

# HPT

## Hydraulic Profiling Tool

The **Hydraulic Profiling Tool (HPT)** is a logging tool that measures the pressure required to inject a flow of water into the soil as the probe is advanced into the subsurface.



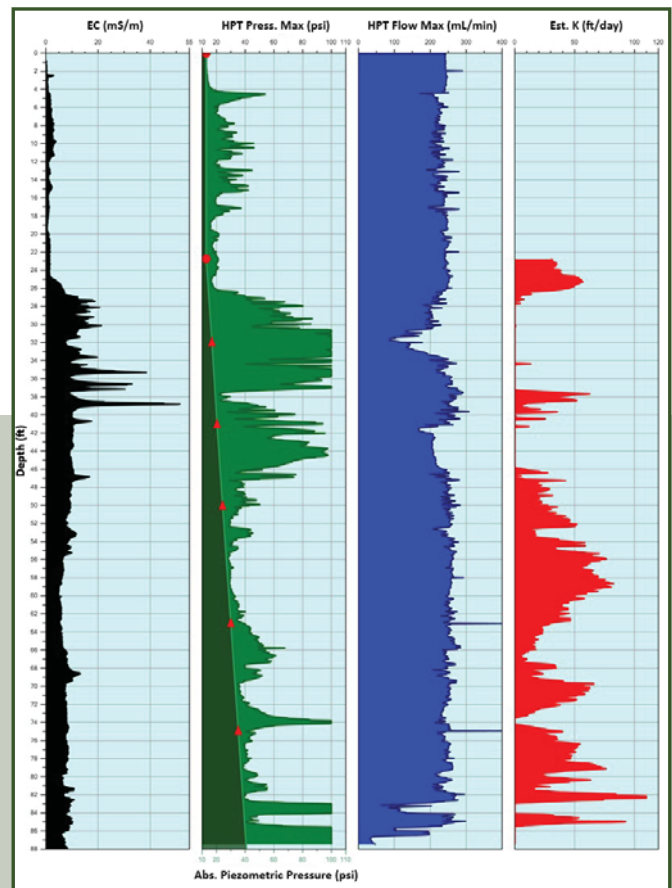
This injection pressure log is an excellent indicator of formation permeability. In addition to measurement of injection pressure, the HPT can also be used to measure hydrostatic pressure under the zero flow condition. This allows the development of a hydrostatic pressure graph for the log and prediction of the position of the water table.

### Features of the HPT:

- Produces a detailed hydrostratigraphic log
- Can be used to estimate hydraulic conductivity in the saturated zone
- Logs HPT injection pressure and electrical conductivity (EC)
- Measures hydrostatic pressure and depth to water table
- Identification of contaminant storage and transport zones
- Available with MIP (**MiHpt**) and laser-induced fluorescence (**UVOST-HP** and **TarGOST-HP**) for comprehensive subsurface characterization using a single tool

### HPT Injection Pressure Logs

The primary log from the HPT system is the log of HPT injection pressure with depth. Injection pressure correlates well with formation permeability and contributes to the chief use of the HPT: it gives the HPT user a view of permeability with depth. With this log, an experienced practitioner can determine permeable zones, potential contaminant storage or transport zones, zones that will yield groundwater to in-situ samplers, and zones to set monitoring or production wells.



**M**easurement of the injection pressure in the HPT system is made using a downhole pressure transducer. Use of a transducer in the downhole position allows measurement of the injection pressure at the HPT screen only and excludes frictional losses through the flow tube of the HPT trunkline. The downhole transducer position is also necessary for making hydrostatic pressure measurements at the probe.



www.dakotatechnologies.com  
 info@dakotatechnologies.com  
 701.237.4908

Atlanta, GA  
 Boston, MA  
 Minneapolis, MN  
 Morris, MN  
 Kansas City, MO  
 Fargo, ND  
 Columbus, OH  
 Charleston, SC  
 Virginia Beach, VA