

TESSERAL Technologies

Data Samples



Read First ...




Package is supported with a library of models (please, download from <http://www.tetrale.com/documentation.htm/Data Samples Download>). This library (**Tesseral Data**) is a part of the package **database**, which usually is set up with the package installation. User can there create other subfolders with **own models and relating data**. The hard drive with this database must have enough space (more than 10 Gb) for large amount of data, which may be stored there during following using of the package.

The **_Starting Models_** subfolder provides starting models for different modeling topics. It can be used for initial learning of the package capabilities. To each of topics there is allocated a separate subfolder.

It may be useful to **keep track of your models** with supplied **_ReadMe for My Models.xls** notebook.



Browsing Database

The source model *data(extension *.tam)* is tied with the Modelbuilder (the  icon), and the resulting ones with the Viewer (the  icon or similar). Project file  with extension ***.tes** contains all information from last using of the model. **Clicking on files with one of those icons** from the Windows Explorer or other file manager program will call and execute the Tesseral application with corresponding data.

User can open the **Tesseral Windows Workplace** application, with the corresponding data using the “*drag and drop*” method – by dragging the file icon from the Explorer window and dropping it over the application icon. Running Tesseral 2-D package, allows to drag-and-drop the file icon inside one of its panels – in this case this file will be opened in this panel (file with extension **.tam** – as Tesseral model file, files with extensions **.tgr**, **.sgy**, **.rec** as data in a particular grid format) *Latter method may be very useful at browsing through different relating files.*

Wavelets in tabular form are initially presented in [\Wavelets_](#) folder.

Following overview contains description and **pictures of provided prebuilt models**.

Starting with Testing Models

For the very beginning of learning about possible variety of the package modeling applications it may be useful to start from a set of models gathered in the folder [\Starting Models_\Starting_Tests](#)

which were built with the Tesseral 2-D Modelbuilder and may be used for **testing of the package capabilities**. It also may provide templates for **creation of variety of user built testing models**. Those models may be stored in [\Starting Models_\My Tests](#) .

Some useful models relating to studying of the package and learning with its use of particular relation between geologic medium and seismic field are presented in:

- some **archetype**, which may provide starting point for creation custom example: [\Starting Models_\Starting_Archetypes](#)
- learning about using of the package to studying **thin-layered medium**: [\Starting Models_\Starting_Thin Layers](#)
- some example models for application of the package in **AVO modeling**: [\Starting Models_\Starting_Tests\Starting_Tests AVO](#)
- some example models in application of the package to modeling **and processing: VSP data**: [\Starting Models_\Starting_Tests\Starting_Tests VSP](#)
- and more...

Starting with Practical models

Folder [\Starting Models_\Starting_Practical](#) contains some **examples of seismic wave field modeling for real geological conditions**.

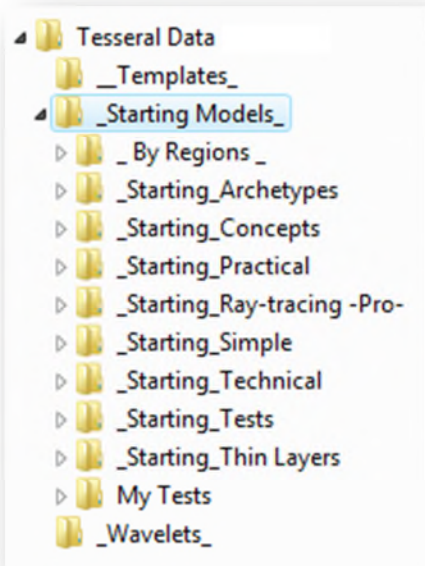
Starting with “By regions” models

Folder [\Starting Models_\By Regions_](#) contains some **example models from different regions**. User can create there own subfolders for regions of his interest.



Library of Starting Models

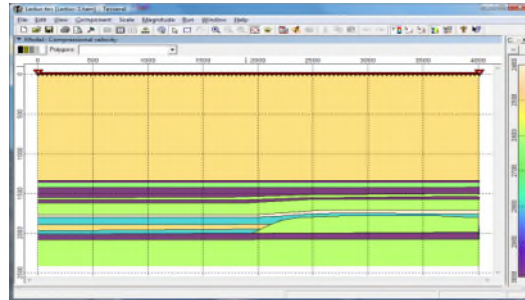
The library of starting models includes different types of prebuilt models arranged in subfolders:



