

TerraNotes

The official newsletter of TERRASCIENCES

Current TerraStation II version: v7.265

2012/13 Trade Shows

Our appearances at trade shows for 2012/2013 are:

- **PETEX 2012** – (20-22 Nov) – Held at Earls Court 2 Exhibition Center in London, UK.
- **AAPG 2013** – (19-22 May) - Annual AAPG convention. We have booth 1718. This will be in Pittsburgh, PA at the David L. Lawrence Convention Center.
- **SPWLA 2013** – New Orleans, Louisiana – June 14-20 at the Hyatt Regency Conference Center.

We look forward to seeing you at the shows.

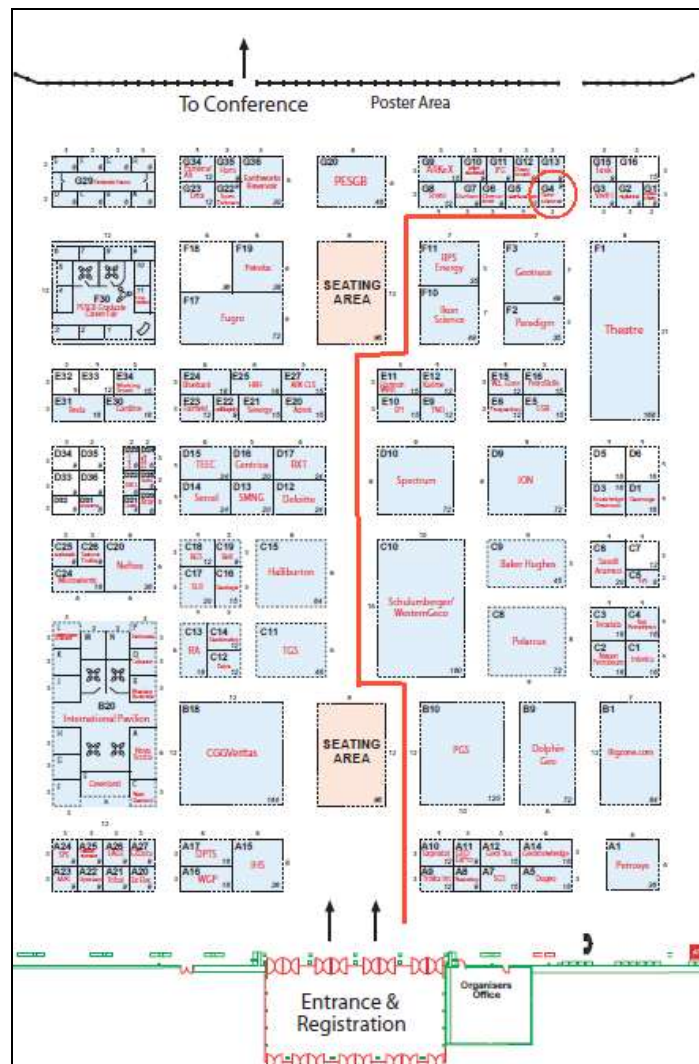
F9 – Turns picks on/off

Borehole Imaging users - Did you know that you can quickly toggle the display of picks on Formation View (borehole image) track displays on and off by simply pressing the F9 key?

PETEX 2012

Once more the event that is PETEX is almost upon us. The date is November 20th to 22nd, 2012. The venue is once again at Earls Court 2 in London, England. Nigel Collins and Andy Jagger will be manning the booth, so stop by and chat, see the latest software offerings and generally socialize. We are looking forward to meeting with clients – old, current, and new.

We will be in booth **G4**.



