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# Filtered Results

For all extracts, only the following results are included:

* Records where the Location Type Codes do not start with a “D”
* Records where the Location Type Codes do not start with a “P”
* Observed properties must have a value
* Water and Soil Extracts
  + Medium is either WATER or “SOLIDS – SOIL”
* Air Extracts
  + Medium is like AIR
  + Note that the air extracts are a union of three different queries. The base data is extracts, and to that data is extracted where the air flow volume is not null (to get the air flow volume data), the air filter size is not null (to get the filter size data).
* Continuous Profiles
  + Like Air, the continuous profiles data is a combination of 3 queries to retrieve the continuous maximum, continuous average, and continuous minimum. To determine if the data is of type “continuous maximum”, we look at the fields continuous\_minimum, continuous\_maximum, or continuous\_average have data in them. We only return records where these columns have data.
* Vertical Profile
  + An intermediary table called VERTICAL\_PROFILES was created that includes all of the locations that should be included in this extract.

# Running the Data Extract Query

The data conversion scripts are in GithHub here: <https://github.com/bcgov/nr-enmods-dar/tree/documentation/data%20conversion>

Note that this is currently in a branch. This will ultimately be merged into the documentation folder in the main branch.

You can run the query in your SQL IDE of choice, this documentation assumes the IDE used is SQL Developer.

To run the query:

1. Open a new SQL Window

A screenshot of a computer

AI-generated content may be incorrect.

1. Copy and paste the “data conversion.sql” script into the new SQL Script window.
2. The query is created in such a way that there are two common table expressions (CTE) (“core data” and “sample data”) that are referenced by the queries to extract water, air, etc. The “core data” CTE is the query used to retrieve all sample and related results data. The “sample data” is a query used to just retrieve the sample data. A CTE was used so that the same query could be re-used for water, air, etc.

To reuse the CTEs, the water and air queries are both included in the single query. If you want to just run one query, then comment out the other query.

1. To run the query, press the green “play button”

A screenshot of a computer

AI-generated content may be incorrect.

1. The queries can take a long time to run (around 10 minutes). Exporting all results to a CSV file takes much longer (up to 3 hours for the water extract, less than half an hour for the air extract). To extract the results to a CSV file, right click in the results section and click “Export…”

A screenshot of a computer

AI-generated content may be incorrect.

Ensure that the format is “csv”, give it a path to save the export to, and click next to save the file.

A screenshot of a computer

AI-generated content may be incorrect.

# Water/Soil Data Extract

The medium is used to determine the data that appears in this extract. If the medium is like WATER or “SOLIDS – SOIL” then that data is included.

Only results where the result unit code and mdl unit code are present are included in the results.

Results where the observed property are blank are excluded.

