⬥EPA

AQS Data Reports and Retrievals

Version 1.0

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1 Introduction

1.1 Purpose

The AQS Application provides a series of pre-defined air quality reports. The intent of these reports is to provide a consistent, user-friendly method of accessing data from within the database. The outputs from these reports are designed to provide the user with an easy to interpret set of results which may be used as they are, or further analyzed in other applications. By providing this mechanism, the users have a "common language" of data that use a common format and common business rules in reviewing data from within the AQS database.

The standard reports can be grouped into the following categories of reports:

- *Site and Monitor Description Reports:* These reports provide detailed information about the configuration of the monitoring site and / or the monitors. These reports do not contain any collected sample data from the sites and monitors; just the configuration of the monitoring environment.
- *Pre-Production Reports:* If you have the ability to update data within the AQS application you will have access to these "Pre-Production" Reports. These reports provide information about data for the monitors that you own where the data has yet to reach "Production" status.
- *Summary Reports:* Due to the large volume of sample data collected by the system, the data is summarized at a variety of levels. These reports display the results of these summaries.
- *Quality Assurance Reports:* AQS collects auditing information performed against the monitoring networks to determine how well the monitors are performing. The results of these audits can be obtained through the precision and accuracy reports.
- *Raw Data Reports:* There are over 1,000,000,000 sample data points in the AQS database. These reports display the values as submitted by the user community.

1.2 Additional Resources

This document is intended to provide new users with the steps and procedures required to execute the standard reports from the AQS Application. . This document provides a complete description of the output options, report options, available selection criteria, and structure of the reports.

2 Report Selection Interface (R31 Form)

2.1 Overview

The standard report criteria interface screen (also referred to by its module name as the "***R31 form***") is the mechanism by which all standard reports are created. The R31 form collects the following information from the user in order to create a report:

- What report to run
- The type of output desired
    - Formatted report
    - Text workfile
    - XML output
- Delivery Method
    - On-line (interactively)
    - Batch (background)
- What data to be included in the report
    - By geography
    - By time periods
    - By reporting organization
    - By screening groups
    - By land use
    - By monitor types
    - By parameter, parameter category, sampling duration, and/or sampling methodology
- Specify report sort order
- Select report options

Collectively, this information is called a "Criteria set". Criteria sets can be named and saved to be used at a later time. This topic is covered in detail under ***Section 2.2.7: Saving Criteria Sets*** and ***Section 3: Using Saved Criteria Sets***.

It is important to realize that not all parts of R31 are available for all reports. For example, if you were creating a report for annual summary information, it would not make sense to base your time selections on a Year / Month / Day basis since the report only displays data on a yearly aggregation.

2.2 What is Returned

The type of information that is sent back to the user is very much dependant on what type of report has been requested. All reports have a cover page which shows the following information:

- What report was run
- What information was supplied to R31 to generate the output

This report is always generated in Portable Document Format (PDF). If a "REPORT" output option is specified and the report is also generated in PDF format, the cover sheet

and the report may be "merged" together into a single document. At this time, you must specify the "REPORT MERGE" option to "YES" in order for this feature to work. For more information, see section 2.2.6.1, "Merge PDF File Option" for more information.

If the output of the report is in a different file format from the cover page or if the "REPORT MERGE" option is set to "NO", then a ZIP file is created containing the PDF cover page and the various requested report formats.

2.3 Tribal Mode

Within the application, sites may be identified in one of two ways:
Method 1. Unique combination of State Code – County Code – Site ID. The site may or may not be identifiable by "Method 2".
Method 2. Unique combination of Tribal Code – Site ID. If a site can be identified by this method, it can also be identified by "Method 1". This method is called the "Tribal format"

If users want to select and sort data by Tribal Code and display the information in the Tribal format, they must be in "Tribal mode" for the current session. You can determine if you are in Tribal mode by looking at the blue title bar above the R31 tabs. If the words "Tribal Mode" appear like this, for example,

then you are in Tribal mode. If you are not in tribal mode, the title bar will look something like this:

There are 2 ways to set the session to be in Tribal mode:
1. From the "Action" Menu item - This will alter the current session to turn the Tribal mode on or off
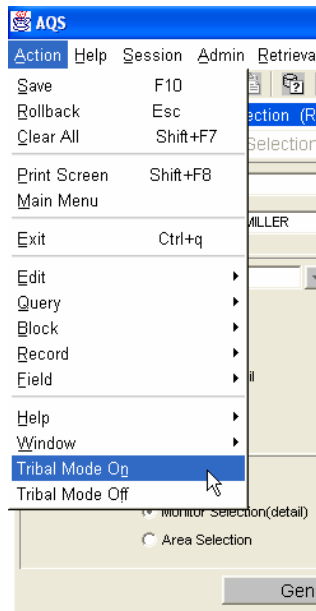
2. Update User Profiles – To change the default way your session is set with respect to Tribal mode you may update your user profile record as appropriate. Go to Admin / Security menu items and check or uncheck the "Tribal User" check box on the "User Profile" tab as appropriate. If the user is defined as a tribal user on this screen, they will be put in Tribal mode whenever they sign on to the system. Please note that this mode also applies to other areas of the application, such as the Maintain form modules.

2.4 Creating a Report

The Standard Reports Selection Form is the primary user interface in generating the pre-defined (or standard) reports within the AQS application. Different interface options appear for each report, depending on if the report supports the particular feature.

2.4.1 Accessing R31

The R31 form is accessed by selecting the "Standard Report Selection" option from the "Retrieval" menu (see **Figure 1** below).
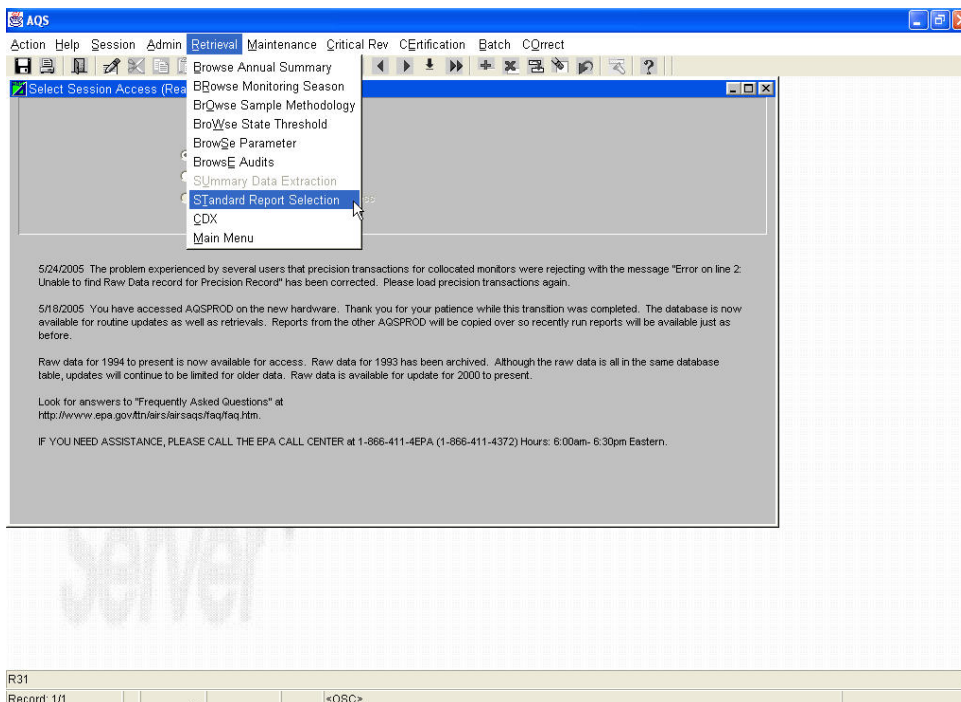
Figure 1 – Accessing Standard Reports

2.4.2 Criteria Set Tab

When first entering the R31 form, the "Criteria Set" Tab is active and the form is blank. This form will remain blank until either:

    a) The user selects a previously saved "Criteria Set" name from the drop-down list (shown in section "2" in **Figure 2** below). These previously saved criteria sets may be either "Private" criteria sets created by the user or "Public" criteria sets created by another user. Use of this option is covered in Section 3 ("Using Saved Criteria Sets").

    b) The reports are listed in alphabetical order based on the name of the report. Each report has an associated report code. The user selects a "Report Code" from the drop-down list (shown in section "3" in **Figure 2** below). This indicates that this is a new report being requested. Once the report code is selected, the R31 form is now able to determine the following information:

        a. What report outputs are available
        b. What fields may be selected upon
        c. If any sorting of the selected records is allowed
        d. What report options are available

Figure 2 – Criteria Set Tab

After the desired report is specified, the pertinent parts of the form are populated and the appropriate tabs are activated. The following items are filled out on the "Criteria Set" tab:

- The report name (Section "3" in **Figure 2**)
- The "Run Online" output option is selected by default (Section "3" in **Figure 2**). There are three options for how the reports are returned to the user
  - **Run Online** – This option indicates that the results of the report will be returned directly to the screen.
  - **Send via Email** – The results of the report will be sent to the user's email address as defined in their user profile.
  - **Send to CDX** – The results of the report are sent to your Central Data Exchange (CDX) account. You are responsible for signing on to CDX and downloading the resulting file yourself.

- Depending on what elements are selected, additional windows appear in Section "3" of **Figure 2**. For example, if "REPORT" is a valid output type and it is checked, then **Figure 2** Section 3 will look like this:

Note the new "Print Format" field. By default it will have Adobe Portable Document Format (PDF) files as the default. PDF is the file format for which the standard formatted reports were designed and is usually the best option. However, the following formats are also available for any formatted report:

- Postscript (PS)
- Hypertext Markup Language (HTML)
- Rich Text Format (RTF)
- HP Printer Language (HPL)
- Plain Text (TXT)

If either the "Send via Email" or "Send to CDX" options are checked, a text field appears for you to optionally specify the name of the file it outputs.

- The appropriate "Report Outputs" available for the report are displayed (Section "3" in **Figure 2**). At least one output option will be checked by default.

- The "Monitor Selection (detail)" selection mode will be selected by default (Section "4" in **Figure 2**). You may specify your selection criteria by geographic information related to monitor attributes (State – County – Site ID – Parameter Code – POC) or by more general geographic entities (Tribal Areas, State, County, City, EPA Region, etc). You may switch selection modes before executing a query by checking the appropriate radio button in Section "4" in **Figure 2**, but the information that you have placed on the "Monitor Selection" tab will not be carried over. You will receive a warning to this effect.
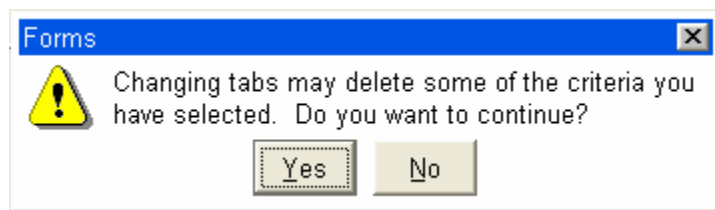
Click on "Yes" to continue to use the other selection mode. Click "No" to stay in your current mode and retain your current information.

- The other appropriate tabs will become active (Section "1" in **Figure 2**)

2.4.3 Monitor Selection and Area Selection Tabs

2.4.3.1 Basic Function

You specify your selection criteria either by "Monitor Selection" or by "Area Selection". Which tab is active is dependant on which radio button is selected on the "Criteria Set" tab (Section "4" in **Figure 2**). The basic functions of these tabs are the same; the only difference is what fields are available in which to specify your selection criteria. The general idea of these tabs is to limit or filter the records that are selected from the database. This is done by specifying geographic, temporal, and / or pollutant information to select only the sites or areas desired. Which fields are available is dependant on the selected report. If a field is not appropriate for the report, it will not appear on the screen.

2.4.3.2 How the Selections Work

As you can see in **Figure 3**, the Monitor Selection tab is broken in to four areas:
- **Site – Monitor Criteria** – Allows selection by the components of the monitor id. Specifically these are the Tribal Code, State Code, County Code, Site ID, Parameter Code, and Parameter Occurrence Code (POC). In addition, you may specify method code, sample duration code, and the effective date range.
- **Global Report Criteria –** Allows selection by a category of parameters ("CRITERIA" category selects all of the criteria pollutant parameters), a single parameter, sample duration, and method code. *NOTE:* If you have specified any of these types of elements in the "Site – Monitor Criteria" section, you will not be allowed to enter them here.
- **Global Data Range –** Allows selection by the appropriate date range specified for the given report. *NOTE:* If you have specified any of the date elements in the "Site – Monitor Criteria" section, you will not be allowed to enter them here.
- **Global Screening Group –** Allows selection by owners of the monitors.

Figure 3 – Monitor Selection Tab

The form allows for multiple rows of selections in each category except for "Global Screening Group". The following rules are enforced when the program builds the query:

- All data entered into a single row within a given category are linked together with "AND" conditions.
- Rows within the same category are linked together with "OR" conditions
- Data between the categories are linked together with "AND" conditions.

In figure 4 below the query would read as follows:

Plain English Version:
"Select Sites in Autauga County (County Code "001") Alabama (State Code "01") OR in Norfolk County (County Code "021") Massachusetts (State Code "25") AND measuring Criteria pollutants AND operating from January 1, 1999 through December 31, 2000."

Figure 4 – Query Example

Since no filtering criteria were specified on things like Tribal Code, Method Code, Duration Code, or Screening Group, they do not appear in the language of the query. That is to say that what records are retrieved will not be limited by these categories.

2.4.3.3 Differences Between the Selection Tabs

Examine **Figure 5** below. This is the "Area Selection" tab. Conceptually, it works the same way as the Monitor Selection tab shown in **Figure 3** above. The difference between them is what elements you may select. The following chart shows all the available fields and on which tabs they are located. Not all these elements are available with all reports.

Figure 5 - Area Selection Tab

Field Name	Monitor Selection	Area Selection		Field Name	Monitor Selection	Area Selection
Tribal Code	✓	✓		Reporting Organization		✓
State Code	✓	✓		Land Use		✓
County Code	✓	✓		Monitor Type		✓
Site Id	✓	✓		Global Pollutant Type	✓	✓
Monitor Single Parameter	✓			Global Single Parameter	✓	✓
POC	✓			Global Method	✓	✓
Monitor Method	✓			Global Duration	✓	✓
Monitor Duration	✓			Global Date Range	✓	✓

Monitor Date Range	✓			AQCR Code		✓
City Code		✓		MSA Code		✓
Urban Area Code		✓		EPA Region		✓
CMSA Code		✓		Screening Group	✓	✓

One of the "not so obvious" differences is that the Monitor Selection tab includes Parameter Code, Method Code, Duration Code, and date ranges on each row in the selection criteria. The Area Selection tab does not. The implication is that the Monitor Selection tab allows you to customize what is selected for each monitor whereas this information must be applied to all the geographic records selected from the Area Selection tab. For example, if you wanted 2000 data from Ohio and 2004 data from Virginia, you could only construct this type of a query in the Monitor Selection tab because of the "AND" and "OR" nature of combining the specified criteria. Here is what this query would look like using the "Monitor Selection" tab:

Note that the date range only applies to the other information in the same line. So this would read "Select Sites where the State Code is for Ohio ("39") and the date range is from 2000-01-01 through 2000-12-31 OR the state code is for Virginia ("51") and the date range is from 2004-01-01 through 2004-12-31".

A similar query in the "Area Selection" Mode would look like this:
The "Geographical Criteria" section of the form it would look like this:

The "Date Criteria" section would look like this:

The combination of these two things would read "Select Sites where the State Code is for Ohio ("39") OR the state code is for Virginia ("51") AND the date range is from 2000-01-01 through 2000-12-31 OR the date range is from 2004-01-01 through 2004-12-31." The date range would apply to both geographical entities. There is a similar logic with the single parameter, duration, and sampling methods columns as well.

2.4.4 Sort Order Tab

Every report has a defined sort order. Many of the reports allow you to change the sort order in some manner. However, given the structure of some reports, what may be sorted is limited. The interface to alter the sort order can be found on the "Sort Order" tab. If this tab is not active, then sorting is not allowed for the given report.

The tab displays the sortable fields, the order in which the sorting will take place, and the range of order the field may appear. In this particular example, the report must be sorted by Parameter Code first (note the Allowed Range is 1). Next you may sort by either:

- Tribal code then State code
- State code then Tribal code

Again, note the allowed order range for these columns. To change the order, highlight the column that you would like to change its order, and then click the "Move highlighted column up" arrow or the "Move highlighted column down" arrow. You may not add or remove columns to the list to be sorted. You may only change the sort order and only within the range where the "Order" number is between the "Lo" and "Hi" values of the "Allowed Range".

2.4.5 Report Options Tab

With all the reports, there are several options that may be available that will effect what data is returned to the user. The report options may be placed into one of three categories:

- Single value report options (See **Figure 6**) – For a given option category, the user may select one of a known list of options. All available options appear in the drop-down listing for the option.
- Alternate standards report option (See **Figure 6**) – User may specify the values at which a given value will be marked as exceeding a given limit. In order to use this option, the data must be returned in Standard Units. These alternate limits will only be applied where the data being retrieved matches a given parameter and duration. The user must specify a parameter, duration, and any of the following:
    - Primary Value
    - Secondary Value

o Primary and Secondary Value
- Multiple value report options (See **Figure 7**) – For a given option category, the user may select none, one, or multiple choices from the known list of options. Selections are made by checking the box to the right of the option. A checked box indicates that the option will be applied to the report. The user may also utilize the "Check All" and "Uncheck All" buttons to expedite selecting multiple columns.