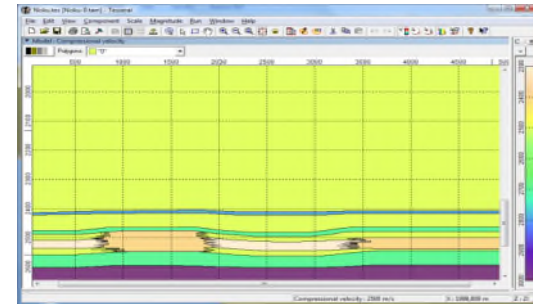
/By Regions

Canada

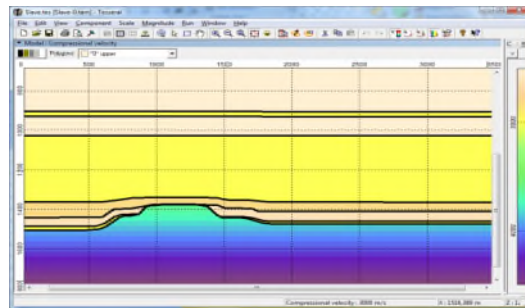
Alberta/Leduc Fm



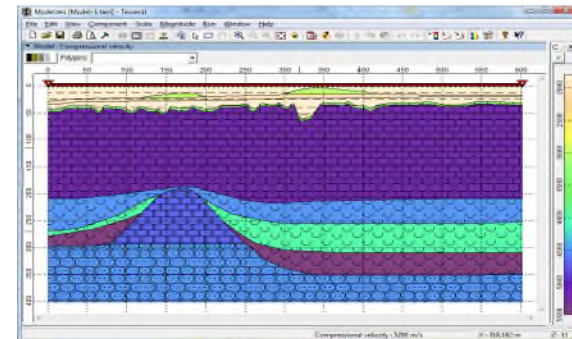
Alberta/Nisku Reefs



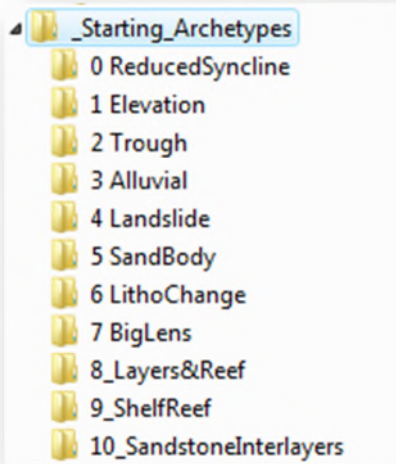
Alberta/SlavePoint



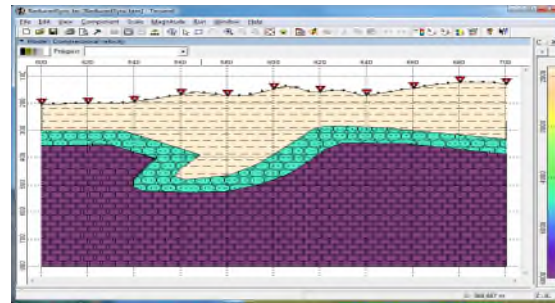
/South Ontario



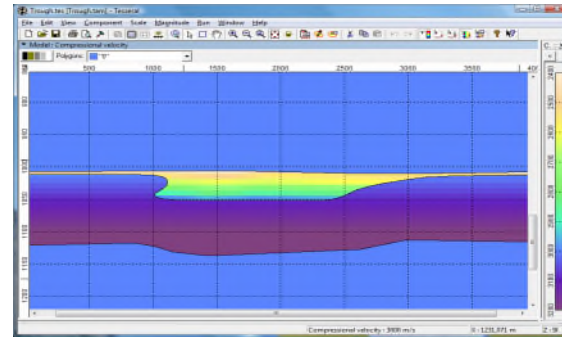
/_Starting_Archetypes



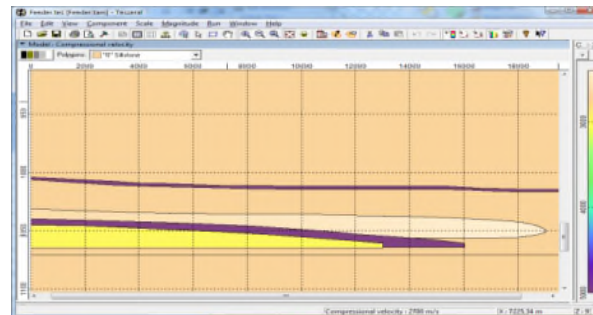
0 ReducedSyncline



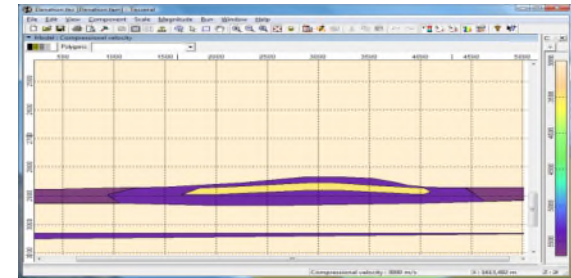
2 Trough



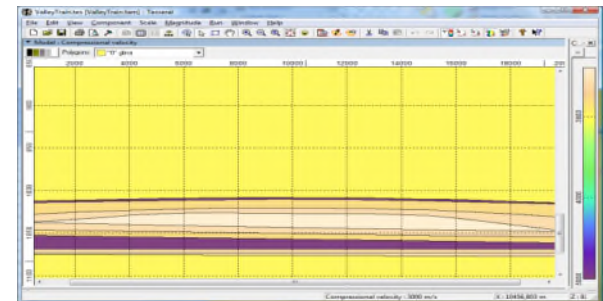
4 Landslide



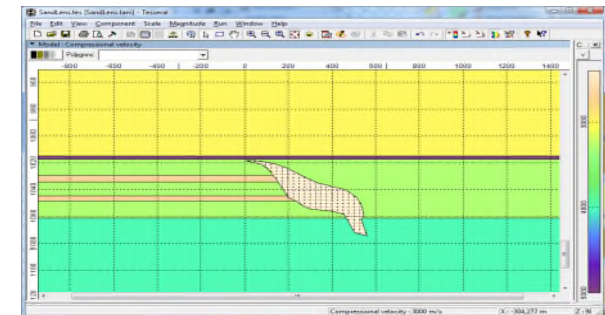
1 Elevation



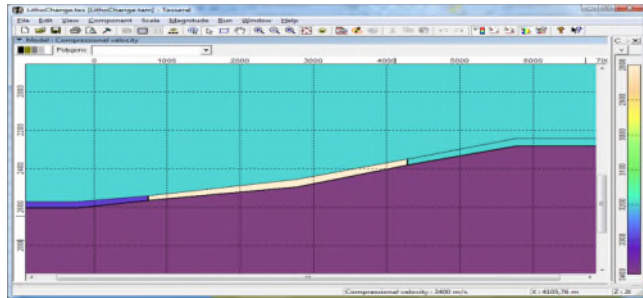
3 Alluvial



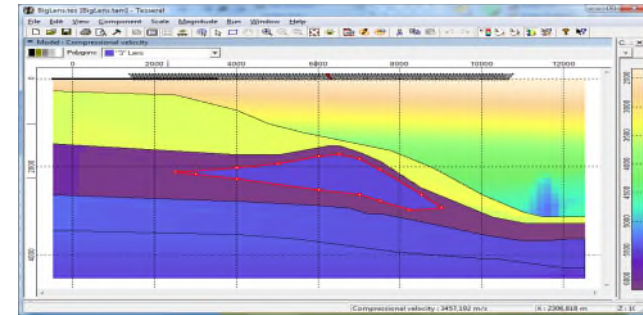
5 Contour (Sand Lens)



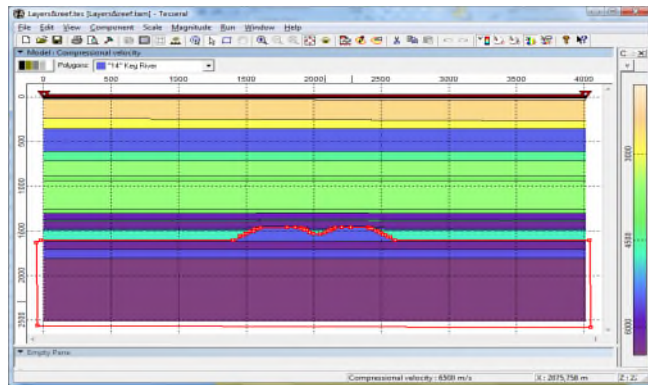
6 LithoChange



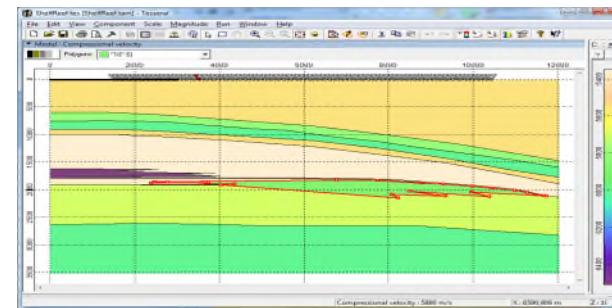
7 BigLens



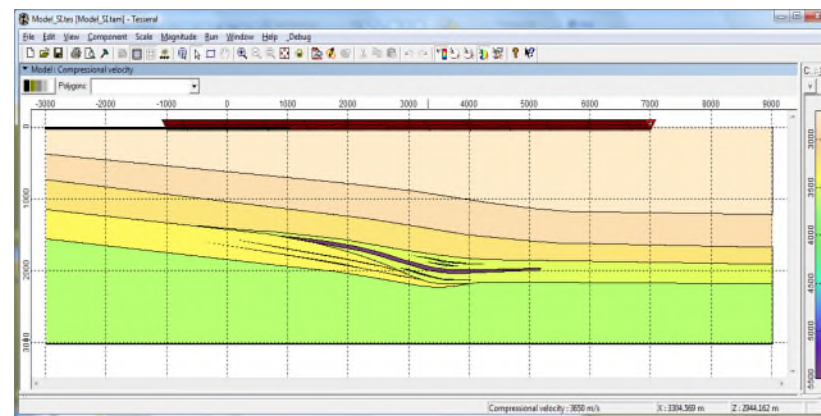
8 Layers&Reef



9 ShelfReef



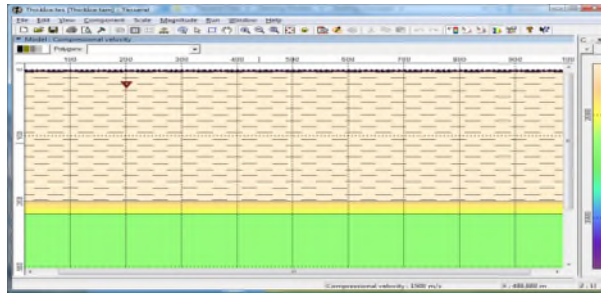
10 SandstoneInterlayers



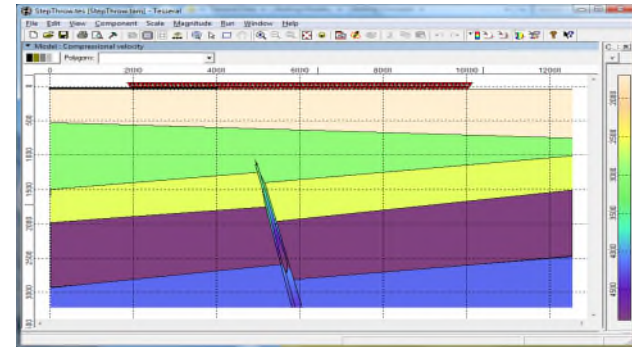
/_Starting_Concepts

- 1 Lake&Ice
- 2 Trap&Fault
- 3 Traps&Faults
- 4 GeoTraps&Faults
- 5 Mountain Section
- 6 Just1DSonic
- 7 Permafrost
- 8 Layers & Dome
- 9 Protrusion
- 10 Carbonate thrust
- 30 EarthQuake

