



EDGE User Manual

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EQUS EDGE

Often, when a field technician returns to the office, field notes need to be transcribed into an electronic format. EarthSoft's **EQUS Data Gathering Engine** (EDGE) was designed to help increase the quality of field information electronic data deliverables (EDDs).

EDGE was designed for field use as a supplement to field notes that will allow direct data input with a mobile PC using the Standalone version of EDGE. Alternatively, if a field computer is unavailable the content of EDGE's screens may be printed out for data entry.

1. Getting Started

EDGE is a data collection application designed for field use. EDGE is designed to work with or without EQUS' Sample Planning Module (SPM). EDGE can use a blank EDD, an SPM EDD, or a Template EDD. A Template EDD can be generated by running the EDGE EDD Export report from EQUS without selecting an SPM Task or by partially entering data into EDGE (such as a list of Locations) and saving the incomplete EDD for later use.

To run EDGE it is necessary to have a Windows Operating System no earlier than Windows XP. EDGE also works with any newer Windows OS up to Windows 7. A [.NET Framework 3.5](#) must also be installed on the machine.

View the entirety of the EDGE online documentation [here](#).

View the EDGE Release Notes [here](#).

1.1 Installing and Launching EDGE

EDGE is not installed with an installation program. EDGE is delivered in a zip file. Unzip the file to a location where the user has full rights (i.e.; My documents or C:\EDGE). Extracting the files will create a subfolder with the EDGE version indicated. It is not possible to run EDGE from the zip folder.

After extracting the files, click on the Start_EDGE.exe or create a shortcut for that file and put the EDGE start icon on the desktop.

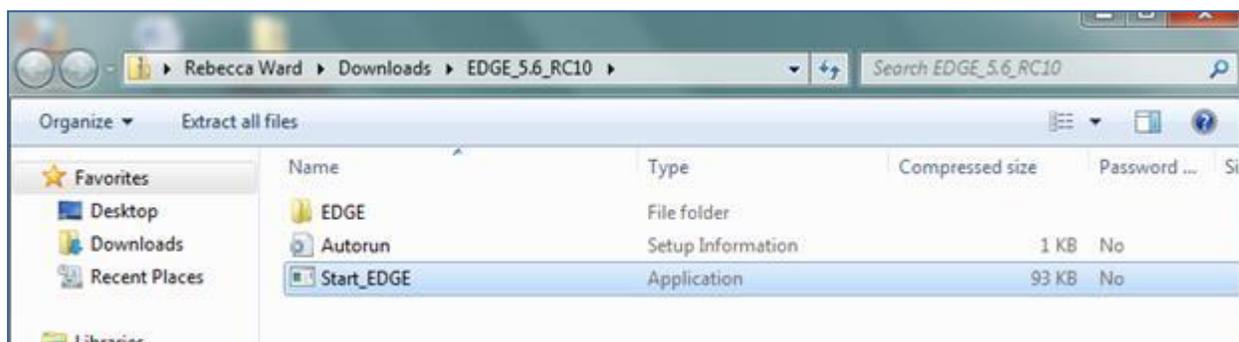


Figure 1: Launching EDGE

To launch EDGE, click the START_EDGE.exe file, or, if you created a shortcut, the **EQ5 EDGE** icon on your desktop.  The main application window opens:

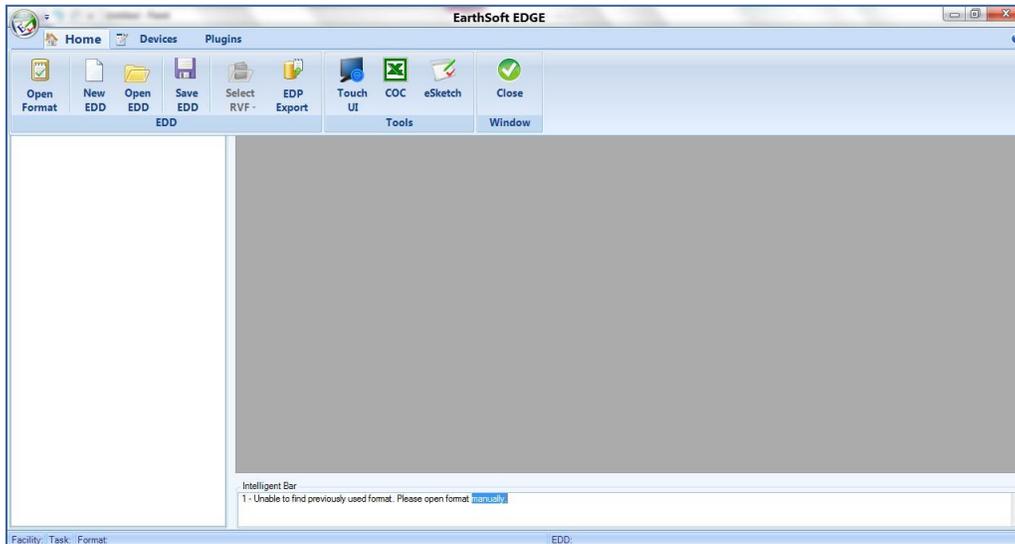


Figure 2: EarthSoft EDGE Application Window

EDGE requires a license and registration prior to opening any formats. If you have not yet registered, you will be required to do so and a registration prompt will open.

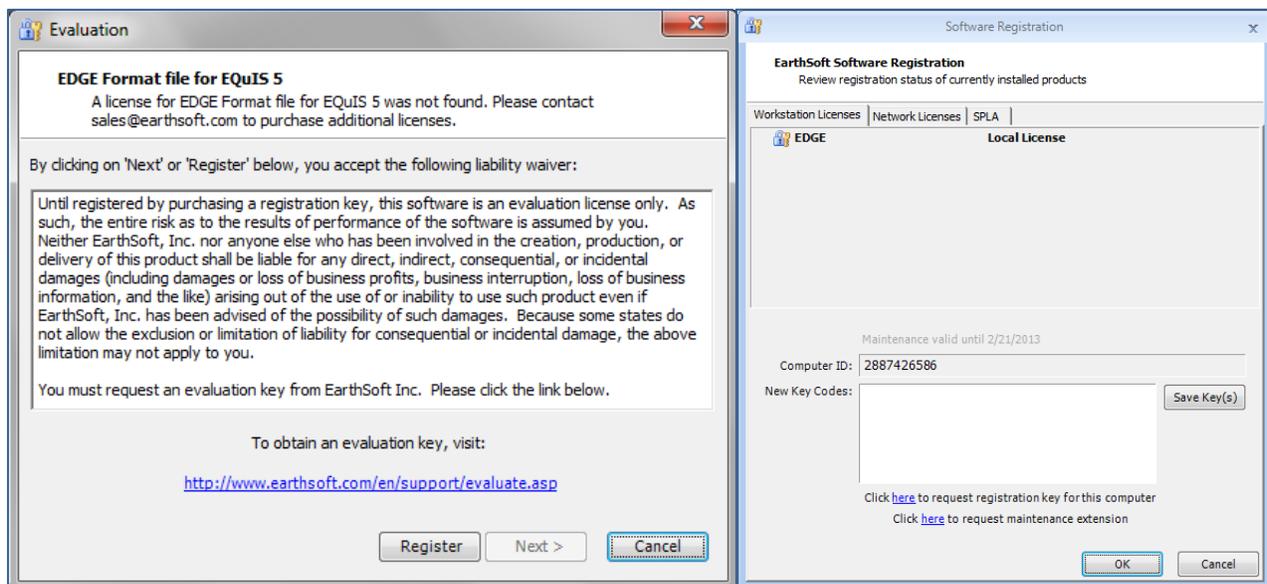


Figure 3: Registration Key Request and EarthSoft Software Registration Screen

Click **“Register”** to obtain a license key for EarthSoft or contact your Manager for the key. EarthSoft will send you an email with the registration codes enclosed. Enter the license in the registration window and click **“Save.”**

1.2 Loading EDGE Formats:

1. From the EDGE Application Menu  in the upper-left corner, select **“Open Format.”**

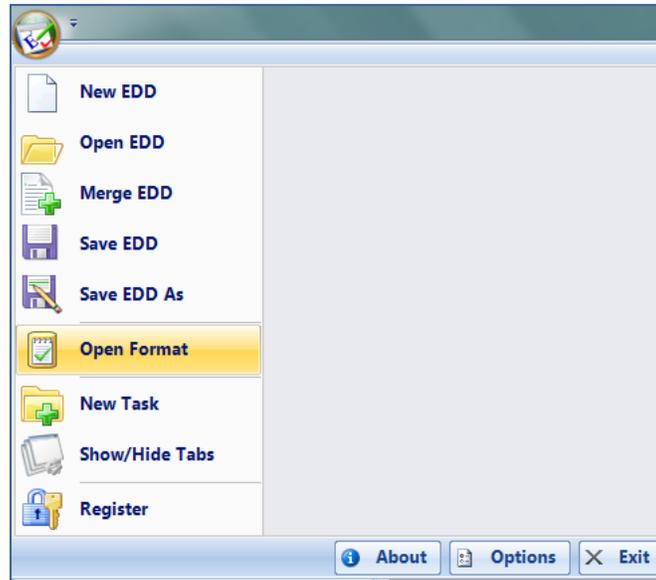


Figure 4: EDGE Application Menu

Navigate to the location of the EDGE Formats and select the desired format, such as the **EDGE.xse** file (typically, **C:\EDGE\EDGE_5.6.0.12\Formats\EDGE Format**).

