

# Silas

## Seismic acquisition and processing software suite

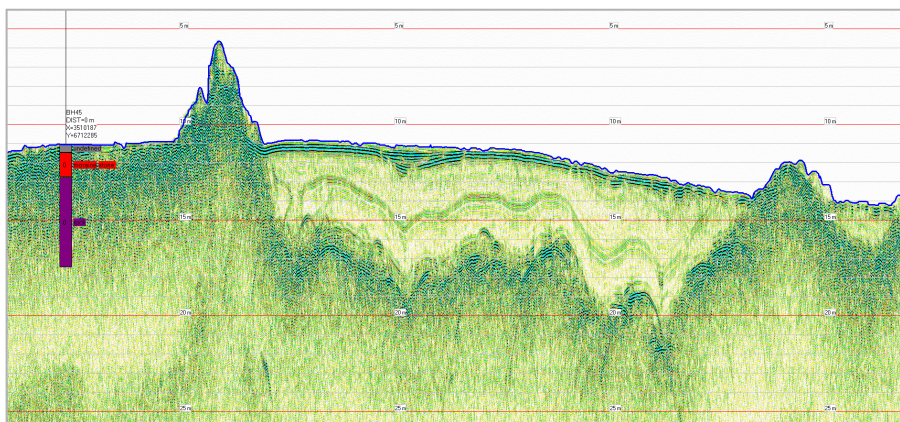
### Deliverables

- Nautical Depth
- Site investigation / Layer detection
- Object / Cable / Pipeline detection

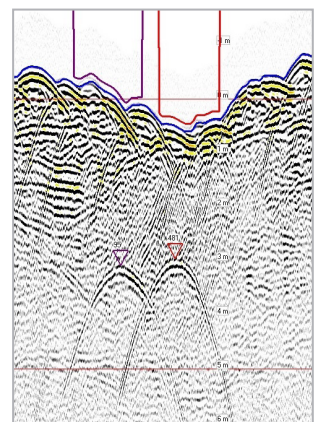
**Silas is a complete data acquisition, processing and interpretation software suite, that covers a wide range of tasks.**

The Silas software package has been developed to allow you to obtain the best quality data and easy access to multiple data types to best evaluate the subsurface conditions. It is **compatible with multiple sources** and can process the full-wave signal from sub-bottom profilers, boomers, sparkers, parametric and chirp systems.

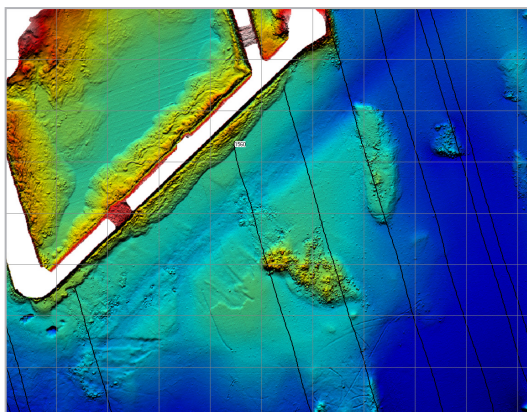
The system covers the range **from deep penetration to ultra-high resolution**. Whether you look for general sub-surface geology, cables, pipelines and other objects or fluid mud surveys. For sub bottom classification and interpretation the Silas Software Suite can easily integrate borehole and map data into the data set, providing the information that is sought allowing for detailed interpretation.



Silas recording with integrated borehole data.



Pipeline detections with Silas Object detection.



Mapview of Silas profiles with multibeam bathymetry.

### Key features

- Import of profiles for accurate seismic interpretation
- Ultrahigh resolution (combination with USB-A/D)
- Seg Y Import - Export

### Related products

EBP	Geo Consulting
RheoTune	Rental
Object detection	

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## Specifications

### Acquisition

Digital high resolution seismic acquisition. Supports USB-A/D card and UDP inputs/outputs. Real-time data and single trace monitoring, including real-time output of depth values of bottom track and a bottomlayer: hard bottom or iso-density level (requires calibration).

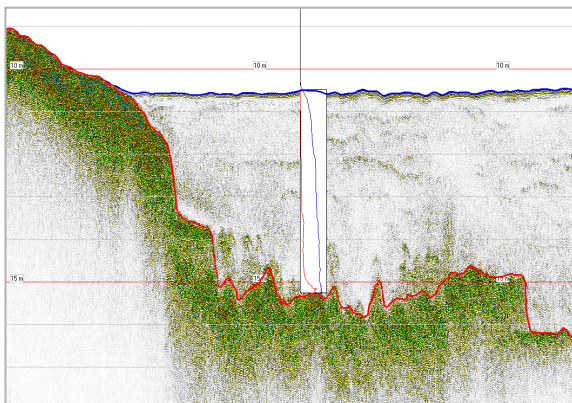
### Processing

#### Silas Density Pro License

Digital seismic processing package that enables the user to identify, analysis and interpret the geological features found in the sea bottom.

With features such as:

- Layer tracing
- Position and tide corrections
- Navigation view
- Cross-points
- Batch filtering
- Signal correction
- Borehole import/export
- Density calibration of seismic data for nautical depth management
- Fluid mud migration studies
- Predictive multiple reduction
- Seismic parameter assessment
- Sub-bottom classification module



Density (red) and yield stress (blue) profiles in a fluid mud layer recorded by the RheoTune, implemented in Silas.

#### Automated contact detection

Contact recognition based on two quantifiable parameters which enable a more objective classification of detected contacts.

#### SEG Y import / export

Silas module: reads and stores seismic data in various SEG Y-formats.

#### Matrix import

Silas module: displays multibeam or gridded data loading in seismic records to check against or match with height data.

#### Frequency filtering

Silas advanced signal processing modules for S/N enhancement providing a wide range of frequency filters.

#### Deconvolution

Silas advanced signal processing modules for S/N enhancement providing spiking deconvolution tools.

#### Horizontal stacking and multiple suppression

Silas advanced signal processing modules for S/N enhancement by suppression and enhancement techniques.

#### Density calibration and calculation

Tool to match acoustic data with in-situ density profiles. Calculation of synthetic density profile per trace. Tool required for real time density mapping.

#### Overlay borehole and geotechnical data

Import and overlay of borehole data (BH, CPT, chemical tests, density, etc.) on seismic records.

#### Subbottom material classification

Signal analysis and matching to material properties of subbottom layers: Impedance, absorption and velocity module.

#### GeoTiff mapviewer

Import of geotiff data (multibeam, sss, geological map etc) and presentation in plain view.