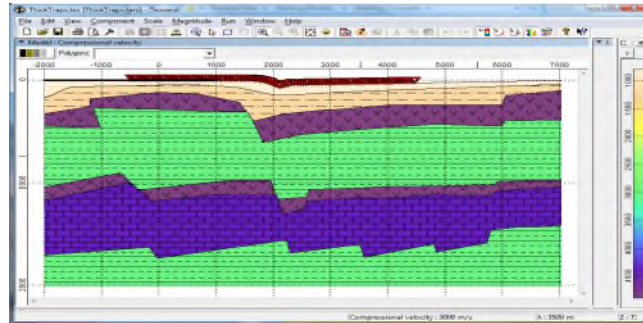
1 Lake&Ice



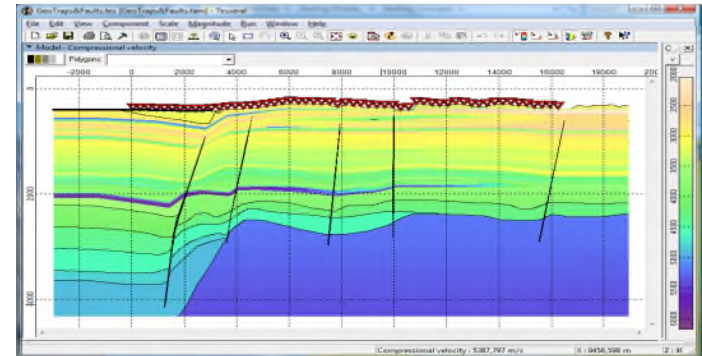
2 Trap&Fault



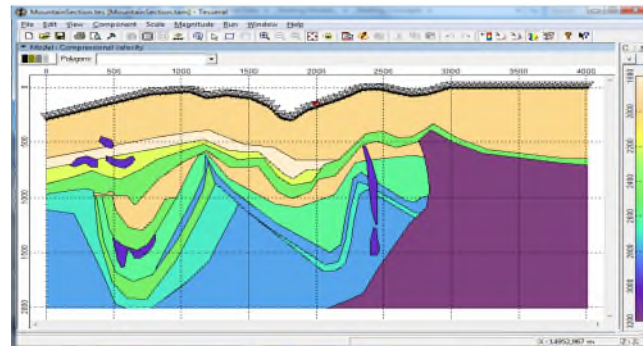
3 Traps&Faults



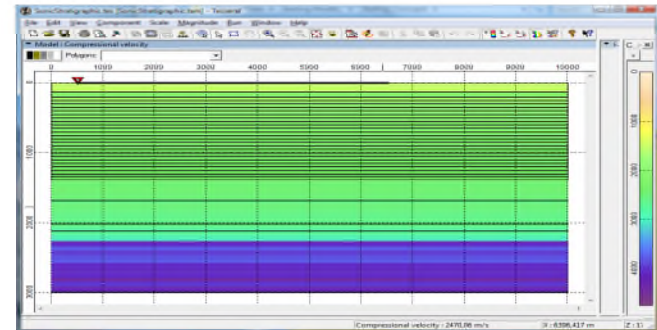
4 GeoTraps&Faults



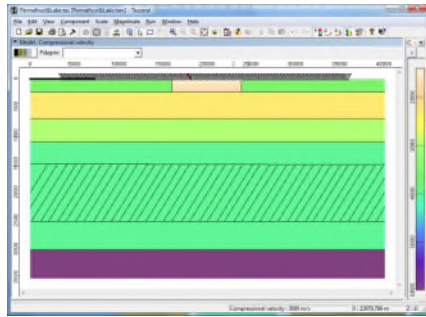
5 Mountain Section



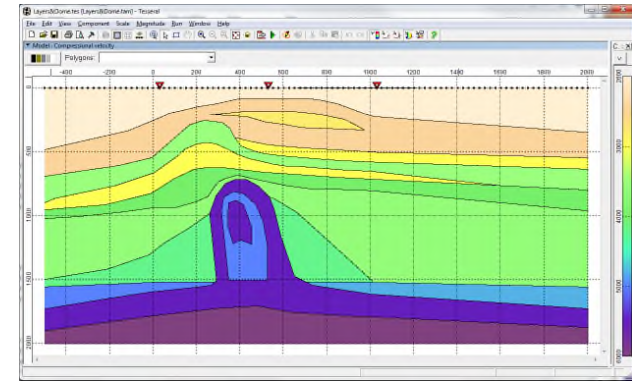
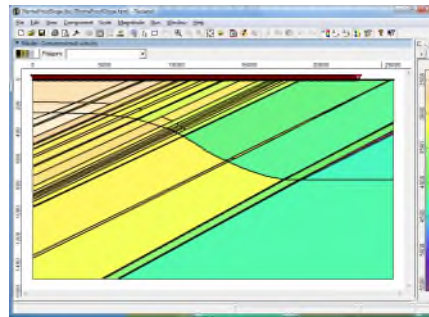
6 Just1DSonic



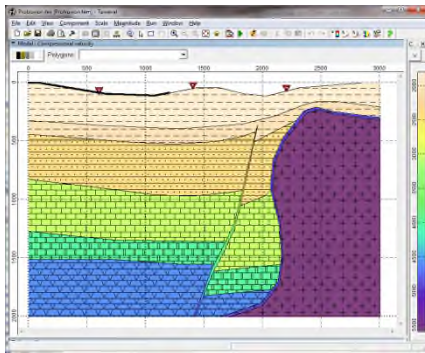
7 Permafrost



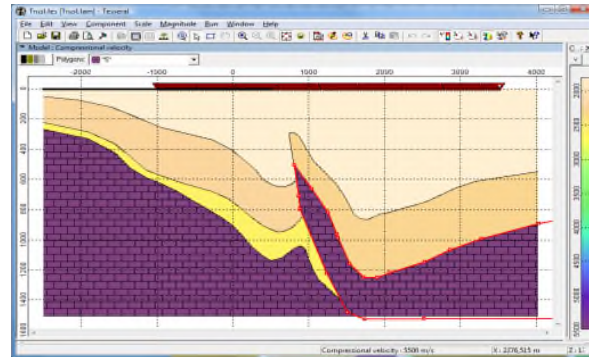
8 Layers&Dome



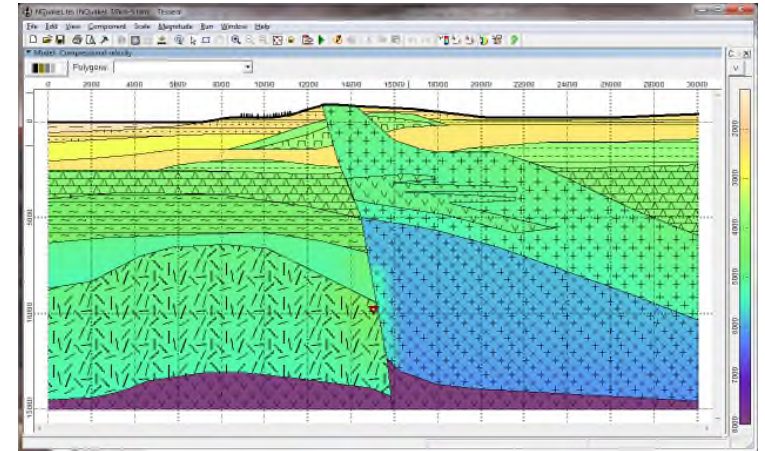
9 Protrusion



10 Carbonate Thrust



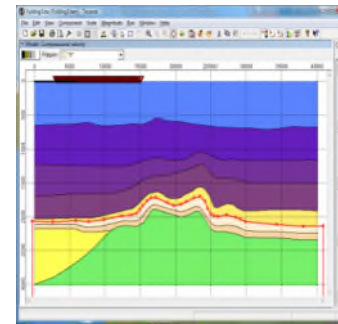
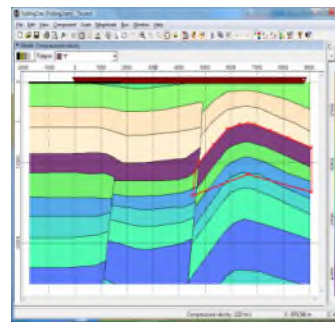
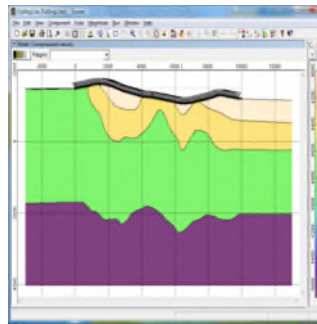
30 EarthQuake



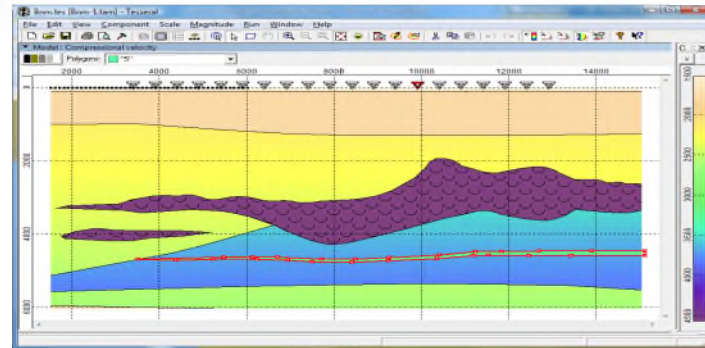
/_Starting_Practical

1 Folding

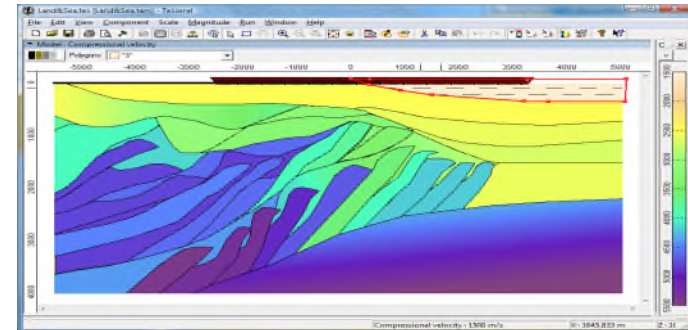
- 1 Folding
- 2 Marine-Gulf
- 3 Marine-Land
- 4 Salt Dome CDP
- 5 Salt Dome VSP
- 6 Mountain Profile
- 7 Wells Profile
- 8 Monitoring
- 9 Complex Geology
- 10 Regional seismic



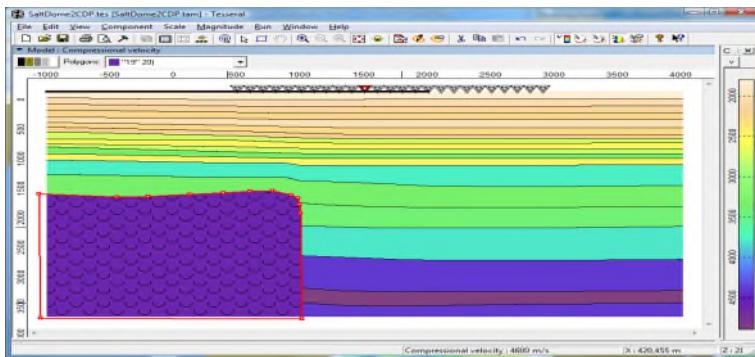
2 Marine-Gulf



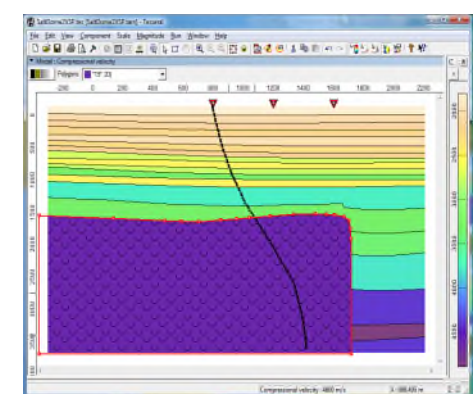
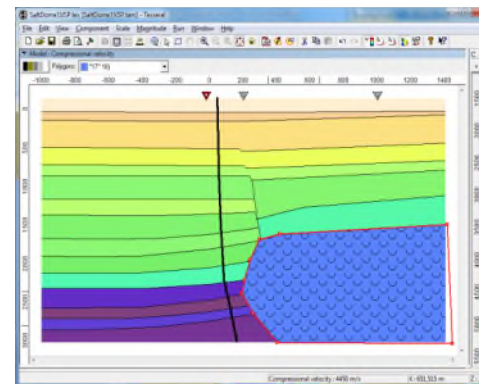
3 Marine-Land



