Researchers to test underground sequestration at Mont. site

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Scientists from Montana State University will lead a $67 million, eight-year study to determine if carbon dioxide can be successfully stored in a porous rock formation almost a mile underground at a site known as Kevin Dome.

"We've been working to put this together for a long time, so it's gratifying," Lee Spangler, MSU's associate vice president of research, said Tuesday of the U.S. Energy Department-approved project. Spangler is also director of the Big Sky Carbon Sequestration Partnership, which is overseeing the study.

Gov. Brian Schweitzer has called Montana "the Saudi Arabia of coal," and state leaders have sought solutions to reduce the greenhouse gases released by burning coal in power plants. If storage technologies work, capturing CO2 underground could be a major solution and reduce coal's contribution to climate change.

Scientists think the rock formation that extends from northern and eastern Montana into North Dakota and Saskatchewan, Canada, could hold a century's worth of Montana's carbon dioxide, Spangler said.

The idea of capturing and storing CO2 underground has its critics, however. Some charge it uses immense amounts of energy and is too expensive, and some question whether it's safe.

Safety will be one of the issues studied in the first two years, Spangler said. A geological study will look for problems like earthquake faults in the area, near Sunburst in Toole County. If too many faults are found, the project may not go forward.

If the geology checks out, then scientists will spend the next four years injecting CO2 into the rocks and monitoring what happens underground. "The probability of leaks is small or zero," Spangler said.