XML Schema for

Ambient Data Submission

Revision History

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| --- | --- | --- | --- |
| **Version** | **Date** | **Author(s)** | **Revision Notes** |
| 0.1 | September 7, 2018 | Environment and Resources | Initial document |
| 1.0 | September 19, 2018 | IMT Environment and Resources | Draft version |
| 1.1 | October 5, 2018 | IMT Environment and Resources | Removed calibration data |
| 1.2 | October 23, 2018 | IMT Environment and Resources | Changed Station ID from integer to string |
| 1.3 | October 23, 2018 | IMT Environment and Resources | Provided Approval ID example |
| 1.4 | October 29, 2018 | IMT Environment and Resources | Changed Flags and Comments to string |
| 1.5 | November 2, 2018 | IMT Environment and Resources | Initial changes based on industry feedback—corrections to field requirements; release to industry testers |
| 1.6 | December 20, 2018 | IMT Environment and Resources | Embedded schema |
| 1.7 | January 8, 2019 | IMT Environment and Resources | Added schema version and embedded schema |
| 1.8 | February 6, 2019 | Air Policy | Added naming convention to data dictionary |
| 1.9 | February 21, 2019 | IMT Environment and Resources | Updated Parameter ID from integer to string |
| 2.0 | August 2, 2019 | IMT Environment and Resources | Introduced major upgrade to embedded schema and field descriptions: addition of VVC code, removal of Equipment, addition of Version control and reorganization of Lab and Sample (for use from November 15, 2019 forward) |

Air Monitoring Directive Chapter 9: Reporting requires the electronic submission of ambient data to the department. This document outlines the XML file format that is required for the submission of ambient data both for airsheds and for Industry.

Please note that the possible values for some of the [XML](https://www.w3schools.com/xml/default.asp) fields will be communicated later and minor changes to the [XML Schema](https://www.w3schools.com/xml/schema_intro.asp) may be needed in the future.

XML Schema – for use from November 15, 2019 5:00 p.m. MST and going forward

See attached:



Naming Convention

File naming convention for industry:

 AMB-######## (8 digit approval number)-YYYYMM-Comments.xml

 E.g.: AMB-00000112-201901.xml

File naming convention for airsheds:

 AMB-<XXXXX (airshed acronym)>-YYYYMM-Comments.xml

 E.g.: AMB-FAP-201901.xml

Field Descriptions

|  |  |  |
| --- | --- | --- |
| **Field** | **Description** | **Required** |
| Data |  | Yes |
|  schemaVersion | This is the schema version of the ambient and must be provided by the user in decimal i.e., <Data schemaVersion=”2.0” > | Yes |
| General Comments | Comment about the entire data set  | No |
| Interval |  | Yes |
| Start  | Start date and time of the period for which a measurement was takenFormat: YYYY-MM-DDThh:mm:ss.ttt | Yes |
| End | End date and time of the period for which a measurement was takenFormat: YYYY-MM-DDThh:mm:ss.ttt | Yes |
| Station  |  | Yes |
| ID | Unique identification number created by the department which is assigned to the station | Yes |
| Longitude | Location of mobile station (Decimal degrees to 6 decimal places) | No |
| Latitude | Location of mobile station (Decimal degrees to 6 decimal places) | No |
| Elevation | Location of mobile station (whole meters above sea level) | No |
| Program Code | Code from a list provided by the department which specifies the purpose of the monitoring(refer to the submitters’ guide) | Yes |
| Project ID | Identification number assigned by the department for special projects | No |
| Approval ID | EPEA approval number for industry submissions (8 digits max). The Approval excludes the renewal sequence and amendment sequence numbers. E.g., for approval 00000111-01-01, the Approval ID would be the root approval only: 111 | No |
| Contravention Number | Provided by the Alberta Environmental and Dangerous Goods Emergencies (EDGE) when reported if the data is in exceedance | No |
| ValidVariableCombination |  | Yes |
|  VvcCode | Unique Combination of ParameterID, MethodCode, Unit, CollectionType and TimeCode (refer to the [reference tables](https://training.energy.gov.ab.ca/Pages/Air.aspx)) | Yes |
|  Value | Measurement of the VvcCode in decimal | No |
| Sample |  | No |
| Sample Reference | A unique reference ID assigned by the lab to each sample | Yes |
| Date Analyzed | Date the sample was analyzed by the lab—this can differ for various parameters for one sampleFormat: YYYY-MM-DDT(refer to the submitters’ guide for format) | Yes |
| LabId | Code of laboratory facilities performing the analysis from a list provided by the department(refer to the submitters’ guide) | Yes |
| Lab Accredited | Sample analyzed in a laboratory accredited to ISO/IEC 17025 for the specific parameter analyzed  (true/false) | Yes |
|  Method Detection Limit | Minimum level that the analysis method can accurately measure for the given parameter—must be reported in the same unit as the parameter | Yes |
| Volume | Volume of the sample collected | No |
| VolumeUnit | Volume unit code from a list provided by the department (refer to the submitters’ guide) | No |
| Period Duration | Total time that the pump was operating (hh:mm:ss) | No |
| Date Shipped | Date the sample was shipped to the lab for analysisFormat: YYYY-MM-DDT(refer to the submitters’ guide for format) | No |
| Date Received | Date the sample was received by the labFormat: YYYY-MM-DDT(refer to the submitters’ guide for format) | No |
| Gauge Depth | Depth of the sample gauge used for precipitation measurements (Units in mm) | No  |
| Bucket Diameter | Diameter of the catch bucket used for precipitation measurements (Units in mm) | No |
| Flags | Zero or more flags (comma separated) from a list provided by the department (see submitters’ guide).  | No |
| Comments | Comments on a single measurement | No |

Reference Links

* [XML Overview](https://www.w3schools.com/xml/default.asp)
* [Schema Overview](https://www.w3schools.com/xml/schema_intro.asp)