

**Well: NT2-01**

**Field: Nankai Kumano**



**JAMSTEC**

# **End of Well Report**

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**MWD/LWD - DD**

**Prepared By:**

*Yu Ito/ Ning Yang/Tan Chee Sing/He Chang Hua*  
Schlumberger

August 2009

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## **1. WELL SUMMARY**

## NT2-11B Well Specifications

*Operator* : Mantel Quest Japan  
*Well name* : NT2-01  
*Field* : Nankai Kumano  
*Location* : Philippine Sea  
*Country* : Japan  
  
*Spud date* : 2nd Aug 2009  
*Interval logged* : 2553.00m – 3016.93m  
*Drilling contractor* : MQJ  
*Rig* : Chikyu  
*Permanent Datum* : Mean Sea Level  
*Permanent Datum Elevation* : 0 m  
*Depth Reference* : Driller's Depth  
*Drilling measured from* : Drill Floor, 28.3m above Mean Sea Level  
*Water depth* : 2553 m  
*Mud Type* : Sea Water in 20" jetting and 12.25" hole  
*D&M service center* : Chiwan , Shekou  
*D&M logging unit* : OLU-KC-0504  
*Job number* : 09JAP0003

### Services Provided

<b>20" Jetting section</b>	<b><u>From</u></b>	<b><u>To</u></b>
Surface Measurements	2553.00 m	2594.00 m
MWD DNI	2553.00 m	2587.02 m
MWD GR	2553.00 m	2587.67 m
MWD IWOB	2553.00 m	2590.27 m
<b>12.25" Hole section</b>	<b><u>From</u></b>	<b><u>To</u></b>
Surface Measurements	2594.00 m	3107.18 m
MWD DNI	2585.81 m	3098.99 m
MWD IWOB	2589.06 m	3102.24 m
GVR GR	2592.91 m	3106.09 m
GVR Resistivity	2592.13 m	3106.93 m

## Well Run Briefs

Totally 3 runs were drilled in this scientific well, and D&M Schlumberger has supplied MWD(Telescope) for 20” jetting operation, MWD(Telescope) and LWD(GeoVision resistivity) for 12.25” hole section, IWOB, MWD survey, IWOB measurements, and stick and slip measurements were provided throughout the run.

### 20” Jetting Section

#### Run 1(2553.00m MD / 2553.00 m TVD- 2594.00m MD / 2594.00 m TVD)

(The objective of this run)

The objective of this run was to Jet 20" casing hole while maintaining verticality. After landing and soaking 20” casing at +/- 2600m BRT, release CART tool and pull out of hole to prepare for the next LWD run. There is likely to be high drillstring magnetic interference on the surveys during this run due to the proximity of steel components to the D&I package.

(MWD/LWD Run Summary Description)

It was started to make up the casing assembly and BHA jetting assembly with Telescope at 00:00, 2<sup>nd</sup> of Aug-2009. Telescope tool was actually picked up at 12:00, the same date. Since there was strong surface current at the drilling coordinate, ship was moved few miles away to avoid current while we make up Jetting assembly.

At 22:00, 2<sup>nd</sup> of August, the ship started to drift to the new location. At the same time, it was began to run BHA assembly

At 15:00, 3<sup>rd</sup> of August, Successful shallow hole test was carried out with flow rate: 700gpm, SPPA: 425psi, TRPM: 2881, and MWD Stat: 4, then it was continued to run in hole.

At 08:15, 5<sup>th</sup> of August, Jetting assembly has tagged seabed at the depth of 2553.00m and Jetting was started.

The Jetting operation went on very smooth and it was successfully Jetted until 2594.00m at 9:30, 5<sup>th</sup> of August. After Jetting, wellhead was set and casing was released with the CART tool.

Steady signal was observed from the MWD while pump was on.

Pump time: 1hrs

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Drilling time: 1hrs

## 12 ¼” Hole Section

### Run3 (2594.00m MD / 2594.00 m TVD – 3033.07m MD / 3033.07 m TVD)

(The objective of this run)

Drill 12.25" hole with a pendulum assembly, holding the inclination vertical as much as possible.

GeoVision resistivity is being run in this BHA assembly to acquire resistivity data of the formation.

Estimated TD depth is +/- 3113.00m and hole inclination will be tried to be kept minimal.

(MWD/LWD Run Summary Description)

Since strong surface current still existed at the drilling coordinate, it was decided to install guide cone under the moon pool before drilling. At 9:00, 6<sup>th</sup> of August, guide cone was successfully installed and it was started to pick up and make up BHA.

At 14:30, 6<sup>th</sup> of August, successful shallow hole test was carried out with flow rate: 700gpm, SPPA: 572psi, TRPM: 2148, and all tool status words showing normal. After the shallow hole test, tools were run in hole.

BHA tagged bottom at the depth of 2594.00m, and it was started to drill at 14:20, 7<sup>th</sup> of August.

Seawater with gel was used for mud so, as we drilled deeper, the hole condition became sticky and the tool started to experience high stick and slip around the depth of 2735.00m.

After it was drilled until 3033.07m at 12:00, 9<sup>th</sup> of August, it was decided to pull out of hole all the way before reaching the expected total depth of 3113.00m, since there was a typhoon approaching.

Immediately after, the tools were started to pull out of hole and at 21:45, 9<sup>th</sup> of August, tools were above the rotary table.

Good MWD signal throughout this run, and good reading from all sensors.

Occasionally, high stick and slip up to 280 was observed in this run.

Pump time: 39.38hrs

Drilling time: 22.28hrs

### Run4 (3033.07m MD / 3033.07 m TVD – 3107.18m MD / 3107.18 m TVD)

(The objective of this run)

Continued from run two, drill 12.25" hole with a pendulum assembly, holding the inclination vertical as much as possible.

GeoVision resistivity is being run in this BHA assembly to acquire resistivity data of the formation.

Estimated TD depth is +/- 3113.00m and hole inclination will be tried to be kept minimal.

(MWD/LWD Run Summary Description)

After the typhoon has passed, the shift started to drift back to the drilling coordinate. It was started to pick up and make up BHA at 9:00, 11<sup>th</sup> of August. Since strong surface current still existed at the drilling coordinate, it was decided to install guide cone under the moon pool before drilling.

At 10:30, 11<sup>th</sup> of August, successful shallow hole test was carried out with flow rate: 700gpm, SPPA: 570psi, TRPM: 2188, and all tool status words showing normal. After the shallow hole test, tools were run in hole.

Before running in hole all and tagging bottom, a request was made from the scientists to relog 2900.00m to 2970.00m.

This section was reamed accordingly starting at 5:50, 12<sup>th</sup> of August and finished at 10:00, 12<sup>th</sup> of August.

Afterwards, bit has tagged bottom at depth of 3033.07m and it was started to drill at 11:10, 12<sup>th</sup> of August.

Shortly after only drilling 74.11m of hole depth, total depth was reached at the depth of 3107.18m, at 17:30, 12<sup>th</sup> of August. Circulating at bottom, wiper trip until casing shoe, and circulating at bottom followed before it was decided to pull out of hole at 07:00, 13<sup>th</sup> of August.

Tools have arrived above rotary table at 17:00, 13<sup>th</sup> of August and all tools were laid down on the pipe deck.

Good MWD signal throughout this run, and good reading from all sensors.

Occasionally, high stick and slip up to 240 was observed in this run.

Pump time: 20.04hrs

Drilling time: 4.09hrs

**End of the Well**

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## ***2. D&M PERSONNEL***

### **D&M Personnel**

#### **Field Crew:**

Yu Ito	MWD/LWD Engineer
Ning Yang	MWD/LWD Engineer
He Chang Hua	Directional Driller
Tan CheeSing	Directional Driller

#### **Onshore Support Staff:**

Tri Utomo	Operation Manager
Wu Yang Song	Field Service Manager
Yoshio Ikeda	Engineer in Charge
Vera Krissentiwati	Service Quality Coach
Chen Zhen Yu	Quality Compliance Manager

#### **Technicians:**

Teo Chun Lin	R&M Manager
Edgar Magbanua	R&M Supervisor
Zhong Yong Ming	R&M SQC
Luo Lin	Mechanical Technician
Fan Rong	Electronics Technician



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### ***3. DIRECTIONAL DRILLING REPORT***



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**Schlumberger**

**End of Well Report**

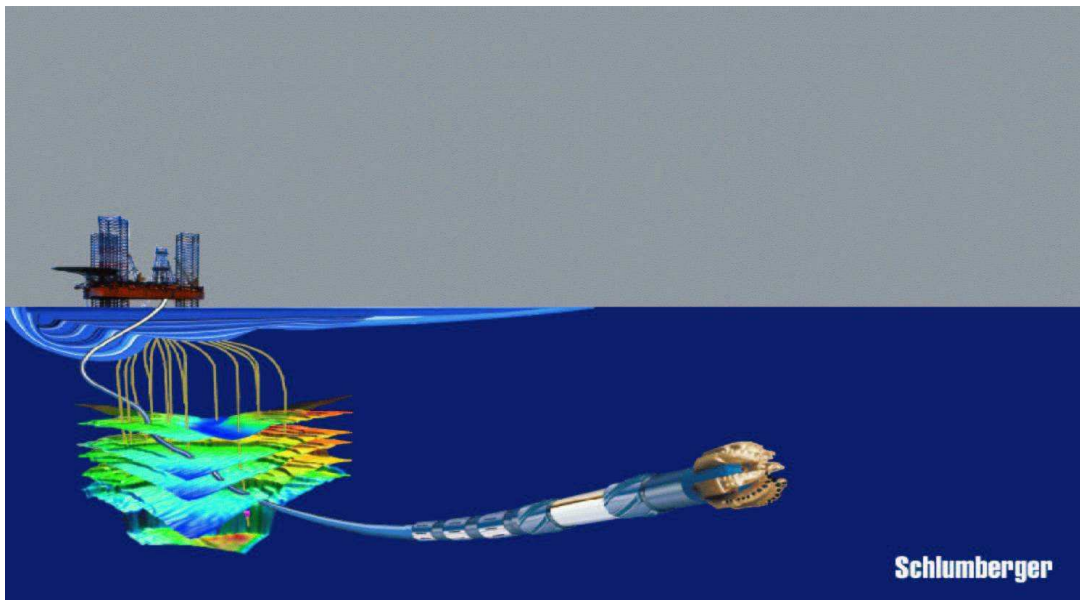
**For**

**NT2-01**

FSM: *Yoshio Ikeda / Wu Yang Song*

DD: **Tan Chee Sing / He Chang Hua**

**Date: 07-Aug-2009**



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- **JOB SUMMARY**
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- **TORQUE & DRAG REPORT**

**1. Client : Jamstec**

Field	Location	Structure	Rig	Drilling Co.
Nankai- Kumano	Philippines Sea	Chikyu	Chikyu	Jamstec ( MQJ)

**2. SLB Service Information**

Service Type	Service Period For The Project	Service Section of This Well
DD/MWD/LWD	01 Aug 09 - 06 Jul 09	2553m MD - 2594 MD

**3. Structure Data**

Coordinates System	RKB to MSL	MSL to Subsea
JGD2000 / UTM Zone 53N	28.3 m	2535m

**Reference Point**

Northing (m)	Easting (m)	Latitude (deg)	Longitude (deg)
3675829.878	657194.746	N 33 12 35.820	E 136 41 11.940

**4. Data of Well -- NT2-11 B**

**Well Classification:** Expedition  
**Spud Date:** August 5, 2009  
**Profile Shape:** Vertical  
**Surface Coordinates (m) :** N+/S- = 0      E+/W- = 0  
**TVD Reference** RKB

Magnetic Data	Declination	Grid Convergence	Total Corrected to Grid North
	-6.92	0.92398	-7.416

**Targets Data :**

Target #	Planned (m)				Actual (m)			
	TVD	N+/S-	E+/W-	Radius	TVD	N+/S-	E+/W-	Offset
1	3123.30	0.00	0.00	15	2594.00	0.00	0	0.00

**Critical Trajectory Data :**

	Planned Data	Actual Data
KOP (m)	N/A	N/A
Max Inclination (deg)	0.00	1.00
Vertical Section Azimuth (deg)	0.00	270.00
Vertical Section (m)	0.00	0.00
Entry Point (m)	N/A	N/A
Drain Inclination (deg)	N/A	N/A
Drain Length (m)	N/A	N/A
Total Depth (m)	3123.30	N/A
Total Vertical Depth (m)	3123.30	N/A

**Casing Program :**

	36" Conductor	20" CSG	9-5/8" CSG
Set Depth(m)	N/A	2594.00	

## NT2-01

### OBJECTIVES

NT2-01 is a riserless long-term observatory hole to monitor the mega-splay fault at a relatively shallow depth. The overall engineering objectives at NT2-01 are to set the wellhead, case and cement the sites in preparation for future observatory deployment, and install temporary monitoring instruments attached to a bridge plug at Site NT2-01.

The major scientific objectives at Site NT2-01J include: (1) characterizing the lithostratigraphy and structural geology of the hanging wall, fault zone and footwall using logging data; (2) defining physical properties in the hanging wall and footwall of the shallow part of the megasplay; and (3) installing a temporary monitoring package in a screened interval designed to monitor pore pressure and temperature within the fault zone.

### WELL TRAJECTORY

NT2-01 was designed as vertical well all the way to TD.

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#### BHA #1 (2553M to 2594m), 20" conductor jetting

8" Jetting sub W/6 x 14/32"+1 x 15/32" nozzles, X/O sub, X/O sub, 8" Float sub (ported), Telescope825 HF, 17-1/4" Stabiliser, 3 x 8 1/2" DC, XO Sub, CART (below), CART(above), XO, 5 3/4" DP S150 to surface

This BHA was used as a jetting assembly for the 20" casing so the above spacing was necessary to position the jetting sub within the proper jetting window (6"inside) in relation to the casing shoe, confirmed with ROV of the space-out. The 20" casing was jetted to 2594.0m MD. 50 bbls of hi-vis sweeps were pumped every single to assist hole cleaning. No signs of broaching observed while jetting. As jetting went deeper and firmer formation at lower part, a maximum flow rate of 1000gpm was used to aid hole cleaning, it was reduced to 500gpm, 2m before TD as not to wash out formation at shoe area. Surprisingly jetting went very well even without a motor. At the time of jetting, WOB were varies from -40kN to +75kN, compensator was opened & minimal weight was used cautiously.

(Please refer Jetting Parameter Sheet for specific details)

### **Drilling Summary**

#### 20" Conductor Jetting (2553m to 2594m)

The 20" conductor was jetted down to 2594mMD, 41m below mudline. Jetting flow rates started out at about 10 spm not to plug the bit nozzle when spud in. This flow rate was increased to 1000gpm when no evident of broaching at sea bed from ROV observation. Flow rate was reduced 2m before 20" conductor was set at desired depth and pump was stopped when 20" set in place. Bulleye reading was at 3 degree maximum before spud in and final bullseye reading was 1 degree.

## Conclusion / Recommendations

- Rig heaving 2-3m at the time of jetting helped to penetrate 20” while jetting, surprisingly the operation went very well even without a motor & bit. WOB was kept at minimal to bring the casing down, basically with rig heaving.

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**BHA Data Sheet**

**Jamstec NT2-01 Deepwater**

<b>BHA #</b>	20in Jetting BHA
<b>Field</b>	Jamstec NT2-01 Deepwater
<b>Structure</b>	Jamstec NT2-01 Deepwater

<b>Date</b>	August 01, 2009
<b>Well</b>	Jamstec NT2-01 Deepwater
<b>Borehole</b>	Jamstec NT2-01 Deepwater

Item	Name	Vendor/Model	Serial #	Fish. Neck OD (in)/ Length (m)	OD (in)/ ID (in)	Max OD (in)	Bottom/ Top Connection	Length (m)	Cum. Length (m)	
1	8" Jetting Sub	Vetco Gray					4.50 IF Pin	0.440	0.440	
2	XO sub	CDEX	01		8.50 3.00	8.50	4.50 IF Pin 5.50 FH DSTJ Box	0.300	0.740	
3	XO sub	CDEX	01-125-0000		8.50 4.13	8.50	5.50 FH DSTJ Pin 6.625 Reg Box	0.775	1.515	
4	Float Sub	SLB	SBD1826		8.19 3.00	8.19	6.625 Reg Pin 6.625 Reg Box	0.876	2.391	
5	Telescope	SLB	E2314		8.25 4.38	8.41	6.625 Reg Pin 6.625 Reg Box	8.951	11.342	
6	17-1/4" Stabilizer	SLB	DOTR21154		8.25 2.81	8.25	6.625 Reg Pin 6.625 Reg Box	2.127	13.469	
7	3 x 8 1/2" Collar	CDEX			8.50 2.50	8.50	6.625 Reg Pin 6.625 Reg Box	27.929	41.398	
8	XO sub	CDEX	01-303-0000		8.50 2.50	8.50	6.625 Reg Pin 4.50 IF Box	0.610	42.008	
9	CART Down	Vetco Gray			8.00 2.81	8.00	4.50 IF Pin	0.720	42.728	
10	CART Up	Vetco Gray			8.00 2.81	8.00	6.625 Reg Box	0.465	43.193	
11	XO Sub	CDEX	01-126-0000		8.50 3.25	8.50	6.625 Reg Pin 5.75 FH DSTJ Box	0.70	43.893	
12	5-1/2" DPS, Prem. 5.5,24.7,Premium	CDEX			5.50 4.13	7.25	5.75 FH DSTJ Pin 5.75 FH DSTJ Box	10.00	53.89	
							<b>Total Weight (1000 N)</b>	112	<b>Total Len.</b>	53.89
							<b>Below Jar (lbf)</b>	N/A		

**BHA Comments:** 20" Conducto Jetting as per plan. Jetting sub to CART down= 42.728m, Bit Stick-out = -5.79 inch or -0.147m (42.728m-42.875m), Weight Below CART= 106KN in air

<b>Stabilizer</b>	
<b>Blade Length (m)</b>	0.60
<b>Mid-Pt. To Bit (m)</b>	12.09
<b>Bend To Bottom</b>	
<b>Bent Housing Angle (deg)</b>	
<b>Connection (m)</b>	

<b>Sensor</b>	
<b>Type</b>	D&I
<b>Distance To Bit (m)</b>	6.00

<b>Bit Nozzles</b>	
<b>Count</b>	6
<b>Size(mm)</b>	14.00
	1
	15.00
<b>TFA (mm2)</b>	693.26
<b>Quality Control</b>	
<b>Created By:</b>	CHe3
<b>Checked By:</b>	



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# Schlumberger

	Cum. Len. (m)
5-1/2 " DP S-150	53.893
XO Sub	43.893
CART Up	43.193
CART Down	42.728
XO sub	42.008
3 x 8 1/2" Collar (3 joints)	41.398
17-1/4" Stabilizer	13.469
Telescope	11.342
Float Sub	2.391
XO sub	1.515
XO sub	0.740
8" Jetting Sub	0.440

**Jamstec**  
**Jamstec NT2-01 Deepwater**  
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**Jamstec NT2-01 Deepwater**  
**20 Jetting BHA**

### BHA DESCRIPTION

ELEMENT	LENGTH (m)	OD (in)	ID (in)	MAX OD (in)
8" Jetting Sub	0.44	8.00	2.50	8.00
XO sub	0.30	8.50	3.00	8.50
XO sub	0.78	8.50	4.13	8.50
Float Sub	0.88	8.19	3.00	8.19
Telescope	8.95	8.25	4.38	8.41
17-1/4" Stabilizer	2.13	8.25	2.81	17.25
3 x 8 1/2" Collar (3 joints)	27.93	8.50	2.50	8.50
XO sub	0.61	8.50	2.50	8.50
CART Down	0.72	8.00	2.81	8.00
CART Up	0.47	8.00	2.81	8.00
XO Sub	0.70	8.50	2.81	8.50
5-1/2 " DP S-150	10.00	5.50	4.13	7.25

Bit to Direction & Inclination Sensor = 6 m

### DRILLING OVERVIEW

Jetting 20" conductor as per plan.

