

Company: Japan Agency for Marine–Earth Science and Technology
Well: C0004B
Field: Nankai–Kumano
Rig: Chikyu
Country: Japan

Drilling Parameters

Real Time Log 1:500 Measured Depth

Location		Philippines Sea	K.B. Top Drive
Permanent datum:		N 33° 13.2264'	G.L. -2637.0 mMSL
Log measured from:		E 136° 43.3461'	D.F. 28.5 m
Depth reference:		Mean Sea Level	Elev.: 0 m
		Drill Floor	28.5 m above Perm. datum
		Driller's Depth	

Information updated on

03–Nov–07

Logging date	02–Nov–07	Downhole tool numbers	
Run number	1	GVR 42860	SON 46324
Bottom log interval	3055.4 m	ADN 1468	SVWD 45224
Top log interval	2665.5 m		
Bit size/type	8.5/PDC		
Type fluid in hole	Seawater	Frame ID:	982/983/984
Density	1.05 SG	Viscosity	87 s
Fluid loss	na	PH	11.6
Source of sample	Suction	Curve	Time (seconds)
Rm @ measured temperature	0.08 Ohmm	APWD	n/a
Rmf @ measured temperature	na	GVR GR	1.0
Rmc @ measured temperature	na		
Rm @ E.B.H.T.	na		
Estimated B.H.T.	14°C		
Recorded by	Mario Jakuj / Chen Xi / QG Ming		
Witnessed by	C. Hiramatsu / K. Koide		

Do not cut this header. It contains important information

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 SERVICES FOR RUN 1 Direction and Inclination MWD APWD	OTHER SERVICES FOR RUN	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 1 All data provided is from Real Time Acquisition GR Measurement is corrected for bit size, hole size and mud weight. ADN was IBS with 8–1/4" OD. There were no Radioactive Sources included in the BHA, ADN was used for Caliper only SONIC RT DTCU/DTCO Limits set at	REMARKS: RUN NUMBER	REMARKS: RUN NUMBER

120 us/f to 180 us/f

POOH due to TD @ 3065.5mBRT

Pump time: 17.4 hrs

Drill time: 12.1 hrs

EQUIPMENT DESCRIPTION

RUN1

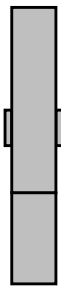
RUN

RUN

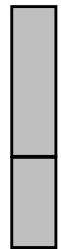
C000

DOWNHOLE E

ADN6 SN#14 Neutro 31.333.0
 OD 6 Neutror 31.2
 BladeOD Density 30.2
 Density 30.1
 UCε 29.7
 R-O F 29.0



SN#45: 26.3
 OD 6
 Arra 23.5



PowerB SN#VL 21.6
 OD 6
 BladeOD
 D&I 17.4
 APW 14.1



SONICS SN#46: 13.1
 OD 6
 BladeOD
 RX arr 10.1
 R-O p 9.7



Filtering GR	3								
Filtering density	3								
Filtering Neutron	3								
Company representative	T. Abe	I. Sawada							
Schlumberger D&M Personnel	M. Jakulj	Chen Xi	Q G Ming						

