



# YOUR EYES IN THE FIELD



**IN-SITU RENTALS  
AND SALES**

**Environmental Monitoring  
Equipment**

[www.in-situ.com](http://www.in-situ.com)



**WITH IN-SITU,  
YOU TRUST YOUR  
WATER MONITORING  
EQUIPMENT  
AND DATA TO BE  
ACCURATE AND RELIABLE,  
EVERY TIME. FROM  
WATER**

**QUALITY AND LEVEL,  
TO FLOW, TELEMETRY,  
AND DATA SERVICES,  
WE'VE GOT YOU  
COVERED.**

**WE'RE IN THE FIELD 24/7,  
SO YOU DON'T  
HAVE TO BE.**

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# 01

## SALES AND RENTAL SOLUTIONS

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Total Solution  
Easy Integration  
Full Support





SALES AND RENTAL SOLUTIONS



COMPLETE PROJECT SOLUTIONS

There's a perfect solution for your water monitoring equipment needs, and we're here to help you find it. From aquifer characterization and remediation, to energy, mining, and research, In-Situ is known for innovating reliable, top-quality water monitoring solutions that reduce field visits and equipment costs. We're committed to the customer experience. Your project deserves the best equipment and support, and we understand that every job is unique. You'll find the total solution for any project or budget with In-Situ's durable, field-tested flow, water quality and water level monitoring equipment.

We are the Manufacturer

Our team of experts is here for you - every step of the way. Most of our rental equipment is built by our factory technicians at our Fort Collins, Colorado factory, and an on-site rental facility ensures you receive the best-maintained equipment in the industry. All rental equipment is thoroughly cleaned, decontaminated, calibrated, and factory-certified to ensure proper operation on the job site, every time.

- **Calibration** - Every purchased or rented instrument is calibrated by factory technicians at our facility to give you the most reliable data possible.
- **Maximum reliability** - We've engineered our growing line of products to minimize hassle. Internal data logging, extended battery life, drift-resistant sensors, and active and passive antifouling systems are just some of the features that ensure years of performance in fresh or saltwater applications.
- **Inventory** - We maintain a large selection of the newest equipment and technology, tested, double-checked, and ready for quick turnaround.
- **Data services** - From telemetry to data services, our knowledgeable team will work with you to select the right equipment to meet your data and budget requirements.

Total Support

- **24/7 technical and application support** - Included with rentals or purchases to keep your project running smoothly by giving you the answers you need, when you need them.
- **Same day shipping** - With our large inventory of In-Situ and third-party equipment on-hand, you can order by 2 p.m. (MT) for same day shipping on purchases, and 4 p.m. (MT) for next day delivery on rentals.
- **Complimentary equipment consultations** - Minimize time spent researching project needs. Let us guide you through the equipment selection process so you get the right equipment for the job.



WE MAKE SURE EVERY INSTRUMENT IS PROPERLY MAINTAINED AND CALIBRATED TO THE HIGHEST POSSIBLE ACCURACY. WE'RE HERE FOR YOU FROM THE FIELD TO THE OFFICE, MAKING GATHERING AND REPORTING DECISION QUALITY DATA EASIER THAN EVER BEFORE.

Easy Integration

While we're known for high-accuracy water level and quality instrumentation, we're also expanding our portfolio of products and services to simplify the process of gathering decision-quality data via easy integration with:

- **Tube and Cube Cellular Telemetry Systems** - Wirelessly send data anywhere to any email account or ftp server you wish and real-time parameter threshold alerts keep you updated on important changes.
- **HydroVu Data Services** - Our cloud-based platform gives you up-to-date access to your data while simplifying the task of filtering the data for important results. Easy setup, viewing, and analysis of data means you get more from you instruments for less time and money.
- **VuSitu and iSitu Mobile Apps** - Industry-leading Android and iOS smartphone apps eliminate the need for bulky, expensive, handheld meters. Simplify data collection and sharing, and tag sites with photos and GPS coordinates.
- **Win-Situ software** - Our intuitive software offers a simple and painless experience for setting up your instrument and retrieving data logs.



CUSTOMIZED SOLUTIONS FOR YOUR APPLICATION

From professional-grade level data loggers, multiparameter water quality instruments, cables, water level tapes, telemetry, handhelds, sampling pumps, flow and many accessories, we offer the equipment needed for a broad range of environmental monitoring projects.

Don't just take our word for it...

*"I have rented from In-Situ for over 6 years and I have confidence that equipment from their rental pool will arrive in good working condition. They have a comprehensive decontamination and maintenance program that I have come to trust."* - Stephen F.

*"The biggest thing is that the equipment is in good shape and working order, and that it's properly maintained. We've used equipment from other places that came to us and it didn't work right. That costs us more than anything because you have something planned, and then have to shut it down for a couple days due to equipment failure."* - Ryan A.

GROUNDWATER MANAGEMENT

- AQUIFER CHARACTERIZATION PUMP AND SLUG TESTING
- LONG-TERM MONITORING
- AQUIFER STORAGE AND RECOVERY MANAGEMENT
- SALTWATER INTRUSION TRACKING

WATER QUALITY ANALYSIS

- NPDES PERMITS AND STORMWATER OUTFALL MONITORING
- TMDL PROGRAMS
- LAKE AND RESERVOIR PROFILING

REAL-TIME GEOCHEMICAL MONITORING

- ISCO, ISCR, BIOSPARGING, NATURAL ATTENUATION
- SOIL VAPOR EXTRACTION
- LOW-FLOW GROUNDWATER SAMPLING





## SALES AND RENTAL SOLUTIONS

### IN-SITU RENTAL OPTIONS

There are several reasons you might consider renting environmental sampling equipment: maybe it just makes more sense to rent equipment for a project rather than buy it, or perhaps you want to try the product before you make the commitment. Whatever the reason, and whatever the project, consider the following benefits of going directly to the manufacturer for environmental equipment rentals:

- **It's reliable** - Renting directly from the factory means you're guaranteed to get the best-maintained equipment in the industry. You will receive equipment that is ready to work as hard as you do, which means you can focus on collecting accurate data instead of troubleshooting equipment problems.
- **It's quick** - Call by 4:00 p.m. MT and your equipment will be on your doorstep or jobsite the next morning. Rentals are available for days, weeks, or months at a time. Large rental? Need a high volume of a specific product? No problem! We maintain a huge inventory of water level and water quality testing equipment and supplies for immediate shipment.
- **It's easy** - From product selection to technical support, application specialists are ready to provide their expertise so you get the equipment and support you need. We don't just ship instrumentation - we provide solutions.

### Rent-to-Own

- **For current instrument models, previously owned and used equipment** that meet all factory specifications.
- **Fixed monthly rate** based on the term of rental.
- **Maintenance and repair is included** in your fixed rate during the rental period.
- **Simplify budgeting** with no upfront capital costs or amortization for your project.

### Long-Term Discount

- **Long-term options** are available if you don't want to purchase the equipment. Inquire about available discounts to improve your project's bottom line.
- **Consult** with our knowledgeable team to find both rental and purchase options for your unique large projects.

### Prepaid Rental Returns

- **Easy returns** with pre-paid return shipping. Simply attach the pre-paid label to your package and take it to your nearest shipment center.
- **Available to U.S. customers only.**

### RENT



For current U.S. rental pricing, please email [sales@in-situ.com](mailto:sales@in-situ.com) or visit [go.in-situ.com/rental-pricing](http://go.in-situ.com/rental-pricing).

### FACTORY SERVICE

#### Reliable Calibration by the Experts

As an instrument ages, a factory recalibration can return it to original factory specifications. It's more than just a calibration check, In-Situ's professional calibration service always includes an initial overall evaluation of the instrument. Calibration is performed with standards traceable to the National Institute of Standards and Technology (NIST®) where applicable. The standard and specific calibration procedure for each instrument and cable type includes pressure and temperature testing in environmental test chambers and some minor repair work.

#### Extended Warranty Programs\*\*

##### Level TROLL Instrument Extended Warranty Programs

- 1 - Year Extended Warranty (total 2-year warranty)...\$102
- 2 - Year Extended Warranty (total 3-year warranty)...\$135

##### Aqua TROLL Instrument Extended Warranty Programs

- 1 - Year Extended Warranty (total 2-year warranty)...\$175
- 2 - Year Extended Warranty (total 3-year warranty)...\$270
- 3 - Year Extended Warranty (total 4-year warranty)...\$354

##### Aqua TROLL 500/600 Extended Warranty Programs

- 1 - Year Extended Warranty (total 2-year warranty)...\$495
- 2 - Year Extended Warranty (total 3-year warranty)...\$995
- 3 - Year Extended Warranty (total 4-year warranty)...\$1,495

### Calibration Services Pricing Schedule

#### Aqua TROLL® 100/200 Instrument Calibration

Includes operational checks, firmware upgrades, and calibration of conductivity and pressure sensors to original factory specifications...100/\$219 & 200/\$278

#### Aqua TROLL® 500/600 Instrument Calibration

Calibration of factory-installed sensors (temperature and pressure) includes operational checks, hardware upgrades, calibration, and testing plus replacement of dust caps, filters, desiccants, and batteries as needed...\$338

#### Level TROLL® Instrument Calibration

Includes operational checks, firmware upgrades, and calibration of pressure sensor to factory specifications...\$219

#### PXD-261

Includes operational checks, calibration, testing, and replacement of dust caps, filters, and desiccants as needed...\$289

### 7-Day Service Policy\*

Preparing for your next project and want to ensure that equipment is working properly? Let In-Situ service technicians tune up your instruments. With quick turnaround times, you'll be prepared for your next deployment. If we don't ship your instrument back on the seventh day after approval/pre-approval\*—all service is free.

\* For complete details on our service policy, please read the U.S. Return Materials Authorization form available at [www.in-situ.com/Return\\_authorization](http://www.in-situ.com/Return_authorization).

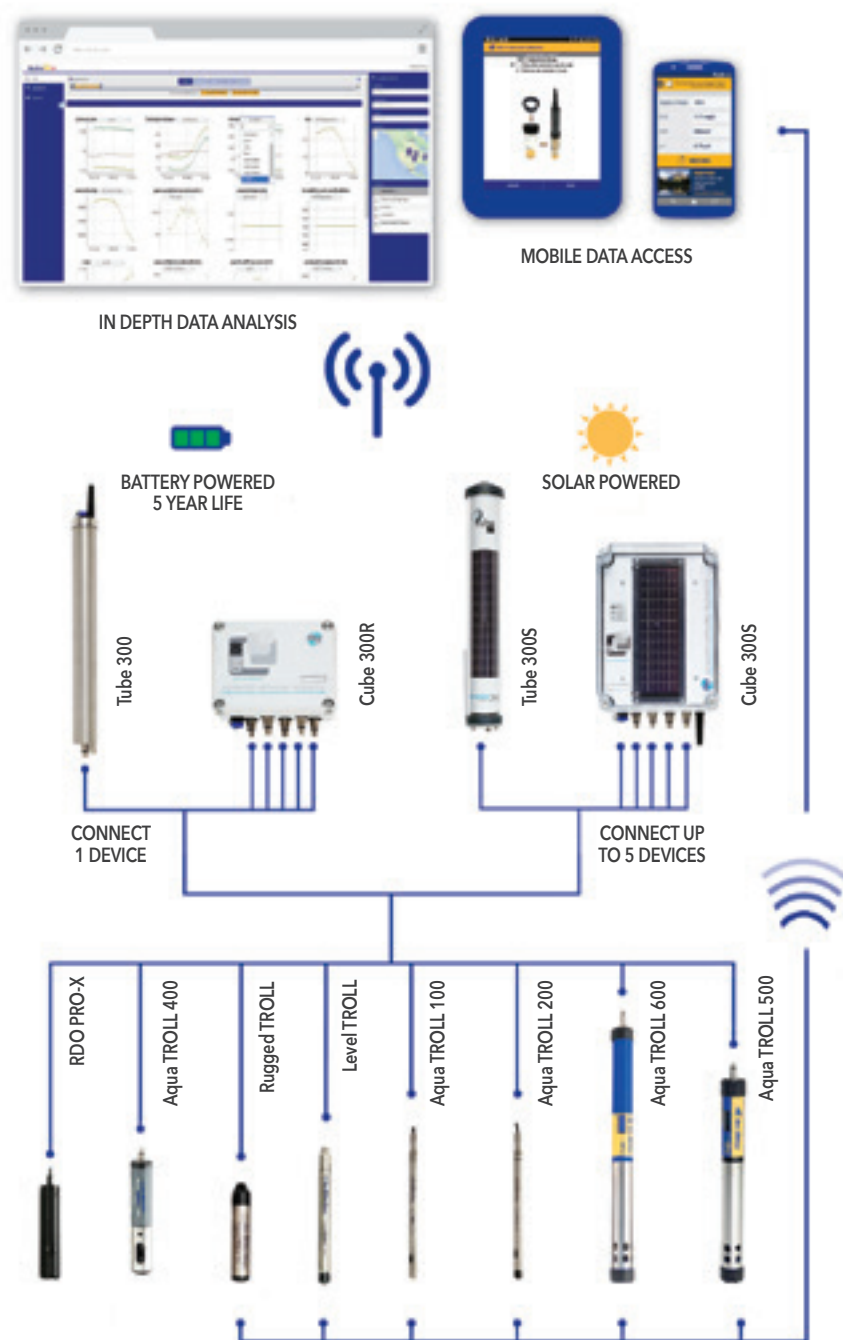
\*\* Extended warranty programs must be purchased within 1 year of instrument purchase. Special maintenance program pricing available only while instrument is under warranty. Prices are subject to change without notice.



## SALES AND RENTAL SOLUTIONS

**HydroVu™**  
The data you need, how you want it.

**VuSitu™**



### REMOTE WATER MONITORING SOLUTION

Simple, user-friendly experience is at the core of everything we do, and we make sure to maintain that in both our hardware and software. Our instruments, telemetry, and data services platform were designed to work together. Even the most junior person on your staff can setup and get the data you need, every time.

As you review this catalog, use the Key Features and Accessories guide (right) for finding an instrument for your application. For our latest offerings, spec sheets, technical notes, and videos, visit us at [www.in-situ.com](http://www.in-situ.com).

### DATA SERVICES

#### HydroVu™ Data Services:

- Organize multiple projects, users and instruments in one cloud-based location.
- Secure, real-time access to decision-quality data anywhere, anytime.
- Simplify the task of filtering data for important results.

### WIRELESS TELEMETRY

- Economical and secure wireless monitoring systems for real-time site feedback. Pulse and 4-20 mA options.
- In-device alarms, plus automated data, barometric pressure compensation, tampering, and malfunction alerts.
- Compact designs for in-well or networking, depending on your unique monitoring deployment.

### INSTRUMENTS

#### Water Monitoring Instruments:

- Field-ready durability with accurate results in even the harshest applications.
- Easy-to-use spot checking handhelds with mobile device technology.
- Long-term monitoring probes with extended battery life and stable sensor technology.

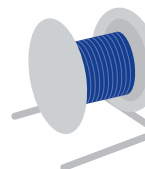
## SALES AND RENTAL SOLUTIONS

### ANTIFOULING



Prevents fouling from occurring around the probe's sensing area in coastal environments and high-fouling sites with a dual-sided wiper or specially formulated copper guard. Improve the accuracy of your data and extend the length of your deployment.

