FINAL

SITE CLOSURE WORK PLAN
X-RAY LAGOON, SWMU 3
TOOELE ARMY DEPOT, UTAH

Tooele Army Depot

October 6, 2003

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Contract No. GS-10F-0029L

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TABLE OF CONTENTS

SECTION		PAGE
1.	**INTRODUCTION**	**1**
1.1	Site Description	2
1.1.1	Location and Geology	2
1.1.2	SWMU Background	2
1.1.3	Risk Assessment	3
1.2	Purpose and Scope	4
1.3	Organization of Work Plan	5
2.	**SUMMARY OF EXISTING DATA**	**6**
2.1	Monitoring Network	6
2.2	Historical Groundwater Sampling and Analysis Summary	7
2.2.1	Sampling Methods and Observations	7
2.2.2	Evaluation of Groundwater Corrosivity	8
2.2.3	Sampling Event and Document Summaries	11
2.3	Initial Evaluation of Existing Data	15
2.3.1	Data Quality Objectives (DQOs)	15
2.3.2	Data Set Preparation	17
3.	**STATISTICAL EVALUATION OF EXISTING DATA**	**23**
3.1	Objective	23
3.2	Approach	23
3.2.1	Statistical and Graphical Determination of Distribution Types	25
3.2.2	Statistical and Graphical Expression of Well Groups	27
3.2.3	Comparison Testing of Well Groups	28
4.	**RESULTS AND INTERPRETATION OF EXISTING DATA**	**29**
4.1	Statistical Summary and Graphical Analysis of Distribution Types	29
4.1.1	Quantitative Normality Testing	29
4.1.2	Graphical Analysis	30
4.2	Statistical Summary and Graphical Analysis of Well Groups	31
4.2.1	Statistical Summary	31
4.2.2	Graphical Analysis	31
4.3	Comparison Testing of Well Groups	32
5.	**CONCLUSIONS AND RECOMMENDATIONS**	**33**
5.1	Conclusions	33
5.2	Recommendations	34
5.2.1	Pre-Swabbing and Pre-Purging Metals Analysis of Samples	34
5.2.2	Swabbing, Analysis of Solids and Filtrate	35
5.2.3	Post-Purging Metals Analysis of Samples	36
5.2.4	Video Assessment	37

TABLE OF CONTENTS
(continued)

SECTION		PAGE
5.3	Quality Control	39
5.4	Project Organization	40
5.5	Health and Safety	40
5.6	Closure Report Requirements	40
6.	**REFERENCES**	**42**

TABLES

1 Summary of Historical Groundwater Sampling Events
2 Summary of Non-Detects for Stainless Steel Well Screen Constituents in Filtered and Unfiltered Groundwater Samples
3 Summary Statistics for Stainless Steel Well Screen Constituents in Stainless Steel and PVC Wells
4 PVC and Stainless Steel Well Group Statistical Comparisons
5 Normality Test, PVC and Stainless Steel Well Group Statistical Comparisons
6 Mann-Whitney Test, PVC and Stainless Steel Well Group Statistical Comparisons

FIGURES

1 Location Map
2 Fall 2002 Groundwater Elevation Contour Map
3 Project Decision Flow Chart
4(a&b) Statistical Methodology Flow Chart
5 Example Box-and-Whisker Plot
6 Probability Plots for Well Constituents and Major Cations
7 Box-and-Whisker Plots for Well Constituents and Major Cations
8 SWMU 3 Project Schedule

APPENDICES

A Groundwater Concentration versus Time Graphs for SWMU 3 Wells and Selected Analytes

B Comprehensive List of Historical Analytes and Detections for SWMU 3 Wells

C Individual Statistical Plots

LIST OF ACRONYMS

µm	Micrometer
APCL	Applied Physics & Chemistry Laboratory
ASTM	American Society of Testing Materials
bgs	Below Ground Surface
CAOs	Corrective Action Objectives
CDQMP	Chemical Data Quality Management Plan
CMS	Corrective Measures Study
COCs	Contaminants of Concern
COPCs	Contaminants of Potential Concern
DO	Dissolved Oxygen
DoD	Department of Defense
DoE	Department of Energy
DQOs	Data Quality Objectives
EPA	Environmental Protection Agency
INEL	Idaho National Engineering Laboratory
IT	International Technology Corporation
KABIS	KABIS Sampler by SIBAK Industries
MCLs	Maximum Contaminant Levels
mg/L	Milligrams per Liter
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NMED	New Mexico Environmental Department
NTUs	Nephelometric Turbidity Units
ORP	Oxidation-Reduction Potential
PNL	Pacific Northwest Laboratory
PQL	Practical Quantitation Limit
PSG	Professional Services Group, Inc.
PVC	Polyvinyl Chloride
QA	Quality Assurance
QC	Quality Control
RFI	RCRA Facility Investigation
RCRA	Resource Conservation and Recovery Act
Rust E&I	Rust Environment and Infrastructure
SOP	Standard Operating Procedure
SWMU	Solid Waste Management Unit
TDS	Total Dissolved Solids
TEAD	Tooele Army Depot
USACE	U.S. Army Corps of Engineers
USGS	United States Geological Survey

1. INTRODUCTION

Kleinfelder has been contracted by the U.S. Army Corps of Engineers (USACE), Sacramento District, to perform an evaluation of previous investigations and conduct groundwater sampling and analysis to support site closure and abandonment of groundwater monitoring wells at Solid Waste Management Unit (SWMU) 3, Tooele Army Depot (TEAD), Tooele, Utah (Contract No. GS-10F-0029L). The fieldwork and laboratory analytical will be conducted in accordance with the TEAD Chemical Data Quality Management Plan (CDQMP, June 1999).

This work plan contains the following information for SWMU 3:

- Project location and background (Section 1);
- Summary of risk assessment (Section 1.1.3);
- Summary and evaluation of existing site metals data (Section 2);
- Details of the statistical assessment of the complete data set to be used for support of site closure (Section 3 and 4);
- Conclusions and recommendations including supporting rationale for collection of additional data (Section 5);
- Proposed numbers of additional samples, analytical methods, and sampling techniques (Section 5.2);
- Quality control procedures (Section 5.3);
- Project Organization (Section 5.4);

- Closure report requirements (Section 5.6);
- Site maps (Figures 1 and 2); and
- Gantt chart schedule through completion of the closure report (Figure 8).

1.1 SITE DESCRIPTION

1.1.1 Location and Geology

TEAD is located just west of Tooele, approximately 35 miles southwest of Salt Lake City, and is in the central portion of Tooele Valley. The general location of TEAD is shown on Figure 1. The general layout of SWMU 3 is shown on Figure 2 and is the site of a former lagoon used for the disposal of x-ray photography chemicals and associated waste.

The hydrostratigraphy below the X-Ray Lagoon, on the basis of previous investigation soil and well borings, is characterized primarily by discontinuous well-graded sands and gravels and interbedded silts and clays. This is characteristic of the alluvial/lacustrine depositional environment present in Tooele Valley. All of the monitoring wells are completed in the regional alluvial aquifer (Rust, 1995). Depth to groundwater at the site averages 300 feet below ground surface (bgs) and flows generally to the north-northwest, which is consistent with the regional groundwater flow direction at TEAD.

1.1.2 SWMU Background

SWMU 3 is the former X-Ray Lagoon, which was constructed in 1974 to receive spent developer and fixer solutions from the Film Processing Building (Building 1223). The lagoon, measuring 75 feet long by 35 feet wide and 6 feet deep, is located across from Building 1223. It was lined with 100-mil plastic sheeting liner covered by a few inches of gravel. The x-ray developing

process was operated intermittently for eight hours per day, six months per year, from 1974 to 1990. All water discharged from the building was carried to the lagoon through an 8-inch ceramic pipe.

While in operation, the X-Ray Lagoon is estimated to have received 16,800 gallons of wastewater and 120 gallons of spent developer per year. The total volume of effluent discharged to the lagoon is estimated to be 252,000 gallons of wastewater and 1,800 gallons of developer solution (Rust, 1995). The lagoon reportedly contained approximately 3 feet of liquid when operations were terminated, and has been dry since September 1992, except for brief periods following precipitation events.

Silver was produced as a by-product of the x-ray film development process, and a silver recovery system was installed in 1980. This SWMU also contained a suspected area of waste discharge referred to as the "Standing Liquid Area," as seen on aerial photographs and as evidenced by an area of trees and other vegetation. A septic system, previously suspect, was investigated and determined not to be associated with Building 1223, but instead associated with the adjacent restroom. Sampling of the septic system revealed no contamination.

1.1.3 Risk Assessment

The Corrective Measures Study (CMS) Work Plan identified unacceptable cancer risks for hypothetical future child and adult residences, and thus this SWMU is included in the CMS process. However, under current and realistic land use receptor scenarios (military use), cancer risks are well below the State of Utah level of 1E-06 and United States Environmental Protection Agency (EPA) target range, and the non-carcinogenic hazards are below the goal recommended by both regulatory agencies (Dames & Moore, 2000).

Given the concentrations of the contaminants of potential concern (COPCs) at the X-Ray Lagoon were less than their corrective action objectives (CAOs), no contaminants of concern (COCs) were identified at SWMU 3. The CMS proposed that the elevated level of metals detected in

groundwater samples is due to corrosion of stainless steel well materials, not to site-related contamination. The CMS identified only one corrective measures alternative that included land use restrictions, groundwater monitoring, and well abandonment (URS-Dames & Moore, 2001a).

1.2 PURPOSE AND SCOPE

Investigative studies of contamination to soil and groundwater, including a risk assessment, are described in Section 2. During these investigations, no COCs were identified (Rust, 1995). Subsequent sampling events have detected groundwater concentrations of chromium, iron, manganese, and nickel in stainless steel groundwater monitoring wells that appear to be elevated relative to concentrations found in nearby polyvinyl chloride (PVC) wells within the monitoring well network for SWMU 3.

As these metals were not identified as COCs at SWMU 3 during the Phase II RFI, it is hypothesized that the elevated concentrations of metals detected in groundwater from the stainless steel wells may be due to corrosion of well screens and/or may be related to the presence of natural background levels of abundant particulate material in the groundwater samples. If it can be shown that the concentrations of these metals are indeed due to the corrosion of stainless steel well screens and that these wells represent the source of the metals, then a recommendation will be made to cease groundwater monitoring and decommission and permanently abandon all monitoring wells (stainless steel and PVC) at this site. Additionally, since the CMS Work Plan (Dames & Moore, 2000) identified no COCs from waste processes in the groundwater at SWMU 3 above background levels and if the elevated metals are found to be attributable to well screen degradation or particulate matter, the corrective measures regarding land use restrictions and post closure monitoring identified in the CMS should be implemented at SWMU 3.

1.3 ORGANIZATION OF WORK PLAN

This report includes a discussion and evaluation of groundwater sampling methods and results for SWMU 3. Section 2 provides a summary of previous sampling events and results. Evaluation and statistical analysis of previous sampling results are presented in Section 3, and the results and interpretation of this analysis are described in Section 4. Proposed additional field activities to support the closure of the SWMU are described in the Conclusions and Recommendations, Section 5. Section 6 lists the references used in this report. The figures and tables are behind their respective tabs at the end of the text. Selected time versus concentration graphs are included as Appendix A, and a comprehensive list of analytes and detections for wells at SMWU 3 is included as Appendix B. Appendix C presents individual statistical plots for each of the chemical constituents analyzed in the SWMU 3 groundwater.

2. SUMMARY OF EXISTING DATA

2.1 MONITORING NETWORK

At SWMU 3, a total of seven monitoring wells have been installed in the regional aquifer at depths ranging between 300 to 350 feet bgs (Figure 2). Three of the monitoring wells have screens constructed of stainless steel and four of PVC. These construction details are summarized below:

Well ID	Installation Date	Casing Material	Casing Dia. (inch)	Slot Size
N-137-90	September 15, 1990	Stainless Steel	4	0.02
N-138-90	October 6, 1990*	Stainless Steel	4	0.02
N-139-90	September 19, 1990	Stainless Steel	4	0.02
N-140-93	June 18, 1993	Sch 80 PVC	5	0.01
N-141-93	July 2, 1993	Sch 80 PVC	5	0.01
N-145-93	December 22, 1993	Sch 80 PVC	5	0.01
N-149-97	April 25, 1997	Sch 80 PVC	5	0.01

* Well abandoned on December 15, 1993, due to well construction problems associated with excessive turbidity.

According to U.S. Filter/Johnson Screens (Personal Communications, 2002), a typical composition of Type 304 stainless steel, the type used for construction of 1990-series wells at TEAD, is comprised of an alloy of approximately 18% chromium, 8% nickel, 2% manganese, 1% silicon, 0.08% carbon, and the balance of iron.

Monitoring well N-138-90 was abandoned in 1993 due to problems with obtaining a representative sample. Well N-138-90 was replaced with another upgradient PVC well (N-145-93) in 1993. Initial groundwater sampling results from well N-138-90 detected high concentrations of metals, whereas the replacement well (N-145-93) has not shown similarly high concentrations in its samples.

Since the elevated metals detected in the SWMU 3 groundwater are not believed to have been used in the industrial processes at the SWMU, it follows that they must originate from another source. Given the apparent homogeneity of the aquifer matrix beneath SWMU 3, it is probable that the difference in concentrations of the four stainless steel well screen constituents (chromium, iron, manganese, and nickel) is related to the dissolution of the well screens and/or the presence of particulate matter (turbidity) in the groundwater samples. As corrosion of the well screens and excessive turbidity may result in the elevated metals found in the groundwater samples, previous sampling events at SWMU 3 were tailored to evaluate these potential sources.

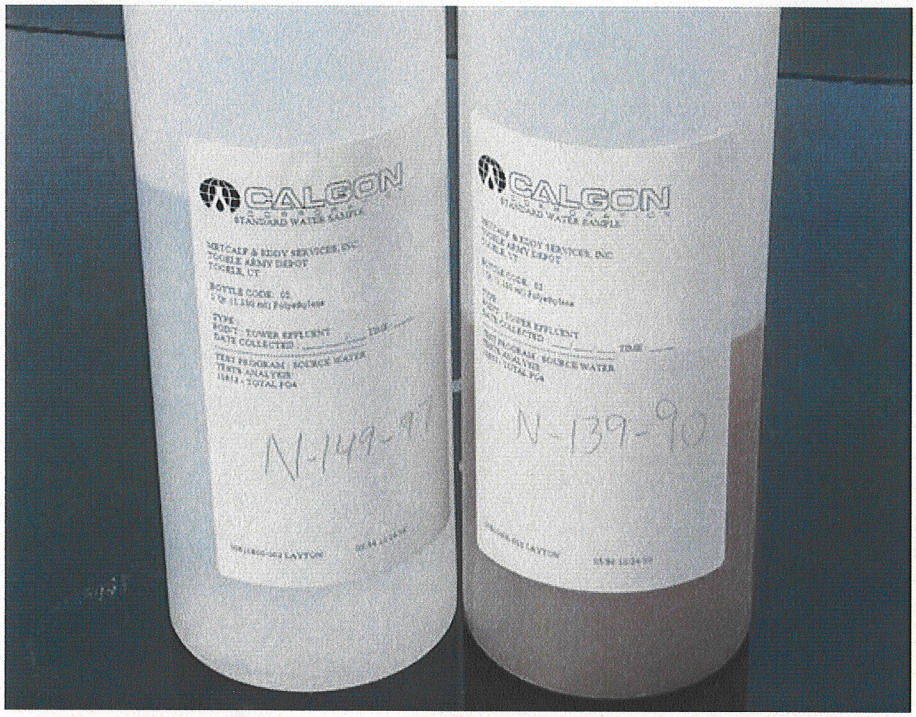
2.2 HISTORICAL GROUNDWATER SAMPLING AND ANALYSIS SUMMARY

2.2.1 Sampling Methods and Observations

SWMU 3 groundwater samples for metals analysis were collected using traditional purge and bail techniques as specified in previously referenced documents. In recent sampling events (since the Fall 2001 sampling event), groundwater in the well was allowed to stand overnight following purging. Groundwater samples were then collected from the top of the water column in the well the next day using a disposable bailer. If the turbidity of these samples measured more than 5 nephelometric turbidity units (NTUs), they were collected into unpreserved laboratory-supplied sample containers and shipped to the analytical laboratory. Upon receipt, the laboratory measured the turbidity of the sample. If the samples had NTU values greater than 5, they were stored overnight at 4° ± 2°C and allowed to settle further at the laboratory. The samples were then decanted, acidified with HNO_3 to pH less than 2, and analyzed, regardless of whether the sample read greater or less than 5 NTU. In many cases, the turbidity was not reduced, even after overnight settling.

Throughout the history of the SWMU 3 groundwater monitoring program, most observations have noted a striking difference in the appearance of groundwater samples between stainless steel and PVC wells in the monitoring network. Groundwater samples from the stainless steel wells have repeatedly been noted as being "murky" and "orange-tinted," indicating the presence of

suspended particulate matter. This was recently confirmed in the field where undisturbed groundwater samples were collected, without purging, from well N-139-90 (stainless steel) and from well N-149-97 (PVC) that are located downgradient of the X-Ray Lagoon and approximately 33 feet apart from each other. The visual difference in groundwater collected from these wells during this sampling event is shown below:



The discoloration of groundwater collected from the stainless steel well (N-139-90) has lead to the hypothesis that this is likely related to stainless steel well screen corrosion and the elevated metal concentrations detected in that well.

2.2.2 Evaluation of Groundwater Corrosivity

An analysis of the chemical nature of groundwater can provide an indication of whether the groundwater produces a corrosive or encrusting environment for wells. According to the reference document *Groundwater and Wells* (Driscoll, 1986), corrosive groundwater can be indicated by several parameter values. The presence of two or more corrosive parameters appears to intensify the corrosive attack on metals, compared with the effect caused by individual parameters. A list of these parameters and approximate values are listed below:

- pH values <7 suggest acidic (corrosive) groundwater;
- Dissolved oxygen (DO) concentrations > 2 milligrams per liter (mg/L);
- Hydrogen sulfide, even at concentrations <1 mg/L, can cause severe corrosion (Note: This amount can be detected by odor);
- TDS >1000 mg/L can act as an electrolyte enabling electrolytic corrosion between dissimilar metals;
- Chloride concentrations >500 mg/L ; and
- Ryznar Stability Index value >7 suggests corrosive conditions, whereas a value <7 suggests encrusting conditions.

The Ryznar Stability Index is widely used for predicting the reaction of metal objects in a saturated subsurface environment and can be calculated from the following equation, as shown in Appendix 13.J. in *Groundwater and Wells* (Driscoll, 1986):

$$I = S - C - \mathrm{pH}$$

where I is the Ryznar Stability Index, and S and C are factors derived from Figures 1 and 2 from the reference document, as shown below. S and C are based on total dissolved solids (TDS), methyl orange alkalinity (total alkalinity), and calcium ion concentration (0.4 x calcium hardness).

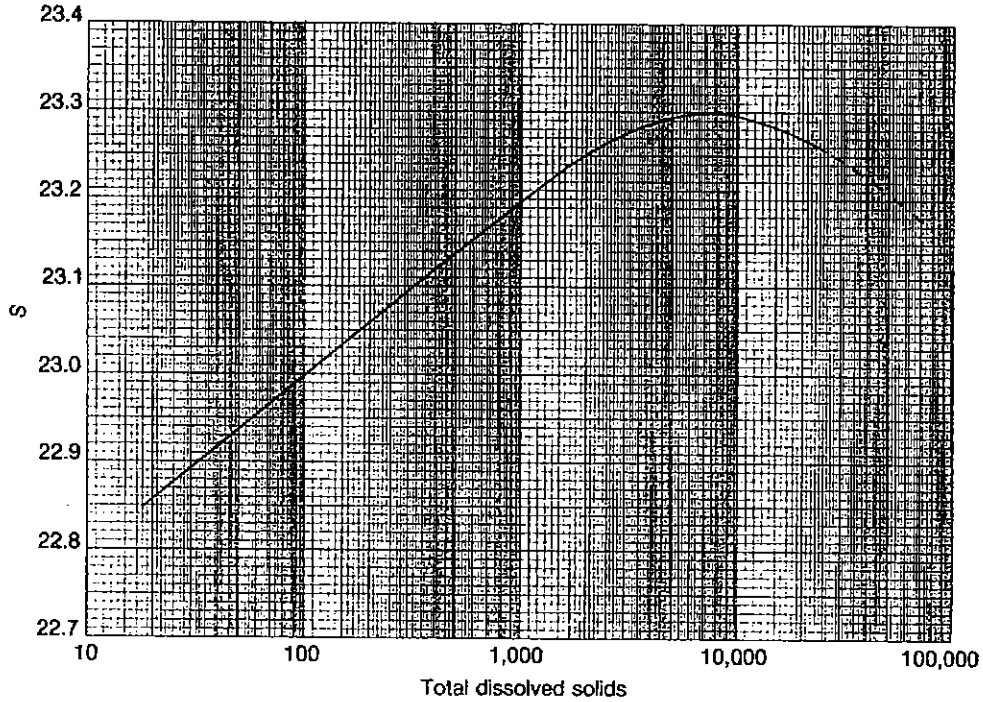


Figure 1. ***S*** **value as a function of total dissolved solids.**

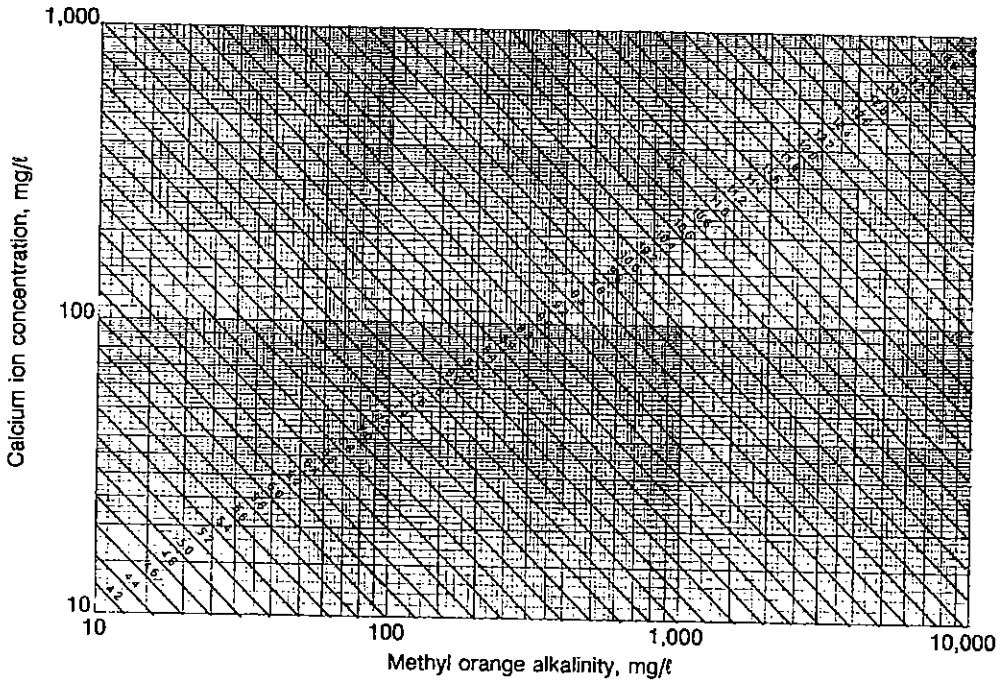


Figure 2. ***C*** **value as a function of calcium ion concentration and methyl orange alkalinity.**

Figures 1 and 2 taken from Driscoll, 1986.

