

CHEERS!

First of all, we would like to thank you for your continuous support to our periodic newsletter *Perfiles*. It is our goal to make this short, single-page publication, an enjoyable reading experience, even for our friends who are not quite involved in Earth Sciences.

We have just returned from the annual Geophysical convention held in Dallas, and organized by the Society of Exploration Geophysicists (SEG). This event gathers approximately 10000 Geophysicists, and, as usual, we were the only Peruvian participants for near-surface Geophysics (mining, groundwater, engineering, etc.). We also enjoyed seeing our friends and suppliers and had a great opportunity to exchange ideas and realize that our geophysical techniques and applications are among the most advanced available "state-of-the-art". We also had several gratifying requests to present some of our case histories among different companies web pages.

José R. Arce

IT'S A THREE-DIMENSIONAL WORLD

About a month ago, we started working with new analysis procedures for data visualization in three-dimensional space (*FRACSIS*), which allows us to deliver our clients our Geophysical results complemented with available Geological information, so that they may have improved decision-making tools for their projects. We are the first geophysical contracting company to implement this type of techniques, previously available only from large mining

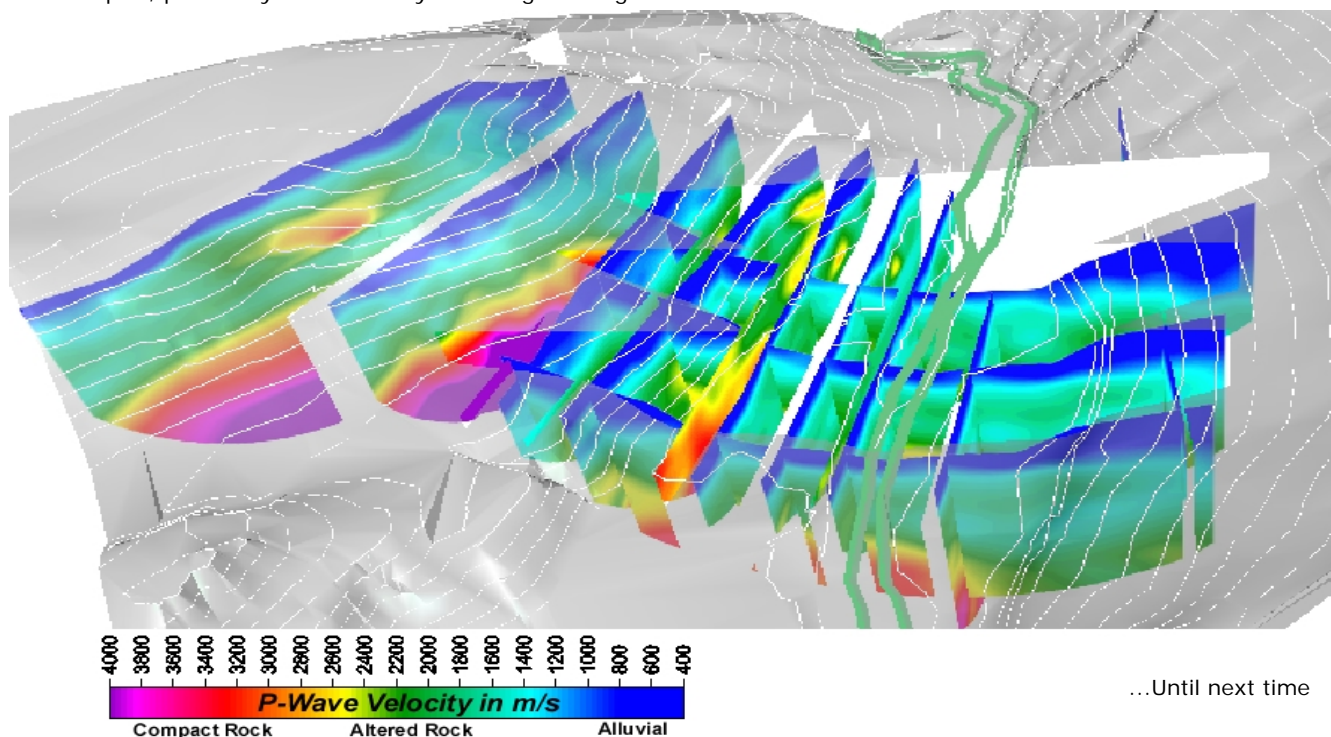
and petroleum companies, which allows us to raise the standards to be followed in the upcoming years.

RESULTS

The extraordinary image shown below is a combination of several bi-dimensional Seismic Refraction sections resulting from Wavepath Eikonal Tomography (WET) processing. It may be readily noted from P-wave velocities from the left valley margin that we have clear bedrock (yellow-red-purple colors), while we have extremely altered and/or fractured rock on the right margin (light blue-green). Signal penetration was around 50 to 60 meters for the most part, without the use of explosives. It is worth mentioning that these results have been confirmed by a follow-up drilling campaign. Our client has authorized the use of this Peruvian example, but we may not mention the project name or the area where it was obtained.

This way of visualizing data allows us also to display existing or programmed drill holes and make correlations among them, which gives us excellent flexibility to display our one-dimensional electrical Resistivity/IP soundings.

Another common application for these three-dimensional graphics is combining Geophysics with local Geology and existing or projected underground or surface mine workings. Our clients may now analyze our various data processing techniques in 2 and 3 dimensions for Magnetometry, Seismics, Resistivity and Induced Polarization when they receive our virtual reality VRML data file, which may be readily displayed, panned, zoomed and rotated through a simple Internet Explorer plug-in.



...Until next time

