Evaluation of Background Mercury Concentrations in the SRS Groundwater System (U)

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Executive Summary

Mercury analyses associated with the A-01 Outfall have highlighted the importance of developing an understanding of mercury in the Savannah River Site groundwater system and associated surface water streams. This activity is critical based upon the fact that the EPA Ambient Water Quality Criteria (AWQC) for this constituent is 0.012 $\mu\text{g/L}$, a level that is well below conventional detection limits of 0.1 to 0.2 $\mu\text{g/L}$. A first step in this process is obtained by utilizing the existing investment in groundwater mercury concentrations (20,242 records) maintained in the SRS geographical information management system (GIMS) database. Careful use of these data provides a technically defensible initial estimate for total recoverable mercury in background and contaminated SRS wells.

Methods of order statistics have been combined with probability plotting and partitioning techniques to estimate the background groundwater concentration as 0.093 $\mu\text{g/L}$. The data set for this estimate included 518 values with estimated concentrations, 856 values that were reported below a nominal detection limit, and 350 values with actual reported concentrations. The analysis process included the partitioning of wells into two distinct populations, one associated with ambient, background mercury concentrations, and the other associated with groundwater that has possibly been impacted by SRS activities.

The analysis provides a reasonable upper bound on the estimated ambient, background concentration for mercury in the SRS groundwater system. Uncertainties associated with the analysis include possibility of elevated concentrations in wells due to grout contamination; the potential for increased concentrations resulting from laboratory contamination, and the use of data only from a relatively brief sampling window. In applying the estimate to the identification of reasonable surface water quality, uncertainties also exist. These uncertainties relate to interactions in the hyporheic zone and the species of mercury present in the stream. These uncertainties would be best managed by a limited amount of speciated analysis of both groundwater and surface water samples. Since mercury can exist in several forms in the environment, definitive data with appropriate detection limits is needed to support decisions regarding stream quality and site discharge criteria.

The methods discussed and utilized are not limited exclusively to mercury analysis. These robust techniques are valid for analysis and partitioning of large data sets that are postulated to comprise a combination of normal or log normal populations. Through the application process the hypothesis is validated in a simple graphical manner and quantitative results are obtained. The analysis illustrates one possible technique of incorporating both data that is traditionally unused and data that is considered unusable with validated data. Once performed the results using this combination and analysis process can be used to support environmental analysis and effective decision making.

Table of Contents

Executive Summary	iii
Table of Contents	iv
List of Figures	v
List of Tables	i
Objective	1
Background	1
Methods	3
<i>Developing Monitoring Well Data Set</i>	<i>4</i>
<i>Developing the Best Estimate of Mercury Concentration for each Well</i>	<i>5</i>
<i>Probability Plots</i>	<i>6</i>
Results and Analysis	12
Recommendations and Conclusions	16
References	17
Appendix A: Estimated Median Concentrations for SRS Groundwater Wells Associated with Background Population.	19
Appendix B: Estimated Median Concentrations for SRS Groundwater Wells for Undetermined Population	29
Appendix C: Estimated Median Concentrations for SRS Groundwater Wells Associated with the Impacted Population.	36
Appendix D: SRS Groundwater Wells with all Reported Values Below Nominal Detection Limit.	40

List of Figures

- Figure 1: Cumulative Histogram of Mercury Concentrations from 19,917 Groundwater Measurements at the Savannah River Site including Estimated and Non-Detect values.** 9
- Figure 2: Flowchart Outlining Method Used to Obtain Best Estimate of Concentration Considering "Non-Detects and "Estimated" Values.** 10
- Figure 3: Application of Probability Plots in Identifying and Partitioning of two Log-Normal Populations from Combined Data Sets. (Adopted from Sinclair, 1976).** 11
- Figure 4: Log Probability Plot of Mercury Concentration from 1,724 Wells at the Savannah River Site. Populations partitioned into an Impacted Population and a Background Population.** 14
- Figure 5: Map of the Savannah River Site Showing the Location and Distribution of Wells that are in the Background Population, in the Impacted Population, and whose population is Undetermined.** 15

List of Tables

- Table 1 Summary Information from Partitioning Analysis of Groundwater Mercury Concentration from 1,724 Monitoring Wells at the Savannah River Site.** 13

Objective

The overall objective of this investigation was to develop a technically based estimate of background concentrations for mercury (total recoverable mercury) for groundwater underlying the Savannah River Site (SRS). The selected methods were developed by exploration geochemists and maximize the usefulness of the large amount of high quality data that exist in the SRS geochemical database. Further, the approach provides initial estimates of background and impacted groundwater concentrations and information to support scientists, engineers and managers in developing environmental protection and remediation strategies at SRS.

Background

The Savannah River Site was constructed during the early 1950s to produce the basic materials used in the fabrication of nuclear weapons, primarily tritium and plutonium-239. To accomplish this mission five nuclear reactors were built on the site and were used to produce nuclear materials by irradiating target materials with neutrons. In addition to the direct production facilities, numerous support facilities were also constructed. This included two chemical separation plants, a heavy water extraction plant, a nuclear fuel and target fabrication facility, waste management facilities, research and support laboratories, and administrative facilities.

Although not a product of these processes, mercury was used in several aspects of facility operations. Processes and systems that incorporated mercury included the Separation Areas where mercury was used as a process aid, the Tritium Facilities where mercury was used in the gas handling systems, and in many of the numerous experimental, laboratory, and miscellaneous support facilities. With the exception of the mercury that was released as a vapor directly to the atmosphere, spent mercury was directed to one of several Site waste facilities. These facilities included underground waste tanks, the Solid Waste Disposal Facility, the Sanitary Landfill, and other miscellaneous waste facilities at the Savannah River Site. These miscellaneous waste facilities included seepage and overflow basins and retention ponds. Details and inventory estimates associated with these and other SRS facilities have been recently documented (Kvartek et.al. 1994). Interested readers should refer to this work for a more comprehensive discussion of mercury in the Savannah River Site environment. This reference document serves as a thorough reference regarding specific aspects of mercury usage and disposal throughout the Site history.

In addition to the mercury that was directly used and released as part of process operations, mercury is also present both naturally and from sources not indigenous to the Savannah River Site. These sources include mercury present in water drawn from the Savannah River, mercury that is present in precipitation, and trace amounts of mercury that are present in subsurface soils. The presence of elevated mercury in the Savannah River is a result of historical releases near the city of Augusta, Georgia. These releases have resulted in the presence of mercury in Savannah River sediments and water upstream of the Savannah River Site. During process operations, river water, containing mercury, was pumped and used as non-contact cooling water in the Site's reactors (Kvartek et.al. 1994). Following usage, this water was released on-site to surface streams where the mercury collected in stream sediments. As a result mercury is now commonly found in surface waters and fish in some areas of the Savannah River Site. Investigations have compared the accumulation of mercury from fish collected from Site surface waters and from upstream regions of the Savannah River (Newman and Messier, 1994). The results of this investigation indicated that no significant differences in mercury concentrations exist with

samples collected on-site versus those collected off-site. The investigation did indicate that a significant difference exists between samples associated with the Savannah River versus samples that were isolated from the river.

Definitive data regarding mercury contributions from precipitation is sparse in both the spatial and temporal perspective. The only identified resource for this data is from the Mercury Deposition Network (Lindberg and Vermette, 1995; Vermette et.al. 1995; and Welker and Vermette, 1996). The Mercury Deposition Network (MDN) is a network of nationwide monitoring and reporting stations with the objective of developing a national database of weekly concentrations of total mercury in precipitation and the seasonal and annual flux of total mercury in wet deposition. This system is part of the National Atmospheric Deposition Program/National Trends Network (NADP/NTN) and is a nationwide network of precipitation monitoring sites. The network is a cooperative effort between many different groups, including the State Agricultural Experiment Stations, U.S. Geological Survey, U.S. Department of Agriculture, and numerous other governmental and private entities. Data collected from this program will be used to develop information on spatial and seasonal trends in mercury deposited to surface waters, forested watersheds, and other sensitive receptors. A monitoring station for this network is located in Congaree Swamp National Monument, south of Columbia, South Carolina. Data collected since 1995 indicates that the mercury concentration in precipitation is approximately 0.010 µg/L.

Although not a common element, mercury is naturally present in soils beneath the Savannah River Site above detectable limits. An estimate on the amount of mercury present in the subsurface can be obtained from the SRS Background Soil Study that was concluded in 1990 (Looney et.al. 1990). The objective of this program was to characterize the geochemical and physical properties of the soils and shallow sediments at the Savannah River Site. Mercury data collected in conjunction with this investigation reported that approximately 80% of the 168 samples were below the method detection limits. The reported data ranged from < 0.01 µg/g of soil to 0.89 µg/g of soil with a median below 0.1 µg/g of soil. None of the 24 detected values were below the minimal detection limit. The study reported that the concentrations did not exhibit a clear pattern in terms of soil series or layer.

Within groundwater mercury can take many forms, some of these forms are more mobile and others sorb strongly onto soils. Mercury that is present in the soils will usually exist in a stable form, leaching slowly to the groundwater due to weathering processes. The mobility and speciation of mercury in aqueous solution is complex and dependent upon a variety of specific parameters. Under most natural environmental conditions, mercury tends to sorb strongly on the soil, associating with iron oxides and hydroxides, organic coatings, or exchange sites on the surfaces of the minerals. Thus, soils that contain clays and/or organic and oxide coatings tend to maximize sorption. Investigations have shown that chloride complexes, favored by low pH may significantly increase the mobility of mercury even at relatively low chloride ion concentrations. These forms of mercury (e.g. chloride complexes such as HgCl_2^0) tend to migrate more rapidly than more common forms of mercury (e.g. Hg^+ and $\text{Hg}(\text{OH})_2^0$) which are typically more strongly attenuated (Anderson, 1970). Limited investigations have indicated that these processes may occur at the Savannah River Site and that mercury may not be significantly adsorbed in certain soil areas (Looney, 1994 and Denham and Strom 1994).

The transport and migration of mercury that is present in the groundwater in a mobile form will be governed by advective transport process. From a conceptual perspective these processes are

directed by the hydrologic cycle and includes precipitation deposition in groundwater recharge areas, leaching from soils based upon local geochemical interactions, followed by discharge to surface streams and bodies. The complex interaction between groundwater and surface water have been recently presented (USGS, 1998). Although not directed at mercury, these discussions provide valuable insight on the relationship and impact between groundwater and surface water resources, and the role of this "hyporheic zone" in controlling impacts from groundwater plumes. These relationships and associated effects are enhanced when groundwater resources are discharged directly to surface streams and may have significant effects on stream quality.

Emerging events at the A-01 and other site outfalls have highlighted the importance of developing an understanding of mercury in the Site groundwater and surface streams. Outfalls serve as regulatory controlled release points for water used in site process activities. The majority of the water released at these points originates in some form from groundwater resources beneath the Site. In certain areas outfall releases are associated with active groundwater corrective action programs, e.g. the A/M Area. Releases in these areas further emphasize the need for expanded understanding of mercury in the Site groundwater and surface streams. This added awareness is directed by the strict Ambient Water Quality Criteria (AWQC) for mercury. These criteria govern and impact outfall permit levels. The AWQC level for mercury is 0.012 $\mu\text{g/L}$, a level that is well below conventional (i.e. EPA SW-846) detection limits and EPA primary drinking water standards. The strict limit is based on toxicology studies with the assumption that all of the mercury in the stream is methyl mercury, the most toxic form, with a high bio-accumulation factor. Even though naturally occurring mercury may be present above AWQC criteria, conventional SW-846 analysis prevents identification due to method detection limits. This would imply an ambient, un-impacted stream concentration above the AWQC criteria of 0.012 $\mu\text{g/L}$ but below SW-846 detection limits (typically 0.2 $\mu\text{g/L}$). Limitations in method detection limits, combined with outfall averaging procedures often result in exceedance of permit limits. Until definitive ambient stream data is obtained with suitable detection limits below AWQC criteria, ambient background stream concentrations cannot be ascertained. Although historically not available, a reasonable bound on the background stream concentrations can be obtained based upon background concentrations of mercury in the groundwater. This estimate will provide the following information:

- Assist in establishing reasonable permit levels for groundwater discharges to surface streams,
- Aid in identifying regions which may have been impacted by mercury usage,
- Provide a bound for mercury concentrations in site surface streams, and
- Illustrate techniques suitable for partitioning and establishing background concentrations.

Methods

Identifying a technically based estimate value for the background concentrations of mercury in the groundwater for the Savannah River Site involved several carefully managed activities. In order to prevent biasing of the results, during each of the described activities extreme care and caution was taken so that each step was rational and systematic. As discussed in subsequent sections, this systematic approach was important in selecting and establishing the "average" or "Best Estimate" of mercury concentration for individual monitoring wells. Once these individual "Best Estimated" concentrations were determined, these data were used with order statistics and

analyzed using probability plots. This allowed for the identification and partitioning of the data into two populations, one population that is considered typical of natural (background) conditions, and the second population that is considered to represent those wells, i.e. groundwater, that have been impacted by SRS operations.

Developing Monitoring Well Data Set

The initial process of identifying background mercury levels involved the collection, screening, and assembly of historical monitoring well data available for the Site's monitoring well network. Sampling and analysis of groundwater is an important aspect of the environmental protection, awareness, and remediation program at the Savannah River Site. Analytical results from monitoring wells are maintained and used to provide data necessary to identify and monitor groundwater conditions and contaminants, assist with environmental compliance and DOE directives, and to support basic and applied research. Combined, systematic analysis of historical data from active and abandoned wells allows investigators to establish a background concentration for a particular constituent and to identify regions that may be potentially impacted.

Historical groundwater data at the Savannah River Site is maintained as an integral part of the SRS Groundwater Monitoring Program. This program evaluates all data systematically to provide high-quality information for reporting on the environmental monitoring and cleanup efforts at SRS. Data verification and validation are ongoing, interactive processes, usually completed within 60 days after the last data are received from a quarterly sampling event. Once analytical data is received from the contractor laboratory, the data is incorporated into the Geochemical Information Management System (GIMS). GIMS is a combination of hardware, software, data, and procedures that supports environmental data management activities. The GIMS Data Review Module provides automated data loading, validation and verification functions, data editing, management of data review status, report generation, and data review QA. Data editing is allowed in order to correct errors in loaded analytical, field, and shipping data. When the review process is complete, data are loaded into permanent production database tables in GIMS and are available sitewide (GIMS, 1997).

Prior to loading into GIMS, the analytical data from the laboratories are reviewed for errors and unusual results before releasing the data to the production databases. The laboratories review and comment on suspect data. Errors typically identified during data loading include incorrect sample dates, run dates, and sample identifications; incorrectly entered analytical units, methods, and corresponding detection limits; and incorrect dilution factor calculations. Analytical results that appear different from historical data collected since 1991 are brought to the attention of the appropriate laboratory. Thus, the laboratory is able to identify problems with some of the analyses, including incorrect dilution factor calculations and data entry errors. To determine if a new analytical result for a sampling site is similar to or relatively higher or lower than historical results, new results for each well are compared to historical results using systematic procedures.

In addition to these QA/QC checks, site representatives review the analytical narratives received from the contract laboratories. These narratives are used as reference materials throughout the data validation process. The narratives include discussions on the following problems: QA samples that do not meet the criteria specified by the analytical method, problems with matrix interference, sample-specific adjustments to the method caused by high concentrations of some constituents, problems with sample preservation and holding time, instrument calibration

problems, and contaminated blanks. The narratives also include additional information about COC and analytical data. Quarterly reports (e.g. WSRC, 1997a through 1997d) are published and archived documenting this rigorous QA/QC process such that end-users are assured that the data available in the production databases meets the highest data quality standards and objectives.

To support the estimation of background mercury concentrations in groundwater, historical data for "Mercury, Total Recoverable" was collected for all the wells in GIMS using ORACLE database query tools. This query returned a data set of 20,242 records containing historical mercury concentrations for active and abandoned monitoring wells, both on and off the Savannah River Site, as well as laboratory blank samples. The period of record for this data ranged from October 1992 through the most recent groundwater sampling event that is on record, August 1998. This data set was reviewed and critiqued using the following criteria:

- Removal of "Lab Blank" samples (275 records),
- Removal of Data Flagged "R" indicating poor performance requirements in the sample or associated quality control issues (20 Records).
- Removal of Data Flagged "V" indicating that the constituent was detected in both the sample and the associated method blank (30 Records).

As a result of these additional QA/QC processes the bulk data set contained 19,917 historical values for mercury distributed at monitoring wells around the Savannah River Site. The cumulative frequency histogram for this data is presented in Figure 1. Within Figure 1 the data are identified by the Result Qualifier Code that is associated with each result. As shown in this figure a large portion of this data set is flagged as "Non-Detect." In the GIMS system "Non-Detects" are designated by a result qualifier code of "U" indicating that the material was analyzed for but not detected. In these samples the result concentration is less than the sample-specific estimated quantitation limit. In the bulk data set approximately 78% (15,557) of the values were reported as "Non-Detect." The most prominent "Non-Detect" values are indicated by the vertical lines on the cumulative frequency histogram at total recoverable mercury concentrations of 0.1 µg/L, 0.2 µg/L, 0.67 µg/L, and 1.0 µg/L. In addition to these "Non-Detect" values, the bulk data set contained approximately 9% (1,721) of the records which had a "J" as the Result Qualifier Code, indicating that the analytical result is an estimated quantity. The estimated data ranged from 0.015 µg/L to 18.2 µg/L. As shown in the cumulative frequency histogram the majority of these values are below 0.2 µg/L. As indicated in the histogram these "Estimated" values provide a great deal of definition for the lower range of the data set. The remaining 13% (2,639) of the bulk data set contained quantifiable mercury levels that were reported. These data ranged from 0.067 µg/L to 4,300 µg/L.

Developing the Best Estimate of Mercury Concentration for each Well

Review of the total mercury concentration values in the groundwater database suggests that a preliminary estimate of a background concentration (below the detection limit) is possible by incorporating the values flagged with a "J". "J" designates that the value is an estimate. For many wells, the laboratory analyst provides an estimate of below nominal detection limit concentration in one or more analysis periods. Use of these data to develop a preliminary estimate of background is consistent with EPA (1992) guidance for data usability in risk

assessment: "With proper interpretation, the results of analyses which are flagged "J" can often be used in making decisions."

These "Estimated" values are used and incorporated to determine the best possible estimate of background mercury concentration for SRS groundwater. To support this goal, a median value of the data (or of the data estimates) was chosen as the most representative value for each well. This approach has two positive impacts. First, it assigns each well a concentration that is representative of a single location (an assumption that is consistent with the subsequent geo-statistical technique that is implemented). Second, the median, "best value," approach minimizes the potential for bias associated with the simpler approach of using "every analysis" in the GIMS production database. Several types of bias would tend to result from the "every analysis" evaluation approach:

- Some wells have many more analyses than others and these would be given undue weight in determining background levels (in fact, it is likely that contaminated wells would typically have the most analyses further biasing any estimates), and
- The data for many wells cluster around a consistent low value with only a single very high result. Use of a median value minimized the impact of such data and results in a more conservative (low) and realistic estimate of background concentration.

Because of the complexity of the low concentration data and the variety of possible situations in the large data set, a consistent approach was developed to estimate the median value. Each well with data reported above the nominal detection limit, at the nominal detection limit, or with estimated values below the nominal detection limit was included in the evaluation and was individually evaluated. The resulting "best estimate" for the well was maintained for subsequent analysis using geo-statistics. The flowchart presented in Figure 2 summarizes the steps (rules) used for generating the estimates for an individual well. Examples for each case are provided in *italics*.

