

Chikyu DAILY MORNING REPORT

Mission No. :CK24-01

Exp. No. :405

Report No. :69

Site NameJTCT-01A

Hole NameC0019M

Lat.37°56.3417'N

Long.143°54.8167'E

Seabed Depth:6,905.0mBRT

RT-MSL:28.5 m

Report Date:14/Nov/2024

Depth : @24:006,960.5mBRT55.5mbsf

Depth : @06:006,979.0mBRT74.0mbsf

Summary of Operationon13-Nov:Cut HPCS core #2 - #7

Present Operation @ 06:00on14-Nov:Recover #9 core barrel

Time Breakdown (00:00 - 24:00 on 13-Nov)

Progress : 49.0m

LAST CASING :x

Drilling/Coring/Underreaming Hrs. :24.00hrs

mbsf:mBRT

mBRT: meter below rotary table

mbsf: meter below sea floor

From

To

Hrs

Code

Depth(mBRT)

Detail of Operation

0:00

0:30

0:30

W&R

6,911.5

Wash down from 6,905.0 to 6,911.5mBRT (0.0 - 6.5mbsf, 6.5m).
WOB:0-10kN, Pump:150gpm x 1.2MPa, Ave.ROP:28.0m/hr

0:30

2:45

2:15

CORE

6,921.0

Cut #2 HPCS core (C0019M-2H) from 6,911.5 to 6,921.0mBRT (6.5 - 16.0mbsf)
Run #2 HPCS inner barrel (C0019M-2H).
Pump 200gpm and shoot HPCS on bottom, full penetration with 18.5MPa.
Pick up by coreline with 15kN OP and assist by DW with 225kN OP. Start pick up coreline w/o OP when bit depth is 6,904.0mBRT (7.5m off bottom).
Recover inner barrel to surface (9.12m/9.5m 96.0% recovered).
Meanwhile, close RGR door.

2:45

3:15

0:30

DRL

6,921.0

Wash down and drill from 6,911.5 to 6,921.0mBRT (6.5 - 16.0mbsf, 9.5m).
6,911.5mBRT - 6,919.5mBRT (6.5 - 14.5mbsf) WOB: 0-10kN, Pump: 150gpm x 1.4MPa, Ave.ROP:37m/hr
6,919.5mBRT - 6,921.0mBRT (14.5 - 16.0mbsf) WOB: 0-20kN, Pump: 150gpm x 1.4MPa, HPS: 5rpm x 0.1-2.0kNm, Ave.ROP:11m/hr

3:15

5:45

2:30

CORE

6,928.5

Cut #3 HPCS core (C0019M-3H) from 6,921.0 to 6,928.5mBRT (16.0 - 23.5mbsf)
Run #3 HPCS/APCT-3 inner barrel (C0019M-3H).
Pump 200gpm and shoot HPCS at 0.5m off bottom, but partial penetration with 19.5MPa. Bleed off remaining pressure. Wait 10mins for APCT-3 measurement.
Pick up by coreline with 15kN OP and assist by DW with max 375kN OP, observe OP by DW from 6,919m.
Start picking up coreline w/o OP when bit depth is 6,912.5mBRT (8.5m off bottom).
Recover inner barrel to surface (8.9m/7.5m 118.5% recovered).

5:45

7:15

1:30

DRL

6,928.5

Drill down from 6,921.0 to 6,928.5mBRT (16.0 - 23.5mbsf, 7.5m).
(06:00-06:45)Ream down to bottom(6,928.5mBRT).Pump: 200gpm x 1.6 - 2.2MPa, HPS: 5 - 10rpm x 0.1-4.0kNm
WOB: 0-20kN, Pump: 200gpm x 1.8 - 2.3MPa, HPS: 20rpm x 0.1-4.0kNm, Ave.ROP:25m/hr

7:15

9:30

2:15

CORE

6,938.0

Cut #4 HPCS core (C0019M-4H) from 6,928.5 to 6,938.0mBRT (23.5 - 33.0mbsf)
Run #4 HPCS inner barrel (C0019M-4H).
Pump 200gpm and shoot HPCS on bottom, full penetration with 18.5MPa.
Pick up by coreline with 15kN OP and assist by DW with 370kN OP. Start pick up coreline w/o OP when bit depth is 6,920.5mBRT (8.0m off bottom).
Recover inner barrel to surface (9.4m/9.5m 98.9% recovered).

