

# UNITED GROUP

FOR STUDIES AND TESTING





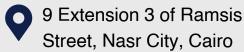








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# UNITED (SOUP) SOUP (SOUP)

We recognize that today's engineering landscape requires precise insights, proven methodologies, and an unwavering commitment to data integrity and quality. Whether the goal is to assess sites prior to construction, ensure soil stability, or evaluate material properties — United Group's Studies and Testing Division stands as a trusted foundation in the field.

From field investigations to advanced laboratory testing, United Group supports decision-making in projects through accurate results based on internationally recognized standards.

With every project initiated, every sample tested, and every report delivered — our focus remains on providing confidence through technology.

We extend our gratitude to our clients, engineering partners, and dedicated technicians who work tirelessly to help us reach informed decisions. Together, we continue to build safer and more resilient infrastructure.

United Group - Studies and Testing Department

Where data meets confidence, and where precision defines the path to success.

Reda Awad Yassen

Leda Hwad

Owner - CEO

#### **Our Mission**

To deliver precise, reliable, and code compliant studies and testing services, improve performance, and support informed decision-making in construction projects.

#### **Our Goals**

To provide accurate field study and testing data that helps reduce project risks, verify design assumptions, and enhance the long-term reliability of engineering systems.

#### **Our Vision**

To become the leading entity in the region in field and laboratory study and testing services supporting infrastructure development with validated data, technical integrity, and operational excellence.

A Brief Story About The Company

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# **ABOUT US**

United Group, founded in 1998, started as a provider of engineering solutions and laboratory testing systems.

By 2004, the company expanded into geotechnical and structural monitoring, offering fully integrated systems across the Middle East and Africa.

The Studies & Testing Division is a core arm of the group, delivering comprehensive field and laboratory services for infrastructure and construction projects.

From site exploration to advanced materials analysis, we provide accurate, standards-based data to support safe design and reduce construction risks.

Our scope includes geological, geotechnical, hydrological, environmental, topographic, and hydrographic studies.

We also offer specialized testing in soil mechanics, rock properties, field tests, and laboratory analysis in compliance with ASTM, BS, and ISO standards.

With a team of certified engineers and advanced equipment, we serve consultants, contractors, and government clients across the region.

We combine precision, speed, and deep technical insight to help clients build with confidence and ensure long-term project performance.



### **OUR KEY SERVICES**

United Group's Studies and Testing Division provides comprehensive field and laboratory testing services to evaluate the properties of soil, rock, concrete, and construction materials.

These services include geological and geophysical studies, as well as geotechnical, hydrological, environmental, topographic, and hydrographic studies, in addition to various soil testing operations.

Our services support geotechnical investigations, quality control, and structural safety assessments — ensuring that every project is executed based on accurate, standards-compliant data.

01

#### Field Studies

We assess site conditions to identify and execute the necessary studies that support safe and efficient design. 02

#### **Field Testing**

We perform on-site tests to deliver real-time, accurate data that informs construction and design decisions. 03

#### **Laboratory Testing**

We conduct certified lab tests to evaluate material properties in full compliance with international standards.

04

#### **On-Site Investigations**

We offer specialized testing services to ensure materials meet project specifications and quality standards. 05

#### Technical Reporting & Consultancy

We deliver detailed reports with expert analysis and recommendations to support safe, compliant, and informed decisions.

## **SOLUTIONS ARCHITECTURE**

#### **HOW WE WORK**

#### **Site Assessment and Study Planning**

We begin by reviewing the project requirements and conducting a preliminary assessment of the site conditions. Based on this, we develop a tailored study and investigation plan that outlines the necessary studies according to the type of the proposed site and specifies the required tests to ensure reliable results after construction.

#### **Field Execution & Sample Collection**

Our specialized field teams carry out all on-site tasks, including performing standard field tests in line with the construction requirements, in addition to collecting the necessary samples for laboratory testing according to standard procedures to ensure data accuracy and representation.





#### **Laboratory Testing & Analysis**

Samples are analyzed in our certified laboratories to determine key engineering properties based on the required study. These tests are conducted in accordance with ASTM, BS, and ISO standards to ensure consistency and reliability.

#### **Data Processing & Engineering Interpretation**

We compile, verify, and analyze both field and laboratory data to produce clear technical outputs. Our specialized experts interpret the results to evaluate the site condition, assess its suitability for the proposed structure, and identify potential risks to be considered during construction.

