Schlumberger

Company: **Lamont Doherty**

Well: **NGHP_1_13A**
Field: **Krishna Godavari Basin**
Rig: **Joides Resolution** Ocean: **Indian Ocean**

APS/HLDS POROSITY

Rig: Joides Resolution
Field: Krishna Godavari Basin
Location: Rig: Joides Resolution
Well: NGHP_1_13A
Company: Lamont Doherty

LOCATION
Rig: Joides Resolution

Elev.:		
	K.B.	11.3 m
	G.L.	−1044 m
	D.F.	11 m

Permanent Datum: Mean Sea Level — Elev.: 0 m
Log Measured From: Rig Floor — 11.0 m above Perm. Datum
Drilling Measured From: Rig Floor

API Serial No.	Max. Hole Devi.	Longitude	Latitude
		81 50.1816 E	15 51.7017 N

Logging Date		23–June_2006		
Run Number		One		
Depth Driller		1244 m		
Schlumberger Depth		1193 m		
Bottom Log Interval		1046 m		
Top Log Interval		969.5 m		
Casing Driller Size @ Depth		0.000 in @ 1088.9 m		@
Casing Schlumberger		1087 m		
Bit Size		9.875 in		
Type Fluid In Hole		SepioLite/Barite		
MUD Density	Viscosity	1.26 g/cm3		
MUD Fluid Loss	PH	0 cm3		
MUD Source Of Sample		Pit		
RM @ Measured Temperature		0.177 ohm.m @ 23 degC		@
RMF @ Measured Temperature		0.000 ohm.m @		@
RMC @ Measured Temperature		0.000 ohm.m @		@
Source RMF	RMC			
RM @ MRT	RMF @ MRT	0.199 @ 18	@ 18	@ @
Maximum Recorded Temperatures		18 degC		
Circulation Stopped	Time	23–June_2006	1345	
Logger On Bottom	Time	23–June_2006	see log	
Unit Number	Location	2082	Webster, TX	
Recorded By		Steve Kittredge		
Witnessed By		Gilles Guerin		

		Run 1	Run 2	Run 3	Run 4
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				
MUD Fluid Loss	PH				
MUD 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					

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:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
All parameters and presentations as per IODP standards	
Tool ran as per tool sketch below.	
Tool would not go through Flapper.	
Had to run core Barrel down to clear flapper.	
All Logs in Meters Below Rig Floor (MBRF).	
Caliper closed before logging head entered drill pipe.	
Hole filled with 10.5 ppg mud.	
Tool stopped at 1193 MBRF.	

RUN 1
SERVICE ORDER #:
PROGRAM VERSION: 12C0−301
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2
SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

