

Field Production Data Collection, Analysis and Reporting Using Automated System

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Abstract : Various data points are constantly being measured in the production system, and due to the nature of the wells, these data points, such as pressure, temperature, water cut, etc., fluctuations are constant, which requires high frequency monitoring and collection. It is a very difficult task to analyze these parameters manually using spreadsheets and email. An automated system greatly enhances efficiency, reduce errors, the need for constant emails which take up disk space, and frees up time for the operator to perform other critical tasks. Various production data is being recorded in an oil field, and this huge volume of data can be seen as irrelevant to some, especially when viewed on its own with no context. In order to fully utilize all this information, it needs to be properly collected, verified and stored in one common place and analyzed for surveillance and monitoring purposes. This paper describes how data is recorded by different parties and departments in the field, and verified numerous times as it is being loaded into a repository. Once it is loaded, a final check is done before being entered into a production monitoring system. Once all this is collected, various calculations are performed to report allocated production. Calculated production data is used to report field production automatically. It is also used to monitor well and surface facility performance. Engineers can use this for their studies and analyses to ensure field is performing as it should be, predict and forecast production, and monitor any changes in wells that could affect field performance.

Keywords : automation, oil production, Cheleken, exploration and production (E&P), Caspian Sea, allocation, forecast

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