#### **Reporting & Client Support**

We provide comprehensive reports that include findings, conclusions, and design recommendations. Our consulting team also offers post-delivery support to clients, including design reviews, assistance with permitting procedures, and coordination with contractors when needed.

# STUDIES & TESTING DIVISION OVERVIEW

#### 1. Geological and Geophysical Studies

Uinted Group conducts geological and geophysical surveys to map subsurface conditions, detect faults, cavities, and stratigraphy. Using techniques such as ERT, seismic refraction, GPR, and MASW, we deliver critical insights for risk assessment, design optimization, and construction safety.

#### • PROJECTS



**ANOPC REFINERY ERT SURVEY** 



EGYPT



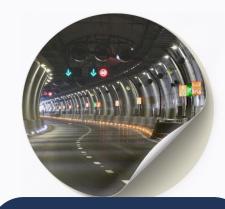
**PIPELINE CORRIDOR RISK STUDY** 



AFRICA



SEISMIC HAZARD ASSESSMENT FOR POWER STATION



TUNNEL ROUTE EVALUATION

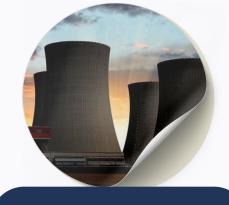


**EGYPT** 

#### 2. Geotechnical Studies

Our geotechnical investigations cover soil and rock behavior, bearing capacity, and settlement prediction. We employ in-situ testing, borehole drilling, sampling, and lab analysis to ensure accurate foundation design and reduce construction-related risks.

#### PROJECTS



EL DABAA NUCLEAR POWER PLANT **EGYPT** 



**BAHR EL BAQAR SOIL IMPROVEMENT MONITORING EGYPT** 



**DARNA CLINICS ANCHOR LOAD TESTS** 



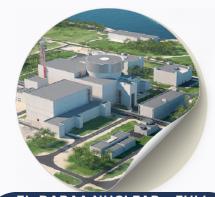


**NEW CAPITAL MONORAIL PILE INSTRUMENTATION EGYPT** 

#### 3. Hydrological Studies

Uinted Group performs hydrological assessments to evaluate surface and groundwater behavior. We install piezometers, conduct pumping tests, and analyze water movement and aquifer characteristics — supporting water resource management, dewatering, and infrastructure resilience.

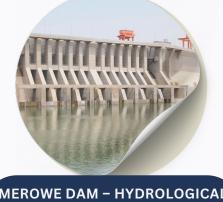
#### • PROJECTS



EL-DABAA NUCLEAR – FULL HYDROLOGICAL, GEOTECHNICAL, GEOLOGICAL STUDIES EGYPT



URBAN EXPANSION IN SUDAN HYDROLOGICAL STUDIES
SUDAN



MEROWE DAM - HYDROLOGICAL SYSTEMS AND STUDIES SUDAN



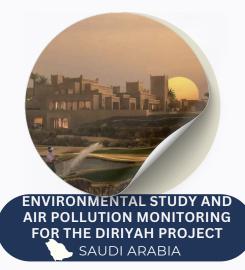
#### 4. Environmental Studies

Our environmental services include impact assessments, contamination detection, and air, water, and soil quality monitoring. These studies support compliance with regulatory standards and promote sustainable development in sensitive or urban areas.

#### PROJECTS









#### 5. Survey Studies

Uinted Group survey team provides high-precision topographic, cadastral, and control surveys using GPS, total stations, and drone technology. Our survey data is essential for engineering design, construction layout, and progress monitoring.

#### PROJECTS



ISSRAN FIELD GPS WELL SURVEY





BLOCK SURVEY WITH STATIC POSITIONING

EGYPT



LRT STATION 2 - CAIRO TOPOGRAPHIC CONTROL



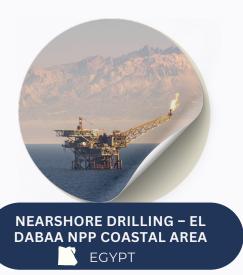
NEW CAPITAL INFRASTRUCTURE PROJECTS

EGYPT

#### 6. Hydrographic and Oceanographic Studies

For nearshore and marine projects, we offer bathymetric mapping, tidal studies, current profiling, and sediment transport analysis. These studies are vital for ports, coastal structures, and offshore development planning.