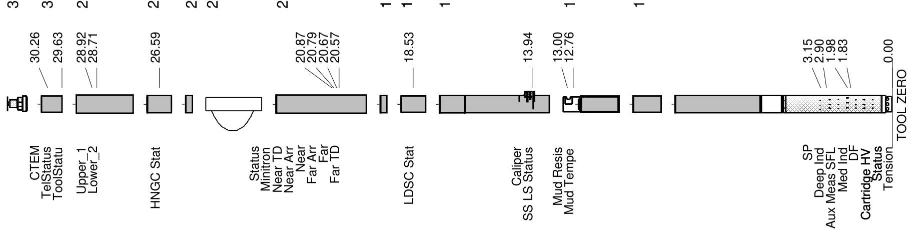
RUN 2

SURFACE EQUIPMENT

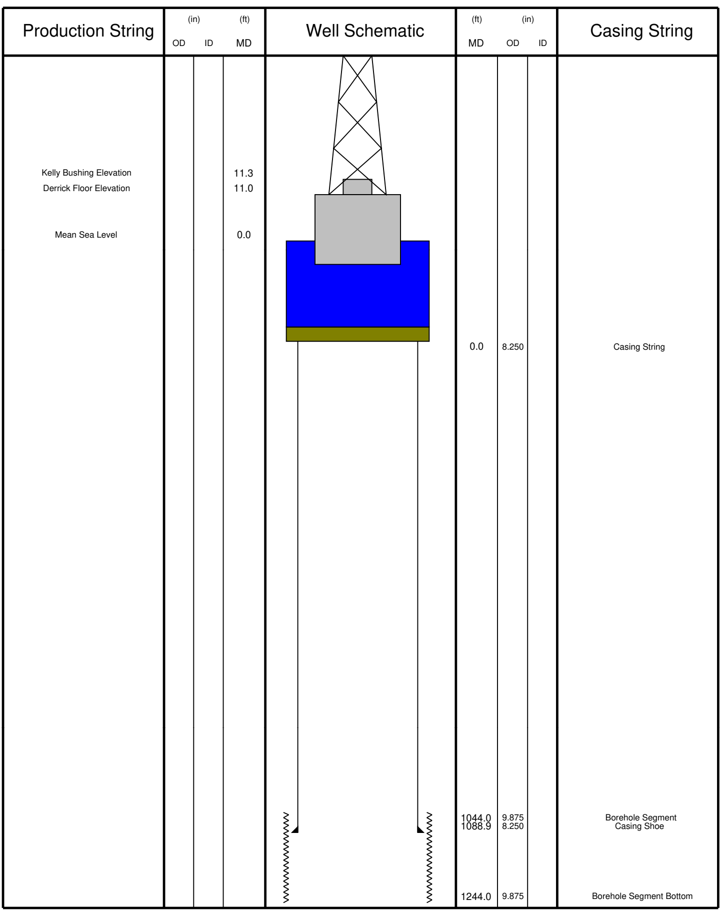
SFT−281 6250
SFT−178 6250
GSR−U 135
WITM (DTS)−A

DOWNHOLE EQUIPMENT

LEH−QT	LEH−QT 1726	31.43
DTC−H	ECH−KC 9841	30.54
HNGS−BA	HNGS−BA 194 HNSH−BA 205	29.63
HNGC−B	HNGH−A 115	27.13
AH−191		26.06
ILE−D	ILE−D	25.75
APS−C	APH−AC 22 APS−C 22 MNTR−F 4185	23.32
AH−190		19.37
LDSC−B	LDSH−A 333	19.07
HLDS	GSR−Z 2326 HLDV−D 35 HLDS−D 45 HEH−H 35 HLDP−C 45	18.00
EMS−B	EMA−B 8104 RES EMC−B 8116 ECH−KH 882	13.18
DTA−A	ECH−KE	10.74
DIT−E	DIC−EB 438 MIH−ZA 417 DIS−HB 442	9.52



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



Schlumberger

Main Up Log

MAXIS Field Log

Input DLIS Files

DEFAULT	PI_EMS_LDL_APS_NGS_006LUP	FN:5	PRODUCER	23–Jun–2006 22:04	1195.6 M	994.7 M

Output DLIS Files

DEFAULT	PI_EMS_LDL_APS_NGS_008PUP	FN:7	PRODUCER	23–Jun–2006 22:57	1195.6 M	969.6 M

OP System Version: 12C0–301

MCM

DIT–E	12C0–301	DTA–A	12C0–301
EMS–B	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		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
GCSE	BS	LCAL	1114.7 22:57:43

