

MORE THAN A RESULT,
WE ARE ADDED VALUE.



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1. OUR COMPANY

We are a Venezuelan consulting firm with a solid track record in the field of geotechnical engineering. We specialize in providing comprehensive solutions, from soil studies on land and offshore to complex geotechnical projects, topography, bathymetry, and geophysical exploration.

Our experience covers a wide range of projects: from large-scale works for the oil, telecommunications, and infrastructure industries, to residential complexes, single-family homes, and social projects, both in metropolitan areas and rural areas.

In addition, we offer forensic engineering and quality control (QA/QC) services to ensure that each phase of the project is developed on a solid and secure foundation.



Our Team

We operate throughout the country, supported by a team of committed professionals, serving both the public and private sectors. However, our experience is not limited to our borders, as we also offer specialized geotechnical consulting for our clients' projects abroad.

At AIG, we combine local expertise with international standards to give our clients the confidence that their projects are in the best hands.



2. MISSION AND VISION

MISSION

To add value to civil engineering projects by applying innovative, comprehensive, and economically feasible solutions.

VISION

To be the leading Venezuelan company in the provision of geotechnical consulting services, recognized for its quality, technical strength, and excellence, working with people committed to the organization, the client, and the environment.



3. SERVICES

Geotechnical Services

We carry out the different phases of a geotechnical study: Field Exploration, On-Site Testing, Laboratory Testing, Geotechnical Characterization, Analysis, Calculations, and Preparation of a Report with Design Recommendations.

Geotechnical Projects

We carry out geotechnical projects to solve problems and situations associated with the execution of civil projects, where geotechnics plays a decisive role:

- Slope stability analysis and design of earth retaining structures.
- Soil liquefaction analysis and design of vibratory foundations.
- Stress-strain analysis.
- Road geotechnics and pavement design.
- Structural pathology and underpinning with micropiles.



Quality Control and Assurance

In large-scale projects, we implement Quality Assurance and Quality Control (QA/QC) systems designed to guarantee the quality of construction materials from the start of the project to delivery.

We conduct on-site testing and trials for soil, concrete, and asphalt, ensuring that each material used strictly complies with project specifications and applicable construction standards.

Mobile Laboratories: For the convenience of the project, we can install mobile laboratories directly on site, allowing us to control materials more quickly and efficiently.

Record Keeping: We keep detailed and systematic records of all tests and inspections, allowing you to verify the quality status of materials at any time.

At AIG, QA/QC is a strategic tool that provides certainty that the work is progressing correctly and efficiently, minimizing risks and ensuring the durability of the investment.



Special Studies

Our specialized consulting services combine geotechnical, geophysical, and geological engineering with a comprehensive approach, incorporating other complementary civil engineering disciplines to develop our clients' projects.

We cover the following disciplines: topography, bathymetry, buried object detection using ground-penetrating radar (GPR), and geophysical methods applied to civil engineering.

Topography and Bathymetry

Our company specializes in conducting topographic surveys, including bathymetry, which consists of surveying the relief of land surfaces covered by water, such as sea beds, rivers, and lakes.

We have a team of experienced professionals trained in cutting-edge technologies to ensure accurate and reliable results. We are able to perform topographic surveys using conventional methodologies, as well as LIDAR technology and/or photogrammetry from drones or helicopters.



Buried Object Detection

We offer buried object detection services using ground-penetrating radar (GPR), high-tech equipment that allows for the non-destructive detection of pipes and buried objects. One of the most important advantages of GPR is that it can detect both metallic and non-metallic pipes.

Our GPR antennas have acquisition frequencies ranging from 100MHz, 200MHz, and 400MHz, which can reach different detection depths depending on soil conditions. In addition, our Flow Meter is capable of tracking any continuous metal structure, such as iron, steel, and copper water pipes, gas pipes, telephone/TV cables, copper and aluminum cables, and energized or non-energized electrical pipes, to an estimated depth of 5 meters.



Geophysics

We apply geophysical methods in civil engineering projects to solve various problems associated with defining the physical and mechanical conditions of underground geological structures, determining the electrical resistivity and thermal conductivity characteristics of the subsoil, evaluating the mechanical properties of geological materials, locating cavities that could endanger civil engineering works, and identifying areas of fill.

We use geophysical prospecting techniques such as geoelectricity, seismology, gravimetry, ground-penetrating radar, thermal conductivity, and geophysical well logging. These techniques provide information about the site's soil that is useful during all stages of project development and construction, especially during the design and construction phases.



4. EQUIPMENT

BoartLongyear Model DB525

This compact and powerful machine combines two essential drilling methods in a single unit: diamond drilling (DD) and reverse circulation drilling (RC). This dual capability optimizes its operability, allowing it to respond quickly to various subsoil requirements, from extracting high-quality rock cores to rapidly collecting soil samples.

With a 71hp engine and robust design, the DB525 is built for maximum performance. Its high-powered rotary head delivers exceptional torque and high rotation speeds, ensuring fast and efficient penetration in a wide range of geological formations.

Its track-mounted design, compact size, and maneuverability allow it to access remote sites and confined spaces, optimizing project logistics.



GEOMIL Model FOX-200

The GEOMIL FOX-200 is a modular, high-capacity CPT device designed for geotechnical exploration in a wide variety of soils. With a thrust force of 200 kN (20 tons), this powerful tool guarantees accurate and reliable performance, operating at a calibrated penetration speed of 20 mm/s to ensure high-quality data acquisition, including tip resistance, lateral friction, and pore pressure.

