



## Guiding Seismic Processing Innovation in North Africa

Guide Geoscience Technologies, a seismic data processing company established in 2005 and based in Cairo, Egypt, and ION Geophysical Corp. formed an alliance in October 2008 to provide advanced imaging and reservoir-related services to oil and gas companies operating in North Africa. Since then, Guide has hit the ground running and made great strides at bringing both services and technology transfer to the region. Guide CEO Dr. Adel Nasser sat down with Petroleum Africa to highlight some of the milestones the company has reached over the past year and provide a snapshot of the company's future plans.

### Capacity and Expansion

Heading up the Guide-ION imaging center is Dr. Adel Nasser who brings decades of international geophysical expertise to Egypt, having executive tenure with both ExxonMobil and Petronas. Under Dr. Nasser's direction, the imaging center in Cairo delivers a broad range of advanced seismic processing services for 2D, 3D, land, marine, and transition zone data. The full scope of the imaging center's services also includes data conditioning, velocity model building, seismic imaging, and geophysical reservoir analysis and interpretation. The center has been equipped with the latest Linux-based high performance clusters and advanced data processing technology provided by ION. Dr. Nasser informs the company began applying new proprietary depth imaging technology and in addition will expand its scope of services to include AVO and reservoir characterization.

Source: Petroleum Africa



Dr. Adel Nasser

The Cairo seismic processing facility is capably staffed with Guide geophysicists who are Egyptian nationals, and is supported by GX Technology experts. Over the past year, eight members of Guide's technical staff have traveled to Houston for 3-6 month training intervals in state-of-the-art data processing equipment, algorithms, and workflows, enabling them to aptly handle regional requirements. Geophysicists from GXT's Houston and London offices are also providing direct project support in Guide's Cairo office.

Guide has already seen interest across North Africa and into the Middle East. So great has been the interest from Libya, that a new

office will be opened in Tripoli by Q4 2009 to support the industry. This center will be very similar to the Cairo office in terms of equipment, processing, and local expertise. The Cairo center will continue to handle the rest of the MENA region for the time being.

### Projects

Since the JV opened the center last year, a number of projects have been undertaken in Egypt including in the Gulf of Suez, Western Desert, and southern Egypt. Dr. Nasser says: "One of the major achievements realized is a gradual acceptance of the benefits of conducting the work analysis in parallel to save time and reduce drilling risks, and ultimately save costs for the operator. As a rule this was not done in Egypt before." Guide and ION have created a joint marketing strategy to this end and the first integrated project is being conducted now for an operator in the Western Desert.




Source: Guide (GGT)

Trainees at ION's Houston location



Linux-based high performance clusters

This project includes not just data processing, but also reservoir characterization. The reservoir characterization component is very important for Egypt and Libya not only in new fields, but also for fields in decline. Considering the number of aging fields in production decline across the country, "this technology can help extend the life of brownfields, keep production numbers up, and in many cases find additional reserves," Dr. Nasser says.

The work keeps piling up for Guide as well. The company already has four ongoing projects and is currently bidding on a 3C (three-component) full-wave project in Algeria. Dr. Nasser is confident about Guide's chances of becoming the winning bidder. The project would be conducted jointly by the Cairo, London, and Houston teams. Six testing projects are also underway in the MENA region, including one in Libya and one in Iraq. Numerous other inquiries are being followed up from Morocco to Syria and Dr. Nasser believes that in Q1 2010 several additional projects will be underway. 

For more information on Guide and its services see [www.guidegeoscience.com](http://www.guidegeoscience.com).



## Overview of International Oil & Gas Law & Contracts



Tuesday & Wednesday October 20-21, 2009

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**Cost:** US \$1,500 per delegate  
**Location:** Cairo, Egypt  
**Duration:** 2 days - 8.30am to 5.30pm  
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