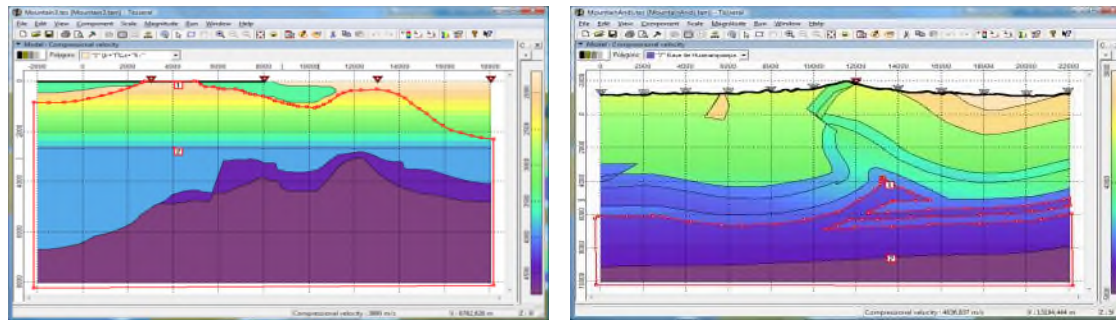
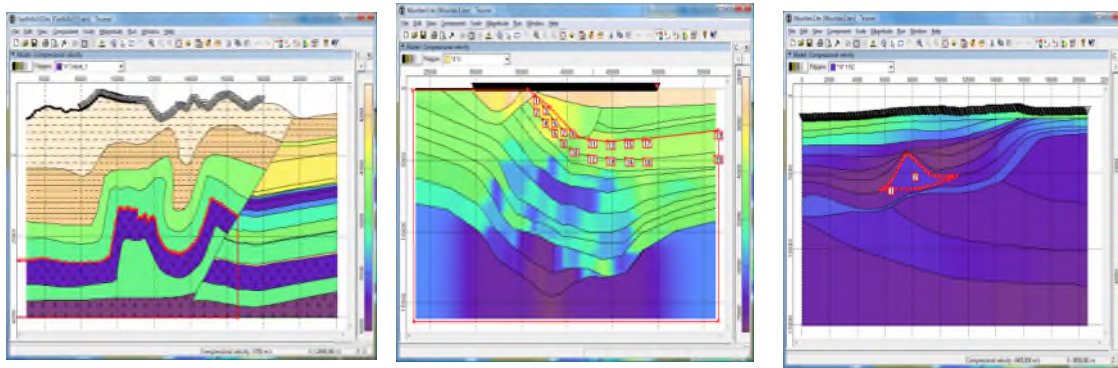
4 SaltDomeCDP



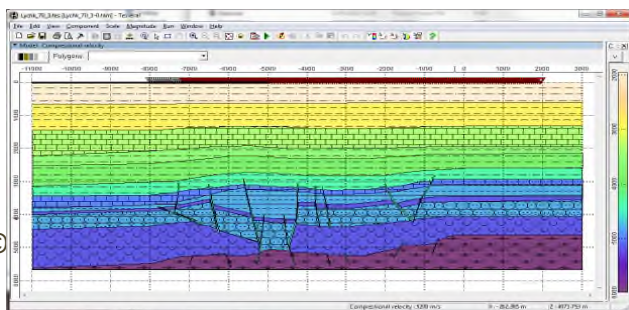
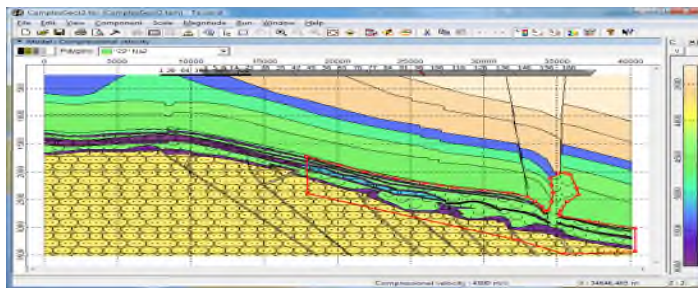
5 SaltDomeVSP



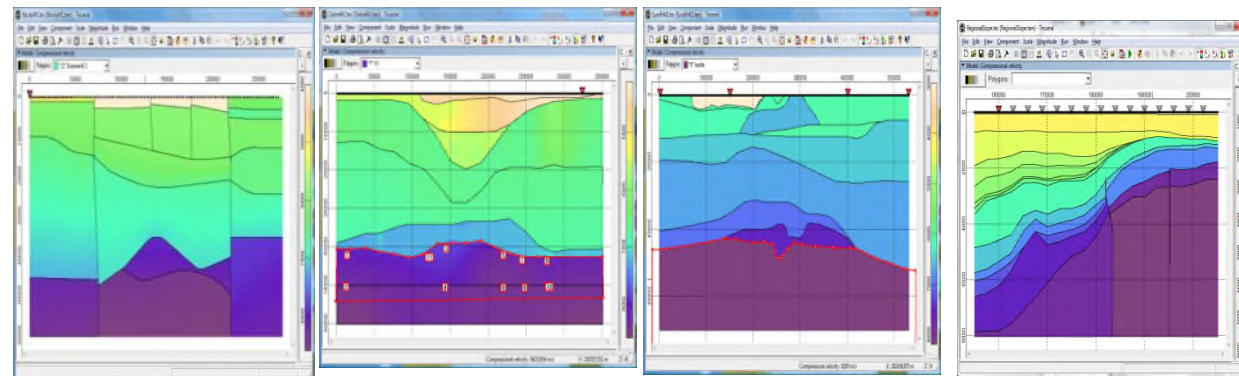
6 MountainProfile



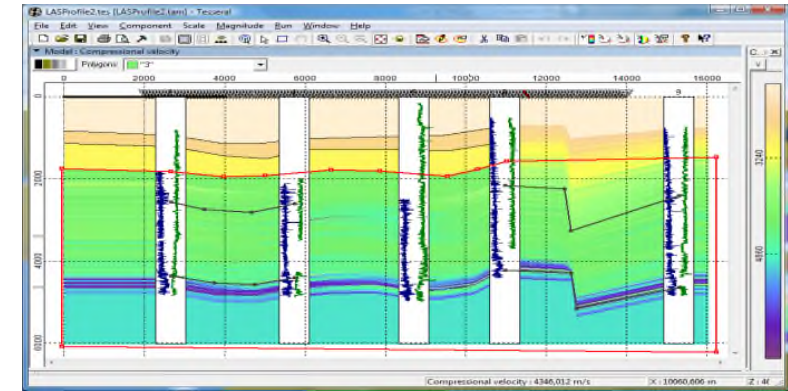
9 ComplexGeology



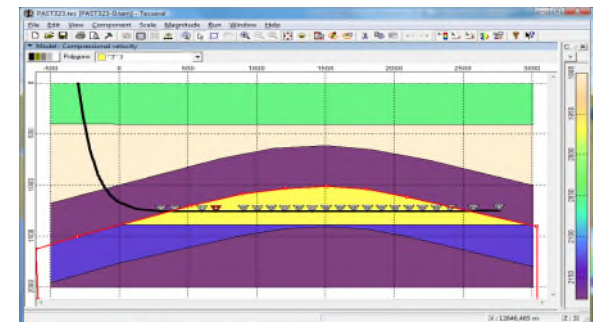
10 RegionalSeismic



7 WellsProfile



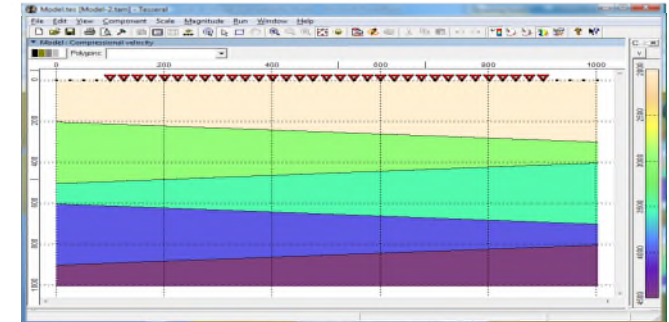
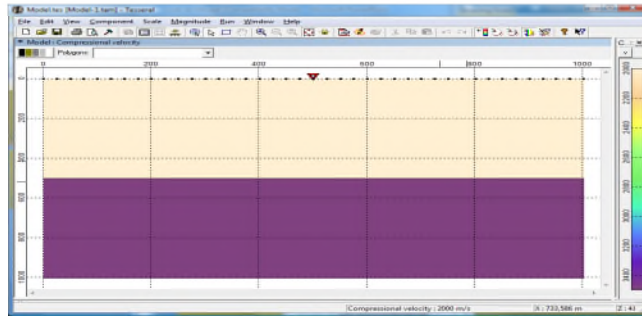
8 Monitoring



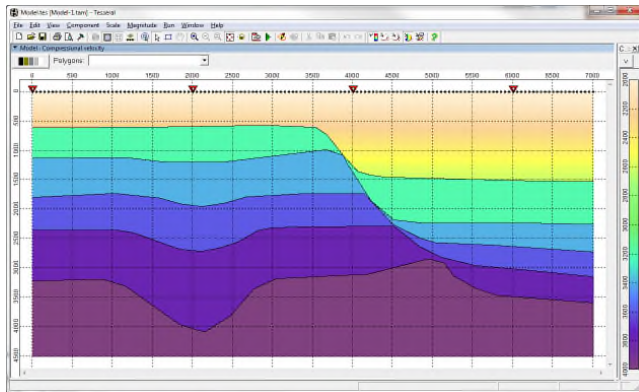
/_Starting_Ray-tracing -Pro-



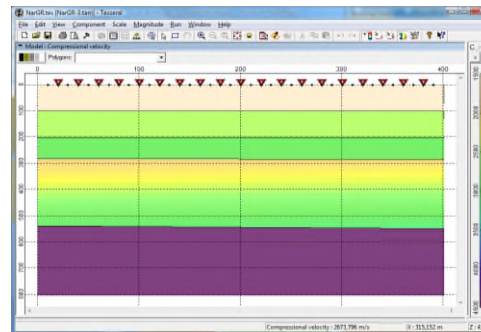
Model-1_NoAniz; Model-1_YesAniz Model-2_NoAniz; Model-2_YesAnis



