

SAF **Drilling** And **Engineering**

Complete Water and Drilling Solutions

Profile



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INTRODUCTION

SAF is a leading provider of comprehensive water drilling solutions,



specializing in a wide range of services designed to meet the unique needs of our clients. Our expertise spans deep water well drilling, large-diameter wells, groundwater aquifer delineation, and advanced geotechnical and geophysical services. With a focus on sustainable development, SAF also offers RO (Reverse Osmosis) plant installations, solar energy solutions, and precision piling for infrastructure projects. Committed to excellence, SAF leverages cutting-edge technology and industry best practices to deliver reliable, efficient, and high-quality services for projects of all sizes.

- Deep Water Well Drilling
- Aquifer Re-Injection Wells
- Well Designing
- Geophysical Investigations
- Hydrological & Hydrogeological Investigations
- Mineral Exploration & Surveys
- Geotechnical Investigations
- Piling works
- Direction Drilling
- Earthing Bore

- Dewatering Wells & Designing
- Yield Testing
- Short, Long Pump Testing & Piezometer Well Installation
- Rehabilitation Work of Bores
- Flushing of Wells
- Submersible Pump Designing & Installation

ABOUT US

SAF is a multidisciplinary services company. We provide you with an integrated approach to reliable project delivery in the evolving globalized world.

Proactive rather than reactive, we are at the forefront of new specialties and advantageous alliances. We are here to enhance people's lifestyle and the economy through our services. Our services are distinctive because they are continuous.

Our adaptability and the solid communication between clients mean we deliver results against all odds and external challenges.

The level of service and anticipation of market trends are what shape us. Why? Because we are dedicated to making sure you are satisfied no matter how large or small your project is.

We also focus on what society really needs and hence pay special attention to the environment and communities.

As SAF Drilling is a water drilling company committed to delivering exceptional service with highly trained and professional personnel. Our expertise spans a wide range of projects, each tailored to meet our clients' exact specifications and ensure complete satisfaction. Whether it's a small-scale task or a large-scale operation, our team is dedicated to excellence, reliability, and innovation in every project we undertake. Partner with us for all your water drilling needs and experience the precision and professionalism that sets us apart.

MISSION

Our mission is to harness cutting-edge technology and sustainable practices to deliver high-quality water well drilling solutions. We are committed to ensuring reliable access to clean water for communities and industries, while prioritizing safety, environmental stewardship, and exceptional customer service. Through innovation and expertise, we strive to be a trusted partner in the journey towards water security and resource management. SAF Drilling is committed to the continuous improvement of its professional services; and endeavors to provide opportunities for highly qualified professionals to apply their know-how towards the development and service of society with the highest levels of professional integrity and commitment.

VISION

To continuously improve our standing in the ever-growing market, pioneer state of the art technological solutions and provide the best professional service value regardless of project size or profitability.

VALUES

Our Devotion to Services and our clients are our first and only priority. We deliver honest and accurate results to minimize failure. We find the perfect Service for our clients without compromises.

QHSE POLICY

SAF is committed to the Health and Safety of our Personnel as well as our contractors and other relevant third parties all while keeping in mind conservation of the Environment.

At SAF we make sure to:

- Take any and all measures necessary to maintain optimal working conditions.
- Monitor all work-related activities to ensure the well-being of our employees, contractors and relevant third parties.
- Promote awareness of, and provides education in, health-related subjects.
- Take necessary measures to prevent work-related injuries.

- Train our employees and contractors to be aware of any potential risks to personal safety on the job.
- Grant our employees and contractors the option to suspend their duties and reevaluate their safety should they perceive any potential risks.
- Ensure that all employees work productively to conserve our environment.
- Make every effort to minimize compromising our environment, such as pollution and contamination.
- We believe that adherence and implementation to HSE regulations create a safe working environment for continuous progress.

KEY PERSONNEL

Our key management is responsible for delivering commercial and operational solutions to our customers. They work closely with our clients to understand their needs and design bespoke solutions that manage and mitigate risk. Our key management team is committed to operational excellence and ensuring compliance with your requirements. The breadth of their expertise and experience ensures the delivery of Solutions.

We would like to introduce a few of our Key Personnel to share their enthusiasm with you.

