP 311 Site U1327D

Field: CAS-01B

Country: Canada

Ocean: Pacific

Phasor Induction

Country: Canada
Field: CAS-01B
Location: Rig- Joides Resolution
Well: IODP EXP 311 Site U1327D
Company: Lamont Doherty

LOCATION	
Rig- Joides Resolution	Elev.: K.B. 11.3 m G.L. -1314.6 m D.F. 11 m
Permanent Datum:	GROUND LEVEL
Log Measured From: DES	Elev.: 0 m
Drilling Measured From: DES	11.3 m above Perm. Datum

API Serial No.	Max. Hole Devi.	Longitude 55	Latitude 55
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Logging Date	
Run Number	1
Depth Driller	1614.6 m
Schlumberger Depth	1609 m
Bottom Log Interval	1607 m
Top Log Interval	1270 m
Casing Driller Size @ Depth	0.000 in @ 1387 m
Casing Schlumberger	1384 m
Bit Size	9.875 in

Type Fluid In Hole		Septolite with Barite
Density	Viscosity	1.26 g/cm3
Fluid Loss	PH	0 cm3

RM @ Measured Temperature	@	23 degC
RMF @ Measured Temperature	@	
RMC @ Measured Temperature	@	
Source RMF	RMC	
RM @ MRT	RMF @ MRT	@ 18
Maximum Recorded Temperatures	18 degC	
Circulation Stopped	10/7/05	21:00
Logger On Bottom	9/30/05	See Log
Unit Number	99	Houston
Recorded By	Steve Kittredge	
Witnessed By	Gilles Guerin, Alberto Malinverno	

Logging Date	Run 1	Run 2	Run
Run Number			
Depth Driller			
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval			
Casing Driller Size @ Depth	@		
Casing Schlumberger			
Bit Size			
Type Fluid In Hole			
Density			
Fluid Loss			
Source Of Sample			
RM @ Measured Temperature	@		
RMF @ Measured Temperature	@		
RMC @ Measured Temperature	@		
Source RMF	RMC		
RM @ MRT	RMF @ MRT	@	
Maximum Recorded Temperatures			
Circulation Stopped			
Logger On Bottom			
Unit Number			
Recorded By			
Witnessed By			

Logging Date	
Run Number	
Depth Driller	
Schlumberger Depth	
Bottom Log Interval	
Top Log Interval	
Casing Driller Size @ Depth	@
Casing Schlumberger	
Bit Size	
Type Fluid In Hole	
Density	Viscosity
Fluid Loss	PH
Source Of Sample	
RM @ Measured Temperature	@
RMF @ Measured Temperature	@
RMC @ Measured Temperature	@
Source RMF	RMC
RM @ MRT	RMF @ MRT
Maximum Recorded Temperatures	
Circulation Stopped	
Logger On Bottom	
Unit Number	
Recorded By	
Witnessed By	

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: WSTA OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
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REMARKS: RUN NUMBER 1 Hole drilled with APC/XCB. All depths in Meters Below Rig Floor (MBRF). Hole flushed with Sepiolite/Barite mud. Sae Floor Driller- 1314.6 MBRF Sea Floor Logger- 1314 MBRF. Total Depth Driller- 1614.6 MBRF Total Depth Logger- 1609 MBRF. Casing bottom Driller- 1387 MBRF. Casing Bottom Logger- 1384 MBRF Caliper was broken when heave comp was turned off before entering pipe. Heave was 3-4 meters.	REMARKS: RUN NUMBER 2
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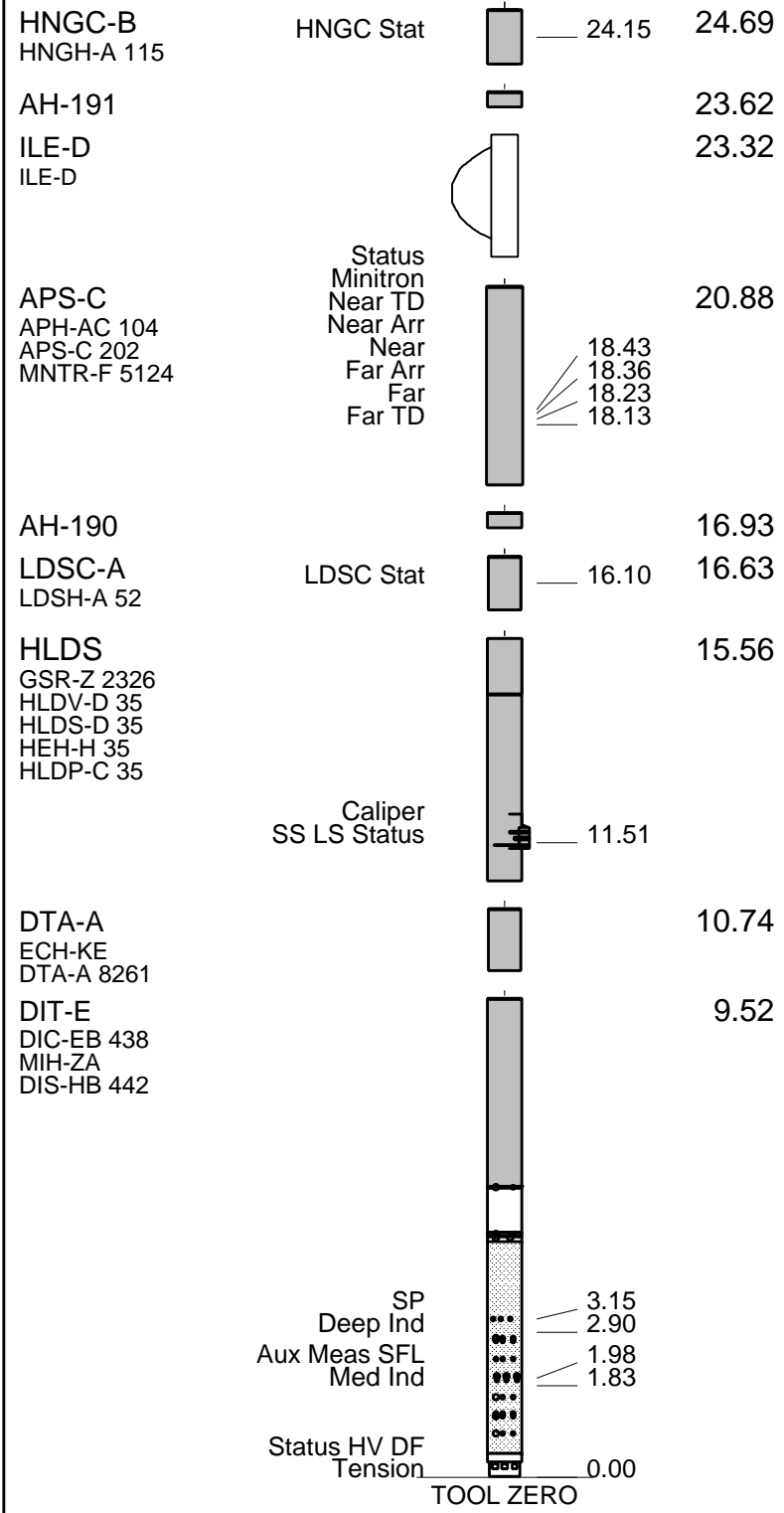
RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:	12C0-301		PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1		RUN 2	
SURFACE EQUIPMENT			
SFT-281 6250			
SFT-178 6250			
GSR-U 135			
WITM (DTS)-A			

DOWNHOLE EQUIPMENT			
LEH-QT			28.99
LEH-QT 1726			
DTC-H	CTEM		27.82
ECH-KC 9841	TelStatus		28.10
	ToolStatu		27.19
HNGS-BA	Upper_1		26.49
HNGS-BA 194	Lower_2		26.27

