

## Projects and Well Lists

StrataBugs projects are a way of organising your database. A project is primarily a group of well lists. Various other items can also be linked to a project.

**A well list is a group of wells.** A project may have many well lists. By default there will be one well list, whose name is the same as the project's. A well is part of the project if it is in any of its well lists; it could be in more than one.

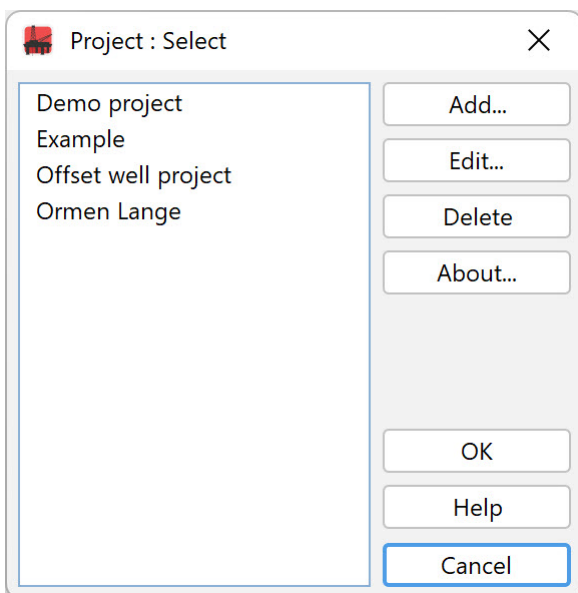
Wells can belong one or more project, but they do not have to belong to any project. You can delete a project or well list without deleting its wells.

**Other items are also placed in projects.** Taxon groups & sets can belong to projects, as well as all chart templates (panels, layers, blocks, correlations and charts). Items which do not belong to a specific project are designated as **global**. Around the system you will see the symbols  for global and  for a specific project.

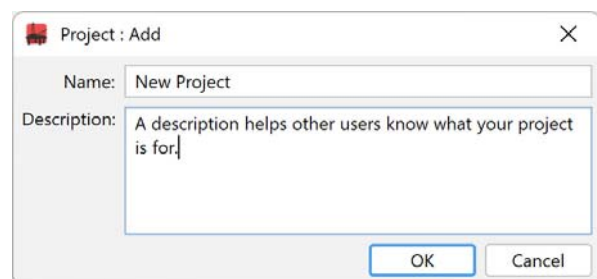
*Note that the legacy Charts module uses the concept of "Chart Projects", which are entirely separate from projects discussed here.*

### Create, edit or delete a project

In the Wells & Outcrops module press the "..." button next to the project selector. You see the **Project : Select dialog** listing the projects already in the database:



Press **Add...** to create a new project. You will be prompted to enter a name; it must be no more than 60 characters long. The description (max 500 characters) is optional.



*In some situations the **Add...** button is disabled. If you need to add a project, do so through the Wells & Outcrops module.*

**Edit...** lets you change the name and description of a project.

You can always **Delete** a project, unless it is referenced by blocks in charts (project blocks or scheme blocks). If the project contains groups, sets or chart templates, you will be given the choice of setting these to 'global' or deleting them.

**These options are similar for well lists within a project.** Open the well list selector dialog from the Wells & Outcrops module.

### Add wells to a project / well list

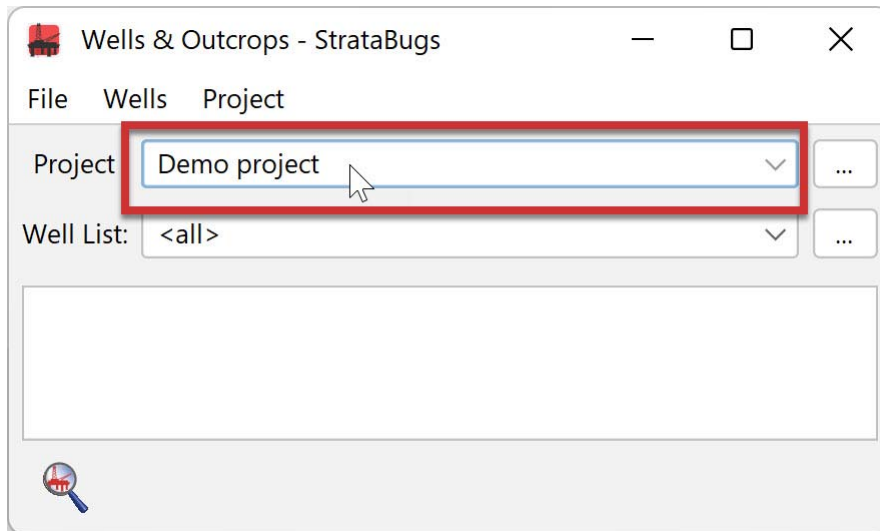
To add an existing well to a project, use the Wells & Outcrops module.