Follow this link for a floor plan:

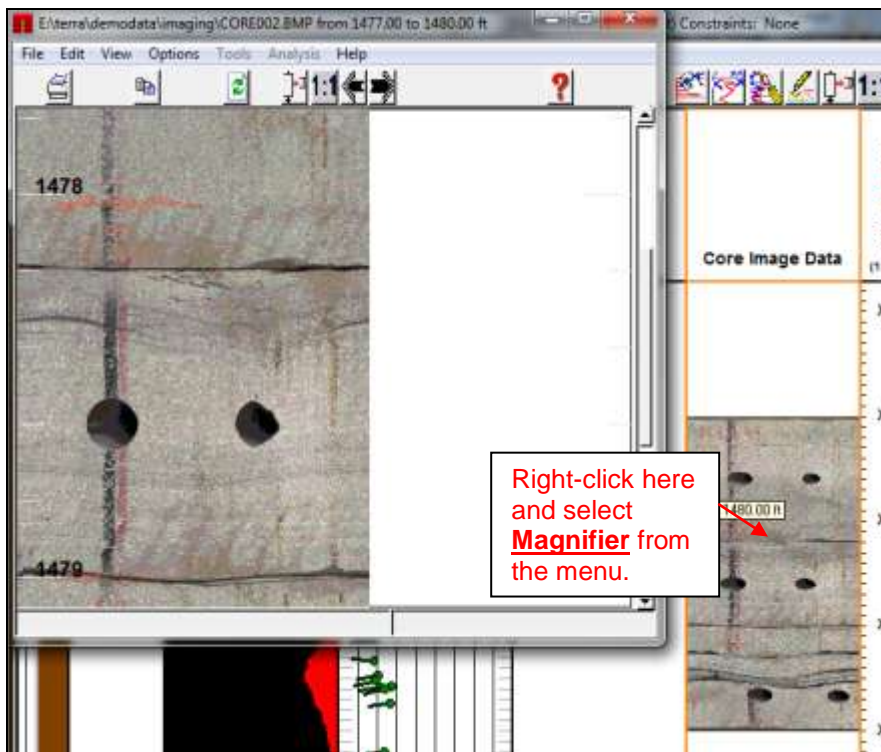
<http://www.petex.info/floorplan.html>

Core Image Magnifier

A recently added option to IMAGELog allows you to quickly view core photos (or any image within a Core Image data type track) at a larger scale.

To activate the option you simply right-click in the track, select **Magnifier** from the menu and a separate window will pop up showing the image at its proper aspect ratio and at full resolution no matter to what the vertical scale of the main IMAGELog display is set.

You can also change the resolution of the image by rotating the mouse wheel if you have one.

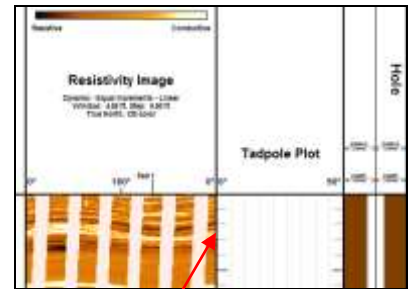


Options are present on the Magnifier window to reset the scale to 1:1, Fit in the Frame, and move back and forward through the photographs.

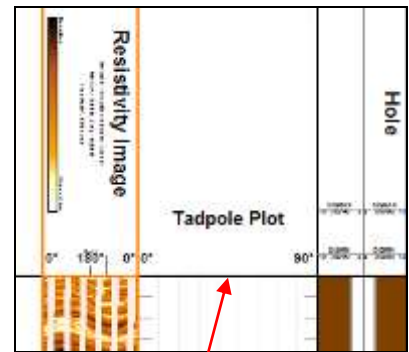
Also, if you move the cursor within the **Core Image Data** track, the presentation in the Magnifier window will change appropriately. The core photo file name and depth interval is shown along the top of the Magnifier window.

Grabbing and Moving Track Boundaries and Header in IMAGELog

One can quickly change the height of the track headers as well as the track widths in IMAGELog, by left clicking on a track edge or the line between the track body and track header and grabbing and moving the line.



By grabbing and moving the right hand side of the Formation Viewer track, the display changes to this...



Similarly you can grab the track header line and shrink or expand the header size....



