Online Ambient Air Monitoring Tools

## GeoTAM & TAMIS

## **Ambient Air Monitoring Online Tools**

TCEQ's interactive mapping application for Texas ambient air quality monitoring locations

Generate and download predefined data reports

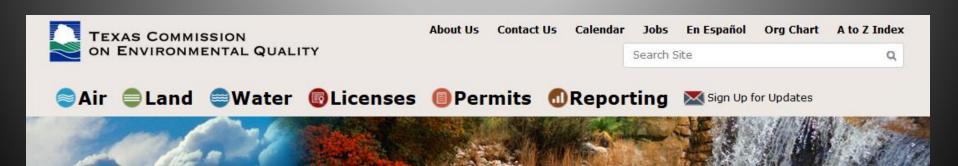
View site and monitor information

Access near real-time continuous and the most current validated non-continuous data

To get to either, first click the **Air** 



button at the top of the TCEQ homepage...



## **Ambient Air Monitoring Online Tools**

...then scroll down to the bottom of the page.

#### **Emissions and Reporting**

- Sources of Air Pollution
- Texas Emissions Reduction Plan (TERP)
- Viewing Reports of Emission Events
- Point Source Air Emissions Inventory
- Air Upset or Maintenance Reporting Forms
- Emissions Banking and Trading

#### Monitoring, Modeling and Analysis

- Toxicological Evaluations of Air Monitoring Data
- Oil and Gas Activities
- Memicoring and Data Collection
  - o Air Monitoring Site Information
  - Data Collected by Automated Gas Chromatographs
  - General Air Pollution and Meceorological Data
  - GeoTAM Interactive geographical representation of air quality monitoring in Texas
  - o Osone Data and Current Levels
  - PM2.5 Data: Soot, Dust, Smoke (Fine Particulate Matter)
  - Texas Air Monitoring Information System (TAMIS) -Access valid non-continuous and continuous air monitoring data

- Air Quality Modeling
  - o Air Modeling Data
  - Meteorological Modeling
  - Photochemical Modeling
  - Processing Air Pollution Emissions Data
  - Reproducing the Past and Predicting the Future
- · Air Quality Research
  - Air Quality Research and Contract Projects
  - Remote Sensing VOC Project
- Special Studies on Air
  - Texas Air Quality Study (TexAQSII)
  - Tribal Environment eXchange network

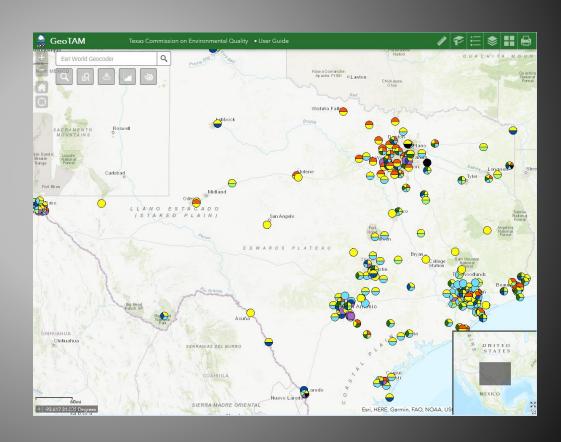
## What is GeoTAM?

Geographic Information Systems + Texas Air Monitoring Information System

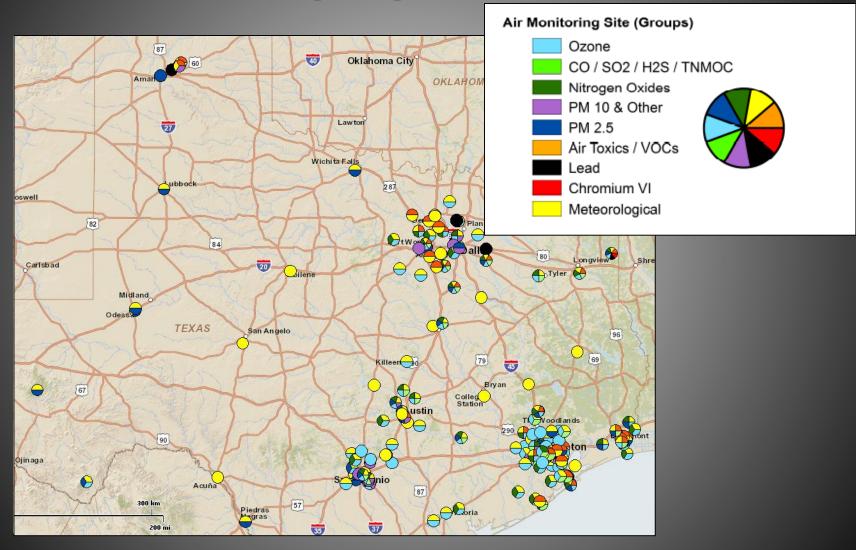
Perform spatial searches for ambient air monitoring sites from any coordinate or address

