OCTOBER 2025

biota

EMPOWERING THE PFAS CLEAN-UP ECONOMY

OUR PURPOSE

To accelerate the PFAS cleanup economy by removing the testing bottlenecks slowing down the entire industry.

OUR PARTNERS

BACKGROUND

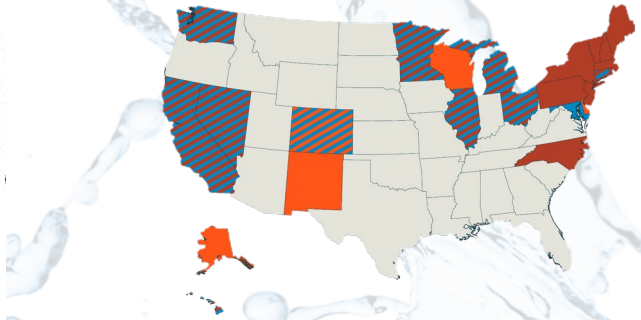
THE PFAS CLEAN-UP ECONOMY.

Driven by new bipartisan federal and state regulations - billions of dollars are flowing into the PFAS cleanup economy.

DRIVERS

Federal Regulation in place

PFAS compounds have bee designated hazardou substances under CERCL (Superfund law) and are no regulated by the EPA's ne ultra-low limits



State Laws amplfying federal action

Over 30 states have enacte or proposed PFAS limits fc water, soil, and biosolid driving mandatory testin and cleanup

$175B

Clean-up projected to exceed $175B

$9B from DoD, $12.5B fror 3M, and $3.5B from th Superfund progran already committed.

The PFAS Clean-up Economy

A growing number o

- environmenta engineering firm
- wastewater anc drinking water utilitie
- PFAS testing labs, an
- the remediatior companies developin removal anc destructior technologies

biota

THE SOURCE OF THE PROBLEM

PFAS TESTING IS THE CHOKE POINT FOR THE $175B+ PFAS CLEAN-UP ECONOMY

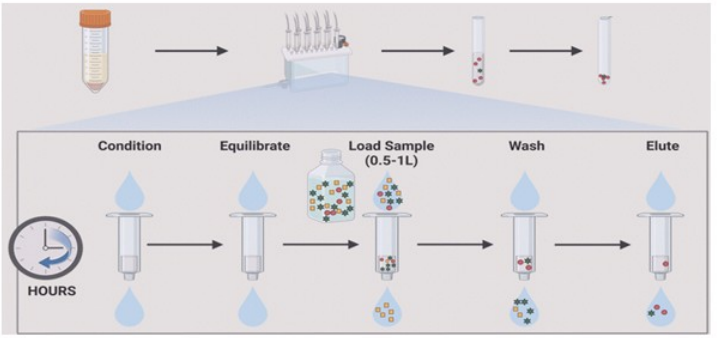
Current lab workflows results in 3+ weeks for results and $500+ per sample.

BOTTLENECK #1

Sheer Number of Samples coming into lab compared to lab capacity.

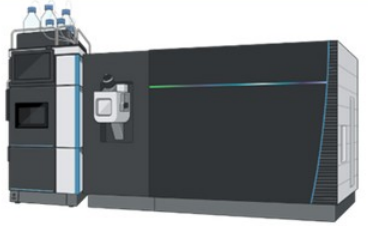
BOTTLENECK #2

Manual, Labor Intensive SPE step = 8 samples per operator per shift



BOTTLENECK #3

Samples are analyzed one at a time on a $500k+ LC-MS/MS instrument.