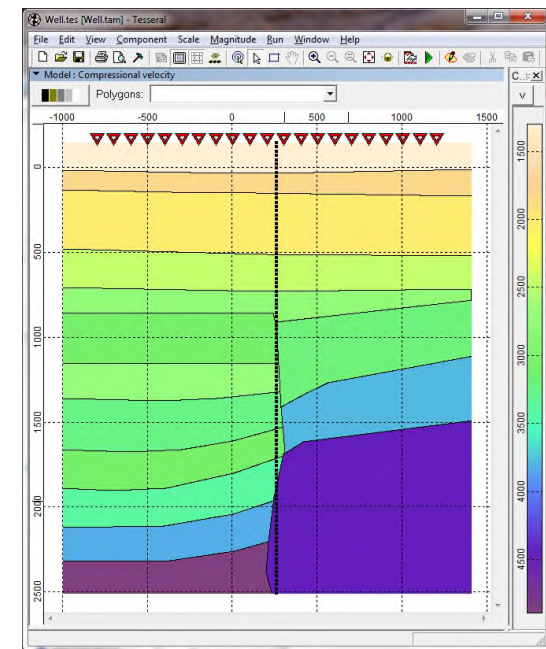
ModelInitial



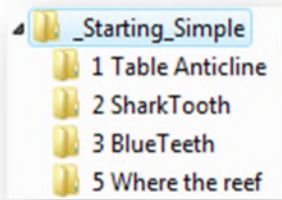
Nar



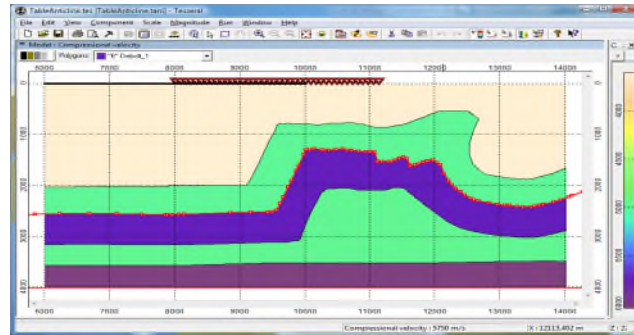
WELL



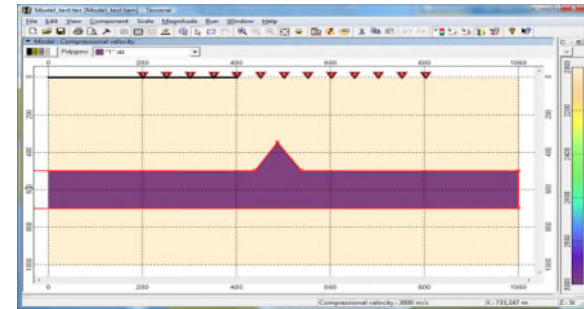
/_Starting_Simple



1 TableAnticline

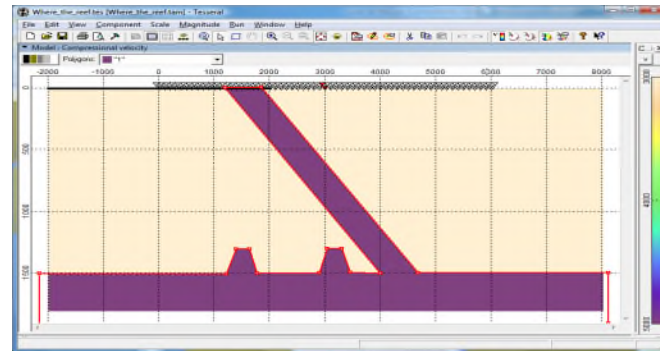
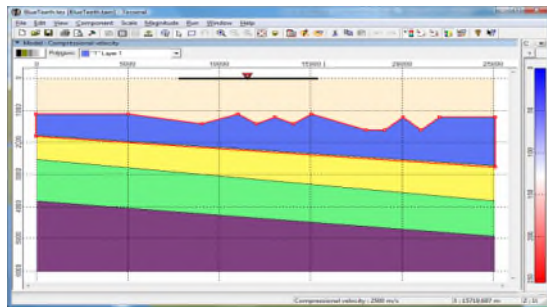


2 SharkTooth

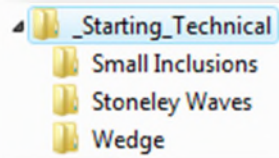


5 Where the Reef

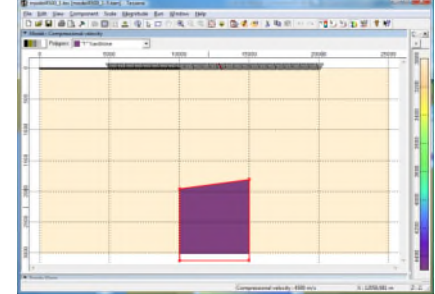
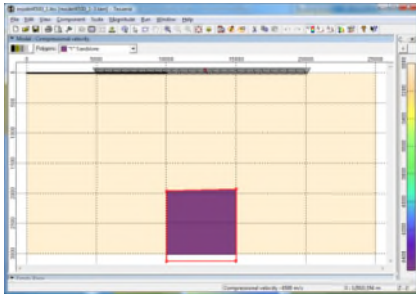
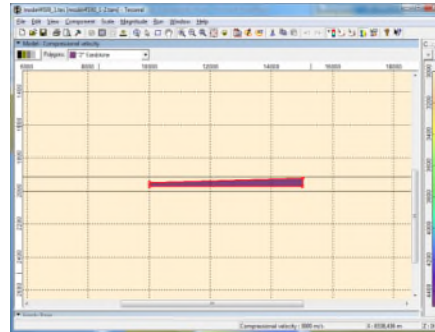
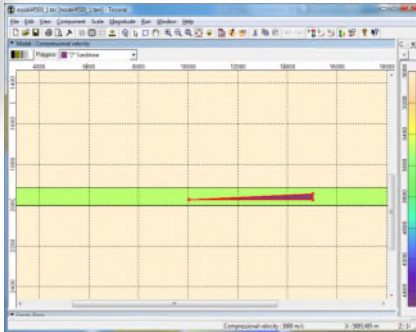
3 BlueTeeth



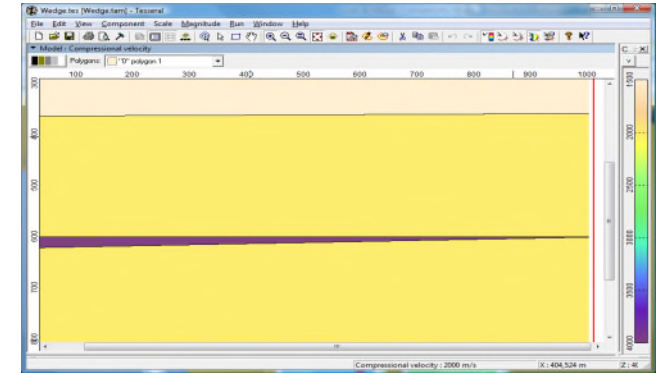
/_Starting_Technical



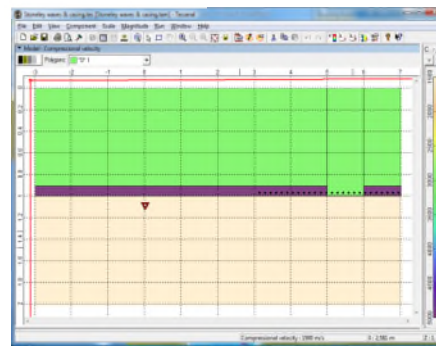
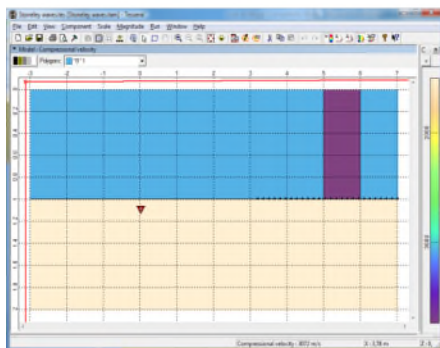
Small Inclusions



Wedge



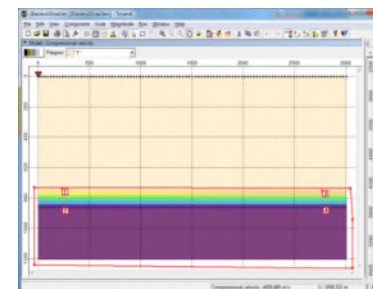
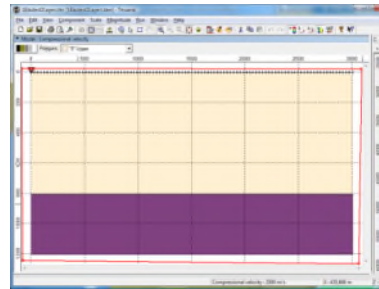
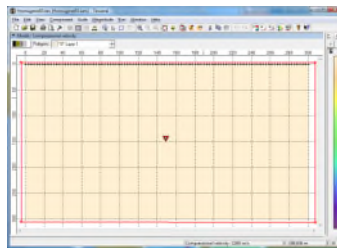
Stoneley Waves