Chemical indicators of groundwater corrosivity at SWMU 3 are limited to data collected from the two stainless steel wells (N-137-90 and N-139-90). Data, including chloride, calcium, and dissolved oxygen (DO), were not available for groundwater samples from the PVC wells and analysis for the above indicator parameters has been proposed for future sampling events. Approximate indicator parameter values for potential for corrosive groundwater are summarized below for two stainless steel wells:

Parameter	N-137-90	N-139-90
Ryznar Index	7.39	7.26
pH	7.49	7.52
DO (mg/L)	2.3	5.3
Hydrogen sulfide gas	no odor	no odor
TDS (mg/L)	813	1270
Chloride (mg/L)	305	420

Parameter values summarized above suggest that the groundwater conditions at SWMU 3 are considered slightly corrosive based on the Ryznar Index, DO, and TDS. The other indicators do not suggest highly corrosive conditions.

2.2.3 Sampling Event and Document Summaries

Table 1 provides sampling information on the number of monitoring events, wells sampled, and associated report. Appendix A contains concentration versus time graphs of all sampling events at SWMU 3. The graphs have been provided on the same scale for intra-well comparison of stainless steel and PVC well types. A descriptive summary of each event and related documentation is provided below:

- **Phase II Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI), Rust Environment and Infrastructure (Rust E&I), April 1995** – Soil and groundwater sampling was conducted at SMWU 3 as part of the investigation; rust was observed in each of the three stainless steel wells during initial purging. Three rounds of sampling were conducted in April 1993, October 1993, and January 1994. Round 1 sampling of the three stainless steel wells was conducted to

determine if contaminants related to SWMU 3 had reached the groundwater. Two new PVC wells were installed in July 1993 to better define the extent of groundwater contamination found in Round 1. The Round 2 sampling event included the new and existing wells to confirm the Round 1 results. Due to the differing results from the two previous rounds (Round 2 had significantly lower metals), a third round was recommended and performed. Due to problems with obtaining a representative sample from N-138-90, the well was abandoned and replaced with a PVC well (N-145-93) in December 1993.

- **Spring 1995 Event, Geomatrix, December 1995** – Wells N-137-90 and N-139-90 were sampled as part of the groundwater monitoring program at TEAD. Equilibrium turbidity measurements ranged from 88 to >100 NTUs. It was suggested that stainless steel well corrosion was introducing metals, particularly chromium, nickel, and vanadium, to unfiltered groundwater samples (manganese was not analyzed). Filtered nickel was the only metal above maximum contaminant levels (MCLs) and identified as naturally occurring in regional groundwater by the United States Geological Survey (USGS) and by Rust E&I as naturally occurring at TEAD.

- **Fall 1995 Event, Geomatrix, October 1996** – Wells N-137-90 and N-139-90 were sampled as part of the groundwater monitoring program at TEAD. Filtered and unfiltered chromium, nickel, and manganese were detected above MCLs. Improved clarity in water and lower concentrations were noted compared to the Spring 1995 sampling event. Equilibrium turbidity measurements ranged from 36 to 54 NTUs. Conclusions suggested eliminating collecting unfiltered samples due to contribution of particles into sample analysis that may not be available otherwise for groundwater transport in subsurface alluvial environments. Redevelopment of the wells was proposed for Spring and Fall 1996 sampling events.

- **Spring 1996 Event, Geomatrix, February 1997** – Wells N-137-90 and N-139-90 were sampled as part of the groundwater monitoring program at TEAD. Pre- and post- redevelopment samples were taken for comparison. Filtered and unfiltered samples were analyzed for calcium, chromium, iron, potassium, magnesium, manganese, nickel, and sodium. Redevelopment indicated that many of the corrosion by-products were removed, thus improving groundwater quality as seen by the low concentrations in the post-development samples (filtered and unfiltered), which were below or at MCLs. It was suggested that low concentrations might be due to residual contributions from screens and/or naturally occurring constituents in the groundwater.

- **Fall 1996 Event, Kleinfelder, February 1998** – Wells N-137-90 and N-139-90 were redeveloped again and sampled as part of the groundwater monitoring program at TEAD. Pre- and post-redevelopment samples were taken for comparison. The turbidity in well N-137-90 was eventually reduced to 24 NTUs after four consecutive days of redevelopment; the turbidity could not be reduced to the designated range of 5 to 10 NTUs. The turbidity in well N-139-90 was reduced to 10 NTUs. Results from the redevelopment again supported the conclusion that particulate matter from well casing corrosion had an effect on metals concentrations.

- **Additional Field Investigation Report, URS, November 2001** – One PVC well, N-149-97, was installed, developed, and sampled in 1997. Wells N-137-90 and N-145-93 were redeveloped. Three rounds of sampling were conducted on six wells: N-137-90, N-139-90, N-140-93, N-141-93, N-145-93, and N-149-97. Excluding anomalous or one-time detections, chromium and nickel detected in the stainless steel wells were the only constituents above background levels.

- **Fall 1997 Event, Kleinfelder, February 1998 (Rev. September 1998)** – Wells N-139-90 and N-149-97 were sampled as part of the groundwater monitoring program at TEAD and analyzed for filtered and unfiltered chromium, manganese, and nickel.

In unfiltered groundwater samples, manganese and nickel exceeded their respective MCLs. Filtered sample results were still consistently lower than unfiltered results.

- **Corrective Measures Study, URS, December 2001** – The Phase II RFI identified no COCs for either surface or subsurface soil at SWMU 3 (Rust, 1995). Data collected during the 1997 additional field investigation (URS, 2001) also supported this position. One corrective action alternative was identified to restrict land use, monitor groundwater, and abandon stainless steel wells. If the land use changed in the future, the corrective action alternative states that appropriate measures must be taken to adequately protect the human health and the environment. No additional groundwater sampling was conducted to support this report.

- **Decision Document, URS, December 2001** – The *Decision Document for the Known Release SWMUs* recommended that groundwater monitoring for SWMU 3 cease and the SWMU closed in accordance with RCRA guidance once the well corrosion was confirmed as the source of elevated metals. No groundwater sampling was conducted as part of this report.

- **Fall 2001 Event, Kleinfelder, April 2002** – Wells N-137-90, N-139-90, and N-147-97 were sampled with KABIS® and traditional purge and bail sampling methods to compare total metals. Results from the two analyses were complicated by the variability of turbidity in the samples. However, a dramatic rise in the detected concentrations for total metals in both sets of samples was noted in comparison to the Fall 1997 monitoring event. Recommendations suggested that filtered samples be analyzed to accurately compare the different sampling methods.

- **Spring 2002, Kleinfelder, October 2002** – Wells N-137-90, N-139-90, and N-147-97 were sampled by traditional purge and bail sampling methods to compare total metals. Despite efforts to reduce turbidity as described in the methods above,

levels ranged from 10.9 to 136 NTUs. Chromium and nickel exceeded their respective MCLs in stainless steel wells.

- **Fall 2002, Kleinfelder, April 2003** – Wells N-137-90, N-139-90, and N-147-97 were sampled by traditional purge and bail sampling methods to compare total metals and dissolved chromium. Despite efforts to reduce turbidity as described in the methods above, levels ranged from 20.8 to 162 NTUs. Fluctuating concentrations over time suggested a turbidity impact on the samples. A much larger difference between total and dissolved concentrations of chromium was noted in the stainless steel wells.

2.3 INITIAL EVALUATION OF EXISTING DATA

2.3.1 Data Quality Objectives (DQOs)

DQOs were developed for the initial evaluation of existing data to optimize and describe the data collection and evaluation objectives for the tasks described in this work plan. The seven steps of the DQO process are outlined by the EPA and are described below as they apply to this project.

- **State the Problem**: Metals concentrations at SWMU 3 appear elevated in groundwater from stainless steel wells relative to groundwater from PVC wells. Previous studies and sampling conducted to support this problem statement are described in Section 2.2.2.

- **Identify the Decision**: The main objective of this investigation is to determine through the statistical analysis of historical data if the metals concentration in the groundwater from the stainless steel wells are different than those from PVC wells. This includes identifying additional sampling needed to support site closure based on this objective.

- **Identify Inputs to the Decision**: Historical analytical results from groundwater samples from the wells located at SWMU 3 will provide input into the decision process. Statistical analysis of the historical data will be used to identify additional sampling needs to support site closure.

- **Define the Study Boundaries**: The area of investigation shall be limited to samples collected within an area of SWMU 3 (approximately 1 acre) that includes the stainless steel and nearby PVC wells. At most, data from the six existing and one abandoned well will be used in the statistical evaluation.

- **Develop a Decision Rule**: Historical data will be evaluated statistically for characterization. If the statistics indicate that the stainless steel well screen constituent concentrations in the stainless steel wells are different than those from the PVC wells, then the presence of these elevated constituents will be assumed to be unique to the stainless steel wells. If the additional sampling, evaluation, and video logging proposed in this site closure work plan support the hypothesis that the elevated stainless steel well screen constituents are resulting from deteriorating well screens, then groundwater monitoring at SWMU 3 should cease and the SWMU 3 wells permanently abandoned. The overall decision process is summarized in Figure 3.

- **Specify Limits on Decision Errors**: Limits on decision error will be controlled by:

  - Providing statistics with a 95th percentile confidence interval;
  - By implementing quality control (QC) measures documented in the work plan; and
  - Controlling the quality of analytical data by implementing the requirements specified in the TEAD CDQMP for precision, accuracy, representativeness, completeness, and analytical sensitivity.

- **Optimize the Design for Obtaining Data**: Data collection will be optimized in several ways. A QC check of the SWMU 3 database download of historical data will compare the values with those reported in the reference documents. Additional sampling to support site closure will be arranged so that the most representative samples from the available wells are collected.

2.3.2 Data Set Preparation

Analytical data were obtained directly from the online Synectics TEAD database and downloaded into Microsoft Excel to form data sets suitable for statistical analysis. Validation qualifiers for these records were assumed to be final, and no additional validation or verification was conducted on the historical data. However, sampling results were confirmed with values reported in the reference documents. Figure 4 (a and b) provides a flow chart that shows the steps taken to prepare the data for statistical analysis (discussed in Section 3). Actual data sets utilized are provided in Appendix B.

Initial Data Screening

The goal of the initial (*a priori*) data screening process was to identify, isolate, and remove unwanted, irrelevant, and unusable data from each data set prior to performing the statistical analyses. The following *a priori* screening criteria were applied to each constituent data set *prior* to preparing them for statistical analyses:

- Only native SWMU 3 groundwater samples collected during the TEAD groundwater monitoring program or investigations related to SWMU 3 were used in the statistical analysis;

- Laboratory quality assurance (QA)/QC samples (duplicates, matrix spike/matrix spike duplicates [MS/MSD], laboratory control sample/duplicates blanks) were excluded in the database query; only normal or primary samples were specified;

- Field QA/QC samples (i.e., equipment rinsate, field blank) were also eliminated from the database. The primary samples from field duplicate pairs were retained;

- No data records with erroneous values or units (e.g., analyses having zero concentration with no detection limit) were identified for this project; and

- None of the data records were rejected based on data qualifiers assigned by either the laboratory or the program data verification/validation process.

Approximately 1,381 data records for metal constituents were initially downloaded from the Synectics database for consideration as part of this work plan. A total of 1,289 data records were retained for statistical analysis. The following records were eliminated from the data sets for the reasons indicated:

- Forty-seven (47) records containing results from the sampling at the upgradient well, N-138-90. This well was sampled only twice with both rounds having extremely conflicting results. Additionally, the turbidity in the groundwater at this well could not be reduced to a reasonable level. Well N-138-90 was abandoned and replaced with a PVC well (N-145-93) in 1993.

- Twenty-three (23) records containing results from the initial sampling after the installation of well N-141-93. Results from two rounds subsequent to the installation vary significantly from the initial sampling; thus, these results are likely influenced by improper well development and turbidities. Five other sampling rounds from N-141-93 were considered for the statistical evaluation.

- Twenty-two (22) records from the Fall 2001 monitoring event, which resulted from the KABIS sampling method. The KABIS sampling method does not induce formation groundwater through the use of purging; thus, it is indicative of groundwater influenced by the vicinity of the well casing. In the case of SWMU 3, samples from the stainless steel wells are likely affected by casing corrosion. Combined with the high turbidity present at this SWMU, anonymously high stainless steel metals concentrations were detected in groundwater samples collected using the KABIS sampling method in comparison to the traditional purge and bail sampling method. For example, the nickel concentration was greater by approximately a factor of 10 in the KABIS-collected samples compared to the traditional samples from well N-139-90 for the Fall 2001 event. It is likely that the KABIS sample results would have greatly biased the statistics. As this sampling method did not produce comparable information and these results were substantially higher than the traditional purge and bail sample results, these data were excluded. The remaining records from this sampling event were collected using traditional sampling methods and were used in the statistical analysis.

Handling of Non-detect Values

A variety of methods to deal with non-detects have been proposed in statistical guidance (Battelle, 2002; EPA, 1992a,b; EPA, 1989a,b,c; American Society of Testing Materials [ASTM], 1994; ASTM, 1993). Each method has advantages and disadvantages with respect to introducing unwanted bias into the calculated statistical descriptors. The specific procedure applied to each data set is dependent upon the type of distribution exhibited by the constituent and the percentage of non-detects present in the data set.

Most of the well group data sets contain some percentage of non-detect results. Since these measurements represent analytes that were not detected at their respective detection limits, there is a concentration value of zero provided in the database. For non-detect records, a concentration value intended for use in the statistical analyses was added for each metal constituent and was set

equal to one-half the associated practical quantitation limit (PQL). The percentage of non-detects in each data set determines whether the well data sets are to be treated parametrically or non-parametrically, or to be classified as indeterminate during the analysis.

If the data set in question was found to be parametric (i.e., normal or lognormal) and the percentage of non-detects in the data set was less than 15 percent, each non-detect value was replaced with low-tied values equal to one-half of the associated PQL (EPA, 1989b; EPA, 1992b). Statistical techniques were then applied to the data set as if the assumed values were actual measured values. This approach is justifiable because a small number of very small values between moderately low detection limits and zero should not introduce a large bias into the statistical descriptors.

Conversely, if the percentage of non-detects in the data set was greater than 15 percent and less than 50 percent, the non-detects were replaced with low-tied values (one-half the PQL), and non-parametric rank-order methods were used in the statistical analysis. The advantage of using non-parametric techniques in this case was that the calculated percentiles were affected by the presence of the low-tied values, but were insensitive to the actual values assigned to the low ties. Under these conditions, non-detects could be replaced with zeros, one-half the PQL, or the detection limit without affecting the calculated percentiles. For the sake of consistency with other analyses, however, all non-detects were replaced with one-half of the PQL since detection limits were not available for all records. This approach can accommodate a higher percentage of non-detects without affecting the expression of central tendency (median) and the 95th percentile. Concentration values flagged with a "J" qualifier by the laboratory or during the data validation process were left in the data sets regardless of their relative rank.

If the percentage of non-detects in the data set were greater than 50 percent, the data set would be considered "indeterminate" and a statistical evaluation could not be completed. If this were the case, additional sampling events with lower detection limits would be needed to conduct a proper analysis.

Outlier Testing

Outlier testing was not performed with regards to this project for two main reasons. First, the data used represent unfiltered samples, which are known to contain a considerable amount of particulate material from the turbidity readings. Hence, these data sets are likely to contain two discrete partially overlapping distributions: the dissolved and particulate populations. The particulate distribution generally gives rise to a significantly right-skewed distribution, which would be detected through outlier testing. To remove these natural values would not be appropriate since the values are real in the groundwater samples based on the measured presence of turbidity. Secondly, assuming the stainless steel well screens are corroding, this source would likely manifest itself as a third population of outliers relative to the natural background distribution. Removing these outliers would thus eliminate relevant data within the scope of this study.

Well and Well Group Data Sets

Stainless Steel Well Screen Constituents

The initial evaluation of the historical data also demonstrated that there is a considerable difference in the magnitude of concentrations and the frequency of detection of chromium, iron, manganese, and nickel in filtered and unfiltered samples as evidenced by higher concentrations in the unfiltered samples. The filtered sample data set is comprised almost entirely of non-detects, which precludes performing meaningful statistical analyses on any of the constituents from that data set. Conversely, the total percentage of non-detects in the individual data sets for each constituent from the unfiltered sample data set is considerably lower, meaning that more actual detections are available for statistical assessment. This disparity between the two data sets suggests a strong particulate contribution from the filterable particulate fraction (i.e., greater than 0.45 micrometer [μm] in size) that was removed during filtration of the samples.

With the exception of iron, the percentages of non-detects in unfiltered groundwater data sets for samples collected from the two stainless steel wells (N-137-90 and N-139-90) are generally considerably lower with a higher percentage of detections than those from the PVC wells. This implies that something inherent to the stainless steel wells is responsible for this difference. Total iron is anomalous because iron may be in equilibrium with and buffered by suspended iron oxyhydroxide particles and/or as surface coatings on clay particles on a site-wide scale. If additional iron were added to the geochemical system through the dissolution of stainless steel well screen materials, it would tend to precipitate out of solution, thus maintaining the equilibrium concentration of iron in solution (dissolved).

Filtered Versus Unfiltered Data

Historical groundwater data for the stainless steel well screen constituents (chromium, iron, manganese, and nickel) from filtered and unfiltered samples were evaluated and compared against one another to determine their suitability for use in statistical analysis. Each data set was evaluated with respect to the relative number of sampling events (sample size) per well and per well group (stainless steel and PVC, see Section 3), the relative percentage of non-detects, and the relative magnitude of concentrations measured in those groups. Table 2 provides a summary of this evaluation.

While the detection limits were low enough for the original purpose of the groundwater sampling, analytical detection limits are too high for the stainless steel well screen constituents to be detected in most of the filtered samples, which has resulted in nearly all of the constituents being reported as non-detect as shown in Table 2. Conversely, the same constituents were all detected in a sufficiently large number of unfiltered samples to conduct meaningful statistical analyses. Hence, based on results from these comparisons, it is apparent that only the unfiltered sample data set can be statistically evaluated and that the data can be divided into PVC and stainless steel groups for the well group comparison testing.

3. STATISTICAL EVALUATION OF EXISTING DATA

3.1 OBJECTIVE

The overall objective of the statistical evaluation of historical data was to compare and contrast the occurrence and distribution of the stainless steel well screen constituents (chromium, iron, manganese, and nickel) and four major cations (calcium, magnesium, potassium, and sodium) between individual wells and well groups in an attempt to identify differences that may be attributable to the dissolution of stainless steel well screens and/or particulate material in the samples.

3.2 APPROACH

The statistical methodology used in this study was conducted in general accordance with standard statistical guidance documents published by the ASTM (see for example, EPA, 1992a,b; EPA, 1989a,b,c; ASTM, 1994; ASTM, 1993), and other contamination delineation studies for Department of Defense (DoD) and Department of Energy (DoE) environmental sites (International Technology Corporation [IT], 1996; New Mexico Environmental Department [NMED], 1995; IT, 1993; Pacific Northwest Laboratory [PNL], 1993; Idaho National Engineering Laboratory [INEL], 1991).

Based on the initial evaluation of existing data presented in Section 2, historical data for the stainless steel well screen constituents (chromium, iron, manganese, and nickel) and four major cations (calcium, magnesium, potassium, and sodium) were grouped for PVC versus stainless steel analysis of well groups. Only unfiltered data were evaluated in this study (see Section 2) due to the high percentage of non-detects in the filtered sample data set.

A combination of graphical and quantitative statistical techniques were employed to characterize and compare concentration distributions of the stainless steel well screen constituents and major cations in individual wells and in well groups. A flowchart illustrating the methodology employed in this evaluation is provided as Figure 4 (a and b). The statistical methodology employed is represented by seven main elements:

- Initial (*a priority*) data screening unusable data in reference to the project objective;
- Handling of non-detect values;
- Outlier testing to eliminate suspect data;
- Data set preparation for each well and well group;
- Determination of the statistical distribution type (normal, lognormal, or nonparametric) and use of probability plots, histograms and the Shapiro-Wilk/ Francia, Kolmogorov-Smirnov, and Lilliefors Tests for normality/log-normality;
- Graphical (box-and-whisker plots) and statistical (central tendency, range, 95th percentile/upper tolerance limit) expression of well group distributions; and,
- Comparison testing between stainless steel and PVC wells using appropriate statistical comparison tests (i.e., ANOVA, Mann-Whitney Test, and Kruskal-Wallis tests).

The first four elements were discussed in Section 2.3.2 under the data set preparation effort. The methodology employed on the remaining three elements is described in the following sections.

3.2.1 Statistical and Graphical Determination of Distribution Types

The specific statistical procedures used to analyze and compare well group data, the methods used to identify outliers, and the descriptors used to describe each distribution are all dependent on the type of distribution exhibited by each stainless steel well screen constituent. In nature, background concentrations of naturally occurring constituents form a distribution of values over a given spatial area of observation. The statistical characterization of well group data can be defined as the process of describing the statistical distributions of concentration values from samples obtained at representative locations. For the purposes of this study, these distributions are categorized as being normal (standard bell curve), lognormal (highly right-skewed), non-parametric (multiple modes), or indeterminate (not determinable).

