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Mars rover sniffs atmosphere, finds no clear signs of methane

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By **WILLIAM HARWOOD**
CBS News

NASA's Curiosity Mars rover has not found any definitive evidence of methane in the thin air at the Gale Crater landing site, project scientists said Friday, a finding that could raise fresh questions about whether microbial life might exist on the red planet today.

While methane is commonly produced by living organisms on Earth, low concentrations on Mars could be explained by non-biological processes such as comet impacts, the breakdown of dust particles by ultraviolet light and even the interaction of water and certain types of rock.

the planet. It takes on the order of about three months. That is all we can say at this point."

Pressed on whether Curiosity might happen to be sampling the air during a lull in methane production, Atreya said the team would continue studying the atmosphere over the weeks and months ahead and "we'll monitor that."

"As far as seasons are concerned, methane could have a very long lifetime if the destruction mechanism is conventional and in that case, you would not expect large changes going on in methane over such a short period of time of two years," he said. "But if the observations that exist are correct, that methane comes and goes, it indicates there are very big sinks (methods of removal) on Mars and that's what we'll try to understand as we get more data."

Atreya said the team was not surprised at the initial absence of methane, saying "we went there with no preconceived notions about what we were going to find."

"The (earlier) observations have been published in various papers, they're somewhat controversial," he said. "All we can say is that we're not really surprised. We're there to make measurements, and we'll learn what Mars has to tell us."

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