

Data Input Formats for the Re-engineered Air Quality Subsystem

This document provides the format to process batch transactions for the Air Quality Subsystem. The first field of all input formats is the transaction type, which indicates the type of data in the record. (The valid transaction types are listed below.) The second field is the Action Indicator, which indicates the requested database manipulation action. The valid Action Indicators are: “I” for insert, “U” for update, and “D” for delete.

All transactions are pipe delimited (“|”). A delimiter does not need to follow the final field in a record, so there will always be one less delimiter than fields for the given transaction type. It is not essential that the proper number of delimiters be provided for a given transaction. So if you need to only update one column on the database with “Monitor Basic” information, you can ignore empty field delimiters in that row. If you need to report a given field as null, place two delimiters back to back (“||”). Text fields should not be enclosed with single or double quotation marks.

Other Notation: R - Field is required for any action
R(n) - Field is Required for action ‘n’ (R(I) means required for an Insert Action for example)
X(n) - Conditionally Required for action ‘n’

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Please Note

The “Formatting Rules” described on the following pages are a “quick reference” and are not intended to illustrate the complete validation procedures that a particular piece of data will be subject to.

The [AQS Data Coding Manual](#) explains business rules and errors in detail.

The [AQS Data Dictionary](#) fully describes the formatting requirements and data dependencies.

Data Input Formats

Site Information**AA Basic Site Information**

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	AA = Basic Site Info.
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table if Action Indicator is 'U' or 'D'
Latitude ^{X(I)}	Number - 10.6 signed
Longitude ^{X(I)}	Number - 11.6 signed
UTM Zone ^{X(I)}	Number - 2.0 format
UTM Easting ^{X(I)}	Number - 8.2 format
UTM Northing ^{X(I)}	Number - 8.2 format
Horizontal Collection Method ^{R(I)}	Must exist in LDP_COLLECTION_METHODS Reference Table
Horizontal Datum ^{R(I)}	Must exist in LDP_HORIZONTAL_DATA Reference Table
Source Scale ^{X(I)}	Number - 12.0 format
Horizontal Accuracy ^{R(I)}	Number - 8.2 format
Vertical Measure ^{R(I)}	Number - 8.2 format
Time Zone ^{R(I)}	Must exist in TIME_ZONES Reference Table, if supplied
Agency Code ^{R(I)}	Must exist in STATE_AGENCIES Reference Table
Street Address ^{R(I)}	Text
City Code	Must exist in CITIES Reference Table
Urban Area Code	Must exist in URBANIZED_AREAS Reference Table
AQCR	Must exist in AQCRS Reference Table, if supplied
Land Use Type ^{R(I)}	Must exist in LAND_USE_TYPES Reference Table
Location Setting ^{R(I)}	Must exist in LOCATION_SETTINGS Reference Table
Date Site Established ^{R(I)}	Date - YYYYMMDD format
Date Site Terminated	Date - YYYYMMDD format
Zip Code	Must exist in ZIP_CODES Reference Table, if supplied
Congressional District	Must exist in CONGRESSIONAL_DISTRICTS Reference Table, if supplied
Block	Must exist in BLOCKS Reference Table, if supplied
Block Group	This field is no longer utilized. It will be ignored.
Census Tract	Must exist in BLOCKS Reference Table, if supplied
Class I Area	Must exist in CLASS_ONE_AREAS Reference Table, if supplied
Local Region	Must exist in LOCAL_REGIONS Reference Table, if supplied
Local Site Name	Text
HQ Evaluation Date	Date - YYYYMMDD format
EPA Region Evaluation Date	Date - YYYYMMDD format
Direction from Central Business District to Site	Must exist in COMPASS_SECTORS Reference Table
Distance from Central Business District to Site	Number - 8.2 format
Meteorological Site Type	Must exist in MET_SITE_TYPES Reference Table, if supplied
Meteorological Site ID ^{X(I)}	Must exist in AQS Sites table if supplied
Distance to Meteorological Site ^{X(I)}	Number - 8.2 format
Direction to Meteorological Site ^{X(I)}	Must exist in COMPASS_SECTORS Reference Table, if supplied
Local Site ID	Text
Vertical Collection Method ^{R(I)}	Must exist in LDP_VERTICAL_METHODS Reference Table
Vertical Datum ^{R(I)}	Must exist in LDP_VERTICAL_DATA Reference Table
Vertical Accuracy ^{R(I)}	Number