Figure 6 - Single Value & Alternate Standards Report Options

Figure 7 - Multiple Value Report Options

2.4.5.1 Merge PDF Files Option

A common report option is one labeled "MERGE PDF FILES". It lists either "YES" or "NO" as the available option values. If this option equals "YES", the report program will merge the results of the cover sheet with the output of the formatted PDF report. This option will only be implemented if **ALL** of the following conditions are true:
1. The "MERGE PDF FILES" option = "YES"
2. The user has selected a "REPORT" type of output from the "Criteria Set" tab
3. The format of the "REPORT" output on the "Criteria Set" tab is set to "PDF"

The option screen does not validate that the combination of these elements before executing.

2.4.5.2 Exceptional Event Processing

Several reports have an option of how to handle exceptional event processing. This option will primarily affect summary types of reports. When data is submitted to AQS, the submitting agency may flag the data as being effected by either natural events or man-made exceptional events that have influenced the level of the sample. These flags are eventually concurred or not concurred by the local EPA authority as to whether this is an approvable event.

When AQS summarizes the data, it is summarized multiple times if the dataset contains any of these natural or exceptional events. The following summaries are computed:
- Include all data whether or not they contain events
- Exclude all events

- Exclude just the exceptional events
- Exclude just the natural events
- Exclude any events with EPA Regional concurrence
- Exclude just the exceptional events with EPA Regional concurrence
- Exclude just the natural events with EPA Regional concurrence

2.4.6 Saving Criteria Sets

Once you have successfully created a criteria set, you may save it to be executed again at a later time. To save a criteria set, first go to the "Criteria Set" tab (See section 2 of **Figure 2**). Enter the following information:
- Criteria Set Name: A unique name to identify the criteria set
- Criteria Set Description: A brief description of the criteria set
- Owner: This will be your name and filled out automatically
- Type: You can either define the criteria set as "Private" (default) or "Public"
  - *Private*: This option means that only you may access and update this criteria set
  - *Public*: This option allows any other user to access and update the criteria set

Once you have filled out the appropriate information, click on the "Save" icon in the upper left-hand corner of the form.

If you have successfully completed these steps, you will receive the following dialog box:
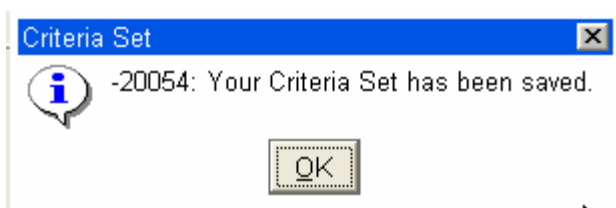
2.5 Using Saved Criteria Sets

After entering the Standard Reports form (See section 2.2.2 for information on how to enter the R31 form), you may recall any previously saved criteria sets. You will be able to see any criteria set that you have saved as well as any other criteria set saved by others labeled "Public".

To see all the criteria sets you have in your private account, select "Private" from the "Type" field and click on the "Criteria Set" drop-down list. To see the criteria sets available in the "Public" area, choose "Public" from the "Type" field and click on the "Criteria Set" drop-down list.

The report that the criteria set was originally run with is returned. Any selections made on the Monitor / Area Selection tab, Sort Orders, and Report Options are also returned. However, the elements under the outputs are always reset to the default values for the

report (see section "3" of **Figure 2**). Once the information has been loaded into the form, the report may be immediately generated or you may make any changes.

2.6 Deleting Saved Criteria Sets

You have the ability to delete previously saved criteria sets that you no longer need or want in your list of saved criteria set. Since these saved criteria sets are saved within the database, they are treated like any other record in the database. The method of deleting them is:
1. Query the Criteria Set into the form.
2. Delete the record using either the form icon or the menu selections.

2.6.1 Query the Criteria Set into the Form

To see all the criteria sets you have in your private account, select "Private" from the "Type" field and click on the "Criteria Set" drop-down list. To see the criteria sets available in the "Public" area, choose "Public" from the "Type" field and click on the "Criteria Set" drop-down list. You may delete only "Public" criteria sets that you have saved.

2.6.2 Delete the Criteria Set

Once the criteria set have been queried, you may delete the record by any of the following methods:

1. Click on the "Remove Record" icon
2. Select "Action" → "Record" → "Remove" from the menus.
3. Press the "Shift" key and the "F6" key simultaneously.

Please note that once the record is deleted, the action is automatically committed and cannot be un-done.

2.7 Generate Report
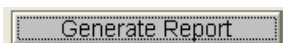
At the bottom of each tab of the R31 form is the "Generate Report" button. Once this button is pressed, the report takes the information from the tabs of the R31 form and uses it to generate the report. If the "Send via Email" or "Send to CDX" options were selected from the "Criteria Set" tab, the report runs in the background. When complete, the report will be delivered by the selected mechanism. If the "Run Online" option was selected from the "Criteria Set" tab, then a progress dialog box appears to let the user know the progress of the report. When complete, the progress dialog box will disappear and the report output will be delivered to the user on the screen. The "Generate Report" may be pressed at any point during the selection criteria process. Prior to submitting the report, the R31 form will check to ensure that all required information has been provided. If it has not, the user will be shown the part of the form in error and provided with a message to indicate what additional information is needed.

2.7.1 Report Progress Dialog Box
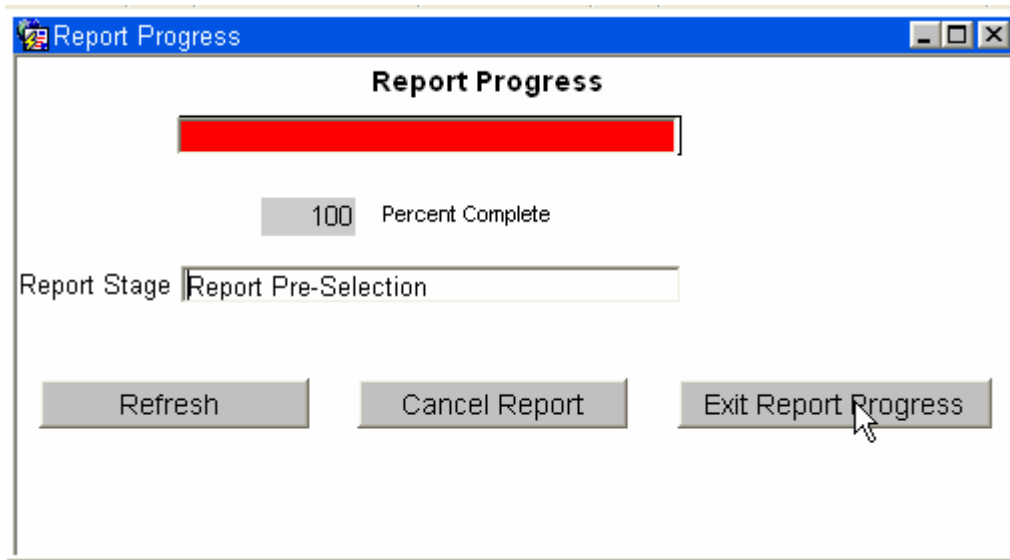
The Report Progress dialog box provides the user with the following information:

- The current stage of the report. When a report is being generated, it will undergo a series of different steps. While not all reports take the same steps in generating a report, the final stage of the report generation process is the "Generating Output" stage.
- The percent completeness of the particular stage. This provides an estimate of the amount of progress made from the particular stage. It is not an overall percentage to generate the entire report. This percent completeness applies only to the current stage.
- The information on the dialog box automatically refreshes every 15 seconds. If you would like the information to refresh before the next 15 second interval, press the "Refresh" button and the information will be updated.
- The "Cancel Report" button will tell the report generator to cancel the currently running report. The cancellation is not immediate. A message must be sent to the report server, and the dialog will wait until it receives a response that the report has been cancelled.
- The "Exit Report Progress" button will not cancel the report, but it will take it out of the "Run Online" mode. In order to see the results of the report, the user will have to manually check the progress of the report through the "Retrieve Reports" tab (See section 4.2).

2.8 Retrieving Previously Executed Reports

You may also obtain the results of a previously run report by clicking on the "Retrieve Reports" tab from the R31 form (See **Figure 8** below).

Figure 8 - Retrieve Reports Tab

The "Retrieve Reports" tab shows the status of any report that you have run in the last 15 calendar days. It shows the following information:

- Who ran the report (will always be your user ID
- What report was run
- How they requested the report (Online or Batch)
- The date the report request was made
- The stage of the report
- Percent completeness of the stage

2.8.1 Retrieve Report Button

The "Retrieve Report" button on the "Retrieve Reports" tab (see **Figure 8**) will obtain the results of a completed report for the row that is highlighted on the form. The button will only work successfully if the Stage is "Completed" and the "% Complete" column = 100. Keep in mind that this function returns the results of the report at the time it was originally run. It does not re-execute the query. So any updates to the data that have been made from the time the report was originally run will not be reflected in the retrieved report.

2.8.2 Refresh Query Button

The "Refresh Query" button updates the "Stage" and "% Complete" columns for the reports that you have supplied. The results are refreshed each time you reopen the

"Retrieve Reports" tab, but if you want to see the status as it stands at this moment, press this button

2.8.3 Cancel Report

The "Cancel Report" is used when you would like to cancel a report that you are running in the background. It will not delete the report from the list of reports. It only changes the status of the highlighted row to "Cancelled".

2.8.4 Delete Report

The "Delete Report" is used when you would like to remove a report from the list of reports run in the last 15 days. It will not cancel the report. It only removes the highlighted row from the list of reports for the user.

3 Report Descriptions

3.1 Report Selection Criteria Cover Sheet

3.1.1 Report Description

The Report Selection Criteria is a report that is generated with each request for data from the R31 interface. The report displays what selection criteria were used for a given report, report options selected, the selected sort order, the date the request was made, and the report to which it belongs. This report may be generated separately or "merged" with another Adobe Acrobat portable document format (PDF) output. This report is always generated in PDF format.

3.1.2 Report Outputs

3.1.2.1 Formatted Reports

3.1.2.2 Workfile Format

Not applicable for this report

3.1.2.3 XML Format

Not applicable for this report

3.1.3 Report Options

There are no options defined for this report.

3.2 Site / Monitor Report: Extract Site / Monitor Data (AMP500)

3.2.1 Report Description

The Extract Site / Monitor Data converts production site and monitor description data into the AQS pipe-delimited data input format and / or defined XML input schema. This program will generate "AA", "AB", "AC", "MA", "MB", "MC", "MD", "ME", "MF", "MG", "MH", "MI", "MJ", and / or "MK" transactions. There is no formatted report associated with AMP500.

3.2.2 Report Outputs

3.2.2.1 Formatted Report

Not applicable for this report.

3.2.2.2 Workfile Format

The workfile records are consistent with the data input format for site and monitor description data. Please refer to the Batch Input Transaction layouts for further discussion of these formats.

3.2.2.3 XML Format

The XML Format of this report is consistent with the Air Quality Submission schema. The schema definition can be found at http://www.exchangenetwork.net/exchanges/air/aqs.htm. The selection of the "Action Indicator" in the report options (see the following section on choices of options for the report) will determine whether the "Insert", "Update", or "Delete" schema will be used.

3.2.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	No effect for this report
ACTION INDICATOR	INSERT	You may set what "Action Indicator" is applied to the extracted transactions. • Insert • Update • Delete
SITE MONITOR TRANSACTIONS	All available transaction types	You may select the type of site and monitor transactions generated: • SITE BASIC • SITE TANGENT ROADS • OPEN PATHS • MONITOR BASIC • MONITOR SAMPLE PERIODS • MONITOR TYPES • MONITOR AGENCY ROLES • MONITOR OBJECTIVES • MONITOR SAMPLE SCHEDULES • MONITOR STREET INFORMATION • PROBE OBSTRUCTIONS • MONITOR REGULATORY COMPLIANCES • MONITOR COLLOCATION PERIODS • MONITOR PROTOCOLS

3.3 Site / Monitor Report: Monitor Description Report (AMP390)

3.3.1 Report Description

The Monitor Description Report (AMP390) lists descriptive information on the location and configuration of monitoring sites and monitors with AQS. This descriptive information includes geographic descriptions, probe configuration descriptions, and location of other items that may have an impact on the data collected by the site (nearby streets and obstructions). The report produces 1 page per monitor selected.

3.3.2 Report Outputs

3.3.2.1 Formatted Report

3.3.2.2 Workfile Format

Not applicable for this report.

3.3.2.3 XML Format

Not applicable for this report.

3.3.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.4 Site / Monitor Report: Monitor Network Report (AMP220D)

3.4.1 Report Description

The Monitor Network Report (AMP220D) lists descriptive information on the location and configuration of monitoring sites and monitors with AQS. This report focuses on the elements required to meet the Environmental Protection Agency's criteria to properly locate an ambient air quality monitoring site. This descriptive information includes a list of networks to which the monitor currently belongs, probe configuration descriptions, and location of other items that may have an impact on the data collected by the site (nearby streets and obstructions). The report has a detail and summary section. A sample of each output is provided.

3.4.2 Report Outputs

3.4.2.1 Formatted Report

3.4.2.1.1 Monitor Detail Section

3.4.2.1.2 Monitor Network Summary Section

3.4.2.2 Workfile Format

Not applicable for this report.

3.4.2.3 XML Format

Not applicable for this report.

3.4.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.5 Site Description Report (AMP380)

3.5.1 Report Description

The Site Description Report lists descriptive information pertaining to an ambient air quality monitoring site. This type of information may include geographical information, user-defined descriptions, coordinate information, site operational information, tangent road information, and counts pertaining to the monitors located at the site.

3.5.2 Report Outputs

3.5.2.1 Formatted Report

```
                      UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                 AIR QUALITY SYSTEM
                               SITE DESCRIPTION REPORT

                                                                      Jul. 15, 2005

   Site ID: 37-183-0003          Site Name:                    Local ID:
   Street Address:  FIRE STATION #9 SIX FORKS RD NORTH HILLS    City: Raleigh
   State: North Carolina         Zip Code:                      County:  Wake
   Location Description:  MONITORING POINT            Location Setting: SUBURBAN
   Coll. Method:  GPS CARRIER PHASE STATIC RELATIVE POSITION    Land Use:   COMMERCIAL
   Date Established: 19720101     Date Terminated:              Last Updated:  20020910
   Regional Eval. Date:          HQ Eval. Date:   19840626      AQCR :    EASTERN PIEDMONT
   MSA: Raleigh-Durham-Chapel Hill,NC     CMSA:                 Direct Met Site:      Met. Site ID:
   Type Met Site:                Dist to Met. Site(m):          Local Region:
   Urban Area: RALEIGH, NC                                      EPA Region: ATLANTA
   City Population:     120699    Dir. to CBD:   NE             Dist. to City(km):
   Census Block:                  Block Group:                  Census Tract:
   Congressional District:                                      Class 1 Area:
   Site Latitude: +35.841111      Site Longitude: - 78.643056   Time Zone:   EASTERN
   UTM Zone: 17                   UTM Northing: 3968690          UTM Easting: 712875
   Accuracy: 3.04                 Datum: NAD83                   Scale: 24000        Point/Line/Area:   POINT
   Vertical Measure(m):  125.0                                  Vert Accuracy:    10
   Vert Datum   UNKNOWN                                         Vert Method: UNKNOWN

   ┌──────────────────────────────────────── SITE COMMENTS ────────────────────────────────────────┐
   │ FILTERS SENT TO EPA ON 12 DAY SCHEDULE CAROLINA POWER ELECTRIC METER NO. NO METER {FIRE STATION HOOK UP} │
   └───────────────────────────────────────────────────────────────────────────────────────────────┘

   ┌──── ACTIVE MONITOR TYPES ────┬──────────────────── AGENCY ROLES ──────────────────────────────┐
   │                    # of      │ Role     Agency Desc                           Begin Date   End Date │
   │ Monitor Type       Monitors  │ SUPPORTING   North Carolina Dept Of Environment And Natural Resources   19720101   20001231 │
   │ OTHER              38        │
   │ SLAMS              1         │

   ┌─────────────────────────────────────────── TANGENT ROADS ─────────────────────────────────────┐
   │ Road                            Traffic  Traffic                                           Compass │
   │ Number   Road Name              Count    Year   Traffic Volume Source         Road Type    Sector │
   │   1      UNKNOWN                 49700                                         MAJ ST OR HY   UNK  │
   └───────────────────────────────────────────────────────────────────────────────────────────────┘
```

3.5.2.2 Workfile Format

Not applicable for this report.

3.5.2.3 XML Format

Not applicable for this report.

3.5.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.6 Pre-Production Report: Screening Group Inventory Report (AMP025)

3.6.1 Report Description

The Screening Group Inventory Report provides information within the "correct" tables for a screening group to which the user belongs. The formatted report provides summary counts of the number of records by action type within the specified screening group. The workfile version of the report contains the records within the "correct" tables in the standard AQS input transaction format. The user must be signed on to a screening group for the current session in order to see this report appear on the list of available reports.

3.6.2 Report Outputs

3.6.2.1 Formatted Report

```
                        UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                     AIR QUALITY SYSTEM
                                  SCREENING GROUP INVENTORY

                                                                         Jul. 15, 2005


SCREENING GROUP:   INFORMATION MANAGEMENT GROUP

Transaction Type            # Inserts      # Updates      # Deletes      # Unknown      # Excluded      Total

MONITOR TYPES                       0              2              0              0               0          2
ACCURACY DATA                      13              0              0              0               0         13
PRECISION DATA                      0              0              0              0              37         37

TOTALS:                            13              2              0              0              37         52
```

3.6.2.2 Workfile Format

The workfile records are consistent with the data input format for the precision and accuracy data. Please refer to the Batch Input Transaction layouts for further discussion of these formats.