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

APS Effective Standoff in Limestone (STOF)
–1 (IN) 4

From HCGR to HSGR

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 100

HLDS Caliper (LCAL)
0 (IN) 20

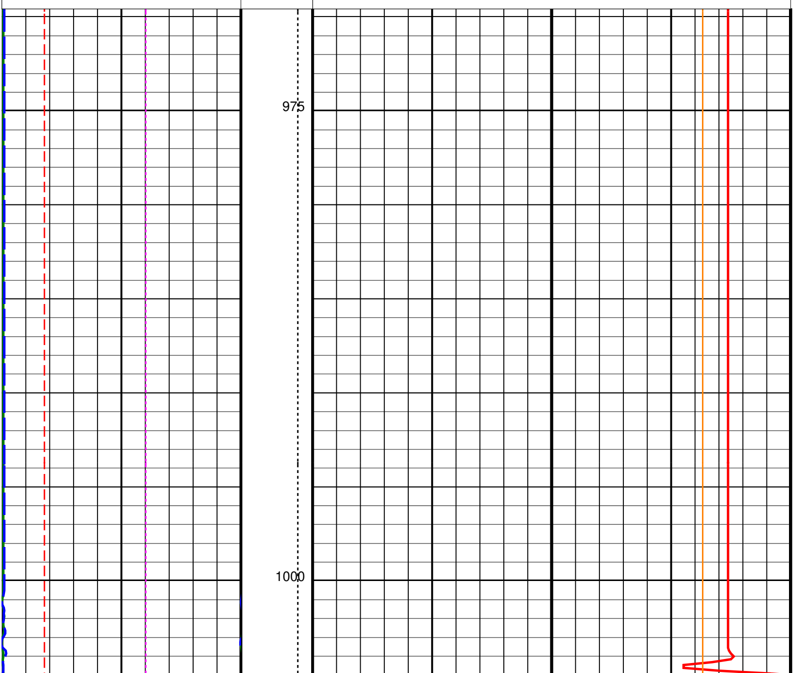
Tension (TENS) (LBF)
10000 0

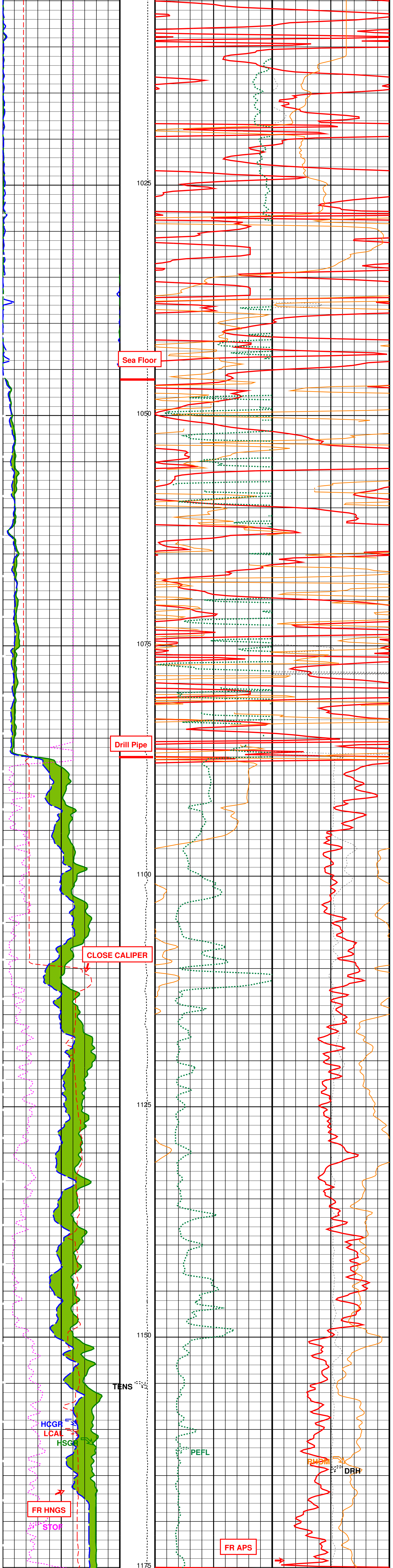
HLDS Long Spaced Photoelectric Effect (PEFL)
0 (––––) 20

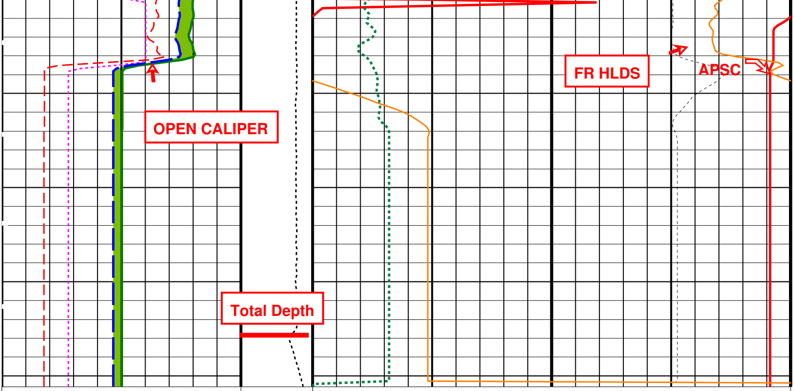
HLDS Bulk Density Correction (DRH)
–0.25 (G/C3) 0.25

