

Chikyu DAILY MORNING REPORT

Mission No. : CK24-01

Exp. No. : 405

Report No. : 65

Site NameJTCT-02A

Hole NameC0026D

Lat.37°55.5895'N

Long.144°04.1149'E

Seabed Depth : 6,957.0 mBRT

RT-MSL : 28.5 m

Report Date : 10/Nov/2024

Depth : @24:006,992.0 mBRT35.0 mbsf

Depth : @06:007,011.0 mBRT54.0 mbsf

Summary of Operation on 9-Nov : Cut HPCS Core #2 (C0026D), recover #2 HPCS/APCT-3 inner barrel, and Cut HPCS Core #1 - #4(C0026E)

Present Operation @ 06:00 on 10-Nov : Recover #6 HPCS/APCT-3 inner barrel

Time Breakdown (00:00 - 24:00 on 9-Nov)

mBRT: meter below rotary table

mbsf: meter below sea floor

FromToHrsCodeDepth(mBRT)

0:001:001:00CORE6,973.0Cut #2 HPCS core (C0026D-2H) from 6,963.5 to 6,973.0mBRT (6.5-16.0mbsf)

Continue to run #2 HPCS/APCT-3 inner barrel (C0026D-2H).

Pump 200gpm and shoot HPCS at 3.0m off seabed, full penetration with 19.9MPa. Wait for 15mins for APCT-3 measurement.

Pick up by coreline without OP and recover inner barrel to 110m above from the top of BHA.

1:002:301:30CORE6,973.0Drill down from 6,963.5 to 6,973.0 mBRT (6.5 - 16.0mbsf, 9.5m).

To avoid bit come out from hole, attempt to Wash down for advance 2times w/125gpm but pressure increase from 2.1 to 9.6MPa at 6,963.5mBRT.

Not success to wash down due to pressure increase.

Attempt to drill down 3times w/10-30rpm x 0.9-3.5kNm and 125-200gpm but pressure increase from 1.6 to 8.1MPa at 6,963.5mBRT

When pick up bit 1m off bottom from 6,963.5 to 6,962.5mBRT, observe CMC position down by drag. Suspect formation collapse and partially pack off.

Lock CMC and pick up assembly from 6,963.5 to 6,960.0mBRT w/100gpm x 1.3MPa and 30rpm x 0.9 - 5.0kNm, observe 100kN of overpull at 6,962mBRT.

While picking up, hook load and pressure get stable after passing 6,962mBRT.

(01:40-02:25)Drill down w/40rpm x 1-2kNm and 125gpm x 3.9 to 4.3MPa

2:303:451:15CORE6,973.0Recover sinker bar to surface without inner barrel due to shear pin sheared on CBRT.

It is turned out pressure increase and overpull observed while drilling down and reaming up are due to remaining inner barrel at shooting position

3:459:155:30CORE(N)6,973.0Recover #2 HPCS/APCT-3 inner barrel (C0026D-2H).

Lay out AFT sinker bar due to kink above sinker bar socket, then switch to FWD winch.

Load FWD sinker bar and run sinker bar.

Slack off sinker bar weight 3 times while changing bit depth(6,962mBRT, 6,960mBRT, and 6,958mBRT).

Succeed in recovering inner barrel(C0026D-2H).

Observe inner barrel parted in connection between liner seal sub and upper inner core tube. Lost in hole : two core tubes and a APCT-3 shoe.

Suspect inner barrel parted while observing overpull.

Decision is made to run another HPCS inner barrel to confirm parted core barrel not exist in outer barrel, and spud in new well.

9:1512:153:00CORE6,963.5Spud in C0026E hole and cut #1 HPCS core (C0026E-1H) from 6,957.0 to 6,963.5mBRT (0.0-6.5mbsf)

Run #1 HPCS/APCT-3 inner barrel (C0026E-1H), observe landing in outer barrel successfully.

Pump 200gpm and shoot HPCS at 3.0m above seabed, full penetration with 19.8MPa (No APCT-3 measurement).

Pick up by coreline with 4kN OP and recover inner barrel to surface (6.25 / 6.5m 96.2% recovered).

12:1512:300:15W&R6,963.5Wash down from 6,957.0 to 6,963.5mBRT (0.0 - 6.5mbsf, 6.5m).

WOB:0kN, Pump:125gpm x 1.1MPa, Ave ROP:32.5m/hr

Meanwhile, Run #2 HPCS/APCT-3 inner barrel (C0026E-2H).

12:3015:303:00CORE6,973.0Cut #2 HPCS core (C0026E-2H) from 6,963.5 to 6,973.0mBRT (6.5-16.0mbsf)

Run #2 HPCS/APCT-3 inner barrel (C0026E-2H).

Pump 200gpm and shoot HPCS, full penetration with 19.6MPa. Wait 15mins for APCT-3 measurement.

