Curiosity to study possible meteorite on Mars surface

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Image taken by the ChemCam RMI on sol 2242 of target "Little Colonsay," a potential meteorite. Credit: NASA

Curiosity woke up to Mr Rogers' "Please would you be my neighbour" this morning to welcome InSight, and then got busy at the Highfield drill site. Curiosity will dump the Highfield sample, which requires several MAHLI looks and an APXS operation, but the plan also requires swinging the arm out of the way so other instruments can have their unobscured look at the dump pile.

Of course, the main activity is to look at the Highfield dump pile with all instruments available. APXS will get the chemistry, and Navcam, Mastcam and MAHLI will have a close look. In addition, a Mastcam multispectral and a ChemCam passive observation will add to the information collected from the dump pile.

The ChemCam is also very these two sols. In addition to the dump pile activities, it will look at four samples, two of which are re-targeted. One of the samples is "Little Colonsay." The planning team thinks it might be a meteorite because it is so shiny. But looks can deceive, and proof will only come from the chemistry. Unfortunately, the small target was missed in the previous attempt, and with the information from that attempt, Curiosity will try again. Another very small target is the target "Flanders Moss," which shows an interesting, dark-coloured coating. Chemical analysis is required to confirm its nature. Two additional targets, "Forres" and "Eildon," are to add to the database of the grey Jura bedrock before Curiosity leaves the Highfield site next week.

Beyond ChemCam, Curiosity will document the workspace with a Mastcam M34 mosaic, and of course document all ChemCam targets. Finally, the environmental observations continue with a crater rim

extinction, Mastcam Tau and dust devil monitoring—a busy two sols on Mars.

Provided by NASA