Using this approach, the entire data set was evaluated with the following results for the 1,724 estimated median well concentrations that were generated:

- 518 wells had specified estimates of median concentrations at concentrations below the nominal detection limit (0.2 µg/L)
- 856 wells had estimated median concentrations reported as the nominal detection limit (< 0.2 µg/L)
- 350 wells had specified estimates of median concentrations at concentrations above 0.2 µg/L

Probability Plots

With a composite data set developed that represents the best estimated concentration at each position, geo-statistical methods were applied to partition the data set and estimate statistical parameters associated with each population. Sinclair (1976) documents the use of probability graphs and geo-statistical methods in mineral exploration. In applications regarding the location of mineral resources, a primary objective is to determine where target elements are elevated in concentration and where concentrations are not elevated (background). As shown on Figure 3, this process is relatively straightforward using probability graphs. In fact, the graphs provide quantitative estimates of the statistical properties of the distributions and standard-defensible

estimates of concentration thresholds that separate the populations. Figure 3A illustrates that if a normally distributed data set is sorted and plotted on a cumulative probability graph that the points fall on a straight line. For a straight line on such a plot, the mean of the data set is the concentration at the 50th percentile, and the slope of the line is related to the standard deviation of the data. As discussed by Sinclair, significant deviations from this straight line are typically attributable to straightforward and explainable causes. Of particular note is the case where two populations are present (a low population and a high population). In this case (Figure 3B), the cumulative probability plot forms a bimodal curve that consists of two sections separated by an inflection region. The relative percentages of the two populations and the differences in the means and standard deviations determine the precise shape of the plot, but the plot can be explicitly and quantitatively represented as a mixture of the two populations.

Figure 3C is an actual example from Sinclair (1976) showing the method results for lead concentrations in rocks from 323 sample locations. In this example, both data sets are log-normally distributed. The upper (high concentration) line is interpreted to be sulfides with a mean concentration of 550 ppm while the lower (low concentration) line is the background rock with a mean concentration of 32 ppm. The curved line represents the expected data distribution if the samples were 90% "background" rock and 10% "contaminated" sulfide samples. Thresholds to classify samples are typically set at the ~98% confidence interval for the two populations, e.g. A (low) and B (high). If these overlap, the intersecting band is designated as a "combination of population A and B." The area beneath the band is designated as "A" and the area above the band is designated as "B". All of these methods are discussed in detail in Sinclair (1976), and are implemented in the computer program PROBLOT (Stanley, 1987) distributed by the Association of Exploration Geochemists, and can be easily implemented in spreadsheets such as Microsoft EXCEL.

A summary of the advantages and disadvantages of probability plotting is provided below:

Summary of advantages and disadvantages of using probability graphs for geochemical data	
Advantages	Disadvantages
Simple rapid and easily understood method to represent and interpret data	Represents data as normal or lognormal distribution (i.e., data might not approximate such distributions)
Rapid estimation of parameters for normal and lognormal distributions	Requires a large amount of data (e.g., most useful for datasets containing 70 to 100 data points or more).
Compact representation of several data sets and populations on a single diagram	Tails of cumulative distribution are often not well defined and require careful interpretation to avoid bias.
Straightforward recognition, partitioning, and threshold estimation for multiple populations possible	A small proportion of plots are not interpretable using the procedures outlined by Sinclair (1976)

Rapid identification of abnormalities in data set (e.g. truncation) possible and method insensitive to such abnormalities.	Low quality data can result in ambiguous or incorrect interpretation
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Based upon the work of Sinclair and applications in the field on mineral exploration the analysis presented herein is a reasonable technical based estimate of mercury background in SRS groundwater. Two key/unique features of the work include: a) careful use of estimated values below the nominal detection limit, and b) interpretation of the data using graphical techniques that are insensitive to minor levels of data truncation and lack of prior information on which wells are contaminated and background. Nonetheless, the estimates are considered as preliminary because the analytical methods used were not optimized for analysis of samples at levels below the nominal detection limit. Also, the laboratory work was not performed in a clean room setting (as is done for specialized ultra high sensitivity methods). It is recommend that confirmation and improvement of the preliminary estimate be performed by using analysis with newer more sensitive methods (e.g. EPA Method 1631).

In order to properly apply order statistics and data partitioning techniques presented by Sinclair, the 518 "Estimated" values and the 856 "Non-Detect" values had to be associated. To facilitate handling this censorship of the data, the 518 estimated concentrations below the nominal detection limit were assumed to be representative of the "Non-Detect" samples (i.e., each actual estimate was assumed to represent approximately 2.6 samples for placement of the values on the probability graph). These data, combined with the measurements above the nominal detection limit, were sorted and used to prepare a cumulative probability graph. The geo-statistical analysis was performed in Microsoft EXCEL as described in Newman et al. (1989) – see method description for "order statistics." The results were checked using the PROBLOT program (Stanley, 1987) distributed by the Association of Exploration Geochemists.

Figure 1: Cumulative Histogram of Mercury Concentrations from 19,917 Groundwater Measurements at the Savannah River Site including Estimated and Non-Detect values.

Figure 2: Flowchart Outlining Method Used to Obtain Best Estimate of Concentration Considering "Non-Detects" and "Estimated" Values.

Figure 3A

Normal distributions with different means, but identical standard deviation plot as a set of parallel straight lines on probability paper. Means can be read where the lines intersect the 50th percentile. Standard deviation is estimated by the slope of the line.

Normal distributions with the same mean, but different standard deviations plot as a set of straight lines on probability paper. In this case, the lines intersect at the 50th percentile.

Figure 3B

Illustration of a probability graph of mixed populations. The black dots show convenient arbitrary points on the curve and how the partitioning is performed. For simplicity, the selected points are in regions representing primarily A or B. Points in the central part, the region of overlap, can be calculated as readily as those shown.

Figure 3C

Probability graph of 323 production blasthole Pb assays from the Brenda Mine in Southern British Columbia. This data set illustrates two lognormal populations, S and R, that have been interpreted as representing Pb in sulfides and background-silicate rocks, respectively.

Figure 3: Application of Probability Plots in Identifying and Partitioning of two Log-Normal Populations from Combined Data Sets. (Adopted from Sinclair, 1976).

Results and Analysis

Using order statistics methods presented by Newman et al. (1989) with probability plotting and partitioning techniques presented by Sinclair (1976), the composite data set containing the best estimate of mercury concentration at the 1,724 locations was examined. The results of this examination are presented in Figure 4. This figure presents the probability plot of mercury concentration for the 1,724 locations associated with the Savannah River Site. When plotted on the appropriate probability scale the data form a bimodal curve representative of two combined lognormal populations. The plotted data shows evidence of truncation by the observed flattening for mercury concentrations below 0.02 $\mu\text{g/L}$. This flattening is expected based upon the limits of the analytical methods used to quantify the mercury concentrations. In reality, samples with trace mercury concentrations will be reported, and subsequently grouped, as "Non-detect", as measurement and detection in this range is difficult. The geo-statistical method employed equally distributes these values below the reported detection limit without any weighting. Statistical techniques are available to estimate and consider truncation effects, however application is often subjective. The authors believe that the careful identification and incorporation of the best estimate concentration for every well maintains data integrity and quality.

Visual inspection of the bimodal curve presented in Figure 4 indicates that the data can be represented as two populations and that an inflection point exists at a z-score of about -1.2. This indicates that approximately 90% of the data are associated with the "Background" population and that the remaining 10% are associated with the "Impacted" population. Using this initial estimate and the methods described by Sinclair (1976) the composite data set was rigorously partitioned using quantitative methods into an "Impacted" population and a "Background" population. Summary results of this analysis are presented in Table 1 and are also presented graphically in Figure 4. As shown the "Background" population has a mean concentration of 0.093 $\mu\text{g/L}$ and the "Impacted" population has a mean concentration of 1.14 $\mu\text{g/L}$.

Confidence intervals and the amount of population overlap were determined using the estimated mean and standard deviation information for each population. These calculations allow investigators to identify and compare individual well results so that a specific well can be classified into the appropriate population. The results from this analysis are summarized in Table 1 with specific well detail information enclosed in the Appendices. Figure 5 presents the location and distribution of the monitoring wells at the Savannah River Site and identifies the resulting population identified in this analysis.

The preceding analysis provides a reasonable upper bound on the estimated ambient, background concentration for mercury in the SRS groundwater system. Through the analysis several uncertainties were identified that could have an effect on this estimate. These uncertainties include possible elevated concentrations in wells due to interference from grout contamination, the potential for increased mercury concentrations resulting from laboratory contamination, and the use of data only from a relatively brief sampling window.

High pH values in grout contaminated wells can result in elevated concentrations of mercury in water sampled from these wells. Most natural mercury in SRS sediments was originally deposited as trace concentrations in minerals such as magnetite, feldspar, and apatite. Though concentrations of mercury in these phases at SRS are not known, mercury concentrations in similar phases of other rocks have ranged from tens to hundreds of parts per billion (Aidinayan et.

al., 1963). The weathering of feldspar and magnetite in SRS sediments has produced clays and iron hydroxides and much of the original depositional mercury is probably associated with these fine-grained phases. Suspension of these phases as colloidal particles occurs at high pH values (Strom et. al., 1994) such as those caused by grout contamination. Typically, water in such wells has elevated turbidity and elevated concentrations of iron and aluminum from dispersal of clays and iron hydroxides. When this water is analyzed unfiltered (the case for compliance sampling at SRS) the colloidal particles and associated trace metals are analyzed as well, but are not differentiated from dissolved metals. Thus, inclusion of grout contaminated wells can bias the statistical analysis of mercury concentrations in groundwater toward higher values.

Bloom (1995) documented that "reported" mercury concentrations for "pristine" waters have declined significantly since the early 1970's. While this observation may reflect actual declines in environmental levels, Bloom (1995) suggests that improvements in sampling methods and that the use of clean-rooms have played a role in eliminating potential positive bias at very low concentrations. Because the values used in our estimate were not specifically performed to the clean-room recommendations, there is significant potential for bias in the result. In recent work however, Hall (1998) carefully examined potential analytical problems associated with determining "pristine" aqueous metal concentrations (including mercury). This study suggests that special cleaning methods may not be required in all cases.

As discussed in previous sections the data set developed and incorporated in this analysis was obtained from the GIMS production database of well concentration. Unfortunately the records in this database are limited in a historical perspective. Currently this database contains historical records from the early 1990's to present day. This is indicated by the period of record, October 1992 through August 1998, for the data set employed. This period post-dates most mercury-related activities at the Savannah River Site.

In relating the groundwater background to potential surface water impacts, two major uncertainties exist. These uncertainties relate to the surface and water groundwater interactions that occur in the hyporheic zone and the species of mercury present in the stream. Both of these uncertainties can best be managed by a limited amount of speciated analysis of both groundwater and surface water samples. The majority of the previous site investigations have only reported total recoverable mercury in both the groundwater and/or surface water. The AWQC criterion for mercury is based on toxicology studies with the assumption that all of the mercury in the stream is methyl mercury, the most toxic form, with a high bio-accumulation factor. Since mercury can exist in several forms in the environment, definitive data is needed on mercury species to support decisions regarding stream quality and discharge limits.

Table 1 Summary Information from Partitioning Analysis of Groundwater Mercury Concentration from 1,724 Monitoring Wells at the Savannah River Site.

Population	Mean	Size	Confidence Interval (97.72%)
Background	0.093 µg/L	439	0.021 – 0.407 µg/L
Site Impacted	1.14 µg/L	157	0.16 – 8.06 µg/L
Undetermined	N/A	272	0.16 – 0.407 µg/L
Non-Detects	< 0.2 µg/L	856	N/A

Mercury in Groundwater at SRS

Figure 4: Log Probability Plot of Mercury Concentration from 1,724 Wells at the Savannah River Site. Populations partitioned into an Impacted Population and a Background Population.

Figure 5: Map of the Savannah River Site Showing the Location and Distribution of Wells that are in the Background Population, in the Impacted Population, and whose population is Undetermined.

Recommendations and Conclusions

Developing a technically defensible understanding of mercury in SRS groundwater and associated surface water is critical to supporting the environmental decision making process. Historical measurements from monitoring wells provide the basis for a preliminary estimate of background concentrations and contaminated concentrations in groundwater. This estimate, in turn may assist in related activities. For example, an upper bound on expected background stream concentrations may be possible based on background concentrations in the groundwater cropping out to these streams. Order statistics have been combined with probability plotting and partitioning techniques to estimate the background groundwater concentration for total recoverable mercury as 0.093 $\mu\text{g/L}$.

Uncertainties in groundwater and surface water background estimates are best addressed by obtaining a limited amount of data using appropriate methods and suitable detection limits. The majority of previous data, both at SRS and offsite, have reported only "total recoverable mercury" at nominal detection limits of 0.1 to 0.2 $\mu\text{g/L}$ (levels that are above expected levels). To be most useful, a future "special study" of mercury should include total mercury and mercury speciation analysis of selected samples in both groundwater and surface water at relevant detection limits (e.g., <0.012 $\mu\text{g/L}$). Mercury exists in several forms in the environment, each with varying toxicity/risk. This makes the collection of definitive speciation information central to future technical and regulatory proposals. The resulting data are needed to allow decisions to be based on actual concentrations rather than on a periodic detection at 0.1 to 0.2 $\mu\text{g/L}$.

References

- Aidinyan, N.Kh., L.L. Shilin, and G.A. Belavskaya, 1963, O raspredelenii rtuti v porodakh i mineralakh Khibinskovo Massiva (Concerning the distribution of mercury in the rocks and minerals of the Khibinsky Massif), Tr. Inst. Geol. Rudn. Mestorozhd, Mineralog. i Geokhim., v. 99, p. 16-25.
- Anderson, A. (1970). On the Geochemical Behavior of Mercury. *Grundforbattering* 23:5, pp 31-44.
- Bloom, N. (1995). Ultraclean sample handling. *Environmental Laboratory*, March/April 1995, pp20-25.
- Denham, Miles E. and Richard s. Strom. (1994) *Mercury Speciation Analyses of H-Area Soil Samples*. Inter-Office Memorandum SRT-ESS-94-310, Westinghouse Savannah River Company, Aiken, South Carolina 29808.
- EPA, (1992). Guidance for Data Usability in Risk Assessment (Part A). Report PB92-963356, April 1992, Environmental Protection Agency, Office of Emergency and Remedial Response, Washington D.C.
- GMS (1997). Geochemical Information Management System Users Manual, Westinghouse Savannah River Company, Aiken, South Carolina 29808.
- Hall, G.E. (1998). Relative Concentration levels observed in different types of bottles used to collect water samples. EXPLORE: Newsletter of the Association of Exploration Geochemists, November 1998, pg 1-7.
- Lindberg, S. and Vermette, S. 1995. *Workshop on Sampling Mercury in Precipitation for the National Atmospheric Deposition Program*. Atmospheric Environment. 29, 1219-1220.
- Looney, B.B., C.A. Eddy, M. Ramdeen, J. Pickett, V. Rogers, M.T. Scott, and P.A. Shirley (1990). Geochemical and Physical Properties of Soils and Shallow Sediments at the Savannah River Site (U). Technical Report WSRC-RP-90-1031, August 31, 1990, Westinghouse Savannah River Company, Aiken, South Carolina 29808.
- Looney, Brian B. (1994) *Scoping Calculation on Potential Mercury Migration from Spill (Process Water Entry Flange) Near Building 672T*, Inter-Office Memorandum SRT-ESS-94-124, Westinghouse Savannah River Company, Aiken, South Carolina 29808.
- Newman, M. C., P. M. Dixon, B. B. Looney and J. E. Pinder III, 1989. "Estimating Mean and Variance for Environmental Samples with Below Detection Limit Observations." *Water Resources Bulletin*, 25:4, pp 905-916.
- Newman, M.C. and A. Messier (1994). Mercury Bioaccumulation in Mosquitofish (*Gambusia holbrooki*) Sampled on and around the Savannah River Site. Technical Report SREL-48 UC-66E, Biogeochemical Ecology Division, Savannah River Ecology Laboratory, Drawer E, Aiken, South Carolina 29802.
- Sinclair, A.J. (1989). Applications of Probability Graphs in Mineral Exploration. Special Volume No. 4, The Association of Exploration Geochemists, P.O. Box 523, Metropolitan Toronto, Rexdale, Ontario M9W 5L4, Canada.

- Stanley, C. R., 1987. PROBPLOT: An Interactive Computer Program to Fit Mixtures of Normal (or Lognormal) Distributions with Maximum Likelihood Optimization Procedures. Special Volume No. 14, Association of Exploration Geochemists, Rexdale Ontario, Canada.
- Strom, R.N., B.B. Looney, J.C. Seaman, P.M. Bertsch, and W.P. Miller, 1994, Summary Report and Report; Physicochemical and Mineralogical Controls on Colloid Migration and Deposition within Sediments on the Savannah River Site (U), WSRC-RP-94-276, Westinghouse Savannah River Company, Aiken, SC 29808.
- USGS (1998) Groundwater and Surface Water: A Single Resource. U.S. Geological Survey Circular 1139, U.S. Geological Survey, Branch of Information Services, Box 25286, Denver, Colorado 80225-0286.
- Kvartek, E.J. , W.H. Carlton, M.E. Denham, L. Eldridge, and M.C. Newman (1994). Assessment of Mercury in the Savannah River Site Environment (U). Technical Report WSRC-TR-94-0218ET, September 1994, Westinghouse Savannah River Company, Aiken, South Carolina 29808.
- Vermette, S., Lindberg, S., and Bloom, N. (1995). *Field Tests for a Regional Mercury Deposition Network - Sampling Design and Preliminary Test Results*. Atmospheric Environment. 29, 1247-1251.
- Welker, M. and Vermette, S.J., (1996). *Mercury Deposition Network: QA/QC Protocols*. Paper 96-RP129.01, Proceedings of the 89th Annual Meeting of the Air and Waste Management Association, A&WMA, Pittsburgh, PA.
- WSRC, (1997a). The Savannah River Site's Groundwater Monitoring Program First Quarter 1997 (U), Report ESH-EMS-970488, Environmental Monitoring Section, The Environmental Protection Department, Westinghouse Savannah River Company, Aiken, South Carolina 29808.
- WSRC, (1997b). The Savannah River Site's Groundwater Monitoring Program Second Quarter 1997 (U), Report ESH-EMS-970489, Environmental Monitoring Section, The Environmental Protection Department, Westinghouse Savannah River Company, Aiken, South Carolina 29808.
- WSRC, (1997c). The Savannah River Site's Groundwater Monitoring Program Third Quarter 1997 (U), Report ESH-EMS-970490, Environmental Monitoring Section, The Environmental Protection Department, Westinghouse Savannah River Company, Aiken, South Carolina 29808.
- WSRC, (1997d). The Savannah River Site's Groundwater Monitoring Program Fourth Quarter 1997 (U), Report ESH-EMS-970491, Environmental Monitoring Section, The Environmental Protection Department, Westinghouse Savannah River Company, Aiken, South Carolina 29808.

