

Daily Drilling and Scientific Report for IODP Expedition 386 Japan Trench Paleoseismology, 2021



18th May 00:00 – 24:00 JST Japan Standard Time (UTC+9)

1. Location

Position 38° 17.834' N, 144° 3.549' E

IODP-MSP borehole: M0090 Prospectus borehole: JTPC-03B

Water Depth: 7445 m

3. Operation

The ship arrived at Site JPTC-03B at 0645 hrs, and XBT was deployed. MBES/SBP was conducted above the coring site from 0700 hrs to 0830 hrs. After setting the inclinometer on the winch cable at 20 m above the GPC weighthead, the 20 m GPC assembly was deployed into the water at 0915 hrs and run down with winch speed set at 1.0 m/s. Running the GPC assembly was suspended at 7750 m depth in cable length at 1150 hrs for stabilization, and resumed after holding for 3 minutes with winch speed at 0.3 m/s. The GPC assembly spudded-in Holes M0090 A and B at 7694 m in cable length at 1204 hrs, was run back to surface with winch speed at 1.0 m/s, and recovered to deck at 1500 hrs. The Trigger corer was dismantled and sampled after GPC recovery, while deck crew and the GPC operation team began withdrawing and cutting the core into 5 m sections. Cutting the 5 m segment into 1 m sections while sampling from each section bottom end was started at 1530 hrs and completed by 1700 hrs. The 20 m GPC assembly was made up for the next run by 1930 hrs, and the ship set sail for Site JTPS-07A.

3. Science Report

N/A

4. Core Recovery Details

Hole	A (Trigger corer)	B (GPC main)
Barrel length (m)	1.5	20
Cored length (m)	1.154	19.6
Curated length (m)	1.154	19.6
Recovery (%)	100	100
Number of sections	2	20

5. Time Breakdown

- 00:00 Sailing to Site JTPC-03B
- 06:45 Arrive at the site, and deploy XBT
- 07:00 Conduct MBES/SBP survey
 - #1(S-N): From Lat: 38°15.5886' N, Long: 144°02.5287' E to Lat: 38°19.0904' N, Long: 144°04.1572' E
- 08:30 Prepare 20 m GPC operation
- 08:55 Set Trigger corer to GPC assembly
- 09:15 Run GPC into water. Set inclinometer on winch cable at 20 m above the GPC weighthead, and run down with winch speed at 1.0 m/s.
- Hold running GPC for 3 minutes at 7550 m depth in cable length for stabilization. Resume running GPC assembly with winch speed at 0.3 m/s.
- 12:04 Spud-in and release from Holes M0090 A and B at 7694 m in cable length (tension before: 4.1 tonf; after: 4.5 tonf; overpull: 6.8 tonf)
- 12:15 Run GPC assembly back to surface with winch speed at 1.0 m/s.
- 14:10 Recover Trigger corer to deck.
- 15:00 Recover GPC assembly to deck.
- 17:00 Complete cutting core into 1 m sections and sampling from each section bottom end
- 18:00 Start curation and IW sampling
- 19:30 Complete making up 20 m GPC for the next run Set sail for Site JTPS-07A

6. Hours (inc. cumulative total) - no contractual implications can be made from these figures

In port	35.0
Transiting	128.15
Operating	409.25
Technical downtime	0.0
Weather downtime	281.65
Other downtime (specify)	0.0

7. Weather

The rain stopped in the morning but the sky remained overcast. Warm (~16 degC) with moderate north northwesterly wind (<8 m/s) with relatively large swell (wave height: 2.5 m). No strong surface current was observed at the site. (~0.7 knot to east northeast).

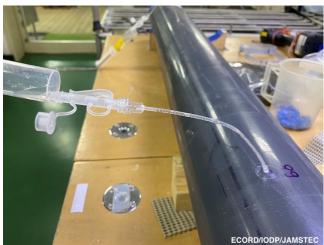
8. Planned Activity for the next 24 hours

20 m GPC at JTPS-07A.

9. Health and Safety and Environmental

Toolbox talk before the operation

10. Photo of the day



1) A syringe sucking IW from core (photo by NOkutsu@ECORD/IODP/JAMSTEC)



3) Vibrating a sample before observation under microscope (photo by NOkutsu@ECORD/IODP/JAMSTEC)



2) Discrete samples stored in 4 degC storage (photo by LMaeda@ECORD/IODP/JAMSTEC)



4) Microscope fluorescence observation (photo by NOkutsu@ECORD/IODP/JAMSTEC)