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Description** | **Source Table.Column or Logic** |
| **Observation ID** | Unique identifier for each observation. Not yet implemented (currently blank). | Always Blank |
| **Ministry Contact** | The name of the ministry staff who oversaw or initiated the sampling event. | print.staffs.first\_name || ' ' || print.staffs.last\_name |
| **Sampling Agency** | The agency responsible for collecting the sample. | ems\_client\_locations.id || ' - ' || ems\_client\_locations.name |
| **Project** | Hardcoded value identifying the project. | 'BCLMN' |
| **Work Order Number** | The requisition or work order under which the sample was collected. | ems\_samples.requisition\_id |
| **Location ID** | Identifier for the monitoring location. | ems\_samples.mon\_locn\_id |
| **Field Visit Start Time** | Earliest start time of the sampling activity at a location on a given day, formatted in ISO8601 with -08:00 offset. | MIN(collection\_start\_date) from ems\_samples using an inline subquery to get the earliest start and latest end times for each MON\_LOCN\_ID per day |
| **Field Visit End Time** | Latest end time of the sampling activity at a location on a given day, unless equal to start time (then null). | MAX(collection\_end\_date) from ems\_samples (inline subquery eal.latestendtime)  if earlieststarttime = latestendtime, don't display the end date and time |
| **Field Visit Participants** | Name or identifier of the individual who performed the sampling. | ems\_samples.sampler |
| **Field Visit Comments** | General comments about the field visit. | ems\_samples.field\_comment AS Activity Comments |
| **Activity Comments** | Duplicate of field comment for internal tracking. | ems\_samples.field\_comment |
| **Field Filtered** | Indicates whether the sample was filtered in the field (always null in current dataset). | Always Blank |
| **Field Filtered Comment** | Comment on field filtering if applicable (always null in current dataset). | Always Blank |
| **Field Preservative** | Describes the chemical or process used to preserve the sample in the field. | ems\_preservatives.description |
| **Field Device ID** | Unique identifier for the field instrument (left blank). | Always Blank |
| **Field Device Type** | Describes the field device or method used (mapped from parameter and method). | OBSERVED\_PROPERTIES\_FOR\_ETL.Device\_Type |
| **Sampling Context Tag** | Additional context for sampling event (left blank). | Always Blank |
| **Collection Method** | Describes how the sample was collected (e.g., Grab, Composite). Complex logic based on ems\_collection\_methods.code. | ems\_collection\_methods.code |
| **Medium** | The environmental medium sampled (e.g., WATER). | ems.ems\_locn\_state\_descriptor\_export\_map.enmods\_medium |
| **Depth Upper** | Upper boundary of the sample depth, in meters. | ems\_samples.depth\_upper |
| **Depth Lower** | Lower boundary of the sample depth, in meters. | ems\_samples.depth\_lower |
| **Depth Unit** | Unit of measure for depth (always 'metre' if upper/lower present). | 'metre' if depth exists else NULL |
| **Observed DateTime** | Date and time the sample was collected, formatted with offset. | ems\_samples.collection\_start\_date  If there's a duplicate, increment the observed date by one minute for each instance of the duplicate. |
| **Observed Date Time End** | Date and time sampling ended, null if same as start. | ems\_samples.collection\_end\_date |
| **Observed Property ID** | Mapped combination of parameter, method, and unit for standardized reporting. | OBSERVED\_PROPERTIES\_FOR\_ETL.NewNameID |
| **Result Value** | Numeric result from field or lab analysis. | ems\_results.result\_numeric |