**Appendix A: Estimated Median Concentrations for SRS Groundwater
Wells Associated with "Background" Population.**

(total mercury < 0.16 ug/L)

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
ABP 1A	J	0.106	UGL	Mercury, total recoverable
ABP 3	J	0.133	UGL	Mercury, total recoverable
ABP 8D	J	0.036	UGL	Mercury, total recoverable
ABP 9C	J	0.026	UGL	Mercury, total recoverable
ABP 9D	J	0.06	UGL	Mercury, total recoverable
ABP 10D	J	0.062	UGL	Mercury, total recoverable
AMB 5	J	0.07	UGL	Mercury, total recoverable
AMB 6	J	0.05	UGL	Mercury, total recoverable
AMB 7	J	0.064	UGL	Mercury, total recoverable
AMB 7A	J	0.067	UGL	Mercury, total recoverable
AMB 7B	J	0.02	UGL	Mercury, total recoverable
AMB 8D	J	0.046	UGL	Mercury, total recoverable
AMB 9D	J	0.015	UGL	Mercury, total recoverable
AMB 10A	J	0.09	UGL	Mercury, total recoverable
AMB 10DD	J	0.021	UGL	Mercury, total recoverable
AMB 11B	J	0.018	UGL	Mercury, total recoverable
AMB 15D	J	0.058	UGL	Mercury, total recoverable
AMB 16D	J	0.046	UGL	Mercury, total recoverable
AMB 17A	J	0.0565	UGL	Mercury, total recoverable
AMB 18A	J	0.0675	UGL	Mercury, total recoverable
AMB 18C	J	0.046	UGL	Mercury, total recoverable
ASB 1A	J	0.086	UGL	Mercury, total recoverable
ASB 2AR	J	0.084	UGL	Mercury, total recoverable
ASB 3AR	J	0.098	UGL	Mercury, total recoverable
ASB 4		0.1315	UGL	Mercury, total recoverable
ASB 5C	J	0.088	UGL	Mercury, total recoverable
ASB 6A	J	0.1285	UGL	Mercury, total recoverable
ASB 6AA	J	0.083	UGL	Mercury, total recoverable
ASB 6C	J	0.13	UGL	Mercury, total recoverable
ASB 8	J	0.073	UGL	Mercury, total recoverable
ASB 8A	J	0.046	UGL	Mercury, total recoverable
ASB 8B	J	0.078	UGL	Mercury, total recoverable
ASB 8TA	J	0.13	UGL	Mercury, total recoverable
ASB 9	J	0.067	UGL	Mercury, total recoverable
ASB 9B	J	0.1585	UGL	Mercury, total recoverable
BGO 1D	J	0.068	UGL	Mercury, total recoverable
BGO 2D	J	0.032	UGL	Mercury, total recoverable
BGO 3DR	J	0.0425	UGL	Mercury, total recoverable
BGO 4D	J	0.029	UGL	Mercury, total recoverable
BGO 6A	J	0.023	UGL	Mercury, total recoverable
BGO 8AR	J	0.03	UGL	Mercury, total recoverable
BGO 8C	J	0.03	UGL	Mercury, total recoverable
BGO 8D	J	0.042	UGL	Mercury, total recoverable
BGO 9D	J	0.031	UGL	Mercury, total recoverable
BGO 10AA	J	0.099	UGL	Mercury, total recoverable
BGO 10AR	J	0.029	UGL	Mercury, total recoverable
BGO 10DR	J	0.075	UGL	Mercury, total recoverable
BGO 11DR	J	0.033	UGL	Mercury, total recoverable
BGO 12AX	J	0.14	UGL	Mercury, total recoverable
BGO 12CX	J	0.132	UGL	Mercury, total recoverable
BGO 14AR	J	0.101	UGL	Mercury, total recoverable
BGO 14CR	J	0.142	UGL	Mercury, total recoverable
BGO 14DR	J	0.077	UGL	Mercury, total recoverable

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
BGO 16B	J	0.028	UGL	Mercury, total recoverable
BGO 20A	J	0.034	UGL	Mercury, total recoverable
BGO 20AA	J	0.099	UGL	Mercury, total recoverable
BGO 20B	J	0.109	UGL	Mercury, total recoverable
BGO 20C	J	0.111	UGL	Mercury, total recoverable
BGO 20D	J	0.104	UGL	Mercury, total recoverable
BGO 21D	J	0.016	UGL	Mercury, total recoverable
BGO 23D	J	0.0535	UGL	Mercury, total recoverable
BGO 27D	J	0.045	UGL	Mercury, total recoverable
BGO 30C	J	0.087	UGL	Mercury, total recoverable
BGO 32D	J	0.078	UGL	Mercury, total recoverable
BGO 33D	J	0.1105	UGL	Mercury, total recoverable
BGO 35C	J	0.0665	UGL	Mercury, total recoverable
BGO 35D	J	0.137	UGL	Mercury, total recoverable
BGO 37D	J	0.071	UGL	Mercury, total recoverable
BGO 39A	J	0.059	UGL	Mercury, total recoverable
BGO 44AA	J	0.135	UGL	Mercury, total recoverable
BGO 46C	J	0.034	UGL	Mercury, total recoverable
BGO 49C	J	0.049	UGL	Mercury, total recoverable
BGO 49D	J	0.022	UGL	Mercury, total recoverable
BGO 50A	J	0.055	UGL	Mercury, total recoverable
BGO 51A	J	0.082	UGL	Mercury, total recoverable
BGO 51AA	J	0.151	UGL	Mercury, total recoverable
BGO 51B	J	0.073	UGL	Mercury, total recoverable
BGO 51C	J	0.032	UGL	Mercury, total recoverable
BGO 51D	J	0.101	UGL	Mercury, total recoverable
BGO 52A	J	0.093	UGL	Mercury, total recoverable
BGO 52AA	J	0.04	UGL	Mercury, total recoverable
BGO 52B	J	0.153	UGL	Mercury, total recoverable
BGO 52D	J	0.045	UGL	Mercury, total recoverable
BGO 53A	J	0.088	UGL	Mercury, total recoverable
BGO 53B	J	0.085	UGL	Mercury, total recoverable
BGX 2B	J	0.015	UGL	Mercury, total recoverable
BGX 3D	J	0.063	UGL	Mercury, total recoverable
BGX 4C	J	0.096	UGL	Mercury, total recoverable
BGX 4D	J	0.093	UGL	Mercury, total recoverable
BGX 5D	J	0.028	UGL	Mercury, total recoverable
BGX 12C	J	0.045	UGL	Mercury, total recoverable
BGX 12D	J	0.042	UGL	Mercury, total recoverable
BRR 1D	J	0.077	UGL	Mercury, total recoverable
BRR 2D	J	0.063	UGL	Mercury, total recoverable
BRR 3D	J	0.0955	UGL	Mercury, total recoverable
BRR 4D	J	0.054	UGL	Mercury, total recoverable
BRR 5D	J	0.108	UGL	Mercury, total recoverable
BRR 6B	J	0.0595	UGL	Mercury, total recoverable
BRR 6C	J	0.086	UGL	Mercury, total recoverable
BRR 6D	J	0.0525	UGL	Mercury, total recoverable
BRR 7D	J	0.095	UGL	Mercury, total recoverable
BRR 8B	J	0.15	UGL	Mercury, total recoverable
BRR 8C	J	0.142	UGL	Mercury, total recoverable
BRR 8D	J	0.127	UGL	Mercury, total recoverable
CBR 1D	J	0.0485	UGL	Mercury, total recoverable
CBR 4D	J	0.046	UGL	Mercury, total recoverable

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
CCB 1	J	0.061	UGL	Mercury, total recoverable
CCB 2	J	0.15	UGL	Mercury, total recoverable
CCB 3	J	0.092	UGL	Mercury, total recoverable
CMP 8	J	0.1045	UGL	Mercury, total recoverable
CMP 8A	J	0.076	UGL	Mercury, total recoverable
CMP 8B	J	0.073	UGL	Mercury, total recoverable
CMP 10B	J	0.119	UGL	Mercury, total recoverable
CMP 10C	J	0.055	UGL	Mercury, total recoverable
CMP 10D	J	0.023	UGL	Mercury, total recoverable
CMP 12	J	0.041	UGL	Mercury, total recoverable
CMP 12A	J	0.106	UGL	Mercury, total recoverable
CMP 12B	J	0.079	UGL	Mercury, total recoverable
CMP 13	J	0.0985	UGL	Mercury, total recoverable
CMP 13B	J	0.147	UGL	Mercury, total recoverable
CMP 13D	J	0.064	UGL	Mercury, total recoverable
CMP 15A	J	0.093	UGL	Mercury, total recoverable
CMP 15B	J	0.143	UGL	Mercury, total recoverable
CMP 15C	J	0.091	UGL	Mercury, total recoverable
CMP 16B	J	0.127	UGL	Mercury, total recoverable
CMP 30C	J	0.065	UGL	Mercury, total recoverable
CMP 30D	J	0.0985	UGL	Mercury, total recoverable
CMP 31B	J	0.125	UGL	Mercury, total recoverable
CMP 32C	J	0.087	UGL	Mercury, total recoverable
CMP 32D	J	0.0885	UGL	Mercury, total recoverable
CRP 2	J	0.0555	UGL	Mercury, total recoverable
CRP 3C	J	0.135	UGL	Mercury, total recoverable
CRP 3D	J	0.1185	UGL	Mercury, total recoverable
CRP 4	J	0.154	UGL	Mercury, total recoverable
CRP 5D	J	0.12	UGL	Mercury, total recoverable
CRP 6D	J	0.106	UGL	Mercury, total recoverable
CRP 9D	J	0.146	UGL	Mercury, total recoverable
CSB 2C	J	0.06	UGL	Mercury, total recoverable
DCB 18A	J	0.095	UGL	Mercury, total recoverable
DCB 18B	J	0.1	UGL	Mercury, total recoverable
DCB 22A	J	0.11	UGL	Mercury, total recoverable
DOB 1	J	0.049	UGL	Mercury, total recoverable
DOB 2	J	0.1375	UGL	Mercury, total recoverable
DOB 10	J	0.115	UGL	Mercury, total recoverable
DOB 12	J	0.05	UGL	Mercury, total recoverable
DOB 16	J	0.09	UGL	Mercury, total recoverable
FAB 2	J	0.05	UGL	Mercury, total recoverable
FAC 11C	J	0.08	UGL	Mercury, total recoverable
FAL 1	J	0.0655	UGL	Mercury, total recoverable
FAL 2	J	0.061	UGL	Mercury, total recoverable
FCA 10A	J	0.075	UGL	Mercury, total recoverable
FCB 4	J	0.09	UGL	Mercury, total recoverable
FIN 2TK	J	0.154	UGL	Mercury, total recoverable
FRB 4	J	0.06	UGL	Mercury, total recoverable
FSB 76	J	0.029	UGL	Mercury, total recoverable
FSB 78C	J	0.0805	UGL	Mercury, total recoverable
FSB 79B	J	0.085	UGL	Mercury, total recoverable
FSB 87C	J	0.157	UGL	Mercury, total recoverable
FSB 96AR	J	0.033	UGL	Mercury, total recoverable

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
FSB 97A	J	0.05	UGL	Mercury, total recoverable
FSB 97C	J	0.056	UGL	Mercury, total recoverable
FSB 97D	J	0.129	UGL	Mercury, total recoverable
FSB 98AR	J	0.086	UGL	Mercury, total recoverable
FSB 98D	J	0.154	UGL	Mercury, total recoverable
FSB 99C	J	0.156	UGL	Mercury, total recoverable
FSB104C	J	0.114	UGL	Mercury, total recoverable
FSB105DR	J	0.038	UGL	Mercury, total recoverable
FSB108D	J	0.064	UGL	Mercury, total recoverable
FSB109D	J	0.063	UGL	Mercury, total recoverable
FSB110C	J	0.026	UGL	Mercury, total recoverable
FSB111C	J	0.058	UGL	Mercury, total recoverable
FSB111D	J	0.129	UGL	Mercury, total recoverable
FSB112A	J	0.032	UGL	Mercury, total recoverable
FSB113D	J	0.024	UGL	Mercury, total recoverable
FSB114C		0.067	UGL	Mercury, total recoverable
FSB116C	J	0.119	UGL	Mercury, total recoverable
FSB120C	J	0.032	UGL	Mercury, total recoverable
FSB121DR	J	0.054	UGL	Mercury, total recoverable
FSB122C	J	0.137	UGL	Mercury, total recoverable
FSB122D	J	0.137	UGL	Mercury, total recoverable
FSL 1D	J	0.064	UGL	Mercury, total recoverable
FSL 2D	J	0.056	UGL	Mercury, total recoverable
FSL 5D	J	0.048	UGL	Mercury, total recoverable
FSL 8D	J	0.115	UGL	Mercury, total recoverable
FSS 3D	J	0.143	UGL	Mercury, total recoverable
FTF 16	J	0.152	UGL	Mercury, total recoverable
HAA 1D	J	0.08	UGL	Mercury, total recoverable
HAA 1TA	J	0.129	UGL	Mercury, total recoverable
HCA 2	J	0.067	UGL	Mercury, total recoverable
HCA 3	J	0.0975	UGL	Mercury, total recoverable
HCA 4AA	J	0.13	UGL	Mercury, total recoverable
HCA 4B	J	0.0945	UGL	Mercury, total recoverable
HCB 1	J	0.08	UGL	Mercury, total recoverable
HHP 1D	J	0.1	UGL	Mercury, total recoverable
HR3 13	J	0.1175	UGL	Mercury, total recoverable
HR8 11	J	0.074	UGL	Mercury, total recoverable
HR8 14	J	0.114	UGL	Mercury, total recoverable
HSB 65	J	0.1555	UGL	Mercury, total recoverable
HSB 65A	J	0.121	UGL	Mercury, total recoverable
HSB 68A	J	0.1145	UGL	Mercury, total recoverable
HSB 68B	J	0.109	UGL	Mercury, total recoverable
HSB 83A	J	0.019	UGL	Mercury, total recoverable
HSB 83B	J	0.15	UGL	Mercury, total recoverable
HSB 84A	J	0.107	UGL	Mercury, total recoverable
HSB 84B	J	0.0245	UGL	Mercury, total recoverable
HSB 84C	J	0.075	UGL	Mercury, total recoverable
HSB 86A	J	0.1455	UGL	Mercury, total recoverable
HSB 86B	J	0.074	UGL	Mercury, total recoverable
HSB100C	J	0.158	UGL	Mercury, total recoverable
HSB107C	J	0.061	UGL	Mercury, total recoverable
HSB110C	J	0.024	UGL	Mercury, total recoverable
HSB111C	J	0.076	UGL	Mercury, total recoverable

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
HSB112C	J	0.1565	UGL	Mercury, total recoverable
HSB112E	J	0.096	UGL	Mercury, total recoverable
HSB117D	J	0.145	UGL	Mercury, total recoverable
HSB118A	J	0.042	UGL	Mercury, total recoverable
HSB121A	J	0.091	UGL	Mercury, total recoverable
HSB122A	J	0.146	UGL	Mercury, total recoverable
HSB123A	J	0.147	UGL	Mercury, total recoverable
HSB125C	J	0.0985	UGL	Mercury, total recoverable
HSB129C	J	0.155	UGL	Mercury, total recoverable
HSB130D	J	0.129	UGL	Mercury, total recoverable
HSB131D	J	0.061	UGL	Mercury, total recoverable
HSB133C	J	0.1255	UGL	Mercury, total recoverable
HSB133D	J	0.118	UGL	Mercury, total recoverable
HSB137D	J	0.105	UGL	Mercury, total recoverable
HSB140C	J	0.115	UGL	Mercury, total recoverable
HSB141A	J	0.154	UGL	Mercury, total recoverable
HSB141CR	J	0.095	UGL	Mercury, total recoverable
HSB141D	J	0.092	UGL	Mercury, total recoverable
HSB143C	J	0.111	UGL	Mercury, total recoverable
HSB146A	J	0.088	UGL	Mercury, total recoverable
HSB146C	J	0.146	UGL	Mercury, total recoverable
HSB149D	J	0.0775	UGL	Mercury, total recoverable
HSB151C	J	0.106	UGL	Mercury, total recoverable
HSB151D	J	0.086	UGL	Mercury, total recoverable
HSB152D	J	0.154	UGL	Mercury, total recoverable
HSL 2D	J	0.131	UGL	Mercury, total recoverable
HSL 6AA		0.1	UGL	Mercury, total recoverable
HSL 6B	J	0.078	UGL	Mercury, total recoverable
HSL 8A	J	0.112	UGL	Mercury, total recoverable
HSL 8B	J	0.082	UGL	Mercury, total recoverable
HSL 8C	J	0.0515	UGL	Mercury, total recoverable
KAC 1	J	0.0905	UGL	Mercury, total recoverable
KAC 3	J	0.072	UGL	Mercury, total recoverable
KAC 4	J	0.1205	UGL	Mercury, total recoverable
KAC 5	J	0.1125	UGL	Mercury, total recoverable
KAC 8	J	0.0845	UGL	Mercury, total recoverable
KAC 9	J	0.08	UGL	Mercury, total recoverable
KCB 3	J	0.108	UGL	Mercury, total recoverable
KCB 5	J	0.081	UGL	Mercury, total recoverable
KCB 7	J	0.082	UGL	Mercury, total recoverable
KDB 4	J	0.019	UGL	Mercury, total recoverable
KSB 5C	J	0.137	UGL	Mercury, total recoverable
KSB 5D	J	0.143	UGL	Mercury, total recoverable
LAC 1	J	0.066	UGL	Mercury, total recoverable
LAC 2	J	0.06	UGL	Mercury, total recoverable
LAC 4	J	0.1175	UGL	Mercury, total recoverable
LAC 5DL		0.101	UGL	Mercury, total recoverable
LAC 5DU		0.086	UGL	Mercury, total recoverable
LAC 6DU		0.154	UGL	Mercury, total recoverable
LAC 8DU		0.097	UGL	Mercury, total recoverable
LAW 1E		0.113	UGL	Mercury, total recoverable
LAW 2B	J	0.1305	UGL	Mercury, total recoverable
LBP 2D	J	0.05	UGL	Mercury, total recoverable