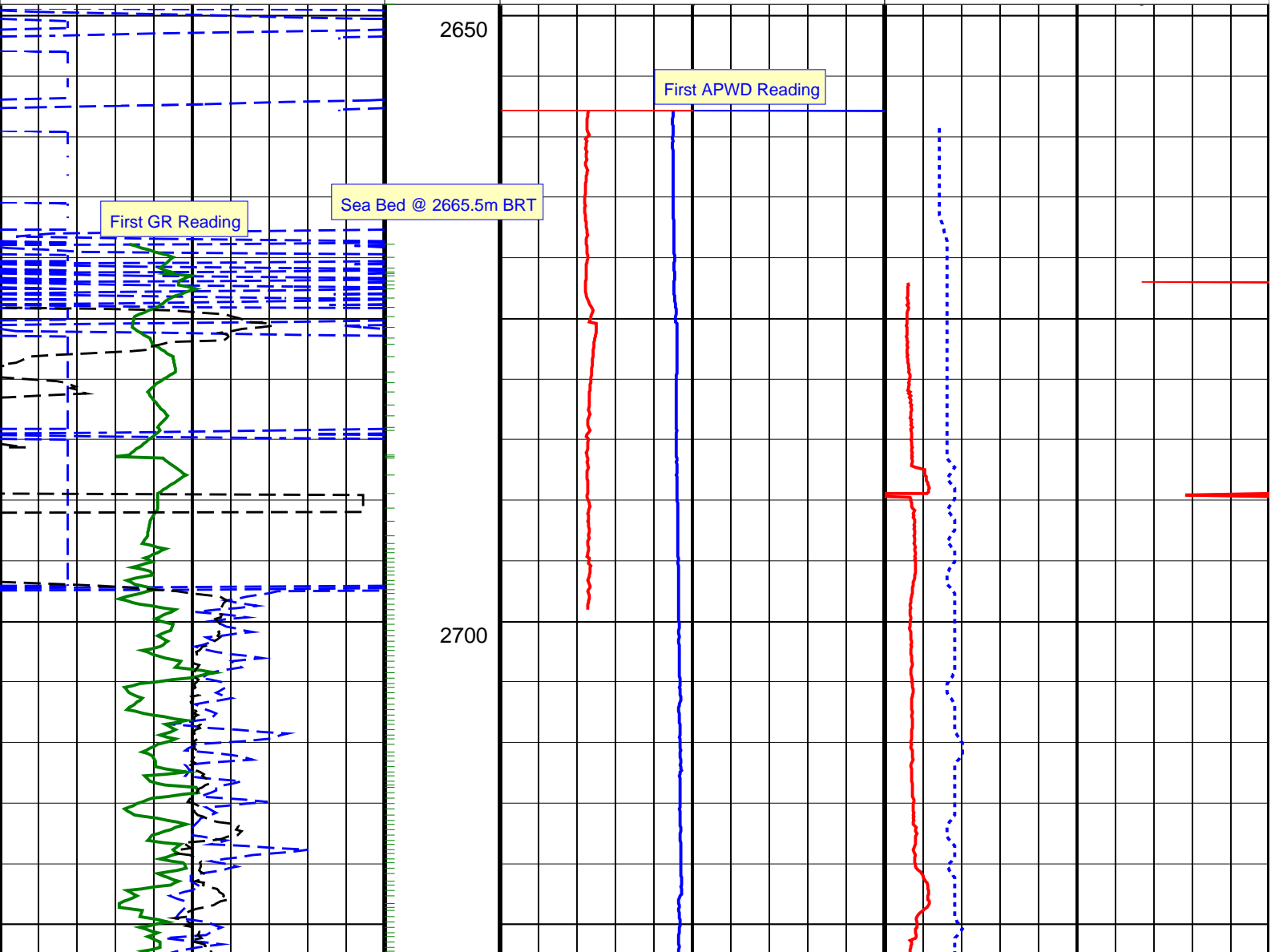
314 C0004B APWD RT MD500

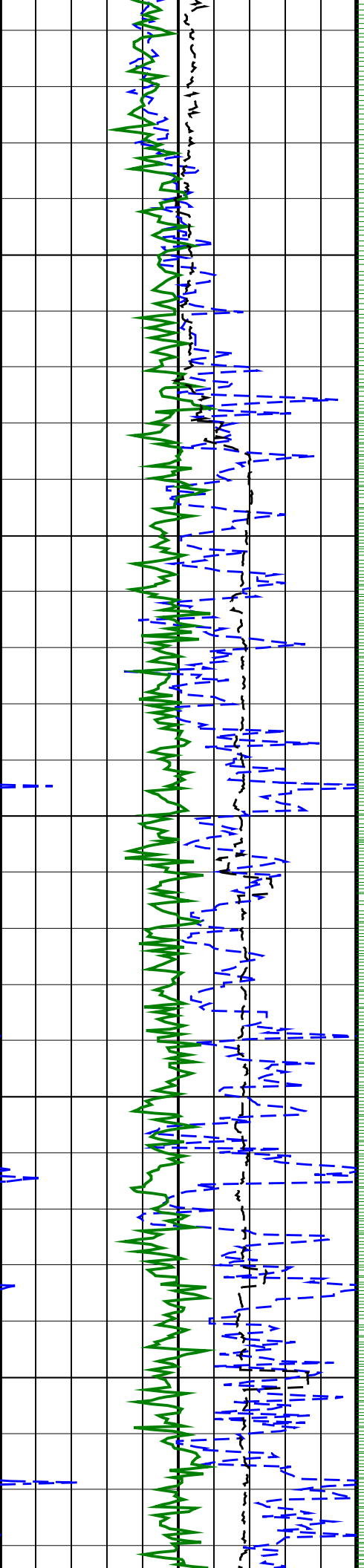
IDEAL Version: ID12_OC_12 <MD > Vertical Scale: 1:500 Graphics File Created: 03-Nov-2007 15:52

PIP SUMMARY

GRRR_R PIP

RAB Gamma Ray, Real-Time (GR_RAB_RT)				
0 (GAPI)	150			
Average Borehole Diameter, Real-Time (ADIA_ADN_RT)				
7 (IN)	12			
ROP*5 (ROP5)				
100 (M/HR)	0			
		MWD Equivalent Circulating density (ECD_MWD)		Standpipe Pressure (SPPA)
		8 (LB/G)	10	1000 (PSI) 4000
		MWD Annulus Pressure (APRS_MWD)		MWD Annular Temperature (ATMP_MWD)
		2000 (PSI)	6000	0 (DEGC) 50