| **Method Detection Limit** | Lowest concentration reliably detectable; converted to target unit if needed. | ems\_results.method\_detect\_limit or ems\_parm\_dicts.METHOD\_DETECT\_LIMIT |
| **Method Reporting Limit** | Minimum reportable value (not provided, left blank). | NULL |
| **Result Unit** | Unit for result value (e.g., mg/L). | AQS\_UNITS\_TEMP.AQS\_NAME\_ON\_IMPORT |
| **Detection Condition** | Indicates result is below detection limit if result\_letter = '<'. | ems\_results.result\_letter |
| **Limit Type** | Type of limit applied (not used in EMS, left blank). | NULL |
| **Fraction** | Sample fraction type (e.g., total, dissolved), from mapping table. | OBSERVED\_PROPERTIES\_FOR\_ETL.Fraction |
| **Data Classification** | Category of result: FIELD\_RESULT, LAB, QC, etc. | OBSERVED\_PROPERTIES\_FOR\_ETL.Classification |
| **Source of Rounded Value** | Not used in EMS, left blank. | NULL |
| **Rounded Value** | Rounded version of result (not implemented, left blank). | NULL |
| **Rounding Specification** | Specification used to round values (left blank). | NULL |
| **Analyzing Agency** | Agency that performed the lab analysis. | ems\_client\_locations.short\_name |
| **Analysis Method** | Code for the analytical method used to produce the result. | ems\_results.anal\_method\_cd |
| **Analyzed Date Time** | Date sample was analyzed in lab, defaults to observed date if null. | ems\_results.analytical\_date or ems\_samples.collection\_start\_date |
| **Result Status** | Always set to 'Preliminary'. | 'Preliminary' |
| **Result Grade** | Always set to 'Ungraded'. | 'Ungraded' |
| **Activity ID** | Not currently used (left blank). | NULL |
| **Activity Name** | Unique identifier of the sample activity. | ems\_samples.id |
| **Tissue Type** | Type of tissue sampled (blank for water). | ems\_tissue\_types.description |
| **Lab Arrival Temperature** | Temperature at which the sample arrived at the lab. | ems\_samples.lab\_arrival\_temperature |
| **Specimen Name** | Name assigned to biological specimen, or blank if not applicable. | OBSERVED\_PROPERTIES\_FOR\_ETL.OP\_Group.  To introduce uniqueness to each record, -n (where n is the incremented duplicate number starting at 2) is appended to the specimen name in cases where there are multiple records with the same:   * Location ID * Field Visit Start Time * Medium * Depth Upper * Activity Name * Specimen Name * Data Classification * QC Type * Observed Property ID   For example, if there are three rows with the same values as above, then the specimen name would be  {specimen name}  {specimen name}-2  {specimen name}-3  If the data classification is LAB or SURROGATE\_RESULT, and the specimen name is blank, then set the specimen name to "Activity Name" (which is the same as the smpl.id column) |
| **Lab Quality Flag** | Indicator for lab quality issue (left blank). | NULL |
| **Lab Arrival Date and Time** | Timestamp when the sample arrived at the lab. | ems\_samples.lab\_arrival\_date |
| **Lab Prepared DateTime** | Timestamp when the lab prepared the sample (left blank). | NULL |
| **Lab Sample ID** | Lab-generated ID to track the sample. | ems\_results.lab\_sample\_id |
| **Lab Dilution Factor** | Dilution factor used in lab (left blank). | NULL |
| **Lab Comment** | Comment field associated with lab work. | ems\_samples.lab\_comment |
| **Lab Batch ID** | Identifier for the lab batch in which the sample was processed. | ems\_results.lab\_batch\_id |
| **QC Type** | Classifies sample as Replicate, Blank, or Spike based on sample class description. | ems\_sample\_classes.description |
| **QC Source Activity Name** | Name of the activity that the QC sample was based on (left blank). | NULL |
| **Composite Stat** | Statistical method used for composites (not used for lakes, left blank). | NULL |

