

***Pennsylvania's 2013 Ambient Air  
Monitoring Network Plan***

***Comment/Response Document***

***July 12, 2013***

**Thomas Corbett, Governor  
Commonwealth of Pennsylvania**

**Hon E. Christopher Abruzzo, Acting Secretary  
Department of Environmental Protection**

<b>List of Commentators for the 2014 Ambient Air Monitoring Network Plan</b>
1. Kelly Finan, Susquehanna County
2. Frank Finan, Susquehanna County
3. Victoria Switzer, Susquehanna County
4. Carla Hornback, Lycoming County
5. Patti Gorcheff, Lima, Ohio
6. Janis Winschuh, Susquehanna County
7. Chuck Winschuh, Susquehanna County
8. Rebecca Roter, Susquehanna County
9. Julie Edgar, Northampton County
10. Laura Gingher, Wyoming County
11. Terry Ziemba, Pike County
12. Jolie DeFeis, Pike County
13. Jacqueline Rocco, Pike County
14. Ann E. Green, Susquehanna County
15. John Silla, Lycoming County
16. Kristin Landon, Wyoming County
17. Ralph Kisberg, Lycoming County
18. Gregory Pais, ND DHANP, Lycoming County
19. Diana Krewson, Wyoming County
20. Emily Krafjack, Wyoming County
21. Barbara Clifford, Susquehanna County
22. Fred Osman, Osman Environmental Services, LLC

**Comments in regard to the establishment of a permanent ambient air monitoring network across the Northern Tier counties of PA (Susquehanna, Bradford, Tioga, Sullivan, and Wyoming)**

**Commentators:** Kelly Finan, Frank Finan, Victoria Switzer, Carla Hornback, Patti Gorcheff, Janis Winschuh, Chuck Winschuh, Rebecca Roter, Julie Edgar, Laura Gingher, Terry Ziemba, Jolie DeFeis, Jacqueline Rocco, Ann E. Green, John Silla, Kristin Landon, Ralph Kisberg, Gregory Pais, and Diana Krewson.

**Comments:** In response to increasing shale gas drilling and associated natural gas processing activities, the commentators request that the Department establish a permanent ambient air monitoring network across the northern Tier of the Commonwealth, specifically in Tioga, Bradford, Susquehanna, Sullivan, and Wyoming Counties, and that this be noted in the 2013-2014 Annual Network Plan. Other commentators expressed concerns over air quality related health issues in relation to gas drilling and processing. According to one commentator, there is a possible link between increased emissions associated with natural gas extraction and processing and higher rates of asthma and/or other respiratory illnesses. There is a call by some, not only for increased monitoring, but also for daily air quality forecasting to be performed in these areas of

In 2012, the Department expanded ozone monitoring to a year round schedule at all sites which monitor for this pollutant, which goes above and beyond required monitoring during ozone season (April 1 to October 31). This action was in response to concerns about elevated ozone levels in shale gas drilling and production activities in locations across the western U.S. The Department will use data collected from the Tioga County, Towanda, Scranton and Peckville monitors as well as other ozone monitors located throughout the COPAMS network to detect any changes in ozone concentrations resulting from shale gas operations.

Air quality forecasts were expanded into the Scranton/Wilkes Barre as well as the Williamsport areas as of July 2012. These forecasts were designed to provide notification to these areas as to poor air quality days in regard to elevated ozone levels.

Ambient air monitoring data collected from the Susquehanna, Bradford, and Tioga County monitoring sites (along with data from all of the Department's monitoring sites) is posted on the Department's web site at [http://www.ahs2.dep.state.pa.us/qa\\_apps/aadata/](http://www.ahs2.dep.state.pa.us/qa_apps/aadata/). Based on analysis of the data collected thus far, the Department has found concentration levels of all pollutants monitored in the north-central region to be below National Ambient Air Quality Standards (NAAQS). Nonetheless, the Department will continue to conduct monitoring of both the ambient air as well as emissions from shale gas facilities, conduct a thorough analysis of the all of the data collected, and based on this data, install additional monitors as necessary.

**Comments by Emily Kraffack, President of Connection for Oil, Gas, and Environment in the Northern Tier (COGENT).**

**Comment 1:** A permanent ambient air monitoring network is needed in Pennsylvania's Northern Tier counties (Susquehanna, Bradford, Tioga, Sullivan, and Wyoming). There should be monitoring for ozone, oxides of nitrogen, carbon monoxide, PM<sub>2.5</sub>, PM<sub>10</sub>, volatile organic compounds, and air toxics.

**Response to comment 1:** Please refer to the response to the comment submitted by previous commentators in regards to Northern Tier ambient air monitoring.

**Comment 2:** Consider the comprehensive effect of pre- and post-unconventional emissions within the Northern Tier counties.

**Response to comment 2:** The intent of the ambient air monitoring network operated by the Department is to provide complete, quality assured and valid data on the overall concentrations of both NAAQS and non-NAAQS pollutants for use in demonstrating compliance with relevant regulations and assisting with determining health impacts on the citizens of the Commonwealth. As such, the comprehensive effect of shale gas extraction and processing industry and every other industry in Pennsylvania and surrounding states are considered as part of the process of planning for monitor deployment.

available to the public over the Internet. In addition, facility inspection data needs to be made available to the general public.

**Response to comment 6:** The Department will take this under consideration; however, this suggestion is outside the scope of the annual monitoring network plan.

**Comment submitted by Barbara Clifford of Montrose, PA**

**Comment:** The commentator is requesting a permanent ambient air monitoring site in Susquehanna County in response to concerns about natural gas drilling as well as compressor station activities in the area. More monitoring is needed to collect air quality data as shale gas activities continue to increase.

**Response:** The Department shares the concerns of the commentator on shale gas activities in Susquehanna County. Late in 2012, monitoring did commence at a site located in Springville, Susquehanna County as part of the 2012-2013 Annual Network Plan. This site was located downwind of compressor stations to monitor for volatile organic compounds (VOC's). The Department will continue to monitor in Springville over the next year, before moving this monitor to a site in Wyoming County. Based on the data received from these two studies, the Department will determine if further action is necessary, including where to place additional, permanent monitors across northeastern Pennsylvania. The Department will continue to study the effects of shale gas extraction as they relate to ambient air quality and commence additional projects as necessary.

Ozone is also now being monitored on a year-round basis at all Department ozone sites. In 2012, monitoring for ozone and nitrogen dioxide commenced at a site in Towanda, Bradford County. Nitrogen dioxide sampling was added to the existing ozone monitoring at a site in southeastern Tioga County.

All data from the Susquehanna, Tioga, and Bradford County sites is posted on the Department's web site at [http://www.ahs2.dep.state.pa.us/aq\\_apps/aadata/](http://www.ahs2.dep.state.pa.us/aq_apps/aadata/)

**Comment from Fred Osman of Osman Environmental Solutions, LLC**

**Comment:** The commentator is questioning whether the Laureldale North lead monitoring site is sited properly. The commentator claims the siting was based solely on stack emissions, and not fugitive ones. Sites operated by Exide, notably St Mike's I, II, and III are showing 3-month average lead levels up to 10 times higher than the Laureldale North averages. The commentator notes that EPA guidance for siting monitors near lead smelters suggests fenceline monitors show the highest readings with more fugitive emissions involved, and the Laureldale North site is far removed from the fenceline. The St Mike's sites are also located on the grounds of an assisted living facility. The commentator states that for the National Ambient Air Quality Standards (NAAQS) for lead to have any meaning, the ambient air must be measured at the maximum



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**[www.depweb.state.pa.us](http://www.depweb.state.pa.us)**

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## Acronyms

APCA	Air Pollution Control Act
AQS	Air Quality System
BAM	Beta Attenuation Monitor
CAA	Clean Air Act
CBSA	Core based statistical area
CFR	Code of Federal Regulations
CSA	Combined Statistical Area
CO	Carbon Monoxide
COPAMS	Commonwealth of Pennsylvania's Air Monitoring System
PA DEP	Pennsylvania Department of Environmental Protection
EPA	U. S. Environmental Protection Agency
FDMS	Filter Dynamics Measurement System
FEM	Federal Equivalent Method
FID	Flame Ionization Detector
FRM	Federal Reference Method
GC	Gas Chromatograph
IR	Infrared (radiation)
H <sub>2</sub> S	Hydrogen Sulfide
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NCore	National Core multipollutant monitoring stations
NO	The gaseous pollutant Nitrogen Oxide
NO <sub>2</sub>	The gaseous pollutant Nitrogen Dioxide
NO <sub>x</sub>	Oxides of Nitrogen
O <sub>3</sub>	The gaseous pollutant Ozone
PAMS	Photochemical Assessment Monitoring Station
Pb	Lead
PM <sub>2.5</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM <sub>10</sub>	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PM <sub>10-2.5</sub>	Particulate matter with an aerodynamic diameter between 10 and 2.5 micrometers
QA	Quality Assurance
SIP	State Implementation Plan
SLAMS	State or Local Air Monitoring Stations
SO <sub>2</sub>	The gaseous pollutant Sulfur Dioxide
SPM	Special Purpose Monitor
STN	PM <sub>2.5</sub> Speciation Trends Network
TSP	Total Suspended Particulate
TEOM	Tapered Element Oscillating Microbalance
UV	Ultraviolet
VOC	Volatile Organic Compounds

**Table 1. National Ambient Air Quality Standards (NAAQS).**

<b>Pollutant</b> [final rule cite]	<b>Primary/ Secondary</b>	<b>Averaging Time</b>	<b>Level</b>	<b>Form</b>	
<b>Carbon Monoxide</b> [76 FR 54294, Aug 31, 2011]	Primary	8-hour	9 ppm	Not to be exceeded more than once per year	
		1-hour	35 ppm		
<b>Lead</b> [73 FR 66964, Nov 12, 2008]	primary and Secondary	Rolling 3 month average	0.15 µg/m <sup>3</sup> (1)	Not to be exceeded	
<b>Nitrogen Dioxide</b> [75 FR 6474, Feb 9, 2010] [61 FR 52852, Oct 8, 1996]	Primary	1-hour	100 ppb	98th percentile, averaged over 3 years	
	primary and Secondary	Annual	53 ppb (2)	Annual Mean	
<b>Ozone</b> [73 FR 16436, Mar 27, 2008]	primary and Secondary	8-hour	0.075 ppm (3)	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years	
<b>Particle Pollution</b> [78 FR 3086, Jan 15, 2013]	PM <sub>2.5</sub>	Primary	Annual	12 µg/m <sup>3</sup>	annual mean, averaged over 3 years
		Secondary	Annual	15 µg/m <sup>3</sup>	annual mean, averaged over 3 years
		primary and secondary	24-hour	35 µg/m <sup>3</sup>	98th percentile, averaged over 3 years
	PM <sub>10</sub>	primary and secondary	24-hour	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year on average over 3 years
<b>Sulfur Dioxide</b> [75 FR 35520, Jun 22, 2010] [38 FR 25678, Sept 14, 1973]	primary	1-hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year	

(1) Final rule signed October 15, 2008. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remained in effect until one year after an area was designated for the 2008 standard, except that in areas designated nonattainment for the 1978, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

(2) The official level of the annual NO<sub>2</sub> standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

(3) Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, EPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard (“anti-backsliding”). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.

(4) Final rule signed June 2, 2010. The 1971 annual and 24-hour SO<sub>2</sub> standards were revoked in that same rulemaking. However, these standards remained in effect until one year after an area was designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

# Commonwealth of Pennsylvania Ambient Air Monitoring Network

## Program History

The Pennsylvania Air Pollution Control Act (APCA), enacted originally on January 8, 1960, 35 P.S. Section 4001 et seq., established the framework for the Commonwealth's air pollution control program. The Declaration of Policy set forth in Section 2 of the APCA, 35 P.S. Section 4002, provides:

*It is hereby declared to be the policy of the Commonwealth of Pennsylvania to protect the air resources of the Commonwealth to the degree necessary for the (i) protection of public health, safety and well-being of its citizens; (ii) prevention of injury to plant and animal life and to property; (iii) protection of the comfort and convenience of the public and the protection of the recreational resources of the Commonwealth; (iv) development, attraction and expansion of industry, commerce and agriculture; and (v) implementation of the provisions of the Clean Air Act in the Commonwealth.*

Section 4 of the APCA empowers the Department of Environmental Protection (formerly the Department of Environmental Resources and hereafter referred to as the PA DEP or Department) to implement the provisions of the Clean Air Act in the Commonwealth. 35 P.S. Section 4004(1).

The Air Pollution Control Act of 1955 was the first federal legislation involving air pollution. This Act provided funds for federal research in air pollution. The Clean Air Act of 1963 was the first federal legislation regarding air pollution *control*. It established a federal program within the U.S. Public Health Service and authorized research into techniques for monitoring and controlling air pollution. In 1967, the Air Quality Act was enacted in order to expand federal government activities. In accordance with this law, enforcement proceedings were initiated in areas subject to interstate air pollution transport. As part of these proceedings, the federal government for the first time conducted extensive ambient monitoring studies and stationary source inspections.<sup>1</sup>

The federal Clean Air Act Amendments of 1970 included provisions which established criteria pollutants, authorized EPA to set national ambient air quality standards (NAAQS), and required states to develop State Implementation Plans (SIPs), which include enforceable requirements and control measures to attain and maintain the standards.

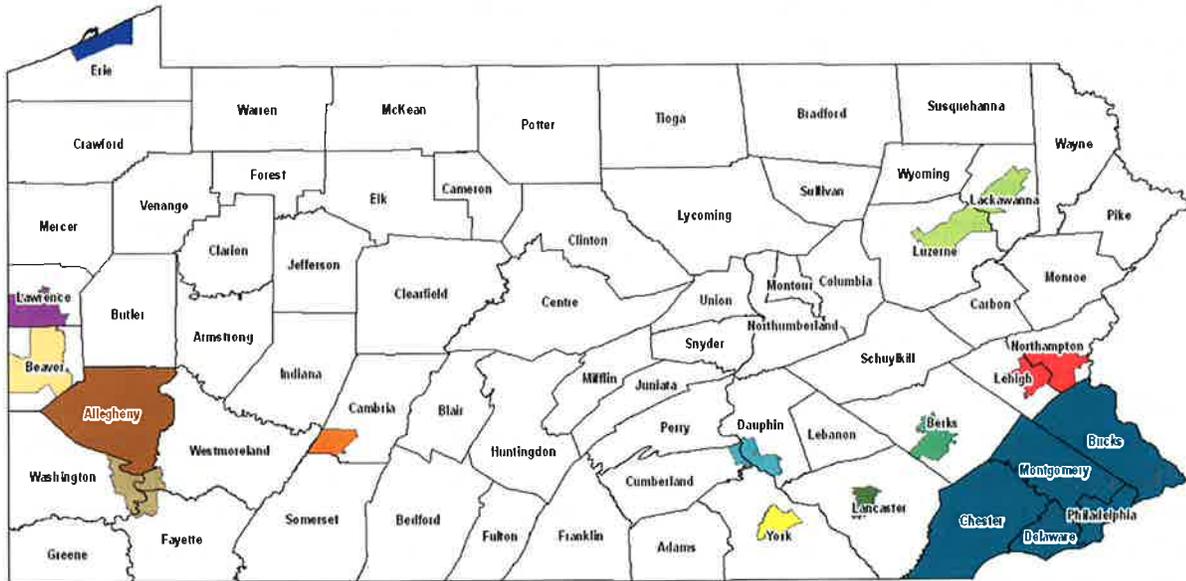
When established in 1971, the Department implemented air pollution control programs to protect the air resources of the Commonwealth that, with a great deal of success, have largely addressed major public health and welfare air quality concerns. Significant changes have occurred over the years with the program, notably with the passage of the Clean Air Act Amendments in 1990 as well as the adoption and implementation of PM<sub>2.5</sub> NAAQS requirements in 1997. Currently, PA DEP has an extensive monitoring program that not only monitors for criteria pollutants, but also for air toxics and volatile organic compounds (VOCs).

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<sup>1</sup> [http://www.epa.gov/air/caa/caa\\_history.html](http://www.epa.gov/air/caa/caa_history.html)

In addition to MSA monitoring, more than half of PA DEP air monitoring stations are located in the “air basins” of the Commonwealth. Air basins as defined in 25 Pa. Code § 121.1 consist of thirteen geographical areas. Figure 2-2 displays the geographical boundaries of these areas. PA DEP conducts air monitoring surveillance in both air basin and non-air basin regions.

Figure 2-2. Map of Pennsylvania Air Basins.



**LEGEND:**

Air Basin	
	Allegheny County
	Allentown, Bethlehem, Easton
	Erie
	Harrisburg
	Johnstown
	Lancaster
	Lower Beaver Valley
	Monongahela Valley
	Reading
	Scranton, Wilkes-Barre
	Southeast Pennsylvania
	Upper Beaver Valley
	York

PA DEP also maintains a cooperative agreement with Pennsylvania State University’s (PSU) Department of Plant Pathology for ozone monitoring in three remote areas of the Commonwealth: Centre County (near State College), Clearfield County (near Moshannon), and Tioga County (near Gleason). PSU uses ozone data collected from this cooperative monitoring effort to determine detrimental effects to Pennsylvania’s forests and crops, and to assess ozone transport in rural Pennsylvania.

County. In addition to criteria pollutant monitoring, AMS also conducts monitoring for air toxics and chemical speciation of PM<sub>2.5</sub> at selected sites.

This document does not provide detailed descriptions of the monitoring networks operated by the local air pollution control programs in Philadelphia and Allegheny Counties. Detailed descriptions of local networks will be submitted to EPA by the Allegheny County Health Department and the City of Philadelphia Department of Public Health Air Management Services, respectively. Contact information for ACHD and AMS is located on page 25 of this plan.

### **Description of Appendix A**

The 2013 Pennsylvania Air Monitoring Network consists of the sites and monitors listed in Appendix A, "PA DEP Ambient Air Monitoring Sites, Parameters and Maps." This appendix details site information, pollutants monitored at each site, and detailed maps of sampling sites, organized into MSA and non-MSA regions.

### **Description of Appendix B**

Appendix B, relating to the "Pennsylvania Monitoring Network Description," provides a detailed description of the existing monitoring network. This appendix includes information related to the location of the site, monitoring parameters at the site, and details about the monitors themselves in order to meet the requirements of 40 CFR § 58.10 (a) and (b).

The first block, the Site Information Block, contains information identifying the site by both address and latitude and longitude. This block also contains the Air Quality System (AQS) site identification and information regarding inclusion of the monitoring site in any Metropolitan Statistical Area (MSA).