### RUGGED CABLE SYSTEM



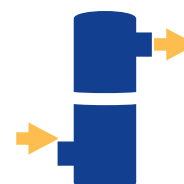
Durable, long-lasting cables come in custom lengths and provide real-time data communication. Manufactured to endure harsh environments, they deliver high accuracy, precision, and reliability for years. Patented twist-lock connectors provide easy attachment and detachment and protect your investment.

### INTERNAL BATTERY POWER



Replaceable alkaline or internally sealed lithium battery power for frequent fast sampling or longterm deployments. No external power is required, although it is an option (except on Rugged TROLL 100).

### LOW-FLOW SYSTEMS



Use your smartphone or tablet to automate the collection of well and pumping information, monitor and record the stabilization of key water quality parameters, and automatically generate calibration and sample reports to conform to federal and regional regulations.

### INTERNAL MEMORY



Internal 4 MB memory stores up to 250,000 data points, and 2 MB memory stores up to 120,000 data points.

### SPECIALIZED LOGGING MODES



Advanced logging modes for specialized applications. In addition to linear, fast linear, and event, these products also include step linear, linear average, and true logarithmic modes.

### RDO FAST CAP



The fastest responding optical RDO sensor on the market, specifically designed for spotchecking applications. When the cap expires, simply snap it off and pop on a new one.

### TELEMETRY CAPABLE



Get real-time feedback from your instruments with cellular device reporting and in-device alarms from the Tube and Cube Telemetry systems. Features include 5+ year battery life, optional in-well deployment, automatic barometric compensation, and optional built-in solar panels.

### INTERNAL DATA LOGGING



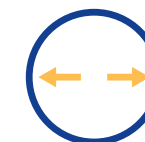
Internal data logging for continuous monitoring. Does not require an external data logger.

### MOBILE APP FUNCTIONALITY



With the iSitu™ Mobile App for iOS™ and the VuSitu™ Mobile App for Android™, there's no need for expensive, bulky handheld computers to read your sensors. Use your smartphone or tablet to quickly find and recognize each of your sites, and instantly view, download, and share data.

### NARROW DIAMETER DESIGN



Compact design fits narrow diameter wells. Sub-1 inch diameter instruments measure 0.72 inches (1.83 cm), and sub-2 inch instruments measure 1.03 inches (2.62 cm).

### BLUETOOTH COMMUNICATIONS



Integrated Bluetooth means fewer cables, simple setup, and quick data log downloads.



# 02

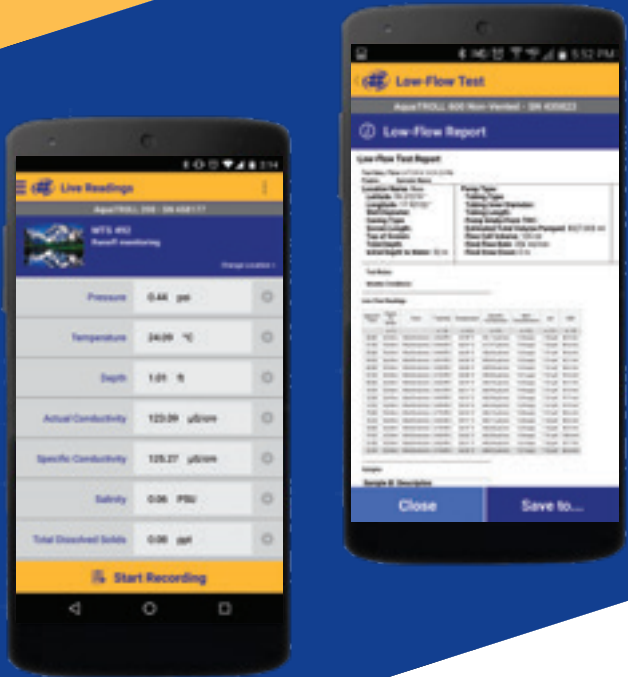
## WATER LEVEL MONITORING

Water Level Loggers,  
Level Meters &  
Monitoring System





WATER LEVEL MONITORING



WE OFFER A VARIETY OF ACCURATE, RELIABLE WATER LEVEL LOGGERS AND METERS FOR ANY PROJECT OR BUDGET. WHETHER YOU NEED LONG-TERM MONITORING OR INSTANT RESULTS, OUR EASY-TO-USE WATER LEVEL DATA LOGGERS ARE BUILT TO LAST, SAVING YOU TIME AND MONEY IN THE FIELD.

Easy-to-Use Software Included

Set-up, control, and manage data from your instruments using the included PC, mobile software, control and telemetry solutions.

- Connect wirelessly to your data loggers through the VuSitu Mobile App and Wireless TROLL Com or Wireless Rugged TROLL Com. Consolidate all site information on your Android™ device, and tag data with site photos and GPS coordinates.
- Log data to your smartphone or tablet and download results in a standard .html file format, or integrate with Tube/Cube Telemetry Systems and cloud-based HydroVu Data Services for real-time data access and reporting.
- Save time and reduce errors with the intuitive Win-Situ PC Software platform. Quickly program data loggers, download data, graph results, and more.
- Multi-step pump test function allows you to restart a logarithmic log as the test progresses. To streamline pump tests, rent the Virtual HERMIT® Aquifer Testing Kit, offered exclusively through In-Situ Rentals.
- Win-Situ requires: Microsoft® Windows® 2000 Professional SP4 or higher, Windows® XP Professional, Windows® 7, Windows 10 or Windows Vista®; and Google Chrome, Firefox, or Internet Explorer®.



PUT THE RIGHT INSTRUMENT TO WORK FOR YOU

Our passion for water level testing equipment means you'll find the durability and reliability you need for your application. Use our quick reference application guide below to find the right instrument for your project. Still not sure what you need, or have a special project? Our team of equipment experts are standing by ready, willing and able to help you find the right solution.

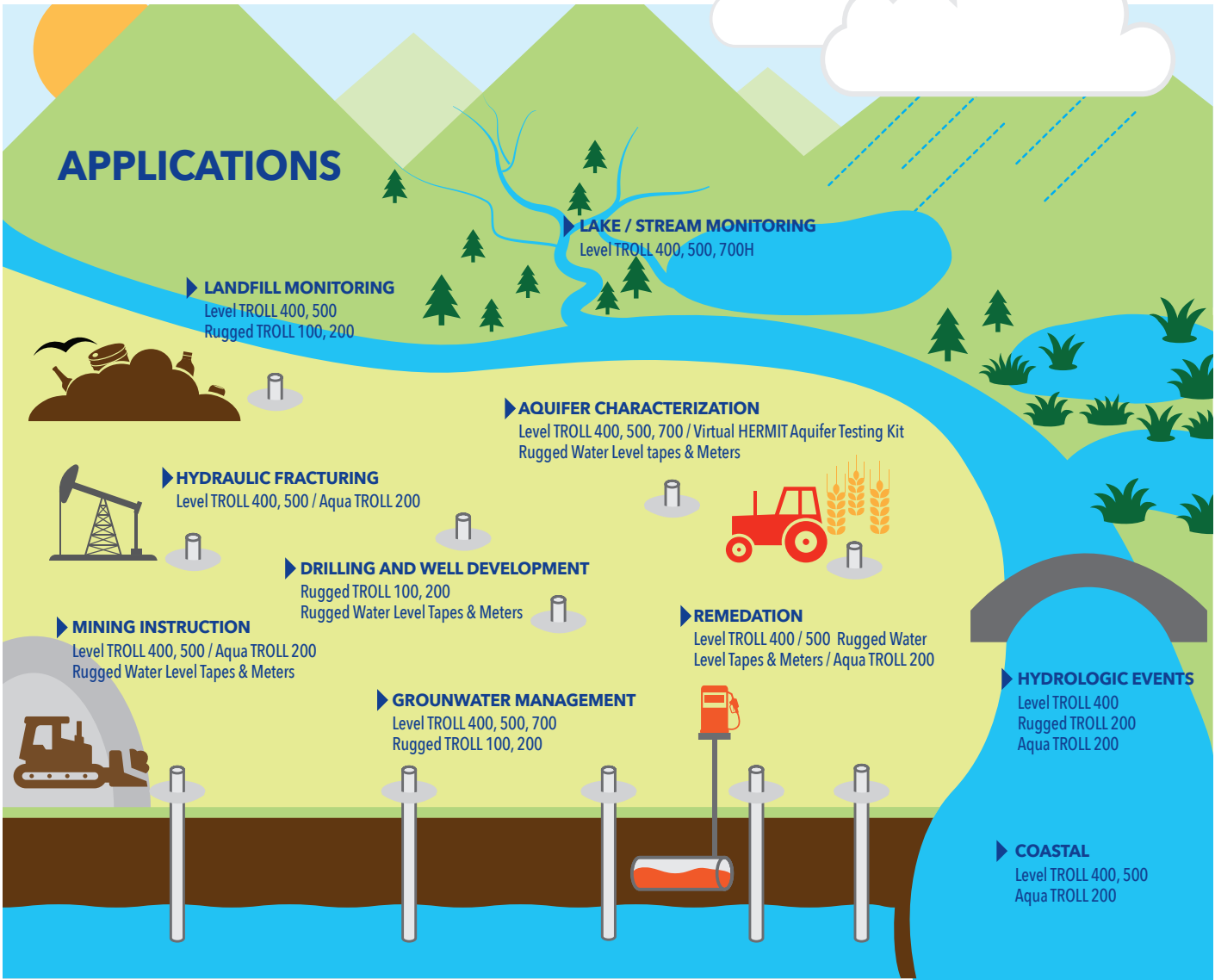
APPLICATIONS

- SLUG AND PUMP TESTS
- LONG-TERM MONITORING AND RESOURCE MANAGEMENT
- NON-VENTED (ABSOLUTE) SENSORS
- VENTED (GAUGED) SENSORS

WATER LEVEL SOLUTIONS

Industry-leading water level monitoring backed by 40 years of performance. Level TROLL instruments yield accurate level, pressure, and temperature measurements, along with powerful data logging and flexible communications. You'll find an instrument suited to every application and budget.

- **Superior Accuracy** - An extensive, full scale pressure and temperature calibration is performed and a serialized, NIST®-traceable calibration report is provided with each instrument.
- **Rugged Construction** - Durable stainless steel or titanium housing, removable nose cone, and more integrated features ensure years of trouble-free operation.
- **Telemetry and SCADA Readiness** - No adapters or confusing proprietary protocols required. Instruments include integrated Modbus/RS485, SDI-12, and 4-20 mA outputs.
- **Ultimate Flexibility** - RuggedCable® Systems with titanium twistlock connectors provide "lock" tight connections. Detach and extend RuggedCable lengths with complete reliability.
- **Intuitive Software Interface** - Each Level TROLL comes with Win-Situ®5 Software, featuring setup wizards for every application and user. Also compatible with VuSitu mobile software when using the Wireless TROLL Com.



Level TROLL® 700 Data Logger

ITEM # LT700



Premier water level logger featuring higher data resolution, expanded memory, and advanced logging modes for specialized applications. Continuous monitoring of water level, water pressure, and temperature. Sub-1 inch diameter. Available in 5, 15, 30, 100, 300, 500 psig and 30, 100, 300, 500, 1,000 psia.

- Available in pressure ranges up to 1,153 ft (351 m) for vented and 2,274 ft (693 m) for non-vented
- Fully sealed, all titanium construction and sensors
- Automatic atmospheric compensation (vented models only)
- Advanced logging modes

**RENTAL INCLUDES:** Win-Situ® Software and manual. RuggedCable® System not included.

Level TROLL® 700H Data Logger

ITEM # 0089550



The most accurate water level data logger on the market, meeting the USGS surface water specification of ±0.01 foot. Continuous monitoring of water level, water pressure, and temperature. Sub-1 inch diameter. Available in 15 psig.

- Available in vented (gauged) configuration up to 35 ft (11 m)
- Fully sealed, all titanium construction and sensors
- Automatic atmospheric compensation
- Advanced logging modes

**RENTAL INCLUDES:** Communication cable, Win-Situ® Software, and manual. RuggedCable® System not included.

Level TROLL® 500 Data Logger

ITEM # 0072200-90



Our most popular data logger and suited to a wide variety of projects. Continuous measurements of water level, water pressure, and temperature, as well as automatic atmospheric compensation. Sub-1 inch diameter.

- Available in vented (gauged) pressure ranges up to 1,153 ft (351 m)
- Fully sealed, all titanium construction and sensors
- Flexible communication protocols (4-20 mA, SDI-12, RS-485)
- Low-power batteries last 10+years

**RENTAL INCLUDES:** Wireless TROLL Com, Win-Situ® Software, and manual. RuggedCable® System not included

PURCHASE

RENT

**Key Application**

- Aquifer Characterization
- Groundwater Management

**Accessories**

- Cables
- Wireless TROLL Com
- Telemetry and HydroVu
- Desiccant
- Rugged Cable Splitter

PURCHASE

**Key Application**

- Lake/Stream Monitoring
- Aquifer Characterization

**Accessories**

- Cables
- Wireless TROLL Com
- Telemetry and HydroVu
- Desiccant
- RCS

PURCHASE

**Key Application**

- Remediation
- Coastal
- Mining/Construction
- Lakes/Rivers/Wetlands
- Hydraulic Fracturing
- Aquifer Characterization
- Groundwater Management

**Accessories**

- Cables
- Wireless TROLL Com
- Telemetry and HydroVu
- Desiccant
- Level Tapes
- RCS

Level TROLL® 400 Data Logger

ITEM # LT400



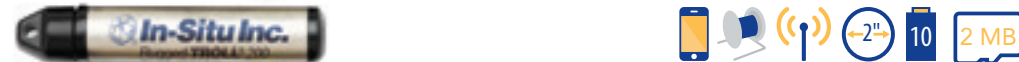
Measures and logs water level, water pressure, and temperature in a maintenance free system. Ideal for long-term monitoring at flood-prone or high humidity sites. Sub-1 inch diameter.

- Available in non-vented (absolute) pressure ranges up to 1,120 ft (341 m)
- Fully sealed, all titanium construction and sensors
- Flexible communication protocols (4-20 mA, SDI-12, RS-485)
- Low-power batteries last 10+ years

**RENTAL INCLUDES:** Communication cable, backshell hanger, Win-Situ® Software, and manual. RuggedCable® System not included.

Rugged TROLL® 200 Data Logger

ITEM # 091930-50



Measures and logs water level, water pressure, and temperature in a maintenance-free system ideal for long-term monitoring at flood-prone or high humidity sites.

- Available in non-vented (absolute) pressure ranges up to 250 ft (76 m)
- Titanium body with Delrin nose cone and backend
- Ceramic pressure sensor
- Download data via telemetry system, Rugged TROLL Docking Station, Wireless Rugged TROLL Com, or direct-read cable (sold separately)

**RENTAL INCLUDES:** Backshell hanger, docking station, Win-Situ® Software, and manual. Suspension wire is not included.

Rugged TROLL® 100 Data Logger

ITEM # 0091870-90



Our most economical option for measuring and logging water level, water pressure, and temperature.

