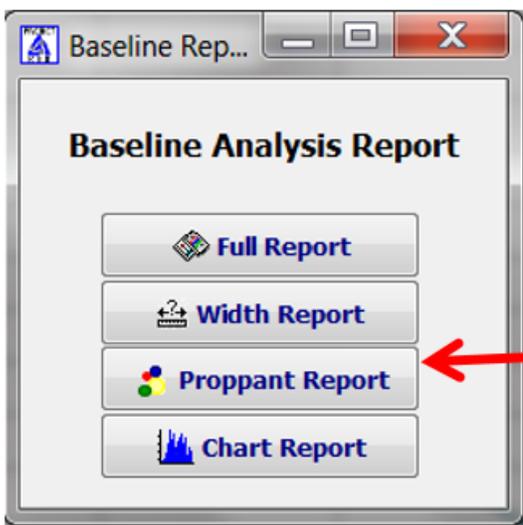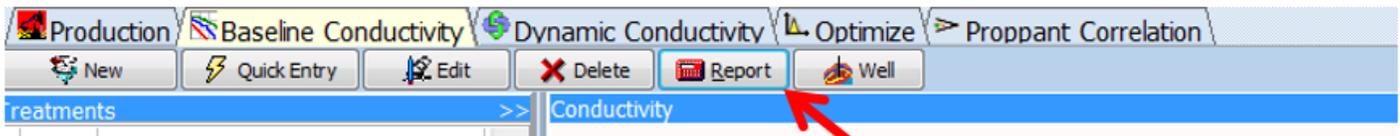# PREDICT-K "TIP OF THE MONTH"

Proppant Report

The various reports in Predict-K can be very helpful in understanding simulation results and diagnosing why results may be different from your initial expectations. One of those reports is the proppant report in Baseline Analysis mode which provides information about the proppants selected for your treatments.

Just like all of the reports, click on the report button at the top of the screen to bring up the report selection box and then select proppant report to open the proppant report.

Below is an example of the report for a 100 Mesh sand. Quite a bit of data is available describing the physical properties of the proppant in addition to many of the coefficients that Predict-K uses to model the behavior of the proppant under stress and flowing conditions. You can use this data in a number of ways. First, it will give you a sense of the general properties of that proppant for quality control and informational purposes. Also if you have imported this proppant from Proppant Manager, you can check the various correlations constants to ensure that they are in a reasonable range compared to other similar products. This is especially beneficial when unreasonable or confusing results are coming out of Predict-K. Finally, you can use the list of values to check your understanding of how Predict-K works by making sure you know whether the different terms affect the model results and how they affect the results. Answers to those questions can be found by viewing the training videos that are linked at the bottom of this email or exploring the training materials posted on the Proppant Consortium website.

As a final note, since this report is only available in Baseline Analysis mode, you will only be able to use this report to understand production simulation results if you use quick entry to set up your treatments. This preferred set up method will reduce mistakes, accelerate the entire Predict-K process and ensure that all of the Predict-K features are working together and available.
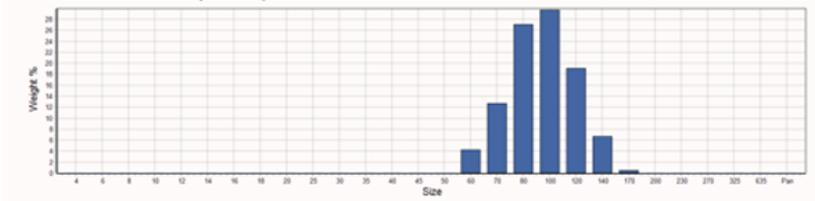
PREDICT-K
Baseline Proppant Report
Core Lab
RESERVOIR OPTIMIZATION

Treatment: Report Badger Sand 100 Mesh (A)

Proppant:	Badger Sand 100 Mesh (A)	**Proppant Conc (lb/sq ft):**	1.00

Mesh Distribution (wt. %)

Physical Properties

Type:	sand	Porosity (frac):	0.3807	Packed Bed Conc. (frac):	0.6193
Sphericity:	0.7	Specific Gravity:	2.63		
Roundness:	0.7	Bulk Density:	1.56		
Turbidity:	19	Min. Mesh Size:	140		
Mean Diameter (in):	0.00680	Max. Mesh Size:	50	Acid Solubility (wt %):	1.129

Correlation Constants

Sieve Correction Constants		Pack Width Constants		Permeability Constants	
SieveCorrA:	0.8666	WidthCorrectA:	1.1776E-6	Sharp:	1.9487
TSlope:	1387.0	WidthCorrectB:	9.5192E-7	Exp:	1.9654
		Width at 1 lb/ft2 (in):	0.1179	CyclExpSlope:	-0.04
				KMin:	0.1
				Unstressed perm (d):	20.654

Critical Transition Stress Const.		Non-Darcy Constants	
TCrit:	290.0	Tau:	29.6439
Crit. Trans. Stress (psi):	10388.685	Kmr:	0.0120
		Exponent:	1.0

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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