

Statement of Qualifications

Full-Spectrum PFAS
Remediation Solutions





Introduction

REGENESIS Provides Proven and Effective Remediation Solutions for Department of Defense and Federal Facilities



REGENESIS® is strategically positioned in the remediation industry to develop world-class groundwater and soil remediation technologies and specialized field application services, all backed by unparalleled technical support. Our focus on soil and groundwater remediation allows us to effectively partner with and support leading Environmental Engineering and Consulting (E&C) firms around the globe to deliver on restoring some of our environment's most sensitive and valuable natural resources.

Technical credibility and project success are at REGENESIS' core. We recognize that with each technical design and subsequent remediation project, we are partnering with highly qualified and experienced environmental remediation professionals who have clients relying on them for cost-effective results.



REGENESIS performs at the highest technical and professional level to continually exceed customer and project-specific expectations. Our efforts are driven by technology performance, cost-effectiveness, customer needs and site goals.

REGENESIS thrives on technical challenges, innovation, and problem-solving. Our reputation for teaming with leading E&C firms to successfully implement advanced *in situ* groundwater and soil remediation technologies to remediate PFAS is without precedent in the environmental industry. Our patented environmental remediation technologies are supported by the highest level of scientific research and development, based on direct customer need, optimal technology performance, and overall cost-effectiveness.

When it comes to field implementation, no one understands our remediation products better than we do. The REGENESIS Remediation Services Group (RRS) is highly experienced in delivering the most effective remediation technologies available today while using application-appropriate equipment, maintaining critical health and safety practices, and providing the highest level of application expertise available.



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Leadership

Global Leader in Environmental Remediation Technologies

REGENESIS is recognized as a global leader in environmental remediation technologies for the treatment of contaminated groundwater and soil resources. With over 30,000 sites treated globally, our organization is known for innovation, quality, service, and effective action.

REGENESIS leads the global environmental remediation industry in:

- Providing turn-key, groundwater and soil remediation planning, design verification and application services under fixed price contracts
- Dedicated research and development of quality, specialty chemical technologies designed to treat a wide range of environmental contaminants including petroleum-based compounds, and chlorinated contaminants, and metals
- Advising regulatory bodies throughout North America, Europe, Asia, and Australia on the most effective application methods specific to the use of REGENESIS technologies to maximize project success
- Partnering with leading environmental remediation equipment companies to develop specialized tools used worldwide to successfully apply injectable specialty chemical technologies on *in situ* remediation projects
- Publishing recommendations and standards to the remediation industry on the proper design and delivery of specialty chemical technologies to ensure effective product distribution and placement
- Sponsoring and providing a consistent level of participation at key, industry-specific technical conferences





30 Years of Innovation

REGENESIS Delivers the Most Effective Remediation Technologies Available

Since 1994, REGENESIS has been supporting environmental engineering firms with technical innovation and services related to *in situ* remediation. Success is not achieved until our clients' goals are met or exceeded.

To produce this outcome, we build project teams with the experience, discipline, and dedication to work together with our clients to address the unique requirements of each project site. Technical insight, timely response, and direct, honest communication are all hallmarks of the REGENESIS team.



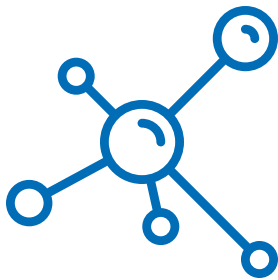
Experience

30 Years of Experience on Thousands of Remediation Projects

Since the company's inception in 1994, the environmental remediation technologies developed at REGENESIS have been applied on over 30,000 groundwater and soil remediation projects throughout the world.

Our level of involvement on many of these projects has included:

- Remediation design work
- Reagent dosing calculations
- Educating and interfacing with regulators and responsible parties
- Application/injection design and specification
- Remediation project oversight (when required on-site)
- Post-application data validation/review work
- Groundwater and Soil Remediation



PFAS Remediation

Proven Experience, Long-Term Success, and Global Leadership

REGENESIS leads the industry in effective PFAS groundwater treatment and is the only company with a proven, sustainable solution (e.g., not requiring mechanical groundwater pumping) to this global problem.

Beginning with the first *in situ* PFAS remediation project ever conducted in 2016, which has continued to remain below detection levels after over seven years, our PFAS remediation portfolio has now grown to over 50 sites treated worldwide. Our colloidal activated carbon technologies have been used on Department of Defense (DoD), municipal, and commercial sites globally, and are the subject of multiple ongoing Strategic Environmental Research and Development Program (SERDP)-funded studies for PFAS remediation efficacy. These applications have achieved an unprecedented level of success in the field, eliminating PFAS in groundwater within weeks, sustaining these results for years and eliminating risk.