Data Input Formats

AB Site Street Information

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	AB = Site Tangent Street Data
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Tangent Street Number ^R	Number - 2.0 format
Street Name ^{R(1)}	Text
Road Type ^{R(1)}	Must exist in ROAD_TYPES Reference Table
Traffic Count ^{R(1)}	Number - 12.0 format
Year of Traffic Count ^{R(1)}	Date - YYYY format
Direction from Site to Street ^{R(1)}	Must exist in COMPASS_SECTORS Reference Table
Source of Traffic Count	Must exist in TRAFFIC_VOLUME_SOURCES Reference Table, if supplied

AC Site Open Path Information

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	AC = Site Open Path Data
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Open Path Number ^R	Number - 2.0 format
Direction from Receiver to Transmitter ^{R(1)}	Must exist in COMPASS_SECTORS Reference Table
Beam Length ^{R(1)}	Number - 8.2 format
Height of Transmitter ^{R(1)}	Number - 8.2 format
Height of Receiver ^{R(1)}	Number - 8.2 format
Minimum Beam Height ^{R(1)}	Number - 8.2 format
Maximum Beam Height ^{R(1)}	Number - 8.2 format
Land Use Under Path ^{R(1)}	Must exist in LAND_USE_TYPES Reference Table

Monitor Information**MA Basic Monitor Information**

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	MA = Basic Monitor Information
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITOR table if Action Indicator is 'U' or 'D'
Project Class	Must exist in PROJECT_TYPES Reference Table, if supplied
Dominant Source	Must exist in DOMINANT_SOURCES Ref. Table, if supplied
Measurement Scale	Must exist in MEASUREMENT_SCALES Ref. Table, if supplied
Open Path Number	Must exist in Site Open Path Table, if supplied
Probe Location Code	Must exist in PROBE_LOCATIONS Reference Table, if supplied
Probe Height	Number - 8.2 format
Probe Horizontal Distance	Number - 8.2 format
Probe Vertical Distance	Number - 8.2 format
Surrogate Indicator	'Y' or 'N'
Unrestricted Air Flow Indicator	'Y' or 'N'
Sample Residence Time	Number - 8.2 format
Worst Site Type	Must exist in WORST_SITE_TYPES Reference Table, if supplied
Applicable NAAQS Indicator	'S', 'A', or 'B', if supplied
Spatial Average Indicator	'Y' or 'N', if supplied
Schedule Exemption Indicator	'Y' or 'N', if supplied
Community Monitoring Zone	Number - 4.0 format
Pollutant Area Code - 1	Must exist in POLLUTANT_AREAS Ref. Table, if supplied
Pollutant Area Code - 2	Must exist in POLLUTANT_AREAS Ref. Table, if supplied
Pollutant Area Code - 3	Must exist in POLLUTANT_AREAS Ref. Table, if supplied
Pollutant Area Code - 4	Must exist in POLLUTANT_AREAS Ref. Table, if supplied
Pollutant Area Code - 5	Must exist in POLLUTANT_AREAS Ref. Table, if supplied
Close Date	Date - YYYYMMDD

MB Monitor Sampling Periods

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	MB = Monitor Sampling Period
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Date Sampling Began ^R	Date - YYYYMMDD
Date Sampling Ended	Date - YYYYMMDD

MC Monitor Type Information

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	MC = Monitor Type Assignment
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Monitor Type ^R	Must exist in MONITOR_TYPES Reference Table
Monitor Type Begin Date ^R	Date - YYYYMMDD
Monitor Type End Date	Date - YYYYMMDD

Data Input Formats

MD Monitor Agency Role

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	(MD = Monitor Agency Role)
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Agency Role Name ^{R(I)}	Must exist in AGENCY_ROLES Reference Table
Agency Code ^R	Must exist in STATE_AGENCIES Reference Table
Agency Role Begin Date ^{R(I)}	Date - YYYYMMDD
Agency Role End Date	Date - YYYYMMDD