View detailed information about air monitoring sites

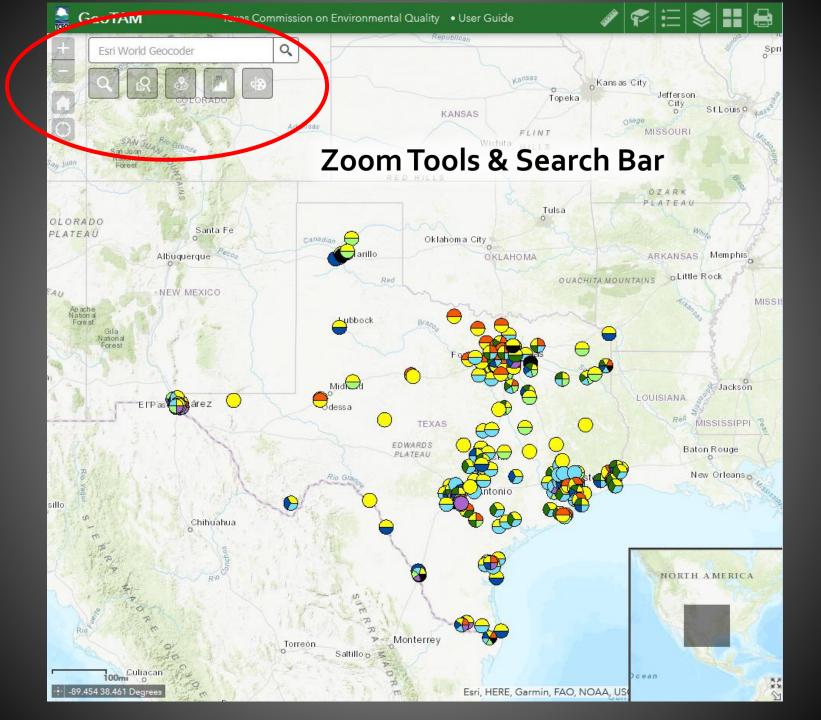
Use layers to view locations of schools, counties, legislative districts, and several other options



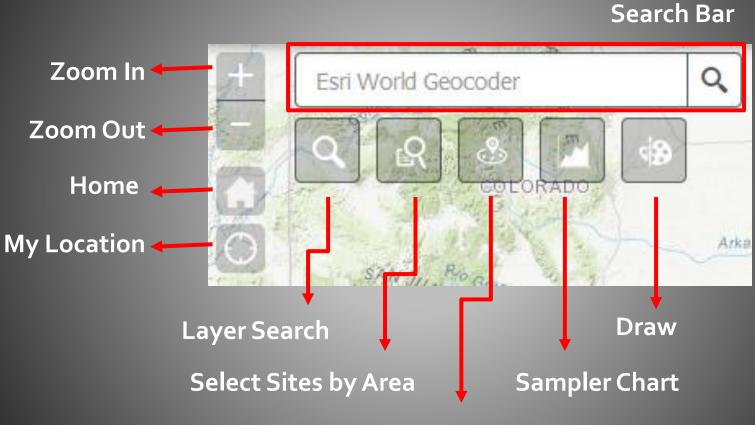
# GeoTAM Display



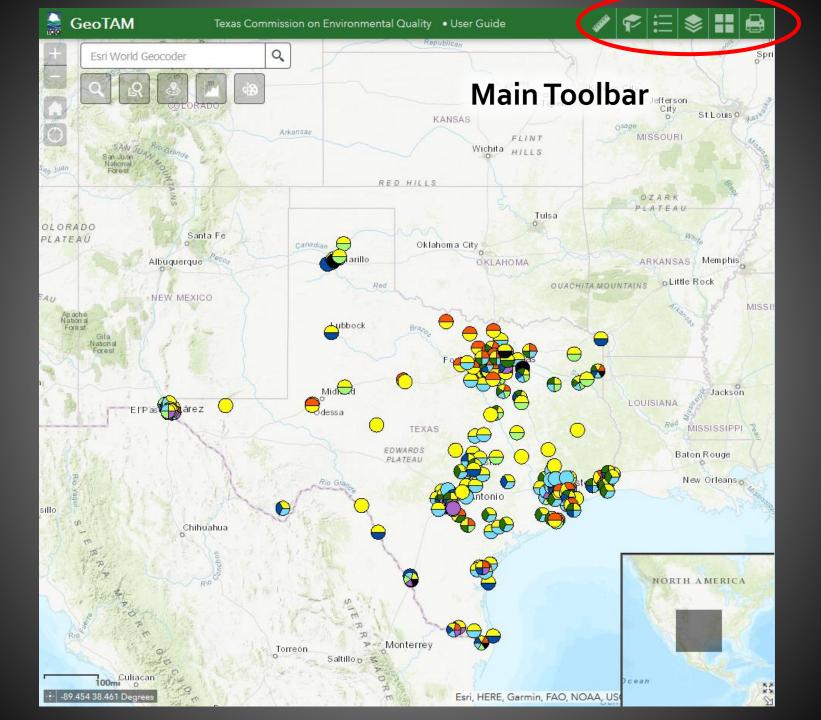
The multi-colored circles represent the different types of samplers at each site.