9:30

11:30

2:00

DRL

6,938.0

Drill down from 6,928.5 to 6,938.0mBRT (23.5 - 33.0mbsf, 9.5m).
MP 250gpm x 2.1-2.5MPa, HPS 30rpm x 0.1-4.0kNm, WOB 0-20kN, Ave. ROP 27m/hr
Lay out single and make stand connection. Sweep out 5m3 of SWG w/500gpm x 7.0MPa.

11:30

13:45

2:15

CORE

6,947.5

Cut #5 HPCS core (C0019M-5H) from 6,938.0 to 6,947.5mBRT (33.0 - 42.5mbsf)
Run #5 HPCS/APCT-3 inner barrel (C0019M-5H).
Pump 200gpm and shoot HPCS at 0.5m off bottom, full penetration with 16.9MPa. Wait 10mins for APCT-3 measurement.
Pick up by coreline with 15kN OP and assist by DW with 400kN OP. Start pick up coreline w/o OP when bit depth is 6,929.5mBRT (8.5m off bottom).
Recover inner barrel to surface (10.08m/9.5m 106.1% recovered).

13:45

15:00

1:15

DRL

6,947.5

Drill down from 6,938.0 to 6,947.5mBRT (33.0 - 42.5mbsf, 9.5m).
MP 200gpm x 1.6-2.2MPa, HPS 20rpm x 0.1-3.8kNm, WOB 0-40kN, Ave. ROP 20m/hr

15:00

17:45

2:45

CORE

6,956.5

Cut #6 HPCS core (C0019M-6H) from 6,947.5 to 6,956.5mBRT (42.5 - 51.5mbsf)
Run #6 HPCS inner barrel (C0019M-6H).
Pump 200gpm and shoot HPCS on bottom, partial penetration with 19.1MPa. Bleed off pressure.
Pick up by coreline with 15kN OP and assist by DW with 371kN OP. Start pick up coreline w/o OP when bit depth is 6,940.0mBRT (7.5m off bottom).
Recover inner barrel to surface, but stuck piston rod against lower inner barrel.

17:45

18:15

0:30

DRL

6,956.5

Drill down from 6,947.5 to 6,956.5mBRT (42.5 - 51.5mbsf, 9.0m).
MP 200gpm x 1.6-2.2MPa, HPS 20rpm x 0.1-4.0kNm, WOB 0-40kN, Ave.ROP 28m/hr

Meanwhile,
Try to pull out piston rod from inner barrel, but unable to pull out same.
Lay out whole inner barrel assembly at drill floor once stop string rotation after drilling down to 6,956.5mBRT.

18:15

19:30

1:15

CORE

6,964.0

Cut #7 HPCS core (C0019M-7H) from 6,956.5 to 6,964.0mBRT (51.5 - 58.0mbsf)
Run #7 HPCS/APCT-3 inner barrel (C0019M-7H).
Pump 200gpm and shoot HPCS at 0.5m off bottom, partial penetration with 19.4MPa. Bleed off pressure and wait 10min for APCT-3 measurement.
Pick up by coreline with 15kN OP and assist by DW with 370kN OP, but fail to recover inner barrel.

Meanwhile,
Break out upper section of lower inner barrel and retrieve core liner (C0019M-6H).
Suspect the cause of stuck is the top of core liner deform inward due to the high compression.
Once retrieve core liner, core liner is parted at 6.3m from bottom (6.84m/9.0m 76.0% recovered).