ME Monitoring Objective Information

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	ME = Monitor Objective
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Monitor Objective Type ^R	Must exist in MONITOR_OBJECTIVE_TYPES Reference Table
Urban Area Represented ^{X(I)}	Must exist in URBANIZED_AREAS Reference Table, if supplied
MSA Represented	Must exist in MSAS Reference Table, if supplied
CMSA Represented	Must exist in CMSAS Reference Table, if supplied
CBSA Represented ^{X(I)}	Must exist in CORE_BASED_STATISTICAL_AREAS Reference Table, if supplied
CSA Represented ^{X(I)}	Must exist in COMBINED_STATISTICAL_AREAS Reference Table, if supplied

MF Monitor Sampling Schedule

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	MF = Monitor Sample Schedule
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Required Collection Frequency Code ^R	Must exist in COLLECTION_FREQUENCIES Reference Table
Required Collection Frequency Begin Date ^R	Date - YYYYMMDD format
Required Collection Frequency End Date	Date - YYYYMMDD format
Monthly Required Collection Frequency – Jan.	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Feb	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Mar	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Apr	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – May	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Jun	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Jul	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Aug	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Sep	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Oct	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Nov	Number – 12.0 format, if supplied
Monthly Required Collection Frequency – Dec	Number – 12.0 format, if supplied

Data Input Formats

MG Monitor Tangent Roads

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	MG = Monitor Tangent Road
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Tangent Street Number ^R	Must exist in Site Tangent Street Table
Distance from Monitor to Tangent Road ^{R(I, U)}	Number - 8.2 format

MH Monitor Obstruction Information

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	MH = Monitor Obstruction
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Probe Obstruction Type ^R	Must exist in PROBE_OBSTRUCTION_TYPES Ref. Table
Direction from Monitor to Probe Obstruction ^R	Must exist in COMPASS_SECTORS Reference Table
Distance from Monitor to Probe Obstruction ^R	Number - 8.2 format
Probe Obstruction Height ^R	Number - 8.2 format

MI Monitor Regulatory Compliance

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	MI = Monitor Reg. Compliance
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Regulation Code ^R	Must exist in PARAMETER_REGULATIONS Reference Table
Compliance Indicator	'Y' or 'N'
Compliance Date	Date - YYYYMMDD format

MJ Monitor Collocation Period

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	MJ = Monitor Collocation Period
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Collocation Begin Date ^R	Date - YYYYMMDD format
Collocation End Date	Date - YYYYMMDD format
Distance from Primary Sampler	Number - 8.2 format
Primary Sampler Indicator ^R	'Y' or 'N'

Data Input Formats

MK Monitor ProtocolField NameTransaction Type^RAction Indicator^RState Code / Tribal Indicator^RCounty Code / Tribal Code^RSite ID^RParameter^RPOC^RMonitor Protocol ID (MP ID)^RDuration Code^{R(I)}Reported Unit^{R(I)}Method Code^{R(I)}