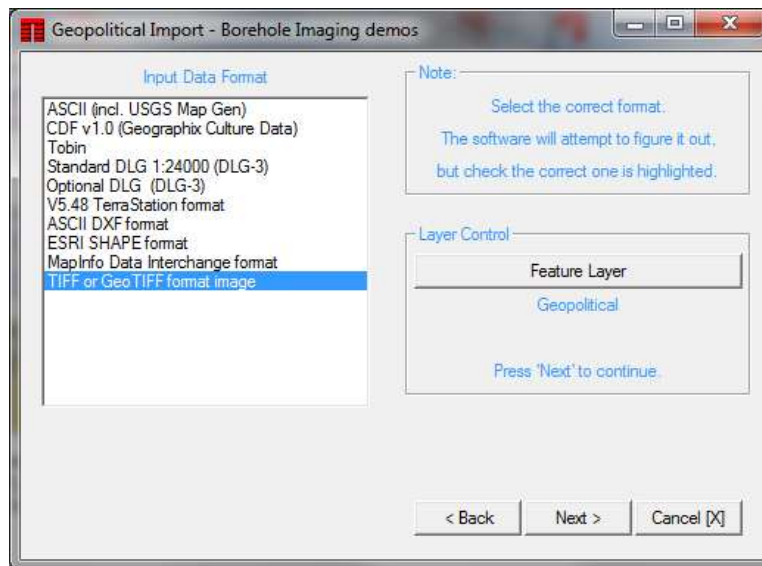
Note: The track header size can only be changed if the Header Height setting is set to Fixed Height.

Loading and Display of GeoTIFF images

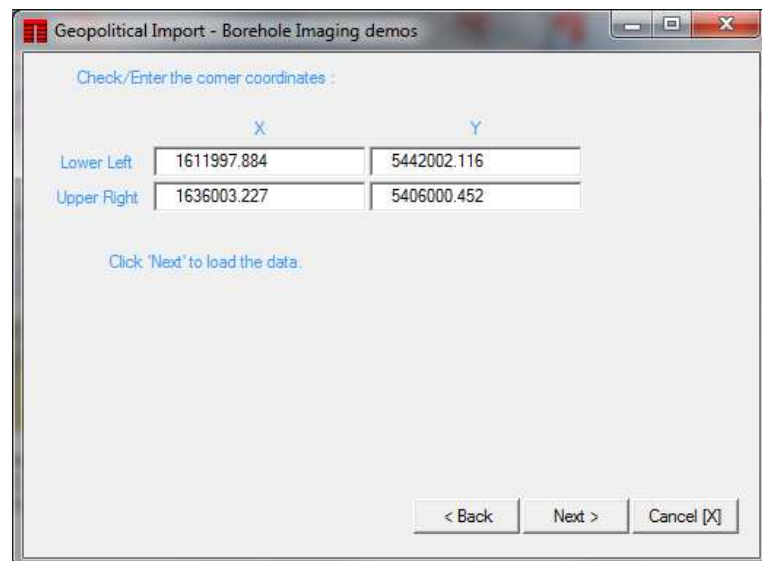
We have recently added the ability to load GEOTIFF images. These are graphical image files in TIFF format that have geographic reference coordinates associated with them. You import them via the **Input/Output – Geopolitical Import** option.

Press the **Select Input File** button and choose your file.

Press the **Next** button. If your file is a valid GeoTiff file, then the correct format should be highlighted on the control panel...