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
LBP 3D	J	0.116	UGL	Mercury, total recoverable
LCO 2	J	0.043	UGL	Mercury, total recoverable
LCO 8DU		0.117	UGL	Mercury, total recoverable
LFW 8R	J	0.043	UGL	Mercury, total recoverable
LFW 10A	J	0.103	UGL	Mercury, total recoverable
LFW 18	J	0.063	UGL	Mercury, total recoverable
LFW 22	J	0.085	UGL	Mercury, total recoverable
LFW 23	J	0.031	UGL	Mercury, total recoverable
LFW 23R	J	0.0535	UGL	Mercury, total recoverable
LFW 24	J	0.1465	UGL	Mercury, total recoverable
LFW 28	J	0.148	UGL	Mercury, total recoverable
LFW 29	J	0.134	UGL	Mercury, total recoverable
LFW 32	J	0.047	UGL	Mercury, total recoverable
LFW 36R	J	0.08	UGL	Mercury, total recoverable
LFW 43B	J	0.0565	UGL	Mercury, total recoverable
LFW 43C	J	0.069	UGL	Mercury, total recoverable
LFW 47D	J	0.1525	UGL	Mercury, total recoverable
LFW 56D	J	0.024	UGL	Mercury, total recoverable
LFW 60C	J	0.0205	UGL	Mercury, total recoverable
LFW 63B	J	0.055	UGL	Mercury, total recoverable
LFW 63C	J	0.069	UGL	Mercury, total recoverable
LFW 63D	J	0.15	UGL	Mercury, total recoverable
LFW 64C	J	0.128	UGL	Mercury, total recoverable
LFW 64D	J	0.058	UGL	Mercury, total recoverable
LFW 65B	J	0.148	UGL	Mercury, total recoverable
LFW 69C	J	0.114	UGL	Mercury, total recoverable
LFW 69D	J	0.105	UGL	Mercury, total recoverable
LFW 70B	J	0.151	UGL	Mercury, total recoverable
LFW 71D	J	0.049	UGL	Mercury, total recoverable
LFW 72B	J	0.105	UGL	Mercury, total recoverable
LFW 72C	J	0.107	UGL	Mercury, total recoverable
LFW 72D	J	0.136	UGL	Mercury, total recoverable
LFW 74C	J	0.078	UGL	Mercury, total recoverable
LFW 74D	J	0.104	UGL	Mercury, total recoverable
LFW 75C	J	0.115	UGL	Mercury, total recoverable
LFW 75D	J	0.036	UGL	Mercury, total recoverable
LRP 4	J	0.121	UGL	Mercury, total recoverable
MCB 5	J	0.068	UGL	Mercury, total recoverable
MCB 5C	J	0.0995	UGL	Mercury, total recoverable
MCB 6C	J	0.05	UGL	Mercury, total recoverable
MCB 10DR	J	0.032	UGL	Mercury, total recoverable
MCB 11B	J	0.029	UGL	Mercury, total recoverable
MCB 11C	J	0.1	UGL	Mercury, total recoverable
MCB 12B	J	0.044	UGL	Mercury, total recoverable
MCB 12C	J	0.064	UGL	Mercury, total recoverable
MCB 13D	J	0.047	UGL	Mercury, total recoverable
MCB 14B	J	0.0495	UGL	Mercury, total recoverable
MCB 20B	J	0.133	UGL	Mercury, total recoverable
MSB 1CC	J	0.049	UGL	Mercury, total recoverable
MSB 2B	J	0.1395	UGL	Mercury, total recoverable
MSB 3B	J	0.04	UGL	Mercury, total recoverable
MSB 4B	J	0.046	UGL	Mercury, total recoverable
MSB 4D	J	0.1	UGL	Mercury, total recoverable

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
MSB 5A	J	0.026	UGL	Mercury, total recoverable
MSB 7A	J	0.094	UGL	Mercury, total recoverable
MSB 8A	J	0.051	UGL	Mercury, total recoverable
MSB 8B	J	0.024	UGL	Mercury, total recoverable
MSB 9C	J	0.019	UGL	Mercury, total recoverable
MSB 10B	J	0.025	UGL	Mercury, total recoverable
MSB 12B	J	0.1555	UGL	Mercury, total recoverable
MSB 13CC	J	0.141	UGL	Mercury, total recoverable
MSB 15A	J	0.056	UGL	Mercury, total recoverable
MSB 15D	J	0.143	UGL	Mercury, total recoverable
MSB 19C	J	0.075	UGL	Mercury, total recoverable
MSB 20A	J	0.018	UGL	Mercury, total recoverable
MSB 23TA	J	0.015	UGL	Mercury, total recoverable
MSB 25A	J	0.11	UGL	Mercury, total recoverable
MSB 26	J	0.029	UGL	Mercury, total recoverable
MSB 26B	J	0.089	UGL	Mercury, total recoverable
MSB 27	J	0.057	UGL	Mercury, total recoverable
MSB 27TA	J	0.11	UGL	Mercury, total recoverable
MSB 28A	J	0.0425	UGL	Mercury, total recoverable
MSB 29B	J	0.022	UGL	Mercury, total recoverable
MSB 29C	J	0.032	UGL	Mercury, total recoverable
MSB 29D	J	0.022	UGL	Mercury, total recoverable
MSB 30C	J	0.03	UGL	Mercury, total recoverable
MSB 31B	J	0.122	UGL	Mercury, total recoverable
MSB 31C	J	0.1495	UGL	Mercury, total recoverable
MSB 31CC	J	0.03	UGL	Mercury, total recoverable
MSB 32B	J	0.0505	UGL	Mercury, total recoverable
MSB 33C	J	0.135	UGL	Mercury, total recoverable
MSB 34B	J	0.156	UGL	Mercury, total recoverable
MSB 34C	J	0.046	UGL	Mercury, total recoverable
MSB 34TA	J	0.033	UGL	Mercury, total recoverable
MSB 36A	J	0.0915	UGL	Mercury, total recoverable
MSB 36B	J	0.08	UGL	Mercury, total recoverable
MSB 36C	J	0.076	UGL	Mercury, total recoverable
MSB 36D	J	0.121	UGL	Mercury, total recoverable
MSB 36TA	J	0.051	UGL	Mercury, total recoverable
MSB 37B	J	0.142	UGL	Mercury, total recoverable
MSB 37C	J	0.066	UGL	Mercury, total recoverable
MSB 37TA	J	0.023	UGL	Mercury, total recoverable
MSB 38C	J	0.103	UGL	Mercury, total recoverable
MSB 40B	J	0.054	UGL	Mercury, total recoverable
MSB 41B	J	0.018	UGL	Mercury, total recoverable
MSB 41TA	J	0.052	UGL	Mercury, total recoverable
MSB 43B	J	0.031	UGL	Mercury, total recoverable
MSB 43D	J	0.02	UGL	Mercury, total recoverable
MSB 43TA	J	0.082	UGL	Mercury, total recoverable
MSB 45A	J	0.056	UGL	Mercury, total recoverable
MSB 45B	J	0.057	UGL	Mercury, total recoverable
MSB 46A	J	0.018	UGL	Mercury, total recoverable
MSB 47B	J	0.156	UGL	Mercury, total recoverable
MSB 47C	J	0.085	UGL	Mercury, total recoverable
MSB 47TA	J	0.029	UGL	Mercury, total recoverable
MSB 48A	J	0.039	UGL	Mercury, total recoverable

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
MSB 48C	J	0.105	UGL	Mercury, total recoverable
MSB 49B	J	0.095	UGL	Mercury, total recoverable
MSB 49D	J	0.026	UGL	Mercury, total recoverable
MSB 51B	J	0.022	UGL	Mercury, total recoverable
MSB 55C	J	0.1445	UGL	Mercury, total recoverable
MSB 55D	J	0.043	UGL	Mercury, total recoverable
MSB 56D	J	0.064	UGL	Mercury, total recoverable
MSB 57D	J	0.042	UGL	Mercury, total recoverable
MSB 58D	J	0.082	UGL	Mercury, total recoverable
MSB 60D	J	0.0375	UGL	Mercury, total recoverable
MSB 62B	J	0.016	UGL	Mercury, total recoverable
MSB 62D	J	0.1575	UGL	Mercury, total recoverable
MSB 63C	J	0.027	UGL	Mercury, total recoverable
MSB 63D	J	0.045	UGL	Mercury, total recoverable
MSB 64D	J	0.126	UGL	Mercury, total recoverable
MSB 65D	J	0.119	UGL	Mercury, total recoverable
MSB 66C	J	0.022	UGL	Mercury, total recoverable
MSB 68B	J	0.021	UGL	Mercury, total recoverable
MSB 72B	J	0.118	UGL	Mercury, total recoverable
MSB 76C	J	0.091	UGL	Mercury, total recoverable
MSB 82A	J	0.044	UGL	Mercury, total recoverable
MSB 82B	J	0.0915	UGL	Mercury, total recoverable
MSB 86C	J	0.1405	UGL	Mercury, total recoverable
MSB 88B	J	0.033	UGL	Mercury, total recoverable
MSB 88C	J	0.025	UGL	Mercury, total recoverable
NBG 5	J	0.141	UGL	Mercury, total recoverable
P 26A	J	0.0495	UGL	Mercury, total recoverable
P 26D	J	0.058	UGL	Mercury, total recoverable
PAC 1	J	0.081	UGL	Mercury, total recoverable
PAC 4	J	0.041	UGL	Mercury, total recoverable
PBP 2D	J	0.05	UGL	Mercury, total recoverable
PCB 4A	J	0.13	UGL	Mercury, total recoverable
PRP 2	J	0.07	UGL	Mercury, total recoverable
PRP 3	J	0.08	UGL	Mercury, total recoverable
RAC 1	J	0.11	UGL	Mercury, total recoverable
RBP 1D	J	0.07	UGL	Mercury, total recoverable
RBP 2D	J	0.101	UGL	Mercury, total recoverable
RBP 3D	J	0.11	UGL	Mercury, total recoverable
RWM 3	J	0.107	UGL	Mercury, total recoverable
RWM 6	J	0.045	UGL	Mercury, total recoverable
RWM 8	J	0.052	UGL	Mercury, total recoverable
RWM 9	J	0.139	UGL	Mercury, total recoverable
RWM 10	J	0.11	UGL	Mercury, total recoverable
RWM 11	J	0.083	UGL	Mercury, total recoverable
SRW 1	J	0.054	UGL	Mercury, total recoverable
SRW 2A	J	0.059	UGL	Mercury, total recoverable
SRW 2B	J	0.0415	UGL	Mercury, total recoverable
SRW 4BB	J	0.054	UGL	Mercury, total recoverable
SRW 5	J	0.142	UGL	Mercury, total recoverable
SRW 10	J	0.044	UGL	Mercury, total recoverable
SRW 14A	J	0.066	UGL	Mercury, total recoverable
SRW 15A	J	0.05	UGL	Mercury, total recoverable
SRW 16B	J	0.0885	UGL	Mercury, total recoverable

Wells (n=439) with median mercury concentration estimated < 0.16 ug/L				
well	qualifier	result	units	analyte_name
SSS 25	J	0.084	UGL	Mercury, total recoverable
STR312I	J	0.158	UGL	Mercury, total recoverable
TBG 1	J	0.061	UGL	Mercury, total recoverable
TBG 5A	J	0.09	UGL	Mercury, total recoverable
TBG 5B	J	0.086	UGL	Mercury, total recoverable
TNX 11D	J	0.048	UGL	Mercury, total recoverable
TNX 26D	J	0.12	UGL	Mercury, total recoverable
TRW 3	J	0.08	UGL	Mercury, total recoverable
TRW 4	J	0.09	UGL	Mercury, total recoverable
XSB 1D	J	0.103	UGL	Mercury, total recoverable
YSB 1A	J	0.09	UGL	Mercury, total recoverable
YSB 2A	J	0.038	UGL	Mercury, total recoverable
YSB 4A	J	0.098	UGL	Mercury, total recoverable
ZBG 1	J	0.112	UGL	Mercury, total recoverable
ZBG 2	J	0.116	UGL	Mercury, total recoverable

**Appendix B: Estimated Median Concentrations for SRS Groundwater
Wells for "Undetermined" Population.**

(total mercury between 0.16 ug/L and 0.4 ug/L)

Wells (n=272) with median mercury concentration estimated between 0.16 & 0.4 ug/L

well	qualifier	result	units	analyte_name
AC 3A	J	0.175	UGL	Mercury, total recoverable
ACB 3A		0.26	UGL	Mercury, total recoverable
ACB 4A	J	0.29714286	UGL	Mercury, total recoverable
AMB 11D		0.237	UGL	Mercury, total recoverable
AMB 13AR	J	0.161	UGL	Mercury, total recoverable
AMB 19C	J	0.172	UGL	Mercury, total recoverable
ARP 1A		0.2205	UGL	Mercury, total recoverable
ARP 5D		0.24	UGL	Mercury, total recoverable
ASB 2CR		0.232	UGL	Mercury, total recoverable
BG 52		0.288	UGL	Mercury, total recoverable
BG 54		0.246	UGL	Mercury, total recoverable
BG 121	J	0.204	UGL	Mercury, total recoverable
BGO 7D	J	0.192	UGL	Mercury, total recoverable
BGO 16AR	J	0.205	UGL	Mercury, total recoverable
BGO 28D	J	0.1715	UGL	Mercury, total recoverable
BGO 30D	J	0.1725	UGL	Mercury, total recoverable
BGO 31D		0.258	UGL	Mercury, total recoverable
BGO 44A	J	0.235	UGL	Mercury, total recoverable
BGO 47A	J	0.19	UGL	Mercury, total recoverable
BGO 52C	J	0.189	UGL	Mercury, total recoverable
BGX 4A	J	0.164	UGL	Mercury, total recoverable
CMP 11D	J	0.164	UGL	Mercury, total recoverable
CRP 5C		0.22	UGL	Mercury, total recoverable
CRP 7D	J	0.166	UGL	Mercury, total recoverable
CRP 8D		0.207	UGL	Mercury, total recoverable
CSB 6A	J	0.276	UGL	Mercury, total recoverable
CSR 5D		0.212	UGL	Mercury, total recoverable
CSR 6D	J	0.1805	UGL	Mercury, total recoverable
DCB 1A		0.3	UGL	Mercury, total recoverable
DCB 7		0.2045	UGL	Mercury, total recoverable
DCB 10		0.206	UGL	Mercury, total recoverable
DCB 15		0.218	UGL	Mercury, total recoverable
DCB 21A	J	0.207	UGL	Mercury, total recoverable
DCB 22B	J	0.194	UGL	Mercury, total recoverable
DCB 24A	J	0.16	UGL	Mercury, total recoverable
DCB 24B	J	0.2	UGL	Mercury, total recoverable
DOB 7		0.224	UGL	Mercury, total recoverable
DOB 10		0.215	UGL	Mercury, total recoverable
F 15	J	0.255	UGL	Mercury, total recoverable
F 17	J	0.393	UGL	Mercury, total recoverable
F 25		0.23	UGL	Mercury, total recoverable
FAB 1		0.3285	UGL	Mercury, total recoverable
FAB 4	J	0.1675	UGL	Mercury, total recoverable
FAC 3		0.378	UGL	Mercury, total recoverable
FAC 4		0.367	UGL	Mercury, total recoverable
FAC 5	J	0.189	UGL	Mercury, total recoverable
FAC 6		0.3055	UGL	Mercury, total recoverable
FAC 7		0.385	UGL	Mercury, total recoverable
FAC 8		0.2955	UGL	Mercury, total recoverable
FBP 2A		0.207	UGL	Mercury, total recoverable
FCA 16A		0.207	UGL	Mercury, total recoverable
FEX 1TK		0.301	UGL	Mercury, total recoverable
FNB 1	J	0.179	UGL	Mercury, total recoverable

Wells (n=272) with median mercury concentration estimated between 0.16 & 0.4 ug/L				
well	qualifier	result	units	analyte_name
FNB 3		0.223	UGL	Mercury, total recoverable
FNB 5		0.223	UGL	Mercury, total recoverable
FNB 5		0.225	UGL	Mercury, total recoverable
FSB 87D	J	0.219	UGL	Mercury, total recoverable
FSB 91D	J	0.211	UGL	Mercury, total recoverable
FSB 93C	J	0.201	UGL	Mercury, total recoverable
FSB 93D		0.204	UGL	Mercury, total recoverable
FSB104D	J	0.21	UGL	Mercury, total recoverable
FSB105C		0.249	UGL	Mercury, total recoverable
FSB112C		0.378	UGL	Mercury, total recoverable
FSB112D		0.202	UGL	Mercury, total recoverable
FSB118D	J	0.1835	UGL	Mercury, total recoverable
FSB121C	J	0.1965	UGL	Mercury, total recoverable
FSL 6D		0.227	UGL	Mercury, total recoverable
FSL 7D	J	0.183	UGL	Mercury, total recoverable
FSS 1D	J	0.227	UGL	Mercury, total recoverable
FSS 2D	J	0.2365	UGL	Mercury, total recoverable
FSS 4D	J	0.201	UGL	Mercury, total recoverable
FTF 1		0.21	UGL	Mercury, total recoverable
FTF 4		0.315	UGL	Mercury, total recoverable
FTF 4		0.37	UGL	Mercury, total recoverable
FTF 10	J	0.2545	UGL	Mercury, total recoverable
FTF 16		0.23	UGL	Mercury, total recoverable
FTF 17	J	0.2155	UGL	Mercury, total recoverable
FTF 18	J	0.222	UGL	Mercury, total recoverable
FTF 23		0.2	UGL	Mercury, total recoverable
FTF 24A		0.25	UGL	Mercury, total recoverable
FTF 26		0.342	UGL	Mercury, total recoverable
HAA 3D	J	0.1755	UGL	Mercury, total recoverable
HAA 4D		0.16	UGL	Mercury, total recoverable
HAA 5C		0.359	UGL	Mercury, total recoverable
HAC 3		0.3225	UGL	Mercury, total recoverable
HAC 4	J	0.1855	UGL	Mercury, total recoverable
HC 4B	J	0.204	UGL	Mercury, total recoverable
HET 3D	J	0.304	UGL	Mercury, total recoverable
HET 4D		0.2	UGL	Mercury, total recoverable
HR3 11		0.225	UGL	Mercury, total recoverable
HR3 15DU		0.264	UGL	Mercury, total recoverable
HSB 65B	J	0.1925	UGL	Mercury, total recoverable
HSB 65C	J	0.1875	UGL	Mercury, total recoverable
HSB 66	J	0.2295	UGL	Mercury, total recoverable
HSB 69	J	0.199	UGL	Mercury, total recoverable
HSB 70	J	0.2	UGL	Mercury, total recoverable
HSB 70C	J	0.1725	UGL	Mercury, total recoverable
HSB 71	J	0.192	UGL	Mercury, total recoverable
HSB 71C		0.2055	UGL	Mercury, total recoverable
HSB 83C	J	0.2	UGL	Mercury, total recoverable
HSB 83D	J	0.32	UGL	Mercury, total recoverable
HSB 84D	J	0.187	UGL	Mercury, total recoverable
HSB 85A	J	0.2	UGL	Mercury, total recoverable
HSB 85C		0.2	UGL	Mercury, total recoverable
HSB 86C		0.368	UGL	Mercury, total recoverable
HSB 86D	J	0.263	UGL	Mercury, total recoverable