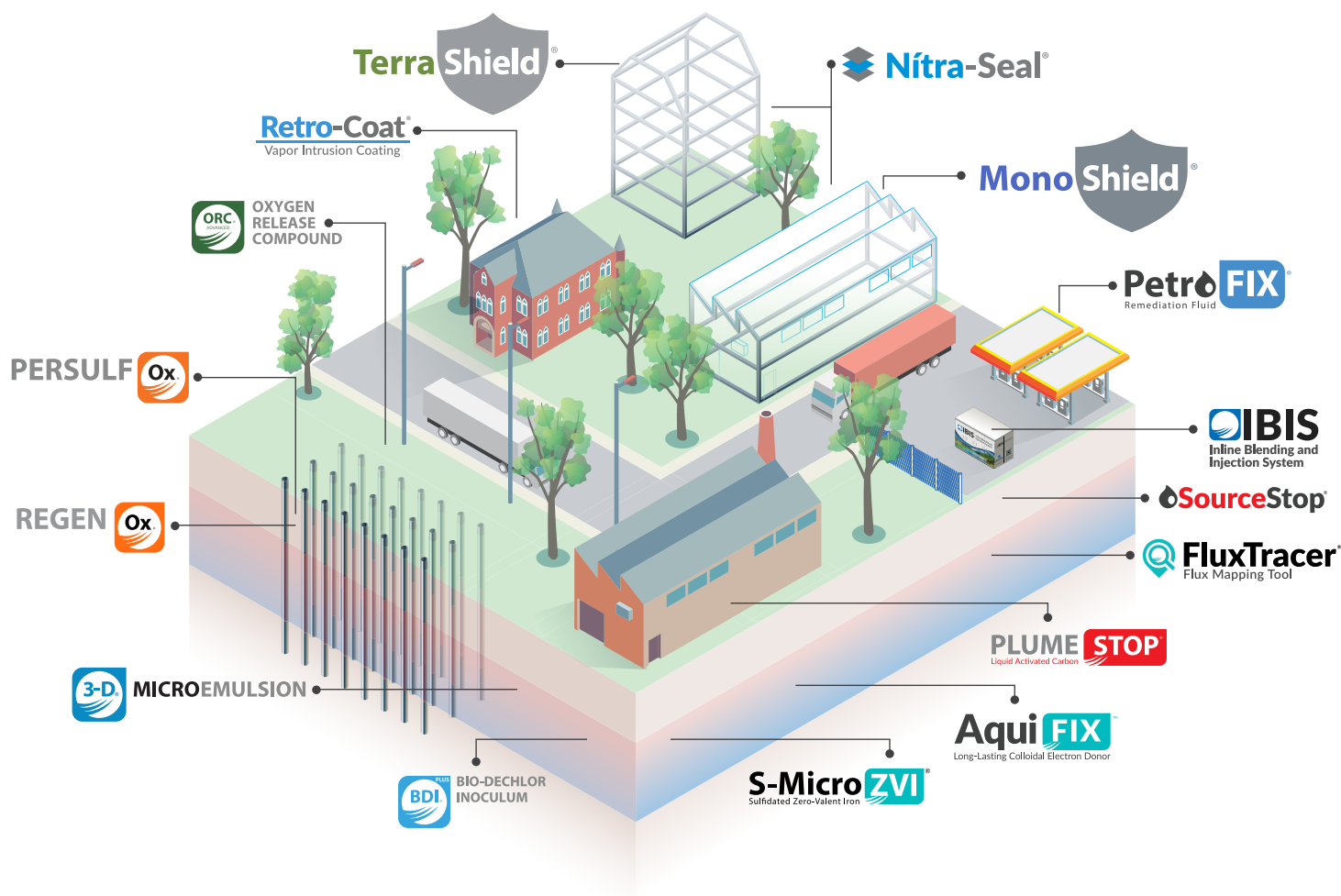
Independent modeling experts have demonstrated how PlumeStop barriers retard PFAS in groundwater, effectively immobilizing these plumes for decades without pumping or waste generation. Sustainability research efforts have shown PlumeStop barriers compared to ex-situ, pump-and-treat alternatives, reduce greenhouse gases by >95% reduction, and are 1/3 the cost.



