

Daily Drilling and Scientific Report for IODP/ICDP Expedition 364
Chicxulub Impact Crater 2016



9th May 00:00 - 24:00 CDT (UTC -5)

1. Location

Position 21 Deg 27.009' N, 89 Deg 56.962' W
IODP-MSP borehole M0077A
Prospectus borehole Chix-03B
Water Depth: 19.8 m

2. Operations Report

Coring continued throughout the day. Core quality was excellent and 100% recovery was achieved. While running Core 117R and Core 119R, the bit became blocked shortening the core run.

3. Science Report

Core was all pure granite throughout the day (~30 m cored). The granite has fractures and fault zones, some of the fractures are open with signs of grain size reduction (comminution), other fractures are discrete, and there are pervasive zones of healed microfaults. The petrophysical properties are interesting – the densities are between 2.3 and 2.5 g/cc, and the resistivity between 2 and 8 ohm m. These observations are consistent with the granite being fractured.

4. Core Recovery Details

Hole	M0077A
Cores recovered	11
Drilled length (Coring, m)	28.35
Drilled length (Open hole, m)	0
Recovered length (m)	28.66
Recovery (%)	100.00
Depth at midnight (mbsf)	811.94

5. Time Breakdown

00:00 Continue coring
01:30 Core on deck
05:20 Core on deck
07:15 Core on deck
09:05 Core on deck
11:00 Core on deck
13:00 Core on deck
15:10 Core on deck
17:15 Core on deck
18:55 Core on deck
21:20 Core on deck
23:25 Core on deck
24:00 Continue coring

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

In port	13.0
Transiting	3.0
Operating	563
Technical downtime	121
Weather downtime	0.0
Other downtime (specify)	0.0

7. Weather

Fair, clear, good visibility, wave heights of 0.5 – 0.8 m; wind E 15 Kts, Temperature 21-30°C.

8. Planned Activity for the next 24 hours

Continue coring.

9. Health and Safety and Environmental

N/A

10. Photo of the day



Image of the Yucatan Peninsula and the Gulf of Mexico taken from the International Space Station. Image: ©astro_timpeake