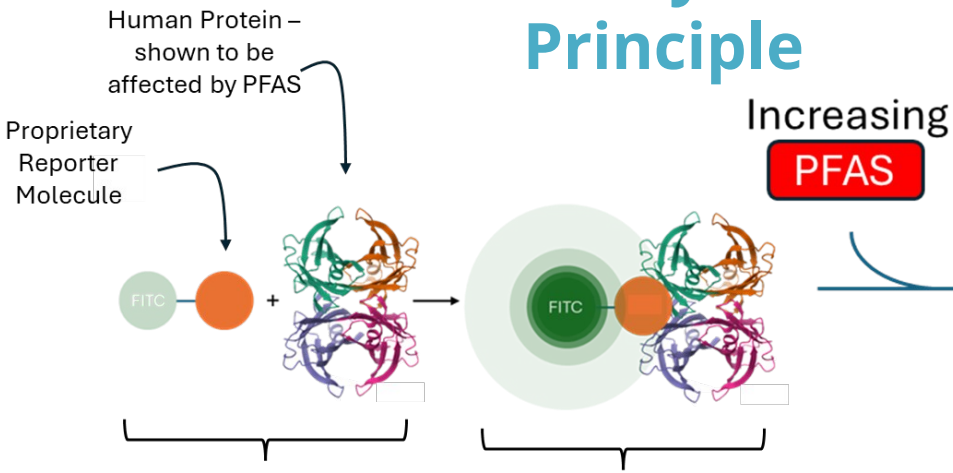


THE SOLUTION

BIOTA IS PIONEERING THE BREAKTHROUGH: TURNING PFAS LEVELS INTO LIGHT

Leveraging a human PFAS binding protein and proprietary fluorescer chemistry, we convert PFA concentration into light- enabling rapid, quantitativ detection in minutes.

Assay Principle

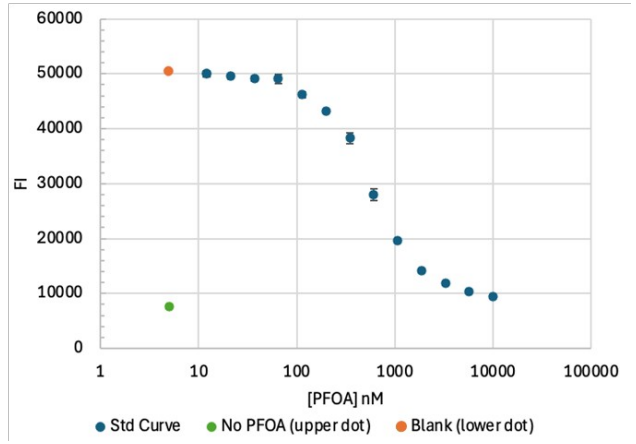


Unbound Reporter = Quenched

Low fluorescence at ex480,em520

Bound Reporter = Unquenched

High fluorescence at ex480,em520



Analytical Performance

High Precision

Average Error <3% RSD

Industry Standard Sensitivity

LOD = 5 ppb

biota

MATCHING THE COMPETITION WASN'T ENOUGH

WE BUILT HIGH-AFFINITY MAGNETIC NANOPARTICLES TO CONCENTRATE PFAS 1000×— **ENABLING 5–50 PPT DETECTION**

PFAS in 500mL
50 ppt

Simple, field-compatible operator steps

PFAS in 0.5mL
1000x concentrated
50 ppb
(well within Biota Test's LOD)

biota

THE BUSINESS MODEL

TWO COMPLEMENTARY PRODUCTS DRIVE RECURRING, HIGH-MARGIN REVENUE.