# Post Processing of Water Data Extracts

The data extract for water is roughly 10GB in size, and thus cannot be opened easily. As such, the following commands are executed (using terminal on a Mac) against the data extract to split the file into multiple files, each with roughly 700,000 records.

To split the file into multiple files:

*split -l 699999 -d {file\_name}.csv split\_part\_*

To add the header row to each file:

*header=$(head -n 1 {file\_name}.csv)*

*for file in split\_part\_\*; do*

*(echo "$header" && cat "$file") > "water\_$file"*

*rm "$file"*

*done*

Note that the first file will have a duplicate header as a result of this, you can manually delete the duplicate header after.

# Air Data Extract

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Description** | **Source Table.Column or Logic** |
| **Observation ID** | Unique identifier for each observation (placeholder, currently blank). | N/A |
| **Ministry Contact** | Name of the person from the ministry responsible for the sample. | print.staffs.first\_name || ' ' || print.staffs.last\_name |
| **Sampling Agency** | Agency responsible for collecting the sample. | ems\_client\_locations.id || ' - ' || ems\_client\_locations.name |
| **Project** | Fixed project name for this dataset. | 'BCLMN' |
| **Work Order Number** | ID that links this sample to a specific work order or requisition. | ems\_samples.requisition\_id |
| **Location ID** | Monitoring location ID where the sample was collected. | ems\_samples.mon\_locn\_id |
| **Field Visit Start Time** | Start time of the sampling visit, formatted with timezone offset. | MIN(collection\_start\_date) via eal.earlieststarttime |
| **Field Visit End Time** | End time of the sampling visit, omitted if same as start time. | MAX(collection\_end\_date) via eal.latestendtime  Field Visit End Time will be null if it equals Field Visit Start Time. |
| **Field Visit Participants** | Individuals or team who collected the sample. | ems\_samples.sampler |
| **Field Visit Comments** | Comments regarding the field visit. | ems\_samples.field\_comment |
| **Activity Comments** | Duplicate of field visit comments, used internally. | ems\_samples.field\_comment |
| **Field Filtered** | Indicates if field filtration occurred (always null in EMS). | NULL |
| **Field Filtered Comment** | Comment about field filtration (always null in EMS). | NULL |
| **Field Preservative** | Substance used to preserve the sample on site. | ems\_preservatives.description |
| **Field Device ID** | ID of the field instrument (not captured, always null). | NULL |
| **Field Device Type** | Device type or method, mapped via OBSERVED\_PROPERTIES\_FOR\_ETL. | OBSERVED\_PROPERTIES\_FOR\_ETL.Device\_Type |
| **Sampling Context Tag** | Extra tag for context (always null). | NULL |
| **Collection Method** | Sampling method determined from ems\_collection\_methods.code with extensive mapping logic. | ems\_collection\_methods.code |
| **Medium** | Type of medium sampled (e.g., AIR, WATER). | ems\_locn\_state\_descriptor\_export\_map.enmods\_medium |
| **Depth Upper** | Upper depth in meters (if applicable). | ems\_samples.depth\_upper |
| **Depth Lower** | Lower depth in meters (if applicable). | ems\_samples.depth\_lower |
| **Depth Unit** | Unit for depth ('metre' when upper/lower depth provided). | Set to ‘metre’ if either Depth Upper or Depth Lower is present; otherwise NULL. |
| **Observed DateTime** | Date and time sampling began (ISO format with offset). | ems\_samples.collection\_start\_date  If there's a duplicate, increment the observed date by one minute for each instance of the duplicate. |
| **Observed Date Time End** | End time of observation, null if same as start. | ems\_samples.collection\_end\_date |
| **Observed Property ID** | Derived property ID from parameter, method, and unit mapping or labeled values for air. | OBSERVED\_PROPERTIES\_FOR\_ETL.NewNameID or hardcoded |
| **Result Value** | Measured result from sample or field observation. | ems\_results.result\_numeric or smpl.flow, smpl.filter\_size |