3.6.2.3 XML Format

Not applicable for this report.

3.6.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
WORKFILE TRANSACTION TYPES	All available formats selected	The user may select or deselect any of the transactions which will appear in the results of the report.

3.7 Summary Report: Air Quality Index Report (AMP410)

3.7.1 Report Description

The Air Quality Index (AQI) Report produces a list of AQI values for a selected group of monitors for the selected time range. The AQI is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you. The AQI focuses on health effects you may experience within a few hours or days after breathing polluted air. EPA calculates the AQI for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide.

Although the official AQI values are generated on a Metropolitan Statistical Area (MSA) basis, the AMP410 allows users to specify other geographic aggregation options. For each of the aggregated geographic areas, the report will show the date the AQI was collected, the maximum AQI within the area for the day, the controlling pollutant, and other AQI values collected for other pollutants within the area for the same day.

3.7.2 Report Outputs

3.7.2.1 Formatted Report Output

```
                         UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                     AIR QUALITY SYSTEM
                                  AIR QUALITY INDEX REPORT

                                                                  Jun. 30, 2005

     MSA: Hickory-Morganton-Lenoir,NC

            *********************** CRITICAL POLLUTANT ********************    *************** OTHER POLLUTANTS **************
                                                 AQI                TOTAL DUR                       AQI               TOTAL DUR
     DATE       DESCRIPTOR         POLLUTANT     VALUE  SITE ID      SITES CODE POLLUTANT          SUBINDEX  SITE ID   SITES CODE
     20040101   GOOD               PM2.5 - Local Con  50  37-035-0004    1    X
     20040102   MODERATE           PM2.5 - Local Con  66  37-035-0004    1    X
     20040103   MODERATE           PM2.5 - Local Con  68  37-035-0004    1    X
     20040104   GOOD               PM2.5 - Local Con  36  37-035-0004    1    7  PM10 Total 0-10um S   10  37-035-0004    1    7
     20040105   GOOD               PM2.5 - Local Con  20  37-035-0004    1    X
     20040106   GOOD               PM2.5 - Local Con  24  37-035-0004    1    X
     20040107   GOOD               PM2.5 - Local Con  28  37-035-0004    1    7
     20040108   MODERATE           PM2.5 - Local Con  52  37-035-0004    1    X
     20040109   MODERATE           PM2.5 - Local Con  52  37-035-0004    1    X
     20040110   MODERATE           PM2.5 - Local Con  51  37-035-0004    1    7  PM10 Total 0-10um S   18  37-035-0004    1    7
     20040111   MODERATE           PM2.5 - Local Con  64  37-035-0004    1    X
     20040112   GOOD               PM2.5 - Local Con  39  37-035-0004    1    X
     20040113   GOOD               PM2.5 - Local Con  28  37-035-0004    1    X
     20040114   GOOD               PM2.5 - Local Con  43  37-035-0004    1    X
     20040115   GOOD               PM2.5 - Local Con  22  37-035-0004    1    X
     20040116   GOOD               PM2.5 - Local Con  34  37-035-0004    1    X  PM10 Total 0-10um S   17  37-035-0004    1    7
     20040117   MODERATE           PM2.5 - Local Con  54  37-035-0004    1    X
     20040118   GOOD               PM2.5 - Local Con  40  37-035-0004    1    X
     20040119   GOOD               PM2.5 - Local Con  34  37-035-0004    1    X
     20040120   MODERATE           PM2.5 - Local Con  54  37-035-0004    1    X
     20040121   MODERATE           PM2.5 - Local Con  75  37-035-0004    1    X
     20040122   MODERATE           PM2.5 - Local Con  54  37-035-0004    1    X  PM10 Total 0-10um S   16  37-035-0004    1    7
     20040123   GOOD               PM2.5 - Local Con  27  37-035-0004    1    X
     20040124   GOOD               PM2.5 - Local Con  43  37-035-0004    1    X
     20040125   GOOD               PM2.5 - Local Con  47  37-035-0004    1    X
     20040126   MODERATE           PM2.5 - Local Con  52  37-035-0004    1    X
```

3.7.2.2 Workfile Output

The workfile is a fixed-position text file. The format of the workfile is as follows:

Column	Start of Column Number	Field Length
State Code	1	2
County Code	3	3

City Code	6	5
Urbanized Area Code	11	4
MSA Code	15	4
AQI Date	19	8
AQI Value	27	5
Controlling Parameter Code	32	5
Duration Code	37	1
AQI Category	38	30
Site ID of the Maximum Site	68	9
AQI Value Parameter Site Count	77	5
AQI Sub-Index$_1$ Value	82	5
AQI Sub-Index$_1$ Parameter	87	5
AQI Sub-Index$_1$ Duration	92	1
Site ID where Sub-Index$_1$ Occurred	93	9
Sub-Index$_1$ Parameter Site Count	102	5
AQI Sub-Index$_2$ Value	107	5
AQI Sub-Index$_2$ Parameter	112	5
AQI Sub-Index$_2$ Duration	117	1
Site ID where Sub-Index$_2$ Occurred	118	9
Sub-Index$_2$ Parameter Site Count	127	5
AQI Sub-Index$_3$ Value	132	5
AQI Sub-Index$_3$ Parameter	137	5
AQI Sub-Index$_3$ Duration	142	1
Site ID where Sub-Index$_3$ Occurred	143	9
Sub-Index$_3$ Parameter Site Count	152	5
AQI Sub-Index$_4$ Value	157	5
AQI Sub-Index$_4$ Parameter	162	5
AQI Sub-Index$_4$ Duration	167	1
Site ID where Sub-Index$_4$ Occurred	168	9
Sub-Index$_4$ Parameter Site Count	177	5
AQI Sub-Index$_5$ Value	182	5
AQI Sub-Index$_5$ Parameter	187	5
AQI Sub-Index$_5$ Duration	192	1
Site ID where Sub-Index$_5$ Occurred	193	9
Sub-Index$_5$ Parameter Site Count	202	5

3.7.2.3 XML Output

Not applicable for this report.

3.7.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if

		generated in PDF format)
DATA GROUPING	GROUP BY MSA	This defines the geographic boundaries over which the AQI is calculated. AQI values may be evaluated by the following values: • GROUP BY MSA • GROUP BY STATE • GROUP BY STATE AND COUNTY • GROUP BY STATE AND CITY • GROUP BY URBAN AREA

3.8 Summary Report: Air Quality Index Summary Report (AMP410S)

3.8.1 Report Description

The Air Quality Index (AQI) Summary Report produces a yearly matrix of AQI values for a selected group of monitors within a geographic range for a selected time range. The AQI is an index for reporting daily air quality. It tells you how clean or polluted your air is, and what associated health effects might be a concern for you. The AQI focuses on health effects you may experience within a few hours or days after breathing polluted air. EPA calculates the AQI for five major air pollutants regulated by the Clean Air Act: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide.

Although the official AQI values are generated on a Metropolitan Statistical Area (MSA) basis, the AMP410S allows users to specify other geographic aggregation options. For each of the aggregated geographic areas, the report will show the AQI value for each day within a year, the number of AQI days within each of the AQI categories, the number of days with AQI values within the year, the maximum AQI value calculated for the year, and a per-pollutant based count of the number of days the given pollutant was the controlling pollutant.

3.8.2 Report Outputs

3.8.2.1 Formatted Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
AIR QUALITY SUMMARY REPORT

MSA: Hickory-Morganton-Lenoir,NC   YEAR: 2004

Day	JAN 2004	FEB 2004	MAR 2004	APR 2004	MAY 2004	JUN 2004	JUL 2004	AUG 2004	SEP 2004	OCT 2004	NOV 2004	DEC 2004
01	50 H	51 U	46 N	23 H	38 S	26 T	51 H	35 U	85 W	105 F	61 N	28 W
02	66 F	65 M	37 T	25 F	17 U	35 W	53 F	35 N	84 H	71 S	52 T	34 H
03	68 S	43 T	44 W	25 S	25 M	41 H	67 S	48 T	76 F	74 U	35 W	28 F
04	36 U	58 W	69 H	24 U	39 T	36 F	58 U	94 W	58 S	43 M	20 H	43 S
05	20 M	62 H	56 F	20 M	52 W	37 S	33 M	57 H	56 U	57 T	23 F	47 U
06	24 T	31 F	29 S	32 T	61 H	67 U		52 F	33 M	54 W	29 S	51 M
07	28 W	25 S	24 U	55 W	61 F	86 M		46 S	15 T	59 H	42 U	37 T
08	52 H	38 U	20 N	63 H	61 S	81 T	45 H	57 U	19 W	58 F	38 N	28 W
09	52 F	65 M	44 T	45 F	76 U	45 W	54 T	66 N	18 H	56 S	39 T	38 H
10	51 S	55 T	58 W	82 S	54 M	42 H	56 S	69 T	44 F	45 U	55 W	38 F
11	64 U	33 W	64 H	80 U		61 F	43 U	69 W	57 S	50 M	72 H	29 S
12	39 M	44 H	29 F	23 M	39 W	72 S	44 M	32 H	64 U	62 T	41 F	27 U
13	28 T	49 F	35 S	19 T	50 H	52 U	58 T	29 F	74 N	35 W	21 S	28 M
14	43 W	51 S	59 U	20 W	48 F	55 M	49 W		85 T	21 H	31 U	24 T
15	22 H	61 U	82 N	37 H	46 S	40 T	44 H		67 W	30 F	37 N	33 W
16	34 F	48 M	57 T		43 U	35 W	60 F	64 N		19 S	46 T	57 H
17	54 S	36 T	42 W		52 M	40 H	77 S	68 T	11 F	22 U	53 W	58 F
18	40 U	41 W	54 H	64 U	62 T	43 F	66 U	59 W	17 S	47 M		61 S
19	34 M	36 H	39 F		53 W	60 S	55 M	83 H		43 T		38 U
20	54 T	56 F	60 S	60 T	56 H	66 U	70 T	102 F		44 W	58 S	52 M
21	75 W	38 S	29 U	57 W	52 F	71 M	78 W		27 T	52 H	51 U	55 T
22	54 H	43 U	25 N	54 H	45 S	49 T	93 H	51 U	33 W	57 F	57 N	66 W
23	27 F	58 M	39 T	57 F	56 U	35 W	74 F		65 H	49 S	32 T	24 H
24	43 S	71 T	57 W	52 S	52 M	36 H	67 S	73 T	91 F	58 U	16 W	29 F
25	47 U	44 W	70 H		53 T	36 F	51 U	85 W	56 S	41 M	14 H	37 S
26	52 M	24 H	64 F		42 W	46 S	50 M	73 H	56 U	59 T	28 F	31 U
27	45 T	36 F	52 S	34 T	44 H	68 U	35 T	72 F	54 M	63 W	37 S	37 M
28	34 W	50 S	58 U	35 W	43 F	75 M	37 W	54 S	27 T	51 H	26 U	60 T
29	47 H	35 U	51 N	54 H	57 S	67 T	66 H	39 U	81 W	51 F	46 N	63 W
30	44 F		41 T	65 F	61 U	68 W	31 F	50 N	102 H	64 S	56 T	54 H
31	37 S		16 W		24 M		37 S	79 T		53 U		57 F

No. of Days with AQI Values:	Good < or = 50	Moderate 51-100	Unhealthy for Sensitive Groups 101-150	Unhealthy 151-200	Very Unhealthy 201-300	------Hazardous------ >301
	178	168	3	0	0	0

Highest AQI/YR = 105   Total Days with AQI Values = 349

Days CO = 0   Days O3 = 0   Days SO2 = 0   Days NO2 = 0   Days PM2.5 = 348   Days PM10 = 1

3.8.2.2 Workfile Format
Not applicable for this report.

3.8.2.3 XML Format
Not applicable for this report.

3.8.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
DATA GROUPING	GROUP BY MSA	This defines the geographic boundaries over which the AQI is calculated. AQI values may be evaluated by the following values: • GROUP BY MSA • GROUP BY STATE • GROUP BY STATE AND COUNTY • GROUP BY STATE AND CITY • GROUP BY URBAN AREA

3.9 Summary Report: Daily Summary Report (AMP435)

3.9.1 Report Description

The daily summary report provides basis statistics for all reported sample data with durations of less than 24 hours. In addition to sample data, the daily summaries will include any criteria pollutant data (regardless of the sample duration) as well as summarized NAAQS averages, when applicable.

The report will provide a tabular listing of the following daily statistics: average, number of samples, data capture rate for the day, maximum sample value, hour of the maximum sample value, and daily ranking. The daily ranking is a rank ordering of the maximum sample value compared with all other values for the monitor within the calendar year. The "Daily Ranking Number" value is only computed where all values are used in generating the statistics for the monitor-day-duration. This is true where the exceptional data type is "0" (no exceptional data in the set) or "2" (exceptional event data included).

3.9.2 Report Outputs

3.9.2.1 Formatted Report

```
                          UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                       AIR QUALITY SYSTEM

                                      DAILY SUMMARY REPORT

                                                                                      Jul. 8, 2005

                       Daily                            Daily    Daily   Daily   Daily  Daily Max   Daily
         Monitor       Coll.                    EDT      Arith      #       %      Coll    Sample   Ranking
           ID          Date       Duration      ID      Mean      Obs     Obs     Hour    Value     Num

   37-035-0004-11101-1  20040104   24 HOURS      0       23.0      1      100.0    0        23        4
   37-035-0004-11101-1  20040110   24 HOURS      0       32.0      1      100.0    0        32        3
   37-035-0004-11101-1  20040116   24 HOURS      0       35.0      1      100.0    0        35        1
   37-035-0004-11101-1  20040122   24 HOURS      0       35.0      1      100.0    0        35        2
   37-035-0004-11101-1  20040128   24 HOURS      0       19.0      1      100.0    0        19        5
   37-035-0004-81102-1  20040104   24 HOURS      0       11.0      1      100.0    0        11       53
   37-035-0004-81102-1  20040110   24 HOURS      0       19.0      1      100.0    0        19       36
   37-035-0004-81102-1  20040116   24 HOURS      0       18.0      1      100.0    0        18       39
   37-035-0004-81102-1  20040122   24 HOURS      0       17.0      1      100.0    0        17       41
   37-035-0004-81102-1  20040128   24 HOURS      0        9.0      1      100.0    0         9       56
   37-035-0004-88101-1  20040101   24 HOURS      0       14.30     1      100.0    0       14.3      58
   37-035-0004-88101-1  20040104   24 HOURS      0        8.90     1      100.0    0        8.9      91
   37-035-0004-88101-1  20040107   24 HOURS      0        8.70     1      100.0    0        8.7      94
   37-035-0004-88101-1  20040110   24 HOURS      0       15.70     1      100.0    0       15.7      46
   37-035-0004-88101-1  20040113   24 HOURS      0        7.60     1      100.0    0        7.6     102
   37-035-0004-88101-1  20040116   24 HOURS      0        9.60     1      100.0    0        9.6      84
   37-035-0004-88101-1  20040119   24 HOURS      0        9.60     1      100.0    0        9.6      85
   37-035-0004-88101-1  20040122   24 HOURS      0       13.50     1      100.0    0       13.5      64
   37-035-0004-88101-1  20040131   24 HOURS      0        5.60     1      100.0    0        5.6     110
   37-035-0004-88101-3  20040101   1 HOUR        0       15.40    24      100.0    0       25.3     180
   37-035-0004-88101-3  20040102   1 HOUR        0       23.26    22       92.0    9       44.6      20
   37-035-0004-88101-3  20040103   1 HOUR        0       24.17    24      100.0   11       39.4      42
   37-035-0004-88101-3  20040104   1 HOUR        0        8.87    24      100.0    2       16.0     309
   37-035-0004-88101-3  20040105   1 HOUR        0        6.33    24      100.0    7       13.0     326
   37-035-0004-88101-3  20040106   1 HOUR        0        7.35    22       92.0   16       12.6     329
   37-035-0004-88101-3  20040107   1 HOUR        0        8.08    24      100.0   19       26.1     170
   37-035-0004-88101-3  20040108   1 HOUR        0       16.12    24      100.0    7       28.3     129
   37-035-0004-88101-3  20040109   1 HOUR        0       16.10    24      100.0    3       21.2     249
   37-035-0004-88101-3  20040110   1 HOUR        0       14.66    24      100.0   19       22.6     219
   37-035-0004-88101-3  20040111   1 HOUR        0       22.20    24      100.0    9       32.2      88

                                         Page 2 of 4
```

3.9.2.2 Workfile Format

A comma-separated workfile may be generated for this report. All alphanumeric values are contained within double quotes. The column order is as follows:

Order of Appearance	Column Name
1	State Code
2	County Code
3	County Name
4	Site ID
5	Parameter Code
6	POC
7	Collection Date
8	Duration Code
9	Duration Description
10	Unit Code
11	Unit Description
12	Exceptional Data Type Code
13	Arithmetic Mean
14	Number of Daily Observations
15	Percentage of Daily Observations
16	Hour of the Maximum Value for the Day
17	Daily Maximum Value
18	Ranking Number
19	Daily Criteria Indicator (Determines if the value is "Valid")

3.9.2.3 XML Format

Not applicable for this report.