Following the Site Information Block, there is a series of one or more Sensor Information Block(s) containing information for each monitor at the site. Each sensor block contains the following information:

- Sensor Type – The name of the pollutant measured by the sampler.
- Sensor Network Designation – The name of the designated network
  - NCore – National Core multipollutant Monitoring Station
  - PAMS – Photochemical Assessment Monitoring Station
  - SLAMS – State or Local Ambient Monitoring Station
  - STN – PM<sub>2.5</sub> Speciation Trends Network
  - SPM – Special Purpose Monitor
- Sensor Purpose Description – The purpose of the sensor
  - Population Exposure, such as the Air Quality Index
  - Regulatory compliance with Federal or State regulation
  - Research/Scientific Monitoring
  - Specific location characterization
- Sample Frequency – Specifies how often a sample is taken

- 40 CFR Part 58 Appendix D Scale – The specific “spatial scales of representation” describes the physical dimensions of the air parcel around the monitoring station throughout which actual pollutant concentrations are reasonably similar.
  - Microscale - Areas ranging from several meters to about 100 meters,
  - Middle scale - Areas ranging from 100 meters to 0.5 kilometers,
  - Neighborhood - 0.5 to 4.0 kilometers, and uniform land use,
  - Urban scale - 4 to 50 kilometers, and
  - Regional - ten to hundreds of kilometers.
- 40 CFR Part 58 Appendix D Objective – Describes the purpose/objective for monitoring at a site.
  - Extreme downwind
  - General/Background concentration
  - Highest concentration
  - Maximum ozone concentration
  - Population exposure
  - Regional transport
  - Source oriented
- 40 CFR Part 58 Appendix E Siting Criteria – Describes certain criteria applicable to ambient air quality sampling probes and monitoring paths, such as distances from trees, obstructions, traffic lanes, etc. A “YES” indicates that the sensor at the given site meets or exceeds the requirements of 40 CFR Part 58 Appendix E.
- Start Date – Displays the sampling start date
- Comments – The database contains a comments section for each monitor. Appropriate comments, as necessary, are found in this area.

### **Description of Appendix C**

Appendix C provides information pertaining to the manufacturers, models and analysis methods used in the monitoring network operated and maintained by the Department’s Air Quality Monitoring Division.

**Towanda Site:** In light of increased natural gas extraction activities in the north-central region of the Commonwealth, PA DEP installed a new ozone and NO<sub>x</sub> monitoring site near Towanda (Bradford County) and began sampling in March 2013. The Towanda site is located in an area downwind of substantial Marcellus shale gas extraction drilling sites and gas compression facilities, and because of the local topography (ridge and valley); the Department wants to determine if the two factors combined will have an increasing effect on winter-time ozone levels, a situation that has occurred in western states such as Wyoming.

**Ozone:** Beginning in 2012, PA DEP implemented year-round ozone monitoring at all ozone monitoring sites in the state-wide network. The year-round ozone monitoring program was implemented to obtain background information and to determine if unconventional shale gas activities impact wintertime ozone levels, as has been documented in other shale gas regions such as the Upper Green River Basin in Wyoming.

**PM<sub>2.5</sub>:** The continuous Beta-Attenuation Mass (BAM) PM<sub>2.5</sub> sensor was approved as an FEM method in March 2008. However, since the deployment of these sensors into the Department's monitoring network over the past few years, PA DEP has found that the BAM sensors commonly record PM<sub>2.5</sub> concentration measurements approximately 10% higher than measurements obtained by gravimetric FRM monitors. During several conference calls with EPA in 2012, it was noted that several other state agencies across the nation have seen similar results with the correlation between BAM and FRM monitors. PA DEP is continuing to evaluate collocated data from all monitoring sites with both BAM and FRM monitors, and is working with the BAM manufacturer to improve BAM and FRM correlation. In addition, FRM monitors have been re-installed at four sites – New Garden (Chester County), Freemansburg (Northampton County), Florence (Washington County) and Greensburg (Westmoreland County) – which previously maintained BAM samplers only for PM<sub>2.5</sub> monitoring.

**Lead (Pb):** PA DEP has completed installation of Tisch brand lead samplers at all sites in the network, replacing Hi-Q lead samplers. As stated in the previous Network Plan, the Hi-Q monitors initially purchased for Pennsylvania's expanded lead monitoring network performed poorly and had a high maintenance requirement. Replacement of the samplers with Tisch brand samplers was done in two phases — the samplers located at higher priority sites were replaced during the first phase, which was completed in February 2012. The second phase of this initiative was completed during the 2012/2013 fiscal year.

PA DEP did not relocate the quality assured collocated lead monitor from Lyons Park to Beaver Valley, as was discussed in the previous year's plan, because relocation of the monitor was no longer necessary. Pursuant to 40 CFR Part 58, Appendix A, collocated monitors must be operated at 15% of the lead monitoring sites. The first collocated monitor must be installed at the site measuring the highest Pb concentrations in the network. Currently, PA DEP has the required two quality assured collocated monitors operating in Berks County at the Laureldale North and Lyons Park sites. During 2012, the Laureldale North monitor measured lead concentrations higher than all other monitoring sites in the lead monitoring network, surpassing Beaver Valley. Therefore, the quality assurance requirement in 40 CFR Part 58, Appendix A is met by the existing network design.

Due to contract difficulties with multiple property owners at the current Beaver Valley lead site, the Department has been actively looking into relocating the criteria lead monitor and toxic metals monitor to a new location 375 meters to the southeast. PA DEP personnel met with the new site property

**Site and Monitoring Activity Anticipated within the Next 18 Months**

**Table 3. Summary of Proposed Changes to the PA DEP Air Monitoring Network within the Next 18 Months.**

Pollutant Network	Proposed Changes
NO <sub>2</sub>	<ul style="list-style-type: none"> <li>• PA DEP NO<sub>2</sub> near-road site requirement delayed until 2017.</li> <li>• Chester (Delaware County) and Erie (Erie County) identified as RA-40 sites.</li> </ul>
PM <sub>2.5</sub>	<ul style="list-style-type: none"> <li>• Continue correlation study of FEM vs. FRM monitors</li> <li>• Install One additional PM<sub>2.5</sub> monitoring site in Lancaster County</li> </ul>
Air Toxics	<ul style="list-style-type: none"> <li>• Continuation of the long-term Marcellus shale monitoring study in Washington County. These sites are located in Washington County near permanent natural gas processing facilities.</li> <li>• Relocate Springville VOC sampler to a “yet-to-be-determined” location in Wyoming County for one year.</li> </ul>

**Oxides of Nitrogen (NO<sub>2</sub>):** On February 9, 2010, EPA revised the primary NAAQS for nitrogen dioxide by setting a new 1-hour standard of 100 parts per billion (ppb). The standard is based on a three year average of the 98th percentile of the annual distribution of daily maximum 1-hour average concentrations. EPA also retained the annual standard of 53 ppb. When EPA promulgated the NO<sub>2</sub> NAAQS revision, it put a new emphasis on near-road monitoring in heavily trafficked roadways with high levels of both truck and car traffic. At least one NO<sub>2</sub> monitor is required in MSAs with populations over 500,000 persons. In the 2010 rule, these near-road monitors were scheduled to be installed and operational by January 1, 2013. However, in 2012, EPA acknowledged that many states and local communities are facing budget shortfalls, and even at the federal level, not enough resources existed to bring the NO<sub>2</sub> monitoring program to full fruition by 2013. As a result, on October 5, 2012, EPA proposed revisions to the NO<sub>2</sub> rule to allow for a more gradual phase in of NO<sub>2</sub> monitoring over a four-year period to address the resource shortfall (EPA-HQ-OAR-2012-0486). MSAs with populations of 1 million or more persons must now have at least one monitor operational by January 1, 2014, and if a second monitor is required in these MSA’s, it must be operational by January 1, 2015. MSAs with populations of at least 500,000 but under a million persons will be required to have a NO<sub>2</sub> monitor set up and operational by 2017. Under the final NO<sub>2</sub> rule, PA DEP is required to install near-road monitors in four MSAs: Allentown-Bethlehem-Easton, Scranton-Wilkes-Barre, Lancaster and Harrisburg. All of these MSAs have populations of at least 500,000 but under a million persons; therefore PA DEP plans to have these monitors installed and operational by the revised 2017 deadline.

In addition, Pennsylvania shares several MSAs with neighboring states. The following are plans of county agencies and neighboring state agencies to meet the requirements of near-road NO<sub>2</sub> implementation:

New York/New Jersey/Long Island MSA – The New Jersey Department of Environmental Protection will be installing a monitor in the PA/NY/NJ MSA in Fort Lee along I-95 near the George Washington Bridge linking New Jersey to New York City. This monitor should be operational by January 1, 2014. The New York State Department of Environmental Conservation will be installing a second monitor on the New York City side of the Hudson River sometime by the end of 2014. At present, Pike County represents only 0.5 percent of the total MSA population of approximately 19

DEP added four VOC monitoring sites in Washington County. In addition, PA DEP also installed a carbonyl monitor at one of these sites. The Department located, installed and commenced operation of the main monitoring station near a gas processing facility. The main station will house a select array of monitors including a VOC/carbonyl sampler and will operate on the standard EPA 1-in-6 day schedule. PA DEP located, installed and commenced operation of two “satellite” monitoring sites near other large compressor or gas processing facilities. The satellite sites are smaller in scale than the main site but will sample for the same toxic pollutants on the same sampling schedule. A fourth VOC monitoring site was located, installed and commenced operation as an “upwind” site to the main station. These sites will continue to monitor and collect data throughout most of 2013.

The Department continues the operation of its air toxics monitoring network in partnership with Millersville University, Gannon University, Bucknell University, Ursinus University, Slippery Rock University, and the Pennsylvania State University to collect samples across the Commonwealth. PA DEP will continue to work with these University partners.

The Department intends to relocate the VOC canister sampler at the Springville site in Susquehanna County to a “yet to be determined” location in Wyoming County that is also undergoing Marcellus shale gas well pad development, extraction, gathering and transmission for the purpose of long-term toxic exposure and risk/hazard assessment. Deployment in Wyoming County will commence in early 2014. Data collected from both the Springville and Wyoming County site during the two-year span (as it becomes available) will be assessed to determine further action by the Department.

### **Nitrogen Dioxide (NO<sub>2</sub>)**

Nitrogen dioxide is a highly toxic, reddish brown gas that is created primarily from fuel combustion in industrial sources and vehicles. It creates an odorous brown haze that causes eye and sinus irritation, blocks natural sunlight and reduces visibility. It can severely irritate the respiratory system and has been associated with acute effects in individuals diagnosed with respiratory disease. Nitrogen dioxide contributes to the creation of acid rain and plays a key role in nitrogen loading, adversely impacting forests and other ecosystems.

Nitrogen oxides are measured using the chemiluminescence reaction of nitric oxide (NO) with ozone (O<sub>3</sub>). Air is drawn into a reaction chamber where it is mixed with a high concentration of ozone from an internal ozone generator. Any nitric oxide mixes with ozone to produce NO<sub>2</sub>. Light from this reaction is detected with a photomultiplier tube and converted to an electrical signal proportional to the nitric oxide concentration. Total nitrogen oxides (NO<sub>x</sub>) are measured by passing the air through a converter where any NO<sub>2</sub> in the air is reduced to nitric oxide before the air is passed to the reaction chamber. By alternately passing the air directly to the reaction chamber and through the converter before the reaction chamber, the analyzer alternately measures nitric oxide and NO<sub>x</sub>. Nitrogen dioxide (NO<sub>2</sub>) is measured indirectly by a subtraction of the NO<sub>x</sub> and NO concentrations.

### **Ozone (O<sub>3</sub>)**

Ground-level ozone, or photochemical smog, is a secondary pollutant. Ozone is generally not emitted directly into the atmosphere as ozone, but rather is formed by chemical reactions between other air pollutants. The primary pollutants involved in these reactions – volatile organic compounds (VOCs) and oxides of nitrogen (NO<sub>x</sub>) – form ozone in the presence of sunlight and warm temperatures. Thus, sources that emit these ozone precursors are sources of ozone. Nitrogen oxides result from fossil fuel combustion and sources commonly include power plants, industrial boilers, and motor vehicles. VOCs are emitted from a variety of sources, including motor vehicles, chemical plants, refineries, and even natural (biogenic) sources. Ozone and the precursor pollutants that cause ozone also can be transported into an area from pollution sources located hundreds of miles away. Because the formation of ozone is boosted by increasing sunlight and temperatures, changing weather patterns contribute to yearly differences in ozone concentrations, with peak concentrations occurring during the summer months.

Ground-level ozone is a strong irritant to the eyes and upper respiratory system and can hamper breathing. It also damages vegetation, including forest and agricultural crops, and man-made materials such as monuments and statues.

Ozone is measured by ultraviolet absorption photometry. Air is drawn through a sample cell where ultraviolet light (254 nm wavelength) passes through it. Any light that is not absorbed by the ozone is then converted into an electrical signal proportional to the ozone concentration.

### **Particulate Matter (PM<sub>10</sub>)**

PM<sub>10</sub> (including PM<sub>2.5</sub>) appears to represent essentially all of the particulate emissions from transportation sources and most of the emissions in the other traditional categories (coal-burning power plants, steel mills, mining operations, etc.). Although PM<sub>2.5</sub> is technically included in the definition of PM<sub>10</sub>, the terms “PM<sub>10</sub>” or “coarse” particles are commonly used to refer to particles greater than PM<sub>2.5</sub>, but less than 10 micrometers in diameter.

## Ambient Air Quality Monitoring Organizations and Network Summary Tables

**Table 5. Air Pollution Control Agencies in the Commonwealth of Pennsylvania.**

Organization	Address and Phone	Internet
Allegheny County Health Department	39th Street and Penn Ave Pittsburgh, PA 15201 (412) 578-8104	<a href="http://www.achd.net/air/index.html">http://www.achd.net/air/index.html</a>
City of Philadelphia Department of Public Health Air Management Services	321 University Avenue Philadelphia, PA 19104 (215) 685-7584	<a href="http://www.phila.gov/health/airmanagement/">http://www.phila.gov/health/airmanagement/</a>
Commonwealth of Pennsylvania Department of Environmental Protection Bureau of Air Quality Division of Air Quality Monitoring	Rachel Carson State Office Building 12th Floor 400 Market Street P.O. Box 8468 Harrisburg, PA 17105-8468 (717) 787-6548	<a href="http://www.depweb.state.pa.us/">http://www.depweb.state.pa.us/</a> (Choose "Air" from the left-hand menu)

**Table 6. Summary of Criteria Pollutant Air Monitoring Sites.**

	Criteria Pollutants													
	Ozone		Sulfur Dioxide		Nitrogen Dioxide		Carbon Monoxide		Particulate Matter		Particulate Matter		Lead	
	(O <sub>3</sub> )		(SO <sub>2</sub> )		(NO <sub>2</sub> )		(CO)		(PM <sub>2.5</sub> )		(PM <sub>10</sub> )		(Pb)	
MSA or non-MSA Region	SLAMS	SPM	SLAMS	SPM	SLAMS	SPM	SLAMS	SPM	SLAMS	SPM	SLAMS	SPM	SLAMS	SPM
Philadelphia-Camden-Wilmington MSA <sup>1</sup>	4		3		2		1		4		1		2	
Allentown-Bethlehem-Easton MSA	3		1		1		1		2		2		1	
Scranton-Wilkes-Barre MSA	4		1		1		1		1		1		1	
New York-Northern NJ-Long Island MSA														
Northeast Region - Non-MSA	1								1					
Altoona MSA	1		1						1		1			
Harrisburg-Carlisle MSA	3		1		1				2		2			
Lancaster MSA	2				1				1		1		1	
Lebanon MSA	1								1					
Reading MSA	2		1		1		1		1		1		4	
York-Hanover MSA	2		1		1		1		1		1			
Southcentral Region - Non-MSA	1				1		1		1				1	
State College MSA	1		1		1				1					
Williamsport MSA	1										1			
Northcentral Region - Non-MSA	3				2									
Johnstown MSA	1		1		1		1		1		1			
Pittsburgh MSA <sup>2</sup>	9	2	4	1	2	2	1	2	6	1	2		4	
Southwest Region - Non-MSA	2		2										1	
Erie MSA	1		1		1		1		1		1			
Youngstown-Warren-Boardman MSA	1								1					
Northwest Region - Non-MSA	1		3				1				1		1	
<b>Totals</b>	<b>44</b>	<b>2</b>	<b>21</b>	<b>1</b>	<b>16</b>	<b>2</b>	<b>10</b>	<b>2</b>	<b>26</b>	<b>1</b>	<b>16</b>	<b>0</b>	<b>16</b>	<b>0</b>

<sup>1</sup>Philadelphia AMS operates the following number of criteria pollutant monitoring sites: O<sub>3</sub>-3; SO<sub>2</sub>-3; NO<sub>2</sub>-2; CO-2; PM<sub>2.5</sub>-5; PM<sub>10</sub>-3; Pb-1

<sup>2</sup>Allegheny County HD operates the following number of criteria pollutant monitoring sites: O<sub>3</sub>-3; SO<sub>2</sub>-4; NO<sub>2</sub>-2; CO-3; PM<sub>2.5</sub>-8; PM<sub>10</sub>-11; Pb-3

**Appendix A — PA DEP Ambient Air Monitoring Sites, Parameters and Maps**

**Table A-1. DEP Ambient Air Monitoring Site Locations by Region.**

**Southeast Region**

*Includes Bucks, Chester, Delaware, Montgomery and Philadelphia Counties*

**Philadelphia-Camden-Wilmington MSA**

AQS Code	Site Name	County	Street Address	Latitude		Air Basin (AB)
				Longitude		
420170012	BRISTOL	BUCKS	ROCKVIEW DRIVE	40.10738	-74.8824	Southeast Pennsylvania AB
420290100	NEW GARDEN	CHESTER	NEW GARDEN AIRPORT - TOUGHKENAMON	39.83458	-75.7680	Southeast Pennsylvania AB
420450002	CHESTER	DELAWARE	FRONT ST & NORRIS ST	39.83519	-75.3721	Southeast Pennsylvania AB
420450003	SWARTHMORE	DELAWARE	500 COLLEGE AVE.	39.8969	-75.3539	Southeast Pennsylvania AB
420450004	RIDLEY PARK	DELAWARE	INDUSTRIAL HIGHWAY (RT291)	39.86292	-75.3256	Southeast Pennsylvania AB
420450109	MARCUS HOOK	DELAWARE	EAST 8TH AVE & CHURCH ST.	39.8178	-75.4142	Southeast Pennsylvania AB
420910005	COLLEGEVILLE	MONTGOMERY	URSINUS COLLEGE	40.1925	-75.4575	Southeast Pennsylvania AB
420910013	NORRISTOWN	MONTGOMERY	STATE ARMORY - 1046 BELVOIR RD	40.11327	-75.3086	Southeast Pennsylvania AB
420910016	EVANSBURG UNITED METHODIST	MONTGOMERY	3871 GERMANTOWN PIKE	40.18305	-75.4341	Southeast Pennsylvania AB

