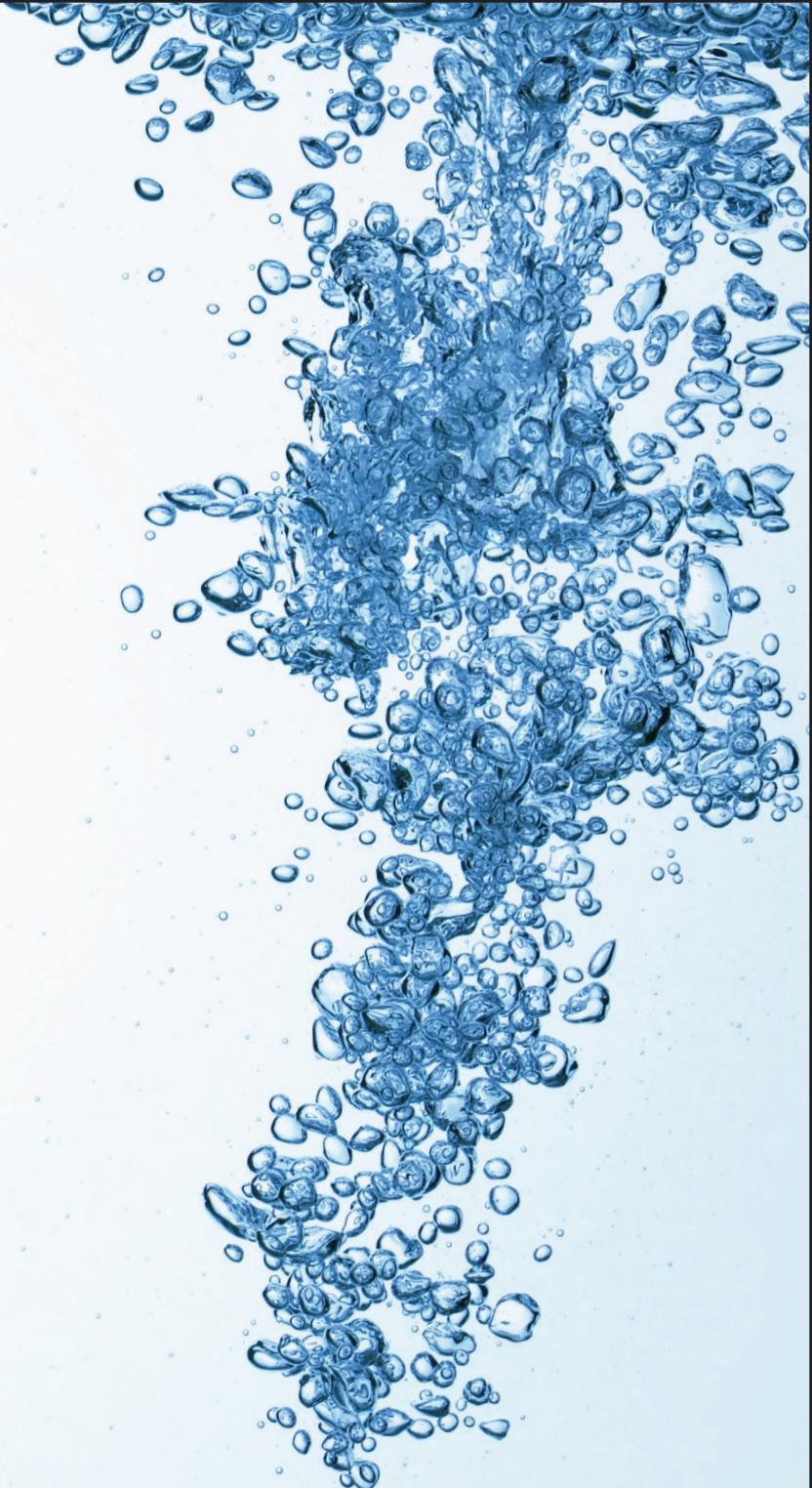




Drilling Fluids &
Waste Management

**WE CIRCULATE
KNOWLEDGE, TECHNOLOGY &
EXPERIENCE IN YOUR WELL**



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ABOUT US

We are innovating for
tomorrow and we are
helping to make today
better for our clients.

VISION

To be an international leading company providing drilling fluids and waste management services.

MISSION

To provide solutions that will create value for our business partners with innovative, scientific, ethical, eco-friendly and sustainable understanding in drilling fluids and waste management services.



