Chikyu DAILY MORNING REPORT

Mission No. : CK18-04 **Exp. No. :** Exp 358 **Report No. :** 161

Report Date : 17/Mar/2019

Site Name: C0024 Hole Name: C0024E Lat. 33° 02' 00.0000"N Long. 136° 47' 23.7960"E Seabed Depth : 3,872.0 mBRT RT-MSL : 28.5 m

Depth : @24:00 4,417.5 mBRT 545.5 mbsf Progress : 35.5 m Drilling/Coring/Underreaming Hrs. : 20.75 hrs Last BOP PT: - Next BOP PT: -

Depth : @06:00 4,382.0 mBRT 564.5 mbsf LAST CASING : x mbsf(mBRT) Last BOP FT: - Next BOP FT: -

Summary of Operation on 16-Mar : Drill 10-5/8" coring hole from 4,345mBRT to 4,382mBRT. Cut core #1 - #4 from 4,382mBRT to 4,417.5mBRT. Last Glycol 35gal Inj. -

Present Operation @ 06:00 on 17-Mar : Cont. Cut #5-#6 core from 4,417.5mBRT to 4,436.5mBRT. Retrieve #6 inner barrel.

mBRT: meter below rotary table

Time Breakdown (00:00 - 24:00 on 16-Mar) mbsf: meter below sea floor

From	To	Hrs	Code	Depth(mBRT)	Detail of Operation
0:00	2:30	2:30	DRL	4,382.0	Drill 10-5/8" RCB coring hole from 4,345mBRT to 4,382mBRT.
					(4,345 - 4,360mBRT) WOB: 10-50kN, HPS:60rpm x 0-8.0kNm, SPP:600gpm x 8.2-9.7MPa, Avg ROP 18.5m/hr including connection. Install mud return hose.
					(4,360 - 4,382mBRT) WOB: 10-50kN, HPS:60rpm x 0-12.0kNm, SPP:600gpm x 8.3-9.5MPa, Avg ROP 20m/hr. Sweep out 5m3 sweep after reach to 4,382mBRT
2:30	3:15	0:45	C&C	4,382.0	Circulation and bottoms up
					Pump 10m3 sweep and sweep out w/600gpm x 7.8-10.2MPa
3:15	6:15	3:00	CORE	4,382.0	Retrieve center bit
					Apply pump and rotation while operating CLW w/300gpm x 2.9MPa and 10rpm x 0-1.5kNm(OUT), 50gpm x 0.8MPa and 10rpm x 0-1.5kNm(Retrieve)
					Unload sinker bar for sweep barolift. Check pressure:400/500/600/700/800gpm x 3.2/4.7/6.5/8.6/11.0MPa.
					Pump 10m3 of sweep(Barolift) and sweep out w/800gpm x 9.5-11.0MPa
					Lay out center bit and check condition (Bit: no damage, Nozzle: two plugged)
6:15	11:30	5:15	CORE	4,391.5	Cut #1 core (C0024E-1R, RCB) from 4,382mBRT to 4,391.5mBRT
					Drop #1 Inner barrel. Chase w/200-250gpm x 0.8-1.7MPa. Confirm Inner barrel landed by increasing pressure w/200gpm(0.8→1.8MPa, 16.5min).
					Check pressure:150/200/250/300/350/400gpm x 1.1/1.7/2.5/3.5/4.6/5.6MPa
					Cut #1 RCB core w/WOB:10-40kN, SPP:200gpm x 1.6-1.9MPa, HPS:40-45rpm x 0-10kNm (w/Manual mode)
					Vessel change heading while cut core(at 4,388.5mBRT) due to heavy weather(wind: 23m/sec), observe torque drop obviously(13→2kNm) after change heading
					(8:00-9:10) Unable to load sinker bar due to too much debris on Akema wiper. Cleaning wiper and switch CLW from AFT to FWD, confirm pass Akema wiper. OK
					RIH sinker bar with 160m/min. Recover to surface with 140m/min (Recovery 2.43m / Advance 9.5m, 25.6% recovered).
					Apply pump and rotation while operating CLW w/300gpm x 3.6MPa and 10rpm x 0-1.5kNm(OUT), 100gpm x 1.9MPa and 10rpm x 0-1.5kNm(Retrieve)
					Unload sinker bar as per MQJ HSQE-MS RCB coring instruction. Pump 5m3 sweep and confirm sweep out w/800gpm x 10.8-11.8MPa.
11:30	15:15	3:45	CORE	4,398.5	Cut #2 core (C0024E-2R, RCB) from 4,391.5mBRT to 4,398.5mBRT
					Drop #2 Inner barrel. Chase w/250gpm. Confirm Inner barrel landed by increasing pressure (1.7→2.8MPa, 18min).
					Cut #2 RCB core w/WOB:10-40kN, SPP:200gpm x 1.8-1.9MPa, HPS:45rpm x 0-5.8kNm (w/Manual mode)
					RIH sinker bar with 160m/min. Recover to surface with 140m/min (Recovery 4.7m / Advance 7.0m, 63.9% recovered).
					Apply pump and rotation while operating CLW w/200gpm x 1.5MPa and 10rpm x 0-1.5kNm (OUT), 100gpm x 1.0MPa and 10rpm x 0-1.5kNm (Retrieve)
					Unload sinker. Pump 5m3 sweep and confirm sweep out w/800gpm x 9.8-11.3MPa.
15:15	19:30	4:15	CORE	4,408.0	Cut #3 core (C0024E-3R, RCB) from 4,398.5mBRT to 4,408.0mBRT
					Drop #3 Inner barrel. Chase w/250gpm. Confirm Inner barrel landed by increasing pressure (1.4→2.8MPa, 18min).
					Cut #3 RCB core w/WOB:20-40kN, SPP:225gpm x 2.4MPa, HPS:45rpm x 0-10.0kNm (w/Manual mode)
					RIH sinker bar with 160m/min. Recover to surface with 140m/min (Recovery 4.60m / Advance 9.5m, 51.6% recovered).
					Apply pump and rotation while operating CLW w/200gpm x 1.6MPa and 10rpm x 0-1.5kNm (OUT), 100gpm x 1.0MPa and 10rpm x 0-1.8kNm (Retrieve)
					Unload sinker bar. Pump 5m^3 sweep and confirm sweep out w/ 800gpm x 9.6-11.3MPa.
19:30	23:45	4:15	CORE	4,417.5	Cut #4 core (C0024E-4R, RCB) from 4,408.0mBRT to 4,417.5mBRT.
					Drop #4 Inner barrel. Chase w/250gpm. Confirm Inner barrel landed by increasing pressure (1.6→2.6MPa, 18min).
					Cut #4 RCB core w/WOB:20-50kN, SPP:250gpm x 2.6MPa, HPS:50-60rpm x 0-7.0kNm (w/Manual mode)
					RIH sinker bar with 160m/min. Recover to surface with 140m/min (Recovery 4.23m / Advance 9.5m, 44.5% recovered).
					Apply pump and rotation while operating CLW w/200gpm x 1.6MPa and 10rpm x 0-1.2kNm (OUT), 100gpm x 1.0MPa and 10rpm x 0-1.8kNm (Retrieve)
					Unload sinker bar. Pump 8m^3 sweep and confirm sweep out w/ 800gpm x 9.2-11.4MPa.
23:45	24:00	0:15	CORE	4,417.5	Cut #5 core (C0024E-5R, RCB)
					Drop #5 Inner barrel. Chase w/250gpm. Confirm Inner barrel landed by increasing pressure (1.3→2.8MPa, 18min).
					<Vessel status> (00:00 - 24:00) Advisory status due to GPS antenna broken(1/4ea) by lighting, continue operation w/3ea GPS antenna.
					<Offline> (0:00-2:00) Lay out 9-3/8" casing(21jts on deck, 66stds in derrick) and 9-5/8" casing(33jts on deck, 7stds in derrick), suspend for coring operation
					Perform in house MPI for ESCS coring latch assembly, ongoing