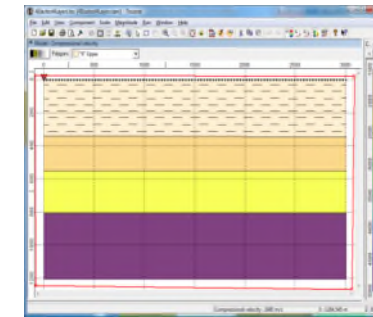
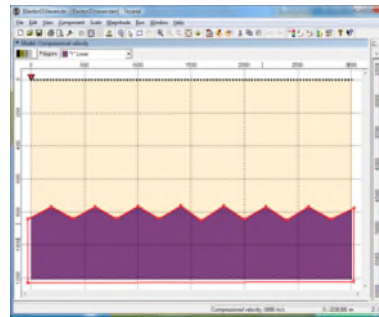
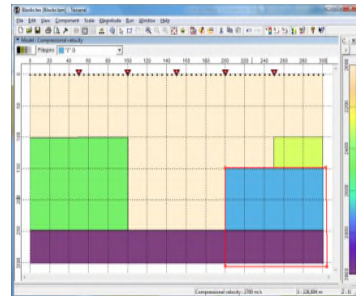
/_Starting_Tests

0 Homogeneous

1 SimpleElastic

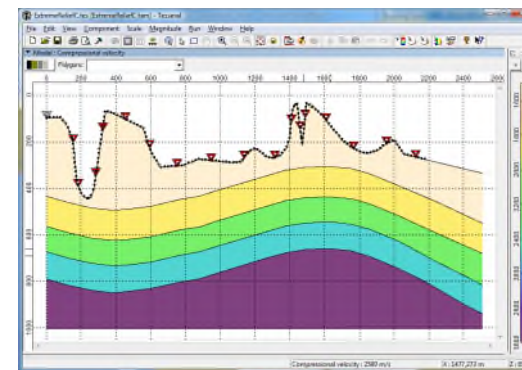
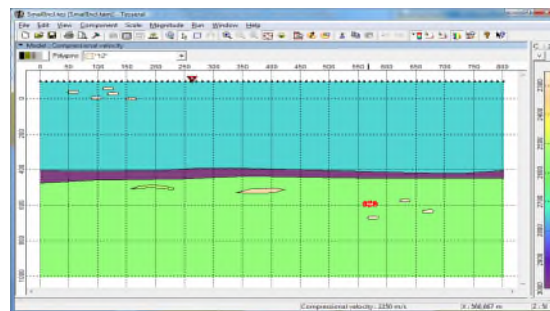


2 Blocks



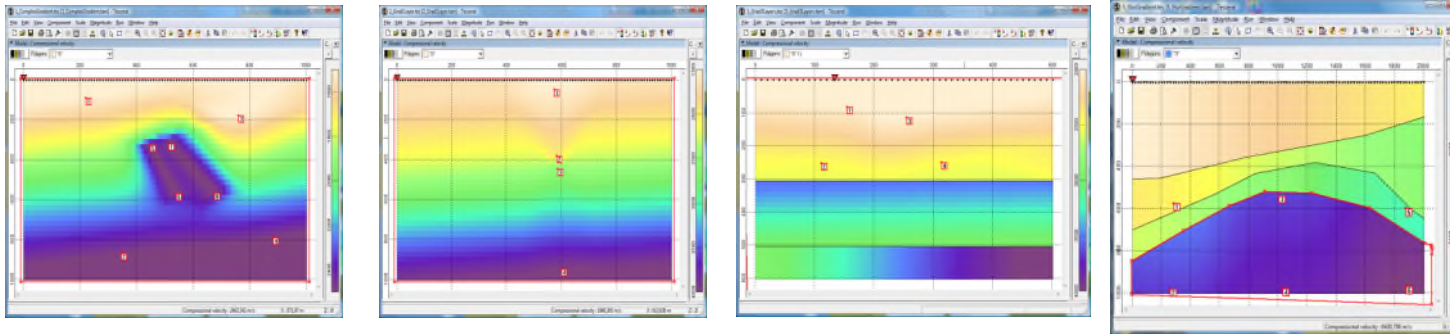
4 ExtremeRelief

3 SmallInclusions

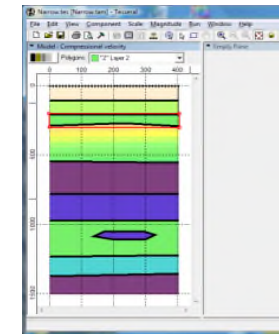


- Starting_Tests
- Starting_Tests AVO
- Starting_Tests VSP
- 0 Homogeneous
- 1 Simple Elastic
- 2 Blocks
- 3 Small Inclusions
- 4 Extreme Relief
- 5 Gradients
- 6 Narrow
- 8 Pinnacle Reef
- 9 Dyke
- 11 Anisotropy -TTI-
- 12 Uneven Surface
- 14 Absorption -Q-
- 15 Processing Simple
- 16 Processing PSDM
- 17 Planning -Stratigraphic-
- 19 Model from Raster Image
- 20 Model from txt
- 21 Model from LAS
- 22 Model from SEG Y Grid
- 23 Model from SEG Y Grids TTI
- 24 Marine CDP
- 25 Marine OBS
- 27 DWM
- 31 Ultrasound

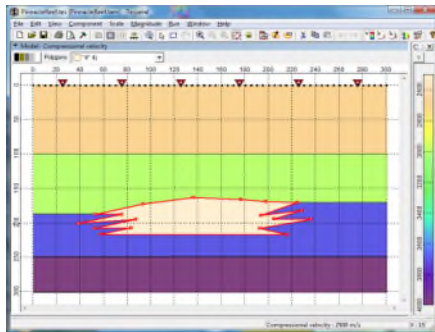
5 Gradients



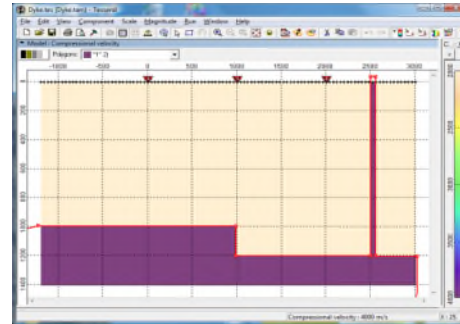
6 Narrow



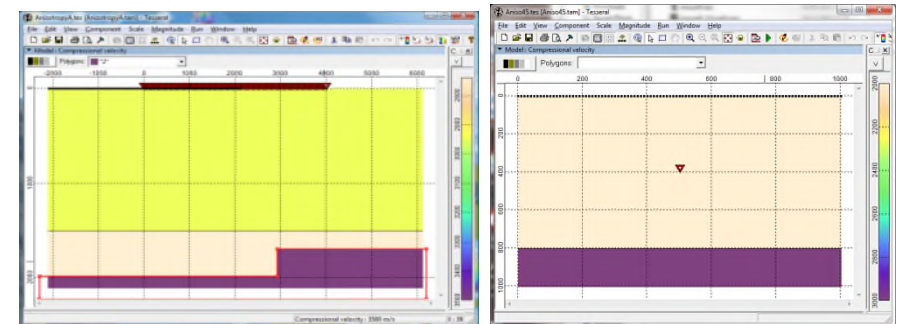
8 PinnacleReef



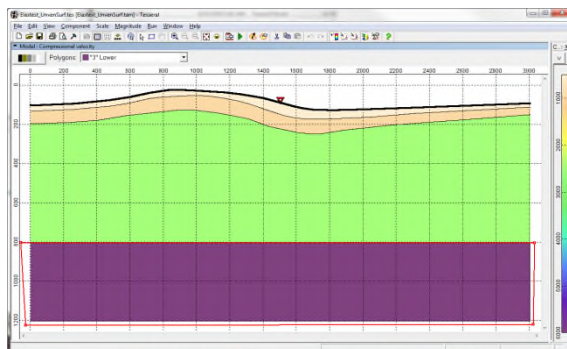
9 Dyke



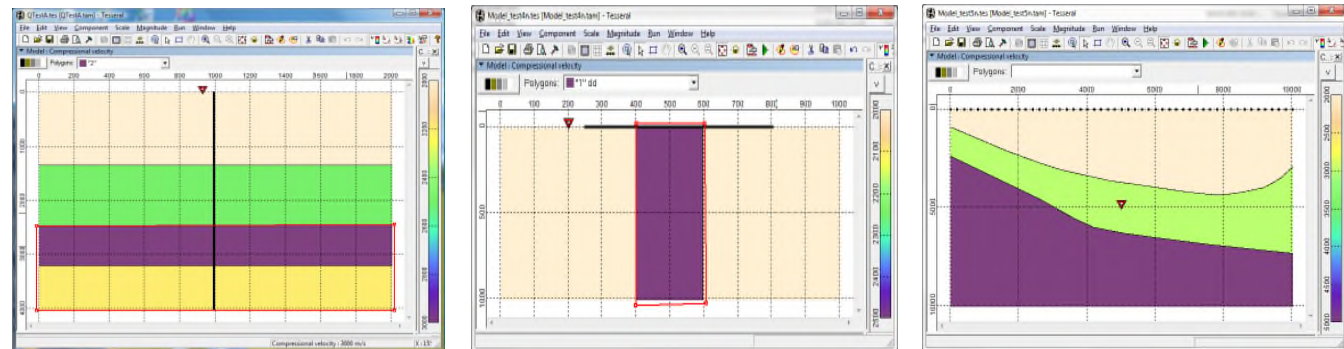
11 Anisotropy-TTI-



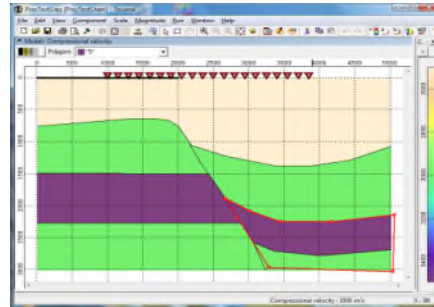
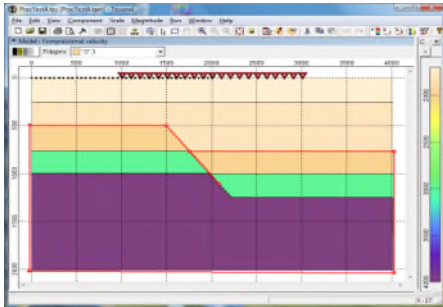
12 Uneven Surface



