

This case study will describe the process in comparing the differences between AS-BUILT and AS-DEFINED location data of Export pipeline Crossing Supports and Protection Mattresses. This workflow will demonstrate on how to use the available SD2 PODS GIS tools to view and extract data for assessment and help make informed decisions about future pipelay work in the area.

A summary outline of the steps is shown below:

1. **Moving to the Crossing-Supports**
2. **Setting up User Bookmarks**
3. **Altering Layer Visibility**
4. **Measuring Offsets**
5. **Accessing PODS AS-BUILT and DESIGN Asset data**
6. **Results Window**
7. **Exporting PODS Data to Excel**

### 1. **Moving to the Crossing-Supports**

On opening the SD2 PODS GIS an overview of the Shah Deniz 2 (SD2) pipeline system is displayed. The first task is to zoom into the Export Crossings which are found at the coordinate (409,125 Easting, 4,438,540 Northing), and indicated by the red arrow in Figure 1 below.



Fig 1. Project Overview

There are numerous ways of navigating around the SD2 PODS GIS map data, two of which are outlined below.

### Zoom using the mouse

One of the simplest ways is by using the mouse.



1. First move the cursor to be near the export crossing area on the project map.
2. Hold the shift key  and the left mouse button .
3. Whilst still holding the shift button and the left mouse button. Drag the cursor over the Export crossing area. A red polygon will be drawn outlining the zoom extent.
4. Once the polygon covers the area which needs to be zoomed into, release both the shift and mouse button. The defined area will be zoomed into.



Fig 2. Zooming in

5. Performing steps 1-4 repeatedly will quickly pan and zoom the map to the Export Crossings area.

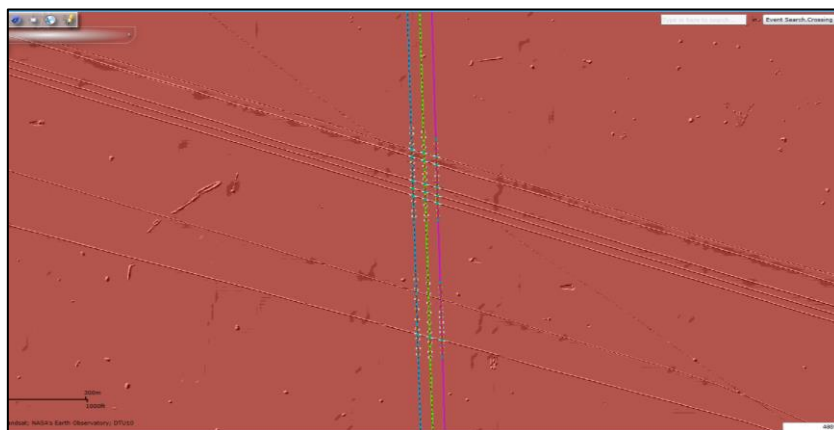


Fig 3. Export Crossings

## Zoom to Coordinates

Alternatively, if the coordinates of the area are known, the Zoom to Coordinates tool can be used.

1. Click on the Zoom to Coordinates button on the toolbar. This will open the zoom to Coordinates window.
2. Make sure 'Pulkovo 1942 / Gauss-Kruger 9N' is selected as the coordinate type.
3. Enter Easting '409125' and Northing '4438540'.
4. Click 'Zoom to Coordinates'. The map will pan and zoom to the Export Crossing Area.

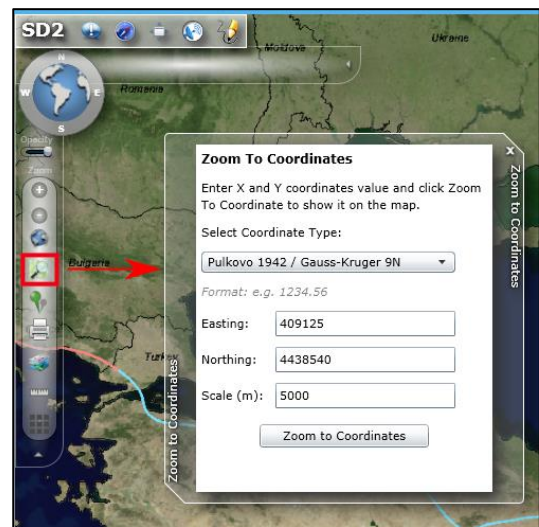


Fig 4. Zoom to Coordinates

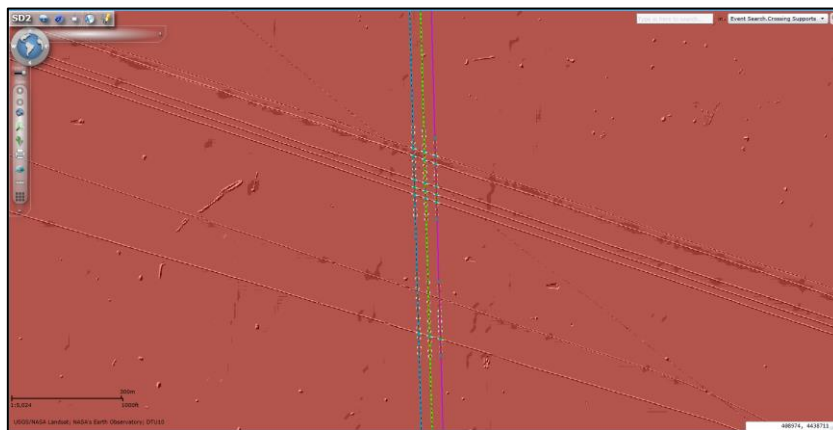



Fig 5. Export Crossings

## 2. Setting up User Bookmarks

Bookmarks allow users to quickly return to frequently visited areas of the map. It may be useful to bookmark this location for quick access in future. The following steps explain how to do this.

1. Ensure the map is zoomed to location of interest
2. Click the left toolbar **Bookmark button**  to view the bookmarks window. The Global tab for pre-defined bookmarks is shown by default.