Wells (n=272) with median mercury concentration estimated between 0.16 & 0.4 ug/L

well	qualifier	result	units	analyte_name
HSB100D	J	0.2165	UGL	Mercury, total recoverable
HSB105C	J	0.2	UGL	Mercury, total recoverable
HSB109C		0.2	UGL	Mercury, total recoverable
HSB111D	J	0.2	UGL	Mercury, total recoverable
HSB111E	J	0.2	UGL	Mercury, total recoverable
HSB112D	J	0.2	UGL	Mercury, total recoverable
HSB113C	J	0.2	UGL	Mercury, total recoverable
HSB113D		0.398	UGL	Mercury, total recoverable
HSB114C		0.239	UGL	Mercury, total recoverable
HSB115C	J	0.186	UGL	Mercury, total recoverable
HSB115D	J	0.2	UGL	Mercury, total recoverable
HSB116D	J	0.2	UGL	Mercury, total recoverable
HSB117A	J	0.2	UGL	Mercury, total recoverable
HSB117C	J	0.2385	UGL	Mercury, total recoverable
HSB119A	J	0.2	UGL	Mercury, total recoverable
HSB120A	J	0.202	UGL	Mercury, total recoverable
HSB124AR	J	0.1745	UGL	Mercury, total recoverable
HSB126C	J	0.2	UGL	Mercury, total recoverable
HSB127C	J	0.2	UGL	Mercury, total recoverable
HSB129D		0.323	UGL	Mercury, total recoverable
HSB130C	J	0.1665	UGL	Mercury, total recoverable
HSB131C	J	0.2	UGL	Mercury, total recoverable
HSB134C	J	0.202	UGL	Mercury, total recoverable
HSB135D		0.225	UGL	Mercury, total recoverable
HSB136C	J	0.2	UGL	Mercury, total recoverable
HSB136D	J	0.217	UGL	Mercury, total recoverable
HSB137C	J	0.2	UGL	Mercury, total recoverable
HSB138D	J	0.179	UGL	Mercury, total recoverable
HSB140D	J	0.1745	UGL	Mercury, total recoverable
HSB143D	J	0.188	UGL	Mercury, total recoverable
HSB144A	J	0.1915	UGL	Mercury, total recoverable
HSB145C		0.348	UGL	Mercury, total recoverable
HSB148C	J	0.173	UGL	Mercury, total recoverable
HSB150D	J	0.2	UGL	Mercury, total recoverable
HSB152C	J	0.1945	UGL	Mercury, total recoverable
HSL 1D	J	0.29	UGL	Mercury, total recoverable
HSL 3D	J	0.1805	UGL	Mercury, total recoverable
HSL 4D	J	0.193	UGL	Mercury, total recoverable
HSL 5D	J	0.191	UGL	Mercury, total recoverable
HSL 6D		0.229	UGL	Mercury, total recoverable
HSL 7D	J	0.2	UGL	Mercury, total recoverable
HSL 8D	J	0.2	UGL	Mercury, total recoverable
HTF 1	J	0.189	UGL	Mercury, total recoverable
HTF 6		0.286	UGL	Mercury, total recoverable
HTF 7	J	0.1865	UGL	Mercury, total recoverable
HTF 9		0.337	UGL	Mercury, total recoverable
HTF 10		0.22	UGL	Mercury, total recoverable
HTF 11	J	0.321	UGL	Mercury, total recoverable
HTF 12		0.336	UGL	Mercury, total recoverable
HTF 14		0.2025	UGL	Mercury, total recoverable
HTF 18		0.34	UGL	Mercury, total recoverable
HTF 19	J	0.2	UGL	Mercury, total recoverable
HTF 23		0.3685	UGL	Mercury, total recoverable

Wells (n=272) with median mercury concentration estimated between 0.16 & 0.4 ug/L				
well	qualifier	result	units	analyte_name
HTF 25		0.2295	UGL	Mercury, total recoverable
HTF 27	J	0.318	UGL	Mercury, total recoverable
HTF 28	J	0.2	UGL	Mercury, total recoverable
HTF 31		0.36	UGL	Mercury, total recoverable
HTF 32	J	0.23	UGL	Mercury, total recoverable
HWP 2D	J	0.183	UGL	Mercury, total recoverable
HXB 4D	J	0.1685	UGL	Mercury, total recoverable
HXB 6D	J	0.173	UGL	Mercury, total recoverable
IDB 2A		0.171	UGL	Mercury, total recoverable
KBP 2D		0.3255	UGL	Mercury, total recoverable
KCB 6	J	0.18	UGL	Mercury, total recoverable
KDB 5		0.209	UGL	Mercury, total recoverable
LAC 3		0.189	UGL	Mercury, total recoverable
LAC 7DL		0.173	UGL	Mercury, total recoverable
LDB 4		0.189	UGL	Mercury, total recoverable
LFW 6R	J	0.2	UGL	Mercury, total recoverable
LFW 16		0.299	UGL	Mercury, total recoverable
LFW 21	J	0.2	UGL	Mercury, total recoverable
LFW 31	J	0.1605	UGL	Mercury, total recoverable
LFW 38		0.265	UGL	Mercury, total recoverable
LFW 39		0.2	UGL	Mercury, total recoverable
LFW 43D	J	0.162	UGL	Mercury, total recoverable
LFW 45D	J	0.2	UGL	Mercury, total recoverable
LFW 47C	J	0.1995	UGL	Mercury, total recoverable
LFW 55C	J	0.2	UGL	Mercury, total recoverable
LFW 57D	J	0.193	UGL	Mercury, total recoverable
LFW 58D		0.249	UGL	Mercury, total recoverable
LFW 59D	J	0.2	UGL	Mercury, total recoverable
LFW 60D	J	0.195	UGL	Mercury, total recoverable
LFW 61D	J	0.2	UGL	Mercury, total recoverable
LFW 65D	J	0.166	UGL	Mercury, total recoverable
LFW 67C	J	0.291	UGL	Mercury, total recoverable
LFW 67D	J	0.19	UGL	Mercury, total recoverable
LFW 68D		0.207	UGL	Mercury, total recoverable
LFW 71B	J	0.186	UGL	Mercury, total recoverable
MGA 36	J	0.2	UGL	Mercury, total recoverable
MGC 9	J	0.26	UGL	Mercury, total recoverable
MSB 5C	J	0.208	UGL	Mercury, total recoverable
MSB 6B	J	0.196	UGL	Mercury, total recoverable
MSB 7C		0.216	UGL	Mercury, total recoverable
MSB 8C		0.243	UGL	Mercury, total recoverable
MSB 11C		0.361	UGL	Mercury, total recoverable
MSB 14A	J	0.17	UGL	Mercury, total recoverable
MSB 14B		0.263	UGL	Mercury, total recoverable
MSB 15C	J	0.1705	UGL	Mercury, total recoverable
MSB 17B		0.219	UGL	Mercury, total recoverable
MSB 21A	J	0.191	UGL	Mercury, total recoverable
MSB 23B	J	0.273	UGL	Mercury, total recoverable
MSB 24	J	0.161	UGL	Mercury, total recoverable
MSB 38B	J	0.2	UGL	Mercury, total recoverable
MSB 39C	J	0.2	UGL	Mercury, total recoverable
MSB 39D	J	0.178	UGL	Mercury, total recoverable
MSB 42B	J	0.203	UGL	Mercury, total recoverable

Wells (n=272) with median mercury concentration estimated between 0.16 & 0.4 ug/L

well	qualifier	result	units	analyte_name
MSB 42C	J	0.193	UGL	Mercury, total recoverable
MSB 42D	J	0.2	UGL	Mercury, total recoverable
MSB 47D		0.372	UGL	Mercury, total recoverable
MSB 48B		0.2	UGL	Mercury, total recoverable
MSB 59D	J	0.169	UGL	Mercury, total recoverable
MSB 62C		0.23	UGL	Mercury, total recoverable
MSB 63B	J	0.185	UGL	Mercury, total recoverable
MSB 64C		0.3385	UGL	Mercury, total recoverable
MSB 66B	J	0.191	UGL	Mercury, total recoverable
MSB 67C	J	0.298	UGL	Mercury, total recoverable
MSB 82C	J	0.16	UGL	Mercury, total recoverable
MSB 84A	J	0.172	UGL	Mercury, total recoverable
PCB 2A		0.335	UGL	Mercury, total recoverable
PRP 4		0.265	UGL	Mercury, total recoverable
RAC 4		0.2895	UGL	Mercury, total recoverable
RSA 9	J	0.185	UGL	Mercury, total recoverable
RSA 10		0.2345	UGL	Mercury, total recoverable
RSB 8		0.306	UGL	Mercury, total recoverable
RSB 9		0.2	UGL	Mercury, total recoverable
RSC 3		0.311	UGL	Mercury, total recoverable
RSC 4		0.234	UGL	Mercury, total recoverable
RSC 6		0.214	UGL	Mercury, total recoverable
RSC 7		0.37	UGL	Mercury, total recoverable
RSC 8		0.2	UGL	Mercury, total recoverable
RSC 9		0.2	UGL	Mercury, total recoverable
RSD 4		0.2235	UGL	Mercury, total recoverable
RSD 8		0.205	UGL	Mercury, total recoverable
RSD 10		0.2425	UGL	Mercury, total recoverable
RSE 4B		0.34	UGL	Mercury, total recoverable
RSE 4C		0.3585	UGL	Mercury, total recoverable
RWM 2	J	0.172	UGL	Mercury, total recoverable
RWM 5	J	0.175	UGL	Mercury, total recoverable
RWM 7		0.226	UGL	Mercury, total recoverable
RWM 12		0.3105	UGL	Mercury, total recoverable
SBG 1		0.3365	UGL	Mercury, total recoverable
SRW 2	J	0.2175	UGL	Mercury, total recoverable
SRW 4		0.26	UGL	Mercury, total recoverable
SRW 6	J	0.165	UGL	Mercury, total recoverable
SRW 17C	J	0.169	UGL	Mercury, total recoverable
SSS 6		0.363	UGL	Mercury, total recoverable
SSS 8		0.282	UGL	Mercury, total recoverable
SSS 11		0.37	UGL	Mercury, total recoverable
SSS 20		0.33	UGL	Mercury, total recoverable
SSS 22		0.2165	UGL	Mercury, total recoverable
STR118I		0.264	UGL	Mercury, total recoverable
TBG 6		0.392	UGL	Mercury, total recoverable
TBG 7	J	0.175	UGL	Mercury, total recoverable
TNX 1D	J	0.204	UGL	Mercury, total recoverable
TNX 4D	J	0.2105	UGL	Mercury, total recoverable
TNX 5D		0.2	UGL	Mercury, total recoverable
TNX 6D	J	0.248	UGL	Mercury, total recoverable
TNX 13D	J	0.16	UGL	Mercury, total recoverable
TRW 2	J	0.333	UGL	Mercury, total recoverable

Wells (n=272) with median mercury concentration estimated between 0.16 & 0.4 ug/L				
well	qualifier	result	units	analyte_name
XSB 1A	J	0.246	UGL	Mercury, total recoverable
XSB 1B	J	0.202	UGL	Mercury, total recoverable
XSB 2D	J	0.258	UGL	Mercury, total recoverable
XSB 4D		0.289	UGL	Mercury, total recoverable
XSB 5A	J	0.256	UGL	Mercury, total recoverable
YSB 3A	J	0.1795	UGL	Mercury, total recoverable
ZW 2		0.3375	UGL	Mercury, total recoverable

**Appendix C: Estimated Median Concentrations for SRS Groundwater
Wells Associated with the "Impacted" Population.**

(total mercury > 0.4 ug/L)

Wells (n=157) with median mercury concentration estimated > 0.4 ug/L				
well	qualifier	result	units	analyte_name
AMB 10B	J	0.623	UGL	Mercury, total recoverable
ASB 2C		1.12	UGL	Mercury, total recoverable
ASB 3C		1.45	UGL	Mercury, total recoverable
ASB 3CR		0.644	UGL	Mercury, total recoverable
ASB 8C		1.655	UGL	Mercury, total recoverable
ASB 10C		1.345	UGL	Mercury, total recoverable
ASB 10CR		1.31	UGL	Mercury, total recoverable
BG 55		0.7205	UGL	Mercury, total recoverable
BG 59		0.88	UGL	Mercury, total recoverable
BG 67		0.5845	UGL	Mercury, total recoverable
BGO 33C		3.4	UGL	Mercury, total recoverable
BGO 37C		1.89	UGL	Mercury, total recoverable
BGO 46D		0.44	UGL	Mercury, total recoverable
BGO 48D		0.6755	UGL	Mercury, total recoverable
BRR 7B		0.6225	UGL	Mercury, total recoverable
BRR 7B		1.14	UGL	Mercury, total recoverable
BRR 7BR		2.05	UGL	Mercury, total recoverable
CSD 1D		0.608	UGL	Mercury, total recoverable
DBP 2		0.565	UGL	Mercury, total recoverable
DCB 4A		0.518	UGL	Mercury, total recoverable
DCB 5A		0.442	UGL	Mercury, total recoverable
DCB 6		0.518	UGL	Mercury, total recoverable
DCB 9		0.981	UGL	Mercury, total recoverable
DCB 19B		1.09	UGL	Mercury, total recoverable
DCB 19C		0.4905	UGL	Mercury, total recoverable
DCB 21B		1.485	UGL	Mercury, total recoverable
DCB 21C		2.35	UGL	Mercury, total recoverable
DCB 22C	J	0.567	UGL	Mercury, total recoverable
DCB 23B		4.925	UGL	Mercury, total recoverable
DCB 24C		1.34	UGL	Mercury, total recoverable
ERA497A		7.37	UGL	Mercury, total recoverable
F 14	J	0.86	UGL	Mercury, total recoverable
F 16		0.51	UGL	Mercury, total recoverable
FCA 9D		2.92	UGL	Mercury, total recoverable
FCA 9DR		1.34	UGL	Mercury, total recoverable
FNB 2		0.853	UGL	Mercury, total recoverable
FNB 8	J	0.56	UGL	Mercury, total recoverable
FRB 3	J	0.4065	UGL	Mercury, total recoverable
FSB 77		4.91	UGL	Mercury, total recoverable
FSB 78		0.454	UGL	Mercury, total recoverable
FSB 79		0.7155	UGL	Mercury, total recoverable
FSB 79C		0.678	UGL	Mercury, total recoverable
FSB 88D		16	UGL	Mercury, total recoverable
FSB 89D		6.255	UGL	Mercury, total recoverable
FSB 90D		10.045	UGL	Mercury, total recoverable
FSB 92D	J	0.6835	UGL	Mercury, total recoverable
FSB 94DR		0.74	UGL	Mercury, total recoverable
FSB 95CR		1.18	UGL	Mercury, total recoverable
FSB 95DR		0.7785	UGL	Mercury, total recoverable
FSB102C		0.546	UGL	Mercury, total recoverable
FSB106C		0.7575	UGL	Mercury, total recoverable
FSB107D		4.115	UGL	Mercury, total recoverable
FSB110D		0.52	UGL	Mercury, total recoverable

Wells (n=157) with median mercury concentration estimated > 0.4 ug/L				
well	qualifier	result	units	analyte_name
FSB119D		0.5605	UGL	Mercury, total recoverable
FSL 9D		1.845	UGL	Mercury, total recoverable
FTF 5		0.724	UGL	Mercury, total recoverable
FTF 6		0.688	UGL	Mercury, total recoverable
FTF 7		0.474	UGL	Mercury, total recoverable
FTF 12		1.06	UGL	Mercury, total recoverable
FTF 13		1.59	UGL	Mercury, total recoverable
FTF 20		0.406	UGL	Mercury, total recoverable
FTF 25A		0.82	UGL	Mercury, total recoverable
FTF 27		1.055	UGL	Mercury, total recoverable
HAA 1C		0.538	UGL	Mercury, total recoverable
HAC 2		0.664	UGL	Mercury, total recoverable
HC 6A		1.9625	UGL	Mercury, total recoverable
HCA 4		0.757	UGL	Mercury, total recoverable
HET 1D		0.939	UGL	Mercury, total recoverable
HEX500TK		1.375	UGL	Mercury, total recoverable
HIN600TK		0.636	UGL	Mercury, total recoverable
HR3 14DU		0.47	UGL	Mercury, total recoverable
HSB 67		1.7	UGL	Mercury, total recoverable
HSB 68		2.25	UGL	Mercury, total recoverable
HSB 68C		0.534	UGL	Mercury, total recoverable
HSB101D		4.25	UGL	Mercury, total recoverable
HSB102C		0.477	UGL	Mercury, total recoverable
HSB102D		3.735	UGL	Mercury, total recoverable
HSB103C		1.31	UGL	Mercury, total recoverable
HSB103D		1.625	UGL	Mercury, total recoverable
HSB104D		2.01	UGL	Mercury, total recoverable
HSB105D		4.355	UGL	Mercury, total recoverable
HSB106C		0.619	UGL	Mercury, total recoverable
HSB106D	J	0.49	UGL	Mercury, total recoverable
HSB107D		3.87	UGL	Mercury, total recoverable
HSB108D		2.165	UGL	Mercury, total recoverable
HSB109D		0.585	UGL	Mercury, total recoverable
HSB116C		0.801	UGL	Mercury, total recoverable
HSB125D		2.34	UGL	Mercury, total recoverable
HSB126D		2.29	UGL	Mercury, total recoverable
HSB127D		4.23	UGL	Mercury, total recoverable
HSB134D		0.69	UGL	Mercury, total recoverable
HSB139C		0.891	UGL	Mercury, total recoverable
HSB145D		2.89	UGL	Mercury, total recoverable
HTF 15		1.08	UGL	Mercury, total recoverable
HTF 20		0.609	UGL	Mercury, total recoverable
HTF 21		0.845	UGL	Mercury, total recoverable
HTF 24		0.7895	UGL	Mercury, total recoverable
HTF 26		0.4125	UGL	Mercury, total recoverable
HTF 29	J	0.648	UGL	Mercury, total recoverable
KBP 1D		0.565	UGL	Mercury, total recoverable
LAW 2C		0.762	UGL	Mercury, total recoverable
LCO 4		0.5515	UGL	Mercury, total recoverable
LFW 48C		2.965	UGL	Mercury, total recoverable
LFW 62C		2.16	UGL	Mercury, total recoverable
LFW 62D		0.543	UGL	Mercury, total recoverable
LFW 66C		0.874	UGL	Mercury, total recoverable

Wells (n=157) with median mercury concentration estimated > 0.4 ug/L				
well	qualifier	result	units	analyte_name
LFW 66D		0.548	UGL	Mercury, total recoverable
MGC 19		0.502	UGL	Mercury, total recoverable
MGC 23		0.804	UGL	Mercury, total recoverable
MGC 32		3.225	UGL	Mercury, total recoverable
MGE 9		1.68	UGL	Mercury, total recoverable
MGE 21		1.1035	UGL	Mercury, total recoverable
MGE 30		0.41	UGL	Mercury, total recoverable
MGE 34		0.4005	UGL	Mercury, total recoverable
MGG 19		0.484	UGL	Mercury, total recoverable
MGG 23		1.73	UGL	Mercury, total recoverable
MGG 36		3.23	UGL	Mercury, total recoverable
MSB 17A		0.691	UGL	Mercury, total recoverable
MSB 26A		0.5155	UGL	Mercury, total recoverable
MSB 39B		0.4145	UGL	Mercury, total recoverable
MSB 44C		1.0215	UGL	Mercury, total recoverable
MSB 70C		0.418	UGL	Mercury, total recoverable
MSB 81B	J	4.09	UGL	Mercury, total recoverable
NBG 1		0.7935	UGL	Mercury, total recoverable
NBG 2		0.4805	UGL	Mercury, total recoverable
PB 10		3.07	UGL	Mercury, total recoverable
RCP 1D		0.641	UGL	Mercury, total recoverable
RSC 2	J	0.929	UGL	Mercury, total recoverable
RSC 5		0.724	UGL	Mercury, total recoverable
RSD 6		0.4105	UGL	Mercury, total recoverable
RSE 4A		0.5065	UGL	Mercury, total recoverable
RSE 5		1.37	UGL	Mercury, total recoverable
RSE 6		2.45	UGL	Mercury, total recoverable
RSE 18		1.1275	UGL	Mercury, total recoverable
RSE 19		0.4125	UGL	Mercury, total recoverable
RSP 1D	J	0.7	UGL	Mercury, total recoverable
RWM 1		0.421	UGL	Mercury, total recoverable
SSS 1		0.477	UGL	Mercury, total recoverable
SSS 5		0.654	UGL	Mercury, total recoverable
SSS 7		0.522	UGL	Mercury, total recoverable
SSS 10		2.96	UGL	Mercury, total recoverable
SSS 12		1.08	UGL	Mercury, total recoverable
SSS 27		0.681	UGL	Mercury, total recoverable
TBG 3	J	0.543	UGL	Mercury, total recoverable
TBG 4		2.165	UGL	Mercury, total recoverable
TIR 3B	J	0.4295	UGL	Mercury, total recoverable
TNX 3D		0.97	UGL	Mercury, total recoverable
TRW 1	J	0.528	UGL	Mercury, total recoverable
XSB 3A		0.526	UGL	Mercury, total recoverable
Z 9		0.616	UGL	Mercury, total recoverable
ZW 3		0.72	UGL	Mercury, total recoverable
ZW 4		0.966	UGL	Mercury, total recoverable
ZW 5	J	2.34	UGL	Mercury, total recoverable
ZW 6		1.625	UGL	Mercury, total recoverable
ZW 7		0.479	UGL	Mercury, total recoverable
ZW 9		0.665	UGL	Mercury, total recoverable
ZW 10		1.225	UGL	Mercury, total recoverable

