

# DNREC v5 Format – Phase 1 Release Notes

Published: 11/1/2023

The following list of changes have been made in the new DNREC v5 Format to improve incoming data quality and implementation of new programs involved. **Many of the descriptions have been updated to create consistency throughout the format file and are reflected in the DNREC EDD Submittal Requirements Manual.**

The latest DNREC Format and reference value file (RVF) is available for download here: <https://earthsoft.com/products/edp/edp-format-for-dnrec/> (published 11/1/2023).

NOTE: It is required that data providers use the new DNREC v5 format published on or after January 1, 2024.

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## Subfacility

- **Subfacility\_code** -
  - Update the check to: Value cannot contain any of the following special characters: \$ @ & # % ! = + \* < > " ' | \ ? [ ] { }

## Task

- ***This entire tab has been added 'as-is' from the EQEDD format.***

## Location

- **Sys\_loc\_code**
  - Update the check to: Value cannot contain any of the following special characters: \$ @ & # % ! = + \* < > " ' | \ ? [ ] { }
- **Loc\_Type** –
  - Added Check: If loc\_type contains 'Well' or 'PZMTR', then a record in Well\_v4 or Basic Well is required. Error is thrown on the loc\_type column instead of sys\_loc\_code.
  - Throw an error: If loc\_type = 'BASEMENT', 'CRAWLSPACE', 'FIRST FLOOR', 'IA', 'INDOOR', 'OUTDOOR', 'SUBSLAB', 'UPPER FLOOR', or VAPOR, the sample locations should be reported in the VI\_Locations EDD section.
  - Added a Warning: If 'GENLOC' is use, you must consult with the DNREC Project Officer for prior approval.
- **Surf\_elev** –
  - If surface elevation is unknown, use '9999'.
  - Elevations with a minimum (-500) and maximum (500) for the State of Delaware has been added.
- **Elev\_Unit** –
  - If surface elevation equals '9999', then elev\_unit is NOT required.
- **Loc\_major\_basin** –
  - This column has been renamed to 'loc\_major\_basin\_HUC8'.
- **Loc\_minor\_basin** –
  - This column has been renamed to 'loc\_minor\_basin\_HUC12'.
- **Loc\_county\_code** –
  - Delaware's Loc\_county\_codes have been updated to 'New Castle', 'Kent', and 'Sussex' verses the numeric representation of the counties in DE ('001', '003', '005').
- **Remark\_2** -
  - Added this column to this section.

## Drilling Activity

- **Start\_depth/End\_depth** -
  - Added a check to ensure the start depth is less than the end depth

## Water Table

- ***This entire tab has been removed.***

## Well

- ***Geo\_unit\_code***
  - Renamed this column to 'DGS\_Aquifer'.

## Well Construction

- ***Start\_depth/end\_depth -***
  - Added a check: End\_depth must be greater than or equal to the start\_depth.

## Location Parameter

- ***This entire tab has been added 'as-is' from the EQEDD format for DNREC internal data collection purposes.***

## Field Sample

- ***This entire tab has been added 'as-is' from the EQEDD format for DNREC internal data collection purposes.***
- 
- ***Sample\_type\_code/Parent\_sample\_code -***
  - Added a check: If sample\_type\_code is 'N', for normal, then parent\_sample\_code is not required.
- ***Sampling\_technique -***
  - Renamed this column to 'Sample\_method'

## COC

- ***This entire tab has been added 'as-is' from the EQEDD format for DNREC internal data collection purposes.***
- .
- ***Chain\_of\_custody -***
  - Value cannot contain any of the following special characters: \$ @ & # % ! = + \* < > " ' | \ ? [ ] { }.

