

KellyDown Tips

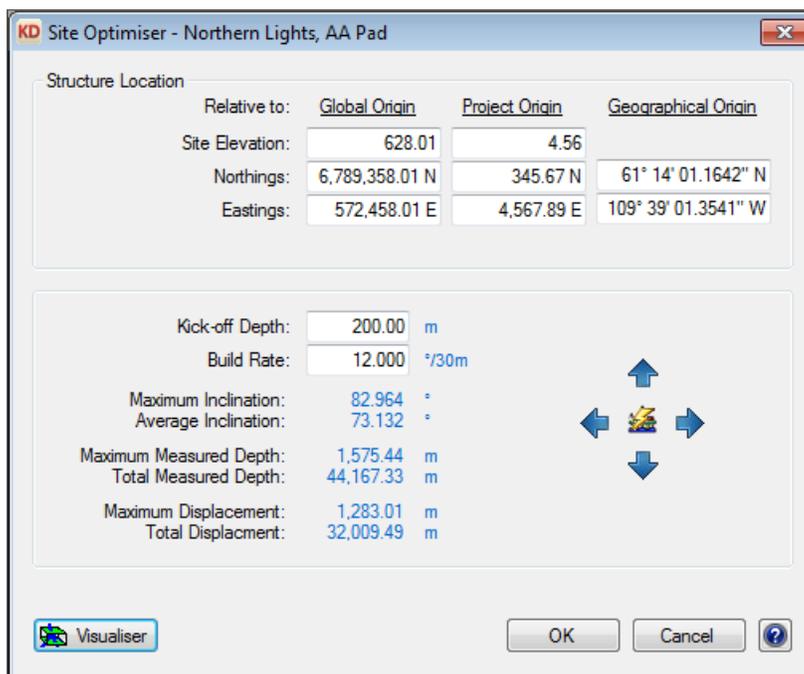
Periodic tips to help you use KellyDown more effectively

Using the KellyDown Site Optimiser

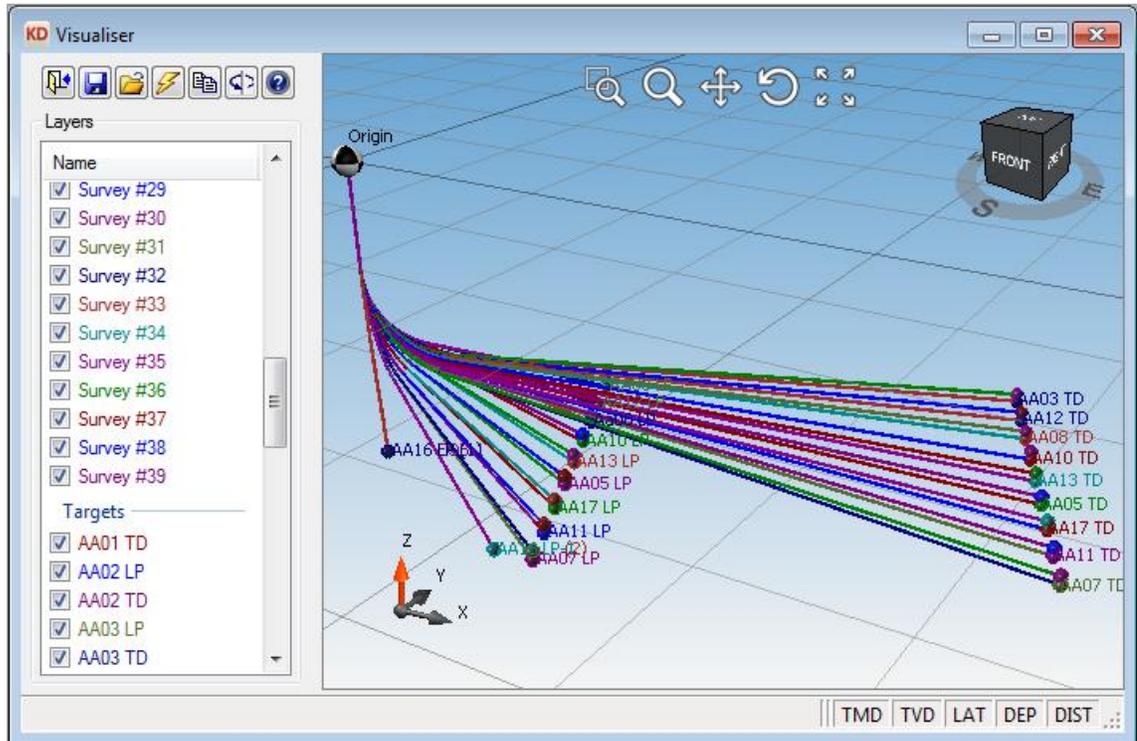
Question – How does the site optimiser work? When I hit help in the dialogue nothing happens

Answer – The KellyDown Site Optimiser was recently incorporated into KellyDown. It is used to find the optimum location for a structure given a collection of targets, i.e. the location where all targets may be reached with a minimum total measured depth. Here are brief instructions on how to use it.