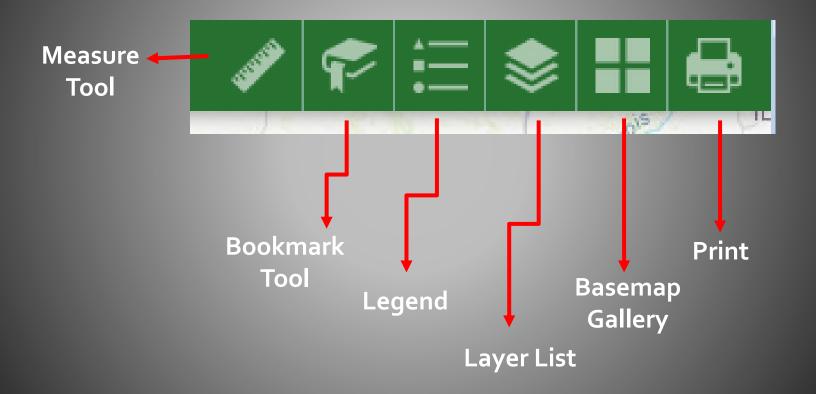
### **Zoom Tools & Search Bar**



Near Me (Buffer Query)



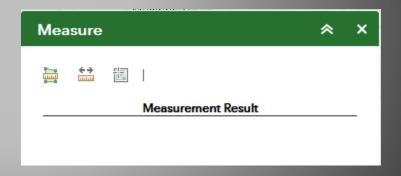
## Main Toolbar



### **Measure Tool**

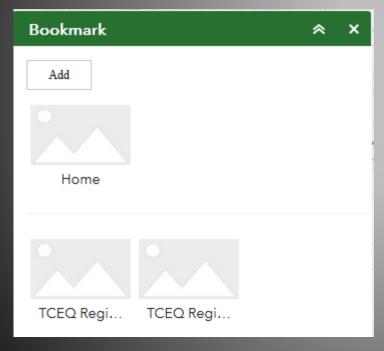


The Measure tool enables the user to measure point, linear, and area features on the map.



### **Bookmark Tool**

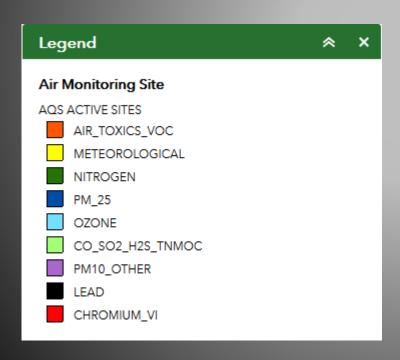




You can use the Bookmark tool to save a particular map extent (or zoom area).

### Legend

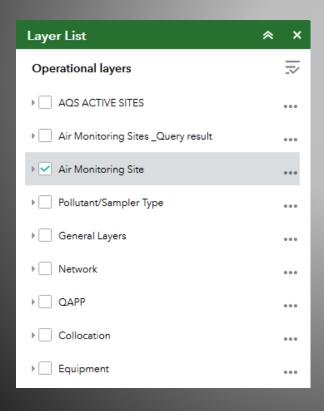




The Legend tool shows the symbology for the selected layers that you selected using the Layers tool.

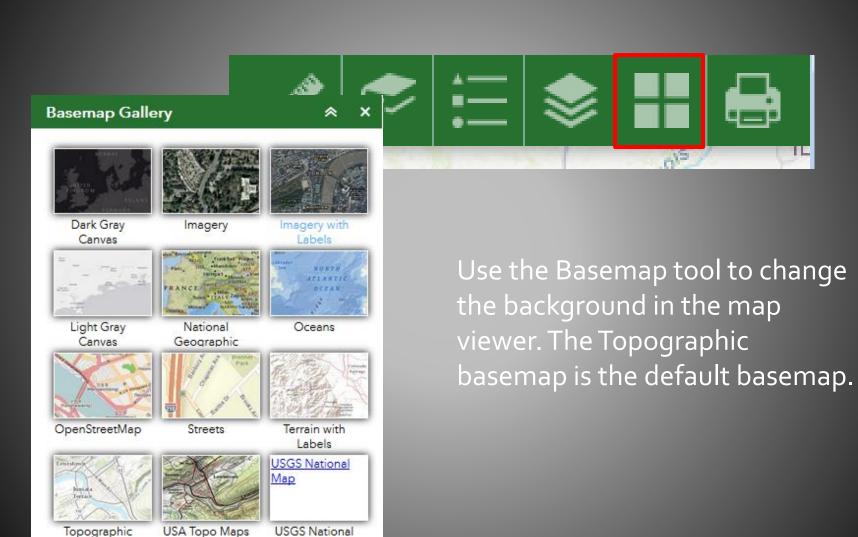
### Layer List





The Layer List can be used to turn on and off operational data layers such as Air Monitoring Sites, Pollutant Sampler Types, and General Layers.

