

CHEERS!

The present year started very busy with multiple simultaneous campaigns in Perú and Panama. This is the main reason why we were not able to produce our February issue of *Perfiles*. Due to a drastic increase in the demand of our geophysical services, we had to prepare and assemble a third induced polarization crew in November 2007, and before the end of this month we will have a fourth operational IP crew.

The current year is significantly active in Perú. Several international meetings, including some of the largest political gatherings have Perú as their venue. In Geology we have the XIII Latin-American Geological Congress and the XIV Peruvian Geological Congress, which will be held jointly from September 29 to October 3. The technical program for these congresses is already in an advanced stage and has, as scientific sponsors, the Society of Economic Geologists (SEG), the International the Association of Sedimentology (IAS), the Society for Geology Applied to Mineral Deposits (SGA) and the Society of Exploration Geophysicists (SEG). These institutions are deeply involved in courses, field trips and central presentations for the congresses. I would like to take the opportunity to invite you to send your extended abstracts. Deadline is May 31st so, if you are interested in participating, you have to hurry!.

José R. Arce

INSTRUMENTS & CREWS

At the present time our new instruments that conform our fourth induced polarization crew are traveling to their first survey. These instruments are an Iris VIP 4000, 4kW transmitter and a 10-channel Iris Elrec Pro receiver. Our field operators have been specifically training for these instruments since January. We are also waiting for an additional Iris VIP 4000 transmitter, which should be arriving at the end of this month, to be kept as back-up in our Lima office. Even though the infrastructure provided by our sister company *Arce Electronicos* gives us the peace of mind for most cases, instruments that break down are usually repaired in less than 24 hours, we prefer to keep a new VIP transmitter as part of our spare supplies.

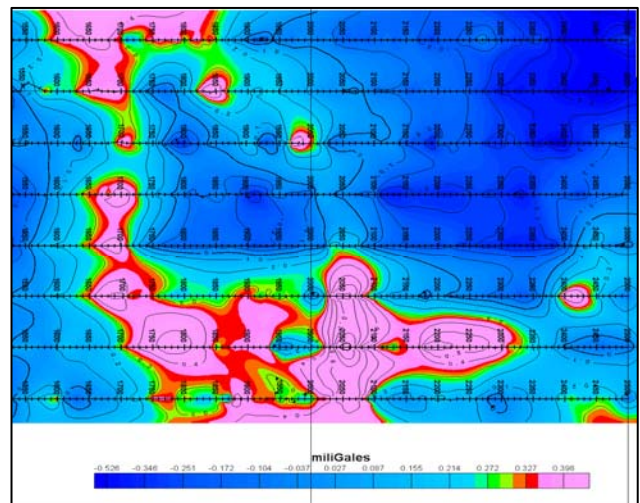
We commonly receive comments and suggestions about adding more field crews, but we firmly believe that in order to keep a high level of quality in surveys, we need to train our operators over several years in our requirements and ways. They usually start operating simpler units, such as GPS and magnetometer instruments, and subsequently move up until they reach gravity meters, IP instrumentation and seismographs.

GRAVITY

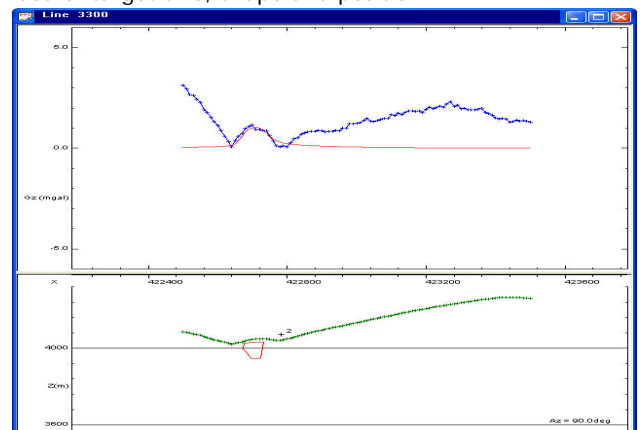
In June 2007, we received our CG5 gravity meter, manufactured at the Scintrex facilities in Toronto. This addition came as the result of an evaluation of available gravimeters over the previous months, and we decided for the CG5 because of it is the most advanced gravity meter currently being manufactures. The CG5 has a resolution of up to 1 microGal, which is between 10 to 100 times better resolution than its competitors. The sensor technology is essentially electronics with a spring

and hinge as its only mechanical component, allowing a significantly more stable reading and with higher resolution.

The example we will show now comes from a Pb-Zn prospect area in the Central Andes, emplaced in limestone formations. One of the main conditions to obtain proper gravity survey measurements is that the surface topography has moderate relief, like in this particular project. The map shown next is a complete Bouguer gravity, 20 meter residual, with all corrections including local (surrounding each station) and regional terrain deformation compensation. To obtain this residual, which considers the average rock density of the area to be 2.5 g/cm³, a thorough analysis of Nettleton curves was performed.



Once data processing is complete, results may be modeled with simple geometric bodies to better understand subsurface targets. Next, we find the models from the Northernmost line of the area. The upper half shows complete Bouguer gravity (blue) and the calculated gravity from the model (red). In the lower portion of the graph there is a plot of surface topography (green) and the interpreted model in red outline. With this information we can have a reasonable idea of target size, shape and position.



Until next time...

