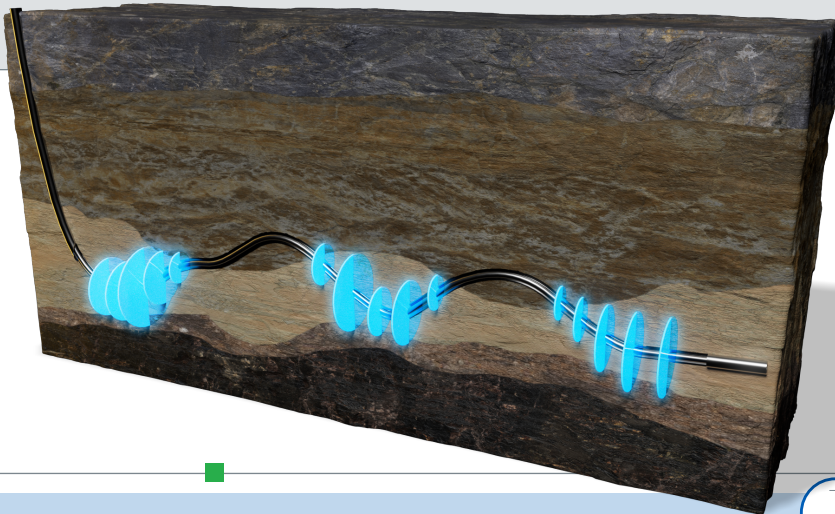




The most precise tracer delivery system for profiling hydrocarbon production and communication over time.

FLOWPROFILER™ oil tracers with the Engineered Delivery System (EDS) are designed to be placed within the propped fracture network. Proprietary beads, chemically engineered to bond specifically with ProTechnics oil tracers, are injected with the proppant. Oil samples are analyzed, profiling well production and offset communication to understand:

- ▶ Stage Contribution
- ▶ AB Testing
- ▶ Effects of Geologic Features
- ▶ Depletion Effects
- ▶ Well Spacing
- ▶ Lateral Length and Trajectory

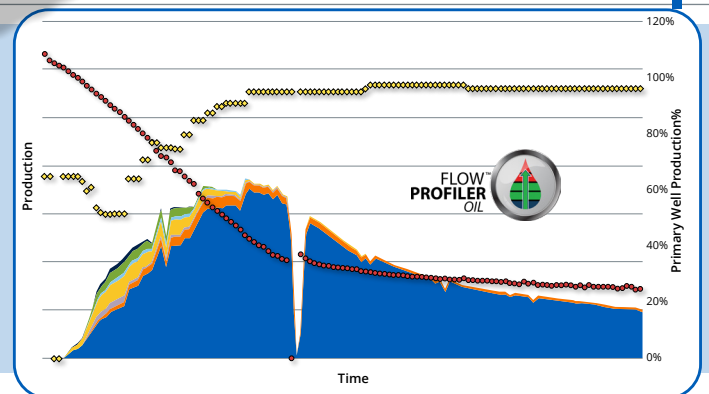


Stage by Stage Hydrocarbon Profiling

FLOWPROFILER™ oil tracers demonstrating little to no contribution from stages drilled out of zone

Production Thievery:

Percentage of well performance attributed to thievery from other wells in the section.



Sample analysis begins at first oil production through 6 months+ and includes:

- ▶ Dedicated Sample Coordinator
- ▶ Stringent QC through adoption of EPA quality control management standards
- ▶ Parts Per Trillion (PPT) reporting limit
- ▶ Standard analysis completed in less than 5 days
- ▶ Express analysis available for results in less than 24 hrs

FLOWPROFILER® Oil tracers are compatible with commonly used stimulation fluids, hydrophobic, non-radioactive, HSE friendly, and non-naturally occurring.



FLOW PROFILER™
OIL



Solid tracer delivery system achieves precise placement and more accurate production profiling.

Proprietary beads, chemically engineered to bond specifically with ProTechnics' oil tracers are injected with the proppant. When the beads come into contact with oil, the oil acts as a solvent, breaking the chemical bond and allowing the tracers to dissolve in the oil. The precise placement advantage is clear; tracers are only present in the propped frac.

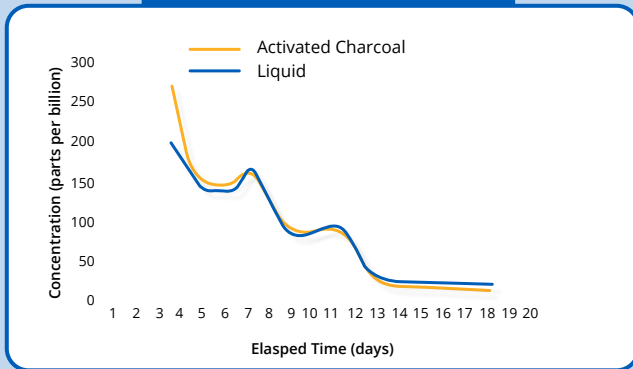
Specifications:

- ▶ Engineered beads available in 40/70 or 100 mesh
- ▶ Specific gravity (SG) of 2.45
- ▶ Temperature rated to 400 F (204 C)

	Liquids	General Adsorbents	FlowProfiler™ EDS
Delivery Mechanism		Diatomaceous Earth Activated Charcoal	Proprietary
Absorption Process		Capillary	Chemical Bond
Stage Contribution	▲	▲	▲
Long Term Results	▲	▲	▲
Tracers in Fracture		Assumed	▲
Minimize Dispersion			▲
Immune To Tracer Wash Off			▲
Designed Specifically for Oil Tracers			▲
Uniform Structure Allows For Precise Injection			▲

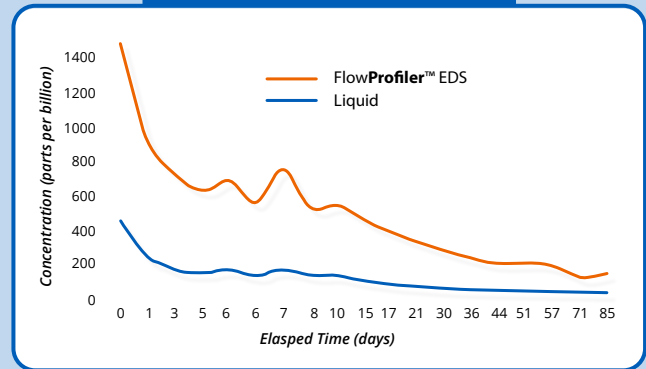
FlowProfiler™ EDS vs Conventional Methods

Oil Tracer Concentration vs. Time



Testing has shown no difference in liquid vs activated charcoal performance due to crushing/dispersion.

Oil Tracer Concentration vs. Time



The advantage of precise placement (FlowProfiler™ EDS).

Learn More
on YouTube