- ✔ If a format was previously loaded, that format will open by default.

EDGE will load the format with the sampling tabs configured and create a blank EDD.

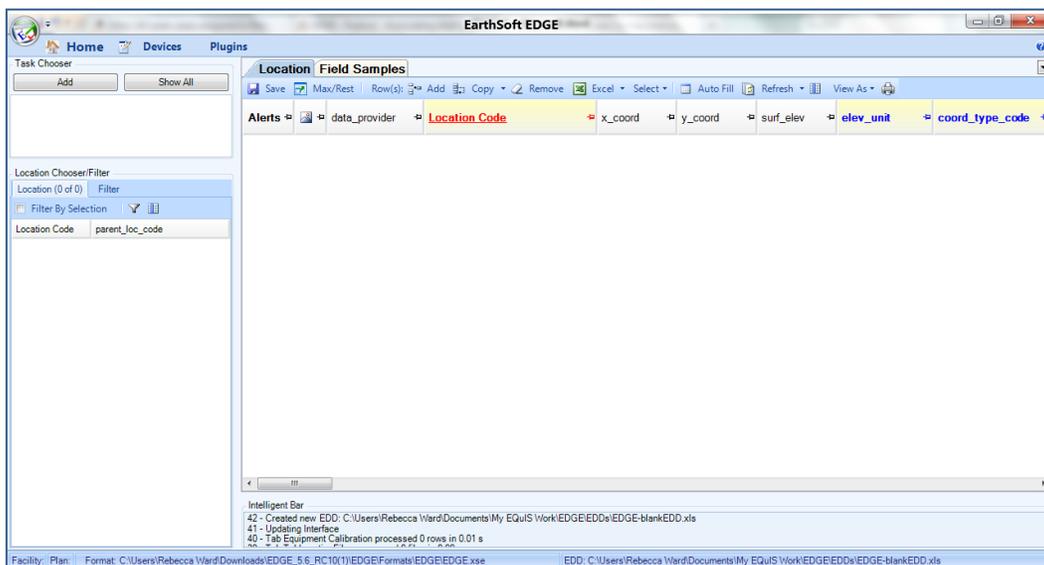


Figure 5: An Open Format in the EDGE

1.3 EDGE Options

To set EDGE Options, click on the EDGE Application Menu  and select Options .

Auto-Save and EDD Backup Locations

EDD Backups are saved EDD duplicates that EDGE saves at a pre-determined interval. To set the Auto-Save time interval and the backup locations, within Options, scroll down to EDD Backup. Enter in the time interval and enter in the file path for the backup file locations. The second backup location is provided in case a removable data storage device such as an SD card is also being used.

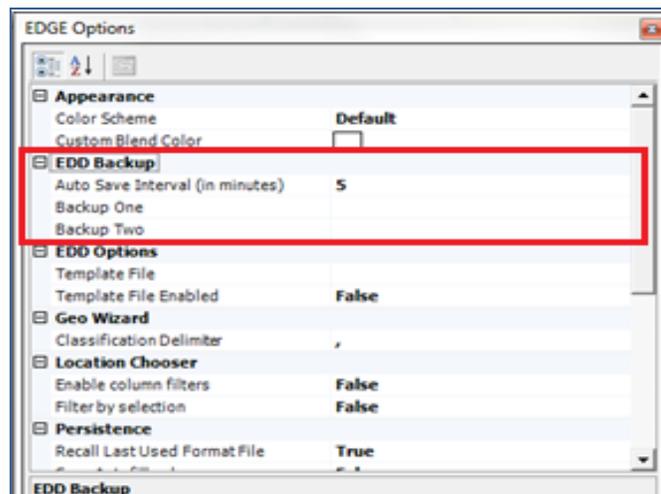


Figure 6: EDD Backups

Template File

A pre-configured EDD can be used as a Template EDD, as discussed further in the Loading an EDD section. To select a file to be used as the Template, click the browse button in the Template File input box and navigate to the folder and file. Then select True to Enable the Template File.

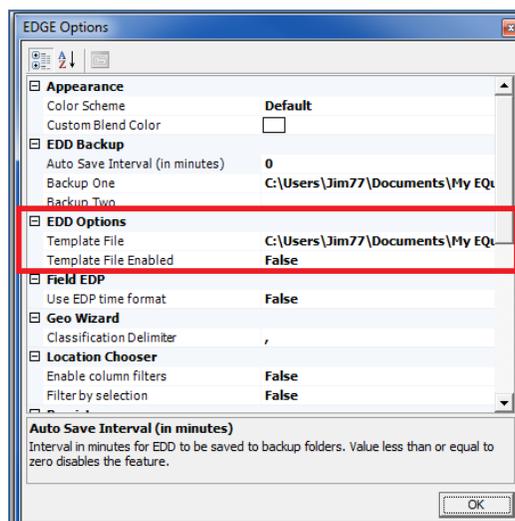


Figure 7: Template File

Working Folders

Working folders define the default folders for COC Export Folders, COC Template Folders, EDD Folders, Format Folders, Image Folders, and Sensor Folders. To set the defaults, within Options, scroll down to working folders. Enter in the file path for the default folder and click OK.

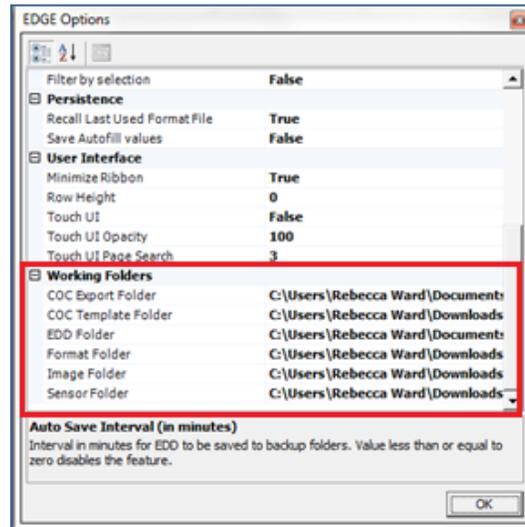


Figure 8: Working Folders

Autofill Persistence

When the “Save Autofill Values” option is set to True, values entered in Autofill persist when EDGE is closed and re-opened. To set this option, scroll down to Persistence and select True or False from the drop-down.

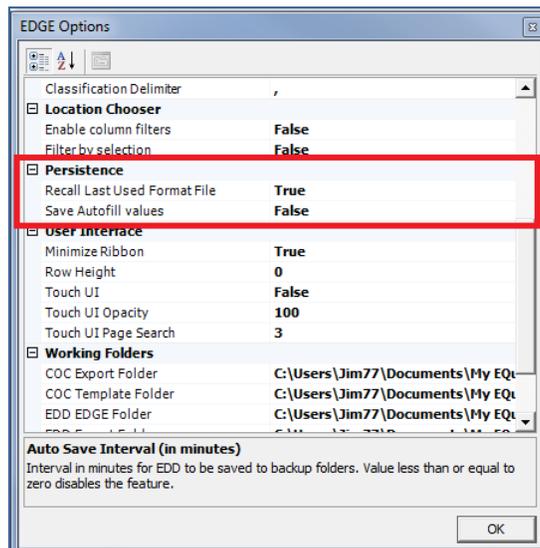


Figure 9: Persistence



Learn about the other options in EDGE [here](#).

1.4 Tab Settings

Showing/Hiding Tabs

Set the tabs that will be visible by going to the EDGE Application Menu  and selecting Show/Hide Tabs.

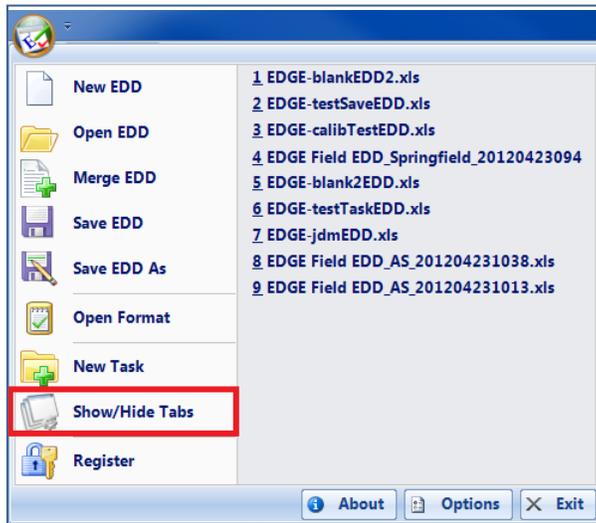


Figure 10: Showing and Hiding Tabs

A window will open displaying a list of available tabs, allowing you to check or uncheck to show or hide the tabs.

