



1
00:00:02,669 --> 00:00:11,330

Hi, I'm Louise Jandura, sample system chief engineer and I'm here with your Curiosity

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00:00:11,330 --> 00:00:15,190

rover report.
This was a great week for Curiosity. We got

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00:00:15,190 --> 00:00:19,690

to see something we've all been waiting for quite some time: sample in the scoop confirming

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00:00:19,690 --> 00:00:23,390

that our first drill on Mars collected as we had expected.

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00:00:23,390 --> 00:00:26,680

This was an important event as this is the first time the drill has been used on Mars

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00:00:26,680 --> 00:00:30,250

to collect sample for analysis by instruments on the rover.

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00:00:30,250 --> 00:00:36,679

We use these computer-generated images to help us visually identify how much we've

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00:00:36,679 --> 00:00:42,440

collected. We were able to estimate that we collected about 14 cubic centimeters of sample,

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00:00:42,440 --> 00:00:46,920

or about a tablespoon, and this matched our expectations of what we would see in the scoop

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00:00:46,920 --> 00:00:50,469

when we got to this point.\h
Our drilling capability gives us the ability

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00:00:50,469 --> 00:00:54,699
to get inside this rock. The first thing you notice about the material is that it's

12
00:00:54,699 --> 00:00:59,649
a different color. Gray not the reddish orange color on the surface all around us. That reddish

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00:00:59,649 --> 00:01:04,549
orange color is a sign of an iron oxidation. A kind of rusting process that's occurred

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00:01:04,549 --> 00:01:08,380
all around on Mars
Since we've been at Yellowknife Bay, Curiosity

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00:01:08,380 --> 00:01:13,759
has done more than a 100 MAHLI images and more than 12,000 laser shots. You can see

16
00:01:13,759 --> 00:01:18,560
the telltale laser grid patterns from the Chemcam in this image. Additionally, you can

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00:01:18,560 --> 00:01:23,289
see a fine grain structure of this rock indicating either a mudstone or a siltstone.

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00:01:23,289 --> 00:01:27,969
The next steps for the team are to finish processing the sample with Chimera and then

19
00:01:27,969 --> 00:01:33,350
put small portions into the SAM and Chemin instruments for analysis of chemistry and