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



7th 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 with rates gradually increasing as the lithology became more competent. Recovery and quality of core remained high. A media event was hosted on the vessel. A total of 24 journalists were transported to the platform via the *Linda F*. Visitors came on board in small groups and were given tours of the facilities and operations and the Co-chief scientists gave presentations about the scientific objectives. The press included local newspapers, and national and international tv channels.

3. Science Report

The cores started as mixtures of green calcareous matrix with impact melt clasts and progressed to impact melt zones with granitic clasts now classified as an impact melt rock. The last two cores of the day however were entirely made of granitic material and had to be sectioned with a tile saw. These granitic cores show evidence of faulting as well as calcite veins. We noted a continued correlation of high magnetic susceptibility values with impact melt.

4. Core Recovery Details

| Hole | M0077A |
|-------------------------------|--------|
| Cores recovered | 7 |
| Drilled length (Coring, m) | 24.40 |
| Drilled length (Open hole, m) | 0 |
| Recovered length (m) | 25.29 |
| Recovery (%) | 100.00 |
| Depth at midnight (mbsf) | 753.09 |

5. Time Breakdown

00:00 Continue coring

02:05 Core on deck

04:40 Core on deck

07:45 Core on deck

11:30 Linda F arrived carrying visitors from the media

12:40 Core on deck

14:50 Linda F left the platform

15:35 Core on deck

18:10 Core on deck

21:20 Core on deck

00:00 Continue coring

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

| In port | 13.0 |
|--------------------------|------|
| Transiting | 3.0 |
| Operating | 515 |
| Technical downtime | 121 |
| Weather downtime | 0.0 |
| Other downtime (specify) | 0.0 |

7. Weather

Fair, clear, good visibility, wave heights of 0.3 – 0.5 m; wind NW 10 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: DSmith©ECORD_IODP.