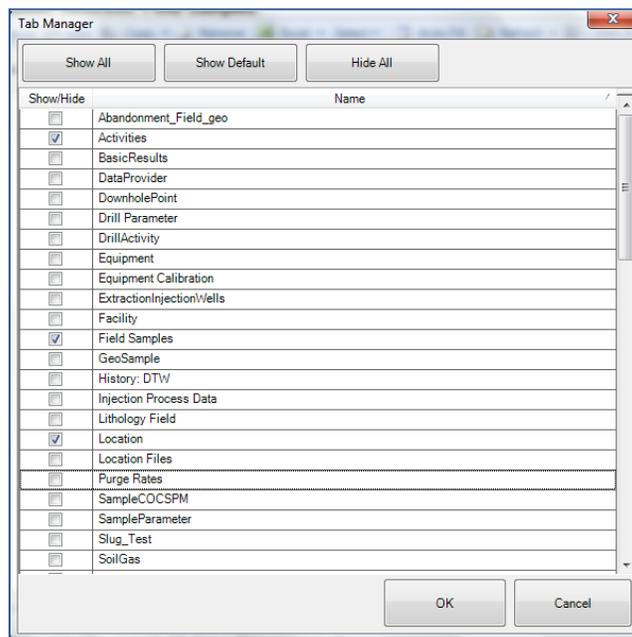


Figure 11: Selecting Show/Hide Tabs

Moving and Showing/Hiding Columns

It is possible to move and rearrange columns simply by clicking and dragging the columns into new positions. EDGE will remember the latest arrangements each time it opens. Show and Hide columns by clicking on Show/Hide Column Chooser on the tab ribbon.

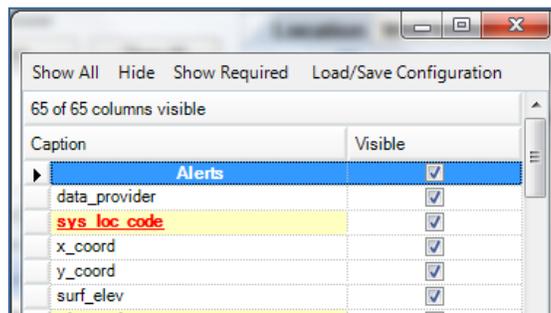


Figure 12: Show/Hide Column Chooser

Auto Fill Manager

Auto Fill is used to cut down on the need to enter repetitive values. Clicking on the **Auto Fill** option opens the *Auto Fill Manager* dialog box listing the fields from the active grid:

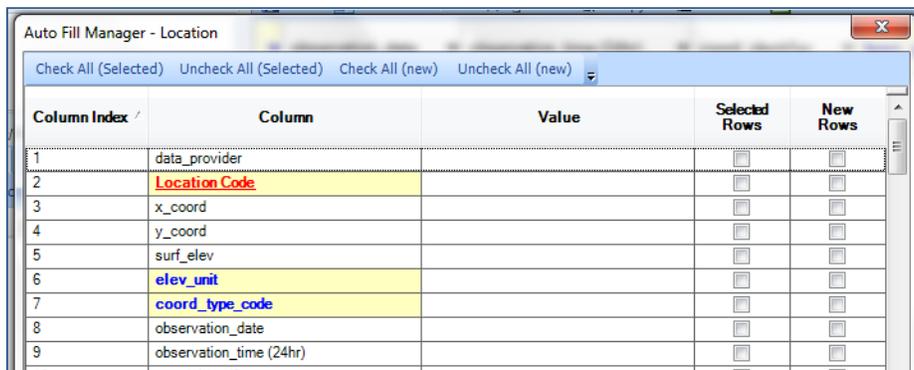
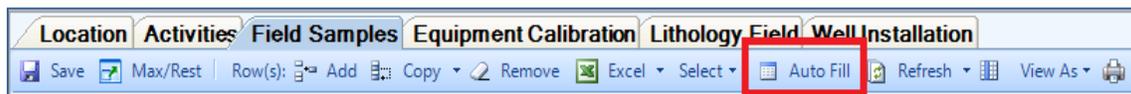


Figure 13: Auto Fill Manager

1. **Selected Rows** – Apply the fill values to only the currently selected rows in the grid.
2. **New Rows** – Columns checked with this option will have values filled into the column for all newly added rows.
3. **Column** – The Column from the current grid.
4. **Value** – User specified value to be added to selected or new rows as specified by the checkboxes.

5. **Check All / Uncheck All Options** – These options along the top menu allow you to quickly select or unselect all checkboxes with one click.

1.5 Opening an EDGE Field EDD:

There are three options for creating an EDGE Field EDD.

1. Use the default blank EDD.

- a. When EDGE first opens, it automatically creates a blank EDD named:
 [FormatName]-blankEDD.xls.
- b. The first time the Save EDD button is clicked, the File Save browse window opens.
- c. Navigate to the desired location and enter the new file name using a standardized format such as Project_A_EDGE_CurrentDate (in MMDDYY).



It is very important that the EDD files are named properly, according to client conventions, since naming conventions are an essential part of data management and quality control.

2. Use a Template EDD.

- a. Create a pre-populated EDD by:
 - i. Using the EQUIS Sample Planning Module (SPM) and the EDGE EDD Export report;
 - ii. Using the non-SPM EDGE EDD Export report to export a list of Locations and, if desired, partially fill out tabs such as Field Samples, Activities, Water Levels, etc.;
 - iii. Start with a blank EDD and add Locations, and, if desired, partially fill out tabs such as Field Samples, Activities, Water Levels, etc.
- b. Select the file in the Template File portion of the Options window, as explained above.
- c. When EDGE opens, it will automatically load the Template EDD.
- d. The first time the Save EDD button is clicked, the File Save browse window opens.
- e. Navigate to the desired location and enter the new file name using a standardized format such as Project_A_EDGE_CurrentDate (in MMDDYY).

3. Use a Pre-Populated EDD

- a. Create a pre-populated EDD with one of the three options listed for a Template EDD in step “a” above.

- b. Click “Open EDD” on the Home tab on the menu ribbon or the EDGE Application Menu OR select a previously opened EDD from the list on the EDGE Application Menu.

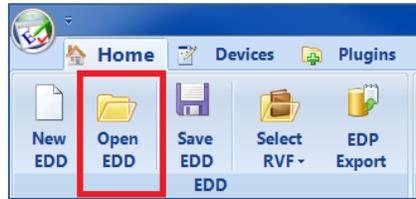


Figure 14: Opening an EDD via the Home Tab

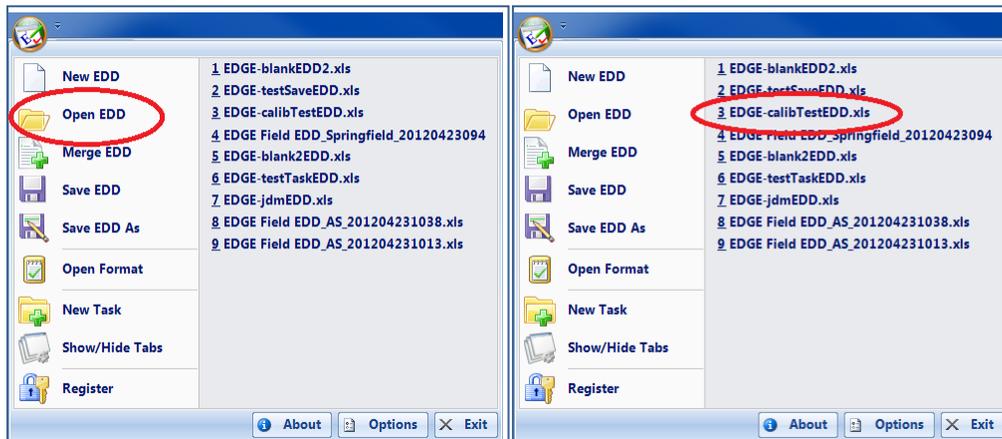


Figure 15: Selecting a Previously Opened EDD

- c. When the Save EDD button is clicked, changes are saved to the same EDD file.

All of the data stored in the field EDD is displayed in the appropriate tabs in EDGE. The different types of sampling information are divided into tabs on the top panel of the window.



Figure 16: Sample Information Tabs

2. Data Entry

Once the Field EDD has been created and opened in EDGE, additional information such as water levels, samples, and sample field measurements may be entered into user friendly forms.

Tabs can be displayed one at a time (the default), or tiled and moved in *tab groups* – to enable easier data input for multiple sampling types at a location. Click and drag the tab sideways inside the tab bar to change the order of the tabs. To tile, drag the tab downward to the bottom of the screen or sideways to the side of the screen (below the tab bar).