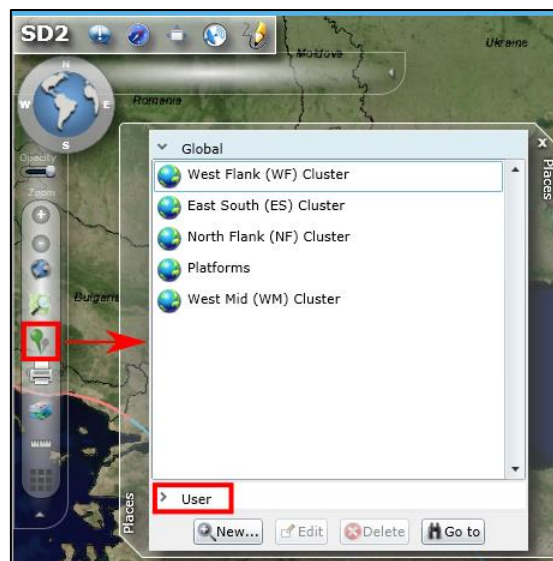


Fig 6. Bookmark Window

3. Click on the 'User' tab at the bottom of the window to define a new user bookmark

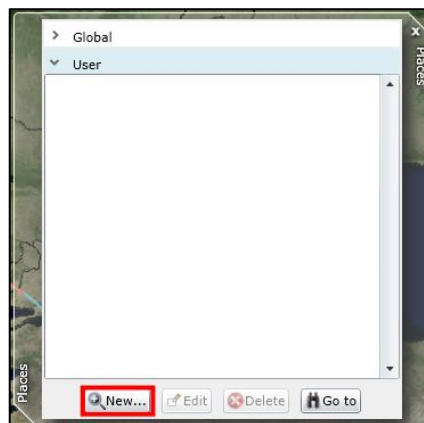



Fig 7. User Bookmarks

4. Click the 'New...' button  at the bottom of the Bookmark window to enter the name of the new bookmark.

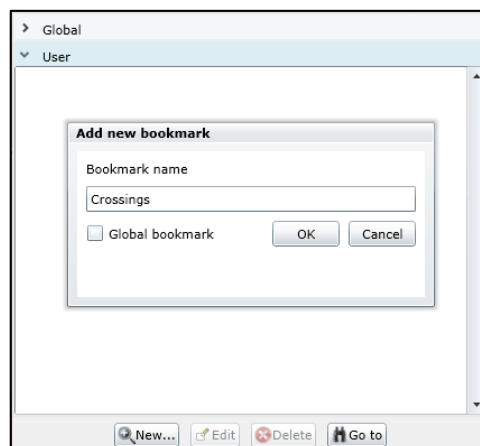


Fig 8. Creating new bookmark

- Click 'OK' button to save the bookmark. This bookmark will now appear in the list of User Bookmarks.

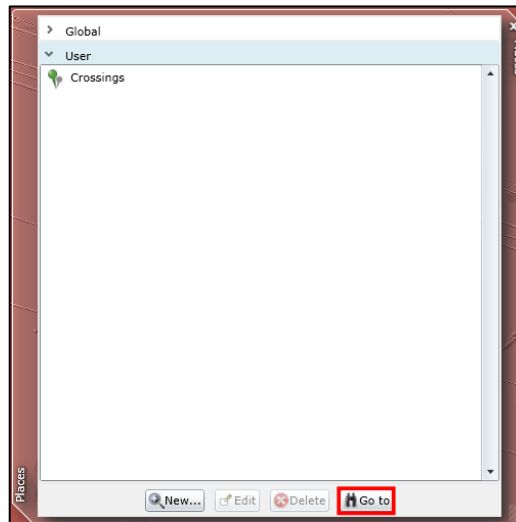




Fig 9. New Bookmark

- Test the saved bookmark by either double clicking the bookmark name or selecting it and clicking the 'Go to'  button. The map should zoom to the area defined by the bookmark.
- Close the bookmark window by clicking the cross at the top right of the window.

### 3. Altering Layer Visibility

By default the AS-BUILT positions are displayed on top of the DESIGN locations and thus can make it hard to compare. But there are several ways to make a visual comparison easier.

#### Adjusting the AS-BUILT layer transparency

- Open the layer viewer by clicking the left hand toolbar 'Display Map Layers' button  to open the Layers window.

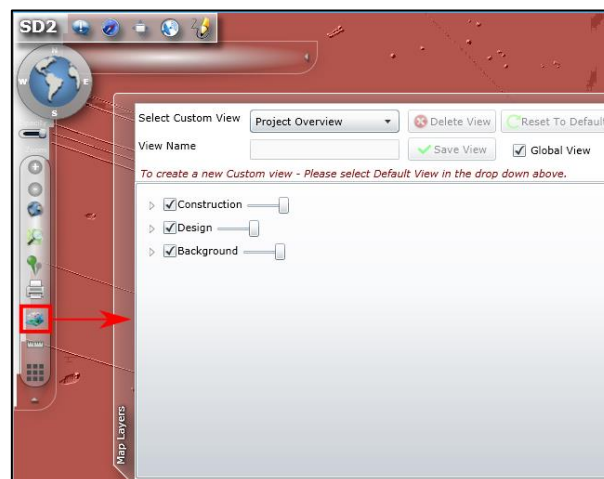


Fig 10. Layers window

A transparency “slider” tool is available against each of the top level branch names (Construction, Design and Background). This alters the transparency ratio for the selected top level branch and all sub level layers.

- Click on the Slider next to the **Construction** header and move it to the left to increase the transparency of the AS-BUILT layers.

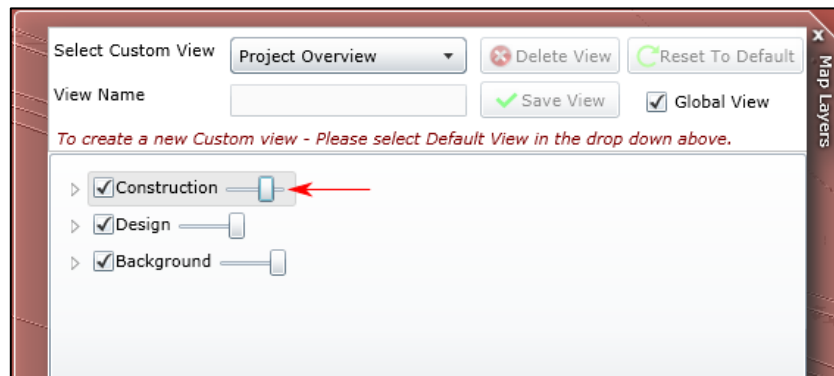


Fig 11. Setting Layer Transparency

This will allow the DESIGN positions of the Crossing Supports to be compared with the slightly transparent AS-BUILT positions above them.

