Schlumberger

Company:	**Lamont Doherty**
Well:	**NGHP-01-21B**
Field:	
Rig:	**Joides Resolution**
Ocean:	**Bay of Bengal**

Hostile Natural Gamma Ray

Down Log

Rig:	Joides Resolution		
Field:			
Location:			
Well:	NGHP-01-21B		
Company:	Lamont Doherty		
LOCATION		Elev.:	K.B. 11.3 m G.L. -1050 m D.F. 11 m
Permanent Datum:	Mean Sea Level	Elev.:	0 m
Log Measured From:	Drill Floor	11.0 m	above Perm. Datum
Drilling Measured From:	Drill Floor		
API Serial No.	Latitude: 10* 45.1912' N	Longitude 93* 06.7365' E	

Logging Date	14-Aug-2006		
Run Number	One		
Depth Driller	1250 m		
Schlumberger Depth			
Bottom Log Interval			
Top Log Interval	1050 m		
Casing Driller Size @ Depth	0.000 in	@	1108 m
Casing Schlumberger			
Bit Size	11.438 in		
Type Fluid In Hole	Barite		
MUD Density / Viscosity	1.07 g/cm3		
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 / Time	14-Aug-2006		4:00
Logger On Bottom / Time			
Unit Number / Location	2082	Webster, TX	
Recorded By	Javier Espinosa		
Witnessed By	Gilles Guerin, Indrajit Dutta		

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			
MUD 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 / Time			
Logger On Bottom / Time			
Unit Number / Location			
Recorded By			
Witnessed By			

Run 1

Run 2

Run 3

Run 4

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	OTHER SERVICES2
OS1: APS	OS1:
OS2: HLDS	OS2:
OS3: HNGS	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Recorded from inside drill pipe until tool got stuck.	
TD not reached due to bad hole conditions.	

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

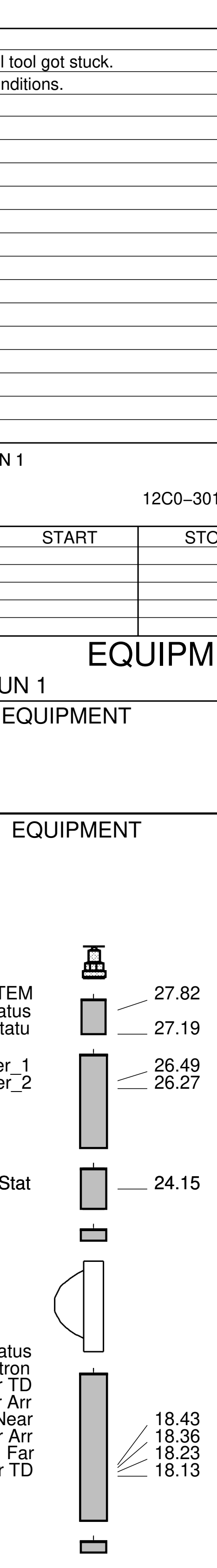
RUN 1

RUN 2

SURFACE EQUIPMENT

SFT-281 6250
SFT-178 6250
GSR-U 135
WITM (DTS)-A

DOWNHOLE EQUIPMENT



LEH-QT LEH-QT		28.99
DTC-H ECH-KC	CTEM 27.82 TelStatus ToolStatu 27.19	28.10
HNGS-BA HNGS-BA 194 HNSH-BA 205	Upper_1 26.49 Lower_2 26.27	27.19
HNGC-B HNGH-A 115	HNGC Stat 24.15	24.69
AH-191		23.62
ILE-D ILE-D		23.32
APS-C APH-AC 22 APS-C 22 MNTR-F 4185	Status Minitron Near TD Near Arr Near Far Arr Far Far TD 18.43 18.36 18.23 18.13	20.88
AH-190		16.93
LDSC-B LDSH-A 333	LDSC Stat 16.10	16.63
HLDS GSR-Z 2326 HLDV-D 35 HLDS-D 45 HEH-H 35 HLDP-C 45	Caliper SS LS Status 11.51	15.56
DTA-A ECH-KE DTA-A 8081		10.74
DIT-E DIC-EB 335 MIH-ZA 342 DIS-HB 129	SP 3.15 Deep Ind 2.90 Aux Meas SFL 1.98 Med Ind 1.83 Status HV DF Tension 0.00	9.52

TOOL ZERO

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

Company: Lamont Doherty Well: NGHP-01-21B

Input DLIS Files

DEFAULT	Flip_PI_LDL_APS_NGS_008LUP	PRODUCER	15-Aug-2006 13:32	1153.4 M	1081.3 M

Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_009PUP	FN:11	PRODUCER	15-Aug-2006 13:34	1153.4 M	1086.0 M