3.9.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.10 Summary Report: Frequency Distribution Report (AMP230)

3.10.1 Report Description

The Frequency Distribution Report (AMP230) presents an annual statistical summary of the data reported by air quality monitors. The report presents site and monitor descriptive information as well as selected summary statistics. These statistics include, but are not limited to number of observations, number of observations above the standard, maximum value, and the defined percentiles for the system.

3.10.2 Report Outputs

3.10.2.1 Formatted Report

```
                    UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                AIR QUALITY SYSTEM
                           FREQUENCY DISTRIBUTION REPORT

                                                                          Jul. 14, 2005

                                      North Carolina
  Site ID:  37-035-0004           AQCR:      EASTERN MOUNTAIN        Latitude:     +35.728889
  County:   Catawba               Urban Area: HICKORY, NC           Longitude:    -81.365556
  City:     Hickory               Location Setting:    SUBURBAN     UTM Zone:     17
  Support Agency:  North Carolina Dept Of Environment  Land Use:   INDUSTRIAL    Utm Northing:  3953741
                   And Natural Resources                                         Utm Easting:   466940
  Address:  1650 1ST STREET                                                      Vertical Meas: 333.0

              DUKE POWER ELECTRIC METER NO 72856943:
  Site Comments:
  _____
  |  Parameter        POC      Reporting Org     Method of Collection and Analysis     MDL      Duration    EDT      Unit Desc    |
  |  Year  Exc Evt  #Obs  #Obs  #Pri  #Sec  Min Obs              Percentages                                Maximum Values  Arith Mean|

     11101-Suspended   1          0776          HI-VOL          GRAVIMETRIC           1       24 HOURS     0     UG/CU METER (25 C)
     particulate (TSP)
     2004     0        5                   19   10    25    50    75    90    95    98    99              1      2        28.8
                                                19    23    32    35    35    35    35    35              35     35

     81102-PM10 Total 0- 1        0776          HI-VOL-WEDDING-  GRAVIMETRIC           4       24 HOURS     0     UG/CU METER (25 C)
        10um STD                               INLET
     2004     0       92    57    0    0    9   10    25    50    75    90    95    98    99              1      2        21.9
                                                12    17    21    24    36    37    42    44              44     42

     88101-PM2.5 - Local  1       0776          R & P MODEL 2025  GRAVIMETRIC          2       24 HOURS     0     UG/CU Meter (LC)
        Conditions                             PM2.5 SEQUNTL
     2004     0       95    118   0    0   3.2  10    25    50    75    90    95    98    99              1      2        15.09
                                                6.7   9.3   13.9  19.2  25.7  28.8  34.0  35.9           37.4   35.9

     88101-PM2.5 - Local  3       0776          PM2.5 SCC         TEOM Gravimetric 50  -10      1 HOUR      0     UG/CU Meter (LC)
        Conditions                             w/Correction      deg C
                                               Factor
     2004     0       93    8139        .0  10    10    25    25    50    50    75    75    90            1      2        15.78
                                                5.8   7.7   9.3   11.1  14.5  14.9  19.0  20.5   24.4    75.4   72.3

     88101-PM2.5 - Local  5       1217          Met One SASS      Gravimetric          .104    24 HOURS     0     UG/CU Meter (LC)
        Conditions                             Teflon
     2004     0       92    56    0    0   4.1  10    25    50    75    90    95    98    99              1      2        16.11
                                                6.9   10.9  15.2  20.6  26.4  30.9  32.9  39.2           39.2   32.9

                                         Page 2 of 3
```

3.10.2.2 Workfile Format

Not applicable for this report.

3.10.2.3 XML Format

Not applicable for this report.

3.10.3   Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
EVENTS PROCESSING	REPORT ALL EVENT RECORDS	The data is summarized multiple times in cases where exceptional or natural events exist in the dataset. The following options are available • Include Events • Exclude Events • Exclude Exceptional Events • Exclude Natural Events • Exclude Regionally Concurred Events • Exclude Exceptional Events w/ Regional concurrence • Exclude Natural Events w/ Regional concurrence • Report all Event Records
SUMMARY CRITERIA	INCLUDE ALL DATA	You may optionally omit any data that does not meet the summary criteria. • Include All Data • Only Include Data Meeting Summary Criteria

3.11 Summary Report: Maximum Values Report (AMP440)

3.11.1   Report Description

The Maximum Values Report (AMP440) presents an annual statistical summary of the data reported by air quality monitors. The report presents site and monitor descriptive information as well as selected summary statistics. These statistics include, but are not limited to number of observations, number of observations above the standard, maximum value, and the 10 highest samples for the monitor during a given year.

3.11.2   Report Outputs

3.11.2.1   Formatted Report

```
                       UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                   AIR QUALITY SUBSYSTEM
                                   MAXIMUM VALUES REPORT

                                                                          Jul. 14, 2005

                              PM2.5 - Local Conditions (88101)

   State:     North Carolina                                    Primary:   65
   Duration:  24 HOURS                                          Secondary: 65
   Year:      2004                                              Unit:  UG/CU Meter (LC)
                                                        Maximum Values
                County Name            1st Max  2nd Max  3rd Max  4th Max  5th Max  Num  Num  EDT
   Site ID  POC  City Name   Methods   6th Max  7th Max  8th Max  9th Max  10th Max Obs  Exc  ID
   37-035-0004  1  Catawba    118        37.4     35.9     34.0     32.9     29.9    118   0    0
                   Hickory
                                        09/30:00 09/24:00 08/04:00 08/25:00 08/31:00
                                          28.8     28.2     28.2     28.1     27.2
                                        06/08:00 05/09:00 08/19:00 09/03:00 07/23:00
                                                        Maximum Values
                County Name            1st Max  2nd Max  3rd Max  4th Max  5th Max  Num  Num  EDT
   Site ID  POC  City Name   Methods   6th Max  7th Max  8th Max  9th Max  10th Max Obs  Exc  ID
   37-035-0004  5  Catawba    810        39.2     32.9     30.9     29.9     27.5    56    0    0
                   Hickory
                                        09/30:00 08/25:00 06/08:00 08/19:00 09/24:00
                                          26.4     25.7     25.4     22.6     22.2
                                        11/11:00 08/31:00 07/20:00 02/09:00 10/30:00
                                                        Maximum Values
                County Name            1st Max  2nd Max  3rd Max  4th Max  5th Max  Num  Num  EDT
   Site ID  POC  City Name   Methods   6th Max  7th Max  8th Max  9th Max  10th Max Obs  Exc  ID
   37-035-0006  1  Catawba    118        40.8     35.7     31.5     28.8     27.4    61    0    0
                   Hickory
                                        09/30:00 08/04:00 08/25:00 07/17:00 10/03:00
                                          27.1     27.1     26.0     25.1     24.2
                                        07/23:00 08/19:00 09/24:00 08/31:00 08/10:00
                              PM2.5 - Local Conditions (88101)

   State:     North Carolina                                    Primary:   65
   Duration:  24-HR BLK AVG                                     Secondary: 65
   Year:      2004                                              Unit:  UG/CU Meter (LC)



                                        Page 3 of 4
```

3.11.2.2   Workfile Format

Not applicable for this report.

3.11.2.3   XML Format

Not applicable for this report.

3.11.3   Report Options

Option Name	Default Value	Description

MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
EVENTS PROCESSING	REPORT ALL EVENT RECORDS	The data is summarized multiple times in cases where exceptional or natural events exist in the dataset. The following options are available • Include Events • Exclude Events • Exclude Exceptional Events • Exclude Natural Events • Exclude Regionally Concurred Events • Exclude Exceptional Events w/ Regional concurrence • Exclude Natural Events w/ Regional concurrence • Report all Event Records

3.12 Summary Report: Quick Look All Parameters Report (AMP450NC)

3.12.1 Report Description

The Quick Look All Parameters Report displays annual summary statistics for selected parameters at air quality monitoring sites. In addition to the summary statistics, a listing of the reporting organization codes referenced in the report is provided, as well as a listing of referenced sampling methodology codes.

3.12.2 Report Outputs

3.12.2.1 Formatted Report

3.12.2.1.1 Main Report Body

```
                        UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                    AIR QUALITY SYSTEM

                              QUICKLOOK ALL PARAMETERS                                        Jul. 15, 2005

                                          P
                                          o    Rep                 #    1st Max  2nd Max  3rd Max  4th Max  Arith.
Parameter                      Unit       c    Org   Year Meth  Obs    Value    Value    Value    Value    Mean   Duration EDT
Site ID: 37-001-0002   City: Burlington          County: Alamance              Address: 827 S GRAHAM & HOPEDALE RD
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   1  0776  2004  118   116    39.0     33.1     30.5     30.3    13.75 24 HOURS    0
Site ID: 37-003-0003   City: Not in a city       County: Alexander             Address: 324 MINNIGAN LANE, TAYLORSVILLE
44201  Ozone                      PPM                 1  0776  2004  047  4859    .084     .084     .079     .076   .0500 1 HOUR      0
Site ID: 37-003-0004   City: Not in a city       County: Alexander             Address: 106 WAGGIN' TRAIL, TAYLORSVILLE
44201  Ozone                      PPM                 1  0776  2004  047  1852    .084     .075     .071     .065   .0423 1 HOUR      0
Site ID: 37-011-0002   City: Not in a city       County: Avery                 Address: 7510 BLUE RIDGE PARKWAY SPUR
44201  Ozone                      PPM                 1  0776  2004  047  4739    .078     .077     .075     .074   .0485 1 HOUR      0
Site ID: 37-013-0006   City: Not in a city       County: Beaufort              Address: NC 306 @ PCS ENTRANCE
42401  Sulfur dioxide             PPM                 1  0776  2004  009  7582    .122     .115     .108     .100   .0032 1 HOUR      0
Site ID: 37-021-0030   City: Asheville           County: Buncombe              Address: ROUT 191 SOUTH BREVARD RD
44201  Ozone                      PPM                 1  0779  2004  047  5077    .091     .089     .097     .083   .0500 1 HOUR      0
Site ID: 37-021-0034   City: Asheville           County: Buncombe              Address: 175 BINGHAM ROAD ASHEVILLE NC
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   1  0779  2004  118   115    32.8     26.9     26.8     25.9    12.30 24 HOURS    0
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   2  0779  2004  118    60    33.0     24.1     22.8     22.7    12.12 24 HOURS    0
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   3  0776  2004  702  7064   215.0     79.4     77.0     58.1    13.53 1 HOUR      0
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   5  1217  2004  810    57    28.3     26.2     25.2     23.2    12.97 24 HOURS    0
Site ID: 37-025-0004   City: Kannapolis          County: Cabarrus              Address: 933 FLOYD STREET
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   1  0776  2004  118   121    37.2     31.2     29.7     29.7    14.67 24 HOURS    0
Site ID: 37-027-0003   City: Lenoir              County: Caldwell              Address: HWY 321 NORTH
44201  Ozone                      PPM                 1  0776  2004  047  4798    .084     .081     .077     .076   .0497 1 HOUR      0
Site ID: 37-029-0099   City: Not in a city       County: Camden                Address: COUNTY ROAD 1136 & 1134
44201  Ozone                      PPM                 1  0776  2004  047  4819    .086     .083     .083     .082   .0499 1 HOUR      0
Site ID: 37-033-0001   City: Not in a city       County: Caswell               Address: 7074 CHERRY GROVE RD, REIDSVILLE
44201  Ozone                      PPM                 1  0776  2004  047  4880    .100     .088     .085     .084   .0503 1 HOUR      0
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   1  0776  2004  118   117    42.6     32.5     28.3     27.9    13.09 24 HOURS    0
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   5  1217  2004  810     2    17.2     10.7                      13.95* 24 HOURS   0
Site ID: 37-035-0004   City: Hickory             County: Catawba               Address: 1650 1ST STREET
11101  Suspended particulate (TSP)  UG/CU METER (25 C)  1  0776  2004  091    5    35       35       32       23    28.8* 24 HOURS    0
81102  PM10 Total 0-10um STP      UG/CU METER (25 C)   1  0776  2004  062   57    44       42       37       37    21.9* 24 HOURS    0
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   1  0776  2004  118   118    37.4     35.9     34.0     32.9    15.09 24 HOURS    0
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   3  0776  2004  702  8139    75.4     72.3     67.5     67.0    15.78 1 HOUR      0
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   5  1217  2004  810    56    39.2     32.9     30.9     29.9    16.11 24 HOURS    0
Site ID: 37-035-0006   City: Hickory             County: Catawba               Address: 320 3RD ST DR SW
88101  PM2.5 - Local Conditions   UG/CU Meter (LC)   1  0776  2004  118    61    40.8     35.7     31.5     28.8    15.18* 24 HOURS   0
```

3.12.2.1.2   *Methods Listing*

```
              UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                          AIR QUALITY SYSTEM

                        QUICKLOOK ALL PARAMETERS                    Jul. 15, 2005

                       METHODS USED IN THIS REPORT

            METHOD
PARAMETER   CODE    COLLECTION METHOD              ANALYSIS METHOD
11101       091     HI-VOL                         GRAVIMETRIC
42101       054     INSTRUMENTAL                   NONDISPERSIVE INFRARED
42101       055     INSTRUMENTAL                   NONDISPERSIVE INFRARED
42401       009     INSTRUMENTAL                   PULSED FLUORESCENT
42401       060     INSTRUMENTAL                   PULSED FLUORESCENT
42401       100     INSTRUMENTAL                   ULTRAVIOLET FLUORESCENCE
42602       074     INSTRUMENTAL                   CHEMILUMINESCENCE
42602       099     INSTRUMENTAL                   GAS PHASE CHEMILUMINESCENCE
44201       047     INSTRUMENTAL                   ULTRA VIOLET
81102       062     HI-VOL-WEDDING-INLET           GRAVIMETRIC
81102       063     HI-VOL SA/GMW-1200             GRAVIMETRIC
81102       079     INSTRUMENTAL-R&P SA246B-INLET  TEOM-GRAVIMETRIC
88101       118     R & P MODEL 2025 PM2.5 SEQUNTL GRAVIMETRIC
88101       702     PM2.5 SCC w/Correction Factor  TEOM Gravimetric 50 deg C
88101       810     Met One SASS Teflon            Gravimetric
```

3.12.2.1.3   *Reporting Organization Listing*

```
              UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                          AIR QUALITY SYSTEM

                        QUICKLOOK ALL PARAMETERS                    Jul. 15, 2005

                  REPORTING ORGANIZATIONS USED IN THIS REPORT

REPORTING
ORGANIZATION
CODE          AGENCY DESCRIPTION
001           Eastern Band Of Cherokee Indians Of North Carolina
0403          Forsyth County Environmental Affairs Department
0669          Mecklenburg County Air Quality
0776          North Carolina Dept Of Environment And Natural Resou
0779          North Carolina Western Regional Air Pollution Contro
1217          Research Triangle Institute RTP, NC
```

3.12.2.2   Workfile Format

The workfile is a fixed-position text file. The format of the workfile is as follows:

Column	Start of Column Number	Field Length
State Code	1	2
County Code	3	3
Site Code	6	4
Parameter Code	10	5
Parameter Occurrence Code (POC)	15	2
Exceptional Data Type (EDT)	17	1
Duration Code	18	1
Summary Year	19	4
Unit Code	23	3
Region Code	26	2
AQCR Code	28	3
MSA Code	31	4
UAR Code	35	4
City Code	39	5
Column	**Start of Column Number**	**Field Length**
Street Address	44	40

Site Latitude	84	10
Site Longitude	94	11
Number of Observations	105	4
Highest Value in the Year	109	7
2nd Highest Value in the Year	116	7
3rd Highest Value in the Year	123	7
4th Highest Value in the Year	130	7
Arithmetic Mean	137	7
Criteria Indicator	144	1
Method Code	145	3
Reporting Organization Code	148	4

3.12.2.3   XML Format

Not applicable for this report

3.12.3   Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
EVENTS PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS	The data is summarized multiple times in cases where exceptional or natural events exist in the dataset. The following options are available • Include Events • Exclude Events • Exclude Exceptional Events • Exclude Natural Events • Exclude Regionally Concurred Events • Exclude Exceptional Events w/ Regional concurrence • Exclude Natural Events w/ Regional concurrence • Report all Event Records

3.13 Summary Report: Quick Look Report (AMP450)

3.13.1 Report Description

The Quick Look Report displays annual summary statistics for selected criteria parameters at air quality monitoring sites. There is a unique format for each of the criteria pollutants. Each format is designed to highlight special calculations that are derived for the given pollutant in order to determine compliance with the National Ambient Air Quality Standards. In addition to these special formats, a listing of the reporting organization codes referenced in the report is provided, as well as a listing of referenced sampling methodology codes at the end of the report.