Depth in: 2553m	0.00 m	Depth out: 2594m	0.00 m
Inclination in: 1.00°	To: 1.00°		
Direction in: 270.00°	To: 270.00°		
Total Drilled	41.00 m	Dogleg:	0

# Schlumberger

Quality Control

Created by: CHe3

Date:

8/3/2009

Checked by:

Date:



Schlumberger D & M  
 JAMSTEC Japan  
 Well - NT2-01  
 Chikyu

Jetting 20" Casing

Jetting Date : 05-Aug-2009  
 RKB - Water : 28.3 m  
 RKB - Seabed : 2553 m  
 Water Depth : 2524.7 m  
 Casing hookload: 68 kN Seawater  
 Below CART: 88 kN Seawater  
 BHA weight: 97 kN Seawater

JAMSTEC Supervisor: T.Saruhashi  
 Jetting Supervisor : Tan CS/He CH

Bullseye 5 degree  
 ROV Oceanering  
 MWD TeleScope  
 Motor None - Jet sub only

Calculated Jet sub space out: 5.9" inside 20" casing

BF 0.869

Date	Depth (Meters)		Time		M/Hr	WOB	Flow	Pres	Drag		Bulleye Reading	Csg	Csg Wt	2/3* csg	80% csg	BHA	Total	Total	%	%	(1970KN hookload before spudding)
	From	To	From	To	ROP	kN	GPM	Mpa	Up	Down		Air	Bouyed	Bouyed	Bouyed	Bouyed	100%	80%	Used	Used	
		0									3.0 Deg 270 Azm	0	0	0	0	0	0	0	0%	0%	
05-Aug-09	0	2	7:47	7:50	40	0	90	0.2				4	3	2	3	4	8	6	0%	0%	
	2	4	7:50	7:52	60	0	200	0.4				8	7	4	5	9	15	12	0%	0%	
	4	6	7:52	7:54	60	0	200	0.4				12	10	7	8	13	23	18	0%	0%	
	6	8	7:54	7:55	120	0	200	0.4				15	13	9	11	17	30	24	0%	0%	
	8	10	7:55	7:56	120	6	200	0.4				19	17	11	13	21	38	30	0%	20%	M/U Connection
	10	12	8:17	8:19	60	6	300	0.4				23	20	13	16	26	46	37	0%	30%	No Broaching
	12	14	8:19	8:20	120	6	300	1.8				27	23	16	19	30	53	43	0%	26%	
	14	16	8:20	8:22	60	6	500	3.9				31	27	18	21	34	61	49	0%	22%	
	16	18	8:22	8:26	30	10	700	8.4				35	30	20	24	38	68	55	0%	33%	
	18	20	8:26	8:27	120	15	700	8.4				38	33	22	27	43	76	61	0%	45%	
	20	22	8:27	8:29	60	12	700	8.4				42	37	24	29	47	84	67	0%	33%	
	22	24	8:29	8:30	120	16	815	11.4				46	40	27	32	51	91	73	0%	40%	
	24	26	8:30	8:32	60	22	920	14.4				50	43	29	35	56	99	79	0%	51%	
	26	28	8:32	8:35	40	30	920	14.4				54	47	31	37	60	107	85	0%	64%	
	28	30	8:35	8:39	30	35	920	14.4				58	50	33	40	64	114	91	0%	70%	
	30	32	8:39	8:41	60	40	1000	16.8				61	53	36	43	68	122	97	0%	75%	
	32	34	8:41	8:43	60	40	1000	16.8				65	57	38	45	73	129	103	0%	71%	
	34	36	8:43	8:51	15	40	1000	16.8				69	60	40	48	77	137	110	0%	67%	
	36	38	8:51	8:53	60	45	1000	16.9				73	63	42	51	81	145	116	0%	71%	
	38	40	8:53	8:58	24	45	500	4.6				77	67	44	53	85	152	122	0%	67%	
	40	41	8:58	9:04	10	50	500	4.6			1.0deg 270 Azm	79	68	46	55	88	156	125	0%	73%	Bull's eye: 1.0deg
<b>Remarks:</b>	1. 20" Casing shoe depth: 2594.00mRKB																				
	2. Mudline depth: 2553m RKB																				
	3. No soaking after Jetting finished.																				
	4. Final bull's eye reading: 1deg																				

# HYDRAULICS - SUMMARY

Company Name: <b>Jamstec</b> Field: <b>Jamstec NT2-01 Deepwater</b> Structure: <b>Jamstec NT2-01 Deepwater</b> Well: <b>Jamstec NT2-01 Deepwater</b> Location: Borehole: <b>Jamstec NT2-01 Deepwater</b> Operator: District:	P-T: <b>Off</b> Mud Wt: <b>8.700</b> ppg PV: <b>20.0</b> cP YP: <b>20.0</b> Pa K: <b>2378.4</b> eq.cP n: <b>0.404</b> Fann 3: <b>0.0</b> Pa Fann 6: <b>0.0</b> Pa Fann 100: <b>0.0</b> Pa Fann 200: <b>0.0</b> Pa Fann 300: <b>29.6</b> Pa Fann 600: <b>39.2</b> Pa Model: <b>Power Law</b>	<b>Pressure Drop Summary</b> Surf. Eqpt: <b>1</b> MPa * Inside Drillstr: <b>12</b> MPa Tools: <b>0</b> MPa Motor/RSS: <b>0</b> MPa Bit Nozzles: <b>5</b> MPa * Annulus: <b>0</b> MPa Chokeline: <b>0</b> MPa Hyd Imbalance: <b>0</b> MPa <b>TOTAL: 18 MPa</b> (Actual): *Including TJ losses (10%)
BHA Data: <b>20 Jetting BHA</b> Wellbore Data: <b>NT2-01 WG</b> Survey Data: <b>NT2-01 Proposal</b> Date: <b>03-Aug-2009 02:15</b>		

<b>Flowrate:</b> <b>3790</b> L/min			
** ECD at Bit: <b>8.790</b> ppg	Depth In: m	<b>Bit Flowrate:</b> <b>3790</b> L/min	<b>Jet Velocity:</b> <b>91.1</b> m/s
** ECD at Shoe: <b>Bit in Csg</b> ppg	Depth Out: m	Bit HSI: <b>8.08</b> hp/in2	Jet Imp.Force: <b>6.0</b> 1000 N
User Depth: <b>0.0</b> m	Bit TVD: <b>2603.0</b> m	% Hyd Pow: <b>26.79</b>	
** ECD at Depth: <b>8.700</b> ppg	Bit MD: <b>2603.0</b> m		

\*\* ECD's are corrected for Tool Joints

BHA Description						*Including TJ losses (10%) Borehole description			
Element	Length m	ID in	OD in	Cum Len m	* Press Drop MPa	Element	Length m	ID in	Cum Len m
8" Jetting Sub + nozz	0.44	2.50	7.00	0.44	4.8	20" Casing	2603.00	18.25	2603.00
XO sub	0.30	3.00	8.50	0.74	0.0				
XO sub	0.78	4.13	8.50	1.52	0.0				
Float Sub	0.88	3.00	8.19	2.39	0.0				
Telescope	8.95	4.38	8.25	11.34	0.3				
17-1/4" Stabilizer	2.13	2.81	8.25	13.47	0.0				
3 x 8 1/2" Collar	27.93	2.50	8.50	41.40	0.9				
XO sub	0.61	2.50	8.50	42.01	0.0				
CART Down	0.72	2.81	8.00	42.73	0.0				
CART Up	0.46	2.81	8.00	43.19	0.0				
XO Sub	0.70	2.81	8.50	43.89	0.0				
5-1/2 " DP S-150	2559.11	4.13	5.50	2603.00	10.6				

<b>Bit Details</b>	<b>Reamer</b>	<b>Surface Equipment : 3</b>
Type: <b>Jetting Sub</b>	Type:	Length
Bit Diameter: <b>8.000</b> in	Diameter: 0.000 in	ID
TFA: <b>693.3</b> mm2	TFA:	m
<b>Nozzles (1/32in) 6x14, 1x15</b>		Standpipe: <b>14</b> <b>4.00</b>
		Rotary Hose: <b>17</b> <b>3.00</b>
		Swivel: <b>2</b> <b>2.50</b>
		Kelly: <b>12</b> <b>3.25</b>
		Effective: <b>146</b> <b>3.83</b>

<b>Motor Details</b>		
Motor:	Hydraulic Thrust: 1000 N	Maximum WOB: 1000 N
Bearing Flow: %	Bearing Capacity: 1000 N	Maximum Overpull: 1000 N
Wear: %		
Rotor Nozzle: in/32	On-Bottom RPM: rpm	On-Bottom Pressure Drop: MPa
Min Flowrate: L/min	WOB: 1000 N	Off-Bottom Pressure Drop: MPa
Max Flowrate: L/min	DTOR: kN.m	
Bearing Flowrate: L/min	Delta P: MPa	Stall Nozzle Flowrate: L/min
Nozzle Flowrate: L/min		Stall Motor Flowrate: L/min
Motor Flowrate: L/min	Mechanical HP: kW	Stall WOB: 1000 N
	Optimum HP: kW	Stall DTOR: kN.m
RSS Flowrate: L/min	Efficiency: %	Stall Pressure Drop: MPa
RSS Actuator Flow: %		

<b>Cuttings</b>	<b>Hole Cleaning</b>	
Cuttings Diameter: in	RPM:	Quality Control:
Cuttings Density: ppg	Critical Rate: L/min	Date:
ROP: m/h	Annular Flow: L/min	Created By:
Cutt. Concentration: % by Vol	Critical MD: m	Checked By:
Bit ECD Increase: ppg	Hole Inclination: deg	

## DRILLSTRING ANALYSIS SUMMARY REPORT

**Client:** Jamstec  
**Field:** Jamstec NT2-01 Deepwater  
**Rig:** Jamstec NT2-01 Deepwater  
**Well:** Jamstec NT2-01 Deepwater  
**Bore Hole:** Jamstec NT2-01 Deepwater  
**Engineer:** CHe3  
**Date:** August 11, 2009

### BHA & WELLBORE DATA

<b>BHA Data:</b>	20 Jetting BHA
<b>Survey Data:</b>	NT2-01 Proposal
<b>Wellbore Data:</b>	NT2-01 WG

### DRILLING PARAMETERS

<b>Operation Mode:</b>	TRIP-OUT / PICK-UP
<b>Mud Weight (g/cm3):</b>	1.04
<b>DWOB (1000 kgf):</b>	0.0
<b>DTOR (kN.m):</b>	0.0
<b>Block Weight (1000 kgf):</b>	680.0
<b>Bit Measured Depth (m):</b>	2563.3

### BHA DESCRIPTION

Component Name	Steel Grade	Length m	Cum Length m	ID in	OD in	Max OD in	Bend Angle deg	Sub Comp To Bottom m	Sensor To Bit m	Lin Weight kg/m	Non-Mag
8" Jetting Sub		.55	.55	3 3/4	15.600	26				638.44	No
XO sub		1.00	1.55	2 13/16	8 1/2	8 1/2				254.63	No
Float Sub		.88	2.42	3	8 3/16	8 3/16				220.00	No
PowerPulse HF w/IWOB		8.50	10.93	5.900	8 1/4	8 1/4			6.03	185.95	Yes
17-1/4" Stabilizer		1.50	12.43	2 13/16	8 1/4	8 1/4				238.11	No
3 x 8 1/2" Collar		18.62	31.05	2 1/2	8 1/2	8 1/2				261.32	No
Spacer Sub		.79	31.84	2 13/16	8	8				220.00	No
XO sub		1.00	32.84	2 13/16	8 1/2	8 1/2				254.63	No
CART Down		1.25	34.09	2 13/16	8	8				222.03	No
CART Up		.74	34.83	2 13/16	8	8				222.03	No
XO sub		1.00	35.83	2 13/16	8 1/2	8 1/2				254.63	No
5-1/2" DPS, Premium	S-135	2527.47	2563.30	4 1/8	5 1/2	7 1/4				51.30	No

### WELLBORE DESCRIPTION

Section Name	Length m	Cum Length m	Diameter in
Air Gap/Water Depth	2563.30	2563.30	

### FRICITION FACTORS

	Length m	Cum Length m	Friction Factors	
			Rotation	Translation
	2563.30	2563.30	.00	.00

### SUMMARY OUTPUT

<b>Hook Load (1000 kgf):</b>	800.09
<b>Applied Torque at RKB (kN.m):</b>	0.0
<b>Neutral Point Location</b>	
- From the Bit (m):	0.0
- From the Surface (m):	2563.3

Component Name	Buckling	Stretch m	Max Torque kN.m	% of Torsion Yield	Max Bending Stress kPa	Von Mises Stress kPa	% of Tensile Yield	Max Side Force 1000 kgf/10 m
8" Jetting Sub	NO	.00	.00	.00	.00	.00		.00
XO sub	NO	.00	.00	.00	.00	85.35		.00
Float Sub	NO	.00	.00	.00	.00	168.25		.00
PowerPulse HF w/IWOB	NO	.00	.00	.00	.00	1080.32		.00
17-1/4" Stabilizer	NO	.00	.00	.00	.00	746.47		.00
3 x 8 1/2" Collar	NO	.00	.00	.00	.00	1844.51		.00
Spacer Sub	NO	.00	.00	.00	.00	2288.58		.00
XO sub	NO	.00	.00	.00	.00	2040.62		.00
CART Down	NO	.00	.00	.00	.00	2458.45		.00
CART Up	NO	.00	.00	.00	.00	2499.93		.00
XO sub	NO	.00	.00	.00	.00	2222.35		.00
5-1/2" DPS, Premium	NO	1.12	.00	.00	.00	175621.53	18.87	.00

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## ***4. TOOL RUN SUMMARY***



NT2-01

**Tool Run Summary**

Company:  
Well:  
Rig:

Jamstec  
NT2-01  
Chikyu

Run	Service Provided	Depth Start	Depth End	Meterage	Date in	Date out	Drilling Hours	Pumping Hours	Notes
1	GR	2553.00	2594.00	41.00	3-Aug-09	5-Aug-09	1.00	1.00	
	Drilling Parameter Acquisition Service								
	Continuous D&I								
	CRPM & Stick and slip								
	High data rate (QPSK - 6BPS)								
	TRPM For Washout Detection								
	MWD Logging								
Real-Time DH Shock Monitoring									
	Surface Drilling Parameters Acquisition	2553.00	2594.00	41.00	3-Aug-09	5-Aug-09			

Cell Manager:

Yu Ito

Verified by Client Representative:

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NT2-01

**Tool Run Summary**

Company: Jamstec  
 Well: NT2-01  
 Rig: Chikyu

Run	Service Provided	Depth Start	Depth End	Meterage	Date in	Date out	Drilling Hours	Pumping Hours	Notes	
2	<b>Telescope</b>	2594.00	3033.07	439.07	6-Aug-09	9-Aug-09	22.28	39.38		
										Drilling Parameter Acquisition Service
										Continuous D&I and IWOB
										CRPM & Stick and Slip
										High data rate (QPSK - 6BPS)
										TRPM For Washout Detection
	<b>GVR</b>	2594.00	3033.07	439.07	6-Aug-09	9-Aug-09	22.28	39.38		
										MWD Logging
										Real-Time DH Shock Monitoring
										GR
<b>Surface Drilling Parameters Acquisition</b>		2594.00	3033.07	439.07	6-Aug-09	9-Aug-09	22.28	39.38		
										Resistivity
	Resistivity Image									

