

# Using bacteria in oil wells to convert oil to natural gas

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Some bacteria destroy oil. Might those bacteria lead oil companies to change their methods of harvesting the energy of the oil while at the same time reducing the carbon dioxide that burning oil and gasoline discharges into the atmosphere? Steve Larter thinks that may be possible.

Larter, professor of [geoscience](#) and holder of the Canada Research Chair in Petroleum Geology at the University of Calgary, was the keynote speaker today for the 2010 Goldschmidt Conference hosted by the University of Tennessee, Knoxville, and Oak Ridge National Laboratory.

In his presentation, "Can Studies of Petroleum Biodegradation Help Fossil Fuel Carbon Management," Larter discussed microbes in the environment and their role in breaking down oil and generating natural gas.

Petroleum biodegradation takes place in environments where petroleum is near ground level, actually seeping from the surface, or in oil-spill situations. Bacteria, yeasts, molds and certain fungi naturally break down petroleum in these environments. Larter discussed how these microbes take the byproducts of decomposition, such as carbon dioxide, and produce methane (natural gas) and hydrogen, less polluting fuels.

Larter also examined the feasibility of capturing carbon dioxide and pumping it and special bacteria underground into alkaline rock formations where the [carbon dioxide](#), the most abundant [greenhouse gas](#),

will be converted into natural gas, a valuable source of energy.

The Goldschmidt Conference is an annual meeting sponsored by a number of international geochemical societies. The conference is named for Victor Goldschmidt (1888-1947), the Swiss-Norwegian scientist who was the father of [geochemistry](#).

Provided by University of Tennessee at Knoxville

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