HNSH-BA 205



MAXIMUM STRING DIAMETER 3.88 IN
 MEASUREMENTS RELATIVE TO TOOL ZERO
 ALL LENGTHS IN METERS

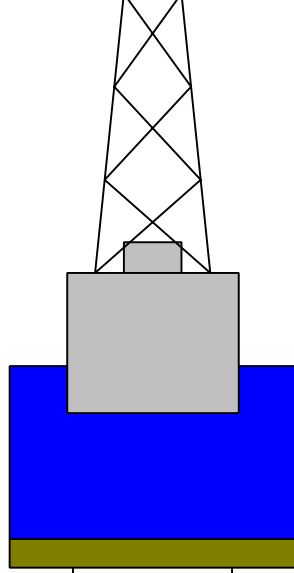
Production String	(in)	(m)	Well Schematic	(m)	(in)	Casing String
	OD	ID		MD	OD	

Kelly Bushing Elevation
 Derrick Floor Elevation

 Mean Sea Level

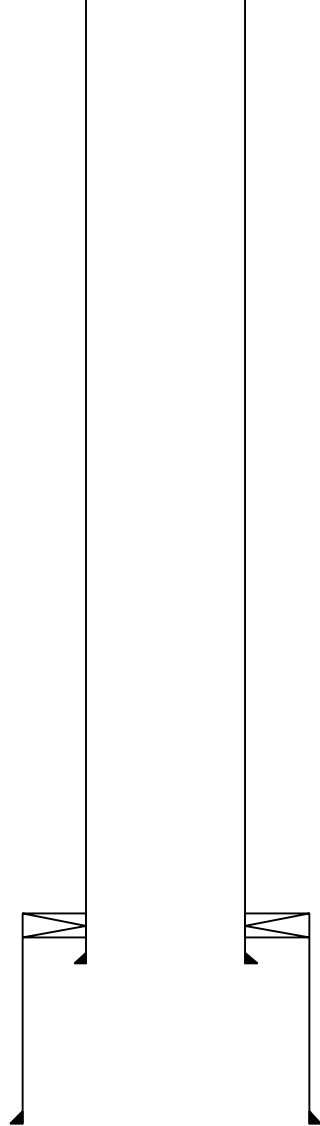
11.3
 11.0

 0.0



0.0 5.500

Casing String



1314.6 9.875
1387.6 ~~5.500~~ 9.875

 1614.6 9.875

Casing String
~~Casing String~~

 Casing Shoe

Schlumberger

Main Up Log

MAXIS Field Log

Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_013LUP	FN:12	PRODUCER	08-Oct-2005 02:24	1609.3 M	1270.3 M
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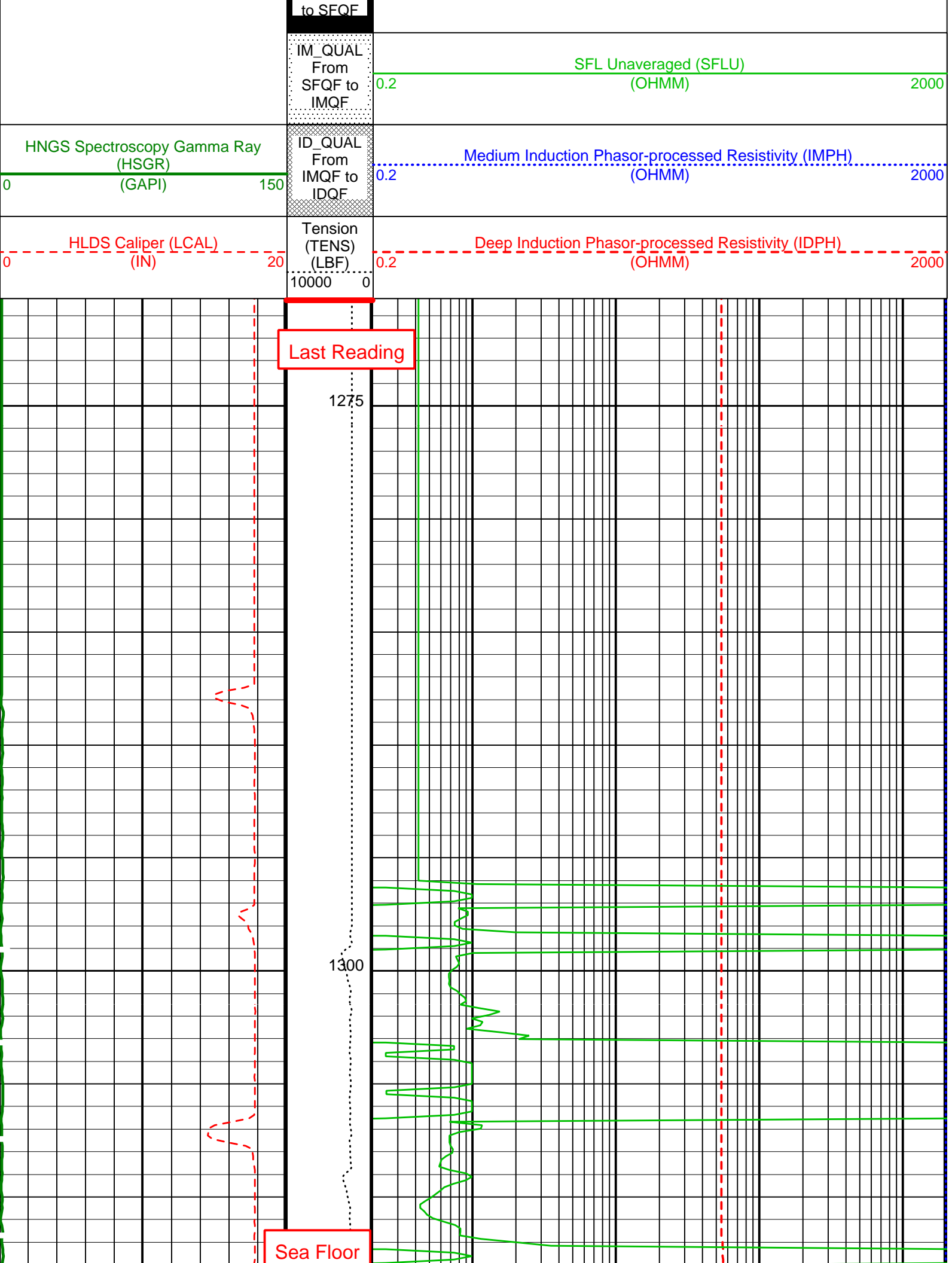
OP System Version: 12C0-301 MCM

