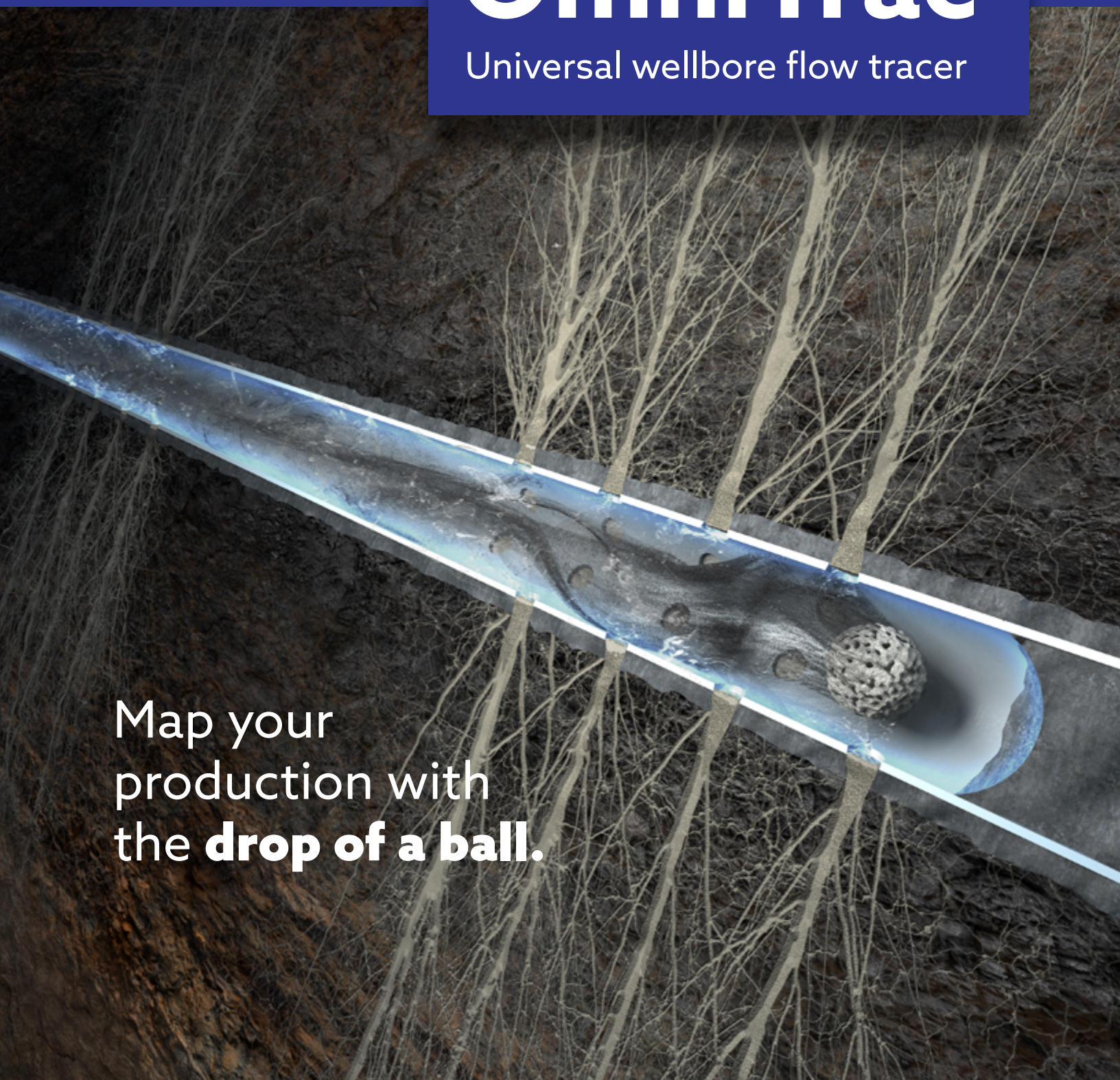
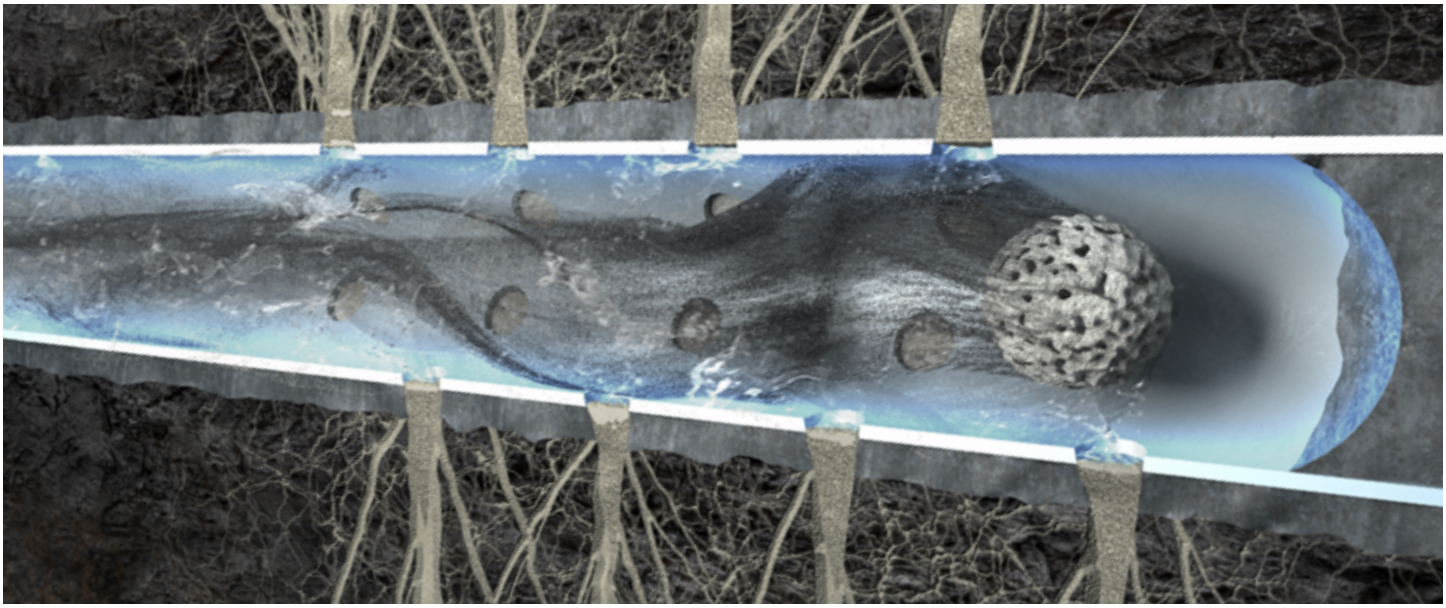
QuantumPro, Inc.

