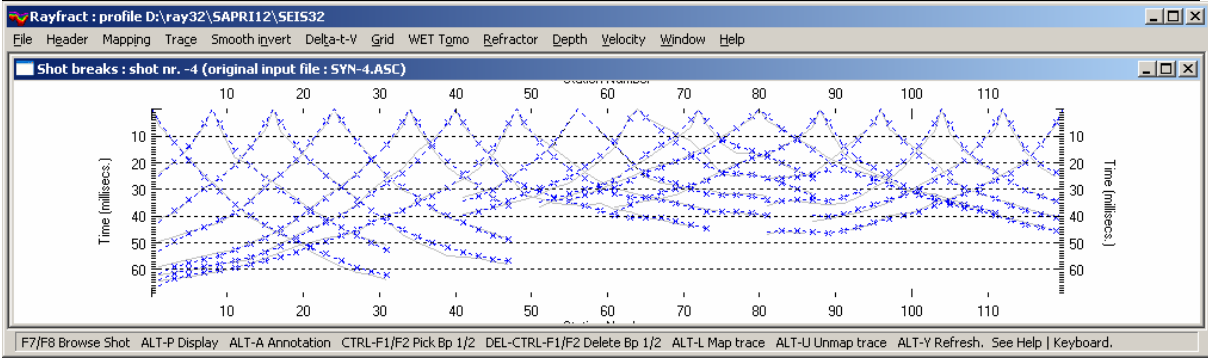
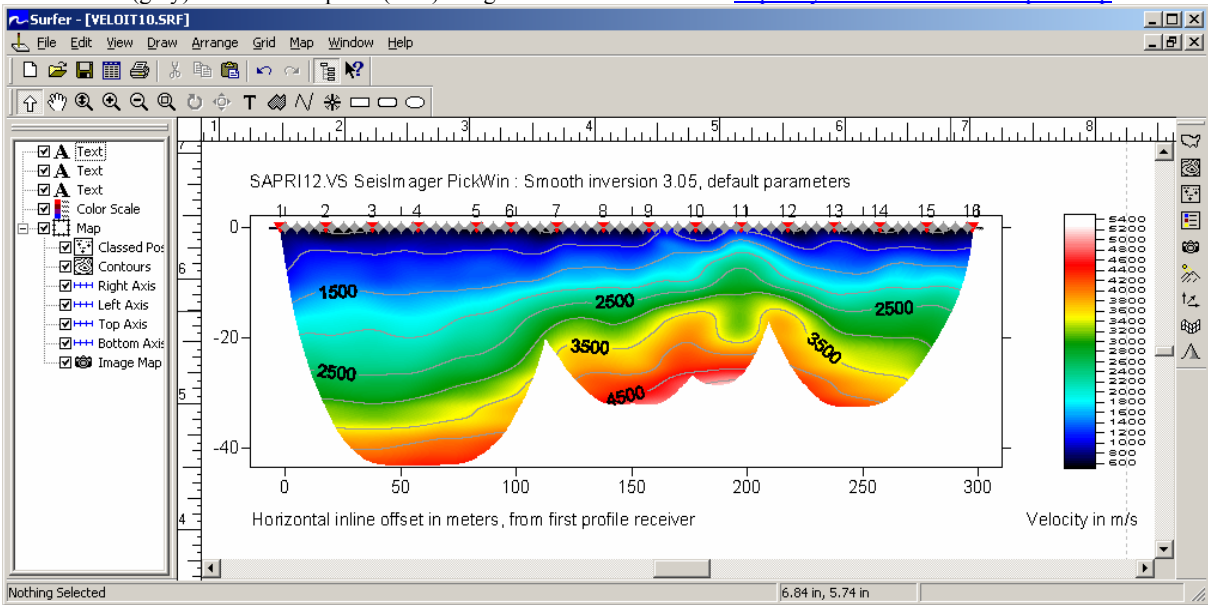