**Northeast Region**

*Includes Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming Counties*

**Allentown-Bethlehem-Easton MSA**

AQS Code	Site Name	County	Street Address	Latitude		Air Basin (AB)
				Longitude		
420250214	PALMERTON	CARBON	620 LITTLE GAP RD	40.81420	-75.5804	
420770004	ALLENTOWN	LEHIGH	STATE HOSPITAL REAR 1600 HANOVER AVE	40.61194	-75.4326	Allentown-Bethlehem-Easton AB
420950025	FREEMANSBURG	NORTHAMPTON	WASHINGTON & CAMBRIA STS. FREEMANSBURG	40.62847	-75.3415	Allentown-Bethlehem-Easton AB
420950027	LEHIGH VALLEY	NORTHAMPTON	2604 Schoenersville Road	40.64586	-75.4043	Allentown-Bethlehem-Easton AB
420951000	NAZARETH	NORTHAMPTON	SOUTH GREEN & DELAWARE	40.73473	-75.3131	Allentown-Bethlehem-Easton AB
420958000	EASTON	NORTHAMPTON	17TH AND SPRING GARDEN STREETS	40.69230	-75.2371	Allentown-Bethlehem-Easton AB

**Scranton-Wilkes-Barre MSA**

AQS Code	Site Name	County	Street Address	Latitude		Air Basin (AB)
				Longitude		
420690101	PECKVILLE	LACKAWANNA	WILSON FIRE CO. ERIE & PLEASANT	41.47908	-75.5781	Scranton-Wilkes-Barre AB
420692006	SCRANTON	LACKAWANNA	GEORGE ST TROOP AND CITY OF SCRANTON	41.44286	-75.623	Scranton-Wilkes-Barre AB
420790036	DURYEA	LUZERNE	401 YORK AVE	41.34886	-75.7473	Scranton-Wilkes-Barre AB

420791100	NANTICOKE	LUZERNE	255 LOWER BROADWAY(NEXT TO LEON&EDDY'S)	41.20919 -76.0035	Scranton-Wilkes-Barre AB
420791101	WILKES BARRE	LUZERNE	CHILWICK & WASHINGTON STS	41.26597 -75.8463	Scranton-Wilkes-Barre AB

**Northeast Region - Non-MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420890002	POCONO	MONROE	DEP/DCNR Pocono District Office	41.08306 -75.3232	
pending	SPRINGVILLE	SUSQUEHANNA	TWP PROPERTY SR3004	41.6972 -75.9145	

**Southcentral Region**

*Includes Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York Counties*

**Altoona MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420130801	ALTOONA	BLAIR	2ND AVE & 7TH ST	40.53563 -78.3703	

**Harrisburg-Carlisle MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420410101	CARLISLE	CUMBERLAND	IMPERIAL COURT	40.24661 -77.1837	
420430401	HARRISBURG	DAUPHIN	651 Gibson Blvd	40.24699 -76.8469	Harrisburg AB
420431100	HERSHEY	DAUPHIN	SIPE AVE & MAE STREET	40.27241 -76.6814	
420990301	PERRY COUNTY	PERRY	720 GILL HILL ROAD, LITTLE BUFFALO STATE PARK	40.46 -77.1687	

**Lancaster MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420710007	LANCASTER	LANCASTER	ABRAHAM LINCOLN JR HIGH GROFFTOWN RD	40.04686 -76.2834	Lancaster AB
420710009	MT JOY	LANCASTER	1088 EAST MAIN STREET	40.10894 -76.4722	
420710012	LANCASTER DOWNWIND	LANCASTER	3445 W. NEWPORT ROAD	40.04383 -76.1124	

**Lebanon MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420750100	LEBANON	LEBANON	1275 BIRCH RD	40.33732 -76.3834	

**Reading MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420110006	KUTZTOWN	BERKS	KUTZTOWN UNIVERSITY CAMPUS	40.51408 -75.7897	
420110011	READING AIRPORT	BERKS	1059 ARNOLD ROAD	40.38335 -75.9686	Reading AB
420110020	LAURELDALE NORTH	BERKS	3139 KUTZTOWN ROAD	40.38598 -75.9128	Reading AB

420110021	LYONS BORO	BERKS	KEMP ST.	40.47707 -75.7569	
420110022	LYONS PARK	BERKS	PARK AVE.	40.47831 -75.7539	
420111717	LAURELDALE SOUTH	BERKS	SPRING VALLEY ROAD	40.37730 -75.9145	Reading AB

#### York-Hanover MSA

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
421330008	YORK	YORK	HILL ST.	39.96552 -76.6995	York AB
421330011	YORK DOWNWIND	YORK	2632 DELTA ROAD	39.86097 -76.4620	

#### Southcentral Region - Non-MSA

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420010001	ARENDSVILLE	ADAMS	NARSTO SITE - ARENDSVILLE	39.92330 -77.3081	
420550001	METHODIST HILL	FRANKLIN	FOREST ROAD - METHODIST HILL	39.96072 -77.4755	
420550002	UPPER STRASBURG	FRANKLIN	9716 UPPER STRASBURG RD	40.05982 -77.7106	

### Northcentral Region

*Includes Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union Counties*

#### State College MSA

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420270100	STATE COLLEGE	CENTRE	PENN STATE UNIVERSITY - ARBORETUM SITE	40.81116 -77.8772	

#### Williamsport MSA

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420810100	MONTOURSVILLE	LYCOMING	899 CHERRY STREET	41.25019 -76.9134	

#### Northcentral Region - Non-MSA

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420334000	MOSHANNON	CLEARFIELD	LOCATED NEAR S.B. ELLIOTT STATE PARK	41.1175 -78.5261	
421174000	TIOGA COUNTY	TIOGA	TIOGA	41.64558 -76.9379	
421190001	LEWISBURG	UNION	701 MOORE AVE	40.9552 -76.8819	

### Southwest Region

*Includes Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland Counties*

#### Johnstown MSA

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420210011	JOHNSTOWN	CAMBRIA	MILLER AUTO SHOP 1 MESSENGER ST	40.30994 -78.9154	Johnstown AB

**Pittsburgh MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420030010	PITTSBURGH	ALLEGHENY	CARNEGIE SCIENCE CENTER - 1 ALLEGHENY AVE	40.44591 -80.0186	Allegheny County AB
420050001	KITTANNING	ARMSTRONG	GLADE DR. & NOLTE RD. KITTANNING	40.814 -79.5646	
420070002	HOOKSTOWN	BEAVER	ROUTE 168 & TOMLINSON ROAD	40.56305 -80.5044	Lower Beaver Valley AB
420070005	BRIGHTON TWP	BEAVER	1015 SEBRING ROAD	40.68547 -80.3605	Lower Beaver Valley AB
420070006	POTTER TOWNSHIP	BEAVER	206 MOWRY RD	40.63893 -80.3656	Lower Beaver Valley AB
420070007	BEAVER VALLEY	BEAVER	760 BEAVER VALLEY MALL	40.67365 -80.3177	Lower Beaver Valley AB
420070014	BEAVER FALLS	BEAVER	EIGHTH STREET AND RIVER ALLEY	40.74780 -80.3157	Lower Beaver Valley AB
420070505	VANPORT	BEAVER	TAMAQUI DR	40.68486 -80.3229	Lower Beaver Valley AB
421250005	CHARLEROI	WASHINGTON	CHARLER01 WASTE TREATMENT PLANT	40.14658 -79.9022	Monongahela Valley AB
421250200	WASHINGTON	WASHINGTON	MCCARRELL AND FAYETTE STS	40.17063 -80.2617	
421255001	FLORENCE	WASHINGTON	HILLMAN STATE PARK - KINGS CREEK ROAD	40.44547 -80.4212	
421255200	MARCELLUS (MEDDINGS RD)	WASHINGTON	220 MEDDINGS RD	40.26896 -80.2439	
421290006	MURRYSVILLE	WESTMORELAND	OLD WILLIAM PENN HWY & SARDIS RD	40.42902 -79.6972	
421290008	GREENSBURG	WESTMORELAND	DONOHUE ROAD - PENN DOT MAINT DIST BLDG	40.30438 -79.5060	
421290009	CONEMAUGH	WESTMORELAND	SUGAR RUN - RT 711	40.39292 -79.0244	

**Southwest Region - Non-MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420590002	HOLBROOK	GREENE	4.8 KM SE OF HOLBROOK	39.81602 -80.2848	
420630004	STRONGSTOWN	INDIANA	PA. DEPT. OF TRANSPORTATION - RT.403	40.5633 -78.9199	
420630005	SHELOCTA	INDIANA	182 SOUTH RIDGE RD	40.65251 -79.2927	

**Northwest Region**

*Includes Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, Mckean, Mercer, Venango and Warren Counties*

**Pittsburgh MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
420190020	SLIPPERY ROCK	BUTLER	1 MORROW WAY	41.06305 -80.0308	

**Erle MSA**

AQS Code	Site Name	County	Street Address	Latitude Longitude	Air Basin (AB)
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420490003	ERIE	ERIE	10TH AND MARNE STREETS	42.14197 -80.0386	Erie AB
420490004	PRESQUE ISLE	ERIE	EAST FISHER DR.	42.1620 -80.1133	Erie AB

**Youngstown-Warren-Boardman MSA**

<b>AQS Code</b>	<b>Site Name</b>	<b>County</b>	<b>Street Address</b>	<b>Latitude Longitude</b>	<b>Air Basin (AB)</b>
420850100	FARRELL	MERCER	PA518 (NEW CASTLE ROAD) & PA418	41.21405 -80.4834	

**Northwest Region - Non-MSA**

<b>AQS Code</b>	<b>Site Name</b>	<b>County</b>	<b>Street Address</b>	<b>Latitude Longitude</b>	<b>Air Basin (AB)</b>
420730011	ELLWOOD CITY	LAWRENCE	CLYDE STREET	40.86003 -80.2790	Upper Beaver Valley AB
420730015	NEW CASTLE	LAWRENCE	S CROTON AVE & JEFFERSON ST.	40.99605 -80.3465	Upper Beaver Valley AB
421230004	WARREN OVERLOOK	WARREN	OVERLOOK SITE - NEAR STONE HILL ROAD	41.84372 -79.1728	
421230005	WARREN EAST	WARREN	2044 PENNSYLVANIA AVE EAST	41.82570 -79.1199	

**Table A-2. DEP Ambient Air Monitoring Sites and Parameters Monitored by Region.**

### Southeast Region

*Includes Bucks, Chester, Delaware, Montgomery and Philadelphia Counties*

#### Philadelphia-Camden-Wilmington MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420170012	BRISTOL	X	X	X	X	X							
420290100	NEW GARDEN	X				X	X						
420450002	CHESTER	X	X	X		X		X	X			X	X
420450003	SWARTHMORE											X	X
420450004	RIDLEY PARK								X				
420450109	MARCUS HOOK											X	X
420910005	COLLEGEVILLE												X
420910013	NORRISTOWN	X	X			X							
420910016	EVANSBURG UNITED METHODIST												X

### Northeast Region

*Includes Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming Counties*

#### Allentown-Bethlehem-Easton MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420250214	PALMERTON								X				
420770004	ALLENTOWN	X						X					
420950025	FREEMANSBURG	X		X	X	X	X						X
420950027	LEHIGH VALLEY					X							
420951000	NAZARETH							X					
420958000	EASTON	X	X										

#### Scranton-Wilkes-Barre MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420690101	PECKVILLE	X											
420692006	SCRANTON	X		X	X	X	X						
420790036	DURYEA								X				
420791100	NANTICOKE	X											
420791101	WILKES BARRE	X	X					X					

#### Northeast Region - Non-MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420890002	POCONO	X				X							
pending	SPRINGVILLE												X

### Southcentral Region

*Includes Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York Counties*

#### Altoona MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420130801	ALTOONA	X	X			X		X					

#### Harrisburg-Carlisle MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
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**Pollutants**

O3: Ozone

SO2: Sulfur dioxide

NO2: Nitrogen dioxide

CO: Carbon monoxide

PM2.5: Particulate matter <2.5 micrometers

Spec: Pm2.5 speciation

PM10: Particulate matter <10 micrometers

Pb: Lead

Car: Carbonyls

Hg: Mercury

Metals: Total suspended particulates and selected metals

VOC: Volatile organic compounds

420410101	CARLISLE					X								
420430401	HARRISBURG	X				X	X	X						
420431100	HERSHEY	X						X						
420990301	PERRY COUNTY	X	X	X										

**Lancaster MSA**

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420710007	LANCASTER	X		X		X	X	X		X	X	X	X
420710009	MT JOY								X				
420710012	LANCASTER DOWNWIND	X											

**Lebanon MSA**

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420750100	LEBANON	X				X							

**Reading MSA**

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420110006	KUTZTOWN	X											
420110011	READING AIRPORT	X	X	X	X	X	X	X				X	X
420110020	LAURELDALE NORTH								X				
420110021	LYONS BORO								X				
420110022	LYONS PARK								X				
420111717	LAURELDALE SOUTH								X				

**York-Hanover MSA**

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
421330008	YORK	X	X	X	X	X	X	X					X
421330011	YORK DOWNWIND	X											

**Southcentral Region - Non-MSA**

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420010001	ARENDTSTVILLE			X	X	X	X			X			X
420550001	METHODIST HILL	X											
420550002	UPPER STRASBURG								X				

**Northcentral Region**

*Includes Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union Counties*

**State College MSA**

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420270100	STATE COLLEGE	X	X	X		X	X						

**Williamsport MSA**

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420810100	MONTOURSVILLE	X						X					

**Northcentral Region - Non-MSA**

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420334000	MOSHANNON	X											
421174000	TIOGA COUNTY	X		X									
421190001	LEWISBURG									X		X	X

Pollutants

- |                       |  |  |
|-----------------------|--|--|
| O3: Ozone             | PM2.5: Particulate matter <2.5 micrometers | Car: Carbonyls   |
| SO2: Sulfur dioxide   | Spec: Pm2.5 speciation                     | Hg: Mercury  |
| NO2: Nitrogen dioxide | PM10: Particulate matter <10 micrometers   | Metals: Total suspended particulates and selected metals |
| CO: Carbon monoxide   | Pb: Lead                                   | VOC: Volatile organic compounds                          |

## Southwest Region

*Includes Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland Counties*

### Johnstown MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420210011	JOHNSTOWN	X	X	X	X	X	X	X					

### Pittsburgh MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420030010	PITTSBURGH	X	X	X	X								
420050001	KITTANNING	X				X							
420070002	HOOKSTOWN	X	X										
420070005	BRIGHTON TWP	X	X										
420070006	POTTER TOWNSHIP								X				
420070007	BEAVER VALLEY								X			X	
420070014	BEAVER FALLS	X		X		X		X					X
420070505	VANPORT								X				
421250005	CHARLEROI	X	X	X	X	X		X					X
421250200	WASHINGTON	X				X							
421255001	FLORENCE	X	X			X	X						
421255200	MARCELLUS (MEDDINGS RD)	X		X	X	X				X			X
421290006	MURRYSVILLE	X											
421290008	GREENSBURG	X				X	X						X
421290009	CONEMAUGH								X				

### Southwest Region - Non-MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420590002	HOLBROOK	X	X										
420630004	STRONGSTOWN	X	X										
420630005	SHELOCTA								X				

## Northwest Region

*Includes Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, Mckean, Mercer, Venango and Warren Counties*

### Pittsburgh MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420190020	SLIPPERY ROCK											X	X

### Erie MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420490003	ERIE	X	X	X	X	X	X	X					
420490004	PRESQUE ISLE											X	X

### Youngstown-Warren-Boardman MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420850100	FARRELL	X				X							

### Northwest Region - Non-MSA

AQS Code	Site Name	O3	SO2	NO2	CO	PM2.5	Spec	PM10	Pb	Car	Hg	Metals	VOC
420730011	ELLWOOD CITY								X				

#### Pollutants

O3: Ozone

SO2: Sulfur dioxide

NO2: Nitrogen dioxide

CO: Carbon monoxide

PM2.5: Particulate matter <2.5 micrometers

Spec: Pm2.5 speciation

PM10: Particulate matter <10 micrometers

Pb: Lead

Car: Carbonyls

Hg: Mercury

Metals: Total suspended particulates and selected metals

VOC: Volatile organic compounds

420730015	NEW CASTLE	X	X		X			X					
421230004	WARREN OVERLOOK		X										
421230005	WARREN EAST		X										

**Pollutants**

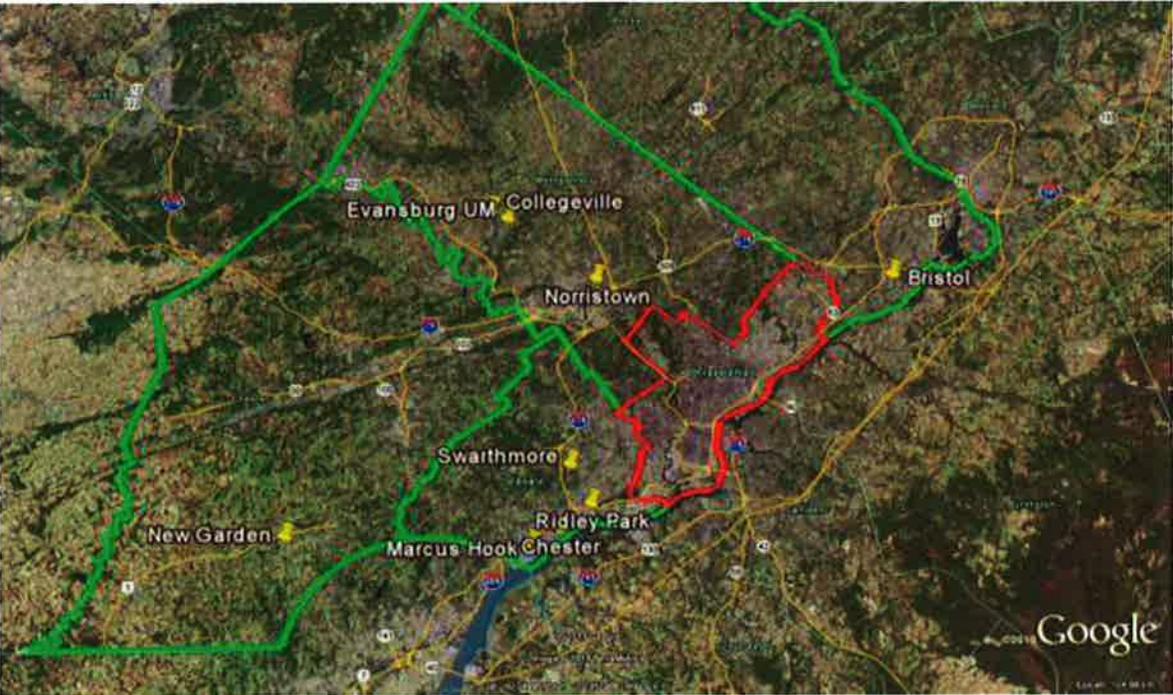
O3: Ozone  
SO2: Sulfur dioxide  
NO2: Nitrogen dioxide  
CO: Carbon monoxide

PM2.5: Particulate matter <2.5 micrometers  
Spec: Pm2.5 speciation  
PM10: Particulate matter <10 micrometers  
Pb: Lead

Car: Carbonyls  
Hg: Mercury  
Metals: Total suspended particulates and selected metals  
VOC: Volatile organic compounds

Figure A-1. DEP Ambient Air Monitoring Site Location Maps, by MSA Region.

