



PREDICT-K “TIP OF THE MONTH”

Sieve Distribution

At the end of this month, a new version of Predict-K will be introduced at the Proppant Consortium meeting that will include improved workflows and displays for horizontal well optimization. The tips starting next month and the months following will highlight these new changes and how you can benefit from them. With the magnitude of this change, this month’s tip will cover an important factor whose input method won’t be changed by the new update, the proppant sieve distribution.

The single most important factor determining proppant pack permeability is the median proppant diameter. Based on significant testing performed for the Proppant Consortium, we have developed correlations to correct permeability values for changes in sieve distribution. To take advantage of this feature, you will need to change the sieve distribution in the proppant properties section of Predict-K.

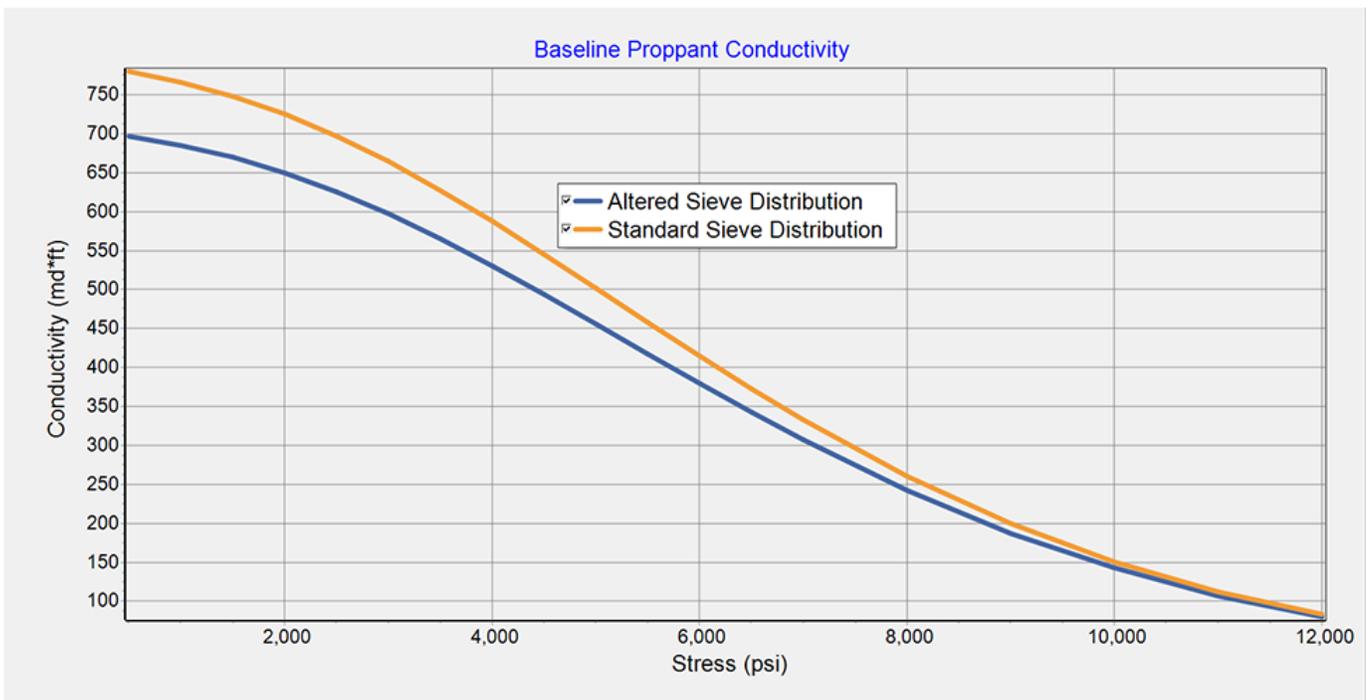
First, open the treatment properties screen by clicking on the desired treatment and then click on the proppant selection tab. The third subheading down is the Mesh Distribution (wt %) section where you can input the sieve distribution. By clicking on the + sign, you can expand this section.

The screenshot shows a software window titled "Predict-K Baseline Treatment Options". Inside, there is a "Treatment Options" panel with a "Properties" tab and a "Proppant Selection" sub-tab. A table displays proppant information:

| Proppant Information | I |
|-----------------------------------|---------------------------|
| Name | BMC ATLAS CRC-E 30/50 (A) |
| Type | cur. resin/sand |
| Mesh Size | |
| Physical Properties | |
| Mesh Distribution (wt. %) | |
| Correlation Constants | |
| Permeability at stress (d) | |
| Generated Fines at Stress (wt...) | |

For this example, I reduced the proppant size of a 30/50 CRC by taking 10% of the proppant from the 35 sieve and moving it to the 50 sieve. The difference in conductivity will show the potential performance difference when a proppant does not meet API standards. The difference is around 10% at low stress and eventually drops to closer to 5% at 10,000 psi.

| | | |
|----------|------|----------------|
| Size 20 | 0 | |
| Size 25 | 0 | |
| Size 30 | 3.3 | |
| Size 35 | 12 | Originally 22 |
| Size 40 | 46.5 | |
| Size 45 | 20.1 | |
| Size 50 | 16.8 | Originally 6.8 |
| Size 60 | 1.2 | |
| Size 70 | 0.1 | |
| Size 80 | 0 | |
| Size 100 | 0 | |



These Predict-K tips are emailed so they can be easily forwarded to others that may not be on the email distribution list. We hope you enjoy these tips and find them useful, but if you would like to be removed from this list please click the Unsubscribe link below. A new email will be created using your default email client. If the link does not work for you simply reply to this email with 'Unsubscribe' in the subject line and you will be removed from the list. If this email was forwarded to you and you would like to be added to the distribution list, please forward this email to Stimlab.Contact@corelab.com with 'Subscribe' in the subject line.

[Unsubscribe from Predict-K Tip of the Month](#)

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](#)
9. [Dynamic Conductivity](#)
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](#)

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