1. Select the project from the drop-down list at the top.
2. Select a well list. If you don't select a well list, the default well list will be used (usually this has the same name as the project).
3. Select the well (or wells) using the search button or menu item, or by double-clicking in an empty part of the list.
4. Confirm addition to the project.

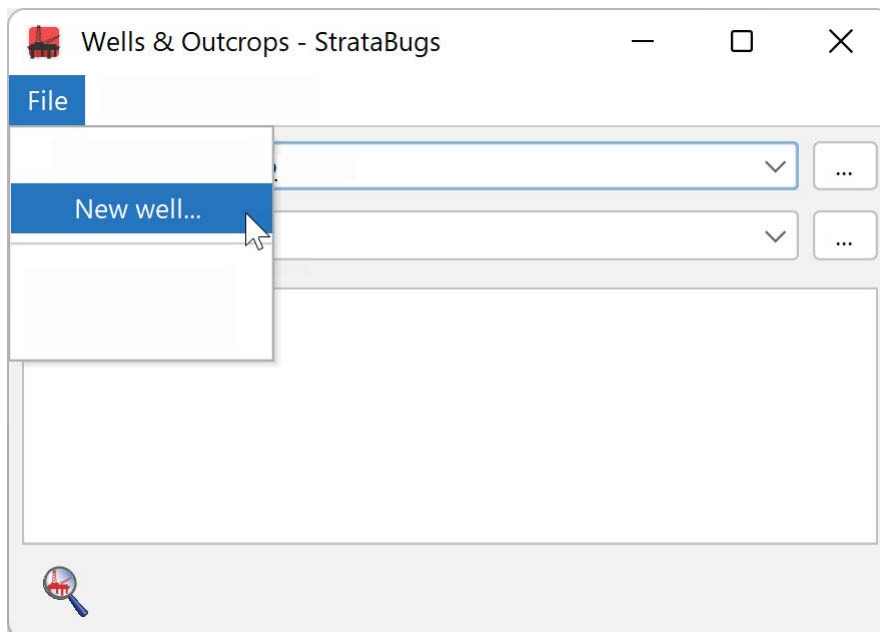
## How to add a well or outcrop section

### Step by step:

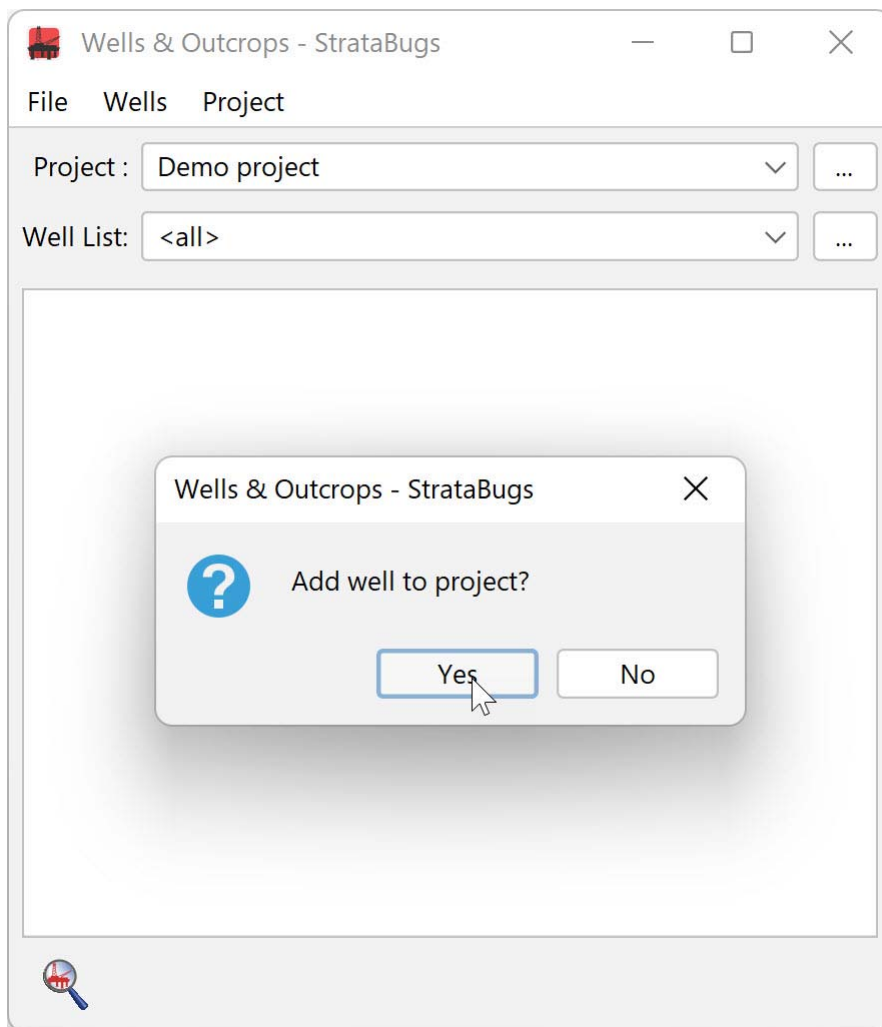
1. Open the Wells & Outcrops module.
2. (Optional) Select a project and well list - the new well will be added to these. Alternatively you can add the well to a project later (see below).