Philadelphia-Camden-Wilmington MSA



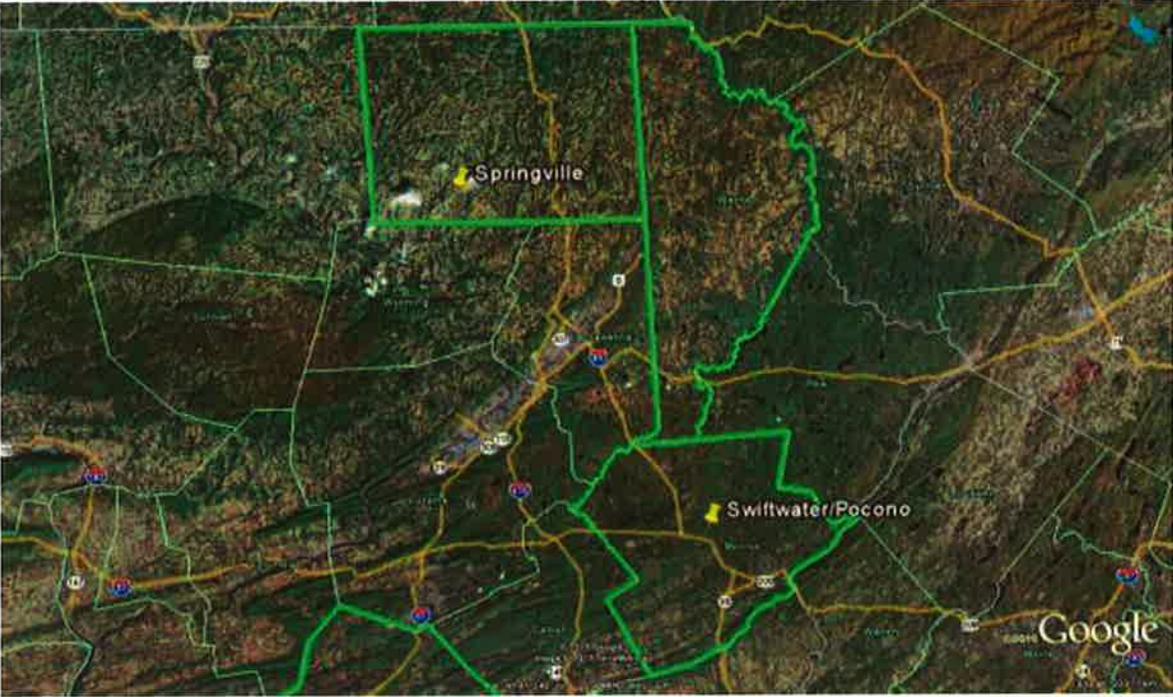
Allentown-Bethlehem-Easton MSA



Scranton-Wilkes-Barre MSA



Northeast Region - Non-MSA



**Altoona MSA**



**Harrisburg-Carlisle MSA**



**Lancaster MSA**



**Lebanon MSA**



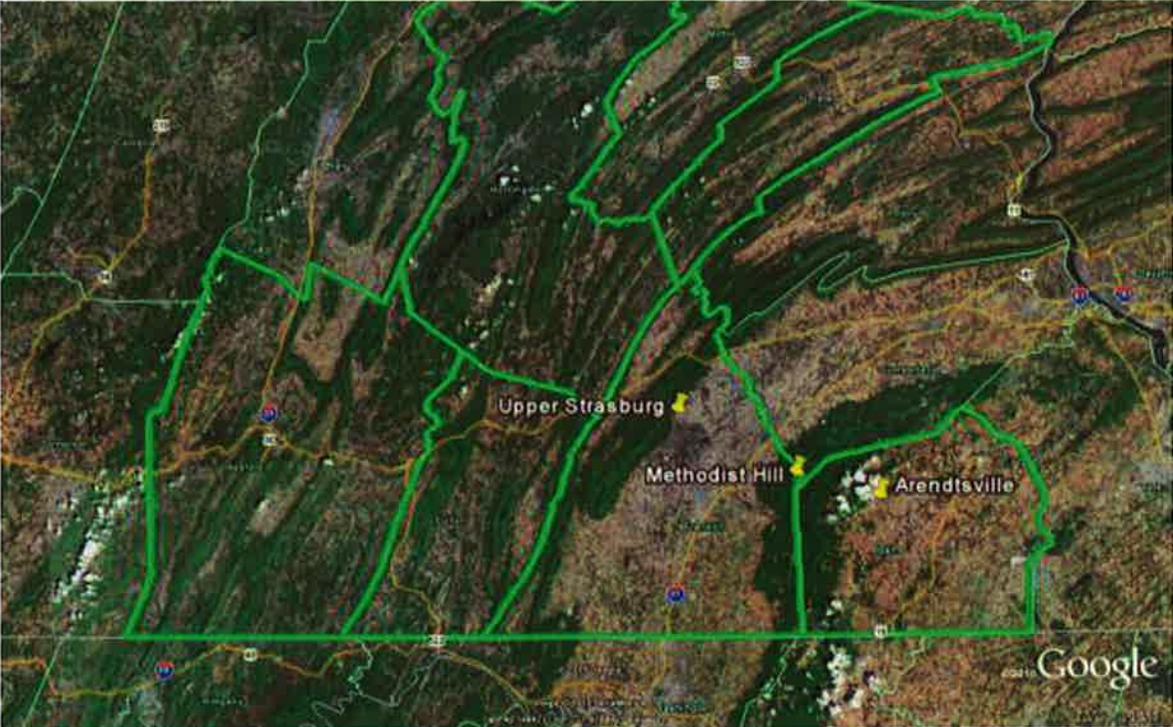
Reading MSA



York-Hanover MSA



Southcentral Region - Non-MSA



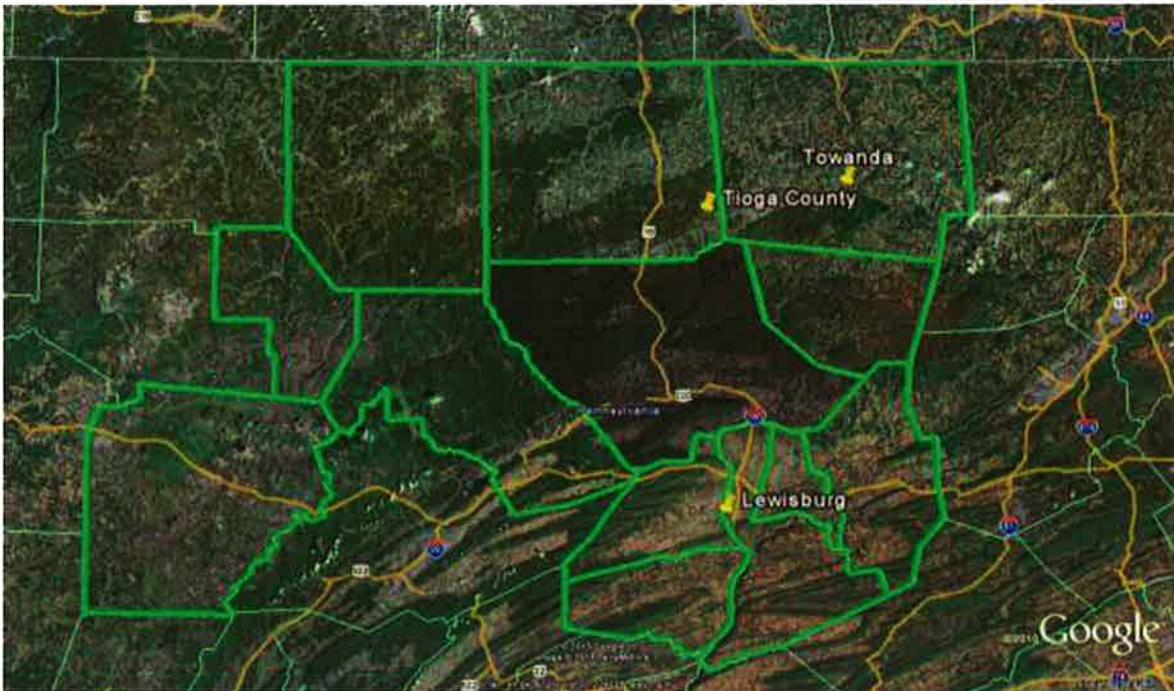
State College MSA



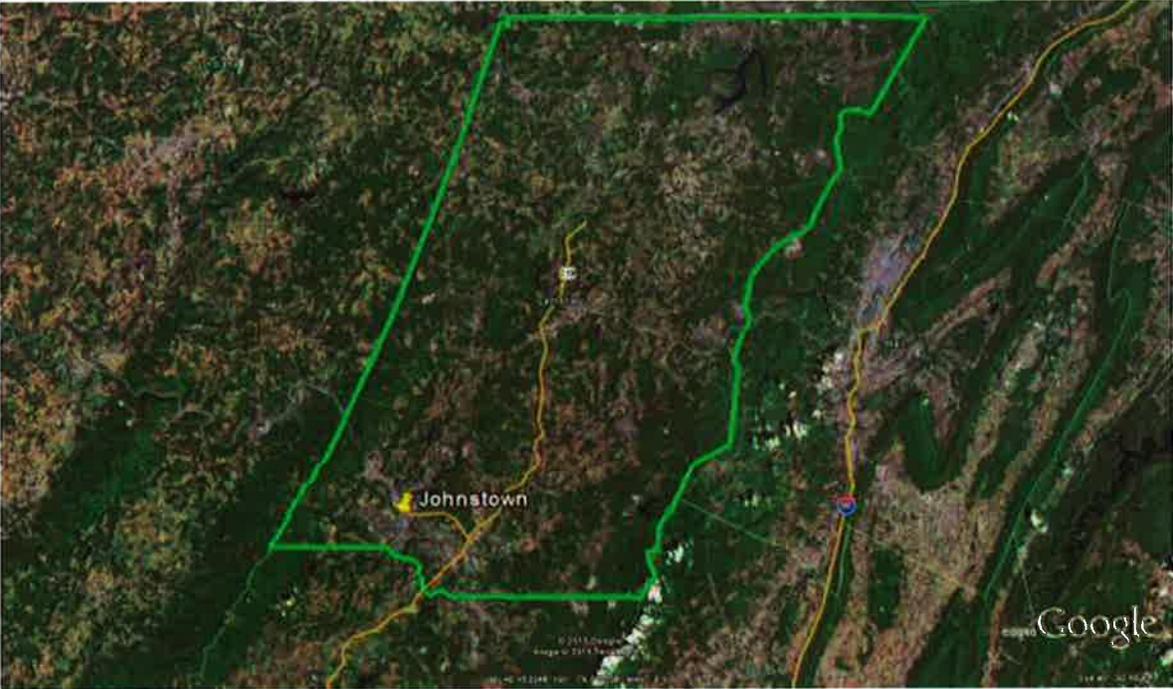
**Williamsport MSA**



**Northcentral Region - Non-MSA**



Johnstown MSA



Pittsburgh MSA



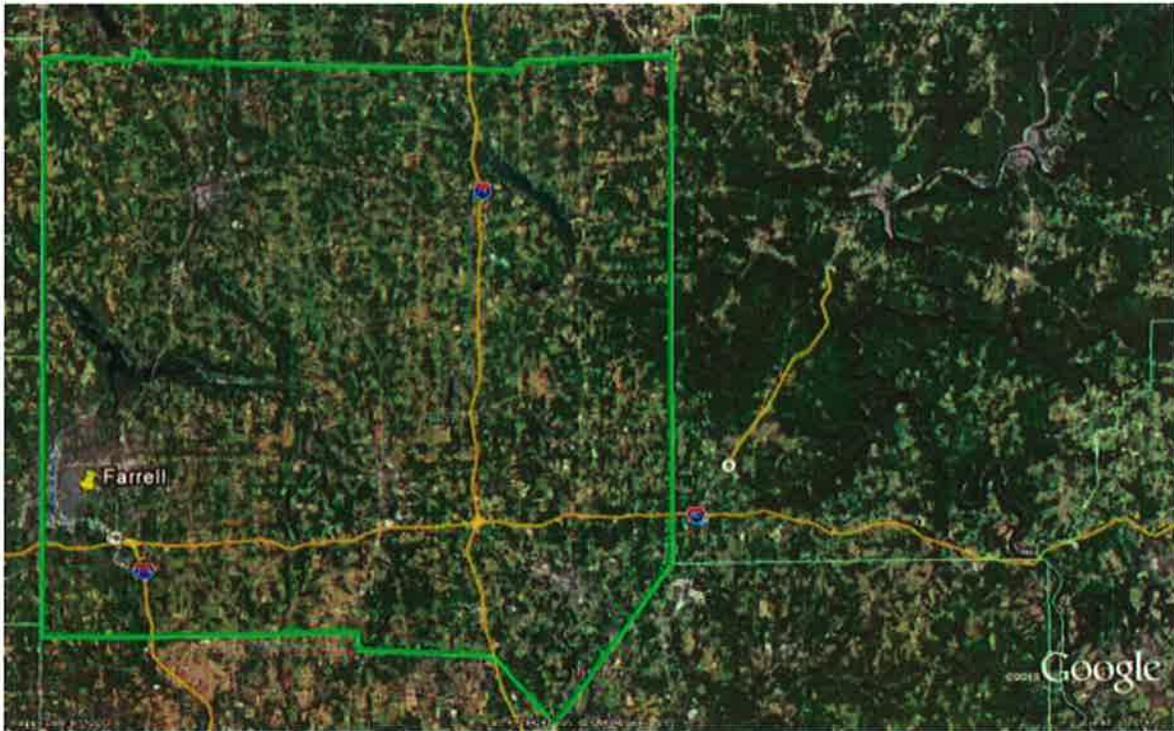
**Southwest Region - Non-MSA**



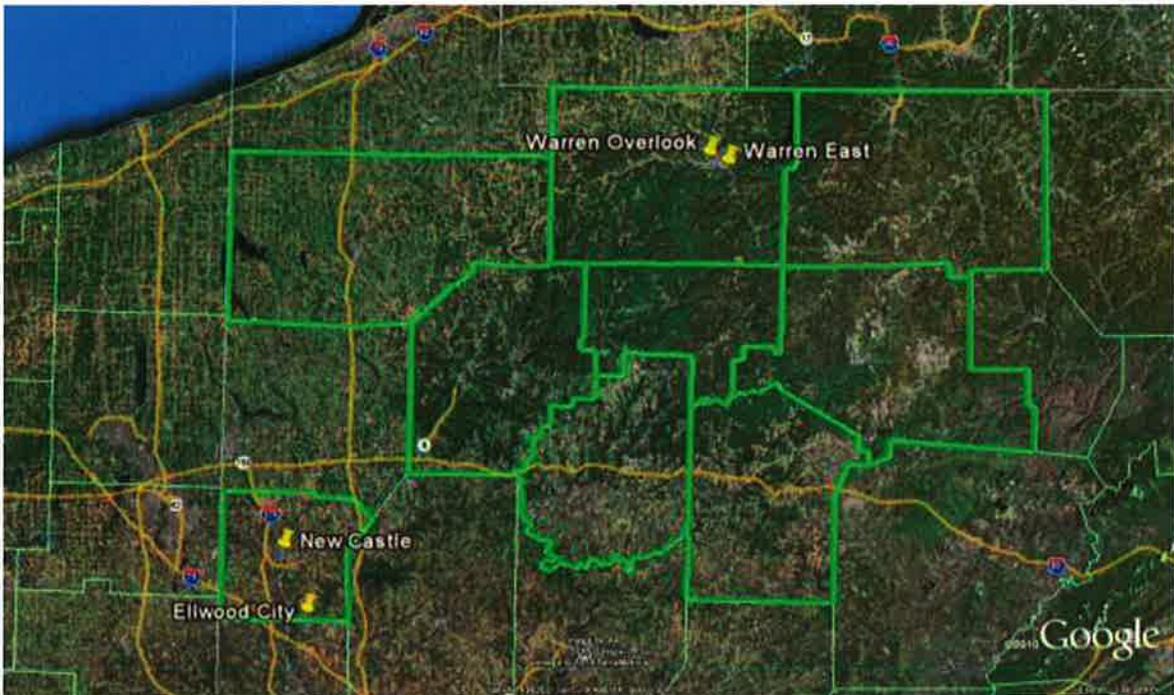
**Erie MSA**



**Youngstown-Warren-Boardman MSA**



**Northwest Region - Non-MSA**



## **Appendix B — Pennsylvania Monitoring Network Description**

# Pennsylvania Monitoring Network Description

<b>SITE NAME:</b> ALLENTOWN	<b>AQS SITE ID:</b> 420770004
<b>COUNTY:</b> LEHIGH	<b>LATITUDE:</b> 40.611944445
<b>MUNICIPALITY:</b> ALLENTOWN	<b>LONGITUDE:</b> -75.432611111
<b>MSA:</b> Allentown-Bethlehem-Easton MSA	<b>ADDRESS1:</b> STATE HOSPITAL REAR 1600 HANOVER AVE

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1984	<b>Comments:</b>

<b>Sensor Type:</b> Particulate Matter PM10	<b>Appendix C Monitoring Method:</b> EQPM-1090-079
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> TEOM Gravimetric
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 5/16/1996	<b>Comments:</b>

<b>SITE NAME:</b> ALTOONA	<b>AQS SITE ID:</b> 420130801
<b>COUNTY:</b> BLAIR	<b>LATITUDE:</b> 40.535638889
<b>MUNICIPALITY:</b> ALTOONA	<b>LONGITUDE:</b> -78.370361111
<b>MSA:</b> Altoona MSA	<b>ADDRESS1:</b> 2ND AVE & 7TH ST

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 5/1/1978	<b>Comments:</b>

<b>Sensor Type:</b> Particulate Matter PM10	<b>Appendix C Monitoring Method:</b> EQPM-1090-079
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> TEOM Gravimetric
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 5/17/1995	<b>Comments:</b>

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**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 6/1/2010 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 5/1/1978 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> ARENDTSVILLE	<b>AQS SITE ID:</b> 420010001
<b>COUNTY:</b> ADAMS	<b>LATITUDE:</b> 39.923305556
<b>MUNICIPALITY:</b> ARENDTSVILLE	<b>LONGITUDE:</b> -77.308166667
<b>MSA:</b> Southcentral Region - Non-MSA	<b>ADDRESS:</b> NARSTO SITE - ARENDTSVILLE

**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Specific Location Characterization  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 6/24/1997 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** General/Background  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Carbonyls  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 6/2/1997 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** DNPH - Coated Cartridges (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Specific Location Characterization  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 6/24/1997 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** General/Background  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** General/Background  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/1/2002 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** General/Background  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 6/2/1997 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** PAMS  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 6/2/1997 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** PAMS GC (Ozone Season Only)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> BEAVER FALLS	<b>AQS SITE ID</b> 420070014
<b>COUNTY:</b> BEAVER	<b>LATITUDE:</b> 40.747805556
<b>MUNICIPALITY:</b> BEAVER FALLS	<b>LONGITUDE:</b> -80.31575
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS:</b> EIGHTH STREET AND RIVER ALLEY

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 9/20/1995 **Comments:**

**Appendix C Monitoring Method:** EQPM-1090-079  
**Monitoring Method Description:** TEOM Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 12/1/1999 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/16/2004 **Comments:**