CORE VALUES



HEALTH AND SAFETY

The health and safety of our people and environment is our top priority. We are committed to minimizing safety risks and making sure that all possible measures are in place.



INTEGRITY

Our employees' and corporate actions are bounded by honesty and ethical conduct. We strive to do what is right and what we promised.



CUSTOMER SATISFACTION

All of our decisions are taken with the customer in focus. We are operating with the aim of achieving common objectives with the clients and the local regulations.



SOLUTION FOCUS

We use a "solution-oriented" approach and broader perspective when resolving problems for our clients.



Who We Are?

Geos is a full-service drilling fluids company headquartered in Ankara, Turkey. We provide one of the most comprehensive range of products and services in Drilling Fluids Industry; from spud mud to non-aqueous drilling fluids, from shale shakers to drilling waste disposal services.

What We Deliver?

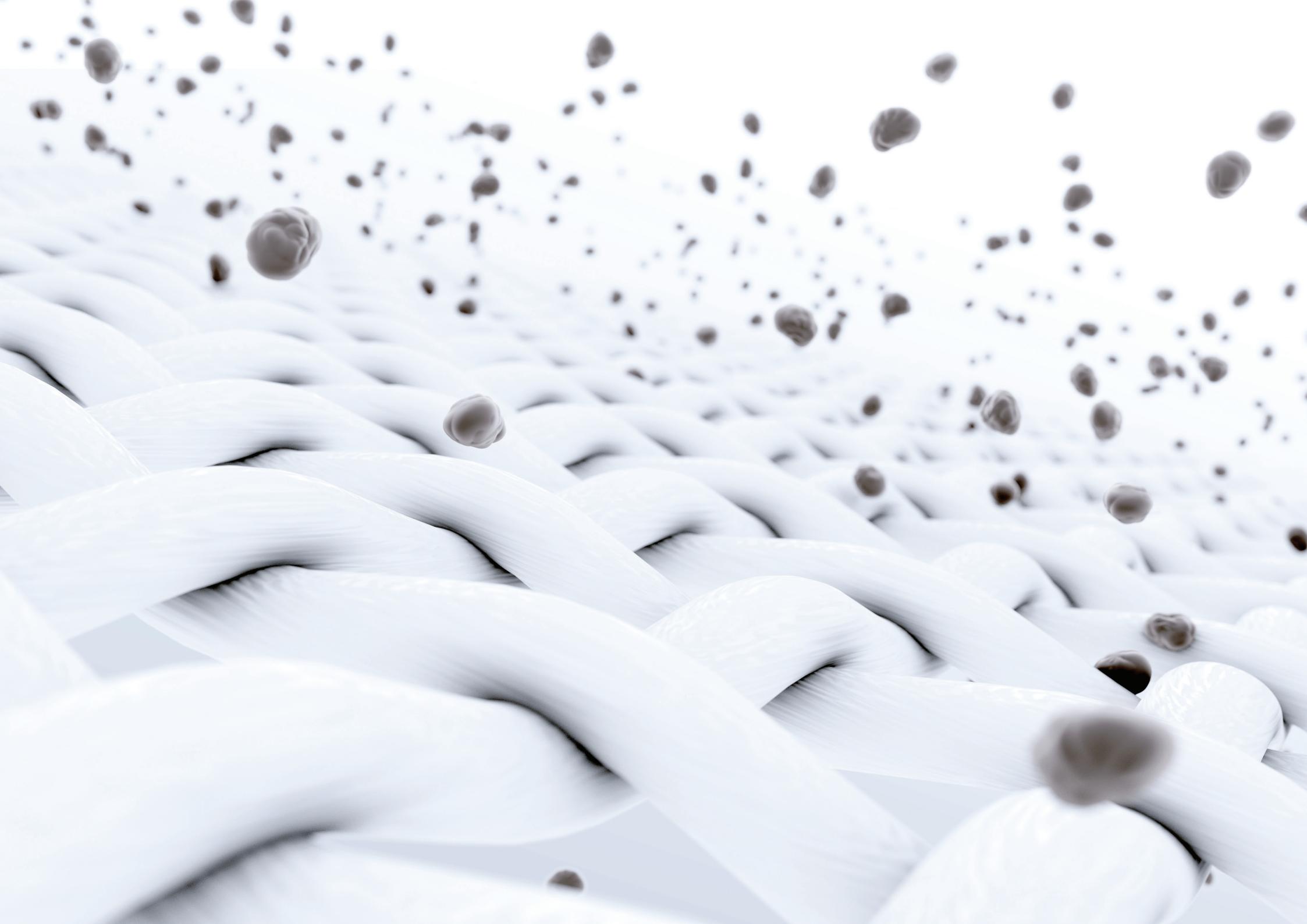
With a strong dedication to customer service excellence, we are providing:

- Drilling Fluid Systems & Products
- Solids Control & Waste Management Services
- Quality Control & Laboratory Services
- Mud School and other Industry Trainings

Why GEOS?