Time Breakdown (00:00 - 06:00 on 17-Mar) * The data on 00:00 - 06:00 is unofficial.

From	To	Hrs.	Code	Depth(mBRT)	Detail of Operation
0:00	3:30	3:30	CORE	4,427.0	Cut #5 core (C0024E-5R, RCB) from 4,417.5mBRT to 4,427mBRT.
					Cut #5 RCB core w/WOB:20-45kN, SPP:250gpm x 3.1MPa, HPS:60rpm x 2-8kNm (w/Manual mode)
					RIH sinker bar with 160m/min. Recover to surface with 140m/min (Recovery 4.91m / Advance 9.5m, 51.7% recovered).
					Apply pump and rotation while operating CLW w/250gpm x 2.7MPa and 10rpm x 0-1.5kNm (OUT), 100gpm x 1.0MPa and 10rpm x 0-1.5kNm (Retrieve)
					Unload sinker bar. Pump 5m3 sweep and confirm sweep out w/800gpm x 9.3-10.8MPa.
3:30	6:00	2:30	CORE	4,436.5	Cut #6 core (C0024E-6R, RCB) from 4,427mBRT to 4,436.5mBRT.
					Drop #6 Inner barrel. Chase w/250gpm. Confirm Inner barrel landed by increasing pressure (1.4→2.7MPa, 19min).
					Cut #6 RCB core w/WOB:10-45kN, SPP:250gpm x 3.2MPa, HPS:60rpm x 0-7kNm (w/Auto driller mode, set max WOB:30kN)
					RIH sinker bar with 160m/min. Recover to surface with 140m/min, ongoing(CLW length: 2542m)
					Apply pump and rotation while operating CLW w/250-300gpm x 2.7-3.7MPa and 10rpm x 0-1.5kNm (OUT), 100gpm x 1.0MPa and 10rpm x 0-1.5kNm (Retrieve)

