



## SERVICES PROVIDED

### SEMINARS

Specialized seminars on produced water as a resource vs as a waste stream offered 3 times/year at Midland, Houston, and Arlington, TX locations

### TRAINING

Exclusive training at your location that focuses on recycling and reuse modalities specific to your unique water management needs

### CONSULTING

Consultant Services for produced water reuse development plan and implementation

## ABOUT US

The team at Medusa Analytical are renowned experts in the characterization of hydraulic fracturing and drilling fluids, with extensive research and publications focused on understanding the potential environmental implications of unconventional oil and gas development and establishing effective remediation strategies.

Advanced Laboratory Solutions Consulting, LLC (ALSC) offers decades of experience in analytical techniques and method development with a heavy focus on new and evolving markets. Their expertise in market development and associated impacts on laboratory requirements support the field work and subsequent innovative remediation strategies of their partners at Medusa Analytical.

## CONTACT US

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## HOW CLEAN IS CLEAN ENOUGH?



## OUR VISION

*Streamlining produced water recycling and reuse technologies for unconventional development regions.*





# WHY CHOOSE US

Our team is the premier group on advising, educating, and consulting on produced water management and analysis protocols, with more than 1,000 samples collected and analyzed from private, public, and agricultural water wells across the state of Texas.

This research has yielded 50+ peer-reviewed publications and has garnered more than \$2.0 million in research funding from various private donations, as well as governmental and industry contracts.



# WHAT WE DO

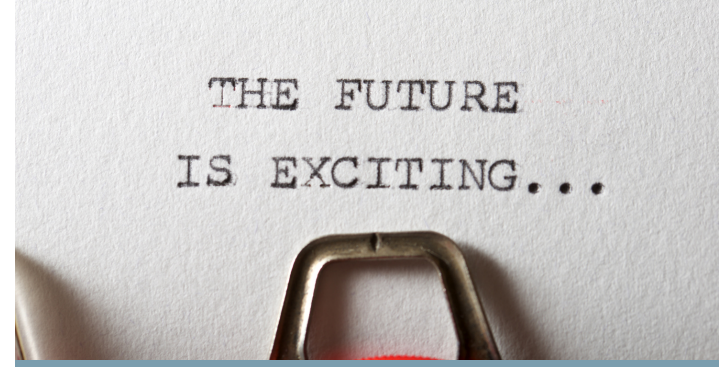
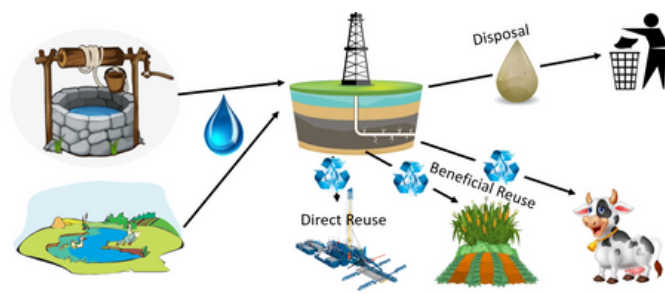
Evaluation of current produced water disposal process

Development of produced water reuse protocols:

- Removal of organics, including oil and grease.
- Solids removal of suspended particles and sand.
- Disinfection.
- Dissolved gas removal of light hydrocarbon gases, carbon dioxide, and hydrogen sulfide (if needed in the production region).
- Softening; removal of excess water hardness and reduction in scaling.
- Removal of naturally occurring radioactive material.
- Desalination; removal of dissolved salts.

Guidance during implementation of new produced water reuse procedures

## PRODUCED WATER MANAGEMENT



# OUR FUTURE PLAN

Our team will remain the leading resource for private, industrial, and governmental organizations in produced water management and analysis.

Our activities will include monitoring changes in legislation and market drivers such as water pricing.

Remaining at the forefront of advanced analytical methodologies and understanding recycling and reuse modalities will provide our clients with streamlined processes that generate maximum positive environmental impact with the highest revenue-generating advantages.