Cell Manager: Yu Ito \_\_\_\_\_ Verified by Client Representative: \_\_\_\_\_



NT2-01

**Tool Run Summary**

Company: Jamstec  
 Well: NT2-01  
 Rig: Chikyu

Run	Service Provided	Depth Start	Depth End	Meterage	Date in	Date out	Drilling Hours	Pumping Hours	Notes
3	<b>Telescope</b>	Drilling Parameter Acquisition Service	3033.07	3107.18	74.11	11-Aug-09	13-Aug-09	4.09	20.04
		Continuous D&I and IWOB							
		CRPM & Stick and Slip							
		High data rate (QPSK - 6BPS)							
		TRPM For Washout Detection							
		MWD Logging							
	Real-Time DH Shock Monitoring								
<b>GVR</b>	GR	3033.07	3107.18	74.11	11-Aug-09	13-Aug-09	4.09	20.04	
	Resistivity								
	Resistivity Image								
	<b>Surface Drilling Parameters Acquisition</b>	3033.07	3107.18	74.11	11-Aug-09	13-Aug-09	4.09	20.04	

Cell Manager:

Yu Ito

Verified by Client Representative:

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## ***5. MWD/LWD BIT RUN SUMMARY***



**Job Number:** 09JAP0003

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE AN

**Rig Name:** Chikyu

**Company Rep:** I. Sawada & T. Abe

**Location:** MEA-CHG-JAP

**Well Name:** NT2-01

**Run Number:** 1

**BHA Type:** Other

Item	Description	Vendor	Tool Name	Serial Number	Length	OD	ID	Fishing Neck		Stab	Bottom Connection		Top Connection		Cumul Len
								OD	Len, m	OD	Size	Type	Size	Type	
1	BIT	Other	Other	N/A	0.44 m	8.50							4 1/2"	API IF PIN	0.44 n
2	CROSSOVER	CDEX	XO Sub	01	0.30 m	8.50	3.00				4 1/2"	API IF BOX	5 1/2"	FH DSTJ BOX	0.74 n
3	CROSSOVER	CDEX	XO Sub	01-125-0000	0.78 m	8.50	4.13				5 1/2"	FH DSTJ PIN	6 5/8"	REG BOX	1.52 n
4	FLOAT SUB	D&M	Float Sub	SBD1826	0.88 m	8.25	3.00				6 5/8"	REG PIN	6 5/8"	REG BOX	2.40 n
5	MWD	D&M	TeleScope	E2314	8.95 m	8.25	4.38				6 5/8"	REG PIN	6 5/8"	REG BOX	11.35 n
6	STABILIZER	D&M	Stabilizer	21154	2.13 m	8.25	2.81				6 5/8"	REG PIN	6 5/8"	REG BOX	13.48 n
7	DRILL COLLAR	CDEX	Drill Collar	N/A	27.93 m	8.50	2.50				6 5/8"	REG PIN	6 5/8"	REG BOX	41.41 n
8	CROSSOVER	CDEX	XO Sub	01-303-0000	0.61 m	8.50	2.50				6 5/8"	REG PIN	4 1/2"	IF BOX	42.02 n
9	SUB	Vetco Gray	CART Down	N/A	0.72 m	8.00	2.81				4 1/2"	IF PIN			42.74 n
10	SUB	Vetco Gray	CART Up	N/A	0.47 m	8.00	2.81						6 5/8"	REG BOX	43.21 n

Predicted BHA Tendency:

Hookload Out:

Wt Below Jars:

Pickup Out:

Wt Above Jars:

Slack Weight:

Total Air Wt:

Stab Description	Mid Pt to Bit	Blade			Gauge			Bit to Read Out Port		Bit to Measurement Port
		Type	Len	Width	Len	In	Out			
Stabilizer	13.56 m	Spiral	17.91	3.00			MWD-TeleScope	4.70 m	TeleScope-D&I	6.98 m
									TeleScope-Gamma Ray	6.33 m
									TeleScope-IWOB	3.73 m

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 1

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE A  
**Location:** MEA-CHG-JAP  
**Rig Name:** Chikyū  
**Well Name:** NT2-01

### Run Information

Date In		Date Out		Drilling Distance:		Drilling Hours:	
3-Aug-2009	3:30PM	5-Aug-2009	10:00PM	34.20 m		1.00 hrs	
Depth (MD):	2553.0 m	to	2594.0 m	Rotary Drilling Distance:	0.00 m	Rotary Drilling Hrs:	0.00 hrs
Depth (TVD):	2553.0 m	to	2594.0 m	Sliding Distance:	34.20 m	Sliding Hours:	1.00 hrs
Inclination:	0.00 deg	to	1.00 deg	Reaming Distance:	0.00 m	Reaming Hours:	0.00 hrs
Azimuth:	0.00 deg	to	0.00 deg			Hrs Below Rotary:	54.50 hrs
Hole Size:	20.00 in					Total Pumping Hrs:	1.00 hrs
Last Casing Size:	0.000 in			North Ref Used:	Grid North	Min DLS:	0.00 deg/30 m
Last Casing Depth:	0.0 m (MD)			Magnetic Dec:	-6.490 deg	Max DLS:	0.00 deg/30 m
Tool Face Arc:	.0 cm			Grid Correction:	0.900 deg	Max DLS Depth:	0.0 m
Total Face Angle:	0.00 deg			Total Correction:	-0.730 deg	Surface Screen:	No
				Est. Mag. Int:	0.25 deg	DFS Used:	No
						Inline Filter:	No

### Rig Information

Rig Type:	Drill Ship	Pump Type:	Triplex
Water Depth:	2,535.00 m	Pulse Damp Press:	0 psi
Air Gap:	28.30 m	Number of Pumps:	3
RKB Height:	0.00 m	Pump Line ID:	6.00 in
Ground Elevation:	28.50 m	Pump Output:	4.99 galUS/stroke
		Pump Stroke Len:	18.89 in

### Run Objective

### D&M Crew List:

Cell Manager: Yu Ito  
 Crew: Chang Hua He, DD  
 Yu Ito, Cell Manager  
 Chee Sing Tan, DD  
 Ning Yang, MWD

### DH Motor Information

Manufacturer:	Bit to Bend Dist:	m
Motor Type:	Bearing Play In:	in
Motor Size:	Bearing Play Out:	in
Serial No.:	Bent Sub Angle:	deg
Lobe Config:	Bent HSG Angle:	deg
Stage Length:		m
Rubber:		
Sleeve Position:		
Sleeve Size:		in
Bearing Type:		

### RSS Information

RSS Manufacturer:	
RSS Type:	
RSS SN:	
RSS Size:	
Pulse Ht Threshold:	
Min Pulse Width:	
Max Pulse Width:	
Conn Phase Angle:	deg
Rise Time Const:	
Fall Time Const:	
Digit Time:	

### MWD Configuration

Mod Type:	QPSK	Int Tool Face Offset:	0.00 deg	Bit Rate:	3 bps	Slimpulse Pulser Config:	
Mod Gap:	0.12500 in	Turbine Config:	600-1200 galUS/min	Frequency:	12 Hz	Pred Sig Strength @ TD:	psi
SPT Type:	HA						

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 1

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE A  
**Location:** MEA-CHG-JAP  
**Rig Name:** Chikyu  
**Well Name:** NT2-01

### Drilling Parameters

	<b>Min</b>	<b>Max</b>	<b>Avg</b>		
BH Temperature:	10.00 degC	10.00 degC	10.00 degC	Total DH Shocks (k):	0 k
Surface RPM:	0.00 rpm	0.00 rpm	0.00 rpm	Max Shock Level:	0
ROP:	34.20 m/hr	34.20 m/hr	34.20 m/hr	Max Shock Duration:	0 sec
Surface Torque:	0.00 kN.m	0.00 kN.m	0.00 kN.m	Checkshot Type:	
Flow Rate:	700.00 galUS/min	700.00 galUS/min	700.00 galUS/min	Checkshot Depth:	m
WOB Sliding:	0.00 kg	0.00 kg	0.00 kg	Checkshot Incl:	deg
				Checkshot Azim:	deg
Average Pump Pressure:	psi			H2S In Well:	No
Turbine RPM @ Min Flow Rate:	3,125 rpm	Min Flow Rate:	700.00galUS/min	SPP Off Bottom:	psi
Turbine RPM @ Max Flow Rate:	3,125 rpm	Max Flow Rate:	700.00galUS/min	SPP On Bottom:	3,000.00 psi

### Mud Information

Mud Type:	Sea Water	Mud Clean:	No	pH:	11.50
Mud Company:	TELNITE	LCM Type:	None	Chlorides:	ppm
Mud Brand:	KNPP	LCM Size:	None	Sand Content:	%
Funnel Viscosity:	s/qt	LCM Concentration:	lbs/bbl	Solids:	%
Plastic Viscosity:	11.00 cp	Weighting Material:	None	Percent Oil:	%
Yield Point:	80.00 lbm/100ft2	Mud Weight:	1.04 g/cm3		
Mud Resistivity:	ohm-m				

### IADC Bit Grading

Manufacturer:	Other	Total Revs:		IADC Code:	
Model:	Jetting Sub	Stick/Slip:		Jets ( / 32 in):	6X14 1X15
Type:	Other	Reason Pulled:	Change Bottom Hole Assembly	Bit TFA:	1.07 in2

Inner Row	Outer Row	Dull Char	Location	Bearings/Seals	Gauge	Other Chars
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### End of Run - Summary

Sync Hours:	1.00 hrs	Downhole Noise:	No	Run Failed:	No
Jamming:	No 0.00 hrs	Surface System Failure:	No	D&M Trip:	No
Surface Vibration:	No	Surface Noise:	No	Low Oil Flag:	No 0.00 hrs
Trans Fail:	No	H2S in Well:	No	Filter Screen/Plug Shear:	No

**Client Inconvenience:** **No** Lost Time: hrs

Reason for POOH: Change Bottom Hole Assembly

**D&M Run Obj Met? [DD and MWD/LWD]:** **No**

### Brief Run Summary:

**If not, why?:**

Successfully Jetting the 20inch section and POOH to change the BHA for next run.

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 1

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE A  
**Location:** MEA-CHG-JAP  
**Rig Name:** Chikyu  
**Well Name:** NT2-01

### Equipment on the Run

Equipment	Pump Hours		Software Version	Tool Size
	Start	Cumulative		
MDCIX-GA-E2314	79.23 hrs	80.23 hrs	V9.2C02	8.25 in
SFS-SBD1826	0.00 hrs	1.00 hrs	N/A	8.25 in
SSTAB1700-21154	0.00 hrs	1.00 hrs	N/A	8.25 in

### Services on the Run

Equipment	Service	Tool Name	Real Time			Recorded Mode			CAF
			Hours	Failed	Depth	Hours	Failed	Depth	
MWD	Gamma Ray	TeleScope	1.00 hrs		34.2 m	55.94 hrs		34.2 m	
MWD	Shock and Vibration	TeleScope	1.00 hrs		34.2 m	55.94 hrs		34.2 m	
MWD	Cont D&I	TeleScope	1.00 hrs		34.2 m				
MWD	D&I	TeleScope	1.00 hrs		34.2 m	55.94 hrs		34.2 m	
MWD	IWOB	Telescope	1.00 hrs		34.2 m				

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run No:** 1

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE AN  
**Location:** MEA-CHG-JAP

**Rig Name:** Chikyu  
**Well Name:** NT2-01

From	To	Elapsed	Depth in m		IADC Activity	Description
			From	To		
<b>31-Jul-2009</b>						
00:00	12:00	12.00	0.0	0.0	Other	MWD Crew arrived at the rig.
12:00	17:00	5.00	0.0	0.0	Other	Walk around the facility to get familer and check the equipement.
17:00	00:00	7.00	0.0	0.0	Other	Standby
<b>1-Aug-2009</b>						
00:00	21:00	21.00	0.0	0.0	Repair rig	Rig maintainence.
21:00	00:00	3.00	0.0	0.0	PU / LD BHA / Tripping	LD the MWD, NMDC and PONY.
<b>2-Aug-2009</b>						
00:00	18:00	18.00	0.0	0.0	PU / LD BHA / Tripping	MU the casing assembly and BHA jetting assembly.
18:00	22:00	4.00	0.0	0.0	Other	Calibrate the transponder.
22:00	00:00	2.00	0.0	0.0	Other	Start to move the ship to the new location.
<b>3-Aug-2009</b>						
00:00	15:00	15.00	0.0	0.0	Other	Making up and running casing assembly.
15:00	15:30	0.50	20.0	20.0	MWD/LWD service quality	Successful SHT with Flow rate:700gpm, SPFA:2.93MPa, TRPM:2881, and MWD Stat:4
15:30	00:00	8.50	20.0	1500.0	PU / LD BHA / Tripping	RIH the casing to the depth at 1500m WD
<b>4-Aug-2009</b>						
00:00	19:00	19.00	1500.0	1500.0	Other	Move the location until 5 miles away the location.
19:00	22:00	3.00	1500.0	1500.0	Other	Stop move the ship and deploy the ROV to check the BHA in the water.
22:00	00:00	2.00	1500.0	1500.0	Other	Resume to move the ship back to the location.
<b>5-Aug-2009</b>						
00:00	01:00	1.00	1500.0	1500.0	Other	Drift the ship to 1.5km away from the location.
01:00	01:30	0.50	1500.0	1500.0	Other	When try to deploy the ROV, there's some problem with the ROV.
01:30	04:15	2.75	1500.0	1500.0	Other	Move 1.5 miles away the location to pull out he ROV and try to fix it.
04:15	08:15	4.00	1500.0	2553.0	PU / LD BHA / Tripping	RIH the jetting assembly until 2560m WD
08:15	09:15	1.00	2553.0	2594.0	Drilling	Jetting operation to the depth of 2594.2m MD.
09:15	09:30	0.25	2594.0	2594.0	Other	Set wellhead, release casing with the CART tool.
09:30	20:00	10.50	2594.0	0.0	PU / LD BHA / Tripping	POOH.
20:00	23:00	3.00	0.0	0.0	PU / LD BHA / Tripping	Bit above rotary table. Lay down BHA.
23:00	00:00	1.00	0.0	0.0	Other	Install the guide horn for the next run.

**Job Number:** 09JAP0003**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE AN**Rig Name:** Chikyu**Company Rep:** I. Sawada & T. Abe**Location:** MEA-CHG-JAP**Well Name:** NT2-01**Run Number:** 1

<u>Date/Time</u>	<u>Depth</u>	<u>Description</u>
31-Jul-2009 12:00PM	0.0 m	MWD Crew arrived at the rig site.
31-Jul-2009 7:00PM	0.0 m	Attend the 3rd party company meeting.
1-Aug-2009 11:30PM	0.0 m	LD the Schlumberger Tools.
2-Aug-2009 6:00PM	0.0 m	MU the casing assembly and BHA jetting assembly.
2-Aug-2009 10:00PM	0.0 m	Finish calibrating the transponder.
3-Aug-2009 3:30PM	20.0 m	Successful SHT with Flow rate:700gpm, SPPA:2.93MPa, TRPM:2881, and MWD Stat:4
3-Aug-2009 11:59PM	1500.0 m	RIH the casing to the depth at 1500m WD and standby for drifting the ship to the location.
4-Aug-2009 7:00PM	1500.0 m	Move the location until 5 miles away the location.
4-Aug-2009 10:00PM	1500.0 m	Stop move the ship and deploy the ROV to check the BHA in the water.
4-Aug-2009 11:59PM	1500.0 m	Resume to move the ship back to the location.
5-Aug-2009 12:10PM	1500.0 m	GVR8 SN:41040 initialized.
5-Aug-2009 10:00PM	0.0 m	Bit above rotary table.