Building on the success of PlumeStop, REGENESIS developed SourceStop, an innovative colloidal activated carbon (CAC) technology for treating PFAS contaminated soil and groundwater in source areas, including fire training areas at military bases and airports. Applied to prevent the leaching of soil contamination and halt the migration of PFAS in groundwater, the first two PFAS source area treatments incorporating SourceStop have successfully eliminated PFAS leaching on military and public airport sites.

Prior to PFAS treatment, REGENESIS employs the use of FluxTracer® Flux Mapping Tools deployed to define and target the mass flux zones for PFAS and other groundwater contaminants more accurately. In one of its first uses for PFAS remediation design verification, the increased resolution achieved by FluxTracer implementation allowed the treatment zone to be reduced by 50 percent, and resulted in the reduction of the overall project cost.

Offering full-spectrum PFAS remediation solutions and services, REGENESIS continues to innovate and serve as a global leader in eliminating PFAS risk, leading the industry in sustainable, cost-effective solutions that deliver resilient environmental, social, and economic value to communities globally.

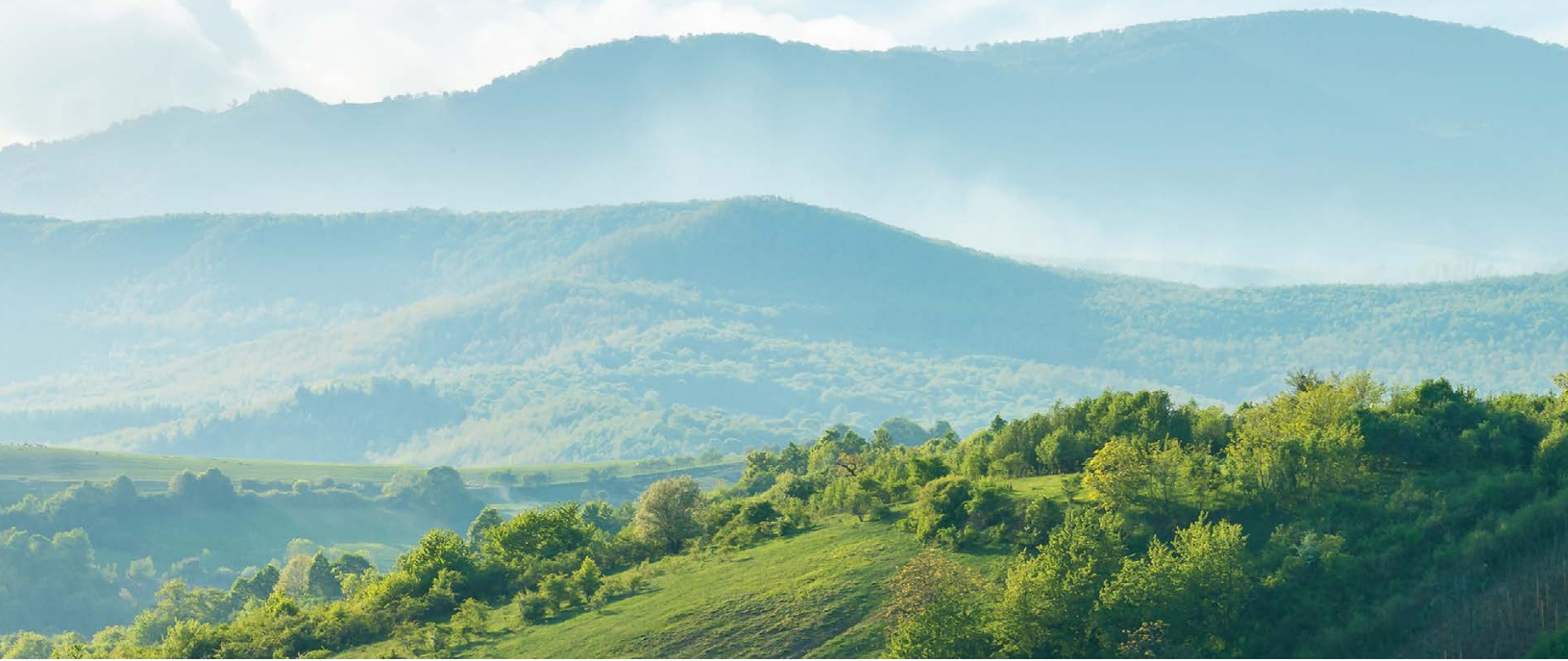


Remediation Products and Technologies

Lab-Tested and Field-Proven

REGENESIS is an industry-leading environmental technology solutions company focused on providing remediation professionals with specialized, science-based, environmentally compatible products for safely and cost-effectively treating soil and groundwater contaminants. Over the years, REGENESIS has developed a full line of proven and trusted remediation products and technologies offering a range of amendment solutions for contaminants including PFAS, chlorinated solvents, and petroleum impacts.