3.13.2 Report Outputs

3.13.2.1 Formatted Report

3.13.2.1.1 Total Suspended Particulate Format

```
                    UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                              AIR QUALITY SYSTEM
                           QUICK LOOK REPORT (AMP450)

                                                                     Jul. 15, 2005

Suspended particulate (TSP) (11101)              North Carolina        UG/CU METER (25 C) (001)

24-HOUR
```

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	# OBS	1ST MAX	2ND MAX	3RD MAX	4TH MAX	ARITH MEAN	GEO. MEAN	GEO. STD	CERT	EDT
37-035-0004	1	0776	Hickory	Catawba	1650 1ST STREET	2004	091	5	35	35	32	23	28.8*	28.0	1.3		0
37-065-0099	1	0776	Tarboro	Edgecombe	RT 2, BOX 195	2004	091	11	21	20	18	16	13.4*	12.4	1.5		0
37-081-0013	1	0776	Greensboro	Guilford	205 WILOUGHBY BI	2004	091	8	26	23	20	18	17.0*	16.2	1.4		0
37-087-0011	1	0776	Canton	Haywood	PROSPECT AND NOI	2004	091	4	56	29	17	12	28.5*	24.0	2.0		0
37-129-0002	1	0776	Not in a city	New Hanover	6028 HOLLY SHEL	2004	091	5	19	15	14	14	15.0*	14.9	1.2		0
37-155-0005	1	0776	Lumberton	Robeson	1170 LINKHAW ROI	2004	091	5	30	22	22	21	23.0*	22.8	1.2		0
37-183-0014	1	0776	Raleigh	Wake	3801 SPRING FORI	2004	091	5	35	21	21	17	22.2*	21.4	1.3		0

3.13.2.1.2 Lead Format

```
                    UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                              AIR QUALITY SYSTEM
                           QUICK LOOK REPORT (AMP450)

                                                                     Jul. 15, 2005

Lead (TSP) (12128)                               Missouri              UG/CU METER (25 C) (001)

24-HOUR
```

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	# OBS	QTR1 ARITH MEAN	QTR2 ARITH MEAN	QTR3 ARITH MEAN	QTR4 ARITH MEAN	# MEANS > 1.5	1ST MAX	2ND MAX	CERT	EDT
29-093-0016	1	1288	Not in a city	Iron	DRB #1, SOUTH	2004	092	58	.79	.69	.60	.43	0	3.47	2.28		0
29-093-0021	1	1288	Not in a city	Iron	DRB #5, NORTH	2004	092	59	.72	.49	.60	.46	0	3.03	2.26		0
29-093-0023	1	0588	Not in a city	Iron	HOGAN	2004	090	60	.014	.006			0	.151	.075		0
29-093-0024	1	0588	Not in a city	Iron	GLOVER DUNN	2004	090	58	.034	.014			0	.179	.158		0
29-093-0025	1	1289	Not in a city	Iron	DRG - NORTH	2004	092	12	.06				0	.07	.07		0
29-093-0026	1	1289	Not in a city	Iron	DRG - CHLORIDE	2004	092	14	.06				0	.07	.07		0
29-093-0027	1	1289	Not in a city	Iron	DRG - POST OFFI	2004	092	55	.07	.08	.17	.15	0	.92	.81		0

3.13.2.1.3 Carbon Monoxide Format

```
                        UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                    AIR QUALITY SYSTEM
                                QUICK LOOK REPORT (AMP450)
```

Jul. 15, 2005

Carbon monoxide (42101)   North Carolina   PPM (007)

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	# OBS	1ST MAX 1-HR	2ND MAX 1-HR	OBS >35	1ST MAX 8-HR	2ND MAX 8-HR	OBS >9	CERT	EDT
37-051-0007	1	0776	Fayetteville	Cumberland	CUMBERLAND CO AI	2004	054	4167	8.6	8.0	0	3.2	2.8	0		0
37-063-0013	1	0776	Durham	Durham	2700 NORTH DUKE	2004	054	2748	1.4	1.4	0	.9	.9	0		0
37-067-0022	1	0403	Winston-Salem	Forsyth	1300 BLK. HATTII	2004	054	2083	1.4	1.3	0	1.0	.9	0		0
37-067-0023	1	0403	Winston-Salem	Forsyth	1401 CORPORATION	2004	054	8151	4.1	3.8	0	3.2	3.1	0		0
37-067-0029	1	0403	Winston-Salem	Forsyth	1985 GRIFFITH R(	2004	054	8074	4.5	4.4	0	3.2	3.1	0		0
37-081-1011	1	0776	Greensboro	Guilford	401 WEST WENDOVE	2004	054	4087	3.0	3.0	0	2.6	2.6	0		0
37-119-0041	1	0669	Charlotte	Mecklenburg	1120 Eastway Dr:	2004	054	8557	3.8	3.5	0	3.2	3.1	0		0
37-119-0041	2	0669	Charlotte	Mecklenburg	1120 Eastway Dr:	2004	055	2460	1.546	1.377	0	1.2	1.0	0		0

3.13.2.1.4 Sulfur Dioxide Format

```
                        UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                    AIR QUALITY SYSTEM
                                QUICK LOOK REPORT (AMP450)
```

Jul. 15, 2005

Sulfur dioxide (42401)   North Carolina   PPM (007)

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	# OBS	1ST MAX 24-HR	2ND MAX 24-HR	#OBS >0.14	1ST MAX 3-HR	2ND MAX 3-HR	#OBS >0.5	1ST MAX 1-HR	2ND MAX 1-HR	ARITH MEAN	CERT	EDT
37-013-0006	1	0776	Not in a city	Beaufort	NC 306 @ PC	2004	009	7582	.027	.022	0	.092	.086	0	.122	.115	.0032		0
37-065-0099	1	0776	Tarboro	Edgecombe	RT 2, BOX 1	2004	009	7875	.009	.008	0	.016	.015	0	.018	.017	.0020		0
37-067-0022	1	0403	Winston-Salem	Forsyth	1300 BLK. H	2004	100	8434	.026	.023	0	.084	.077	0	.149	.123	.0046		0
37-119-0041	1	0669	Charlotte	Mecklenburg	1120 Eastwa	2004	060	8677	.013	.012	0	.058	.037	0	.071	.068	.0032		0
37-129-0006	1	0776	Wilmington	New Hanover	HIGHWAY 421	2004	009	8212	.022	.022	0	.085	.072	0	.255	.194	.0052		0
37-145-0003	1	0776	Not in a city	Person	SR49	2004	009	8276	.026	.021	0	.095	.073	0	.119	.096	.0039		0
37-173-0002	1	0776	Not in a city	Swain	CENTER STRE	2004	009	8230	.008	.006	0	.011	.010	0	.012	.012	.0021		0
37-183-0014	1	0776	Raleigh	Wake	3801 SPRING	2004	009	5592	.013	.010	0	.019	.019	0	.029	.028	.0027		0

3.13.2.1.5 Nitrogen Dioxide Format

```
                        UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                    AIR QUALITY SYSTEM
                                QUICK LOOK REPORT (AMP450)
```

Jul. 15, 2005

Nitrogen dioxide (42602)   North Carolina   PPM (007)

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	# OBS	1ST MAX 1-HR	2ND MAX 1-HR	ARITH MEAN	CERT	EDT
37-067-0022	1	0403	Winston-Salem	Forsyth	1300 BLK. HATTII	2004	099	8591	.061	.061	.0129	0	
37-119-0041	1	0669	Charlotte	Mecklenburg	1120 Eastway Dr:	2004	074	8552	.080	.064	.0145	0	

3.13.2.1.6 1-Hour Ozone Format

```
                        UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                    AIR QUALITY SYSTEM
                                QUICK LOOK REPORT (AMP450)
```

Jul. 15, 2005

Ozone (44201)   North Carolina   PPM (007)

1-HOUR

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	VALID DAYS MEAS	NUM DAYS REQ	1ST MAX 1-HR	2ND MAX 1-HR	3RD MAX 1-HR	4TH MAX 1-HR	DAY MAX>/= 0.125	EST DAYS>/= .125	MISS DAYS< 0.125	CERT	EDT
37-003-0003	1	0776	Not in a city	Alexander	324 MINNIGAN LAI	2004	047	214	214	.084	.084	.079	.076	0	0.0	0		0
37-003-0004	1	0776	Not in a city	Alexander	106 WAGGIN' TRA:	2004	047	81	82	.084	.075	.071	.065	0	0.0	0		0
37-011-0002	1	0775	Not in a city	Avery	7510 BLUE RIDGE	2004	047	207	214	.078	.077	.075	.074	0	0.0	0		0
37-021-0030	1	0779	Asheville	Buncombe	ROUT 191 SOUTH 1	2004	047	214	214	.091	.089	.087	.083	0	0.0	0		0
37-027-0003	1	0776	Lenoir	Caldwell	HWY 321 NORTH	2004	047	209	214	.084	.081	.077	.076	0	0.0	2		0
37-029-0099	1	0776	Not in a city	Camden	COUNTY ROAD 113{	2004	047	208	214	.086	.083	.083	.082	0	0.0	2		0
37-033-0001	1	0776	Not in a city	Caswell	7074 CHERRY GRO!	2004	047	214	214	.100	.088	.085	.084	0	0.0	0		0

3.13.2.1.7 8-Hour Ozone Format

Jul. 15, 2005

Ozone (44201)   North Carolina   PPM (007)

8-HOUR

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	%OBS	VALID DAYS MEAS	NUM DAYS REQ	1ST MAX 8-HR	2ND MAX 8-HR	3RD MAX 8-HR	4TH MAX 8-HR	DAY MAX>/= 0.085	CERT	EDT
37-003-0003	1	0776	Not in a city	Alexander	324 MINNIGAN LAI	2004	047	95	203	214	.077	.074	.072	.071	0		0
37-003-0004	1	0776	Not in a city	Alexander	106 WAGGIN' TRA	2004	047	95	78	82	.074	.067	.062	.056	0		0
37-011-0002	1	0776	Not in a city	Avery	7510 BLUE RIDGE	2004	047	95	204	214	.071	.070	.070	.068	0		0
37-021-0030	1	0779	Asheville	Buncombe	ROUT 191 SOUTH 1	2004	047	100	213	214	.080	.075	.074	.073	0		0
37-027-0003	1	0776	Lenoir	Caldwell	HWY 321 NORTH	2004	047	94	201	214	.074	.073	.071	.070	0		0
37-029-0099	1	0776	Not in a city	Camden	COUNTY ROAD 113	2004	047	96	205	214	.078	.075	.074	.072	0		0
37-033-0001	1	0776	Not in a city	Caswell	7074 CHERRY GRO	2004	047	100	214	214	.079	.077	.077	.074	0		0
37-037-0004	1	0776	Not in a city	Chatham	RT4 BOX62 PITTSI	2004	047	98	209	214	.074	.070	.068	.068	0		0

3.13.2.1.8   *Particulate Matter (10 microns) Format*

Jul. 15, 2005

PM10 Total 0-10um STP (81102)   North Carolina   UG/CU METER (25 C) (001)

24-HOUR

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	#OBS	NUM REQ	VALID DAYS	%OBS	1ST MAX	2ND MAX	3RD MAX	4TH MAX	DAY MAX >150	EST DAYS >150	WTD ARITH MEAN	CERT	EDT
37-035-0004	1	0776	Hickory	Catawba	1650 1ST STREI	2004	062	57	61	56	92	44	42	37	37	0	0	23.4*		0
37-051-0009	1	0776	Fayetteville	Cumberland	4533 RAEFORD 1	2004	062	62	61	61	100	36	35	33	33	0	0	19.5		0
37-063-0001	1	0776	Durham	Durham	HEALTH DEPT, :	2004	062	60	61	60	98	40	34	32	30	0	0	19.5		0
37-067-0022	1	0403	Winston-Salem	Forsyth	1300 BLK. HAT'	2004	079	8663	366	364	99	52	50	42	40	0	0	19.8		0
37-067-0023	2	0403	Winston-Salem	Forsyth	1401 CORPORAT	2004	079	8706	366	366	100	62	56	52	48	0	0	23.6		0
37-081-0013	1	0776	Greensboro	Guilford	205 WILOUGHBY	2004	062	56	61	56	92	31	30	30	29	0	0	17.0		0
37-089-1006	1	0776	Hendersonville	Henderson	CORNER OF ALLI	2004	062	58	61	58	95	37	35	34	32	0	0	17.3		0
37-119-0003	1	0669	Charlotte	Mecklenburg	FIRE STA #11 (	2004	063	61	61	61	100	47	42	42	40	0	0	24.6		0

3.13.2.1.9   *Particulate Matter (2.5 microns) Format*

Jul. 15, 2005

PM2.5 - Local Conditions (88101)   North Carolina   UG/CU Meter (LC) (105)

24-HOUR

SITE ID	P O C	REP ORG	CITY	COUNTY	ADDRESS	YEAR	METH	#OBS	1ST MAX	2ND MAX	3RD MAX	4TH MAX	98TH PERCENTILE VALUE	WTD ARITH MEAN	CERT	EDT
37-067-0022	1	0403	Winston-Salem	Forsyth	1300 BLK. HAT'	2004	118	320	41.0	40.1	34.6	34.3	31.5	14.76		0
37-067-0022	3	0403	Winston-Salem	Forsyth	1300 BLK. HAT'	2004	702	8582	45.0	43.3	36.7	35.0	31.7	15.63		0
37-067-0022	5	1217	Winston-Salem	Forsyth	1300 BLK. HAT'	2004	810	60	36.1	34.1	32.4	32.0	34.1	16.51		0
37-067-0024	1	0403	Winston-Salem	Forsyth	NORTH FORSYTH	2004	118	109	39.4	36.3	33.6	30.9	33.6	14.05		0
37-071-0016	1	0776	Gastonia	Gaston	1622 EASTGARR	2004	118	121	33.7	32.6	30.8	30.4	30.8	14.16		0
37-071-0016	2	0776	Gastonia	Gaston	1622 EASTGARR	2004	118	30	26.7	22.7	21.3	21.2	26.7	13.77*		0
37-081-0013	1	0776	Greensboro	Guilford	205 WILOUGHBY	2004	118	347	43.4	39.4	38.9	37.4	30.8	13.97	Y	0
37-081-0013	2	0776	Greensboro	Guilford	205 WILOUGHBY	2004	118	54	37.5	28.6	27.0	26.2	28.6	14.18*	Y	0

3.13.2.1.10   Methods Listing

```
                    UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                               AIR QUALITY SYSTEM

                            QUICKLOOK ALL PARAMETERS
                                                                      Jul. 15, 2005

                            METHODS USED IN THIS REPORT

            METHOD
PARAMETER   CODE    COLLECTION METHOD                  ANALYSIS METHOD
11101       091     HI-VOL                             GRAVIMETRIC
42101       054     INSTRUMENTAL                       NONDISPERSIVE INFRARED
42101       055     INSTRUMENTAL                       NONDISPERSIVE INFRARED
42401       009     INSTRUMENTAL                       PULSED FLUORESCENT
42401       060     INSTRUMENTAL                       PULSED FLUORESCENT
42401       100     INSTRUMENTAL                       ULTRAVIOLET FLUORESCENCE
42602       074     INSTRUMENTAL                       CHEMILUMINESCENCE
42602       099     INSTRUMENTAL                       GAS PHASE CHEMILUMINESCENCE
44201       047     INSTRUMENTAL                       ULTRA VIOLET
81102       062     HI-VOL-WEDDING-INLET               GRAVIMETRIC
81102       063     HI-VOL SA/GMW-1200                 GRAVIMETRIC
81102       079     INSTRUMENTAL-R&P SA246B-INLET      TEOM-GRAVIMETRIC
88101       118     R & P MODEL 2025 PM2.5 SEQUNTL     GRAVIMETRIC
88101       702     PM2.5 SCC w/Correction Factor      TEOM Gravimetric 50 deg C
88101       810     Met One SASS Teflon                Gravimetric
```

3.13.2.1.11   Reporting Organization Listing

```
                    UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                               AIR QUALITY SYSTEM

                            QUICKLOOK ALL PARAMETERS
                                                                      Jul. 15, 2005

                      REPORTING ORGANIZATIONS USED IN THIS REPORT

REPORTING
ORGANIZATION
CODE           AGENCY DESCRIPTION
001            Eastern Band Of Cherokee Indians Of North Carolina
0403           Forsyth County Environmental Affairs Department
0669           Mecklenburg County Air Quality
0776           North Carolina Dept Of Environment And Natural Resou
0779           North Carolina Western Regional Air Pollution Contro
1217           Research Triangle Institute RTP, NC
```

3.13.2.2   Workfile Formats

All the following workfiles are fixed length workfiles. Each criteria pollutant has a
unique format. The format for each pollutant is provided below.

The workfile is a fixed-position text file. The format for columns 1 – 104 is the same for
all the formats.

