Training Equipment

Designed for hands-on experiments on core analysis

Over the past 10 years, CYDAREX has developed a series of equipment to teach conventional (CCA) and special core analysis (SCAL).

- **More economical than standard laboratory equipment, but using the same principles; designed to be easy to use, and to visualize flows.**
- **Procedures optimized to provide quick results, within a few hours (Kr) to a few days (Pc/RI).**
- **No safety issues: pressure under 7 bar; use of water and pharmaceutical paraffin oil.**

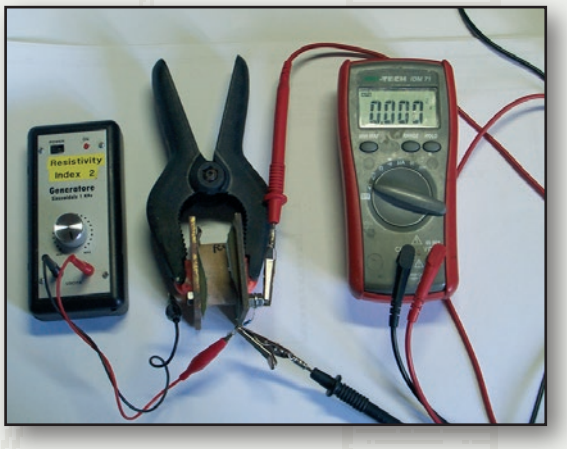
CCA: Porosity, Gas Permeability, and Formation Factor

Porosity Measurement, from volume and density, using caliper and balance.

Gas Permeability, using a surface permeameter, measured from transient pressure decay. Data acquisition and interpretation using CYDAR.

Formation factor is derived from the measurement of electrical resistivity of the plug saturated with brine.

Plugs for porosity, air permeability, and formation factor.



Mesurements of formation factor.

Pc/RI - Capillary Pressure and Resistivity Index:

> Porous plate method, oil/water, up to 7 bar.

> Resistivity index using 2 and 4 electrodes methods.

Pc/RI core holder and injection device.

08/2017

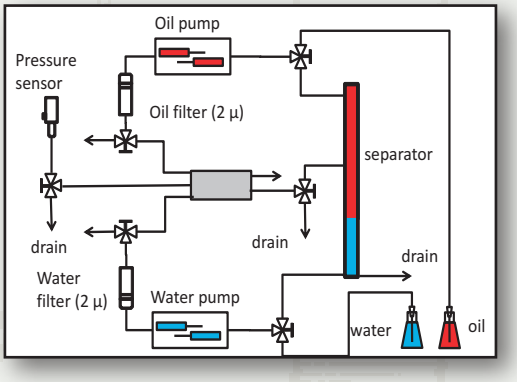
SCAL: Coreflood equipment

- > Liquid Permeability Experiments.
- > Tracer Test Experiments.
- > Two-Phase Flow Experiments in steady state and unsteady state for relative permeabilities Kr.
- > Principle of laboratory data acquisition, troubleshooting.

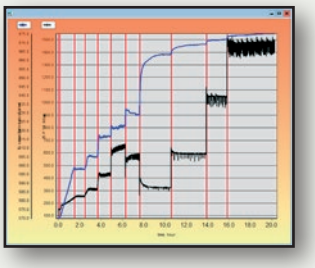
Core holder and plugs, with properties allowing fast measurements.

Separator with accurate level measurement by capacitance, with continuous recording.

Injection system, with pressure sensor and core holder.



Schematic view of SCAL equipment.



Exemple of data recordings.

Data acquisition board, interfaced with software CYDAR.