

COMPANY PROFILE

Turnkey Solutions Specialization

- Electric Resistivity Surveys
- Sub-Soil Investigations & Pile Foundations
- Designing & Installation of Tubewells and Water Supply Network.
- Civil Works for Water Reservoir, Chambers and Water Intake Structures
- Providing, Installation, Operation & maintenance of Water Treatment Plants

AQUA~ROCK INTERNATIONAL

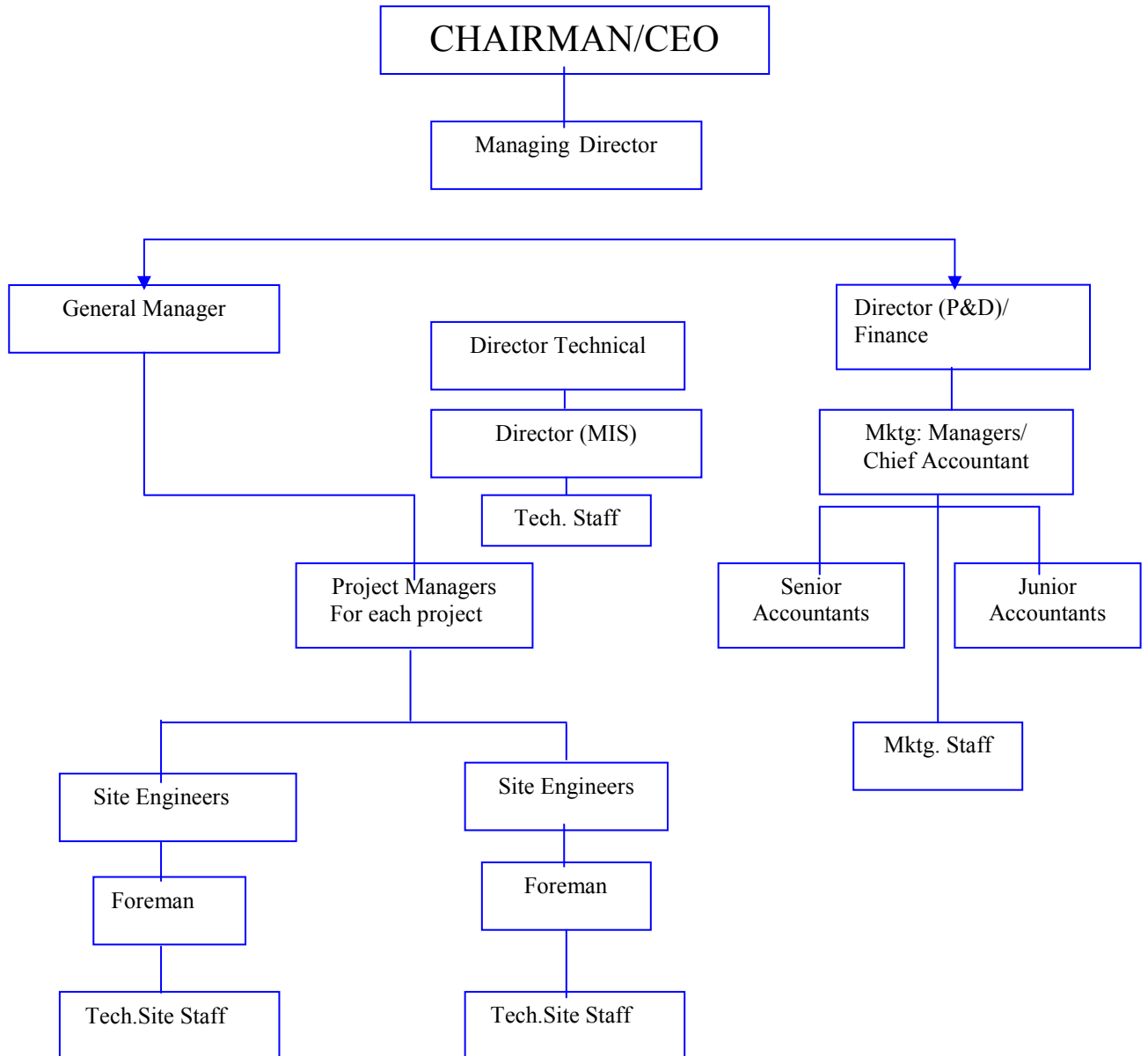
Subsidiary of **Rockwell Group**
9-T Gulberg II, Lahore-Pakistan
Tel # 042-5756301, 5764481
Fax # 042- 5756303
E-mail: rockwell@brain.net.pk