Column	Start of Column Number	Field Length
State Code	1	2
County Code	3	3
Site Code	6	4
Parameter Code	10	5
Parameter Occurrence Code (POC)	15	2
Exceptional Data Type (EDT)	17	1
Duration Code	18	1
Summary Year	19	4
Unit Code	23	3

Column	Start of Column Number	Field Length
Region Code	26	2
AQCR Code	28	3
MSA Code	31	4
UAR Code	35	4
City Code	39	5
Street Address	44	40
Site Latitude	84	10
Site Longitude	94	11

3.13.2.2.1   TSP Workfile Format

Column	Start of Column Number	Field Length
Number of Observations	105	4
Highest Reading for the Year	109	7
2nd Highest Reading for the Year	116	7
3rd Highest Reading for the Year	123	7
4th Highest Reading for the Year	130	7
Arithmetic Mean	137	7
Criteria Indicator	144	1
Geometric Mean	145	7
Geometric Standard Deviation	152	7
Method Code	159	3
Certification Indicator	162	1
Reporting Organization Code	163	4

3.13.2.2.2   Lead Workfile Format

Column	Start of Column Number	Field Length
Number of Observations	105	4
1st Quarter Arithmetic Mean	109	7
1st Quarter Criteria Indicator	116	1
2nd Quarter Arithmetic Mean	117	7
2nd Quarter Criteria Indicator	124	1
3rd Quarter Arithmetic Mean	125	7
3rd Quarter Criteria Indicator	132	1
4th Quarter Arithmetic Mean	133	7
4th Quarter Criteria Indicator	140	1
Number of Quarters > Standard	141	4
Highest Value for the Year	145	7
2nd Highest Value for the Year	152	7
Method Code	159	3
Certification Indicator	162	1
Reporting Organization Code	163	4

3.13.2.2.3   Carbon Monoxide Workfile Format

The workfile is a fixed-position text file. The format of the workfile is as follows:

Column	Start of Column Number	Field Length
Number of Observations	105	4
Highest 1-hour Observation	109	7
2nd Highest 1-hour Observation	116	7
Highest 8-hour Observation	123	7
2nd Highest 8-hour Observation	130	7
Number of Primary Violations	137	4
Number of Non-overlapping Violations	141	4
Method Code	145	3
Certification Indicator	148	1
Reporting Organization Code	149	4

3.13.2.2.4   Sulfur Dioxide Workfile Format

Column	Start of Column Number	Field Length
Number of Observations	105	4
Highest 24-hour Observation	109	7
2nd Highest 24-hour Observation	116	7
Highest 3-hour Observation	123	7
2nd Highest 3-hour Observation	130	7
Highest 1-hour Observation	137	7
2nd Highest 1-hour Observation	144	7
Number of Primary Violations	151	4
Number of Secondary Violations	155	4
Arithmetic Mean	159	7
Criteria Indicator	166	1
Method Code	167	3
Certification Indicator	170	1
Reporting Organization Code	171	4

3.13.2.2.5   Nitrogen Dioxide Workfile Format

Column	Start of Column Number	Field Length
Number of Observations	105	4
Highest Observation	109	7
2nd Highest Observation	116	7
Arithmetic Mean	123	7
Criteria Indicator	130	1
Method Code	131	3
Certification Indicator	134	1
Reporting Organization Code	135	4

3.13.2.2.6   1-Hour Ozone Workfile Format

Column	Start of Column Number	Field Length
Number of Valid Days	105	3
Number of Required Days	108	4
Highest Observation	112	7
2nd Highest Observation	119	7
3rd Highest Observation	126	7
4th Highest Observation	133	7
Number of Primary Violations	140	4
Estimated Days > Standard	144	7
Missing Days Assumed < Standard	151	3
Method Code	154	3
Certification Indicator	157	1
Reporting Organization Code	158	4

3.13.2.2.7   8-Hour Ozone Workfile Format

Column	Start of Column Number	Field Length
Number of Observations	105	4
Percent of Observations	109	3
Highest Observation	112	7
2nd Highest Observation	119	7
3rd Highest Observation	126	7
4th Highest Observation	133	7
Number of Primary Violations	140	4
Number of Methods Used	144	2
Missing Days Assumed < Standard	146	3
Certification Indicator	149	1
Method Code	150	3
Reporting Organization Code	153	4
Number of Valid Days	157	4
Number of Required Days	161	4

3.13.2.2.8   PM$_{10}$ Workfile Format

Column	Start of Column Number	Field Length
Number of Valid Days	105	3
Number of Observations	108	4
Percent of Observations	112	3
Number of Required Days	115	4
Highest Observation	119	7
2nd Highest Observation	126	7
3rd Highest Observation	133	7
4th Highest Observation	140	7

Column	Start of Column Number	Field Length
Number of Primary Violations	147	4
Number of Estimated Exceedances	151	7
Weighted Arithmetic Mean	158	7
Criteria Indicator	165	1
Method Code	166	3
Certification Indicator	169	1
Reporting Organization Code	170	4
Number of Actual Observations	174	4

3.13.2.2.9 *PM$_{2.5}$ Workfile Format*

Column	Start of Column Number	Field Length
Number of Observations	105	4
Highest Observation	109	7
2nd Highest Observation	116	7
3rd Highest Observation	123	7
4th Highest Observation	130	7
98th Percentile	137	4
Arithmetic Mean	141	7
Criteria Indicator	148	1
Method Count	149	2
Certification Indicator	151	1
Method Code	152	3
Reporting Organization Code	155	4
Number of Actual Observations	159	4

3.13.2.3   XML Format

Not applicable for this report

3.13.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
EVENTS PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS	The data is summarized multiple times in cases where exceptional or natural events exist in the dataset. The following options are available • Include Events • Exclude Events • Exclude Exceptional Events • Exclude Natural Events • Exclude Regionally Concurred Events • Exclude Exceptional Events w/ Regional concurrence • Exclude Natural Events w/ Regional concurrence • Report all Event Records

3.14 Summary Report: Reduced Frequency Distribution Report (AMP260)

3.14.1 Report Description

The Reduced Frequency Distribution Report (AMP260) presents an annual statistical summary of the data reported by air quality monitors. These statistics include, but are not limited to number of observations, number of observations above the standard, maximum value, and the defined percentiles for the system.

3.14.2 Report Outputs

3.14.2.1 Formatted Report

3.14.2.2 Workfile Format

Not applicable for this report.

3.14.2.3 XML Format

Not applicable for this report.

3.14.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
EVENTS PROCESSING	REPORT ALL EVENT RECORDS	The data is summarized multiple times in cases where exceptional or natural events exist in the dataset. The following options are available • Include Events • Exclude Events • Exclude Exceptional Events • Exclude Natural Events • Exclude Regionally Concurred Events • Exclude Exceptional Events w/ Regional concurrence • Exclude Natural Events w/ Regional concurrence • Report all Event Records
SUMMARY CRITERIA	INCLUDE ALL DATA	You may optionally omit any data that does not meet the summary criteria. • Include All Data • Only Include Data Meeting Summary Criteria

3.15 Quality Assurance Report: Accuracy Report (AMP247)

3.15.1 Report Description

The Accuracy Report provides an output of raw accuracy value pairs and their percent differences. The data is grouped by Parameter, Tribal Area (if in tribal mode) or State, and Reporting Organization.

3.15.2 Report Outputs

3.15.2.1 Formatted Report Output

```
                              UNITED STATES ENVIRONMENTAL PROTETION AGENCY
                                        AIR QUALITY SYSTEM
                                        ACCURACY REPORT

                                                                              28 January 2005

 Parameter:    (11101) Suspended particulate (TSP)
 State:        North Carolina
 Agency:       North Carolina Dept Of Environment And Natural Resources

   Accuracy        Monitor       Conc              Above        Unit          Actual Indicated  Relative
    Type             ID          Level    Date     Criteria     Desc          Value  Value      % Diff
     PE         37-035-0004-11101-1   2  20040123    N      CUBIC FEET/MINUTE  39.06  37.94       -2.9
 Parameter:    (81102) PM10 Total 0-10um STP
 State:        North Carolina
 Agency:       North Carolina Dept Of Environment And Natural Resources

   Accuracy        Monitor       Conc              Above        Unit          Actual Indicated  Relative
    Type             ID          Level    Date     Criteria     Desc          Value  Value      % Diff
     PE         37-035-0004-81102-1   2  20040204    N      CUBIC FEET/MINUTE  40.38  40.58        0.5
     PE         37-035-0004-81102-1   2  20040513    N      CUBIC FEET/MINUTE  41.17  41.82        1.6
     PE         37-035-0004-81102-1   2  20040809    N      CUBIC FEET/MINUTE  40.84  40.76       -0.2
     PE         37-035-0004-81102-1   2  20041109    N      CUBIC FEET/MINUTE  41.62  42.10        1.1
 Parameter:    (88101) PM2.5 - Local Conditions
 State:        North Carolina
 Agency:       North Carolina Dept Of Environment And Natural Resources

   Accuracy        Monitor       Conc              Above        Unit          Actual Indicated  Relative
    Type             ID          Level    Date     Criteria     Desc          Value  Value      % Diff
     PE         37-035-0004-88101-1   2  20040204    N      Liters/minute STP  16.46  16.63        1.0
     PE         37-035-0004-88101-1   2  20040511    N      Liters/minute STP  16.34  16.63        1.8
     PE         37-035-0004-88101-1   2  20040809    N      Liters/minute STP  17.11  16.63       -2.8
     PE         37-035-0004-88101-3   1  20040224    N      Liters/minute STP   2.99   3.00        0.3
     PE         37-035-0004-88101-3   1  20040511    N      Liters/minute STP   2.97   3.00        1.0
     PE         37-035-0004-88101-3   1  20040825    N      Liters/minute STP   3.02   3.00       -0.7
     PE         37-035-0004-88101-3   1  20041110    N      Liters/minute STP   2.97   3.00        1.0
     PE         37-035-0006-88101-1   2  20040809    N      Liters/minute STP  16.77  16.66       -0.7
```

3.15.2.2 Workfile Output

Not applicable for this report.

3.15.2.3 XML Output

Not applicable for this report.

3.15.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.16 Quality Assurance Report: Critical Review Monitor Description Changes (G73)

3.16.1 Report Description

When data is updated to the AQS system, there are certain circumstances in which personnel at EPA headquarters would like to be made aware. These items include descriptive information at the monitor level that defines how the monitor was configured or was sited. Items that appear for review are called "Critical Review" elements. This report displays information about changes to monitor descriptive information that are categorized as critical review items. It also notes the closure of monitors that are designated to be part of the national network.

It is important to note that this report differs from most reports with respect to the meaning of the date selection elements. In most reports, this date selection pertains to the date on which data was collected. For this report, the date selection refers to the date that the record was changed.

3.16.2 Report Outputs

3.16.2.1 Formatted Report

3.16.2.1.1 Part 1 – Monitor Description Changes

3.16.2.1.2 Part II – Closed Monitor Types

3.16.2.2 Workfile Format

Not applicable for this report.

3.16.2.3 XML Format

Not applicable for this report.

3.16.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.17 Quality Assurance Report: Critical Review Precision & Accuracy Monitor Summary (G75)

3.17.1 Report Description

When data is updated to the AQS system, there are certain circumstances in which personnel at EPA headquarters would like to be made aware. These items include large percent differences for precision and accuracy values. Items that appear for review are called "Critical Review" elements. This report displays information about precision and accuracy monitor summary data that are categorized as critical review items.

3.17.2 Report Outputs

3.17.2.1 Formatted Report

```
                         UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                     AIR QUALITY SYSTEM
                                   CR P & A MONITOR SUMMARY
                                                                                   Aug. 3, 2005
  AIRS Monitor Id                                 Prec Stddv        Time              Precision
  Agency Desc            Screening Group Name                       Period            Year


  01-109-0003-12128-1    ALABAMA                  72.7856           Q1                2002
  A1 Dept Of Env  Mgt
```

3.17.2.2 Workfile Format

Not applicable for this report.

3.17.2.3 XML Format

Not applicable for this report.

3.17.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.18 Quality Assurance Report: Critical Review Precision and Accuracy Reporting Organization Report (G76)

3.18.1   Report Description

When data is updated to the AQS system, there are certain circumstances in which personnel at EPA headquarters would like to be made aware. These items include large percent differences for a reporting organization on a quarterly basis. Items that appear for review are called "Critical Review" elements. This report displays information about Precision and Accuracy Reporting Organization Summary data that are categorized as critical review items.

3.18.2   Report Outputs

3.18.2.1   Formatted Report

3.18.2.2   Workfile Format

Not applicable for this report.

3.18.2.3   XML Format

Not applicable for this report.

3.18.3 Report Options

| Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.19 Quality Assurance Report: Critical Review Precision & Accuracy Single Checks (G71)

3.19.1 Report Description

When data is updated to the AQS system, there are certain circumstances in which personnel at EPA headquarters would like to be made aware. These items include large percent differences for precision and accuracy values. Items that appear for review are called "Critical Review" elements. This report displays information about precision and accuracy data that are categorized as critical review items.

3.19.2 Report Outputs

3.19.2.1 Formatted Report

3.19.2.2 Workfile Format

Not applicable for this report.

3.19.2.3 XML Format

Not applicable for this report.

3.19.3 Report Options

| Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.20 Quality Assurance Report: Critical Review Raw Data (G74)

3.20.1 Report Description

When data is updated to the AQS system, there are certain circumstances in which personnel at EPA headquarters would like to be made aware. These items include changes to "certified" data, changes to values that are greater than the National Ambient Air Quality Standards, new data that is significantly higher than the 3-year historical maximum for the monitor, or values that are greater than a pre-defined threshold. Items that appear for review are called "Critical Review" elements. This report displays information about raw data records that are categorized as critical review items. The report is presented in two parts. Part one displays critical review conditions that affect a single data point ("Value Exceeds the 3-Year Historical Maximum" for example). Part two displays a count of the number of data points submitted by a monitor for a year that has been certified.

It is important to note that this report differs from most reports with respect to the meaning of the date selection elements. In most reports, this date selection pertains to the date on which data was collected. For this report, the date selection refers to the date that the record was changed.

3.20.2 Report Outputs

3.20.2.1 Formatted Report

3.20.2.1.1 *Part I – Single Point Critical Review Errors Format*

CRITICAL REVIEW REPORT - RAW DATA   Aug 4, 2005

PART I:
  quarterly values > historical max / 1st max quarterly value > 2nd max quarterly value / values > NAAQS

screening Group name: JEFFERson Co, AL 2

monitor id	mon Type	update date	Action ind	Critical review Type	unit	sample value	sample Date/Time	Comp value	Comp Date/Time
01-073-0023-88181-2	SLAMS	20050128	I	1st max >> 2nd max for year	ug/m3 1	35.0	20041117 00:00	12.9	20041111 00:00
01-073-1008-81182-1	SLAMS	20050128	I	1st max >> 2nd max for year	ug/m3 1	41	20041117 00:00	13	20041129 00:00
01-073-2003-88181-2	SLAMS	20050128	I	1st max >> 2nd max for year	ug/m3 1	35.3	20041117 00:00	15.0	20041125 00:00

3.20.2.1.2 Part II – Data Submitted for Certified Year Format

3.20.2.2   Workfile Format

Not applicable for this report.

3.20.2.3   XML Format

Not applicable for this report.

3.20.3   Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.21 Quality Assurance Report: Critical Review Site Changes (G72)

3.21.1 Report Description

When data is updated to the AQS system, there are certain circumstances in which personnel at EPA headquarters would like to be made aware. These items include descriptive information at the site level that defines siting criteria. Items that appear for review are called "Critical Review" elements. This report displays information about changes to site descriptive information that are categorized as critical review items.

It is important to note that this report differs from most reports with respect to the meaning of the date selection elements. In most reports, this date selection pertains to the date on which data was collected. For this report, the date selection refers to the date that the record was changed.

3.21.2 Report Outputs

3.21.2.1 Formatted Report

3.21.2.2 Workfile Format

Not applicable for this report.

3.21.2.3 XML Format

Not applicable for this report.

3.21.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.22 Quality Assurance Report: Extract P/A Data (AMP502)

3.22.1 Report Description

The Extract P/A Data converts production Precision and Accuracy data into the AQS pipe-delimited data input format. This program will generate "RA" (Accuracy data) and / or "RP" (Precision data) transactions. There is no formatted report associated with AMP502.

3.22.2 Report Outputs

3.22.2.1 Formatted Report

Not applicable for this report.

3.22.2.2 Workfile Format

The workfile records are consistent with the data input format for the precision and accuracy data. Please refer to the Batch Input Transaction layouts for further discussion of these formats.

3.22.2.3 XML Format

Not applicable for this report.

3.22.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
ACTION INDICATOR	INSERT	You may set what "Action Indicator" is applied to the extracted transactions. - Insert - Update - Delete
PRECISION AND ACCURACY TRANSACTIONS	- Precision Data - Accuracy Data	You may optionally choose to generate just precision data, just accuracy data, or both.

3.23 Quality Assurance Report: Precision & Accuracy Raw Data Report (AMP250)

3.23.1 Report Description

The Precision & Accuracy Raw Data Report displays pairs of audit data that have been reported to the system. In addition to the data values, descriptive information about the site is provided as well. You may choose to generate only precision data, only accuracy data, or display both types of data.

3.23.2 Report Outputs

3.23.2.1 Formatted Report

3.23.2.2 Workfile Format

Not applicable for this report

3.23.2.3 XML Format

Not applicable for this report

3.23.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
P/A DATA TYPE	PRECISION AND ACCURACY DATA	You may choose what types of data is returned in the report. You may choose any of the following: • Precision Data Only • Accuracy Data Only • Precision and Accuracy Data

3.24 Quality Assurance Report: P&A Reporting Organization Summary (AMP240)

3.24.1 Report Description

The Precision & Accuracy Reporting Organization Summary displays yearly summarized statistics for precision and accuracy data that has been reported for a given reporting organization for a specified parameter, audit classification, and year and quarter.