- Available in non-vented (absolute) pressure ranges up to 250 ft (76 m)
- Titanium body with Delrin nose cone and backend
- Ceramic pressure sensor
- Download data via Wireless Rugged TROLL Com and cable, or Rugged TROLL Docking Station (sold separately)

**RENTAL INCLUDES:** Backshell hanger, docking station, Win-Situ® Software, and manual. Suspension wire is not included.

PURCHASE

**Key Application**

- Remediation
- Coastal
- Mining/Construction
- Hydraulic Fracturing
- Groundwater Management
- Hydrologic Events

**Accessories**

- Cables
- Wireless TROLL Com
- Telemetry and HydroVu
- Pumps
- Level Tapes
- RCS

PURCHASE

**Key Application**

- Landfill Monitoring
- Groundwater Management
- Hydrologic Events
- Drilling/Well Development

**Accessories**

- Level Tape
- Cable
- Wireless Rugged TROLL Com
- HydroVu

PURCHASE

RENT

**Key Application**

- Landfill Monitoring
- Groundwater Management
- Drilling/Well Development

**Accessories**

- Level Tape
- Wireless Rugged TROLL Com
- Suspension Wire

\* Typical battery life when used within the factory-calibrated temperature range

\* Typical battery life when used within the factory-calibrated temperature range



Virtual HERMIT® Aquifer Testing Kit

ITEM # VHERMIT



See infographic on page 63

Streamline aquifer characterization events by renting the Virtual HERMIT Testing Kit, exclusively available from In-Situ Rentals. Use the kit to conduct step-drawdown and constant-rate pump tests using the the Virtual HERMIT Software for easy data management.

- Monitor an entire well field - up to 15 wells
- Simultaneously configure, start, display, step, or stop all connected instruments
- Allows data downloads while tests are running
- Capture pump and recovery data on the same log without reprogramming

**RENTAL INCLUDES:** Virtual HERMIT Software and TROLL Com. Level TROLLs and RuggedCable® System required.

\* Typical battery life when used within the factory-calibrated temperature range

BaroTROLL® and Rugged BaroTROLL® Data Loggers

ITEM # 0071870



Measures and logs the barometric pressure and temperature data needed to compensate for water level changes due to barometric fluctuations.

- Use the BaroTROLL with non-vented (absolute) LevelTROLL 400 and 700, or Aqua TROLL 200
- Titanium construction and 10-year internal battery
- Use the Rugged BaroTROLL with non-vented (absolute) Rugged TROLL 100 and 200 Data Loggers
- Software post-corrects multiple data logger files from a single unit

**RENTAL INCLUDES:** TROLL Com, backshell hanger, Win-Situ® Software, and manual. RuggedCable® System not included.

PXD - 261 Transducer

ITEM # PXD-261



Measures water pressure with 4-20 mA output for easy connection with data loggers and controllers. This durable water pressure sensor is available in vented (gauged) pressure ranges up to 576 ft (175 m) or non-vented (absolute) pressure ranges up to 231 ft (70 m).

- Sub-1 inch diameter for easy fit
- Flexible quick-connect cables
- 316 Stainless steel construction
- Vented and non-vented options

Key Application

- Aquifer Characterization
- Step-Drawdown Tests
- Constant-Rate Pump Tests
- Dewatering Projects
- Environmental Assessments
- Groundwater Development
- Remediation

Accessories

- Virtual Hermit Software
- Desiccant
- Level Tape
- Cables



Key Application

- Remediation
- Coastal
- Mining/Construction
- Lakes/Rivers/Wetlands
- Landfill Monitoring
- Hydraulic Fracturing
- Aquifer Characterization
- Groundwater Management
- Hydrologic Events

Accessories

- Cables
- Wireless TROLL Com
- Baro Merge



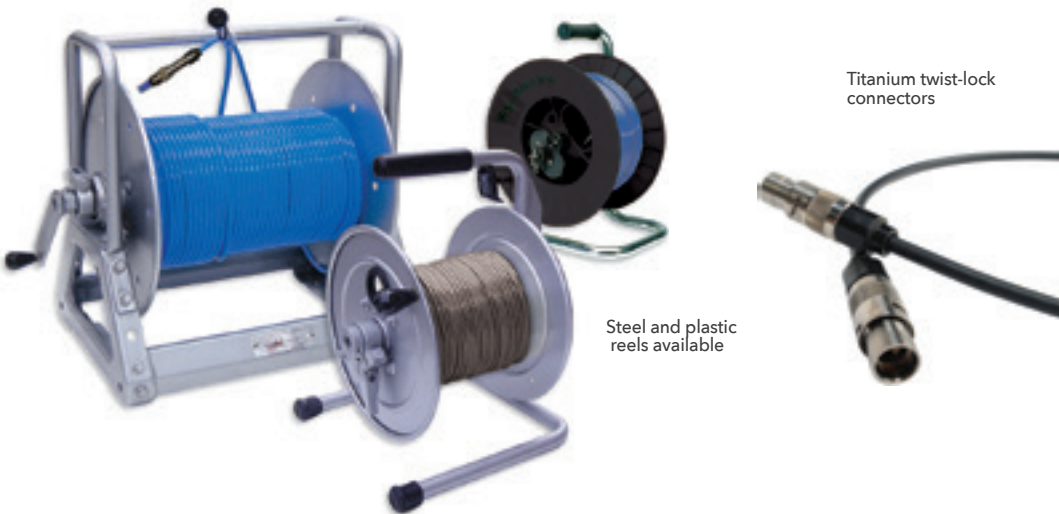
Key Application

- Mining/Construction
- High Pressure Piping
- Long-Term Monitoring
- Municipal and Industrial
- Packer Installations

Accessories

- Level Tape
- Cables
- HydroVu

RuggedCable® Systems Product Highlights



RuggedCable Systems are custom-built to endure harsh environments and to last for years. Use RuggedCable Systems with:

- Level TROLL® 400, 500, and 700 Instruments
- Aqua TROLL® 100, 200, 400, 500 and 600 Instruments
- RDO® PRO-X (twist-lock models)
- Con TROLL® PRO System
- TROLL® Net Hub
- Tube and Cube Telemetry Systems

DURABLE RuggedCable SYSTEMS INCLUDE:

- Titanium twist-lock connectors for quick, reliable connections (2-year warranty)
- Kellems® grip for secure instrument deployment
- Small desiccant for vented systems

CUSTOMIZE YOUR CABLE

When ordering, consider the following options:

- Vented (gauged) or non-vented (absolute) cable
- Polyurethane or Tefzel® cable jacket
- Customized lengths up to 1,219 m (4,000 ft)
- Twist-lock termination (female connector) on one or both cable ends
- Other custom cable configurations are available-call us for details
- Plastic or steel reel

OPTIONAL ACCESSORIES

- Large desiccant for high-humidity environments - This desiccates 20 times more saturated air than the small desiccant. Use desiccant with all vented systems.
- Titanium cable extenders are used to extend cable lengths
- Rugged Cable Splitter (Vented and Non-Vented)

System Overview

Customize your project with our full line of solutions.



Water Level Meter 100

ITEM # 0082700+



Economical water level meter with a Kevlar-reinforced polyethylene tape and stainless steel conductors. Comes standard with static and drawdown modes.

- Submersible stainless steel
- Nylon or aluminum reels (for tapes longer than 150 m or 400 ft)
- Accuracy to each millimeter or 0.01 foot
- Available in lengths up to 600 m (2,000 ft)
- Sensitivity dial filters out false signals from falling water
- Drawdown mode

**RENTAL INCLUDES:** Carrying bag.

PURCHASE RENT

**Key Application**

- Remediation
- Mining
- Construction
- Aquifer Characterization
- Groundwater Management
- Drilling and Well Development

Water Level Meter 200

ITEM # 0082820+



Engineer-grade water level tape with high-tensile steel tape and stainless steel conductors; ASME-certified.

- Sensitivity dial filters out false signals from falling water
- Accuracy to each millimeter or 0.01 foot
- Available in lengths up to 600 m (2,000 ft)
- Drawdown mode

**RENTAL INCLUDES:** Carrying bag.

PURCHASE RENT

**Key Application**

- Remediation
- Mining
- Construction
- Aquifer Characterization
- Groundwater Management
- Drilling and Well Development

Rugged Oil-Water Interface Meter

ITEM # 0059150+



Economical water level meter with a Kevlar-reinforced polyethylene tape and stainless steel conductors. Comes standard with static and drawdown modes.

- ASME-certified
- Sensitivity dial filters out false signals from falling water
- Removable, sealed electronic module

**RENTAL INCLUDES:** Carrying bag.

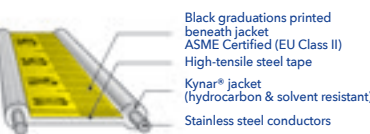
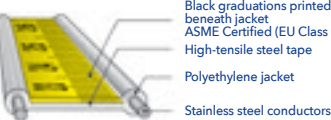
RENT

**Key Application**

- Remediation
- Mining
- Construction
- Aquifer Characterization
- Groundwater Management
- Drilling and Well Development

PRODUCT HIGHLIGHT

Accurate Tapes



Submersible Probes



Stainless steel probes are pressure rated to the full length of the tape. A security link prevents tape damage by releasing the probe if it becomes stuck in a well (not available on Conductivity Meter).



Components

- 1- Battery Box
- 2- Signal LED
- 3- Signal buzzer
- 4- Sensitivity knob for cascading water (not an on/off switch)
- 5- Test button
- 6/7- Panel attachment knobs



When used in coastal environments and high-fouling sites, the TROLL Shield Antifouling Pressure Sensor Nose Cone combats biofouling of a Level TROLL 400/500/700 or Aqua TROLL 200 nstrument.

Reduced sensor fouling extends instrument deployments by up to 6 weeks and improves instrument accuracy. For best performance, replace the nose cone every 12 months.



Groundwater monitoring in a coastal zone using Aqua TROLL®200 Instrument. Learn more about the Aqua TROLL 200 on page 28.



# 03

## WATER QUALITY MONITORING

Water Quality Multiprobes,  
Sondes, Handhelds and  
CTDs Monitoring Equipment





## WATER QUALITY MONITORING



### WATER QUALITY SOLUTIONS

Our growing water quality platform has been engineered for maximum reliability and minimum hassle. Internal data logging, extended battery life, drift-resistant sensors, and active and passive antifouling systems are some of the features that ensure years of performance in fresh and salt water applications, meaning you have a lower total cost of ownership and fewer trips to the field. Our instruments, telemetry systems, and data services platform were built for easy integration and user-friendly operation.

- **Minimal maintenance and field time** - Drift-resistant sensors, long-lasting battery power, and corrosion-resistant design support long-deployments. Reliable data logging and plenty of memory mean less trips to the field.
- **More accurate data** - High-accuracy sensors come factory calibrated to give you the most reliable data possible. Our water quality smart sensors store information internally, maintaining data and calibration within the sensor for traceable results.
- **Quick and easy data-sharing** - Get real-time data access and instant results that can be emailed on the spot using your mobile device. Intuitive VuSitu Mobile App is an all-in-one software package that provides auto-configuration, simplified calibration, directed data analysis, and automated report creation.
- **Built-in support:** Access free, 24/7 tech support right from the mobile app.

**OUR WATER QUALITY EQUIPMENT IS DESIGNED TO GIVE YOU FIELD-READY DURABILITY WITH ACCURATE RESULTS YOU CAN TRUST. WHETHER YOU NEED TO MEASURE DISSOLVED OXYGEN, CONDUCTIVITY, TURBIDITY, PH OR ANOTHER PARAMETER, WE'VE GOT YOUR WATER QUALITY TESTING NEEDS COVERED.**

### Wireless Communication with Smartphone Interface

With the VuSitu™ and iSitu® Mobile App there's no need for expensive, bulky handheld computers to read your sensors. Use your smartphone or tablet to quickly find and recognize each of your sites, and instantly view, download, and share data.

- Systems include a compact probe with field-tested smart sensors and a weatherproof clip-on battery pack with Bluetooth® Wireless Technology.
- Mobile App simplifies data collection and guides you through configuration, calibration, setup, and data management.
- Real-time results can be emailed from the field, logged to a mobile device, or exported on the spot.
- Both mobile apps are free to download.

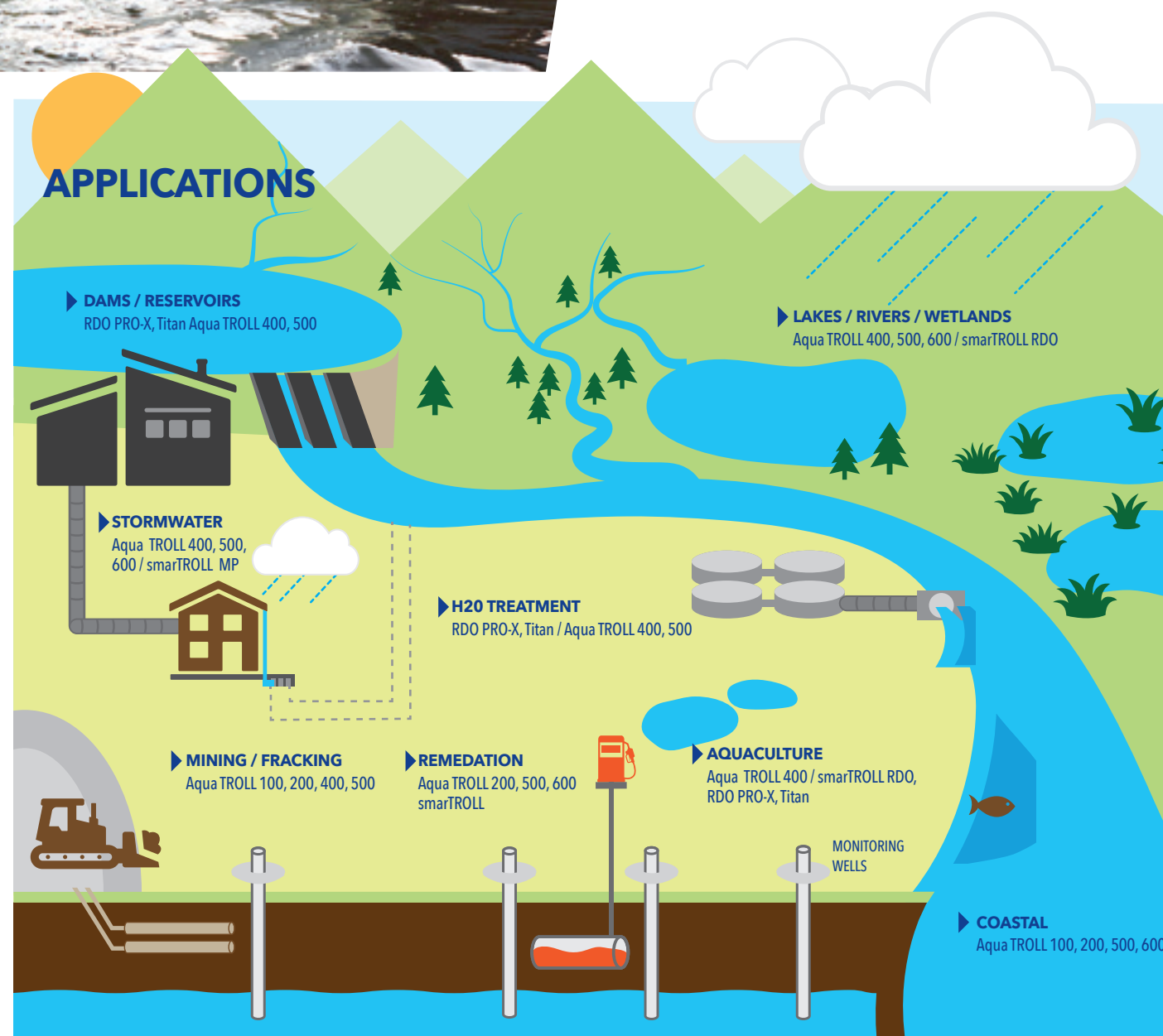
For current U.S. rental pricing, please email [sales@in-situ.com](mailto:sales@in-situ.com) or visit [go.in-situ.com/rental-pricing](http://go.in-situ.com/rental-pricing).



