

How it works

Sorbisense technology is based on smart porous nano-materials. Buckets of soil and water, pumping, electricity, and vacuum are not required.

1. The sampler contains a porous cartridge that is in capillary contact with its surroundings (soil, groundwater, or surface water). The cartridge contains an adsorbent selected to capture the solutes of interests, and a partially soluble tracer compound.
2. When water passes the cartridge, the solutes of interest are adsorbed, and the tracer partially dissolves in proportion to the volume of water passing.
3. After installation, the cartridge is brought to the laboratory for analysis. The adsorbed chemicals are eluted and the solute mass, M , is determined with routine methods. Likewise, the amount of remaining tracer compound is measured and through its solubility product related to the volume V passing the cartridge during the installation period.
4. The ratio M / V gives the flow-proportional concentration of the solute during installation.