3. Choose **File > New well...** to open the [Wells: Add dialog](#) and complete (at least) the mandatory header information.



4. Confirm the addition of the well to the project.



**Note:** The terminology used in StrataBugs is principally directed at users dealing with well samples. However, you can use it just as easily for [outcrop sections](#): just select the type of section as *Outcrop* instead of *Well*.

### Add an existing well to a project / well list

1. Select the project from the drop-down list at the top (or add a new project as above).
2. Select a well list. If you don't select a well list, the default well list will be used (usually this has the same name as the project).
3. Select the well (or wells) using the search button or menu item, or by double-clicking in an empty part of the list.
4. Confirm addition to the project.

## Well: Add/Edit dialog

Use this dialog to enter the well header information. Mandatory fields are shown in red. All other fields are optional.

### Details Tab

Well : Edit : EXAMPLE-1

Details

Name: EXAMPLE-1

Alternate:

Code: EXAMPLE-1 Make code

Operator: UK OIL

Client:

OCS Number:

Spud:

Completion:

Type:  Well  Outcrop

Colour: ■ ...

Comments:

One of two example wells.

Created:  Last modified: SYS on 18-Oct-2010

OK Help Cancel

The **Name** and **Code** fields are mandatory. The well name can contain upper and lower case characters, special characters, and numbers. The well code field can contain an identical entry, or a code from a company or country coding scheme e.g. API number. The well code must be unique within the database whereas the well name may be duplicated. The **Alternate** well name can be used in chart headers, and will be used for well searches.

The **Make code** button will create a suitable well code from the well name entered. If you have a **Select** button next to the Make code button, you may select a well from the corporate master database, which will obviate the need to enter some or all of the rest of the well header fields. See the [Well Master select](#) dialog for more information.

The **OCS** number is the Offshore Continental Shelf number for wells drilled in the USA.

The type of section may be **Well** or **Outcrop**. For outcrops, 'depth' values are displayed as positive elevations (although internally all values are stored as depths). [More about working with outcrops...](#)

The **spud** and **completion** fields are for dates, which should be entered in the format shown in the image above, i.e. DD-Mon-YYYY. *Note that the month abbreviation is affected by your computer's language settings. StrataBugs will first attempt to parse the month in the local language, and if that fails it will attempt using English.*

The **colour** is used in some chart elements to identify this well.

## Location Tab

Well : Edit : EXAMPLE-1

Location

Country: NORWAY

County:

State:

Field:

Basin:

Area:

Geographical coordinates

Degrees, minutes and seconds

Latitude: 63 d 4 m 45.098 s North

Longitude: 5 d 13 m 43.201 s East

Decimal degrees

Latitude: 63.079194

Longitude: 5.228667

Geodetic datum:

Grid X: UTM Zone:

Grid Y:

OK Help Cancel

You must enter a **Country**. You can press the ellipsis next to the field to select from a list of all the countries that have been used in wells in your database. Remember that you can search for wells by country, so it is helpful to make sure that the spelling of country names is consistent.

