Data Reduction Steps for Surface Water Data

Starting with the CRA Ready = Yes and Representative_Squibb = Yes Data set[1]:

- Based on site knowledge, all surface water sampling locations containing representative surface water data are tabulated and used as Access table "Table 1 Potentially Rep Surface Water Locations".
- The working dataset is reduced to sampling locations identified in Table 1.
- Based on professional judgment, additional laboratory surrogate (SUR)records were identified and removed from the working dataset.
- Misidentified QA/QC records were identified and removed from the working dataset. These records had Cust_Samp_Num of "TRIP BLANK" and do not represent site surface water quality.
- Concentration units were standardized to match those of standards tables.
- Detect versus Nondetect records were identified.
- Filtered versus unfiltered water sample records were identified.
- CAS numbers were standardized for some analytes.
- Uranium isotope data for U-234, U-235 and U-238 were matched up by location and sampling event and summed to create a new analyte Uranium Sum. This analyte was appended to the working dataset and processed similarly to analyzed U total.
- Ra-226 and Ra-228 data were matched by location and sampling event and summed to create a new analyte Radium Sum. This was appended to the working dataset.
- Standards, and RFETS background statistics (M2SD) were matched up with each analytical record by CAS number.
- The working dataset was reduced to analytes having a surface water standard.
- The working dataset was reduced to data collected more recently than 12/31/99.
- Detected concentrations were compared against background and standards.
- Descriptive statistics were run on the dataset by analyte and sample filtration state. Statistics tables were also run by location, analyte, and filtration.
- Custom datasets were created to make "Dot Maps" of the most recent data at each location.

[1] This data set is from all the surface water analytical data in SWD (identified as the Superset).