Mr. Fayaz Ahmed

(Managing Director)

As the Managing Director of SAF Drilling & Engineering Company, Mr. he brings extensive expertise and deep industry knowledge to the forefront of the company's operations. His leadership is pivotal in steering the organization towards new heights of success and innovation. Key responsibilities include:

Visionary Leadership

Project Excellence

Client and Stakeholder Relations

Regulatory and Environmental Compliance

Team Development and Management

Innovation and Technological Advancement

Mr. Fayaz Ahmed's commitment to excellence and sustainability,

coupled with his vast experience, positions him as a transformative leader dedicated to advancing the water well drilling industry and ensuring the delivery of reliable, efficient, and sustainable water solutions.

Mr. Mahfooz Ahmed Soomro

(Sr. Hydrogeologist)

Mahfooz Ahmed Soomro brings over 30 years of experience in water well drilling across Pakistan and the USA. His career highlights include selecting optimal drilling sites and improving water access for communities, particularly in rural areas. In Pakistan, he has enhanced local water infrastructure, while in the USA, he has successfully adapted to different regulatory and environmental standards. Known for integrating innovative technologies and practices, Mahfooz is a respected expert dedicated to sustainable water extraction and management.

Engr. Asif Ali

(Head of Mechanical/Electrical Engineering Department)

Mr. Asif Ali has a complete understanding, professional experience with a strong background in Mechanical and Electrical Engineering. He possesses an extensive knowledge of field work execution and issues helping his department overcome issues beforehand. He is responsible for monitoring projects and successfully reaching them to completion.

Engr. Muhammad Rafique

(Head of Civil Engineering Department)

Mr. Muhammad Rafiq is a renowned in the field of civil works with his extensive experience in the field. He possesses extensive knowledge of works throughout Pakistan and has worked with both Government and Private sectors on projects of all magnitudes, His excellent troubleshooting skills let him overcome any and all obstacles.

Mr. Muhammad Qasim Siyal

(Sr. Hydrogeologist)

Muhammad Qasim Siyal is a seasoned hydrogeologist with over 25 years of experience across Pakistan. From uncovering vital water reserves in Baluchistan's arid landscapes to promoting sustainable irrigation in Punjab, his work has been transformative. In the mountainous regions, he has pioneered strategies to utilize glacial meltwater, addressing climate change impacts. Dedicated to community empowerment and resource conservation, Qasim's efforts have significantly enhanced water management practices, leaving a lasting positive impact throughout the country.

Mr. Adil Hussain

(Finance Division)

Mr. Adil Hussain has graduated from one of the top management schools in the country, and has since been gaining a wide experience in financial management at his career. His entire career has been spent in accounting/financial services positions.

Mr. Muhammad Yunus

(Geologist)

Muhammad Yunus has three years of experience as a geologist in Karachi, specializing in fieldwork, data analysis, and geological mapping. He has contributed to projects on resource exploration and environmental assessments, gaining skills in geological software and collaborating with teams. His work has enhanced the understanding of Karachi's geological features.

AREA OF EXPERTISE

HYDRO-GEOLOGICAL

Water Well: Our Tube well service ranges from 50ft upto 500ft with variable diameters for domestic use. With rising water requirements for your home, we make sure you get the best service to satisfy your needs.

Industrial Drilling: We specialize in industrial solutions for our clients. Our deep water well ranges from **300ft to 2000ft** with various borehole diameter, according to the requirement of the client.

R/O Plant:

Desalinize the water from your well to make it usable for multitude of purposes.

Long/Step Pump Test:

We provide long pump test from 50 GPM to 1800 GPM giving time duration of 24 hours up to 72 Hours. We also have an advanced hydro kit such as water electromagnetic flow meter, sonic and electric water level Indicators, Portable SDI kit, Turbidity Kit, PH meter, TDS meter.

Aquifer Modeling:

We offer the aquifer modeling and water budgeting of an area for safe yield and lesser risk factor. We also provide numeric and sharp models to establish the actual frame of excerpt according to your requirements.

GEO-TECHNICAL & CORE DRILLING

Geotechnical Investigations:

- Soil investigation for buildings, towers and road projects. Field work mainly consists of drilling and field testing. Drilling is carried out either by rotary- wash method or percussion method.
- Collection of soil and water samples.
- Field testing including standard penetration test, pressure meter test, Downhole Seismic test, Pressure meter test, packer test, field permeability test, field density test, field CBR test.