**Geographical coordinates** (latitude and longitude) may be entered either as degrees/minutes/seconds or decimal degrees. You must enter coordinates to plot wells on a map. The **Geodetic datum** may be used in future to translate between coordinate reference systems. The commonly used WGS 84 datum is assumed by default; other common systems are NAD 83 and ED 50.

**Grid X/Grid Y** values for local coordinate systems can be entered but are not currently used in mapping.

## Depths Tab

Well : Edit : EXAMPLE-1

Depths

Depth Units

Metres

Feet

Depth Datum

Rotary table / kelly bushing

Sea level

Sea bed

Reference Points

Rotary table elevation:

Rig elevation above sea level:

Depth to sea bed (below RT):

Sidetrack kick-off depth:

**Terminal Depth:**

Default chart scale:

OK Help Cancel

Select the appropriate **Depth Units** option (metres or feet).

**Note:** If you edit a well and change the depth units, you may be asked if you want to change the sample depths as well. Since the depths are all stored internally in metres, you will need to choose "Yes" to change the sample depths if you want the same numbers to appear in the alternative units. For example, if the well was originally in metres and you have a sample at 100m, and you change the well units to feet, select "Yes" if you want the sample to become 100', select "No" if you want the sample to remain at 100m, and therefore be displayed as 328'.

It is recommended that you visit the [Understanding depths](#) page before entering well depth data.

Select the **Depth Datum** from which the depths in the well or borehole are measured. The datum is used to align chart blocks.

Optionally you may enter the **Reference Point** of the **Rotary table elevation**, **Rig elevation above sea level** and **Depth to sea bed**.

**Note:** The Rotary table elevation will always be above the Rig elevation. The Rig elevation for offshore wells will always be Sea Level (i.e. zero); for onshore wells it will be above (and rarely below) Sea level. The Depth to sea bed is measured below the Rotary table.



For sidetrack wells enter the **Sidetrack kick off depth**.

You must enter a **Terminal depth**. If you don't know this value enter a large number which is likely to exceed the deepest sample (e.g. 9999.0m). For outcrop sections, **Top of Section** is a mandatory field, but terminal depth is not. You cannot add samples deeper than the terminal depth.

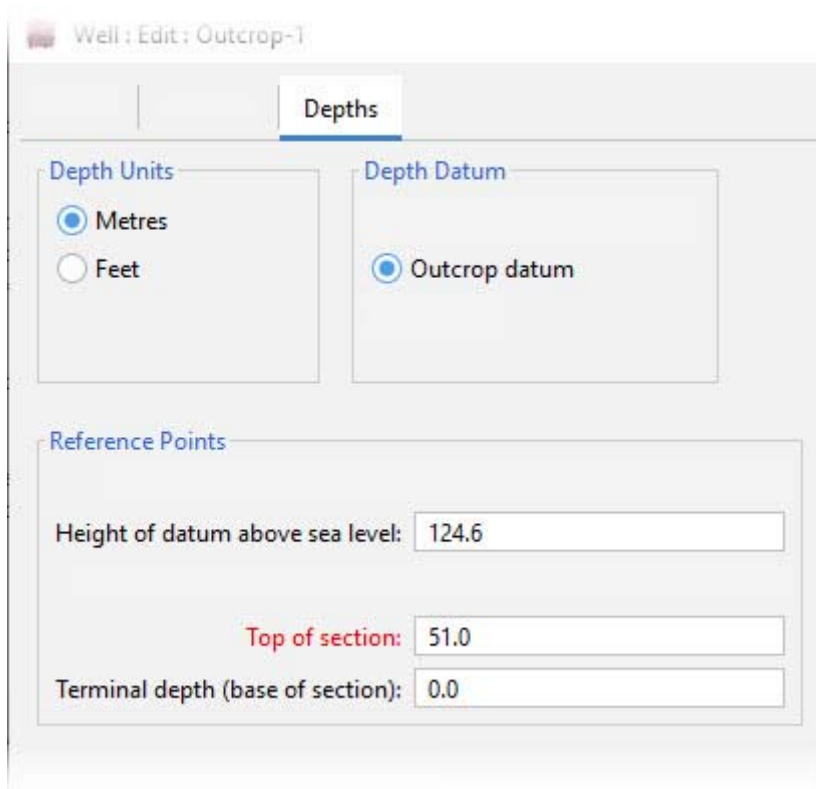
*Page last updated: 11-Oct-2022 12:45*

## Working with outcrops

You can enter and display data from outcrops just as easily as well data.