**Appendix D: SRS Groundwater Wells with all Reported Values Below
Nominal Detection Limit.**

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
ABP 2A	U	0.2	UGL	Mercury, total recoverable
ABP 3C	U	0.2	UGL	Mercury, total recoverable
ABP 4	U	0.2	UGL	Mercury, total recoverable
ABP 8C	U	0.2	UGL	Mercury, total recoverable
ABW 1	U	0.2	UGL	Mercury, total recoverable
AC 1A	U	0.2	UGL	Mercury, total recoverable
AC 1B	U	0.2	UGL	Mercury, total recoverable
AC 2A	U	0.2	UGL	Mercury, total recoverable
AC 2B	U	0.2	UGL	Mercury, total recoverable
AC 3B	U	0.2	UGL	Mercury, total recoverable
ACB 1A	U	0.2	UGL	Mercury, total recoverable
AMB 4B	U	0.2	UGL	Mercury, total recoverable
AMB 4D	U	0.2	UGL	Mercury, total recoverable
AMB 10D	U	0.2	UGL	Mercury, total recoverable
AMB 12D	U	0.2	UGL	Mercury, total recoverable
AOB 1	U	0.2	UGL	Mercury, total recoverable
AOB 2	U	0.2	UGL	Mercury, total recoverable
AOB 2	U	0.2	UGL	Mercury, total recoverable
AOB 3	U	0.2	UGL	Mercury, total recoverable
ARP 2	U	0.2	UGL	Mercury, total recoverable
ARP 3	U	0.2	UGL	Mercury, total recoverable
ARP 4	U	0.2	UGL	Mercury, total recoverable
ASB 2A	U	0.2	UGL	Mercury, total recoverable
ASB 3A	U	0.2	UGL	Mercury, total recoverable
ASB 5A	U	0.2	UGL	Mercury, total recoverable
ASB 5AR	U	0.2	UGL	Mercury, total recoverable
ASB 6TA	U	0.2	UGL	Mercury, total recoverable
ASB 7	U	0.2	UGL	Mercury, total recoverable
ASB 9C	U	0.2	UGL	Mercury, total recoverable
BG 60	U	0.2	UGL	Mercury, total recoverable
BG 61	U	0.2	UGL	Mercury, total recoverable
BG 91	U	0.2	UGL	Mercury, total recoverable
BG 92	U	0.2	UGL	Mercury, total recoverable
BG 93	U	0.2	UGL	Mercury, total recoverable
BG 94	U	0.2	UGL	Mercury, total recoverable
BG 95	U	0.2	UGL	Mercury, total recoverable
BG 96	U	0.2	UGL	Mercury, total recoverable
BG 101	U	0.2	UGL	Mercury, total recoverable
BG 103	U	0.2	UGL	Mercury, total recoverable
BG 104	U	0.2	UGL	Mercury, total recoverable
BG 107	U	0.2	UGL	Mercury, total recoverable
BG 108	U	0.2	UGL	Mercury, total recoverable
BG 109	U	0.2	UGL	Mercury, total recoverable
BG 110	U	0.2	UGL	Mercury, total recoverable
BG 122	U	0.2	UGL	Mercury, total recoverable
BGO 3A	U	0.2	UGL	Mercury, total recoverable
BGO 3C	U	0.2	UGL	Mercury, total recoverable
BGO 3D	U	0.2	UGL	Mercury, total recoverable
BGO 5C	U	0.2	UGL	Mercury, total recoverable
BGO 5D	U	0.2	UGL	Mercury, total recoverable
BGO 6B	U	0.2	UGL	Mercury, total recoverable
BGO 6C	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
BGO 6D	U	0.2	UGL	Mercury, total recoverable
BGO 9AA	U	0.2	UGL	Mercury, total recoverable
BGO 10B	U	0.2	UGL	Mercury, total recoverable
BGO 10C	U	0.2	UGL	Mercury, total recoverable
BGO 11D	U	0.2	UGL	Mercury, total recoverable
BGO 12AR	U	0.2	UGL	Mercury, total recoverable
BGO 12CR	U	0.2	UGL	Mercury, total recoverable
BGO 12D	U	0.2	UGL	Mercury, total recoverable
BGO 12DR	U	0.2	UGL	Mercury, total recoverable
BGO 13DR	U	0.2	UGL	Mercury, total recoverable
BGO 15D	U	0.2	UGL	Mercury, total recoverable
BGO 16A	U	0.2	UGL	Mercury, total recoverable
BGO 16D	U	0.2	UGL	Mercury, total recoverable
BGO 17DR	U	0.2	UGL	Mercury, total recoverable
BGO 18A	U	0.2	UGL	Mercury, total recoverable
BGO 18D	U	0.2	UGL	Mercury, total recoverable
BGO 19D	U	0.2	UGL	Mercury, total recoverable
BGO 19DR	U	0.2	UGL	Mercury, total recoverable
BGO 22D	U	0.2	UGL	Mercury, total recoverable
BGO 22DR	U	0.2	UGL	Mercury, total recoverable
BGO 22DX	U	0.2	UGL	Mercury, total recoverable
BGO 24D	U	0.2	UGL	Mercury, total recoverable
BGO 25A	U	0.2	UGL	Mercury, total recoverable
BGO 26A	U	0.2	UGL	Mercury, total recoverable
BGO 26D	U	0.2	UGL	Mercury, total recoverable
BGO 27C	U	0.2	UGL	Mercury, total recoverable
BGO 29A	U	0.2	UGL	Mercury, total recoverable
BGO 29C	U	0.2	UGL	Mercury, total recoverable
BGO 29D	U	0.2	UGL	Mercury, total recoverable
BGO 31C	U	0.2	UGL	Mercury, total recoverable
BGO 34D	U	0.2	UGL	Mercury, total recoverable
BGO 36D	U	0.2	UGL	Mercury, total recoverable
BGO 38D	U	0.2	UGL	Mercury, total recoverable
BGO 39C	U	0.2	UGL	Mercury, total recoverable
BGO 39D	U	0.2	UGL	Mercury, total recoverable
BGO 40D	U	0.2	UGL	Mercury, total recoverable
BGO 41A	U	0.2	UGL	Mercury, total recoverable
BGO 42C	U	0.2	UGL	Mercury, total recoverable
BGO 43A	U	0.2	UGL	Mercury, total recoverable
BGO 43AA	U	0.2	UGL	Mercury, total recoverable
BGO 43CR	U	0.2	UGL	Mercury, total recoverable
BGO 43D	U	0.2	UGL	Mercury, total recoverable
BGO 44B	U	0.2	UGL	Mercury, total recoverable
BGO 44C	U	0.2	UGL	Mercury, total recoverable
BGO 44D	U	0.2	UGL	Mercury, total recoverable
BGO 45A	U	0.2	UGL	Mercury, total recoverable
BGO 45B	U	0.2	UGL	Mercury, total recoverable
BGO 45C	U	0.2	UGL	Mercury, total recoverable
BGO 45D	U	0.2	UGL	Mercury, total recoverable
BGO 46B	U	0.2	UGL	Mercury, total recoverable
BGO 47C	U	0.2	UGL	Mercury, total recoverable
BGO 47D	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
BGO 48C	U	0.2	UGL	Mercury, total recoverable
BGO 49A	U	0.2	UGL	Mercury, total recoverable
BGO 50C	U	0.2	UGL	Mercury, total recoverable
BGO 50D	U	0.2	UGL	Mercury, total recoverable
BGO 53AA	U	0.2	UGL	Mercury, total recoverable
BGO 53C	U	0.2	UGL	Mercury, total recoverable
BGX 1A	U	0.2	UGL	Mercury, total recoverable
BGX 1C	U	0.2	UGL	Mercury, total recoverable
BGX 1D	U	0.2	UGL	Mercury, total recoverable
BGX 2D	U	0.2	UGL	Mercury, total recoverable
BGX 6D	U	0.2	UGL	Mercury, total recoverable
BGX 7D	U	0.2	UGL	Mercury, total recoverable
BGX 8DR	U	0.2	UGL	Mercury, total recoverable
BGX 9D	U	0.2	UGL	Mercury, total recoverable
BGX 10D	U	0.2	UGL	Mercury, total recoverable
BGX 11D	U	0.2	UGL	Mercury, total recoverable
BRD 1	U	0.2	UGL	Mercury, total recoverable
BRD 2	U	0.2	UGL	Mercury, total recoverable
BRD 3	U	0.2	UGL	Mercury, total recoverable
BRD 4	U	0.2	UGL	Mercury, total recoverable
BRD 5D	U	0.2	UGL	Mercury, total recoverable
BRR 7C	U	0.2	UGL	Mercury, total recoverable
BRR 8DR	U	0.2	UGL	Mercury, total recoverable
CBR 2D	U	0.2	UGL	Mercury, total recoverable
CBR 3D	U	0.2	UGL	Mercury, total recoverable
CCB 4	U	0.2	UGL	Mercury, total recoverable
CDB 1	U	0.2	UGL	Mercury, total recoverable
CDB 2	U	0.2	UGL	Mercury, total recoverable
CMP 9B	U	0.2	UGL	Mercury, total recoverable
CMP 10	U	0.2	UGL	Mercury, total recoverable
CMP 11	U	0.2	UGL	Mercury, total recoverable
CMP 11B	U	0.2	UGL	Mercury, total recoverable
CMP 14B	U	0.2	UGL	Mercury, total recoverable
CMP 14D	U	0.2	UGL	Mercury, total recoverable
CMP 30B	U	0.059	UGL	Mercury, total recoverable
CMP 31C	U	0.2	UGL	Mercury, total recoverable
CMP 32B	U	0.2	UGL	Mercury, total recoverable
CRP 1	U	0.2	UGL	Mercury, total recoverable
CRP 2	U	0.2	UGL	Mercury, total recoverable
CRP 11D	U	0.2	UGL	Mercury, total recoverable
CSA 1	U	0.2	UGL	Mercury, total recoverable
CSA 2	U	0.2	UGL	Mercury, total recoverable
CSA 3	U	0.2	UGL	Mercury, total recoverable
CSA 4	U	0.2	UGL	Mercury, total recoverable
CSB 1A	U	0.7	UGL	Mercury, total recoverable
CSB 1C	U	0.2	UGL	Mercury, total recoverable
CSB 2A	U	0.2	UGL	Mercury, total recoverable
CSB 3A	U	0.2	UGL	Mercury, total recoverable
CSB 3C	U	0.2	UGL	Mercury, total recoverable
CSB 4A	U	0.2	UGL	Mercury, total recoverable
CSB 5A	U	0.2	UGL	Mercury, total recoverable
CSB 7D	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
CSD 2D	U	0.2	UGL	Mercury, total recoverable
CSD 4D	U	0.2	UGL	Mercury, total recoverable
CSD 8D	U	0.2	UGL	Mercury, total recoverable
CSD 9D	U	0.2	UGL	Mercury, total recoverable
CSD 10D	U	0.2	UGL	Mercury, total recoverable
CSD 11D	U	0.2	UGL	Mercury, total recoverable
CSD 12D	U	0.2	UGL	Mercury, total recoverable
CSD 12D	U	0.2	UGL	Mercury, total recoverable
CSD 13D	U	0.2	UGL	Mercury, total recoverable
CSO 1	U	0.2	UGL	Mercury, total recoverable
CSO 2	U	0.2	UGL	Mercury, total recoverable
CSR 1	U	0.2	UGL	Mercury, total recoverable
CSR 2	U	0.2	UGL	Mercury, total recoverable
CSR 2D	U	0.2	UGL	Mercury, total recoverable
CSR 3	U	0.2	UGL	Mercury, total recoverable
CSR 4	U	0.2	UGL	Mercury, total recoverable
CSR 7DL	U	0.2	UGL	Mercury, total recoverable
CSR 7DU	U	0.2	UGL	Mercury, total recoverable
CSR 8DL	U	0.2	UGL	Mercury, total recoverable
CSR 8DU	U	0.2	UGL	Mercury, total recoverable
CSR 9DL	U	0.2	UGL	Mercury, total recoverable
CSR 9DU	U	0.2	UGL	Mercury, total recoverable
CSR 10DL	U	0.2	UGL	Mercury, total recoverable
CSR 10DU	U	0.2	UGL	Mercury, total recoverable
CSR 11DL	U	0.2	UGL	Mercury, total recoverable
CSR 11DU	U	0.2	UGL	Mercury, total recoverable
DBP 1	U	0.2	UGL	Mercury, total recoverable
DBP 3	U	0.2	UGL	Mercury, total recoverable
DBP 4	U	0.2	UGL	Mercury, total recoverable
DBP 5	U	0.2	UGL	Mercury, total recoverable
DCB 2A	U	0.2	UGL	Mercury, total recoverable
DCB 3A	U	0.2	UGL	Mercury, total recoverable
DCB 8	U	0.2	UGL	Mercury, total recoverable
DCB 11	U	0.2	UGL	Mercury, total recoverable
DCB 12	U	0.2	UGL	Mercury, total recoverable
DCB 13	U	0.2	UGL	Mercury, total recoverable
DCB 15	U	0.2	UGL	Mercury, total recoverable
DCB 16	U	0.2	UGL	Mercury, total recoverable
DCB 16R	U	0.2	UGL	Mercury, total recoverable
DCB 19A	U	0.2	UGL	Mercury, total recoverable
DOB 3	U	0.2	UGL	Mercury, total recoverable
DOB 4	U	0.2	UGL	Mercury, total recoverable
DOB 8	U	0.2	UGL	Mercury, total recoverable
DOB 9	U	0.2	UGL	Mercury, total recoverable
DOB 11	U	0.076	UGL	Mercury, total recoverable
DOB 11	U	0.2	UGL	Mercury, total recoverable
DOB 13	U	0.2	UGL	Mercury, total recoverable
DOB 14	U	0.2	UGL	Mercury, total recoverable
DOB 15	U	0.2	UGL	Mercury, total recoverable
DOL 1	U	0.2	UGL	Mercury, total recoverable
DOL 1	U	0.2	UGL	Mercury, total recoverable
DOL 1	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
FAB 3	U	0.2	UGL	Mercury, total recoverable
FAC 9C	U	0.2	UGL	Mercury, total recoverable
FAC 10C	U	0.2	UGL	Mercury, total recoverable
FAC 12C	U	0.2	UGL	Mercury, total recoverable
FBP 1A	U	0.2	UGL	Mercury, total recoverable
FBP 3A	U	0.2	UGL	Mercury, total recoverable
FBP 4	U	0.2	UGL	Mercury, total recoverable
FBP 5D	U	0.2	UGL	Mercury, total recoverable
FBP 6D	U	0.2	UGL	Mercury, total recoverable
FBP 8D	U	0.2	UGL	Mercury, total recoverable
FBP 9D	U	0.2	UGL	Mercury, total recoverable
FBP 12D	U	0.2	UGL	Mercury, total recoverable
FBP 13D	U	0.2	UGL	Mercury, total recoverable
FCA 1N	U	0.2	UGL	Mercury, total recoverable
FCA 2D	U	0.2	UGL	Mercury, total recoverable
FCA 10C	U	0.2	UGL	Mercury, total recoverable
FCA 10D	U	0.2	UGL	Mercury, total recoverable
FCA 16B	U	0.2	UGL	Mercury, total recoverable
FCA 16D	U	0.5185	UGL	Mercury, total recoverable
FCA 19D	U	0.2	UGL	Mercury, total recoverable
FCB 2	U	0.2	UGL	Mercury, total recoverable
FCB 3	U	0.2	UGL	Mercury, total recoverable
FCB 5	U	0.2	UGL	Mercury, total recoverable
FCB 6	U	0.2	UGL	Mercury, total recoverable
FET 1D	U	0.7	UGL	Mercury, total recoverable
FET 2D	U	0.7	UGL	Mercury, total recoverable
FET 3D	U	0.2	UGL	Mercury, total recoverable
FET 4D	U	0.2	UGL	Mercury, total recoverable
FEX 11	U	0.2	UGL	Mercury, total recoverable
FNB 1A	U	0.2	UGL	Mercury, total recoverable
FNB 2A	U	0.2	UGL	Mercury, total recoverable
FNB 3A	U	0.2	UGL	Mercury, total recoverable
FNB 4	U	0.2	UGL	Mercury, total recoverable
FRB 1	U	0.2	UGL	Mercury, total recoverable
FSB 1TA	U	0.2	UGL	Mercury, total recoverable
FSB 76A	U	0.2	UGL	Mercury, total recoverable
FSB 76B	U	0.2	UGL	Mercury, total recoverable
FSB 76C	U	0.2	UGL	Mercury, total recoverable
FSB 78A	U	0.2	UGL	Mercury, total recoverable
FSB 78B	U	0.2	UGL	Mercury, total recoverable
FSB 79A	U	0.2	UGL	Mercury, total recoverable
FSB 87A	U	0.2	UGL	Mercury, total recoverable
FSB 87B	U	0.2	UGL	Mercury, total recoverable
FSB 88C	U	0.2	UGL	Mercury, total recoverable
FSB 89C	U	0.2	UGL	Mercury, total recoverable
FSB 90C	U	0.2	UGL	Mercury, total recoverable
FSB 91C	U	0.2	UGL	Mercury, total recoverable
FSB 92C	U	0.2	UGL	Mercury, total recoverable
FSB 94C	U	0.2	UGL	Mercury, total recoverable
FSB 99A	U	0.2	UGL	Mercury, total recoverable
FSB 99D	U	0.2	UGL	Mercury, total recoverable
FSB100A	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
FSB101A	U	0.2	UGL	Mercury, total recoverable
FSB103C	U	0.2	UGL	Mercury, total recoverable
FSB106D	U	0.2	UGL	Mercury, total recoverable
FSB107C	U	0.2	UGL	Mercury, total recoverable
FSB113A	U	0.2	UGL	Mercury, total recoverable
FSB113C	U	0.2	UGL	Mercury, total recoverable
FSB114A	U	0.2	UGL	Mercury, total recoverable
FSB114D	U	0.2	UGL	Mercury, total recoverable
FSB115C	U	0.2	UGL	Mercury, total recoverable
FSB115D	U	0.2	UGL	Mercury, total recoverable
FSB116D	U	0.2	UGL	Mercury, total recoverable
FSB117D	U	0.2	UGL	Mercury, total recoverable
FSB120A	U	0.2	UGL	Mercury, total recoverable
FSB120D	U	0.2	UGL	Mercury, total recoverable
FSB122C	U	0.2	UGL	Mercury, total recoverable
FSB123C	U	0.2	UGL	Mercury, total recoverable
FSB123D	U	0.2	UGL	Mercury, total recoverable
FSL 3D	U	0.2	UGL	Mercury, total recoverable
FSL 4D	U	0.2	UGL	Mercury, total recoverable
FTF 2	U	0.2	UGL	Mercury, total recoverable
FTF 3	U	0.635	UGL	Mercury, total recoverable
FTF 8	U	0.2	UGL	Mercury, total recoverable
FTF 9	U	0.2	UGL	Mercury, total recoverable
FTF 11	U	0.2	UGL	Mercury, total recoverable
FTF 15	U	0.2	UGL	Mercury, total recoverable
FTF 19	U	0.2	UGL	Mercury, total recoverable
FTF 21	U	0.2	UGL	Mercury, total recoverable
FTF 22	U	0.2	UGL	Mercury, total recoverable
GBW 1	U	0.2	UGL	Mercury, total recoverable
HAA 1A	U	0.2	UGL	Mercury, total recoverable
HAA 1AA	U	0.2	UGL	Mercury, total recoverable
HAA 1B	U	0.2	UGL	Mercury, total recoverable
HAA 2A	U	0.2	UGL	Mercury, total recoverable
HAA 2AA	U	0.2	UGL	Mercury, total recoverable
HAA 2B	U	0.2	UGL	Mercury, total recoverable
HAA 2C	U	0.2	UGL	Mercury, total recoverable
HAA 2D	U	0.2	UGL	Mercury, total recoverable
HAA 3A	U	0.2	UGL	Mercury, total recoverable
HAA 3AA	U	0.2	UGL	Mercury, total recoverable
HAA 3B	U	0.2	UGL	Mercury, total recoverable
HAA 3C	U	0.2	UGL	Mercury, total recoverable
HAA 4A	U	0.2	UGL	Mercury, total recoverable
HAA 4AA	U	0.2	UGL	Mercury, total recoverable
HAA 4B	U	0.2	UGL	Mercury, total recoverable
HAA 4C	U	0.2	UGL	Mercury, total recoverable
HAA 5A	U	0.2	UGL	Mercury, total recoverable
HAA 6A	U	0.2	UGL	Mercury, total recoverable
HAA 6AA	U	0.2	UGL	Mercury, total recoverable
HAA 6B	U	0.2	UGL	Mercury, total recoverable
HAA 6C	U	0.2	UGL	Mercury, total recoverable
HAA 6D	U	0.2	UGL	Mercury, total recoverable
HAC 1	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
HAP 1	U	0.2	UGL	Mercury, total recoverable
HAP 2	U	0.2	UGL	Mercury, total recoverable
HC 1A	U	0.2	UGL	Mercury, total recoverable
HC 1B	U	0.2	UGL	Mercury, total recoverable
HC 1E	U	0.2	UGL	Mercury, total recoverable
HC 2A	U	0.2	UGL	Mercury, total recoverable
HC 2B	U	0.2	UGL	Mercury, total recoverable
HC 2C	U	0.2	UGL	Mercury, total recoverable
HC 2D	U	0.2	UGL	Mercury, total recoverable
HC 2E	U	0.2	UGL	Mercury, total recoverable
HC 2F	U	0.2	UGL	Mercury, total recoverable
HC 4A	U	0.625	UGL	Mercury, total recoverable
HC 5A	U	0.2	UGL	Mercury, total recoverable
HC 5B	U	0.2	UGL	Mercury, total recoverable
HC 6B	U	0.2	UGL	Mercury, total recoverable
HC 10B	U	0.2	UGL	Mercury, total recoverable
HC 11C	U	0.2	UGL	Mercury, total recoverable
HC 12B	U	0.2	UGL	Mercury, total recoverable
HCA 1	U	0.2	UGL	Mercury, total recoverable
HCA 4A	U	0.2	UGL	Mercury, total recoverable
HCA 4C	U	0.2	UGL	Mercury, total recoverable
HCB 2	U	0.2	UGL	Mercury, total recoverable
HCB 3	U	0.2	UGL	Mercury, total recoverable
HCB 4	U	0.2	UGL	Mercury, total recoverable
HET 2D	U	0.2	UGL	Mercury, total recoverable
HHP 2D	U	0.2	UGL	Mercury, total recoverable
HIW 2A	U	0.2	UGL	Mercury, total recoverable
HIW 2D	U	0.2	UGL	Mercury, total recoverable
HIW 2IC	U	0.2	UGL	Mercury, total recoverable
HIW 2MC	U	0.2	UGL	Mercury, total recoverable
HIW 3MC	U	0.2	UGL	Mercury, total recoverable
HIW 4MC	U	0.2	UGL	Mercury, total recoverable
HIW 5MC	U	0.2	UGL	Mercury, total recoverable
HMD 1D	U	0.2	UGL	Mercury, total recoverable
HMD 2D	U	0.2	UGL	Mercury, total recoverable
HMD 3D	U	0.2	UGL	Mercury, total recoverable
HMD 4D	U	0.2	UGL	Mercury, total recoverable
HR3 14DL	U	0.2	UGL	Mercury, total recoverable
HR3 15DL	U	0.2	UGL	Mercury, total recoverable
HR8 12	U	0.2	UGL	Mercury, total recoverable
HR8 13	U	0.2	UGL	Mercury, total recoverable
HSB 1TB	U	0.2	UGL	Mercury, total recoverable
HSB 69A	U	0.2	UGL	Mercury, total recoverable
HSB 85B	U	0.2	UGL	Mercury, total recoverable
HSB101C	U	0.2	UGL	Mercury, total recoverable
HSB104C	U	0.2	UGL	Mercury, total recoverable
HSB108C	U	0.2	UGL	Mercury, total recoverable
HSB110D	U	0.2	UGL	Mercury, total recoverable
HSB132C	U	0.2	UGL	Mercury, total recoverable
HSB132D	U	0.2	UGL	Mercury, total recoverable
HSB135C	U	0.2	UGL	Mercury, total recoverable
HSB139A	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
HSB139D	U	0.2	UGL	Mercury, total recoverable
HSB140A	U	0.2	UGL	Mercury, total recoverable
HSB141C	U	0.2	UGL	Mercury, total recoverable
HSB142C	U	0.2	UGL	Mercury, total recoverable
HSB142C	U	1	UGL	Mercury, total recoverable
HSB142D	U	0.2	UGL	Mercury, total recoverable
HSB146D	U	0.2	UGL	Mercury, total recoverable
HSL 6A	U	0.2	UGL	Mercury, total recoverable
HSL 6C	U	0.2	UGL	Mercury, total recoverable
HSL 8AA	U	0.2	UGL	Mercury, total recoverable
HSS 1D	U	0.2	UGL	Mercury, total recoverable
HSS 2D	U	0.2	UGL	Mercury, total recoverable
HSS 3D	U	0.2	UGL	Mercury, total recoverable
HTF 2	U	0.2	UGL	Mercury, total recoverable
HTF 3	U	0.2	UGL	Mercury, total recoverable
HTF 4	U	0.2	UGL	Mercury, total recoverable
HTF 5	U	0.2	UGL	Mercury, total recoverable
HTF 8	U	0.2	UGL	Mercury, total recoverable
HTF 13	U	0.2	UGL	Mercury, total recoverable
HTF 16	U	0.2	UGL	Mercury, total recoverable
HTF 17	U	0.2	UGL	Mercury, total recoverable
HTF 22	U	0.202	UGL	Mercury, total recoverable
HTF 34	U	0.2	UGL	Mercury, total recoverable
HWS 1A	U	0.2	UGL	Mercury, total recoverable
HWS 2	U	0.2	UGL	Mercury, total recoverable
HXB 1	U	0.2	UGL	Mercury, total recoverable
HXB 2	U	0.2	UGL	Mercury, total recoverable
HXB 3	U	0.2	UGL	Mercury, total recoverable
HXB 5D	U	0.2	UGL	Mercury, total recoverable
IDB 1A	U	0.2	UGL	Mercury, total recoverable
IDB 1B	U	0.2	UGL	Mercury, total recoverable
IDB 1C	U	0.2	UGL	Mercury, total recoverable
IDB 2B	U	0.2	UGL	Mercury, total recoverable
IDB 2C	U	0.2	UGL	Mercury, total recoverable
IDB 3	U	0.2	UGL	Mercury, total recoverable
IDB 4	U	0.2	UGL	Mercury, total recoverable
IDB 5	U	0.2	UGL	Mercury, total recoverable
IDB 6	U	0.2	UGL	Mercury, total recoverable
IDB 7	U	0.2	UGL	Mercury, total recoverable
IDB 8	U	0.2	UGL	Mercury, total recoverable
IDB 9	U	0.2	UGL	Mercury, total recoverable
IDB 10	U	0.2	UGL	Mercury, total recoverable
IDP 1	U	0.2	UGL	Mercury, total recoverable
IDP 2	U	0.2	UGL	Mercury, total recoverable
IDP 3A	U	0.2	UGL	Mercury, total recoverable
IDP 3B	U	0.2	UGL	Mercury, total recoverable
IDP 3C	U	0.2	UGL	Mercury, total recoverable
IDP 4	U	0.2	UGL	Mercury, total recoverable
IDP 6	U	0.2	UGL	Mercury, total recoverable
IDP 7	U	0.2	UGL	Mercury, total recoverable
IDP 8	U	0.2	UGL	Mercury, total recoverable