Since its inception in 1994 with the launch of Oxygen Release Compound (ORC®) for the treatment of petroleum hydrocarbon-impacted sites, the Company has systematically introduced new products at a pace of once every two years. REGENESIS products fall into a range of specific categories, including enhanced aerobic biodegradation, enhanced anaerobic biodegradation, bioaugmentation, *in situ* chemical oxidation (ISCO), *in situ* chemical reduction (ISCR), *in situ* sorption and metals immobilization.



PLUME STOP[®]

Liquid Activated Carbon

PlumeStop[®] Liquid Activated Carbon™ is composed of very fine (1-2 micron-size) activated particles suspended in water through a unique, organic polymeric dispersion chemistry that resists clumping and allows permeation through aquifer materials. PlumeStop sorbs to the aquifer matrix soon after injection, rapidly removing contaminants from the groundwater to eliminate risk. It can be co-applied with electron donors, electron acceptors, or used as a stand-alone amendment to treat most organic groundwater contaminants.

SourceStop[®]

SourceStop[®] is a colloidal activated carbon (CAC) amendment applied to the vadose zone, capillary fringe and groundwater of PFAS source areas to rapidly remove high levels of PFAS from the dissolved phase. The sequestration of the PFAS eliminates or drastically reduces the movement of mass from the source area, enhancing the natural attenuation of the plume and avoiding impact to downgradient receptors.

S-MicroZVI[®]

Sulfidated Zero-Valent Iron

S-MicroZVI[®] is a colloidal suspension of sulfidated zero-valent iron that promotes the destruction of a wide range of organic pollutants including chlorinated solvents, pesticides, haloalkanes and energetics. S-MicroZVI is engineered to promote rapid contamination degradation through multiple pathways which leads to faster cleanup while minimizing daughter product formation. Compared to larger particle size ZVI products, S-MicroZVI's 2-3 micron-sized particles, suspended in a proprietary polymer, make it easy to handle and simple to inject, leading to significantly better reagent distribution.

PetroFIX[®]

Remediation Fluid

PetroFix[®] is a colloidal activated carbon technology used to remediate total petroleum hydrocarbons (TPHs) from contaminated environments. PetroFix uses a proprietary formula of activated carbon to adsorb total petroleum hydrocarbons. It then adds electron acceptors to stimulate hydrocarbon biodegradation.

REGEN Ox[®]

RegenOx[®] is an *in situ* chemical oxidation (ISCO) reagent used to directly oxidize contaminants. Its unique catalytic component generates a range of highly oxidizing free radicals that rapidly and effectively destroy a range of target contaminants including both petroleum hydrocarbons and chlorinated compounds. RegenOx is an injectable, two-part ISCO reagent combining a solid sodium percarbonate based alkaline oxidant (Part A), with a liquid mixture of sodium silicates, silica gel and ferrous sulfate (Part B), resulting in a powerful contaminant destroying technology.

PERSULF Ox[®]

PersulfOx[®] is an advanced *in situ* chemical oxidation (ISCO) reagent that destroys organic contaminants found in groundwater and soil through abiotic chemical oxidation reactions. It is an all-in-one product with a built-in catalyst which activates the sodium persulfate component and generates contaminant-destroying free radicals without the costly and potentially hazardous addition of a separate activator.



ORC Advanced® is an engineered, oxygen-release compound developed for enhanced, *in situ* aerobic bioremediation of petroleum hydrocarbon contaminants in groundwater and saturated soils. Containing 17% by weight molecular oxygen, ORC Advanced provides a controlled release of molecular oxygen-an electron acceptor that optimizes microbial utilization in a treatment zone for up to 12 months post-application.



3-D Microemulsion® is an easy-to-apply remedial amendment for the *in situ* treatment of chlorinated solvent-contaminated aquifers. The patented technology, applied as a micellar suspension, provides a controlled, self-distributing hydrogen source to facilitate biologically mediated enhanced reductive dechlorination. 3-D Microemulsion's unique chemistry enables its distribution by naturally flowing groundwater while persisting for years after injection, resulting in much greater treatment coverage and faster degradation rates than other electron donor amendments.