**Appendix C Monitoring Method:** EQPM-0609-181  
**Monitoring Method Description:** FDMS Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 1/2/2010 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> BEAVER VALLEY	<b>AQS SITE ID:</b> 420070007
<b>COUNTY:</b> BEAVER	<b>LATITUDE:</b> 40.673656
<b>MUNICIPALITY:</b> CENTER TWP	<b>LONGITUDE:</b> -80.317731
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS1:</b> 760 BEAVER VALLEY MALL

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**Sensor Type:** Lead (TSP-based)  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Equivalent Method  
**Start Date:** 1/1/2010 **Comments:**

**Appendix C Monitoring Method:** EQL-0710-192  
**Monitoring Method Description:** ICP-MS  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Middle Scale  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Metals/TSP  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 2/20/2011 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** High Volume Sampler with Quartz Filter (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> BRIGHTON TWP	<b>AQS SITE ID:</b> 420070005
<b>COUNTY:</b> BEAVER	<b>LATITUDE:</b> 40.685472222
<b>MUNICIPALITY:</b> BRIGHTON TWP	<b>LONGITUDE:</b> -80.3605
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS:</b> 1015 SEBRING ROAD

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/20/1994 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/20/1994 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> BRISTOL	<b>AQS SITE ID:</b> 420170012
<b>COUNTY:</b> BUCKS	<b>LATITUDE:</b> 40.107388889
<b>MUNICIPALITY:</b> BRISTOL	<b>LONGITUDE:</b> -74.882472222
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS:</b> ROCKVIEW DRIVE

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**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 3/1/1975 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 6/1/2010 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 1/1/1999 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

\*The Pennsylvania Department of Environmental Protection, Bureau of Air Quality, maintains its ambient air monitoring network in accordance with the quality assurance requirements of 40 CFR Part 58, Appendix A, designs its network in accordance with Appendix D, and locates its sites to meet all requirements of Appendix E. Detailed Appendix A, D and E requirements appear at <http://www.epa.gov/fidsys/search/home.action>

<b>SITE NAME:</b> CARLISLE	<b>AQS SITE ID:</b> 420410101
<b>COUNTY:</b> CUMBERLAND	<b>LATITUDE:</b> 40.246611111
<b>MUNICIPALITY:</b> CARLISLE	<b>LONGITUDE:</b> -77.183722222
<b>MSA:</b> Harrisburg-Carlisle MSA	<b>ADDRESS1:</b> IMPERIAL COURT

<b>Sensor Type:</b> Particulate Matter PM2.5	<b>Appendix C Monitoring Method:</b> RFPS-0498-118
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Gravimetric
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Daily	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Manual Reference Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 3/29/2001	<b>Comments:</b>

<b>Sensor Type:</b> Particulate Matter PM2.5	<b>Appendix C Monitoring Method:</b> EQPM-0308-170
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Beta Attenuation
<b>Sensor Purpose Designation:</b> Population Exposure	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2009	<b>Comments:</b>

<b>SITE NAME:</b> CHARLEROI	<b>AQS SITE ID:</b> 421250005
<b>COUNTY:</b> WASHINGTON	<b>LATITUDE:</b> 40.146583333
<b>MUNICIPALITY:</b> CHARLEROI	<b>LONGITUDE:</b> -79.902222222
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS1:</b> CHARLERO1 WASTE TREATMENT PLANT

<b>Sensor Type:</b> Carbon Monoxide	<b>Appendix C Monitoring Method:</b> RFCA-1093-093
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Non-dispersive Infrared
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Reference Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1982	<b>Comments:</b>

<b>Sensor Type:</b> Nitrogen Dioxide	<b>Appendix C Monitoring Method:</b> RFNA-1194-099
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Chemiluminescence
<b>Sensor Purpose Designation:</b> Population Exposure	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Reference Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1974	<b>Comments:</b>

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 6/21/1995 **Comments:**

**Appendix C Monitoring Method:** RFPS-1287-063  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Middle Scale  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 5/31/2009 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> CHESTER	<b>AQS SITE ID:</b> 420450002
<b>COUNTY:</b> DELAWARE	<b>LATITUDE:</b> 39.835194445
<b>MUNICIPALITY:</b> CHESTER	<b>LONGITUDE:</b> -75.372111111
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS1:</b> FRONT ST & NORRIS ST

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**Sensor Type:** Lead (TSP-based)  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Equivalent Method  
**Start Date:** 2/1/1994 **Comments:**

**Appendix C Monitoring Method:** EQL-0710-192  
**Monitoring Method Description:** ICP-MS  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Metals/TSP  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 1/10/1995 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** High Volume Sampler with Quartz Filter (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 3/3/1995 **Comments:**

**Appendix C Monitoring Method:** EQPM-1090-079  
**Monitoring Method Description:** TEOM Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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<b>Sensor Type:</b> Sulfur Dioxide	<b>Appendix C Monitoring Method:</b> EQSA-0495-100
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 4/1/1974	<b>Comments:</b>

<b>Sensor Type:</b> Volatile Organic Compound	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> Canister (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No
<b>Start Date:</b> 1/10/1995	<b>Comments:</b>

<b>SITE NAME:</b> COLLEGEVILLE	<b>AQS SITE ID:</b> 420910005
<b>COUNTY:</b> MONTGOMERY	<b>LATITUDE:</b> 40.1925
<b>MUNICIPALITY:</b>	<b>LONGITUDE:</b> -75.4575
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS:</b> URSINUS COLLEGE

<b>Sensor Type:</b> Volatile Organic Compound	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> Canister (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No
<b>Start Date:</b> 5/18/2007	<b>Comments:</b>

<b>SITE NAME:</b> CONEMAUGH	<b>AQS SITE ID:</b> 421290009
<b>COUNTY:</b> WESTMORELAND	<b>LATITUDE:</b> 40.39292
<b>MUNICIPALITY:</b> ST. CLAIR TWP	<b>LONGITUDE:</b> -79.02446
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS:</b> SUGAR RUN - RT 711

<b>Sensor Type:</b> Lead (TSP-based)	<b>Appendix C Monitoring Method:</b> EQL-0710-192
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> ICP-MS
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Middle Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Source Oriented
<b>Appendix C Monitoring Classification:</b> Manual Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2010	<b>Comments:</b>

<b>SITE NAME:</b> DURYEA	<b>AQS SITE ID:</b> 420790036
<b>COUNTY:</b> LUZERNE	<b>LATITUDE:</b> 41.348869
<b>MUNICIPALITY:</b> DURYEA TWP	<b>LONGITUDE:</b> -75.747322
<b>MSA:</b> Scranton-Wilkes-Barre MSA	<b>ADDRESS:</b> 401 YORK AVE

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<b>Sensor Type:</b>	<b>Lead (TSP-based)</b>	<b>Appendix C Monitoring Method:</b>	<b>EQL-0710-192</b>
<b>Sensor Network Designation:</b>	<b>SLAMS</b>	<b>Monitoring Method Description:</b>	<b>ICP-MS</b>
<b>Sensor Purpose Designation:</b>	<b>Regulatory Compliance</b>	<b>Appendix D Design Criteria*:</b>	<b>Yes</b>
<b>Sample Frequency:</b>	<b>1 in 6</b>	<b>Appendix D Scale:</b>	<b>Middle Scale</b>
<b>Appendix A QA Assessment*:</b>	<b>Yes</b>	<b>Appendix D Objectives:</b>	<b>Source Oriented</b>
<b>Appendix C Monitoring Classification:</b>	<b>Manual Equivalent Method</b>	<b>Appendix E Siting Criteria*:</b>	<b>Yes</b>
<b>Start Date:</b>	<b>1/1/2010</b>	<b>Comments:</b>	

<b>SITE NAME:</b>	<b>EASTON</b>	<b>AQS SITE ID</b>	<b>420958000</b>
<b>COUNTY:</b>	<b>NORTHAMPTON</b>	<b>LATITUDE:</b>	<b>40.692305556</b>
<b>MUNICIPALITY:</b>	<b>EASTON</b>	<b>LONGITUDE:</b>	<b>-75.237111111</b>
<b>MSA:</b>	<b>Allentown-Bethlehem-Easton MSA</b>	<b>ADDRESS1:</b>	<b>17TH AND SPRING GARDEN STREETS</b>

<b>Sensor Type:</b>	<b>Hydrogen Sulfide</b>	<b>Appendix C Monitoring Method:</b>	<b>NONE</b>
<b>Sensor Network Designation:</b>	<b>SPM</b>	<b>Monitoring Method Description:</b>	<b>UV Fluorescence</b>
<b>Sensor Purpose Designation:</b>	<b>Specific Location Characterization</b>	<b>Appendix D Design Criteria*:</b>	<b>Yes</b>
<b>Sample Frequency:</b>	<b>Cont.</b>	<b>Appendix D Scale:</b>	<b>Neighborhood</b>
<b>Appendix A QA Assessment*:</b>	<b>Yes</b>	<b>Appendix D Objectives:</b>	<b>Population Exposure</b>
<b>Appendix C Monitoring Classification:</b>	<b>Automated Method</b>	<b>Appendix E Siting Criteria*:</b>	<b>Yes</b>
<b>Start Date:</b>	<b>1/1/1986</b>	<b>Comments:</b>	

<b>Sensor Type:</b>	<b>Ozone</b>	<b>Appendix C Monitoring Method:</b>	<b>EQOA-0992-087</b>
<b>Sensor Network Designation:</b>	<b>SLAMS</b>	<b>Monitoring Method Description:</b>	<b>UV Absorption</b>
<b>Sensor Purpose Designation:</b>	<b>Regulatory Compliance</b>	<b>Appendix D Design Criteria*:</b>	<b>Yes</b>
<b>Sample Frequency:</b>	<b>Cont.</b>	<b>Appendix D Scale:</b>	<b>Urban Scale</b>
<b>Appendix A QA Assessment*:</b>	<b>Yes</b>	<b>Appendix D Objectives:</b>	<b>Max Ozone Concentration</b>
<b>Appendix C Monitoring Classification:</b>	<b>Automated Equivalent Method</b>	<b>Appendix E Siting Criteria*:</b>	<b>Yes</b>
<b>Start Date:</b>	<b>10/20/1999</b>	<b>Comments:</b>	

<b>Sensor Type:</b>	<b>Sulfur Dioxide</b>	<b>Appendix C Monitoring Method:</b>	<b>EQSA-0495-100</b>
<b>Sensor Network Designation:</b>	<b>SLAMS</b>	<b>Monitoring Method Description:</b>	<b>UV Fluorescence</b>
<b>Sensor Purpose Designation:</b>	<b>Regulatory Compliance</b>	<b>Appendix D Design Criteria*:</b>	<b>Yes</b>
<b>Sample Frequency:</b>	<b>Cont.</b>	<b>Appendix D Scale:</b>	<b>Urban Scale</b>
<b>Appendix A QA Assessment*:</b>	<b>Yes</b>	<b>Appendix D Objectives:</b>	<b>Population Exposure</b>
<b>Appendix C Monitoring Classification:</b>	<b>Automated Equivalent Method</b>	<b>Appendix E Siting Criteria*:</b>	<b>Yes</b>
<b>Start Date:</b>	<b>10/20/1999</b>	<b>Comments:</b>	

<b>SITE NAME:</b>	<b>ELLWOOD CITY</b>	<b>AQS SITE ID</b>	<b>420730011</b>
<b>COUNTY:</b>	<b>LAWRENCE</b>	<b>LATITUDE:</b>	<b>40.860031</b>
<b>MUNICIPALITY:</b>	<b>ELLWOOD CITY BORO</b>	<b>LONGITUDE:</b>	<b>-80.279092</b>
<b>MSA:</b>	<b>Northwest Region - Non-MSA</b>	<b>ADDRESS1:</b>	<b>CLYDE STREET</b>

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**Sensor Type:** Lead (TSP-based)  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Equivalent Method  
**Start Date:** 1/1/2010 **Comments:**

**Appendix C Monitoring Method:** EQL-0710-192  
**Monitoring Method Description:** ICP-MS  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Middle Scale  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> ERIE	<b>AQS SITE ID:</b> 420490003
<b>COUNTY:</b> ERIE	<b>LATITUDE:</b> 42.14197222
<b>MUNICIPALITY:</b> ERIE	<b>LONGITUDE:</b> -80.03869444
<b>MSA:</b> Erie MSA	<b>ADDRESS1:</b> 10TH AND MARNE STREETS

**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 11/1/2004 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 5/18/1988 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 5/18/1988 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 8/10/1995 **Comments:**

**Appendix C Monitoring Method:** EQPM-1090-079  
**Monitoring Method Description:** TEOM Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/1/2002 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 5/18/1988 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> EVANSBURG UNITED METHODIST	<b>AQS SITE ID:</b> 420910016
<b>COUNTY:</b> MONTGOMERY	<b>LATITUDE:</b> 40.183056
<b>MUNICIPALITY:</b>	<b>LONGITUDE:</b> -75.434167
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS:</b> 3871 GERMANTOWN PIKE

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxicics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 2/18/2009 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> FARRELL	<b>AQS SITE ID:</b> 420850100
<b>COUNTY:</b> MERCER	<b>LATITUDE:</b> 41.21405556
<b>MUNICIPALITY:</b> FARRELL	<b>LONGITUDE:</b> -80.48347222
<b>MSA:</b> Youngstown-Warren-Boardman MSA	<b>ADDRESS:</b> PA518 (NEW CASTLE ROAD) & PA418

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 9/1/1980 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Highest Concentration  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 2/1/2000 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Highest Concentration  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 11/3/2010 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Highest Concentration  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> FLORENCE	<b>AQS SITE ID:</b> 421255001
<b>COUNTY:</b> WASHINGTON	<b>LATITUDE:</b> 40.445472222
<b>MUNICIPALITY:</b> FLORENCE	<b>LONGITUDE:</b> -80.421222222
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS1:</b> HILLMAN STATE PARK - KINGS CREEK ROAD

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Specific Location Characterization  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 6/8/1995 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 6/11/2012 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/1/2002 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Specific Location Characterization  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1982 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> FREEMANSBURG	<b>AQS SITE ID:</b> 420950025
<b>COUNTY:</b> NORTHAMPTON	<b>LATITUDE:</b> 40.62847222
<b>MUNICIPALITY:</b> FREEMANSBURG	<b>LONGITUDE:</b> -75.341583333
<b>MSA:</b> Allentown-Bethlehem-Easton MSA	<b>ADDRESS:</b> WASHINGTON & CAMBRIA STS. FREEMANSBURG

**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 8/20/1997 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 8/20/1997 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 8/20/1997 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 2/27/2012 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/1/2002 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 1/8/2010 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> GREENSBURG	<b>AQS SITE ID:</b> 421290008
<b>COUNTY:</b> WESTMORELAND	<b>LATITUDE:</b> 40.304388889
<b>MUNICIPALITY:</b> GREENSBURG	<b>LONGITUDE:</b> -79.506055556
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS1:</b> DONOHOE ROAD - PENN DOT MAINT DIST BLDG

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 10/1/1997 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 9/5/2012 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/1/2002 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 1/2/2010 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> HARRISBURG	<b>AQS SITE ID:</b> 420430401
<b>COUNTY:</b> DAUPHIN	<b>LATITUDE:</b> 40.246992
<b>MUNICIPALITY:</b> HARRISBURG	<b>LONGITUDE:</b> -76.846988
<b>MSA:</b> Harrisburg-Carlisle MSA	<b>ADDRESS:</b> 651 Gibson Blvd

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/1/2013 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 4/1/2013 **Comments:**

**Appendix C Monitoring Method:** RFPS-1287-063  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/1/2013 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 4/1/2013 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 4/1/2013 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b>	<b>HERSHEY</b>	<b>AQS SITE ID</b>	<b>420431100</b>
<b>COUNTY:</b>	<b>DAUPHIN</b>	<b>LATITUDE:</b>	<b>40.272416667</b>
<b>MUNICIPALITY:</b>	<b>HERSHEY</b>	<b>LONGITUDE:</b>	<b>-76.681416667</b>
<b>MSA:</b>	<b>Harrisburg-Carlisle MSA</b>	<b>ADDRESS1:</b>	<b>SIPE AVE &amp; MAE STREET</b>

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 8/1/1981 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Max Ozone Concentration  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/19/2012 **Comments:**

**Appendix C Monitoring Method:** EQPM-1090-079  
**Monitoring Method Description:** TEOM Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> HOLBROOK	<b>AQS SITE ID</b> 420590002
<b>COUNTY:</b> GREENE	<b>LATITUDE:</b> 39.816027778
<b>MUNICIPALITY:</b> HOLBROOK	<b>LONGITUDE:</b> -80.284805556
<b>MSA:</b> Southwest Region - Non-MSA	<b>ADDRESS1:</b> 4.8 KM SE OF HOLBROOK

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1997 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Specific Location Characterization  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1997 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> HOOKSTOWN	<b>AQS SITE ID</b> 420070002
<b>COUNTY:</b> BEAVER	<b>LATITUDE:</b> 40.563055556
<b>MUNICIPALITY:</b> HOOKSTOWN	<b>LONGITUDE:</b> -80.504444445
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS1:</b> ROUTE 168 & TOMLINSON ROAD

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Specific Location Characterization  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 6/8/1995 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Specific Location Characterization  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1983 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Regional Scale  
**Appendix D Objectives:** Regional Transport  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> JOHNSTOWN	<b>AQS SITE ID:</b> 420210011
<b>COUNTY:</b> CAMBRIA	<b>LATITUDE:</b> 40.309944445
<b>MUNICIPALITY:</b> JOHNSTOWN	<b>LONGITUDE:</b> -78.915444445
<b>MSA:</b> Johnstown MSA	<b>ADDRESS:</b> MILLER AUTO SHOP 1 MESSENGER ST

**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1978 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/18/1996 **Comments:**

**Appendix C Monitoring Method:** EQPM-1090-079  
**Monitoring Method Description:** TEOM Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/26/2009 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> KITTANNING	<b>AQS SITE ID</b> 420050001
<b>COUNTY:</b> ARMSTRONG	<b>LATITUDE:</b> 40.814
<b>MUNICIPALITY:</b> KITTANNING	<b>LONGITUDE:</b> -79.564694445
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS1:</b> GLADE DR. & NOLTE RD. KITTANNING

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 8/14/1997 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Extreme Downwind  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Extreme Downwind  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> KUTZTOWN	<b>AQS SITE ID:</b> 420110006
<b>COUNTY:</b> BERKS	<b>LATITUDE:</b> 40.51408
<b>MUNICIPALITY:</b> KUTZTOWN	<b>LONGITUDE:</b> -75.78972
<b>MSA:</b> Reading MSA	<b>ADDRESS:</b> KUTZTOWN UNIVERSITY CAMPUS

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 9/27/2007 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Extreme Downwind  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> LANCASTER	<b>AQS SITE ID:</b> 420710007
<b>COUNTY:</b> LANCASTER	<b>LATITUDE:</b> 40.04686111
<b>MUNICIPALITY:</b> LANCASTER	<b>LONGITUDE:</b> -76.283416667
<b>MSA:</b> Lancaster MSA	<b>ADDRESS:</b> ABRAHAM LINCOLN JR HIGH GROFFTOWN RD