#### PROJECTS









## **PROJECTS SNAPSHOT**

#### ERT Geophysical Survey - ANOPC AHC, Assiut, Egypt

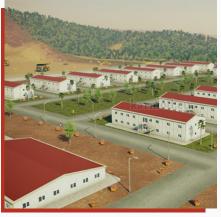
- Conducted Electrical Resistivity Tomography (ERT) Survey
- Aimed at groundwater mapping and identifying soil stratigraphy
- Used a vertical profile layout to achieve comprehensive coverage
- Provided non-destructive subsurface data to support site planning

#### Light Rail Transit (LRT) - New Capital - Egypt

- Executed All Pile and Foundation Tests for the Project
- Ensured results complied with consultant specifications
- Supported the execution of main bridge column foundations







#### Sudan Urban Expansion - Hydrological Survey - Sudan

- Installed piezometers to monitor water table variation
- Conducted slug tests and soil infiltration studies
- Enabled water resource planning in arid zones
- Provided GIS-layered outputs for decision-makers

#### Julius Nyerere Hydropower Project - Tanzania

- Installation of a comprehensive monitoring system to track and monitor structural safety.
- Conducting periodic readings for four main dams spanning a total of 25 km.
- Preparing and submitting periodic technical reports that include all recorded readings and collected data.
- Playing a vital role in monitoring the safety and structural stability of the dams.

#### 6. El Fardos Axis - Phase 2, Sector 3 - Cairo, Egypt

- Performed PIT tests for 20+ working piles
- Verified dimensions and concrete quality
- Used Cross Hole and Low Strain methods
- Project executed for Armed Forces
   Engineering Authority



#### El Dabaa Nuclear Power Plant (NPP) - Egypt

- Comprehensive studies to monitor groundwater and soil conditions around the site.
- Testing conducted to determine soil and water characteristics.
- Continuous monitoring, chemical analysis, and tracer tests for subsurface movement.



#### **SOPC Cocker Complex Rehabilitation - Gulf of Suez**

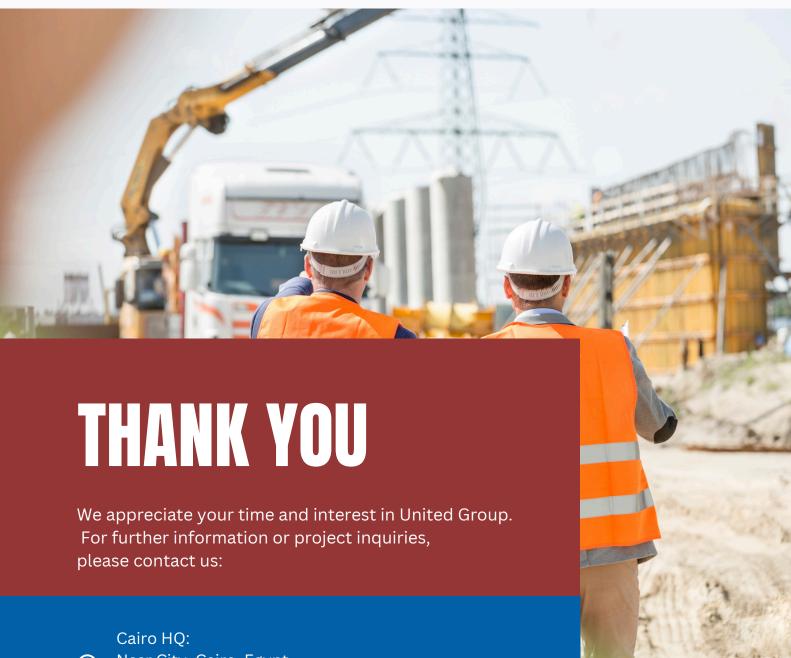
- The project involves rehabilitating the SOPC Cocker Complex nearshore in the Gulf of Suez.
- It includes offshore geophysical and geotechnical surveys, with borehole drilling to specified depths below the seabed.
- All work is carried out as per the project's technical specifications. tions of the project.



#### **Nearshore Drilling - Coastal Project**

- Deployed jack-up platforms for marine drilling
- Performed CPT, coring, and wireline logging
- Enabled access in shallow and transition zones
- Included on-board lab container for real-time testing





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