APAGEO

In situ permeability test in soils according to NF P 94-131 and the ISO 22282-3 standards

LugeoTEST®

General presentation

The Lugeon water test is an in situ test of formation permeability applicable to fractured rock, masonry and cohesive soil with mechanical resistance corresponding to the water pressure applied during testing.

The originality of LugeoTEST®

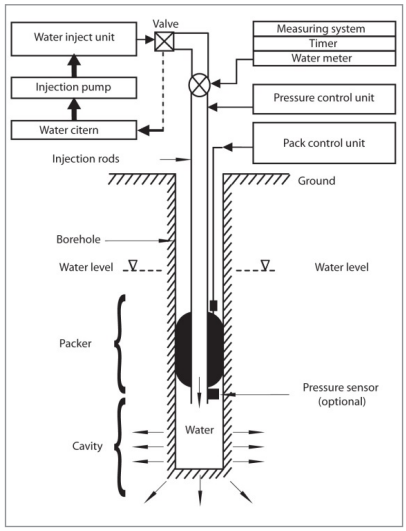
The automatic LugeoTEST® allows the realization of Lugeon test ordered by GeoBOX®. GeoBOX® and its control unit allows to manage all the procedures required to perform the Lugeon test : inflating and bleeding the packer, piloting the injection line using process described in the standard NF P 94-131 and NF EN ISO 22282-3.

Standard version with manual data acquisition also available

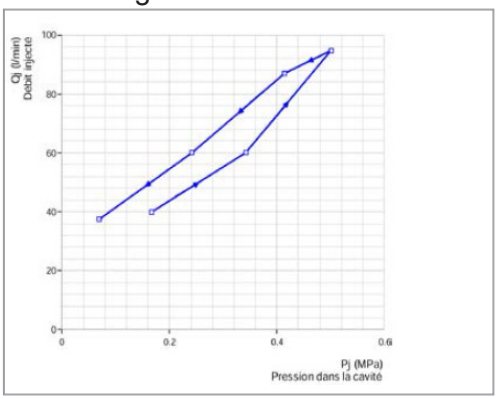
LugeoTEST® is made of :

According to NF P 94-131 and the EN ISO 22282-3 standards, the measuring test is made of a control box dedicated to inflate the packer and to pilot the water pressure injection, a complete injection line equipped with the pressure regulator and a flow meter and a pressure measuring system.

The Lugeon test



In order to perform the test, a Triplex pump with a 100l/min at 11 bar pressure is necessary as wall as a packer, extension rods and a water level indicator.
The Lugeon test intended to evaluate the possibility of circulation of water in the ground and to detect cracks or heterogeneities.



LugeoTEST®

Implementation

1 Place the packer in the cavity and connect to the lugeotest injection line.

A cavity is realized intoa borehole, and then connectionto the surface through an injection tube. The cavity comprises a drilling portion between the bottom and the packer (or using a double packer) which limits the upper part.

2 Enter the test parameters in **GeoBOX®** and order the execution.

As soon as the packer is placed at the desired level, **LugeoTEST®** executes the procedure of inflating and deflating the packer, ordered by GeoBOX®. The operator enters then the test parameters in GeoBOX® (1st step pressure, number of step, etc...) and orders through WIFI the execution.
Thus, the injection line is automatically conducted. The variation of pressure steps is also automated. During the entire process, GeoBOX® offers a monitoring of the test on its screen (real time display of the data, evolution, curve, etc...). At any time, the operator can decide to stop the test from GeoBOX®

3 Follow the test in real time on **GeoBOX®.** Print or save data on a USB key. Transfer data to the office via 4G system (option).

When the test is over, data are saved on GeoBOX® (no time limit). Results can be printed directly on GeoBOX® printer (GeoBOX® premium), saved on a USB key or sent to the office via 4G system (option).

Options

- Pressure down-th--hole sensor, according to new ISO standard and to avoid doing the calibration test.
- Dedicated display

Test treatment

Test can be transferred via a USB key or 4G system (option) into our geotechnical data processing software GeoVISION®.

www.apageo.com

ZA de Gomberville - 1 rue Salvador Allende - 78114 Magny les Hameaux - FRANCE
Tél : +33 (0)1 30 52 35 42 – Fax : +33 (0)1 30 52 30 28 – info@apageo.com