Chikyu DAILY MORNING REPORT

Mission No. : CK18-04 **Exp. No. :** Exp 358 **Report No. :** 124

Site Name C0002 **Hole Name** C0002S **Lat.** 33° 18.0507'N **Long.** 136° 38.2029'E Seabed Depth : 1,967.5 mBRT RT-MSL : 28.5 m **Report Date :** 8/Feb/2019

Depth : @24:00 4,865.0 mBRT 2897.5 mbsf Progress : 47.5 m Drilling/Coring/Underreaming Hrs. : 21.75 hrs Last BOP PT: 1/28/2019 Next BOP PT: 2/18/2019

Depth : @06:00 4,881.0 mBRT 2913.5 mbsf LAST CASING : 9-5/8" x 11-3/4" ESET x 2,802.50 mbsf(4,770.0 mBRT) Last BOP FT: 2/5/2019 Next BOP FT: 2/16/2019

Summary of Operation on 7-Feb : Cont. drill 8-1/2" hole with RSS/Clink/Motor to 4,865mBRT. Conduct down link. Take survey. Last Glycol 35gal Inj. 2/5/2019

Present Operation @ 06:00 on 8-Feb : Take survey at 4,881mBRT. mBRT: meter below rotary table

Time Breakdown (00:00 - 24:00 on 7-Feb) mbsf: meter below sea floor

From	To	Hrs	Code	Depth(mBRT)	Detail of Operation
0:00	1:45	1:45	DRL	4,822.0	Drill down from 4,817.5mBRT to 4,822mBRT.
					WOB: 60-70kN, HPS:30rpm x 11 -12kNm, MP: 550gpm x 24-25MPa.
1:45	2:00	0:15	OTHER	4,822.0	Conduct down link at 4,822mBRT to change transmit rate from 8bps to 6bps.
2:00	4:15	2:15	DRL	4,827.0	Resume drilling down from 4,822mBRT to 4,827mBRT.
					WOB: 70-80kN, Rotation: 194rpm (HPS:60rpm, Motor:134rpm) x 11 -13kNm, MP: 500gpm x 20-21MPa.
4:15	4:30	0:15	OTHER	4,827.0	Take survey at 4,827mBRT.
					Sensor depth 4,786.063mBRT, Inclination: 1.61deg, Azimuth: 256.75deg (Observe magnetic interference)
4:30	8:30	4:00	DRL	4,836.0	Resume drilling down from 4,827mBRT to 4,836mBRT.
					WOB: 80-100kN, Rotation: 194rpm (HPS:60rpm, Motor:134rpm) x 11 -13kNm, MP: 500gpm x 21-22MPa.
					Increase rotation from 30rpm to 60rpm after all stabilizer are out from casing window.
8:30	8:45	0:15	OTHER	4,836.0	Take survey at 4,836mBRT.
					Sensor depth 4,794.506mBRT, Inclination: 0.80deg, Azimuth: 37.26deg (Observe magnetic interference).
8:45	12:45	4:00	DRL	4,845.0	Resume drilling down from 4,836mBRT to 4,845mBRT.
					WOB: 100-120kN, Rotation: 200-207rpm (HPS:60rpm, Motor: 140-147rpm) x 11 -13kNm, MP: 525-550gpm x 23-25MPa.
12:45	13:15	0:30	OTHER	4,845.0	Take survey at 4,845mBRT.
					Sensor depth 4,804.29mBRT, Inclination: 0.81deg, Azimuth: 29.65deg (Observe magnetic interference).
13:15	16:30	3:15	DRL	4,850.7	Resume drilling down from 4,845mBRT to 4,850.7mBRT.
					WOB: 100-120kN, Rotation: 194-214rpm (HPS:60rpm, Motor: 134-154rpm) x 12 -13.6kNm, MP: 500-575gpm x 21-26MPa.
					Conduct downlink while drilling, change frequency from 3Hz to 10.5Hz.
					Find error message on the LWD system screen then reboot system. OK
16:30	17:00	0:30	OTHER	4,850.7	Take survey at 4,850.7mBRT.
					Sensor depth 4,809.675mBRT, Inclination: 1.10deg, Azimuth: 31.96deg (Observe magnetic interference).
					Conduct calibration for downhole WOB and Torque
17:00	21:45	4:45	DRL	4,861.0	Resume drilling down from 4,850.7mBRT to 4,861mBRT.
					WOB: 110-150kN, Rotation: 207rpm (HPS:60rpm, Motor: 147rpm) x 10 -15kNm, MP: 550gpm x 24-25MPa.
					Check downhole WOB by bit off bottom (0kN) and slack off (150kN)
21:45	22:15	0:30	OTHER	4,861.0	Take survey at 4,861mBRT.
					Sensor depth 4,820.42mBRT, Inclination: 1.32deg, Azimuth: 52.44deg (Observe magnetic interference).
					Conduct calibration for downhole WOB and Torque
22:15	24:00	1:45	DRL	4,865.0	Resume drilling down from 4,861mBRT to 4,865mBRT.
					WOB: 120-160kN, Rotation: 209rpm (HPS:60rpm, Motor: 149rpm) x 10 -16kNm, MP: 555gpm x 25-26MPa.
					Average ROP in 24 hour: 2.27m/hr
					Resistivity increase from 4,837mBRT. Suspect drilling new flesh hole from 4,837mBRT.
					(9:00-24:00) Reduce Mud weight from 1.38sg to 1.35sg heavy. Run centrifuge #1 and #2
					Perform Airgun shoot while every DP connection
					Ditch magnet: 14kg (Total 22.5kg for 8.5" hole)
					No loss/gain in 24hrs, Boost riser 450gpm x 4.7MPa