EPA recommends several statistical and graphical procedures for determining whether a distribution of environmental data is parametric (normal or lognormal) or non-parametric (EPA, 1992b). The selection of an appropriate type of statistical distribution for describing well group concentration data in this study was based on the guidance provided by the EPA (1989b, 1992b). This guidance recommends that environmental concentration data be first tested for a lognormal distribution, because trace element data generally follow a lognormal distribution (EPA, 1992b). It should be noted that this guidance was originally developed for groundwater and was extended to soil assessments. A data set is tested for lognormality by taking the logarithm of the data and testing for normality. If lognormality cannot be demonstrated, normality testing is performed on the untransformed data. If neither a normal nor a lognormal distribution can be demonstrated, then non-parametric techniques are used.

One recommended graphical test used in this study involves plotting each data set as a cumulative distribution curve (also known as a probability plot). The data are rank-ordered and plotted as the standard normal deviate for the rank of each data point on the y-axis. Each corresponding observed value is plotted on the x-axis (logarithmic scale for testing log-normality). If the points fall roughly on a straight line, one can conclude that the underlying distribution is approximately normal (or lognormal), with the slope proportional to the variance

of the data. Points that have the same concentration value plot as a single point on the probability plot.

Probability plots are useful for spotting irregularities within the data when compared to a specific distributional model such as the normal or lognormal distribution. Probability plots can also indicate the presence of possible outlier values that do not follow the basic model of the data (EPA, 1992b) and, thus, are useful for identifying potentially contaminated or naturally high values. Probability plots are also used to determine whether a single normal (or lognormal) population exists as opposed to multiple populations, which can be an indication of contamination. This graphical technique is effective if contamination represents a distinctly different population of concentration values in comparison of the well graphs.

In order to provide a more precise, quantitative test for normality or log-normality, either the Shapiro-Wilk or the Shapiro-Francia test for normality is used as the primary test. The test gives substantial weight to elements of non-normality in the tails of a distribution, where the robustness of statistical tests based on the normality assumption is most severely affected. The Shapiro-Wilk test is considered to be one of the very best tests of normality available (Miller, 1986; Madansky, 1988) and is recommended by the EPA (1992b). The Shapiro-Wilk test of normality is only good for small sample sizes where the number of data points is less than or equal to 50. For larger data sets, the Shapiro-Francia test for normality is used. These tests return a p-level value between zero and one, indicating the goodness of fit. A p-level of 0.05 or greater indicates an acceptable fit to a normal model at the 95th percentile confidence level. A data set is only considered parametric if the data pass the Shapiro-Wilk or the Shapiro-Francia tests for normality.

If the Shapiro-Wilk or the Shapiro-Francia tests indicate that a data set is neither normal nor lognormal, then the data are considered to have a non-parametric distribution. Often, a data set will not pass the Shapiro-Wilk or Shapiro-Francia tests for normality, yet the data will closely approximate a normal or lognormal distribution and will pass other normality tests such as the Kolmogorov-Smirnov or Lilliefors test. Also, several distributions for this project appeared

lognormal and even passed the Shapiro-Wilk test, but were treated non-parametrically because of a large percentage (more than 15 percent) of non-detects. Both of these types of data sets were considered non-parametric for purposes of calculating the summary statistics. The Kolmogorov-Smirnov and Lilliefors tests were used as secondary tests to assess the degree to which distributions that failed the Shapiro-Wilk test exhibited approximate normal or lognormal behavior. These tests focused on elements of non-normality in the central portion of the distributions.

Finally, each non-parametric data set with between 15 and 50 percent non-detects were assigned an approximate distribution type (normal or lognormal) for the purpose of comparison testing between formation data sets. Knowledge of the distribution type is required to select the appropriate comparison test. For data sets with greater than 50 percent non-detects, the distribution type was classified as "indeterminate."

3.2.2 Statistical and Graphical Expression of Well Groups

A quick, robust graphical method recommended by the EPA (1989a, 1992a) to visualize and compare two or more groups of data is the box-and-whisker plot. These plots provide a summary view of the entire data set, including the overall location, degree of symmetry, and position of outliers. Figure 5 provides an example box-and-whisker plot and describes its features. The box encloses the central 50 percent of the data points so that the top of the box represents the 75th percentile and the bottom of the box represents the 25th percentile. The horizontal line through the middle of the box represents the median of the data set. The upper whisker extends outward from the box to either 1.5 times the interquartile distance (range between 25th and 75th percentiles) or to the maximum point, whichever is larger. The lower whisker extends either 1.5 times the interquartile distance (range between 25th and 75th percentiles) or to the minimum point, whichever is smaller. Extreme values outside the whiskers are shown as distinct points (stars).

A graphical image of the relative similarity between the constituent distributions can be obtained from the box-and-whisker plots. Multiple box-and-whisker plots placed side by side were used to compare subpopulations of data sets and to visually determine whether the subpopulations were similar or distinct. The statistics represented by the box-and-whisker plots for each well and well group are presented in Tables 3 and 4.

3.2.3 Comparison Testing of Well Groups

Quantitative comparison tests were used, depending upon the distribution type for each well group data set involved in the analyses. For each comparison, the well group data sets for PVC and stainless steel wells were compared. The following three criteria were used for comparison testing:

1) If both data sets to be tested were normal or lognormal (use transformed data) then the parametric test, i.e. Student's t-Test (two sets) or ANOVA (three or more sets), was performed. This test can be used to infer whether the means of two data distributions are statistically indistinguishable.

2) If the two data sets to be tested were mixed, i.e., normal and lognormal, then the non-parametric test, i.e., Mann-Whitney (two sets) or Kruskal-Wallis (three or more sets), was used because it is not possible to compare normal to lognormal data sets with confidence using parametric testing.

3) If two data sets, of which one or both were non-parametric, then the non-parametric test was performed.

4. RESULTS AND INTERPRETATION OF EXISTING DATA

4.1 STATISTICAL SUMMARY AND GRAPHICAL ANALYSIS OF DISTRIBUTION TYPES

4.1.1 Quantitative Normality Testing

Summary results of normality testing are provided in Table 5. This table presents results of the distributional testing and proposes the appropriate distributional types for the stainless steel well screen constituents, major cations of interest. Quantitative normality testing results indicate that chromium, iron, and nickel should all be treated non-parametrically during well group comparison testing, because in each case, at least one of the distributions being tested does not pass the normality tests. With the exception of iron in the PVC well group, each of the four stainless steel well screen constituents is closer to a lognormal distribution than normal distribution in both well groups.

Based on the comparison of distributional types of the stainless steel well screen constituents and major cations in PVC and the stainless steel well groups, it appears that increased particulate material appears to be present in the latter group. This interpretation is based on the fact that in natural waters containing both particulate and liquid phases, metals generally tend to be lognormally distributed (USGS, 1985) due to the superimposition of the dissolved and particulate populations, which gives rise to a strong positive skewing. This is particularly well illustrated for iron, calcium, magnesium, and sodium, which are normally distributed in the PVC wells but more lognormally distributed in the stainless steel wells.

4.1.2 Graphical Analysis

Probability plots for select major cations (calcium, potassium, and sodium) and stainless steel well screen constituents (chromium, manganese, and nickel) are provided to illustrate the difference in distributions for PVC and stainless steel well groups (Figure 6). Probability plots are provided in this report because they show the same data as histograms, but are superior because individual points can be identified and the data set variability can be visually assessed. Probability plots for magnesium and iron are not shown because the illustration is less obvious due to buffering effects. For the ease of presentation, all probability plots are graphed with log-transformed data, even for the well groups that are normally distributed, so that a comparison between well groups can easily be visualized.

The probability plots for the calcium, potassium, and sodium all show that the distributions are essentially superimposable over most of the distributions, although for calcium and potassium a large divergent upper tail is present. This tailing effect is consistent with the presence of particulate material in the stainless steel well group samples, which contributes higher concentrations to the groundwater population(s). The fact that two distributions from the well groups are superimposable suggests that one natural source is present.

Conversely, the probability plots for chromium, manganese, and nickel are markedly different as evidenced by the large offset between the two well groups. In all three cases, the stainless steel well group distributions are considerably higher in concentration values than those for the PVC well group. This is likely due to the fact that the stainless steel screens are dissolving and contributing these metals to the overall groundwater concentration. Moreover, this effect is apparently further compounded by the higher inferred particulate content of the stainless steel well group. Based on their geochemical affinities, chromium, manganese, and nickel would all be expected to favor the binding to the surface of iron-oxyhydroxides and clay materials, respectively.

4.2 STATISTICAL SUMMARY AND GRAPHICAL ANALYSIS OF WELL GROUPS

4.2.1 Statistical Summary

Discussions of the method for preparing and analyzing the historical groundwater data are described in detail in Section 2. Summary statistics for the four stainless steel well screen constituents are provided for each well and well group (Tables 3 and 4). Three main observations were made during the evaluation. First, the filtered sample data sets are comprised almost entirely of non-detects, and the corresponding unfiltered sample data sets contain a substantial number of detections (Table 2). Therefore, only the unfiltered sample data set is usable for statistical analysis, and the data can be combined into PVC and stainless steel groups for the well group comparison testing. Second, the percentage of non-detects for all four stainless steel well screen constituents in at least one of the two well groups (to be evaluated during comparison testing) is comprised of greater than 15 percent non-detects. Therefore, non-parametric testing using the Mann-Whitney Test was employed. Third, the concentrations of the stainless steel well screen constituents are generally higher in the stainless steel wells relative to the PVC wells.

4.2.2 Graphical Analysis

Box-and-whisker plots for each well group in Figure 7 were reviewed for the stainless steel well screen constituents and major cations. Individual plots are also provided in Appendix C for a more detailed review. Analysis of these plots indicates three main observations:

1. There is a strong particulate content (turbidity) in the sample populations;

2. Concentrations of stainless steel well screen constituents appear to be significantly elevated in the two stainless steel wells and slightly elevated in the nearby cross-gradient PVC well (N-149-97); and

3. Concentrations of the major cations in groundwater appear to be relatively homogeneous across the site (i.e., they are part of the same background distribution with some variability associated with turbidity content).

A comparison of the plots for the stainless steel well screen constituents demonstrates that the two stainless steel wells exhibit distributions of the stainless steel well screen constituents that appear to be markedly elevated relative to those measured in the PVC wells. The differences in iron distributions between the wells is less marked, likely because dissolved iron concentrations are buffered on a site-wide scale by the solubility of iron oxyhydroxide phases in groundwater and thus were not plotted. Several tail (extreme) values were noted on the box-and-whisker plots for the constituents in the stainless steel wells; this is due in part to the particulate contribution in the samples from the coarser well screens.

From reviewing the plots of the major cations, calcium, potassium, and sodium, it is apparent that the concentration distributions for these metals are visually quite similar for both the stainless steel and PVC wells, particularly for sodium. The few isolated "extreme" values shown for calcium, magnesium, and potassium are likely related to the presence of suspended particulate material (i.e., clays) in the groundwater samples. The fact that that none of these cations were identified as COCs supports this interpretation of a natural source.

4.3 COMPARISON TESTING OF WELL GROUPS

Results of the Mann-Whitney Test for the PVC versus stainless steel comparison are provided in Tables 6. Chromium, manganese, and nickel distributions for stainless steel and PVC wells are shown to be statistically distinguishable from one another (p-level value ≤ 0.05). Iron is not distinguishable, most likely due to solubility control by iron oxyhydroxide (see the above section). With the exception of arsenic, cobalt, and magnesium, all other metal constituent distributions are indistinguishable. Variable detection limits are responsible for the failure of arsenic and cobalt to be statistically distinguished. A suspect, anomalously high magnesium value is responsible for the constituent failing Mann-Whitney test.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

Based on observations and analyses of the SWMU 3 groundwater samples and statistical analysis of historical sampling, the following conclusions were reached:

- Concentrations of the major elements in groundwater appear to be relatively homogeneous across the site (i.e., they are part of the same background distribution).

- There is a significant difference between filtered and unfiltered concentrations for most metals, such as iron and manganese. This suggests that a significant particulate contribution is being detected in the unfiltered analyses. There is a strong turbidity content in many of the samples collected.

- Concentrations of stainless steel well screen constituents are statistically dissimilar in the two stainless steel wells relative to the PVC wells.

- Chromium, iron, manganese, and nickel concentrations are generally higher in the stainless steel wells relative to the PVC wells, consistent with the hypothesis that well screen dissolution is occurring.

- Rusty orange-colored water observed in the stainless steel wells is not observed in the PVC wells. It is likely that this discoloration is related to corrosion of the stainless steel wells screens and the elevated metals concentrations detected in the stainless steel wells groundwater samples.

5.2 RECOMMENDATIONS

Although the statistical analysis has proven to be conclusive of well corrosion contributing to the elevated metals in the groundwater, an additional sampling event is proposed to supplement the work plan effort with additional analyses of well conditions. The project flow chart showing the decisions applied to the project thus far and what decisions will be made based on the results of the proposed additional sampling and analysis (Figure 3).

We are fortunate to have a pair of monitoring wells (N-139-90 and N-149-97) that are located in the same area, screened at the same interval, and constructed of stainless steel and PVC, respectively. Sampling and analyses of these wells will be conducted as a one-time sampling event as described below. It is suggested that the following procedures for Sections 5.2.1 through 5.2.3 be fully completed in one day per well, with the exception of the sample collection for the Ryznar Index parameters, which should be collected the following day to allow for overnight settling. Procedures will be completed on the stainless steel well first, then the PVC well.

5.2.1 Pre-Swabbing and Pre-Purging Metals Analysis of Samples

TEAD proposes to evaluate the difference in metals concentrations for unfiltered samples for both stainless monitoring wells and PVC monitoring wells using the paired monitoring wells (N-139-90 and N-149-97). Comparisons of these two wells can provide insight as to whether the stainless monitoring well is yielding differing results than the PVC well due to the metal content of the stainless steel well screen.

To perform this analysis, TEAD will collect unfiltered groundwater samples from the stainless steel well N-139-90 and the PVC well N-149-97 in unpreserved laboratory-provided sample bottles. Prior to swabbing and purging, samples will be collected with a clean bailer from the top of the water table to avoid agitation. The sample from the stainless steel well will represent the groundwater most affected by the deteriorating stainless steel screen without having induced any

suspended particles from purging activities. The sample from the PVC well will provide a basis of comparison. The laboratory will analyze the unfiltered groundwater samples for the stainless steel well screen constituents: chromium, iron, manganese, and nickel by EPA Method 6010B.

5.2.2 Swabbing, Analysis of Solids and Filtrate

The efforts described above will be supplemented with analyses of suspended solids and filtered groundwater, and a video log comparison (described below) of the monitoring wells. To obtain the solids and groundwater samples and to clean the well screens for subsequent video logging, both paired wells will be swabbed using a wire brush. Swabbing is a non-aggressive method for cleaning the well screen. Professional Services Group, Inc. (PSG) has performed well swabbing on extraction wells at SWMU 2/58 and is familiar with this process. Swabbing with a wire brush will be conducted for approximately four hours to remove potential scaling on the inside surface of the well. Wells will be swabbed according to the following procedure:

- Fit the well cleaning brush to the well casing diameter.
- Attach an external weight to the brush.
- Place the brush and weight in the well. Lower and raise as required to clean the well.
- Remove the external weight. Lower and raise the brush as required to continue cleaning the well.
- Remove the brush from the well.

Immediately following swabbing, a large sample of the turbid water will be collected with a clean bailer approximately from the midpoint of the well screen or 305 feet bgs. The sample will be placed into an unpreserved laboratory-supplied sample bottle. Every effort will be made to minimize the time the swabbed water in the casing is allowed to settle. Up to two gallons of

sample should be sufficient for the laboratory analysis described below; however, field conditions will dictate the needed volume of sample for the analyses. Field parameter measurements for temperature, pH, oxidation-reduction potential [ORP], specific conductance, DO, TDS, and turbidity will be measured on the samples at each well for comparison of water types.

Upon receipt, the laboratory will be instructed to record the initial volume and weight of the sample and then will filter the turbid water and dry the filtrate to yield a sample of solids, of which the weight will be recorded. The final volume and weight of groundwater sample will also be recorded and will be retained for analysis. Both the solid and filtered sample fractions will be analyzed for the stainless steel metals, chromium, iron, manganese, and nickel by EPA Method 6010B. It should be noted that the amount of solid fraction from the PVC well might be too small for metals analysis. If this is the case, the laboratory, at a minimum, will note the recorded weight of the solid fraction in the case narrative of the laboratory report.

The metals concentrations in the solid fraction will be used to evaluate the nature of the solids and allow for comparison between the stainless steel and the PVC wells. The analysis of the filtered water will allow for comparison with the concentrations of metals in the solids from the same groundwater sample, i.e., what metals are associated with the solids and what metals are dissolved in the groundwater in each well type. A comparison of the material balances for metals from each well will be done from the total volume of the sample and the total mass of the filtrate.

5.2.3 Post-Purging Metals Analysis of Samples

After the wells have been swabbed and the turbid water sampled, the paired wells will be purged using a pump on the same day using the protocols of a routine sampling event. If for any reason the well screens appear clogged due to the dislodging of corrosion materials, a surge block and additional swabbing will be utilized to induce fresh formation water into the well. Field parameters (temperature, pH, ORP, specific conductance, DO, TDS, and turbidity) will be measured to help evaluate water type. Purging will continue until the well has been purged three

well volumes (five casing volumes) or the well dewaters; additional volume may be purged if corrosion materials are still present in the groundwater. Following purging, the well will be allowed to settle overnight.

After purging on the following day, additional unfiltered groundwater samples will be collected from the purged well into unpreserved laboratory-supplied sample bottles. The laboratory will be instructed in the same manner as a normal sampling event from SWMU 3 in that the laboratory will measure the turbidity of the sample upon receipt. If the NTUs are greater than 5, the sample will be allowed to settle overnight and the laboratory will decant the sample from the top of the bottle. The samples will be analyzed for the stainless steel well screen metals: chromium, iron, manganese, and nickel by EPA Method 6010B, for comparison with samples taken prior to purging and swabbing. Additionally, other analyses used to characterize the corrosivity of groundwater at SWMU 3 will be included. The samples will be analyzed for Ryznar Index parameters: pH, TDS, total alkalinity, and calcium.

5.2.4 Video Assessment

The objective of video logging is to obtain a visual record of the condition of the interior of each of the paired wells, thus providing a means to inspect and compare the condition of the well casing and the screen. The video logging results will be used, together with the analytical data, to assess the extent that the corrosion problem is contributing to the elevated metals.

Video logging will be performed no sooner than four to five days after completion of the well swabbing in order to allow suspended solids to settle out of the water column. The appropriate video equipment will be utilized to view well corrosion, even if it is only slightly corroded.

The video camera will be capable of fitting into a 4-inch diameter well and will be able to pass easily through the entire length of the well casing. The camera will be built into a waterproof housing and will be lowered into the well via a coaxial cable. The image will be transmitted back via the cable to a recorder and monitor at the surface. The video recorder and monitor will

provide a permanent video recording, as well as real-time viewing, which facilitates detailed inspections of the well screen features of interest.

The camera and monitor will be color and with high resolution capable of recording details of the well screen surface. Resolution will be sufficient to show pitting caused by corrosion of the well screen casing. The camera will be capable of both automatic and manual focus, and will be equipped with adequate light source to illuminate the well casing. The camera lighting will be variable to prevent any reflective light problems that may interfere with viewing details of the well screen walls.

Video logs will be interpreted by the operator in the field and will be narrated by voice or provide some sort of record on the video to identify depths, clock time, document field procedures, and annotate corroded areas. Wells will be video logged according to the following procedure:

- Start logging operation no sooner than 4 to 5 days after the well is swabbed.
- Measure the depth to water.
- Lower the video camera into the well to the water table. A faster rate of descent is permissible and no voice annotation is necessary until the water table is encountered.
- At the water table, reduce the descent speed to logging speed (approximately 4 to 5 feet per minute) and begin the verbal narration of the video. Stop or slow the camera for a detailed record if deterioration of the well is observed. Pay particular attention to the joints between the stainless steel screen and the blank casing.
- Log to the bottom of the well.
- Wipe the cable and camera clean and dry with a clean sorbent pad as the cable and camera are retracted from the well.

- Move to the second well and repeat the above procedures.

- Once logging is completed, decontaminate the logging cable, cable spool, and camera with hot-water pressure washer or alconox and water as the cable and camera after the second well is logged and prior to demobilizing from the site.

5.3 QUALITY CONTROL

Field sampling protocols will follow the standard operating procedures (SOPs) as described in the TEAD CDQMP. The SOPs related to the additional sampling effort are listed:

- SOP 1.1 – Chain of Custody
- SOP 1.2 – Field Activity Documentation
- SOP 2.0 – Sample Handling, Packaging, and Shipping
- SOP 2.1 – Sampling Labeling
- SOP 2.2 – Sample Numbering
- SOP 4.1 – Field Instrument QA/QC
- SOP 5.0 – Water Level Measurement in Monitoring Wells
- SOP 6.0 – Sampling Equipment and Well Material Decontamination
- SOP 9.0 – Groundwater Sampling
- SOP 15.0 – Field QC Sampling

Laboratory analytical requirements will follow those as specified in the TEAD CDQMP for metals and inorganic analyses. To satisfy the CDQMP requirement of 10% quality control, one field blind duplicate and one MS/MSD sample will be collected from the stainless steel well, N-139-90, following purging. Laboratory reports will be provided in the site closure report in .pdf format electronically. The data will be reviewed and validate by a project chemist before comparisons are made for the site closure report. A data quality control report will report any

qualified or rejected data. Electronic data deliverables and field information will be submitted to Synectics for inclusion in the TEAD database.

5.4 PROJECT ORGANIZATION

Kleinfelder will provide field oversight of sampling activities. Actual field sampling activities will be conducted by PSG under a separate task order. PSG will utilize a subcontractor for the well video logging. Applied Physics and Chemistry Laboratory (APCL) will provide the analytical services on the samples.

5.5 HEALTH AND SAFETY

Health and safety procedures for the activities associated with this work plan will follow the guidelines of the TEAD Groundwater Treatment Plant Site Health and Safety Plan by PSG, updated January 2003. Activities for additional sampling, swabbing, and video logging do not present additional hazards already identified for routine semi-annual groundwater monitoring at TEAD.

5.6 CLOSURE REPORT REQUIREMENTS

After additional sampling and laboratory analysis is completed, a draft site closure report shall be submitted. The site closure report shall include the following at a minimum:

- Site description;
- Description of the sampling activity;
- Responsibilities and authorities of key personnel;
- Copy of well video log with description;
- Copies of all relevant field and laboratory documentation;
- Laboratory data packages and electronic data deliverables;
- Evaluation of analytical data quality (Quality Control Summary Report);

- Evaluation of significance of data with respect to site closure objectives; and
- Details of evaluation of the complete data set to be used for support of site closure.