Pick up by coreline with 15kN OP (Max OP margin) and assist by DW with 80kN OP. Recover inner barrel to surface (10.21m/9.5m 107.5% recovered).

15:3015:450:15W&R6,973.0Wash down from 6,963.5 to 6,973.0mBRT (6.5 - 16.0mbsf, 9.5m).

WOB:0kN, Pump:125gpm x 1.1MPa, Ave ROP: 34m/hr

Meanwhile, Run #3 HPCS/APCT-3 inner barrel (C0026E-3H).

15:4518:152:30CORE6,982.5Cut #3 HPCS core (C0026E-3H) from 6,973.0 to 6,982.5mBRT (16.0-25.5mbsf)

Run #3 HPCS/APCT-3 inner barrel (C0026E-3H).

Pump 200gpm and shoot HPCS, full penetration with 19.2MPa. Wait 15mins for APCT-3 measurement.

Pick up by coreline with 15kN OP (Max OP margin) and assist by DW with 200kN OP. Recover inner barrel to surface (9.19m/9.5m 96.7% recovered).

18:1518:450:30W&R6,982.5Wash down and drill down from 6,973.0 to 6,982.5mBRT (16.0 - 25.5mbsf, 9.5m).

6,973.0mBRT - 6,979.5mBRT (16.0 - 22.5mbsf) WOB: 0-35kN, Pump: 125/150/200gpm x 0.9/1.1/1.6MPa, Ave.ROP:20m/hr

6,979.5mBRT - 6,982.0mBRT (22.5 - 25.5mbsf) WOB: 0-15kN, Pump: 200gpm x 1.6MPa, HPS: 5rpm x 0.102.3kNm, Ave ROP:22.5m/hr

Meanwhile, Run #4 HPCS/APCT-3 inner barrel (C0026E-4H).

18:4521:002:15CORE6,992.0Cut #4 HPCS core (C0026E-4H) from 6,982.5 to 6,992.0mBRT (25.5-35.0mbsf)

Run #4 HPCS/APCT-3 inner barrel (C0026E-4H).

Pump 200gpm and shoot HPCS, full penetration with 17.8MPa. Wait 10mins for APCT-3 measurement.

Pick up by coreline with 15kN OP (Max OP margin) and assist by DW with 240kN OP. Recover inner barrel to surface (10.05m/9.5m 105.8% recovered).

Unload sinker bar for stand connection.

21:0022:301:30DRL6,992.0Drill down from 6,982.5 to 6,992.0mBRT (25.5 - 35.0mbsf, 9.5m).

6,982.5 - 6,992.0mBRT (25.5 - 35.0mbsf), MP 250gpm x 2.1-2.3MPa, HPS 15rpm x 0.1-2.2kNm, WOB 0-10kN, Ave.ROP 36m/hr

Lay out single and MU stand. Sweep out 3m3 of SWG.

22:3023:000:30CORE(N)6,992.0Switch coreline winch from FWD to AFT due to the heavy kink.

Tack weld wire socket to sinker bar and install Akema wiper.

23:0024:001:00CORE6,992.0Cut #5 HPCS core (C0026E-5H) from 6,992.0 to 7,001.5mBRT (35.0-44.5mbsf), ongoing.

Load sinker bar and install #5 HPCS/APCT-3 inner barrel (C0026E-5H).

Run #5 HPCS/APCT-3 inner barrel (C0026E-5H) to 5,400mBRT.

Meanwhile:

(04:35-05:20) Advisory status due to loading from Akatsuki, APRS not available by abnormal noise from Supply boat

(23:00-23:30) Advisory status deu to offloading to Akatsuki, APRS not available by abnormal noise from Supply boat

Conduct retermination of AFT sinker bar socket at Coretech workshop and load test for socket with 5ton: Pass.

FromToHrsCodeDepth(mBRT)

0:002:152:15CORE7,001.5Cut #5 HPCS core (C0026E-5H) from 6,992.0 to 7,001.5mBRT (35.0-44.5mbsf).

Continue to run #5 HPCS/APCT-3 inner barrel (C0026E-5H).

Pump 200gpm and pressure increase to 20.6MPa to shoot HPCS at on bottom, but not success.

Pick up 0.5m off bottom and pump again w/200gpm and shoot HPCS, full penetration with 20.6MPa. Wait 10mins for APCT-3 measurement.

Pick up by coreline with 15kN OP and assist by DW with 370kN OP. Start to pick up coreline w/o OP when bit depth is 6,982.5mBRT(9.5m off bottom).

Recover inner barrel to surface (8.87m/9.5m 93.5% recovered).

2:153:000:45DRL7,001.5Drill down from 6,992.0 to 7,001.5mBRT (35.0-44.5mbsf).

6,992.0 to 7,001.5mBRT (35.0-44.5mbsf), MP 200gpm x 1.5-1.6MPa, HPS 15 - 20rpm x 0.1-2.0kNm, WOB 0-30kN, Ave.ROP 15m/hr

Meanwhile, prepare next inner barrel and have trouble with inserting piston rod, on going.

