

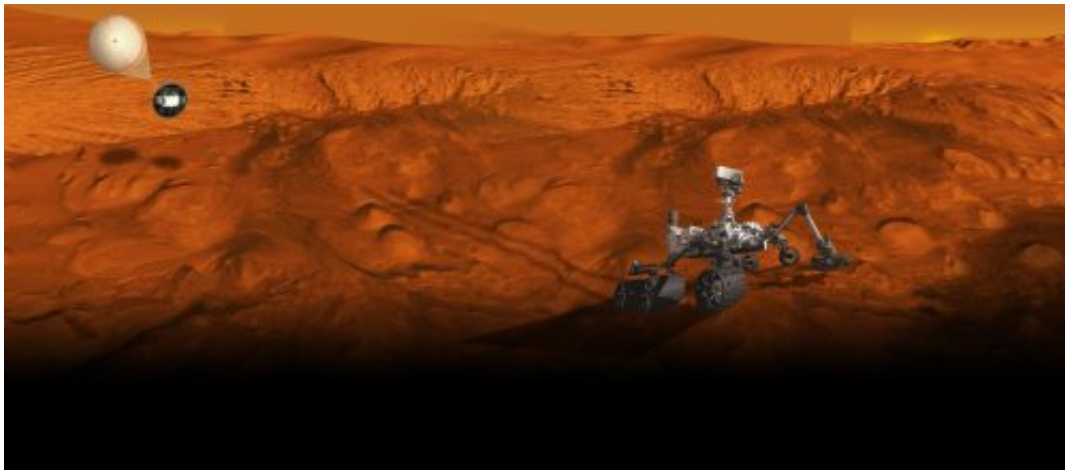
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#MARS #CURIOSITY ROVER'S FIRST TEST FOR METHANE: NOTHING . . .YET

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Mars Curiosity Rover Photo credit NASA/JPL-Caltech/

The three complex lab tools of rover's gold-plated Sample Analysis on Mars (SAM), its main instrument for its astrobiology research, has failed to detect the presence of methane gas on the Red Planet.

Ninety percent of the methane in Earth's atmosphere is produced by living organisms, making methane an important by-product to search for in determining if Mars had ever supported some form of life.

Previous testing on earth and in space detected low concentrations of the gas on Mars.

Because Methane concentrations vary somewhat by region and over time, SAM hasn't necessarily challenged the validity of those earlier results. Photochemical reactions in the atmosphere may have destroyed the gas, or it may have been absorbed by the Martian surface.

"At this time, we don't have a positive detection of methane on Mars," said Sushil Atreya of the University of

Michigan, a SAM co-investigator. “But that could change over time, depending on how methane is produced and how it is destroyed on Mars.”

The presence of Methane isn't proof-positive of earlier life, because non-biological sources, such as comet strikes, degradation of interplanetary dust motes by ultraviolet light and water-rock interactions also release the gas.

“The bottom line is that we have no detection of methane so far,” Chris Webster, of NASA's Jet Propulsion Laboratory in Pasadena told reporters. “But we're going to keep looking in the months ahead—since Mars, as we all know, may yet hold surprises for us.”

Sources: [Livescience](#), November 5, 2012

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