See Figure 8 for a proposed project schedule in a Gantt chart for field activities and submitting the SWMU 3 Site Closure report.

6. REFERENCES

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TABLES

Table 1
Summary of Historical Groundwater Sampling Events
Site Closure Work Plan, X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

			Action* (Number of samples)						
Investigation Title	**Author**	**Report Date**	**N-137-90**	**N-138-90**	**N-139-90**	**N-140-93**	**N-141-93**	**N-145-93**	**N-149-97**
Final RCRA Facilty Investiagation Report, Phase II Study, Known-Releases SWMUs	Rust Environment and Infrastructure	April 1995	S (3)	S (2) - A	S (3)	I - S (3)	I - S (3)**	S (1)	
Groundwater Monitoring Report, Spring 1995	Geomatrix	December 1995	S (1)		S (1)				
Groundwater Monitoring Report, Fall 1995	Geomatrix	October 1996	S (1)		S (1)				
Groundwater Monitoring Report, Spring 1996	Geomatrix	February 1997	S (2)		S (2)				
Groundwater Monitoring Report, Fall 1996	Kleinfelder	February 1998	R,S (2)		R,S (2)				
Final Known Releases SWMUs Additional Field Investigation Report	URS	November 2001	R,S (3)		R,S (3)	S (3)	S (3)	S (3)	I - S (3)
Groundwater Monitoring Report, Fall 1997	Kleinfelder	February 1998 (rev. September 1998)			S (1)-K (1)-T				S (1)-K (1)-T
Groundwater Monitoring Report, Fall 2001	Kleinfelder	April 2002	S (1)		S (1)				S (1)
Groundwater Monitoring Report, Spring 2002	Kleinfelder	October 2002	S (1)		S (1)				S (1)
Groundwater Monitoring Report, Fall 2002	Kleinfelder	April 2003	S (1)		S (1)				S (1)

Notes:
* Sampled (S), installed (I), abandoned (A), redeveloped (R)
**Initial sampling event (Round 1) not included in statistical analysis due to development issues.
K - KABIS sampling method
T - Traditional purge and bail sampling method

Table 2
Summary of Non-Detects for Stainless Steel Well Screen Constituents in Filtered and Unfiltered Groundwater Samples
Site Closure Work Plan, X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well	**N-137-90**		**N-139-90**		**N-140-93**		**N-141-93**		**N-145-93**		**N-149-97**	
Construction Type	**SS**		**SS**		**PVC**		**PVC**		**PVC**		**PVC**	
Unfiltered/Filtered	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**	**U**	**F**
Chromium												
Sampling Events	14	8	16	11	6	3	5	3	4	3	7	5
Non-detects	0	7	1	9	4	3	1	3	4	3	2	4
%Non-detects	**0.0%**	**87.5%**	**6.3%**	**81.8%**	**66.7%**	**100.0%**	**20.0%**	**100.0%**	**100.0%**	**100.0%**	**28.6%**	**80.0%**
Iron												
Sampling Events	10	3	9	3	6	3	5	3	4	3	3	3
Non-detects	1	2	2	2	1	3	1	3	0	2	0	3
%Non-detects	**10.0%**	**66.7%**	**22.2%**	**66.7%**	**16.7%**	**100.0%**	**20.0%**	**100.0%**	**0.0%**	**66.7%**	**0.0%**	**100.0%**
Manganese												
Sampling Events	14	8	14	9	6	3	5	3	4	3	7	4
Non-detects	1	3	0	2	2	3	0	3	3	3	0	1
%Non-detects	**7.1%**	**37.5%**	**0.0%**	**22.2%**	**33.3%**	**100.0%**	**0.0%**	**100.0%**	**75.0%**	**100.0%**	**0.0%**	**25.0%**
Nickel												
Sampling Events	15	10	16	11	6	5	5	3	4	3	7	3
Non-detects	0	1	0	0	5	4	5	3	4	3	3	3
%Non-detects	**0.0%**	**10.0%**	**0.0%**	**0.0%**	**83.3%**	**80.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**42.9%**	**100.0%**

SS = Stainless Steel
PVC = Polyvinyl chloride
U = Unfiltered
F = Filtered

Table 3
Summary Statistics for Stainless Steel Well Screen Constituents
in Stainless Steel and PVC Wells
Site Closure Work Plan, X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well	**N-137-90**	**N-139-90**	**N-140-93**	**N-141-93**	**N-145-93**	**N-149-97**
Construction Type	**SS**	**SS**	**PVC**	**PVC**	**PVC**	**PVC**
	Chromium					
Count of Sampling Events	14	16	6	5	4	7
Minimum	0.0213	0.012	0.0084	0.0084	0.0084	0.0084
Maximum	6.6	11.2	0.0524	0.0578	0.0084	0.21
Median	**0.1935**	**0.304**	**0.0084**	**0.0193**	**0.0084**	**0.0183**
95th Percentile	5.99	8.455	0.0446	0.050	0.0084	0.195
Mean	1.587	1.753	0.018	0.024	0.0084	0.073
Standard Deviation of Mean	2.301	3.332	0.018	0.018	0	0.083
	Iron					
Count of Sampling Events	10	9	6	5	4	3
Minimum	0.0388	0.0388	0.0388	0.0388	0.137	0.711
Maximum	106	116	2.1	1.9	0.475	1.03
Median	**0.972**	**2.6**	**1.236**	**0.769**	**0.4205**	**0.885**
95th Percentile	77.07	99.08	1.983	1.820	0.46825	1.016
Mean	15.536	22.340	1.145	0.909	0.363	0.875
Standard Deviation of Mean	36.420	42.472	0.758	0.662	0.153	0.160
	Manganese					
Count of Sampling Events	14	14	6	5	4	7
Minimum	0.0049	0.022	0.0049	0.0165	0.0049	0.016
Maximum	3.92	5.7	0.0936	0.191	0.227	0.225
Median	**0.0497**	**0.138**	**0.0235**	**0.0735**	**0.0049**	**0.04**
95th Percentile	1.84	3.88	0.0797	0.162	0.1937	0.198
Mean	0.441	0.848	0.031	0.061	0.0604	0.082
Standard Deviation of Mean	1.031	1.608	0.033	0.032	0.1111	0.076
	Nickel					
Count of Sampling Events	15	16	6	5	4	7
Minimum	0.077	0.068	0.0161	0.01605	0.0161	0.0161
Maximum	3.1	7.6	0.0393	0.01605	0.0161	0.32
Median	**0.17**	**0.374**	**0.0161**	**2.328E-10**	**0.0161**	**0.034**
95th Percentile	2.65	3.85	0.0335	0.016	0.0161	0.26
Mean	0.648	1.061	0.020	0.016	0.0161	0.082
Standard Deviation of Mean	0.945	1.871	0.009	0.016	0	0.111

SS = Stainless Steel
PVC = Polyvinyl chloride

Table 4
PVC and Stainless Steel Well Group Statistical Comparisons
Site Closure Work Plan, X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

	Chromium		Iron		Manganese		Nickel	
	PVC	SS	PVC	SS	PVC	SS	PVC	SS
Count of Sampling Events	22	30	18	19	22	28	22	31
Detections	11	29	16	16	17	27	5	31
Non-detects	11	1	2	3	5	1	17	0
%Non-detects	50.0%	3.3%	11.1%	15.8%	22.7%	3.6%	77.3%	0.0%
Median	0.013	0.255	0.687	1.050	0.031	0.093	0.016	0.320
Minimum	0.008	0.012	0.039	0.039	0.005	0.005	0.016	0.068
Maximum	0.21	11.2	2.1	116	0.227	5.7	0.32	7.6
95th Percentile	0.156	7.117	1.930	116	0.223	3.563	0.117	2.850
Mean	0.035	1.676	0.861	18.759	0.059	0.645	0.038	0.861
Standard Deviation of Mean	0.053	2.850	0.635	38.434	0.071	1.341	0.067	1.487

SS = Stainless Steel
PVC = Polyvinyl chloride

Table 5
Normality Test
PVC and Stainless Steel Well Group Statistical Comparisons
Site Closure Work Plan, X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

		PVC									
		Untransformed					Transformed				
Constituent	**Distribution Type**	**Shapiro-Wilk (W)**	**Shapiro-Wilk (p-level)**	**Kolmogorov-Smirnov (d)**	**Kolmogorov-Smirnov (p-level)**	**Lilliefors (p-level)**	**Shapiro-Wilk (W)**	**Shapiro-Wilk (p-level)**	**Kolmogorov-Smirnov (d)**	**Kolmogorov-Smirnov (p-level)**	**Lilliefors (p-level)**
Calcium	Normal	**0.90**	**0.06**	**0.19**	**>0.20**	**<0.01**	0.88	0.03	0.21	>0.20	<0.05
Chromium	~Lognormal	0.57	0.00	0.38	<0.01	<0.01	0.77	0.00	0.27	<0.05	<0.01
Iron	Normal	**0.93**	**0.16**	**0.15**	**>0.20**	**>0.20**	0.85	0.01	0.23	>0.20	<0.05
Magnesium	Normal	**0.92**	**0.11**	**0.16**	**>0.20**	**>0.20**	0.89	0.04	0.18	>0.20	<0.15
Manganese	Lognormal	0.74	0.00	0.31	<0.05	<0.01	**0.92**	**0.07**	**0.92**	**>0.20**	**>0.20**
Nickel	~Lognormal	0.38	0.00	0.40	<0.01	<0.01	0.54	0.00	0.45	<0.01	<0.01
Potassium	~Lognormal	0.86	0.01	0.24	>0.20	<0.01	0.87	0.02	0.24	>0.20	<0.05
Sodium	Normal	**0.94**	**0.32**	**0.17**	**>0.20**	**<0.20**	0.93	0.20	0.18	>0.20	<0.15

		Stainless Steel									
		Untransformed					Transformed				
Constituent	**Distribution Type**	**Shapiro-Wilk (W)**	**Shapiro-Wilk (p-level)**	**Kolmogorov-Smirnov (d)**	**Kolmogorov-Smirnov (p-level)**	**Lilliefors (p-level)**	**Shapiro-Wilk (W)**	**Shapiro-Wilk (p-level)**	**Kolmogorov-Smirnov (d)**	**Kolmogorov-Smirnov (p-level)**	**Lilliefors (p-level)**
Calcium	~Lognormal	0.54	0.00	0.40	<0.01	<0.01	0.66	0.00	0.33	<0.05	<0.01
Chromium	Lognormal	0.64	0.00	0.36	<0.01	<0.01	**0.95**	**0.15**	**0.13**	**>0.20**	**<0.20**
Iron	Lognormal	0.54	0.00	0.44	<0.01	<0.01	**0.94**	**0.30**	**0.15**	**>0.20**	**>0.20**
Magnesium	~Lognormal	0.69	0.00	0.32	<0.05	<0.01	0.76	0.00	0.26	<0.15	<0.01
Manganese	Lognormal	0.53	0.00	0.33	<0.01	<0.01	**0.95**	**0.21**	**0.14**	**>0.20**	**<0.15**
Nickel	Lognormal	0.55	0.00	0.30	<0.01	<0.01	**0.94**	**0.07**	**0.14**	**>0.20**	**<0.20**
Potassium	~Lognormal	0.61	0.00	0.37	<0.01	<0.01	0.72	0.00	0.29	<0.10	<0.01
Sodium	Lognormal	0.92	0.10	0.19	>0.20	<0.05	**0.93**	**0.13**	**0.18**	**>0.20**	**<0.10**

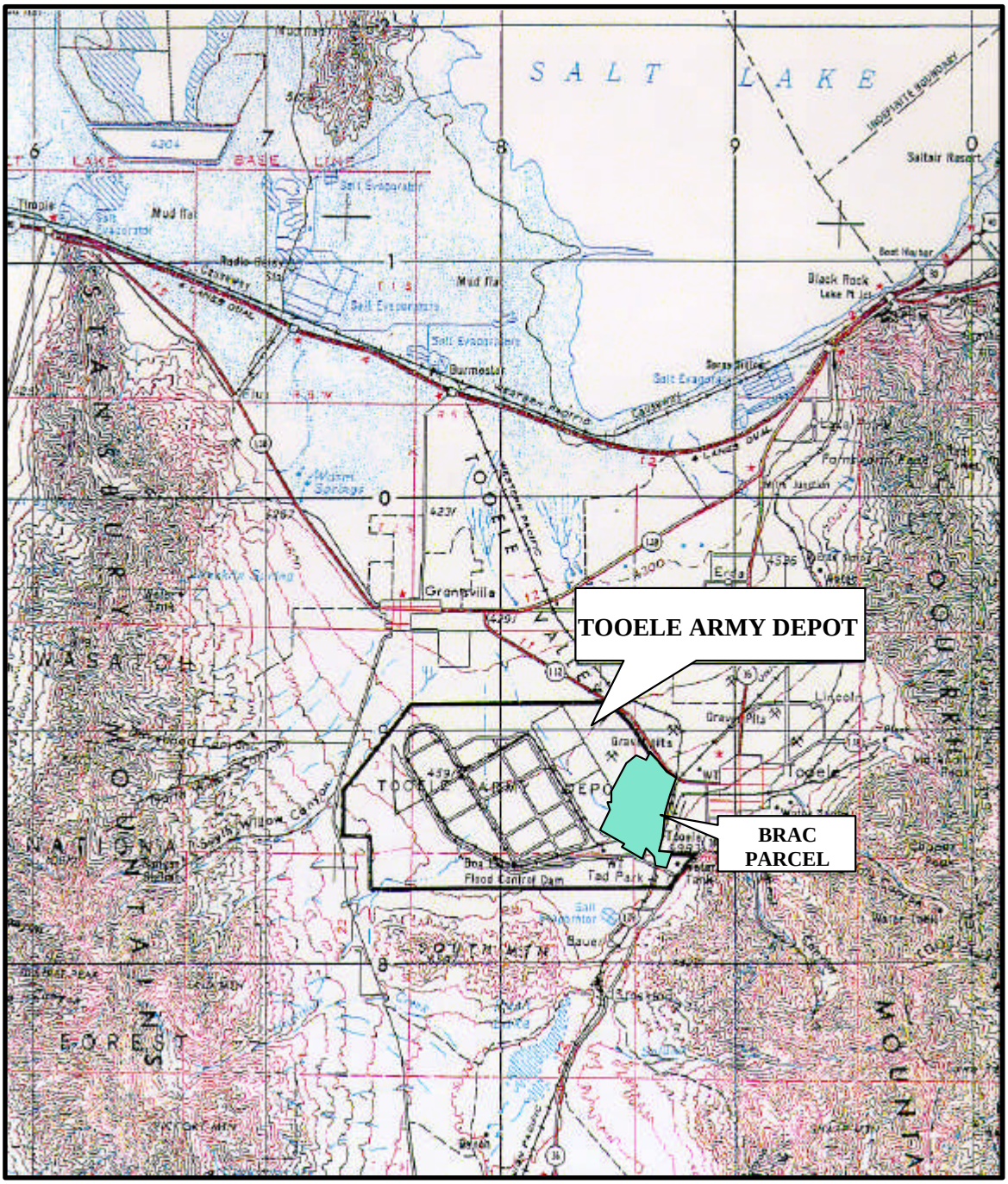
Note:
Bolded values show the distribution tendency based on the test results.
~ = Approximate

Table 6
Mann-Whitney Test
PVC and Stainless Steel Well Group Statistical Comparisons
Site Closure Work Plan, X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

		Sample Size for Well Groups	
Metal	**p-level***	**SS**	**PVC**
Stainless Steel Well Constituents			
Chromium	**2.539E-07**	**30**	**22**
Iron	0.121	19	18
Manganese	**0.004**	**28**	**22**
Nickel	**4.501E-09**	**31**	**22**
Other Metals			
Arsenic	**0.005**	**16**	**18**
Cobalt	**0.015**	**19**	**21**
Magnesium	**0.017**	**19**	**18**
Silver	0.221	12	18
Aluminum	0.444	11	18
Barium	0.313	22	21
Beryllium	0.201	11	18
Calcium	0.107	19	18
Cadmium	0.221	12	18
Copper	0.091	13	18
Mercury	0.340	20	20
Potassium	0.927	19	18
Molybdenum	1.000	2	0
Sodium	0.598	20	18
Lead	0.131	16	18
Antimony	0.121	14	18
Selenium	0.095	16	18
Thallium	0.882	12	18
Vanadium	0.091	13	18
Zinc	0.798	19	21

Note:
*A p-level value = 0.05 indicated the two well sample group distributions are statistically dissimilar at 95% confidence.
Bolded values show a p-level = 0.05 (dissimilar data groups).
SS = Stainless steel
PVC = Polyvinyl chloride

FIGURES



BASE MAP:
USGS TOOELE,UTAH
1 X 2 QUADRANGLE, 1970

0 1 2 3 4 5
SCALE IN MILES

N

Adapted from: Montgomery Watson

SLC3Q113.ppt

KLEINFELDER

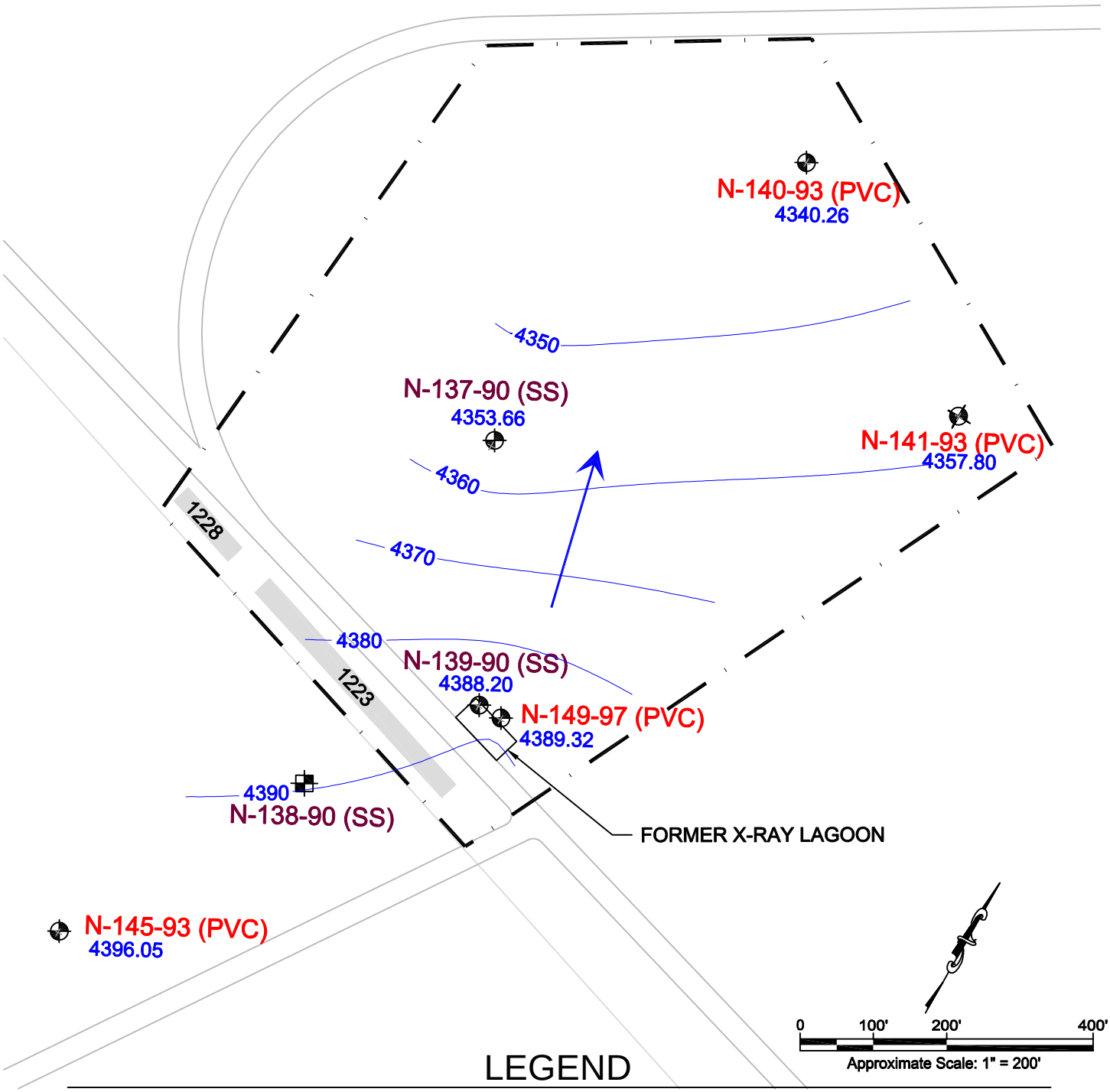
Project Number 20723.002A

Site Closure Work Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot

LOCATION MAP

FIGURE

1



LEGEND

N-137-90 (SS) 4354.63 — MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION (MSL)

N-141-93 (PVC) 4352.94 — MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION (MSL)

N-138-90 (SS) — ABANDONED STAINLESS STEEL MONITORING WELL LOCATION (COORDINATES ESTIMATED)

GROUNDWATER ELEVATION CONTOUR

1223 — BUILDING NUMBERS

SWMU BOUNDARY

DIRECTION OF GW FLOW

NOTE: DATA EXPORTED FROM SYNECTICS.