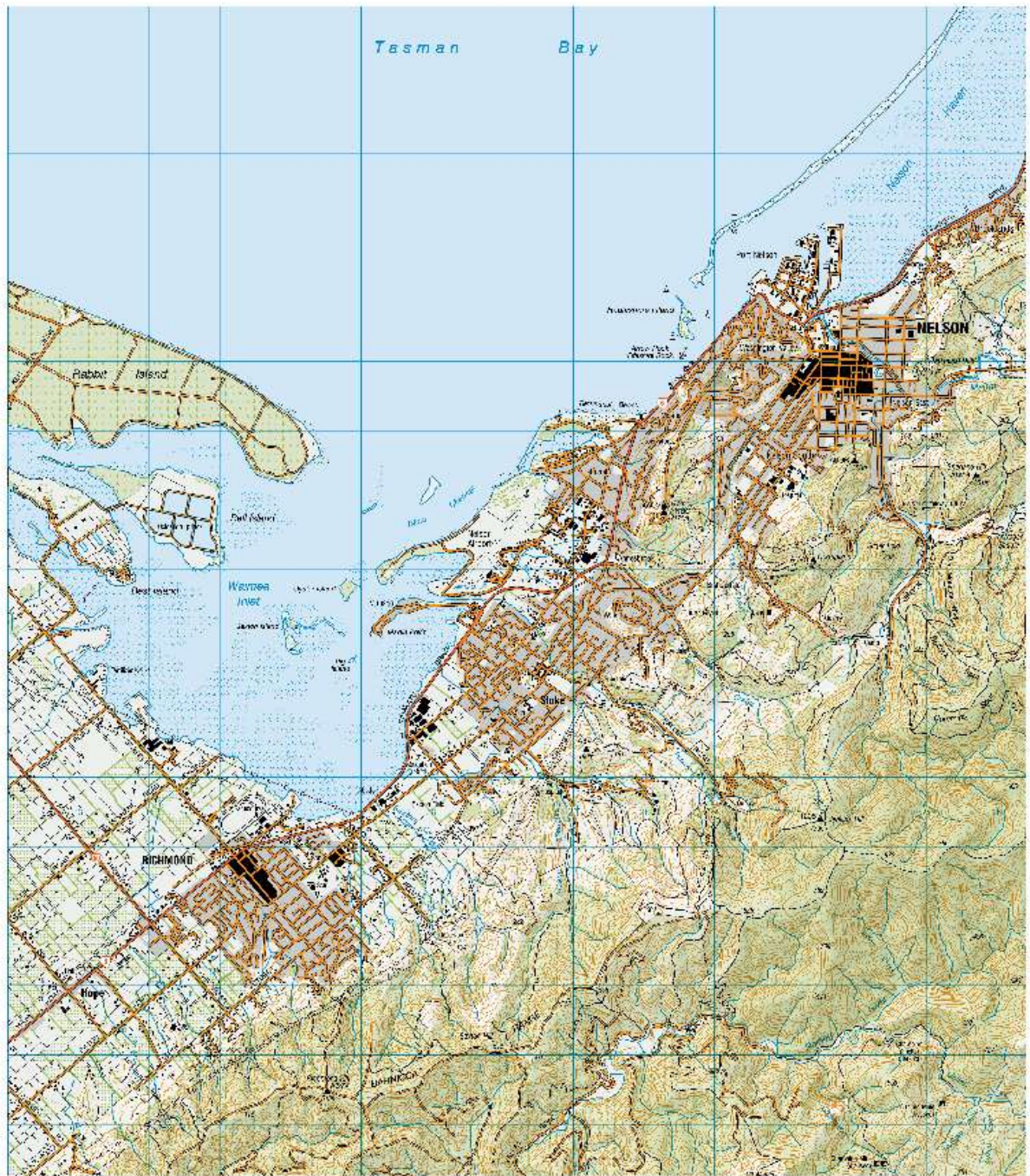
Press the **Next** button.



You are now prompted for the lower left and upper right coordinates for the image. The boxes should be pre-filled if the GEOTIFF file contained the information. If not, then it is up to you to provide them. In addition you need to be sure that the spheroid and projection used to generate the GEOTIFF image are the same as the one used by your TerraStation project. If not then geographic mismatches can occur.

Once you have the desired coordinates press the **Next** button. The data loads and a **Done** button is presented once the data loading is complete.

The loaded data can be viewed via the **Edit – Geopolitical Editor** option.