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 1

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE AN  
**Location:** MEA-CHG-JAP

**Rig Name:** Chikyu  
**Well Name:** NT2-01

	05-Aug-2009 8:45 AM
<b>Field Engineer</b>	Yu Ito
<b>Depth</b>	2,589.00 m
<b>Avg ROP</b>	1.86 m/hr
<b>On Bottom ROP</b>	41.00 m/hr
<b>Flow Rate</b>	700.00 galUS/min
<b>Turbine RPM</b>	3,125 rpm
<b>Surface RPM</b>	
<b>WOB Rotating</b>	
<b>WOB Sliding</b>	.00 kg
<b>DH WOB</b>	.00 kg
<b>Surface Torque</b>	.00 kN.m
<b>DH Torque</b>	.00 kN.m
<b>Hookload</b>	220,000 kg
<b>PickUp Weight</b>	
<b>Slack Weight</b>	220,000.00 kg
<b>Friction</b>	
<b>SPP On Bottom</b>	3,000.00 psi
<b>SPP Off Bottom</b>	
<b>Diff Pressure</b>	
<b>BH Temperature</b>	10.00 degC
<b>Total Shocks (k)</b>	
<b>Max Shock Level</b>	
<b>Max Shock Duration</b>	
<b>Torsional Vib</b>	
<b>Lateral Vib</b>	
<b>Axial Vib</b>	
<b>CRPM</b>	
<b>Stick/Slip</b>	
<b>Formation</b>	
<b>Signal Strength</b>	5.00 psi
<b>Percent Signal Conf</b>	88 %

**Job Number:** 09JAP0003

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE AN

**Rig Name:** Chikyu

**Company Rep:** I. Sawada & T. Abe

**Location:** MEA-CHG-JAP

**Well Name:** NT2-01

**Run Number:** 2

**BHA Type:** Other

Item	Description	Vendor	Tool Name	Serial Number	Length	OD, in	ID, in	Fishing Neck		Stab	Bottom Connection		Top Connection		Cumul Len
								OD, in	Len, m	OD, in	Size	Type	Size	Type	
1	BIT	Hycalog	PDC	218338	0.28 m	12.25	3.75						6 5/8"	REG PIN	0.28 n
2	LWD	D&M	GeoVISION	41040	3.78 m	8.25	3.90			12.13	6 5/8"	REG BOX	6 5/8"	FH BOX	4.06 n
3	MWD	D&M	TeleScope	E2314	8.50 m	8.25	5.11				6 5/8"	FH PIN	6 5/8"	REG BOX	12.56 n
4	STABILIZER	D&M	Stabilizer	GP6134-1	2.34 m	8.25	2.81			12.25	6 5/8"	REG PIN	6 5/8"	REG BOX	14.90 n
5	DRILL COLLAR - NONMAG	D&M	NMDC	SBD5733	9.13 m	7.94	2.88				6 5/8"	REG PIN	6 5/8"	REG BOX	24.03 n
6	DRILL COLLAR	MQJ	Collar	N/A	55.80 m	8.50	2.81				6 5/8"	REG PIN	6 5/8"	REG BOX	79.83 n
7	JAR	Griffith	Mechanical Jar	HT7637	10.70 m	7.75	3.00				6 5/8"	REG PIN	6 5/8"	REG BOX	90.53 n
8	DRILL COLLAR	MQJ	Collar	N/A	46.50 m	8.50	2.81				6 5/8"	REG PIN	6 5/8"	REG BOX	137.03 n
9	CROSSOVER		Crossover	N/A	1.00 m	8.00	2.81				6 5/8"	REG PIN	5 1/2"	FH BOX	138.03 n

Predicted BHA Tendency:

Hookload Out:

Wt Below Jars:

Pickup Out:

Wt Above Jars:

Slack Weight:

Total Air Wt:

Stab Description	Mid Pt to Bit	Blade			Gauge		
		Type	Len	Width	Len	In	Out
Stabilizer	6.20 m	spiral	17.91	3.00			

Bit to Read Out Port

LWD-GeoVISION	1.10	m
MWD-TeleScope	5.90	m

Bit to Measurement Port

TeleScope-D&I	8.20	m
GeoVISION-Ring Resistivity	1.36	m
GeoVISION-Bit Resistivity	0.25	m
GeoVISION-Button Resistivity	1.70	m
GeoVISION-GammaRay	1.09	m



**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 2

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE A  
**Location:** MEA-CHG-JAP  
**Rig Name:** Chikyū  
**Well Name:** NT2-01

### Run Information

Date In		Date Out		Drilling Distance:		Drilling Hours:	
6-Aug-2009 2:30PM		9-Aug-2009 9:45PM		439.00 m		22.28 hrs	
Depth (MD): 2594.0 m		to 3033.1 m		Rotary Drilling Distance: 439.00 m		Rotary Drilling Hrs: 22.28 hrs	
Depth (TVD): 2594.0 m		to 3033.0 m		Sliding Distance: 0.00 m		Sliding Hours: 0.00 hrs	
Inclination: 1.00 deg		to 2.07 deg		Reaming Distance: 35.00 m		Reaming Hours: 1.60 hrs	
Azimuth: 0.00 deg		to 249.18 deg				Hrs Below Rotary: 79.25 hrs	
Hole Size: 12.25 in						Total Pumping Hrs: 39.38 hrs	
Last Casing Size: 20.000 in				North Ref Used: Grid North		Min DLS: 0.03 deg/30 m	
Last Casing Depth: 41.0 m (MD)				Magnetic Dec: -6.490 deg		Max DLS: 0.72 deg/30 m	
Tool Face Arc: .0 cm				Grid Correction: 0.900 deg		Max DLS Depth: 2,599.1 m	
Total Face Angle: 0.00 deg				Total Correction: -0.739 deg		Surface Screen: No	
				Est. Mag. Int: 0.08 deg		DFS Used: No	
						Inline Filter: No	

### Rig Information

Rig Type: Drill Ship	Pump Type: Triplex
Water Depth: 2,535.00 m	Pulse Damp Press: 0 psi
Air Gap: 28.30 m	Number of Pumps: 3
RKB Height: 0.00 m	Pump Line ID: 6.00 in
Ground Elevation: 28.50 m	Pump Output: 4.99 galUS/stroke
	Pump Stroke Len: 18.89 in

### Run Objective

### D&M Crew List:

Cell Manager: Yu Ito  
 Crew: Yu Ito, Cell Manager  
 Ning Yang, MWD

### DH Motor Information

Manufacturer:	Bit to Bend Dist:	m
Motor Type:	Bearing Play In:	in
Motor Size:	Bearing Play Out:	in
Serial No.:	Bent Sub Angle:	deg
Lobe Config:	Bent HSG Angle:	deg
Stage Length: m		
Rubber:		
Sleeve Position:		
Sleeve Size: in		
Bearing Type:		

### RSS Information

RSS Manufacturer:
RSS Type:
RSS SN:
RSS Size:
Pulse Ht Threshold:
Min Pulse Width:
Max Pulse Width:
Conn Phase Angle: deg
Rise Time Const:
Fall Time Const:
Digit Time:

### MWD Configuration

Mod Type: QPSK	Int Tool Face Offset: 0.00 deg	Bit Rate: 6 bps	Slimpulse Pulser Config:
Mod Gap: 0.12000 in	Turbine Config: 600-1200 galUS/min	Frequency: 12 Hz	Pred Sig Strength @ TD: psi
SPT Type: HA			

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 2

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE A  
**Location:** MEA-CHG-JAP  
**Rig Name:** Chikyu  
**Well Name:** NT2-01

### Drilling Parameters

	<b>Min</b>	<b>Max</b>	<b>Avg</b>		
BH Temperature:	4.71 degC	7.10 degC	5.89 degC	Total DH Shocks (k):	0 k
Surface RPM:	100.00 rpm	130.00 rpm	117.50 rpm	Max Shock Level:	0
ROP:	3.04 m/hr	15.69 m/hr	19.70 m/hr	Max Shock Duration:	0 sec
Surface Torque:	5.00 kN.m	8.00 kN.m	6.50 kN.m	Checkshot Type:	
Flow Rate:	700.00 galUS/min	850.00 galUS/min	787.50 galUS/min	Checkshot Depth:	m
WOB Sliding:				Checkshot Incl:	deg
				Checkshot Azim:	deg
Average Pump Pressure:	63 psi			H2S In Well:	No
Turbine RPM @ Min Flow Rate:	1,914 rpm	Min Flow Rate:	700.00galUS/min	SPP Off Bottom:	1,722.00 psi
Turbine RPM @ Max Flow Rate:	2,773 rpm	Max Flow Rate:	850.00galUS/min	SPP On Bottom:	1,781.00 psi

### Mud Information

Mud Type:	Sea Water	Mud Clean:	No	pH:	10.80
Mud Company:	TELNITE	LCM Type:	None	Chlorides:	ppm
Mud Brand:	KNPP	LCM Size:	None	Sand Content:	%
Funnel Viscosity:	s/qt	LCM Concentration:	lbs/bbl	Solids:	%
Plastic Viscosity:	15.00 cp	Weighting Material:	None	Percent Oil:	%
Yield Point:	61.00 lbm/100ft2	Mud Weight:	1.04 g/cm3		
Mud Resistivity:	0.44 ohm-m				

### IADC Bit Grading

Manufacturer:	Hycalog	Total Revs:		IADC Code:	RSX519S-D2
Model:		Stick/Slip:		Jets ( / 32 in):	7X14
Type:	PDC	Reason Pulled:	Weather Conditions	Bit TFA:	1.05 in2

Inner Row	Outer Row	Dull Char	Location	Bearings/Seals	Gauge	Other Chars
1.00	1.00	WT	G		I	TR

### End of Run - Summary

Sync Hours:	39.38 hrs	Downhole Noise:	No	Run Failed:	No
Jamming:	No 0.00 hrs	Surface System Failure:	No	D&M Trip:	No
Surface Vibration:	No	Surface Noise:	No	Low Oil Flag:	No 0.00 hrs
Trans Fail:	No	H2S in Well:	No	Filter Screen/Plug Shear:	No

**Client Inconvenience:** **No** Lost Time: hrs

Reason for POOH: Weather Conditions

**D&M Run Obj Met? [DD and MWD/LWD]:** **Yes**

### Brief Run Summary:

**If not, why?:**

Drill the 12.25in section with the GVR+TeleScope to the depth at 3033.07m.  
 Then due to weather reason have to POOH and avoid the storm.  
 End inclination has built up to 2.07 degrees.

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 2

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE A  
**Location:** MEA-CHG-JAP  
**Rig Name:** Chikyu  
**Well Name:** NT2-01

### Equipment on the Run

Equipment	Pump Hours		Software Version	Tool Size
	Start	Cumulative		
H524743-54741	0.00 hrs	39.38 hrs		8.50 in
H524743-54745	hrs	hrs		8.50 in
H524743-54747	0.00 hrs	39.38 hrs		8.50 in
H524743-54752	hrs	hrs		8.50 in
MDCIX-GA-E2314	80.23 hrs	119.61 hrs	V9.2C02	8.25 in
NMDC-8.00-O.D.-SBD5733	0.00 hrs	39.38 hrs	N/A	8.25 in
RBDC-CA-41040	0.00 hrs	39.38 hrs	V9.1B	8.25 in
SSTAB1225-GP6134-1	0.00 hrs	39.38 hrs	N/A	8.25 in

### Services on the Run

Equipment	Service	Tool Name	Real Time			Recorded Mode			CAF
			Hours	Failed	Depth	Hours	Failed	Depth	
LWD	Ring Resistivity	GeoVision	39.38 hrs		439.0 m	79.25 hrs		439.0 m	
LWD	Bit Resistivity	GeoVision	39.38 hrs		439.0 m	79.25 hrs		439.0 m	
LWD	Button Resistivity	GeoVision	39.38 hrs		439.0 m	79.25 hrs		439.0 m	
LWD	Images	GeoVision	39.38 hrs		439.0 m	79.25 hrs		439.0 m	
LWD	Dips	GeoVision	39.38 hrs		439.0 m	79.25 hrs		439.0 m	
LWD	GammaRay	GeoVision	39.38 hrs		439.0 m	79.25 hrs		439.0 m	
MWD	Shock and Vibration	TeleScope	39.38 hrs		439.0 m	79.25 hrs		439.0 m	
MWD	Cont D&I	TeleScope	39.38 hrs		439.0 m	hrs			
MWD	D&I	TeleScope	39.38 hrs		439.0 m	79.25 hrs		439.0 m	

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run No:** 2

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE AN  
**Location:** MEA-CHG-JAP

**Rig Name:** Chikyu  
**Well Name:** NT2-01

From	To	Elapsed	Depth in m		IADC Activity	Description
			From	To		
<b>6-Aug-2009</b>						
00:00	09:00	9.00	0.0	0.0	Other	Continuing to install guide cone.
09:00	14:30	5.50	0.0	30.0	PU / LD BHA / Tripping	Start to pick up and make up BHA.
14:30	14:50	0.33	30.0	30.0	MWD/LWD service quality	Successful shallow hole test with flow rate:700gpm, SPPA: 572psi, SPT1:21psi, and TRPM:2148
14:50	20:00	5.17	30.0	30.0	Repair rig	Problem with hydraulic rack 1.
20:00	00:00	4.00	30.0	1700.0	PU / LD BHA / Tripping	Start running in hole.
<b>7-Aug-2009</b>						
00:00	09:30	9.50	1700.0	1700.0	Other	Drift 5 miles until the ship reaches well head coordinate.
09:30	14:20	4.83	1700.0	2594.0	PU / LD BHA / Tripping	Continue running in hole.
14:20	20:20	6.00	2594.0	2688.0	Drilling	Touch bottom and start drilling.
20:20	20:50	0.50	2656.0	2648.0	Reaming / Hole opener / Unc	Ream up from 2656m to 2648m.
20:50	00:00	3.17	2688.6	2721.7	Drilling	Continue on drilling.
<b>8-Aug-2009</b>						
00:00	02:30	2.50	2721.7	2729.3	Drilling	Continue drilling ahead.
02:30	02:50	0.33	2734.0	2729.0	Reaming / Hole opener / Unc	Reaming up.
02:50	12:35	9.75	2729.3	2882.3	Drilling	Continue drilling ahead.
12:35	13:30	0.92	2844.0	2858.0	Reaming / Hole opener / Unc	Reaming down.
13:30	16:30	3.00	2882.3	2918.0	Drilling	Continue drilling.
16:30	22:50	6.33	2918.0	2918.0	PU / LD BHA / Tripping	Wiper trip until casing shoe @ 2591m.
22:50	23:45	0.92	2918.0	2926.0	Drilling	Continue drilling.
23:45	00:00	0.25	2926.0	2926.0	Repair rig	Problem with the draw works.
<b>9-Aug-2009</b>						
00:00	02:00	2.00	2926.8	2926.8	Repair rig	Fix the draw work.
02:00	02:20	0.33	2926.8	2923.0	Other	Get stuck and try to release the stuck condition.
02:20	04:40	2.33	2923.0	2926.8	Reaming / Hole opener / Unc	Ream to get the hole condition better.
04:40	12:00	7.33	2926.8	3033.1	Drilling	Continue drilling on
12:00	21:45	9.75	3033.1	0.0	PU / LD BHA / Tripping	It was decided to POOH because of tropical storm approaching. And then POOH until ART
21:45	00:00	2.25	0.0	0.0	Other	Standby.

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 2

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE AN  
**Location:** MEA-CHG-JAP

**Rig Name:** Chikyu  
**Well Name:** NT2-01

<u>Date/Time</u>	<u>Depth</u>	<u>Description</u>
6-Aug-2009 12:10PM	0.0 m	GVR8 sn:41040 intialized.
6-Aug-2009 2:30PM	30.0 m	Successful shallow hole test with flow rate:700gpm, SPPA: 572psi, SPT1:21psi, and TRPM:2148
7-Aug-2009 9:30AM	1700.0 m	Drift 5 miles until the ship reaches well head coordinate.
7-Aug-2009 2:20PM	2612.3 m	Touch bottom and start drilling from this depth.
7-Aug-2009 11:59PM	2721.7 m	Continue on drilling to the mid night depth.
8-Aug-2009 4:30PM	2918.0 m	Drilled until depth of 2918.0m MD.
8-Aug-2009 10:50PM	2591.0 m	Wiper trip until casing shoe @ 2591m.
8-Aug-2009 11:45PM	2926.0 m	Problem with the draw works.
9-Aug-2009 12:00PM	3303.1 m	It was decided to POOH because of tropical storm approaching. TD @ 3033.07m MD.
9-Aug-2009 9:45PM	0.0 m	Tool ART. Rack back BHA to stand.
9-Aug-2009 11:30PM	0.0 m	BHA racked back to stand and magnet was installed on GVR.
9-Aug-2009 11:40PM	0.0 m	Evacuate from drilling coordinate to avoid getting hit by typhoon.

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 2

**Company:** JAMSTEC - JAPAN AGENCY FOR MARINE-EARTH SCIENCE AN  
**Location:** MEA-CHG-JAP

**Rig Name:** Chikyu  
**Well Name:** NT2-01

	09-Aug-2009 5:10 AM	08-Aug-2009 10:55 PM	08-Aug-2009 12:00 AM	07-Aug-2009 8:11 PM
<b>Field Engineer</b>	Ning Yang	Yu Ito	Ning Yang	Yu Ito
<b>Depth</b>	2,933.70 m	2,919.00 m	2,721.70 m	2,687.00 m
<b>Avg ROP</b>	4.89 m/hr	8.51 m/hr	8.51 m/hr	5.30 m/hr
<b>On Bottom ROP</b>	19.87 m/hr	19.44 m/hr	19.44 m/hr	19.77 m/hr
<b>Flow Rate</b>	700.00 galUS/min	850.00 galUS/min	800.00 galUS/min	800.00 galUS/min
<b>Turbine RPM</b>	1,914 rpm	2,773 rpm	2,421 rpm	2,380 rpm
<b>Surface RPM</b>	120 rpm	130 rpm	120 rpm	100 rpm
<b>WOB Rotating</b>	2,000.00 kg	1,900.00 kg	1,800.00 kg	2,000.00 kg
<b>WOB Sliding</b>				
<b>DH WOB</b>				
<b>Surface Torque</b>			8.00 kN.m	5.00 kN.m
<b>DH Torque</b>	1.50 kN.m	.80 kN.m	1.34 kN.m	.85 kN.m
<b>Hookload</b>	220,000 kg	203,600 kg	220,000 kg	216,000 kg
<b>PickUp Weight</b>				
<b>Slack Weight</b>		190,000.00 kg		213,600.00 kg
<b>Friction</b>				
<b>SPP On Bottom</b>	1,781.00 psi	2,920.00 psi	2,336.00 psi	2,300.00 psi
<b>SPP Off Bottom</b>	1,722.00 psi		2,269.00 psi	
<b>Diff Pressure</b>	59 psi		67 psi	
<b>BH Temperature</b>	7.10 degC	6.27 degC	5.49 degC	4.71 degC
<b>Total Shocks (k)</b>				
<b>Max Shock Level</b>				
<b>Max Shock Duration</b>				
<b>Torsional Vib</b>				
<b>Lateral Vib</b>				
<b>Axial Vib</b>				
<b>CRPM</b>	102 rpm	127 rpm	123 rpm	100 rpm
<b>Stick/Slip</b>	174	204	46	93
<b>Formation</b>	Sandstone	Mudstone	Mudstone	Mudstone
<b>Signal Strength</b>	8.70 psi	12.40 psi	26.00 psi	22.00 psi
<b>Percent Signal Conf</b>	85 %	79 %	73 %	70 %