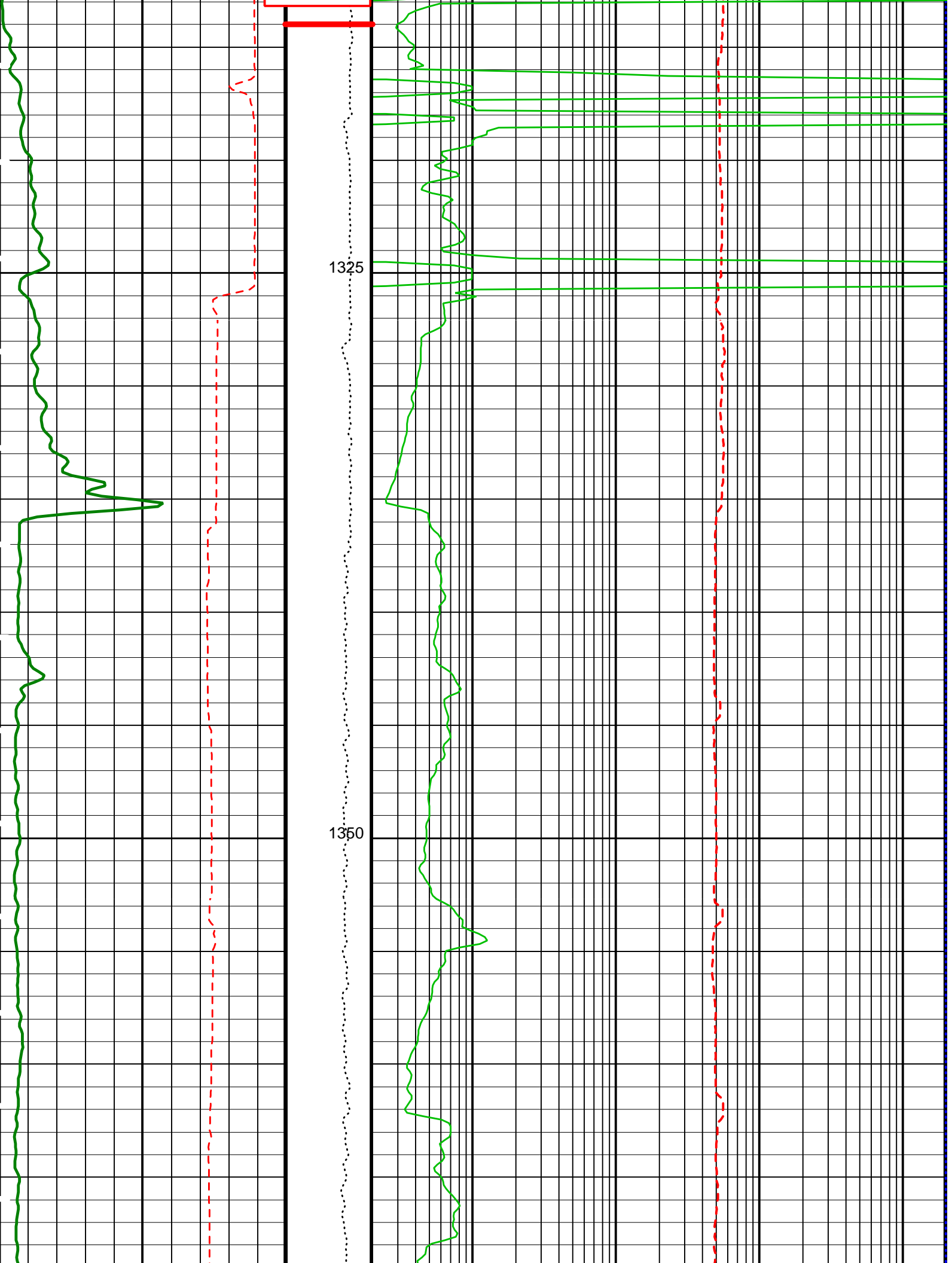
DIT-E	12C0-301	DTA-A	12C0-301
HLDS	SPC-2602-NUCL	LDSC-A	SPC-2602-NUCL
APS-C	SPC-2602-NUCL	HNGC-B	SPC-2602-NUCL
HNGS-BA	SPC-2602-NUCL	DTC-H	12C0-301