SLC3d378.dwg

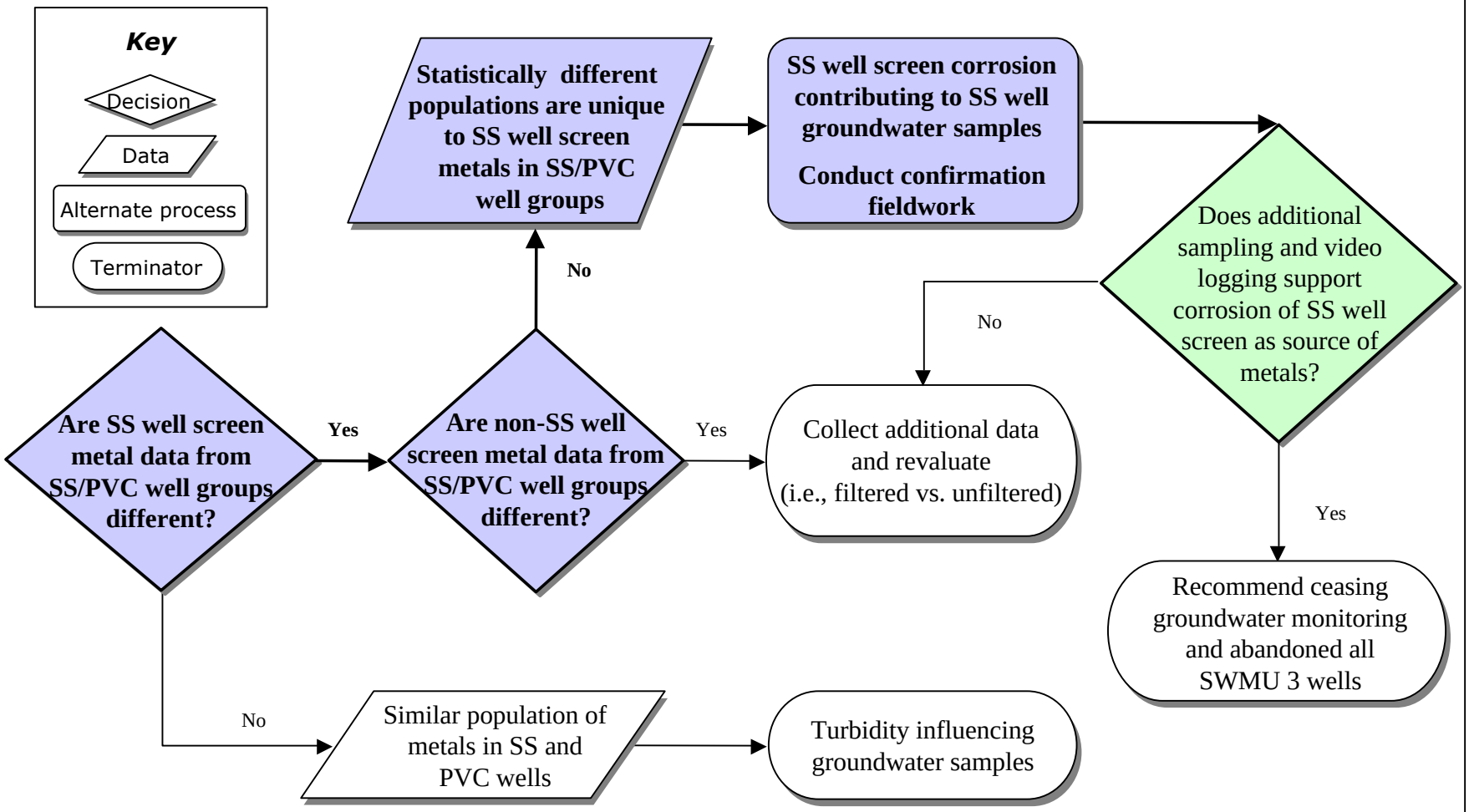
KLEINFELDER

Drawn by: Jen Cowan Date: 02/02/2003
Project Number 20723.002A

Site Closure Site Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

SPRING 2003
GROUNDWATER ELEVATION CONTOUR MAP

FIGURE
2



NOTE: Purple shading and bolded arrows identifies completed flows for the scope of the work plan.
Green shading identifies decisions that will be evaluated as part of the proposed additional sampling.

SS – Stainless Steel
PVC – Polyvinyl Chloride

SLC3Q116.ppt

KLEINFELDER

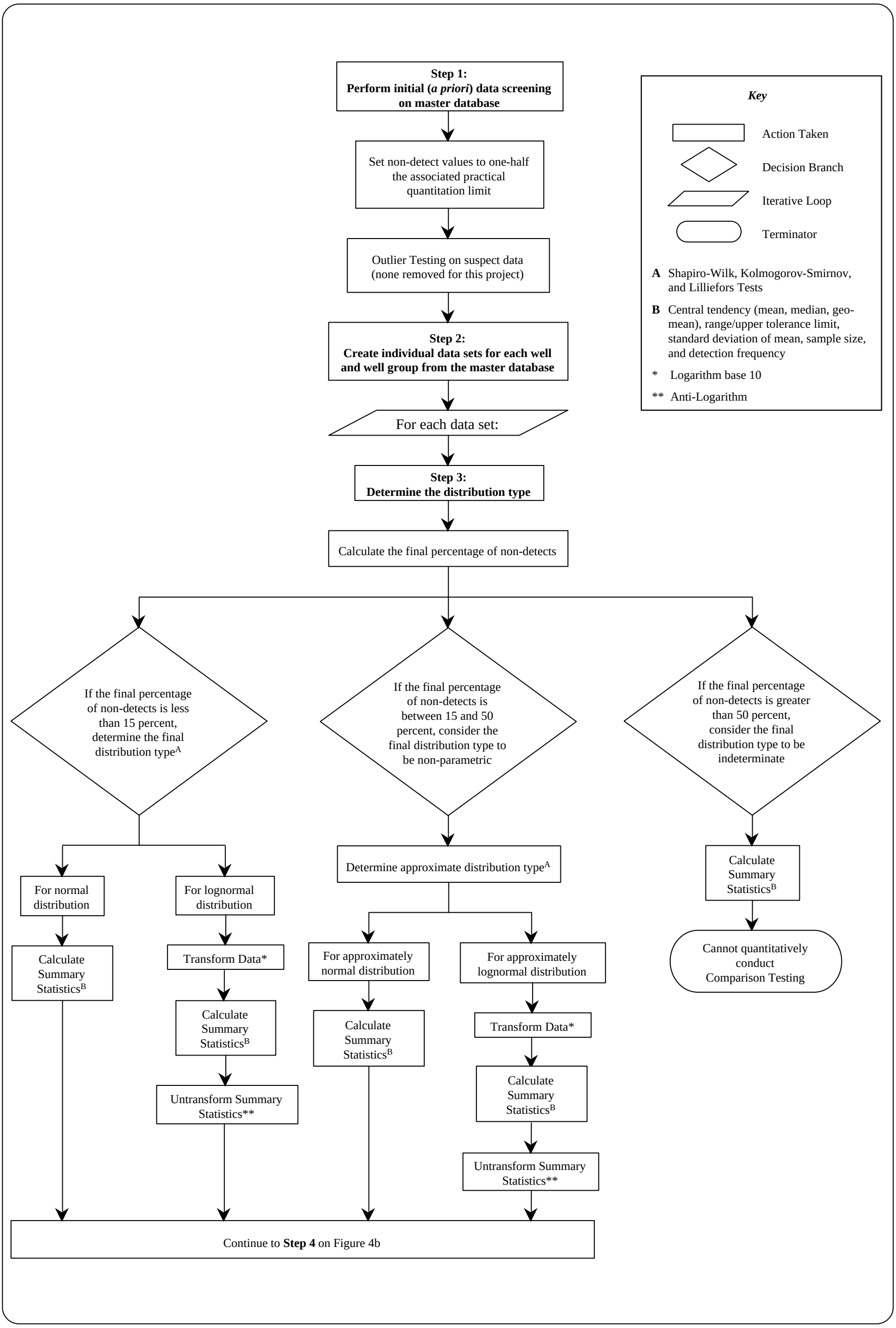
Date: 04/10/2003
Project Number 20723.002A

Site Closure Work Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

PROJECT DECISION FLOW CHART

FIGURE

3



SLC3Q222.ppt

KLEINFELDER

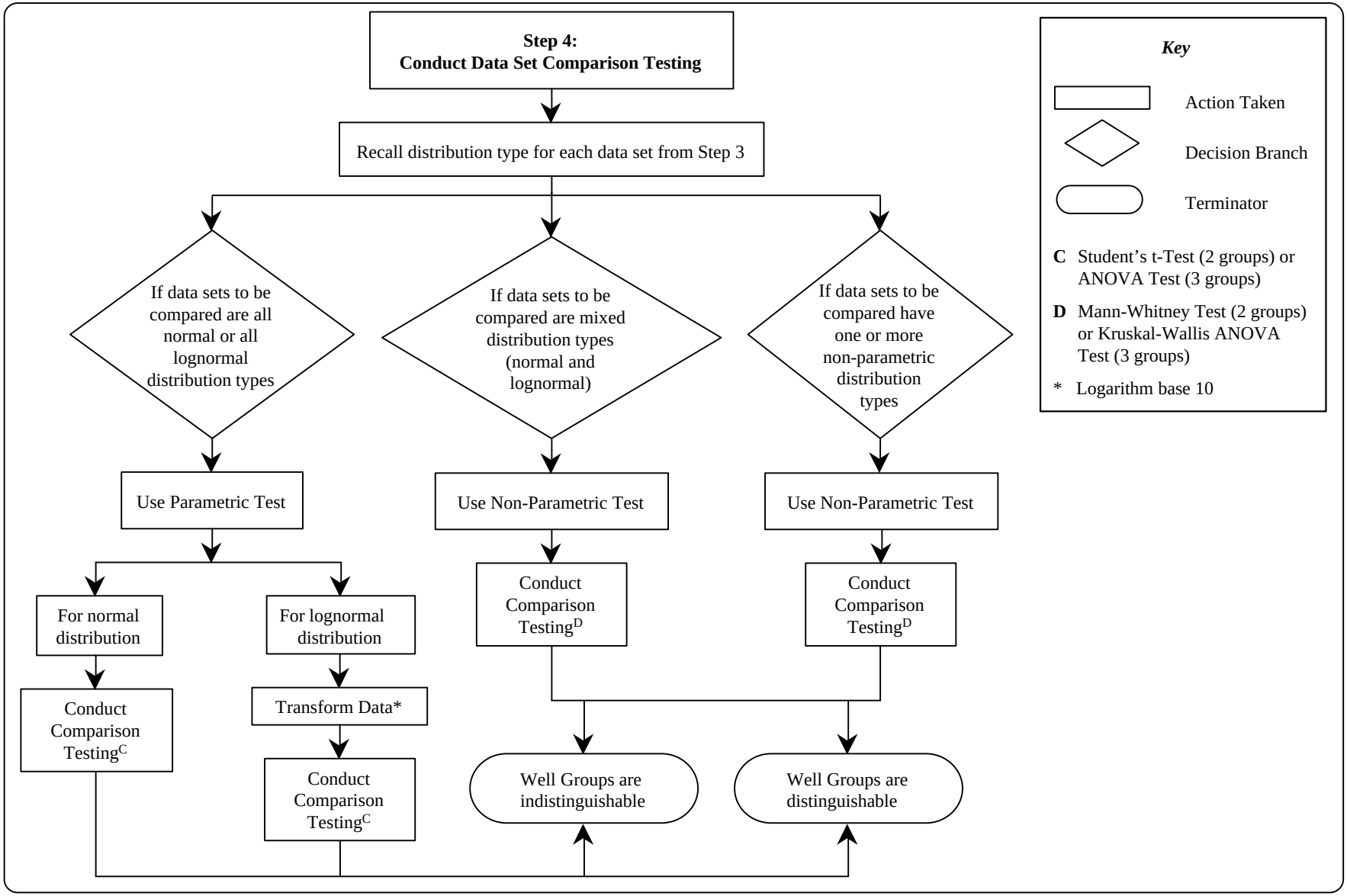
Date: 07/14/2003
Project Number 20723.002A

Site Closure Work Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

STATISTICAL METHODOLOGY FLOW CHART

FIGURE

4a



SLC3Q223.ppt

KLEINFELDER

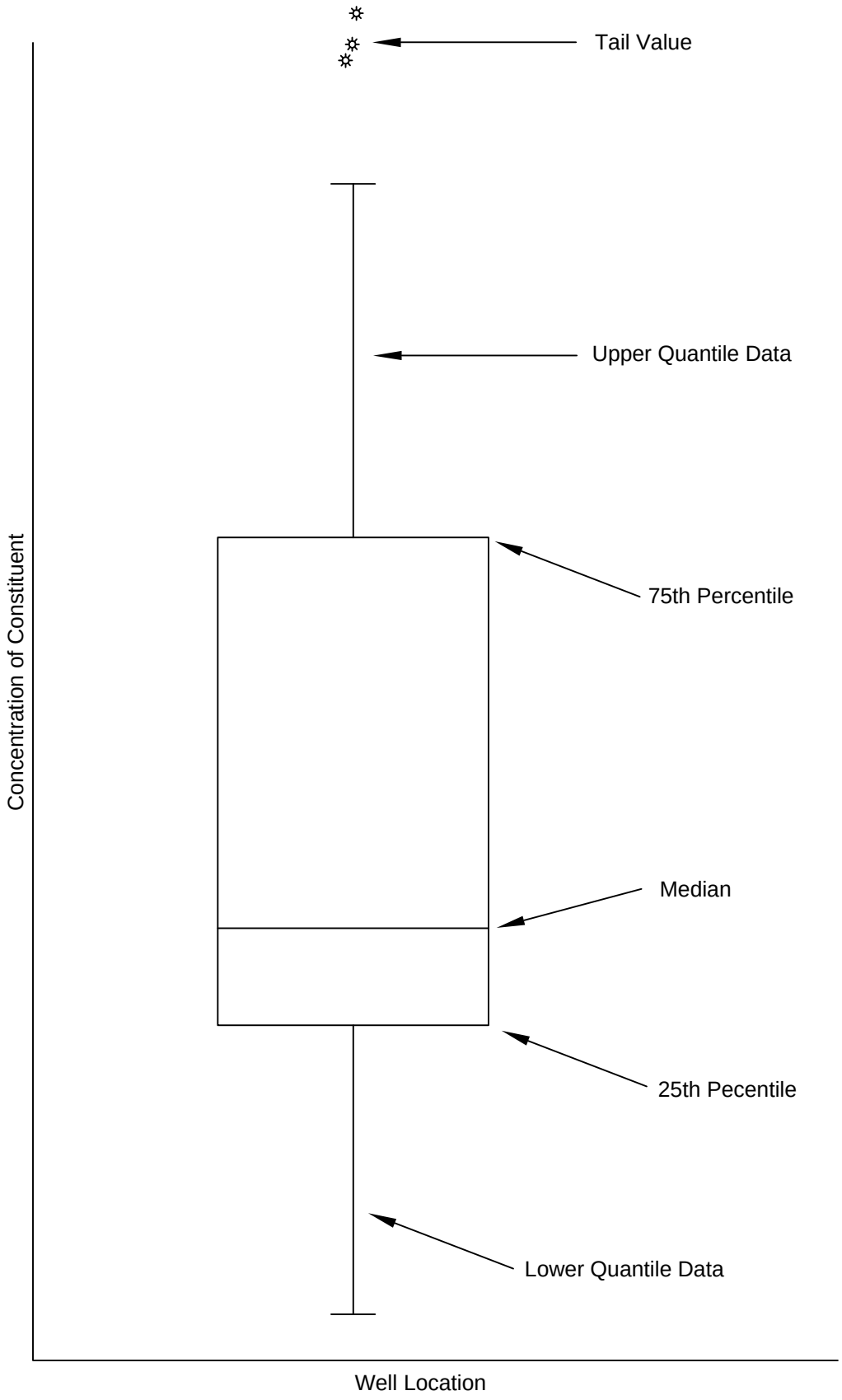
Date: 07/14/2003
Project Number 20723.002A

Site Closure Work Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

STATISTICAL METHODOLOGY FLOW CHART

FIGURE

4b



SLC3d161.dwg

KLEINFELDER

Date: 04/10/03
Project Number **20723.002A**

Site Closure Work Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

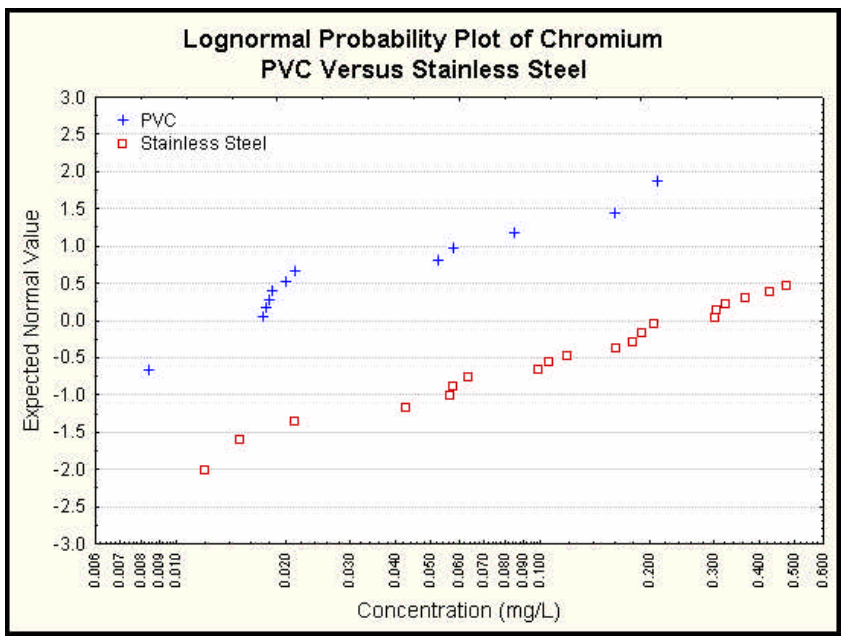
EXAMPLE BOX-AND-WHISKER PLOT

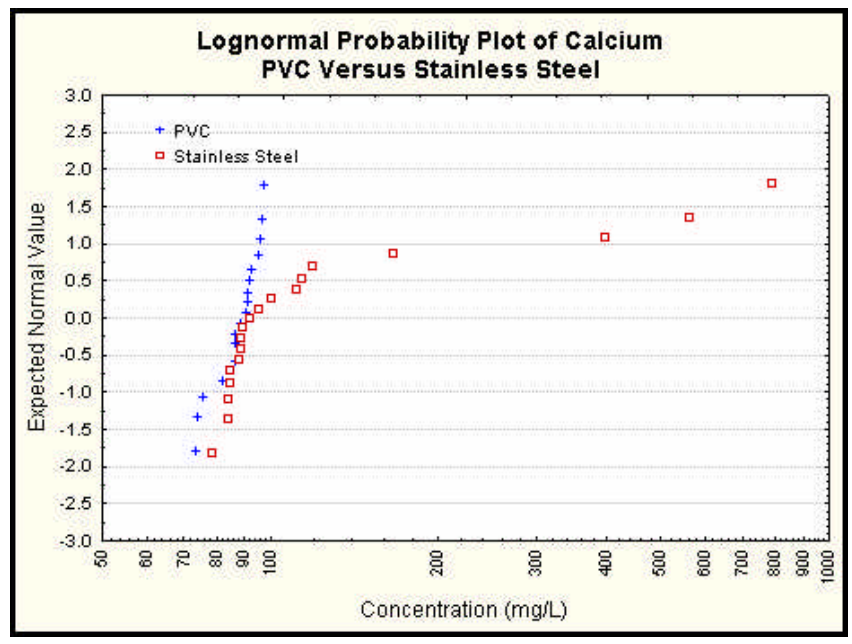
FIGURE

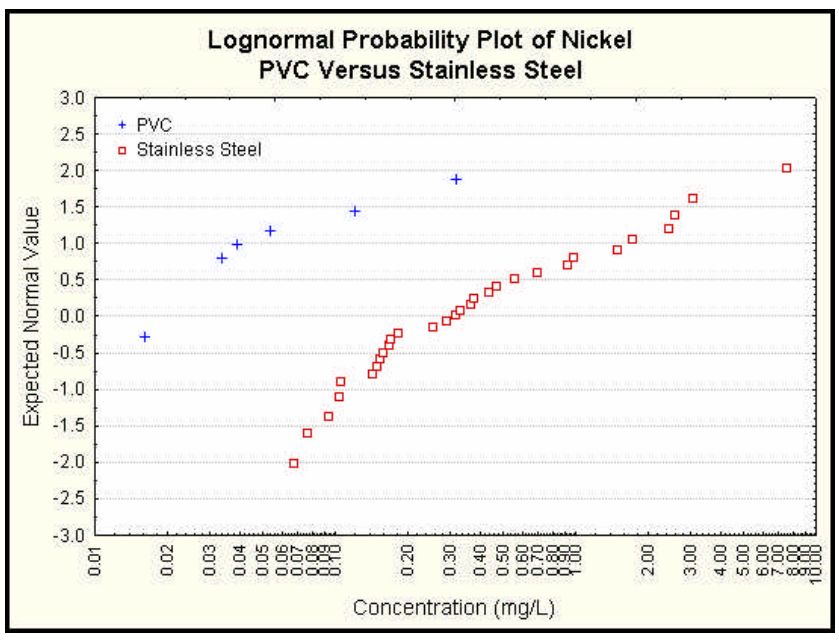
5

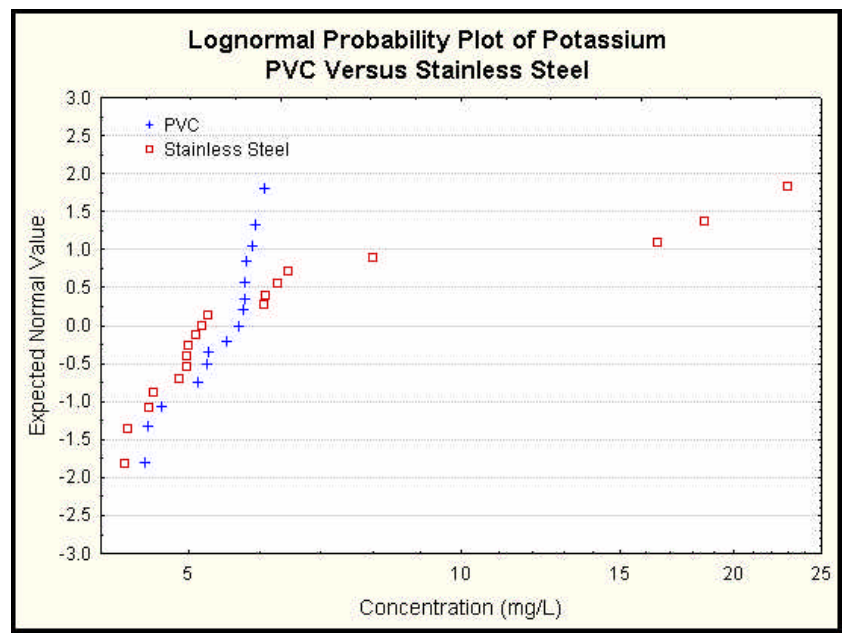
STAINLESS STEEL WELL CONSTITUENTS

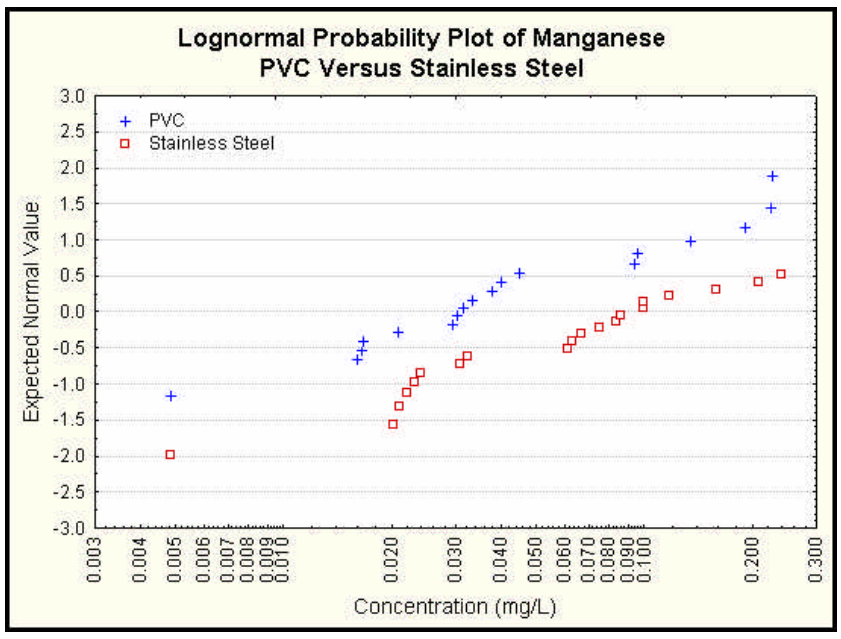
MAJOR CATIONS

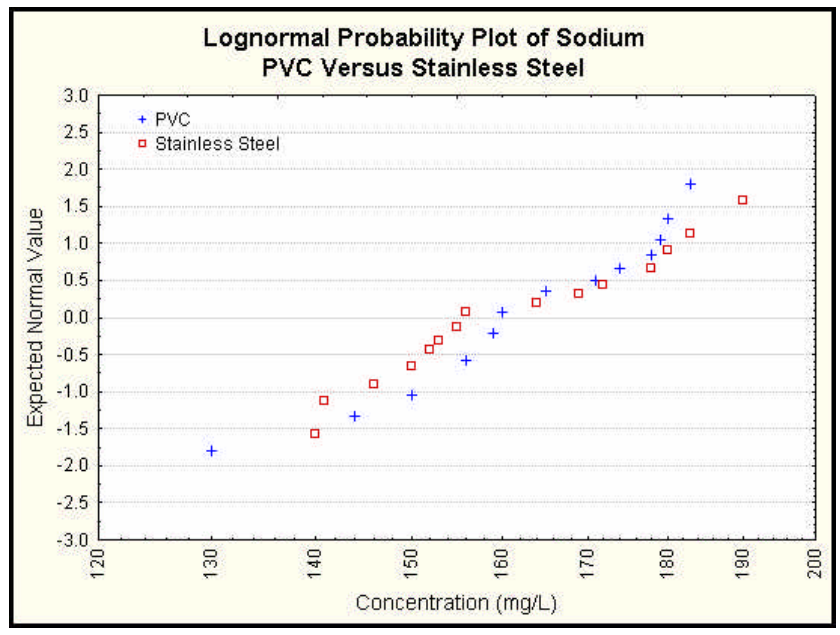












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Date: 04/10/2003
Project Number 20723.002A