LIST OF DIRECTORS

| Sr. # | NAME & DESIGNATION | QUALIFICATION |
|--------------|--|--|
| 1 | SAEED IQBAL Chairman | Degree in Geology & Geotech.Engg. (U.K). M.I.P.M. (London); R.T.C.S. (U.K); M.A.C.I. (U.S.A.). |
| 2 | ATTIQUE SAEED Managing Director | B.Com., M.Sc. (Engg.Geol.), Dip. Material Engg. C.R.B.C. |
| 3 | ASIF SAEED Director Planning & Development | B.Com.(Pb); M.B.A. (AIT) C.R.B.C. |
| 4 | ATIF SAEED Director Technical | B.Sc. (Engg.) Latvia M.Sc. Engg. (USA). P.E. |
| 5 | KASHIF SAEED Director Design | B.Arch. (NCA), M.Arch (UET). MIAP, M-PCATP. |
| 6 | SHAHZAD SAEED Director M.I.S. | BCS. (Pb.), MCS (TIU) MCSE, CISCO |

In addition, every department is headed by General Managers, Key Personnel: Advisors (Technical and Finance), Consultants, Engineers, Technicians and other supervisory experienced staff, who are full-time on the permanent rolls of the Company.

ORGANIZATIONAL CHART



AQUA ROCK

Subsidiary of: ROCKWELL GROUP

H₂O is Life – We treat H₂O

Water; Vital For All Life

Water is by far the most abundant substance in the human body comprising of 50 to 65 percent of the weight of a lean adult. Although water contains no calories or any nutrients, the human body can go for only a few days without it. In contrast a healthy person can survive for 6-8 weeks without food.

Vital Function Of Water

Water is essential to virtually every body function. It is used for the digestion, absorption and transport of nutrients. It serves as the medium of various chemical processes. It is solvent for body wastes and also dilutes them to reduce their toxicity and aid in their excretion from the body and it helps regulate body temperature. In addition, water provides a protective cushion for body cells, and in the form of amniotic fluid protects the developing fetus. Water is needed to build all body tissues and is the base of all blood and fluid secretions. It lubricates the various organs and joints. It also keeps the skin soft and smooth.

Daily Needs

On average, an adult needs to take in 6 to 8 glasses of water a day. Daily needs vary considerably, to need to consume more water, when the weather is hot, during exercise, or when you have a fever, cold or other illness. Nursing mothers need to increase their fluid intake in order to produce milk which is 87% water.

Water Safety

On the whole, Americans enjoy one of the world's safest and most reliable water supplies but one that is not without problem. According to the Environmental Protection Agency (EPA) 500,000 to 1 Million American contract a water borne illness each year. Same is the case with Pakistan, where more than 3 million people suffer from contaminated water. Recent studies indicate that the true figure may be significantly higher, and that many episodes of diarrhea and intestinal upset attributes to food poisoning, hepatitis or other causes may actually stem from contaminated water.

Contaminated Water & Diseases Caused

Many different diseases are spread by drinking water contaminated by micro-organism; including campylobatics, cholera, amoebic dysentery, beaver fever and cryptosporidia.

These organisms usually get into water from different water supplies available.

How “Aqua~Rock” Plant Water is Disinfected

Aqua~Rock is a subsidiary of Rockwell Group. The water plants are custom designed as per the feed water quality. These special plants are special to purify water by reverse RO process. Pressure is exerted on the salt solution with higher concentration which ultimately exceeds the osmotic pressure, pure water moves through the semi permeable membrane and so-called permeate is formed. In this way dissolved salts are purified from normal water.

When the osmosis process is completed then again the water is passed through highly powerful lamp having an extra ordinary wavelength, which kills bacteria, viruses, parasites and even the traces of these microbes.

After passing from all above steps “Aqua~Rock” plant water is then passed from the different inspections, evaluation and quality control procedures, even in packaging.

So in the end a complete pure drinking water is produced which is 100% pure and 100% safe water. And that’s why Aqua~Rock is the name of reliability for the Safest drinking Water.

We are representing foreign renowned principals in water business and OEM of UF-Ultra Filtration, RO-Reverse Osmosis Systems having update advance certified technology.

