

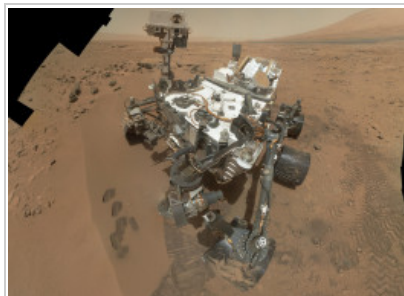
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HUFFPOST TECH

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Nasa: Mars Rover Curiosity Finds No Methane - And Maybe No Life - On Red Planet

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AP

Nasa has announced that its Mars Rover Curiosity has failed to find a key chemical associated with life.

The \$2.5 billion robot is 14 months into a planned two-year mission to search for signs of organic life on the dusty planet.

It had been hoped that the rover might find traces of methane in an area of the planet known as the Gale Crater.

Previous studies involving data from satellites and telescopes had indicated that small but potentially crucial amounts of the gas might be present on the surface.

If it had been found it might have hinted that organic life had been present at one time - on Earth the vast majority of methane in the atmosphere is caused by organic life.

But [after fresh analysis and "exhaustive tests" to search for the gas](#) it now appears that Curiosity has been unable to find traces of methane. At best there is 1.3 parts per billion of methane in the atmosphere - one-sixth the earlier estimates.

Nasa said the results were "a surprise to researchers" and that it reduced the possibility that life had ever survived on the strange world.

"This important result will help direct our efforts to examine the possibility of life on Mars," said Michael Meyer, Nasa's lead scientist for Mars exploration.


"It reduces the probability of current methane-producing Martian microbes, but this addresses only one type of microbial metabolism. As we know, there are many types of terrestrial microbes that don't generate methane."

Scientists [also played down the chance](#) that methane previously observed might have been removed through some unknown mechanism.

"Methane is persistent," said Sushil Atreya of the University of Michigan.

"It would last for hundreds of years in the Martian atmosphere. Without a way to take it out of the atmosphere quicker, our measurements indicate there cannot be much methane being put into the atmosphere by any mechanism, whether biology, geology, or by ultraviolet degradation of organics delivered by the fall of meteorites or interplanetary dust particles."

But the Rover itself - or rather, its managers - tweeted later that there is still a chance life once existed on the planet.



Curiosity Rover
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Lack of methane doesn't mean Mars never supported life.
Plenty of Earth organisms don't produce the gas.

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