3.24.2 Report Outputs

3.24.2.1 Formatted Report

```
                         UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                    AIR QUALITY SUBSYSTEM

                                   P/A REPORTING ORG SUMMARY

                                                                                   Jul. 15, 2005

   REPORT ORG: 0403  Forsyth County Environmental Affairs Department          AGENCY TYPE: G

      PARAMETER
   CODE    DESCRIPTION        **** PRECISION DATA ****     ****************** ACCURACY DATA ******************************
   REC MODE        YEAR  Q    # OF    PRECIS  PROB LIM   LOC PRI    ACC   AUDIT  NO AUDITS   PROB LIM    PROB LIM    PROB LIM    PROB LIM
   AUDIT CLASS                ANALYZRS CHECKS  LO   UP     STD      TYPE  TYPE   L1-3  L4    LO-L1-UP    LO-L2-UP    LO-L3-UP    LO-L4-UP

   42101  Carbon monoxide
   CONTINUOUS      2004        2      542  - 3.5  1.7    EMSL       PE    AUDIT   18    0   - 1.0  2.5 - 3.2  2.7 - 4.4  5.3
   ANALYTICAL                                          REFERENCE GAS           ONLY
                                                                               BY RO
                         1      2      179  - 3.7  2.2    EMSL       PE    AUDIT    6    0    0.0  0.0 - 3.8 - 0.2 - 4.3 - 0.6
                                                      REFERENCE GAS           ONLY
                                                                               BY RO
                         2      2      181  - 3.6  1.6    EMSL       PE    AUDIT    6    0   - 1.2  2.5 - 1.2  2.5 - 1.5  4.6
                                                      REFERENCE GAS           ONLY
                                                                               BY RO
                         3      2      182  - 2.5  0.8    EMSL       PE    AUDIT    6    0    0.7  2.6   0.7  0.7 - 0.2  4.7
                                                      REFERENCE GAS           ONLY
                                                                               BY RO

      PARAMETER
   CODE    DESCRIPTION        **** PRECISION DATA ****     ****************** ACCURACY DATA ******************************
   REC MODE        YEAR  Q    # OF    PRECIS  PROB LIM   LOC PRI    ACC   AUDIT  NO AUDITS   PROB LIM    PROB LIM    PROB LIM    PROB LIM
   AUDIT CLASS                ANALYZRS CHECKS  LO   UP     STD      TYPE  TYPE   L1-3  L4    LO-L1-UP    LO-L2-UP    LO-L3-UP    LO-L4-UP

   42401  Sulfur dioxide
   CONTINUOUS      2004        1       21  - 7.9  9.9    EMSL       PE    AUDIT    9    0   - 3.7 - 0.7 - 6.3 - 1.7 -10.2 - 0.6
   ANALYTICAL                                          REFERENCE GAS           ONLY
                                                                               BY RO
                         1      1       7    0.3  8.7    EMSL       PE    AUDIT    3    0
                                                      REFERENCE GAS           ONLY
                                                                               BY RO
                         2      1       6  -10.5  6.1    EMSL       PE    AUDIT    3    0   - 2.7 - 2.7 - 4.7 - 4.7 -12.0 - 0.3
                                                      REFERENCE GAS           ONLY
                                                                               BY RO
                         3      1       8  - 8.6  9.1    EMSL       PE    AUDIT    3    0
                                                      REFERENCE GAS           ONLY
                                                                               BY RO
```

3.24.2.2 Workfile Format

Not applicable for this report

3.24.2.3 XML Format

Not applicable for this report

3.24.3   Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.25 Quality Assurance Report: Precision Report (AMP246)

3.25.1　　　Report Description

The Precision Report displays a daily listing reported precision data in a tabular format. The report displays the sample values entered into the system and then calculates a percent difference between the reported values, consistent with the requirements of OAQPS' Quality Assurance guidelines.

3.25.2　　　Report Outputs

3.25.2.1　　　Formatted Report

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM
PRECISION REPORT

Jul. 15, 2005

SINGLE-MONITOR PRECISION CHECKS

PARAMETER	STATE	AGENCY	MONITOR ID	DATE	PREC ID	ACTUAL	MEAS.	METH CODE	UNIT	%DIFF
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/01	1	9.000	8.800	054	PPM	-2.2
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/02	1	9.000	8.800	054	PPM	-2.2
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/03	1	9.000	8.800	054	PPM	-2.2
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/04	1	9.000	8.800	054	PPM	-2.2
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/05	1	9.000	8.800	054	PPM	-2.2
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/06	1	9.000	9.000	054	PPM	.0
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/07	1	9.000	9.200	054	PPM	2.2
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/08	1	9.000	9.100	054	PPM	1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/09	1	9.000	9.100	054	PPM	1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/10	1	9.000	9.100	054	PPM	1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/11	1	9.000	9.100	054	PPM	1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/12	1	9.000	9.100	054	PPM	1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/13	1	9.000	8.900	054	PPM	-1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/14	1	9.000	9.000	054	PPM	.0
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/15	1	9.000	9.000	054	PPM	.0
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/16	1	9.000	8.900	054	PPM	-1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/17	1	9.000	8.900	054	PPM	-1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/18	1	9.000	9.000	054	PPM	.0
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/19	1	9.000	9.000	054	PPM	.0
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/20	1	9.000	9.100	054	PPM	1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/21	1	9.000	9.100	054	PPM	1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/22	1	9.000	8.900	054	PPM	-1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/23	1	9.000	9.000	054	PPM	.0
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/24	1	9.000	8.900	054	PPM	-1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/25	1	9.000	9.100	054	PPM	1.1
Carbon monoxide	NC	Forsyth County Environmental .	37-067-0023-42101-1	2004/01/26	1	9.000	8.900	054	PPM	-1.1

3.25.2.2　　　Workfile Format

Not applicable for this report

3.25.2.3　　　XML Format

Not applicable for this report

3.25.3   Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)

3.26 Raw Data Report: Data Completeness Report (AMP430)

3.26.1 Report Description

The Data Completeness Report generates a monthly count of the number of observations conducted by a monitor across a given time frame. It also calculates the percentage of the number of observations that are required within the month. The report does not provide concentration levels. It only provides an indication of the sampling activity of a monitor. A detail section as well as a summary section of the information that is selected is generated.

This report may only be run for data that exists within a single calendar year. Due to this restriction, you may only specify 1 time period on the R31, and that time period must be within the same calendar year.

3.26.2 Report Outputs

3.26.2.1 Formatted Report

3.26.2.1.1 Monitors Not Reporting Data Section

This portion of the report produces a list of the monitors that did not report any data for the selected time period, but are still defined as "active" based on their sample period information.

```
                      UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                    AIR QUALITY SYSTEM
                                DATA COMPLETENESS REPORT

                                                                          Jul. 14, 2005

                                    MONITORS NOT REPORTING

DATE RANGE:   JAN. 01, 2004 THRU DEC. 31, 2004
REGION: (04) ATLANTA                       REPORTING ORGANIZATION:  Jefferson County, AL  Department Of Health
STATE:  Alabama                            MONITOR TYPE: SLAMS


SITE ID       PARAMETER                POC CITY                    ADDRESS
01-073-0023   81102  PM10 Total 0-10um STP   1  Birmingham          NO. B'HAM,SOU R.R., 3009 28TH ST. NO.
01-073-0023   88101  PM2.5 - Local Conditions  7  Birmingham        NO. B'HAM,SOU R.R., 3009 28TH ST. NO.
```

3.26.2.1.2   Monitors Reporting Data Section

MONITORS REPORTING

DATE RANGE: JAN. 01, 2004 THRU DEC. 31, 2004
REGION: (04) ATLANTA   REPORTING ORGANIZATION: Al Dept Of Env Mgt
STATE: Alabama   MONITOR TYPE: SLAMS

SITE ID PARAMETER	POC	DURATION METHOD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
CITY															
ADDRESS															
01-027-0001 88101 PM2.5 - Local Conditions	1	7	11	9	10	10	9	9	10	7	9	10	10	10	114
Not in a city		118	100%	100%	91%	100%	90%	90%	100%	64%	90%	100%	100%	100%	93%
ROUTE 1, BOX 351A, ASHLAND, AL															
01-033-1002 88101 PM2.5 - Local Conditions	1	7	11	9	10	10	10	10	9	10	10	10	7	8	114
Muscle Shoals		118	100%	100%	91%	100%	100%	100%	90%	91%	100%	100%	70%	80%	93%
WILSON DAM RD AND 2ND ST.															
01-051-0001 44201 Ozone	1	1			707	682	709	685	647	710	625	707			5472
Wetumpka		047			95%	95%	95%	95%	87%	95%	87%	95%			93%
DEWBERRY TRAIL, ELMORE CO., WETUMPKA, ALABAMA															
01-069-0002 88101 PM2.5 - Local Conditions	1	7	11	4	5	10	10	10	9	11					70
Dothan		118	100%	44%	45%	100%	100%	100%	90%	100%					85%
EAST HIGHLAND ST., BOARD OF ED. BLDG.															
01-097-0002 88101 PM2.5 - Local Conditions	1	7	11	9	11	9	7	2	10	10	9	10	7	10	105
Chickasaw		120	100%	100%	100%	90%	70%	20%	100%	91%	90%	100%	70%	100%	86%
HWY.43 CHICKASAW, MOBILE COUNTY															
01-097-0003 88101 PM2.5 - Local Conditions	1	7	9	9	11	8	10	10	10	11	9	10	10	10	117
Chickasaw		118	82%	100%	100%	80%	100%	100%	100%	100%	90%	100%	100%	100%	96%
IROQUOIS AND AZALEA CHICKASAW, MOBILE CO., ALABAMA															
01-097-2005 44201 Ozone	1	1			710	689	653	686	710	711	509	706			5374
Theodore		047			95%	96%	88%	95%	95%	96%	71%	95%			91%
BAY RD. ,MOBILE AL.															
01-101-0007 88101 PM2.5 - Local Conditions	1	7	11	9	11	10	10	7	10	11	10	9	10	10	118
Montgomery		118	100%	100%	100%	100%	100%	70%	100%	100%	100%	90%	100%	100%	97%
MTG. RESURRECTION 2815 FORBES DRIVE															
01-101-1002 44201 Ozone	1	1			706	683	701	687	701	709	636	691			5514
Montgomery		047			95%	95%	94%	95%	94%	95%	88%	93%			94%
1890 DICKENSON DRIVE, MONTGOMERY, ALABAMA															
01-103-0011 88101 PM2.5 - Local Conditions	1	7	11	9	11	10	10	9	9	11	10	9	10	10	119
Decatur		118	100%	100%	100%	100%	100%	90%	90%	100%	100%	90%	100%	100%	98%
P.O. BOX 2224 WALLACE DEVELOPMENT CENTER. DECATUR, ALABAMA															