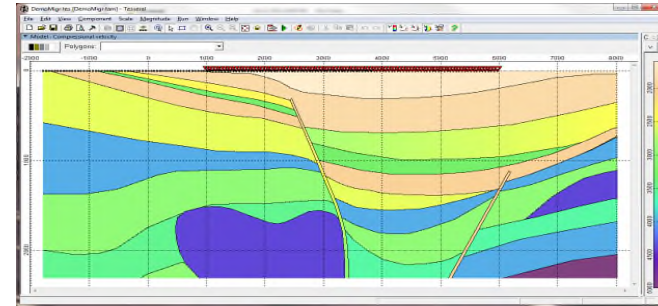
14 Absorption-Q-



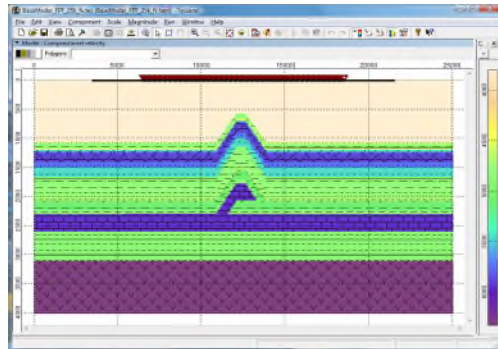
15 Processing Simple



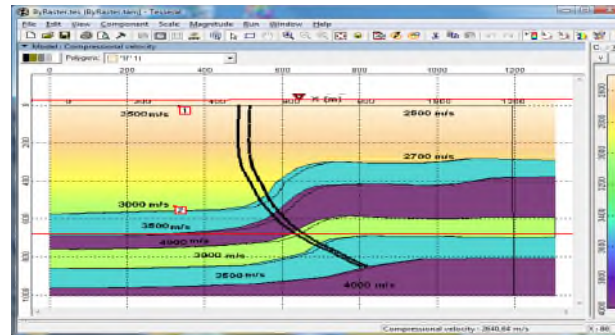
16 Processing PSDM



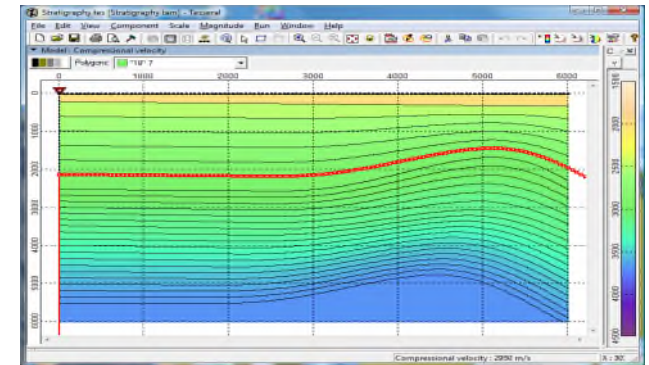
17 Planning -Stratigraphic-



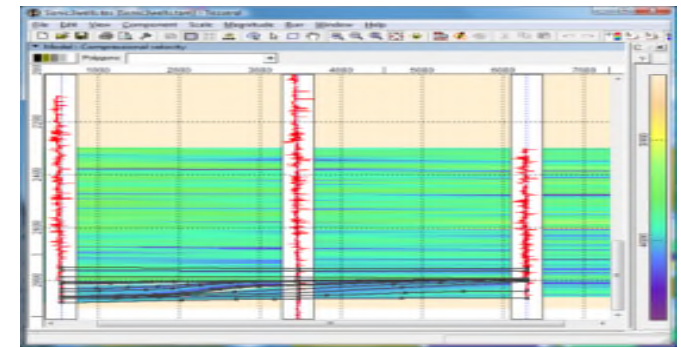
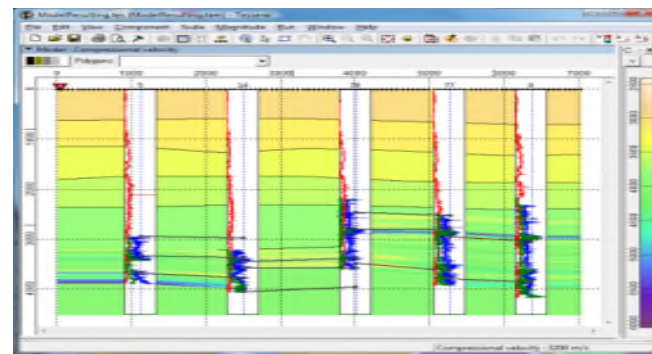
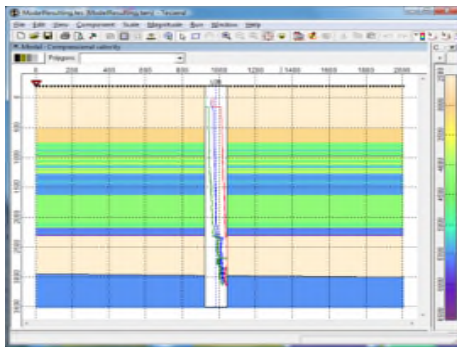
19 Model from Raster Image



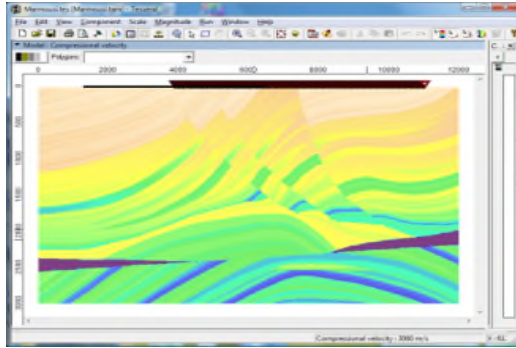
20 Model from txt



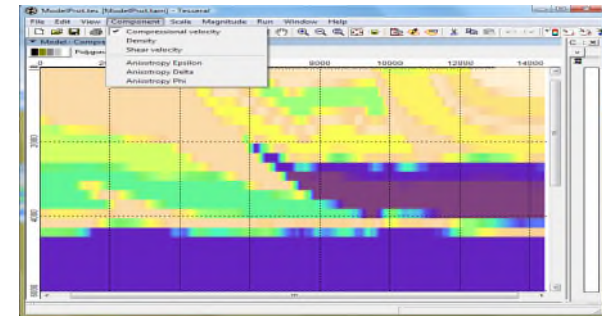
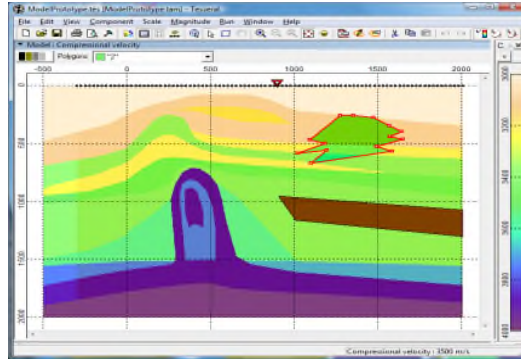
21 Model from LAS



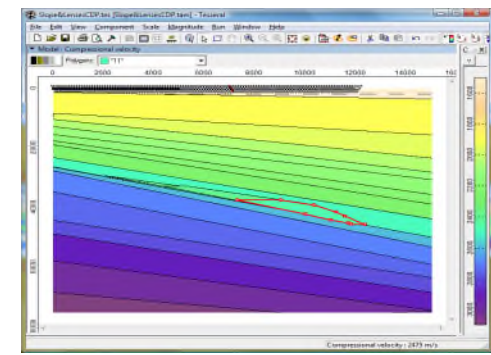
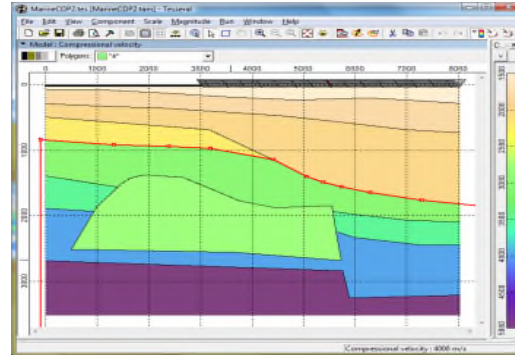
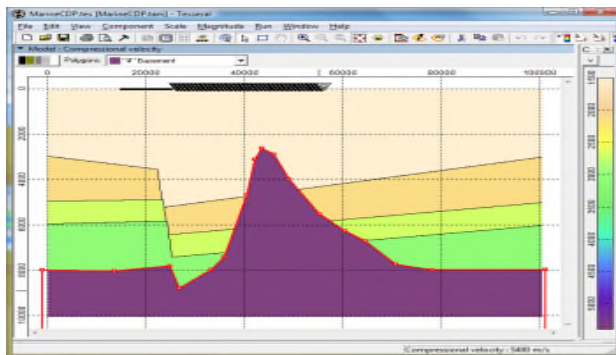
22 Model from SEGY Grid