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
15	10-5/8"	Baker	BHC405	-	7161556	5 x 18/32	3,872.0	4,417.5	545.5	19.66	0	50	0	60	57.93	27.7								

BHA Record @24:00

36	Deep core	10-5/8" PDC Bit x Bit sub w/o Stabilizer x CLOCB x Landing Sub x Top sub x Head Sub x 8-1/2" Coring DC (9jts) x 8-1/2" Coring jar x 8-1/2" Coring DC (3jts) x XO#1 x 5.68" HWDP (3stds) x 5-1/2" DP S150 (70std) x XO#2 x 6-5/8" DP Z140 (22std) x 6-5/8" DP UD165

Hook Wt. (knt) @24:00 4,345.0 mBRT

Hook Load	3,100
BHA	280
Below HWDP	-
below Jar	175
HPS & Traveling block	620
Hook + RRT	-
Hook block	-

Coring Jar Rotating time 24:00 S/N:156578-85001

Today	20.73	Total	39.18	hrs

Cutting skip @24:00

Empty	Full	Total
2	1	3

ROV @24:00

Status	-
Last Dive	-
Injection Skid	-

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
Sweep	13:30	Act #4	1.36	50	19	16		4 10			11.7							19			0.63	0.71			

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

No.	Liner Size	SPM	GPM	Press. (MPa)	Ann. Vel. (m/min) 5"DP	Ann. Vel. (m/min) 5.5"DP
1	6"	50	250	2.8	21	23
2	6"	0	0			
3	6"	0	0			

Geologic Information @24:00

From	To	Lithology of cuttings

Shale Shaker / Centrifuge @24:00

No.1		No.4		#1-#3 Centrifuge running time
No.2		No.5		
No.3		No.6		

Materials Stock on Board @24:00

Item	Unit	Stock	Used	Received
Fresh Water	m3	324.8	80.1	96.5
Potable Water	m3	248.7	4.7	0.0
Drill Water	m3	882.0	15.0	0.0
Fuel	m3	1,772.2	46.6	0.0
Lube, Oil	Ltrs	43,100	400.0	0.0
Heli Fuel	Ltrs	0.0	0.0	0.0
Cement "GWC"	ton	160.0	0.0	0.0
Cement "G"	ton	30.0	0.0	0.0

Boat Information @24:00

Boat Name	Status	Time @Chikyu Departed	Time @Chikyu Arrived
#8 Meiji-maru	Chikyu		23:05:00
Shincho-maru	Chikyu		

Personnel @24:00

CDEX	8
MQJ Crew	100
MWJ	15
Scientist	19
MQJ (Other)	1
Telnite	1
Geoservices	4
SLB LWD	0
SLB Seismic	0
SLB WL	0
SLB Cementing	0
AFGlobal	0
Nustar	3
Franks	2
NOV	0
INPEX (Trainee)	2
Science Media	2
Total	157

Mud volume@24:00

Mud Volume (m3)	
Sweep mud (1.34-1.39)	745
Fracseal(1.39sg,11ppb)	192
Fracseal(1.39sg,18ppb)	141
Fracseal(1.25sg,30ppb)	109
Barolift	19
STOPLOSS(1.37)	47
total	1253

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

Item	Received	Used	Stock
Barite (Bulk)			185,000
Caustic Soda			1,050
Lime			200
Soda Ash			0
Caustic Potash			1,075
Tel-Polymer DX / L / H			0 / 0 / 0
XCD-Polymer			1,200
Lignate NC			0
Clean Lube W			0
Tel Clean W			0
Astex-S			0
Deformer 30C			0
Tell DD			3,200
Bi-Carbonate			0
Citric Acid			400
Tan Cal C / M / F			210 / 1,020 / 510
Telnite GXL			0
Treat-HS			380
Mud Seal P			0
Tel Plug C / M / F			0 / 0 / 0
Tel Stop P / G			0 / 0
Barolift (lbs)			1,890
Driscal D			0
Tel Flow P			0
Poro Seal			0
Steel Seal 50 (lbs)			0
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				
2				
3				
4				

Safety (HSE) and other information

Incident	Last Incident	No. LTA
LTA		
HUNS cards	20	

Remarks

Marine Information @24:00

Heave (m)	0.3
Pitch (deg)	0.2
Roll (deg)	0.1
Vessel Heading (deg)	275
Riser Tension (kN)	-
V.D. Load (ton)	11947
Max Draught (m)	9.0
Thruster (kW)	760

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	bc	11.5	16.1	1020.6	8.3	321	10.1	2.2	260	6.4	0.8	278	22.0

Today's Schedule: Continue to Cut RCB core.

Reported by : A.Suzuki / N. Sakurai

Approved by : T.Ikawa