Barnett Shale Air Sampling Map Viewer Navigation Tools:

 Zoom In on Map:

This tool allows you to zoom in on the map to view more detail for a selected area. The area displayed is based on the outer boundary (extent) of the box you draw. **To zoom in, click and drag** over an area on the map you want displayed.

 Zoom Out on Map:

This tool allows you to zoom out from the area displayed in the map. The area displayed is based on the extent of the box you draw. **To view more map area (zoom out) click and drag** over an area on the map.

 Drag Map Around Pan:

This tool allows you to pan over the data in your map by dragging the display in any direction with the mouse. To use this tool, move the cursor to any desired location, hold down the left mouse button and drag the display in any direction.

 Reset to Original View:

Click on this button reset the map to the view you saw when you initially opened the viewer.

 Last View:

Click on this button to go back to the previous map view.

 Next View:

Click on this button to return to the view you created before you clicked on the “Last View.”

 Measure Distances:

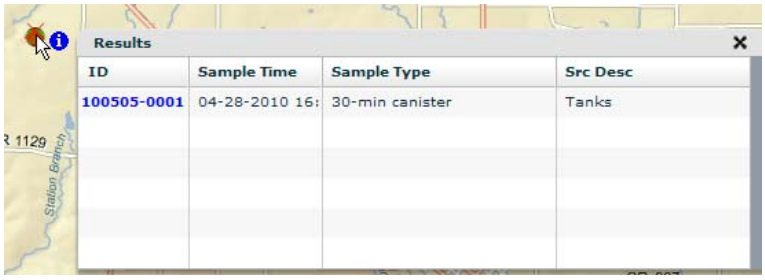
This tool can be used to measure the distance between points using your mouse. Once you click this button, begin by clicking at the point that you'd like to start with. Then double click on the point that you'd like to measure the distance to. A line is drawn between your start and end points. When you double click at your second point, a results box displays the distance between the two points. You may either use the "Clear Selection" button or select another start and end point for your measurement to clear your initial line from your map frame.

 Clear Selections:

Click once to clear selections or reset the map. This tool is used to clear the selections previously generated by "Measure Distances" and the following tools and search functions.

 Choose Sampling Sites:

This tool is used to display the list of information from the sampling sites. Click on a site to display more information about the selected site. Use the "Select Sampling Site" tool to display information for more than one site at a time. The results will pop up in a "Results" box as shown below.



In the results box, select a sampling site to review the sampling report by clicking any one of the ID numbers. A separate PDF will come up in the your browser that will show either an Air Control Laboratory (ACL) report or a Health Effects report.

 Choose Monitor Sites:

This tool is used to display the list of information from the monitoring sites. Click on a site to display more information about the selected site. The results will popup in the "results' box as shown below.

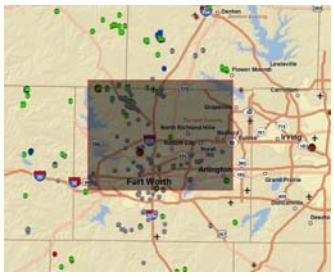
In the results box, select a monitoring site to review the monitoring report(s) by clicking on the type of monitor in the "Results" box. These types are linked to pages with current information associated to the monitoring site.

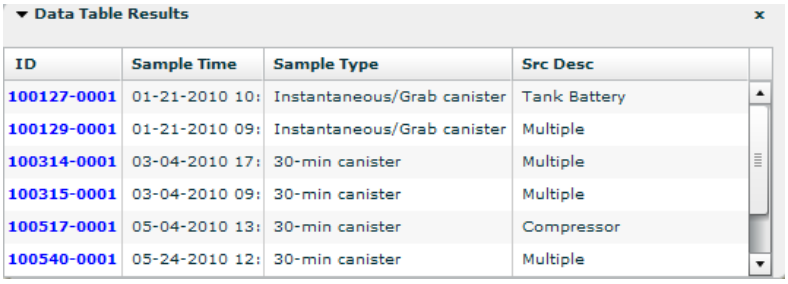
 Print Current Map:

This tool allows the user to print a hard copy of the map and the selected sampling site(s) as currently shown on the screen.