There are three main steps:

1. When you add a new 'well', set its **type** as outcrop on the **Details tab** of the [Well: Add/Edit dialog](#). On the **Depths tab** relate the datum of the section to sea level.



Well: Edit: Outcrop-1

**Depths**

**Depth Units**

Metres  
 Feet

**Depth Datum**

Outcrop datum

**Reference Points**

Height of datum above sea level: 124.6

**Top of section:** 51.0

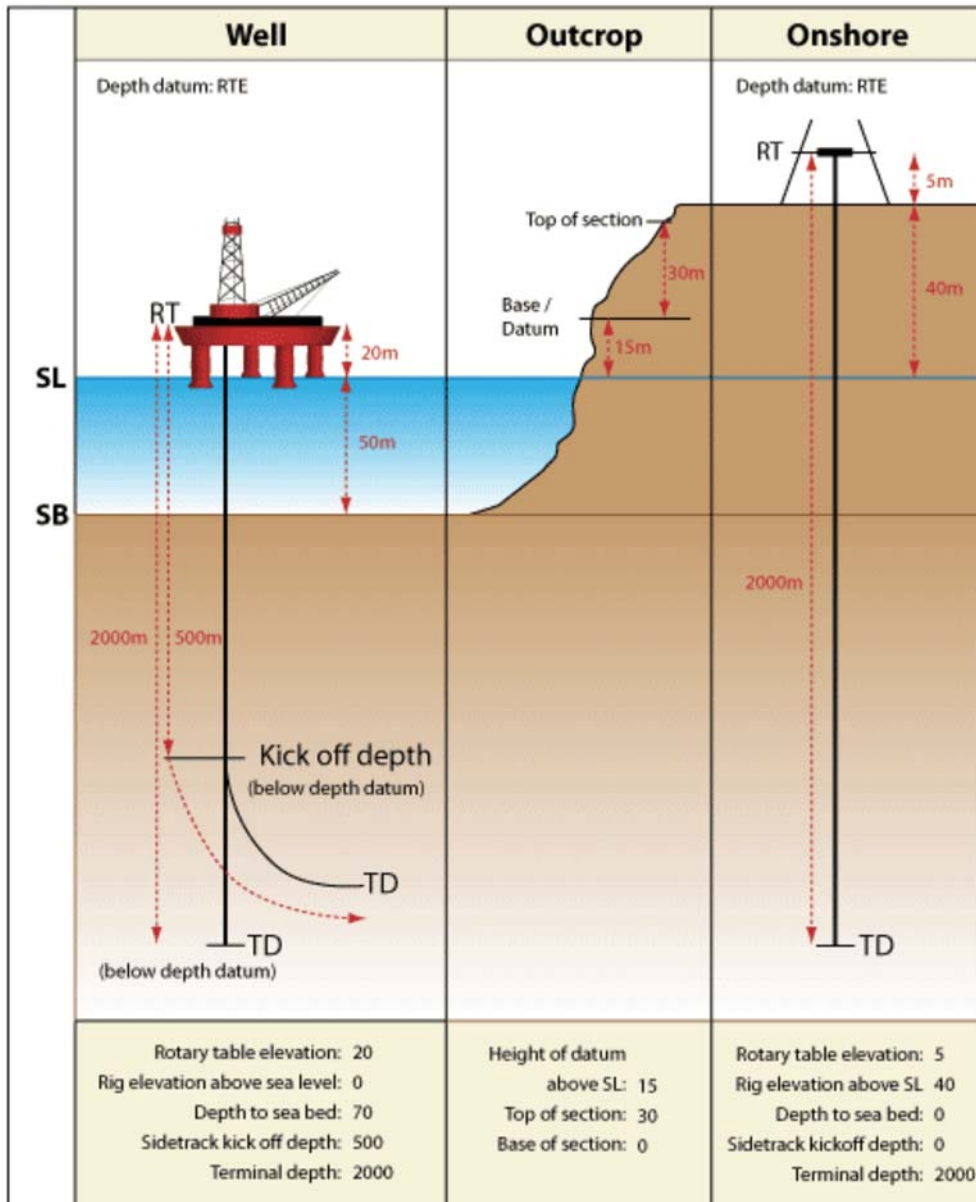
Terminal depth (base of section): 0.0

2. Enter all the samples with the type 'outcrop' in the Samples module. Record sample elevations (rather than depths), as positive numbers. Use a negative number for samples below the datum if required. You could use false numbers to order the samples correctly. You can enter a sample label (e.g. the sample collection number or location) as well if you wish and display this on a chart instead of or as well as the sample elevation.
3. For charts, enter the top and base depths of the section as positive numbers.