HLDS Bulk Density (RHOM)
2.65 (G/C3) 1.65

APS Near/Array Corrected Sandstone Porosity (APSC)
0 (PU) 100







HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

APS Near/Array Corrected Sandstone Porosity (APSC)
0 (PU) 100

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 100

HLDS Bulk Density (RHOM)
2.65 (G/C3) 1.65

From HCGR to HSGR

HLDS Long Spaced Photoelectric Effect (PEFL)
0 (----) 20

HLDS Bulk Density Correction (DRH)
–0.25 (G/C3) 0.25

APS Effective Standoff in Limestone (STOF)
–1 (IN) 4

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

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)	20	DEGF
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	68	DEGF
EMS–B: Environment Measurement Sonde			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	20	DEGF
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
SHT	Surface Hole Temperature	68	DEGF
HLDS: Hostile Litho–Density Sonde			
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
FD	Fluid Density	1.26	G/C3
LATC	HLDS Activation Correction	ON	
MDEN	Matrix Density	2.65	G/C3
APS–C: Accelerator–Porosity Tool			
	APS Software Version	5	
AASD	APS Thermal and Array Detectors High Voltage Setting	1966.03	V
ADSO	APS Array Detectors Data Source Switch	Both	
AFSD	APS Far Detector High Voltage Setting	2098.58	V
AHCS	APS Holesize Correction Source	GCSE	
AHSS	APS Holesize Correction Switch	ON	
AMTY	APS Environmental Corrections Mud Type	WaterBaseBarite	
ANSD	APS Near Detector High Voltage Setting	1731.81	V
ASOS	APS Standoff Correction Switch	ON	
ATSS	APS Temperature–Pressure–Salinity Correction Switch	OFF	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	20	DEGF
DPPM	Density Porosity Processing Mode	HIRS	
FSAL	Formation Salinity	30000	PPM
GCSE	Generalized Caliper Selection	LCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	LINEAR_ESTIMATE	
NARC	APS Near/Array Calibration Ratio	1.05617	
NFRC	APS Near/Far Calibration Ratio	0.88491	
SHT	Surface Hole Temperature	68	DEGF
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)	20	DEGF
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	0.01	DF/F
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	–0.00119668	
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	68	DEGF
TPOS	Tool Position	ECCE	
VBA1	HNGS Detector 1 Variable Barite Factor Running Average	0.975733	
VBA2	HNGS Detector 2 Variable Barite Factor Running Average	0.976522	
System and Miscellaneous			
BS	Bit Size	9.875	IN
BSAL	Borehole Salinity	32000.00	PPM
CSIZ	Current Casing Size	0.000	IN
CWEI	Casing Weight	0.00	LB/F
DFD	Drilling Fluid Density	1.26	G/C3
DO	Depth Offset for Playback	0.0	M
PP	Playback Processing	RECOMPUTE	
TD	Total Depth	1244	M

Format: APSLiquidPorosity_1 Vertical Scale: 1:200 Graphics File Created: 23–Jun–2006 22:57

OP System Version: 12C0–301

MCM

DIT–E	12C0–301	DTA–A	12C0–301
EMS–B	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	PI_EMS_LDL_APS_NGS_006LUP	FN:5	PRODUCER	23–Jun–2006 22:04	1195.6 M	994.7 M

Output DLIS Files

DEFAULT	PI_EMS_LDL_APS_NGS_008PUP	FN:7	PRODUCER	23–Jun–2006 22:57

Company:	**Lamont Doherty**
Well:	**NGHP_1_13A**
Field:	**Krishna Godavari Basin**
Rig:	**Joides Resolution**
Ocean:	**Indian Ocean**

Schlumberger

APS/HLDS POROSITY