Site Closure Work Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

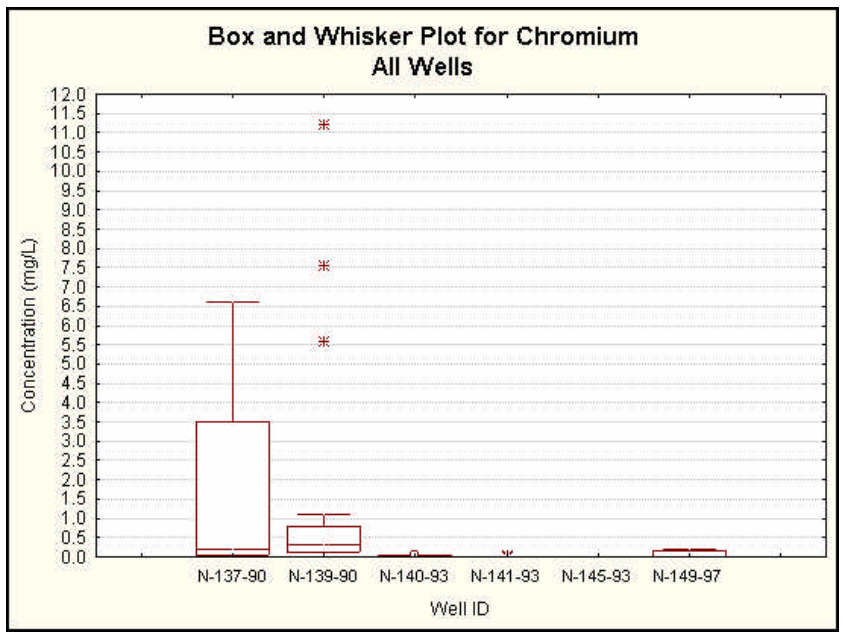
PROBABILITY PLOTS FOR WELL CONSTITUENTS AND MAJOR CATIONS

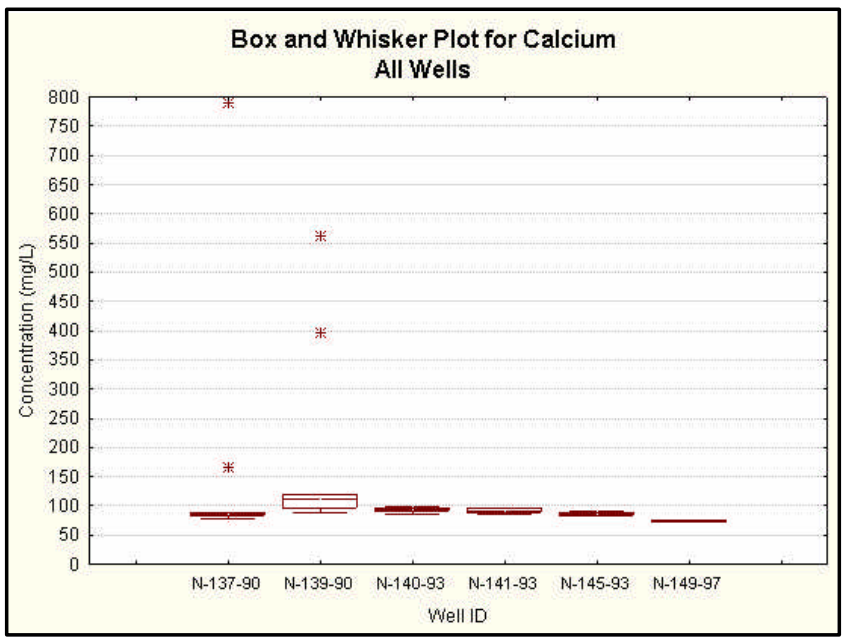
FIGURE

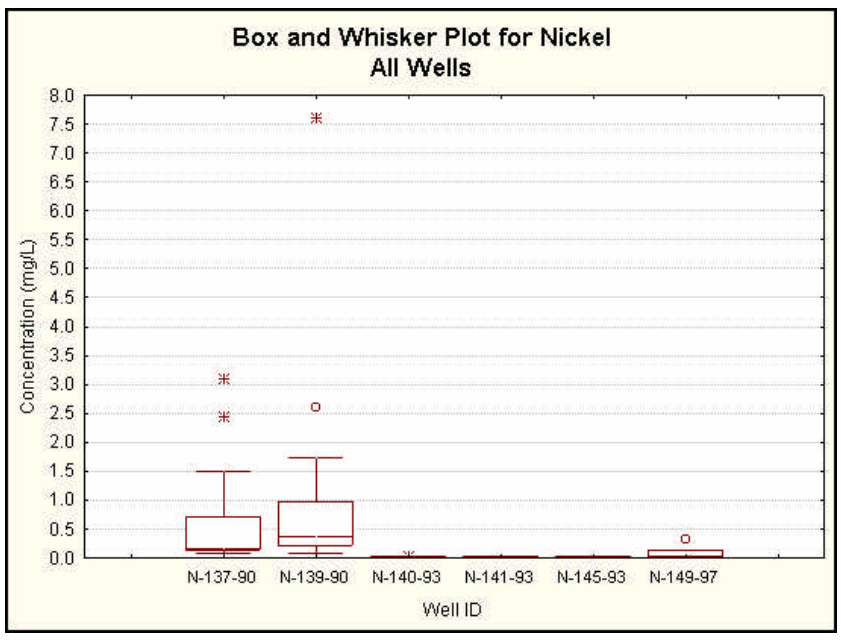
6

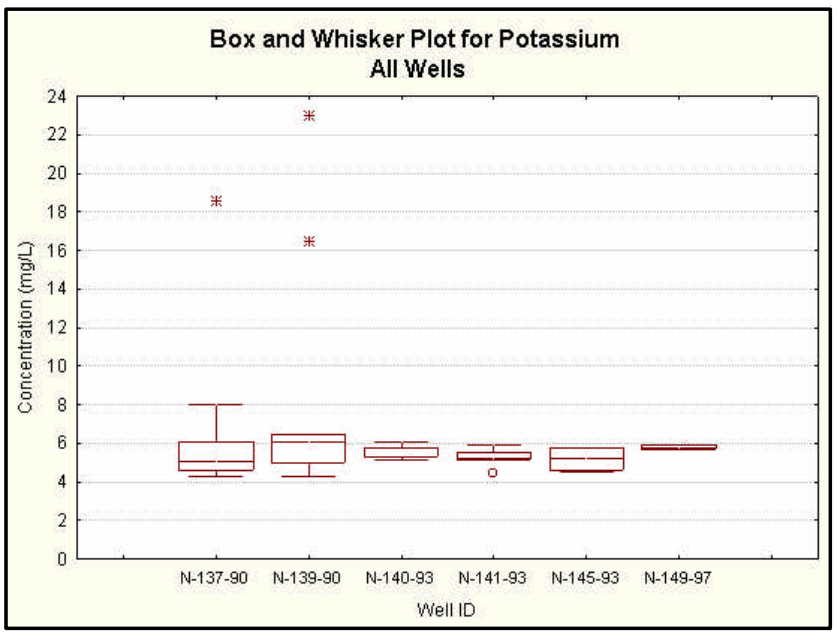
STAINLESS STEEL WELL CONSTITUENTS

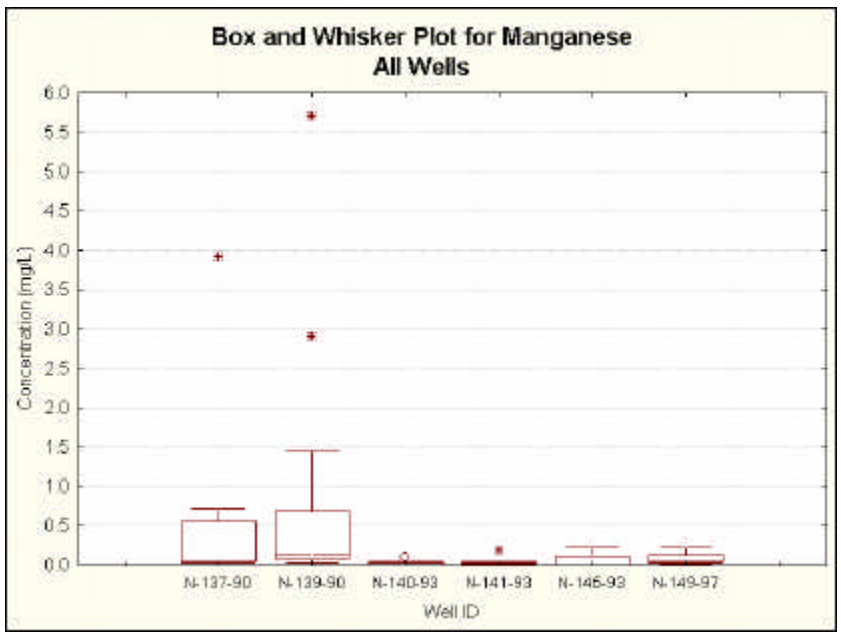
MAJOR CATIONS

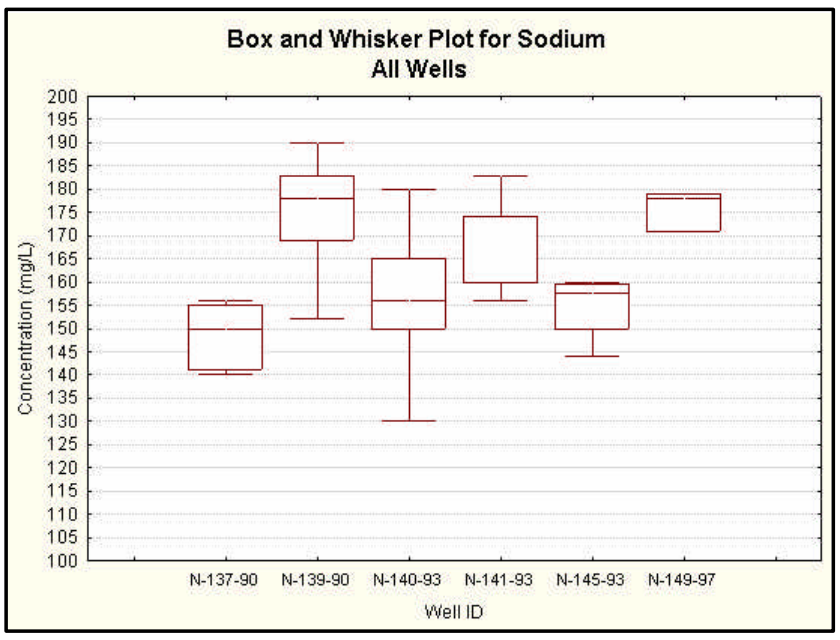












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Date: 04/10/2003
Project Number 20723.002A

Site Closure Work Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

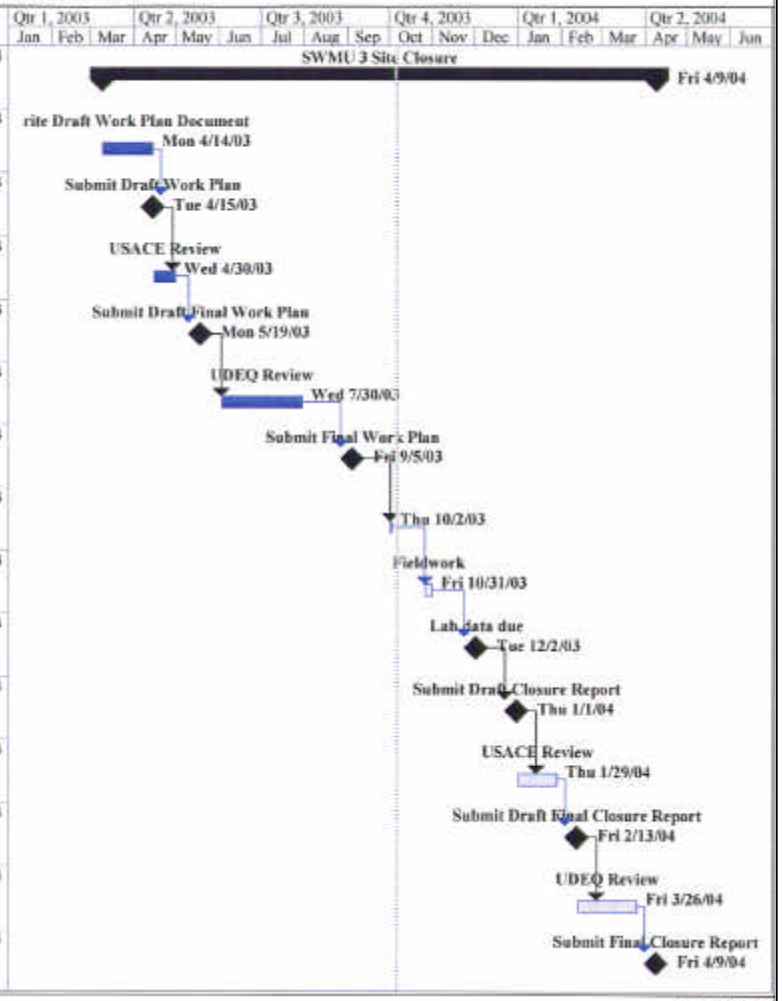
BOX-AND-WHISKER PLOTS FOR WELL CONSTITUENTS AND MAJOR CATIONS

FIGURE

7

SWMU 3 Site Closure
Tooele Army Depot

ID		Task Name	Duration	Start	Finish
1		**SWMU 3 Site Closure**	**397 days**	**Mon 3/10/03**	**Fri 4/9/04**
2	✓	Write Draft Work Plan Document	5.14 wks	Mon 3/10/03	Mon 4/14/03
3	✓	Submit Draft Work Plan	1 day	Tue 4/15/03	Tue 4/15/03
4	✓	USACE Review	2.14 wks	Wed 4/16/03	Wed 4/30/03
5	✓	Submit Draft Final Work Plan	1 day	Mon 5/19/03	Mon 5/19/03
6	✓	UDEQ Review	58 days	Tue 6/3/03	Wed 7/30/03
7	✓	Submit Final Work Plan	1 day	Fri 9/5/03	Fri 9/5/03
8	✓	UDEQ Approval of Final Work Plan	1 day	Thu 10/2/03	Thu 10/2/03
9		Fieldwork	5 days	Mon 10/27/03	Fri 10/31/03
10		Lab data due	1 day	Tue 12/2/03	Wed 12/3/03
11		Submit Draft Closure Report	1 day	Wed 12/31/03	Thu 1/1/04
12		USACE Review	4 wks	Thu 1/1/04	Thu 1/29/04
13		Submit Draft Final Closure Report	1 day	Thu 2/12/04	Fri 2/13/04
14		UDEQ Review	6 wks	Fri 2/13/04	Fri 3/26/04
15		Submit Final Closure Report	0.5 days	Fri 4/9/04	Fri 4/9/04