### FIND THE RIGHT INSTRUMENT FOR YOUR PROJECT

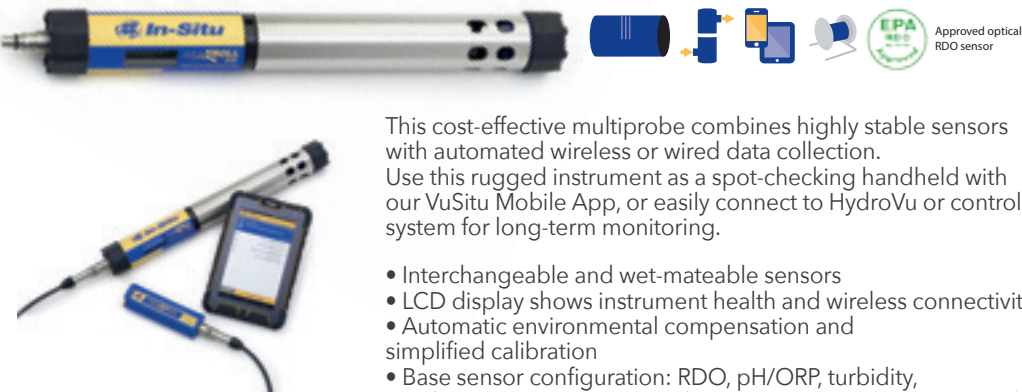
We are driven by our passion to deliver the best water quality instruments in the industry. Our growing water quality line includes a variety of sensors: conductivity, pH, oxidation-reduction potential (ORP), optical dissolved oxygen (DO), turbidity, temperature, pressure, barometric pressure, and ion-specific parameters such as ammonium, chloride, and nitrate.

Our team of experts is ready to help you find the right solution for your project, and our support team is always standing by to offer complimentary 24/7 technical support and mobile help in the field.



AquaTROLL 500 Multiparameter Sonde

ITEM # 0071970+



This cost-effective multiprobe combines highly stable sensors with automated wireless or wired data collection. Use this rugged instrument as a spot-checking handheld with our VuSitu Mobile App, or easily connect to HydroVu or control system for long-term monitoring.

- Interchangeable and wet-mateable sensors
- LCD display shows instrument health and wireless connectivity
- Automatic environmental compensation and simplified calibration
- Base sensor configuration: RDO, pH/ORP, turbidity, conductivity, temperature and pressure, salinity, resistivity, total dissolved solids and density

**RENTAL INCLUDES:** TROLL com, calibration solution, and VuSituMobile App.

Aqua TROLL® 400 Multiparameter Probe

ITEM # AT400



Compact and durable multiparameter process probe that continuously measures 12 water parameters in a variety of applications. Standard suite of six sensors measure actual and specific conductivity, salinity, total dissolved solids, resistivity, density, optical dissolved oxygen, ORP, pH, temperature, water level, and water pressure.

- DO readings automatically compensate for salinity
- Versatile power options and real-time readings (non-powered and non-logging)
- Modbus/RS485 or SDI-12 protocols
- Real-time data access with a radio, controller, data logger, sampler, telemetry system, or SCADA/PLC system

Aqua TROLL® 200 Data Logger

ITEM # AT200



Measures and records water level, pressure, conductivity, and temperature. Compact construction fits any deployment, and titanium electrodes and housing protect your data by preventing corrosion.

- Full range conductivity with optimum accuracy – 0 to 100,000 µS/cm
- Sub-1 inch diameter
- Vented (gauged) or non-vented (absolute) pressure measurement
- Dynamic density compensation for accurate pressure measurement

**RENTAL INCLUDES:** Conductivity calibration solution, calibration vessel, and Win-Situ® Software.

PURCHASE

RENT

Key Application

- Lakes / Rivers / Wetlands
- Aquaculture
- Stormwater
- Remediation

Accessories

- Battery Pack/Power Pack
- Android
- Calibration Solutions
- HydroVu
- Telemetry

PURCHASE

Key Application

- Mining
- Hydraulic Fracturing
- Stormwater
- Lakes / Rivers / Wetlands
- Aquaculture
- Dams / Reservoirs
- Water Treatment

Accessories

- Calibration solution
- RuggedCable
- Android
- HydroVu
- Telemetry

PURCHASE

RENT

Key Application

- Remediation
- Coastal
- Mining
- Hydraulic Fracturing

Accessories

- Water Level Tape
- Calibration solution
- RuggedCable
- Communications cable
- HydroVu
- Telemetry

Aqua TROLL® 600 Multiparameter Sonde

ITEM # 0074030+



Flexible water quality sonde with smartphone interface.  
Suitable for all applications.

Customizable, powerful, and portable multiparameter sonde suitable for all applications. Internal power and data logging. Low power consumption with replaceable alkaline D batteries for up to 9+ month life. Base sensor configuration includes EPA-approved optical RDO method, pH/ORP, turbidity, conductivity, temperature, and pressure. Ammonium, Chloride, and Nitrate sensors also available. Wireless Bluetooth® connection to the VuSitu Mobile App for Android or Win-Situ 5 for PC/laptop.

Compatible with low-flow system (sold separately). See page 31



Features

- Sensor diagnostics
- Sub-2 inch passive and active antifouling system for all sensors, including cleanable conductivity
- Vented (gauged) or non-vented (absolute) pressure measurement
- Site tagging, GPS coordinates, and calibration functions through the VuSitu Mobile App
- LCD display for visual indication of overall probe functionality and battery, sensor, and log status
- Internal memory plus an integrated micro SD card for data backup and download
- RuggedCable options in Poly or Tefzel for use in harsh environments
- Field-tested design with corrosion-resistant housing
- Dynamic density compensation

Benefits

- **Customize to your needs** - Flexible instrument that can be configured and modified based on the unique requirements of each site. Wet-mateable connectors and universal sensor ports allow you to change sensors on the fly, so you can monitor the parameters you need for each job.
- **Minimal maintenance and field time** - Drift-resistant sensors, long-lasting battery power, and corrosion-resistant design support long-deployments. Active and passive antifouling systems reduce cleaning requirements and extend the life of your investment. Reliable data logging and plenty of memory mean less trips to the field.
- **Get more accurate data** - High-accuracy sensors come factory calibrated to give you the most reliable data possible.

**RENTAL INCLUDES:** Communication cable, backshell hanger (for absolute units), Quick Cal solution, and Win-Situ® Software. RuggedCable® System not included.

PURCHASE

RENT

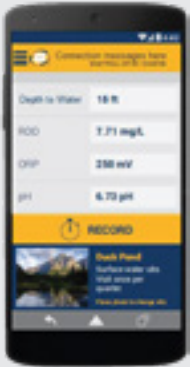
Application

- Remediation
- Coastal
- Stormwater
- Lakes/Rivers/Wetlands

Accessories

- Wireless TROLL Com
- RuggedCable
- Desiccant
- Antifouling Restrictor
- Calibration Solutions
- Low-Flow Kit
- Telemetry/HydroVu

USE AN ANDROID  
DEVICE WITH THE  
VUSITU MOBILE APP  
FOR INSTANT,  
REAL-TIME DATA FROM  
YOUR AQUA TROLL 600.





Aqua TROLL® 100 Data Logger

ITEM # 0056800



Measures and records conductivity and temperature. Compact construction fits any deployment, and titanium electrodes and housing protect your data by preventing corrosion.

- Sub-1 inch diameter
- Full range conductivity with optimum accuracy - 0 to 100,000 µS/cm
- Sealed to withstand pressure of up to 500 psi
- Flexible communication protocols (4-20 mA, SDI-12, Modbus)

**RENTAL INCLUDES:** Conductivity calibration solution, calibration vessel, and Win-Situ® Software.

smarTROLL RDO® Handheld

ITEM # 00994920



Measures and records optical dissolved oxygen, air and water temperature, and barometric pressure. Data is transmitted wirelessly to your smartphone or tablet. Virtually no training required, and no calibration needed.

- Email and share real-time data on the spot
- Battery Pack with replaceable batteries (iOS) or rechargeable Power Pack (Android)
- Site tagging with photos and GPS coordinates
- RDO Fast Cap provides fast response for spot checking applications and reduces time in the field

**RENTAL INCLUDES:** VuSitu, iSitu® Software.

RDO® PRO-X Optical Dissolved Oxygen Probe

ITEM # RDOPRO



Measures optical dissolved oxygen and temperature using optical technology in process applications. No calibration, conditioning, or membranes required.

- Most accurate and rugged optical DO sensor on the market
- Only probe with diagnostic tools to evaluate sensor health
- No cap timeout
- Flexible communication protocols (4-20mA, Modbus/RS485, and SDI-12)
- Standard 10m cable or twist-lock options in custom cable lengths

PURCHASE

RENT

Key Application

- Coastal
- Mining
- Hydraulic Fracturing
- Groundwater management

Accessories

- Water Level Tape
- Calibration solution
- RuggedCable
- Communications cable
- HydroVu
- Telemetry

PURCHASE

RENT

Key Application

- Lakes / Rivers / Wetlands
- Aquaculture

Accessories

- Calibration Solutions
- Android Phone/iPod
- Power Pack/Battery Pack

PURCHASE

Key Application

- Aquaculture
- Dams/Reservoirs
- Water Treatment

Accessories

- Anti-fouling guard
- HydroVu
- Telemetry

RDO® Titan Process Probe

ITEM # TITAN



Measures optical dissolved oxygen and temperature in process applications. Robust optical sensor requires no membranes and only minimal maintenance and calibrations.

- Most accurate DO probe on the market
- Titanium construction prevents corrosion in saline environments
- Long-lasting and easily replaceable smart sensor cap
- Custom cable lengths available

**RENTAL INCLUDES:** Communication cable, calibration solution, Win-Situ® Software, and manual. RuggedCable® System not included.

Aqua TROLL 600 Low-Flow Kit

ITEM # 0066820



Kit contains everything you need to conduct low-flow groundwater sampling with the Aqua TROLL 600 Multiparameter Sonde and VuSitu Mobile App. Low-Flow sampling equipment is used to direct the flow of water past the sensors of the Aqua TROLL 600 during purging and low-flow sample tests. The seal between the instrument and the flow cell prevents water oxygenation prior to analysis. The 3-way intake valve can be used to divert flow for sample collection. The anti-siphon check valve prevents back flow at the outlet.

- Real-time data and instant data-sharing
- Site tagging with photos and GPS coordinates
- Auto-calibration functions and smart sensors that recognize calibration standards

**RENTAL INCLUDES:** Flow cell, 3/8 in. barbed inlet/outlet fittings, 3/8 in. 3-way ball valve, 3/8 in. check valve, 1/4 in. barbed inlet/outlet fittings, 1/4 in. 3-way ball valve, 1/4 in. check valve, Pipe thread tape, flow cell stake and instruction sheet.

PRODUCT HIGHLIGHTS EPA-Approved RDO Technology Method

Rigorous, independent third-party validation proves that the RDO Sensor performs to its specifications over long-term deployments. Compared to high-maintenance sensors, the RDO Sensor:

- Improves performance and reduces maintenance
- Responds quickly and provides stable, accurate readings
- Maintains its calibration for long-term deployments
- Excels in hypoxic conditions

PURCHASE

Key Application

- Aquaculture
- Dams/Reservoirs
- Water Treatment

Accessories

- Calibration Solutions
- Power Pack/Battery Pack
- HydroVu
- Telemetry
- Cable
- ConTROLL Pro

PURCHASE

RENT

Key Application

- Groundwater monitoring and sampling
- Remediation

Accessories

- Sampling pumps and supplies
- Water level tapes



# 04

## FLOW MONITORING

---

Control system, telemetry  
and Flow Sensors







water monitoring field, bringing unsurpassed quality and intuitive ease of application that results in reduced equipment costs and time spent in the field.

Flow Monitoring Systems

Having field-ready and reliable water flow monitoring equipment at your side is integral to producing the most accurate results. Whether you're measuring total volume, flow, velocity, or level, open channels or closed pipes, our flow monitoring equipment ensures your agriculture, wastewater, or industrial operation needs are met. Our unique monitoring systems offer you flexible site monitoring in a ruggedly designed and lockable enclosure. With battery, solar panels, and multi-card interface, our intelligent monitoring systems afford you complete control to log multiple sensors from a single and remote device.

THE IN-SITU SOLUTION

No two water monitoring projects are the same. Your unique project needs rugged, reliable water monitoring equipment that not only delivers accurate results, but also offers numerous project solutions. Our flexible, scalable designs are the perfect partner in multiple applications. In-Situ has earned the reputation of being an innovator in the

HVFlo XCi



- HVFlo XCi is the portable waterproof logging flow meter with proven Doppler velocity and level measurement sensors to produce superior results under a wide range of hydraulic operating conditions.
- Ultrasonic velocity sensors for unsurpassed results, even when pipe slope is unknown
  - Multi-card, multi-sensor application
  - Rechargeable battery offers long-life without costly new ones
  - Remote and instant access to data via MACE WebComm and HydroVu Data services

**INCLUDES:** Rugged, field-prepared and waterproof encasement, easy-to-read data logger and LCD display, battery, regulator, required cards to begin operating. Velocity and level sensors sold separately.

\$ PURCHASE

📶 RENT

- Key Application**
- Wastewater monitoring
  - Stormwater monitoring
  - Industrial discharge applications
  - Inflow and infiltration studies
  - Pump station monitoring
  - Sewer system capacity analysis
  - Compliance metering
  - Combined sewer overflow studies

FloPro XCi



- The FloPro XCi offers ease of use for crucial mining, municipality, and industrial equipment and assets. Featuring water quality and quantity monitoring sensor integration, and allowing users to measure everything from flow to conductivity, pH to rainfall, the FloPro XCi offers a downward-looking ultrasonic depth sensor to measure water levels. Interfaced with SCADA/telemetry systems and HydroVu Data Services, the FloPro XCi is truly a powerful asset for remote data access.
- Ultrasonic velocity sensors for unsurpassed results, even when pipe slope is unknown
  - Multi-card, multi-sensor application
  - Remote, instant access data capability
  - True average velocity measurement with MASP Technology
  - Connectivity to In-Situ sensors
- INCLUDES:** Rugged, field-prepared and waterproof encasement, easy-to-read data logger and LCD display, battery, solar panel/regulator, required cards to begin operating, velocity and level sensors.