Our success is a result of highly skilled engineers, high quality products, innovative solutions and timely delivery. GEOS is operating with the highest environmental standards to reduce environmental footprint and achieve common objectives with its clients and the local regulations.

We are committed to Research and Development in every aspect of our services. GEOS Technology Center (GTC) is established to provide innovative solutions for the industry.



TECHNOLOGY CENTER

**WE INTRODUCE NEW METHODS, IDEAS AND PRODUCTS
WE COLLABORATE
WE INNOVATE**

GEOS TECHNOLOGY CENTER (GTC) is oriented towards improved and innovative technologies, processes and products. We perform research studies on drilling fluid systems, products, solids control and waste minimalization. Our main focus is to develop solutions to meet our clients' need, to cut their overall drilling and waste costs, to reduce non-productive time.

GEOS is not only concerned with providing solutions just to reach target depth, we are also providing the new technology fluids and solids control processes to maximize production from the reservoirs.



Wear proper PPE and keep them in a good condition



Handle Chemicals Safely and according to their MSDS



Do not exceed max temperature and pressure limits of any lab equipment



Stay at a safe distance from lines with high-pressure at location



Do not work-walk-drive under a suspended load



Protect yourself against a fall when working at high



Do not smoke outside the designated smoking area



Do not use phone when walking and watch your head at all times



While driving, do not use your phone and do not exceed speed limits



Wear seat belt, and make sure all the passengers wear their seat belts in the car



Communicate clearly to make sure the task is understood by all parties



Help increasing safety awareness at work, at home and everywhere else



Report immediately the nonconformity situation or unsafe act



Stop unsafe work, you have the authority

QHSE at GEOS

We know that QHSE management is the key to the success and sustainability of our operations. That is why we constantly seek to improve our internal QHSE procedures and standards.

We are committed to minimizing safety risks and making sure that all possible measures are in place to protect the health and safety of our employees and who are associated with our operations.

We focus on training of our employees to ensure operations are always carried out safely, and to the international standards.

GEOS QHSE Objectives

At GEOS we use performance monitoring system (KPI Scorecard) with yearly QHSE goals for each employee in the organization. We are committed to improve our QHSE system continuously by measuring, reporting and benchmarking the performance.



GEOS Have Three Core QHSE Goals

- Zero QHSE incidents
- Improving safety culture everywhere we operate
- Ensuring 100% compliance with all applicable regulations

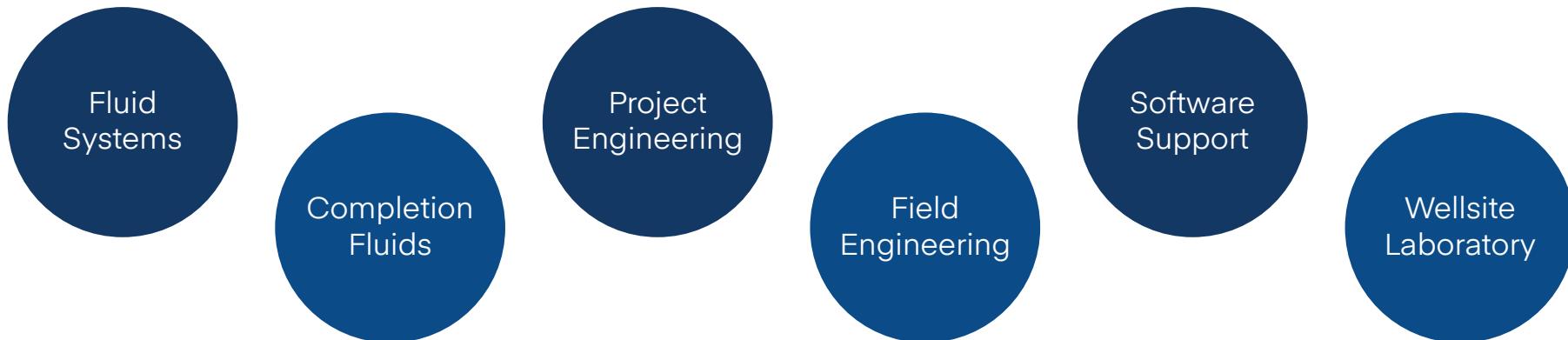


DRILLING FLUIDS SERVICES

TAILORED FLUID SYSTEMS & PRODUCTS
FOR COST EFFICIENT SOLUTIONS

We are designing our drilling fluid systems to meet the specific challenges of each project. Drilling Fluids segment works closely with GEOS Technology Center to design drilling fluids systems based on project-specific technical needs. Risk analysis are performed for each challenging project to provide cost-effective and best possible solutions.