Dry Core Drilling:

With Air Drilling method we can increase core recovery and decrease drilling time. It is ideal for use in mineral sectors for reserve estimation as dry core drilling leaves the sample free of any chemical contamination, giving you accurate results.

Wireline Core Drilling:

With requirements of increased depths and shortage of time, Wireline method can decrease drilling time considerably giving you best results in less time.

Laboratory Tests & Reporting:

- Grain Size Analysis
- Natural Moisture Content
- Bulk Density/Dry Density
- Atterberg Limits
- Specific Gravity
- Maximum and Minimum Density of Sand
- Direct Shear
- Unconfined Compression Test
- Consolidation Test
- Permeability Test
- Standard and Modified Proctor Tests
- Soaked and Unsoaked CBR
- Organic Matter
- Sulphate Content
- Chloride Content
- pH Value
- Total Dissolved Solids
- Carbonate and Bicarbonate

GEO- PHYSICAL

ERS: Through Electrical resistivity we can measure the electrical properties of the subsurface, mapping the subsurface for aquifer prospects.

VES: Vertical electrical sounding (VES) is a 1D resistivity method that provides deep information of the subsurface. VES is ideal for detection of subsurface anomalies and conditions such as caving, faulting, stratigraphic structures, etc at deeper depths. The dynamics of VES can be enhanced in conjunction with other methods, such as microgravity or induced polarization.

GPR: Ground-penetrating radar: (GPR) is a tool that uses radar pulses to image the subsurface. GPR is ideal for shallow depths (1m-30m) and small covered areas for detection of subsurface anomalies and conditions such as caving, faulting, stratigraphic structures, etc. The applications of GPR make it ideal for Geo-Technical sectors.

Wireline Logging

Caliper Log: Though Caliper logging we provide a continuous

measurement of the size and shape of a borehole along its depth. The measurements that are recorded can be an important indicator of cave or shale swelling in the borehole, which can affect the overall result and working of the bore.

Gamma Ray Log: Through Gamma ray logging we can measure naturally occurring gamma radiation to characterize the rock or sediment in a borehole.

Spontaneous Potential Log: Spontaneous potentials (self-potential) are measured down boreholes for formation evaluation.

MAPPING & INTERPRETATIONS

SAF Drilling staff is well equipped and capable of carrying out mapping survey services. Whether a map needs to be digitized, created on field or simply interpreted; Density Drilling is capable.

We provide services for:

- Topographic Maps
- Geological Maps
- *Lithological Maps*
- *Structural Maps*
- *Cross-Sections*
- Interpretations of Subsurface Maps

CIVIL WORKS

- Piling Works: Execution of bored cast in situ piles of 16”, 22”, 26”, 30” & 36” diameter. Work includes boring of holes, fabrication of reinforcement cage, preparation and pouring of concrete.
- Load Testing including plate load test and pile load test.

Dewatering Wells

Dewatering is essential on shore areas and alluvium regions. We have versatile experience in piezometer and dewatering wells such as designing of dewatering works, Drilling of production well and piezometer/ investigation hole, marking each water level, Ensure the workability and control water level up to desire need for construction or required time, Marking the cone of depression, Designing of each well, effects and its profiling.

MECHANICAL/FABRICATION WORKS

Fabrication Works: Execution of fabrication works of miscellaneous nature at site including but not limited to access structures, gratings, hot dip galvanizing.

Anti-Corrosion Sprays: Using latest Nano-Technology techniques, we at Density Drilling provide anti-corrosion protection for Tanks, Pipelines, Vehicular Fleets, etc. With our complete reworking technique, we can expand life of a corroded surface for upto 10 years; making them liquid, dust and rust resistant.

Piping Works: Density Drilling provides comprehensive pipeline welding works with

certified welders. Welding of both Carbon Steel, Stainless Steel, Alloy Steel as per relevant API as per ASME codes & Industry Standards.

Sand Blasting and Painting Works: Sand blasting of metallic structure and pipelines as per SA 2.5 code and painting of epoxy primers and polyurethane paints on structures and pipelines for corrosion protection.