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 3

**Company:** JAPAN AGENCY FOR MARINE-EARTH SCIENCE & TECHNOLOGY  
**Location:** MEA-CHG-JAP  
**BHA Type:** Rotary

**Rig Name:** Chikyu  
**Well Name:** NT2-01

Item	Description	Vendor	Tool Name	Serial Number	Length	OD	ID	Fishing Neck		Stab	Bottom Connection		Top Connection		Cumul Len
								OD	Len, m	OD	Size	Type	Size	Type	
1	BIT	Hycalog	PDC	218338	0.28 m	12.25	3.75						6 5/8"	REG PIN	0.28 m
2	LWD	D&M	GeoVISION	41040	3.78 m	8.25	3.90				6 5/8"	REG BOX	6 5/8"	API FH BOX	4.06 m
3	MWD	D&M	TeleScope	E2314	8.50 m	8.25	5.11				6 5/8"	API FH PIN	6 5/8"	REG BOX	12.56 m
4	STABILIZER	D&M	Stabilizer	GP6134-1	2.34 m	8.25	2.81				6 5/8"	REG PIN	6 5/8"	REG BOX	14.90 m
5	DRILL COLLAR - NONMAG	D&M	NMDC	SBD5733	9.13 m	7.94	2.88				6 5/8"	REG PIN	6 5/8"	REG BOX	24.03 m
6	DRILL COLLAR	MQJ	Collar	N/A	55.80 m	8.50	2.81				6 5/8"	REG PIN	6 5/8"	REG BOX	79.83 m
7	JAR	Griffith	Mechanic Jar	HT7637	10.70 m	7.75	3.00				6 5/8"	REG PIN	6 5/8"	REG BOX	90.53 m
8	DRILL COLLAR	MQJ	Collar	N/A	46.50 m	8.50	2.81				6 5/8"	REG PIN	6 5/8"	REG BOX	137.03 m
9	CROSSOVER	MQJ	Crossover	N/A	1.00 m	8.50	2.81				6 5/8"	REG PIN	5 1/2"	FH BOX	138.03 m

Predicted BHA Tendency:

Hookload Out:  
 Pickup Out:  
 Slack Weight:

Wt Below Jars:  
 Wt Above Jars:  
 Total Air Wt:

Stab Description	Mid Pt to Bit	Blade			Gauge		
		Type	Len	Width	Len	In	Out
Stabilizer							

Bit to Read Out Port

LWD-GeoVISION	1.10	m
MWD-TeleScope	5.90	m

Bit to Measurement Port

GeoVISION-Bit Resistivity	0.25	m
GeoVISION-Button Resistivity	1.70	m
GeoVISION-GammaRay	1.09	m
GeoVISION-Ring Resistivity	1.36	m
TeleScope-D&I	8.20	m

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 3

**Company:** JAPAN AGENCY FOR MARINE-EARTH SCIENCE & TECHNOLOGY  
**Location:** MEA-CHG-JAP  
**Rig Name:** Chikyu  
**Well Name:** NT2-01

### Run Information

Date In		Date Out		Drilling Distance:		Drilling Hours:	
11-Aug-2009 10:30AM		13-Aug-2009 5:00PM		74.00 m		4.09 hrs	
Depth (MD): 3033.1 m		to 3107.2 m		Rotary Drilling Distance: 74.00 m		Rotary Drilling Hrs: 4.09 hrs	
Depth (TVD): 3033.0 m		to 3107.0 m		Sliding Distance: 0.00 m		Sliding Hours: 0.00 hrs	
Inclination: 2.07 deg		to 2.40 deg		Reaming Distance: 70.00 m		Reaming Hours: 4.17 hrs	
Azimuth: 249.18 deg		to 261.33 deg				Hrs Below Rotary: 54.50 hrs	
Hole Size: 12.25 in						Total Pumping Hrs: 20.04 hrs	
Last Casing Size: 20.000 in				North Ref Used: Grid North		Min DLS: 0.15 deg/30 m	
Last Casing Depth: 2594.0 m (MD)				Magnetic Dec: -6.490 deg		Max DLS: 4.20 deg/30 m	
Tool Face Arc: .0 cm				Grid Correction: 0.920 deg		Max DLS Depth: 3,023.2 m	
Total Face Angle: 0.00 deg				Total Correction: -7.410 deg		Surface Screen: No	
				Est. Mag. Int: 0.05 deg		DFS Used: No	
						Inline Filter: No	

### Rig Information

Rig Type: Drill Ship	Pump Type: Triplex
Water Depth: 2,535.00 m	Pulse Damp Press: 0 psi
Air Gap: 28.30 m	Number of Pumps: 3
RKB Height: 0.00 m	Pump Line ID: 6.00 in
Ground Elevation: 28.50 m	Pump Output: 4.99 galUS/stroke
	Pump Stroke Len: 18.89 in

### Run Objective

Drill the 12.25inch section with the TeleScope and GVR, which give the client RT RAB Image to analyze the formation.

### D&M Crew List:

Cell Manager: Yu Ito  
 Crew: Yu Ito, Cell Manager  
 Ning Yang, MWD

### DH Motor Information

Manufacturer:	Bit to Bend Dist:	m
Motor Type:	Bearing Play In:	in
Motor Size:	Bearing Play Out:	in
Serial No.:	Bent Sub Angle:	deg
Lobe Config:	Bent HSG Angle:	deg
Stage Length: m		
Rubber:		
Sleeve Position:		
Sleeve Size: in		
Bearing Type:		

### RSS Information

RSS Manufacturer:
RSS Type:
RSS SN:
RSS Size:
Pulse Ht Threshold:
Min Pulse Width:
Max Pulse Width:
Conn Phase Angle: deg
Rise Time Const:
Fall Time Const:
Digit Time:

### MWD Configuration

Mod Type: QPSK	Int Tool Face Offset: 0.00 deg	Bit Rate: 6 bps	Slimpulse Pulser Config:
Mod Gap: 0.12000 in	Turbine Config: 600-1200 galUS/min	Frequency: 12 Hz	Pred Sig Strength @ TD: psi
SPT Type: HA			

### Drilling Parameters



**Job Number:** 09JAP0003

**Company:** JAPAN AGENCY FOR MARINE-EARTH SCIENCE & TECHNOL

**Rig Name:** Chikyu

**Company Rep:** I. Sawada & T. Abe

**Location:** MEA-CHG-JAP

**Well Name:** NT2-01

**Run Number:** 3

	<b>Min</b>	<b>Max</b>	<b>Avg</b>		
BH Temperature:	10.00 degC	10.00 degC	10.00 degC	Total DH Shocks (k):	0 k
Surface RPM:	120.00 rpm	120.00 rpm	120.00 rpm	Max Shock Level:	0
ROP:	15.00 m/hr	35.00 m/hr	25.00 m/hr	Max Shock Duration:	0 sec
Surface Torque:	10.00 kN.m	11.00 kN.m	10.50 kN.m	Checkshot Type:	
Flow Rate:	800.00 galUS/min	800.00 galUS/min	800.00 galUS/min	Checkshot Depth:	m
WOB Sliding:				Checkshot Incl:	deg
				Checkshot Azim:	deg
				H2S In Well:	No
Average Pump Pressure:	49 psi			SPP Off Bottom:	1,910.00 psi
Turbine RPM @ Min Flow Rate:	1,897 rpm	Min Flow Rate:	800.00galUS/min	SPP On Bottom:	1,966.00 psi
Turbine RPM @ Max Flow Rate:	1,897 rpm	Max Flow Rate:	800.00galUS/min		

### Mud Information

Mud Type:	Sea Water	Mud Clean:	Yes	pH:	9.90
Mud Company:	TELNITE	LCM Type:	None	Chlorides:	ppm
Mud Brand:	KNPP	LCM Size:	None	Sand Content:	%
Funnel Viscosity:	s/qt	LCM Concentration:	lbs/bbl	Solids:	%
Plastic Viscosity:	13.00 cp	Weighting Material:	None	Percent Oil:	%
Yield Point:	48.00 lbm/100ft2	Mud Weight:	1.04 g/cm3		
Mud Resistivity:	0.43 ohm-m				

### IADC Bit Grading

Manufacturer:	Hycalog	Total Revs:		IADC Code:	
Model:		Stick/Slip:		Jets ( / 32 in):	7X14
Type:	PDC	Reason Pulled:	Total Depth/Casing Depth	Bit TFA:	1.05 in2

Inner Row	Outer Row	Dull Char	Location	Bearings/Seals	Gauge	Other Chars
1.00	1.00	CT	S		I	WT

### End of Run - Summary

Sync Hours:	20.04 hrs	Downhole Noise:	No	Run Failed:	No
Jamming:	No 0.00 hrs	Surface System Failure:	No	D&M Trip:	No
Surface Vibration:	No	Surface Noise:	No	Low Oil Flag:	No 0.00 hrs
Trans Fail:	No	H2S in Well:	No	Filter Screen/Plug Shear:	No

**Client Inconvenience:** No Lost Time: hrs

Reason for POOH: Total Depth/Casing Depth

**D&M Run Obj Met? [DD and MWD/LWD]:** Yes

### Brief Run Summary:

### If not, why?:

Drill the 12.25 inch section until TD at the depth 3107.2m with the GVR8 and TeleScope.

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run Number:** 3

**Company:** JAPAN AGENCY FOR MARINE-EARTH SCIENCE & TECHNOLOGY  
**Location:** MEA-CHG-JAP  
**Rig Name:** Chikyu  
**Well Name:** NT2-01

### Equipment on the Run

Equipment	Pump Hours		Software Version	Tool Size
	Start	Cumulative		
H524743-54741	hrs	hrs		8.25 in
H524743-54745	hrs	hrs		8.25 in
H524743-54747	hrs	hrs		8.25 in
H524743-54752	hrs	hrs		8.25 in
MDCIX-GA-E2314	119.61 hrs	139.65 hrs	V9.2C02	8.25 in
NMDC-8.00-O.D.-SBD5733	39.38 hrs	59.42 hrs		8.25 in
RBDC-CA-41040	39.38 hrs	59.42 hrs	V9.1B	8.25 in
SSTAB1225-GP6134-1	39.38 hrs	59.42 hrs		8.25 in

### Services on the Run

Equipment	Service	Tool Name	Real Time			Recorded Mode			CAF
			Hours	Failed	Depth	Hours	Failed	Depth	
LWD	Ring Resistivity	GeoVision	20.04 hrs		74.0 m	58.00 hrs		74.0 m	
LWD	Bit Resistivity	GeoVision	20.04 hrs		74.0 m	58.00 hrs		74.0 m	
LWD	Button Resistivity	GeoVision	20.04 hrs		74.0 m	58.00 hrs		74.0 m	
LWD	Images	GeoVision	20.04 hrs		74.0 m	58.00 hrs		74.0 m	
LWD	GammaRay	GeoVision	20.04 hrs		74.0 m	58.00 hrs		74.0 m	
MWD	Shock and Vibration	TeleScope	20.04 hrs		74.0 m	58.00 hrs		74.0 m	
MWD	Cont D&I	TeleScope	20.04 hrs		74.0 m	hrs			
MWD	D&I	TeleScope	20.04 hrs		74.0 m	58.00 hrs		74.0 m	

**Job Number:** 09JAP0003  
**Company Rep:** I. Sawada & T. Abe  
**Run No:** 3

**Company:** JAPAN AGENCY FOR MARINE-EARTH SCIENCE & TECHNOLOGY  
**Location:** MEA-CHG-JAP

**Rig Name:** Chikyu  
**Well Name:** NT2-01

From	To	Elapsed	Depth in m		IADC Activity	Description
			From	To		
<b>10-Aug-2009</b>						
00:00	23:59	23.98	0.0	0.0	Other	Evacuation from the storm
<b>11-Aug-2009</b>						
00:00	10:30	10.50	0.0	0.0	Other	Move back to the drift point.
10:30	10:40	0.17	0.0	0.0	Other	SHT passed with the parameters SPPA 570psi, FlowRate 700gpm, TRPM 2188, SPT 13.8psi, BitConf 91%
10:40	17:20	6.67	0.0	1403.0	PU / LD BHA / Tripping	RIH until the depth at 1403m
17:20	23:40	6.33	1403.0	1403.0	Other	Drift to the drill location.
23:40	00:00	0.33	1403.0	2450.0	PU / LD BHA / Tripping	RIH again.
<b>12-Aug-2009</b>						
00:00	05:50	5.83	2450.0	2900.0	PU / LD BHA / Tripping	RIH until the depth at the depth 2900.
05:50	10:00	4.17	2900.0	2974.0	Reaming / Hole opener / Unc	R-reeaamm ainngd acquire data from 2900m to 2974m, according to scientists request.
10:00	11:10	1.17	2974.0	3033.1	PU / LD BHA / Tripping	Resume RIH.
11:10	17:30	6.33	3033.1	3107.2	Drilling	Tag bottom and continue drilling until TD.
17:30	22:00	4.50	3107.2	2594.0	Reaming / Hole opener / Unc	Wiper trip to the casing shoe.
22:00	23:00	1.00	2594.0	3100.0	PU / LD BHA / Tripping	Go back to the bottom and circulate off bottom.
23:00	00:00	1.00	3100.0	3100.0	Circulate / Condition mud	Circulate off bottom.
<b>13-Aug-2009</b>						
00:00	07:00	7.00	3100.0	2594.0	PU / LD BHA / Tripping	POOH until casing shoe, while turning pumps on and circulate bottoms up at several depths.
07:00	17:00	10.00	2594.0	0.0	Other	Start pulling out of hole until surface.
17:00	19:00	2.00	0.0	0.0	PU / LD BHA / Tripping	LD the BHA.

**Job Number:** 09JAP0003**Company:** JAPAN AGENCY FOR MARINE-EARTH SCIENCE & TECHNOLOGY**Rig Name:** Chikyu**Company Rep:** I. Sawada & T. Abe**Location:** MEA-CHG-JAP**Well Name:** NT2-01**Run Number:** 3

<u>Date/Time</u>	<u>Depth</u>	<u>Description</u>
11-Aug-2009 10:30AM	0.0 m	SHT passed with the parameters SPPA 570psi, FlowRate 700gpm, TRPM 2188, SPT 13.8psi, BitConf 91%
11-Aug-2009 7:00PM	1403.0 m	The geologist decided to relog the section from 2790m to 2870m during RIH.
12-Aug-2009 5:50AM	2900.0 m	Ream and acquire data from 2900m to 2974m, according to scientists request.
12-Aug-2009 11:10AM	3303.1 m	Tag bottom and continue drilling until TD.
12-Aug-2009 5:30PM	3107.2 m	TD reached at this depth.
13-Aug-2009 5:00PM	0.0 m	Tool ART.

**Job Number:** 09JAP0003

**Company Rep:** I. Sawada & T. Abe

**Run Number:** 3

**Company:** JAPAN AGENCY FOR MARINE-EARTH SCIENCE & TECHNOLOGY

**Location:** MEA-CHG-JAP

**Rig Name:** Chikyu

**Well Name:** NT2-01

	12-Aug-2009 4:40 PM	12-Aug-2009 11:46 AM
<b>Field Engineer</b>	Yu Ito	Yu Ito
<b>Depth</b>	3,094.60 m	3,036.00 m
<b>Avg ROP</b>	3.09 m/hr	3.09 m/hr
<b>On Bottom ROP</b>	18.12 m/hr	18.12 m/hr
<b>Flow Rate</b>	800.00 galUS/min	800.00 galUS/min
<b>Turbine RPM</b>	1,897 rpm	1,914 rpm
<b>Surface RPM</b>	120 rpm	120 rpm
<b>WOB Rotating</b>	10,000.00 kg	10,000.00 kg
<b>WOB Sliding</b>		
<b>DH WOB</b>		
<b>Surface Torque</b>	11.00 kN.m	10.00 kN.m
<b>DH Torque</b>	7.00 kN.m	8.00 kN.m
<b>Hookload</b>	201,000 kg	200,000 kg
<b>PickUp Weight</b>	212,000.00 kg	210,000.00 kg
<b>Slack Weight</b>	180,000.00 kg	181,000.00 kg
<b>Friction</b>		
<b>SPP On Bottom</b>	1,981.00 psi	1,966.00 psi
<b>SPP Off Bottom</b>	1,940.00 psi	1,910.00 psi
<b>Diff Pressure</b>	41 psi	56 psi
<b>BH Temperature</b>	10.00 degC	10.00 degC
<b>Total Shocks (k)</b>		
<b>Max Shock Level</b>		
<b>Max Shock Duration</b>		
<b>Torsional Vib</b>		
<b>Lateral Vib</b>		
<b>Axial Vib</b>		
<b>CRPM</b>	160 rpm	161 rpm
<b>Stick/Slip</b>	222	201
<b>Formation</b>	MudStone	MudStone
<b>Signal Strength</b>	7.00 psi	26.00 psi
<b>Percent Signal Conf</b>	87 %	87 %

---

## ***6. EDI REPORT***

Client: JAMSTEC

Field: Nankai-Kumano

Rig: Chikyu

Well: NT2-01

BHA: 1

Description: Manual Input

Engineer: Ito/Ning

Date: 2-Aug-09

Grid Azimuth: 90 deg

Magnetic Azimuth: 97.34 deg

Declination: -6.49 deg

Grid Convergence: 0.85 deg

Inclination: 3 deg

Dip Angle: 46.59

Field Strength: 45828 nT

BHA Type: One

BHA Size: Large

D1: 2.39 m

MP: 4.68 m

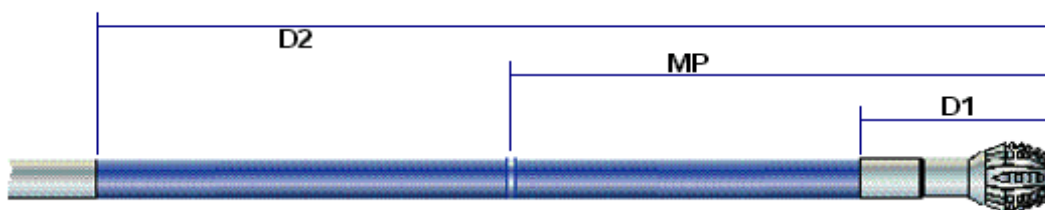
D2: 11.34 m

Interfering Field: 2607 nT

FAC Variation |B|: 1913 nT

FAC Variation Dip: 2.16 deg

Azimuth Error Calculation Result: 0.25 deg (2 Sigma)