| **Method Detection Limit** | Limit of detection, unit converted if needed. | ems\_results.method\_detect\_limit, ems\_parm\_dicts.METHOD\_DETECT\_LIMIT |
| **Method Reporting Limit** | Minimum value to report (blank). | NULL |
| **Result Unit** | Unit for result values (e.g., ug/m3, um). | AQS\_UNITS\_TEMP.AQS\_NAME\_ON\_IMPORT or smpl.flow\_unit\_cd or hardcoded |
| **Detection Condition** | Flag indicating if result is below detection threshold. | ems\_results.result\_letter |
| **Limit Type** | Left blank (not tracked in EMS). | NULL |
| **Fraction** | Part of sample measured (e.g., total, dissolved). | OBSERVED\_PROPERTIES\_FOR\_ETL.Fraction |
| **Data Classification** | Indicates data source: LAB, FIELD\_RESULT, ACTIVITY\_RESULT. | OBSERVED\_PROPERTIES\_FOR\_ETL.Classification or hardcoded |
| **Source of Rounded Value** | Blank (not used in EMS). | NULL |
| **Rounded Value** | Blank (not used in EMS). | NULL |
| **Rounding Specification** | Blank (not used in EMS). | NULL |
| **Analyzing Agency** | Agency that analyzed the sample. | ems\_client\_locations.short\_name |
| **Analysis Method** | Lab method code (null for field/volume observations). | ems\_results.anal\_method\_cd |
| **Analyzed Date Time** | Date when sample was analyzed, or fallback to observed date. | ems\_results.analytical\_date or smpl.collection\_start\_date |
| **Result Status** | Set to 'Preliminary'. | 'Preliminary' |
| **Result Grade** | Set to 'Ungraded'. | 'Ungraded' |
| **Activity ID** | Blank (not extracted from EMS). | NULL |
| **Activity Name** | Sample ID representing the activity. | [ems\_samples.id](http://ems_samples.id) |
| **Tissue Type** | Type of biological tissue sampled, if applicable. | ems\_tissue\_types.description |
| **Lab Arrival Temperature** | Temperature at lab intake. | ems\_samples.lab\_arrival\_temperature |
| **Specimen Name** | Group/specimen label for biological or field classification. | OBSERVED\_PROPERTIES\_FOR\_ETL.OP\_Group  To introduce uniqueness to each record, -n (where n is the incremented duplicate number starting at 2) is appended to the specimen name in cases where there are multiple records with the same:   * Location ID * Field Visit Start Time * Medium * Depth Upper * Activity Name * Specimen Name * Data Classification * QC Type * Observed Property ID   For example, if there are three rows with the same values as above, then the specimen name would be  {specimen name}  {specimen name}-2  {specimen name}-3  If the data classification is LAB or SURROGATE\_RESULT, and the specimen name is blank, then set the specimen name to "Activity Name" (which is the same as the smpl.id column) |
| **Lab Quality Flag** | Quality control flags from lab (not implemented). | NULL |
| **Lab Arrival Date and Time** | Timestamp for when the lab received the sample. | ems\_samples.lab\_arrival\_date |
| **Lab Prepared DateTime** | Blank (not tracked). | NULL |
| **Lab Sample ID** | ID used to identify sample in the lab. | ems\_results.lab\_sample\_id |
| **Lab Dilution Factor** | Blank (not captured in EMS). | NULL |
| **Lab Comment** | Lab notes or comments about the sample. | ems\_samples.lab\_comment |
| **Lab Batch ID** | Identifier for the lab batch. | ems\_results.lab\_batch\_id |
| **QC Type** | Sample classification: Replicate, Blank, Spike, or empty. | ems\_sample\_classes.description |
| **QC Source Activity Name** | Blank (not linked). | NULL |
| **Composite Stat** | Blank, not tracked for air samples. | NULL |
| **Observed Property ID** | Hardcoded as 'Air Volume (vol.)'. (Used in: Air Flow Volume section). | 'Air Volume (vol.)' |
| **Result Value** | Flow volume from the air sample. (Used in: Air Flow Volume section). | ems\_samples.flow |
| **Result Unit** | Flow volume unit from measurement units. (Used in: Air Flow Volume section). | ems\_measurment\_units.short\_name |
| **Observed Property ID** | Hardcoded as 'Air Filter Size (len.)'. (Used in: Air Filter Size section). | 'Air Filter Size (len.)' |
| **Result Value** | Air filter size from the sample. (Used in: Air Filter Size section). | ems\_samples.filter\_size |
| **Result Unit** | Hardcoded unit 'um' for filter size. (Used in: Air Filter Size section). | 'um' |