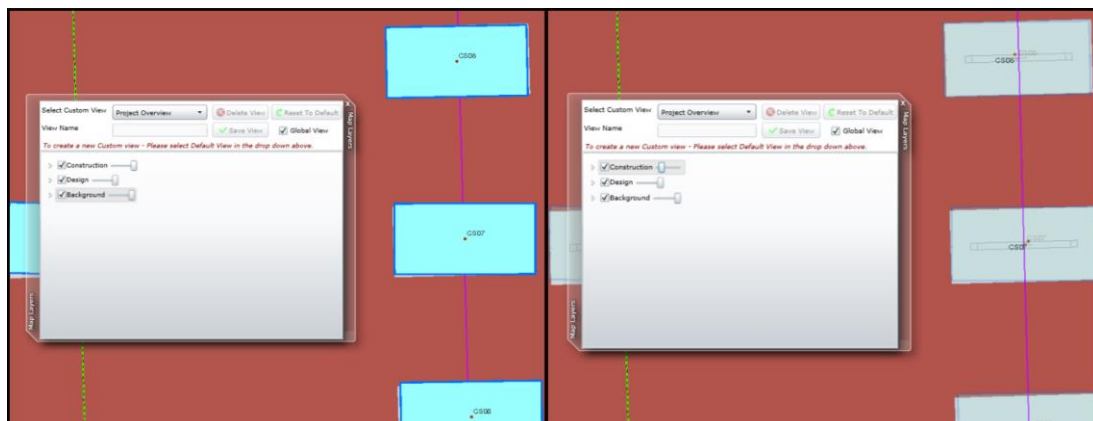



Fig 12. Transparency Comparison

### Changing the layers being displayed

By default the detailed view for AS-BUILT structures is displayed. Users can alter this so only a hollow outline of the AS-BUILT structure is shown, enabling easy comparison between the two. To do this the **Construction – Subsea Structures - Structure Outlines** layer must be turned off.

- Open the layer viewer by clicking the left hand toolbar ‘**Display Map Layers**’ button  to open the Layers window.

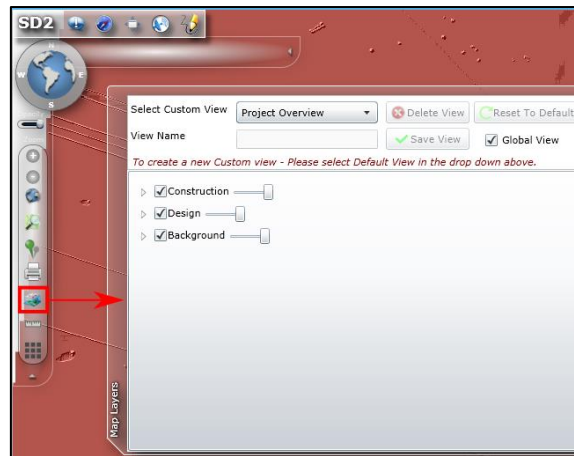



Fig 13. Layers window

- The AS-BUILT outlines are held within the Construction layers. The Construction layers menu can be expanded by clicking the small arrow  to the left of 'Construction'.

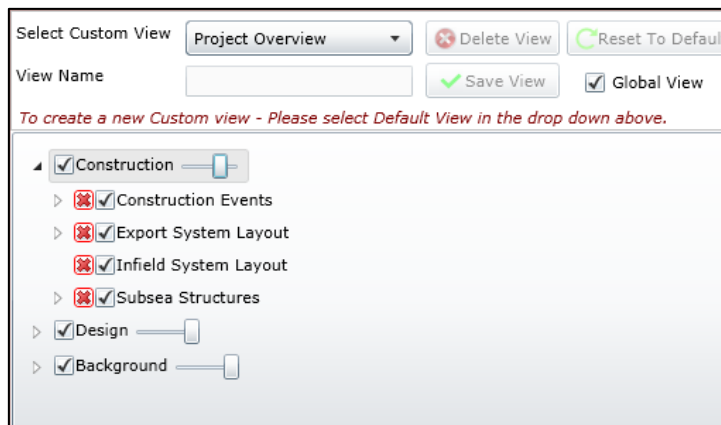


Fig 14. Construction Expanded

- Expand the 'Subsea Structures' menu in the same way as outlined in Step 2.

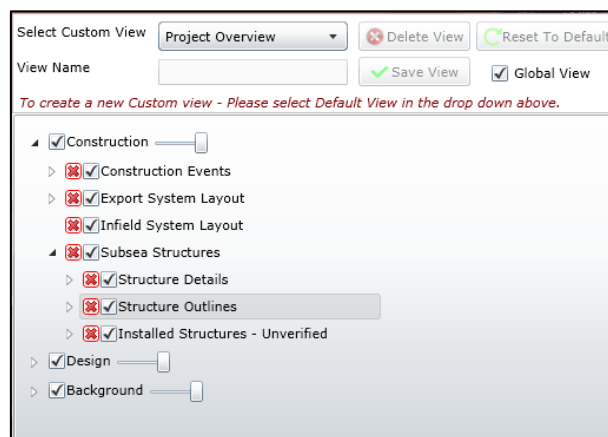


Fig 15. Subsea Structure Expanded

4. Deselect the check box  to the right of the **'Structures Outlines'** by clicking on it. This will leave a hollow outline for each AS-BUILT structure to be compared to the design position beneath.

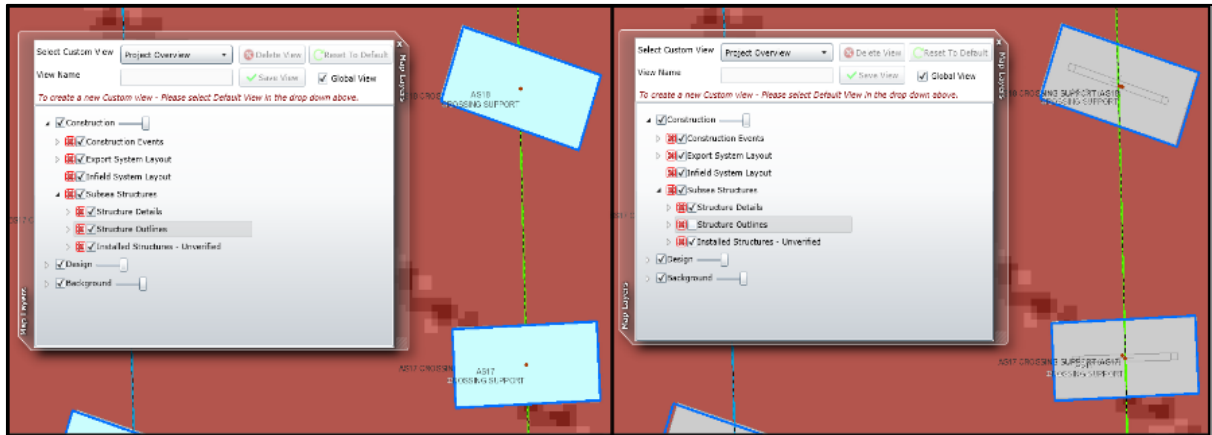


Fig 16. Comparing AS-BUILT to DESIGN

#### 4. Measuring Offsets

The difference between AS-DESIGNED and AS-BUILT Crossing Support and Mattress locations can be quantified through the system **Measure Tools**.