Client: JAMSTEC

Field: Nankai-Kumano

Rig: Chikyu

Well: NT2-01

BHA: 2

Description: Manual Input

Engineer: Yang/Ito

Date: 6-Aug-09

Grid Azimuth: 90<sup>deg</sup>

Magnetic Azimuth: 97.41<sup>deg</sup>

Declination: -6.49<sup>deg</sup>

Grid Convergence: 0.92<sup>deg</sup>

Inclination: 3<sup>deg</sup>

Dip Angle: 46.59<sup>deg</sup>

Field Strength: 45828<sup>nT</sup>

BHA Type: Three

BHA Size: Large

L1: 1.98<sup>m</sup>

D1: 0.28<sup>m</sup>

S1: 12.56<sup>m</sup>

MP: 8.19<sup>m</sup>

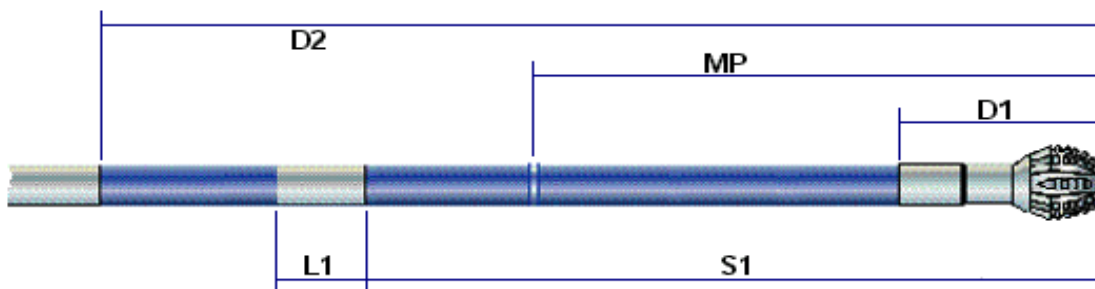
D2: 23.67<sup>m</sup>

Interfering Field: 522<sup>nT</sup>

FAC Variation |B|: 378<sup>nT</sup>

FAC Variation Dip: 0.45<sup>deg</sup>

Azimuth Error Calculation Result: 0.05<sup>deg</sup> (2 Sigma)





Client: JAMSTEC

Field: Nankai-Kumano

Rig: Chikyu

Well: NT2-01

BHA: 3

Description: Manual Input

Engineer: Yang/Ito

Date: 6-Aug-09

Grid Azimuth: 90<sup>deg</sup>

Magnetic Azimuth: 97.41<sup>deg</sup>

Declination: -6.49<sup>deg</sup>

Grid Convergence: 0.92<sup>deg</sup>

Inclination: 3<sup>deg</sup>

Dip Angle: 46.59<sup>deg</sup>

Field Strength: 45828<sup>nT</sup>

BHA Type: Three

BHA Size: Large

L1: 1.98<sup>m</sup>

D1: 0.28<sup>m</sup>

S1: 12.56<sup>m</sup>

MP: 8.19<sup>m</sup>

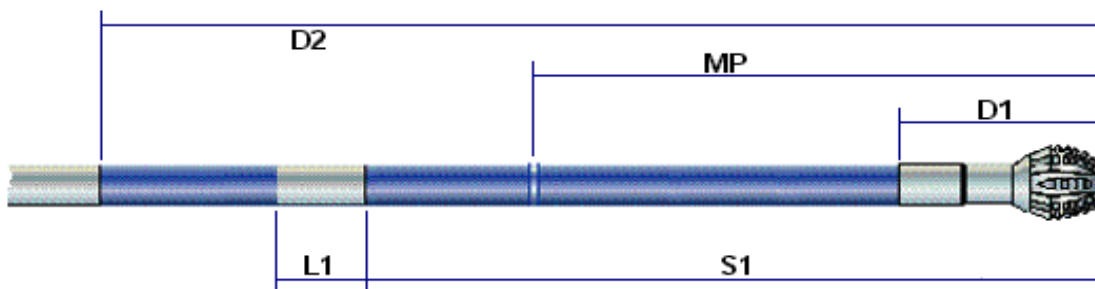
D2: 23.67<sup>m</sup>

Interfering Field: 522<sup>nT</sup>

FAC Variation |B|: 378<sup>nT</sup>

FAC Variation Dip: 0.45<sup>deg</sup>

Azimuth Error Calculation Result: 0.05<sup>deg</sup> (2 Sigma)



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## ***7. SENSORS CALIBRATION & DEPTH CONTROL BOOK***

Depth tracking performed as per Schlumberger Depth Control Standard document

**D&M-SLB-STD016**

## Surface Sensor Calibration Record: Clamp-Line Tensiometer

<b>Client</b> JAMSTEC	<b>Date / Time</b> 1-Aug-09
<b>Rig</b> Chikyu	<b>Job no</b> 09JAP0003
<b>Unit</b> OLU-KC-0504	<b>Well</b> NT2-01
<b>Sensor Series Number</b>	

Remarks: CLT SN 4492006

ca **Analog Sensor Calibration Panel**
? X

Hookload	Pump Pressure	Surface Torque	Surface Amps	Surface Rpms	Analog DWE	Analog GTE
----------	---------------	----------------	--------------	--------------	------------	------------

<b>Offset (A0)</b>	<b>Gain (A1)</b>	
Working	-739.059    543.2883	Default
Current	-739.059    543.2883	
HookLoad	2188.90 kN	2.27 V

User Input Data		
	kN	V
1	700.00	1.650
2	1860.00	2.130
3		
4		
5		
6		

Take Point
Delete Point
Clear All

Calculate   View History   Accept   Exit   Help

13:20:40 Comment: [HookLD]

Remarks: \_\_\_\_\_

**Date / Time**

Insert the snapshot from the HSPM

Schlumberger Private

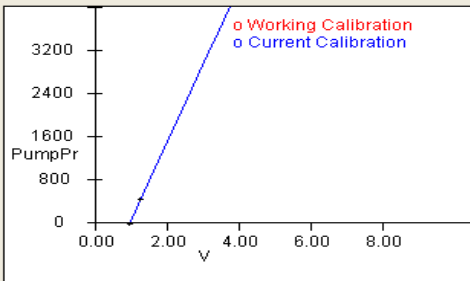
## Surface Sensor Calibration Record: Pressure Sensor SPT-HB Static

<b>Client</b>	JAMSTEC	<b>Date / Time</b>	1-Aug-09
<b>Rig</b>	Chiky	<b>Job no</b>	09JAP0003
<b>Unit</b>	OLU-KC-0503	<b>Well</b>	NT2-01
<b>Sensor Series Number</b>	33605E		

Remarks: \_\_\_\_\_

Hookload | Pump Pressure | Surface Torque | Surface Amps | Surface Rpms | Analog DWE | Analog GTE

	<b>Offset (A0)</b>	<b>Gain (A1)</b>	
<b>Working</b>	-1450.728	1465.3814	Default
<b>Current</b>	-1450.728	1465.3814	
<b>Pump Pressure</b>	2245.87	psi	2.52
			V



User Input Data		Pump Pressure	
	psi	V	
1	424.96	1.280	<input type="button" value="Take Point"/>  <input type="button" value="Delete Point"/>  <input type="button" value="Clear All"/>
2	0.00	0.990	
3			
4			
5			
6			

|  |  |  |

13:20:56 Comment: Sensor (PumpPr)
Insert the snapshot from the HSPM

Remarks: \_\_\_\_\_

**Date / Time**

Insert the snapshot from the HSPM

## CHS Pre-Job Depth Control Report

Job Information	
Date	25-Jun-08
Job no.	09JAP0003
Client	JAMSTEC
Well Name	NT2-01
Field	Nankai-Kumano
Location	Phillippine Sea
Run #	1

Hole Section Information	
Hole Size	20in
Tool Size	8.25in
Services	DNI
BHA Type	Pendular
Inclination	0
Azimuth	0

Expected Casing Shoe

Planned TD / Casing Point

Zones of Interest ( As per Geologist Advice)  
Jetting section, no interested zone

Acquisition System	
Signal Processor	ASAP
IDEAL Version	14_0c_12
HSPM Version	14_0c_02

Depth Control System	
Depth Tracking System	PDA
Depth Reference	Drillers depth
Depth Measurement Source	D&M

### Depth Calibration Information

Standard Block Height Calibration Equipment is DWC	
DWC Serial No.	
Date of Last Drill Line Slip & Cut	
Date of Last Calibration	
Calibration Status	Valid

#### Calibration Data

Data Point	BPOS	PPM

### Exemption Request Reference

Fill out an exemption request on QUEST and give its reference in this section if any of the following is true:  
 1. Depth reference is not Driller's Pipe Tally  
 2. Depth measurement data is obtained from third party for any reason.

Cell Manager Yu Ito \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Document Owner: D&M CHS SQC

# CHS Depth Tracking Data Sheet

Well /Field		NT2-01/Nankai-Kumano		Date in		3-Aug-09		BHA no		1				
Client		Jamstec		Date out		3-Aug-09		D&M Run no		1				
Hole Section		20inch		Start Depth		2553.00		D&M Tools		TeleScope8				
BHA Length		1910.617 m		End Depth		2594.00		BHA Type		Pendulum assembly				
Stick-up		1.600 m		Length Unit		Meters		Cell Manager		Yang/Ito				
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connec	Delta	Bik Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
S	9.559	38.223		1920.176	1918.576									
D	9.543			1929.719	1928.119									
T	9.569			1939.288	1937.688									
51	9.552			1948.840	1947.240									
S	9.549	38.199		1958.389	1956.789									
D	9.537			1967.926	1966.326									
T	9.547			1977.473	1975.873									
52	9.566			1987.039	1985.439									
S	9.564	38.225		1996.603	1995.003									
D	9.559			2006.162	2004.562									
T	9.552			2015.714	2014.114									
53	9.550			2025.264	2023.664									
S	9.558	38.230		2034.822	2033.222									
D	9.560			2044.382	2042.782									
T	9.556			2053.938	2052.338									
54	9.556			2063.494	2061.894									
S	9.554	38.204		2073.048	2071.448									
D	9.535			2082.583	2080.983									
T	9.562			2092.145	2090.545									
55	9.553			2101.698	2100.098									
S	9.550	38.223		2111.248	2109.648									
D	9.547			2120.795	2119.195									
T	9.566			2130.361	2128.761									
56	9.560			2139.921	2138.321									
S	9.558	38.201		2149.479	2147.879									
D	9.544			2159.023	2157.423									
T	9.558			2168.581	2166.981									
57	9.541			2178.122	2176.522									
S	9.568	38.270		2187.690	2186.090									
D	9.575			2197.265	2195.665									
T	9.561			2206.826	2205.226									
58	9.566			2216.392	2214.792									
S	9.547	38.216		2225.939	2224.339									
D	9.566			2235.505	2233.905									
T	9.562			2245.067	2243.467									
59	9.541			2254.608	2253.008									
S	9.565	38.187		2264.173	2262.573									
D	9.567			2273.740	2272.140									
T	9.532			2283.272	2281.672									
60	9.523			2292.795	2291.195									
S	9.556	38.219		2302.351	2300.751									
D	9.557			2311.908	2310.308									
T	9.554			2321.462	2319.862									
61	9.552			2331.014	2329.414									
S	9.563	38.237		2340.577	2338.977									
D	9.562			2350.139	2348.539									
T	9.562			2359.701	2358.101									
62	9.550			2369.251	2367.651									
S	9.572	38.214		2378.823	2377.223									
D	9.553			2388.376	2386.776									
T	9.546			2397.922	2396.322									
63	9.543			2407.465	2405.865									
S	9.553			2417.018	2415.418									

# CHS Depth Tracking Data Sheet

Well /Field		NT2-01/Nankai-Kumano				Date in	3-Aug-09		BHA no	1				
Client		Jamstec				Date out	3-Aug-09		D&M Run no	1				
Hole Section		20inch				Start Depth	2553.00		D&M Tools	TeleScope8				
BHA Length		1910.617 m				End Depth	2594.00		BHA Type	Pendulum assembly				
Stick-up		1.600 m				Length Unit	Meters		Cell Manager	Yang/Ito				
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connec	Delta	Bik Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
D	9.545	28.671		2426.563	2424.963									
T	9.573			2436.136	2434.536									
64	0.000			2436.136	2434.536									
S	9.555	38.236		2445.691	2444.091									
D	9.565			2455.256	2453.656									
T	9.566			2464.822	2463.222									
65	9.550		2474.372	2472.772										
S	9.566	38.233		2483.938	2482.338									
D	9.550			2493.488	2491.888									
T	9.557			2503.045	2501.445									
66	9.560		2512.605	2511.005										Set the BD to 2527.8m
S	9.544	38.234		2522.149	2520.549									
D	9.563			2531.712	2530.112									
T	9.544			2541.256	2539.656									
67	9.583		2550.839	2549.239										
S	9.562	38.240		2560.401	2558.801									
D	9.561			2569.962	2568.362									
T	9.546			2579.508	2577.908									
68	9.571		2589.079	2587.479										TD @ 2594.2m
S	9.547	38.209		2598.626	2597.026									
D	9.556			2608.182	2606.582									
T	9.554			2617.736	2616.136									
69	9.552		2627.288	2625.688										
S	9.571	38.281		2636.859	2635.259									
D	9.574			2646.433	2644.833									
T	9.554			2655.987	2654.387									
70	9.582		2665.569	2663.969										
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
71			2665.569	2663.969										
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
72			2665.569	2663.969										
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
73			2665.569	2663.969										
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
74			2665.569	2663.969										
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
75			2665.569	2663.969										
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
76			2665.569	2663.969										
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
77			2665.569	2663.969										
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									

# CHS Depth Tracking Data Sheet

Well /Field		NT2-01/Nankai-Kumano				Date in		3-Aug-09		BHA no		1		
Client		Jamstec				Date out		3-Aug-09		D&M Run no		1		
Hole Section		20inch				Start Depth		2553.00		D&M Tools		TeleScope8		
BHA Length		1910.617 m				End Depth		2594.00		BHA Type		Pendulum assembly		
Stick-up		1.600 m				Length Unit		Meters		Cell Manager		Yang/Ito		
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connec	Delta	Bik Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
T		0.000		2665.569	2663.969									
78				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
79				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
80				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
81				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
82				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
83				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
84				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
85				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
86				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
87				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
88				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
89				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
90				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									
91				2665.569	2663.969									
S		0.000		2665.569	2663.969									
D				2665.569	2663.969									
T				2665.569	2663.969									



## CHS Depth Tracking Data Sheet

<b>Well /Field</b>		NT2-01/Nankai-Kumano		<b>Date in</b>		3-Aug-09		<b>BHA no</b>		1					
<b>Client</b>		Jamstec		<b>Date out</b>		3-Aug-09		<b>D&amp;M Run no</b>		1					
<b>Hole Section</b>		20inch		<b>Start Depth</b>		2553.00		<b>D&amp;M Tools</b>		TeleScope8					
<b>BHA Length</b>		1910.617 m		<b>End Depth</b>		2594.00		<b>BHA Type</b>		Pendulum assembly					
<b>Stick-up</b>		1.600 m		<b>Length Unit</b>		Meters		<b>Cell Manager</b>		Yang/Ito					
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connec	Delta	Bik Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark	
92		0.000		2665.569	2663.969										
S				2665.569	2663.969										
D				2665.569	2663.969										
T				2665.569	2663.969										
93				2665.569	2663.969										
S				2665.569	2663.969										

# CHS Depth Encoder Calibration Record

Client: JAMSTEC Well: NT2-01  
Rig: Chikyu Job Number: 09JAP0003  
Remark: We use geograph in this job  
Date/Time: N/A Run: 1

**Drawworks Calibration Panel**

6 Wire Calibration | 4 Wire Calibration | **Manual** | Interactive Manual

Offset:  m    WL Pos:  m    Block Pos:  m  
Counts:     Wrap No:     On/Off Status: **MANUAL**

Block position (m)	pulses/m
0	270
12	270
24	270
36	270
48	270

User Input Data

	Block Pos	PPM
1	<input type="text" value="0"/>	<input type="text" value="310"/>
2	<input type="text" value="100"/>	<input type="text" value="310"/>
3	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>