Its autonomous and versatile design facilitates transport and installation even in the most difficult locations, optimizing efficiency in every project.

This combination of power, robustness, and precision makes the GEOMIL FOX-200 an essential tool for tackling any underground challenge, delivering the quality that civil engineering demands.



On-site testing

- Pocket Penetrometer

The penetrometer, model S-170, is a small, portable tool that provides an estimated value of the unconfined compressive strength (q_u) in cohesive soils, allowing for a quick and approximate assessment of soil consistency in situ.



- Torvane

The Torvane S-160 is a compact and improved version of the field Vane Tester. Its main purpose is to provide a quick and reliable estimate of undrained shear strength (S_u), which is essential for evaluating in-situ bearing capacity.



- Hand Vane

The H-60 hand vane tester is designed for preliminary evaluation of the undrained shear strength (S_u) of soft cohesive soils. This portable instrument allows us to obtain direct and precise torque measurements, which vary depending on the vane used in the test. Thanks to its design, it is possible to perform tests at shallow depths (up to 3 meters) directly at the bottom of test pits or on undisturbed Shelby-type samples.



On-site testing

- Field vane

The VT12 Vane Tester is a high-precision device designed to determine the undrained shear strength (S_u) of soft and very soft cohesive soils at different depths within the borehole. The data obtained is crucial for foundation design, slope stability analysis, and load-bearing capacity assessment in construction projects.



- Thermal properties analyzer

The KD2 PRO is a thermal property analyzer that enables rapid and accurate assessment of thermal conductivity and diffusivity in soil. This portable, high-precision instrument is essential for in situ soil characterization, providing crucial data for the design of underground installations.



- Load Plate

The T1173/D Load Plate is an in-situ testing system that allows the load capacity and settlement of the ground to be determined. This equipment is essential for evaluating the deformation modulus of the soil or subgrade, making it an essential tool in the planning and design of foundations, roads, and runways.



Laboratory

At AIG, quality is our priority. That's why we have a laboratory equipped with modern technology to ensure accurate and reliable results.

Our highly qualified staff is dedicated to providing high-quality results, ensuring accuracy and excellence in every project.

We offer a wide range of tests:

Classification and basic properties tests:

- Moisture content, consistency limits, particle size distribution (by sieving and hydrometer)
- Unit weight and specific gravity

Strength and compressibility tests:

- Vane and penetrometer
- Unconfined compression
- Direct shear
- Consolidation
- Expansion (free and controlled in a consolidometer)
- Collapse
- Triaxial (UU, CU, and CD)

Special tests:

- Permeability
- Proctor
- C.B.R. (California Bearing Ratio)
- Chemicals (carbonates, chlorides, sulfates, pH, organic matter, among others)



5. EXPERIENCE

We have extensive experience in projects related to the following sectors: Oil, Petrochemical, Telecommunications, Electrical, Industrial, and Construction, working with both state agencies and private companies.

We cover the entire national territory, adapting to the site conditions and the needs of the project.

- More than 18 years of experience.
- More than 30,380 meters drilled.
- More than 2,020 boreholes.
- More than 13 Offshore Projects.
- More than 230 projects.

Participation in the Sectors:



Electrical



Telecommunications



Construction



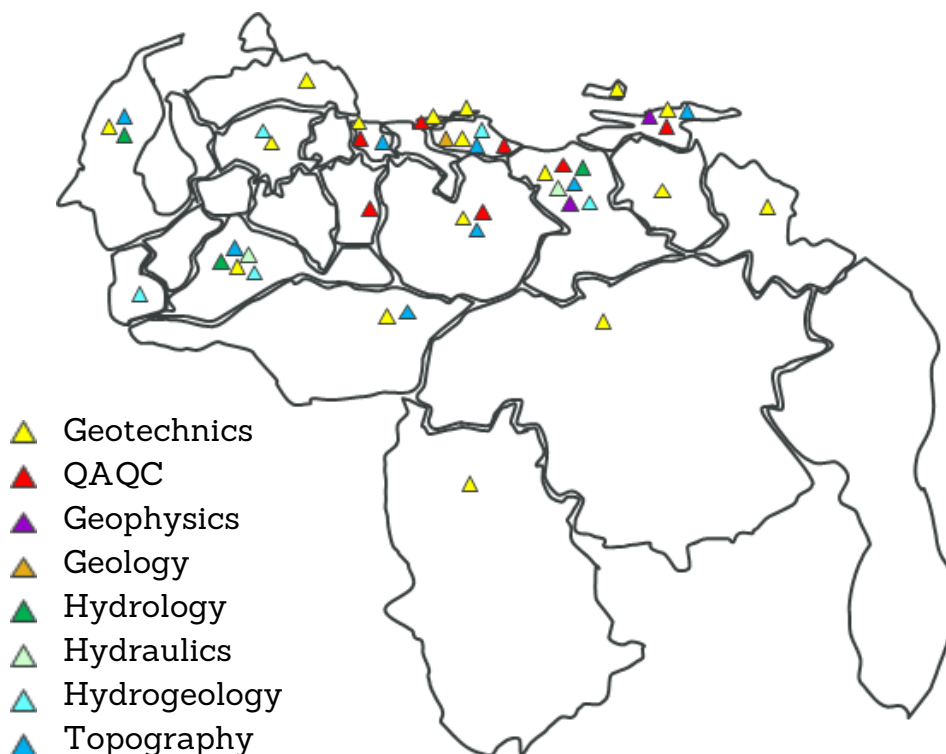
Oil



Industrial



Petrochemical



6. CUSTOMERS



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