The Biota Lab™

Automated PFAS Sample Prep

Recurring consumables revenu high-margin replacement for WA SPE cartridges

Near Commercialization Ready

The Biota FIELD LAB™

Near Real-time PFAS Testing

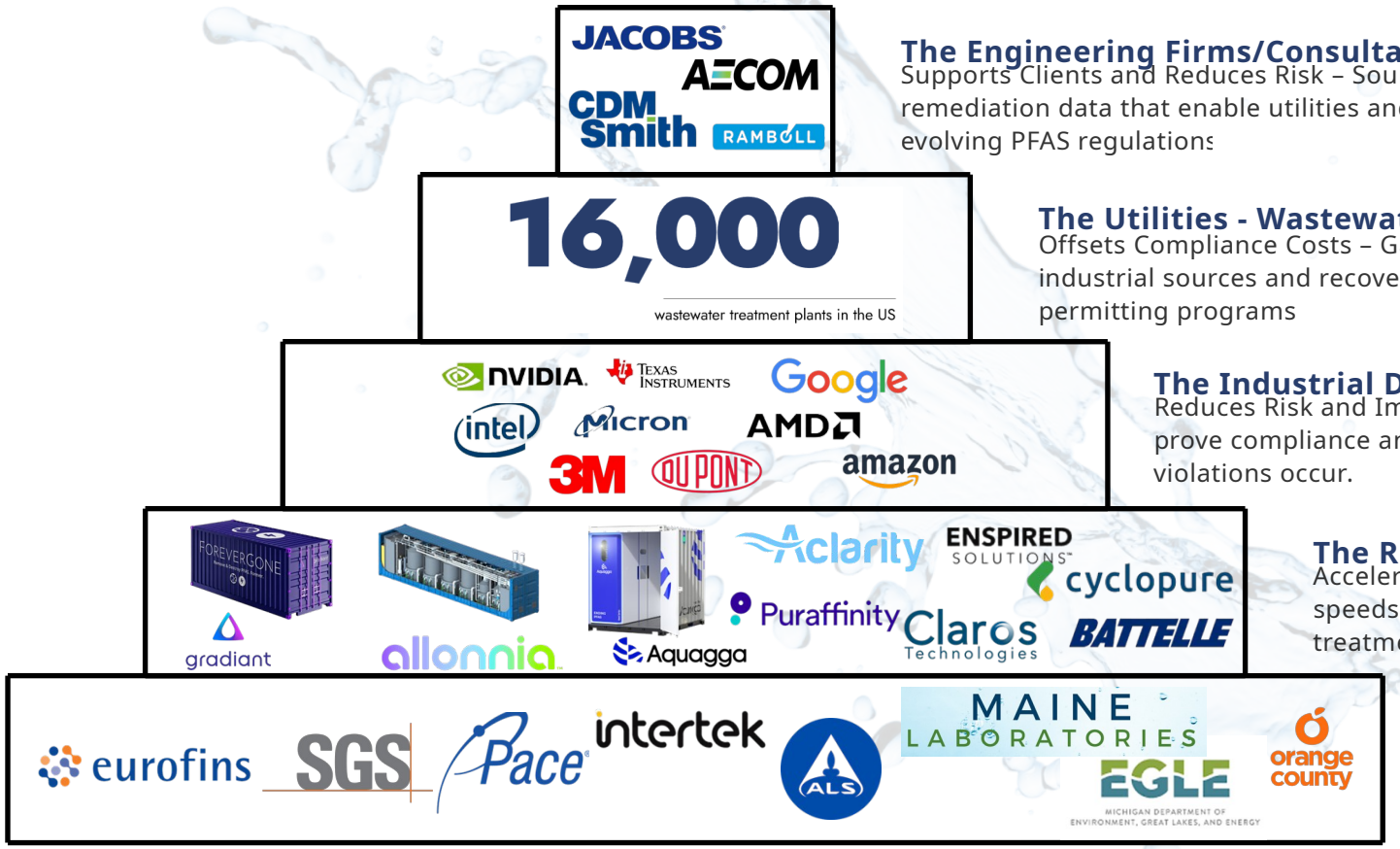
Hardware + consumable subscription model for field use (remediation companies, utilitie engineering firms)

Combined platform yields >75% gross margins and fast path to profitability.

biota

OUR CUSTOMERS

EVERYONE BENEFITS FROM BREAKING THE BOTTLENECKS IN PFAS TESTING



The Engineering Firms/Consultants

Supports Clients and Reduces Risk – Source-tracking a
remediation data that enable utilities and industries to m
evolving PFAS regulations

The Utilities - Wastewater Treatment Plants

Offsets Compliance Costs – Gains the actionable PFAS data needed to t
industrial sources and recover millions in upgrade expenses thro
permitting programs

The Industrial Dischargers

Reduces Risk and Improves Efficiency – More rapid result
prove compliance and guide process adjustments bef
violations occur.