SITE PICTURES



SOFTWARE CAPABILITIES

Log Plot: for casing and borehole design

Surfer: for contouring

Rock Works: for 2D and 3D modelling (fence diagram) etc.

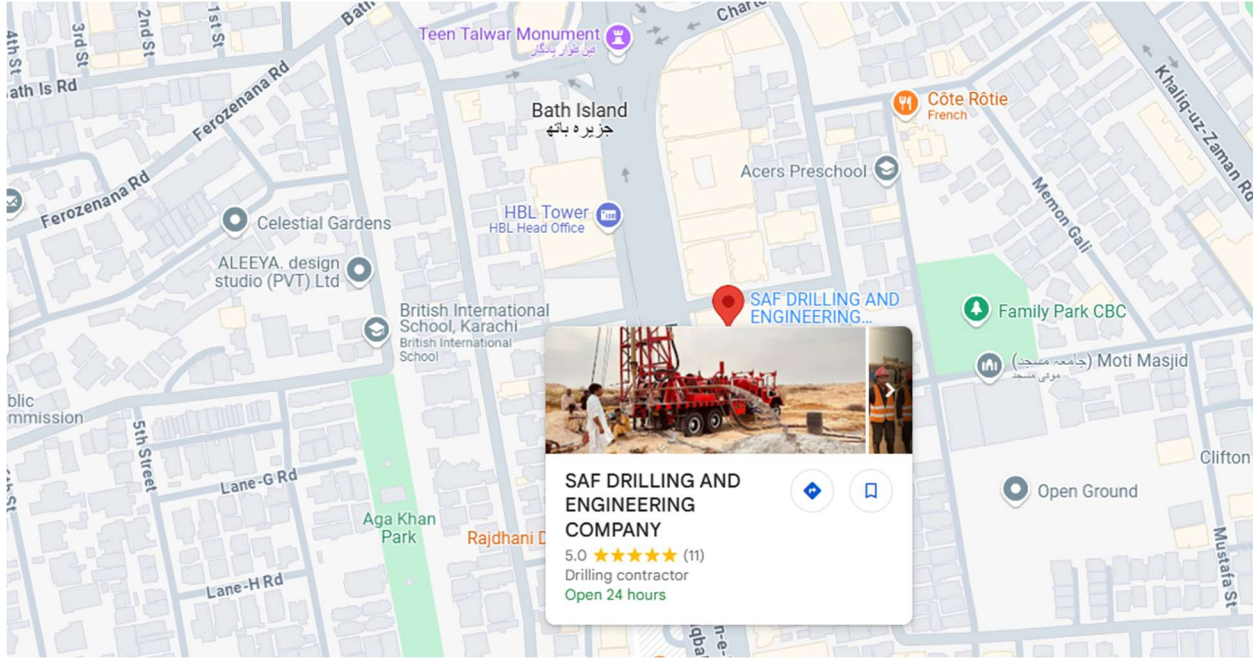
IPI2WIN: for resistivity calculation and layer Breaking

ESRI ARCGIS: for mapping purposes

Schlumberger Petrel: for 2D and 3D modelling, Contouring, etc.

EQUIPMENT LIST

Sr. No.	Description	Quantity
1	Truck Mounted Rig for Deep Well Drilling up to 2200ft (Straight Rotary)	01
2	Truck Mounted for Deep Well Drilling up to 1200ft (Straight Rotary)	3
3	Straight Rotary Rig for Deep Well Drilling up to 600ft	2
4	Straight Rotary Rig for Deep Well Drilling up to 450ft	2
5	Skid Mounted Rig for Deep Core Drilling up to 300ft	2
6	Reverse Rotary Rig for Drilling up to 250ft	2
7	PQ, HQ, NQ, BQ Core Barrels	8
8	SPT Sampler & CPT	4
9	SPT Hammer Sliding	2
10	Wireline Equipment up to 300ft depth	1
11	Compressor for Air Drilling	2
12	All types of Rollers Including (Clay, Diamond, Tricone Bit) for both soft and hard strata encountered sub-surface	15
13	Drill Bit 4" 6" 8"	88
14	Drill Bit 12"	62
15	Drill Bit 16"	30
16	Drill Bit 18"	20
17	Drill Bit 22" 26"	12
18	Terameter SAS 40000	01
19	Terameter VES Max	01



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