Select Sampling Sites:

This tool is used to create a user-defined area around sampling sites. Click, hold and drag the tool around a number of sites. To generate a tabular list of all the sampling sites selected (see example below).




Data Table Results

ID	Sample Time	Sample Type	Src Desc
100127-0001	01-21-2010 10:	Instantaneous/Grab canister	Tank Battery
100129-0001	01-21-2010 09:	Instantaneous/Grab canister	Multiple
100314-0001	03-04-2010 17:	30-min canister	Multiple
100315-0001	03-04-2010 09:	30-min canister	Multiple
100517-0001	05-04-2010 13:	30-min canister	Compressor
100540-0001	05-24-2010 12:	30-min canister	Multiple

In the results box, select an ID number to review the sampling report. A PDF will come up in the your browser that will show either an Air Control Laboratory (ACL) report or a Health Effects report.

View Sampling by Month:

By default the viewer allows you to view all the sampling data available. By selecting the "View Sampling By Month" tool button, you will activate a slider to view samples by month. Click on the slider and move it to view any sampling month. Click on the 'Return to All' button to see all the sampling sites available again.

How to Use Toolbar:

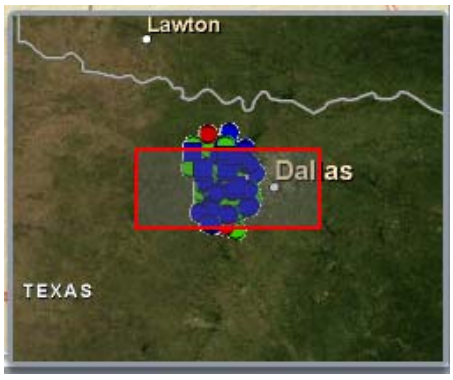
This button opens a PDF of User Guide for the Viewer.

Glossary of Terms:

This Button opens a PDF of the Legend and Terms and Abbreviations for the Viewer.

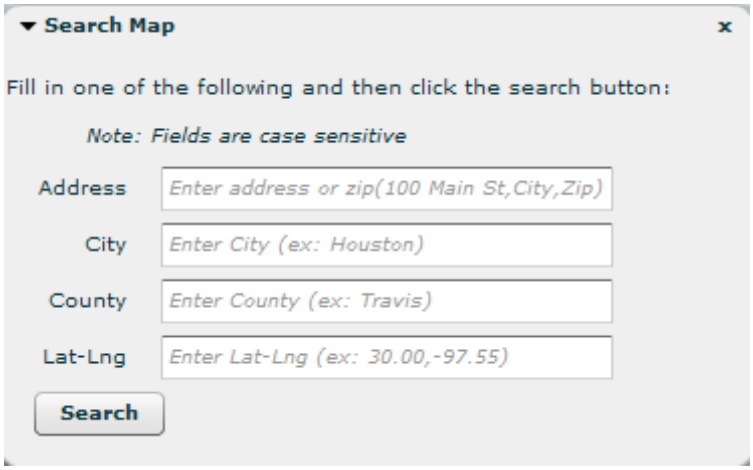
Zoom Tool Slider:

This tool allows you to zoom in or out of the map view by grabbing the selector and moving it up or down the slider or clicking on the '+' or '-' to incrementally zoom in or out of the map view.



Location Map:

The map viewer has a small location map on the bottom right hand corner of the view. You may use this box to do quick pans. Simply click anywhere outside the RED box and the larger map view will automatically pan to the location. You may also grab the RED box and move it around the location map and the larger map viewer will pan to that location.



Search Map:

Click the "Search Map" bar and a drop down menu will appear. This tool gives you several ways to search for the sampling data. *Note: this search tool is case sensitive. Please use proper case in your searches.*

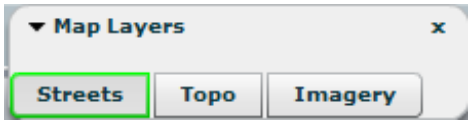
Address: Enter the street address and either city name or zip code, or both in the proper spaces, and click on the "Search" button. The map will zoom to the desired address. An address must be in the following format: '100 Main Blvd, Anytown'. An error message will popup if an invalid address is provided.

