

Mike Gunningham SPE Papers – Link: <https://www.onepetro.org/>

17677-MS IPTC Conference Paper	Back-flowing of Injection Wells	2014	Bowen, William B, Maersk Oil Qatar Benkovic, Robert, Maersk Oil Qatar AS Gunningham, Michael, Maersk Oil Qatar AS Jaafar, Mohammad Rushdan, Qatar Petroleum Ghozali, Muhammad, Qatar Petroleum Al-Sadah, Abdulla, Qatar Petroleum	<p>In the Al Shaheen (ALS) field offshore Qatar, injection wells have generally been back-flowed to remove solids introduced during drilling and stimulation, with the objective of enhancing injectivity.</p> <p>This is considered by many as "best-practice?? in the industry. Data from the early back-flow period for injectors and the early production period for producers has been reviewed to try to identify "clean-up?? events. Some apparently spontaneous rate increases were observed. Analysis of this data was found to be complicated because during the initial 20 days of production frequent choke size changes were made. Bottom-hole pressure data around the time the wells were opened was also found to be absent in most cases. An attempt to compare the injectivity of a few wells which were not back-flowed with analogues that were was also frustrated, due to variability of permeability and oil viscosity between wells. It was not possible to draw definitive conclusions.</p> <p>A new phase of drilling at ALS provides an opportunity to investigate the efficacy of back-flowing in a pre-mediated fashion. Special provisions will be made during the initial production period to evaluate whether or not the wells clean up. In addition a comparison will be made between the injection performance of pairs of injection wells which are located in areas with similar transport properties. For the injection well pairs, one injector will be back-flowed for a month while the other will be put on injection immediately after stimulation. In this manner it is hoped to demonstrate conclusively whether back-flow of ALS injectors enhances injectivity.</p>
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