# Continuous Data

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Description** | **Source Table.Column or Logic** |
| **Observation ID** | Unique identifier for each observation (placeholder, currently blank). | N/A |
| **Ministry Contact** | Name of the person from the ministry responsible for the sample. | print.staffs.first\_name || ' ' || print.staffs.last\_name |
| **Sampling Agency** | Agency responsible for collecting the sample. | ems\_client\_locations.id || ' - ' || ems\_client\_locations.name |
| **Project** | Fixed project name for this dataset. | 'BCLMN' |
| **Work Order Number** | ID that links this sample to a specific work order or requisition. | ems\_samples.requisition\_id |
| **Location ID** | Monitoring location ID where the sample was collected. | ems\_samples.mon\_locn\_id |
| **Field Visit Start Time** | Start time of the sampling visit, formatted with timezone offset. | MIN(collection\_start\_date) via eal.earlieststarttime |
| **Field Visit End Time** | End time of the sampling visit, omitted if same as start time. | MAX(collection\_end\_date) via eal.latestendtime  Field Visit End Time will be null if it equals Field Visit Start Time. |
| **Field Visit Participants** | Individuals or team who collected the sample. | ems\_samples.sampler |
| **Field Visit Comments** | Comments regarding the field visit. | ems\_samples.field\_comment |
| **Activity Comments** | Duplicate of field visit comments, used internally. | ems\_samples.field\_comment |
| **Field Filtered** | Indicates if field filtration occurred (always null in EMS). | NULL |
| **Field Filtered Comment** | Comment about field filtration (always null in EMS). | NULL |
| **Field Preservative** | Substance used to preserve the sample on site. | ems\_preservatives.description |
| **Field Device ID** | ID of the field instrument (not captured, always null). | NULL |
| **Field Device Type** | Device type or method, mapped via OBSERVED\_PROPERTIES\_FOR\_ETL. | OBSERVED\_PROPERTIES\_FOR\_ETL.Device\_Type |
| **Sampling Context Tag** | Extra tag for context (always null). | NULL |
| **Collection Method** | Sampling method determined from ems\_collection\_methods.code with extensive mapping logic. | ems\_collection\_methods.code |
| **Medium** | Type of medium sampled (e.g., AIR, WATER). | ems\_locn\_state\_descriptor\_export\_map.enmods\_medium |
| **Depth Upper** | Upper depth in meters (if applicable). | ems\_samples.depth\_upper |
| **Depth Lower** | Lower depth in meters (if applicable). | ems\_samples.depth\_lower |
| **Depth Unit** | Unit for depth ('metre' when upper/lower depth provided). | Set to ‘metre’ if either Depth Upper or Depth Lower is present; otherwise NULL. |
| **Observed DateTime** | Date and time sampling began (ISO format with offset). | ems\_samples.collection\_start\_date  If there's a duplicate, increment the observed date by one minute for each instance of the duplicate. |
| **Observed Date Time End** | End time of observation, null if same as start. | ems\_samples.collection\_end\_date |
| **Observed Property ID** | Derived property ID from parameter, method, and unit | OBSERVED\_PROPERTIES\_FOR\_ETL.NewNameID |
| **Result Value** | Measured result from sample or field observation. | ems\_results.result\_numeric or smpl.flow, smpl.filter\_size |