The Remediation Companies

Accelerates Optimization – Delivers rapid performance feedback
speeds R&D, tunes systems in the field, and verifies ongc
treatment results.

The Testing Labs

Increases Throughput and Profitability – Clears backlogs, acceler
turnaround, and boost margins on 'rush samples' without adding s

biota

THE MARKET OPPORTUNITY

PFAS ANALYTICS IS A MULTI-BILLION DOLLAR INDUSTRY

FIELD PRODUCT – Rapid PFAS Test

Segment	Geography	Number of Entities	Avg Tests per Entity / Year	Total Tests / Year	Annual Revenue (USD M)
Wastewater Utilities	U.S.	16 000	600	9.6 M	**960 M**
	EU	26 000	600	15.6 M	**1 560 M**
Industrial Dischargers of PFAS	U.S. (≈ 2 500 sites)	2 500	120 (10 / mo)	0.30 M	**30 M**
	Global (ex-U.S., ≈ 38 500 sites)	38 500	120	4.62 M	**462 M**
Engineering / Consulting Firms	US & Canada	50	5 000 (25 projects each)	0.25 M	**25 M**
Remediation – Install Phase	Global (≈ 50 firms × 10 sites)	500 sites	210 tests / site	0.105 M	**10.5 M**
Remediation – Monitoring Phase	Global (≈ 500 sites)	500	260 tests / site	0.13 M	**13 M**
Total Rapid Test Revenue Potential	—	—	—	**30.61 M tests / yr**	**≈ $3.06 B / yr**

LAB PRODUCT – Automated PFAS Sample Prep (nanoparticle beads)

Segment	Geography	Entities	Avg Tests per Entity / Year	Total Tests / Year	Annual Revenue (USD M)
Remediation – Development R&D	Global (≈ 50 firms)	50	2 400 (200 / mo)	0.12 M	**3.6 M**
Top 3 Testing Labs (Eurofins, Pace, SGS)	U.S.	3	Avg 326 000 samples / lab / yr (≈ 1 M total)	1.00 M	**30.0 M**
Mid-Sized Testing Labs (~100 labs)	U.S.	100	4 800 samples / lab / yr	0.48 M	**14.4 M**
Total Lab Market for Automated Sample Prep (beads)	—	—	—	**1.60 M tests / yr**	**≈ $48 M / yr**

