Super Slug

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Super Slug is a commercial Windows-based program that calculates aquifer transmissivity and hydraulic conductivity from slug test data. The program uses the four most popular slug-test data analysis methods: 1) Cooper, Bredehoeft, Papadopoulos; 2) Bouwer and Rice; 3) Hvorslev; and 4) Ferris and Knowles. Super Slug handles both falling and rising head tests, and the required input is simple compared to other aquifer test programs.

Data entry is easy; data can be entered or modified at any time. Super Slug can read time and drawdown values directly from digital data logger files in most cases without editing, and can import an AQTESOLV file in DOS format. In Super Slug, the term “drawdown” does not refer to a change in hydraulic head, but to actual water-level measurements made during the test. It would be clearer if the term “drawdown” was changed to “heads” or “measurements.”

One of the best features of Super Slug is its flexibility for fitting the model to the data. Users can evaluate which solution better fits their field data simply by switching to each option. When graphical methods are used, the user can easily exclude unwanted points at the beginning and end of the test to obtain a better fit. Super Slug also has a convenient drag-and-drop feature for matching a type curve to data for the Cooper method. When the automatic option is used, Super Slug calculates aquifer parameters without user interaction and results are displayed on the screen in a report format.

Using a simple data set, easy-to-use Super Slug produced similar values of hydraulic conductivity as the more sophisticated program, AQTESOLV, 8.71x10⁻³ m/d compared to AQTESOLV’s 8.21x10⁻³ m/d.


### Review of SUPER SLUG

**Ease of Use:**

- **GUI:**
  - **Application:** Slug Test Analysis
  - **Output/Plotting:**
  - **Documentation:**
  - **Speed:**
  - **OVERALL RATING:**

**Best Features**

- Data Control and Adjustments

**Worst Feature**

- Documentation

**Rating System:**

- **Excellent**
- **Good**
- **Fair**
- **Poor**