INTRODUCTION

We are pleased to introduce ourselves as specialized engineering company in water treatment, reverse osmosis and water purification systems backed by 42 years of experience under the umbrella of Rockwell Group. We also provide services in designing and installation of water tubewells for our distinguished Clients.

At **AQUA~ROCK**, we have been providing solutions to our valuable customers for their specific water treatment problems with the sole aim of providing professional assistance both in terms of design and in equipment within reasonable prices.

The quality of Water is always considered at higher priority especially in industries to make a part of product in different processes and in cooling & heating water devices. **AQUA~ROCK** offers best water purifying systems with reliable Imported/Local assembling & manufacturing at competitive prices with unmatched services.

We also represent various suppliers from around the world on whose equipment we configure entire systems based on individual customer requirements.

Our vast experience in the field of water makes us superior among others. Our mobile testing kits provide the onsite support to the clients, thus save time & provide onsite solution.

9-T Gulberg 2, Lahore-Pakistan Tel: 042-5756301, 5764481 Fax: 5756303 E-mail: rockwell@brain.net.pk

Specialists: Industrial Water Treatment Plants, Reverse Osmosis Plants, Chlorination Plants, Designing and Installation of Water Wells, Geo technical and Foundation Engineering Group

SERVICES

AQUA~ROCK has combined proven technologies with the latest components and techniques to deliver high quality water treatment products at competitive prices.

We offer

- Filtration Systems
- Mineral Water Plants
- Softening Systems
- Ultra Filtration Modules
- Deionization Systems
- Sterilization Systems
- Bottled Water Plants
- Domestic & Commercial R.O. Systems
- Waste Water Treatment Systems
- Operation & Maintenance Contracts
- Laboratory facilities on site provide with wide range of services
- Consultancy services

9-T Gulberg 2, Lahore-Pakistan Tel: 042-5756301, 5764481 Fax: 5756303 E-mail: rockwell@brain.net.pk

Specialists: Industrial Water Treatment Plants, Reverse Osmosis Plants, Chlorination Plants, Designing and Installation of Water Wells, Geo technical and Foundation Engineering Group

Management

AQUA~ROCK started as a management company managing outside resources on a project-to-project basis. This also enabled us to get to the best of technologists, fabricators and designers for specialized fields. Thus, **AQUA~ROCK** succeeded in providing a technological solution to the crisis ridden water starved cities of Pakistan.

To manage these facts requires a team of logistic staff for imports, accounts, purchase, personnel management etc. **AQUA~ROCK** has a team of experienced geologists and geo-hydrologists shouldering their responsibilities with dedication.

Committed to provide the leading edge of technology to our customers, at the least cost, **AQUA~ROCK** is slowly but surely working up to its goal. We have the best wishes of our customers with us.

PLANT OPERATIONS AND FIELD SERVICES

Aqua~Rock Int'l was formed having experienced engineers, operators and technicians who recognize the importance of proper operations and maintenance for the successful long-term viability of advanced water treatment facilities.

We are dedicated to providing superb after-market technical services through our services department, offering:

1. A single source of both supplies and services for membrane treatment systems and utilities; We will specify, procure and expedite the delivery of pumps, membranes, instruments, controls, filter, chemicals and other consumable required to repair or maintain the facility.
2. Operator instruments and in-house preparation of training manuals based upon components manufacture's recommendations, professional experience and current best practices.
3. Emergency repair and replacement services including the manpower and equipment necessary to effectively accomplish most tasks within a short period of time, particularly under difficult and unusual circumstances.
4. Initial plant start-up supervision and / or assistance including acceptance testing and trouble shooting.
5. Complete plant overhauls and for preventative or corrective maintenance and detailed operation analysis in order to optimize the system's long-term performance.
6. Laboratory water quality analytical services to provide a database for the selection of the optimum pretreatment system, membrane system, operating parameters and post treatment requirements.
7. Turnkey management services are available for the efficient operation of any of the five packages, whether it is an original Aqua~Rock Int'l installation or an other manufacture's. After a detailed evaluation of the individual system's performance and operating requirements, Aqua~Rock Int'l offers to operate and maintain the system on a contractual fixed fee basis. This service program insures superior equipments upkeep and reduced operating costs.