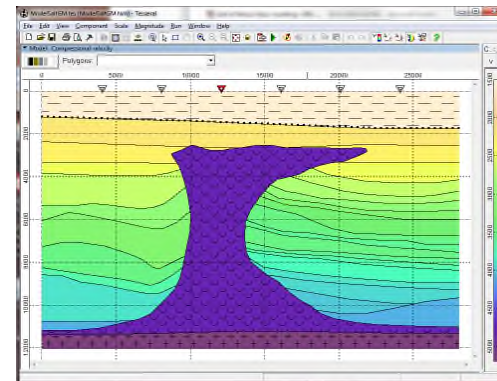
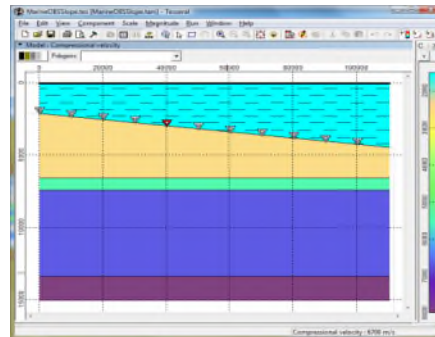
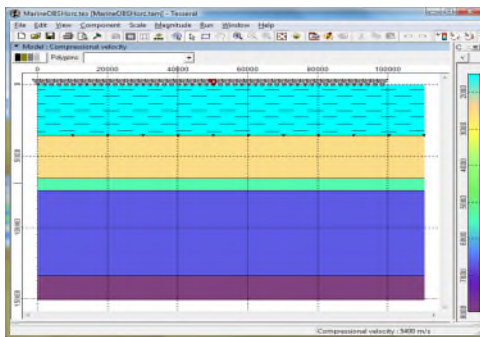
23 Model from SEGY Grids TTI



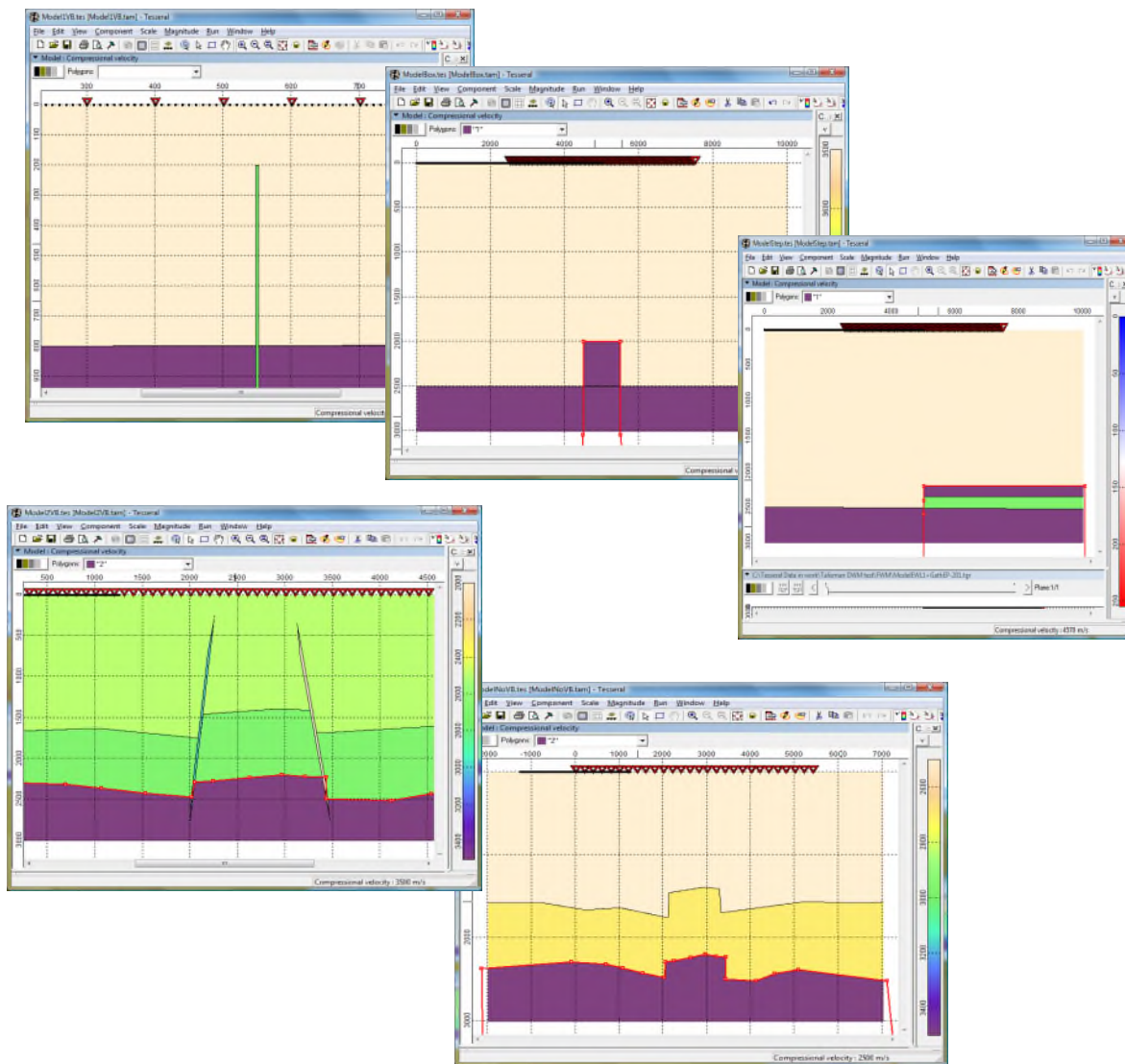
24 Marine CDP



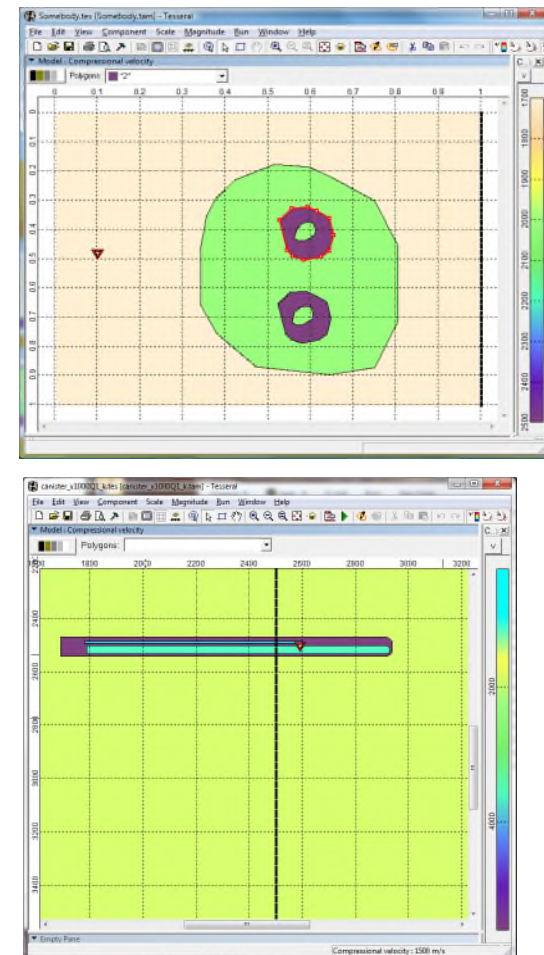
24 Marine OBS



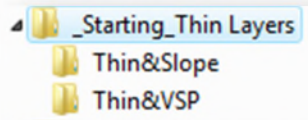
27 DWM



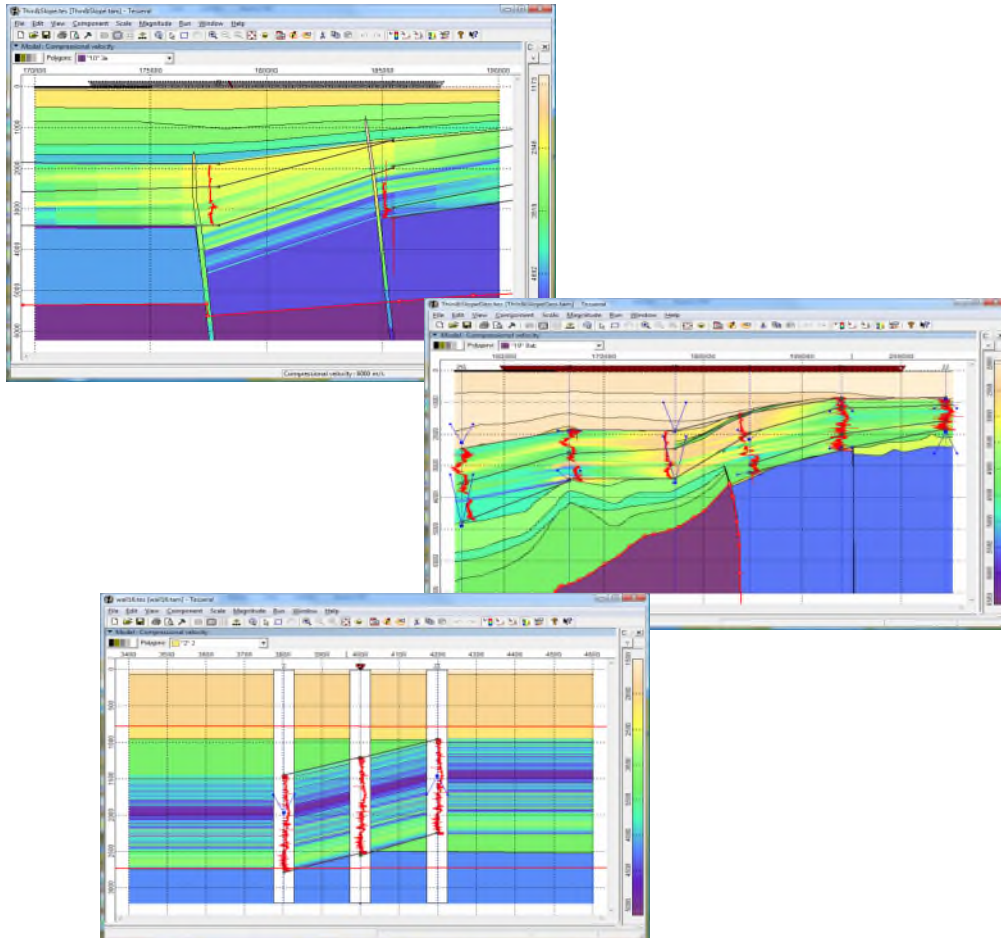
31 Ultrasound



/_Starting_Thin_Layers



Thin&Slope



Thin&VSP