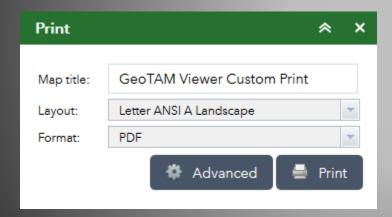
### Basemap Gallery



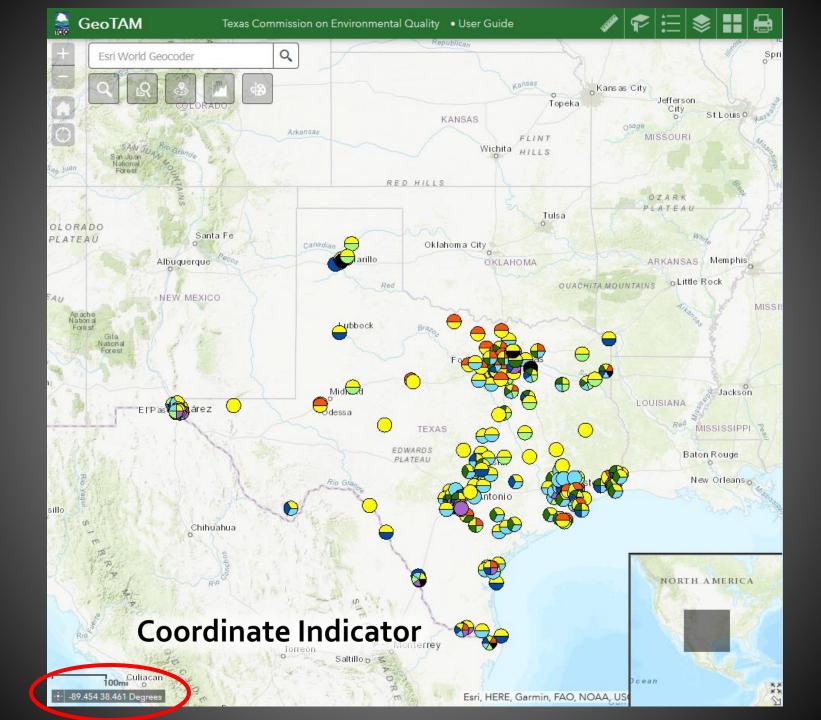
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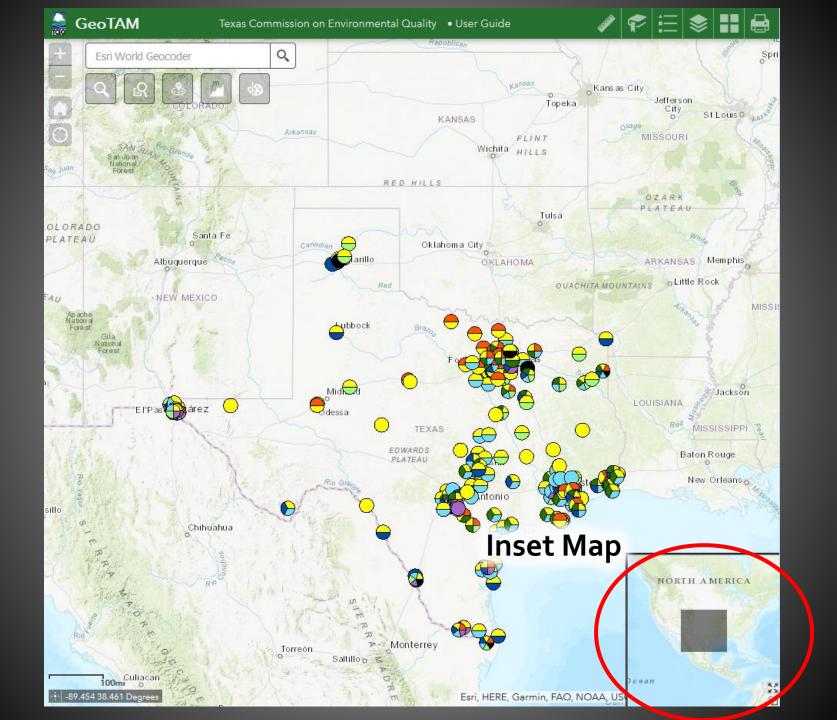
### **Print Tool**