Take Pt | Clear | Calculate | Accept | Reject | Exit | Help

2:25:48 COMMENT: Set to Manual Mode Calibration

# CHS Post-Job Depth Control Report

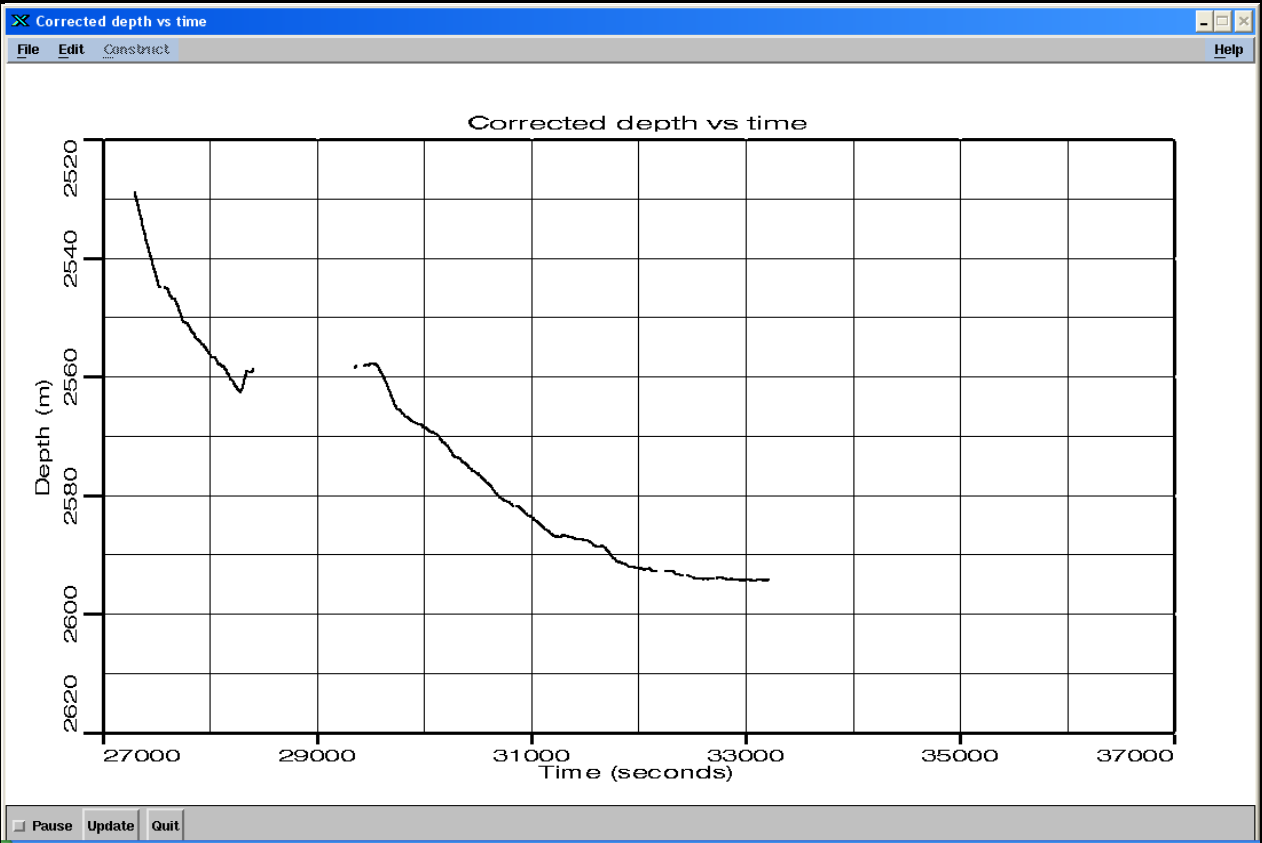
## Job Information

Date	2-Aug-09
Job no.	09JAP0003
Client	JAMSTEC
Well Name	NT2-01
Field	Nankai-Kumano
Location	Phillippine Sea
Well Profile	
Run #	1

## Hole Section Information

Hole Size	20in
Tool Size	8.25in
Services	DNI
BHA Type	Pendular
Inclination	0
Azimuth	0
Start Depth	2553
End Depth	2594

## IDEAL DTM Corrected Depth vs. Time Plot



Insert the Plot here from IDEAL RM Utilities Corrected vs. Depth from bin\_db file

Depth Control Reference		RT vs. RM Log Discrepancy before Time Shift	
Time Shift in RM Processing		RT vs. RM Log Discrepancy after Time Shift	

## Annotations

This section provides details of editing performed on the raw depth files and time shifting performed on the tool dump files.

RAW DEPTH VS. TIME FILES		
Run no.	Edited Interval	Remarks

TOOL DUMP FILE		
Run no.	Edited Interval	Remarks

Cell Manager: Yu Ito

Engineer Performed Editing:

## Depth Acquisition Equipment Details

**NOTE:**

The Precision Depth Assembly (PDA) is the standard depth system for Drilling & Measurements. The purpose of the PDA is to make an accurate determination of the traveling block altitude on fixed rigs.

The components of the PDA are:

**DEPTH ENCODER SYSTEM (DES):** Driven directly by the drawworks drum.

**DEPTH WIRE CALIBRATOR (DWC):** Provides calibration data to correct the DES signal with respect to true block displacement. In the event of such an equipment not available at the rigsite, a manual calibration is performed after prior approval from the Drilling & Measurements management.

**CLAMP LINE TENSIO METER (CLT):** Used to automate the depth tracking by providing a link between the traveling block motion and the bit motion.

JOB RECORD FOR PRECISION DEPTH ASSEMBLY (PDA)		
Equipment Type	Serial no.	Remarks
CLT-DA	4492006	
DES-CB	001688	Geolograph

As per requirements of the D&M Depth Control Standard, Block Height calibrations are to be carried out at the beginning of the job and after every slip-and-cut operation.

DES CALIBRATION HISTORY			
Calibration Date	Type	Calibration Reason	Date

Document Owner: CHS D&M SQC

## CHS Pre-Job Depth Control Report

Job Information	
Date	25-Jun-08
Job no.	09JAP0003
Client	JAMSTEC
Well Name	NT2-01
Field	Nankai-Kumano
Location	Phillippine Sea
Run #	2

Hole Section Information	
Hole Size	12.25in
Tool Size	8.25in
Services	DNI and VISION
BHA Type	Pendular
Inclination	1
Azimuth	0

Expected Casing Shoe

Planned TD / Casing Point

The Section where will show a fault from the depth

Acquisition System	
Signal Processor	ASAP
IDEAL Version	14_0c_12
HSPM Version	14_0c_02

Depth Control System	
Depth Tracking System	PDA
Depth Reference	Drillers depth
Depth Measurement Source	D&M

### Depth Calibration Information

Standard Block Height Calibration Equipment is DWC	
DWC Serial No.	
Date of Last Drill Line Slip & Cut	
Date of Last Calibration	
Calibration Status	Valid

#### Calibration Data

Data Point	BPOS	PPM

### Exemption Request Reference

Fill out an exemption request on QUEST and give its reference in this section if any of the following is true:

1. Depth reference is not Driller's Pipe Tally
2. Depth measurement data is obtained from third party for any reason.

Cell Manager Yu Ito \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Document Owner: D&M CHS SQC

## CHS Depth Tracking Data Sheet

Well /Field		NT2-01/Nankai-Kumano		Date in		6-Aug-09		BHA no		2				
Client		JAMSTEC		Date out		10-Aug-09		D&M Run no		2				
Hole Section		12.25inch		Start Depth		2594.20		D&M Tools		TeleScope8+GVR				
BHA Length		2232.960 m		End Depth		3033.07		BHA Type		Pendulum assembly				
Stick-up		0.000 m		Length Unit		Meters		Cell Manager		Ito				
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connect	Delta	Blk Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
S	9.547	38.187		2242.507	2242.507									
D	9.547			2252.054	2252.054									
T	9.552			2261.606	2261.606									
31	9.541			2271.147	2271.147									
S	9.543	38.169		2280.690	2280.690									
D	9.538			2290.228	2290.228									
T	9.541			2299.769	2299.769									
32	9.547			2309.316	2309.316									
S	9.558	38.234		2318.874	2318.874									
D	9.552			2328.426	2328.426									
T	9.564			2337.990	2337.990									
33	9.560			2347.550	2347.550									
S	9.541	38.185		2357.091	2357.091									
D	9.538			2366.629	2366.629									
T	9.559			2376.188	2376.188									
34	9.547			2385.735	2385.735									
S	9.544	38.158		2395.279	2395.279									
D	9.547			2404.826	2404.826									
T	9.538			2414.364	2414.364									
35	9.529			2423.893	2423.893									
S	9.534	38.146		2433.427	2433.427									
D	9.550			2442.977	2442.977									
T	9.514			2452.491	2452.491									
36	9.548			2462.039	2462.039									
S	9.530	38.239		2471.569	2471.569									
D	9.561			2481.130	2481.130									
T	9.581			2490.711	2490.711									
37	9.567			2500.278	2500.278									
S	9.548	38.225		2509.826	2509.826									
D	9.557			2519.383	2519.383									
T	9.566			2528.949	2528.949									
38	9.554			2538.503	2538.503									
S	9.557	38.239		2548.060	2548.060									
D	9.545			2557.605	2557.605									
T	9.561			2567.166	2567.166									
39	9.576			2576.742	2576.742									Reset the BD before Drill
S	9.564	38.159		2586.306	2586.306									
D	9.578			2595.884	2595.884									
T	9.561			2605.445	2605.445									
40	9.456			2614.901	2614.901	2612.26	2.64	kd=0.38	2:20 PM	7-Aug-09	0.00			
S	9.451	38.069		2624.352	2624.352									
D	9.562			2633.914	2633.914									
T	9.541			2643.455	2643.455	2643.42	0.03		5:12 PM		10.87			
41	9.515			2652.970	2652.970	2648.95	4.02		5:37 PM		13.27			
S	9.572	38.115		2662.542	2662.542									
D	9.566			2672.108	2672.108									
T	9.424			2681.532	2681.532	2681.23	0.30		7:56 PM		13.93			
42	9.553			2691.085	2691.085	2688.55	2.53		8:15 PM		23.12			
S	9.569	38.234		2700.654	2700.654									
D	9.564			2710.218	2710.218									
T	9.550			2719.768	2719.768									
43	9.551			2729.319	2729.319	2726.82	2.50		11:17 PM		12.62			
S	9.556			2738.875	2738.875	2738.66	0.22		12:59 AM	8-Aug-09	6.96			

# CHS Depth Tracking Data Sheet

Well / Field				NT2-01/Nankai-Kumano		Date in		6-Aug-09		BHA no		2		
Client				JAMSTEC		Date out		10-Aug-09		D&M Run no		2		
Hole Section				12.25inch		Start Depth		2594.20		D&M Tools		TeleScope8+GVR		
BHA Length				2232.960 m		End Depth		3033.07		BHA Type		Pendulum assembly		
Stick-up				0.000 m		Length Unit		Meters		Cell Manager		Ito		
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual	Delta	Blk Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
D	9.557	38.218		2748.432	2748.432									
T	9.561			2757.993	2757.993									
44	9.544			2767.537	2767.537	2765.07	2.47		2:20 AM	8-Aug-09	19.56			
S	9.562	38.244		2777.099	2777.099									
D	9.571			2786.670	2786.670									
T	9.551			2796.221	2796.221									
45	9.560	38.244		2805.781	2805.781	2803.53	2.25		5:36 AM	8-Aug-09	11.77			
S	9.561			2815.342	2815.342									
D	9.550			2824.892	2824.892									
T	9.558	38.244		2834.450	2834.450	2835.20	0.75							
46	9.575			2844.025	2844.025	2842.30	1.72		8:44 AM	8-Aug-09	2.27			
S	9.546			2853.571	2853.571									
D	9.557	38.221		2863.128	2863.128									
T	9.569			2872.697	2872.697	2873.30	0.60							
47	9.549			2882.246	2882.246	2880.81	1.44		12:09 PM	8-Aug-09	2.20			
S	9.562	38.210		2891.808	2891.808									
D	9.558			2901.366	2901.366									
T	9.547			2910.913	2910.913	2910.85	0.06		4:11 PM		7.45			
48	9.543	38.220		2920.456	2920.456	2917.91	2.55		4:32 PM		20.17			
S	9.562			2930.018	2930.018									
D	9.551			2939.569	2939.569									
T	9.554	38.220		2949.123	2949.123									
49	9.553			2958.676	2958.676	2956.41	2.27		6:16 AM	9-Aug-09	2.80			
S	9.565			2968.241	2968.241									
D	9.572	38.249		2977.813	2977.813									
T	9.561			2987.374	2987.374									
50	9.551			2996.925	2996.925	2994.57	2.36		9:21 AM		12.38			
S	9.559	38.223		3006.484	3006.484									
D	9.543			3016.027	3016.027									
T	9.569			3025.596	3025.596									
71	9.552	0.000		3035.148	3035.148	3033.07	2.08		12:10 PM		13.67			TD
S				3035.148	3035.148									
D				3035.148	3035.148									
72		0.000		3035.148	3035.148									
S				3035.148	3035.148									
D				3035.148	3035.148									
73		0.000		3035.148	3035.148									
S				3035.148	3035.148									
D				3035.148	3035.148									
74		0.000		3035.148	3035.148									
S				3035.148	3035.148									
D				3035.148	3035.148									
75		0.000		3035.148	3035.148									
S				3035.148	3035.148									
D				3035.148	3035.148									
76		0.000		3035.148	3035.148									
S				3035.148	3035.148									
D				3035.148	3035.148									
77		0.000		3035.148	3035.148									
S				3035.148	3035.148									
D				3035.148	3035.148									
78		0.000		3035.148	3035.148									
S				3035.148	3035.148									
D				3035.148	3035.148									
79		0.000		3035.148	3035.148									
S				3035.148	3035.148									
D				3035.148	3035.148									



## CHS Depth Tracking Data Sheet

Well / Field				NT2-01/Nankai-Kumano		Date in		6-Aug-09		BHA no		2		
Client				JAMSTEC		Date out		10-Aug-09		D&M Run no		2		
Hole Section				12.25inch		Start Depth		2594.20		D&M Tools		TeleScope8+GVR		
BHA Length				2232.960 m		End Depth		3033.07		BHA Type		Pendulum assembly		
Stick-up				0.000 m		Length Unit		Meters		Cell Manager		Ito		
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connect	Delta	Blk Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
D		0.000		3035.148	3035.148									
T				3035.148	3035.148									
80					3035.148	3035.148								
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
81				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
82				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
83				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
84				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
85				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
86				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
87				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
88				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
89				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
90				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
91				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
92				3035.148	3035.148									
S		0.000		3035.148	3035.148									
D				3035.148	3035.148									
T				3035.148	3035.148									
93				3035.148	3035.148									
S				3035.148	3035.148									

## CHS Depth Encoder Calibration Record

Client: JAMSTEC Well: NT2-01  
Rig: Chiky Job Number: 09JAP0003  
Remark: We use geograph in this job  
Date/Time: \_\_\_\_\_ Run: \_\_\_\_\_ 2

**Drawworks Calibration Panel**

6 Wire Calibration | 4 Wire Calibration | **Manual** | Interactive Manual

Offset:  m    WL Pos:  m    Block Pos:  m  
Counts:     Wrap No:     On/Off Status: **MANUAL**

o Computed Calibration  
o Current Calibration

pulses/m

Block position(m)

User Input Data

	Block Pos	PPM
1	<input type="text" value="0"/>	<input type="text" value="310"/>
2	<input type="text" value="100"/>	<input type="text" value="310"/>
3	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>

Take Pt    Clear    Calculate    Accept    Reject    Exit    Help

2:25:48 COMMENT: Set to Manual Mode Calibration

# CHS Post-Job Depth Control Report

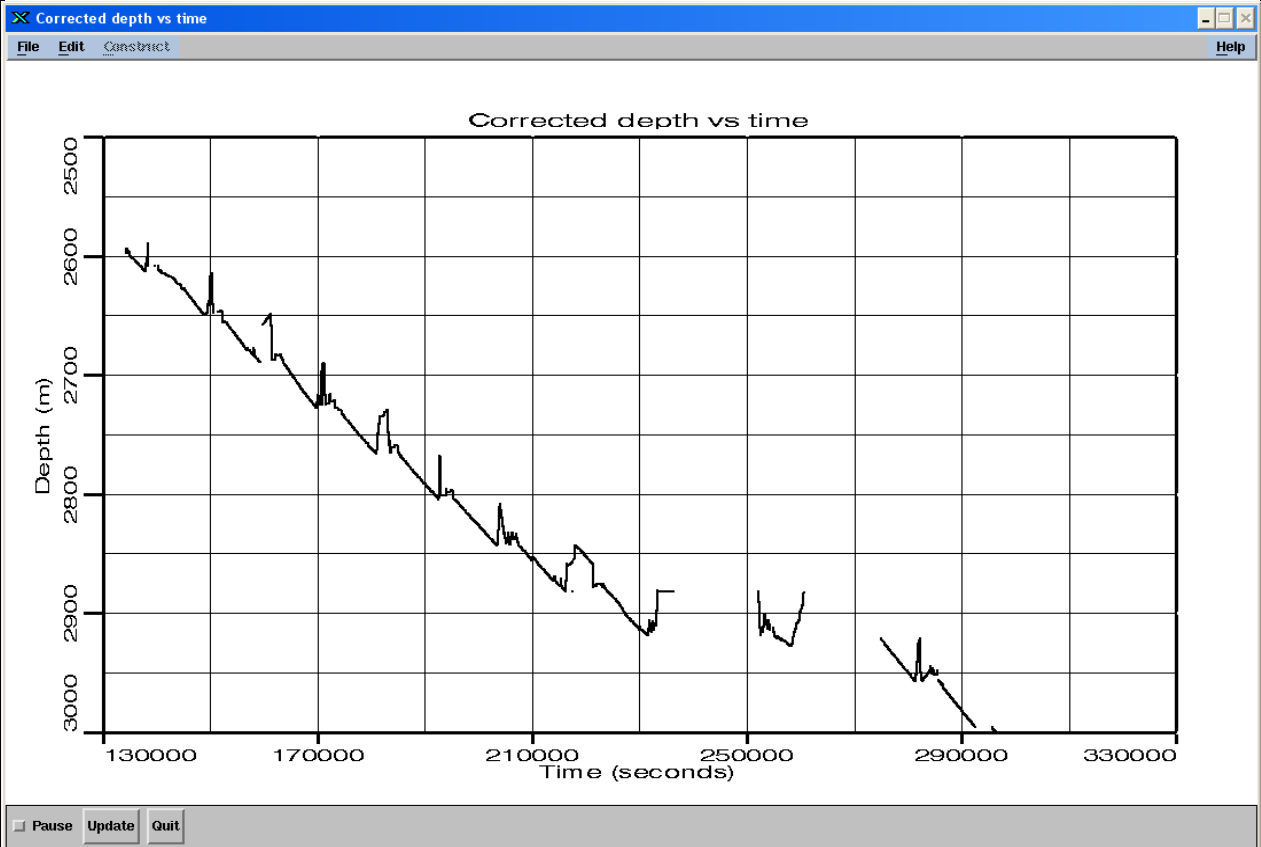
## Job Information

Date	2-Aug-09
Job no.	09JAP0003
Client	JAMSTEC
Well Name	NT2-01
Field	Nankai-Kumano
Location	Phillippine Sea
Well Profile	
Run #	2

## Hole Section Information

Hole Size	12.25in
Tool Size	8.25in
Services	DNI and VISION
BHA Type	Pendular
Inclination	2.07
Azimuth	249.18
Start Depth	2594
End Depth	3033.07

## IDEAL DTM Corrected Depth vs. Time Plot



Insert the Plot here from IDEAL RM Utilities Corrected vs. Depth from bin\_db file

Depth Control Reference		RT vs. RM Log Discrepancy before Time Shift	
Time Shift in RM Processing		RT vs. RM Log Discrepancy after Time Shift	

## Annotations

This section provides details of editing performed on the raw depth files and time shifting performed on the tool dump files.