1. Click on the Left hand toolbar **'Display Measure Tools'**  button to view the Measure Tool window

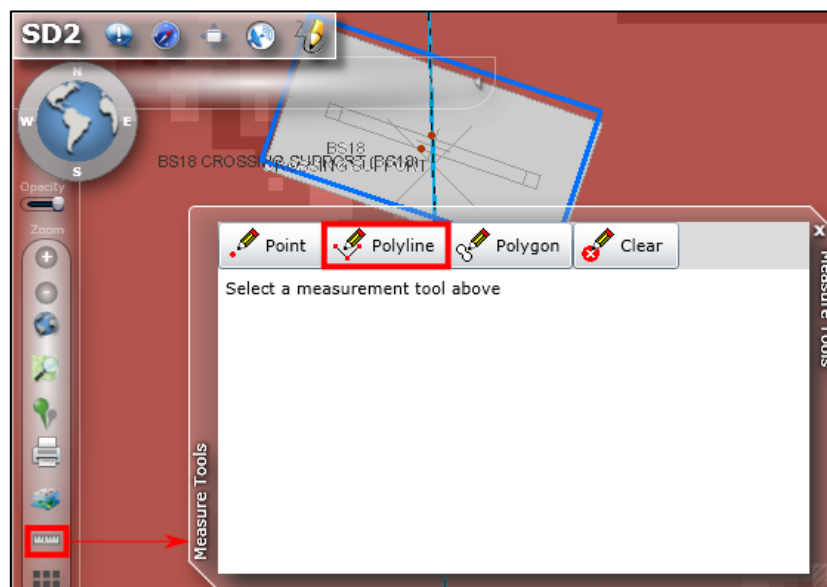


Fig 17. Polyline Tool

2. Select the **'Polyline Tool'** from this window by clicking on the 'Polyline' button. This will allow the measurement of linear distances.
3. Select the AS-DESIGNED crossing support centre point as the starting point on the map for the measure to use.



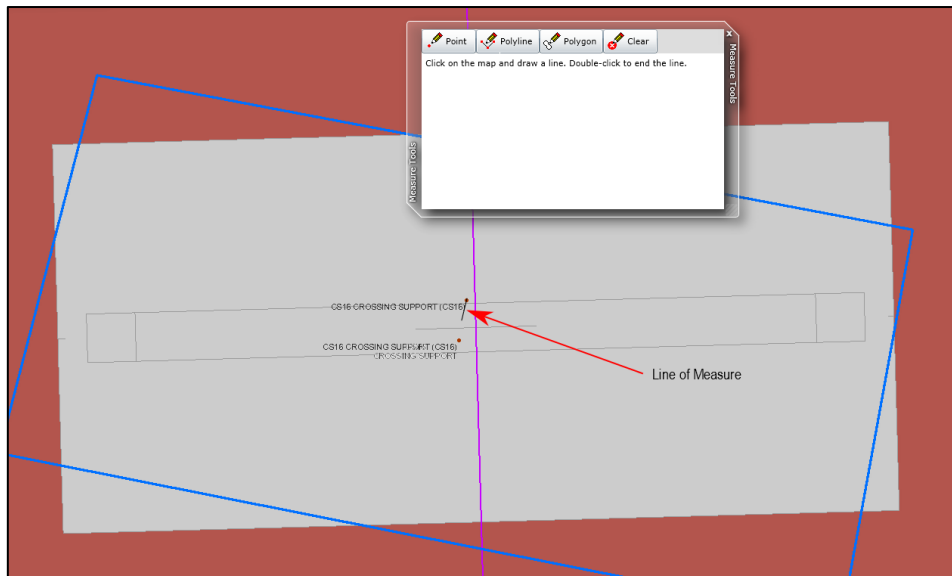


Fig 18. Measuring

Select other coordinates to define a measure path if necessary.

4. Complete the measure path by double clicking on the final coordinate which should be the centre point of the AS-BUILT crossing support location.

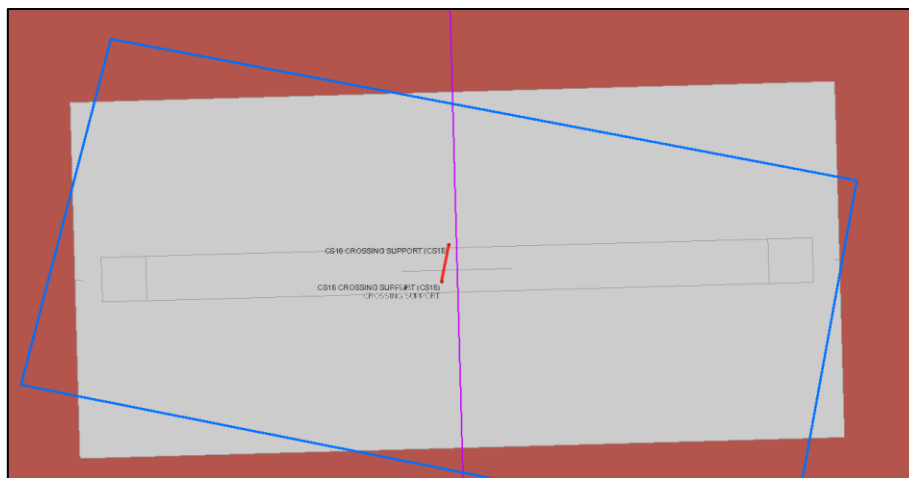


Fig 19. Complete Measuring

When the end point is placed the black line will change to a red one, as shown in Fig 19 above.

5. The measurement results are shown in the Measure window where the units can be changed from the default KM to alternative units. This will be dependent on the given length value.