IDP 9	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
IDQ 2	U	0.2	UGL	Mercury, total recoverable
IDQ 3A	U	0.2	UGL	Mercury, total recoverable
IDQ 3B	U	0.2	UGL	Mercury, total recoverable
IDQ 3C	U	0.2	UGL	Mercury, total recoverable
IDQ 4	U	0.2	UGL	Mercury, total recoverable
IDQ 5	U	0.2	UGL	Mercury, total recoverable
IDQ 6	U	0.2	UGL	Mercury, total recoverable
IDQ 7	U	0.2	UGL	Mercury, total recoverable
IDQ 8	U	0.2	UGL	Mercury, total recoverable
IDQ 9	U	0.2	UGL	Mercury, total recoverable
IDQ 10	U	0.2	UGL	Mercury, total recoverable
IDQ 12	U	0.2	UGL	Mercury, total recoverable
K 301P	U	0.2	UGL	Mercury, total recoverable
KAB 1	U	0.2	UGL	Mercury, total recoverable
KAB 2	U	0.2	UGL	Mercury, total recoverable
KAB 3	U	0.2	UGL	Mercury, total recoverable
KAB 4	U	0.2	UGL	Mercury, total recoverable
KAC 2	U	0.2	UGL	Mercury, total recoverable
KAC 6	U	0.2	UGL	Mercury, total recoverable
KAC 7	U	0.2	UGL	Mercury, total recoverable
KCB 1	U	0.2	UGL	Mercury, total recoverable
KCB 2	U	0.2	UGL	Mercury, total recoverable
KDB 1	U	0.2	UGL	Mercury, total recoverable
KDB 2	U	0.2	UGL	Mercury, total recoverable
KDB 3	U	0.2	UGL	Mercury, total recoverable
KDT 1D	U	0.2	UGL	Mercury, total recoverable
KRB 16D	U	0.2	UGL	Mercury, total recoverable
KRB 17D	U	0.2	UGL	Mercury, total recoverable
KRB 18D	U	0.2	UGL	Mercury, total recoverable
KRB 19D	U	0.2	UGL	Mercury, total recoverable
KRP 1	U	0.2	UGL	Mercury, total recoverable
KRP 2	U	0.2	UGL	Mercury, total recoverable
KRP 3	U	0.2	UGL	Mercury, total recoverable
KRP 4	U	0.2	UGL	Mercury, total recoverable
KRP 8	U	0.2	UGL	Mercury, total recoverable
KRP 9	U	0.2	UGL	Mercury, total recoverable
KSB 1	U	0.2	UGL	Mercury, total recoverable
KSB 2	U	0.2	UGL	Mercury, total recoverable
KSB 3	U	0.2	UGL	Mercury, total recoverable
KSB 4A	U	0.2	UGL	Mercury, total recoverable
KSM 1D	U	0.2	UGL	Mercury, total recoverable
KSS 1D	U	0.2	UGL	Mercury, total recoverable
KSS 2D	U	0.2	UGL	Mercury, total recoverable
KSS 3D	U	0.2	UGL	Mercury, total recoverable
LAC 6DL	U	0.128	UGL	Mercury, total recoverable
LAC 7DU	U	0.2	UGL	Mercury, total recoverable
LAC 8DL	U	0.2	UGL	Mercury, total recoverable
LAW 1C	U	0.2	UGL	Mercury, total recoverable
LAW 1D	U	0.067	UGL	Mercury, total recoverable
LAW 1F	U	0.2	UGL	Mercury, total recoverable
LAW 3B	U	0.2	UGL	Mercury, total recoverable
LAW 3C	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
LBP 1D	U	0.2	UGL	Mercury, total recoverable
LCO 1	U	0.2	UGL	Mercury, total recoverable
LCO 3	U	0.2	UGL	Mercury, total recoverable
LCO 5A	U	0.2	UGL	Mercury, total recoverable
LCO 5C	U	0.2	UGL	Mercury, total recoverable
LCO 5DL	U	0.2	UGL	Mercury, total recoverable
LCO 6DL	U	0.2	UGL	Mercury, total recoverable
LCO 7DL	U	0.2	UGL	Mercury, total recoverable
LCO 8DL	U	0.2	UGL	Mercury, total recoverable
LDB 1	U	0.2	UGL	Mercury, total recoverable
LDB 2	U	0.2	UGL	Mercury, total recoverable
LDB 3	U	0.2	UGL	Mercury, total recoverable
LFW 6	U	0.2	UGL	Mercury, total recoverable
LFW 7	U	0.2	UGL	Mercury, total recoverable
LFW 8	U	0.2	UGL	Mercury, total recoverable
LFW 19	U	0.2	UGL	Mercury, total recoverable
LFW 20	U	0.2	UGL	Mercury, total recoverable
LFW 25	U	0.2	UGL	Mercury, total recoverable
LFW 26	U	0.2	UGL	Mercury, total recoverable
LFW 27	U	0.2	UGL	Mercury, total recoverable
LFW 30	U	0.2	UGL	Mercury, total recoverable
LFW 33	U	0.2	UGL	Mercury, total recoverable
LFW 34	U	0.2	UGL	Mercury, total recoverable
LFW 35	U	0.2	UGL	Mercury, total recoverable
LFW 36	U	0.2	UGL	Mercury, total recoverable
LFW 37	U	0.2	UGL	Mercury, total recoverable
LFW 40	U	0.2	UGL	Mercury, total recoverable
LFW 41	U	0.2	UGL	Mercury, total recoverable
LFW 41R	U	0.2	UGL	Mercury, total recoverable
LFW 42	U	0.2	UGL	Mercury, total recoverable
LFW 44D	U	0.2	UGL	Mercury, total recoverable
LFW 46D	U	0.2	UGL	Mercury, total recoverable
LFW 48D	U	0.2	UGL	Mercury, total recoverable
LFW 55D	U	0.2	UGL	Mercury, total recoverable
LFW 57B	U	0.2	UGL	Mercury, total recoverable
LFW 57C	U	0.2	UGL	Mercury, total recoverable
LFW 59B	U	0.2	UGL	Mercury, total recoverable
LFW 59C	U	0.2	UGL	Mercury, total recoverable
LFW 60B	U	0.2	UGL	Mercury, total recoverable
LFW 61C	U	0.2	UGL	Mercury, total recoverable
LFW 62B	U	0.2	UGL	Mercury, total recoverable
LFW 64B	U	0.2	UGL	Mercury, total recoverable
LFW 65C	U	0.2	UGL	Mercury, total recoverable
LFW 66B	U	0.2	UGL	Mercury, total recoverable
LFW 67B	U	0.2	UGL	Mercury, total recoverable
LFW 68B	U	0.2	UGL	Mercury, total recoverable
LFW 68C	U	0.2	UGL	Mercury, total recoverable
LFW 69B	U	0.2	UGL	Mercury, total recoverable
LFW 70C	U	0.2	UGL	Mercury, total recoverable
LFW 70D	U	0.2	UGL	Mercury, total recoverable
LFW 71C	U	0.2	UGL	Mercury, total recoverable
LFW 72D	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
LRP 1	U	0.2	UGL	Mercury, total recoverable
LRP 2	U	0.2	UGL	Mercury, total recoverable
LRP 3	U	0.2	UGL	Mercury, total recoverable
LSB 1	U	0.2	UGL	Mercury, total recoverable
LSB 2	U	0.2	UGL	Mercury, total recoverable
LSB 3	U	0.2	UGL	Mercury, total recoverable
LSB 4	U	0.2	UGL	Mercury, total recoverable
MCB 2	U	0.2	UGL	Mercury, total recoverable
MCB 4	U	0.2	UGL	Mercury, total recoverable
MCB 7C	U	0.2	UGL	Mercury, total recoverable
MCB 11D	U	0.2	UGL	Mercury, total recoverable
MCB 13C	U	0.2	UGL	Mercury, total recoverable
MCB 14C	U	0.2	UGL	Mercury, total recoverable
MCB 14C	U	0.2	UGL	Mercury, total recoverable
MCB 15B	U	0.2	UGL	Mercury, total recoverable
MCB 15C	U	0.2	UGL	Mercury, total recoverable
MCB 16B	U	0.2	UGL	Mercury, total recoverable
MCB 16C	U	0.2	UGL	Mercury, total recoverable
MCB 17B	U	0.2	UGL	Mercury, total recoverable
MCB 18B	U	0.2	UGL	Mercury, total recoverable
MCB 19B	U	0.2	UGL	Mercury, total recoverable
MGC 36	U	0.2	UGL	Mercury, total recoverable
MSB 1B	U	0.2	UGL	Mercury, total recoverable
MSB 1C	U	0.2	UGL	Mercury, total recoverable
MSB 1D	U	0.2	UGL	Mercury, total recoverable
MSB 2C	U	0.2	UGL	Mercury, total recoverable
MSB 2D	U	0.2	UGL	Mercury, total recoverable
MSB 3C	U	0.2	UGL	Mercury, total recoverable
MSB 3D	U	0.2	UGL	Mercury, total recoverable
MSB 4C	U	0.2	UGL	Mercury, total recoverable
MSB 5B	U	0.2	UGL	Mercury, total recoverable
MSB 6A	U	0.2	UGL	Mercury, total recoverable
MSB 6C	U	0.2	UGL	Mercury, total recoverable
MSB 7B	U	0.2	UGL	Mercury, total recoverable
MSB 9A	U	0.2	UGL	Mercury, total recoverable
MSB 9B	U	0.2	UGL	Mercury, total recoverable
MSB 10A	U	0.2	UGL	Mercury, total recoverable
MSB 10C	U	0.2	UGL	Mercury, total recoverable
MSB 11A	U	0.2	UGL	Mercury, total recoverable
MSB 11B	U	0.2	UGL	Mercury, total recoverable
MSB 11D	U	0.2	UGL	Mercury, total recoverable
MSB 11F	U	0.2	UGL	Mercury, total recoverable
MSB 12A	U	0.2	UGL	Mercury, total recoverable
MSB 12C	U	0.219	UGL	Mercury, total recoverable
MSB 12TA	U	0.2	UGL	Mercury, total recoverable
MSB 12TB	U	0.2	UGL	Mercury, total recoverable
MSB 13A	U	0.2	UGL	Mercury, total recoverable
MSB 13B	U	0.2	UGL	Mercury, total recoverable
MSB 13D	U	0.2	UGL	Mercury, total recoverable
MSB 14C	U	0.2	UGL	Mercury, total recoverable
MSB 15AA	U	0.2	UGL	Mercury, total recoverable
MSB 16A	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
MSB 16C	U	0.2	UGL	Mercury, total recoverable
MSB 17BB	U	0.2	UGL	Mercury, total recoverable
MSB 17D	U	0.2	UGL	Mercury, total recoverable
MSB 18A	U	0.2	UGL	Mercury, total recoverable
MSB 18B	U	0.2	UGL	Mercury, total recoverable
MSB 18C	U	0.2	UGL	Mercury, total recoverable
MSB 19A	U	0.2	UGL	Mercury, total recoverable
MSB 19B	U	0.2	UGL	Mercury, total recoverable
MSB 20C	U	0.2	UGL	Mercury, total recoverable
MSB 21B	U	0.2	UGL	Mercury, total recoverable
MSB 21C	U	0.2	UGL	Mercury, total recoverable
MSB 21TA	U	0.2	UGL	Mercury, total recoverable
MSB 23TR	U	0.2	UGL	Mercury, total recoverable
MSB 26	U	0.2	UGL	Mercury, total recoverable
MSB 26B	U	0.2	UGL	Mercury, total recoverable
MSB 27A	U	0.2	UGL	Mercury, total recoverable
MSB 27B	U	0.2	UGL	Mercury, total recoverable
MSB 28	U	0.2	UGL	Mercury, total recoverable
MSB 29A	U	0.2	UGL	Mercury, total recoverable
MSB 29TA	U	0.2	UGL	Mercury, total recoverable
MSB 30A	U	0.2	UGL	Mercury, total recoverable
MSB 30AA	U	0.2	UGL	Mercury, total recoverable
MSB 30B	U	0.2	UGL	Mercury, total recoverable
MSB 30CC	U	0.2	UGL	Mercury, total recoverable
MSB 31A	U	0.2	UGL	Mercury, total recoverable
MSB 32	U	0.2	UGL	Mercury, total recoverable
MSB 32C	U	0.2	UGL	Mercury, total recoverable
MSB 33	U	0.2	UGL	Mercury, total recoverable
MSB 33A	U	0.2	UGL	Mercury, total recoverable
MSB 33B	U	0.2	UGL	Mercury, total recoverable
MSB 33TA	U	0.2	UGL	Mercury, total recoverable
MSB 34A	U	0.2	UGL	Mercury, total recoverable
MSB 35A	U	0.2	UGL	Mercury, total recoverable
MSB 35B	U	0.2	UGL	Mercury, total recoverable
MSB 35TA	U	0.2	UGL	Mercury, total recoverable
MSB 37A	U	0.2	UGL	Mercury, total recoverable
MSB 37D	U	0.2	UGL	Mercury, total recoverable
MSB 38D	U	0.2	UGL	Mercury, total recoverable
MSB 38TA	U	0.2	UGL	Mercury, total recoverable
MSB 39A	U	0.2	UGL	Mercury, total recoverable
MSB 39TA	U	0.2	UGL	Mercury, total recoverable
MSB 40A	U	0.2	UGL	Mercury, total recoverable
MSB 40C	U	0.2	UGL	Mercury, total recoverable
MSB 40D	U	0.2	UGL	Mercury, total recoverable
MSB 40TA	U	0.2	UGL	Mercury, total recoverable
MSB 41A	U	0.2	UGL	Mercury, total recoverable
MSB 41C	U	0.2	UGL	Mercury, total recoverable
MSB 41D	U	0.2	UGL	Mercury, total recoverable
MSB 42A	U	0.2	UGL	Mercury, total recoverable
MSB 42TA	U	0.2	UGL	Mercury, total recoverable
MSB 43A	U	0.2	UGL	Mercury, total recoverable
MSB 44A	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
MSB 44B	U	0.2	UGL	Mercury, total recoverable
MSB 46B	U	0.2	UGL	Mercury, total recoverable
MSB 46C	U	0.2	UGL	Mercury, total recoverable
MSB 47BB	U	0.2	UGL	Mercury, total recoverable
MSB 48D	U	0.2	UGL	Mercury, total recoverable
MSB 48TA	U	0.2	UGL	Mercury, total recoverable
MSB 49A	U	0.2	UGL	Mercury, total recoverable
MSB 50B	U	0.2	UGL	Mercury, total recoverable
MSB 50D	U	0.2	UGL	Mercury, total recoverable
MSB 51D	U	0.2	UGL	Mercury, total recoverable
MSB 52B	U	0.2	UGL	Mercury, total recoverable
MSB 52D	U	0.2	UGL	Mercury, total recoverable
MSB 53B	U	0.2	UGL	Mercury, total recoverable
MSB 53C	U	0.2	UGL	Mercury, total recoverable
MSB 53D	U	0.2	UGL	Mercury, total recoverable
MSB 54B	U	0.2	UGL	Mercury, total recoverable
MSB 54C	U	0.2	UGL	Mercury, total recoverable
MSB 54D	U	0.2	UGL	Mercury, total recoverable
MSB 54TA	U	0.2	UGL	Mercury, total recoverable
MSB 55B	U	0.2	UGL	Mercury, total recoverable
MSB 55HC	U	0.2	UGL	Mercury, total recoverable
MSB 55TA	U	0.2	UGL	Mercury, total recoverable
MSB 61C	U	0.2	UGL	Mercury, total recoverable
MSB 61D	U	0.2	UGL	Mercury, total recoverable
MSB 64B	U	0.2	UGL	Mercury, total recoverable
MSB 66TA	U	0.2	UGL	Mercury, total recoverable
MSB 67B	U	0.2	UGL	Mercury, total recoverable
MSB 67D	U	0.2	UGL	Mercury, total recoverable
MSB 68C	U	0.2	UGL	Mercury, total recoverable
MSB 68D	U	0.2	UGL	Mercury, total recoverable
MSB 69B	U	0.2	UGL	Mercury, total recoverable
MSB 69C	U	0.2	UGL	Mercury, total recoverable
MSB 69D	U	0.2	UGL	Mercury, total recoverable
MSB 69TA	U	0.2	UGL	Mercury, total recoverable
MSB 70D	U	0.2	UGL	Mercury, total recoverable
MSB 71B	U	0.2	UGL	Mercury, total recoverable
MSB 73B	U	0.2	UGL	Mercury, total recoverable
MSB 74B	U	0.09	UGL	Mercury, total recoverable
MSB 74C	U	0.2	UGL	Mercury, total recoverable
MSB 74D	U	0.2	UGL	Mercury, total recoverable
MSB 75B	U	0.2	UGL	Mercury, total recoverable
MSB 75C	U	0.2	UGL	Mercury, total recoverable
MSB 77B	U	0.2	UGL	Mercury, total recoverable
MSB 77C	U	0.2	UGL	Mercury, total recoverable
MSB 77D	U	0.2	UGL	Mercury, total recoverable
MSB 77TA	U	0.2	UGL	Mercury, total recoverable
MSB 78DR	U	0.2	UGL	Mercury, total recoverable
MSB 79B	U	0.2	UGL	Mercury, total recoverable
MSB 79C	U	0.073	UGL	Mercury, total recoverable
MSB 82D	U	0.2	UGL	Mercury, total recoverable
MSB 82TA	U	0.2	UGL	Mercury, total recoverable
MSB 83B	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
MSB 83C	U	0.2	UGL	Mercury, total recoverable
MSB 83D	U	0.2	UGL	Mercury, total recoverable
MSB 83TA	U	0.2	UGL	Mercury, total recoverable
MSB 84C	U	0.2	UGL	Mercury, total recoverable
MSB 85B	U	0.2	UGL	Mercury, total recoverable
MSB 85C	U	0.2	UGL	Mercury, total recoverable
MSB 85D	U	0.2	UGL	Mercury, total recoverable
MSB 85TA	U	0.2	UGL	Mercury, total recoverable
MSB 87B	U	0.2	UGL	Mercury, total recoverable
MSB 87C	U	0.2	UGL	Mercury, total recoverable
MSB 88D	U	0.2	UGL	Mercury, total recoverable
MSB 89B	U	0.2	UGL	Mercury, total recoverable
NBG 3	U	0.2	UGL	Mercury, total recoverable
NBG 4	U	0.2	UGL	Mercury, total recoverable
NPM 2	U	0.2	UGL	Mercury, total recoverable
NPM 3	U	0.2	UGL	Mercury, total recoverable
NPM 4	U	0.2	UGL	Mercury, total recoverable
NPM 4DD	U	0.2	UGL	Mercury, total recoverable
NPM 19A	U	0.2	UGL	Mercury, total recoverable
NPM 19B	U	0.2	UGL	Mercury, total recoverable
NPM 19B	U	0.2	UGL	Mercury, total recoverable
NPM 19B	U	0.2	UGL	Mercury, total recoverable
NPM 19B	U	0.2	UGL	Mercury, total recoverable
NPM 19B	U	0.2	UGL	Mercury, total recoverable
NPM 19C	U	0.2	UGL	Mercury, total recoverable
NPM 19D	U	0.2	UGL	Mercury, total recoverable
NPM 19E	U	0.2	UGL	Mercury, total recoverable
NPM 34A	U	0.2	UGL	Mercury, total recoverable
NPM 34B	U	0.2	UGL	Mercury, total recoverable
NPM 34C	U	0.2	UGL	Mercury, total recoverable
NPM 34D	U	0.2	UGL	Mercury, total recoverable
NPM 34E	U	0.2	UGL	Mercury, total recoverable
P 20C	U	0.2	UGL	Mercury, total recoverable
P 20D	U	0.2	UGL	Mercury, total recoverable
P 24A	U	0.2	UGL	Mercury, total recoverable
P 26B	U	0.2	UGL	Mercury, total recoverable
P 27B	U	0.2	UGL	Mercury, total recoverable
P 27C	U	0.2	UGL	Mercury, total recoverable
P 27D	U	0.2	UGL	Mercury, total recoverable
P 27TB	U	0.2	UGL	Mercury, total recoverable
P 27TC	U	0.2	UGL	Mercury, total recoverable
P 27TD	U	0.2	UGL	Mercury, total recoverable
P 27TE	U	0.2	UGL	Mercury, total recoverable
P 28A	U	0.2	UGL	Mercury, total recoverable
P 28TB	U	0.2	UGL	Mercury, total recoverable
P 29C	U	0.2	UGL	Mercury, total recoverable
P 29D	U	0.2	UGL	Mercury, total recoverable
P 29TA	U	0.2	UGL	Mercury, total recoverable
P 29TC	U	0.2	UGL	Mercury, total recoverable
P 80	U	0.2	UGL	Mercury, total recoverable
PAC 2	U	0.2	UGL	Mercury, total recoverable
PAC 3	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
PAC 5	U	0.2	UGL	Mercury, total recoverable
PAC 6	U	0.2	UGL	Mercury, total recoverable
PB 1	U	0.2	UGL	Mercury, total recoverable
PBP 1D	U	0.2	UGL	Mercury, total recoverable
PBP 3D	U	0.2	UGL	Mercury, total recoverable
PCB 1A	U	0.2	UGL	Mercury, total recoverable
PCB 3A	U	0.2	UGL	Mercury, total recoverable
PDB 2	U	0.2	UGL	Mercury, total recoverable
PDB 3	U	0.2	UGL	Mercury, total recoverable
PDB 4	U	0.2	UGL	Mercury, total recoverable
PDB 5	U	0.2	UGL	Mercury, total recoverable
PRP 1A	U	0.2	UGL	Mercury, total recoverable
PRP 5	U	0.2	UGL	Mercury, total recoverable
PSB 1A	U	0.2	UGL	Mercury, total recoverable
PSB 2A	U	0.2	UGL	Mercury, total recoverable
PSB 3A	U	0.2	UGL	Mercury, total recoverable
PSB 4A	U	0.2	UGL	Mercury, total recoverable
PSB 5A	U	0.2	UGL	Mercury, total recoverable
PSB 6A	U	0.2	UGL	Mercury, total recoverable
PSB 7A	U	0.2	UGL	Mercury, total recoverable
R 6	U	0.2	UGL	Mercury, total recoverable
RAC 2	U	0.2	UGL	Mercury, total recoverable
RAC 3	U	0.2	UGL	Mercury, total recoverable
RBW 1CL	U	0.2	UGL	Mercury, total recoverable
RBW 2CL	U	0.2	UGL	Mercury, total recoverable
RCP 1A	U	0.2	UGL	Mercury, total recoverable
RDB 1D	U	0.2	UGL	Mercury, total recoverable
RDB 2D	U	0.2	UGL	Mercury, total recoverable
RDB 3D	U	0.2	UGL	Mercury, total recoverable
RRP 1	U	0.2	UGL	Mercury, total recoverable
RRP 2	U	0.2	UGL	Mercury, total recoverable
RRP 3	U	0.2	UGL	Mercury, total recoverable
RRP 4	U	0.2	UGL	Mercury, total recoverable
RSA 7	U	0.2	UGL	Mercury, total recoverable
RSA 8	U	0.2	UGL	Mercury, total recoverable
RSB 7	U	0.2	UGL	Mercury, total recoverable
RSC 10	U	0.2	UGL	Mercury, total recoverable
RSD 1	U	0.2	UGL	Mercury, total recoverable
RSD 2A	U	0.2	UGL	Mercury, total recoverable
RSD 2B	U	0.2	UGL	Mercury, total recoverable
RSD 2C	U	0.2	UGL	Mercury, total recoverable
RSD 3	U	0.2	UGL	Mercury, total recoverable
RSD 5	U	0.2	UGL	Mercury, total recoverable
RSD 7	U	0.2	UGL	Mercury, total recoverable
RSD 9	U	0.2	UGL	Mercury, total recoverable
RSD 11	U	0.2	UGL	Mercury, total recoverable
RSE 1A	U	0.2	UGL	Mercury, total recoverable
RSE 1B	U	0.2	UGL	Mercury, total recoverable
RSE 1C	U	0.2	UGL	Mercury, total recoverable
RSE 2	U	0.2	UGL	Mercury, total recoverable
RSE 3A	U	0.2	UGL	Mercury, total recoverable
RSE 7	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
RSE 8	U	0.2	UGL	Mercury, total recoverable
RSE 9	U	0.2	UGL	Mercury, total recoverable
RSE 10	U	0.2	UGL	Mercury, total recoverable
RSE 11	U	0.2	UGL	Mercury, total recoverable
RSE 13	U	0.2	UGL	Mercury, total recoverable
RSE 24	U	0.2	UGL	Mercury, total recoverable
RSE 25	U	0.2	UGL	Mercury, total recoverable
RSF 1	U	0.2	UGL	Mercury, total recoverable
RSF 2	U	0.2	UGL	Mercury, total recoverable
RSF 3	U	0.2	UGL	Mercury, total recoverable
RWM 4	U	0.2	UGL	Mercury, total recoverable
SBG 2	U	0.2	UGL	Mercury, total recoverable
SBG 3	U	0.2	UGL	Mercury, total recoverable
SBG 4	U	0.2	UGL	Mercury, total recoverable
SBG 5	U	0.2	UGL	Mercury, total recoverable
SBG 6	U	0.2	UGL	Mercury, total recoverable
SCA 1	U	0.2	UGL	Mercury, total recoverable
SCA 3A	U	0.2	UGL	Mercury, total recoverable
SCA 4	U	0.2	UGL	Mercury, total recoverable
SCA 4A	U	0.2	UGL	Mercury, total recoverable
SCA 5	U	0.2	UGL	Mercury, total recoverable
SCA 6	U	0.2	UGL	Mercury, total recoverable
SLP 1	U	0.2	UGL	Mercury, total recoverable
SLP 2	U	0.2	UGL	Mercury, total recoverable
SRW 1BB	U	0.2	UGL	Mercury, total recoverable
SRW 3A	U	0.2	UGL	Mercury, total recoverable
SRW 3BB	U	0.2	UGL	Mercury, total recoverable
SRW 7	U	0.2	UGL	Mercury, total recoverable
SRW 8	U	0.2	UGL	Mercury, total recoverable
SRW 8BB	U	0.2	UGL	Mercury, total recoverable
SRW 9	U	0.2	UGL	Mercury, total recoverable
SRW 9A	U	0.2	UGL	Mercury, total recoverable
SRW 9B	U	0.2	UGL	Mercury, total recoverable
SRW 10BB	U	0.2	UGL	Mercury, total recoverable
SRW 11	U	0.2	UGL	Mercury, total recoverable
SRW 11BB	U	0.2	UGL	Mercury, total recoverable
SRW 12A	U	0.2	UGL	Mercury, total recoverable
SRW 12B	U	0.2	UGL	Mercury, total recoverable
SRW 12C	U	0.2	UGL	Mercury, total recoverable
SRW 13A	U	0.2	UGL	Mercury, total recoverable
SRW 13B	U	0.2	UGL	Mercury, total recoverable
SRW 13C	U	0.2	UGL	Mercury, total recoverable
SRW 14B	U	0.2	UGL	Mercury, total recoverable
SRW 14C	U	0.2	UGL	Mercury, total recoverable
SRW 15B	U	0.2	UGL	Mercury, total recoverable
SRW 15C	U	0.2	UGL	Mercury, total recoverable
SRW 16A	U	0.2	UGL	Mercury, total recoverable
SRW 16C	U	0.2	UGL	Mercury, total recoverable
SRW 17BB	U	0.2	UGL	Mercury, total recoverable
SSS 2	U	0.2	UGL	Mercury, total recoverable
SSS 3	U	0.2	UGL	Mercury, total recoverable
SSS 4	U	0.2	UGL	Mercury, total recoverable

