5. Daily Summary Files

5.1. Content

Each daily summary file contains data for every monitor (sampled parameter) in our database for each day. These files are separated by parameter (or parameter group) to make the sizes more manageable.

This file will contain a daily summary record that is:

1) The aggregate of all sub-daily measurements taken at the monitor.

2) The single sample value if the monitor takes a single, daily sample (e.g., there is only one sample with a 24-hour duration). In this case, the mean and max daily sample will have the same value.

The daily summary files contain (at least) one record for each monitor that reported data for the given day. There may be multiple records for the monitor if:

- There are calculated sample durations for the pollutant. For example, PM2.5 is sometimes reported as 1-hour samples and EPA calculates 24-hour averages.

- There are multiple standards for the pollutant (q.v. pollutant standards).

- There were exceptional events associated with some measurements that the monitoring agency has or may request be excluded from comparison to the standard.

5.2. Format

The file is comma separated variables (CSV) with a header row.

Field Position	Field Name	Description
1	State Code	The FIPS code of the state in which the monitor resides.
2	County Code	The FIPS code of the county in which the monitor resides.
3	Site Num	A unique number within the county identifying the site.
4	Parameter Code	The AQS code corresponding to the parameter measured by the monitor.
5	POC	This is the "Parameter Occurrence Code" used to distinguish different instruments that measure the same parameter at the same site.
6	Latitude	The monitoring site's angular distance north of the equator measured in decimal degrees.
7	Longitude	The monitoring site's angular distance east of the prime meridian measured in decimal degrees.

Field Position	Field Name	Description
8	Datum	The Datum associated with the Latitude and Longitude measures.
9	Parameter Name	The name or description assigned in AQS to the parameter measured by the monitor. Parameters may be pollutants or non-pollutants.
10	Sample Duration	The length of time that air passes through the monitoring device before it is analyzed (measured). So, it represents an averaging period in the atmosphere (for example, a 24-hour sample duration draws ambient air over a collection filter for 24 straight hours). For continuous monitors, it can represent an averaging time of many samples (for example, a 1-hour value may be the average of four one-minute samples collected during each quarter of the hour).
11	Pollutant Standard	A description of the ambient air quality standard rules used to aggregate statistics. (See description at beginning of document.)
12	Date Local	The calendar date for the summary. All daily summaries are for the local standard day (midnight to midnight) at the monitor.
13	Units of Measure	The unit of measure for the parameter. QAD always returns data in the standard units for the parameter. Submitters are allowed to report data in any unit and EPA converts to a standard unit so that we may use the data in calculations.
14	Event Type	Indicates whether data measured during exceptional events are included in the summary. A wildfire is an example of an exceptional event; it is something that affects air quality, but the local agency has no control over. No Events means no events occurred. Events Included means events occurred and the data from them is included in the summary. Events Excluded means that events occurred but data form them is excluded from the summary. Concurred Events Excluded means that events occurred but only EPA concurred exclusions are removed from the summary. If an event occurred for the parameter in question, the data will have multiple records for each monitor.
15	Observation Count	The number of observations (samples) taken during the day.
16	Observation Percent	The percent representing the number of observations taken with respect to the number scheduled to be taken during the day. This is only calculated for monitors where measurements are required (e.g., only certain parameters).
17	Arithmetic Mean	The average (arithmetic mean) value for the day.
18	1st Max Value	The highest value for the day.
19	1st Max Hour	The hour (on a 24-hour clock) when the highest value for the day (the previous field) was taken.

Field Position	Field Name	Description
20	AQI	The Air Quality Index for the day for the pollutant, if applicable.
21	Method Code	An internal system code indicating the method (processes, equipment, and protocols) used in gathering and measuring the sample. The method name is in the next column.
22	Method Name	A short description of the processes, equipment, and protocols used in gathering and measuring the sample.
23	Local Site Name	The name of the site (if any) given by the State, local, or tribal air pollution control agency that operates it.
24	Address	The approximate street address of the monitoring site.
25	State Name	The name of the state where the monitoring site is located.
26	County Name	The name of the county where the monitoring site is located.
27	City Name	The name of the city where the monitoring site is located. This represents the legal incorporated boundaries of cities and not urban areas.
28	CBSA Name	The name of the core bases statistical area (metropolitan area) where the monitoring site is located.
29	Date of Last Change	The date the last time any numeric values in this record were updated in the AQS data system.