Total Addressable Market > $3.1B per year.
Only 2.8 % penetration = $100 M ARR

*see appendix for assumptions used in model

biota

TRACTION

BIOTA'S EARLY TRACTION AND STRATEGIC VALIDATION

$600K

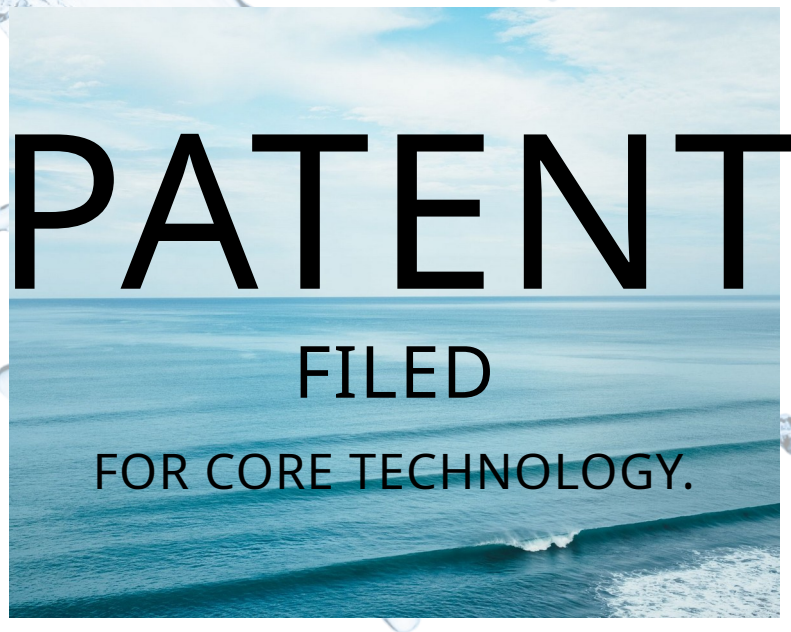
IN GRANT FUNDING

NIEHS SBIR PHASE I, STATE OF COLORADO OEDIT, ADDITIONAL $300K PENDING FROM NSF

3

PARTNERSHIPS

PILOTS WITH 1 TESTING LAB, 1 ENVIROMENTAL ENGINEERING FIRM, AND 1 REMEDIATION COMPANY.



PATENT

FILED

FOR CORE TECHNOLOGY.

STRATEGIC PARTNERSHIP

SECURED FOR BEAD MANUFACTURING

THE TEAM

BIOTA'S CROSS-DISCIPLINARY TEAM BLENDS DIAGNOSTICS EXPERTISE WITH ENVIRONMENTAL LEADERSHIP.

Rose Nash, PhD
SERIAL ENTREPRENEUR, SCALE
WASTEWATER LAB TO $10M REVENUE, AN
SECURED >$50M IN NONDILUTIVE CAPITAL

Tom Wieser, PhD
PROTEIN BIOCHEMIS

Dan Feldheim, PhD
FORMER PROFESSOR O
CHEMISTRY AT UNIVERSITY O
COLORADO,EXPERT IN MATERIAL
SCIENCE/NANOPARTICLES

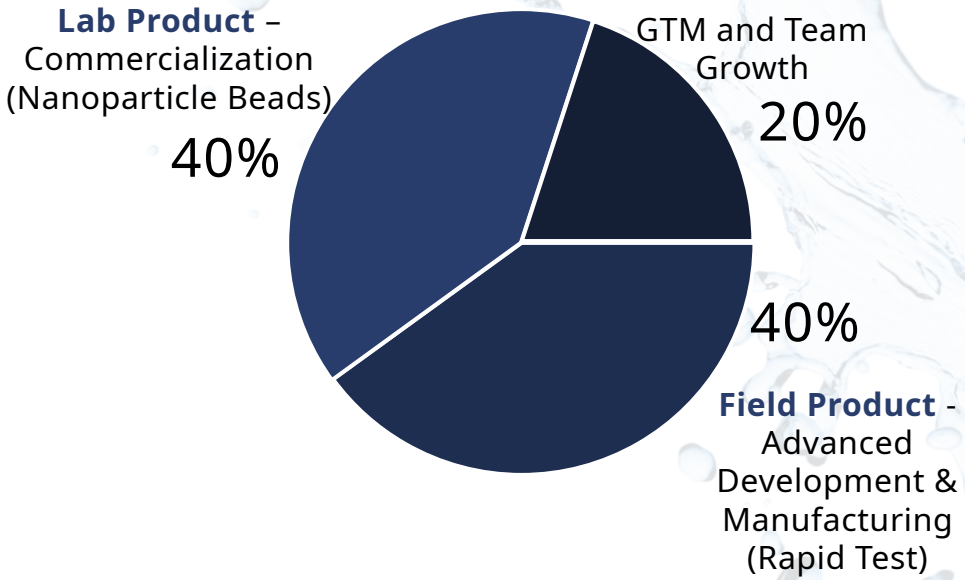
Elle Chimiak, Ph.D.
MASS SPEC EXPERT
ANALYTICAL CHEMIS

Andrew Garst, PhD
Assay Development Expert, C
founder of Inscripta and Infinom
Bioscience

Mary Gade, ESQ
FORMER EPA REGION
ADMINISTRATOR/ PFA
REGULATORY EXPER

Andrea Bryan, PhD
MIT TRAINEE
SYSTEMS ENGINEEI

WE'RE RAISING $5M TO COMMERCIALIZE OUR LAB SOLUTION, AUTOMATE OUR FIELD TEST, AND CAPTURE THE PFAS TESTING MARKET.