OmniTrac™

Universal wellbore flow tracer



Map your production with the **drop of a ball.**



OmniTrac: The non-intrusive way to diagnose production behavior from the bottom up

It's a given that most production wells are not living up to their full potential. During production, any number of downhole conditions, from changes in the wellbore formation, frac sand flowback to wellbore restrictions impede the delivery of maximum value from your valuable producing asset. Typically, the only way to quantify production flow from the vulnerable end of the wellbore is through complex and costly interventions or the installation of downhole cameras and the like.

Now, QuantumPro, Inc., the leading tracer and flow diagnostics company that brought you the groundbreaking FloTrac™ ultrahigh-resolution nanoparticle tracer technology, comes the new generation OmniTrac™ universal wellbore flow tracer. Universal, in that this non-intrusive technology abetted with advanced nanomaterials and nano science and empowered by data-driven analysis and high-resolution graphic representation, is applicable to any newly completed/fraced, re-fraced or legacy producing well. Oil, gas, geothermal or water producing wells. Simple or complex. Vertical or horizontal. Onshore or offshore.

OmniTrac tracer behaves in a well much like the gelatin medicine capsule your doctor prescribes. Here, however, the "capsule" is a highly engineered and precisely machined dissolvable alloy ball that is simply dropped or pumped to the bottom of a vertical wellbore or to the toe of an extended-reach horizontal section. Once there, the ball dissolves upon interacting with freshwater, brine, frac fluid or production fluids, effectively dispersing the "medicine," which in this case, is a uniquely tagged FloTrac ultrahigh-resolution nanoparticle tracer. The released tracers return to surface with production flow where they are expertly sampled and analyzed with the very latest in sub-atomic particles detection methodologies, producing precise the bottom of the well flow quantification and affordable flow diagnostics results.