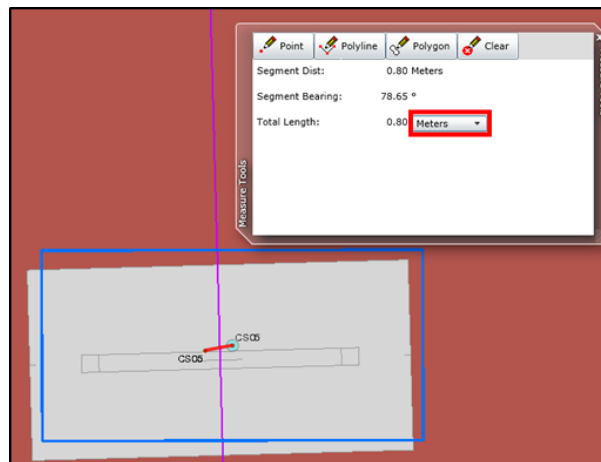


Fig 20. Measure Value

- Once the measurements have been taken click the **'Clear'** button to remove them from the map.

### 5. Accessing PODS AS-BUILT and DESIGN Asset data

The SD2 PODS GIS can be queried to provide key asset information at different phases of a project by using the search tool.

In the case of crossing supports it is possible to assess the significance of the deviation of heading values between AS-DESIGNED and AS-BUILT locations. This information coupled with other data including survey and geotechnical will help form a decision on what action may need to be taken.

#### Map Search

There are different options for searching and these are available through the dropdown list at the top right of screen. The spatial search option which will be used will retrieve results for assets and/or events which occur within a user-selected area.

- Click on the right dropdown search menu .

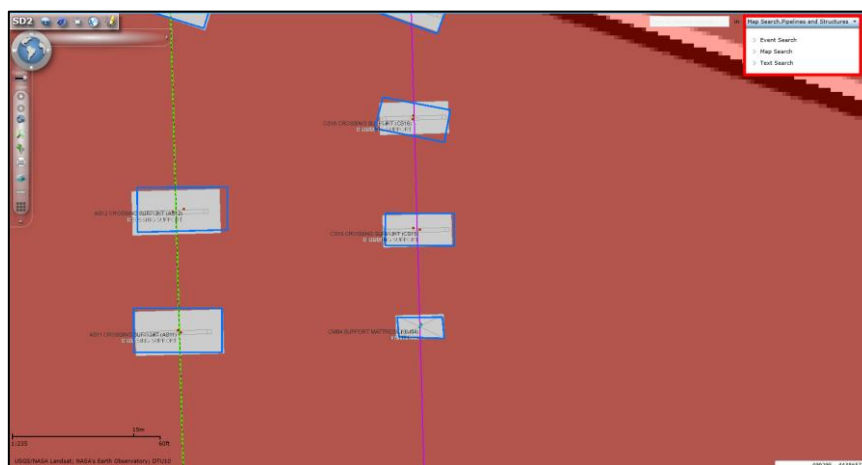



Fig 21. Map Search

- Expand the **Map Search** menu by clicking the small arrow  to the left of 'Map Search'.

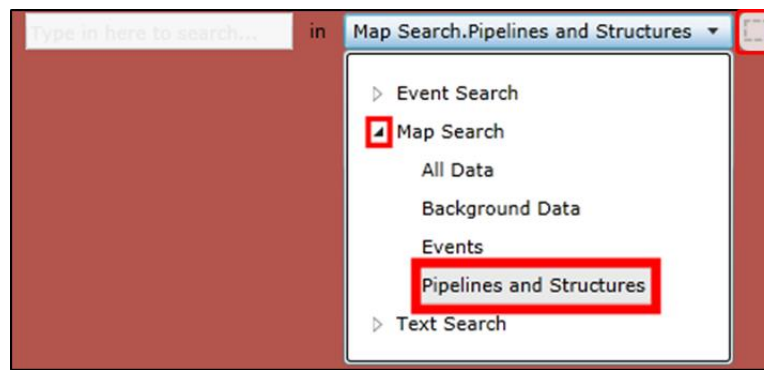



Fig 22. Map Search – Pipelines and Structures

**Map Search**, like the other searches, is split up into multiple smaller searches which return different results. This allows searches to be tailored to particular uses and needs.

3. Crossing Supports are a type of structure, so the '**Pipelines and Structures**' search should be used. Select this now by clicking on it. This will cause the small magnifying box to the right of the menu to change to a dashed rectangle instead.
4. Click on the **Dashed Rectangle** button . This will allow the area of interest to be defined by drawing a rectangle onto the map.
5. After clicking on the Dashed Rectangle box, left-click and hold whilst dragging on the map. A rectangle will be drawn on the map.
6. When the Area of Interest has been covered released the mouse button. The SD2 PODS GIS will then retrieve the results from the PODS database and present it in the results window at the bottom of the screen.

### Text Search

The Text Search is better suited for returning results on a selection of assets which are spread out over a large area or intermingled with assets which aren't of interest. It works by using a text based wildcard search, similar to googling. The search can be on any of an asset's attributes; such as its tag number, asset name, project area or description.

1. First expand the top-right dropdown menu by clicking on it.

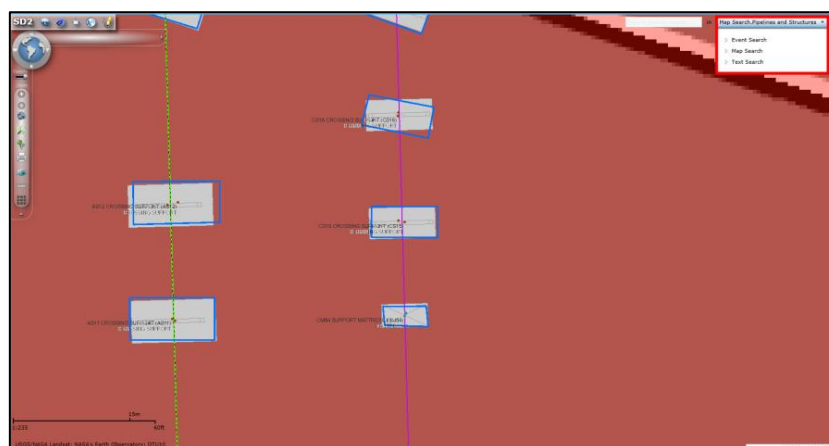



Fig 23. Text Search

- Expand the **Text Search** menu by clicking the small arrow  to the left of 'Text Search'.

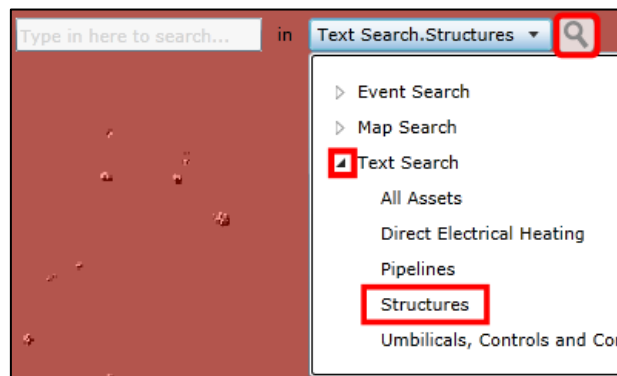


Fig 24. Text Search - Structures

Text Search, like the other searches, is split up into multiple smaller searches which return different results. This allows searches to be tailored to particular uses and needs.