- ✔ Double-click on the “Home” button on the EDGE tool bar to either show or hide the menu ribbon. Hiding the menu ribbon allows more space on the screen for data entry.

Cells that contain data errors are displayed with the same coding used by the **EQUS Data Processor** (EDP), such as “Required field missing.” Each tab has an “Alerts” column that lists the number of errors in that row of data.

To use the **Touch UI** feature for entering data with a touch-screen device, click the **Touch UI** button on the Home menu ribbon. Touching a data entry cell will prompt the Touch UI screen.

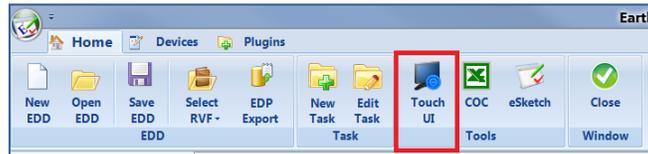


Figure 17: Opening the Touch UI

2.1 Enter or Select a Task

Before data can be entered in EDGE, a Task must be selected in the Task Chooser window:

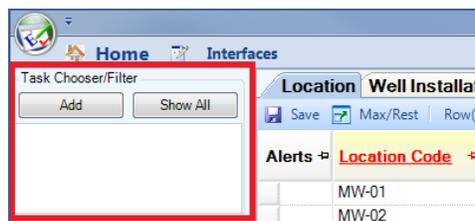


Figure 18: Selecting a Task Chooser

If no Tasks have been created or imported, then click the Add button to add a task.

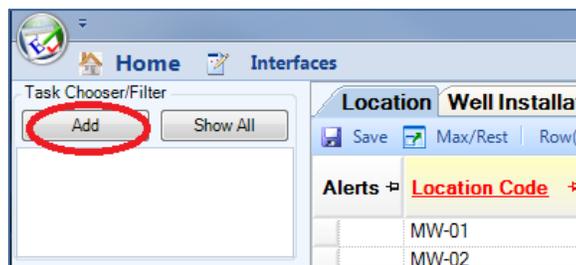


Figure 19: Adding a Task

To Select a Task, click on the Task in the Task Chooser:

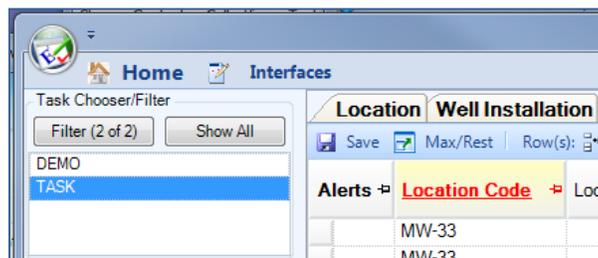


Figure 20: Selecting a Task

2.2 Entering New Locations or Editing Existing Information

If a Pre-Populated EDD is not being used or if new locations are being sampled that are not already in the EDD, they can easily be added in EDGE's **Location** tab.

To add new locations, select the Location tab and click the “**Row(s): Add**” button:

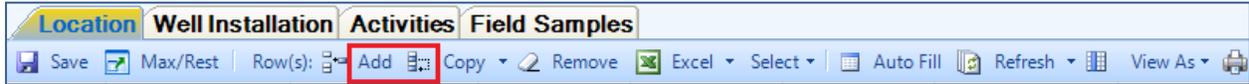


Figure 21: Adding Rows

All existing Locations in the Pre-Populated EDD will be listed in this tab. If desired, additional information may be added for each existing location in this tab.

If collecting GPS coordinates, click “**GPS Receiver**” on the Devices tab of the menu ribbon:

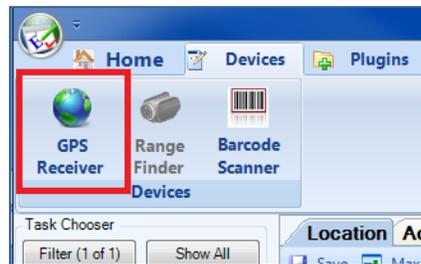


Figure 22: GPS Receiver

2.3 Filter by Location

When data is being entered in any tab, the rows in that tab may be filtered by the applicable Location.

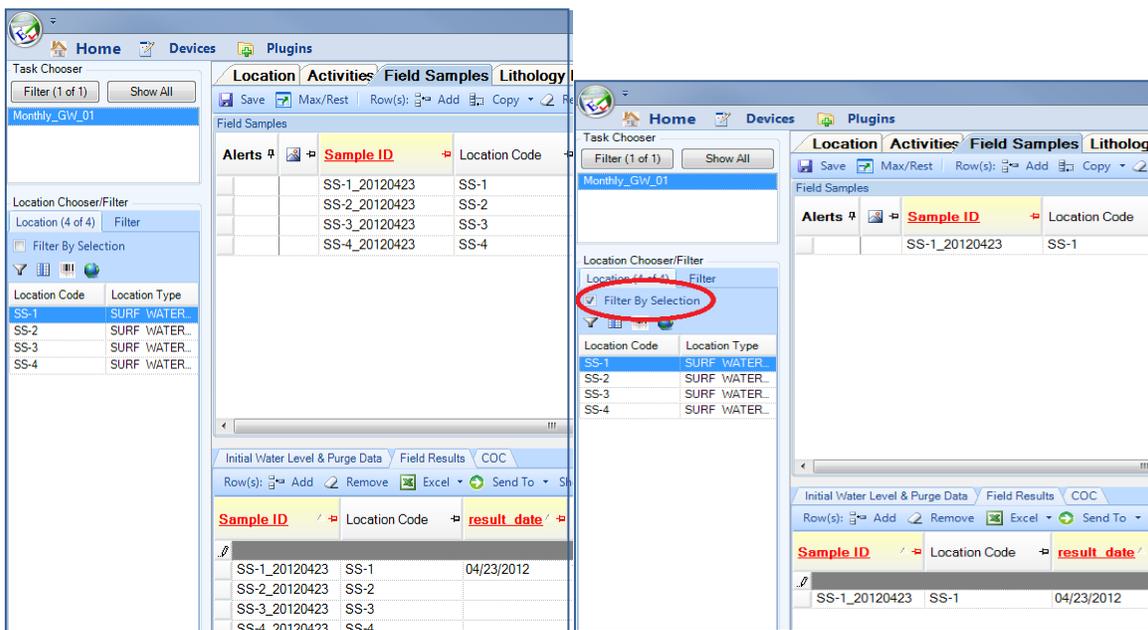


Figure 23: Filtering by Location

2.4 Enter Borehole Logging and Soil Sampling Data

Select a Task and a Location in the Choosers on the left. Click the **“Lithology Field”** tab. Click the **“Row(s): Add”** button and enter the data for the first logging interval.

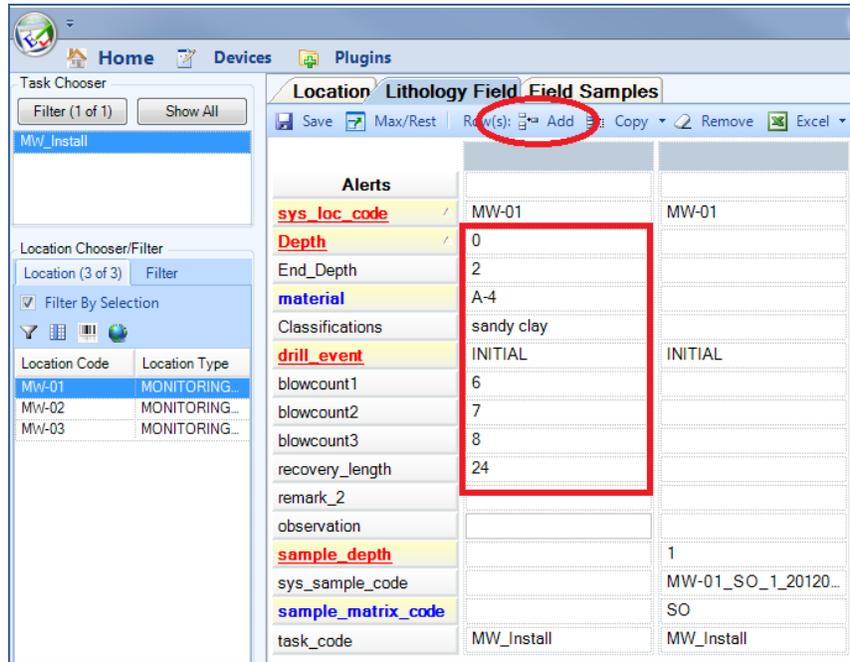


Figure 24: Borehole Logging Data

If a soil sample is being taken from this interval, click **“Add”** button again and enter the **SAMPLE_DEPTH** and **SAMPLE_MATRIX**. The **SYS_SAMPLE_CODE** will be generated automatically.