Whether your well has been on line for two months or two decades, a new completion or an existing producer, the OmniTrac universal wellbore flow tracer gives you a highly accurate appraisal of real-time production flow from the end of the well, providing all the insight you need to put your production on a healthy plane, and at minimal hassle and cost.

Applications

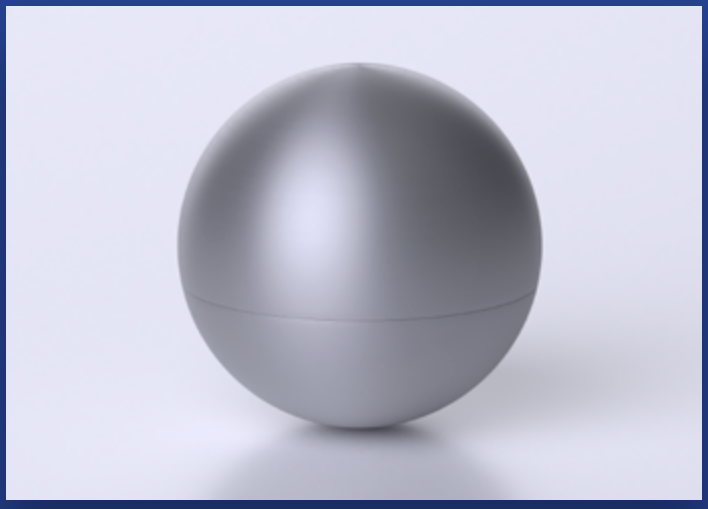
- Oil, gas, geothermal and water producing wells
- New completions or legacy producing wells
- Vertical or horizontal wellbores
- Onshore or offshore wells
- Fractured or non-fraced wells
- High-temperature or ultra-high-temperature wells
- Complex well trajectories and longer lateral

Benefits

- Monitors production flow from the end of each well
- Pinpoints wellbore production blockages and flow problems
- Requires no surface, downhole and subsurface modifications
- Applies to all production, completions, and deviation well designs
- Maintains ultra-high pressure and temperature stability
- Provides detailed graphic representations of production flow inside the wellbore
- Deploys easily and risk-free with minimal costs
- Provides insightful mapping of downhole production
- Requires no special handling and downhole modification
- Recommends the most effective production remediation plan
- Generates precise and low-cost wellbore production analysis
- Advance wellbore flow assurance and diagnostics
- Helps maximize asset value from the bottom up

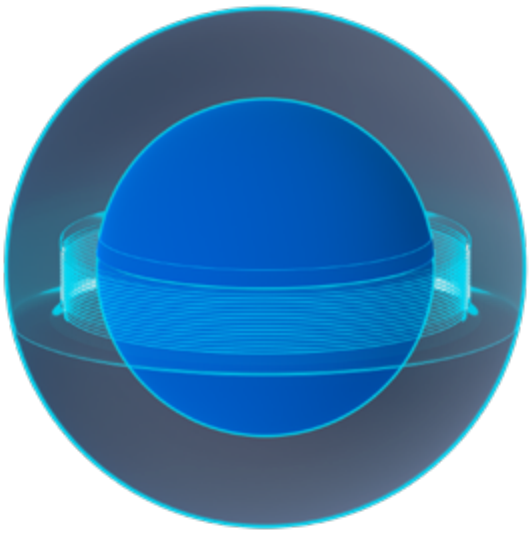
Features

- Hollow dissolvable alloy carrying capsules
- Balls filled with uniquely tagged FloTrac nanoparticle tracer
- Single ball or multiple balls deployment per wellbore or lateral
- Optimized ball size configurations of 2.5-in., 3.5-in., and 4.5-in. OD
- Flexible metallurgy and tailored design for programmed dissolvability
- Balls dissolve upon contact with freshwater, brine, frac or production fluids
- Easily dropped or pumped to end of wellbore or horizontal lateral
- Rigorous ball design and pumping pressure stability to 7,500 psi
- Tracers maintain temperature stability to 2000-degF
- Specially machined threading and inside capsule design
- Unique nanoparticle tracer composition, manufacturing, fingerprinting process
- Non-hazardous, non-radioactive and safe materials
- Near real-time date-driven onsite diagnostics of production flow
- Physics-based rigorous sub-atomic detection and flow diagnostics



Proven metallurgy under the most stressful of environments





The hollow dissolvable balls used in the OmniTrac universal wellbore flow tracer are engineered by the world's premier developer of highly functional alloys, field-proven in defense, advanced aerospace, and equally stressful industries.

