

Course Objective

To introduce the basic principles of matrix acidizing treatments in sandstones and carbonates, provide information on candidate selection for matrix treatments, and understand the importance of formation properties in the design of the treatment and fluid selection.

The chemistry of acidizing is discussed with emphasis on potential damage due to by-products precipitation. Formation damage is discussed, and their mechanisms are identified. Post-treatment production improvement is estimated. Rules for Treatment Design are applied, and Operational Procedures are recommended.

Topics Covered

Audience

Engineers, geoscientists, and other field personnel responsible for the design, execution, or supervision of matrix treatments

Prerequisite

Engineering, technology, or other science related degree

Activities

Day 1

- Welcome and Introduction
- Candidate selection for matrix treatments
- Damage mechanisms

Day 2

- Skin effect
- Comparison of objectives of matrix treatments in carbonates and sandstones
- Chemistry of carbonate acidizing

Day 3

- Fluid selection for carbonate acidizing
- Chemistry of sandstone acidizing
- Fluids selection for sandstone acidizing

Day 4

- Additives used in acidizing and their functions
- Placement techniques
- Laboratory testing

Day 5

- Job design
- Open discussion
- Problem solving