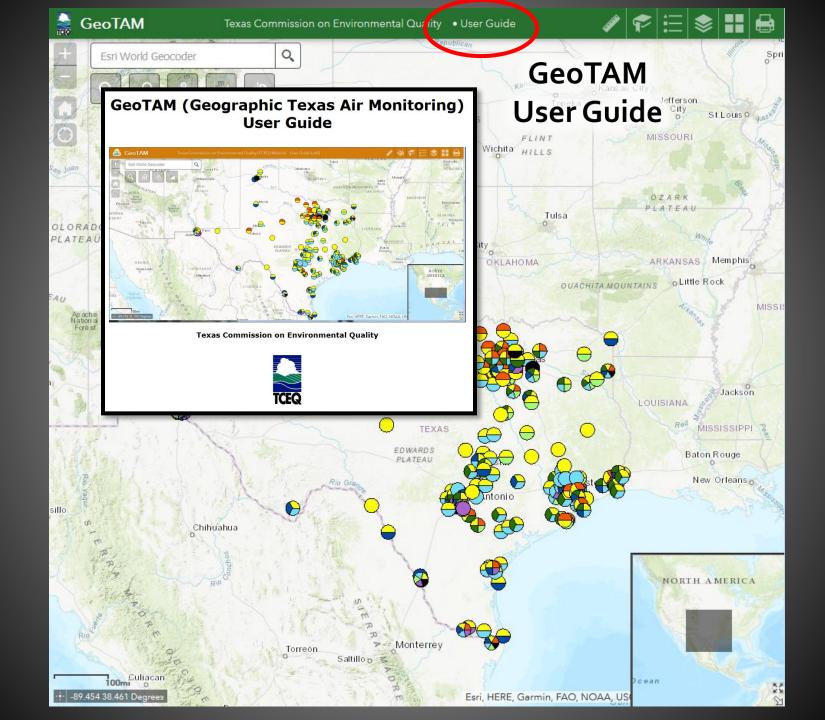




Use the Print tool to save the current map to an image file you customize.







## Texas Air Monitoring Information System

### News

Alerts, updates, release notes

### Reports

Validated data, mapping, summary

#### Site List

Ambient air monitoring sites

### Reference

Definitions and term meanings

### **GeoTAM**

Link to the GeoTAM mapping application



NOTE: Some data may have been evaluated by the TCEQ Toxicologists. To see Toxicological Evaluations, Click Here.

#### Welcome to the Texas Air Monitoring Information System (TAMIS) Web Interface

TAMISWeb allows users to generate and download predefined reports containing air quality data and associated information stored in the TAMIS database. This data is collected and maintained by the Data Collection Team of the Monitoring Division within the Office of Compliance and Enforcement.

TAMIS contains ambient air quality data values for many parameters, including:

- · Criteria Pollutants
- . Hazardous Air Pollutants (HAPs)
- · Volatile Organic Compounds (VOC's)
- · Meteorological Data

TAMIS also contains ambient air monitoring metadata, such as:

- · Geographic Information
- Measurement Parameters
- . Sampling and Analysis Methods
- Monitoring Method
- . Monitoring Networks
- Site Photographs

Throughout this website, a lightning bolt icon findicates that this control alters the webpage in some way without refreshing. Selecting the lightning bolt will explain what changes will occur. A book icon indicates that a more detailed list exists. Selecting the book will open a popup window with the detailed list.

#### Start Report

You can immediately start a report query without logging in, but you will not be able to save and edit queries, review your report generation history or have notifications sent to your email address.

#### Login

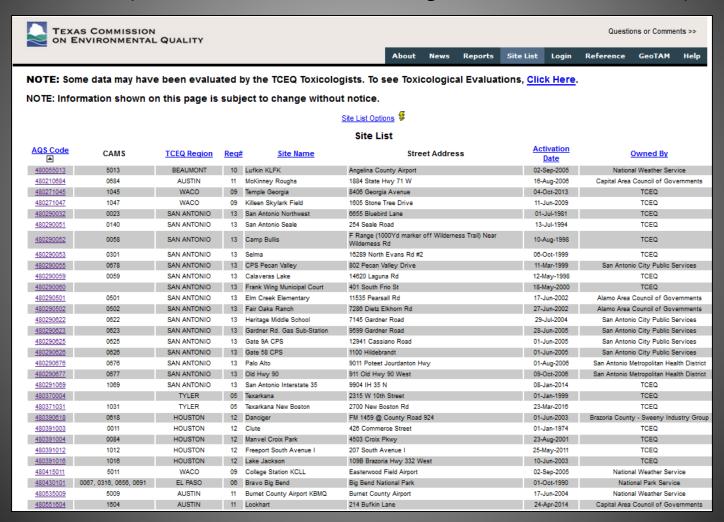
If you would like your reports to be saved using your email address, please login.