\$ PURCHASE

- Key Application**
- Stormwater monitoring
  - Sewer lift Stations
  - Partially full pipe flow measurement
  - Road culvert flow measurement
  - Open channel flow measurement
  - Access cards

AgriFlo XCi



- Vital farm equipment and on-farm sensors require steady, reliable monitoring and that's precisely what the AgriFlo XCi delivers. The AgriFlo XCi monitors diverse inputs such as irrigation flows, farm wastewater, water quality, dam levels, soil moisture, and pump and engine management systems. With no moving parts, the AgriFlo XCi offers minimal obstruction to your water flow. Waste-filled water won't hinder the AgriFlo's meter, sparing you time lost in the field and revenue spent on repairs.
- Multi-card and multi-sensor application
  - Budget-friendly flow monitoring
  - Remote and instant access to data via MACE WebComm and HydroVu Data services
  - Easy, out-of-the-box installation to your existing pipework
- INCLUDES:** Rugged, field-prepared and waterproof encasement, easy-to-read data logger and LCD display, battery, solar panel/regulator, required cards to begin operating, velocity and level sensors.

\$ PURCHASE

- Key Application**
- Groundwater monitoring
  - Dairy farm lagoon waste
  - Lateral irrigation diversion
  - Irrigation siphon
  - Irrigation flume and weir monitoring
  - River pump and weather station monitoring
  - Access cards

HydroMace XCi



- When data logging and telemetry for environmental monitoring is key, the HydroMace XCi offers unrivaled versatility, in a diverse range of monitoring applications from flumes to flow, weirs to water quality sensors.
- Encased and integrated data logger, powered by solar regulator and battery Rugged, weather-ready encasement
  - Multi-card, multi-sensor application
  - Applicable with nearly any environmental sensor
  - Remote data access with WebComm and HydroVu Data; configure to FloCom+ Software
  - SDI Sensor interface and built-in flume and weir equations
- INCLUDES:** Rugged, field-prepared and waterproof encasement, easy-to-read data logger and LCD display, battery, solar panel/regulator, required cards to begin operating. Velocity and level sensors sold separately.

\$ PURCHASE

- Key Application**
- Environmental flume and weir monitoring
  - River weir measurement
  - Water catchment monitoring
  - Meteorological sensor monitoring
  - Access cards





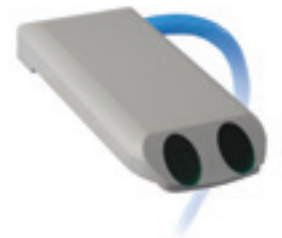
### FLOW SENSORS

Featuring Doppler ultrasonic sensors for XCI devices, our flow sensors transmit ultrasonic waves of sound in the water flow for precise monitoring. Acoustic waves are then reflected via air bubbles and/or suspended solids that are detected by our sensors.

#### Doppler Ultrasonic Velocity Sensor

The Doppler Ultrasonic Velocity Sensor measures open channels or full pipes when pipe access is available and can be emptied for installation or maintenance. The sensor offers ease of access to monitoring points, measuring speed of dirt, bubbles, and other stream flow particles.

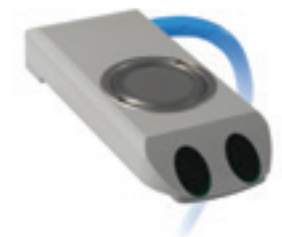
- Easy-to-install application for existing pipework with ZX SnapStrap MASP technology
- Regular and irregular operating cross-section operation
- Rugged design to withstand challenging hydraulic conditions



#### Doppler Ultrasonic Area/Velocity Sensor

Our Doppler Ultrasonic Area/Velocity Sensor offers measurement capabilities in both open channels or partially-full measurement depths and velocity. Featuring a capacitive pressure diaphragm to gain these measurements, access to monitoring points is required for both installation and maintenance.

- Doppler card
- Polycarbonate ZX SnapStrap for sensor pipe installation
- Ultrasonic sensors to "see" particles in water
- Compatible with HydroMace



#### EchoFlo

Featuring Digital Signal Processing (DSP), the EchoFlo offers level measurement in a compact, field-friendly space. The EchoFlo's compact size allows it to be implemented in a variety of applications.

- Shows obstacles using advanced surface imaging
- Affords maximum fill in small pipes and tanks
- Measures dirty media without affecting performance
- Simple, easy-to-configure functionality



#### Doppler Ultrasonic Insert Velocity Sensor

When used in conjunction with an EchoFlo ultrasonic depth sensor, the Doppler Ultrasonic Insert Velocity Sensor is used for full or partially full pipes.

- No moving parts to evade blockages and worries
- Easy-to-install 2" ball valve
- Able to be completely submerged
- Perfect for dirty or animal waste-laden water





# 05

## REMOTE MONITORING

---

Remote Water  
Level & Water Quality  
Monitoring





# REMOTE MONITORING

## RELIABLE DATA ACCESS

In-Situ offers reliable access to remote site data 24 hours a day. Our wireless telemetry systems and data services platform are designed for remote monitoring applications, including long-term aquifer monitoring, stream and tide gaging, flood warning, storm surge monitoring, and real-time water monitoring.

## Tube and Cube Telemetry Systems

For in-well deployments and low-profile installations, choose the battery-powered Tube 300R. For higher sampling, choose the solar-powered Tube 300S. For sites that require multiple sensors, choose the battery powered Cube 300R or the solar-powered Cube 300S. Connect up to five instruments to one Cube. Both the Tube and Cube Systems offer data logging and transmission, and alarm notifications for parameter thresholds.

## Real-Time Data

- Easily integrate systems into HydroVu Data Services for real-time evaluation of site data and conditions.
- Organize multiple sites, users, and instruments in one cloud-based location.

- Receive automatic data log uploads to your email, FTP site, or other current data management platform at customized intervals.
- Never miss a data point. The system recognizes missed data and sends that data on the next transmission.

## Real-Time Decisions

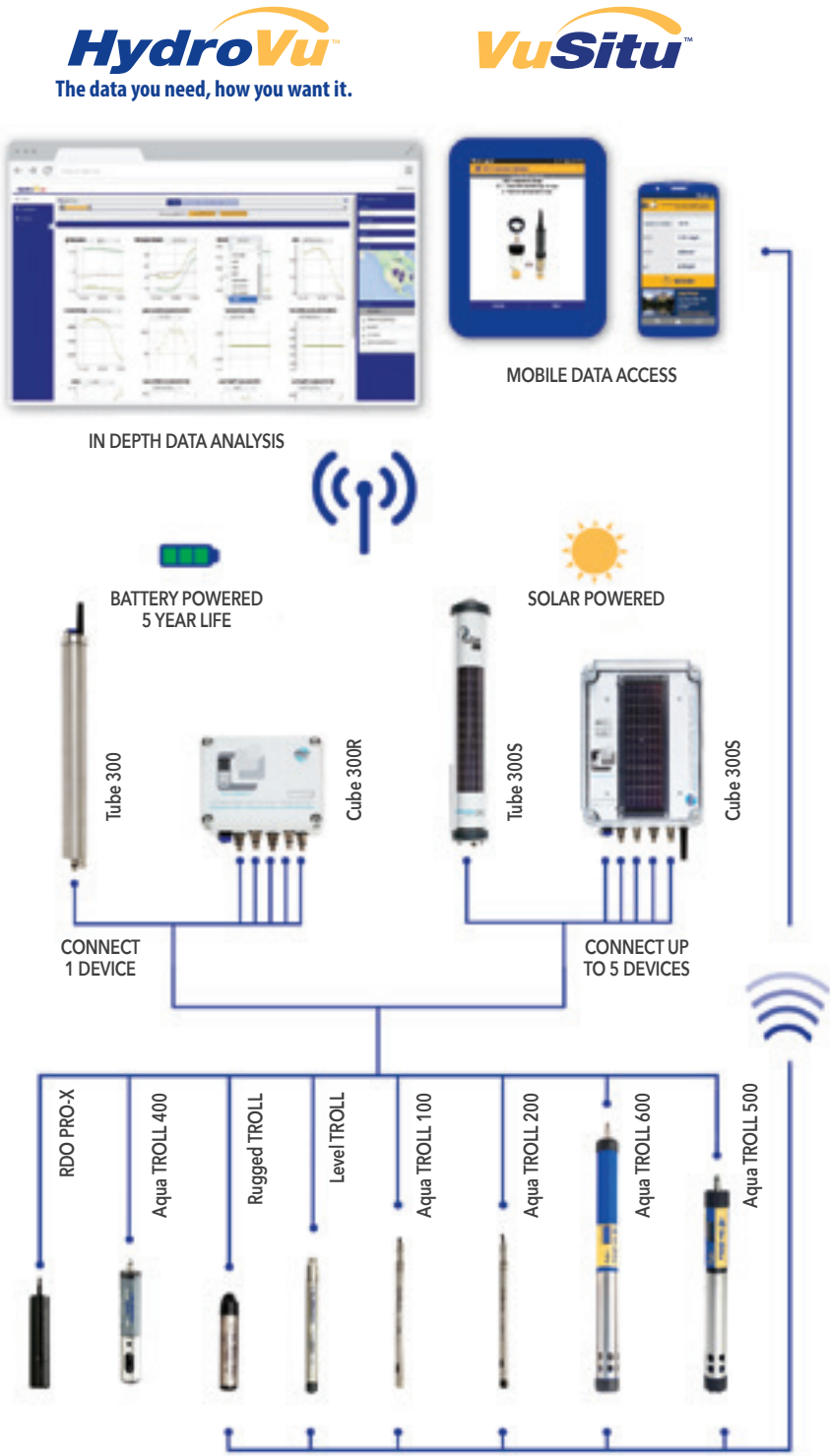
- Quickly respond to user-defined field events or to tampering.
- Automatic alarm notifications are sent to your email or phone via text message.
- Significantly reduce site visits. Receive system status updates, diagnose problems, and perform preventative and corrective maintenance from your office.

## VuSitu™ and iSitu Mobile Apps

With the VuSitu™ Mobile App there's no need for expensive, bulky handheld computers to read your sensors. Use your smartphone or tablet to quickly find and recognize each of your sites, and instantly view, download, and share data.

- Systems include a compact probe with field-tested smart sensors and a weatherproof clip-on battery pack with Bluetooth® Wireless Technology.
- Mobile App simplifies data collection and guides you through configuraion, calibration, setup, and data management.
- Real-time results can be emailed from the field, logged to a mobile device, or exported on the spot.
- Site information can be consolidated on a mobile device, and data can be tagged with site photos and GPS coordinates.
- The VuSitu and iSitu Mobile Apps are free to download.

# REMOTE MONITORING

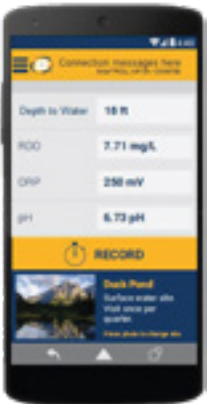


- **ACCESS YOUR DATA ANYTIME, ANYWHERE.**
- **CONTROL PROJECT COSTS BY MINIMIZING TRAVEL TO DISTANT SITES.**
- **GET INSTANT ALERTS AND KNOW EXACTLY WHAT'S HAPPENING AT ANY MOMENT.**

- DATA SERVICES**  
**HydroVu™ Data Services:**
- Organize multiple projects, users and instruments in one cloud-based location.
  - Secure, real-time access to decision-quality data anywhere, anytime.
  - Simplify the task of filtering data for important results.

- WIRELESS TELEMETRY**
- Economical and secure wireless monitoring systems for real-time site feedback.
  - In-device alarms, plus automated data, barometric pressure compensation, tampering, and malfunction alerts.
  - Compact designs for in-well or networking, depending on your unique monitoring deployment.

- INSTRUMENTS**  
**Water Monitoring Instruments:**
- Field-ready durability with accurate results in even the harshest applications.
  - Easy-to-use spot checking handhelds with mobile device technology.
  - Long-term monitoring probes with extended battery life and stable sensor technology.



**VuSitu™  
and iSitu  
Mobile  
Apps**

## REMOTE MONITORING



**HydroVu™**

## REMOTE MONITORING



### HydroVu® Data Services

ITEM # HYDROVU

 PURCHASE

 RENT

Get real-time, decision-quality data on your remote monitoring sites anywhere, anytime, with HydroVu Data Services. HydroVu gives you up-to-date access to your data while simplifying the task of filtering the data for important results. Easy setup, viewing, and analysis of data means you get more from your instruments for less time and money. Integrate with In-Situ water level, quality, flow and telemetry systems for real-time feedback on all of your water monitoring sites. Includes up to 10,000 user-defined locations to associate with telemetry devices; up to 1,000 user-defined project groupings; and up to 250 user-defined labels.

Visit <https://in-situ.com/products/data-management/hydrovu-data-services/> to request a live demonstration.

#### Features

- Interfaces with In-Situ telemetry and sensors natively
- Data access and backup at all times
- Store data for as long as you need it
- Turnkey advanced setup option - simply connect your hardware and log in to see your data
- Rapid Zoom enables instant focus on the timeframe of data you want
- Customizable alarm notifications reported via email

#### Benefits

- **Multiple methods for getting to the data you want** - Rapidly narrow your view by location, parameter, user-defined labels, or project.
- **Make informed decisions** - Gather and analyze decision-quality data in real-time, when it's most useful.
- **Stay organized** - Keep track of all your projects and instruments in an organized, central location. Get the latest information on all your sites without having to leave your desk.
- **User management** - Assign and customize access based on individual users.
- **Save time and money** - Spend less time manipulating data into your desired format, and reduce trips to the field by accessing your data from remote locations quickly and easily.
- **Reduce risk** - Regularly view and analyze your data to limit potential problems with your instruments, and minimize data gaps when issues do arise by receiving rapid notifications.

#### Instrument Pairings

- Level TROLL 400, 500, 700 and 700H
- Rugged TROLL 200
- Aqua TROLL 100, 200, 400, 500 and 600
- RDO PRO-X
- HVFlo
- FloPro
- AgriFlo
- HydroMace

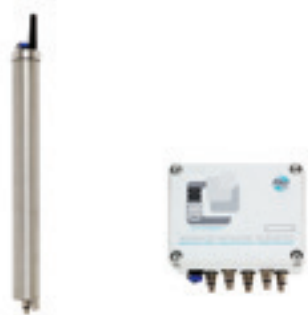
#### Telemetry Pairings

- Tube 300R and 300S
- Cube 300R and 300S



REMOTE MONITORING

Tube 300R And Cube 300R Telemetry System ITEM # 0062000+



The Tube 300R in-well cellular telemetry system is capable of sending data from a single instrument.

The Cube 300R is a compact, battery-powered telemetry unit ideal for wells with multiple sensors or sites with multiple wells. Transmits data for up to five instruments on a cellular network, automating data collection and providing remote configuration and troubleshooting.

**RENTAL INCLUDES:** Battery pack and 512 MB SD Card.

PURCHASE RENT

- Key Features**
- 5+ year battery pack
  - Sub-2 inch diameter
  - Data logging and transmission
  - Automatic barometric compensation
  - Pulse input

Cube 300S And Tube 300S Telemetry Systems ITEM # 0062030+



Solar powered telemetry systems. Cube 300S is capable of sending data from up to five instruments while the Tube 300S is an ideal unit for high frequency in-well sampling. Integrate with HydroVu Data Services to simplify the task of filtering data for important results.