## Understanding depths

The diagram below defines the different depths you can store in StrataBugs.

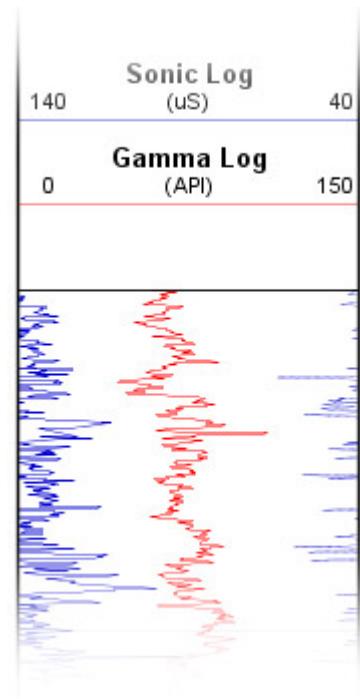
Note that Rotary Table Elevation is the most common, but not the only option for the depth datum.



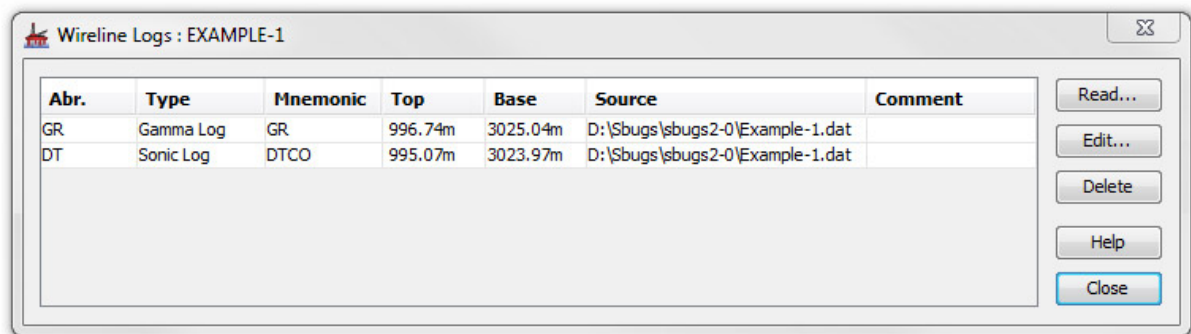
## How to set up wireline logs

A 'wireline log' is a list of depth/value pairs which are plotted as a curve on charts. Usually these data are generated using the drilling tools and provided as .LAS or .TXT files. You could also use the wireline log features to store and display any other depth/value curves, e.g. geochemical data such as isotope ratios.

You can store wireline log data from files within your StrataBugs database. Files of type .LAS, .TXT and .CSV can be imported. Wireline logs are used in chart displays which are documented elsewhere.