Survey data (Depth: Telescope sensor depth)

Depth (mBRT)	Inc (deg)	Azi (deg)
4,786.06	1.61	256.75*
4,794.51	0.80	37.26*
4,804.29	0.81	29.65*
4,809.68	1.10	31.96*
4,820.42	1.32	52.44*

*Observe magnetic interference

Time Breakdown (00:00 - 06:00 on 8-Feb) * The data on 00:00 - 06:00 is unofficial.

From	To	Hrs.	Code	Depth(mBRT)	Detail of Operation
0:00	2:15	2:15	DRL	4,871.0	Continue to drill down from 4,865mBRT to 4,871mBRT.
					WOB: 120-160kN, Rotation: 209rpm (HPS:60rpm, Motor: 149rpm) x 10 -16kNm, MP: 555gpm x 24-26MPa.
2:15	2:30	0:15	OTHER	4,871.0	Take survey at 4,861mBRT.
					Sensor depth 4,829.97mBRT, Inclination: 1.42deg, Azimuth: 56.81deg (Observe magnetic interference).
					Record SCR.
2:30	5:45	3:15	DRL	4,881.0	Resume drilling down from 4,861mBRT to 4,881mBRT.
					WOB: 120-160kN, Rotation: 207rpm (HPS:60rpm, Motor: 147rpm) x 10 -16kNm, MP: 550gpm x 24-26MPa.
5:45	6:00	0:15	OTHER	4,881.0	Take survey at 4,881mBRT.
					Sensor depth 4,839.14mBRT, Inclination: 0.58deg, Azimuth: 348.19deg (Observe magnetic interference).
					Average ROP in 6hour : 2.91m/hr
					No drilling break observed.
					(0:00-2:00) Continue to reduce Mud weight from 1.35sg heavy to 1.35sg. Run centrifuge #2

Survey data (Depth: Telescope sensor depth)

Depth (mBRT)	Inc (deg)	Azi (deg)
4829.97	1.42	56.81
4,839.14	0.58	348.19*

*Observe magnetic interference

Bit Record @24:00

Bit No.	Size (in)	MFR	Type	IADC Code	S/No.	Nozzles	Depth (mBRT) From	Depth (mBRT) To	Meter-age	Hrs.	WOB (kN) Min.	WOB (kN) Max.	rpm Min.	rpm Max.	Total Rev. (krev)	ROP (m/hr)	Dull Condition Inner	Outer	Dull	Loc.	B	G	O.D.	RP
11	8.5	Smith	XZ716	M323	QF3395	4x 12/32, 3 x 11/32	4,788.5	4,865.0	76.5	28.29	0	160	116	214	316.54	2.7								

BHA Record @24:00

26	8-1/2" LWD	8-1/2" Bit x Xceed675 x Lower C-Link675 x XO x Filter sub x 675ERT7850 mud motor x Float sub with non-ported float x Upper C-Link675 x MicroScope675 x ARC-6 x TeleScope675 x SonicScope675 x seismicVision675 x XO x XO x 6-3/4"DC (4IF) (3 stds) x XO x 6-3/4" DC (2 stds) x 6-1/2" Jar x 6-3/4" DC (2 jts) x XO x 5.68" HWDP (3 stds) x XO

Hook Wt. (knt) @24:00 4,865.0 mBRT

Hook Load	2,620
BHA	290
Below HWDP	235
below Jar	215
HPS & Traveling block	630
Hook + RRT	-
Hook block	-

Jar Rotating time 24:(S/N: 1760-5556

Today	22.50	Total	33.33	hrs

Mud Properties @24:00

Mud Type	Time	Depth (mBRT)	MW	VIS	PV	YV	6rpm	Gel St. (10", 10')	API	Cake	pH	Pf	Cl-	Sand	Oil	Solid	MBC	Temp In	Temp Out	K+	n	K	LGS	FIT 20/40 (mm) 0 min	FIT 20/40 (mm) 5min
KNPP	1:30	4,821	1.38	59	24	24	8	7 14	6.8	1.0	10.8	0.1	117,000	0.50		18.0	2.00	12	10	20,300	0.48	1.91	5.40	19	Over
KNPP	18:00	4,852	1.36	58	22	24	8	7 14	6.5	1.0	10.8	0.1	117,000	0.50		18.0	2.00	13	11	20,300	0.50	1.57	6.60	18	94
KNPP	22:30																							14	115