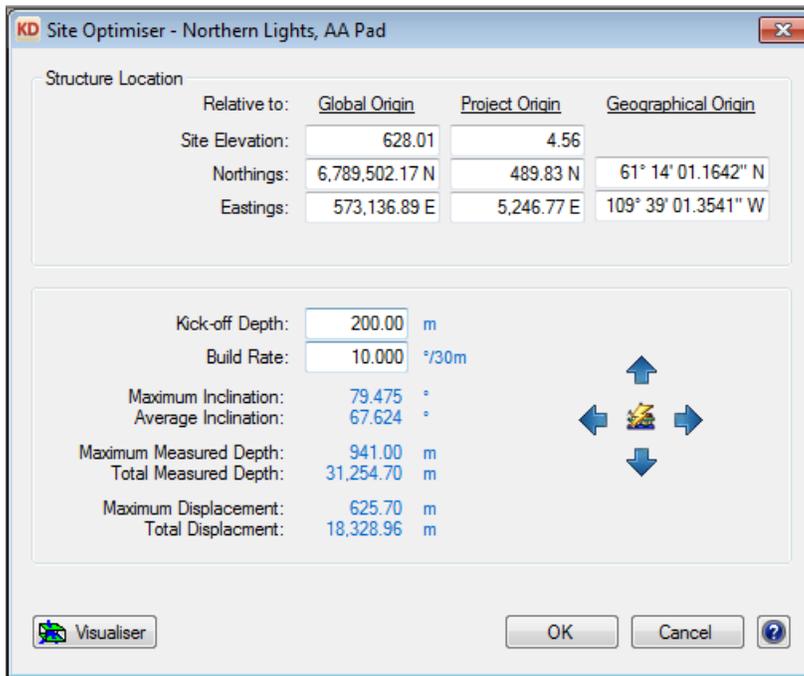
1. You must first create all targets that are to be accessed by wells on the current structure. To begin, these targets may be simple point targets; all that is required is the position of the targets. It is also only necessary to create the initial targets for each well. For example, if each well is to have a landing point and total depth target, it is only necessary to create the landing point targets. All the targets that are to be included in the optimisation must be associated with the current structure.
2. Once all the targets have been created and associated with the current structure, select the **Tools, Site Optimiser** menu. For this example we will use the targets associated with **AA Pad** in the **Northern Lights** project in the example database that is installed with KellyDown.
3. When the Site Optimiser is first loaded, it shows the parameters required to penetrate all the targets associated with **AA Pad** at its current location. Of course the example consists of many targets that are located at the landing point and total depth of each of the existing wells.



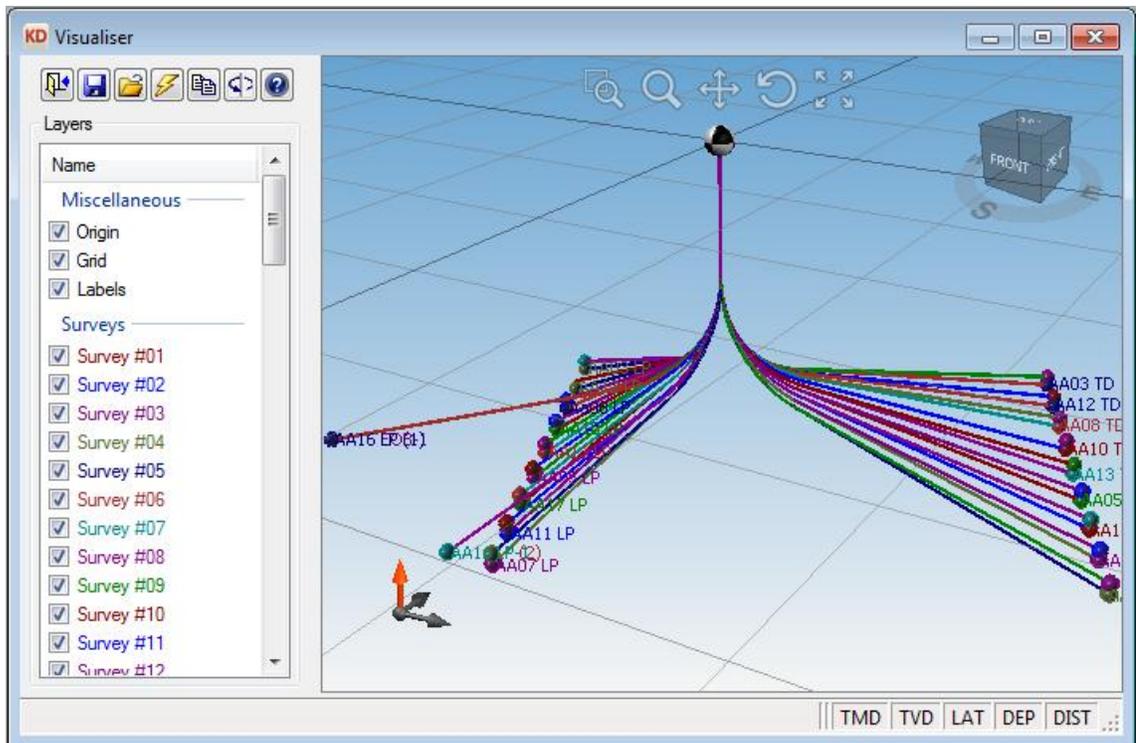
4. As you can see, the total measured depth required to hit each of the targets is 44,167.33 metres and the total displacement is 32,009.49 metres. The structure is currently located off to the west of the targets. Click on the **Visualiser** button to see a 3D view of the project.
5. By default, the kick-off depth may be too deep and the dogleg rate too small to reach the targets and the Visualiser will show garbage results, in which case you will have to reduce the kick-off depth and increase the dogleg rate until all the targets can be reached with realistic results.