3:003:450:45CORE(N)7,001.5Prepare #6 HPCS/APCT-3 inner barrel (C0026E-6H).

Continue to prepare next inner barrel, take a time to inserting piston rod.

3:456:002:15CORE7,011.0Cut #6 HPCS core (C0026E-6H) from 7,001.5 to 7,011.0mBRT (44.5-54.0mbsf)

Run #6 HPCS/APCT-3 inner barrel (C0026E-6H).

Pump 200gpm and shoot HPCS, full penetration with 19.9MPa. Wait 10mins for APCT-3 measurement.

Pick up by coreline with 15kN OP and assist by DW with 350kN OP. Start to pick up coreline w/o OP when bit depth is 7,002.5mBRT(8.5m off bottom).

Recover inner barrel to surface, on going.

Meanwhile:

Conduct retermination of FWD sinker bar socket at Coretech workshop, on going.

Bit Record @24:00

Bit No. Size (in) MFR Type IADC Code S/No. Nozzles Depth (mBRT) Meter- age Hrs. WOB (kN) rpm Total Rev. (krev) ROP (m/hr) Inner Outer Dull Loc. B G O.D. RP

5 10.625 AAI SC513 - 201099 5 x 17 6,957.0 6,963.5 6.5 0.47 0 30 0 40 0.80 34.0

RR5a 10.625 AAI SC513 - 201099 5 x 17 6,957.0 6,973.0 16.0 0.47 0 30 0 40 0.80 34.0

RR5b 10.625 AAI SC513 - 201099 5 x 17 6,957.0 6,992.0 35.0 1.18 0 35 0 15 0.28 29.7

BHA Record @24:00

8 HPCS 10-5/8"Core bit x Long Bit sub x Seal bore Outer Core Barrel x Landing saver sub x Top sub x Head sub x 8-1/2"Coring Collar(2std) x XO#1 x 5"DP V-150 (23stds) x XO#2 x 5"DP S-140 (66stds) x 5-1/2"DP S-140 (22stds) x XO#3 x 5-1/2"DP S-150 (25stds) x XO#4 x 5-1/2"DP UD-165 (30stds) x XO#5 x 6-5/8"DP Z-140 (13stds) x 6-5/8"DP UD-165

Mud Properties @24:00

Mud Type Time Depth (mBRT) MW VIS PV YV 6rpm Gel St. (10", 10') API Cake pH PI Cl- Sand Oil Solid MBC Temp In Out K+ n K LGS FIT 20/40 (mm) 0 min 5 min

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

No. Liner Size SPM GPM Press. (MPa) Ann. Vel. (m/min)

1 6" 50 250 7.3 DC 5"DP

2 6" 83 42

4 6" 50 250

Materials Stock on Board @24:00

Item Unit Stock Used Received

Fresh Water m3 294.3 68.1 88.9

Potable Water m3 283.7 1.1 0.0

Drill Water m3 779.0 0.0 0.0

Fuel m3 4,234.9 38.8 0.0

Lube Oil Ltrs 114,200 0.0 0.0

Heli Fuel Ltrs 0.0 0.0 0.0

Personnel @24:00

MarE3 6

MOJ Crew 100

MWJ 49

Scientist 28

JAMSTEC PR 1

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

Item Received Used Stock

Barite 100,000

Tek-Gel 118,000

Caustic soda 5,025

Lime 5,200

Flowzan 25

Mud volume

PHG (m3) 280

Kill mud (m3) 46

SWG (m3) 138

Pre-Mix (m3) 60

Marine Information @24:00

Heave (m) 0.4

Pitch (deg) 0.3

Roll (deg) 0.1

Vessel Heading (deg) 035

Riser Tension (kN) -

V.D. Load (ton) 12470

Max Draught (m) 9.0

Thruster (kW) 100

Heli Information @24:00

Flt. Time Passenger

No. Arrived Departed Are. Dept.

1 09:48 10:03 14 14

2 14:00 14:12 5 9

Boat Information @24:00

Akatsuki (Supply boat) Status Chikyu

Ibuki (Guard boat) Status Chikyu

HSQE and other information

Incident Last Incident No. LTI

LTI 11/14/19

HUNS cards 21

Remarks

Well Cost (1,000 Yen) based on the cost by

Daily

Cumulative

Reported by : T.Yokoyama, Y. Oishi

Approved by : T. Saruhashi

Weather Information

Time Weather Temp. (degC) Barometer Wind Wave Current Visibility

Air SW (hPa) Speed (m/s) Dir. (deg) Gust (m/s) Height (m) Dir. (deg) Period (s) Speed(knt) Dir. (deg) (km)

24:00 c 16.0 23.7 1028.2 3.5 32 5.7 1.8 340 6.6 0.3 134 22.0

Today's Schedule: Continue to cut HPCS core