

Office of Surface Mining Reclamation and Enforcement



Technical Innovation and Professional Services Team (TIPS)

In-Situ smarTROLL Water-Quality Meter



Description: The smarTROLL MP handheld instrument has a combined pH/ORP sensor and other sensors for temperature, conductivity, pressure, and dissolved oxygen.

The completely submersible sensor-equipped probe is connected to the rechargeable power pack by a 5-foot cable. Sensor readings are transmitted by Bluetooth from the power pack to the Android tablet. The tablet is loaded with In-Situ's VuSitu software.

<u>Uses:</u> The unit conveniently measures multiple water-quality characteristics simultaneously and stores those data for later download.

Maintenance: The dissolved oxygen optical sensor with RDO Fast Cap has a useful life of 12 to 15 months once it is installed in the probe. The VuSitu software will give an alert when the RDO Fast Cap needs to be replaced.

Drain and refill the reference-junction electrolyte of the pH/ORP sensor every 5 to 6 months.

Keep pH/ORP sensor in a moist environment—immersed in clean tap water (NOT distilled water) for up to a week or removed from the probe body and placed in its storage bottle with enough suitable storage solution to cover the glass sensor bulb.

Check-out & Contact Information:

This unit is available from the Technical Services Branch of the Mid-Continent Region of OSMRE in Alton, Illinois. Equipment is available on a case-by-case basis depending on demand. Some training on the use of the equipment may be required. Contact Brian Hicks at 202-513-0383 or at bhicks@osmre.gov for more information.

Equipment on loan will be temporarily transferred using a Department of the Interior Property Pass, Standard Form DI-1934, signed by the appropriate responsible individuals. OSMRE will generally pay for delivery to the requestor's office. The cost of return delivery will be borne by the requesting office. Some equipment is oversized or may need special handling.