

Daily Operational and Science Report
UT-GOM2-2 Coring Expedition
Terrebonne Basin, Gulf of Mexico Outer Continental Slope

1. DATE: 08-August-2023, 0000-2400hr

2. LOCATION:

2400 hr, 08-August-2023

Hole: *Helix D/V Q4000* was located over the location of Hole UT-GOM2-2-H003

Last Drill/Core depth: 6806 ft RKB

RKB to Mud line: 6506 ft on Drill pipe measurements

Water depth: 6454 ft (updated 05-AUG-2023)

Per Datum: 52 ft

Lat 26°39'46.50488"N, Long 091°40'33.82464"W

3. DESCRIPTION OF OPERATIONS:

0000-2400 At Hole UT-GOM2-2-H003

0000-0100 Continue the recovery Core UT-GOM2-2-H003-10H as acquired on 07-AUG-2023

0100-0330 Prepare and RIH the G-APCT coring tool

0330-0345 Acquire Core UT-GOM2-2-H003-11H, 209.0 to 232.0 fbsf

0345-0430 POOH G-APCT coring tool and transfer to the Geotek Core Processing Van

0430-0645 Prepare and RIH the G-APCT coring tool

0645-0700 Acquire Core UT-GOM2-2-H003-12H, 232.0 to 255.0 fbsf

0700-1100 POOH G-APCT coring tool and transfer to the Geotek Core Processing Van

1100-1530 Prepare and RIH G-PCTB-CS

1530-1600 Acquire Core UT-GOM2-2-H003-13CS, 255.0 to 265.0 fbsf

1600-1620 POOH G-PCTB-CS and transfer to the Geotek Pressure Core Processing van

1620-1716 Prepare and RIH the G-APCT coring tool

1716-1726 Acquire Core UT-GOM2-2-H003-14H, 265.0 to 290.0 fbsf

1726-1935 POOH G-PCTB-CS and transfer to the Geotek Core Processing Van

1935-2000 Prepare and RIH G-PCTB-CS

2000-2130 Acquire Core UT-GOM2-2-H003-15CS, 290.0 to 300.0 fbsf

2130-2400 POOH G-PCTB-CS and transfer to the Geotek Pressure Core Processing Van

4. OPERATIONAL PLAN (Next 24 Hours):

Continue conventional and pressure coring operations in Hole UT-GOM2-2-H003 from the current hole depth of 300.00 fbsf with the following planned core runs:

Core UT-GOM2-2-H003-016H, 300.0 to 321.0 fbsf

Core UT-GOM2-2-H003-017H, 321.0 to 342.0 fbsf

Core UT-GOM2-2-H003-018H, 342.0 to 364.0 fbsf

Core UT-GOM2-2-H003-19CS, 364.0 to 374.0 fbsf

Core UT-GOM2-2-H003-020H, 374.0 to 399.0 fbsf

5. DOWNHOLE LOGGING OPERATIONS:

Hole: NA

Wireline Totals (directional): NA

6. CORE OPERATIONS AND DATA:

Hole: UT-GOM2-2-H003

G-APC Coring Totals:

Core UT-GOM2-2-H003-11H: 30.31 ft recovered core (132% recovery)

Core UT-GOM2-2-H003-12H: 32.28 ft recovered core (132% recovery)

Core UT-GOM2-2-H003-14H: 30.20 ft recovered core (124% recovery)

G-XCB Coring Totals: NA

G-PCTB-CS Coring Totals:

Core UT-GOM2-2-H003-13CS: 1.60 ft (16% recovery), 3531 psi

Coring F 6761 ft – T 6771 ft (RKB) at 60 rpm w/ 2-4 K torque circulating 8.6 ppg SW at 2 bpm w/ 63 psi standpipe. Maintaining 1-5K on bit.

Core UT-GOM2-2-H003-15CS: 11.3 ft (115% recovery), 0 psi

Coring F 6771 ft – T 6796 ft (RKB) at 60 rpm w/ 1-3 K torque circulating 8.6 ppg SW at 2 bpm w/ 190 psi standpipe. Maintaining 1-3K on bit.

G-PCTB-FB Coring Totals: NA

7. DOWNHOLE MEASUREMENTS

Hole: UT-GOM2-2-H003

Pressure and Temperature Tool Deployment (T2P): NA

Temperature Tool Deployment (APCT-3):

Core UT-GOM2-2-H003-012H – 10 min dwell time

Core UT-GOM2-2-H003-014H – 10 min dwell time

8. SCIENCE ACTIVITIES

Operations and science activities over the last 24-hours focused advancing Hole UT-GOM2-2-H003 from a depth of 209 fbsf (6715 ft RKB) to a total depth of 300 fbsf (6806 ft RKB) by the deployment of three conventional piston cores (G-APC) and two pressure cores (G-PCTB-CS). This combination of conventional and pressure cores targeted a prominent well log derived density transition that was identified in the logging while drilling (LWD) data as acquired in the WR313H-001 well during the 2009 Joint Industry Project Expedition II.