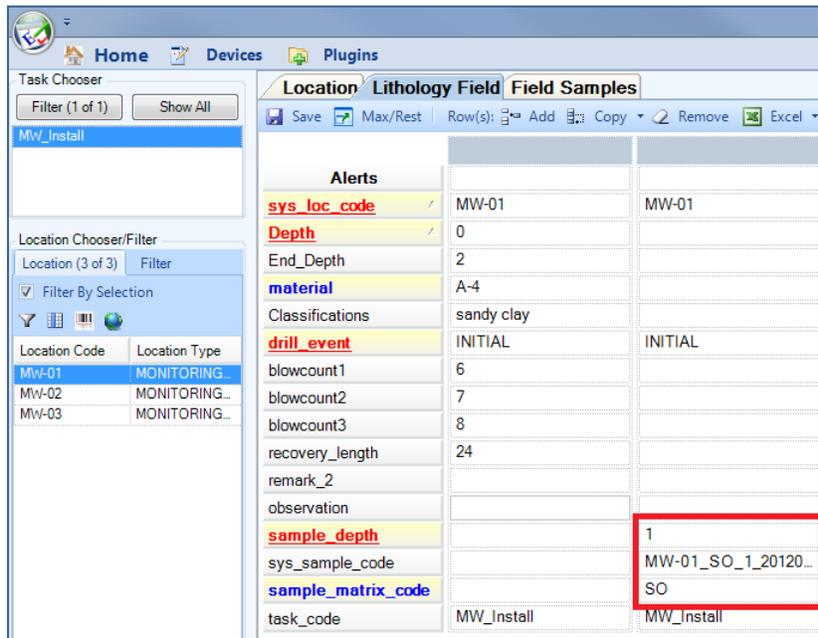


Figure 25: Soil Sample Depth and Matrix Data

Select the “Field Samples” tab. The Field Sample row will already be added. Select the **Sampling Date** and enter any other sampling information. (Remember to use Autofill for repetitive data.) Click the “Row(s): Add” button on the Field Results tab to enter field measurement data.

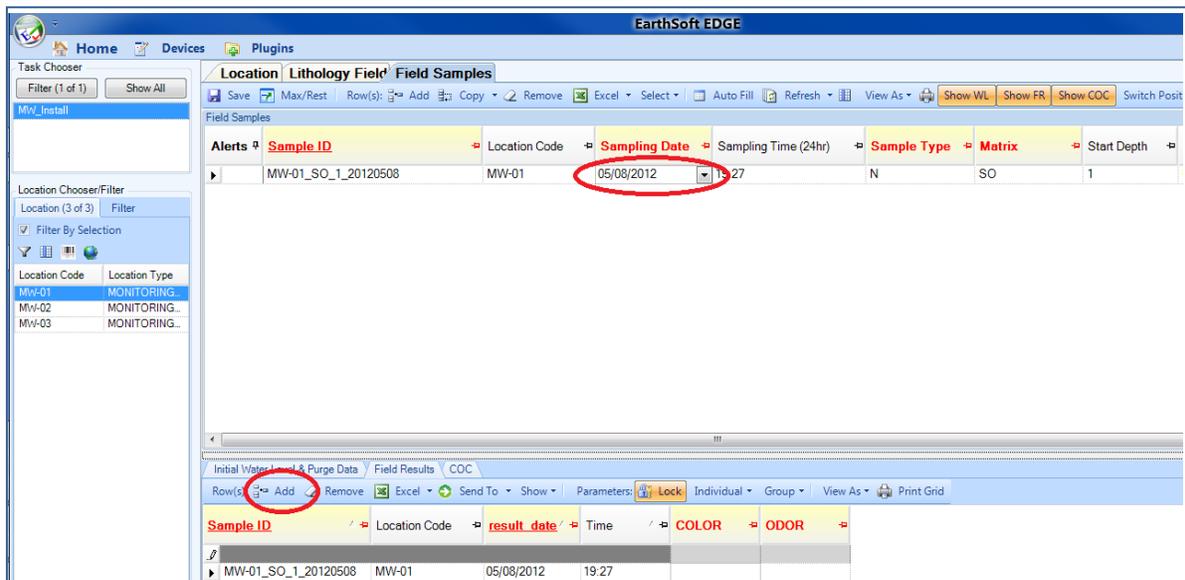


Figure 26: Soil Sample and Field Measurement Data

Select the “COC” sub-tab. Click the “New” COC button if a COC has not already been created. Click the “MAG: Add” button to add MAGs to the COC or, if they are already pre-populated, click the **Include** checkbox to include those MAGs on the COC.

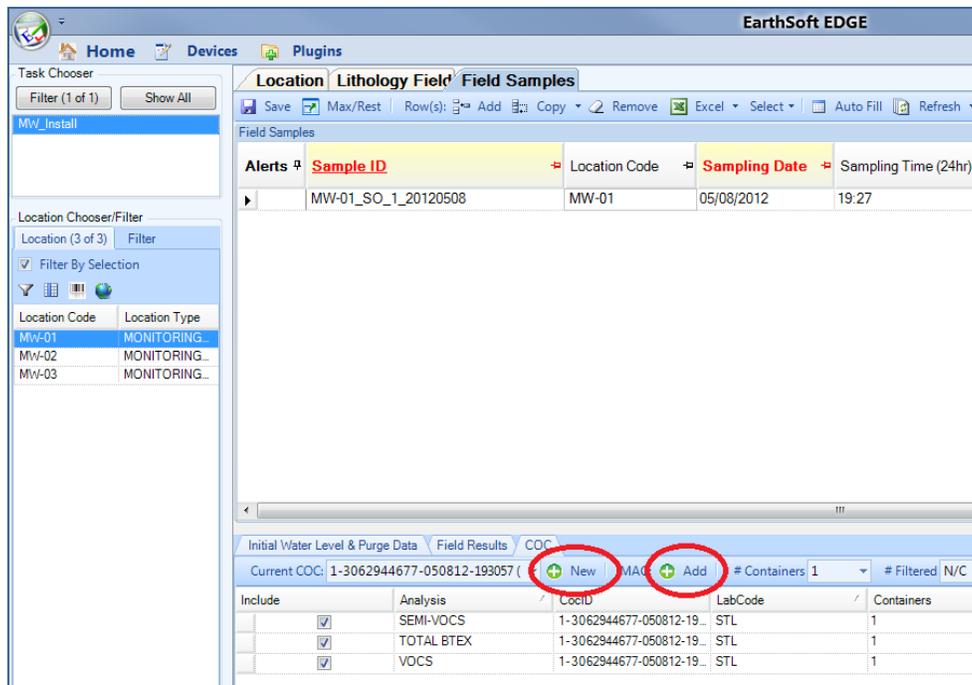


Figure 27: Soil Sample Depth and Matrix Data

2.5 Entering Groundwater Monitoring Data

Select a Task and a Location in the Choosers on the left.

Select the “**Field Samples**” tab and the “**Initial Water Level and Purge Data**” sub-tab.

Click the “**Switch Positions**” button to give the side-by-side vertical view as seen below.

Click the “**Row(s): Add**” button on the “Field Samples” tab and enter the data for the groundwater sample (remember to use Autofill for repetitive data).

Click the “**Row(s): Add**” button on the “Water Level/Purge” tab and enter the data for the depth to water and total depth of well and units. Note that the purge volumes are calculated for you.