Collection Frequency Code

Composite Type

Alternate Method Detectable Limit

Formatting Rule

MK = Monitor Protocol

Must = I, U, or D

Must exist in STATES Reference Table or be 'TT' for Tribal Site

Must exist in COUNTIES or TRIBAL_AREAS Reference Table

Must exist in SITES table with the {State Code, County Code} or

Tribal Code

Must exist in PARAMETERS Reference Table

Must exist in MONITORS table with Parameter

Number - 2.0 format

Must exist in SAMPLE_DURATIONS Reference Table

Must exist in UNITS Reference Table

Must exist in SAMPLING_METHODOLOGIES Reference Table

Must exist in COLLECTION_FREQUENCIES Reference Table,
if valued

Must exist in COMPOSITE_TYPES Reference Table, if valued

Number - 5.5 format

Reported Data Values**RC Composite Raw Data**

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	RC = Composite Data Type
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Reported Unit ^{R(I)}	Must exist in UNITS Reference Table
Method Code ^{R(I)}	Must exist in SAMPLING_METHODOLOGIES Reference Table
Composite Year ^R	Date – YYYY format
Composite Period ^R	Must exist in COMPOSITE_TYPES Reference Table
Number of Samples ^{R(I)}	Number – 10.0 format
Composite Type	Must exist in COMPOSITE_TYPES Reference Table
Reported Sample Value ^{R(I)}	Number - 5.5 format
Monitor Protocol ID (MP ID)	Must exist in Monitor Protocols table for the monitor
Qualifier Code -1	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -2	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -3	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -4	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -5	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -6	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -7	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -8	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -9	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -10	Must exist in QUALIFIERS Reference Table, if valued
Alternate Method Detectable Limit	Number - 5.5 format
Uncertainty Value	Number - 6.5 format

RD Hourly, Daily, and Sub Hourly Raw Data

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	RD = Raw Data Type
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITOR table with Parameter
Duration Code ^{R(I)}	Must exist in SAMPLE_DURATIONS Reference Table
Reported Unit ^{R(I)}	Must exist in UNITS Reference Table
Method Code ^{R(I)}	Must exist in SAMPLING_METHODOLOGIES Reference Table
Sample Date ^R	YYYYMMDD format
Sample Time ^R	hh:mm format
Reported Sample Value ^{X(I,U)}	Number - 5.5 format
Null Data Code ^{X(I,U)}	Must exist in QUALIFIERS Reference Table, if valued
Collection Frequency Code	Must exist in COLLECTION_FREQUENCIES Reference Table
Monitor Protocol ID (MP ID)	Must exist in Monitor Protocols Table for the Monitor
Qualifier Code -1	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -2	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -3	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -4	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -5	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -6	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -7	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -8	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -9	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -10	Must exist in QUALIFIERS Reference Table, if valued
Alternate Method Detectable Limit	Number - 5.5 format
Uncertainty Value	Number – 6.5 format

Data Input Formats

RA Accuracy Data

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	RA = Raw Accuracy Data
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Accuracy Audit ID Number	Number - 2.0 format (Legacy "Sequence #")
Duration Code ^{R(I,U)}	Must exist in SAMPLE_DURATIONS Reference Table
Reported Unit ^{R(I,U)}	Must exist in UNITS Reference Table
Method Code ^{R(I,U)}	Must exist in SAMPLING_METHODODOLOGIES Reference Table
Year Represented	Date - YYYY format
Quarter Represented	'Q1', 'Q2', 'Q3', or 'Q4'
Accuracy Date ^R	Date - YYYYMMDD format
Audit Type ^{R(I)}	Must exist in AUDIT_TYPES Reference Table
Local Primary Standard ^{R(I)}	Must exist in LOCAL_PRIMARY_STANDARDS Reference Table
Audit Class ^{R(I)}	Must exist in AUDIT_CALASES Reference Table
Accuracy Type ^{R(I)}	Must exist in ACCURACY_TYPES Reference Table, if supplied
Audit Sample ID	Text
Expiration Date	Date - YYYYMMDD format
Audit Scheduled	Date - YYYYMMDD format
Level 1 Actual Value ^{X(I,U)}	Number - 5.5 format
Level 1 Indicated Value ^{X(I,U)}	Number - 5.5 format
Level 2 Actual Value ^{X(I,U)}	Number - 5.5 format
Level 2 Indicated Value ^{X(I,U)}	Number - 5.5 format
Level 3 Actual Value ^{X(I,U)}	Number - 5.5 format
Level 3 Indicated Value ^{X(I,U)}	Number - 5.5 format
Level 4 Actual Value ^{X(I,U)}	Number - 5.5 format
Level 4 Indicated Value ^{X(I,U)}	Number - 5.5 format
Level 5 Actual Value ^{X(I,U)}	Number - 5.5 format
Level 5 Indicated Value ^{X(I,U)}	Number - 5.5 format
Zero Span	Number - 5.5 format