Cutting skip @24:00

Empty	Full	Total
36	1	37

ROV @24:00

Status	Dive
Last Dive	2/7/2019
Injection Skid	Dive w/135 gal skid

Mud Pumps : 14-P-220 5.00 gallon/stroke @97%

No.	Liner Size	SPM	GPM	Press. (MPa)	Ann. Vel. (m/min)	8.75"DC	5.5"DP
1	6"	55	275	25.3	82	61	
2	6"	55	275				
3	6"(Booster)	90	450				

Personnel @24:00

CDEX	9
MQJ Crew	101
MWJ	15
Scientist	5
MQJ (Other)	1
Telnite	2
Oceaneering	6
SLB Cementing	2
SLB WL	3
Geoservices	6
M-I SWACO	4
SLB Underreamer	1
SLB LWD	2
SLB Seismic	3
AFGlobal	2
ENVENTURE	0
SLB DD	2
Franks	0
Gyrodata	1
Total	165

Mud Materials on Board @24:00hrs (unit: kg)

Item	Received	Used	Stock
Barite (Bulk)		14,000	319,000
Caustic Soda			1,050
Lime			200
Soda Ash			575
Caustic Potash			1,075
Tel-Polymer DX / L / H		100/0/0	300/260/0
XCD-Polymer		50	775
Lignate NC			4,500
Clean Lube W			8,000
Tel Clean W			4,600
Astex-S			4,400
Deformer 30C			512
Tell DD			3,200
Bi-Carbonate			1,000
Citric Acid			2,275
Tan Cal C / M / F			210 / 1,020 / 510
Telnite GXL			684
Treat-HS			9,200
Mud Seal P			130
Tel Plug C / M / F			500 / 500 / 500
Tel Stop P / G			500 / 260
Barolift (lbs)			1,935
Driscal D			0
Tel Flow P			0
Poro Seal			0
Steel Seal 50 (lbs)			1,000
KCl			0
NaCl			0
Fracseal (lbs)			0
Stopseal (lbs)			0
Bentonate(Bulk)			46,000

Heli Information @24:00

Flt. No.	Time Arrived	Time Departed	Passenger Are.	Passenger Dept.
1	09:15	09:25	7	9
2	11:25	11:35	9	9
3	13:35	13:40	3	3
4				

Safety (HSE) and other information

Incident	Last Incident	No. LTA
LTA		
HUNS cards	36	

Remarks

Geologic Information @24:00

From	To	Lithology of cuttings
4,810	4,855	Silty-Claystone:75-90%, Claystone: 10-15%, Sandstone: 0-5%, CMT: 0-10%

Shale Shaker / Centrifuge @24:00

No.1	30, 60	No.4	30, 60	#1-#3 Centrifuge running time
No.2	30,60	No.5	30, 60	
No.3	30, 60	No.6	30, 60	#1: 10hr, #2: 11.6hr

Materials Stock on Board @24:00

Item	Unit	Stock	Used	Received
Fresh Water	m3	307.8	78.2	93.5
Potable Water	m3	299.1	4.2	0.0
Drill Water	m3	1,038.6	8.3	0.0
Fuel	m3	3,269.6	49.4	0.0
Lube, Oil	Ltrs	66,700	0.0	0.0
Heli Fuel	Ltrs	0.0	0.0	0.0
Cement "GWC"	ton	160.0	0.0	0.0
Cement "G"	ton	97.0	0.0	0.0

Mud volume@24:00

Mud Volume (m3)	
KNPP mud (1.38)	161
KNPP (12ppbFracseal)	297
KNPP (30ppbFracseal)	118
KNPP mud (1.39)	310
KNP mud (1.13)	263
STOPLOSS(1.37)	47
Slug	16
total	1212

Marine Information @24:00

Heave (m)	0.3
Pitch (deg)	0.2
Roll (deg)	0.1
Vessel Heading (deg)	325
Riser Tension (kN)	9750.0
V.D. Load (ton)	12174
Max Draught (m)	9.0
Thruster (kW)	1300

Boat Information @24:00

Boat Name	Status	Time @Chikyu Departed	Time @Chikyu Arrived
#8 Meiji-maru	KB-01B		
Akatsuki	Shingu	03:00	
Shincho-maru	Chikyu		

Weather Information

Time	Weather	Temp. (degC) Air	Temp. (degC) SW	Barometer (hPa)	Wind Speed (m/s)	Wind Dir. (deg)	Wind Gust (m/s)	Wave Height (m)	Wave Dir. (deg)	Wave Period (s)	Current Speed(knt)	Current Dir. (deg)	Visibility (km)
24:00	r	16.0	18.1	1013.4	10.4	318	11.6	1.5	240	5.6	0.7	252	22.0

Today's Schedule: Cont. drill 8-1/2" hole with RSS/Clink/Motor.

Reported by : N.Sakurai / T.Nishiyama

Approved by : T.Saruhashi