



## BLM wants money from Wyoming company's microbe gas process

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CASPER, Wyo. — A company with a novel way to produce more coalbed methane in the Powder River Basin is negotiating with the federal government to determine how much the public should earn from the use of the company's method.

The negotiations were driven by an analysis completed by the Department of the Interior's Bureau of Land Management early last year that raised the issue as well as concerns about Luca Technologies' testing and the potential for Luca to block some future coal mine development. A company representative said those issues are being addressed.

The confidential analysis, dated March 3, 2010, was obtained through a Freedom of Information Act request by the Powder River Basin Resource Council, a landowner group with concerns about Luca's process, which submitted the analysis to the Casper Star-Tribune.

Colorado-based Luca Technologies pumps nutrients into old wells to feed microbes that consume coal and produce methane gas.

Wyoming lawmakers recently approved a regulatory process for the method, and Luca plans to ramp up its work to a commercial level.

Brian Cree, chief operating and financial officer for Luca Technologies, said his company is in talks with the BLM now regarding the amount it would pay, which could involve some sort of access fee.

"We're willing to entertain those negotiations and discussions, and those are going on right now," Cree said.

At the time of the analysis, two-thirds of the leases Luca owned were atop federal coal deposits, and the rest sit atop land on which the federal government owns all mineral rights.

In the analysis, the BLM details Luca's process and expresses concerns about the need for the company to pay the federal government for the loss of quality of federal coal.

The analysis also stated that Luca's work could stop the future spread of coal mines in the areas where the company was working, and that Luca should continue testing water for possible contamination. Luca's Cree said the company has addressed both of those issues.

The BLM estimated Luca's process would degrade the coal bed by less than 1 percent, and Luca's estimates ran even lower. While the numbers are low, the loss in quality means Luca's work does take value from the coal — something for which the BLM thinks the federal government should be compensated.

The BLM redacted the total it expected to lose if something wasn't done. But the total was clearly high enough for the agency to push for Luca to pay something for the value it would extract from federal coal.

"Luca's position is that oil and gas leases which we have should give us the right to move forward with our microbial conversion," Cree said. "We feel strongly about that. But at the same time, we want to have a good relationship with the BLM and we'll work with the BLM."

The BLM was also concerned that Luca's wells would get in the way of the expected growth of coal mines, particularly since Luca plans to use the wells for decades.

Cree said his company has agreed to stop production and transition land for use in coal mining as the mining stretches into areas in which his company is operating.

The BLM analysis also expressed concern about how Luca's process could potentially concentrate trace metals. Luca responded by submitting a report that concluded such concentration was unlikely.

"It is unlikely that trace metals will be released from the coals or become more concentrated in coals as a result of Luca enhancing

methanogenesis," Luca's submitted report stated.

However, the same report did indicate that higher microbe activity can dissolve some metals, but it stated Luca's process didn't result in a significant increase in dissolved metals.

The BLM analysis called the report "somewhat inconclusive" and agreed with Luca that monitoring of post-treatment water samples should continue.

Cree said Luca is seeking filed permits with both the Wyoming Department of Environmental Quality and the state Oil and Gas Conservation Commission.

He said his company will obviously continue water testing throughout the use of its process, both to check for contamination and to monitor the health of the microbes.

"We want to know that as much as anything else," he said.

The BLM's Wyoming office did not comment on the issue when given the opportunity Tuesday.