AquiFix™ is a solid, colloidal remediation amendment for the *in situ* treatment of chlorinated solvent-contaminated aquifers, designed for direct mixing and co-application with PlumeStop. The novel formulation, patent-pending, includes a nutrient-enriched, solid-phase, fatty acid source that quickly establishes and sustains enhanced reductive dechlorination over long timeframes (e.g., ten years post-injection). AquiFix's optimized hydrogen release profile significantly improves remediation efficacy and reduces life-cycle costs to treat these contaminants.



BDI PLUS® (Bio-Dechlor INOCULUM Plus) is an enriched natural consortium containing *Dehalococcoides sp.* and other dechlorinating microbes for biologically augmenting enhanced reductive dechlorination remedies. Co-applied with electron donor amendments such as 3-D Microemulsion and AquiFix, BDI PLUS has proven to improve chlorinated solvent remediation efficiency.



FluxTracer® Flux Mapping Tools are easy-to-use devices that vertically delineate contaminant mass flux and groundwater velocity within existing monitoring wells to aid in site characterization and remedial designs. Conventional methods (pump and slug tests) give a single value for groundwater velocity whereas passive tools like FluxTracer are designed to distinguish individual zones within an aquifer. This level of resolution is especially useful for remediation design. Easy-to-use, FluxTracer vertically delineates contaminant mass flux and groundwater speed within an existing monitoring well to aid in site characterization and remedial designs, helping to improve the overall design and application of the remedial amendments applied.

Working With **REGENESIS** Remediation Services



- We work directly with environmental engineering/ consulting firms to engineer remediation solutions employing REGENESIS' globally recognized advanced technologies
- We mobilize our own state-of-the-art dosing and monitoring equipment to ensure successful results
- We partner with experienced regional drill and push contractors to ensure timely mobilization and control costs
- We take sole responsibility for meeting project objectives, as turn-key provider of design, advanced chemical technologies, and application services
- We have an excellent reputation with our insurance carriers, working closely with our brokers to ensure that its insurance policies are provided or secured from insurance carriers that have a minimum rating of "A" by the A.M. Best Company, Inc.





Health and Safety

REGENESIS EMR Rating:

2022:	0.71
2023:	0.73
2024:	0.67

Experience Modification Rate (EMR) is used by insurance companies to gauge risk, a score of 1.0 is considered the industry average, and a lower score indicates an overall lower risk.

As an industry leader in the development, manufacturing, dosing and application of chemical remedial reagents, REGENESIS has been at the forefront of environmental technologies. As a result, the company considers worker health and safety a top priority. REGENESIS maintains a comprehensive corporate Health and Safety Program that is adhered to by all that are under REGENESIS supervision. Safety is a vital part of the RRS operational philosophy, extending beyond REGENESIS staff to

all subcontractors under RRS supervision. REGENESIS field services employees maintain OSHA 40-hour initial health and safety training and 8-hour annual training in compliance with OSHA 1910.120.

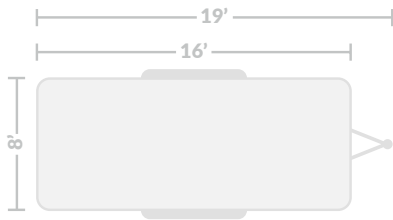


RRS Personnel Monitoring, and Documentation

RRS uses and maintains a range of high-quality mixing, batching, pumping and injection equipment in order to optimize performance and minimize in-field disruption due to equipment related issues.

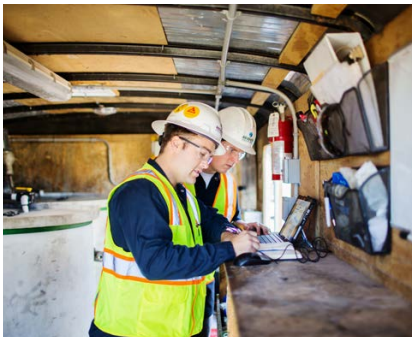
All RRS field personnel are highly trained, project professionals. Safety is their primary concern on the job site. RRS remediation trailers are staffed with our experienced project professionals to ensure proper delivery and distribution of the remediation chemistry throughout the target treatment zone. Real-time groundwater monitoring of the existing observation wells is conducted while implementing injection programs to evaluate the influence and distribution of the remediation chemistry. The RRS project manager has the knowledge and experience to make modifications as necessary based on the evaluation of real-time monitoring data and observations. This ensures the application is performed efficiently and cost-effectively while adhering to the intent and goals of the application. All observations, real-time monitoring, and application delivery information is documented using processes that can be efficiently turned around to the client. Application delivery information such as start/stop times, injection intervals, flow rates, pressures, total gallons, gallons per interval, and more are recorded for each injection location.