You may also search by entering the zip code. The map will zoom to the outlined area for that zip code. An error message will pop up if an invalid zip code is entered.

City: Type in a city name and click on the "Search" button. The map will zoom in to the desired city. The city will be shaded on the map.

County: Type in a county name and click on the "Search" button. The map will zoom to the desired county. The county will be shaded on the map.

Lat – Long: Enter the latitude and longitude in the proper spaces in the format of decimal degrees or degrees, minutes, seconds. Click on the "Search" button. The map will zoom to the map area based on the information you entered. If invalid information is given, a message will prompt you to the correct ranges of latitude and longitude.



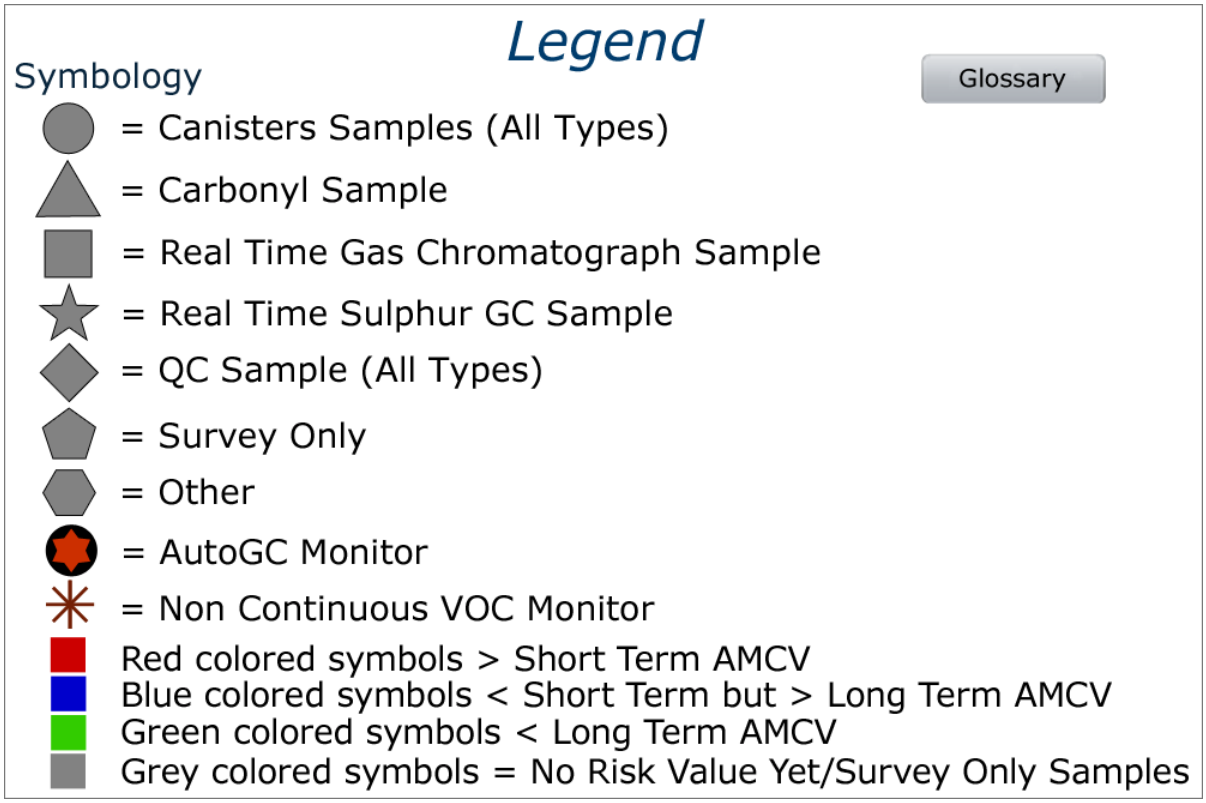
Map Layers:

This tool allows you to select the background.

