

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



**22nd Apr 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-03A  
Water Depth: 19.8 m

**2. Science Report**

Some material was recovered during clearing the borehole. While most of the material was cement, some mud from the formation was recovered from the base of the hole near 503 mbsf. Upon examination of the nanofossils and foraminifera within the recovered sample, the biostratigraphers concurred the material was of Eocene age. Specifically, the nannofossil zone is identified to be upper part NP12, approximately 51.5 to 53Ma. This finding lends confidence to the drilling plan to start coring at 500m in order to core through the PETM on route to the K-Pg.

**3. Core Recovery Details**

<b>Hole</b>	M0077A
<b>Cores recovered</b>	N/A
<b>Drilled length (Coring, m)</b>	N/A
<b>Drilled length (Open hole, m)</b>	503
<b>Recovered length (m)</b>	N/A
<b>Recovery (%)</b>	N/A
<b>Depth at midnight (mbsf)</b>	503

**4. Time Breakdown**

00:00 Continue drill maintenance  
08:10 Clearing the borehole  
23:30 Tripping pipe  
00:00 Continue tripping pipe

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

<b>In port</b>	13.0
<b>Transiting</b>	3.0
<b>Operating</b>	315
<b>Technical downtime</b>	102
<b>Weather downtime</b>	0.0
<b>Other downtime (specify)</b>	0.0

**6. Weather**

Fair, sunny, good visibility, wave heights of 0.3 – 0.5 m; wind NE 10 Kts, Temperature 24-34°C.

**7. Planned Activity for the next 24 hours**

Continue with clearing borehole

**8. Health and Safety and Environmental**

N/A

## 9. Photo of the day



The Mexican Research vessel Justo Sierra, which visited the L/B Myrtle on April 21<sup>st</sup>.  
Image D. Smith © ECORD\_IODP.