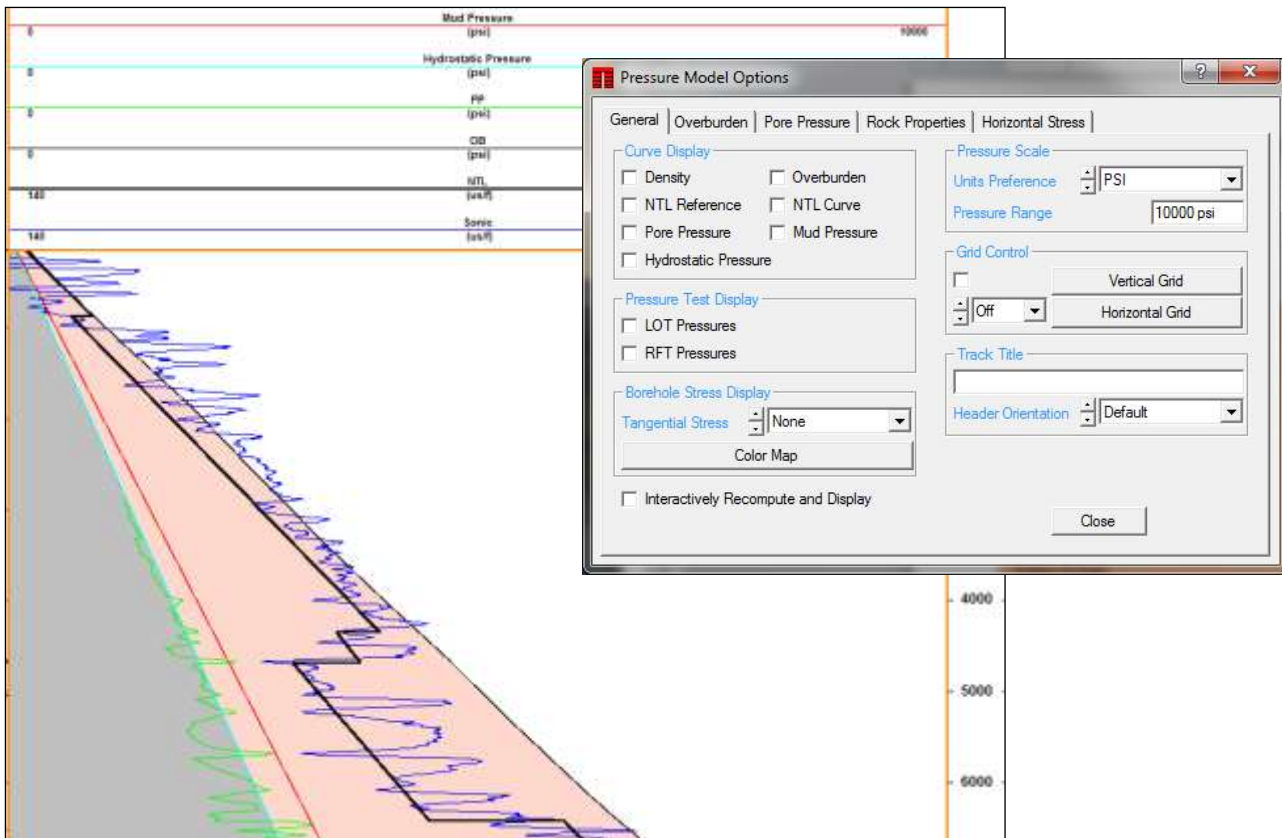
Part of a loaded GEOTIFF file showing a map from the New Zealand Survey of the town of Nelson.

Pore Pressure Prediction

TERRASCIENCES has been working for some time on adding a pore pressure capability to TerraStation. This is available for all clients via the IMAGELog application. It is accessed via a track type called **Pressure Model**.

It provides the ability to model overburden, pore pressure and compute fracture pressure. Combined with other data from breakout and leakoff test analysis, the TerraStation is moving swiftly towards providing a suite of wellbore stability and geomechanical capabilities.