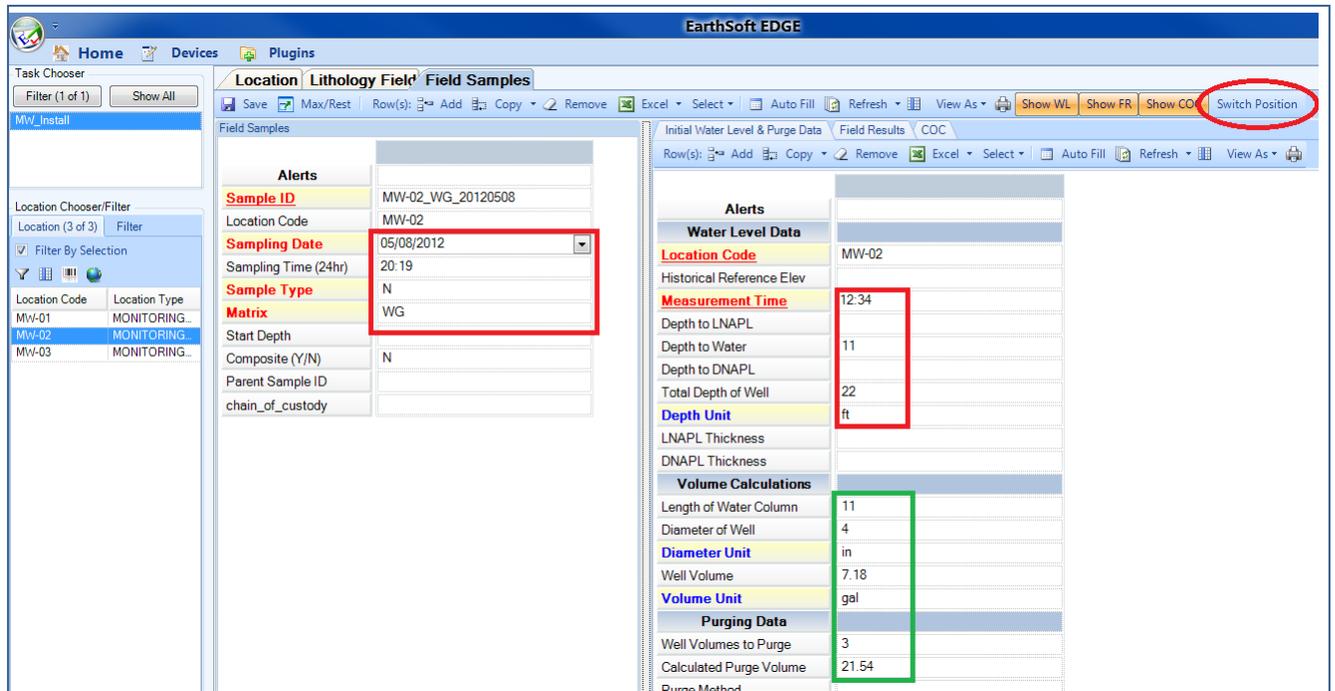


Figure 28: Groundwater Sample and Water Level Data

- ✔
 - The vertical view is known as the “Form” view. The horizontal view is known as the “Table” view. Click the “View As” drop-down button to switch the view for any tab. The “Switch Position” button is a special button for the “Field Samples” tab that changes both the view and the screen split orientation.
- ✔
 - Click the “Max/Rest” button to maximize the current tab if necessary to display all fields. Click this button again to restore the previous view.

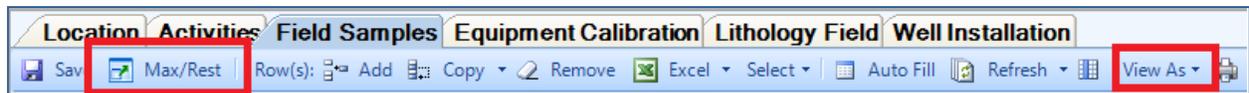


Figure 29: Max/Rest Button

Select the “Field Results” sub-tab. Click the “Row(s): Add” button on the Field Results tab to enter field measurement data. Note that when properly configured, the Field Results tab will indicate when stabilization has been reached by shading the data cells.

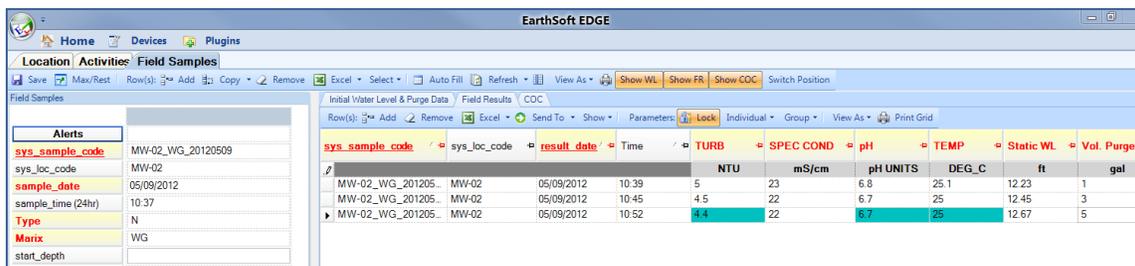


Figure 30: Groundwater Field Measurement Data

Select the “COC” sub-tab. Click the “New” COC button if a COC has not already been created. Click the “MAG: Add” button to add MAGs to the COC or, if they are already pre-populated, click the **Include** checkbox to include those MAGs on the COC.

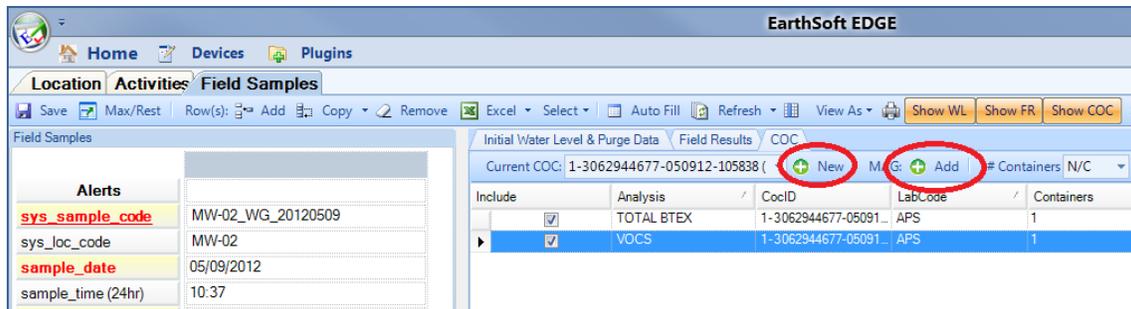


Figure 31: Groundwater COC Data

2.6 Adding Water Level Data

Select a Task and a Location in the Choosers on the left.

Select the “Water Levels” tab.

Click the “Row(s): Add” button on the “Field Samples” tab and enter the water level data for each location. (remember to use Autofill for repetitive data).

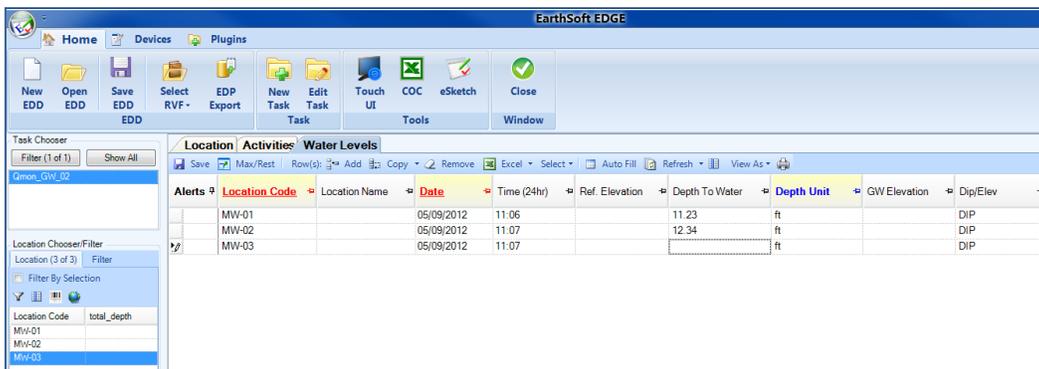


Figure 32: Water Levels Tab

2.7 The COC Manager

Select “COC” from the **Reports** group. The *COC Manager* opens up on the **COC Details** page.

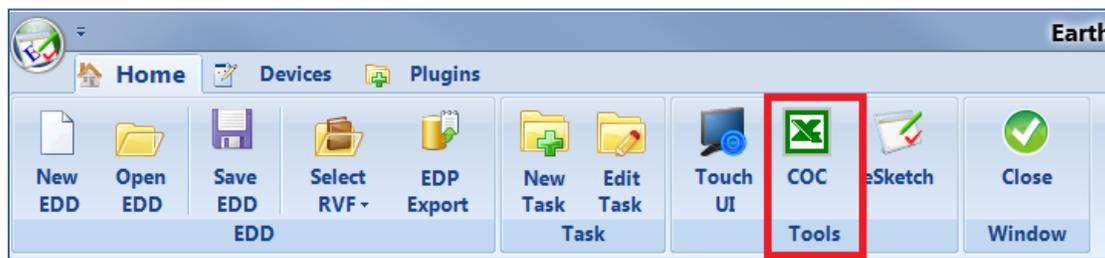


Figure 33: Opening the COC

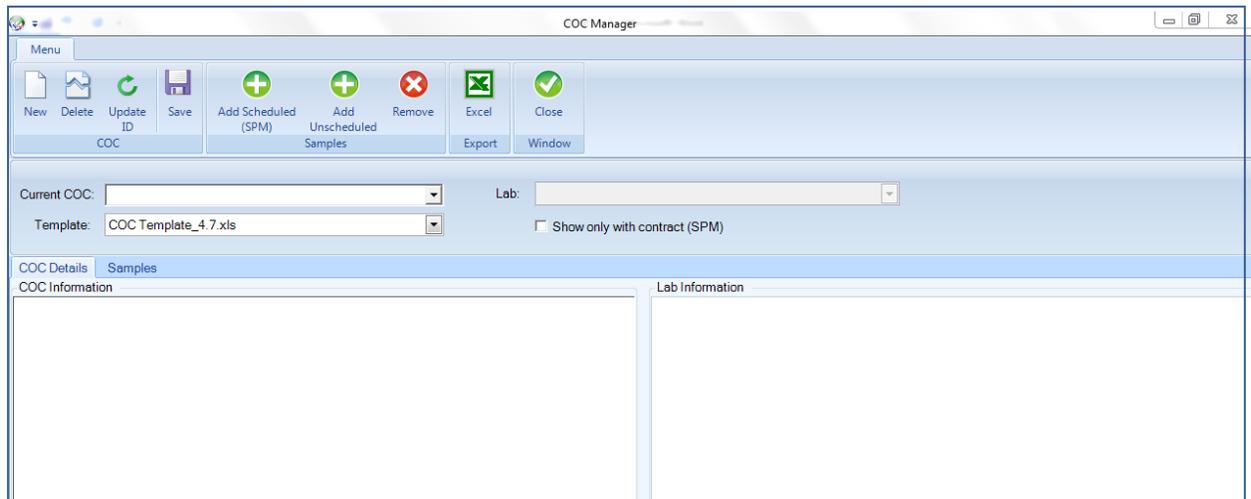


Figure 34: COC Manager

Select **“New”** to generate a new COC.