Streets – gives you a cartographic view of the map viewer. As you zoom in, more details become available.

Topo – gives you a United States Geographical Survey (USGS) view. This view uses the USGS Topographic maps that have been edge matched and 'stitched' together for a seamless background.

Imagery – gives you an aerial imagery background view. The aerial imagery is from 2006 and will be updated as newer imagery becomes available.



Legend:

A legend is generated for the user and is located in the bottom left corner of the map viewer.

Grey symbols – indicate sites that have No Risk Value Yet or may be Survey Only.
As the samples are analyzed, a color code will be assigned.
Green symbols - indicate samples that are less than Long Term Air Monitoring Comparison Value (AMCV) risk levels.
Blue symbols - indicate samples that are less than Short Term but Greater than Long Term AMCV.
Red symbols - indicate samples that are above Short Term AMCV.

Seven different groups of sampling will be available in the map viewer: Canisters, Carbonyls, Real-Time GC (Gas Chromatograph), Real-Time Sulfur GC, Quality Control (QC) Canister and Carbonyl Samples, Survey Only and Other. QC Samples and Survey Only will only show in the grey color symbology.

ACL = Air Control Laboratory (Number)

AMCV = Air Monitoring Comparison Value

Short-term Air Monitoring Comparison Value (AMCV) - a level of an individual chemical in ambient air that people, including sensitive subpopulations, can be safely exposed to for up to an hour at a time. When evaluating data using the short-term AMCV, one must keep in mind the long-term AMCV. Some short-term AMCVs are based on the prevention of nuisance odor conditions or effects on plants.

Long-term Air Monitoring Comparison Value (AMCV) - a level of an individual chemical in ambient air that people, including sensitive subpopulations, can be safely exposed to for their lifetime. They are set to prevent chronic health effects, including cancer.

Automated Gas Chromatograph (AutoGC) – An instrument that both collects and analyzes an air sample within an hour. Every hour, this instrument collects an air sample for a 40 minute time period. After the collection is complete, the analysis of the sample begins in one module while the collection module has 20 minutes to prepare to collect the next 40 minute sample. The AutoGC runs quality control samples two hours out of each day. This automated system operates continuously, theoretically 24/7. The target analyte list for AutoGCs contains 46 chemicals. Data from an AutoGC is available within a few hours of analysis.

Canister sampling - a method of taking a sample of air (not analyzing the air!) that uses a stainless steel canister that has been scrupulously cleaned and is under a vacuum. The operator opens the valve on the canister, allowing the air sample to rush into the canister to fill the vacuum. When the canister is opened all at once allowing the air to be sampled over the span of a few seconds, we term this an instantaneous sample. A controller can be put on the canister sampler controlling (slowing) the flow of air into the canister over a prescribed time, i.e. 30 minutes, 1 hour, or 24 hours. The samples in the canister are then analyzed on another instrument, typically a gas chromatograph (GC). The GC can be set up in a mobile laboratory or in the TCEQ's Austin laboratory. The target analyte list for this type of sampling contains 84 chemicals. The TCEQ maintains a network of 24-hour canister sampling stations across the state. There can be a several-month time lag between the time a sample is taken and the data are finalized.

GasFind Infrared Camera - a handheld instrument similar to a camcorder that allows the user to visualize VOC emissions, detection limits are not as sensitive as other methods we use, but results are instant; does not speciate individual VOCs

QC Sample (includes: Quality Control (QC) Canister and Quality Control (QC) Carbonyls samples)

Survey Only = There is no ambient monitoring data associated with this type of sample. A “Survey Only” symbol is used where the agency has conducted a survey of the site with hand held instruments and determined, there are no emissions present at that time or the emissions observed did not warrant additional sampling.

TVA - Toxic Vapor Analyzer; a handheld instrument that can measure for total VOCs; detection limits are not as sensitive as other methods we use, but get instant results; does not speciate individual VOCs.

VOCs - Volatile Organic Compounds; Chemicals that are liquids but can easily volatilize into vapors; can vary widely in toxicity; benzene is typically the VOC of most concern with oil and gas activities in ambient air.