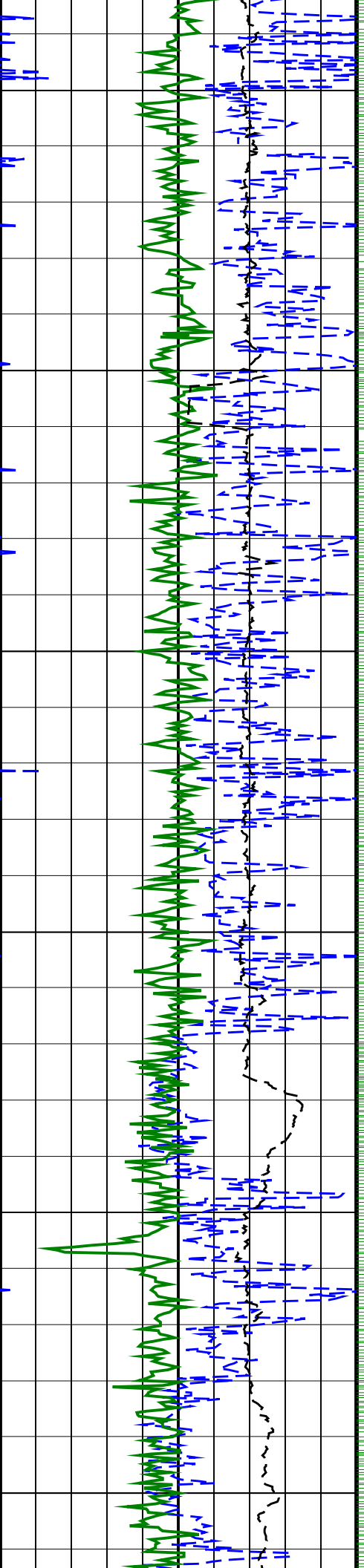


2750

2800

2850

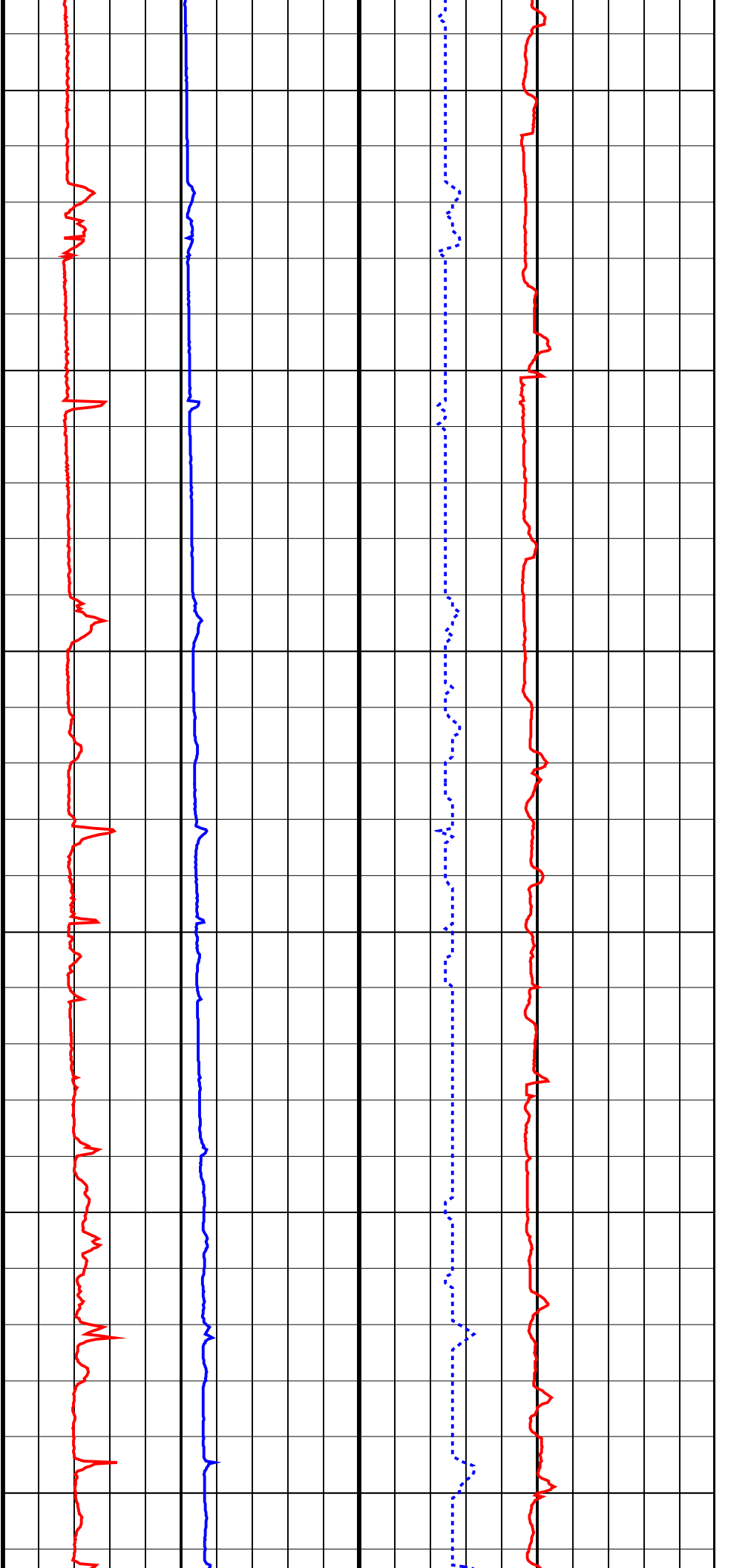


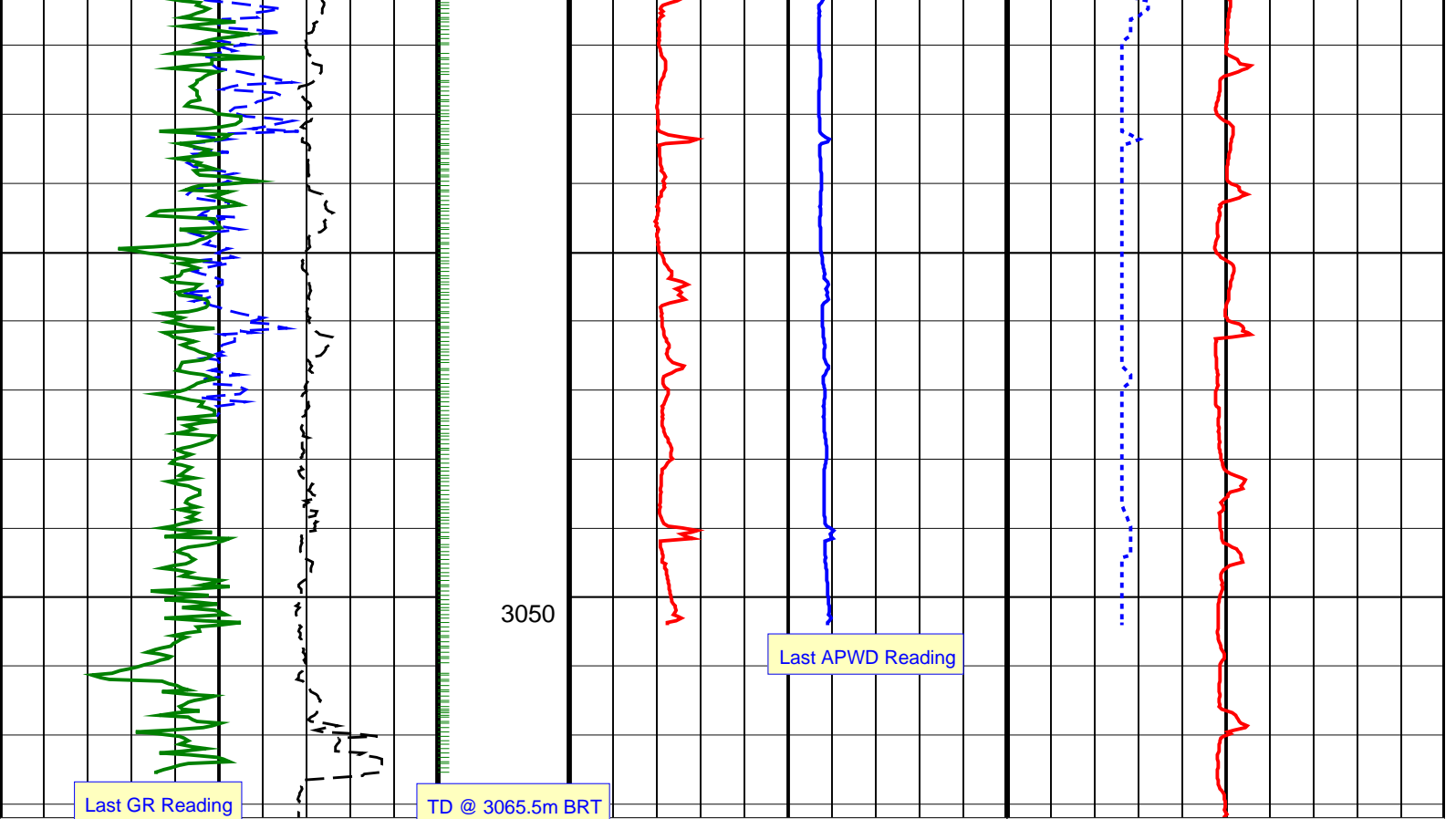


2900

2950

3000





Last GR Reading

TD @ 3065.5m BRT

Last APWD Reading

ROP*5 (ROP5) (M/HR)		MWD Annulus Pressure (APRS_MWD) (PSI)		MWD Annular Temperature (ATMP_MWD) (DEGC)	
100	0	2000	6000	0	50
Average Borehole Diameter, Real-Time (ADIA_ADN_RT) (IN)		MWD Equivalent Circulating density (ECD_MWD) (LB/G)		Standpipe Pressure (SPPA) (PSI)	
7	12	8	10	1000	4000
RAB Gamma Ray, Real-Time (GR_RAB_RT) (GAPI)					
0	150				