For questions involving the TAMISWeb application, reports, or if you have comments or suggestions please email tamis@tceq.texas.gov

NOTE: Throughout the TAMIS portion of the TCEQ website, users can access valid, validated, ambient (non-QC) data.

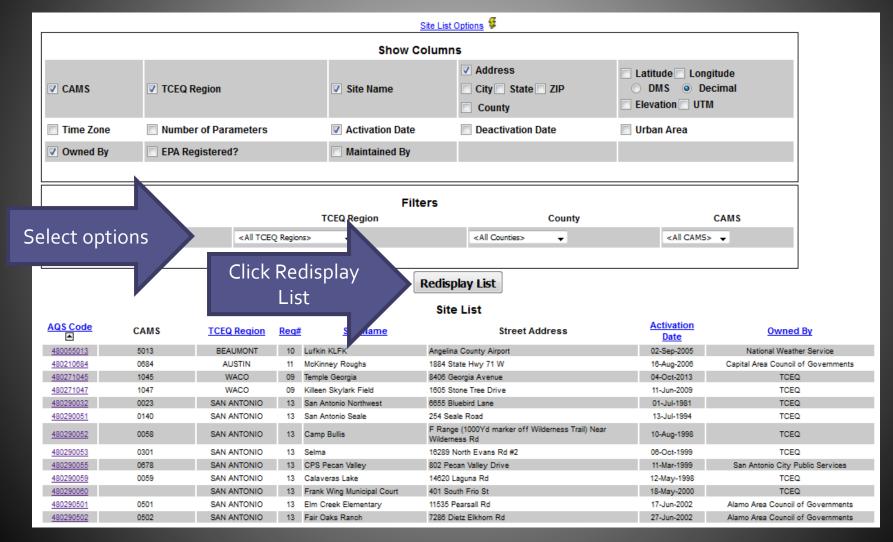
### Site List

List of the currently active ambient air monitoring sites owned or hosted by TCEQ.



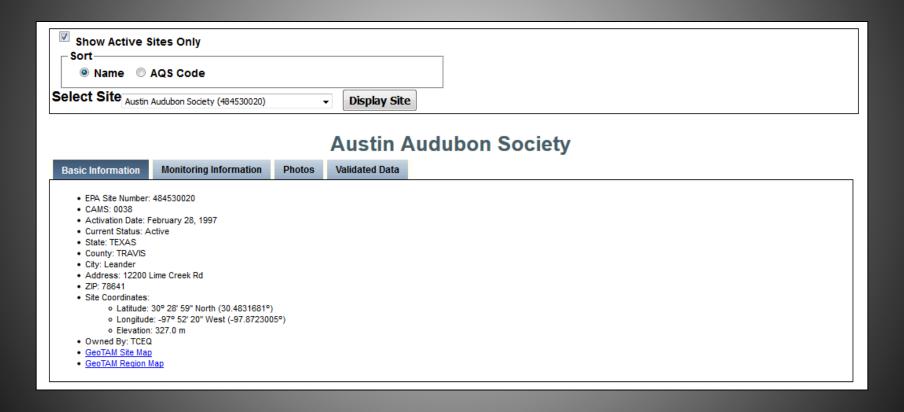
# Site List Options

Allows a user to customize the site list for their needs.



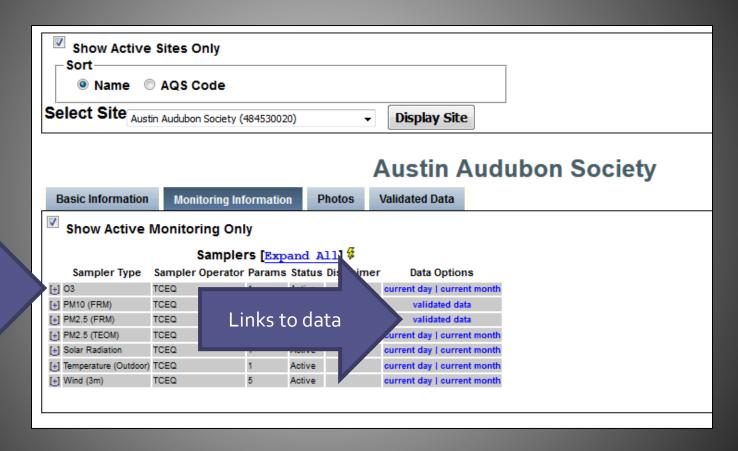
## Site Information

Site Name, identification number(s), startup date, location information.



# **Monitoring Information**

Monitoring type, operator, pollutants monitored, and links to data.



Expands to show pollutants monitored

## Near Real-Time Data

Data from near real-time ambient air monitoring samplers is updated online once an hour.

#### **<u>Audubon C38</u>** Data by Site by Date (all parameters)

Use this form to retrieve hourly data collected at Audubon C38. Although this is the most current data, it is not considered official until it has been certified by the technical staff. This information is updated hourly.