OUTCOME OF SEED ROUND

Revenue-positive with a clea path to global expansion - establishing Biota as the testir backbone of the global PFA cleanup economy.

biota

biota

Our Mission. *To leave a clean water legacy for our future generations.*

Our Vision. *A world in which the heroes of PFAS clean-up are enabled with rapid results for rapid action.*

Our Strategy. *Bringing point-of-care diagnostic technologies out of the healthcare clinic to solve the water sector's hardest problems.*

Contact. *rose@biota-labs.com*

APPENDIX

ASSUMPTIONS

USED IN MARKET OPPORTUNITY MODELING

General
- Prices:
  - **$100/test** for Biota's *Rapid Field Test*;
  - **$30/test** for *PFAS Concentration Beads*.
- Market share = 100% (used only to show total market potential).
- Annual revenue = # tests × price per test.

Utilities
- 16,000 U.S. wastewater utilities + 26,000 EU utilities = 42,000 total.
- Average current testing spend = $60 K / utility / year → 600 tests / year @ $100/test.
- Drinking-water utilities excluded.

Industrial Dischargers
- 2,500 U.S. sites + 38,500 global (ex-U.S.) sites.
- 10 samples / month = 120 samples / year @ $100/test.
- Sub-segmentation: 6 K semiconductors, 10 K textiles, 15 K chemicals, 10 K other.
- EPA's 2021 PFAS discharge list used as reference.

Engineering / Consulting Firms
- 50 major firms worldwide.
- Each handles ~25 PFAS projects / year × 200 samples / project = 5,000 tests / year.
- All tests = Rapid Field Tests @ $100/test.

Remediation Companies
- 50 active firms globally.
- Three phases of use: R&D, Install Phase, Monitoring Phase
  - **R&D:** 200 samples / month = 2,400 / year @ $30/test.
  - **Install Phase:** 10 sites / year × 210 tests / site @ $100/test.
  - **Monitoring Phase:** 10 sites / year × 260 tests / site @ $100/test.
- All installations continue into monitoring phase.
- Phases and Tests per phase based on customer interviews

Testing Labs
- Eurofins = 480 K tests / year; Pace = 300 K; SGS = 200 K; Other labs (~100 labs × 4,800 samples / year each) = 480 K.
- Total U.S. testing volume ≈ 1.46 M samples / year.
- All use Biota Beads @ $30/test.