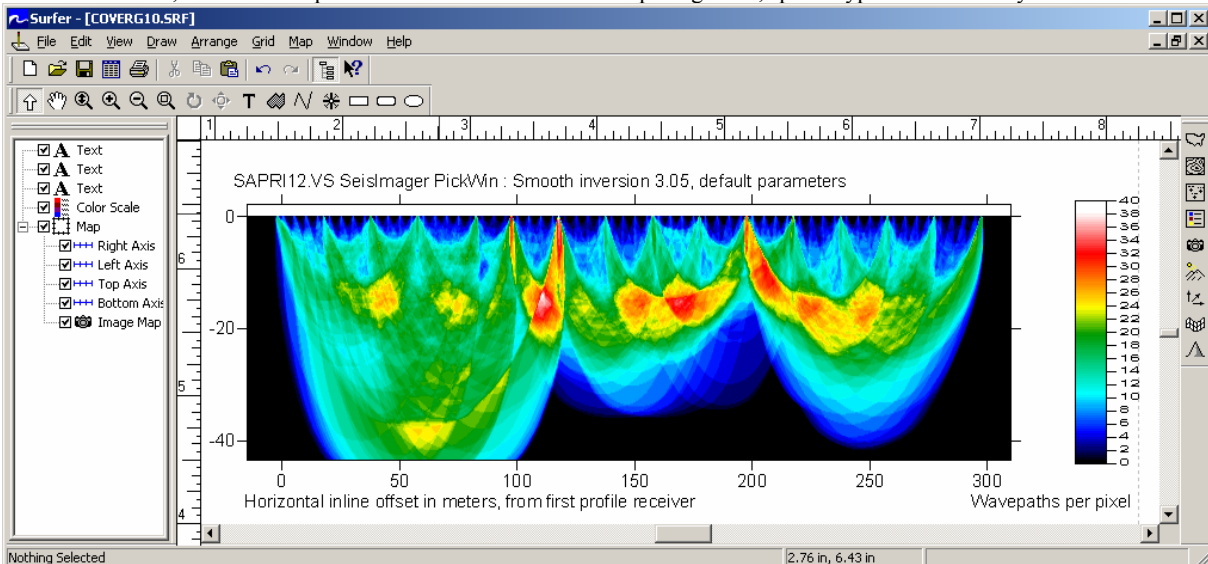
Smooth inversion Geofisica Misure s.n.c. SAPRI12.VS SeisImager™ PickWin file with Ravfract® 3.05, Jan 9<sup>th</sup> 2008 :



Picked times (grey) and modeled picks (blue). Original .VS file available at <http://rayfract.com/tutorials/sapri12.zip>.



Smooth inversion, default WET parameters. Station and receiver spacing 2.5m, spread type “32: 360 every 2nd”.



Coverage of subsurface with first break energy/wavepaths.

The U shaped depression in the elevated basement anticline (center) at horizontal offset 200 meters is probably an artifact caused by insufficient traveltme and wavepath coverage (top, bottom). Receiver spreads should overlap by about 50%. See <http://rayfract.com/help/overlap.pdf>. We recommend adding elevations with Geometrics SeisImager™ PlotRefa program. Then regenerate the .VS file, and reimport into Rayfract® profile. The updated .VS file contains the original PickWin .VS file information, with appended offsets and elevations.

To process the data with our Smooth inversion method, please proceed as follows :

- Download the original first break data and geometry files from <http://rayfract.com/tutorials/sapri12.zip> .
- create a new profile database named SAPRI12, with a *Station spacing* of 2.5m. See our manual <http://rayfract.com/help/manual.pdf> chapter 1.1.
- copy SAPRI12.ZIP to \RAY32\SAPRI12\INPUT with Windows Explorer, and unzip it there.
- import file SAPRI12.VS as shown in chapter 1.2, with *Import data type* “Geometrics PlotRefa .VS” and *Default spread type* „32: 360 every 2nd“ . The import routine will detect the actual number of channels used for each shot.
- when you get to a prompt “Update profile station spacing ?” during import, click on “No” button. The actual *receiver spacing* is 5m, but we choose above a *station spacing* of 2.5m so traveltimes do not need correction for shot point offset (from nearest integer station number), with conventional Wavefront and Plus-Minus methods.
- review first breaks, traveltimes curves and shot positions with *Refractor|Shot breaks*. See above manual chapter 1.3.
- invert the data with *Smooth invert|WET with 1D gradient initial model*. Proceed as lined out in chapter 1.4.