This web page provides the most current hourly averaged data available. Our convention for time-tagging data is the beginning of each hour. For example, values shown for the noon hour are based on measurements taken from noon to 1:00 p.m. The noon average will not be calculated until after 1:00 p.m. The noon average will then be available on our external server from 1:15 p.m. to 1:30 p.m. This results in an apparent one-hour time lag in the data. We also present our data in Local Standard Time for each measuring site. For most of Texas this is Central Standard Time. During Daylight Savings, this introduces another apparent one-hour time lag in the data.

Use the controls below to select a different date or time format. Click on the Generate Report button once you have made your selections. Click on the Plot Data button once the tabular report has been generated to open a separate window containing data plots.

CAMS 38 Audubon C38 Select a different site

Month: Day: Year: Time Format:

April 15 - 2016 - 12 Hour (AM/PM) Generate Report Plot Data

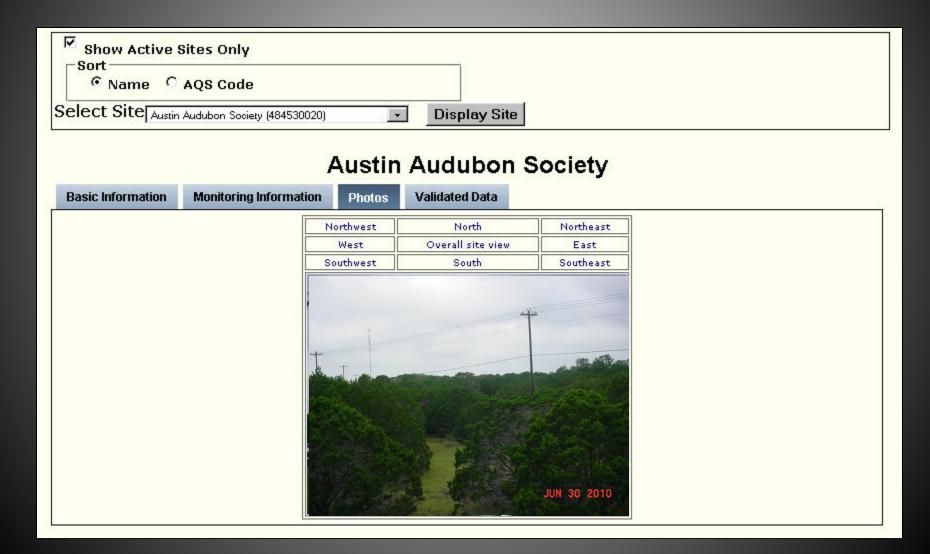
Green underline for validated data

The table below contains hourly averages for all the pollutants and meteorological conditions measured at Audubon C38 for **Friday, April 15, 2016**. All times shown are in CST.

Parameter Measured	Morning												Afternoon			Parameter Measured	POC
	Mid	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	Noon	1:00	2:00	Parameter Measureu	POC
Ozone	12	14	15	17	16	12	15	17	24	31	38	44	FEW	<u>NA</u>	<u>NA</u>	<u>Ozone</u>	R MDL
Wind Speed	3.0	3.3	3.3	3.0	3.6	2.8	3.8	3.6	4.1	3.9	4.4	<u>5.3</u>	FEW	NA	NA	Wind Speed	1
<b>Resultant Wind Speed</b>	3.0	3.2	3.2	2.9	3.4	2.5	3.3	3.2	3.6	3.2	3.3	4.2	FEW	NA	NA	Resultant Wind Speed	1
Resultant Wind Direction	72	62	58	68	73	105	123	121	124	130	134	102	FEW	NA		Resultant Wind Direction	1
Maximum Wind Gust	6.2	5.8	5.0	6.3	7.5	6.8	9.6	8.5	10.3	9.8	12.1	12.2	FEW	NA	NA	Maximum Wind Gust	1
Std. Dev. Wind Direction	12	10	9	17	17	29	30	28	28	35	<u>40</u>	36	FEW	NA		Std. Dev. Wind Direction	1
Outdoor Temperature	56.1	55.7	55.2	55.1	55.4	55.6	56.5	57.5	60.7	64.0	67.6	71.0	FEW	NA	NA	Outdoor Temperature	1
Solar Radiation	0.000	0.000	0.000	0.000	0.000	0.000	0.022	0.182	0.373	0.716	1.267	1.383	FEW	NA	NA	Solar Radiation	1
PM-2.5 (Local Conditions) Acceptable	5.3	6.9	5.2	9.0	8.9	9.5	9.7	<u>10.3</u>	6.8	3.8	6.5	5.4	FEW	NA	<u>NA</u>	PM-2.5 (Local Conditions) Acceptable	3 MDL
Parameter Measured	Mid	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	Noon	1:00	2:00	Parameter Measured	POC
	Morning Afternoon													on _	Parameter Measureu	FUC	
	Maximum values for each parameter are <b>bold</b> within the table. Minimum values are <b>bold italic</b> .																
	R - Da	ta fro	m this	instru	ment n	neets I	EPA qu	ality a	ssuran	ce crit	eria for	regula	tory pu	urpose	es.		