PIP SUMMARY

└ GRRA_R PIP

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Field..... Nankai-Kumano

Well..... C0004B Spud date..... 02-Nov-07
 API number..... 07CHS0064 Last survey date..... 03-Nov-07
 Engineer..... Mario Jakulj / Chen Xi / QG Ming Total accepted surveys.... 13
 MD of first survey..... 2665.50 m
 MD of last survey..... 3047.37 m

Rig..... Chikyu
 STATE..... Japan

----- Survey calculation methods-----
 Method for positions..... Minimum curvature
 Method for DLS..... Mason & Taylor

----- Depth reference -----
 Permanent datum..... Mean Sea Level
 Depth reference..... Drill Floor
 GL above permanent..... -2637.00 m
 KB above permanent..... 28.50 m
 DF above permanent..... 28.50 m

----- Vertical section origin-----
 Latitude (+N/S-)..... 0.00 m
 Departure (+E/W-)..... 0.00 m

----- Platform reference point-----
 Latitude (+N/S-)..... 0.00 m
 Departure (+E/W-)..... 0.00 m

Azimuth from Vsect Origin to target: 0.00 degrees

----- Geomagnetic data -----
 Magnetic model..... BGGM version 2007
 Magnetic date..... 02-Nov-2007
 Magnetic field strength... 915.40 HCNT
 Magnetic dec (+E/W-)..... -6.47 degrees
 Magnetic dip..... 46.53 degrees

----- MWD survey Reference Criteria -----
 Reference G..... 999.59 mGal
 Reference H..... 915.40 HCNT
 Reference Dip..... 46.53 degrees
 Tolerance of G..... (+/-) 2.50 mGal
 Tolerance of H..... (+/-) 6.00 HCNT
 Tolerance of Dip..... (+/-) 0.45 degrees

----- Corrections -----
 Magnetic dec (+E/W-)..... -6.47 degrees
 Grid convergence (+E/W-).. 0.00 degrees
 Total az corr (+E/W-)..... -6.47 degrees
 (Total az corr = magnetic dec - grid conv)
 Survey Correction Type

I=Sag Corrected Inclination
M=Schlumberger Magnetic Correction
S=Shell Magnetic Correction
F=Failed Axis Correction
R=Magnetic Resonance Tool Correction
D=Dmag Magnetic Correction

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SCHLUMBERGER Survey Report

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/10m)	Srvy tool type	Tool Corr (deg)
1	2665.50	0.00	0.00	0.00	2665.50	0.00	0.00	0.00	0.00	0.00	0.00	TIP	None
2	2666.22	0.32	110.55	0.72	2666.22	-0.00	-0.00	0.00	0.00	110.55	4.45	MWD	None
3	2672.02	0.50	60.50	5.80	2672.02	0.01	0.01	0.04	0.04	81.17	0.66	MWD	None
4	2703.64	1.20	86.45	31.62	2703.64	0.09	0.09	0.49	0.50	79.07	0.25	MWD	None
5	2742.32	1.13	127.64	38.68	2742.31	-0.11	-0.11	1.20	1.20	95.41	0.21	MWD	None
6	2781.07	1.02	129.01	38.75	2781.05	-0.56	-0.56	1.77	1.85	107.70	0.03	MWD	None
7	2818.69	1.05	121.02	37.62	2818.67	-0.95	-0.95	2.32	2.51	112.30	0.04	MWD	None
8	2855.31	1.19	114.46	36.62	2855.28	-1.28	-1.28	2.96	3.22	113.46	0.05	MWD	None
9	2896.83	1.10	100.57	41.52	2896.79	-1.53	-1.53	3.74	4.04	112.30	0.07	MWD	None
10	2932.70	1.21	91.97	35.87	2932.65	-1.61	-1.61	4.46	4.74	109.87	0.06	MWD	None
11	2970.67	1.52	90.59	37.97	2970.61	-1.63	-1.63	5.36	5.60	106.90	0.08	MWD	None
12	3009.38	1.44	78.47	38.71	3009.31	-1.54	-1.54	6.35	6.53	103.61	0.08	MWD	None
13	3047.37	1.42	78.99	37.99	3047.29	-1.35	-1.35	7.28	7.41	100.52	0.01	MWD	None