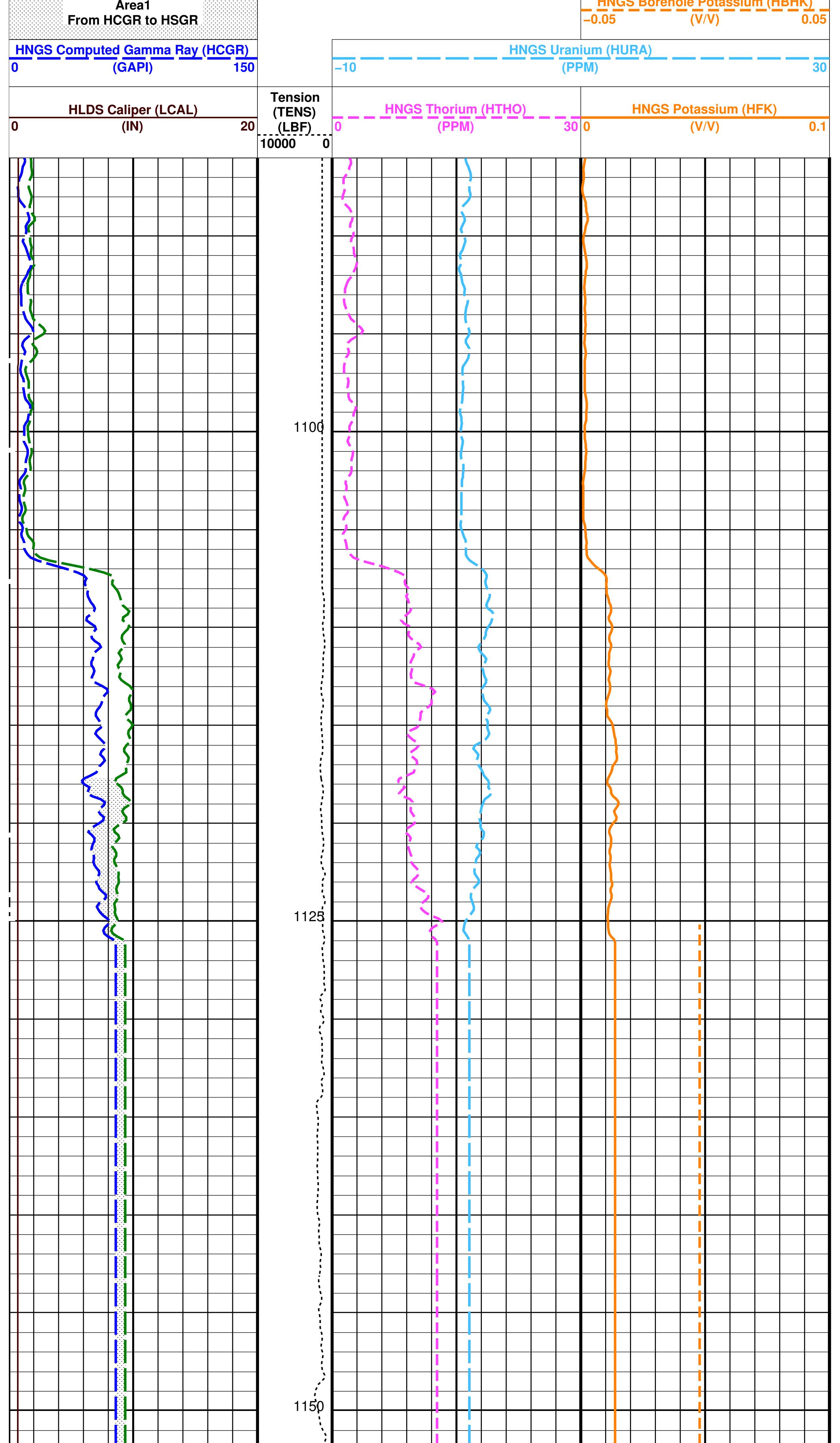
OP System Version: 12C0-301

MCM

DIT-E	12C0-301	DTA-A	12C0-301
HLDS	SPC-2602-NUCL	LDSC-B	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



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DIT-E: Dual Induction - E		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	APS-C: Accelerator-Porosity Tool		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	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	
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	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.0147654	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
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	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.959479	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968031	
	System and Miscellaneous		
BS	Bit Size	11.438	IN
DFD	Drilling Fluid Density	1.07	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 15-Aug-2006 13:34

OP System Version: 12C0-301

MCM

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

Input DLIS Files

DEFAULT	Flip_PI_LDL_APS_NGS_008LUP	PRODUCER	15-Aug-2006 13:32	1153.4 M	1081.3 M

Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_009PUP	FN:11	PRODUCER	15-Aug-2006 13:34

Company: Lamont Doherty Well: NGHP-01-21B

Input DLIS Files

DEFAULT	Flip_PI_LDL_APS_NGS_010LUP	PRODUCER	15-Aug-2006 14:37	1211.6 M	1165.9 M

Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_011PUP	FN:12	PRODUCER	15-Aug-2006 14:38	1211.6 M	1170.6 M