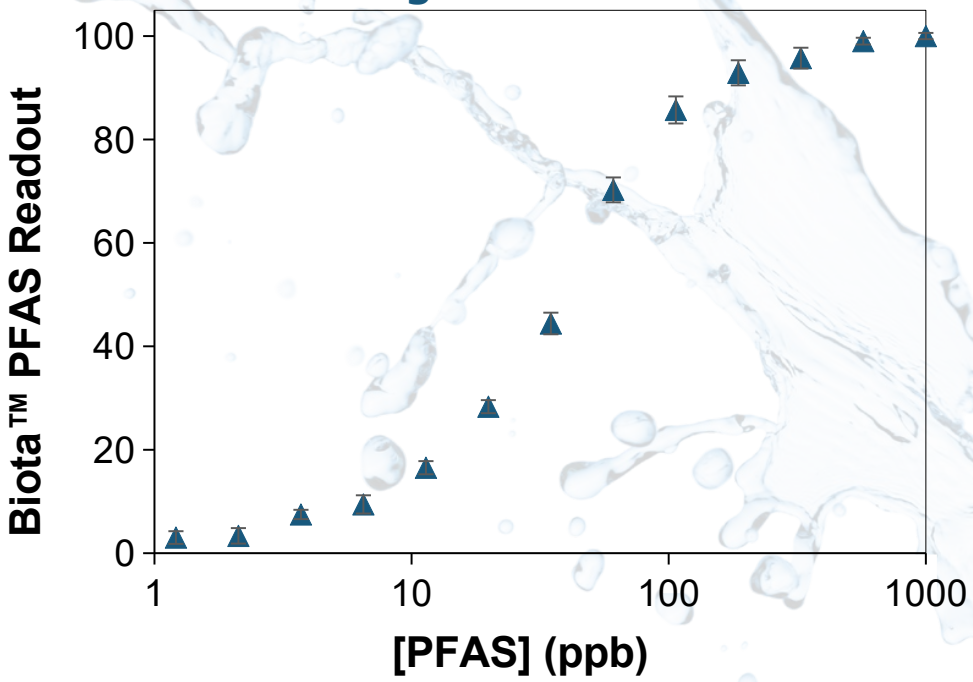
Geography Handling
- Utilities = U.S. + EU only.
- Industrial Dischargers = U.S. + global.
- Engineering & Remediation = U.S. only
- Testing Labs = U.S. only (Eurofins, Pace, SGS, regional labs).

LEADING THE PACK IN RAPID PFAS DETECTION

WITH LOW ERROR AND DETECTION DOWN TO 5 PPB, OUR TEST MEETS TODAY'S FIELD-TEST BENCHMARKS

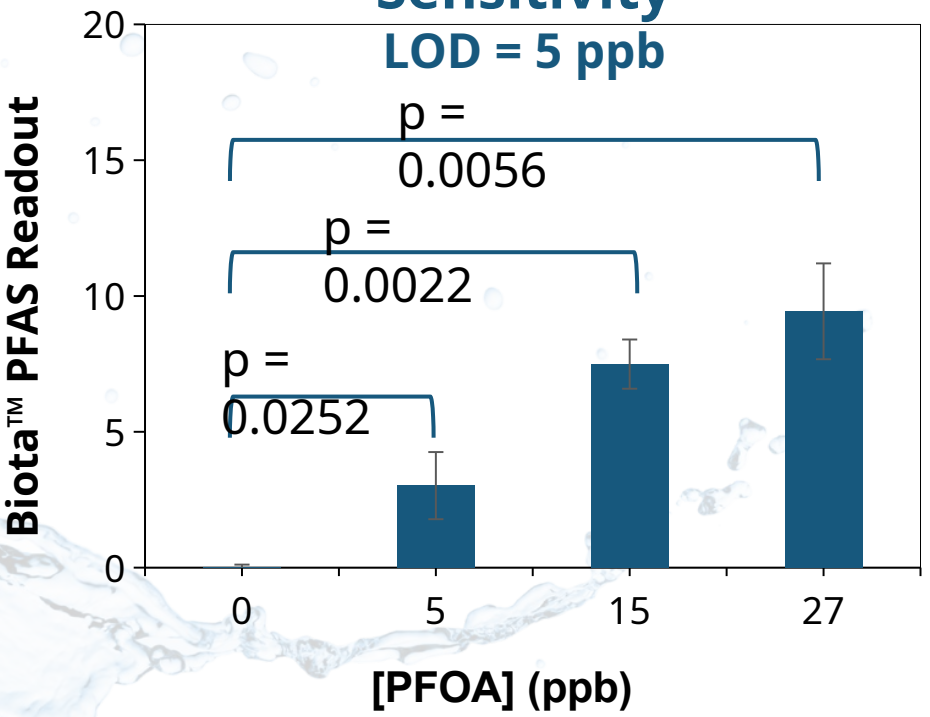
High Precision

Average Error <3% RSD



Industry Standard Sensitivity

LOD = 5 ppb



…but we're not happy with 'meeting' benchmarks.

So we've designed a way to push this test's sensitivity **orders of magnitude further than our peers**.