1
00:00:00,000 --> 00:00:04,000
(Music)

2
00:00:04,000 --> 00:00:11,000
Hi, I'm Louise Jandura, sample system chief engineer and I'm here with your Curiosity rover report.

3
00:00:11,000 --> 00:00:15,000
This was a great week for Curiosity. We got to see something

4
00:00:15,000 --> 00:00:20,000
we've all been waiting for quite some time: sample in the scoop confirming that our first drill on Mars

5
00:00:20,000 --> 00:00:22,000
collected as we had expected.

6
00:00:22,000 --> 00:00:25,000
This was an important event as this is the first time the drill has been used

7
00:00:25,000 --> 00:00:29,000
on Mars to collect sample for analysis by instruments on the rover.

8
00:00:29,000 --> 00:00:32,000
We use these computer-generated images of different volumes

9
00:00:32,000 --> 00:00:36,000
to help us visually identify how much we've collected.

10
00:00:36,000 --> 00:00:41,000
We were able to estimate that we collected about 14 cubic centimeters of sample,

11
00:00:41,000 --> 00:00:45,000
or about a tablespoon, and this matched our expectations of what we would see in the scoop

12
00:00:45,000 --> 00:00:48,000
when we got to this point.

13
00:00:48,000 --> 00:00:50,000

Our drilling capability gives us the ability to get inside this rock.

14
00:00:50,000 --> 00:00:54,000
The first thing you notice about the material is that it's a different color.

15
00:00:54,000 --> 00:00:57,000
Gray not the reddish orange color all around us.

16
00:00:57,000 --> 00:01:01,000
That reddish orange color is a sign of an iron oxidation.

17
00:01:01,000 --> 00:01:05,000
A kind of rusting process that's occurred all around Mars.

18
00:01:05,000 --> 00:01:08,000
Since we've been at Yellowknife Bay Curiosity has done

19
00:01:08,000 --> 00:01:12,000
more than a 100 MAHLI images and more than 12000 laser shots.

20
00:01:12,000 --> 00:01:17,000
You can see the telltale laser grid patterns from the Chemcam in this image.

21
00:01:17,000 --> 00:01:22,000
Additionally, you can see a fine grain structure of this rock indicating either a mudstone or a siltstone.

22
00:01:22,000 --> 00:01:27,000
The next steps for the team are to finish processing the sample with Chimera