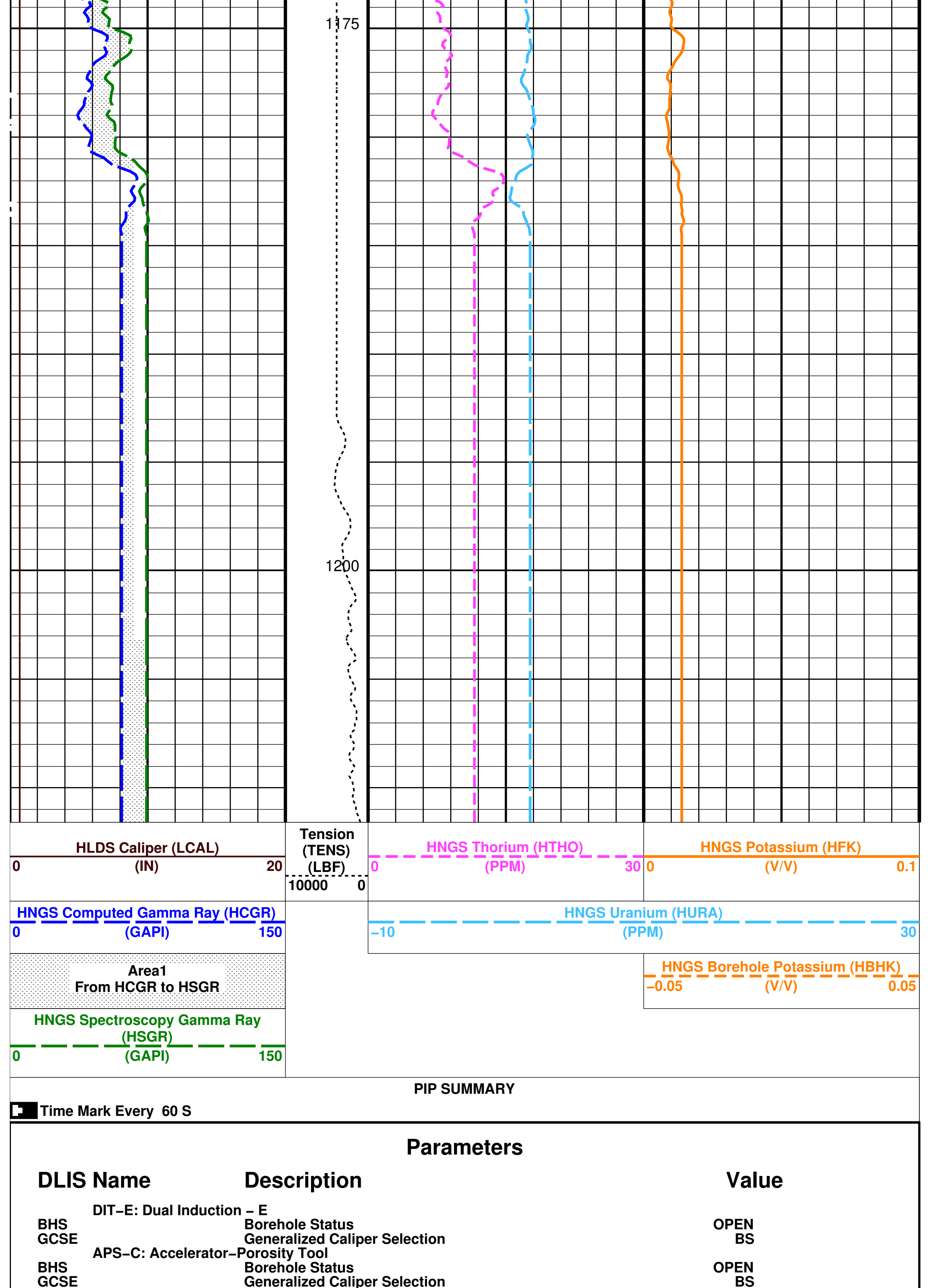
OP System Version: 12C0-301

MCM

DIT-E	12C0-301	DTA-A	12C0-301
HLDS	SPC-2602-NUCL	LDSC-B	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



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DIT-E: Dual Induction - E		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	APS-C: Accelerator-Porosity Tool		
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	BS	
	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	
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	BS	
H1P	HNGS Detector 1 Allow/Disallow In Processing	ALLOW	
H2P	HNGS Detector 2 Allow/Disallow In Processing	ALLOW	
HABK	HNGS Borehole Potassium Running Average	-0.0147654	
HALF	HNGS Alpha Filter Length	60	IN
HCRB	HNGS Apply Borehole Potassium Correction	NONE	
HMWM	Mud Weighting Material	NATU	
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	
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.959479	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.968031	
	System and Miscellaneous		
BS	Bit Size	11.438	IN
DFD	Drilling Fluid Density	1.07	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	NORMAL	

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 15-Aug-2006 14:38

OP System Version: 12C0-301

MCM

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

Input DLIS Files

DEFAULT	Flip_PI_LDL_APS_NGS_010LUP	PRODUCER	15-Aug-2006 14:37	1211.6 M	1165.9 M

Output DLIS Files

DEFAULT	PI_LDL_APS_NGS_011PUP	FN:12	PRODUCER	15-Aug-2006 14:38

Company:	**Lamont Doherty**
Well:	**NGHP-01-21B**
Field:	
Rig:	**Joides Resolution**
Ocean:	**Bay of Bengal**

Schlumberger

Hostile Natural Gamma Ray

Down Log