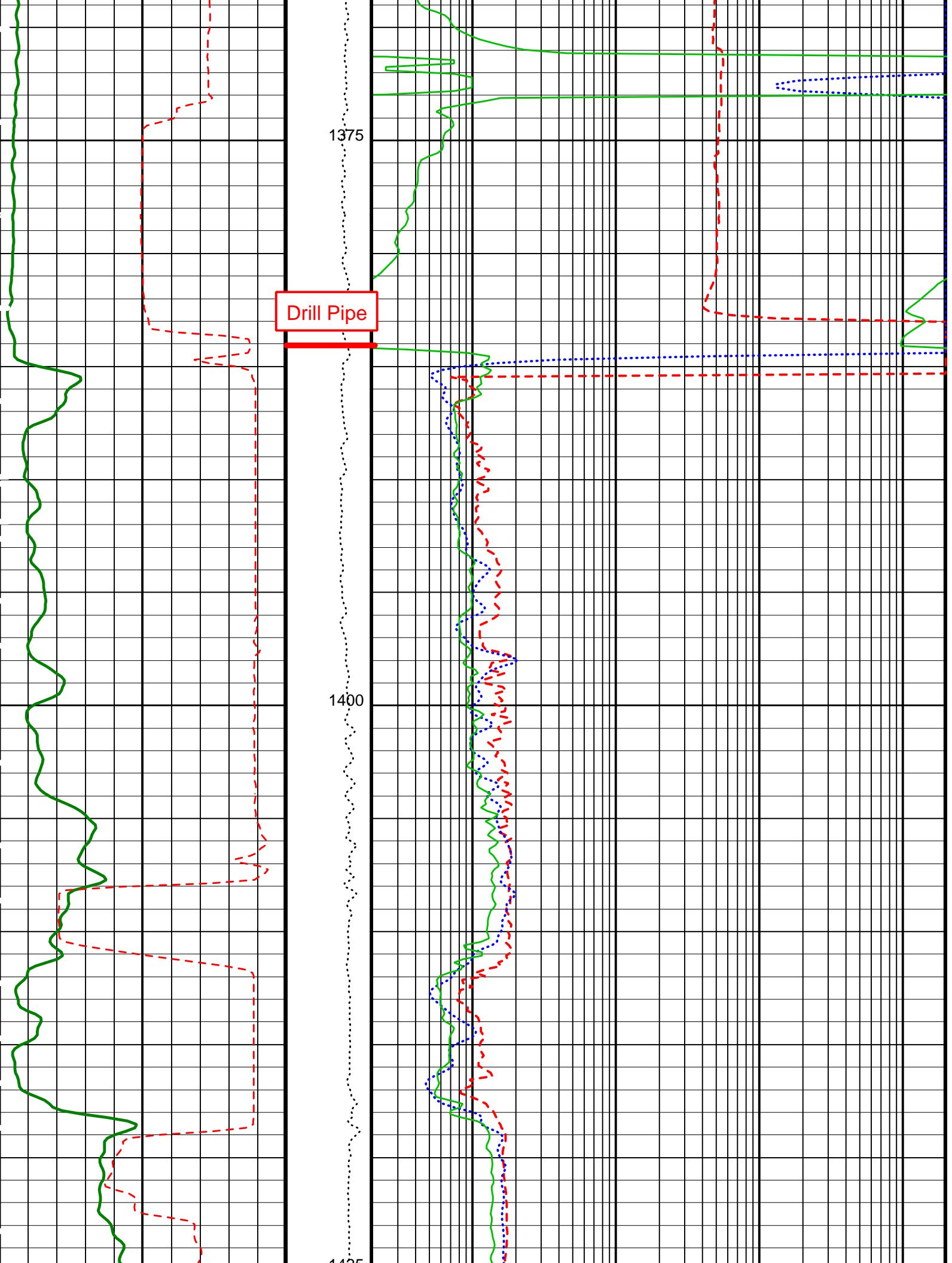
PIP SUMMARY

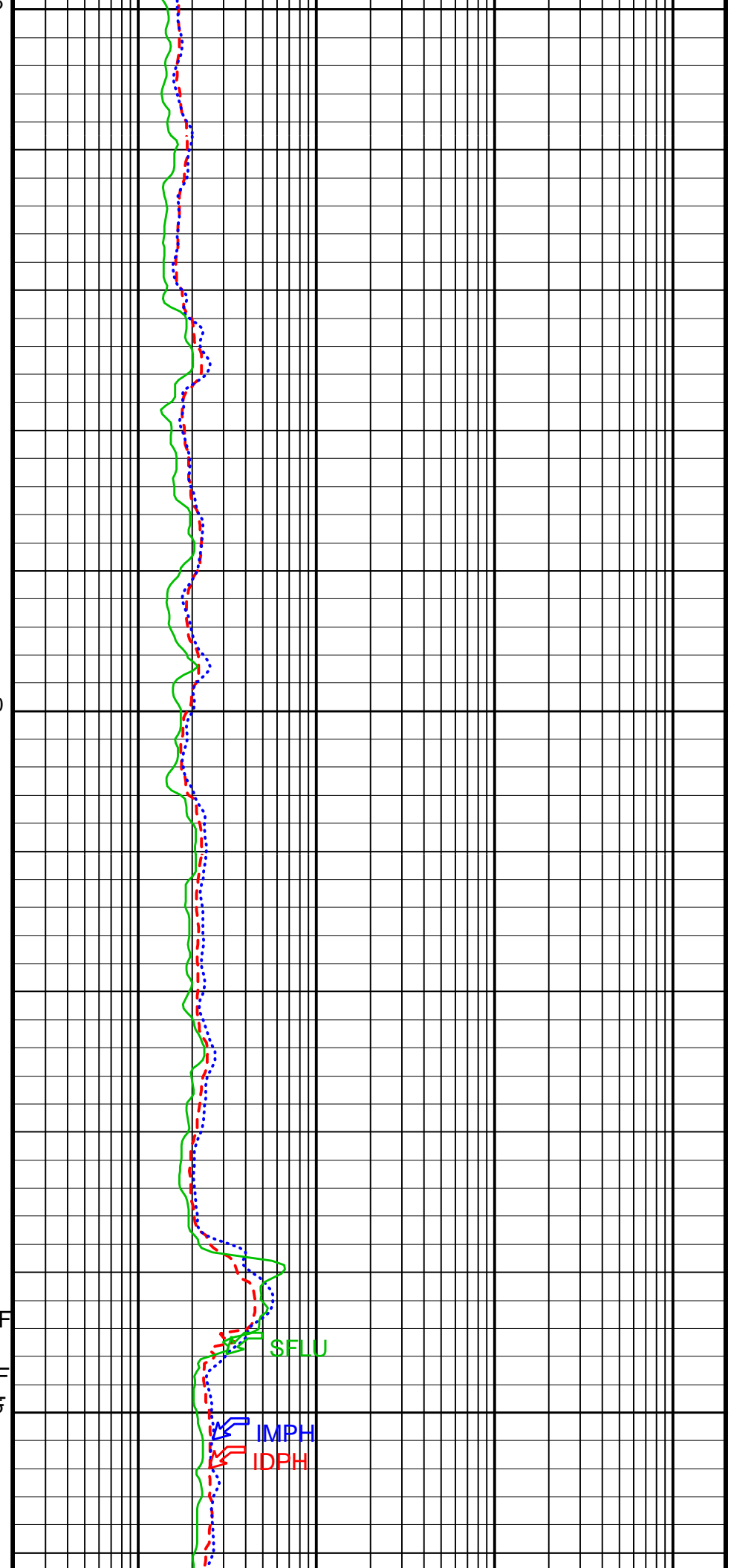
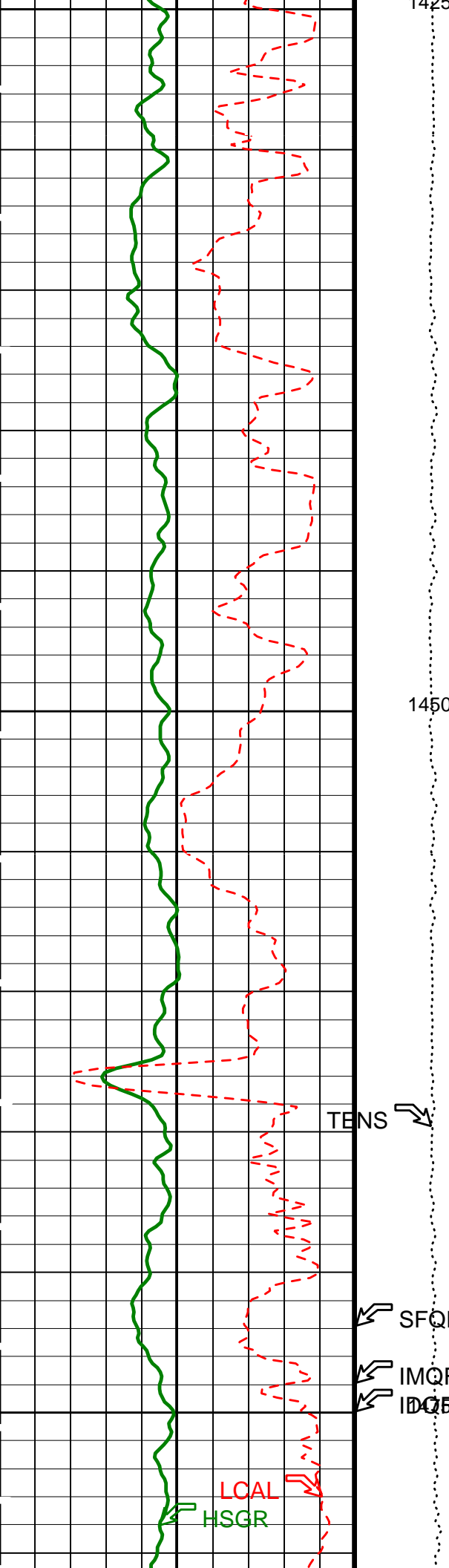
▶ Time Mark Every 60 S

