Nasser Al-Qahtani

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Nasser Al-Qahtani, Holds Master In Geotechnical And Civil Engineering. Has Experience of 33 years With Saudi Aramco and 4 years with AECOM-Arabia as a Consultant& Senior Geotechnical And Civil Engineer, Providing Consultations on Earthwork specification, Design of Shallow and Piles Foundations, Knowledge In Constructions Practice and Industrial/ Civil Standards, Managing Geotechnical Contract and Soil Reports, Providing Consultations and Doing Analysis On Shoring and, Dewatering to Meet Safety Requirements, Quantifying of Rock and Soils Excavations, Evaluating Deep Excavation Stability, Monitoring and Evaluating of Dams Grouting, Solving Backfilling Compaction Problems Etc... Geotechnical engineering analysis and design including (but not limited to) soil and rock engineering, soil dynamics, geo-hazards, slope stability, deep and shallow foundations, pavements, earthworks, and site preparations works.

- Senior Geotechnical and Civil Engineer with AECOM Arabia (3 Years).
- Consultant Geotechnical and Civil Engineer with CSD, Saudi Aramco (30 Years).
- Master Degree in Geotechnical and Civil Engineering from KFUPM.
- Bachelor Degree in Civil Engineering from Tucson, Arizona, USA.
- Obtained United States Patent Declaration Under My Name On Geogrid Sand Fence in 2011.

# **Professional History**

October 2011 – Present:
AECOM-Arabia
Saudi Aramco Project
Jeddah Storm Water Drainage Program (JSDP)
Jeddah Saudi Arabia
Position: Senior Geotechnical Engineer

July2006 - June 2011 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia Positions: Geotechnical Consultant Consulting Services Department

July 2000 - June 2006 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia Positions: Professional Geotechnical Engineer, Consulting Services Department

July 1996 - June 2000 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia Positions: Drilling Supervisor Research Center and Laboratory Department

July 1990 - June 1996 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia Positions: Lead Engineer Saudi Aramco Laboratory Department

July 1988 - June 1990 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia Positions: Engineer II Saudi Aramco Surveying Department

July 1985 - June 1988 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia

Positions: PDP Engineer/ Saudi Aramco Research Center and Laboratory Department

July 1974 - June 1985 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia Positions: Assistant Engineer Saudi Aramco Technical Services Department

# **Academic Training**

Consulting Skills

Master Degree in Geotechnical Engineering, KFUPM, Dhahran, Saudi Arabia, 2003 Bachelor Degree in Civil Engineering, University of Tucson, Arizona, USA, 1984 Course On: Value engineering Oil & Gas Plant Structural Design

Roads & Airport Asphalt Design

Concrete Repairing Per Saudi Aramco Standard

Mixed Concrete Design

Steel Structure Design

Piles and Concrete Shaft Design

Safety of Saudi Aramco Construction Manual

Work Permit Issuer

PLAXIS of Soil Modeling (Basics & Advanced)

Coaching & Supervising

Pile Dynamic Testing System (Offshore /Onshore)

Seismicity of Arabic Peninsula

Microsoft Office Application Skills

Soil Improvement for Roads Base and Sub Base

Many Geotechnical symposium and conferences

## **Affiliations**

Saudi Council of Engineers

American Society of Civil Engineers

American Society of Civil

American Society of Geotechnical Engineers

# **Country Experience**

UK

USA

UAE

Bahrain

Kingdom of Saudi Arabia

## **Nationality**

Saudi

# Languages

Arabic

**English** 

#### **Career Highlights**

- Currently working for AECOM-Arabia in Jeddah Stormwater Drainage Program (JSDP) as Senior Geotechnical Engineer. Mainly Writing geotechnical contract scope of work, review bidding and select qualified contractor, approve payment for geotechnical contractor, Review and approve contractor shoring and dewatering method statement, Review method statement of deep excavation and assist stability and safety, management and verifying quality of earth work specifications and grouting. Resolving backfilling and compaction problems, solving soft soil problem through an analysis, then recommend the proper soil improvement, Studying and verifying claims such rock excavating and dewatering.

## Key Responsibilities:

- Geotechnical site investigations (including site reconnaissance, drilling, sampling and geophysics);
- Geotechnical engineering analysis and design including (but not limited to) soil and rock engineering, soil dynamics, geo-hazards, slope stability, deep and shallow foundations, pavements, earthworks, and site development;
- Direction/supervision of junior staff to meet project deliverables;
- Report and proposal writing;
- Tender package preparation;
- Site inspection/supervision;
- Construction QA/QC inspections; and
- Travel as required for various field programs.
- Develops and reviews design specifications.
- Develops and monitors schedules.
- Ensures adherence to industry codes and standards as well as department practices and procedures.
- Remains knowledgeable of safety policies and procedures and performs assigned duties in a safe

#### Saudi Aramco

-Leading expert for geotechnical investigations, geotechnical reports reviews and site selection. Provide geotechnical design parameters for foundations' design, geotechnical design reviews, and value engineering studies to provide cost-effective solutions for different geotechnical problems and pilings work for various projects offshore and onshore. Responsibilities include performing geotechnical analyses, road failure studies, Plant structural integrity, bearing capacity and settlement analysis, lateral earth pressure, and axial and lateral pile capacities, Value engineering studies for Saudi Aramco major project, and Reviews of major project phases in my specialty.