| **Method Detection Limit** | Limit of detection, unit converted if needed. | ems\_results.method\_detect\_limit, ems\_parm\_dicts.METHOD\_DETECT\_LIMIT |
| **Method Reporting Limit** | Minimum value to report (blank). | NULL |
| **Result Unit** | Unit for result values (e.g., ug/m3, um). | AQS\_UNITS\_TEMP.AQS\_NAME\_ON\_IMPORT or smpl.flow\_unit\_cd or hardcoded |
| **Detection Condition** | Flag indicating if result is below detection threshold. | ems\_results.result\_letter |
| **Limit Type** | Left blank (not tracked in EMS). | NULL |
| **Fraction** | Part of sample measured (e.g., total, dissolved). | OBSERVED\_PROPERTIES\_FOR\_ETL.Fraction |
| **Data Classification** | Indicates data source: LAB, FIELD\_RESULT, ACTIVITY\_RESULT. | OBSERVED\_PROPERTIES\_FOR\_ETL.Classification or hardcoded |
| **Source of Rounded Value** | Blank (not used in EMS). | NULL |
| **Rounded Value** | Blank (not used in EMS). | NULL |
| **Rounding Specification** | Blank (not used in EMS). | NULL |
| **Analyzing Agency** | Agency that analyzed the sample. | ems\_client\_locations.short\_name |
| **Analysis Method** | Lab method code (null for field/volume observations). | ems\_results.anal\_method\_cd |
| **Analyzed Date Time** | Date when sample was analyzed, or fallback to observed date. | ems\_results.analytical\_date or smpl.collection\_start\_date |
| **Result Status** | Set to 'Preliminary'. | 'Preliminary' |
| **Result Grade** | Set to 'Ungraded'. | 'Ungraded' |
| **Activity ID** | Blank (not extracted from EMS). | NULL |
| **Activity Name** | Sample ID representing the activity. | [ems\_samples.id](http://ems_samples.id) |
| **Tissue Type** | Type of biological tissue sampled, if applicable. | ems\_tissue\_types.description |
| **Lab Arrival Temperature** | Temperature at lab intake. | ems\_samples.lab\_arrival\_temperature |
| **Specimen Name** | Group/specimen label for biological or field classification. | * Hardcoded as “Continuous Min” if the continuous\_minimum field is not blank * Hardcoded as “Continuous Mean” if the continuous\_average field is not blank * Hardcoded as “Continuous Max” if the continuous\_maximum field is not blank |
| **Lab Quality Flag** | Quality control flags from lab (not implemented). | NULL |
| **Lab Arrival Date and Time** | Timestamp for when the lab received the sample. | ems\_samples.lab\_arrival\_date |
| **Lab Prepared DateTime** | Blank (not tracked). | NULL |
| **Lab Sample ID** | ID used to identify sample in the lab. | ems\_results.lab\_sample\_id |
| **Lab Dilution Factor** | Blank (not captured in EMS). | NULL |
| **Lab Comment** | Lab notes or comments about the sample. | ems\_samples.lab\_comment |
| **Lab Batch ID** | Identifier for the lab batch. | ems\_results.lab\_batch\_id |
| **QC Type** | Sample classification: Replicate, Blank, Spike, or empty. | ems\_sample\_classes.description |
| **QC Source Activity Name** | Blank (not linked). | NULL |
| **Composite Stat** | Blank, not tracked for air samples. | Composite Stat will be populated with ‘Mean’, ‘Maximum’, or ‘Minimum’ based on the source value (CONTINUOUS\_AVERAGE, CONTINUOUS\_MAXIMUM, CONTINUOUS\_MINIMUM). Otherwise, it will be blank.” |

