Title: Characterization of Produced Water In New Mexico
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Institution: Petroleum Recovery Research Center/New Mexico Tech

Project Description:

The Petroleum Recovery Research Center (PRRC), a division of the New Mexico Institute of Mining and Technology, compiled data on quality and quantity of produced water (water produced as a byproduct of oil and gas production) into the NM WAIDS database. This database encompassed information on water quality/quantity in various producing regions of the state. Purposes of the original database included assessments of the amount and quality of produced water to support the design of water treatment systems to promote the use of produced water. Work on the database ceased about 10 years ago. The database is now out of date, and online access to the database is currently not available. The proposed project would update the NM WAIDS database, bring the database online, provide GIS user-friendly functionality and analysis tools, and identify and attempt to fill in data gaps in newly active plays in the San Juan and Permian basins.

The NMWAIDS database was taken offline in 2013 due to concerns about the security of the web pages and queries that accessed the database. In the ten years that have elapsed since the database was first put online, cyber security has become an increasingly important consideration and the old interface was becoming highly vulnerable. In addition, there is a need to obtain more data. Several oil and gas plays have come to the foreground since the bulk of the data was collected, including new horizontal plays in both southeast and northwest New Mexico.

Methodology:

The current update for Dec. 1 is a paper text and presentation made by M. Cather on Nov. 19th at the 59th Annual New Mexico Water Conference in Santa Fe, New Mexico. The text document has been provided electronically to WRRI as has the presentation and will be made available online at their web site and from PRRC. The document presents some background, statistical information and GIS maps that discuss produced water in New Mexico as well as an update on the web site revision and future goals.

Student Participants:

Graduate Students:
Dongyi Chen – PhD, computer science
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