19:30

20:15

0:45

DRL

6,964.0

Overdrill from 6,956.5 to 6,960.5mBRT (51.5 - 55.5mbsf, 4.0m).
Lower bit to bottom w/o pumping and rotation. Start pumping, rotation and CMC once reach to 6,956.5mBRT.
6,956.5 - 6,959.5mBRT (51.5 - 54.5mbsf), MP 50gpm x 1.0-1.1MPa, HPS 10rpm x 0.1-5.0kNm, WOB 0-40kN, Ave.ROP 12m/hr
6,959.0 - 6,960.5mBRT (54.0 - 55.5mbsf), MP 50gpm x 1.0-1.1MPa, HPS 15rpm x 0.1-5.0kNm, WOB 0-60kN, Ave. ROP 6m/hr
After reaching 6,960.5mBRT, stop pumping, rotation and lock CMC.
Pick up inner barrel with 260kN of DW assist and observe break through, but coreline keep 15kN OP when pick up string to 6,936.5mBRT (20.0m off bottom).
Increase line tension limit (130kN) and pick up coreline, but fail to pick up coreline: Suspect sticky formation exists between inner barrel and outer core barrel.
Start pumping with stepping up 25gpm, 50gpm and 100gpm while monitoring coreline tension, coreline becomes free.

20:15

22:15

2:00

CORE

6,964.0

Recover HPCS/APCT-3 inner barrel (C0019M-7H). (9.66m/7.5m 128.8% recovered)
Unload sinker bar.

22:15

24:00

1:45

DRL

6,964.0

Drill down from 6,960.5 to 6,964.0mBRT (55.5 - 59.0mbsf, 3.5m).
MP 250gpm x 2.1-2.6MPa, HPS 30rpm x 0.1-4.5kNm, WOB 0-40kN, Ave.ROP 18m/hr
Sweep out 3m3 of SWG with 550gpm x 8.5MPa
Lay out single and MU stand connection.

(04:50-06:50)Advisory status due to the wind speed over 18m/s.

From

To

Hrs.

Code

Depth(mBRT)

Detail of Operation

0:00

1:15

1:15

CORE

6,971.5

Cut #8 HPCS core (C0019M-8H) from 6,964.0 to 6,971.5mBRT (59.0 - 66.5mbsf)
Run #8 HPCS inner barrel (C0019M-8H).
Pump 200gpm and shoot HPCS on bottom, partial penetration with 18.9MPa. Bleed off pressure.
Pick up by coreline with 15kN OP and assist by DW with 400kN OP, but fail to recover inner barrel.

1:15

2:15

1:00

CORE

6,971.5

Overdrill from 6,964.0 to 6,971.5mBRT (59.0 - 66.5mbsf, 7.5m, 3times)
Lower bit to bottom w/o pumping and rotation. Start pumping, rotation and CMC once reach to bottom.
After finish each overdrill section, stop pumping, rotation and lock CMC.
[1st overdrill]6,964.0 - 6,967.5mBRT (59.0 - 62.5mbsf), MP 50gpm x 1.1-5.1MPa, HPS 25rpm x 0.1-4.0kNm, WOB 0-40kN, Ave. ROP 10m/hr
Attempt to pick up inner barrel with DW assist, but fail to pick up same with 400kN DW assist.
[2nd overdrill]6,967.5 - 6,969.0mBRT (62.5 - 64.0mbsf), MP 50gpm x 1.1-3.0MPa, HPS 30rpm x 0.1-5.0kNm, WOB 0-40kN, Ave. ROP 11m/hr
Attempt to pick up inner barrel with DW assist, but fail to pick up same with 400kN DW assist.
[3rd overdrill]6,969.0 - 6,971.0mBRT (64.0 - 66.0mbsf), MP 55gpm x 1.1-2.4MPa, HPS 30rpm x 0.1-5.0kNm, WOB 0-50kN, Ave. ROP 30m/hr
Pick up inner barrel with 335kN of DW assist. Start to pick up coreline w/o OP at the same time as OP of DW is released.