PERSONNEL PROFESSIONAL EXPERTISE

We, can:

a. Design

- Water Plants
- Rooms for Plants
- Containerized/Mobile Plants
- Water Reservoirs
- Sewerage Systems
- Water Intake Structures
- Solar Energy Systems
- Tubewell

b. Manufacture/Construct/Fabricate

- Plant Vessels
- Steel Structure
- Containerized/Mobile Plants
- Rooms for Plants/Wells
- Over head water storage tanks
- Thermal Water Desalination Stills

c. Install:

- Water Plants
- Water Pumps
- Tubewells
- Solar Pumps, Lights, Fans, Solar Power Systems to run in remote areas
- Containerized/Mobile Water Plants
- Water Pipe Lines
- Thermal Water Desalination Stills

To carry out a program of design, construction and testing of the scope of any utilities project requires a specialized team capable of providing the knowledge and experience required to complete the program in the most efficient manner. The team is to be composed of a project manager, design engineer, manufacturing engineers and service technicians who follow the complete project through initial stages to completion. This integrated product team process ensures that the systems delivered not only meet the design requirements, but are also designed and built to promote ease of installation and maintenance.

AQUA~ROCK WATER PLANT

The **AQUA~ROCK** WATER Plant's application is on water, coming from natural resources which is mostly included with many harmful impurities like soluble, insoluble ingredient, salts, micro biological contaminants which make it most dangerous for direct consumption. The pipe line, source and passage up to your drinking point is also a cause to altered its chemical and physical structure due to highly industrial, chemical, sewerage etc pollute if it is at or around the incoming water source.

There are number of treatments, techniques and processing have been developed but all are applicable subject to raw water analysis to get rid of the soluble salts and disinfecting to eliminate the micro biological contaminations.

The **AQUA~ROCK** water plant consists as per the technical specifications dependant on the quality of the feed water details of each processing stage is than decided enabling us to understand its performance and solving water related problems.

The **AQUA~ROCK** water treatment plants are being manufactured under a team of highly skilled technical professionals while the latest technical assistance is being provided (if required) by our affiliated foreign reputed concerns.

The Plant technicians are always available on phone call to rectify any complaint by customer while a monthly on cost inspection is being made to control the quality and ensure the performance of the plant.

9-T Gulberg 2, Lahore-Pakistan Tel: 042-5756301, 5764481 Fax: 5756303 E-mail: rockwell@brain.net.pk

Specialists: Industrial Water Treatment Plants, Reverse Osmosis Plants, Chlorination Plants, Designing and Installation of Water Wells, Geo technical and Foundation Engineering Group

GROUNDWATER:

Water is present in the environment in several forms. Groundwater is all water occurring below the ground surface. In most places GROUNDWATER is the most useful form for the economical development of water supplies. Because ground water is present in very large storages it is a reliable water source not as subject to seasonal weather variation as rivers and lakes, not as expensive to develop as surface water, which usually requires expensive dams to regulate flow variations. APPRAISAL of the water resources of an area will show the most economic type of water development for that location. A comprehensive understanding of the HYDROGEOLOGY of the area will provide an assessment of the amount of groundwater present, how much of it can be drawn upon, how it will be replenished and the best means to exploit it. CONCEPTS of the groundwater systems expressed as computers models provide the means of reliable evaluation, utilization and management of the groundwater resources. Modeling provides the means of prediction and preventing pollution of water resources or environmental damage through contaminant flows in the ground.

GROUNDWATER TECHNOLOGY is applied to:

- * Provision of secure water supplies
- * Management of groundwater in major excavations such as mining projects
- * Protection of the valuable groundwater resources from contamination

GROUNDWATER studies may involve any or all of:

- Geological assessment; air photo interpretation, soil and vegetation mapping, exploratory drilling etc.
- Geophysical assessment using surface, airborne and down hole techniques
- Hydrological assessment based on meteorological and surface water data, pumping test and groundwater level evaluation
- Chemical assessment including evaluation of water chemistry trends in relationship to the purpose for which water is required, or for tracing sources of recharge, pollution etc.
- Systems and structures assessment; design and costing of drilling programmes, bores, well field and pumps, injection and infiltration fields and the continual upgrading of material design in addition to computer modeling, analysis and design.

Essential Factors of an effective **GROUNDWATER** investigation are:

- Expertise
- Experience
- Thoroughness

Given these, **GROUNDWATER** supplies can be established almost anywhere in an efficient and economical way.

CAPABILITIES

We are capable to undertake any project concerning the flow of water underground including projects involving the interaction of surface water and groundwater. This can be achieved because of the highly versatile and sound professional approach offered by a group trained in a comprehensive range of disciplines and having experience from a great number of projects.