**Sensor Type:** Carbonyls  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** DNPH - Coated Cartridges (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Start Date:** 5/24/1999 **Comments:**

**Sensor Type:** Mercury  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Tekran Vapor Analyzer  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Start Date:** 5/24/1999 **Comments:**

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**Sensor Type:** Metals/TSP  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**

**Start Date:** 5/24/1999 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** High Volume Sampler with Quartz Filter (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method

**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method

**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method

**Start Date:** 3/22/1995 **Comments:**

**Appendix C Monitoring Method:** EQPM-1090-079  
**Monitoring Method Description:** TEOM Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method

**Start Date:** 11/1/2003 **Comments:**

**Appendix C Monitoring Method:** EQPM-0609-181  
**Monitoring Method Description:** FDMS Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method

**Start Date:** 1/1/1999 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/1/2002 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Start Date:** 5/24/1999 **Comments:**

<b>SITE NAME:</b> LANCASTER DOWNWIND	<b>AQS SITE ID:</b> 420710012
<b>COUNTY:</b> LANCASTER	<b>LATITUDE:</b> 40.043833
<b>MUNICIPALITY:</b> LANCASTER	<b>LONGITUDE:</b> -76.1124
<b>MSA:</b> Lancaster MSA	<b>ADDRESS:</b> 3445 W. NEWPORT ROAD

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/1/2008 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Extreme Downwind  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> LAURELDALE NORTH	<b>AQS SITE ID:</b> 420110020
<b>COUNTY:</b> BERKS	<b>LATITUDE:</b> 40.385981
<b>MUNICIPALITY:</b> MUHLENBERG TWP	<b>LONGITUDE:</b> -75.912856
<b>MSA:</b> Reading MSA	<b>ADDRESS:</b> 3139 KUTZTOWN ROAD

**Sensor Type:** Lead (TSP-based)  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Equivalent Method  
**Start Date:** 1/1/2010 **Comments:**

**Appendix C Monitoring Method:** EQL-0710-192  
**Monitoring Method Description:** ICP-MS  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Middle Scale  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> LAURELDALE SOUTH	<b>AQS SITE ID:</b> 420111717
<b>COUNTY:</b> BERKS	<b>LATITUDE:</b> 40.377305566
<b>MUNICIPALITY:</b> LAURELDALE SOUTH	<b>LONGITUDE:</b> -75.914583333
<b>MSA:</b> Reading MSA	<b>ADDRESS:</b> SPRING VALLEY ROAD

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<b>Sensor Type:</b> Lead (TSP-based)	<b>Appendix C Monitoring Method:</b> EQL-0710-192
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> ICP-MS
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Manual Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1976	<b>Comments:</b>

<b>SITE NAME:</b> LEBANON	<b>AQS SITE ID:</b> 420750100
<b>COUNTY:</b> LEBANON	<b>LATITUDE:</b> 40.337328
<b>MUNICIPALITY:</b> SOUTH LEBANON	<b>LONGITUDE:</b> -76.383447
<b>MSA:</b> Lebanon MSA	<b>ADDRESS1:</b> 1275 BIRCH RD

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 2/25/2011	<b>Comments:</b>

<b>Sensor Type:</b> Particulate Matter PM2.5	<b>Appendix C Monitoring Method:</b> EQPM-0308-170
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Beta Attenuation
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 2/25/2011	<b>Comments:</b>

<b>SITE NAME:</b> LEHIGH VALLEY	<b>AQS SITE ID:</b> 420950027
<b>COUNTY:</b> NORTHAMPTON	<b>LATITUDE:</b> 40.645864
<b>MUNICIPALITY:</b> BETHLEHEM	<b>LONGITUDE:</b> -75.404356
<b>MSA:</b> Allentown-Bethlehem-Easton MSA	<b>ADDRESS1:</b> 2604 Schoenersville Road

<b>Sensor Type:</b> Particulate Matter PM2.5	<b>Appendix C Monitoring Method:</b> RFPS-0498-118
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Gravimetric
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Daily	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Manual Reference Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2010	<b>Comments:</b>

<b>SITE NAME:</b> LEWISBURG	<b>AQS SITE ID:</b> 421190001
<b>COUNTY:</b> UNION	<b>LATITUDE:</b> 40.9552
<b>MUNICIPALITY:</b> LEWISBURG	<b>LONGITUDE:</b> -76.8819
<b>MSA:</b> Northcentral Region - Non-MSA	<b>ADDRESS1:</b> 701 MOORE AVE

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**Sensor Type:** Carbonyls  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 8/1/2003 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** DNPH - Coated Cartridges (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Sensor Type:** Metals/TSP  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 8/1/2003 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** High Volume Sampler with Quartz Filter (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 8/1/2003 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> LYONS BORO	<b>AQS SITE ID</b> 420110021
<b>COUNTY:</b> BERKS	<b>LATITUDE:</b> 40.477075
<b>MUNICIPALITY:</b> LYONS BORO	<b>LONGITUDE:</b> -75.756919
<b>MSA:</b> Reading MSA	<b>ADDRESS1:</b> KEMP ST.

**Sensor Type:** Lead (TSP-based)  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Equivalent Method  
**Start Date:** 1/1/2010 **Comments:**

**Appendix C Monitoring Method:** EQL-0710-192  
**Monitoring Method Description:** ICP-MS  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Middle Scale  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> LYONS PARK	<b>AQS SITE ID</b> 420110022
<b>COUNTY:</b> BERKS	<b>LATITUDE:</b> 40.478319
<b>MUNICIPALITY:</b> LYONS BORO	<b>LONGITUDE:</b> -75.753947
<b>MSA:</b> Reading MSA	<b>ADDRESS1:</b> PARK AVE.

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<b>Sensor Type:</b>	<b>Lead (TSP-based)</b>	<b>Appendix C Monitoring Method:</b>	EQL-0710-192
<b>Sensor Network Designation:</b>	SLAMS	<b>Monitoring Method Description:</b>	ICP-MS
<b>Sensor Purpose Designation:</b>	Regulatory Compliance	<b>Appendix D Design Criteria*:</b>	Yes
<b>Sample Frequency:</b>	1 in 6	<b>Appendix D Scale:</b>	Middle Scale
<b>Appendix A QA Assessment*:</b>	Yes	<b>Appendix D Objectives:</b>	Source Oriented
<b>Appendix C Monitoring Classification:</b>	Manual Equivalent Method	<b>Appendix E Siting Criteria*:</b>	Yes
<b>Start Date:</b>	1/1/2010	<b>Comments:</b>	

<b>SITE NAME:</b>	<b>MARCELLUS (MEDDINGS RD)</b>	<b>AQS SITE ID</b>	<b>421255200</b>
<b>COUNTY:</b>	<b>WASHINGTON</b>	<b>LATITUDE:</b>	<b>40.268963</b>
<b>MUNICIPALITY:</b>	<b>CHARTIERS TWP</b>	<b>LONGITUDE:</b>	<b>-80.243995</b>
<b>MSA:</b>	<b>Pittsburgh MSA</b>	<b>ADDRESS:</b>	<b>220 MEDDINGS RD</b>

<b>Sensor Type:</b>	<b>Carbon Monoxide</b>	<b>Appendix C Monitoring Method:</b>	RFCA-1093-093
<b>Sensor Network Designation:</b>	SPM	<b>Monitoring Method Description:</b>	Non-dispersive Infrared
<b>Sensor Purpose Designation:</b>		<b>Appendix D Design Criteria*:</b>	Yes
<b>Sample Frequency:</b>	Cont.	<b>Appendix D Scale:</b>	Neighborhood
<b>Appendix A QA Assessment*:</b>	Yes	<b>Appendix D Objectives:</b>	Source Oriented
<b>Appendix C Monitoring Classification:</b>	Automated Reference Method	<b>Appendix E Siting Criteria*:</b>	Yes
<b>Start Date:</b>	7/23/2012	<b>Comments:</b>	

<b>Sensor Type:</b>	<b>Carbonyls</b>	<b>Appendix C Monitoring Method:</b>	
<b>Sensor Network Designation:</b>	Other	<b>Monitoring Method Description:</b>	DNPH - Coated Cartridges (24 Hour)
<b>Sensor Purpose Designation:</b>	Air Toxics	<b>Appendix D Design Criteria*:</b>	No
<b>Sample Frequency:</b>	1 in 6	<b>Appendix D Scale:</b>	
<b>Appendix A QA Assessment*:</b>	No	<b>Appendix D Objectives:</b>	
<b>Appendix C Monitoring Classification:</b>		<b>Appendix E Siting Criteria*:</b>	No
<b>Start Date:</b>	7/23/2012	<b>Comments:</b>	

<b>Sensor Type:</b>	<b>Hydrogen Sulfide</b>	<b>Appendix C Monitoring Method:</b>	NONE
<b>Sensor Network Designation:</b>	SPM	<b>Monitoring Method Description:</b>	UV Fluorescence
<b>Sensor Purpose Designation:</b>		<b>Appendix D Design Criteria*:</b>	Yes
<b>Sample Frequency:</b>	Cont.	<b>Appendix D Scale:</b>	Neighborhood
<b>Appendix A QA Assessment*:</b>	Yes	<b>Appendix D Objectives:</b>	Source Oriented
<b>Appendix C Monitoring Classification:</b>	Automated Method	<b>Appendix E Siting Criteria*:</b>	Yes
<b>Start Date:</b>	7/23/2012	<b>Comments:</b>	

<b>Sensor Type:</b>	<b>Nitrogen Dioxide</b>	<b>Appendix C Monitoring Method:</b>	RFNA-1194-099
<b>Sensor Network Designation:</b>	SPM	<b>Monitoring Method Description:</b>	Chemiluminescence
<b>Sensor Purpose Designation:</b>		<b>Appendix D Design Criteria*:</b>	Yes
<b>Sample Frequency:</b>	Cont.	<b>Appendix D Scale:</b>	Neighborhood
<b>Appendix A QA Assessment*:</b>	Yes	<b>Appendix D Objectives:</b>	Source Oriented
<b>Appendix C Monitoring Classification:</b>	Automated Reference Method	<b>Appendix E Siting Criteria*:</b>	Yes
<b>Start Date:</b>	7/23/2012	<b>Comments:</b>	

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SPM  
**Sensor Purpose Designation:**  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/23/2012 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SPM  
**Sensor Purpose Designation:**  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 7/23/2012 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 7/23/2012 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> MARCUS HOOK	<b>AQS SITE ID:</b> 420450109
<b>COUNTY:</b> DELAWARE	<b>LATITUDE:</b> 39.8178
<b>MUNICIPALITY:</b> MARCUS HOOK	<b>LONGITUDE:</b> -75.4142
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS1:</b> EAST 8TH AVE & CHURCH ST.

**Sensor Type:** Metals/TSP  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 4/2/1995 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** High Volume Sampler with Quartz Filter (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 4/2/1995 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

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<b>SITE NAME:</b> METHODIST HILL	<b>AQS SITE ID</b> 420550001
<b>COUNTY:</b> FRANKLIN	<b>LATITUDE:</b> 39.960722222
<b>MUNICIPALITY:</b> SOUTHAMPTON TWP	<b>LONGITUDE:</b> -77.475527778
<b>MSA:</b> Southcentral Region - Non-MSA	<b>ADDRESS1:</b> FOREST ROAD - METHODIST HILL

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Regional Transport
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 6/26/1996	<b>Comments:</b>

<b>SITE NAME:</b> MONTOURSVILLE	<b>AQS SITE ID</b> 420810100
<b>COUNTY:</b> LYCOMING	<b>LATITUDE:</b> 41.250194445
<b>MUNICIPALITY:</b> MONTOURSVILLE	<b>LONGITUDE:</b> -76.913444445
<b>MSA:</b> Williamsport MSA	<b>ADDRESS1:</b> 899 CHERRY STREET

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Max Ozone Concentration
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 11/20/2001	<b>Comments:</b>

<b>Sensor Type:</b> Particulate Matter PM10	<b>Appendix C Monitoring Method:</b> RFPS-1287-063
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Gravimetric
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Manual Reference Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 12/3/2001	<b>Comments:</b>

<b>SITE NAME:</b> MOSHANNON	<b>AQS SITE ID</b> 420334000
<b>COUNTY:</b> CLEARFIELD	<b>LATITUDE:</b> 41.1175
<b>MUNICIPALITY:</b> ELLIOTT STATE PARK	<b>LONGITUDE:</b> -78.526194445
<b>MSA:</b> Northcentral Region - Non-MSA	<b>ADDRESS1:</b> LOCATED NEAR S.B. ELLIOTT STATE PARK

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Specific Location Characterization	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> General/Background
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 4/1/1996	<b>Comments:</b>

\*The Pennsylvania Department of Environmental Protection, Bureau of Air Quality, maintains its ambient air monitoring network in accordance with the quality assurance requirements of 40 CFR Part 58, Appendix A, designs its network in accordance with Appendix D, and locates its sites to meet all requirements of Appendix E. Detailed Appendix A, D and E requirements appear at <http://www.epa.gov/fdsys/search/home.action>

<b>SITE NAME:</b> MT JOY	<b>AQS SITE ID</b> 420710009
<b>COUNTY:</b> LANCASTER	<b>LATITUDE:</b> 40.108944
<b>MUNICIPALITY:</b> RAPHO TWP	<b>LONGITUDE:</b> -76.472235
<b>MSA:</b> Lancaster MSA	<b>ADDRESS:</b> 1088 EAST MAIN STREET

<b>Sensor Type:</b> Lead (TSP-based)	<b>Appendix C Monitoring Method:</b> EQL-0710-192
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> ICP-MS
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Middle Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Source Oriented
<b>Appendix C Monitoring Classification:</b> Manual Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2012	<b>Comments:</b>

<b>SITE NAME:</b> MURRYSVILLE	<b>AQS SITE ID</b> 421290006
<b>COUNTY:</b> WESTMORELAND	<b>LATITUDE:</b> 40.429027778
<b>MUNICIPALITY:</b> MURRYSVILLE	<b>LONGITUDE:</b> -79.697277778
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS:</b> OLD WILLIAM PENN HWY & SARDIS RD

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Max Ozone Concentration
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 8/1/1989	<b>Comments:</b>

<b>SITE NAME:</b> NANTICOKE	<b>AQS SITE ID</b> 420791100
<b>COUNTY:</b> LUZERNE	<b>LATITUDE:</b> 41.209194445
<b>MUNICIPALITY:</b> NANTICOKE	<b>LONGITUDE:</b> -76.003527778
<b>MSA:</b> Scranton-Wilkes-Barre MSA	<b>ADDRESS:</b> 255 LOWER BROADWAY(NEXT TO LEON&EDDY'S)

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> General/Background
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1982	<b>Comments:</b>

<b>SITE NAME:</b> NAZARETH	<b>AQS SITE ID</b> 420951000
<b>COUNTY:</b> NORTHAMPTON	<b>LATITUDE:</b> 40.734731
<b>MUNICIPALITY:</b> NAZARETH	<b>LONGITUDE:</b> -75.313175
<b>MSA:</b> Allentown-Bethlehem-Easton MSA	<b>ADDRESS:</b> SOUTH GREEN & DELAWARE

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<b>Sensor Type:</b> Particulate Matter PM10	<b>Appendix C Monitoring Method:</b> EQPM-1090-079
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> TEOM Gravimetric
<b>Sensor Purpose Designation:</b> Specific Location Characterization	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Source Oriented
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 8/1/2000	<b>Comments:</b>

<b>SITE NAME:</b> NEW CASTLE	<b>AQS SITE ID:</b> 420730015
<b>COUNTY:</b> LAWRENCE	<b>LATITUDE:</b> 40.996055556
<b>MUNICIPALITY:</b> NEW CASTLE	<b>LONGITUDE:</b> -80.346527778
<b>MSA:</b> Northwest Region - Non-MSA	<b>ADDRESS1:</b> S CROTON AVE & JEFFERSON ST.

<b>Sensor Type:</b> Carbon Monoxide	<b>Appendix C Monitoring Method:</b> RFCA-1093-093
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Non-dispersive Infrared
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Reference Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1978	<b>Comments:</b>

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1974	<b>Comments:</b>

<b>Sensor Type:</b> Particulate Matter PM10	<b>Appendix C Monitoring Method:</b> EQPM-1090-079
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> TEOM Gravimetric
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 10/18/1995	<b>Comments:</b>

<b>Sensor Type:</b> Sulfur Dioxide	<b>Appendix C Monitoring Method:</b> EQSA-0495-100
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1974	<b>Comments:</b>

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<b>SITE NAME:</b> NEW GARDEN	<b>AQS SITE ID:</b> 420290100
<b>COUNTY:</b> CHESTER	<b>LATITUDE:</b> 39.834583333
<b>MUNICIPALITY:</b> NEW GARDEN	<b>LONGITUDE:</b> -75.768055556
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS1:</b> NEW GARDEN AIRPORT - TOUGHKENAMON

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Regional Transport
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 6/29/2000	<b>Comments:</b>

<b>Sensor Type:</b> Particulate Matter PM2.5	<b>Appendix C Monitoring Method:</b> RFPS-0498-118
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Gravimetric
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Daily	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Regional Transport
<b>Appendix C Monitoring Classification:</b> Manual Reference Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 8/31/2012	<b>Comments:</b>

<b>Sensor Type:</b> Particulate Matter PM2.5	<b>Appendix C Monitoring Method:</b> EQPM-0308-170
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Beta Attenuation
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Regional Transport
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 7/1/2009	<b>Comments:</b>

<b>Sensor Type:</b> PM2.5 Speciation	<b>Appendix C Monitoring Method:</b> None
<b>Sensor Network Designation:</b> STN	<b>Monitoring Method Description:</b> Gravimetric
<b>Sensor Purpose Designation:</b> Research/Scientific Monitoring	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Regional Transport
<b>Appendix C Monitoring Classification:</b> Speciation	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2002	<b>Comments:</b>

<b>SITE NAME:</b> NORRISTOWN	<b>AQS SITE ID:</b> 420910013
<b>COUNTY:</b> MONTGOMERY	<b>LATITUDE:</b> 40.113277778
<b>MUNICIPALITY:</b> NORRISTOWN	<b>LONGITUDE:</b> -75.308694445
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS1:</b> STATE ARMORY - 1046 BELVOIR RD

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**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 10/30/2003 **Comments:**

**Appendix C Monitoring Method:** EQPM-0609-181  
**Monitoring Method Description:** FDMS Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 2/14/1999 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> PALMERTON	<b>AQS SITE ID</b> 420250214
<b>COUNTY:</b> CARBON	<b>LATITUDE:</b> 40.814204
<b>MUNICIPALITY:</b> LOWER TOWAMENSING	<b>LONGITUDE:</b> -75.580448
<b>MSA:</b> Allentown-Bethlehem-Easton MSA	<b>ADDRESS:</b> 620 LITTLE GAP RD

**Sensor Type:** Lead (TSP-based)  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Equivalent Method  
**Start Date:** 5/9/2012 **Comments:**