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3.26.2.1.3 Report Summary Section


```
                    UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
                                AIR QUALITY SYSTEM
                              DATA COMPLETENESS REPORT

                                                                    Jul. 14, 2005

                                  REPORT SUMMARY

   DATE RANGE:    JAN. 01, 2004 THRU DEC. 31, 2004
   REGION: (04) ATLANTA
   STATE: Alabama
   REPORTING ORGANIZATION: Al Dept Of Env  Mgt
   MONITOR TYPE: NAMS
      PARAMETER                              ACTIVE MONITORS  # NOT REPORTING  # MONITORS > 75%  MONITORS AVG COMPLETENESS
      44201   Ozone                                 1               0               1                     90.9%
   MT SUMMARY:  NAMS                                 1               0               1                     90.9%
   MONITOR TYPE: SLAMS
      PARAMETER                              ACTIVE MONITORS  # NOT REPORTING  # MONITORS > 75%  MONITORS AVG COMPLETENESS
      12128   Lead (TSP)                            2               0               2                    100.0%
      44201   Ozone                                 5               0               5                     92.0%
      88101   PM2.5 - Local Conditions             13               0              13                     94.1%
   MT SUMMARY:  SLAMS                               20               0              20                     94.1%
   MONITOR TYPE: OTHER
      PARAMETER                              ACTIVE MONITORS  # NOT REPORTING  # MONITORS > 75%  MONITORS AVG COMPLETENESS
      11101   Suspended particulate (TSP)           3               0               3                     95.1%
      12128   Lead (TSP)                            1               0               1                    100.0%
      44201   Ozone                                 8               0               8                     93.3%
      81102   PM10 Total 0-10um STP                 4               0               4                     87.5%
      88101   PM2.5 - Local Conditions             10               0              10                     91.2%
   MT SUMMARY:  OTHER                               26               0              26                     92.1%
   MONITOR TYPE: SPECIAL PURPOSE
      PARAMETER                              ACTIVE MONITORS  # NOT REPORTING  # MONITORS > 75%  MONITORS AVG COMPLETENESS
      42401   Sulfur dioxide                        1               0               1                     97.4%
      44201   Ozone                                 1               0               1                     92.8%
      81102   PM10 Total 0-10um STP                11               0              11                     89.7%
      88101   PM2.5 - Local Conditions              1               0               0                     71.0%
   MT SUMMARY:  SPECIAL PURPOSE                     14               0              13                     89.1%
   RO SUMMARY:  Al Dept Of Env  Mgt                 61               0              60                     92.1%

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```

3.26.2.2   Workfile Format

The Data Completeness Report generates two separate formats:

- Monitor Details
- Report Summary

Both workfiles are comma-delimited, with the text strings enclosed in double quotes. The formats of each format are listed below

3.26.2.2.1   Monitor Details Format

Order of Appearance	Column Name
1	Monitor Type
2	Site ID
3	Parameter Code
4	POC
5	EPA Region
6	Reporting Organization Description
7	City
Order of Appearance	Column Name

8	Address
9	Method Code
10	Duration Code
11	Not Reporting Indicator ("Y" means no data collected for the monitor)
12	January Number of Observations
13	January Observation Percentage
14	February Number of Observations
15	February Observation Percentage
16	March Number of Observations
17	March Observation Percentage
18	April Number of Observations
19	April Observation Percentage
20	May Number of Observations
21	May Observation Percentage
22	June Number of Observations
23	June Observation Percentage
24	July Number of Observations
25	July Observation Percentage
26	August Number of Observations
27	August Observation Percentage
28	September Number of Observations
29	September Observation Percentage
30	October Number of Observations
31	October Observation Percentage
32	November Number of Observations
33	November Observation Percentage
34	December Number of Observations
35	December Observation Percentage
36	Number of Observations for the Year
37	Observation Percentage for the Year

3.26.2.2.2   *Summary Report Format*

Order of Appearance	Column Name
1	EPA Region
2	State
3	Reporting Organization Name
4	Monitor Type
5	Parameter Code
6	Number of Monitors
7	Average Completeness
8	Number Not Reporting

3.26.2.3   XML Format

Not applicable for this report.

3.26.3   Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
OZONE EVALUATION	SEASONAL-HOURLY	Choose the basis on which the completeness for ozone is based: • Seasonal-Hourly = All Hourly values within the Ozone season • Seasonal-Daily = Number of valid days within the Ozone season • Annual-Hourly = All values for the entire year • Annual-Daily = Number of valid days for the entire year

3.27 Raw Data Report: Extract Raw Data (AMP501)

3.27.1   Report Description

The Extract Raw Data converts production raw and composite sample data into the AQS pipe-delimited data input format and / or defined XML input schema. This program will generate "RC" (Composite data) and / or "RD" (Raw data) transactions. There is no formatted report associated with AMP501.

3.27.2   Report Outputs

3.27.2.1   Formatted Report

Not applicable for this report.

3.27.2.2   Workfile Format

The workfile records are consistent with the data input format for the raw and composite sample data. Please refer to the Batch Input Transaction layouts for further discussion of these formats.

3.27.2.3   XML Format

The XML Format of this report is consistent with the Air Quality Submission schema. The schema definition can be found at http://www.exchangenetwork.net/exchanges/air/aqs.htm.   The selection of the "Action Indicator" in the report options (see the following section on choices of options for the report) will determine whether the "Insert", "Update", or "Delete" schema will be used.

3.27.3   Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
ACTION INDICATOR	INSERT	You may set what "Action Indicator" is applied to the extracted transactions. • Insert • Update • Delete

3.28 Raw Data Report: Extract Sample Blanks Data (AMP503)

3.28.1　　Report Description

The Extract Sample Blanks Data converts production blanks sample data into the AQS pipe-delimited data input format and / or defined XML input schema. This program will generate "RB" (Blanks data) transactions. There is no formatted report associated with AMP503.

3.28.2　　Report Outputs

3.28.2.1　　Formatted Report

Not applicable for this report.

3.28.2.2　　Workfile Format

The workfile records are consistent with the data input format for blanks sample data. Please refer to the Batch Input Transaction layouts for further discussion of these formats.

3.28.2.3　　XML Format

The XML Format of this report is consistent with the Air Quality Submission schema. The schema definition can be found at
http://www.exchangenetwork.net/exchanges/air/aqs.htm. The selection of the "Action Indicator" in the report options (see the following section on choices of options for the report) will determine whether the "Insert", "Update", or "Delete" schema will be used.

3.28.3　　Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
ACTION INDICATOR	INSERT	You may set what "Action Indicator" is applied to the extracted transactions. • Insert • Update • Delete
BLANK TYPES	TRIP AND FIELD BLANKS	You may select the type of field blanks data included in the report: • Trip data only • Field data only • Trip & Field data

3.29 Raw Data Report: Raw Data Reports (AMP350, AMP350MX, AMP350NW, AMP350P)

3.29.1   Report Description

The Raw Data Reports lists ambient air quality samples that are stored in AQS. These samples may consists of the reported values, generated data (such as the running averages), or daily summaries. The raw data reports have 3 distinct formats in which the data may be displayed:

- Hourly Format: A matrix format used to display data for values that have a duration of less than 24 hours. The rows consist of days within the month (between 1 and 31) and the columns consist of hours within the day (00 – 23). One page of the report represents one month worth of data for a monitor. Either a maximum or average summary of each row in the matrix is provided. Each column has a summary for the number of observations, the maximum observation, and the average sample value. The number of observations, maximum value, and average value is also calculated for the month.
- Daily Format: A matrix format used to display data for values that have a duration of 24 hours. The rows consist of days with the month (between 1 and 31) and the columns consist of months within the year. One page of the report represents one year of data for a monitor.
- Other Format: This is tabular format used to display data that has a duration of greater than 24 hours. A new page is generated for each break in the year and / or monitor.

Although the formats of the four listed reports are the same, their purposes and content vary slightly. Below is a description of each of the 4 reports.

AMP350: The AMP350 report displays production-level sample data reported to the AQS database. This report may use any of the three described formats.

AMP350P: The AMP350P report displays pre-production-level sample data reported to the AQS database. This report may use any of the three described formats. This report will only appear in the list of reports if you selected a screening group at the beginning of the session.

AMP350MX: The AMP350MX report displays daily maximum summaries of data reported to or generated by the AQS database. This report only uses the "Daily" report format.

AMP350NW: The AMP350NW report displays the generated durations (8-hour running averages, 3-hour block averages, and 24-hour block averages) from data reported to the AQS database. This report only uses the "Hourly" report format.

3.29.2 Report Outputs

3.29.2.1 Formatted Report

3.29.2.1.1 Hourly Format

3.29.2.1.2   Daily Format

3.29.2.1.3   Other Format

3.29.2.2 Workfile Format

There are four workfile formats that are generated from the raw data report: Site format, Raw Data Format, NAAQS Averages Format, and Other format. All formats are "pipe-delimited" ("|").

3.29.2.2.1 Site Format

This format is used by all of the reports to provide information about the monitoring site.

| Order of Appearance	Column Name
1	Data Type: "1" = SITE Information
2	State Code
3	State Name
4	County Code
5	County Name
6	Site ID
7	Parameter Code
8	Parameter Description
9	POC
10	City Code
11	City Name
12	Street Address
13	AQCR Code
14	AQCR Name
15	MSA Code
16	MSA Name
17	CMSA Code
18	CMSA Name
19	EPA Region
20	Monitor Objective 1
21	Monitor Objective 2
22	Monitor Objective 3
23	Urbanized Area Code
24	Urbanized Area Name
25	Land Use
26	Location Setting
27	Latitude
28	Longitude
29	UTM Zone
30	UTM Northing
31	UTM Easting
32	Coordinate Horizontal Collection Method
33	Coordinate Horizontal Method
Order of Appearance	Column Name

34	Coordinate Horizontal Datum
35	Coordinate Horizontal Accuracy
36	Coordinate Horizontal Scale
37	Elevation Above Mean Sea Level (meters)
38	Coordinate Vertical Collection Method
39	Coordinate Vertical Method
40	Coordinate Vertical Datum
41	Coordinate Vertical Accuracy

3.29.2.2.2   *Raw Data Format*

This format may be used by AMP350, AMP350MX, and AMP350P.

Order of Appearance	Column Name	
1	Data Type: "2" = Raw Data	
2	State Code	
3	County Code	
4	Site ID	
5	Parameter Code	
6	POC	
7	Duration Code	
8	Method Code	
9	Units Code	
10	Minimum Detection Limit (MDL)	
11	Uncertainty	
12	Reported Collection Frequency	
13	Required Collection Frequency	
14	Reporting Organization Code	
15	Reporting Organization Name	
16	Sample Date (YYYYMMDD)	
17 - 64	Repeated 24 times. Once for each hour of the day. "x" represents the start hour of the sample	Value x
		Qualifier x

3.29.2.2.3   NAAQS Data Format

This format is used only by AMP350NW.

Order of Appearance	Column Name	
1	Data Type: "3" = NAAQS Data	
2	State Code	
3	County Code	
4	Site ID	
5	Parameter Code	
6	POC	
7	Duration Code	
8	Units Code	
9	Monitor Type	
10	Reporting Organization Code	
11	Reporting Organization Name	
12	Sample Date (YYYYMMDD)	
13 – 60	Repeated 24 times. Once for each hour of the day. "x" represents the start hour of the sample	Value x
		Qualifier x

3.29.2.2.4   Other Data Format

This format may be used by AMP350 and AMP350P.

Order of Appearance	Column Name
1	Data Type: "4" = OTHER Data
2	State Code
3	County Code
4	Site ID
5	Parameter Code
6	POC
7	Duration Code
8	Method Code
9	Units Code
10	Minimum Detection Limit (MDL)
11	Uncertainty
12	Required Collection Frequency
13	Reporting Organization Code
14	Reporting Organization Name

Order of Appearance	Column Name
15	Sample Date (YYYYMMDD)
16	Sample Value
17	Qualifier
18	Composite Type
19	Number of Samples in the Composite Sample

3.29.2.3   XML Format

Not applicable for this report.

3.29.3   Report Options

Option Name	Default Value	Description	Applies to
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)	AMP350, AMP350P, AMP350MX, AMP350NW
SINGLE EVENT PROCESSING	INCLUDE EVENTS	The data is summarized multiple times in cases where exceptional or natural events exist in the dataset. The following options are available - Include Events - Exclude Events - Exclude Exceptional Events - Exclude Natural Events - Exclude Regionally Concurred Events - Exclude Exceptional Events w/ Regional concurrence - Exclude Natural Events w/ Regional concurrence	AMP350MX, AMP350NW
INCLUDE NULLS	YES	Option to include Null Data codes on the report. Valid values are "YES" and "NO"	AMP350, AMP350P

Option Name	Default Value	Description	Applies to
DAILY STATISTICS	MAXIMUM	Defines the row statistic to use on the "Hourly" format. Available values are "MAXIMUM", "MEAN"	AMP350, AMP350P, AMP350NW
UNITS	STANDARD	Defines whether to show the data in the "Standard" or "Reported" units.	AMP350, AMP350P
RAW DATA EVENTS	INCLUDE EVENTS	Defines whether to include or exclude events from the data to include on the report.	AMP350, AMP350P
ALTERNATE STANDARDS	None defined	Allows the user to specify values to place a "P" or "S" next to values that exceed the defined "Primary" or "Secondary" values. Values must be defined on a parameter / duration basis. This option only works if the "UNITS" option is set to "STANDARD"	AMP350, AMP350P

3.30 Raw Data Report: Raw Data Workfile Parameter by Time

3.30.1 Report Description

The Raw Data Workfile Parameter by Time can only be generated as a workfile. The idea of the report is to produce a file that can compare values against either other values across time. If only 1 parameter is selected, the comparison by day is performed against other monitors that monitored data at the same time. If more than one parameter is selected, the comparison is performed against all the selected parameters that collected data at the same time and at the same site.

3.30.2 Report Outputs

3.30.2.1 Formatted Report

Not applicable for this report

3.30.2.2 Workfile Format

The generated workfile is a comma-delimited workfile. The order of the columns is dependant on what fields are selected. The format of the workfile is defined in the first row of the generated file.

3.30.2.3 XML Format

Not applicable for this report.

3.30.3   Report Options

Option Name	Default Value	Description
UNITS	STANDARD	Defines whether to show the data in the "Standard" or "Reported" units.
RAW DATA EVENTS	INCLUDE EVENTS	Defines whether to include or exclude events from the data to include on the report.
RAW DATA META COLUMNS	No columns selected	The user may include any of the following columns to the workfile: • Site Latitude* • Site Longitude* • Elevation Above Mean Sea Level* • MSA Code and Description* • CMSA Code and Description* • Qualifier Flag • Method • MDL • Uncertainty • Trip Blanks • Trip Blank Method • Field Blanks • Field Blank Method * - Values are only used if multiple parameters have been selected.

3.31 Raw Data Report: Violation Day Count Report (AMP300)

3.31.1   Report Description

The Violation Day Count Report displays sample values that exceed the standard for criteria pollutants. A site summary is generated for each site and a yearly summary is generated for each pollutant-duration where a violation exists. There are 4 formats for this report:

- Site Summary – For each site with a violation, the report displays the day, value, the exceptional data type indicator, the number of primary violations and the number of secondary violations. A total count of the number of violating days, the number of primary violations, the number of secondary violations, and the number of valid days monitored are displayed for each site.
- 8-hour CO Site Summary – This format is only generated for 8-hour Carbon Monoxide records. For each site with a violation, the report displays the day, value, the exceptional data type indicator, the hour when the maximum violation occurred and the number of non-overlapping averages with violations. A total count of the number of violating days, and the number of non-overlapping violations are displayed.
- Area Summary – For each unique area (either a State or a Tribal area), pollutant, duration, and year, the following information is displayed: date of violation, highest violating site for the day, the total number of sites with violations for the day, the concentration of the highest violation for the day, and the exceptional data type.
- 8-hour CO Area Summary - For each unique area (either a State or a Tribal area), having 8-hour Carbon Monoxide violation within a year, the following information is displayed: date of violation, highest violating site for the day, the total number of sites with violations for the day, the concentration of the highest violation for the day, the exceptional data type, and the hour of the maximum violation.

3.31.2　　　Report Outputs

3.31.2.1　　Formatted Report

3.31.2.1.1　Site Summary

```
                    UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

                          VIOLATION DAY COUNT REPORT

                                                                    Jul. 15, 2005

                                Ozone (44201)
                                 PPM (007)
                          8-HR RUN AVG BEGIN HOUR (W)
                                    2004
                                 California

      MSA:   (2840) Fresno,CA

                                              MAXIMUM           NUMBER OF    NUMBER OF
                                      DATE OF  VIOLATION  EXCEPT PRIMARY     SECONDARY
      SITE ID        POC  COUNTY NAME VIOLATION VALUE     DATA?  VIOLATIONS  VIOLATIONS
      06-019-4001    1    Fresno      2004/06/04    .085  0          1           1
                                      2004/06/04    .085  0          1           1
                                      2004/06/16    .090  0          3           3
                                      2004/06/16    .090  0          3           3
                                      2004/08/09    .085  0          1           1
                                      2004/08/09    .085  0          1           1
                                      2004/08/11    .090  0          4           4
                                      2004/08/11    .090  0          4           4
                                      2004/08/30    .087  0          2           2
                                      2004/08/30    .087  0          2           2
                   SUMMARY FOR SITE   06-019-4001  POC  1 YEAR 2004      MAXIMUM VIOLATION VALUE       .090

                   VIOLATION DAYS              10
                   PRIMARY VIOLATIONS          22
                   SECONDARY VIOLATIONS        22
                   VALID DAYS MONITORED       121
```

3.31.2.1.2   8-Hour CO Site Summary

```
                      UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

                            VIOLATION DAY COUNT REPORT

                                                                    Jul. 15, 2005


                             Carbon monoxide (42101)
                                    PPM (007)
                            8-HR RUN AVG END HOUR (Z)
                                      2004
                                    Indiana

    MSA:   (3480) Indianapolis,IN


                                         MAXIMUM                HOUR OF    NON-
                                DATE OF  VIOLATION     EXCEPT    MAXIMUM    OVERLAPPING
                                VIOLATION VALUE        DATA?     VIOLATION  VIOLATIONS
    SITE ID      POC  COUNTY NAME
    18-063-0001  1    Hendricks          2004/01/01    13.7  0         9          2
                                         2004/01/01    13.7  0         9          2
                                         2004/01/02    10.0  0         9          2
                                         2004/01/02    10.0  0         9          2
                                         2004/09/02     9.8  0         3          1
                                         2004/09/02     9.8  0         3          1
                                         2004/09/05     9.9  0         8          1
                                         2004/09/05     9.9  0         8          1
                                         2004/09/11     9.6  0         7          1
                                         2004/09/11     9.6  0         7          1
                                         2004/09/13     9.6  0         8          1
                                         2004/09/13     9.6  0         8          1
                                         2004/09/22    10.6  0         8          3
                                         2004/09/22    10.6  0         8          3
                                         2004/09/23    10.5  0         1          2
                                         2004/09/23    10.5  0         1          2
                                         2004/09/30     9.8  0         7          1
                                         2004/09/30     9.8  0         7          1
            SUMMARY FOR SITE     18-063-0001  POC   1 YEAR 2004      MAXIMUM VIOLATION VALUE     13.7

                 VIOLATION DAYS                    18
                 NON-OVERLAPPING VIOLATIONS        28
```

3.31.2.1.3   Area Summary

```
                      UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

                            VIOLATION DAY COUNT REPORT

                                                                    Jul. 15, 2005


                                 Ozone (44201)
                                   PPM (007)
                           8-HR RUN AVG BEGIN HOUR (W)
                                     2004

                                   California

                  HIGHEST                       NUMBER OF   MAXIMUM
    DATE OF       VIOLATION                      VIOLATION   VIOLATION   EXCEPT
    VIOLATION     SITE        COUNTY NAME        SITES       VALUE       DATA?
    2004/06/04    06-019-4001  Fresno                1        .085   0
    2004/06/16    06-019-4001  Fresno                1        .090   0
    2004/07/26    06-019-0242  Fresno                2        .085   0
    2004/08/09    06-019-0008  Fresno                4        .092   0
    2004/08/10    06-019-0008  Fresno                4        .092   0
    2004/08/11    06-019-5001  Fresno                5        .103   0
    2004/08/12    06-019-0008  Fresno                1        .086   0
    2004/08/28    06-019-0007  Fresno                1        .085   0
    2004/08/29    06-019-0007  Fresno                2        .087   0
    2004/08/30    06-019-0007  Fresno                4        .091   0
    2004/08/31    06-019-0008  Fresno                3        .092   0
    2004/09/06    06-019-0007  Fresno                2        .090   0
    2004/09/07    06-019-0008  Fresno                4        .097   0
    2004/09/08    06-019-0008  Fresno                3        .092   0
    2004/09/09    06-019-0008  Fresno                2        .087   0
    2004/09/10    06-019-0008  Fresno                1        .087   0
    2004/09/11    06-019-0007  Fresno                1        .085   0
    2004/09/26    06-019-0007  Fresno                2        .093   0
    VIOLATION DAYS    18
```

3.31.2.1.4   8-Hour CO Area Summary

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

VIOLATION DAY COUNT REPORT

Jul. 15, 2005

Carbon monoxide (42101)

PPM (007)

8-HR RUN AVG END HOUR (Z)

2004

Indiana

DATE OF VIOLATION	HIGHEST VIOLATION SITE	COUNTY NAME	NUMBER OF VIOLATION SITES	MAXIMUM VIOLATION VALUE	EXCEPT DATA?	MAXIMUM VIOLATION HOUR
2004/01/01	18-063-0001	Hendricks	3	13.7	0	09
2004/01/02	18-063-0003	Hendricks	2	10.1	0	18
2004/01/26	18-063-0002	Hendricks	1	9.6	0	18
2004/01/27	18-063-0002	Hendricks	1	9.5	0	13
2004/01/28	18-063-0002	Hendricks	1	10.0	0	12
2004/02/01	18-063-0003	Hendricks	1	9.5	0	05
2004/03/04	18-063-0002	Hendricks	1	10.0	0	19
2004/03/10	18-063-0002	Hendricks	1	9.8	0	09
2004/03/13	18-063-0002	Hendricks	1	9.5	0	09
2004/03/18	18-063-0002	Hendricks	2	11.9	0	13
2004/03/19	18-063-0002	Hendricks	1	9.5	0	12
2004/03/24	18-063-0002	Hendricks	1	9.5	0	13
2004/07/30	18-063-0003	Hendricks	1	10.4	0	11
2004/08/18	18-063-0003	Hendricks	1	9.8	0	14
2004/08/19	18-063-0003	Hendricks	1	10.0	0	07
2004/08/20	18-063-0003	Hendricks	1	9.8	0	00
2004/08/21	18-063-0003	Hendricks	1	9.6	0	12
2004/08/22	18-063-0003	Hendricks	1	10.0	0	03
2004/08/23	18-063-0003	Hendricks	1	9.5	0	23
2004/08/24	18-063-0003	Hendricks	1	10.5	0	06
2004/08/26	18-063-0003	Hendricks	1	9.9	0	23
2004/08/27	18-063-0003	Hendricks	1	10.0	0	00
2004/09/02	18-063-0001	Hendricks	1	9.8	0	03
2004/09/05	18-063-0001	Hendricks	1	9.9	0	08
2004/09/11	18-063-0001	Hendricks	1	9.6	0	07
2004/09/13	18-063-0001	Hendricks	1	9.6	0	08
2004/09/22	18-063-0001	Hendricks	1	10.6	0	08
2004/09/23	18-063-0001	Hendricks	2	10.5	0	01
2004/09/30	18-063-0001	Hendricks	1	9.8	0	07

VIOLATION DAYS   29

3.31.2.2 Workfile Format

The workfile is comma-delimited. The columns within the workfile appear in the following order:

Order of Appearance	Column Name
1	State Code
2	State Name
3	County Code
4	County Name
5	AQS Site ID
6	Parameter Code
7	Parameter Description
8	POC
9	Duration Code
10	Duration Description
11	Year
12	MSA Code
13	MSA Name
14	Unit Code
15	Unit Description
16	Date of Violation (YYYYMMDD)
17	Maximum Hour of Violation
18	Maximum Value
19	Exceptional Data Type
20	Number of Primary Violations
21	Number of Secondary Violations
22	Number of Non-Overlapping Violations

3.31.2.3 XML Format

Not applicable for this report.

3.31.3 Report Options

Option Name	Default Value	Description
MERGE PDF FILES	NO	Choose whether or not you would like the cover page merged with the body of the report (pertains only to the formatted report output if generated in PDF format)
SINGLE EVENT PROCESSING	INCLUDE EVENTS	The data is summarized multiple times in cases where exceptional or natural events exist in the dataset. The following options are available • Include Events • Exclude Events • Exclude Exceptional Events • Exclude Natural Events • Exclude Regionally Concurred Events • Exclude Exceptional Events w/ Regional concurrence • Exclude Natural Events w/ Regional concurrence