## Sample Parameter

- ***Was moved from the Chemistry section to Field Activities.***

## Water Level

- ***Sys\_loc\_code –***
  - Added a check: Sys\_loc\_codes can exist in the current EDD or database.
- ***Water\_level\_elev –***

- Changed field description to: “Elevation of water level must be in feet (ft)-below the reference\_point in the same record. Should be a calculation of the reference point elevation minus the depth to water.”
- **Measured\_depth\_of\_well –**
  - Changed field description to: “The actual measured total depth below the reference\_point to the bottom of the well. Must be in feet.”
- **depth\_unit –**
  - Changed field description to: “Unit of measure for depths and elevations, feet (ft).”
  - Added a crosscheck: If water\_level\_depth, water\_level\_elev, corrected\_depth, corrected\_elev, measured\_depth of well, Inapl\_depth, or dnapl\_depth is populated, then depth\_unit is required.
- **Corrected\_depth –**
  - Changed field description to: “Depth below reference point of water level after any necessary corrections, e.g., if corrections were necessary to water\_level\_depth because free product was encountered. Must be in feet (ft).”
- **Corrected\_elev –**
  - Changed field descriptions to: “Elevation of water level after any necessary corrections, e.g., if free product was encountered. Must be in feet (ft) or meters (m).”
- **Measurement\_method**
  - Added a check: If measurement\_method is ‘NM’, not measured, then ‘dry\_indicator\_yn’ is not required but a remark is required.
- **Dry\_indicator\_yn –**
  - Added a check: If a well is “DRY” then water\_level\_depth and water\_level\_elev should NOT be required.
- **Elev\_datum\_code -**
  - Changed field description to: ‘Reference datum for the elevation measurement. Must use valid value from elev\_datum code from the valid\_values table. Example: If the elevation references mean sea level, the code is "3".’
- **Reference\_Point -**
  - Add an enumeration list of option to choose:
    - Top of casing
    - Ground surface
    - Top of outer protective casing
    - Top of inner protective casing
    - Observation Port
- **Equipment\_code -**
  - This column was added.
- **Approval\_code -**
  - This column was added.

## Extraction Injection Wells

- **Start\_measure\_date/End\_measure\_date -**
  - Added a check: Ensure the start\_measure\_date is before the end\_measure\_date.

## Field Results

- **Start\_depth/End\_depth**
  - Added a check: End\_depth must be greater than or equal to the start\_depth.

## Sample

- **Sample\_matrix\_code -**
  - Changed drop-down list to include matrix\_class
  - Throw a warning if the sample matrix code is “W” for any normal sample type code
- **Sample\_type\_code -**
  - Added a check: Throw a warning when the word “Dup” appears in the sample name to verify the sample type is “FD”.
- **Sample\_type\_code/parent\_sample\_code -**
  - Added a check: If sample\_type\_code is ‘N’, for normal, then parent\_sample\_code is not required.
- **Sample\_technique -**
  - Renamed to ‘sample\_method’ to match the column header in dt\_sample.

## TestResultQC

- **Validator\_qualifier/validated\_yn -**
  - Added a check: If validated\_yn equals ‘N’, for not validated, then validator\_qualifier should be blank.
- **Prep\_date/prep\_method -**
  - Added a check: When prep\_method is populated, the prep\_date is required.
- **TIC\_retention\_time/result\_type -**
  - Added a check: If result\_type is ‘TIC’, then TIC\_retention\_time is required.

## Batch

- **Fraction -**
  - Updated enumeration list to remove 'NA' as an option. The enumeration list only includes 'D', 'T', 'SPLP', and 'TCLP'.

## Basic Location

- **Make this entire section match the column headers of Location section.**
- **Site\_code -**
  - Removed requirement
- **The following columns were removed from this tab:** “well\_id”, “depth\_to\_top\_of\_screen”, “depth\_to\_bottom\_of\_screen”, “top\_casing\_elev”, and “depth\_to\_bottom\_of\_well”.