**Appendix C Monitoring Method:** EQL-0710-192  
**Monitoring Method Description:** ICP-MS  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Middle Scale  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

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<b>SITE NAME:</b> PECKVILLE	<b>AQS SITE ID:</b> 420690101
<b>COUNTY:</b> LACKAWANNA	<b>LATITUDE:</b> 41.479083333
<b>MUNICIPALITY:</b> PECKVILLE	<b>LONGITUDE:</b> -75.578194445
<b>MSA:</b> Scranton-Wilkes-Barre MSA	<b>ADDRESS:</b> WILSON FIRE CO. ERIE & PLEASANT

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Max Ozone Concentration
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 4/1/1991	<b>Comments:</b>

<b>SITE NAME:</b> PERRY COUNTY	<b>AQS SITE ID:</b> 420990301
<b>COUNTY:</b> PERRY	<b>LATITUDE:</b> 40.46
<b>MUNICIPALITY:</b> NEWPORT	<b>LONGITUDE:</b> -77.1687497
<b>MSA:</b> Harrisburg-Carlisle MSA	<b>ADDRESS:</b> 720 GILL HILL ROAD, LITTLE BUFFALO STATE PARK

<b>Sensor Type:</b> Nitrogen Dioxide	<b>Appendix C Monitoring Method:</b> RFNA-1194-099
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Chemiluminescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> General/Background
<b>Appendix C Monitoring Classification:</b> Automated Reference Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 5/25/1982	<b>Comments:</b>

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> General/Background
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/1980	<b>Comments:</b>

<b>Sensor Type:</b> Sulfur Dioxide	<b>Appendix C Monitoring Method:</b> EQSA-0495-100
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> General/Background
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/2/1980	<b>Comments:</b>

<b>SITE NAME:</b> PITTSBURGH	<b>AQS SITE ID:</b> 420030010
<b>COUNTY:</b> ALLEGHENY	<b>LATITUDE:</b> 40.445916667
<b>MUNICIPALITY:</b> PITTSBURGH	<b>LONGITUDE:</b> -80.018694444
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS:</b> CARNEGIE SCIENCE CENTER - 1 ALLEGHENY AVE

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**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SPM  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 11/25/1997 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SPM  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 11/25/1997 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SPM  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 11/25/1997 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SPM  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 11/25/1997 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

<b>SITE NAME:</b> POCONO	<b>AQS SITE ID:</b> 420890002
<b>COUNTY:</b> MONROE	<b>LATITUDE:</b> 41.08306
<b>MUNICIPALITY:</b> SWIFTWATER	<b>LONGITUDE:</b> -75.32328
<b>MSA:</b> Northeast Region - Non-MSA	<b>ADDRESS:</b> DEP/DCNR Pocono District Office

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/1/2006 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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<b>Sensor Type:</b> Particulate Matter PM2.5	<b>Appendix C Monitoring Method:</b> EQPM-0308-170
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Beta Attenuation
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 6/1/2010	<b>Comments:</b>

<b>SITE NAME:</b> POTTER TOWNSHIP	<b>AQS SITE ID:</b> 420070006
<b>COUNTY:</b> BEAVER	<b>LATITUDE:</b> 40.638936
<b>MUNICIPALITY:</b> POTTER TWP	<b>LONGITUDE:</b> -80.365653
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS1:</b> 206 MOWRY RD

<b>Sensor Type:</b> Lead (TSP-based)	<b>Appendix C Monitoring Method:</b> EQL-0710-192
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> ICP-MS
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Middle Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Source Oriented
<b>Appendix C Monitoring Classification:</b> Manual Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2010	<b>Comments:</b>

<b>SITE NAME:</b> PRESQUE ISLE	<b>AQS SITE ID:</b> 420490004
<b>COUNTY:</b> ERIE	<b>LATITUDE:</b> 42.1620
<b>MUNICIPALITY:</b>	<b>LONGITUDE:</b> -80.1133
<b>MSA:</b> Erie MSA	<b>ADDRESS1:</b> EAST FISHER DR.

<b>Sensor Type:</b> Metals/TSP	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> High Volume Sampler with Quartz Filter (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No
<b>Start Date:</b> 6/8/2000	<b>Comments:</b>

<b>Sensor Type:</b> Volatile Organic Compound	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> Canister (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No
<b>Start Date:</b> 6/8/2000	<b>Comments:</b>

<b>SITE NAME:</b> READING AIRPORT	<b>AQS SITE ID:</b> 420110011
<b>COUNTY:</b> BERKS	<b>LATITUDE:</b> 40.38335
<b>MUNICIPALITY:</b> READING	<b>LONGITUDE:</b> -75.9686
<b>MSA:</b> Reading MSA	<b>ADDRESS1:</b> 1059 ARNOLD ROAD

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**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 7/1/2007 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Metals/TSP  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 6/17/2007 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** High Volume Sampler with Quartz Filter (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 7/1/2007 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2007 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2007 **Comments:**

**Appendix C Monitoring Method:** EQPM-1090-079  
**Monitoring Method Description:** TEOM Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2007 **Comments:**

**Appendix C Monitoring Method:** EQPM-0609-181  
**Monitoring Method Description:** FDMS Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 7/1/2007 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 7/1/2007 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Sulfur Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2007 **Comments:**

**Appendix C Monitoring Method:** EQSA-0495-100  
**Monitoring Method Description:** UV Fluorescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Volatile Organic Compound  
**Sensor Network Designation:** Other  
**Sensor Purpose Designation:** Air Toxics  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** No  
**Appendix C Monitoring Classification:**  
**Start Date:** 6/17/2007 **Comments:**

**Appendix C Monitoring Method:**  
**Monitoring Method Description:** Canister (24 Hour)  
**Appendix D Design Criteria\*:** No  
**Appendix D Scale:**  
**Appendix D Objectives:**  
**Appendix E Siting Criteria\*:** No

<b>SITE NAME:</b> RIDLEY PARK	<b>AQS SITE ID</b> 420450004
<b>COUNTY:</b> DELAWARE	<b>LATITUDE:</b> 39.862928
<b>MUNICIPALITY:</b>	<b>LONGITUDE:</b> -75.325689
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS:</b> INDUSTRIAL HIGHWAY (RT291)

**Sensor Type:** Lead (TSP-based)  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Equivalent Method  
**Start Date:** 1/1/2010 **Comments:**

**Appendix C Monitoring Method:** EQL-0710-192  
**Monitoring Method Description:** ICP-MS  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Middle Scale  
**Appendix D Objectives:** Source Oriented  
**Appendix E Siting Criteria\*:** Yes

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<b>SITE NAME:</b> SCRANTON	<b>AQS SITE ID:</b> 420692006
<b>COUNTY:</b> LACKAWANNA	<b>LATITUDE:</b> 41.442861111
<b>MUNICIPALITY:</b> SCRANTON	<b>LONGITUDE:</b> -75.623
<b>MSA:</b> Scranton-Wilkes-Barre MSA	<b>ADDRESS:</b> GEORGE ST TROOP AND CITY OF SCRANTON

**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1978 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/14/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/1/2009 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/1/2002 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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<b>SITE NAME:</b> SHELOCTA	<b>AQS SITE ID</b> 420630005
<b>COUNTY:</b> INDIANA	<b>LATITUDE:</b> 40.652511
<b>MUNICIPALITY:</b> ARMSTRONG TWP	<b>LONGITUDE:</b> -79.292769
<b>MSA:</b> Southwest Region - Non-MSA	<b>ADDRESS:</b> 182 SOUTH RIDGE RD

<b>Sensor Type:</b> Lead (TSP-based)	<b>Appendix C Monitoring Method:</b> EQL-0710-192
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> ICP-MS
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Middle Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Source Oriented
<b>Appendix C Monitoring Classification:</b> Manual Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2010	<b>Comments:</b>

<b>SITE NAME:</b> SLIPPERY ROCK	<b>AQS SITE ID</b> 420190020
<b>COUNTY:</b> BUTLER	<b>LATITUDE:</b> 41.063056
<b>MUNICIPALITY:</b>	<b>LONGITUDE:</b> -80.030833
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS:</b> 1 MORROW WAY

<b>Sensor Type:</b> Metals/TSP	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> High Volume Sampler with Quartz Filter (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No
<b>Start Date:</b> 8/29/2009	<b>Comments:</b>

<b>Sensor Type:</b> Volatile Organic Compound	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> Canister (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No
<b>Start Date:</b> 8/29/2009	<b>Comments:</b>

<b>SITE NAME:</b> SPRINGVILLE	<b>AQS SITE ID</b> pending
<b>COUNTY:</b> SUSQUEHANNA	<b>LATITUDE:</b> 41.6972
<b>MUNICIPALITY:</b>	<b>LONGITUDE:</b> -75.9145
<b>MSA:</b> Northeast Region - Non-MSA	<b>ADDRESS:</b> TWP PROPERTY SR3004

<b>Sensor Type:</b> Volatile Organic Compound	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> Canister (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No
<b>Start Date:</b> 2/27/2013	<b>Comments:</b>

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<b>SITE NAME:</b> STATE COLLEGE	<b>AQS SITE ID</b> 420270100
<b>COUNTY:</b> CENTRE	<b>LATITUDE:</b> 40.811166667
<b>MUNICIPALITY:</b> STATE COLLEGE	<b>LONGITUDE:</b> -77.877222222
<b>MSA:</b> State College MSA	<b>ADDRESS:</b> PENN STATE UNIVERSITY - ARBORETUM SITE

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 3/8/2002 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 4/1/2000 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 9/1/2010 **Comments:**

**Appendix C Monitoring Method:** EQPM-0308-170  
**Monitoring Method Description:** Beta Attenuation  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 2/1/2000 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** PM2.5 Speciation  
**Sensor Network Designation:** STN  
**Sensor Purpose Designation:** Research/Scientific Monitoring  
**Sample Frequency:** 1 in 6  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Speciation  
**Start Date:** 1/1/2002 **Comments:**

**Appendix C Monitoring Method:** None  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Neighborhood  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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<b>Sensor Type:</b> Sulfur Dioxide	<b>Appendix C Monitoring Method:</b> EQSA-0495-100
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes

**Start Date:** 3/8/2002    **Comments:**

<b>SITE NAME:</b> STRONGSTOWN	<b>AQS SITE ID:</b> 420630004
<b>COUNTY:</b> INDIANA	<b>LATITUDE:</b> 40.5633
<b>MUNICIPALITY:</b> STRONGSTOWN	<b>LONGITUDE:</b> -78.91997
<b>MSA:</b> Southwest Region - Non-MSA	<b>ADDRESS1:</b> PA. DEPT. OF TRANSPORTATION - RT.403

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes

**Start Date:** 11/1/2004    **Comments:**

<b>Sensor Type:</b> Sulfur Dioxide	<b>Appendix C Monitoring Method:</b> EQSA-0495-100
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Regional Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes

**Start Date:** 11/1/2004    **Comments:**

<b>SITE NAME:</b> SWARTHMORE	<b>AQS SITE ID:</b> 420450003
<b>COUNTY:</b> DELAWARE	<b>LATITUDE:</b> 39.8969
<b>MUNICIPALITY:</b> SWARTHMORE	<b>LONGITUDE:</b> -75.3539
<b>MSA:</b> Philadelphia-Camden-Wilmington MSA	<b>ADDRESS1:</b> 500 COLLEGE AVE.

<b>Sensor Type:</b> Metals/TSP	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> High Volume Sampler with Quartz Filter (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No

**Start Date:** 1/22/1997    **Comments:**

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<b>Sensor Type:</b>	Volatile Organic Compound	<b>Appendix C Monitoring Method:</b>	
<b>Sensor Network Designation:</b>	Other	<b>Monitoring Method Description:</b>	Canister (24 Hour)
<b>Sensor Purpose Designation:</b>	Air Toxics	<b>Appendix D Design Criteria*:</b>	No
<b>Sample Frequency:</b>	1 in 6	<b>Appendix D Scale:</b>	
<b>Appendix A QA Assessment*:</b>	No	<b>Appendix D Objectives:</b>	
<b>Appendix C Monitoring Classification:</b>		<b>Appendix E Siting Criteria*:</b>	No
<b>Start Date:</b>	1/22/1997	<b>Comments:</b>	

<b>SITE NAME:</b>	TIOGA COUNTY	<b>AQS SITE ID</b>	421174000
<b>COUNTY:</b>	TIOGA	<b>LATITUDE:</b>	41.645583333
<b>MUNICIPALITY:</b>	GLEASON	<b>LONGITUDE:</b>	-76.937972222
<b>MSA:</b>	Northcentral Region - Non-MSA	<b>ADDRESS1:</b>	TIOGA

<b>Sensor Type:</b>	Nitrogen Dioxide	<b>Appendix C Monitoring Method:</b>	RFNA-1194-099
<b>Sensor Network Designation:</b>	SLAMS	<b>Monitoring Method Description:</b>	Chemiluminescence
<b>Sensor Purpose Designation:</b>	Specific Location Characterization	<b>Appendix D Design Criteria*:</b>	Yes
<b>Sample Frequency:</b>	Cont.	<b>Appendix D Scale:</b>	Regional Scale
<b>Appendix A QA Assessment*:</b>	Yes	<b>Appendix D Objectives:</b>	General/Background
<b>Appendix C Monitoring Classification:</b>	Automated Reference Method	<b>Appendix E Siting Criteria*:</b>	Yes
<b>Start Date:</b>	5/9/2012	<b>Comments:</b>	

<b>Sensor Type:</b>	Ozone	<b>Appendix C Monitoring Method:</b>	EQOA-0992-087
<b>Sensor Network Designation:</b>	SLAMS	<b>Monitoring Method Description:</b>	UV Absorption
<b>Sensor Purpose Designation:</b>	Specific Location Characterization	<b>Appendix D Design Criteria*:</b>	Yes
<b>Sample Frequency:</b>	Cont.	<b>Appendix D Scale:</b>	Regional Scale
<b>Appendix A QA Assessment*:</b>	Yes	<b>Appendix D Objectives:</b>	General/Background
<b>Appendix C Monitoring Classification:</b>	Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b>	Yes
<b>Start Date:</b>	6/1/1999	<b>Comments:</b>	

<b>SITE NAME:</b>	TOWANDA	<b>AQS SITE ID</b>	420150011
<b>COUNTY:</b>	BRADFORD	<b>LATITUDE:</b>	41.705390
<b>MUNICIPALITY:</b>	MONROE TWP	<b>LONGITUDE:</b>	-76.512876
<b>MSA:</b>	Northcentral Region - Non-MSA	<b>ADDRESS1:</b>	Rt. 414 & MAIN ST

<b>Sensor Type:</b>	Nitrogen Dioxide	<b>Appendix C Monitoring Method:</b>	RFNA-1194-099
<b>Sensor Network Designation:</b>	SLAMS	<b>Monitoring Method Description:</b>	Chemiluminescence
<b>Sensor Purpose Designation:</b>		<b>Appendix D Design Criteria*:</b>	Yes
<b>Sample Frequency:</b>	Cont.	<b>Appendix D Scale:</b>	
<b>Appendix A QA Assessment*:</b>	Yes	<b>Appendix D Objectives:</b>	
<b>Appendix C Monitoring Classification:</b>	Automated Reference Method	<b>Appendix E Siting Criteria*:</b>	Yes
<b>Start Date:</b>		<b>Comments:</b>	

\*The Pennsylvania Department of Environmental Protection, Bureau of Air Quality, maintains its ambient air monitoring network in accordance with the quality assurance requirements of 40 CFR Part 58, Appendix A, designs its network in accordance with Appendix D, and locates its sites to meet all requirements of Appendix E. Detailed Appendix A, D and E requirements appear at <http://www.epa.gov/rls/airsearch/home.action>

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b>	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b>	<b>Comments:</b>

<b>SITE NAME:</b> UPPER STRASBURG	<b>AQS SITE ID:</b> 420550002
<b>COUNTY:</b> FRANKLIN	<b>LATITUDE:</b> 40.059828
<b>MUNICIPALITY:</b> LETTERKENNY TWP	<b>LONGITUDE:</b> -77.710608
<b>MSA:</b> Southcentral Region - Non-MSA	<b>ADDRESS:</b> 9716 UPPER STRASBURG RD

<b>Sensor Type:</b> Lead (TSP-based)	<b>Appendix C Monitoring Method:</b> EQL-0710-192
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> ICP-MS
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Middle Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Source Oriented
<b>Appendix C Monitoring Classification:</b> Manual Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2010	<b>Comments:</b>

<b>SITE NAME:</b> VANPORT	<b>AQS SITE ID:</b> 420070505
<b>COUNTY:</b> BEAVER	<b>LATITUDE:</b> 40.684861111
<b>MUNICIPALITY:</b> VANPORT	<b>LONGITUDE:</b> -80.322916667
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS:</b> TAMAQUI DR

<b>Sensor Type:</b> Lead (TSP-based)	<b>Appendix C Monitoring Method:</b> EQL-0710-192
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> ICP-MS
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Manual Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 3/1/1971	<b>Comments:</b>

<b>SITE NAME:</b> WARREN EAST	<b>AQS SITE ID:</b> 421230005
<b>COUNTY:</b> WARREN	<b>LATITUDE:</b> 41.825708
<b>MUNICIPALITY:</b> WARREN	<b>LONGITUDE:</b> -79.119952
<b>MSA:</b> Northwest Region - Non-MSA	<b>ADDRESS:</b> 2044 PENNSYLVANIA AVE EAST

<b>Sensor Type:</b> Hydrogen Sulfide	<b>Appendix C Monitoring Method:</b> NONE
<b>Sensor Network Designation:</b> SPM	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Specific Location Characterization	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Source Oriented
<b>Appendix C Monitoring Classification:</b> Automated Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2012	<b>Comments:</b>

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<b>Sensor Type:</b> Sulfur Dioxide	<b>Appendix C Monitoring Method:</b> EQSA-0495-100
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Highest Concentration
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes

**Start Date:** 1/1/2012    **Comments:**

<b>SITE NAME:</b> WARREN OVERLOOK	<b>AQS SITE ID:</b> 421230004
<b>COUNTY:</b> WARREN	<b>LATITUDE:</b> 41.84372222
<b>MUNICIPALITY:</b> WARREN	<b>LONGITUDE:</b> -79.17288889
<b>MSA:</b> Northwest Region - Non-MSA	<b>ADDRESS1:</b> OVERLOOK SITE - NEAR STONE HILL ROAD

<b>Sensor Type:</b> Sulfur Dioxide	<b>Appendix C Monitoring Method:</b> EQSA-0495-100
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Highest Concentration
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes

**Start Date:** 11/25/1996    **Comments:**

<b>SITE NAME:</b> WASHINGTON	<b>AQS SITE ID:</b> 421250200
<b>COUNTY:</b> WASHINGTON	<b>LATITUDE:</b> 40.17063889
<b>MUNICIPALITY:</b> WASHINGTON	<b>LONGITUDE:</b> -80.26172222
<b>MSA:</b> Pittsburgh MSA	<b>ADDRESS1:</b> MCCARRELL AND FAYETTE STS