1. First open the well in the **Wells & Outcrops module**. Press **Wirelines...** to open the **Wireline Logs dialog**:

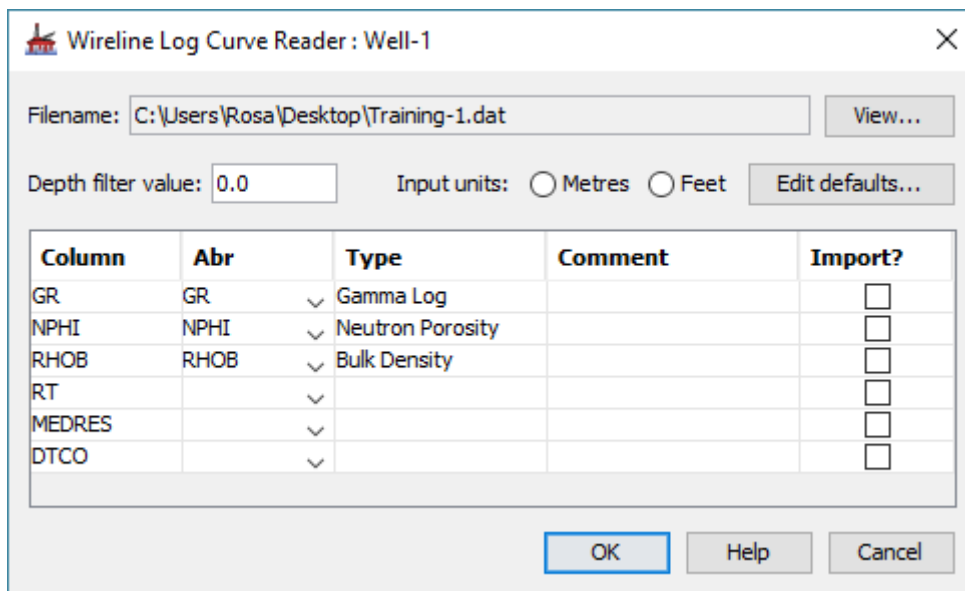


There is no limit to the number of logs you can store. You may have several logs of one type. Usually these are plotted together on charts, so it is not recommended that logs of the same type have overlapping depth ranges.

To view a table of the values in a stored log, and the log's comment, press **Edit**. The dialog also allows you to delete rows from the log trace, and edit the comment.

Press **Read...** to open a standard file selector and open your log file.

2. Your file will appear in the **Wireline Log Curve Reader dialog**.



The filename and path will be displayed in the **Filename** field. You can view the layout of the file in a file viewer by pressing the **View...** button to the right of this field.

The **Column** field contains a drop-down list of log curves in the selected file. Select one of the curves and the default log **Type** will appear as an abbreviation and as a full title.

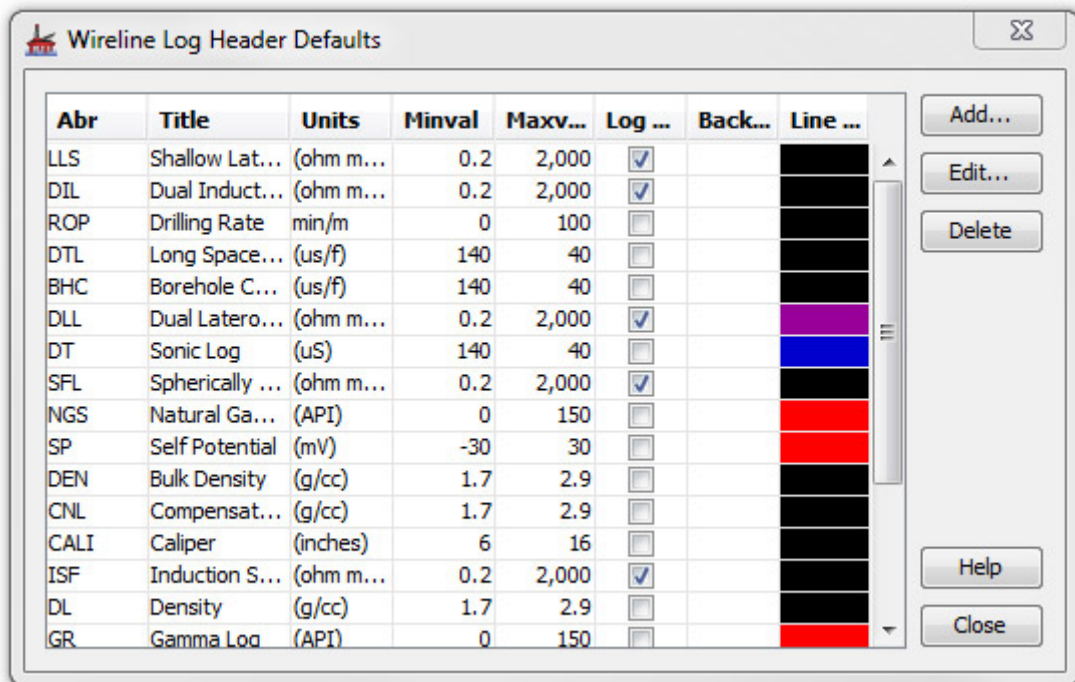
Entering a **depth filter value** will speed up the importing process by reducing the number of data points read, and keep the amount of data stored to a sensible level. The reader will read only one value per depth interval set in this box. For example, if you enter a value of 1.0, the reader will record a maximum of one value per metre or foot (depending on the units you select).

***Note:** null values (recorded in files with a value of -999 or -999.25) are skipped by the reader.*

You must select **depth units** for input.

Press **OK** to select this curve for importing into your database. Repeat this process for all the curves you want to associate with the selected well. These may be curves from a single file or from different files.