- Crossing Supports are a type of structure, so the '**Structures**' search should be used. Select this now by clicking on it. When selected, '**Structures**' will be highlighted in a light grey.
- Click in the **Search box** to the left of the Search dropdown menu and enter '**CS**'. This will return all the crossing supports located along the 16" Condensate Export line as it is the first two letters of their names and tag numbers.

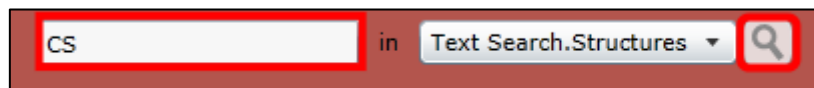



Fig 25. Text Search – Search Value

- Left click the **Magnifier Button**  to the right of the Search drop down menu to perform the search.
- The results of the search will be displayed in the Result window which will appear at the bottom of the screen.

## 6. Results Window

The searches in the SD2 PODS GIS will display query results in the Results Panel at the bottom of the screen. Depending on the search performed a large amount of data can be retrieved. The Results window has several functions which can help organise and display the data which is required.

### Hiding/Showing Columns

By default all the columns which contain data for an Asset will be displayed in the Results window. However, columns can be hidden or displayed depending on particular preferences and needs.

- To Hide/Display a column first right click on the Results window headers bar. This will open a drop down menu.

SHAPE	Phase	Asset Name	Alternative Asset Name	Asset Tag Number	Revision Name	Asset Type	Project Area	Planned Install Date	Actual Install
AS-BUILT	DESIGN	CS25 CROSSING SUPPORT	CP1-18	CS25	CS25_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/19/2015 1	1/19/2015 1
AS-BUILT	DESIGN	CS04 CROSSING SUPPORT	CP1	CS04	CS04_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2/14/2015 1	2/14/2015 1
AS-BUILT	DESIGN	CS31 CROSSING SUPPORT	CP3-3	CS31	CS31_AB	CROSSING SUPPORT	S8 - EXPORT AREA	1/19/2015 1	1/19/2015 1
AS-BUILT	DESIGN	CS31 CROSSING SUPPORT	CP1-22	CS31	CS31_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/31/2015 1	1/31/2015 1
AS-BUILT	DESIGN	CS21 CROSSING SUPPORT	CP1-21	CS21	CS21_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/20/2015 1	1/20/2015 1
AS-BUILT	DESIGN	CS23 CROSSING SUPPORT	CP1-21	CS23	CS23_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/20/2015 1	1/20/2015 1
AS-BUILT	DESIGN	CS06 CROSSING SUPPORT		CS06	CS06_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2/9/2015 12	2/9/2015 12

Fig 26. Hide/Display Columns

2. Mouse-over 'Displayed Columns' from the menu. A new menu will open.

SHAPE	Phase	Asset Name	Alternative Asset Name	Asset Tag Number	Revision Name	Asset Type	Project Area	Planned Install Date	Actual Install Date	Easting	Northing	Height	Heading	Pitch	Roll	Description
AS-BUILT	DESIGN	CS25 CROSSING SUPPORT	CP1-18	CS25	CS25_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/19/2015 12:00:00 AM	409152.23	4438752.19	15.865	89.8	1.5	0.2	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT	
AS-BUILT	DESIGN	CS04 CROSSING SUPPORT	CP1	CS04	CS04_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2/14/2015 12:00:00 AM	409165	4438295	0	105.6			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT	
AS-BUILT	DESIGN	CS31 CROSSING SUPPORT	CP3-3	CS31	CS31_AB	CROSSING SUPPORT	S8 - EXPORT AREA	1/19/2015 12:00:00 AM	409150.35	4438831.99	16.315	89.2	-1.6	1.7	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT	
AS-BUILT	DESIGN	CS31 CROSSING SUPPORT	CP1-22	CS31	CS31_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/31/2015 12:00:00 AM	409153.73	4438703.39	15.88	108.55	0.74	2.26	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT AND 6IN HES PRODBACK	
AS-BUILT	DESIGN	CS21 CROSSING SUPPORT	CP1-21	CS21	CS21_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/20/2015 12:00:00 AM	409153	4438703	0	107.72			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT AND 6IN HES PRODBACK	
AS-BUILT	DESIGN	CS23 CROSSING SUPPORT	CP1-21	CS23	CS23_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/20/2015 12:00:00 AM	409153	4438703	0	107.72			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT AND 6IN HES PRODBACK	
AS-BUILT	DESIGN	CS06 CROSSING SUPPORT		CS06	CS06_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2/9/2015 12:00:00 AM	409164	4438323	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT	

Fig 27. Column list

3. By checking or unchecking the  tick boxes to the right of the listed columns, columns can be hidden or displayed.

**Sorting**

The results can be sorted by a particular attribute.

1. First left-click on the header of the column to be sorted, such as 'Asset Name'.

SHAPE	Phase	Asset Name	Alternative Asset Name	Asset Tag Number	Revision Name	Asset Type	Project Area	Planned Install Date	Actual Install Date	Easting	Northing	Height	Heading	Pitch	Roll	Description
AS-BUILT	DESIGN	CS25 CROSSING SUPPORT	CP1-18	CS25	CS25_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/19/2015 12:00:00 AM	409152.23	4438752.19	15.865	89.8	1.5	0.2	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT	
AS-BUILT	DESIGN	CS04 CROSSING SUPPORT	CP1	CS04	CS04_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2/14/2015 12:00:00 AM	409165	4438295	0	105.6			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT	
AS-BUILT	DESIGN	CS31 CROSSING SUPPORT	CP3-3	CS31	CS31_AB	CROSSING SUPPORT	S8 - EXPORT AREA	1/19/2015 12:00:00 AM	409150.35	4438831.99	16.315	89.2	-1.6	1.7	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT	
AS-BUILT	DESIGN	CS31 CROSSING SUPPORT	CP1-22	CS31	CS31_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/31/2015 12:00:00 AM	409153.73	4438703.39	15.88	108.55	0.74	2.26	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT AND 6IN HES PRODBACK	
AS-BUILT	DESIGN	CS21 CROSSING SUPPORT	CP1-21	CS21	CS21_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/20/2015 12:00:00 AM	409153	4438703	0	107.72			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT AND 6IN HES PRODBACK	
AS-BUILT	DESIGN	CS23 CROSSING SUPPORT	CP1-21	CS23	CS23_C01	CROSSING SUPPORT	S8 - EXPORT AREA	1/20/2015 12:00:00 AM	409153	4438703	0	107.72			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT AND 6IN HES PRODBACK	
AS-BUILT	DESIGN	CS06 CROSSING SUPPORT		CS06	CS06_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2/9/2015 12:00:00 AM	409164	4438323	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT	

Fig 28. Column sorting

2. The first click will sort the records by smallest to largest whilst the second click will sort them largest to smallest. A small arrow will appear in the header (▲/▼) denoting which way the column is being sorted by.