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes

**Start Date:** 1/1/1984    **Comments:**

<b>Sensor Type:</b> Particulate Matter PM2.5	<b>Appendix C Monitoring Method:</b> RFPS-0498-118
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> Gravimetric
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Daily	<b>Appendix D Scale:</b> Neighborhood
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Manual Reference Method	<b>Appendix E Siting Criteria*:</b> Yes

**Start Date:** 1/1/1999    **Comments:**

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<i>Sensor Type:</i> <b>Particulate Matter PM2.5</b>	<i>Appendix C Monitoring Method:</i> EQPM-0308-170
<i>Sensor Network Designation:</i> SLAMS	<i>Monitoring Method Description:</i> Beta Attenuation
<i>Sensor Purpose Designation:</i> Regulatory Compliance	<i>Appendix D Design Criteria*:</i> Yes
<i>Sample Frequency:</i> Cont.	<i>Appendix D Scale:</i> Neighborhood
<i>Appendix A QA Assessment*:</i> Yes	<i>Appendix D Objectives:</i> Population Exposure
<i>Appendix C Monitoring Classification:</i> Automated Equivalent Method	<i>Appendix E Siting Criteria*:</i> Yes
<i>Start Date:</i> 11/10/2010	<i>Comments:</i>

<i>SITE NAME:</i> <b>WILKES BARRE</b>	<i>AQS SITE ID:</i> <b>420791101</b>
<i>COUNTY:</i> <b>LUZERNE</b>	<i>LATITUDE:</i> <b>41.265972222</b>
<i>MUNICIPALITY:</i> <b>WILKES BARRE</b>	<i>LONGITUDE:</i> <b>-75.846361111</b>
<i>MSA:</i> <b>Scranton-Wilkes-Barre MSA</b>	<i>ADDRESS:</i> <b>CHILWICK &amp; WASHINGTON STS</b>

<i>Sensor Type:</i> <b>Ozone</b>	<i>Appendix C Monitoring Method:</i> EQOA-0992-087
<i>Sensor Network Designation:</i> SLAMS	<i>Monitoring Method Description:</i> UV Absorption
<i>Sensor Purpose Designation:</i> Regulatory Compliance	<i>Appendix D Design Criteria*:</i> Yes
<i>Sample Frequency:</i> Cont.	<i>Appendix D Scale:</i> Neighborhood
<i>Appendix A QA Assessment*:</i> Yes	<i>Appendix D Objectives:</i> Population Exposure
<i>Appendix C Monitoring Classification:</i> Automated Equivalent Method	<i>Appendix E Siting Criteria*:</i> Yes
<i>Start Date:</i> 5/28/1982	<i>Comments:</i>

<i>Sensor Type:</i> <b>Particulate Matter PM10</b>	<i>Appendix C Monitoring Method:</i> EQPM-1090-079
<i>Sensor Network Designation:</i> SLAMS	<i>Monitoring Method Description:</i> TEOM Gravimetric
<i>Sensor Purpose Designation:</i> Regulatory Compliance	<i>Appendix D Design Criteria*:</i> Yes
<i>Sample Frequency:</i> Cont.	<i>Appendix D Scale:</i> Neighborhood
<i>Appendix A QA Assessment*:</i> Yes	<i>Appendix D Objectives:</i> Population Exposure
<i>Appendix C Monitoring Classification:</i> Automated Equivalent Method	<i>Appendix E Siting Criteria*:</i> Yes
<i>Start Date:</i> 10/20/1994	<i>Comments:</i>

<i>Sensor Type:</i> <b>Sulfur Dioxide</b>	<i>Appendix C Monitoring Method:</i> EQSA-0495-100
<i>Sensor Network Designation:</i> SLAMS	<i>Monitoring Method Description:</i> UV Fluorescence
<i>Sensor Purpose Designation:</i> Regulatory Compliance	<i>Appendix D Design Criteria*:</i> Yes
<i>Sample Frequency:</i> Cont.	<i>Appendix D Scale:</i> Neighborhood
<i>Appendix A QA Assessment*:</i> Yes	<i>Appendix D Objectives:</i> Population Exposure
<i>Appendix C Monitoring Classification:</i> Automated Equivalent Method	<i>Appendix E Siting Criteria*:</i> Yes
<i>Start Date:</i> 5/28/1982	<i>Comments:</i>

<i>SITE NAME:</i> <b>YORK</b>	<i>AQS SITE ID:</i> <b>421330008</b>
<i>COUNTY:</i> <b>YORK</b>	<i>LATITUDE:</i> <b>39.965527778</b>
<i>MUNICIPALITY:</i> <b>YORK</b>	<i>LONGITUDE:</i> <b>-76.699583333</b>
<i>MSA:</i> <b>York-Hanover MSA</b>	<i>ADDRESS:</i> <b>HILL ST.</b>

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**Sensor Type:** Carbon Monoxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1982 **Comments:**

**Appendix C Monitoring Method:** RFCA-1093-093  
**Monitoring Method Description:** Non-dispersive Infrared  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Nitrogen Dioxide  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Reference Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** RFNA-1194-099  
**Monitoring Method Description:** Chemiluminescence  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Ozone  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 1/1/1974 **Comments:**

**Appendix C Monitoring Method:** EQOA-0992-087  
**Monitoring Method Description:** UV Absorption  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM10  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 7/17/1996 **Comments:**

**Appendix C Monitoring Method:** EQPM-1090-079  
**Monitoring Method Description:** TEOM Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Population Exposure  
**Sample Frequency:** Cont.  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Automated Equivalent Method  
**Start Date:** 8/19/2004 **Comments:**

**Appendix C Monitoring Method:** EQPM-0609-181  
**Monitoring Method Description:** FDMS Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

**Sensor Type:** Particulate Matter PM2.5  
**Sensor Network Designation:** SLAMS  
**Sensor Purpose Designation:** Regulatory Compliance  
**Sample Frequency:** Daily  
**Appendix A QA Assessment\*:** Yes  
**Appendix C Monitoring Classification:** Manual Reference Method  
**Start Date:** 1/1/1999 **Comments:**

**Appendix C Monitoring Method:** RFPS-0498-118  
**Monitoring Method Description:** Gravimetric  
**Appendix D Design Criteria\*:** Yes  
**Appendix D Scale:** Urban Scale  
**Appendix D Objectives:** Population Exposure  
**Appendix E Siting Criteria\*:** Yes

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<b>Sensor Type:</b> PM2.5 Speciation	<b>Appendix C Monitoring Method:</b> None
<b>Sensor Network Designation:</b> STN	<b>Monitoring Method Description:</b> Gravimetric
<b>Sensor Purpose Designation:</b> Research/Scientific Monitoring	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Speciation	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 1/1/2002	<b>Comments:</b>

<b>Sensor Type:</b> Sulfur Dioxide	<b>Appendix C Monitoring Method:</b> EQSA-0495-100
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Fluorescence
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Population Exposure
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 4/1/1974	<b>Comments:</b>

<b>Sensor Type:</b> Volatile Organic Compound	<b>Appendix C Monitoring Method:</b>
<b>Sensor Network Designation:</b> Other	<b>Monitoring Method Description:</b> Canister (24 Hour)
<b>Sensor Purpose Designation:</b> Air Toxics	<b>Appendix D Design Criteria*:</b> No
<b>Sample Frequency:</b> 1 in 6	<b>Appendix D Scale:</b>
<b>Appendix A QA Assessment*:</b> No	<b>Appendix D Objectives:</b>
<b>Appendix C Monitoring Classification:</b>	<b>Appendix E Siting Criteria*:</b> No
<b>Start Date:</b> 1/15/2011	<b>Comments:</b>

<b>SITE NAME:</b> YORK DOWNWIND	<b>AQS SITE ID:</b> 421330011
<b>COUNTY:</b> YORK	<b>LATITUDE:</b> 39.860972
<b>MUNICIPALITY:</b> YORK	<b>LONGITUDE:</b> -76.462055
<b>MSA:</b> York-Hanover MSA	<b>ADDRESS1:</b> 2632 DELTA ROAD

<b>Sensor Type:</b> Ozone	<b>Appendix C Monitoring Method:</b> EQOA-0992-087
<b>Sensor Network Designation:</b> SLAMS	<b>Monitoring Method Description:</b> UV Absorption
<b>Sensor Purpose Designation:</b> Regulatory Compliance	<b>Appendix D Design Criteria*:</b> Yes
<b>Sample Frequency:</b> Cont.	<b>Appendix D Scale:</b> Urban Scale
<b>Appendix A QA Assessment*:</b> Yes	<b>Appendix D Objectives:</b> Extreme Downwind
<b>Appendix C Monitoring Classification:</b> Automated Equivalent Method	<b>Appendix E Siting Criteria*:</b> Yes
<b>Start Date:</b> 4/22/2008	<b>Comments:</b>

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## **Appendix C — PA DEP Ambient Air Monitoring Methods**

### Ambient Air Monitoring Equipment and Methodology

EPA mandates specific methods of sampling and analysis for all pollutants regulated by national ambient air quality standards (NAAQS). These regulations are published in the Code of Federal Regulations (CFR), and are adhered to by DEP. EPA generally approves one analysis method for each pollutant known as the Federal Reference Method (FRM). If a different method can be shown to provide adequate analysis, it may be submitted and approved by the EPA as a Federal Equivalent Method (FEM) or Automated Equivalent Method (AEM) and used in place of the FRM. PA DEP uses only FRM or FEM methods for all NAAQS-regulated pollutant monitoring. EPA-approved methods include both continuous and discrete methods.

Continuous methods are automated methods that analyze continuous samples of ambient air for the specified pollutant *in situ*. The output of these specialized air monitoring instruments are hourly pollutant concentrations, which are electronically transmitted to and stored in a data logging device (datalogger). The data is transferred from the datalogger to central operations via DEP's telecommunication network, where real-time measurements can be accessed.

Discrete methods are "manual" methods that require physical removal of a sample (usually a filter through which ambient air has been passed) from its collection site. For this reason, the pollutant concentrations obtained are for a defined or "discrete" period of time; air is not sampled continuously by the instrument.

Table C-1 provides details on the methods and instrumentation utilized by the Department's Air Quality Monitoring Division for all criteria and toxic pollutant monitoring.

**Table C-1. Ambient Air Monitoring Equipment and Methods.**

PARAMETER	MANUFACTURER/INSTRUMENT/MODEL	EPA METHOD DESIGNATION
<b>Continuous Gaseous Sampling</b>		
<b>O<sub>3</sub></b>	Teledyne Advanced Pollution Instrumentation Model 400 Photometric Ozone Analyzer <a href="http://www.teledyne-api.com/products/400e.asp">http://www.teledyne-api.com/products/400e.asp</a>	Automated Equivalent Method: EQQA-0992-087 57 FR 44565, 9/28/92 63 FR 31992, 6/11/98 67 FR 57811, 9/12/02
<b>SO<sub>2</sub></b>	Teledyne Advanced Pollution Instrumentation Model 100A UV Fluorescence SO <sub>2</sub> Analyzer <a href="http://www.teledyne-api.com/products/100e.asp">http://www.teledyne-api.com/products/100e.asp</a>	Automated Equivalent Method: EQSA-0495-100 60 FR 17061, 4/4/95
<b>NO/NO<sub>2</sub>/NO<sub>x</sub></b>	Teledyne Advanced Pollution Instrumentation Model 200A Chemiluminescence Nitrogen Oxides Analyzer for Ambient Concentrations <a href="http://www.teledyne-api.com/products/200e.asp">http://www.teledyne-api.com/products/200e.asp</a>	Automated Reference Method: RFNA-1194-099 59 FR 61892, 12/2/94
<b>CO</b>	Teledyne Advanced Pollution Instrumentation Model 300 CO Gas Filter Correlation Analyzer <a href="http://www.teledyne-api.com/products/300e.asp">http://www.teledyne-api.com/products/300e.asp</a>	Automated Reference Method: RFCA-1093-093 58 FR 58166, 10/29/93
<b>Particulate Sampling</b>		
<b>PM<sub>2.5</sub></b>		
<i>Discrete</i>	R&P Partisol-Plus Model 2025 Sequential Air Sampler w/WINS and R&P Partisol-Plus Model 2025 Sequential Air Sampler w/VSCC <a href="http://www.thermoscientific.com/wps/portal/ts/products/detail?navigationId=L10405&amp;categoryId=89579&amp;productId=11960559.htm">http://www.thermoscientific.com/wps/portal/ts/products/detail?navigationId=L10405&amp;categoryId=89579&amp;productId=11960559.htm</a>	Manual Reference Method: RFPS-0498-118 63 FR 18911, 4/16/98 67 FR 15567, 4/2/02 (EQPM-0202-145 redesignated as manual reference method 12/18/06)

PARAMETER	MANUFACTURER/INSTRUMENT/MODEL	EPA METHOD DESIGNATION
<i>Continuous</i>	Met One Instruments Beta-Attenuation Mass (BAM) Model 1020 <a href="http://www.metone.com/documents/BAM-1020_6-08.pdf">http://www.metone.com/documents/BAM-1020_6-08.pdf</a>	Automated Equivalent Method EQPM-0308-170 73 FR 13224, 3/12/08 73 FR 22362, 4/25/08
	R&P TEOM Series 8500a Filter Dynamics Measurement System (FDMS) and TEOM Series 1400ab <a href="http://www.thermoscientific.com/wps/portal/ts/products/detail?productId=11960562&amp;groupType=PRODUCT&amp;searchType=0">http://www.thermoscientific.com/wps/portal/ts/products/detail?productId=11960562&amp;groupType=PRODUCT&amp;searchType=0</a>	Automated Equivalent Method EQPM-0609-181 74 FR 28697, 6/17/2009
<b>PM<sub>2.5</sub> SPECIATION</b>	Met One Instruments SASS PM <sub>2.5</sub> Ambient Chemical Speciation Air Sampler <a href="http://www.metone.com/documents/SASS0301Particulate.pdf">http://www.metone.com/documents/SASS0301Particulate.pdf</a>	None
<b>PM<sub>10</sub></b>		
<i>Discrete</i>	Thermo GMW PM <sub>10</sub> High-Volume Air Sampler - Volumetric <a href="http://www.thermo.com/com/cda/product/detail/1,1055,23297,00.html">http://www.thermo.com/com/cda/product/detail/1,1055,23297,00.html</a>	Manual Reference Method: RFPS-1287-063 52 FR 45684, 12/01/87 53FR 1062, 1/15/88
<i>Continuous</i>	Rupprecht & Patashnick (R&P) Tapered Element Oscillating Microbalance (TEOM) Series 1400 Ambient Particulate Monitor <a href="http://www.thermoscientific.com/wps/portal/ts/products/detail?navigationId=L10405&amp;categoryId=89579&amp;productId=11960558">http://www.thermoscientific.com/wps/portal/ts/products/detail?navigationId=L10405&amp;categoryId=89579&amp;productId=11960558</a>	Automated Equivalent Method: EQPM-1090-079 55 FR 43406, 10/29/90
<b>LEAD</b>	Hi-Q HVP-4300AFC Tisch TE-5170 VFC+ Inductively Coupled Plasma - Mass Spectrometry	Manual Equivalent Method EQL-0710-192 75 FR 45627, 8/3/10
<b>Toxic Sampling</b>		
<b>VOC</b>	ATEC Model 2200-12 ATEC Model 2200-102 <a href="http://www.atec-online.com/canister.htm">http://www.atec-online.com/canister.htm</a> Entech CS1200ES4 <a href="http://www.entechnst.com/media/pdfs/cs1200e_cat.pdf">http://www.entechnst.com/media/pdfs/cs1200e_cat.pdf</a>	EPA Compendium Method TO-15
<b>Carbonyl</b>	Xontech Model 925 Automated Carbonyl Sampler ATEC Model 2200-102 <a href="http://www.atec-online.com/products.htm">http://www.atec-online.com/products.htm</a>	EPA Compendium Method TO-11A
<b>MERCURY</b>	Tekran Mercury Vapor Analyzer Model 2537A Cold Vapor Atomic Fluorescence Spectrometer (CVAFS) <a href="http://www.tekran.com/products/ambient-air/tekran-model-2537-cvafs-automated-mercury-analyzer/">http://www.tekran.com/products/ambient-air/tekran-model-2537-cvafs-automated-mercury-analyzer/</a>	EPA Compendium Method IO-5
<b>TSP/Metals</b>	Thermo GMW TSP High-Volume Air Sampler - Volumetric Flow Controlled <a href="http://www.thermoscientific.com/ecomm/servlet/productsdetail_11152_L11350_89579_11960634_-1">http://www.thermoscientific.com/ecomm/servlet/productsdetail_11152_L11350_89579_11960634_-1</a> Inductively Coupled Plasma - Mass Spectrometry (Metals)	Manual Reference Method Method Code 802 47 FR 54912, 12/6/82 48 FR 17355 4/22/83 EPA Compendium Method IO-3.5

## Hass, Andrew

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**From:** schmidt, howard  
**Sent:** Wednesday, September 18, 2013 2:05 PM  
**To:** Hass, Andrew  
**Cc:** Hyden, Loretta  
**Subject:** RE: PADEP ANP review

Yes to Pb monitors.

Yes to SO2 monitors.

No Pb waivers, none needed.

That's a wrap!

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**From:** Hass, Andrew  
**Sent:** Friday, September 13, 2013 1:51 PM  
**To:** schmidt, howard; Hyden, Loretta  
**Cc:** chow, alice  
**Subject:** PADEP ANP review

Hi guys,

I reviewed the PADEP ANP and am attaching the checklist and some items to note.

I want to double-check w/ you guys to make sure I have it correct for the other required, pollutant-specific items that I was unsure:

- Howard, Based off of previous ANPs I am fairly certain that PADEP has all required 0.5 tpy Pb monitors in operation by 1/1/2011. Just double checking w/ you that is correct?
- Howard, Are all new req'd SO2 sites were operational by 1/1/2013? Warren East was installed last year...any more for this year?.
- Howard, PADEP did not submit any Pb waivers (App. D 4.5(a)(ii)) this year. Were they supposed to? Last year, Latrobe, Hatfield's Ferry, Montour, and Homer City received waivers.
- Lori, PADEP did not identify any sites that are not suitable for comparison of the Annual PM2.5 NAAQS described in 58.30..should they have?

Other changes/proposed changes and FYI type stuff are:

- PADEP stated the (4) remaining NO2 near-road sites will be operation by the new req'd date (2017) per the 10/5/2012 rule revision.
- There is a new SLAMS O3 and NO2 at Towanda, PA. Operating in response to Marcellus Shale activity
- O3 monitoring is now taking place year round in response to Marcellus activity
- Pb site in Beaver Valley was moved ~375 m to the Center Twp. Water Authority property.
- All Pb Hi-Q samplers replaced w/ Tisch
- Harrisburg site was re-installed w/ O3, PM2.5 & PM2.5 speciation...CO & NO2 has been discontinued and PM10 moved to Hershey
- PM2.5 FRM monitors re-installed at New Garden, Freemansburg, Florence, and Greensburg
- A new PM2.5 site is being looked at in Lancaster Co., PA for future deployment