3. To edit the default attributes of any curve type press the **Edit defaults** button. This will open the **Wireline Log Header Defaults dialog**. You can also open this dialog from the StrataBugs Control Panel by pressing **Tools | Wireline Log Header Details...**



To edit any of the text associated with any particular log curve double click on the appropriate row (or press **Edit**) to open the [Edit Log Header dialog](#). You may also **Add** new headers.

## Wireline Logs Panel

The wireline logs panel type can be used in well blocks.

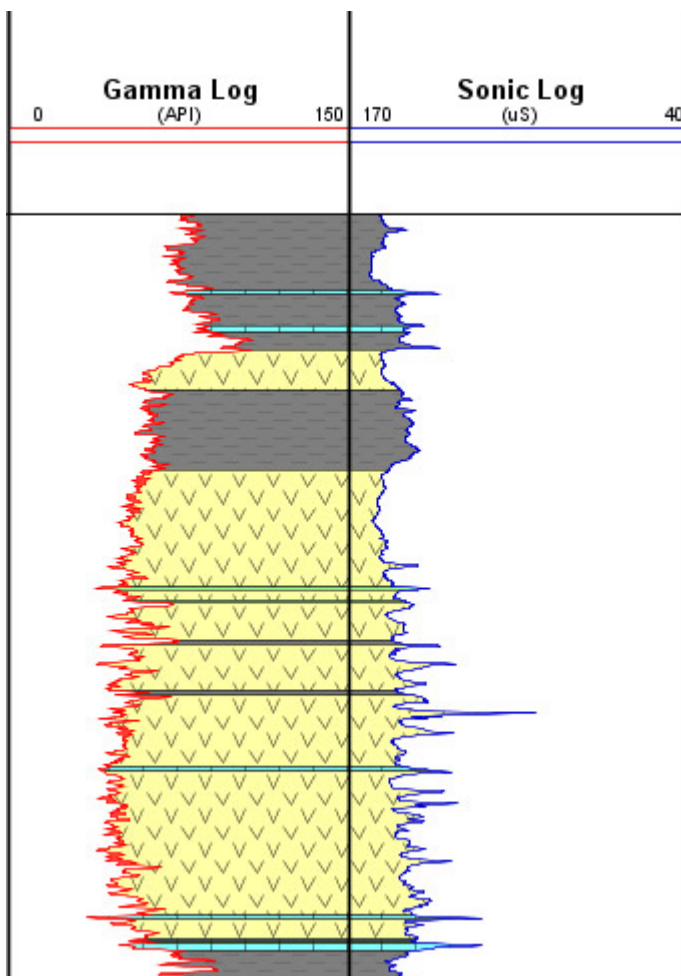
Wireline Logs (default)	
Panel width	40
Depth guides	<input checked="" type="checkbox"/>
Depth guide interval	100
Vertical grid	<input type="checkbox"/>
Vertical shift	0.0
Mirror traces	<input type="checkbox"/>
Tadpole azimuth trace(s)	
Hide headers for missing traces	<input type="checkbox"/>
Background Fill	
Lithology	<input type="checkbox"/>
Spectral fill trace	
Plot traces	
Traces	<all available> ...

**Depth guides** are horizontal lines drawn at regular depths; the value entered will be taken in the block's units, which might change with context. This is also true for the **depth shift** which adjusts the depth values of trace data points.

You may set a **Vertical grid** which is based on one of the traces you are displaying. This is of particular use if you are displaying both logarithmic and linear traces. If this option is checked, a row appears below in which you can type a value for the desired trace.

Your panel template can either choose to plot all log traces which are available, or you can specify specific traces to plot (click the button in the **traces** row to choose from available log types - select none of them to plot "all available").

All traces are plotted using the default log header settings for the trace type, unless you specify custom settings for a particular trace (as in the above example - not that you can't do this with the "all available" option). You can edit the defaults from the **Control Panel Config Menu**.



Check the **Lithology** checkbox to plot the well's interval lithology as a background to the wireline logs panel.

This image shows two separate log panels, each displaying one log. The gamma log's trace style is 'fill left', with a white fill colour and red line. The sonic log's trace style is 'fill right', again with a white fill and a blue line. Both panels show the background lithology. You could also do this within one panel - though you might wish to adjust the scales of the individual traces.

***Hint:** you can edit the interval lithology in the **Wells & Outcrops** module, or using the interpreted lithology panel in conjunction with the **lithology palette**.*