RP Precision Data

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	RP = Raw Precision Data
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Precision ID ^R	Number - 2.0 format
Duration Code ^{R(I,U)}	Must exist in SAMPLE_DURATIONS Reference Table
Reported Unit ^{R(I,U)}	Must exist in UNITS Reference Table
Actual Method ^{R(I,U)}	Must exist in SAMPLING_METHODODOLOGIES Reference Table
Precision Date ^R	Date - YYYYMMDD format
Actual Value	Number - 5.5 format
Indicated Method	Must exist in SAMPLING_METHODODOLOGIES Reference table
Collocated POC ^{X(I)}	Indicated Value Number - 5.5 format
Precision Sample ID	Must exist in MONITOR Table (only for collocated data)
Agency Performing FRM Audit ^{X(I)}	Text - Up to 10 characters
	Must exist with STATE_AGENCIES Table (only for FRM data)

Data Input Formats

RS Annual Summary Data

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	Must exist in Reference Table (RS = Annual Summary)
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table with Parameter
Duration Code ^{R(I,U)}	Must exist in SAMPLE_DURATIONS Reference Table
Reported Unit ^{R(I,U)}	Must exist in UNITS Reference Table
Method Code ^{R(I,U)}	Must exist in SAMPLING_METHODODOLOGIES Reference Table
Summary Year ^R	Date - YYYY format
Exceptional Data Type ID ^R	'0', '1', or '2'
Count of Observations	Number - 5.0 format
Count of Exceptional Events	Number - 5.0 format
Maximum Value	Number - 5.5 format
Maximum Value Date	Date - YYYYMMDD Format
Maximum Value Time	Date - hh:mm format
Maximum Value 2nd Highest	Number - 5.5 format
Maximum Value Date 2nd Highest	Date - YYYYMMDD format
Maximum Value Time 2nd Highest	hh:mm format
Maximum Value 3rd Highest	Number - 5.5 format
Maximum Value 4th Highest	Number - 5.5 format
Maximum Value 5th Highest	Number - 5.5 format
Minimum Sample Value	Number - 5.5 format
Arithmetic Mean	Number - 5.5 format
Arithmetic Standard Deviation	Number - 5.5 format
Geometric Mean	Number - 5.5 format
Geometric Standard Deviation	Number - 5.5 format
Percentile Sample Value - 10th	Number - 5.5 format
Percentile Sample Value - 25th	Number - 5.5 format
Percentile Sample Value - 50th	Number - 5.5 format
Percentile Sample Value - 75th	Number - 5.5 format
Percentile Sample Value - 90th	Number - 5.5 format
Percentile Sample Value - 95th	Number - 5.5 format
Percentile Sample Value - 98th	Number - 5.5 format
Percentile Sample Value - 99th	Number - 5.5 format
Percent of Observations	Number - 6.4 format
Count of Half-MDL Substitutions	Number - 5.0 format

At least one of these fields must be valued on an Insert or Update

Data Input Formats

RB Blanks Data

<u>Field Name</u>	<u>Formatting Rule</u>
Transaction Type ^R	RB = Raw Blanks Type
Action Indicator ^R	Must = I, U, or D
State Code / Tribal Indicator ^R	Must exist in STATES Reference Table or be 'TT' for Tribal Site
County Code / Tribal Code ^R	Must exist in COUNTIES or TRIBAL_AREAS Reference Table
Site ID ^R	Must exist in SITES table with the {State Code, County Code} or Tribal Code
Parameter ^R	Must exist in PARAMETERS Reference Table
POC ^R	Must exist in MONITORS table (with Parameter)
Duration Code ^{R(I,U)}	Must exist in SAMPLE_DURATIONS Reference Table
Reported Unit ^{R(I,U)}	Must exist in UNITS Reference Table
Method Code ^{R(I,U)}	Must exist in SAMPLING METHODOLOGIES Reference Table
Blank Type ^R	Either 'FIELD' or 'TRIP'
Blank Date ^R	YYYYMMDD format
Blank Time ^R	hh:mm format
Blank Value ^{X(I)}	Number - 10.5 format
Null Data Code ^{X(I,U)}	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -1	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -2	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -3	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -4	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -5	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -6	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -7	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -8	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -9	Must exist in QUALIFIERS Reference Table, if valued
Qualifier Code -10	Must exist in QUALIFIERS Reference Table, if valued
Alternate Method Detectable Limit	Number - 5.5 format
Uncertainty Value	Number - 6.5 format