Filtration Services

**Challenge**
Completion fluid contamination can significantly reduce a reservoir’s production efficiency. Solids or oil and grease particles can plug the formation and prevent the proper flow of hydrocarbons. Removing these particles often requires a combination of filtration methods. Additionally, environmental regulations play an important role in discharge of completion fluids. For environmentally-sensitive areas or formations with high oil-in-water content, contaminated completion brines may need to be transported for additional treatment prior to disposal. Specialized solutions may be required to optimize reservoir performance and ensure environmental compliance for fluid discharge.

**Overview**
Clean fluids are critical to enable successful completions and workovers. Effective solids or oil and grease removal can provide measurable benefits in reservoir performance. Baroid filtration services can help identify and apply targeted solutions to clean the wellbore of contaminants and prevent particles from blocking pores in the formation. We have developed a range of filtration solutions, including dual pod filtration units and traditional filter presses to go along with advanced solutions for technically challenging wells and low-permeability formations to help ensure maximum filtration, minimum formation plugging, and environmental compliance.

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Dual-Pod Filter Units

Dual-pod filter units are reliable and cost-efficient options to help remove solids from completion fluids and reduce the risk of formation plugging. Dual-pod units are typically skid-mounted with small footprints, allowing straightforward and simple offshore installations. We can identify and deploy the right combination of dual-pod filter units with 15-18 bbl/min flow rates and a range of filter cartridges to help keep your completions fluids clear and protect your reservoir from contaminants.

Filter Presses

Diatomaceous Earth (DE) filtration is the most effective solids removal process for completion fluids. Heavy-duty filter presses utilizing DE filtration can dramatically increase filtration efficiency and effectiveness, leading to improved performance in completion and packer fluids. Our selection of filter presses include options with 800, 1200, or 1600 square feet of filtration surface area, with flow rates ranging from 12 -17 bbl/min. We work directly with you to match the ideal filter press combinations with your rig space and filtration requirements. With the proper installation and operation of our DE filter presses, we can help you significantly reduce the risk of formation damage in your reservoir.

Hi-Flow Filtration

High volume deep water operations often require multiple DE filter presses to properly handle filtration duties. This can result in complicated installations and large rig space requirements. Our BaraClear™ Hi-Flow Filtration Unit has been developed to handle high-volume operations in a simple and safe manner. We have engineered 1600 square feet of filtration surface area and 32+ bbl/min flow rates in a modular and stackable design for easy installation. Our Hi-Flow unit nearly doubles the flow rates of standard filter presses and incorporates unique safety features. Pneumatic, direct DE delivery helps reduce dust exposure, while a fiberglass work deck placed above piping and a single-point hose collection area help improve worker safety. We can customize installations for any rig to help you achieve consistent and optimized filtration rates, decrease circulating time, and reduce HSE risk.

• BaraClear™ Hi-Flow Filtration Unit – modular and stackable high-flow (up to 32+ bbl/hr) filtration unit with small footprint for improved flow rates and reduced time to production in deep water reservoirs

Oil and Grease Monitoring

Oil and grease contamination pose similar reservoir plugging threats as solids and can also prevent completion fluids from meeting environmentally-acceptable standards for discharge. Our BaraClear™ Oil & Grease Monitoring Service utilizes a combination of DE filtration, Baroid’s unique BARASORB® additive, and consistent monitoring of oil and grease content in completion fluids to help increase confidence in compliance. We can help lower average oil and grease levels to acceptable discharge levels without impacting filtration rates or installing any additional equipment.

• BaraClear™ Oil & Grease Monitoring service – Targeted oil & grease removal service with unique BARASORB® additive and real-time assessment of discharge regulations

Benefits

Baroid has developed a comprehensive line of filtration services that can be customized for each well. Our collaborative approach, coupled with our unique combination of equipment, filter media, and additives ensure that we will find the optimum solution to meet your filtration needs. Our commitment to filtration excellence can help you reduce circulating times, minimize risk of formation damage, optimize reservoir performance, and reduce HSE risk.