Kleinfelder, Inc. 2003 Mon 10/6/03

SLC3Q118.ppt

KLEINFELDER

Date: 10/06/2003
Project Number 20723.002A

Site Closure Work Plan
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

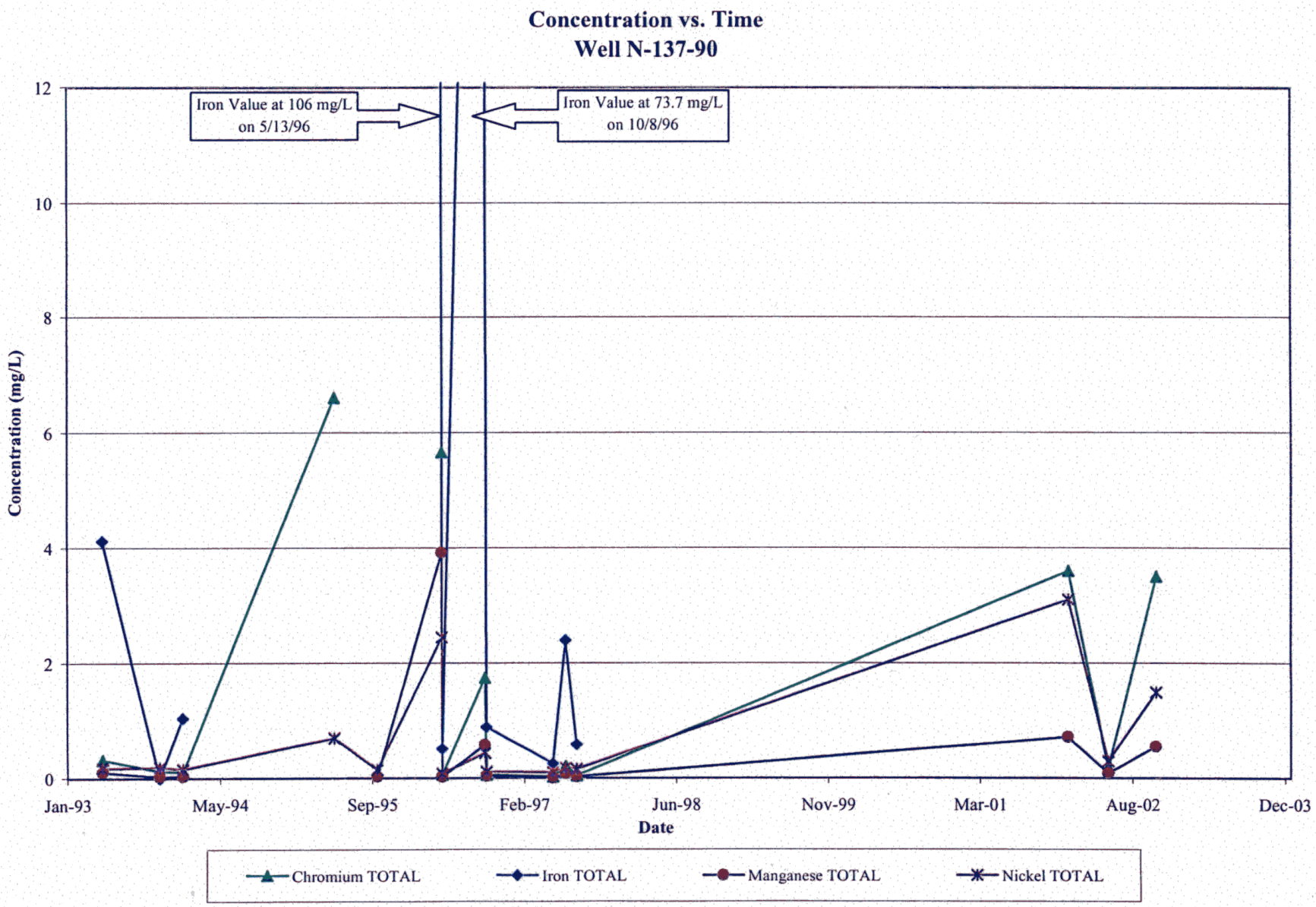
PROJECT SCHEDULE

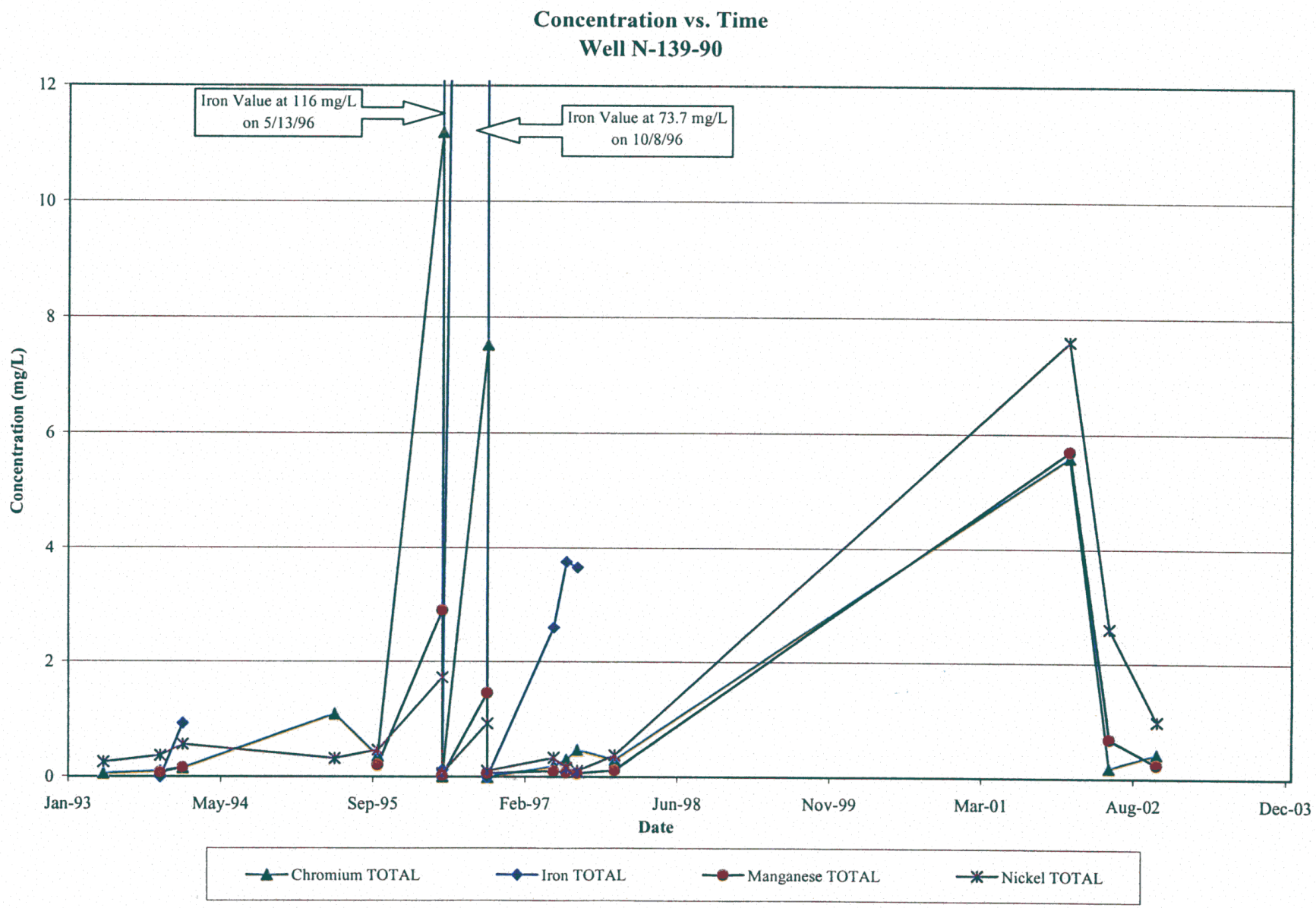
FIGURE

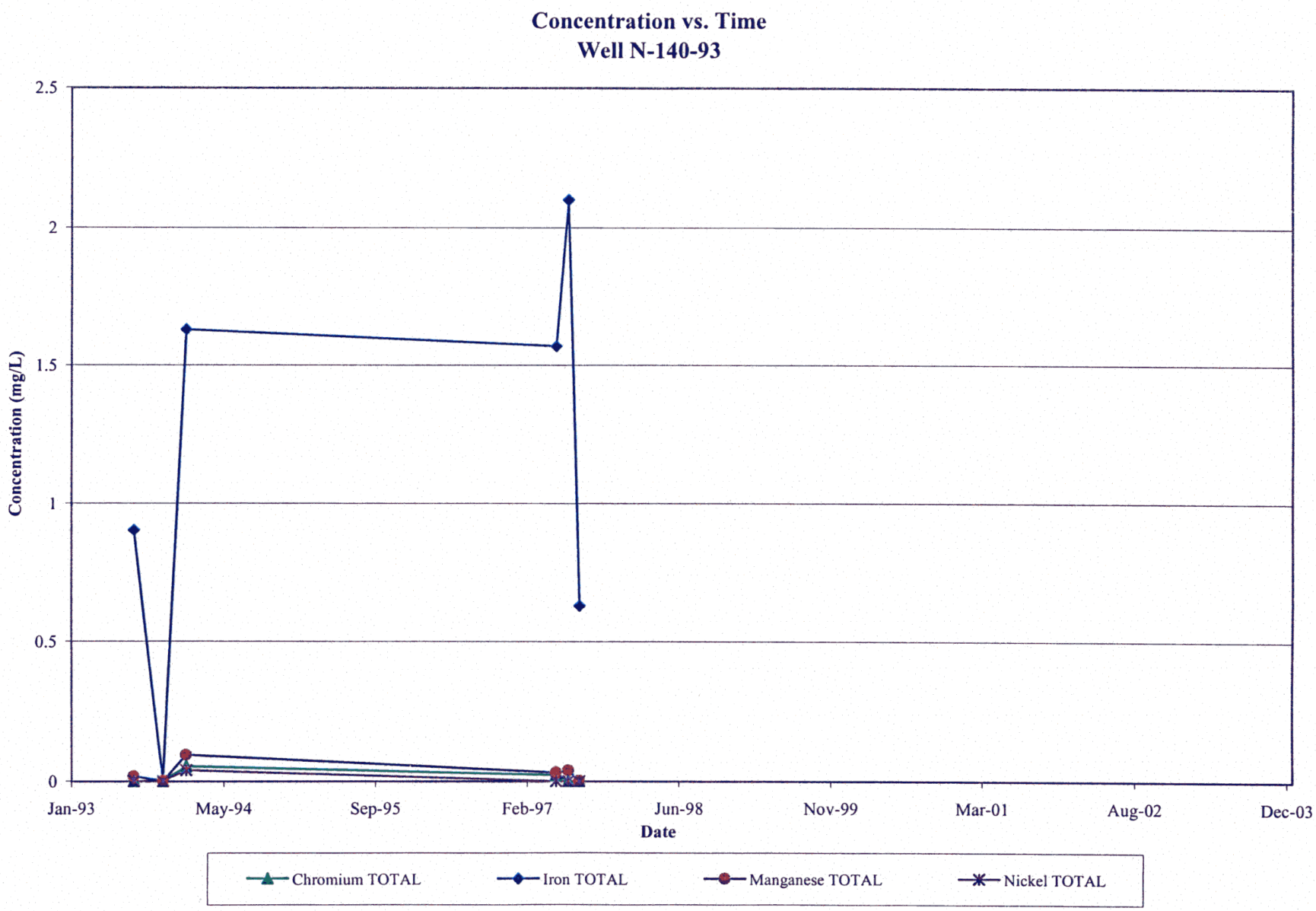
8

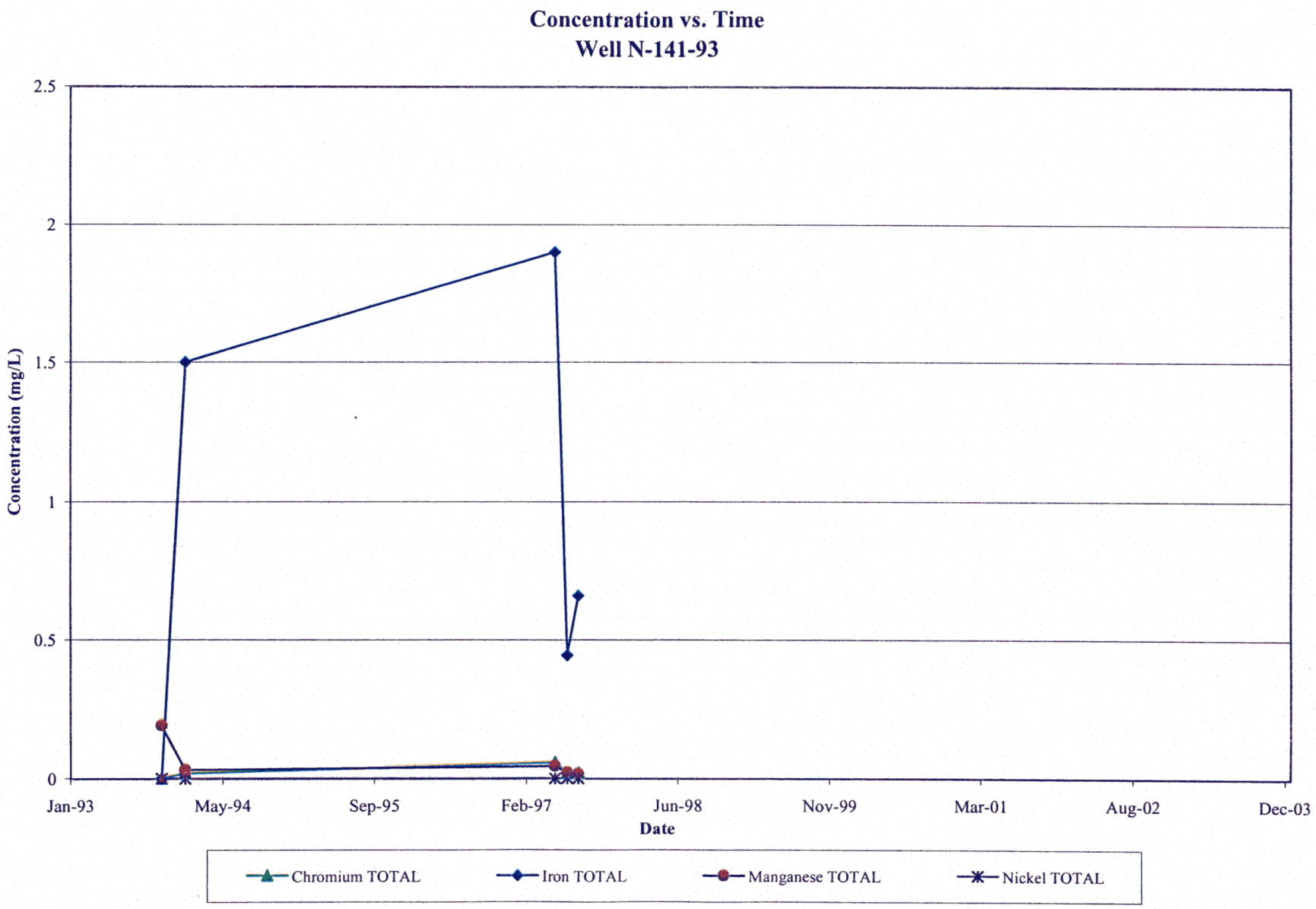
APPENDIX A

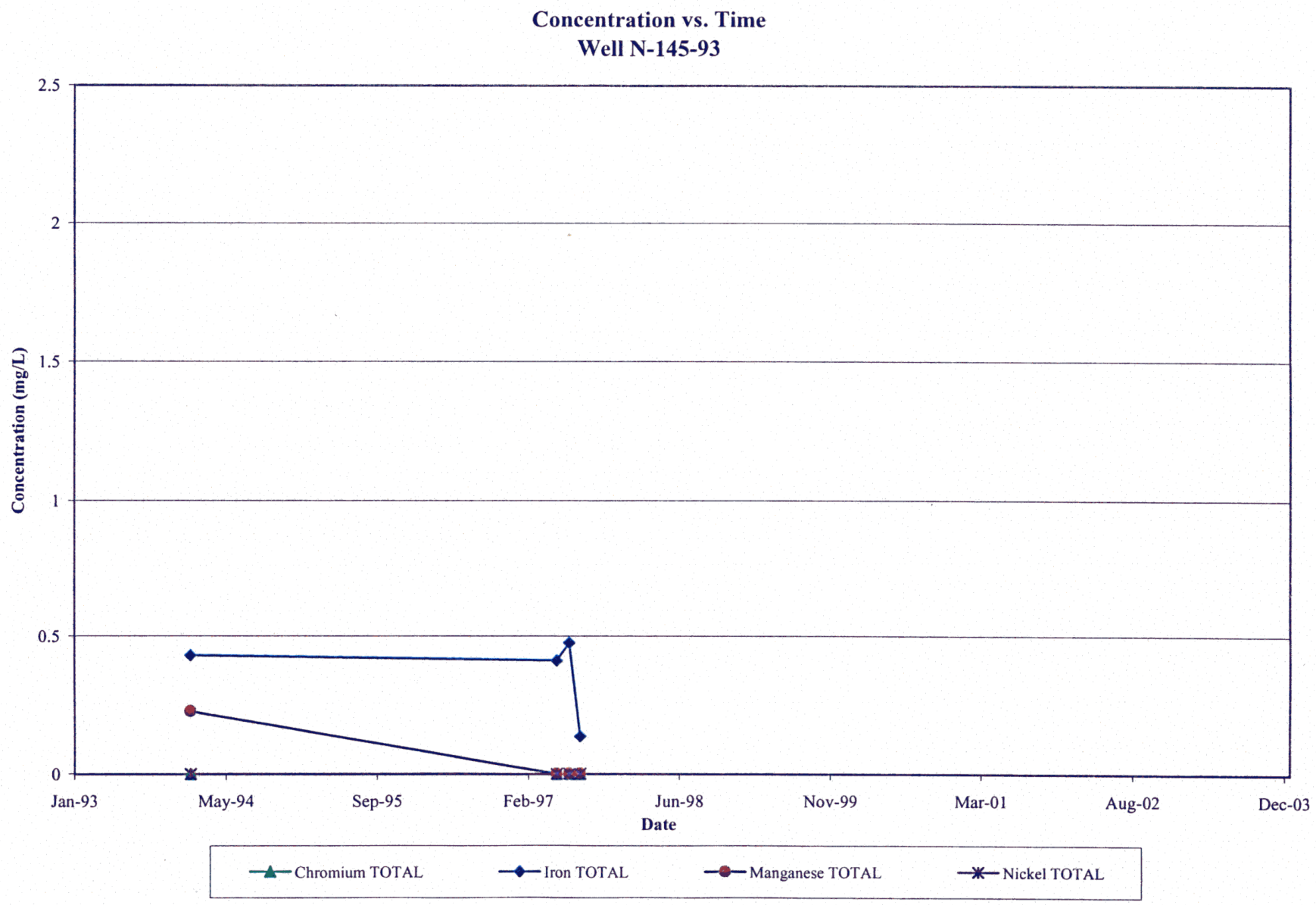
Groundwater Concentration versus Time Graphs for Selected Wells and Analytes

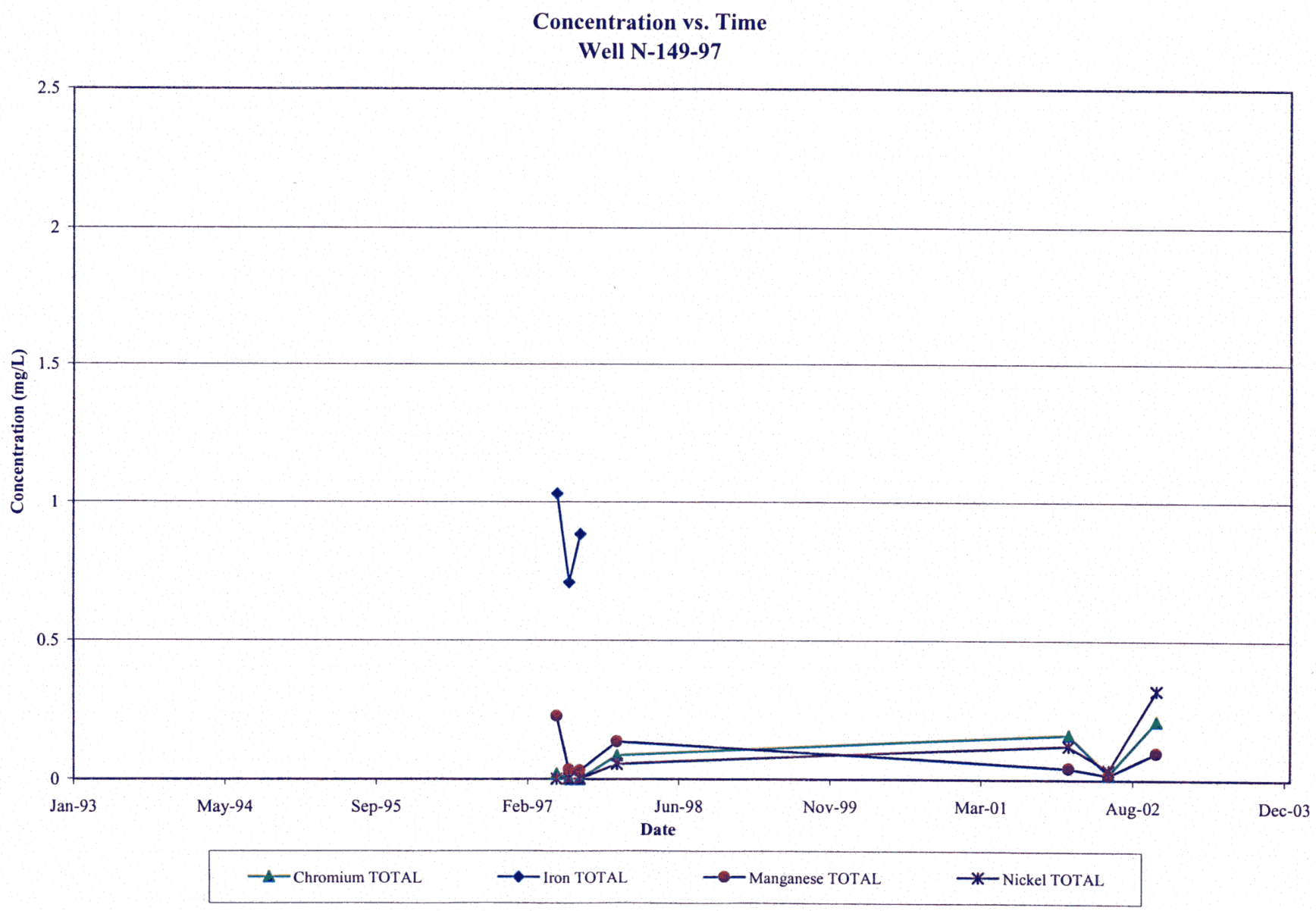

Concentration vs. Time
Well N-137-90
Iron Value at 106 mg/L on 5/13/96
Iron Value at 73.7 mg/L on 10/8/96
Concentration (mg/L)
0
2
4
6
8
10
12
Jan-93
May-94
Sep-95
Feb-97
Jun-98
Nov-99
Mar-01
Aug-02
Dec-03
Date
Chromium TOTAL
Iron TOTAL
Manganese TOTAL
Nickel TOTAL


Concentration vs. Time
Well N-139-90
Iron Value at 116 mg/L on 5/13/96
Iron Value at 73.7 mg/L on 10/8/96
Concentration (mg/L)
0
2
4
6
8
10
12
Jan-93
May-94
Sep-95
Feb-97
Jun-98
Nov-99
Mar-01
Aug-02
Dec-03
Date
Chromium TOTAL
Iron TOTAL
Manganese TOTAL
Nickel TOTAL


Concentration vs. Time
Well N-140-93
Concentration (mg/L)
2.5
2
1.5
1
0.5
0
Jan-93
May-94
Sep-95
Feb-97
Jun-98
Nov-99
Mar-01
Aug-02
Dec-03
Date
Chromium TOTAL
Iron TOTAL
Manganese TOTAL
Nickel TOTAL


Concentration vs. Time
Well N-141-93
Concentration (mg/L)
2.5
2
1.5
1
0.5
0
Jan-93
May-94
Sep-95
Feb-97
Jun-98
Nov-99
Mar-01
Aug-02
Dec-03
Date
Chromium TOTAL
Iron TOTAL
Manganese TOTAL
Nickel TOTAL


Concentration vs. Time
Well N-145-93
Concentration (mg/L)
2.5
2
1.5
1
0.5
0
Jan-93
May-94
Sep-95
Feb-97
Jun-98
Nov-99
Mar-01
Aug-02
Dec-03
Date
Chromium TOTAL
Iron TOTAL
Manganese TOTAL
Nickel TOTAL


Concentration vs. Time
Well N-149-97
Concentration (mg/L)
2.5
2
1.5
1
0.5
0
Jan-93
May-94
Sep-95
Feb-97
Jun-98
Nov-99
Mar-01
Aug-02
Dec-03
Date
Chromium TOTAL
Iron TOTAL
Manganese TOTAL
Nickel TOTAL