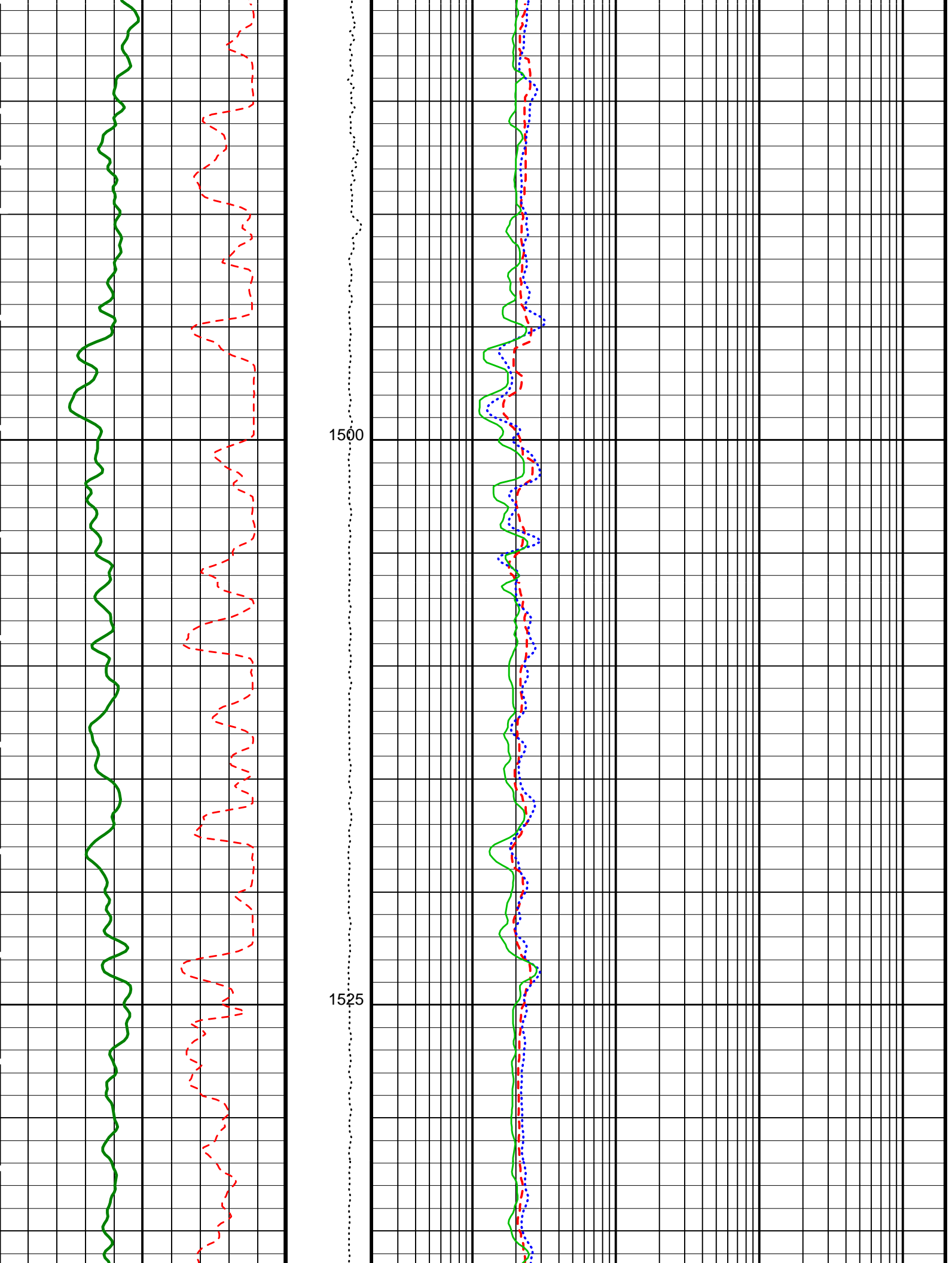
SFL_
QUAL
From D3T

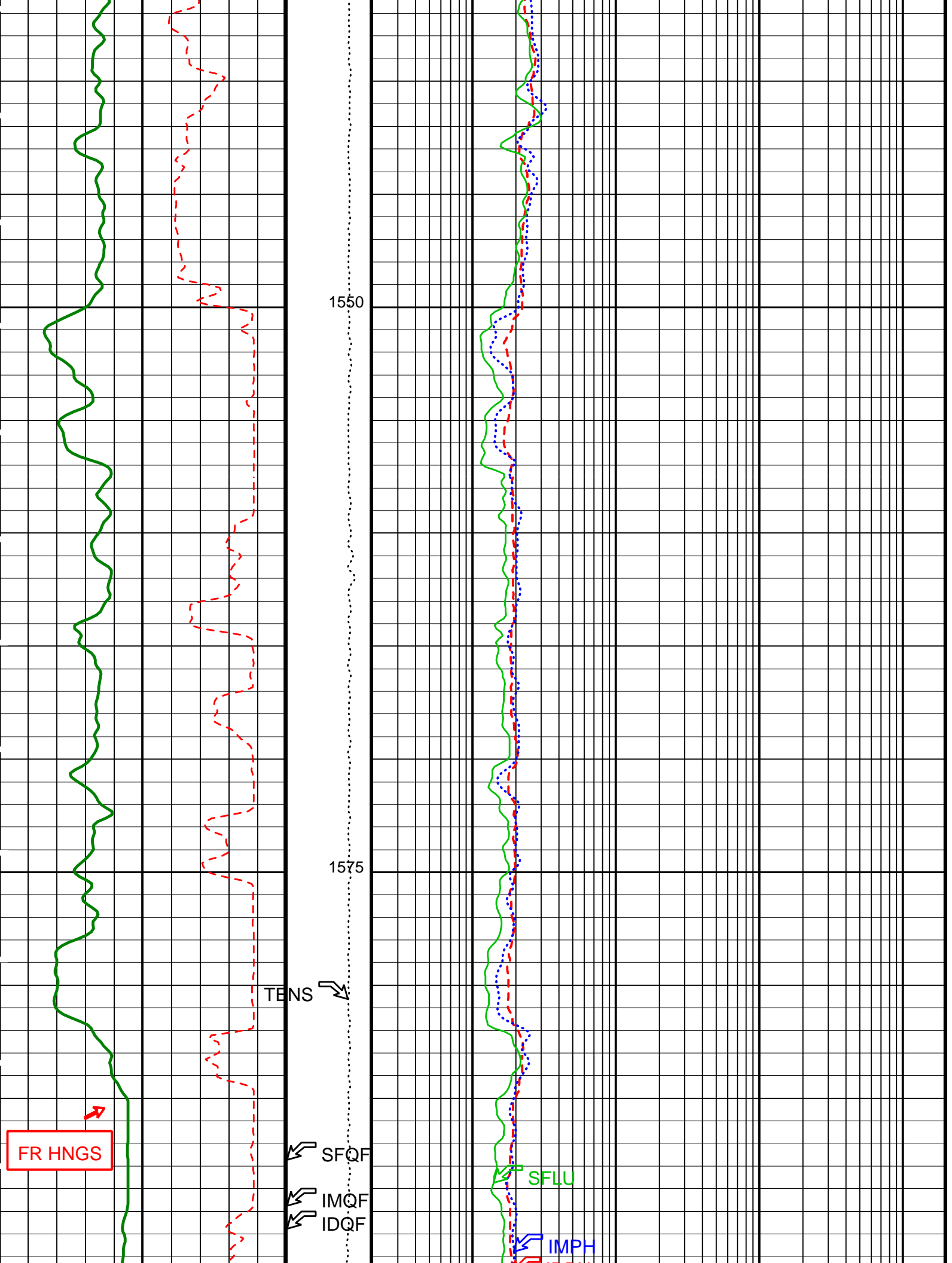












1550

1575

TENS

FR HNGS

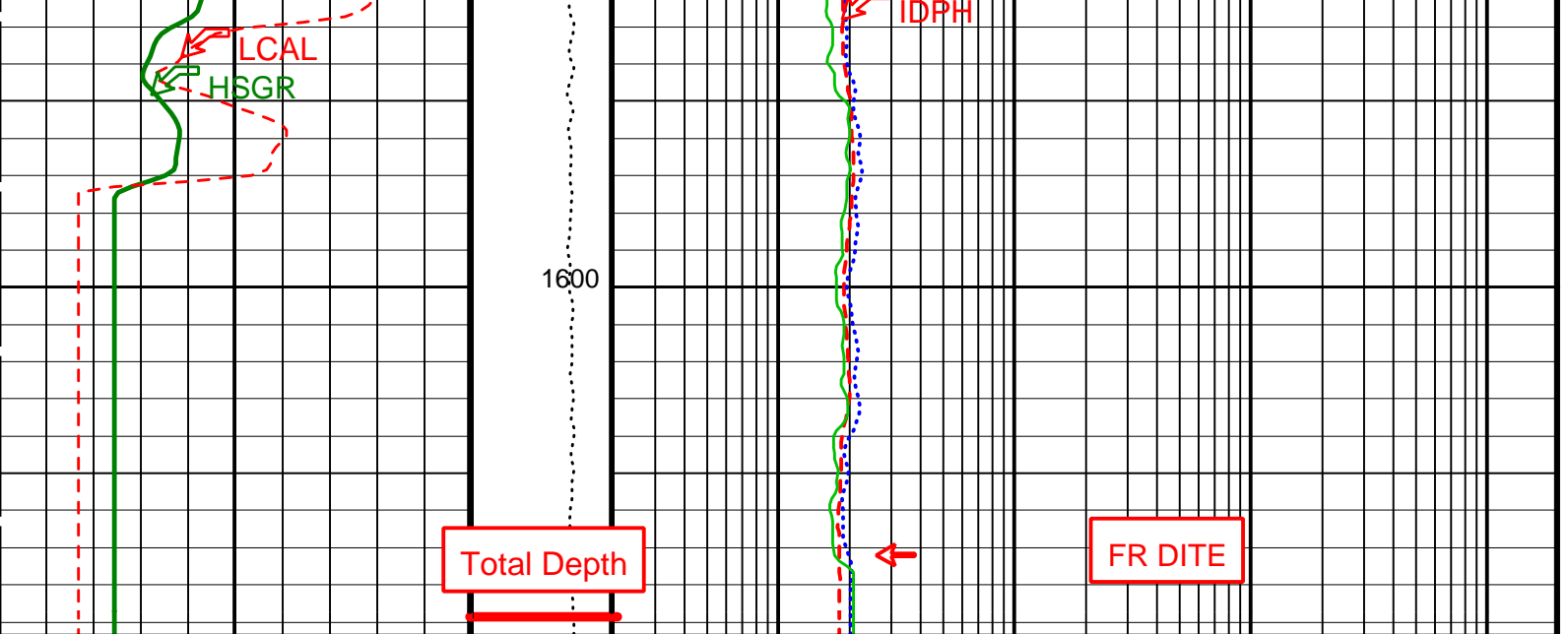
SFQF

IMQF

IDQF

SFLU

IMPH



HLDS Caliper (LCAL) (IN)	Tension (TENS) (LBF)	Deep Induction Phasor-processed Resistivity (IDPH) (OHMM)
0 20	10000 0	0.2 2000
HNGS Spectroscopy Gamma Ray (HSGR) (GAPI)	ID_QUAL From IMQF to IDQF	Medium Induction Phasor-processed Resistivity (IMPH) (OHMM)
0 150		0.2 2000
	IM_QUAL From SFQF to IMQF	SFL Unaveraged (SFLU) (OHMM)
		0.2 2000
	SFL_QUAL From D3T to SFQF	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DIT-E: Dual Induction - E		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	16 DEGC
DGF2	Deep 20 kHz Gain Factor	1.02064
DPH2	Deep 20 kHz Phase Shift	-0.243728 DEG
DRE2	Deep Real 20 kHz Sonde Error Correction	16.6208 MM/M
DSR2	Deep Sigma Reference (20 kHz)	1843 MM/M
DXE2	Deep Quad 20 kHz Sonde Error Correction	64.8082 MM/M
GCSE	Generalized Caliper Selection	LCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.018227 DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE
IFRS	DIT-E Induction Frequency Selector	20
IPHA	DIT-E Phasor Processing Mode	ALL
IPRO	DIT-E Induction Processing Selector	PHASOR
ITEN	DIT-E Temperature Enable	ENABLE
MGF2	Medium 20 kHz Gain Factor	1
MPH2	Medium 20 kHz Phase Shift	0 DEG
MRE2	Medium Real 20 kHz Sonde Error Correction	-2.31932 MM/M
MSR2	Medium Sigma Reference (20 kHz)	3250 MM/M
MXE2	Medium Quad 20 kHz Sonde Error Correction	-31.8992 MM/M
SFCR	SFL Channel Ratio	1000
SHT	Surface Hole Temperature	20 DEGC