Application Equipment

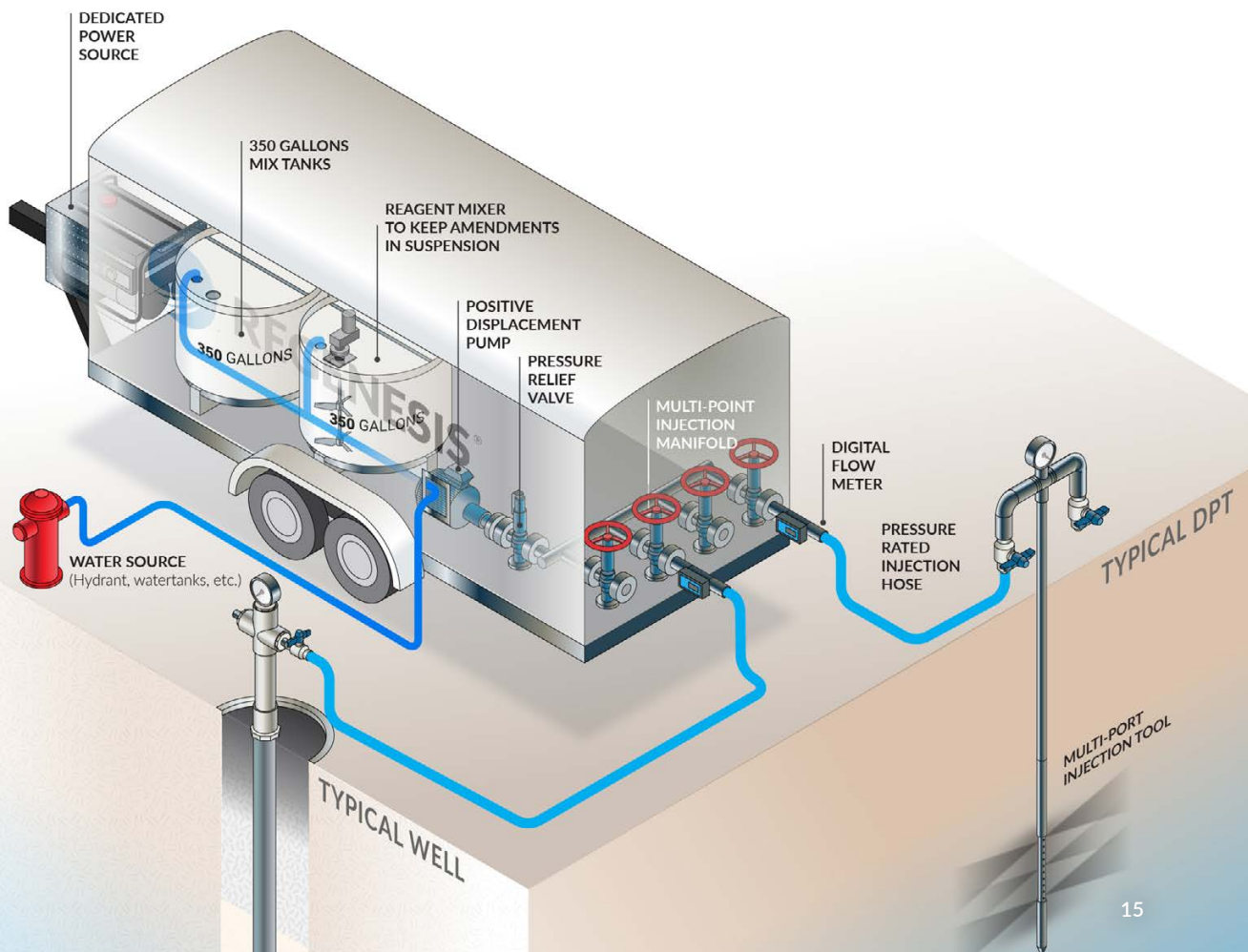


Overhead view of injection trailer with dimensions

RRS uses and maintains a range of high-quality mixing, batching, pumping and injection equipment in order to optimize performance and minimize in-field disruption due to equipment-related issues. RRS applies remediation chemistries using a range of customized mobile remediation equipment located across the globe. Each is a fully enclosed unit, containing chemically resistant mixing tanks, pumps, and a delivery system equipped for direct connection to injection wells, direct-push injection rods as well as pug mills and other soil mixing equipment. Each remediation trailer is capable of applying reagents over a 28,000 ft² area and is fully equipped.

