

# PROJECT FACT SHEET

**CONTRACT TITLE:** Improved Efficiency of Miscible CO2 Floods and Enhanced Prospects for CO2 Flooding Heterogeneous Reservoirs.

**ID NUMBER:** DE-FG22-97BC15047

**B&R CODE:** AC1005000

**CONTRACTOR:** New Mexico Institute of Mining and Technology

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**PROJECT SITE**

**CITY:** Socorro

**STATE:** NM

**CITY:**

**STATE:**

**CITY:**

**STATE:**

**CONTRACT PERFORMANCE PERIOD:**

6/1/1997 to 5/31/2000

**PROGRAM:** Supporting Research

**RESEARCH AREA:** Extraction Research

**PRODUCT LINE:** EPTA

| FUNDING (1000'S)         | DOE | CONTRACTOR | TOTAL |
|--------------------------|-----|------------|-------|
| <b>PRIOR FISCAL YRS</b>  | 648 | 648        | 1296  |
| <b>FISCAL YR 1999</b>    | 337 | 338        | 675   |
| <b>FUTURE FUNDS</b>      | 0   | 0          | 0     |
| <b>TOTAL EST'D FUNDS</b> | 985 | 986        | 1971  |

**OBJECTIVE:** The objective of this work will consist of an experimental research effort aimed at improving the effectiveness of CO2 flooding in heterogeneous reservoirs. The intent is to investigate new concepts that can be applied by field operators within the next two to five years. The proposed activities will consist of experimental research in three closely related areas: 1) further exploration of the applicability of selective mobility reduction (SMR) in the use of foam flooding; 2) the possibility of higher economic viability of floods at slightly reduced CO2 injection pressures, and 3) taking advantage of gravitational forces during low IFT, CO2 flooding in tight, vertically fractured reservoirs.

**PROJECT DESCRIPTION:**

**Background:** New concepts are being considered that have the potential of recovering oil currently thought unrecoverable by the industry. The concepts being investigated could provide a more favorable response from the use of foam for achieving mobility control in CO<sub>2</sub> floods, the possibility of obtaining good oil recovery efficiency by using less CO<sub>2</sub> than is commonly practiced in field operations, and taking advantage of gravity drainage and imbibition in CO<sub>2</sub> flooding vertically fractured reservoirs.

**Work to be Performed:** The overall goal of this project is to improve the efficiency of miscible CO<sub>2</sub> floods and enhance the prospects for flooding heterogeneous reservoirs. This objective will be accomplished by extending ongoing experimental research in three areas: 1) foams for selective mobility control in heterogeneous reservoirs, 2) reduction of the amount of CO<sub>2</sub> required in CO<sub>2</sub> floods, and 3) miscible CO<sub>2</sub> flooding in fractured reservoirs.

**PROJECT STATUS:**

**Current Work:**

**Scheduled Milestones:**

**Accomplishments:**