APS-C: Accelerator-Porosity Tool		
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	16 DEGC

GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
HNGS-BA: Hostile Natural Gamma Ray Sonde			
BAR1	HNGS Detector 1 Barite Constant	1	
BAR2	HNGS Detector 2 Barite Constant	1	
BHK	HNGS Borehole Potassium Correction Concentration	0	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	16	DEGC
CSD1	Inner Casing Outer Diameter	0	IN
CSD2	Outer Casing Outer Diameter	0	IN
CSW1	Inner Casing Weight	0	LB/F
CSW2	Outer Casing Weight	0	LB/F
DBCC	HNGS Barite Constant Correction Flag	NONE	
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.00188243	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	BARI	
HNPE	HNGS Processing Enable	YES	
S1BI	HNGS Detector 1 Calibration Bismuth Count Rate	1.3	CPS
S2BI	HNGS Detector 2 Calibration Bismuth Count Rate	1.3	CPS
SGRC	HNGS Standard Gamma-Ray Correction Flag	YES	
SHT	Surface Hole Temperature	20	DEGC
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.971055	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.974887	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	16	DEGC
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	20	DEGC
System and Miscellaneous			
BS	Bit Size	9.875	IN
DFD	Drilling Fluid Density	1.26	G/C3
TD	Total Depth	1614.6	M

Format: DITE_LogPhasor

Vertical Scale: 1:200

Graphics File Created: 08-Oct-2005 02:24

OP System Version: 12C0-301

MCM

DIT-E	12C0-301	DTA-A	12C0-301
HLDS	SPC-2602-NUCL	LDSC-A	SPC-2602-NUCL
APS-C	SPC-2602-NUCL	HNGC-B	SPC-2602-NUCL
HNGS-BA	SPC-2602-NUCL	DTC-H	12C0-301