**RENTAL INCLUDES:** Battery pack and 512 MB SD Card.

PURCHASE RENT

- Key Features**
- Integrated solar panels with rechargeable battery
  - Data logging and transmission
  - Alarm notifications for parameter thresholds, malfunction and tampering
  - 2G and 3G units available
  - Pulse and 4-20 mA

TROLL Net Hubs ITEM # NETHUB



Connects up to four or eight instruments into your telemetry or SCADA/PLC system. The hub is ideal for long-term remote site monitoring and process control, including applications like aquifer characterization and nested well monitoring. You can customize the system by linking a variety of In-Situ sensors, and even connect multiple hubs to network up to 16 devices. The Net Hub supports twist-lock or stripped-and-tinned cables.

PURCHASE

- Key Features**
- Low power consumption (8-36 VDC)
  - Solar or 9 V battery power
  - Each cable has a max length of 4,000 feet (1,219 m)
  - Modbus/RS485 communications protocol (no SDI-12 or 4-20 mA)

REMOTE MONITORING

MACE XCi Flow Monitoring Systems ITEM # 0062240



MACE XCi flow monitoring systems provide smart, flexible and expandable site monitoring all housed in a rugged lockable enclosure. Battery, solar panels, and the unique multiple card interface enable you to control and log multiple sensors remotely from a single XCi device. Systems are ready to go right out of the box, and easily integrate with existing water quality and quantity instrumentation, as well as telemetry, data servers, and HydroVu Data Services.

PURCHASE RENT

- Key Features**
- FloPro XCi: wastewater, stormwater and industrial flows
  - AgriFlo XCi: agricultural water and wastewater flows
  - HydroMace XCi: environmental monitoring and data logging
  - HVFlo XCi: portable flow meter for wastewater, stormwater and industrial discharge

TROLL Link 201 Telemetry System ITEM # 0051840



The TROLL Link 201 Telemetry System transmits real-time data via the Iridium Satellite network. The Iridium Satellite network is optimal for extremely remote sites with no cellular signal.

PURCHASE

- Key Features**
- Remotely configure the telemetry system
  - Real-time alarm notifications
  - Powers attached instruments

Con TROLL PRO Process Controller ITEM # CTP



Controller with local display and data logging options that helps simplify process control and continuous monitoring projects. Use for local installations with SCADA/PLC integration, or use it for remote field monitoring locations. Low-voltage relays trigger a bell or flashing light, while high-voltage relays can control pumps or gates. Each Con TROLL PRO connects up to two instruments. Available in AC Model for local SCADA/PLC control, which displays and transmits data; AC-L Model for local SCADA/PLC control, which logs, displays, and transmits data; and DC-L Model for remote field deployments, which logs, displays, and transmits data (low-voltage relays only, runs on batteries or solar).

PURCHASE

- Key Features**
- Communication options include Modbus/RS485 and 4-20 mA
  - Data transfer via Bluetooth®
  - Wireless Technology
  - Vented (gauged) or non-vented (absolute) pressure measurement
  - Dynamic density compensation for accurate pressure measurement



# 06

## ACCESSORIES

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Environmental  
Monitoring System  
Accessories







CUSTOMIZED SOLUTIONS

We want to help you get the job done, from start to finish. We stock of full line of accessories ready to ship so you can get started on your project faster and with less hassle. Whether you purchase new equipment, rent, or rent-to-own, our Sales and Rental Teams will assist you. A limited selection of our accessories is included in this catalog.

For our full offering of accessories, please visit [www.in-situ.com](http://www.in-situ.com).

EVERYTHING YOU NEED TO COMPLETE THE JOB. FROM PUMPS AND PIDS TO CALIBRATION SOLUTIONS AND EXTRA CABLES, YOU'LL FIND IT HERE.

Key Accessories

- Device communication
- Cables
- Deployment equipment
- Batteries
- Calibration solutions and kits
- Maintenance and replacement parts
- Desiccant
- Antifouling
- Low-flow kits
- Well accessories & pumps



Android Tablet

Use with the VuSitu App and the Rugged TROLL, Level TROLL, Aqua TROLL and smarTROLL instruments.



Wireless TROLL Com

Provides wireless communication between Rugged TROLL, Level TROLL, Aqua TROLL and smarTROLL instruments and a PC/laptop or mobile device. #0031240



TROLL Communication Device

Connect a Level TROLL or Aqua TROLL to a PC. Direct-connect (USB) or Cable connect (USB), #0056150





**Wireless Rugged TROLL Com**  
Provides wireless communication between a cabled, deployed Rugged TROLL 100 or 200 and a PC/laptop or Android mobile device.  
#0031220



**Rugged TROLL Docking Station**  
Program and download data from a Rugged TROLL 100 or 200 Data Logger.  
#0091970 USB



**Tube-Cube Computer Setup Cable**  
Programs a Tube or Cube Telemetry system.  
#0063540 USB,  
#0062260 serial



**Communication Device Kit**  
Connects a stripped-and-tinned RDO PRO-X Probe, RDO PRO Probe, RDO Titan, or Aqua TROLL 400 Instrument to a computer.  
#0081100



**Tube 300R In-Well Bail**  
Secures a Tube 300R inside a well.  
#0060240



**Power Pack/Wireless TROLL Com Charger**  
Provides power from any wall outlet to a USB cable; #0065780. North American wall outlet only to a USB cable.  
#0065770



**TROLL Battery Pack**  
Supplements internal battery power for Level TROLL, Aqua TROLL, or BaroTROLL Data Loggers.  
#0051450



**TROLL Replaceable Battery Pack**  
Replaceable battery pack that supplements internal battery power for Level TROLL, Aqua TROLL, or BaroTROLL Data Loggers.  
#0090000



**iPod Touch - 32 Gb**  
Use with the iSitu App and the smarTROLL MP or smarTROLL RDO Handheld for instant, real-time data.  
#0071890



**IP68-rated iPhone5 iPod Touch Case**  
Dirt-proof, snow-proof, shock-proof and waterproof up to 6.6 feet (2 m).  
#0072110. #0062420



**Rugged Cable**  
Provides real-time data communication for In-Situ instruments.  
#0052000



**smarTROLL Cable**  
Connect the smarTROLL Multiparameter Handheld or smarTROLL RDO Handheld Probe to the smarTROLL Battery Pack or smarTROLL Power Pack.  
#0099120+



**smarTROLL Battery Pack for iOS**  
Supplies power to a smar TROLL probe and communicates wirelessly with an iOS device.  
#0099110



**smarTROLL Power Pack for Android**  
Supplies power to a smarTROLL probe and communicates wirelessly with an Android device.  
#0031230



**Tube-Cube Replacement Battery Pack**  
#0062280 Lithium (Tube 300R, Cube 300R),  
#0062290 Nickel Cadmium (Tube 300S, Cube 300S).



**Quick Cal Solution**  
For fast 1-point calibration checks of pH, ORP, and conductivity on the Aqua TROLL 500/600.  
#0033250



**Rugged TROLL Direct-Read Cable**  
Connect a Rugged TROLL 200 Data Logger or Rugged BaroTROLL Data Logger directly to a computer or other logger.  
#0087300+



**Rugged Cable Splitter**  
Splits off a single female twist-lock connector to attach an In-Situ instrument; chain multiple instruments in a single water column. Vented and non-vented.  
#0095500



**Suspension Cable**  
Suspends instruments in deployment areas.  
#0066470 50 ft (15.24 m),  
#0066460 150 ft (45.72 m),  
#0066450 300 ft (91.44 m)



**Cube 300S Pole Mounting Bracket**  
Mount a Cube 300S Telemetry System to a wall.  
#0062330



**pH Calibration Kit**  
Ideal for multi-point calibrations. Contains a set of three NIST-traceable pH solutions for both pH and ORP.  
#0032080 full range pH only,  
#0032120 full range pH plus ORP.



**Tube And Cube 300R External Antenna**  
Improve the cellular signal quality received by a Tube 300R deployed inside a well casing. The antenna is installed on the top of the well. #0062240



**Dissolved Oxygen Field Calibration Kit**  
Perform 2-point dissolved oxygen calibrations on Aqua TROLL 400/500/600, and smarTROLL Multiparameter Handheld  
#0080830  
AT600 #75600



**Aqua TROLL 500/600 Maintenance Kit**  
Includes everything you need to keep your Aqua TROLL 600 Multiparameter Sonde in excellent condition.  
#0078940





**Cleaning Supplies**  
Alconox® Powder Detergent (4 lb box) #0029740.  
LiquiNox® concentrated liquid detergent (1qt.). #0029740



**Nitrile Gloves**  
Powder-free nitrile gloves. 6mm thickness, available in Small through Extra Large sizes. 25 pairs per box #0029700; #0029710; #0029720; #0029730



**Desiccant Refill Kit**  
Replacement desiccant for the large, extra large, and outboard desiccants. #0029140



**Large Desiccant (Titanium Connector)**  
Protects instruments and cables during deployments. #0051810



**Aqua TROLL 500/600 RDO-X Sensor Cap**  
Everything you need to replace your RDO-X Cap for the Aqua TROLL 500/600 Multiparameter Sonde. #0079790



**RDO-X Sensor Cap Replacement Kit**  
Replace your RDO Cap for the RDO PRO-X Probe manufactured after 1/1/2014. #0088720



**RDO Sensor Fast Cap Kit**  
Replacement for expired RDO Fast Cap for the smartTROLL Multiparameter Handheld or smartTROLL RDO Handheld. #0077700



**TROLL Shield Antifouling Conductivity Sensor**  
Copper conductivity sensor guard. Extends Aqua TROLL 100/200 deployments by up to six weeks. #0085190



**Large Desiccant (ABS Connector)**  
Protects instruments and cables during deployments. #0053550



**Extra Large Desiccant (Titanium)**  
Protects instruments and cables during extended or humid deployments. #0090420



**Replacement Desiccant Bag**  
Desiccant pack for enclosures. #0087630



**Replacement Desiccant Tube**  
Desiccant tube for enclosures. #0058260



**RDO PRO Antifouling Guard**  
Reduce biological fouling of RDO PRO and RDO PRO-X Probes. #0081300



**TROLL Shield Antifouling Pressure Sensor**  
Copper pressure sensor nose cone combats biofouling and extends Aqua TROLL 200 and Level TROLL 400/500/700 deployments. #0081480



**Replacement pH/ORP Sensor**  
Replacement pH/ORP sensor for the Aqua TROLL 400 and smartTROLL MP Handheld. #0060000



**TROLL Shield Complete Antifouling System for Aqua TROLL 200**  
Antifouling nose cone and conductivity guard for Aqua TROLL 200. #0085400



**Aqua TROLL 500/600 Port Plug**  
Sensor port plug for the Aqua TROLL 500/600. #0063510



**Aqua TROLL 500/600 Antifouling Restrictor**  
Prevents biological fouling from accumulating on the Aqua TROLL 500/600 Multiparameter Sonde. #0076100



**Aqua TROLL 500/600 Weighted Restrictor**  
Adds approx. 7 pounds to the overall instrument weight for profiling, deep wells, and high-flow. #0031350



**Aqua TROLL 500/600 Wiper Port Plug**  
Wiper port plug for the Aqua TROLL 500/600. #0064630



**smarTROLL Multiparameter Low-Flow Kit**  
Everything you need to conduct low-flow groundwater sampling. #0094250



**Pumps**  
Sampling, peristaltic, submersible, and portable bladder pumps available for rent through In-Situ Rentals. #0096350 and more.




**Tubing**  
Polyethylene (PE) or Teflon-lined Polyethylene (TLPE) tubing available in 100 or 500 foot lengths. Silicone pump head tubing, size 15; available in 10, 25, and 500 foot (3.04, 7.62, 152.4 m) lengths. (Multiple items)




**Geotech Pump Bladder**  
Replacement Polyethylene (PE) or Teflon-lined Polyethylene (TLPE) 1.66 x 18 pump bladder. Available in singles and as a case of 12 (PE only). #0072340; #0072490; #0072350







**Vented Locking Well Cap**  
2 in. #0020370  
4 in. #0020390




**Vented Well Cap**  
Vented well cap for 2 or 4 in. wells. (WELL CAP 2", WELL CAP 4").




**Expandable Locking Well Cap**  
2" #0029760; 3" #0029770; 4" #0029780; 6" #0029790; 8" #0029800. TROLL® Quick Link and hanger are sold separately.



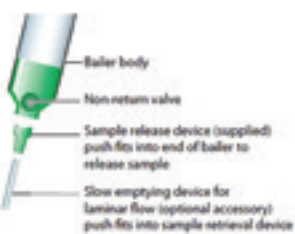
**Well Dock and Sleeve**  
Creates a secure anchor point for cables and suspension wires at the top of a well.  
2 in. #0004690  
4 in. #0004700  
6 in. #0020650




**Aqua TROLL Bail Kit**  
Includes everything needed to secure an Aqua TROLL 600 Multiparameter Sonde in a deployment location. #0079780




**Bailers**  
PVC, 0.7 x 36 in. #0029830; PVC, 1.5 x 36 in. #0029840; Polyurethane, 1.5 x 36 in. #0029850; Biodegradable, 1.5 x 36 in. #0029090




**Slow Emptying Device (Voc Tips) For 1.5 Inch Bailer**  
The Slow Emptying Device attaches to the end of 1.5 in. bailers. #0029080



**Global Water Fp111 Flow Probe**  
Water velocity instrument for measuring flows in open channels and partially filled pipes. #0073030



**MiniRAE 3000 W/ 10.6 eV Lamp**  
Handheld VOC monitor. #96190



**MACE Doppler Ultrasonic Insert Velocity Sensor**  
For use in full pipes or partially full pipes when used in conjunction with a depth sensor. For use in 4" (100 mm) to 100" (2500 mm) pipes. See [www.macemeters.com](http://www.macemeters.com)

1

SELECT AN INSTRUMENT AND LOW FLOW CELL KIT:

Includes: Instrument, flow-through cell with baseplate, Flow-Sense or VuSitu low-flow software, a Windows or Android handheld, cables, QuickCal calibration solution (1), bubbler, and rugged shipping case.



**Aqua TROLL 600 Low-Flow Kit**

- Conductivity
- pH/ORP
- RDO
- Turbidity



**Aqua TROLL 500**

- Conductivity
- pH/ORP
- RDO
- Turbidity

2

SELECT A LOW-FLOW PUMP:

**Centrifugal**

- 200' max sampling depth
- SS Geosub w/100, 150, or 200 ft cable

**Controller**

- SS Geosub (120V AC, 2.6A)

**Options**

- 100 or 500ft of polyethylene (PE) or Teflon-lined PE (TLPE) tubing
- DC/AC inverter

**Bladder**

- 180' max sampling depth
- 0.675x18 (0.75" wells)
- 0.850x18 (1" wells)
- 1.66x18 (2" wells)

**Controller**

- Geocontrol Pro controller and 100 psi compressor (12V DC 7.5A, includes battery/charger)

**Options**

- 100 or 500ft of polyethylene (PE) or Teflon-lined PE (TLPE) tubing
- Additional PE or PTFE bladders

**Peristaltic**

- 27' max sampling depth
- Geopump with easy-load II pump head (12V DC, 6A, includes battery/charger and 4' of silicone tube)

**Controller**

- Not required

**Options**

- 10, 25, or 500ft of silicone pump tubing

3

SELECT AN AIR QUALITY DETECTOR IF EXPLOSIVE GASES MAY BE PRESENT:

**Handheld photoionization detector**

- Measures volatile organic compounds (VOC) from 0 to 15,000ppm with < 3 seconds

4

SELECT ADDITIONAL OPTIONAL ITEMS:

- PE or PVC bailers
- Alconox powdered detergent
- LiquiNox liquid detergent
- Nitrile gloves
- pH/ORP/turbidity/conductivity/DO calibration solutions
- Filters for metals analysis
- Additional Quickcal

For bundle pricing and to place your order, please contact us at the numbers listed below.