Also I had been appointed to be a member or head of to investigate root cause of failure or accident that relate to my specialty. Also assigned to evaluate earth work specifications and rock stability of Saudi Strategic Reserve projects for 2 years. In addition, Iwas the lead engineer to instigate the movement and drifts of sand dunes to various Saudi Armco plant scattered in the desert. I have initiated technical stud to reduce the wind speed to the level where the sand will be dropped and accumulate before it reach the plant. The study was successful and I **obtainedUnited States Patent declaration under my name on Geogrid Sand Fence**. In addition to that I have been member in teams that investigate the integrity of industrial and civil structures that enhance my experience and knowledge.

## **Detailed Experience**

October 2011 - November 2014:

AECOM-Arabia Saudi Aramco Project Jeddah Stormwater Drainage Program (JSDP) Jeddah Saudi Arabia

Position: Senior Geotechnical Engineer

Managing geotechnical investigation, geotechnical contracts, geotechnical reports and earth work specifications, resolving any field construction problems on excavations, dewatering, shoring's and safety, and constructability.

This Phase of the JSDP, gave me more exposures and experience in the construction dams, and network of channels and discharge systems and one new trunk system of outfalls. The lists of the packages identified in this phase are:

- 1. Dams
- 2. Reinforced Concrete Trapezoidal Channels
- 3. Reinforced Concrete Rectangular Channels
- 4. Reinforced Concrete Box Culverts
- 5. Underground Drainage Piping System
- 6. Reinforced Concrete Drainage Outfalls
- 7. Saudi-Aramco Communications Tower

July 2006 - June 2011 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia

Positions: Geotechnical Consultant/ Consulting Services Department

I was Saudi Aramco's leading expert in geotechnical (onshore offshore) providing geotechnical consultations for man projects, reviews of any earth work specifications and revisions of Saudi Aramco related standard. Also providing the following tasks:

- Geotechnical consultations for Aramco projects including geotechnical design parameters for foundations'
  design, value engineering studies to provide cost-effective solutions for different geotechnical problems,
  review of geotechnical scopes of work, and geotechnical reports for quality and technical contentto meet
  project requirements.
- Project proposal review for Saudi Aramco's major project.
- Review detail design for various projects.
- Cost estimate for earth work for various project.
- Value engineering reviews for Saudi Aramco's major project to reduce the cost of earth works,
- Consultations for rock tunneling, rock blasting, rock excavations, slurry walls and concrete cut-off walls, foundation treatments, cement and chemical grouting, construction dewatering and site drainage, soil reinforcement, erosion control, stability studies, geotechnical and structural design,
- Evaluation of soil and rock excavation specifications for compliance with Saudi Aramco and international standard,
- Review select fill, general fill and compactions s specifications that meet Saudi Aramco and international standards
- Evaluations of excavations and shoring requirements specifications for safety of worker and nearby structure.
- Evaluations of dewatering and seepages to resolve field or construction problems,
- Evaluations of soil grouting and grouting specifications,
- Evolutions of roads base and sub base materials for different pavement structure.

#### **Achievements**

I obtained United States Patent declaration under my name on Geogrid sand Fence. The sand fence had been implemented in many Saudi Aramco facilities and proven to be cost-effective to intercept and accumulate the sand before it reach the facilities such as Rod sand Airports and rail roads.

July 2000 - June 2006 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia

Positions: Professional Geotechnical Engineer/ Consulting Services Department

## **Key Responsibilities**

- 1. Providing specifications for subsurface investigations for new and existing infrastructure, technically directing the work in the field, assigning laboratory tests, and developing geotechnical parameters for use in design of various structures. Responsibilities include performing geotechnical analyses -- bearing capacity and settlement, lateral earth pressure, and axial and lateral pile capacities.
- 2. Preparation of geotechnical engineering interpretations and reports and presenting the results of the investigations and reports to members of the project team and management. During the construction phase, responsibilities will include review of all earthwork operations, monitoring of pile installation and load testing, inspection of critical foundation.
- 3. Provide geotechnical consultations for constructions and design of piles and shallow foundations.
- 4. Resolving bearing capacity or construction problems thorough site visits, assessment of Soil design parameter from existing reports or conduct new investigations.
- 5. Resolving backfilling and compaction problems for various projects.
- 6. Resolving soft soil problem through proper soil improvements (soil replacement, dynamic compaction, piling, etc...)
- 7. Resolving shoring and dewatering problems thorough analysis soil formations and permeability.
- 8. Resolving slope stability problems thorough through grouting and soil nailing.
- 9. Review earth work, specifications and geotechnical reports for the new packages.
- 10. Knowledge on problematic soils such Subka soils, limestone cavity, and expansive soils.

July 1996 - June 2000

Saudi Aramco

Dhahran, Eastern Province, Saudi Arabia

Positions: Drilling Supervisor/ Research Center and Laboratory Department

### Mainly:

- Scheduling drilling project,
- Evaluate soil formation for each location to select the proper drilling materials and equipment,
- Resolve drilling problem.
- Review boring logs and produce final borings.
- Write the geotechnical reports.

July 1988 - June 1990

Saudi Aramco

Dhahran, Eastern Province, Saudi Arabia

Positions: Engineer II/ Saudi Aramco Surveying Department

I got orientations to all type of surveying (Land, Arial, Sea bed, and Geodetics) for one year. Then I was assigned to land and Arial surveys 6 month each.

July 1985 - June 1988 Saudi Aramco Dhahran, Eastern Province, Saudi Arabia Positions: PDP Engineer/ Saudi Aramco Research Center and Laboratory Department

July 1974 - June 1985
Saudi Aramco
Dhahran, Eastern Province, Saudi Arabia
Positions: Assistant Engineer/
Saudi Aramco Technical Services Department

Completed my BS in University of Tucson, AZ