6. Click on the **Optimum Location** button to move the structure to the location where the total measured depth required to reach all of the targets is the least.

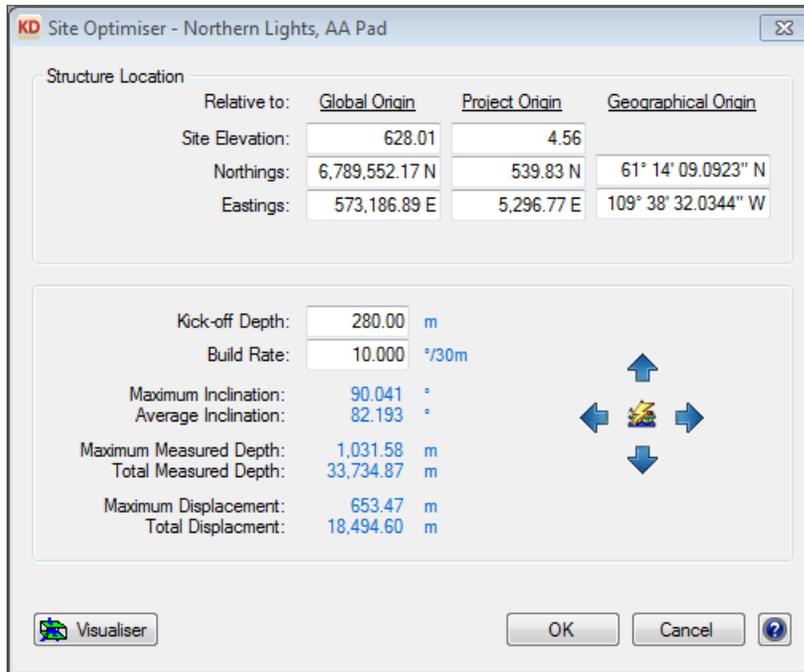


- You can see that the total measured depth required to penetrate the targets has been reduced from 44,167.33 metres to 31,328.96 metres.

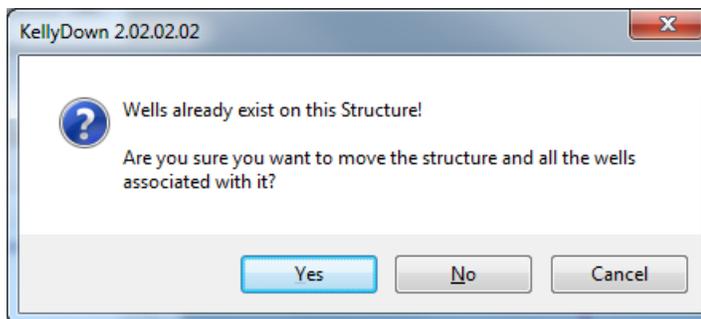


- If you want, you can adjust the location to the north, east, south or west by clicking on one of the buttons around the **Optimum Location** button. Each click of the button will move the structure by 25 metres (or 100 feet). Hold the **Ctrl** key down and click on a button to move the structure by ten times that amount, i.e. 250 metres or 1000 feet.
- If you prefer, you can enter the preferred location of the structure directly in either map coordinates, geographic coordinates or as offsets from the project origin.

10. If the wells are to be horizontal, adjust the kick-off depth and/or dogleg rate to adjust the inclinations appropriately.



11. Click on the **OK** button to save the new structure location or **Cancel** to leave the structure where it was. If you click on the **OK** button when wells already exist on the structure, you will be prompted for further confirmation.



12. If you click **Yes**, the existing wells will be moved with the structure.

If you have a question you would like answered in KellyDown Tips, reply to this email with your question.
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