1-800-446-7488 (toll-free in U.S.A. and Canada) · 1-970-498-1500 (U.S.A. and international)



# 07

## APPLICATIONS

Applications  
& Technical Notes





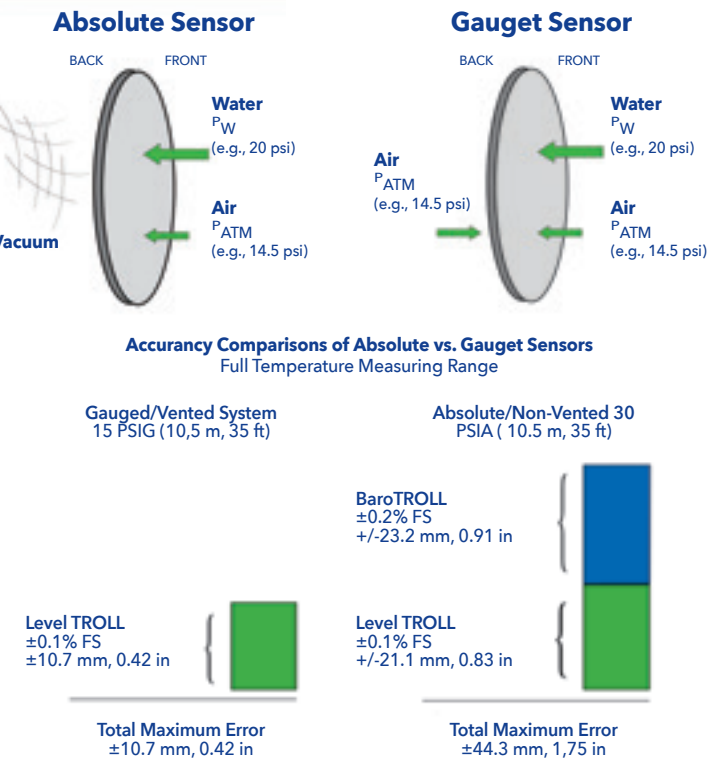
# 07 Low-Flow Groundwater Sampling APPLICATIONS



## ABSOLUTE SENSORS

Absolute (non-vented) sensors respond to atmospheric pressure and pressure head above the sensor. Measurements are read in psia (pounds per square inch absolute) relative to zero pressure.

- **Provide flexibility** - Non-vented sensors work for all applications, provided that a barometric record is kept and data is post corrected. Instruments may be deployed on suspension wire. When using direct-read RuggedCable® System, you can download data without altering the position of the instrument, thus maintaining consistency over the deployment period.
- **Require compensation** - Compensate for atmospheric pressure with barometric pressure data by using a BaroTROLL® Instrument. Use Win-Situ® Baro Merge™ Software to simplify post correction of data.



**FOR A VARIETY OF APPLICATIONS AND ACCURACY REQUIREMENTS, IN-SITU® INC. OFFERS BOTH NON-VENTED (ABSOLUTE) AND VENTED (GAUGED) WATER LEVEL LOGGERS. WE'LL HELP YOU SELECT THE BEST INSTRUMENT FOR YOUR APPLICATION. IN-SITU LEVEL TROLL®, RUGGED TROLL®, AND AQUA TROLL® INSTRUMENTS ARE CALIBRATED OVER THE FULL PRESSURE AND TEMPERATURE RANGE OF THE INSTRUMENT AND SHIP WITH A NIST®-TRACEABLE CALIBRATION REPORT.**

## Gauged Sensors

Gauged (vented) sensors cancel out the effects of atmospheric pressure fluctuations by applying atmospheric pressure to both sides of the transducer's sensing diaphragm. Measurements are in psig (pounds per square inch gauge) relative to atmospheric pressure.

- **Provide accurate results** - Vented sensors eliminate atmospheric influences from readings in real time. With RuggedCable® Systems, you can download data without altering the instrument's position.
- **Save time and reduce errors** - A system that includes a vented Level TROLL and RuggedCable System eliminates the need to post correct data.
- **Require desiccant** - For optimum performance and to maintain vented cable, use with desiccant.



## LOW-FLOW GROUNDWATER SAMPLING

*Save time in the field and simplify sampling events with our accurate water quality instruments and easy-to-use software. Assess water quality over time or get instant results from the field.*

## Low-Flow Purging and Sampling

Low-flow purging and sampling (ASTM standard D67771) is a well-known method of extracting groundwater samples from a well at a very low rate (less than 500 mL/min) in order to minimize contaminant volatilization and amount of wastewater generated. Once key water quality parameters stabilize, a sample can be taken with the assurance that it is representative of the formation water. Well-defined federal and regional guidelines are in place to ensure consistent sampling procedures and data quality.

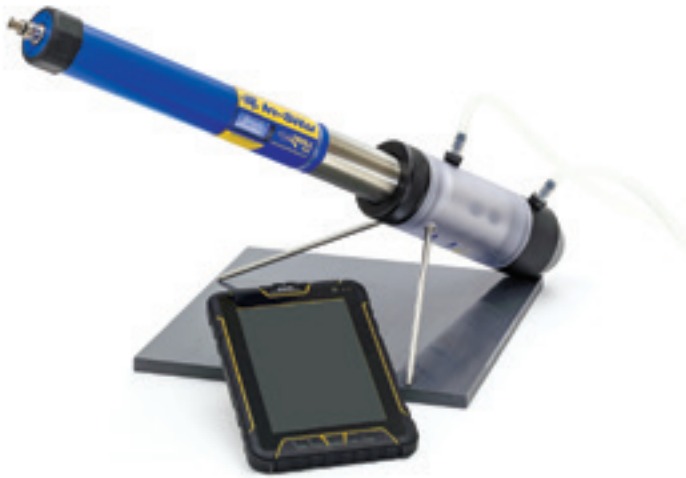
The In-Situ Low-Flow Sampling System and VuSitu Mobile App improves sampling efficiency, minimizes errors, and produces professional and defensible reports.

## Key Advantages

- **Automated Test Setup** - User, site, well, and pump information is retained by the software and can be used at any sampling event. Simply select the sampling location from a pick list at each sampling event and all historical information is available.
- **Automated Data Collection** - Stabilization criteria are set for each monitored parameter and data collection intervals are defined by time or pumped volumes. The software automatically calculates and displays variance during the sampling event.

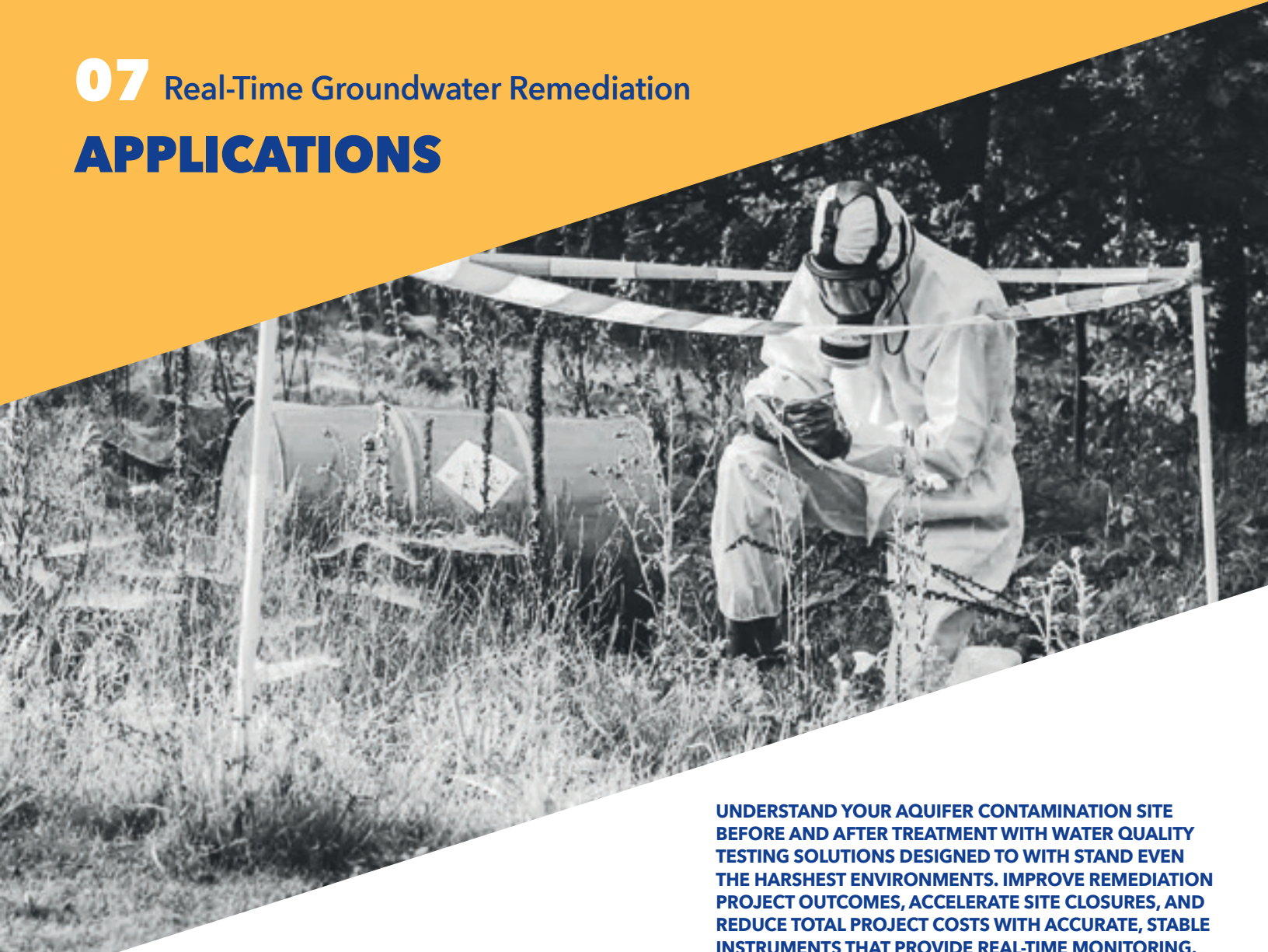
• **Automated Test and Calibration Reports** - After stabilization, stored data can be exported to Microsoft®Excel®. VuSitu automatically generates full calibration and sample reports that conform to federal and regional regulations. You'll eliminate calculations and transcription errors. Plus, you can customize reports to better meet your clients reporting requirements.

• **Mobile App Technology** - VuSitu is a free mobile app that runs on your Android mobile device. Tag sites with GPS coordinates and photos, run live data polling with mark functionality, and instantly share data and reports via email with key stakeholders.





07 Real-Time Groundwater Remediation APPLICATIONS



UNDERSTAND YOUR AQUIFER CONTAMINATION SITE BEFORE AND AFTER TREATMENT WITH WATER QUALITY TESTING SOLUTIONS DESIGNED TO WITH STAND EVEN THE HARSHTEST ENVIRONMENTS. IMPROVE REMEDIATION PROJECT OUTCOMES, ACCELERATE SITE CLOSURES, AND REDUCE TOTAL PROJECT COSTS WITH ACCURATE, STABLE INSTRUMENTS THAT PROVIDE REAL-TIME MONITORING.

Track Performance of ISCO, ISCR, & Biosparging Systems

- Use the sub-2" Aqua TROLL 600 Water Quality Instrument for in-situ monitoring of remediation progress. The Aqua TROLL 600 includes durable sensors that stand up to harsh conditions.
- Measure and log up to 18 parameters with a sub-2" device, including barometric pressure/vacuum pressure, conductivity, DO, pH, ORP, temperature, and water level.
  - Improve performance and reduce maintenance with the EPA-approved optical Rugged Dissolved Oxygen (RDO®) Sensor.
  - Sonde gives you real-time data access and instant results that can be emailed on the spot using your mobile device and the VuSitu Mobile App.
  - Easily integrate with In-Situ telemetry systems and HydroVu Data Services for real-time feedback on all of your remote water monitoring sites.
  - Deploy one instrument to save time and money.
  - Use Tefzel® RuggedCable® Systems that can be decontaminated and used in harsh environments.

REAL-TIME MONITORING SOLUTIONS

Rent or purchase equipment from In-Situ for your next remediation project. You'll save time and money by using In-Situ's durable instruments and chemical-resistant RuggedCable® Systems (Tefzel®). Plus, you receive free 24/7 project support.

Monitor SVE, DPE, & Air Sparging System

- In-Situ offers two options for tracking vacuum pressure and water level. For the highest level of accuracy, use LevelTROLL 500 or 700 and BaroTROLL® Instruments. To simplify deployment, monitor trends, and reduce costs, choose the sub-2" Aqua TROLL® 600 Multiparameter Sonde with barometric pressure and level sensors. For air sparging applications that require dissolved oxygen (DO), vacuum pressure, and water level monitoring.
- Measure and log all required parameters.
  - Monitor performance indicators in real time.
  - Monitor radius-of-influence in real time with the Virtual HERMIT.
  - Kit and vented cable extender

REAL-TIME MONITORING SOLUTIONS - INSTRUMENT SELECTION GUIDE

In-Situ Inc. offers real-time monitoring solutions suitable for most every phase of the site cleanup process. From groundwater sampling and aquifer test equipment for site characterization, to down-well physical and geochemical sensors for injection pilot studies, our systems provide rapid delivery of decision-quality data. Practitioners and stakeholders can reach their remediation goals more quickly, safely, and at a lower cost than with the use of traditional assessment and monitoring approaches.

APPLICATION	DO*	EC	PH/ORP	TEMP	TURBIDITY	VACUUM OR BARO PRESSURE	WATER LEVEL	IN-SITU SOLUTION
CHARACTERIZATION AND REMEDIAL INVESTIGATION								
DNAPL Thickness							■	Level TROLL 500
Groundwater Sampling	■	■	■	■	■			Aqua TROLL 600/500 Low-Flow System
Pump Test						■	■	Virtual HERMIT Aquifer Test Kit and BaroTROLL
Slug Test						■	■	Level TROLL 500/700
Tidal or Tracer Study		■		■			■	Aqua TROLL 200

SOURCE TREATMENT								
Air Sparging Soil Vapor Extraction	■					■	■	Aqua TROLL 600
Dual Phase Extraction						■	■	Aqua TROLL 600 or Level TROLL 500 and BaroTROLL
Soil Vapor Extraction						■	■	Aqua TROLL 600 or Level TROLL 500 or Virtual HERMIT Kit with vented Cable Extender

PLUME TREATMENT								
Enhanced Bioremediation	■	■	■	■		■		Aqua TROLL 400/500/600 or AT400 with Con TROLL PRO System
ISCO/ISCR	■	■	■	■		■	■	Aqua TROLL 400/500/600
Surfactant-Enhanced ISCO	■	■	■	■	■	■	■	Aqua TROLL 600
Pump-and-Treat	■	■	■	■	■	■	■	Aqua TROLL 600 or Level TROLL 500/700 with Con TROLLPRO System

LONG-TERM MONITORING								
Groundwater Sampling	■	■	■	■	■			Aqua TROLL 600
Monitored Natural Attenuation	■	■	■	■		■		Aqua TROLL 600
Pump-and-Treat	■	■	■	■		■	■	Aqua TROLL 600 or Level TROLL 500/700 with Con TROLL PRO System





Slug Testing

Conducting aquifer pumping tests can be expensive and can require significant investments in labor and time. Contaminated water must be treated or transported out of the test area. As an alternative to pumping tests, many hydrologists perform slug tests for the following reasons: to determine estimates of hydraulic conductivity (K), to obtain results more quickly than with a pumping test, to develop small scale studies, to collect very good data in low K layers and to reduce expenses.