# Vertical Profiles

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Description** | **Source Table.Column or Logic** |
| Observation ID | Placeholder for unique observation record ID. | Generated ID |
| Ministry Contact | Contact person from Ministry responsible for the site. | print.staffs |
| Sampling Agency | Organization or agency responsible for sampling. | Concatenation of ems\_client\_locations.id and ems\_client\_locations.name |
| Project | Always 'TEST-VERTICAL-PROFILES'. | Hard coded |
| Work Order Number | Requisition or work order ID associated with sampling. | ems\_samples.requisition\_id |
| Location ID | Unique identifier for monitoring location. | ems\_samples.mon\_locn\_id |
| Field Visit Start Time | Start time of field visit at the site. | MIN(collection\_start\_date) from ems\_samples using an inline subquery to get the earliest start and latest end times for each MON\_LOCN\_ID per day |
| Field Visit End Time | End time of field visit at the site (if different from start, otherwise display blank). | latestendtime |
| Field Visit Participants | Persons who participated in the field sampling event. | ems\_samples.sampler |
| Field Visit Comments | Comments about the field visit overall. | ems\_samples.field\_comment |
| Activity Comments | Additional specific comments about the activity. | ems\_samples.field\_comment |
| Field Filtered | Field filtered? (Not applicable for vertical profiles.) | NULL |
| Field Filtered Comment | Field filtered comment. (Not applicable for vertical profiles.) | NULL |
| Field Preservative | Field preservative used (if any). | ems\_preservatives.description |
| Field Device ID | Device ID used for field measurements (if applicable). | NULL |
| Field Device Type | Type of field device used. | OBSERVED\_PROPERTIES\_FOR\_ETL.Device\_Type |
| Sampling Context Tag | Tag to indicate sampling context (not used for profiles). | NULL |
| Collection Method | Sampling collection method (e.g., grab, composite, etc.). | ems\_collection\_methods |
| Medium | Type of environmental medium sampled. | ems\_locn\_state\_descriptor\_export\_map.enmods\_medium |
| Depth Upper | Upper bound of depth sampled (for vertical profiles, varies). | ems\_samples.depth\_upper |
| Depth Lower | Lower bound of depth sampled (for vertical profiles, varies). | ems\_samples.depth\_lower |
| Depth Unit | Unit for depth measurements (always 'metre' if depth exists). | Logic: 'metre' if depth exists |
| Observed DateTime | Timestamp of sample collection (adjusted if duplicate). | ems\_samples.collection\_start\_date |
| Observed Date Time End | End of sample collection time (only if not equal to start time). | ems\_samples.collection\_end\_date |
| Observed Property ID | Observed Property ID matching parameter and method/unit. | OBSERVED\_PROPERTIES\_FOR\_ETL.NewNameID |
| Result Value | Measured value or reading at depth. | ems\_results.result\_numeric |
| Method Detection Limit | Method detection limit (MDL) after unit conversion if needed. | calculated/converted if necessary |
| Method Reporting Limit | Method reporting limit (MRL); left blank for vertical profiles. | NULL |
| Result Unit | Result unit for measured value. | aqs\_units or ems\_units.short\_name |
| Detection Condition | Detection condition (e.g., NOT\_DETECTED if '<' flag present). | Logic: '<' = NOT\_DETECTED |
| Limit Type | Not used; left blank. | NULL |
| Fraction | Fraction (e.g., dissolved, total) from observed property. | OBSERVED\_PROPERTIES\_FOR\_ETL.Fraction |
| Data Classification | Classified as 'VERTICAL\_PROFILE'. | 'VERTICAL\_PROFILE' |
| Source of Rounded Value | Source used for rounding, left blank for vertical profiles. | NULL |
| Rounded Value | Rounded value after applying rounding rules, left blank. | NULL |
| Rounding Specification | Specification for rounding, left blank. | NULL |
| Analyzing Agency | Agency performing sample analysis. | ems\_client\_locations.short\_name |
| Analysis Method | Lab analysis method used (typically null for profiles). | ems\_results.anal\_method\_cd |
| Analyzed Date Time | Timestamp when analysis completed (usually null; use observed). | ems\_results.analytical\_date |
| Result Status | Status of result (always 'Preliminary'). | 'Preliminary' |
| Result Grade | Grade assigned to result (always 'Ungraded'). | 'Ungraded' |
| Activity ID | Left blank | NULL |
| Activity Name | Left blank | NULL |
| Tissue Type | Type of tissue sampled (blank for vertical profiles). | Ems\_tissue\_types.description (joined on sample.tissue\_type\_cd) |
| Specimen Name | Specimen name if applicable; otherwise blank. | OBSERVED\_PROPERTIES\_FOR\_ETL.OP\_Group |
| Lab Quality Flag | Lab quality flag (left blank). | NULL |
| Lab Arrival Date and Time | Arrival date/time at lab if applicable. | ems\_samples.lab\_arrival\_date |
| Lab Prepared DateTime | Date/time sample prepared by lab (left blank). | NULL |
| Lab Sample ID | Lab-assigned sample ID (if available). | ems\_results.lab\_sample\_id |
| Lab Dilution Factor | Dilution factor used in lab (typically blank). | NULL |
| Lab Comment | Comments entered by the lab about the sample. | ems\_samples.lab\_comment |
| Lab Batch ID | Batch ID used by the lab for the analysis. | ems\_results.lab\_batch\_id |
| QC Type | Replicate, Replicate-First, Replicate-Second, Replicate-Third, or Blank | WHEN ems\_sample\_classes.description IN ( 'Replicate', 'Replicate-First', 'Replicate-Second', 'Replicate-Third' ) THEN  'Replicate'  WHEN sc.description LIKE '%Blank%' THEN  'Blank' |
| QC Source Activity Name | QC source activity name (blank for vertical profiles). | NULL |
| Composite Stat | Composite stat | NULL |