Before dissolving and dispersing the non-radioactive FloTrac ultrahigh-resolution nanoparticle tracer, the balls are specially engineered to maintain integrity under differential pumping pressures of up to 7,500 psi and temperatures of 500-deg. F. The higher the temperature, in fact, the faster and more effective the dissolvability of the carrying capsules once deposited at the end of the well.

Conceptually similar to dissolvable plugs, the balls are machined to standard 2.5-in., 3.5-in., and 4.5-in. OD to meet the range of production tubing sizes, completion designs, and surface frac or pump-down pumping flowlines. What's more, the metallurgical composition is sufficiently flexible to moderate the dissolvability rate, from one day to longer, depending on the analytical and production diagnostics objectives.

Each ball is packed to the brim with one of the unique types of FloTrac nanoparticle tracers in the QuantumPro inventory, specially selected for the wellbore conditions, downhole fluid properties, flow mapping objectives and other pre-deployment determinations. Highly engineered threading ensures all the tracers remain inside the ball until it reaches the bottom of a vertical well or the farthest end of a lateral, whereupon they are released into the flow stream to begin their diagnostic journey.



With stress-free **unintrusive deployment**

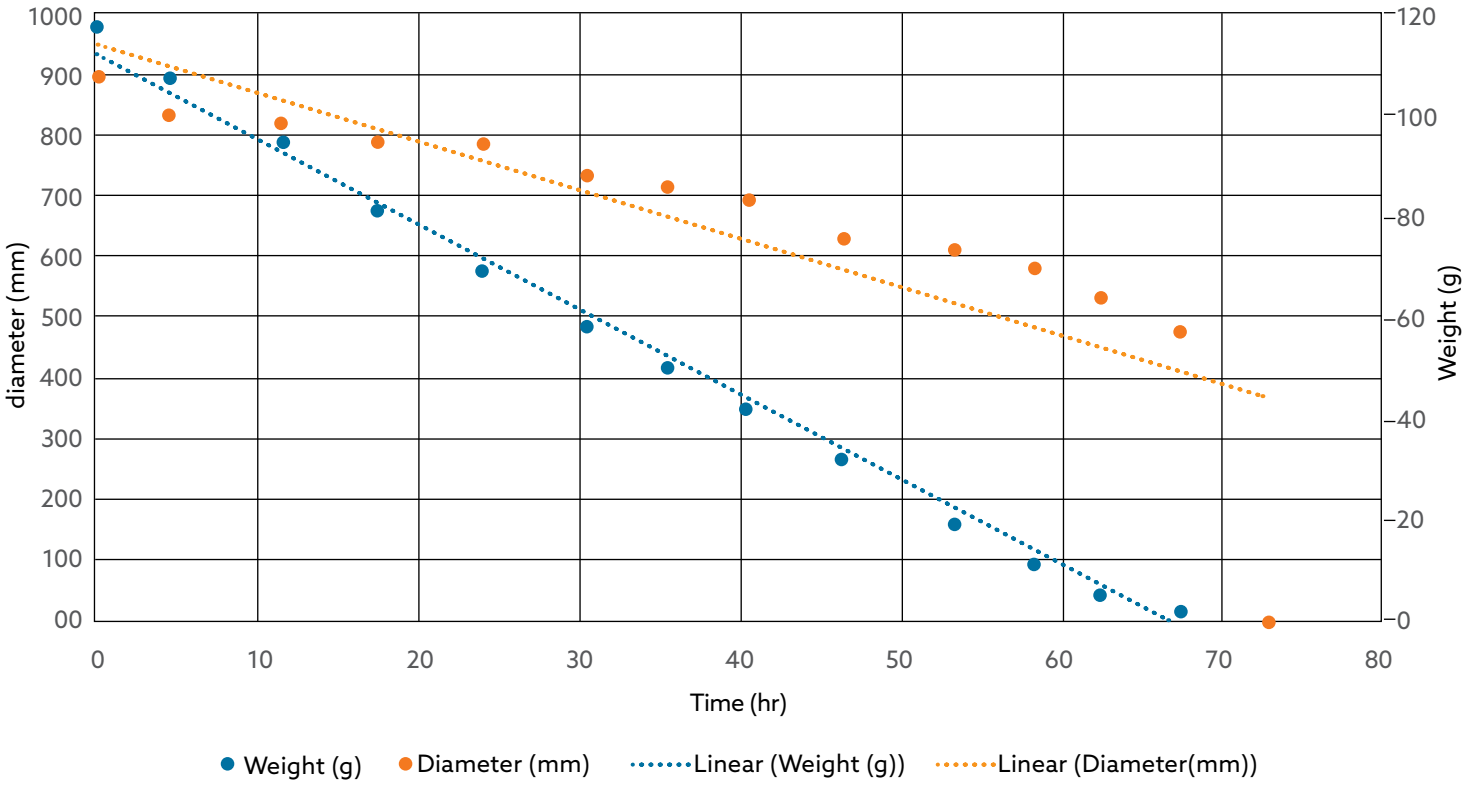
OmniTrac requires no subsurface or surface modifications.