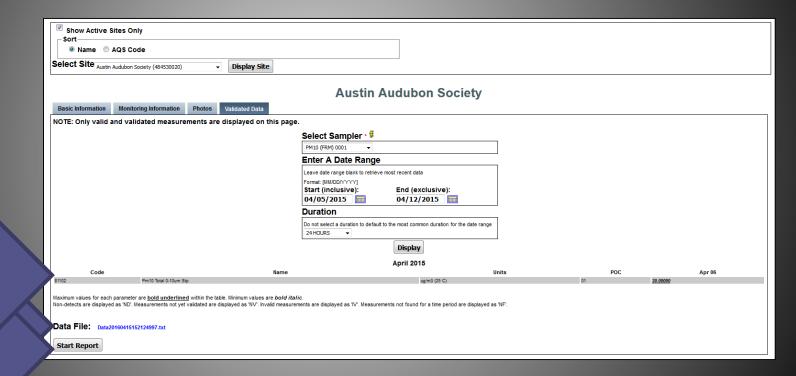
## Site Photos

Photos of the ambient air monitoring site and the immediately surrounding area.



## Validated Data

The most current, valid, validated data available from samplers at each site.

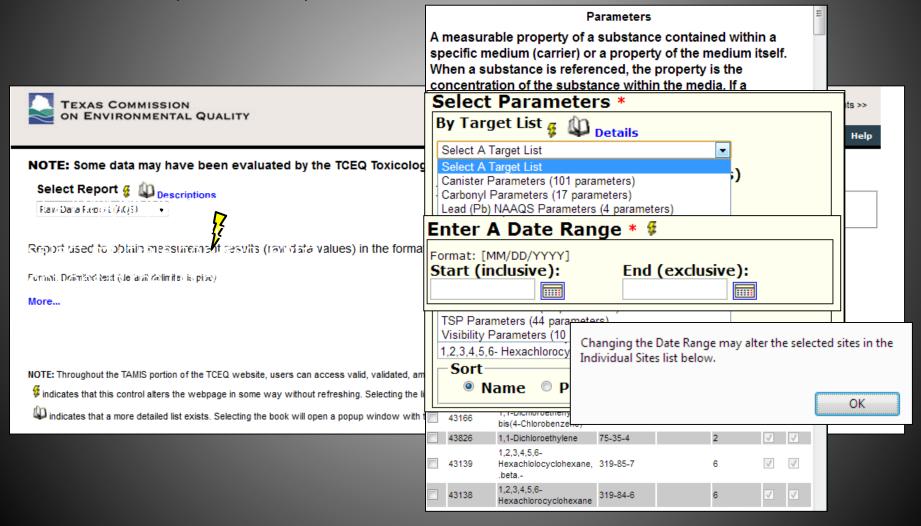


Most current validated data

data reportal

## Reports

Validated ambient air monitoring data reports, mapping data report, data summary statistics report



## Raw Data Reports

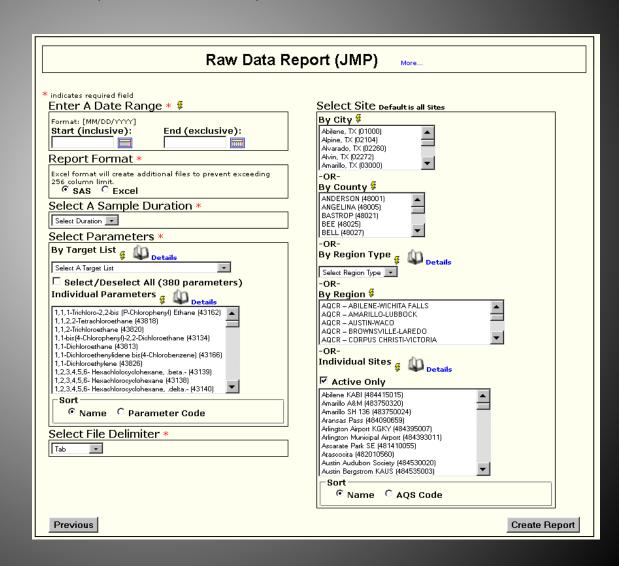
Used to obtain measurement results (raw data values).

Raw Data Report (AQS)

EPA's Air Quality System file format

Raw Data Report (JMP)

For import into SAS, Excel, or other statistical analysis applications



# Site GIS Report

The Site GIS Report is designed to provide the geospatial information and types of samplers operated at ambient air monitoring sites.

Latitude

Longitude

Other geospatial information

Easily imports into ArcGIS for customizable maps.