There are two options for numbering the new COC:

1. **System ID** – Takes the computer volume serial ID, adds the date (mmddyyyy) and a random number.
2. **By User** – The user can enter a free form alphanumeric string as the new COC ID.



Figure 35: Set ID for new COC screen

Select **“OK”** to return to the **COC Manager**. The generated COC ID will now be displayed in the **Current COC** drop-down list.

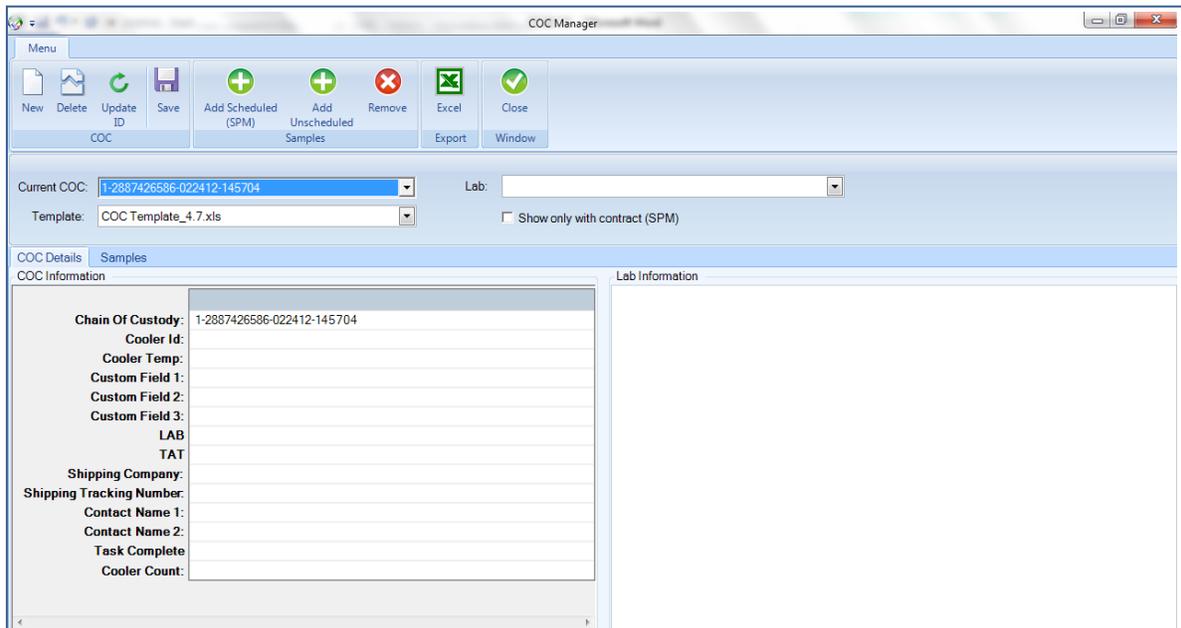


Figure 36: Current COC in the COC Manager

Enter the details as required in the list of fields under **COC Information**. The field list can be expanded to fit longer entries. The **Chain of Custody** value will be the value displayed in the **Current COC** drop-down and is populated by default

Select a lab from the **Lab** dropdown list.

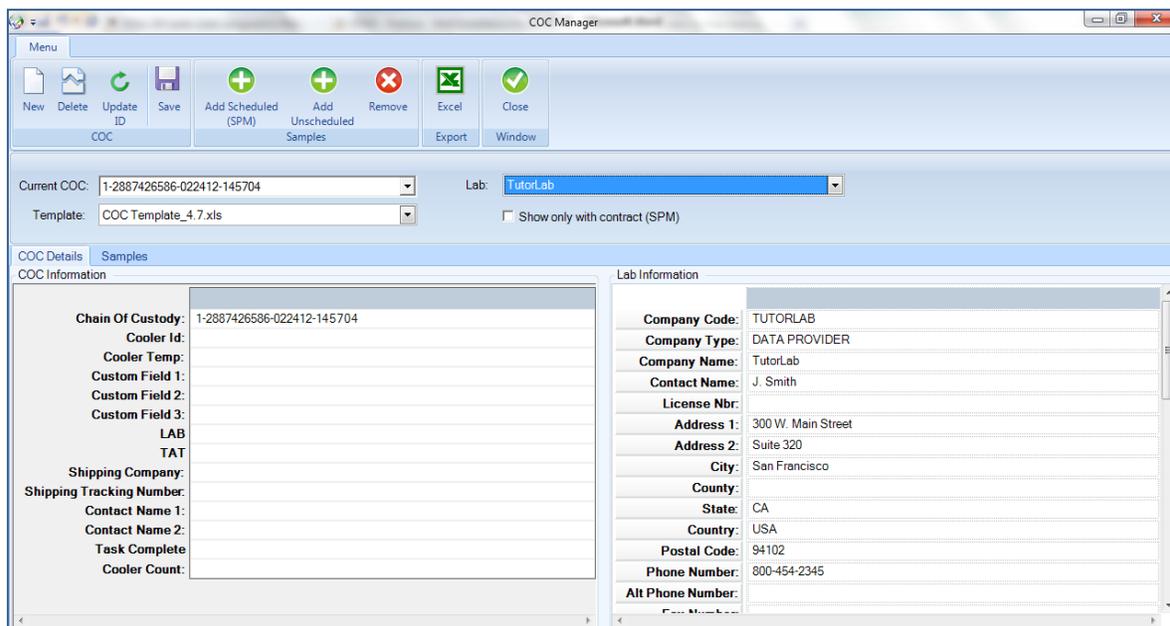


Figure 37: Populating the Lab Information Pane

Select the **Samples** tab. This page allows you to edit Sample details before submitting the COC.

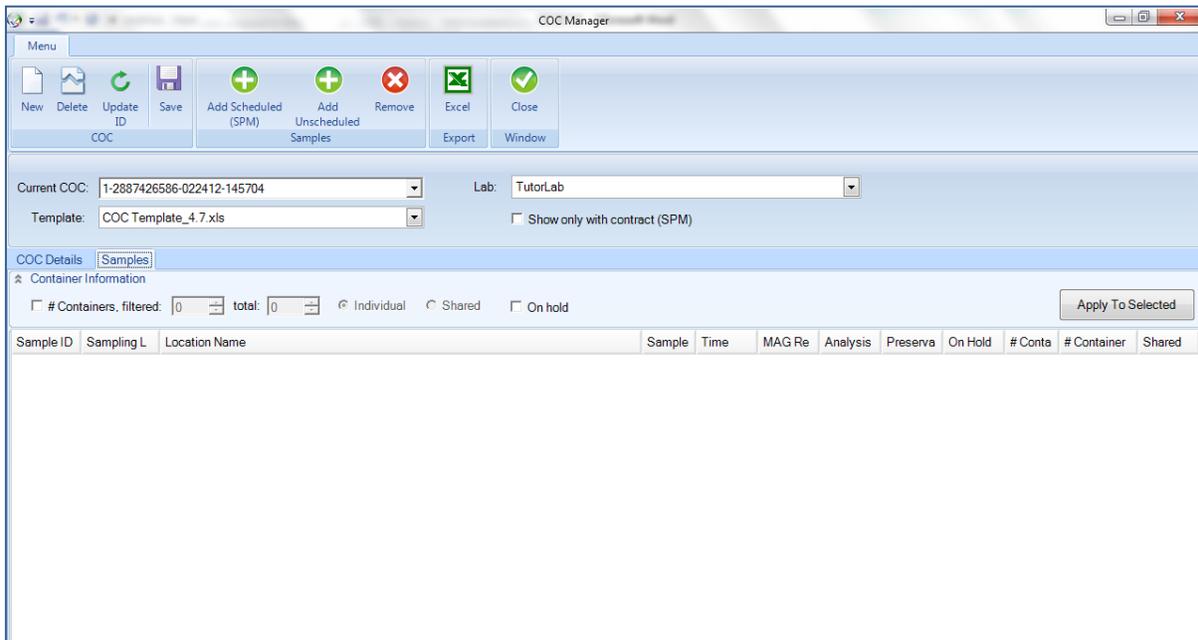


Figure 38: Samples tab in the COC Manager

3. Use the **“Add Scheduled”**  function to add scheduled samples for the current task that are not already shown in the list. If all of the scheduled samples are already present in the Samples grid then you will not be able to select more. You can create a New COC and then select **“Add Scheduled Samples”** to add them to the new COC. When you select this function, it will open the *Add Samples to COC* window.
4. Select the desired scheduled samples from the list and click **“Finish.”**