The beauty of OmniTrac is that it requires no subsurface or surface modifications. In vertical wellbores, a QuantumPro technician simply drops a ball into the wellbore where gravity does it thing. In horizontal wells, a single ball is pumped to the toe of the lateral with pump-down or frac equipment, remaining unblemished under the high-pressure pumping environment.

Moreover, the successive deployment of a single ball for each consecutive month, for example, could also enable you to see changes in flow behavior over a longer period of time and analyze the changes in the flow performance by looking at the unique tracer recovery from each ball placed downhole. If you wish to extend the production monitoring period, multiple balls can be dropped or pumped to increase the volume of nanoparticle tracers deployed at the bottom of the well with even higher recovery rates.

For multiple-interval wells or complex completion design, this straightforward and affordable approach allows you to clearly see if you are producing from bottom of the wellbore or particularly from the hard-to-access toe section of longer horizontal lateral. With OmniTrac, you can avoid the high cost of running a down-hole camera or an expensive coil tubing or production logging tool intervention.

Hollow ball concept - corrosion vs time (Interpreted testing)



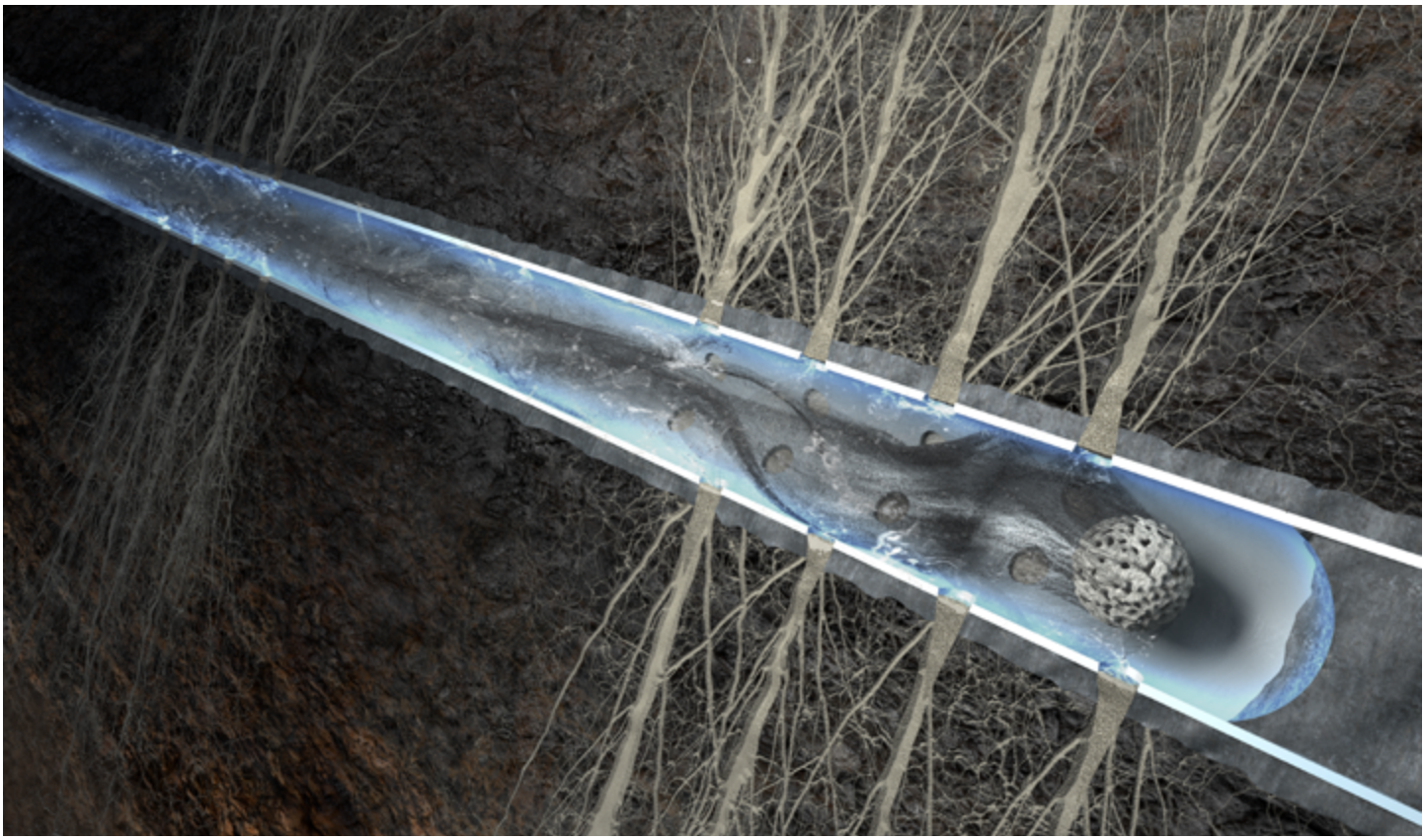
FloTrac provides the diagnosis for a pinpointed treatment plan

