PREDICT-K "TIP OF THE MONTH"

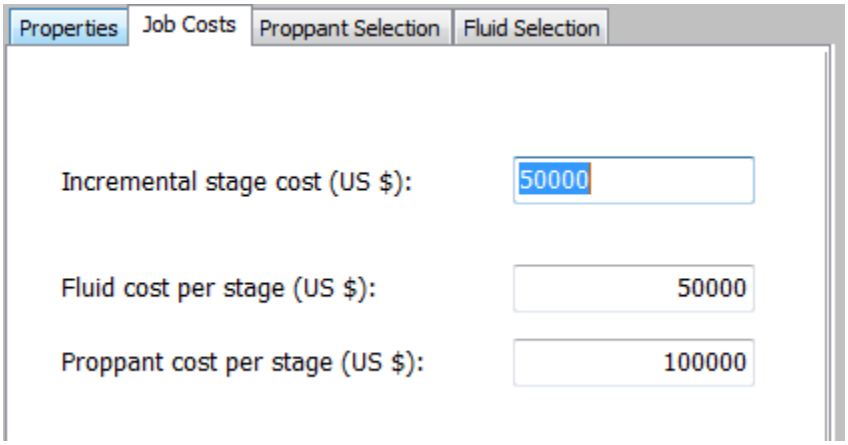
Economics Analysis in Predict-K

Because the economic success of any well is the most important well result, Predict-K production simulations include outputs for net present value. Some past tips have displayed this output, but the meaning of the various economic inputs has not been discussed.

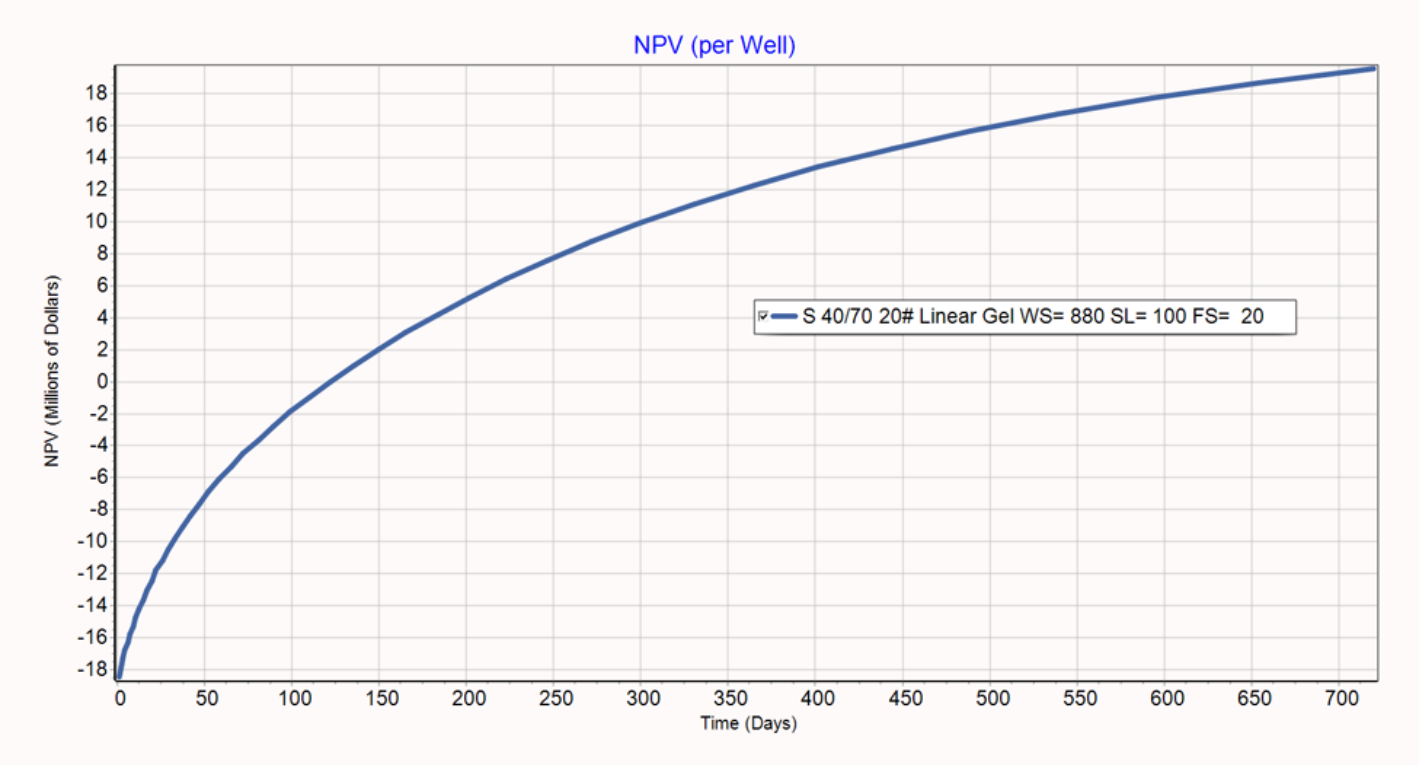
General well costs are included in the model parameters section of the well information tab. As is shown below, these include monthly well cost, total well cost, gas price, oil price, and annual discount ratio. The monthly well cost represents the various costs associated with producing a well long term and will continue to accumulate throughout the production simulation in Predict-K. Total well cost is the total capital investment associated with the simulated well except for costs associated with the fracturing treatment. Fracturing treatment costs are included elsewhere and should not be input here. Most users input the drilling and completion cost for everything that occurs before the fracturing treatment for this value. Oil and gas prices are fairly self-explanatory and are used to calculate the revenue from production. Annual discount ratio is used to calculate the time value of the investment in the well. This desired rate of return for the well can be used for this value.

Model Parameters	
Total prod. period (days)	720
Monthly well cost ($)	5000
Total wellcost ($)	4000000
Gas price ($/Mscf)	2.75
Oil price ($/STB)	50
Annual discount rate (%)	20
Maximum surface rate (STB/Day)	10000
Minimum oil rate (STB/Day)	0
Num of stress cycles	1
Flow control :	Const. WHP
Surface well pressure (psi)	800
Time factor:	1

The fracturing costs are included within the treatment options because different methods of fracturing the well will change the cost structure of the fracturing treatment. This cost is split into three categories much like the typical fracturing proposal. Incremental stage cost includes the additional cost resulting from added time on location for the additional stages in addition to charges related to plugging and perforating the new stages. Proppant costs and fluid costs are separated into separate categories as well. While the inputs in each of these fields will be used in the same way by Predict-K, itemizing the charges will make it easier to create additional treatments with different fracturing treatment types and understand where the change in fracturing costs occur.



Once all of these inputs are included, Predict-K will calculate and output the net present value of the well as is shown below. With the new version of Predict-K, this can also be shown on a per section basis which will include the total value of all wells that can be fit in a mile section based on the input well spacing.



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3. Quick Entry
4. Predict-K General Structure
5. Creating a New Proppant Manager Database
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7. Exporting Proppant Manager Results to Predict-K
8. Baseline Conductivity Demonstration Base Project for Videos 8 - 10
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10. Production Analysis Overview

11. Adding Production Data to Predict-K Demonstration Base Project for Video 11 Simulated Production Data Excel File
12. Matching Production Data
13. Changing Default Units
14. Treatment Options