If interested, you can take a look at what we have to date. Start IMAGELog and create a new track. Select the **Pressure Model** track type. Right click on it and select track configuration. In the example below the track width was made very wide, and the vertical scale set to 1:10000 to display the entire well interval on one screen.



Options exist on the tabs to compute hydrostatic and overburden pressure. You can interactively pick the normal trend line from the sonic or resistivity curves. Pore pressure can be computed using several methods – Eaton, Bowers, Equivalent Depth. Fracture pressure is computed using one of Eaton, Matthews & Kelly, or the Total model. Leakoff test (LOT) data values can also be used if available.

You can use the checkboxes on the **General** tab to switch on the various computed data for display. This also allows LOT and RFT pressure data points stored in the General Engineering data file to be displayed for reference.

Finally, you can also compute maximum horizontal stress if you provide the required inputs – usually obtained from breakout analysis. This is available in the Formation Viewer capabilities, although these do assume you are licensed to the Formation View module. However, if you already know the minimum horizontal stress direction and the break out width from other sources you can enter that information.

There is also the option to compute various rock properties – various moduli, unconfined compressive strength (UCS) and tensile strength. There is a considerable list of available models for UCS provided.

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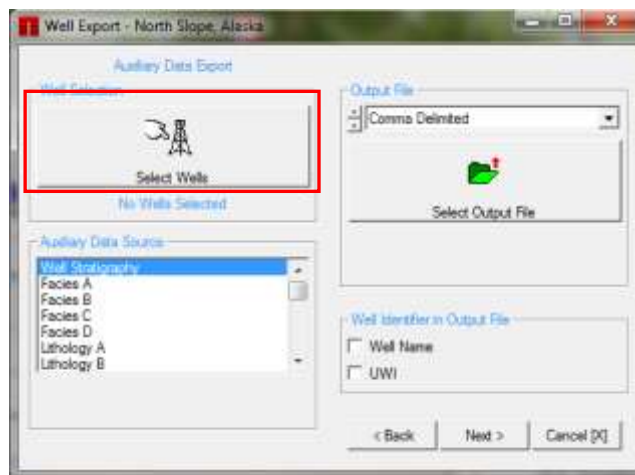
www.terrasciences.com

This will be an ongoing project and we will be adding capabilities to this aspect of the software throughout the next few months. As always, we welcome any feedback our users are prepared to give.

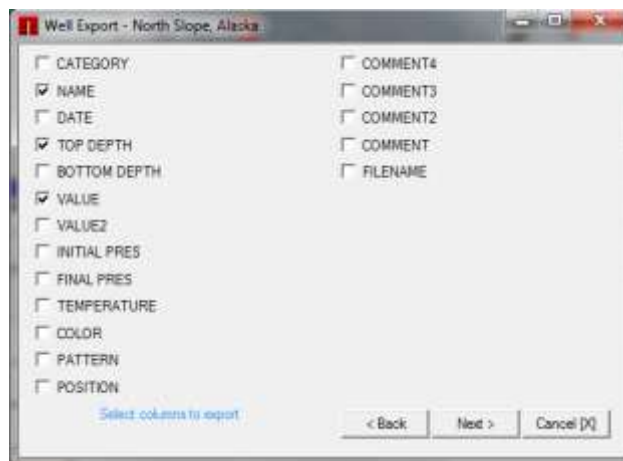
Multi Well Export of Auxiliary Well Data

We have recently added the functionality to select a group of wells and then choose to export any of the data fields from several of the auxiliary well files. For example, if you wanted to export all of the RFT pressure values and their depths for a group of wells for import into EXCEL.

Under **Input/Output – Well Export** select the **Auxiliary Well Data** option.



On the panel, select the wells you want. Next select the type of auxiliary data file to be used as the output source. In this case select the **History/Engineering** file. Note that a list selector now appears. Use it to select **RFT/MDT** as the type of data to output. Then select the output file. Press **Next**.



On the next panel, simply check the fields you want to output and then press **Next**.

Once past the confirm screen and your file is created.