All principals or senior staff members can undertake specialized smaller projects alone or form part of an integrated team for major projects. This is possible because of their thorough training and experience in general groundwater principles and practice, besides their individual fields of specialization.

The group has the capacity to undertake projects in environments ranging from arid to wet tropical conditions. This is demonstrated by the successful completion of over 400 projects in Pakistan.

Rockwell actively engaged in the assessment and control **SUBSURFACE POLLUTION** through leakage from mine and urban waste disposal sites, rehabilitation of mine subsurface petrol spills. More recently the company has undertaken regional **HDROCHEMICAL STUDIES** to assist mining companies in reconnaissance exploration for minerals. These have included statistical analysis of data and computer simulation studies of water chemistry evaluation.

FACILITIES:

Rockwell owns equipment necessary to complete its exploration and testing programs without resort to sub-contractors. Equipments Include:

GEOPHYSICAL EQUIPMENTS:

- Bison Series 9000 Digital Instantaneous Floating Point (DIFP) Single Stacking Seismographs.
- 3PA, for Electromagnetic and deep resistivity surveys up to 2 Kms depth.
- Pulse geophysical logging unit with Caliper, SP (porosity), SPR (resistivity), CCL, Natural gamma and gamma-gamma logging options.
- Terra Science.
- Terra Meter SAS 300C.
- Foundation Pile Diagnostic System IV, TNO, Netherlands.

HYDRAULIC TESTING:

- Selection of standard and single packers, pneumatic and mechanical. NQ-HQ size.
- Mechanical straddle packer for 150mm hole, fitted with pressure sensors and confining sub. For all kinds of drill-stem tests.
- Selection of pumping test units for yields from less than 3L/sec. Upto 30 L/sec.

WATER QUALITY:

- 2 field pH-Eh meters.
- Field conductivity meters.
- Hydro lab.
- Range of specification probes.

MONITORING:

- Manual and automatic water level recorders.
- Two multi-channel data loggers.

SURVEYING:

- GPS Magellan 315 & 300. From USA.
- Eagle Explorer GPS systems.

SERVICES:

Rockwell also provides its expertise in:

GROUNDWATER EXPLORATIONS

- Site appraisals by electrical resistivity survey, electromagnetic survey and seismic refraction survey.
- Data reviews.
- Hydrogeological surveys.
- Hydrogeophysical surveys.
- Exploratory Drilling & testing

GROUNDWATER DEVELOPMENT

- Cost benefit studies.
- Well & well field design.
- Drilling and Contract supervision.
- Down hole Logging.
- Aquifer and well testing.
- Conjunctive use studies.

GROUNDWATER MANAGEMENT

- Well field operations manual design.
- Management programmes.
- Computer Modeling.
- Water Salinity control.

DEWATERING/DEPRESSURISATION

- Mine dewatering appraisals.

ENVIRONMENTAL STUDIES

- Salt water intrusion control.
- Soil water chemistry studies
- Investigation of tree water relationships
- Investigation and control of petroleum spills.
- Study and control of subsurface contaminant seepage
- Baseline hydrology studies.
- Water quality monitoring networks.

WASTE DISPOSALS

- Investigation and design for sanitary landfills.
- Evaluation of toxic waste disposal sites.
- Sewage effluent infiltration pond design.
- Wastewater reuse studies.
- Assessment and design of deep well infection of toxic liquid wastes.
- Evaluation of mine tailings and spoil disposal sites.

WELL FIELD REHABILITATION

- Corrosion Control and prevention.
- Encrustation removal.
- Redevelopment techniques.
- Artificial recharge.

ARTIFICIAL RECHARGE

- Feasibility.
- Design of recharge ponds.
- Design of recharge weirs and channels.
- Design of recharge wells and infiltration galleries.

CONJUNCTIVE USE

- River basin water balances.
- Design of river weirs and off takes.
- Evaluation of runoff reliability.
- Optimization of sources.

RURAL WATER SUPPLIES

- Village water supply assessment.
- Small-scale irrigation schemes.
- Leach ate development and attenuation in mine waste rock and tailing dumps.

INSITU LEACHING

- Investigations and assessments.
- Well-field performance monitoring.

IRRIGATION

- Feasibility studies.
- Water resource assessments.
- Irrigation planning and design.
- Cost analysis of alternative schemes.
- Contract supervision