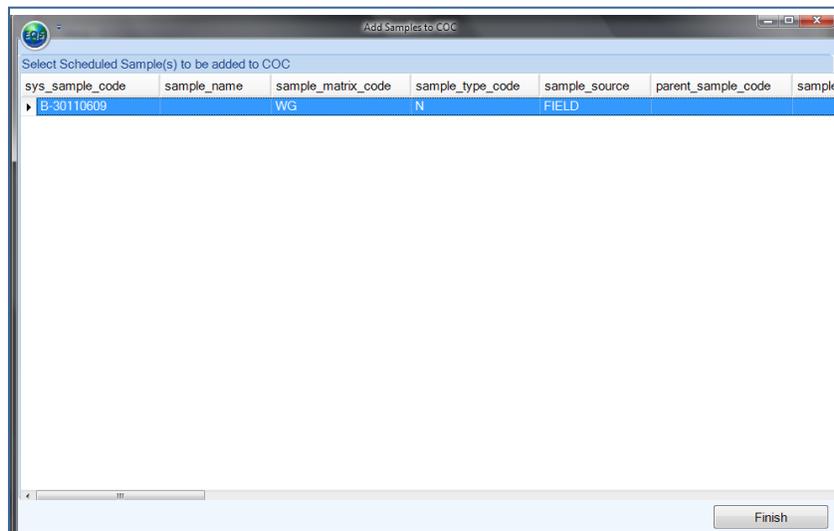


Figure 39: Adding Scheduled Samples to a COC

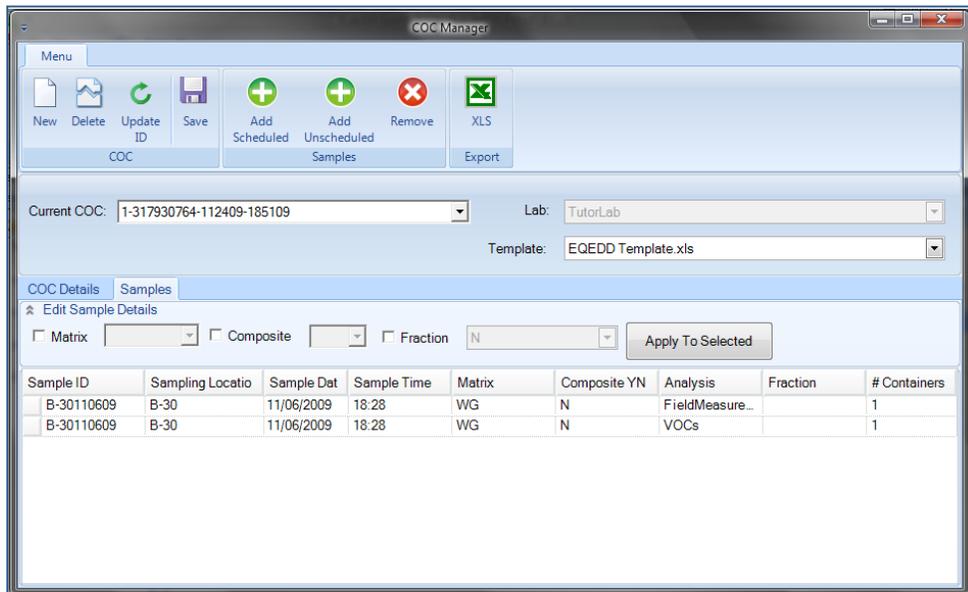


Figure 40: Added Samples

- Use the **"Add Unscheduled"**  function to add samples not in the original task. Select the **"Add Unscheduled"** button from the **Samples** toolbar to open the **Add Samples to TR/COC** window:

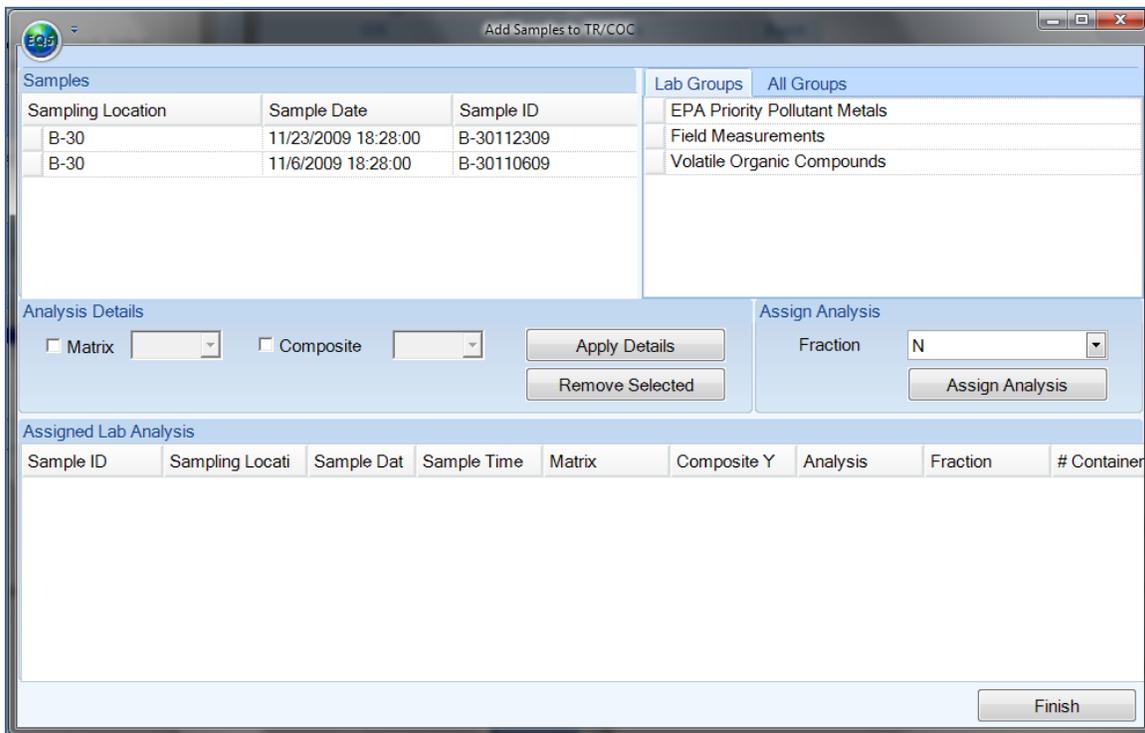


Figure 41: Adding Unscheduled Samples to a COC

6. Select one or more samples from the **Samples** list.
7. Select a group from the **Lab Groups** or **All Groups** list.
8. Select desired **Analysis Details**.

Click **“Assign Analysis.”**

Sampling Location	Sample Date	Sample ID
B-30	11/23/2009 18:28:00	B-30112309
B-30	11/6/2009 18:28:00	B-30110609

Sample ID	Sampling Locati	Sample Da	Sample Time	Matrix	Composite Y	Analysis	Fraction	# Container
B-30112309	B-30	11/23/2009	18:28	WG	Y	Priority Metals	N	1

Figure 42: Added Unscheduled Samples

Click **“Finish”** to go back to the main **COC Manager** page. The unscheduled samples appear in the Samples list.

To edit sample details:

1. Select one or more rows from the **Samples** grid.
2. Click on the checkboxes for the details you want to set such as **Matrix**, **Grab**, and **Fraction**.
3. Select the desired values from the **Details** drop-down lists and click **Apply to Selected**.

Samples can be added or deleted from the list using the **Add Scheduled Samples**, **Add Unscheduled Samples** and **Remove Selected Samples** functions.

4. Use the **“Remove”**  function to simply remove the selected sample(s) from the Samples list.

2.8 Exporting the Chain of Custody Form

The Chain of Custody form can be exported as an Excel spreadsheet. The final format will be determined by the file selected in the **Template** field. The output file is given the COC number as its name.

The current COC number can be updated before export using the **Update ID** function.

1. After confirming that you want to update the ID, select **“Update ID.”** The *Update Current COC* window opens.

Similar to creating a New COC, you have two options for numbering the current COC.

1. **System ID** – Takes the computer volume serial ID, adds the date (mmddyyyy) and a random number.
2. **By User** – The user can enter a free form alphanumeric string as the new COC ID.

When the new ID has been entered, click **“OK”** to continue.

The COC is ready to export to Excel. Click **“XLS”**  on the **Export** toolbar. Microsoft Excel will open and the completed COC will be loaded.