

Phoenix Rasps Frozen Layer, Collects Sample

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This image, taken by NASA's Phoenix Mars Lander's Surface Stereo Imager on Sol 50, or the 50th day of the mission, July 15, 2008, shows two holes at the top created by the lander's Robotic Arm's motorized rasp tool. Image: NASA

(PhysOrg.com) -- A powered rasp on the back of the robotic arm scoop of NASA's Phoenix Mars Lander successfully drilled into the frozen soil



and loosened material that was collected in the lander's scoop.

Images and data sent from Phoenix early Wednesday indicated the shaved material in the scoop had changed slightly over time during the hours after it was collected.

The motorized rasp -- located on the back of the lander's robotic arm scoop -- made two distinct holes in a trench informally named "Snow White." The material loosened by the rasp was collected in the scoop and documented by the Robotic Arm Camera. The activity was a test of the rasping method of gathering an icy sample, in preparation for using that method in coming days to collect a sample for analysis in an oven of Phoenix's Thermal and Evolved-Gas Analyzer.

"This was a trial that went really well," said Richard Morris, a Phoenix science team member from NASA's Johnson Space Center, Houston. "While the putative ice sublimed out of the shavings over several hours, this shows us there will be a good chance ice will remain in a sample for delivery" to Phoenix's laboratory ovens.

Phoenix on Wednesday will be commanded to continue scraping and enlarging the "Snow White" trench and to conduct another series of rasp tests. The lander's cameras will again be used to monitor the sample in the scoop after its collection.

Provided by NASA

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