GEOS combines six functions to provide tailored drilling solutions in excellence:



We provide water-based, oil-based and synthetic-based systems and associated ranges of specific additives to address various downhole challenges.

Water Based Drilling Fluids

- Conventional Drilling Fluids
- High Performance Drilling Fluids
- HPHT Drilling Fluids
- Reservoir Drill-in Fluids

Non-Aqueous Drilling Fluids

- Invert Emulsions
- Relaxed-Filtrate Systems
- HPHT Drilling Fluids
- Reservoir Drill-in Fluids

Completion Fluids

- Chloride Based Brines
- Bromide Based Brines
- Formate Based Brines

Water Based Mud Additives

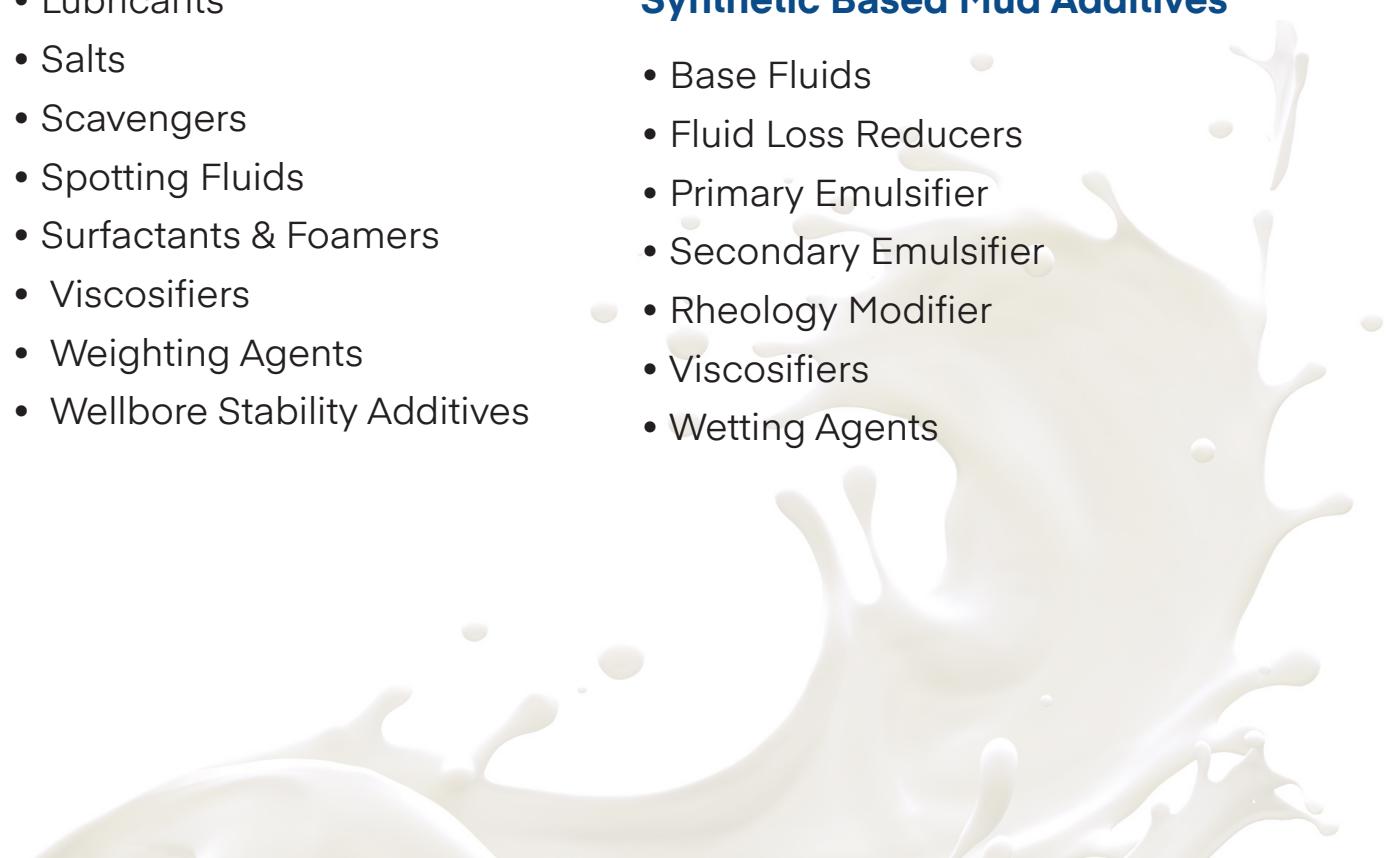
- Alkalinity Control Additives
- Bactericides
- Corrosion Inhibitors
- Deflocculants
- Defoamers
- Fluid Loss Reducers
- Lost Circulation Material
- Lubricants
- Salts
- Scavengers
- Spotting Fluids
- Surfactants & Foamers
- Viscosifiers
- Weighting Agents
- Wellbore Stability Additives