Core UT-GOM2-2-H003-11H, -12H, and -14H were processed through the Geotek Core Receiving Lab using the standard approach developed for gas hydrate research expeditions that start with the full core infrared scan of the recovered core to identify cold sections of the core that often indicate the presence of dissociating gas hydrates. The core infrared scans were used to guide the collection of void gas samples, cutting of whole-round (WR) sample sets, collecting headspace sediment, collecting hydrate-bearing sediment samples, hand measurements of sediment strength, microbiological WR sub-coring, headspace gas sediment preservation, and processing of drilling fluid and PCATS water samples.

Pressure core section UT-GOM2-2-H003-05CS-2 was quantitatively degassed to calculate the dissolved methane concentration, and gas samples were collected. Core UT-GOM2-2-H003-13CS is being scanned in PCATS.

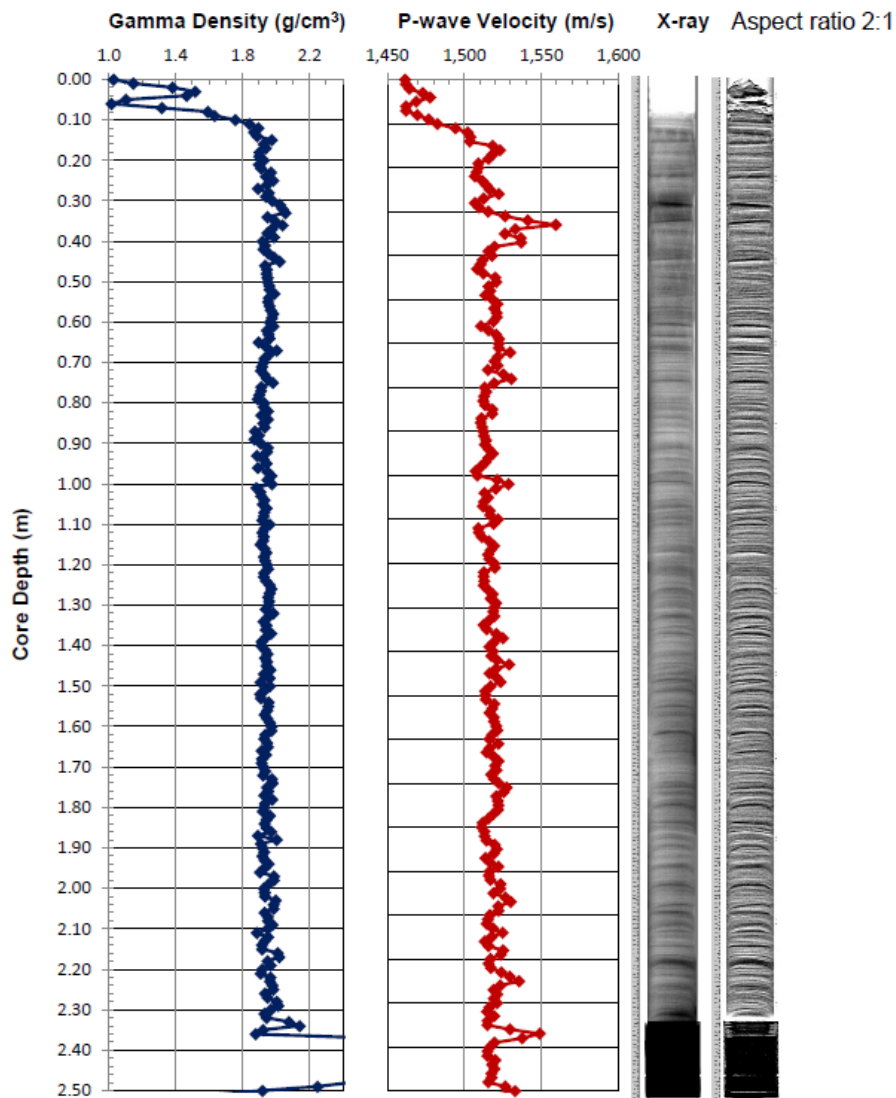
The Scientific Party continued to work on writing methods and Hole H003 chapters of the Expedition Report.

9. ACRONYMS

bpm	Barrels per minute
Fish	The object to be recovered from the borehole/BHA
M/U	Make up

PCATS	Pressure Core Analysis and Transfer System
PCTB-CS	Pressure coring tool with ball-cutting shoe version.
POOH	Pull out of hole
psi	Pounds per square inch
RIH	Run in hole
RKB	Depth measured from the rig floor
SLB	Schlumberger
Slickline	Wireline used to deploy and recover core, etc.
TD	Total depth
TDS	Top drive system

H003 8CS, 147.0 ft BSF



X-ray, P-wave velocity, and density of Core UT-GOM2-2-H003-08CS from the Geotek Pressure Core Analysis and Transfer System (PCATS). The X-ray reveals thin interbedding throughout the entire core.