SHAPE	Phase	Asset Name	Alternative Asset Name	Asset Tag Number	Revision Name	Asset Type	Project Area	Planned Install Date	Actual Install Date	Easting	Northing	Height	Heading	Pitch	Roll	Description
AS-BUILT	CS01 CROSSING SUPPORT	CP1	CS01	CS01_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/13/2015 12:00:00 AM	409166.06	4438252.78	16.42	88.4	-0.7	-0.59	161N CONDENSATE EXPORT PIPELINE CROSSIN	
DESIGN	CS01 CROSSING SUPPORT	CP1	CS01	CS01_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/13/2015 12:00:00 AM	409166	4438253	0	88.41			161N CONDENSATE EXPORT PIPELINE CROSSIN	
AS-BUILT	CS02 CROSSING SUPPORT	CP2	CS02	CS02_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409165.86	4438266.92	16.13	87.68	-0.26	0.06	161N CONDENSATE EXPORT PIPELINE CROSSIN	
DESIGN	CS02 CROSSING SUPPORT	CP2	CS02	CS02_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409166	4438267	0	88.41			161N CONDENSATE EXPORT PIPELINE CROSSIN	
AS-BUILT	CS03 CROSSING SUPPORT	CP3	CS03	CS03_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409165	4438281	0	105.6			161N CONDENSATE EXPORT PIPELINE CROSSIN	
DESIGN	CS03 CROSSING SUPPORT	CP3	CS03	CS03_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409165.33	4438280.98	15.9	104.63	-0.36	-0.26	161N CONDENSATE EXPORT PIPELINE CROSSIN	
AS-BUILT	CS04 CROSSING SUPPORT	CP4	CS04	CS04_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409165	4438295	0	105.6			161N CONDENSATE EXPORT PIPELINE CROSSIN	
DESIGN	CS04 CROSSING SUPPORT	CP4	CS04	CS04_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409164.51	4438294.62	15.8	104.21	-0.77	-5.05	161N CONDENSATE EXPORT PIPELINE CROSSIN	
AS-BUILT	CS05 CROSSING SUPPORT	CP5	CS05	CS05_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/9/2015 12:00:00 AM	409164.79	4438309.16	15.66	89.82	-0.16	0.01	161N CONDENSATE EXPORT PIPELINE CROSSIN	
DESIGN	CS05 CROSSING SUPPORT	CP5	CS05	CS05_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/9/2015 12:00:00 AM	409164	4438309	0	88.41			161N CONDENSATE EXPORT PIPELINE CROSSIN	
AS-BUILT	CS06 CROSSING SUPPORT	CP6	CS06	CS06_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/9/2015 12:00:00 AM	409164	4438323	0	88.41			161N CONDENSATE EXPORT PIPELINE CROSSIN	
DESIGN	CS06 CROSSING SUPPORT	CP6	CS06	CS06_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/9/2015 12:00:00 AM	409164	4438323	0	88.41			161N CONDENSATE EXPORT PIPELINE CROSSIN	

Fig 29. Column sorting - Ascending

By sorting the results in either Ascending or Descending fashion the AS-BUILT and DESIGN records will be found next to each other, allowing easy comparison of DESIGN to AS-BUILT headings.

### 7. Exporting PODS Data to Excel

As well as viewing the PODS data within the SD2 PODS GIS it can also be exported as an Excel XML file which can be opened in MS Excel to allow further analysis and formatting.

1. Select the records to be exported by left-clicking on them. To select multiple records first select one record, then whilst holding shift key select another record. This will select both of the records along with all the records between them.

SHAPE	Phase	Asset Name	Alternative Asset Name	Asset Tag Number	Revision Name	Asset Type	Project Area	Planned Install Date	Actual Install Date	Easting	Northing	Height	Heading	Pitch	Roll	Description
AS-BUILT	CS25 CROSSING SUPPORT	CP1-18	CS25	CS25_AB	CROSSING SUPPORT	S8 - EXPORT AREA		1/19/2015 12:00:00 AM	409132.23	4438752.19	15.865	89.8	1.5	0.2	161N CONDENSATE EXPORT PIPELINE CROSSIN	
DESIGN	CS25 CROSSING SUPPORT	CP1-18	CS25	CS25_C01	CROSSING SUPPORT	S8 - EXPORT AREA		1/19/2015 12:00:00 AM	409132	4438752	0	88.41			161N CONDENSATE EXPORT PIPELINE CROSSIN	
AS-BUILT	CS04 CROSSING SUPPORT	CP1	CS04	CS04_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409165	4438295	0	105.6			161N CONDENSATE EXPORT PIPELINE CROSSIN	
DESIGN	CS04 CROSSING SUPPORT	CP1	CS04	CS04_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409164.51	4438294.62	15.8	104.21	-0.77	-5.05	161N CONDENSATE EXPORT PIPELINE CROSSIN	

Fig 30. Highlighting Records

Alternatively, select the records individually whilst holding Ctrl key to add them to the current selection, when selected a record will be highlighted light-blue.

