

Fully Miscible Micellar Acidizing Solvents vs. Xylene, The Better Paraffin Solution

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Organic deposits such as paraffin have long been an issue in many oil producing wells throughout the world. These deposits have been treated for years with some sort of solvent chemical such as Xylene. While Xylene is quite effective at dissolving and removing paraffin, it is not easily miscible in most acid treatments and it is extremely flammable. These two issues together make Xylene a dangerous choice for paraffin removal.

Fully miscible micellar acidizing solvents can offer a safer more effective solution. These micellar acidizing solvents are less flammable, offer solubilization of heavy hydrocarbons, reduce surface tension to remove water blocks, water wet formation matrix and are fully miscible in acid systems. Along with other benefits, the ability to be fully miscible when mixing them with acid systems, results in less volume of micellar acidizing solvents needed.

This paper will take a detailed look at what causes paraffin deposition and will explain how xylene and fully miscible micellar acidizing solvents dissolve paraffin deposits. It will also compare the benefits and challenges associated with each system. Case study and lab test data will be presented comparing both systems and the economics of both systems will be discussed.