The FloTrac ultrahigh-resolution nanoparticle tracer technology cemented its pacesetting reputation in the post-frac diagnostics of hundreds of unconventional oil and gas wells. By bringing stage-level flow mapping to mainstream wells, FloTrac provides operators continuous, actionable and near-real time data to right-size well spacing and head off production-draining inter-well communication, better known as frac hits.

OmniTrac extends that same diagnostic mastery to any wellbore that has been turned-in-line, whether it's producing hydrocarbons, geothermal energy or water.

Each of the uniquely tagged FloTrac tracers in the QuantumPro suite are exclusively formulated for the highest sub-atomic detection accuracy and resolution, and likewise maintain ultra-high-pressure stability and under temperatures of up to 2000-deg F. Once they are gradually released into the production stream, the inert FloTrac nanoparticle tracers deliver exceptional surface recovery rates, enabling unequaled quantification of where production is hitting a roadblock. When you can visualize with unprecedented accuracy where flow is restricted, you have all the evidence you need to develop an effective and cost-saving treatment plan, from a targeted wellbore clean-up to a re-perforation.

As an added bonus, since the distinctive fingerprints of the FloTrac nanoparticles require no radioactive materials, they are safe to handle onsite, elevating both your environmental profile and ease of production sampling and diagnostics.





High-level diagnostics at low-level costs

The true value of the OmniTrac universal well-bore tracer lies in the distinctively intelligent diagnostics it brings to any producing well.

The advanced data-driven analysis of the tracers as they are returned to surface with production quantify quickly and precisely where production is being stifled. Proprietary sampling and on-site interpretation provides near real-time data on production flow, giving you unmatched insight into the most effective, and targeted, treatment plan.

The post-analysis results are encapsulated in high-quality graphic representations, providing you a wellbore view of production behavior, clearly identifying where the flow of oil, gas, geothermal steam or water has hit a snag, identify flow restriction and how best to induce maximum flow.

All this at a small fraction of the costs of running the cameras, acoustics, production logging, retrievable fiber or equally complicated and intrusive production monitoring technologies, or what otherwise could be an ineffective intervention.

OmniTrac™

Your prescription for a healthy well

Just as a doctor would never prescribe a treatment plan without first diagnosing the ailment, the OmniTrac universal wellbore tracer provides the information you need to perk up your well, from the farthest end to the surface.

QuantumPro, Inc.

To learn more about how OmniTrac can help maximize the production and value of your oil, gas, geothermal or water asset, contact **QuantumPro, Inc.** at

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