2. With the records selected right click on them. This will display a drop down menu.

SHAPE	Phase	Asset Name	Alternative Asset Name	Asset Tag Number	Revision Name	Asset Type	Project Area	Planned Install Date	Actual Install Date
AS-BUILT	CS25 CROSSING SUPPORT	CP1-18	CS25	CS25_AB	CROSSING SUPPORT	S8 - EXPORT AREA		1/19/2015 12:00:00 AM	409132.23
DESIGN	CS25 CROSSING SUPPORT	CP1-18	CS25	CS25_C01	CROSSING SUPPORT	S8 - EXPORT AREA		1/19/2015 12:00:00 AM	409132
AS-BUILT	CS04 CROSSING SUPPORT	CP1	CS04	CS04_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409165
DESIGN	CS04 CROSSING SUPPORT	CP1	CS04	CS04_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/14/2015 12:00:00 AM	409164.51
AS-BUILT	CS31 CROSSING SUPPORT	CP3-3	CS31	CS31_AB	CROSSING SUPPORT	S8 - EXPORT AREA		1/19/2015 12:00:00 AM	409132.23
DESIGN	CS31 CROSSING SUPPORT	CP3-3	CS31	CS31_C01	CROSSING SUPPORT	S8 - EXPORT AREA		1/19/2015 12:00:00 AM	409132
AS-BUILT	CS21 CROSSING SUPPORT	CP1-22	CS21	CS21_AB	CROSSING SUPPORT	S8 - EXPORT AREA		1/31/2015 12:00:00 AM	409132.23
DESIGN	CS21 CROSSING SUPPORT	CP1-22	CS21	CS21_C01	CROSSING SUPPORT	S8 - EXPORT AREA		1/31/2015 12:00:00 AM	409132
AS-BUILT	CS23 CROSSING SUPPORT	CP1-21	CS23	CS23_AB	CROSSING SUPPORT	S8 - EXPORT AREA		1/20/2015 12:00:00 AM	409132.23
DESIGN	CS23 CROSSING SUPPORT	CP1-21	CS23	CS23_C01	CROSSING SUPPORT	S8 - EXPORT AREA		1/20/2015 12:00:00 AM	409132
AS-BUILT	CS06 CROSSING SUPPORT	CP6	CS06	CS06_AB	CROSSING SUPPORT	S8 - EXPORT AREA		2/9/2015 12:00:00 AM	409164
DESIGN	CS06 CROSSING SUPPORT	CP6	CS06	CS06_C01	CROSSING SUPPORT	S8 - EXPORT AREA		2/9/2015 12:00:00 AM	409164

Fig 31. Exporting Records

3. From the menu select 'Export . . . to Excel'. A browser window will open.
4. Select a save location and give the file a name. Click Save.

A	B	C	D	E	F	G	H	I	J	K	L	M	N
Phase	Asset Name	Asset Tag Number	Revision Name	Asset Type	Project Area	Actual Install Date	Eastings	Northing	Height	Heading	Pitch	Roll	Description
AS-BUILT	CS01 CROSSING SUPPORT	CS01	CS01_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-13 00:00:00	409166.06	4438252.76	16.42	86.6	-0.7	-0.39	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS01 CROSSING SUPPORT	CS01	CS01_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-13 00:00:00	409166	4438253	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS02 CROSSING SUPPORT	CS02	CS02_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-14 00:00:00	409165.88	4438266.92	16.13	87.08	-0.26	0.06	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS02 CROSSING SUPPORT	CS02	CS02_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-14 00:00:00	409166	4438267	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS03 CROSSING SUPPORT	CS03	CS03_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-14 00:00:00	409165	4438281	0	105.6			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS03 CROSSING SUPPORT	CS03	CS03_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-14 00:00:00	409165.33	4438280.98	15.9	104.63	-0.36	-0.26	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS04 CROSSING SUPPORT	CS04	CS04_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-14 00:00:00	409165	4438295	0	105.6			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS04 CROSSING SUPPORT	CS04	CS04_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-14 00:00:00	409164.51	4438294.62	15.8	104.21	-0.77	-5.05	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS05 CROSSING SUPPORT	CS05	CS05_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409164.79	4438309.16	15.66	89.82	-0.16	0.01	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS05 CROSSING SUPPORT	CS05	CS05_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409164	4438309	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS06 CROSSING SUPPORT	CS06	CS06_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409164	4438323	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS06 CROSSING SUPPORT	CS06	CS06_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409164.26	4438322.94	15.67	89.17	-0.25	-0.66	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS07 CROSSING SUPPORT	CS07	CS07_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409163.76	4438336.82	15.67	89.91	0.29	0.73	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS07 CROSSING SUPPORT	CS07	CS07_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409164	4438337	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS08 CROSSING SUPPORT	CS08	CS08_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409163	4438351	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS08 CROSSING SUPPORT	CS08	CS08_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409163.1	4438350.65	15.74	88.93	-0.62	0.44	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS09 CROSSING SUPPORT	CS09	CS09_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409163	4438365	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS09 CROSSING SUPPORT	CS09	CS09_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-02-09 00:00:00	409163.23	4438365.31	15.67	89.24	0.12	0.85	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS10 CROSSING SUPPORT	CS10	CS10_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-27 00:00:00	409162	4438379	0	108.28			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS10 CROSSING SUPPORT	CS10	CS10_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-27 00:00:00	409162.62	4438378.79	15.945	108.81	1.08	0.46	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS11 CROSSING SUPPORT	CS11	CS11_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-27 00:00:00	409162	4438393	0	108.28			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS11 CROSSING SUPPORT	CS11	CS11_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-27 00:00:00	409162.3	4438392.49	15.955	107.14	0.99	-0.75	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS12 CROSSING SUPPORT	CS12	CS12_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-24 00:00:00	409162	4438407	0	108.28			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS12 CROSSING SUPPORT	CS12	CS12_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-24 00:00:00	409161.66	4438406.59	15.88	107.8	0.77	1.57	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS13 CROSSING SUPPORT	CS13	CS13_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-24 00:00:00	409161.46	4438420.57	16.22	91.3	1.24	3.25	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS13 CROSSING SUPPORT	CS13	CS13_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-24 00:00:00	409161	4438421	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS14 CROSSING SUPPORT	CS14	CS14_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-24 00:00:00	409160.54	4438434.23	16.38	88.72	-0.5	0.15	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS14 CROSSING SUPPORT	CS14	CS14_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-24 00:00:00	409161	4438435	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
AS-BUILT	CS15 CROSSING SUPPORT	CS15	CS15_AB	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-20 00:00:00	409155.78	4438631.84	16.343	90.33	0.4	-3.1	16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS15 CROSSING SUPPORT	CS15	CS15_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-20 00:00:00	409155	4438632	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT
DESIGN	CS16 CROSSING SUPPORT	CS16	CS16_C01	CROSSING SUPPORT	S8 - EXPORT AREA	2015-01-20 00:00:00	409155	4438646	0	88.41			16IN CONDENSATE EXPORT PIPELINE CROSSING SUPPORT

Fig 32. Exported Records

5. Navigate to where the file was saved and double-click, the file will automatically open in MS Excel unless otherwise set by the user.