2:15

3:30

1:15

CORE

6,971.5

Recover HPCS inner barrel (C0019M-8H). (9.55m/8.5m 112.4% recovered)

3:30

3:45

0:15

DRL

6,971.5

Drill down from 6,971.0 to 6,972.5mBRT (66.0 - 67.5mbsf, 1.5m).
MP 200gpm x 1.6-2.3MPa, HPS 20rpm x 0.1-4.0kNm, WOB 0-40kN, Ave. ROP 15m/hr

3:45

5:00

1:15

CORE

6,977.0

Cut #9 HPCS core (C0019M-9H) from 6,972.5 to 6,977.0mBRT (67.5 - 74.0mbsf)
Run #9 HPCS/APCT-3 inner barrel (C0019M-9H).
Pump 200gpm and shoot HPCS at 0.5m off bottom, partial penetration with 19.1MPa. Bleed off pressure and wait 10min for APCT-3 measurement.
Pick up by coreline with 15kN OP and assist by DW with 400kN OP, but fail to recover inner barrel.

5:00

5:30

0:30

DRL

6,977.0

Overdrill from 6,972.5 - 6,977.0mBRT (67.5 - 72.0mbsf)
Lower bit to bottom w/o pumping and rotation. Start pumping, rotation and CMC once reach to bottom.
MP 50gpm x 1.0-1.8MPa, HPS 30rpm x 0.1-5.0kNm, WOB 0-50kN, Ave. ROP 13m/hr
Pick up inner barrel with 288kN of DW assist. Start to pick up coreline w/o OP when bit depth is 6,966.5mBRT (6.0m off bottom).

5:30

6:00

0:30

CORE

6,928.5

Recover HPCS/APCT-3 inner barrel (C0019M-9H) 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.

ROP

Dull Condition

6

10.625

AAI

SC513

-

202369

5 x 17

6,905.0

6,911.5

6.5

-

-

-

-

-

-

-

Inner

Outer

Dull

Loc.

B

G

O.D.

RP

10.625

AAI

SC513

-

202369

5 x 17

6,905.0

6,960.5

55.5

2.73

0

60

0

30

2.74

20.3

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"Conng 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. (10³, 10⁴)

API

Cake

pH

Pf

Cl-

Sand

Oil

Solid

MBC

Temp In

Temp Out

K+

n

K

LGS

FIT 20/40 (mm) 0 min : 5min

Mud Pumps : 14-P-220

No.

Liner Size

SPM

GPM

Press. (MPa)

Ann. Vel. (m/min)

1

6"

55

275

8.5

6"DC 5"DP

2

6"

4

6"

55

275

154

87

Materials Stock on Board @24:00

Item

Unit

Stock

Used

Received

Fresh Water

m3

269.0

68.8

43.4

Potable Water

m3

273.0

3.0

0.0

Drill Water

m3

895.9

0.0

44.4

Fuel

m3

4,070.5

43.2

0.0

Lube Oil

Ltrs

111,500

800.0

0.0

Heli Fuel

Ltrs

0.0

0.0

0.0

Personnel @24:00

MarE3

6

MQJ Crew

100

MWJ

19

Scientist

28

JAMSTEC PR

1

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

Item

Received

Used

Stock

Barite

100,000

Tel-Gel

118,000

Caustic soda

5,025

Lime

5,200

Flowzan

25

Mud volume

PHG (m3)

280

Marine Information @24:00

Heave (m)

0.5

Pitch (deg)

0.3

Roll (deg)

0.2

Vessel Heading (deg)

350

Riser Tension (kN)

-

V.D. Load (ton)

12515

Max Draught (m)

9.0

Thruster (kW)

2000

Heli Information @24:00

Flt. No.

Time Arrived

Time Departed

Passenger Are.

Passenger Dept.

1

09:37

09:50

14

14

2

14:01

14:10

3

3

Boat Information @24:00

Ikatsuki (Supply boat)

Status

Chikyu

Ibuki (Guard boat)

Status

Chikyu

HSQE and other information

Incident

Last Incident

No. LTI

LT1

11/14/19

HUNS cards

35

Remarks

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

Daily

Cumulative

Reported by : T.Yokoyama, Y.Oishi

Approved by : T.Saruhashi