

# Geoseis – an exciting New Way of Directly Detecting of Oil and Gas

## What we can do for you

We can locate oil and gas for you.

We commercialize an exciting new technology to locate oil, gas, and water for the first time **directly**. Standard exploration technology is different from our technology and falls short in this. It provides only indirect indications of oil and gas - if at all. It can also be very expensive.

This new technology substantially increases knowledge of the presence of fluids, which increases success rates for drilling wells.

Because our technology is totally different from standard seismic exploration, it should be used complementary to it.

## What is Geoseis?

We are a small geophysical engineering company (LLC). Campaign capacity will initially be 4 large campaigns per year.

## What is our technology?

Our technology is radically different from existing exploration techniques which primarily detect structural differences in the sub-ground. Our analysis is based on signal shape due to the interaction of the fluid with the ground.

We have the world's top specialist in the fluid dynamic field at hand in support of this technology.

We are developing a set of tools for this analysis.

Two patents are being processed and are close to or have been issued.

## How does our technology differ from existing exploration techniques

Existing exploration is based on reflection technology; it picks up primarily structures in the sub-ground, but does not tell if a fluid is present. Extensions to this technique, like Amplitude Variation with Offset (AVO), give indirect indication of possible fluid presence. They are very expensive, both on the field and computing. This is the only choice - or one drills for good luck.

Our methods work directly with fluid presence and give a more precise indication of fluids. The fluid-rock interaction has been proven in the field, and delivers surprisingly precise results.

## What is our product?

We offer small, medium and large measurement campaigns using special instruments. It is followed by interpretation to establish the likelihood of oil or gas; from preliminary to higher details.

The technology is extensible, e.g. active excitation can be used, offshore applications. Integration with existing exploration fieldwork is planned.

## What is the measurement campaign?

Measurement points are selected, and special high quality seismometers are used for 1h-2h of measurement time, placed in prepared holes. Available campaigns are

| Type   | Points | Field days/total measure | Cost range (including interpretation) |
|--------|--------|--------------------------|---------------------------------------|
| small  | 160    | 34 / 12 days             | \$ 316k                               |
| medium | 200    | 41 / 15 days             | \$ 406k                               |
| large  | 300    | 56 / 21 days             | \$ 461k                               |

Up to 2 teams. A specific payment plans will be established.

## What is a test campaign?

Smaller campaigns for try out. Significantly smaller cost.

| Type   | Points | Field days/total measure | Cost range (including interpretation) |
|--------|--------|--------------------------|---------------------------------------|
| light  | 20     | 9 / 5 days               | \$ 98k                                |
| medium | 40     | 11 / 5days               | \$178-198k (diff. interpretation)     |

## How do we compare with standard exploration?

With our new technology the likelihood of fluids can be much more precisely established. This is above and beyond the capabilities of existing exploration.

A further refinement of the technology will allow differentiation between fluids.

Our pricing is very competitive against 3D seismic campaigns, using completely different methods and results.

A typical campaign is below the cost of 2D exploration.

Our methods are also environmentally friendly and non-intrusive.  
Our customers can save significant money and quickly recover the costs of the measurement campaign.  
Under our fully developed methods we expect from 5% to 20% predictability improvement!

### What kind of interpretations do we offer?

There is a large spectrum starting with qualitative interpretation (available) going to fully quantitative interpretation (in development), consisting of full modeling, using specific physical concepts. Differentiation between fluids is the king of interpretation. The result is a statement about the likelihood of fluid presence.

### How do we benefit our customers?

An independent, and direct identification of oil and gas at a very competitive price, environmentally friendly and actually providing a cost savings – even 160k estimate for one well.

### We offer cost recovery!

With a goal of one productive well to be drilled, plus a very conservative 5% predictability improvement offered by us, one saves \$160k on top of the cost of the small-size campaign.

With 3 successful wells to be drilled in an area, the same conservative improvement of 5%, one can save \$427k including the medium-size campaign. This is predicated on the average hit rate of 30% for productive wells and average cost of drilling a well.

### Exploration at our cost and royalty offer

Here the customer just pays our expenses for the measurements and later a royalty on the producing well of 8-10%, if the well is successful. Total royalty tops off, typical 2 times, of the standard exploration price. This is the minimum up front expense for the operator as well as we share the risk.

### What does the customer get?

Higher precision establishment of likelihood of presence of oil and gas, and location and extent. The results will be presented and a report delivered. The goal is to interact with customers to address problem areas and how to address them. We closely interact with customers with a focus on mutual benefit, e.g. solve difficult customer issues. High quality at a fair market value is the goal.

### What is our contact information?

|         |   |                       |                     |             |                  |
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