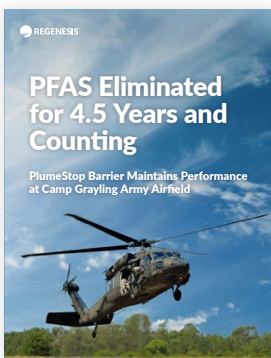


RRS remediation trailers typically deliver REGENESIS remediation chemistries as a solution using a multiple diaphragm positive displacement pump. This prevents pulsation of the remediation chemistry while being applied to the subsurface. Application pumps are capable of handling corrosive oxidants, reductants, and solutions with particulates up to 500 microns. The application pumps can deliver the remediation chemistry at pressures capable of overcoming any potential hydraulic constraints for all natural geologic subsurface conditions. Mechanisms to monitor, limit, and regulate injection pressures and injection flow rates are components of the control system in each trailer. Automatic and manual safety bypass mechanisms are installed to release back pressure buildup in the event injection pressures exceed safe ranges.





Recent Projects



PFAS Eliminated for 4.5 Years and Counting

As a pilot test demonstration, RRS injected PlumeStop to stop PFAS migrating in groundwater at a former Army airfield in Michigan, U.S., one of the first in situ treatments for PFAS. Following treatment, PFAS were eliminated in groundwater within 30 days. These results have been maintained over the 4.5 years of monitoring completed thus far. PCE, an additional contaminant of concern commingled with PFAS, has been eliminated from groundwater to below detection limits over this timeframe.



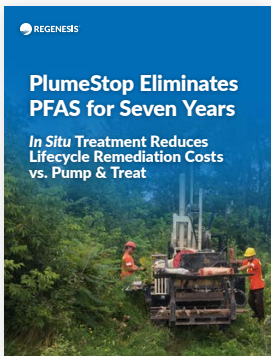
PlumeStop Successfully Remediates PFAS at Alaska Airport

PlumeStop® Colloidal Activated Carbon was applied to treat PFAS resulting from aqueous film-forming foam (AFFF) usage at an airport facility in Alaska. The application has reduced the five targeted PFAS below detection limits and applicable cleanup levels in a challenging hydrogeologic environment over a sampling period now approaching two years. As monitoring continues, PlumeStop has already proven its effectiveness at removing PFAS from groundwater at AFFF source zones to stop further plume migration and protect downstream receptors. The results achieved thus far prove PlumeStop's effectiveness at treating AFFF source zones, even in highly conductive aquifer materials observed at FAI. This pilot test adds to a growing number of PFAS sites successfully treated with PlumeStop to below applicable regulatory standards.



Martha's Vineyard Airport Successfully Treated Using PlumeStop to Eliminate PFAS Risk

A PlumeStop barrier was used to treat PFAS at Martha's Vineyard Airport in Massachusetts. In less than four months, PlumeStop eliminated PFAS mass flux immediately downgradient of the barrier and significantly reduced PFAS concentrations further away. The cost-effective and sustainable solution to remove PFAS exposure was the selected alternative to an expensive pump-and-treat approach, avoiding long-term operations and maintenance and transporting PFAS waste materials off the island for disposal.



PlumeStop Eliminates PFAS for 7+ Years

The first known full-scale *in situ* PFAS treatment worldwide was completed in 2016 at a manufacturing and former firefighting training site in Ontario, Canada, where aqueous film-forming foams (AFFF) were used. A single application of PlumeStop resulted in a significant reduction of contaminant concentrations to below standards for 7+ years since the injection. An independent fate and transport modeling expert predicts that PlumeStop will halt PFAS migration out of the treatment zone for more than 60 years, preventing exposure risk and reducing liabilities for the site owner.



Large-Scale Superfund Site Completed Ahead of Schedule

REGENESIS Remediation Services (RRS) completed a large-scale PlumeStop application to eliminate the risk of exposure to chlorinated solvents on a large federally operated Superfund site. Working with Amentum, a leading American governmental and commercial services contractor, the team installed a resilient PlumeStop permeable reactive barrier (PRB) to address a range of contaminants including CVOCs, applying 224,800 lbs. of PlumeStop colloidal activated carbon into the target treatment zones. The PlumeStop PRB allowed for the shutdown of a pump and treat system that had operated onsite for years. The project's sensitive nature required an enhanced awareness of health, safety, and security issues and seamless coordination between RRS, Amentum, and the responsible party.