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Company:
Japan Agency for Marine-Earth Science and Technology

Well: C0004B

Field: Nankai-Kumano

Rig: Chikyu

Country: Japan

8 1/2 in
Drilling Parameters
Real Time Log 1:500 Measured Depth

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Geomarket	Job Date	Rig	Engineer
Description Header, user sensor to tool			
Equipment and Tool sketch, Processing Acquisition remarks			
Annotations Documented selection			
Calibration / Validity, comment			
Depth Control Comparison listing			
Logging speed			
As recommended			
Data Comparison Between run			
Operating At			
Absence of r			
Digital Product Labeled, verified hard copy.			
Irregular Operation Excessive R			
Borehole Ge Shape (cave)			
Borehole Fit			
Barite, KCl, s			
Interference External noise			
Operation O GeomarketT value of para			

CHG	Location	Philippine Sea
02-Nov-07	Customer	JAMSTEC
Chikyu	Field/Well	Nankai-Kumano/C0004B
Mario/Cheng Xi/Q.G. Ming	Job Number	07CHS0064

Type of Measurement

Res	GR	APWD	Neu	Den

Data Quality Report

When data does not meet standards, put a number in the column corresponding to the measurement with a corresponding number and remark below. Use additional pages for remarks
Positive remarks are welcome; do not append them with a number.

Operation

Presentation

Well - Names, Geometry, Services, Location and References: General Content
of trademarks, directional data, well plot, order of components, spelling and style, units
face angle recorded

Traceability and Environment Description
environment, parameters and key constants for each run or zone, complete and relevant

QC Curves, Print Quality
splice points; data gap explanations, mud changes, movement indicator, color

Remarks

Calibration and Verifications

Before survey verification / After survey verification

Completeness (includes equipment number), timeliness, unedited, discrepancy explained

Operating Procedures

Tool with driller's depth, other logs, other bit runs, between RT and RM. Depth summary

Checked and sampling rates

Included in reference manual or job planner. No loss of data or spatial resolution

Correlation

Runs and passes, with data from nearby wells, other conveyance, mud log and markers

Abnormalities/Failure/Missing Data/Sensor Orientation/Transmission Losses

Noise and spurious variations, anomaly repeated, corrected, reported or explained.

Digital Delivery

Records with complete digital record, backup for archival; record matches

Job Quality Rating (JQR)

Number of boxes without number X 10

100	100	100	100	100

Environmental effects

Operation
Vibration listing with complete digital record, backup for archival; record matches

Geometry

ROP or speed, high deviation, shocks, vibrations, sticking conditions

Fluid

Fluid s, etc), rugosity, spiralled hole, mud induced fractures. Casing, tubing conditions

Well

Wellbore, casing or drillpipe, debris, unusual formation composition

Tool Specifications

Tool temperature, pressure, hole size, hole deviation, dog-leg severity, flow rate, rpm, solids meter

Environmental Quality Rating (EQR)

Number of boxes without number X 20

100	100	100	100	100

Cell Manager: Mario Jakubi FSM: ND Maduenmezia