Foreword

By publishing our regularly irregular in-house *EchoNews* magazine we want to inform our customers as well as interested readers in the cavern world all about these underground voids and here specifically about the “monitoring of caverns“.

The monitoring of caverns is generally regarded as a cost factor, although fortunately to an increasingly lesser extent.

It is quite obvious that the cavern services we provide entail costs. But taken as a whole, what is the relationship between these costs and all the other costs that arise? What benefits, information, and decision-making and planning aids can be obtained from the monitoring data, the individual logs and the shape and volume determination? Do I use the information to optimize the leaching process? Have I extracted every possible ton of salt by the leaching? Do I even use all the information available or is it just sitting nicely arranged on the shelf? And anyway how reliable are the surveying systems for monitoring caverns? What options do they offer that go beyond what is expected?

In the old days there were …. no, that is not the right expression, because as my children like to say, “… in the old days, pops, there were no such things as cars!“ So to put it another way, a few years ago there were quite a number of specialist departments or consulting geophysicists who would analyze the data and have a good look at the individual logs. Nowadays these departments and specialists have often been cut back or there is simply not enough time.

Today it is all the more trust, information and background knowledge that is wanted. Consider, for instance, that a sonar distance measurement is not in fact really a distance measurement at all, but a time measurement. And this time measurement can provide accurate distances only if

1. the survey tool cannot move during the measuring procedure
2. the acoustic velocity measurement is absolutely correct and
3. the determined values are recorded several times, checked for plausibility and documented in detail in every respect.

If this relationship is clearly understood then one is a lot closer to properly evaluating the quality of a surveying service.

This brings me back to where I started this *EchoNews* foreword, which, together with seminars and our comprehensive internet website, represents one of our information media. Our internet portal with more than 100 pages of information, a customer software port, datasheets, publications, links to useful addresses in and around the cavern world and so on and so on is by no means exhaustive. Furthermore we experience time and again that one or the other of our customers would like some advice on how to optimize and make full use of individual services. So it is no wonder that the orders for expert opinions, analyses and detailed interpretations have steadily increased over the past few years. Of course, you can call on our team of specialists for advice whenever you need them, and if the scope of requested expert opinions should broaden we will expand this area of our work as required (at an appropriate charge).

Whereas in the last issue of the *EchoNews* the focus was on the physical conditions behind the surveying technology, this issue will highlight the design aspects of our technology – a technology that is not generally available on the market and in fact has only become accessible through our service offering.

Hartmut von Tryller