PREDICT-K "TIP OF THE MONTH"

Flow Control

Frequently when Predict-K users provide their files to gain support, I notice that a constant wellhead flow condition is being used to control production even though better data is available. Many users fail to input a more descriptive pressure history because of a lack of awareness of Predict-K features and how easily pressure information can be added. This task can be accomplished by changing the Flow Control under Model Parameters in Production Analysis Mode. By default, a constant surface pressure is used, which many users neglect to change.

Five options are available for flow control in Predict-K: Constant wellhead pressure, constant bottomhole pressure, production wellhead pressure, production bottomhole pressure, and production % drawdown. For the constant options, the user simply inputs the desired constant value below the flow control selection. Under the production control options, values for the control variable can be input for the entire production history. These values are input in the Production Data tab based on cumulative days of production.

Production Data

Time (days)	WHP (psi)	BHP (psi)	% Drawdown	Gas Rate (Mscf/d)	Oil Rate (STB/Day)	Water Rate (STB/Day)	Cum Prod (Mscf)

One important note is that true production data is not required to use this tab. A synthetic production history can be input that mimics the general production strategy of an operator's well. Using the production data tab is very easy. All of the available production pressures and rates can be pasted at one time directly from excel. The only requirement is that the order of the columns and unit selections are matched. Column order can be changed by simply dragging the columns and default units can be changed under preferences. Change units before pasting data. For more information on how to accomplish these two tasks, see the training videos at http://corelab.com/stimlab/training-videos or click on the links at the bottom of this tip.

By using a more representative flow control method, you will be able to match production results more easily and perform optimizations based on more realistic flow conditions. These changes will result in better Predict-K files and better decisions that have a larger impact on well results.

To view the Predict-K Tip of the Month archive please go to: http://www.corelab.com/stimlab/predictk-tip-of-the-month

To view our Predict-K training videos main page please go to: http://www.corelab.com/stimlab/training-videos

Predict-K Training Videos (opens in YouTube):

1. How to obtain your license for Predict-K and Proppant Manager

2. Predict-K Main Screen

3. Quick Entry

4. Predict-K General Structure

5. Creating a New Proppant Manager Database

6. Running the Proppant Manager Correlations

7. Exporting Proppant Manager Results to Predict-K

8. Baseline Conductivity   Demonstration Base Project for Videos 8 - 10

Stim-Lab Inc. | www.stimlab.com | 7118 N Hwy 81 | Duncan, OK 73533 | 580-252-4309