REGENESIS Remediation Services: A World Class Team

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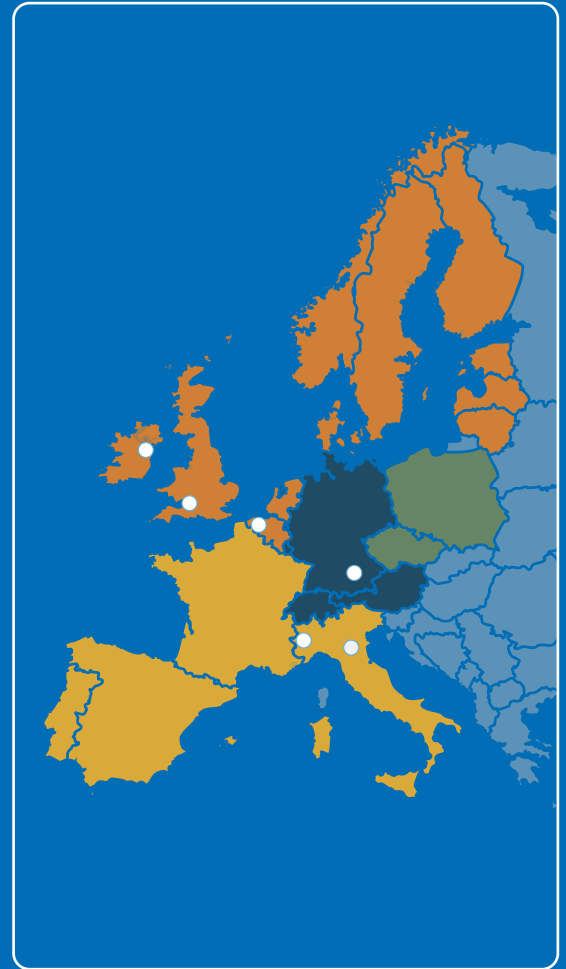
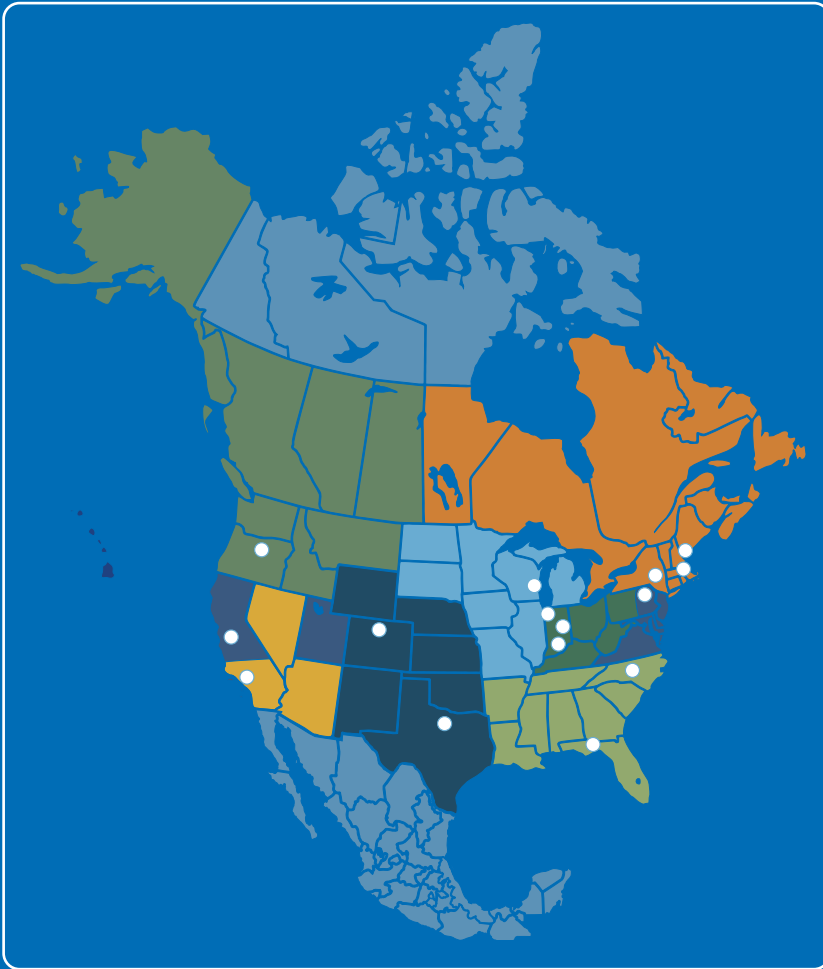


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We're Ready to Help You Find the Right Solution for Your Site



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