Oil Based Mud Additives

- Fluid Loss Reducers
- Rheology Modifier
- Primary Emulsifier
- Secondary Emulsifier
- Viscosifiers
- Wetting Agents

Synthetic Based Mud Additives

- Base Fluids
- Fluid Loss Reducers
- Primary Emulsifier
- Secondary Emulsifier
- Rheology Modifier
- Viscosifiers
- Wetting Agents





WASTE MANAGEMENT

**MAXIMIZE DRILLING PERFORMANCE &
MINIMIZE ENVIRONMENTAL FOOTPRINT**

Our project-specific Solids Control & Waste Management solutions are to support our customers to maximize drilling performance and to achieve QHSE compliance and reduce cost of ownership. We provide our customers with fully integrated Solids Control, and Waste Management solutions in compliance with local regulations and environmental laws.

GEOS combines six functions to provide tailored Solids Control & Waste Management solutions:



Waste Management Strategy

GEOS attached great importance to environmental awareness and invested in waste management systems that focuses on reducing drilling waste at source and reusing it further in drilling and non-drilling related activities.

An effective drilling waste management strategy is required for eliminating as much drilling waste going to landfill as possible, maximizing recovery and reuse of material at source. We work closely with our clients, construction companies and rig contractors to optimize solids control and waste management system configurations based on project needs.

GEOS's waste management system relies on the hierarchy below:

- **DESIGN** project specific wellsite construction design
- **REDUCE** drilling fluids discharge by efficient solids control
- **REUSE** drilling fluids by recovering from wet drilled cuttings
- **RECYCLE** water by dewatering and maximizing water recovery from waste and rain water
- **TREAT** waste with chemicals for stabilization
- **DISPOSE** waste - waste transportation & disposal

EQUIPMENT	FUNCTION
Drying Shaker	Drilling fluids recovery from wet drilled cuttings
Decanting Centrifuges	Fine solids removal from the active mud volume & Solids removal from waste water when dewatering
Chemical (Floc.) Unit	Chemical mixing systems, tanks, dosing pumps, flow meters.
Half-Moon Tanks	Act as storage pit for recovered fluids from Drying Shaker before processing with decanting centrifuge
Hopper (Mixing) Tank	Storage & pretreatment of waste water and drilling fluids before processing
Centrifuge or Diaphragm Pumps	Waste water and drilling fluids transfer between pits
Polyethylene storage tank	Recycled water storage
Screw Conveyors	Cuttings/Solids transport from rig shaker to drying shakers

Ex20°C ±1m



LABORATORY SERVICES

Our lab services bring expertise to our customers' projects in order to solve drilling and completion problems. Through utilization of our central and wellsite lab facilities, we design customized fluid systems and offer solutions to challenging drilling problems.

GEOS have full-service laboratory for research and development studies, drilling fluids design and product quality assurance. In addition to standard drilling fluids laboratory test equipment, a variety of specialized equipment is used in our central laboratory to address a wide range of operational issues related to well construction, completion, and production.



SHORT COURSES

GEOS provide short courses for professionals involved in drilling, completion or production operations.

GEOS is recognized as the industry's trusted partner for training and competency development. Our partnership with the best universities, instructors and industry professionals makes our courses unique with respect to the balanced combination of theoretical and practical approaches.

The following courses are immediately available upon request.

- Drilling Fluids Technology
- Completion and Workover Fluids
- Formation Damage
- Drilling Hydraulics
- Well Control
- Underbalanced Drilling

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