Slug tests require the depression or elevation of static water in a well and the measurement of time it takes to equilibrate. This is accomplished by inserting a slug into a well, causing the water level to rise, or by removing the slug, causing the water level to fall. Time is measured until the water level returns to its original static position. Measurements are logged at an extremely rapid sampling rate, typically as fast as the instrument will allow. Alternatively, a logarithmically decaying sampling rate can be used. A valuable reference for all facets of slug testing is The Design, Performance, and Analysis of Slug Tests by J.J. Butler, Jr. (1998).

In-Situ offers one of the most accurate and complete ranges of water level instruments on the market today. The Level TROLL 700 Instrument offers Fast Linear (4 times/second), Step Linear, and True Logarithmic sampling rates for slug testing.

ESTIMATE HYDRAULIC CONDUCTIVITY FASTER WITH TRADITIONAL SLUG TESTS OR PNEUMATIC SLUG TESTS USING OUR PREMIUM WATER LEVEL MONITORING INSTRUMENTS. AUTOMATED WATER LEVEL CORRECTIONS, POST-PROCESSING AND DATA EXPORT HELP STREAMLINE DATA ANALYSIS FOR FASTER RESULTS.

Win-Situ® 5 Software allows real-time viewing and graphing of the data as it is being logged to the Level TROLL 700 Instrument's memory. Data is available for analysis within Win-Situ 5 Software and can be exported to AQTESOLV Software for further analysis and to apply the desired solution (e.g., Bouwer-Rice) to the data.

Field Equipment

A slug test typically implies that you are only conducting an aquifer test at a single well location. Before you perform a slug test, you will need the following field equipment:

- Measure and log all required parameters. Level TROLL 700 with appropriate length of cable.
- Win-Situ 5 Software running on a laptop computer for
- Level TROLL 700 operation.
- Rugged Tablet.
- VuSitu Mobile App.
- Water Level Tape 200.
- AQTESOLV Software.
- Personal protective equipment.

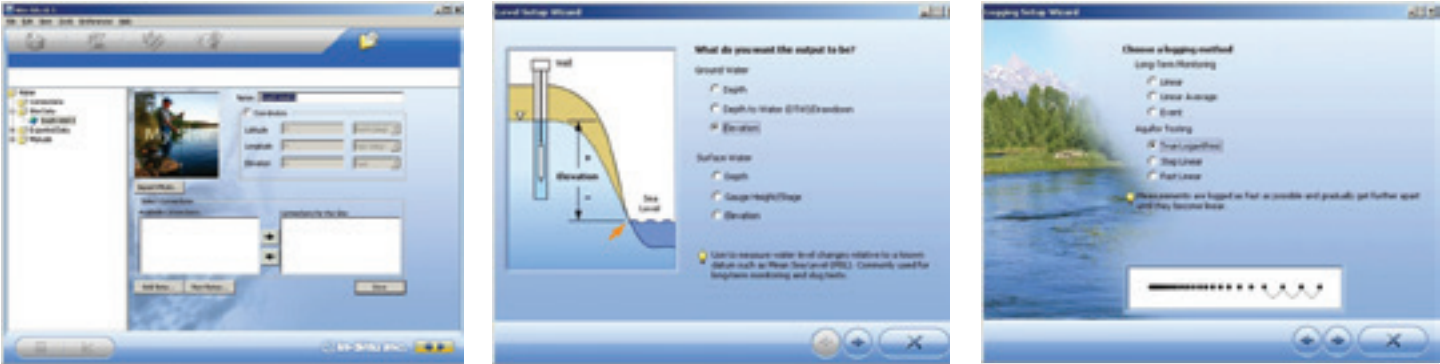
Making a Slug

A slug can consist of a solid object that can slide into a well or a known volume of water. A simple way to make a solid slug is to get a section of PVC pipe that will fit down a monitoring well, fill it with sand, cap both ends, and put a screw eye on one end. You could also fill a bailer with sand and seal the bailer. Butler (1998) provides additional guidance on designing and conducting a slug test.

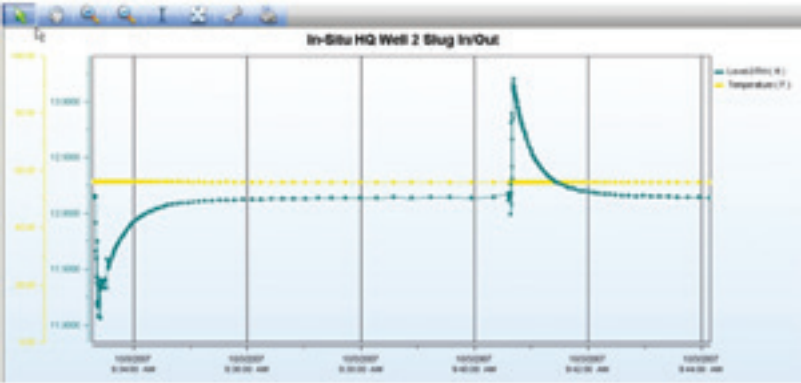
AQTESOLV Software for Aquifer

AQTESOLV Software from HydroSOLVE, Inc. is a powerful tool that enhances analysis of data collected from Level TROLL Instruments. Designed to analyze pump and slug test data, AQTESOLV allows for the easy import of data for analysis and curve matching to multiple solutions and aquifer types.

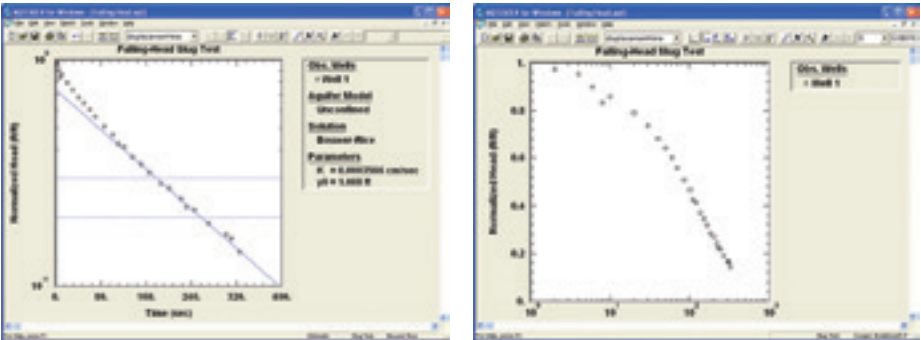
Learn more: [www.in-situ.com](http://www.in-situ.com), [sales@in-situ.com](mailto:sales@in-situ.com), 1-800-446-7488 or 970-498-1500.



Win-Situ 5 Software wizards help you create a site profile, adjust the level reference, select the parameters of record, and set a logging rate and start time. The software then summarizes your settings for review to ensure your instrument is configured correctly.



Win-Situ® 5 Software allows real-time viewing and graphing of the data as it is being logged to the Level TROLL® Instrument's internal memory. Data is stored and available for analysis within Win-Situ Software or can be exported to other programs .



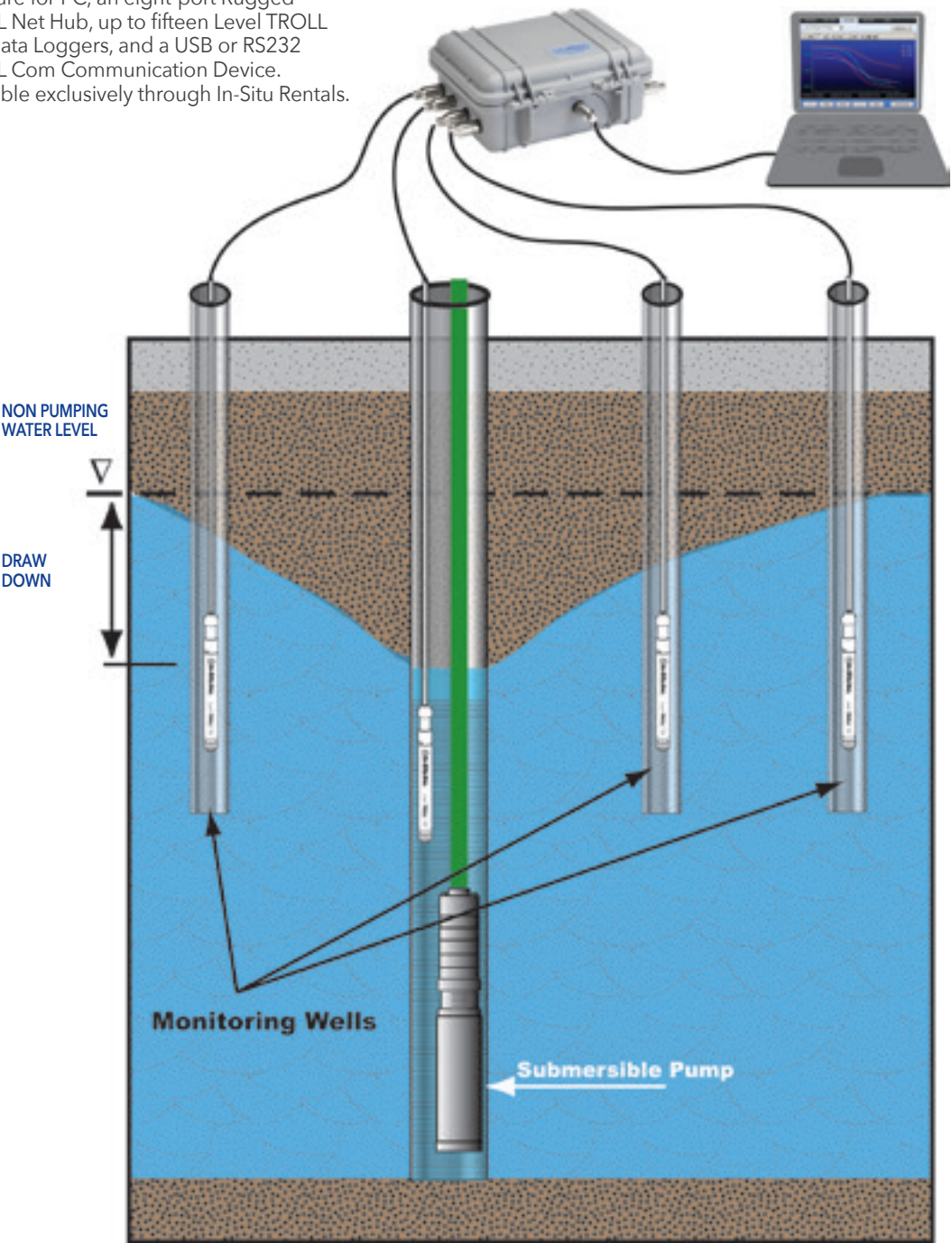
Data from Win-Situ Software can be exported to AQTESOLV Software for further analysis. AQTESOLV allows the user to select the aquifer model and apply the desired solution (e.g., Bouwer-Rice) to the data. A line is drawn over the data points within the recommended head range.





Slug Testing

Connect up to 15 wells and program all data loggers at once to conduct step-drawdown tests and constant pump rate tests across an entire well field. Your rental will include Virtual HERMIT Software for PC, an eight-port Rugged TROLL Net Hub, up to fifteen Level TROLL 700 Data Loggers, and a USB or RS232 TROLL Com Communication Device. Available exclusively through In-Situ Rentals.





# RENTAL TERMS & CONDITIONS

## Terms, Conditions & Agreement

### Rental Period

The rental period begins one business day after shipment of equipment to customer, unless Saturday delivery is requested, in which case billing begins on Saturday. Billing continues through the day before the equipment is received in Ft. Collins, Colorado. In-Situ® Inc. (ISI) does not bill for Saturday and Sunday if the equipment is received by ISI on Monday. In cases where customer picks up equipment from ISI, the rental period starts on the day the equipment is picked up and ends the day of return delivery to ISI. The minimum rental period is one day (24 hours).

### Shipment

The customer is responsible for shipping charges in both directions. All instrumentation is examined, checked, and cleaned prior to shipment to assure performance. All equipment is shipped standard Federal Express overnight, unless otherwise specifically stated on the purchase order by the Customer. ISI agrees to ship equipment to Customer in compliance with all applicable federal, state, and local rules, regulations, and procedures. Customer agrees to comply with all applicable federal, state, and local rules, regulations, and procedures when returning equipment to ISI and to return the equipment in its original shipping containers, whenever possible. Department of Transportation (DOT) regulations apply to shipments containing potential hazardous material. ISI may ship equipment containing lithium batteries, considered potentially hazardous by the DOT. These regulations apply for shipments either to the Customer from ISI or from the Customer to ISI. Federal laws provide for penalties if such regulations are not followed. ISI is required

by law to report any violations known to it. Further information about shipping can be obtained from ISI.

### Cancellation

Orders that are cancelled less than 24 hours from ship date may be charged a \$100 restocking fee. If an order is cancelled after equipment has been shipped, Customer agrees to pay charges incurred by standard rental period as defined above, plus all shipping charges.

### Customer Obligations

Equipment is to be returned to In-Situ Inc. by the customer in good condition and repair, wear from reasonable and proper use excepted. Cleaning and decontamination charges will apply if such service is deemed necessary. The customer is responsible for damage to equipment due to abuse, misuse, or negligence and agrees to pay repair or replacement cost. The customer shall not make any modifications, additions, or improvements to the equipment and shall use it only for the purpose and in the manner which the manufacturer intended. Product descriptions and specifications in ISI Catalog reflect representations made by the manufacturers and do not constitute guarantees or warranties of ISI.

### Inspection

Customer agrees to inspect the equipment on receipt and notify ISI immediately of any damage to the equipment. In the event of any failure caused by shipping, Customer agrees to contact ISI within one day following discovery of the problem for return instructions, and Customer agrees to return the failed equipment with ISI's instructions.

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# CONTACT US

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# IN-SITU RENTALS AND SALES

## Environmental Monitoring Equipment

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### Just Three Simple Steps to Rent Online

- 1. Click:** create or login to your account at [rentals.in-situ.com](http://rentals.in-situ.com) to reserve dates and additens to your shopping cart.
- 2. Confirm:** once your cart is complete, confirm and place your order using the online checkout process.
- 3. Deliver:** we guarantee next-day delivery for online rental orders placed by 4 pm MT. Need it sooner? No problem, just give us call!

As always, if you need assistance at any time, we're here to help. Please call 1-800-446-7488 or 1-970-498-1500. We are not a call center - we're real people with real experience, and we're here to help 24/7/365.

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EASY INTEGRATION  
FULL SUPPORT**

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For more information on water quality and level instruments, common applications, remote monitoring, instrument calibration, data management, or other related topics, please contact In-Situ to schedule an on-site technical session with a member of our staff. We are happy to visit your office or project site to provide complimentary training for your team.

To schedule a session, please call 800-446-7488 or email [sales@in-situ.com](mailto:sales@in-situ.com).

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