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Chaparral Energy launches \$110M project in Osage County

By <u>D. Ray Tuttle</u> The Journal Record Posted: 10:11 PM Friday, June 28, 2013

OKLAHOMA CITY – An Oklahoma City energy company has launched a \$110 million enhanced oil recovery and pipeline project in Osage County that will create 40 jobs and more than \$1 billion in royalties for the Osage Nation.

Independent oil and gas production and exploration company Chaparral Energy

Inc. dedicated its North Burbank CO2 Enhanced Oil Recovery Project in June, said Mark Fischer on Friday. Fischer is Chaparral chairman, CEO, president and co-founder.

The facility and pipelines project will create 40 jobs.



In this historic photo from 1950, Frank Phillips and Phillips Petroleum executives turn a valve on a waterflood in the North Burbank Field in Osage County. Oklahoma City-based Chaparral Energy in June began operations on another waterflood. Any long-term growth of the company will come from its development of CO2 EOR operations, said Mark Fischer, chairman, president, CEO and co-founder of the company. (Courtesy photo)

In April, a panel made up of members of the Osage Minerals Council and federal agencies including the Bureau of Indian Affairs and the Bureau of Land Management drew up new rules targeting oil and natural gas operation in Osage County. The rules, sent to the U.S. Department of Interior for review, were in response to a massive lawsuit against the federal government by the Osage Nation over mismanagement of the tribes minerals trust. Many oil producers have expressed concern over the stricter rules and worry that the tougher guidelines will stifle production.

But Fischer believes Chaparral has nothing to worry about, as the company has operated in Osage County for decades.

I expect we will be grandfathered in, Fischer said.

The largest of nine active CO2 EOR projects at Chaparral, the North Burbank Unit represents a capital investment to date of nearly \$250 million, Fischer said.

The company expects total estimated capital expenditure will eventually exceed \$1.6 billion over the projected 30-year life span, Fischer said.

Chaparral executives said the project will recover an additional 88 million barrels of oil from the North Burbank Unit in Osage County. The project, expected to extend the life of the field another 30 to 40 years, will provide \$1.1 billion to the Osage Nation in royalties, Fischer said. Production and severance taxes to Oklahoma are estimated to be \$632 million over the lifetime of the project.

Clearly, if you believe that CO2 causes global warming, and I don't, but if you believe it does, then this is a major green initiative, Fischer said.

The 23,000-acre unit, which dates back to the 1920s, has produced more than 319 million barrels since its discovery. The North Burbank Unit is the single largest producing unit in the state, Fischer said.

The economic effect is estimated to be \$11 billion over the lifetime of the project. Fischer said revenue generated by the additional 88 million barrels of oil is estimated to be \$7.8 billion. That amount is based on \$90-per-barrel oil, Fischer said. The \$11 billion figure was generated by taking the \$7.8 billion revenue and multiplying by a factor of 1.41.

The project involved the installation of a CO2 (carbon dioxide) gathering facility at a fertilizer plant in Coffeyville, Kan., the laying of an 8-inch, 68-mile carbon dioxide pipeline across northern Osage County and the construction of field infrastructure facilities for the injection of CO2 into the North Burbank Unit, Fischer said. The project will inject 290 billion cubic feet of CO2 into the formation, he said. The pipeline, 100-percent owned by Chaparral, made up \$55 million of the project cost.

The pipeline is a key element in the company's growing CO2 EOR program, Fischer said.

The pipeline has the capacity to move up to 60 million cubic feet of captured carbon dioxide daily. A 23,500-horsepower compressor station in Coffeyville captures the CO2 and pumps the CO2 through the pipeline to the unit where it is injected underground into the reservoir, Fischer said.

The process uses CO2 to force previously trapped residual oil reserves to a production well for extraction and will allow additional recovery of about 10 to 15 percent of the original oil in place, Fischer said.

It is not cheap, but it is efficient, Fischer said.

The process allows producers to increase the recovery of oil from reservoirs to between 30 and 60 percent of a field's total oil in place, according to U.S. Department of Energy figures. About 120 EOR projects in the U.S. account for more than 350,000 barrels of oil per day, or 5 percent, of total domestic crude production, according to DOE statistics. Since 1986, 1.5 billion barrels of oil have been produced using the CO2 EOR process and there are more than 1 billion barrels of oil reserves booked as proven reserves because of CO2 EOR projects, according to DOE estimates.

In the Mid-Continent region, primarily Oklahoma, there are an additional 10.6 billion barrels of oil that are technically recoverable via CO2 enhanced oil recovery.

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