Wells (n=856) with no estimated median mercury concentration (all values nondetect at or below nominal D.L.)

well	qualifier	result	units	analyte_name
SSS 19	U	0.2	UGL	Mercury, total recoverable
SSS 21	U	0.2	UGL	Mercury, total recoverable
SSS 26	U	0.2	UGL	Mercury, total recoverable
STR222O	U	0.2	UGL	Mercury, total recoverable
TBG 5	U	0.2	UGL	Mercury, total recoverable
TNX 2D	U	0.2	UGL	Mercury, total recoverable
TNX 7D	U	0.2	UGL	Mercury, total recoverable
TNX 8D	U	0.2	UGL	Mercury, total recoverable
TNX 9D	U	0.1	UGL	Mercury, total recoverable
TNX 10D	U	0.2	UGL	Mercury, total recoverable
TNX 12D	U	0.2	UGL	Mercury, total recoverable
TNX 23D	U	0.2	UGL	Mercury, total recoverable
TNX 24D	U	0.2	UGL	Mercury, total recoverable
TNX 27D	U	0.2	UGL	Mercury, total recoverable
YSC 1C	U	0.2	UGL	Mercury, total recoverable
YSC 2A	U	0.2	UGL	Mercury, total recoverable
YSC 2D	U	0.2	UGL	Mercury, total recoverable
YSC 4C	U	0.2	UGL	Mercury, total recoverable
YSC 5A	U	0.2	UGL	Mercury, total recoverable
ZBG 1A	U	0.2	UGL	Mercury, total recoverable
ZDT 1	U	0.2	UGL	Mercury, total recoverable
ZDT 2	U	0.2	UGL	Mercury, total recoverable
ZW 1A	U	0.2	UGL	Mercury, total recoverable
ZW 8	U	0.2	UGL	Mercury, total recoverable