### Basic Well

- ***This entire tab was created with the same columns as Well\_v5, with the 'sys\_loc\_code' being the only requirement.***
- ***DNREC Well\_Status***
  - Added an enumerated list: INACTIVE, DESTROYED, ACTIVE, DAMAGED, ABANDONED/SEAL, LOST/MISSING, PROPOSED, AND TEMPORARY
- ***Abandoned\_Date/well\_status -***
  - Added a check: When well\_status = ABANDONED/SEAL, the abandoned\_date is required.
- ***The following columns were added:*** "well\_id", "depth\_to\_top\_of\_screen", "depth\_to\_bottom\_of\_screen", "top\_casing\_elev", "depth\_of\_well", and total\_depth".

### Basic Water Level

- ***Make this tab match the requirements for Water\_Level.***
- ***Equipment\_code/approval\_code*** – added these two columns to be consistent with the Water\_level tab.

### Basic Chemistry

- ***Added additional columns from TestResultQC section for historical chemistry data.***
- ***Sys\_sample\_code/sys\_loc\_code -***
  - Updated the check: Value cannot contain any of the following special characters:  
\$ @ & # % ! = + \* < > " ' | \ ? [ ] { }
- ***Sample\_type\_code/parent\_sample\_code -***
  - Added a check: If sample\_type\_code is 'N', for normal, then parent\_sample\_code is not required.
- ***Validator\_qualifier/validated\_yn -***
  - Added a check: If validated\_yn equals 'N', for not validated, then validator\_qualifier should be blank.

### Basic Geology

- ***End\_depth –***
  - Added this column.
- ***Geo\_unit\_code\_1 –***
  - Removed the requirement.

### VI\_Bldg\_Address

- ***Subfacility\_code –***
  - Removed the requirement
  - Added a check: the Subfacility\_code provided must match the Subfacility EDD section submitted in the current or previous EDDs.
- ***Building\_code -***

- Updated the check: Value cannot contain any of the following special characters:  
\$ @ & # % ! = + \* < > " ' | \ ? [ ] { }
- **County\_code** -
  - Delaware's Loc\_county\_codes have been updated to 'New Castle', 'Kent', and 'Sussex' verses the numeric representation of the counties in DE ('001', '003', '005').

## VI\_Location

- **X\_coord** -
  - Changed 'x\_coord' to 'easting'
- **Y\_coord** -
  - Changed 'y\_coord' to 'northing'
- **Alt\_y\_coord** -
  - Changed 'alt\_y\_coord' to 'latitude'
- **Alt\_x\_coord** -
  - Changed 'alt\_x\_coord' to 'longitude'
- **Loc\_county\_code/loc\_state\_code** -
  - Made 'loc\_county\_code' required
- **Loc\_type** -
  - fix the bug to turn off the 'loc\_type' error "if loc\_type = OUTDOOR, and the location is present in VI\_Outdoor\_Location.

## VI\_Sample

- **Sample\_type\_code** -
  - Update the rule for field duplications (FD) to match the Sample tab.  
Sys\_loc\_code is not required for FD sample.
- **Sample\_type\_code/parent\_sample\_code** -
  - Added a check: If sample\_type\_code is 'N', for normal, then parent\_sample\_code is not required.
- **Sys\_loc\_code** -
  - Sys\_loc\_code is only required for normal (N) samples.
- **Sampling\_Method** -
  - Renamed to 'sample\_method' to match the column header in dt\_sample.

## VI\_TestResults

- **Fraction** -
  - Updated the enumeration list to only include 'NA'
- **Validator\_qualifier/validated\_yn** -
  - Added a check: If validated\_yn equals 'N', for not validated, then validator\_qualifier should be blank.
- **Prep\_date/prep\_method** -
  - Added a check: When prep\_method is populated, the prep\_date is required.
- **TIC\_retention\_time/result\_type** -
  - Added a check: If result\_type is 'TIC', then TIC\_retention\_time is required.



## VI\_Batch

- ***Fraction -***

Updated the enumeration list to only include 'NA'.