RAW DEPTH VS. TIME FILES		
Run no.	Edited Interval	Remarks

TOOL DUMP FILE		
Run no.	Edited Interval	Remarks

Cell Manager: Yu Ito

Engineer Performed Editing:

## Depth Acquisition Equipment Details

**NOTE:**

The Precision Depth Assembly (PDA) is the standard depth system for Drilling & Measurements. The purpose of the PDA is to make an accurate determination of the traveling block altitude on fixed rigs.

The components of the PDA are:

**DEPTH ENCODER SYSTEM (DES):** Driven directly by the drawworks drum.

**DEPTH WIRE CALIBRATOR (DWC):** Provides calibration data to correct the DES signal with respect to true block displacement. In the event of such an equipment not available at the rigsite, a manual calibration is performed after prior approval from the Drilling & Measurements management.

**CLAMP LINE TENSIO METER (CLT):** Used to automate the depth tracking by providing a link between the traveling block motion and the bit motion.

JOB RECORD FOR PRECISION DEPTH ASSEMBLY (PDA)		
Equipment Type	Serial no.	Remarks
CLT-DA	4492006	
DES-CB	001688	Geolograph

As per requirements of the D&M Depth Control Standard, Block Height calibrations are to be carried out at the beginning of the job and after every slip-and-cut operation.

DES CALIBRATION HISTORY			
Calibration Date	Type	Calibration Reason	Date

Document Owner: CHS D&M SQC

## CHS Pre-Job Depth Control Report

Job Information	
Date	2-Aug-09
Job no.	09JAP0003
Client	JAMSTEC
Well Name	NT2-01
Field	Nankai-Kumano
Location	Phillippine Sea
Run #	3

Hole Section Information	
Hole Size	12.25in
Tool Size	8.25in
Services	DNI and VISION
BHA Type	Pendular
Inclination	2.07
Azimuth	249.18

**Expected Casing Shoe** 3106

**Planned TD / Casing Point** 3107.18

Zones of Interest ( As per Geologist Advice)

Acquisition System	
Signal Processor	ASAP
IDEAL Version	14_0c_12
HSPM Version	14_0c_02

Depth Control System	
Depth Tracking System	PDA
Depth Reference	Drillers depth
Depth Measurement Source	D&M

### Depth Calibration Information

Standard Block Height Calibration Equipment is DWC	
DWC Serial No.	
Date of Last Drill Line Slip & Cut	
Date of Last Calibration	
Calibration Status	Valid

#### Calibration Data

Data Point	BPOS	PPM

### Exemption Request Reference

Fill out an exemption request on QUEST and give its reference in this section if any of the following is true:

1. Depth reference is not Driller's Pipe Tally
2. Depth measurement data is obtained from third party for any reason.

Cell Manager Yu Ito \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Document Owner: D&M CHS SQC

## CHS Depth Tracking Data Sheet

Well /Field		NT2-01/Nankai-Kumano		Date in		12-Aug-09		BHA no		3				
Client		Jamstec		Date out		12-Aug-09		D&M Run no		3				
Hole Section		12.25inch		Start Depth		3033.00		D&M Tools		TeleScope8+GVR				
BHA Length		2544.820 m		End Depth		3107.18		BHA Type		Pendulum assembly				
Stick-up		0.000 m		Length Unit		Meters		Cell Manager		Ito				
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connect	Delta	Blk Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
S	9.568	38.270		2554.388	2554.388									
D	9.575			2563.963	2563.963									
T	9.561			2573.524	2573.524									
31	9.566			2583.090	2583.090									
S	9.547	38.216		2592.637	2592.637									
D	9.566			2602.203	2602.203									
T	9.562			2611.765	2611.765									
32	9.541			2621.306	2621.306									
S	9.565	38.187		2630.871	2630.871									
D	9.567			2640.438	2640.438									
T	9.532			2649.970	2649.970									
33	9.523			2659.493	2659.493									
S	9.556	38.219		2669.049	2669.049									
D	9.557			2678.606	2678.606									
T	9.554			2688.160	2688.160									
34	9.552			2697.712	2697.712									
S	9.563	38.237		2707.275	2707.275									
D	9.562			2716.837	2716.837									
T	9.562			2726.399	2726.399									
35	9.550			2735.949	2735.949									
S	9.572	38.214		2745.521	2745.521									
D	9.553			2755.074	2755.074									
T	9.546			2764.620	2764.620									
36	9.543			2774.163	2774.163									
S	9.553	38.243		2783.716	2783.716									
D	9.545			2793.261	2793.261									
T	9.573			2802.834	2802.834									
37	9.572			2812.406	2812.406									
S	9.555	38.236		2821.961	2821.961									
D	9.565			2831.526	2831.526									
T	9.566			2841.092	2841.092									
38	9.550			2850.642	2850.642									
S	9.566	38.233		2860.208	2860.208									
D	9.550			2869.758	2869.758									
T	9.557			2879.315	2879.315									
39	9.560			2888.875	2888.875									
S	9.544	38.234		2898.419	2898.419									Set the BD for Ream Down
D	9.563			2907.982	2907.982									
T	9.544			2917.526	2917.526									
40	9.583			2927.109	2927.109									
S	9.562	38.240		2936.671	2936.671									
D	9.561			2946.232	2946.232									
T	9.546			2955.778	2955.778									
41	9.571			2965.349	2965.349									
S	9.547	38.209		2974.896	2974.896									
D	9.556			2984.452	2984.452									
T	9.554			2994.006	2994.006									
42	9.552			3003.558	3003.558									Reset theBD for drilling
S	9.571	38.281		3013.129	3013.129									
D	9.574			3022.703	3022.703									
T	9.554			3032.257	3032.257									
43	9.582			3041.839	3041.839	3039.71	2.13		12:04 PM	12-Aug-09	0.00			
S	9.548			3051.387	3051.387									

## CHS Depth Tracking Data Sheet

Well /Field		NT2-01/Nankai-Kumano		Date in		12-Aug-09		BHA no		3				
Client		Jamstec		Date out		12-Aug-09		D&M Run no		3				
Hole Section		12.25inch		Start Depth		3033.00		D&M Tools		TeleScope8+GVR				
BHA Length		2544.820 m		End Depth		3107.18		BHA Type		Pendulum assembly				
Stick-up		0.000 m		Length Unit		Meters		Cell Manager		Ito				
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connect	Delta	Blk Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
D	9.559	38.230		3060.946	3060.946									
T	9.553			3070.499	3070.499									
44	9.570			3080.069	3080.069	3078.10	1.97		3:10 PM	12-Aug-09	12.38			
S	9.546	38.237		3089.615	3089.615									
D	9.568			3099.183	3099.183									
T	9.553			3108.736	3108.736									TD at 3107.18m MD
45	9.570			3118.306	3118.306									TD stand
S	9.561	38.225		3127.867	3127.867									
D	9.560			3137.427	3137.427									
T	9.556			3146.983	3146.983									
46	9.548			3156.531	3156.531									
S	9.546	38.221		3166.077	3166.077									
D	9.557			3175.634	3175.634									
T	9.569			3185.203	3185.203									
47	9.549			3194.752	3194.752									
S	9.562	38.210		3204.314	3204.314									
D	9.558			3213.872	3213.872									
T	9.547			3223.419	3223.419									
48	9.543			3232.962	3232.962									
S	9.562	38.220		3242.524	3242.524									
D	9.551			3252.075	3252.075									
T	9.554			3261.629	3261.629									
49	9.553			3271.182	3271.182									
S	9.565	38.249		3280.747	3280.747									
D	9.572			3290.319	3290.319									
T	9.561			3299.880	3299.880									
50	9.551			3309.431	3309.431									
S	9.559	38.223		3318.990	3318.990									
D	9.543			3328.533	3328.533									
T	9.569			3338.102	3338.102									
71	9.552			3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T				3347.654	3347.654									
72				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T				3347.654	3347.654									
73				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T				3347.654	3347.654									
74				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T				3347.654	3347.654									
75				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T				3347.654	3347.654									
76				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T				3347.654	3347.654									
77				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T				3347.654	3347.654									
78				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T				3347.654	3347.654									
79				3347.654	3347.654									
S				3347.654	3347.654									



## CHS Depth Tracking Data Sheet

Well /Field		NT2-01/Nankai-Kumano		Date in		12-Aug-09		BHA no		3				
Client		Jamstec		Date out		12-Aug-09		D&M Run no		3				
Hole Section		12.25inch		Start Depth		3033.00		D&M Tools		TeleScope8+GVR				
BHA Length		2544.820 m		End Depth		3107.18		BHA Type		Pendulum assembly				
Stick-up		0.000 m		Length Unit		Meters		Cell Manager		Ito				
Std	Joint length	Stand Length	Svy depth	Total length DP+BHA	Expected Connection	Actual Connect	Delta	Blk Corr	Time	Date	AV ROP	Depth Offset	Temp	Remark
D		0.000		3347.654	3347.654									
T				3347.654	3347.654									
80					3347.654	3347.654								
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
81				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
82				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
83				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
84				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
85				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
86				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
87				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
88				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
89				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
90				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
91				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
92				3347.654	3347.654									
S		0.000		3347.654	3347.654									
D				3347.654	3347.654									
T					3347.654	3347.654								
93				3347.654	3347.654									
S				3347.654	3347.654									

# CHS Depth Encoder Calibration Record

Client: JAMSTEC Well: NT2-01  
Rig: Chikyuu Job Number: 09JAP0003

Remark: We use geograph in this job

Date/Time: \_\_\_\_\_ Run: \_\_\_\_\_ 3

**Drawworks Calibration Panel** [?] [X]

6 Wire Calibration | 4 Wire Calibration | Manual | Interactive Manual

Offset:  m    WL Pos:  m    Block Pos:  m

Counts:     Wrap No:     On/Off Status: **MANUAL**

o Computed Calibration  
o Current Calibration

Block Pos	PPM	
1	0	310
2	100	310
3		
4		
5		
6		

Take Pt | Clear | Calculate | Accept | Reject | Exit | Help

2:25:48 COMMENT: Set to Manual Mode Calibration

# CHS Post-Job Depth Control Report

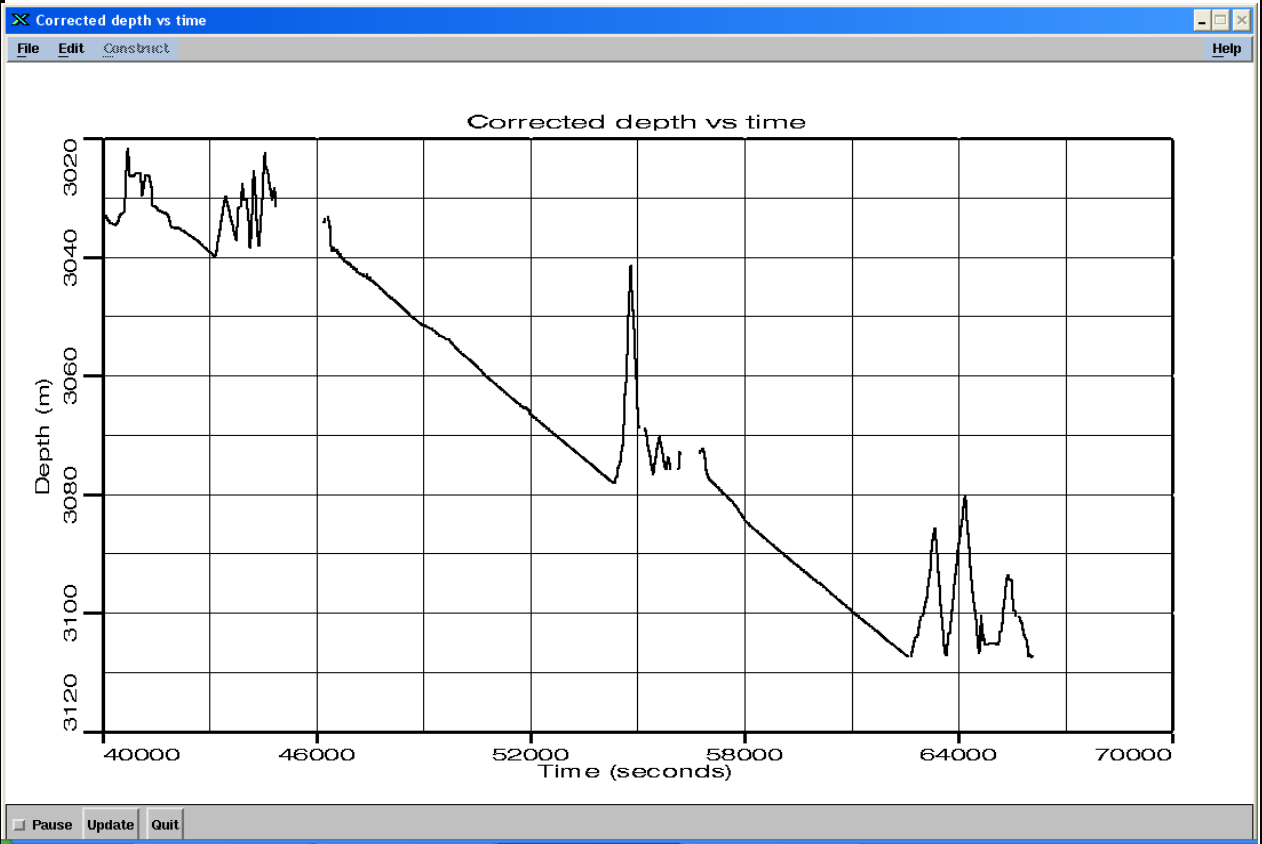
## Job Information

Date	2-Aug-09
Job no.	09JAP0003
Client	JAMSTEC
Well Name	NT2-01
Field	Nankai-Kumano
Location	Phillippine Sea
Well Profile	
Run #	3

## Hole Section Information

Hole Size	12.25in
Tool Size	8.25in
Services	DNI and VISION
BHA Type	Pendular
Inclination	2.4
Azimuth	261.33
Start Depth	3033.07
End Depth	3107.18

## IDEAL DTM Corrected Depth vs. Time Plot



Insert the Plot here from IDEAL RM Utilities Corrected vs. Depth from bin\_db file

Depth Control Reference		RT vs. RM Log Discrepancy before Time Shift	
Time Shift in RM Processing		RT vs. RM Log Discrepancy after Time Shift	

## Annotations

This section provides details of editing performed on the raw depth files and time shifting performed on the tool dump files.

RAW DEPTH VS. TIME FILES		
Run no.	Edited Interval	Remarks

TOOL DUMP FILE		
Run no.	Edited Interval	Remarks

Cell Manager: Yu Ito

Engineer Performed Editing: Yang Ning

## Depth Acquisition Equipment Details

**NOTE:**

The Precision Depth Assembly (PDA) is the standard depth system for Drilling & Measurements. The purpose of the PDA is to make an accurate determination of the traveling block altitude on fixed rigs.

The components of the PDA are:

**DEPTH ENCODER SYSTEM (DES):** Driven directly by the drawworks drum.

**DEPTH WIRE CALIBRATOR (DWC):** Provides calibration data to correct the DES signal with respect to true block displacement. In the event of such an equipment not available at the rigsite, a manual calibration is performed after prior approval from the Drilling & Measurements management.

**CLAMP LINE TENSIO METER (CLT):** Used to automate the depth tracking by providing a link between the traveling block motion and the bit motion.

JOB RECORD FOR PRECISION DEPTH ASSEMBLY (PDA)		
Equipment Type	Serial no.	Remarks
CLT-DA	4492006	
DES-CB	001688	Geolograph

As per requirements of the D&M Depth Control Standard, Block Height calibrations are to be carried out at the beginning of the job and after every slip-and-cut operation.

DES CALIBRATION HISTORY			
Calibration Date	Type	Calibration Reason	Date

Document Owner: CHS D&M SQC

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## **8. GLOSSARY**

## Glossary

<b>ABBREVIATION</b>	<b>DEFINITION</b>
ARC	LWD Gamma Ray and Resistivity Tool
ADN	LWD Porosity and Density Tool (Azimuthal Density Neutron)
GST	Geosteering Tool
MWD	Measurement While Drilling
LWD	Logging While Drilling
IWOB	Integrated Weight On Bit, Supplies Downhole Weight on Bit (DWOB) and Downhole Torque (DTOR)
APWD	Annular Pressure While Drilling
ECD	Equivalent Circulating Density
BPSK	Binary Phase Shift Keying
MSK	Mimumum Shift Keying