Output DLIS Files

DEFAULT PI_LDL_APS_NGS_013LUP FN:12 PRODUCER 08-Oct-2005 02:24



Calibrations

MAXIS Field Log

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Hostile Litho-Density Sonde Wellsite Calibration - Background Measurement							
Master: 8-Aug-2005 5:15 Before: 21-Sep-2005 14:54 After: 8-Oct-2005 4:45							
SS Cs Resolution Bkg	9.000	8.500	8.443	8.381	-0.06151	1.800	%
LS Cs Resolution Bkg	9.000	8.161	8.109	8.051	-0.05801	1.800	%
LSW1 Background	100.0	82.14	80.82	80.14	-0.6830	3.000	CPS
LSW2 Background	100.0	74.99	73.65	72.84	-0.8066	3.000	CPS
LSW3 Background	200.0	169.1	165.2	164.4	-0.8469	6.000	CPS
LSW4 Background	250.0	207.4	207.5	207.2	-0.3165	7.500	CPS
LSW5 Background	600.0	464.2	463.8	463.7	-0.1317	18.00	CPS
SSW1 Background	100.0	79.48	79.58	81.26	1.684	3.000	CPS
SSW2 Background	200.0	141.1	139.3	140.3	1.069	6.000	CPS
SSW3 Background	500.0	376.6	373.7	375.8	2.066	15.00	CPS
SSW4 Background	270.0	198.6	200.2	198.1	-2.089	8.100	CPS
SSW5 Background	200.0	143.3	142.2	143.4	1.193	6.000	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Aluminum Measurement							
Master: 8-Aug-2005 7:18							
LSW1 Aluminum	600.0	547.9	N/A	N/A	N/A	N/A	CPS
LSW2 Aluminum	900.0	848.8	N/A	N/A	N/A	N/A	CPS
LSW3 Aluminum	1100	1044	N/A	N/A	N/A	N/A	CPS
LSW4 Aluminum	580.0	519.9	N/A	N/A	N/A	N/A	CPS
LSW5 Aluminum	570.0	481.0	N/A	N/A	N/A	N/A	CPS
SSW1 Aluminum	2800	2413	N/A	N/A	N/A	N/A	CPS
SSW2 Aluminum	8000	6977	N/A	N/A	N/A	N/A	CPS
SSW3 Aluminum	11600	10160	N/A	N/A	N/A	N/A	CPS
SSW4 Aluminum	5000	4265	N/A	N/A	N/A	N/A	CPS
SSW5 Aluminum	660.0	578.6	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Lithology Measurement							
Master: 8-Aug-2005 7:13							
LSW1 Iron	400.0	371.2	N/A	N/A	N/A	N/A	CPS
LSW2 Iron	730.0	670.4	N/A	N/A	N/A	N/A	CPS
LSW3 Iron	1000	911.2	N/A	N/A	N/A	N/A	CPS
LSW4 Iron	520.0	473.6	N/A	N/A	N/A	N/A	CPS
LSW5 Iron	470.0	442.6	N/A	N/A	N/A	N/A	CPS
SSW1 Iron	2100	1806	N/A	N/A	N/A	N/A	CPS
SSW2 Iron	6800	5840	N/A	N/A	N/A	N/A	CPS
SSW3 Iron	10800	9264	N/A	N/A	N/A	N/A	CPS
SSW4 Iron	4600	3901	N/A	N/A	N/A	N/A	CPS
SSW5 Iron	580.0	507.2	N/A	N/A	N/A	N/A	CPS
Hostile Litho-Density Sonde Wellsite Calibration - Caliper Calibration							
Before: 21-Sep-2005 15:47							
HLDS Caliper Small Ring	3.625	N/A	4.808	N/A	N/A	N/A	IN
HLDS Caliper Large Ring	17.63	N/A	20.95	N/A	N/A	N/A	IN
Accelerator-Porosity Tool Wellsite Calibration - Detector Background							
Master: 14-Aug-2005 23:57 Before: 21-Sep-2005 14:37 After: 8-Oct-2005 4:46							
Near Det Bkg Cntrate	30.00	25.36	25.48	25.68	0.2002	N/A	CPS
Far Det Bkg Cntrate	30.00	26.40	25.95	26.93	0.9845	N/A	CPS
Array-1 Det Bkg Cntrate	30.00	27.15	27.16	26.13	-1.034	N/A	CPS
Array-2 Det Bkg Cntrate	30.00	26.59	26.06	25.99	-0.06672	N/A	CPS
Array Therm Det Bkg Cntrate	30.00	26.22	27.76	25.88	-1.880	N/A	CPS
Accelerator-Porosity Tool Wellsite Calibration - Calibration Ratios							
Master: 14-Aug-2005 23:57							
Near/Far Calibration Ratio	0.9250	0.9630	N/A	N/A	N/A	N/A	
Near/Array Calibration Ratio	1.030	0.9878	N/A	N/A	N/A	N/A	
Near/Array Cal Ratio Up/Down	1.000	1.011	N/A	N/A	N/A	N/A	
Accelerator-Porosity Tool Wellsite Calibration - Tank Check							
Master: 14-Aug-2005 23:57							
Array-1 Standoff Porosity	11.75	12.31	N/A	N/A	N/A	N/A	PU
Array-2 Standoff Porosity	11.75	11.98	N/A	N/A	N/A	N/A	PU
Average Slowing Down Time	6.000	5.772	N/A	N/A	N/A	N/A	US
Array-1 SDT Ratio Up/Down	1.000	1.001	N/A	N/A	N/A	N/A	
Array-2 SDT Ratio Up/Down	1.000	0.9963	N/A	N/A	N/A	N/A	
Sigma Formation	27.50	27.56	N/A	N/A	N/A	N/A	CU
Accelerator-Porosity Tool Wellsite Calibration - CCR7 signal boxes							
Master: 14-Aug-2005 23:11							
Near Detector Plateau Setting	1650	1738	N/A	N/A	N/A	N/A	V
Far Detector Plateau Setting	2000	2083	N/A	N/A	N/A	N/A	V
Array Detector Plateau Setting	2000	1970	N/A	N/A	N/A	N/A	V
Hostile Natural Gamma Ray Sonde Wellsite Calibration - Detector 1 Check							
Master: 19-Aug-2005 13:45 Before: 21-Sep-2005 14:13 After: 8-Oct-2005 4:46							
Na 511 Peak Loc	40.00	39.55	39.73	39.61	-0.1229	1.000	

Before		40.35	Before		1.017	
	-225.0 (Minimum)	0 (Nominal)	225.0 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
Phase	IM Elect Quad Offset 20 kHz	MM/M	Value	Phase	IM Elect Quad Gain 20 kHz	Value
Before		39.45	Before		1.014	
	-225.0 (Minimum)	0 (Nominal)	225.0 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Before: 8-Oct-2005 2:17

Dual Induction - E Wellsite Calibration											
Induction Electronics (40 kHz)											
Phase	ID Elect Real Offset 40 kHz	MM/M	Value	Phase	ID Elect Real Gain 40 kHz	Value	Phase	ID Elect Phase 40 kHz DEG	Value		
Before		9.810	Before		0.9979	Before		EXCEEDS LIMIT	25.27		
	-85.00 (Minimum)	0 (Nominal)	85.00 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	-20.00 (Minimum)	0 (Nominal)	20.00 (Maximum)		
Phase	ID Elect Quad Offset 40 kHz	MM/M	Value	Phase	ID Elect Quad Gain 40 kHz	Value	Phase	IM Elect Phase 40 kHz DEG	Value		
Before		5.989	Before		0.9845	Before		EXCEEDS LIMIT	29.87		
	-85.00 (Minimum)	0 (Nominal)	85.00 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	-20.00 (Minimum)	0 (Nominal)	20.00 (Maximum)		
Phase	IM Elect Real Offset 40 kHz	MM/M	Value	Phase	IM Elect Real Gain 40 kHz	Value					
Before		26.30	Before		1.030						
	-130.0 (Minimum)	0 (Nominal)	130.0 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)					
Phase	IM Elect Quad Offset 40 kHz	MM/M	Value	Phase	IM Elect Quad Gain 40 kHz	Value					
Before		25.76	Before		1.026						
	-130.0 (Minimum)	0 (Nominal)	130.0 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)					

Before: 8-Oct-2005 2:18

Dual Induction - E Wellsite Calibration						
SFL Electronics						
Phase	SFL Voltage Offset MV	Value	Phase	SFL Voltage Gain	Value	
Before		1.174	Before		1.013	
	-15.00 (Minimum)	0 (Nominal)	15.00 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
Phase	SFL Current Offset MA	Value	Phase	SFL Current Gain	Value	
Before		0.008108	Before		0.9923	
	-0.6000 (Minimum)	0 (Nominal)	0.6000 (Maximum)	0.8500 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Before: 8-Oct-2005 2:19

Dual Induction - E Wellsite Calibration											
Electronics Calibration Changes Files/Depth Intervals: 13: 1609.3 - 1270.3											
Phase	ID (R > 27 OHM-M)	MM/M	Value	Phase	ID (R < 27 OHM-M) %	Value	Phase	SFL (R < 1 OHM-M)	OHMM	Value	
After		0	After		0.0001670	After		0.0004919			
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)	0 (Minimum)	0 (Nominal)	2.000 (Maximum)	0 (Minimum)	0 (Nominal)	0.02000 (Maximum)		
Phase	IM (R > 27 OHM-M)	MM/M	Value	Phase	IM (R < 27 OHM-M) %	Value					
After		0	After		0.0001361						
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)	0 (Minimum)	0 (Nominal)	2.000 (Maximum)					
Phase	SFL (R > 27 OHM-M)	MM/M	Value	Phase	SFL (R < 27 OHM-M) %	Value					
After		0	After		0.0004194						
	0 (Minimum)	0 (Nominal)	0.7500 (Maximum)	0 (Minimum)	0 (Nominal)	2.000 (Maximum)					

After: 8-Oct-2005 3:53

Hostile Litho-Density Sonde / Equipment Identification

Primary Equipment:

Hostile Litho Density Sonde
Hostile Litho Density High Voltage
Gamma Source Radioactive

HLDS - D 35
HLDV - D 35
GSR - Z 2326

Auxiliary Equipment:

Hostile Litho-Density Sonde Wellsite Calibration								
Background Measurement								
Phase	SS Cs Resolution Bkg %	Value	Phase	LS Cs Resolution Bkg %	Value	Phase	LSW1 Background CPS	Value
Master		8.500	Master		8.161	Master		82.14
Before		8.443	Before		8.109	Before		80.82
After		8.381	After		8.051	After		80.14
7.000 (Minimum)		9.000 (Nominal)	11.00 (Maximum)		7.000 (Minimum)	9.000 (Nominal)	11.00 (Maximum)	
55.00 (Minimum)		100.0 (Nominal)	150.0 (Maximum)					
Phase	LSW2 Background CPS	Value	Phase	LSW3 Background CPS	Value	Phase	LSW4 Background CPS	Value
Master		74.99	Master		169.1	Master		207.4
Before		73.65	Before		165.2	Before		207.5
After		72.84	After		164.4	After		207.2
50.00 (Minimum)		100.0 (Nominal)	140.0 (Maximum)		110.0 (Minimum)	200.0 (Nominal)	290.0 (Maximum)	
140.0 (Minimum)		250.0 (Nominal)	360.0 (Maximum)					
Phase	LSW5 Background CPS	Value	Phase	SSW1 Background CPS	Value	Phase	SSW2 Background CPS	Value
Master		464.2	Master		79.48	Master		141.1
Before		463.8	Before		79.58	Before		139.3
After		463.7	After		81.26	After		140.3
330.0 (Minimum)		600.0 (Nominal)	830.0 (Maximum)		55.00 (Minimum)	100.0 (Nominal)	150.0 (Maximum)	
100.0 (Minimum)		200.0 (Nominal)	260.0 (Maximum)					
Phase	SSW3 Background CPS	Value	Phase	SSW4 Background CPS	Value	Phase	SSW5 Background CPS	Value
Master		376.6	Master		198.6	Master		143.3
Before		373.7	Before		200.2	Before		142.2
After		375.8	After		198.1	After		143.4
280.0 (Minimum)		500.0 (Nominal)	700.0 (Maximum)		150.0 (Minimum)	270.0 (Nominal)	380.0 (Maximum)	
110.0 (Minimum)		200.0 (Nominal)	270.0 (Maximum)					
Master: 8-Aug-2005 5:15			Before: 21-Sep-2005 14:54			After: 8-Oct-2005 4:45		

Litho-Density Spectroscopy Cartridge - A / Equipment Identification

Primary Equipment:
LDSC Cartridge

LDSC - A 16

Auxiliary Equipment:
LDSC Housing

LDSH - A 52

Accelerator-Porosity Tool / Equipment Identification

Primary Equipment:
Accelerator-Porosity Sonde
APS Minitron

APS - C 202
MNTR - F 5124

Auxiliary Equipment:
Accelerator-Porosity Housing
APS Calibration Water Tank
APS Aluminum Calibrator Sleeve

APH - AC 104
SFT - 178 6250
SFT - 281 6250

Accelerator-Porosity Tool Wellsite Calibration								
Detector Background								
Phase	Near Det Bkg Cntrate CPS	Value	Phase	Far Det Bkg Cntrate CPS	Value	Phase	Array-1 Det Bkg Cntrate CPS	Value
Master		25.36	Master		26.40	Master		27.15
Before		25.48	Before		25.95	Before		27.16
After		25.68	After		26.93	After		26.13
1.000 (Minimum)		30.00 (Nominal)	50.00 (Maximum)		1.000 (Minimum)	30.00 (Nominal)	50.00 (Maximum)	

Phase	Array-2 Det Bkg Cntrate CPS	Value	Phase	Array 1 therm Det Bkg Cntrate CPS	Value
Master		26.59	Master		26.22
Before		26.06	Before		27.76
After		25.99	After		25.88
	1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)			1.000 (Minimum) 30.00 (Nominal) 50.00 (Maximum)	

Master: 14-Aug-2005 23:57 Before: 21-Sep-2005 14:37 After: 8-Oct-2005 4:46

Accelerator-Porosity Tool Wellsite Calibration								
Calibration Ratios								
Phase	Near/Far Calibration Ratio	Value	Phase	Near/Array Calibration Ratio	Value	Phase	Near/Array Cal Ratio Up/Down	Value
Master		0.9630	Master		0.9878	Master		1.011
	0.8000 (Minimum) 0.9250 (Nominal) 1.050 (Maximum)			0.9000 (Minimum) 1.030 (Nominal) 1.170 (Maximum)			0.9700 (Minimum) 1.000 (Nominal) 1.030 (Maximum)	

Master: 14-Aug-2005 23:57

Accelerator-Porosity Tool Wellsite Calibration								
Tank Check								
Phase	Array-1 Standoff Porosity PU	Value	Phase	Array-2 Standoff Porosity PU	Value	Phase	Average Slowing Down Time US	Value
Master		12.31	Master		11.98	Master		5.772
	9.900 (Minimum) 11.75 (Nominal) 13.60 (Maximum)			9.900 (Minimum) 11.75 (Nominal) 13.60 (Maximum)			5.500 (Minimum) 6.000 (Nominal) 6.250 (Maximum)	
Phase	Array-1 SDT Ratio Up/Down	Value	Phase	Array-2 SDT Ratio Up/Down	Value	Phase	Sigma Formation CU	Value
Master		1.001	Master		0.9963	Master		27.56
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)			0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)			20.00 (Minimum) 27.50 (Nominal) 35.00 (Maximum)	

Master: 14-Aug-2005 23:57

Hostile Natural Gamma Ray Cartridge - B / Equipment Identification			
Primary Equipment:	HNGC Cartridge	HNGC - B	300
Auxiliary Equipment:	HNGC Housing	HNGH - A	115

Hostile Natural Gamma Ray Sonde / Equipment Identification			
Primary Equipment:	HNGS Sonde	HNGS - BA	194
Auxiliary Equipment:	HNGS Sonde Housing	HNSH - BA	205
	Gamma Source Radioactive	GSR - U	135

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		39.55	Master		16.41	Master		1122
Before		39.73	Before		15.03	Before		1093
After		39.61	After		14.57	After		1089
	37.50 (Minimum) 40.00 (Nominal) 42.50 (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		142.5	Master		9.106	Master		34.58
Before		142.9	Before		7.652	Before		20.94
After		142.5	After		8.333	After		17.04
	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		47.00						

Before		46.36
After		45.07
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)	

Master: 19-Aug-2005 13:45 Before: 21-Sep-2005 14:13 After: 8-Oct-2005 4:46

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		39.60	Master		16.71	Master		1200
Before		39.66	Before		14.86	Before		1169
After		39.64	After		14.99	After		1165
	37.50 (Minimum) 40.00 (Nominal) 42.50 (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		142.6	Master		8.264	Master		33.67
Before		142.3	Before		8.291	Before		19.78
After		142.6	After		7.945	After		17.38
	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		46.77
Before		46.71
After		45.41
	10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum)	

Master: 19-Aug-2005 13:45 Before: 21-Sep-2005 14:13 After: 8-Oct-2005 4:46

Hostile Natural Gamma Ray Sonde Wellsite Calibration
Ratio Of Detector 1 To Detector 2

Phase	Coincidence Count Rate Ratio	Value
Master		1.005
Before		0.9949
After		0.9935
	0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum)	

Master: 19-Aug-2005 13:45
 Before: 21-Sep-2005 14:13
 After: 8-Oct-2005 4:46

Company: Lamont Doherty **Schlumberger**

Well: IODP EXP 311 Site U1327D

Field: CAS-01B

Country: Canada

Ocean: Pacific