APPENDIX B

Comprehensive List of Analytes and Detections for All SWMU 3 Wells

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	PVC/SS	Logdate	Event ID Descr.	Author	Notes	Anmcode	Parlabel	Analyte	Exmcode	Result	EPA Flags	Parvq	PQL	Units	Stat Result	Stat Units
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	AL	Aluminum	TOTAL	0.399		=	0.399	MG/L	0.399	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW7041	SB	Antimony	TOTAL	0	U	ND	0.005	MG/L	0.0025	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	AS	Arsenic	TOTAL	0.0028		=	0.0028	MG/L	0.0028	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	BA	Barium	TOTAL	0.0844		=	0.0844	MG/L	0.0844	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CA	Calcium	TOTAL	88.7		=	88.7	MG/L	88.7	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CR	Chromium	TOTAL	0.323		=	0.323	MG/L	0.323	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	FE	Iron	TOTAL	4.12		=	4.12	MG/L	4.12	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	MG	Magnesium	TOTAL	43		=	43	MG/L	43	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	MN	Manganese	TOTAL	0.1		=	0.1	MG/L	0.1	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	NI	Nickel	TOTAL	0.169		=	0.169	MG/L	0.169	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	K	Potassium	TOTAL	4.29		=	4.29	MG/L	4.29	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	NA	Sodium	TOTAL	153		=	153	MG/L	153	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-137-90	SS	4/25/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	4/26/1993 0:00	Phase II RFI	Rust E&I	Round 1	SW6010	CR	Chromium	TOTAL	0.0635		=	0.0635	MG/L	0.0635	MG/L
N-139-90	SS	4/26/1993 0:00	Phase II RFI	Rust E&I	Round 1	SW6010	NI	Nickel	TOTAL	0.257		=	0.257	MG/L	0.257	MG/L
N-139-90	SS	4/26/1993 0:00	Phase II RFI	Rust E&I	Round 1	SW6010	NA	Sodium	TOTAL	190		=	190	MG/L	190	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	AL	Aluminum	TOTAL	0.729		=	0.729	MG/L	0.729	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	BA	Barium	TOTAL	0.0731		=	0.0731	MG/L	0.0731	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CA	Calcium	TOTAL	92		=	92	MG/L	92	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	FE	Iron	TOTAL	0.902		=	0.902	MG/L	0.902	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	MG	Magnesium	TOTAL	40.2		=	40.2	MG/L	40.2	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	MN	Manganese	TOTAL	0.0167	J	=	0.0167	MG/L	0.0167	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	K	Potassium	TOTAL	5.26		=	5.26	MG/L	5.26	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	NA	Sodium	TOTAL	150		=	150	MG/L	150	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW7041	SB	Antimony	TOTAL	0	U	ND	0.005	MG/L	0.0025	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	SE	Selenium	TOTAL	0.003		=	0.003	MG/L	0.003	MG/L
N-140-93	PVC	7/23/1993 12:00	Phase II RFI	Rust E&I	After installation	SW7470	HG	Mercury	TOTAL	0.102		=	0.1	UG/L	0.000102	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AL	Aluminum	TOTAL	0	U	ND	0.112	MG/L	0.056	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BA	Barium	TOTAL	0.119		=	0.119	MG/L	0.119	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CA	Calcium	TOTAL	88.3		=	88.3	MG/L	88.3	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	FE	Iron	TOTAL	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MG	Magnesium	TOTAL	45.8		=	45.8	MG/L	45.8	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MN	Manganese	TOTAL	0.191		=	0.191	MG/L	0.191	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	K	Potassium	TOTAL	4.47		=	4.47	MG/L	4.47	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NA	Sodium	TOTAL	160		=	160	MG/L	160	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-141-93	PVC	10/27/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AL	Aluminum	TOTAL	0	U	ND	0.112	MG/L	0.056	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BA	Barium	TOTAL	0.0746		=	0.0746	MG/L	0.0746	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CA	Calcium	TOTAL	86.5		=	86.5	MG/L	86.5	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	FE	Iron	TOTAL	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MG	Magnesium	TOTAL	43.8		=	43.8	MG/L	43.8	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MN	Manganese	TOTAL	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	FLDFLT	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	K	Potassium	TOTAL	6.06		=	6.06	MG/L	6.06	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NA	Sodium	TOTAL	130		=	130	MG/L	130	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7470	HG	Mercury	FLDFLT	0.127		=	0.1	UG/L	0.000127	MG/L
N-140-93	PVC	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7470	HG	Mercury	TOTAL	0.116		=	0.1	UG/L	0.000116	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AL	Aluminum	TOTAL	0	U	ND	0.112	MG/L	0.056	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.005	MG/L	0.0025	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BA	Barium	TOTAL	0.075		=	0.075	MG/L	0.075	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CA	Calcium	TOTAL	84		=	84	MG/L	84	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CR	Chromium	TOTAL	0.119	U	=	0.01	MG/L	0.119	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	FE	Iron	TOTAL	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MG	Magnesium	TOTAL	44.3		=	44.3	MG/L	44.3	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MN	Manganese	TOTAL	0.0202		=	0.0202	MG/L	0.0202	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	FLDFLT	0.149		=	0.149	MG/L	0.149	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	TOTAL	0.185		=	0.185	MG/L	0.185	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	K	Potassium	TOTAL	4.58		=	4.58	MG/L	4.58	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	PVC/SS	Logdate	Event ID Descr.	Author	Notes	Anmcode	Parlabel	Analyte	Exmcode	Result	EPA Flags	Parvq	PQL	Units	Stat Result	Stat Units
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NA	Sodium	TOTAL	150		=	150	MG/L	150	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	ZN	Zinc	TOTAL	0.0537		=	0.0537	MG/L	0.0537	MG/L
N-137-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AL	Aluminum	TOTAL	0	U	ND	0.112	MG/L	0.056	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.005	MG/L	0.0025	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BA	Barium	TOTAL	0.081		=	0.081	MG/L	0.081	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CA	Calcium	TOTAL	88.8		=	88.8	MG/L	88.8	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CR	Chromium	TOTAL	0.099		=	0.099	MG/L	0.099	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	FE	Iron	TOTAL	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MG	Magnesium	TOTAL	46.6		=	46.6	MG/L	46.6	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MN	Manganese	TOTAL	0.0754		=	0.0754	MG/L	0.0754	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	FLDFLT	0.274		=	0.274	MG/L	0.274	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	TOTAL	0.369		=	0.369	MG/L	0.369	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	K	Potassium	TOTAL	4.26		=	4.26	MG/L	4.26	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NA	Sodium	FLDFLT	170		=	170	MG/L	170	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NA	Sodium	TOTAL	180		=	180	MG/L	180	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-139-90	SS	10/29/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AL	Aluminum	TOTAL	0.127		=	0.127	MG/L	0.127	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BA	Barium	TOTAL	0.0887		=	0.0887	MG/L	0.0887	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BE	Beryllium	TOTAL	0.0012		=	0.0012	MG/L	0.0012	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CA	Calcium	TOTAL	95.3		=	95.3	MG/L	95.3	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CR	Chromium	TOTAL	0.162		=	0.162	MG/L	0.162	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	FE	Iron	TOTAL	0.932		=	0.932	MG/L	0.932	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MG	Magnesium	TOTAL	49.8		=	49.8	MG/L	49.8	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MN	Manganese	TOTAL	0.158		=	0.158	MG/L	0.158	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NI	Nickel	TOTAL	0.562		=	0.562	MG/L	0.562	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	K	Potassium	TOTAL	4.89		=	4.89	MG/L	4.89	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	SE	Selenium	TOTAL	0.0039		=	0.0039	MG/L	0.0039	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NA	Sodium	FLDFLT	190		=	190	MG/L	190	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NA	Sodium	TOTAL	190		=	190	MG/L	190	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	ZN	Zinc	TOTAL	0.0216		=	0.0216	MG/L	0.0216	MG/L
N-139-90	SS	1/11/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AL	Aluminum	TOTAL	1.34		=	1.34	MG/L	1.34	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BA	Barium	TOTAL	0.116		=	0.116	MG/L	0.116	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CA	Calcium	TOTAL	97.3		=	97.3	MG/L	97.3	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CR	Chromium	TOTAL	0.0524		=	0.0524	MG/L	0.0524	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	FE	Iron	TOTAL	1.63		=	1.63	MG/L	1.63	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MG	Magnesium	TOTAL	48.4		=	48.4	MG/L	48.4	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MN	Manganese	TOTAL	0.0936		=	0.0936	MG/L	0.0936	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NI	Nickel	FLDFLT	0.0461		=	0.0461	MG/L	0.0461	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NI	Nickel	TOTAL	0.0393		=	0.0393	MG/L	0.0393	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	K	Potassium	TOTAL	5.12		=	5.12	MG/L	5.12	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NA	Sodium	TOTAL	180		=	180	MG/L	180	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	ZN	Zinc	TOTAL	0.131		=	0.131	MG/L	0.131	MG/L
N-140-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AL	Aluminum	TOTAL	1.37		=	1.37	MG/L	1.37	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BA	Barium	TOTAL	0.0826		=	0.0826	MG/L	0.0826	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CA	Calcium	TOTAL	95.5		=	95.5	MG/L	95.5	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CR	Chromium	TOTAL	0.0173		=	0.0173	MG/L	0.0173	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	FE	Iron	TOTAL	1.5		=	1.5	MG/L	1.5	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MG	Magnesium	TOTAL	45		=	45	MG/L	45	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MN	Manganese	TOTAL	0.0316		=	0.0316	MG/L	0.0316	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	K	Potassium	TOTAL	5.5		=	5.5	MG/L	5.5	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NA	Sodium	TOTAL	160		=	160	MG/L	160	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-141-93	PVC	1/12/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AL	Aluminum	TOTAL	0.192		=	0.192	MG/L	0.192	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BA	Barium	TOTAL	0.0803		=	0.0803	MG/L	0.0803	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CA	Calcium	TOTAL	83.8		=	83.8	MG/L	83.8	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CR	Chromium	TOTAL	0.106		=	0.106	MG/L	0.106	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	FE	Iron	TOTAL	1.05		=	1.05	MG/L	1.05	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MG	Magnesium	TOTAL	44.8		=	44.8	MG/L	44.8	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*	*Stat Result*	*Stat Units*
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MN	Manganese	TOTAL	0.0309		=	0.0309	MG/L	0.0309	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NI	Nickel	FLDFLT	0.119		=	0.119	MG/L	0.119	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NI	Nickel	TOTAL	0.15		=	0.15	MG/L	0.15	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	K	Potassium	TOTAL	4.98		=	4.98	MG/L	4.98	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NA	Sodium	TOTAL	150		=	150	MG/L	150	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-137-90	SS	1/13/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AL	Aluminum	TOTAL	0.287		=	0.287	MG/L	0.287	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BA	Barium	TOTAL	0.111		=	0.111	MG/L	0.111	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CA	Calcium	TOTAL	86.2		=	86.2	MG/L	86.2	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	FE	Iron	TOTAL	0.43		=	0.43	MG/L	0.43	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MG	Magnesium	TOTAL	45.8		=	45.8	MG/L	45.8	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	MN	Manganese	TOTAL	0.227		=	0.227	MG/L	0.227	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	K	Potassium	TOTAL	5.77		=	5.77	MG/L	5.77	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	SE	Selenium	TOTAL	0.0044		=	0.0044	MG/L	0.0044	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	NA	Sodium	TOTAL	160		=	160	MG/L	160	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	TL	Thallium	TOTAL	0	U	ND	0.125	MG/L	0.0625	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-145-93	PVC	1/19/1994 0:00	Phase II RFI	Rust E&I	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010B	SB	Antimony	FLDFLT	0	U	ND	0.006	MG/L	0.003	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010B	SB	Antimony	TOTAL	0	U	ND	0.006	MG/L	0.003	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW7060	AS	Arsenic	FLDFLT	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW7060	AS	Arsenic	TOTAL	0.0042		=	0.01	MG/L	0.0042	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010A	BA	Barium	FLDFLT	0.085		=	0.004	MG/L	0.085	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010A	BA	Barium	TOTAL	0.11		=	0.004	MG/L	0.11	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010A	CR	Chromium	FLDFLT	0.0057	J	=	0.01	MG/L	0.0057	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010A	CR	Chromium	TOTAL	1.1		=	0.01	MG/L	1.1	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	CO	Cobalt	FLDFLT	0	U	ND	0.014	MG/L	0.007	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	CO	Cobalt	TOTAL	0.011	J	TR	0.014	MG/L	0.011	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	CU	Copper	FLDFLT	0.0028	J	TR	0.012	MG/L	0.0028	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	CU	Copper	TOTAL	0.019		=	0.012	MG/L	0.019	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW7421	PB	Lead	FLDFLT	0.0027	J	TR	0.003	MG/L	0.0027	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW7421	PB	Lead	TOTAL	0.0022	J	TR	0.003	MG/L	0.0022	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	MO	Molybdenum	FLDFLT	0	U	ND	0.016	MG/L	0.008	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	MO	Molybdenum	TOTAL	0.014	J	TR	0.016	MG/L	0.014	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010A	NI	Nickel	FLDFLT	0.21		=	0.03	MG/L	0.21	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010A	NI	Nickel	TOTAL	0.32		=	0.03	MG/L	0.32	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW7740	SE	Selenium	FLDFLT	0.0037	J	TR	0.005	MG/L	0.0037	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW7740	SE	Selenium	TOTAL	0.004	J	TR	0.005	MG/L	0.004	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	V	Vanadium	FLDFLT	0	U	ND	0.016	MG/L	0.008	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	V	Vanadium	TOTAL	0.027		=	0.016	MG/L	0.027	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	ZN	Zinc	FLDFLT	0.017		=	0.01	MG/L	0.017	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW6010	ZN	Zinc	TOTAL	0.04		=	0.01	MG/L	0.04	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW7470	HG	Mercury	FLDFLT	0	U	ND	0.5	UG/L	0.00025	MG/L
N-139-90	SS	5/24/1995 17:40	1995 Spring	Geomatrix		SW7470	HG	Mercury	TOTAL	0	U	ND	0.5	UG/L	0.00025	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010B	SB	Antimony	FLDFLT	0	U	ND	0.006	MG/L	0.003	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	SB	Antimony	TOTAL	0.0017	J	TR	0.006	MG/L	0.0017	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW7060	AS	Arsenic	FLDFLT	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW7060	AS	Arsenic	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010A	BA	Barium	FLDFLT	0.071		=	0.004	MG/L	0.071	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010A	BA	Barium	TOTAL	0.15		=	0.004	MG/L	0.15	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010A	CR	Chromium	TOTAL	6.6		=	0.01	MG/L	6.6	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	CO	Cobalt	FLDFLT	0	UJ	ND	0.014	MG/L	0.007	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	CO	Cobalt	TOTAL	0.1		=	0.014	MG/L	0.1	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	CU	Copper	FLDFLT	0	U	ND	0.012	MG/L	0.006	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	CU	Copper	TOTAL	0.07		=	0.012	MG/L	0.07	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW7421	PB	Lead	FLDFLT	0	U	ND	0.003	MG/L	0.0015	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW7421	PB	Lead	TOTAL	0	UJ	ND	0.0072	MG/L	0.0036	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	MO	Molybdenum	FLDFLT	0	U	ND	0.016	MG/L	0.008	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	MO	Molybdenum	TOTAL	0.067		=	0.016	MG/L	0.067	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010A	NI	Nickel	FLDFLT	0.14		=	0.03	MG/L	0.14	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010A	NI	Nickel	TOTAL	0.7		=	0.03	MG/L	0.7	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW7740	SE	Selenium	FLDFLT	0.0028	J	TR	0.005	MG/L	0.0028	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW7740	SE	Selenium	TOTAL	0.0021	J	TR	0.005	MG/L	0.0021	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	V	Vanadium	FLDFLT	0	U	ND	0.016	MG/L	0.008	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	V	Vanadium	TOTAL	0.062		=	0.016	MG/L	0.062	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	ZN	Zinc	FLDFLT	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW6010	ZN	Zinc	TOTAL	0.059		=	0.01	MG/L	0.059	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW7470	HG	Mercury	FLDFLT	0	U	ND	0.5	UG/L	0.00025	MG/L
N-137-90	SS	5/25/1995 17:40	1995 Spring	Geomatrix		SW7470	HG	Mercury	TOTAL	0	U	ND	0.5	UG/L	0.00025	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW7060	AS	Arsenic	FLDFLT	0	UJ	ND	0.005	MG/L	0.0025	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW7060	AS	Arsenic	TOTAL	0.0055		=	0.005	MG/L	0.0055	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW6010A	BA	Barium	FLDFLT	0.0822		=	0.015	MG/L	0.0822	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW6010A	BA	Barium	TOTAL	0.0852		=	0.015	MG/L	0.0852	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW7421	PB	Lead	FLDFLT	0.0043	J	=	0.003	MG/L	0.0043	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW7421	PB	Lead	TOTAL	0.0024	J	TR	0.003	MG/L	0.0024	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW6010A	MN	Manganese	FLDFLT	0.0386		=	0.015	MG/L	0.0386	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW6010A	MN	Manganese	TOTAL	0.0241		=	0.015	MG/L	0.0241	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW6010A	NI	Nickel	FLDFLT	0.179		=	0.06	MG/L	0.179	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW6010A	NI	Nickel	TOTAL	0.144		=	0.06	MG/L	0.144	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW7740	SE	Selenium	FLDFLT	0.0015	UJ	ND	0.005	MG/L	0.0025	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW7740	SE	Selenium	TOTAL	0	U	ND	0.005	MG/L	0.0025	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW7470	HG	Mercury	FLDFLT	0	U	ND	0.5	UG/L	0.00025	MG/L
N-137-90	SS	10/13/1995 17:40	1995 Fall	Geomatrix		SW7470	HG	Mercury	TOTAL	0.19	J	TR	0.5	UG/L	0.00019	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW7060	AS	Arsenic	FLDFLT	0	U	ND	0.005	MG/L	0.0025	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW7060	AS	Arsenic	TOTAL	0.0068		=	0.005	MG/L	0.0068	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW6010A	BA	Barium	FLDFLT	0.0898		=	0.015	MG/L	0.0898	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW6010A	BA	Barium	TOTAL	0.111		=	0.015	MG/L	0.111	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW6010A	CR	Chromium	FLDFLT	0	U	ND	0.015	MG/L	0.0075	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW6010A	CR	Chromium	TOTAL	0.369		=	0.015	MG/L	0.369	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW7421	PB	Lead	FLDFLT	0.0049	J	=	0.003	MG/L	0.0049	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW7421	PB	Lead	TOTAL	0.006		=	0.003	MG/L	0.006	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW6010A	MN	Manganese	FLDFLT	0.121		=	0.015	MG/L	0.121	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW6010A	MN	Manganese	TOTAL	0.207		=	0.015	MG/L	0.207	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW6010A	NI	Nickel	FLDFLT	0.428		=	0.06	MG/L	0.428	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW6010A	NI	Nickel	TOTAL	0.469		=	0.06	MG/L	0.469	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW7740	SE	Selenium	FLDFLT	0.0022	UJ	ND	0.005	MG/L	0.0025	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW7740	SE	Selenium	TOTAL	0.0018	J	TR	0.005	MG/L	0.0018	MG/L
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW7470	HG	Mercury	FLDFLT	0	U	ND	0.5	UG/L	0.00025	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*	*Stat Result*	*Stat Units*
N-139-90	SS	10/14/1995 10:00	1995 Fall	Geomatrix		SW7470	HG	Mercury	TOTAL	0.14	J	TR	0.5	UG/L	0.00014	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	CR	Chromium	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	MN	Manganese	FLDFLT	0.289		=	0.015	MG/L	0.289	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	NI	Nickel	FLDFLT	0.412		=	0.06	MG/L	0.412	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	CR	Chromium	TOTAL	11.2		=	0.025	MG/L	11.2	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	CA	Calcium	TOTAL	561		=	0.5	MG/L	561	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	FE	Iron	TOTAL	116		=	0.5	MG/L	116	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	MG	Magnesium	TOTAL	95.9		=	0.1	MG/L	95.9	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	MN	Manganese	TOTAL	2.9		=	0.015	MG/L	2.9	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	NI	Nickel	TOTAL	1.73		=	0.06	MG/L	1.73	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	K	Potassium	TOTAL	23		=	1	MG/L	23	MG/L
N-139-90	SS	5/13/1996 13:05	1996 Spring	Geomatrix	BR	SW6010B	NA	Sodium	TOTAL	169		=	1.5	MG/L	169	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	CR	Chromium	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	MN	Manganese	FLDFLT	0.02		=	0.015	MG/L	0.02	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	NI	Nickel	FLDFLT	0.066		=	0.06	MG/L	0.066	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	CA	Calcium	TOTAL	91.7		=	0.5	MG/L	91.7	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	FE	Iron	TOTAL	0.122	J	TR	0.5	MG/L	0.122	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	MG	Magnesium	TOTAL	47.3		=	0.1	MG/L	47.3	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	MN	Manganese	TOTAL	0.022		=	0.015	MG/L	0.022	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	NI	Nickel	TOTAL	0.068		=	0.06	MG/L	0.068	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	K	Potassium	TOTAL	5.1		=	1	MG/L	5.1	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	NA	Sodium	TOTAL	172		=	1.5	MG/L	172	MG/L
N-139-90	SS	5/13/1996 16:40	1996 Spring	Geomatrix	AR	SW6010B	CR	Chromium	TOTAL	0.012	J	TR	0.025	MG/L	0.012	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	CA	Calcium	TOTAL	789		=	0.5	MG/L	789	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	CR	Chromium	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	CR	Chromium	TOTAL	5.66		=	0.025	MG/L	5.66	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	FE	Iron	TOTAL	106		=	0.5	MG/L	116	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	MG	Magnesium	TOTAL	97.7		=	0.1	MG/L	97.7	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	MN	Manganese	FLDFLT	0.078		=	0.015	MG/L	0.078	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	MN	Manganese	TOTAL	3.92		=	0.015	MG/L	3.92	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	NI	Nickel	FLDFLT	0.188		=	0.06	MG/L	0.188	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	NI	Nickel	TOTAL	2.45		=	0.06	MG/L	2.45	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	K	Potassium	TOTAL	18.6		=	1	MG/L	18.6	MG/L
N-137-90	SS	5/14/1996 12:00	1996 Spring	Geomatrix	BR	SW6010B	NA	Sodium	TOTAL	140		=	1.5	MG/L	140	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	CA	Calcium	TOTAL	78.4		=	0.5	MG/L	78.4	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	CR	Chromium	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	CR	Chromium	TOTAL	0.058		=	0.025	MG/L	0.058	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	FE	Iron	TOTAL	0.512		=	0.5	MG/L	0.512	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	MG	Magnesium	TOTAL	40.6		=	0.1	MG/L	40.6	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	MN	Manganese	FLDFLT	0.018		=	0.015	MG/L	0.018	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	MN	Manganese	TOTAL	0.023		=	0.015	MG/L	0.023	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	NI	Nickel	FLDFLT	0.083		=	0.06	MG/L	0.083	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	NI	Nickel	TOTAL	0.077		=	0.06	MG/L	0.077	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	K	Potassium	TOTAL	4.99		=	1	MG/L	4.99	MG/L
N-137-90	SS	5/15/1996 14:30	1996 Spring	Geomatrix	AR	SW6010B	NA	Sodium	TOTAL	141		=	1.5	MG/L	141	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW7041	SB	Antimony	FLDFLT	0	U	ND	0.0175	MG/L	0.00875	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW7060	AS	Arsenic	FLDFLT	0	U	ND	0.015	MG/L	0.0075	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW6010A	BA	Barium	FLDFLT	0.264		=	0.015	MG/L	0.264	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW6010A	CD	Cadmium	FLDFLT	0	U	ND	0.015	MG/L	0.0075	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW6010A	CR	Chromium	FLDFLT	0	U	ND	0.003	MG/L	0.0015	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW7421	PB	Lead	FLDFLT	0.0013	J	TR	0.0055	MG/L	0.0013	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW6010A	MN	Manganese	FLDFLT	0.147		=	0.015	MG/L	0.147	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW6010A	NI	Nickel	FLDFLT	0.138		=	0.06	MG/L	0.138	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW7740	SE	Selenium	FLDFLT	0	U	ND	0.0175	MG/L	0.00875	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW6010A	AG	Silver	FLDFLT	0	U	ND	0.015	MG/L	0.0075	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW7841	TL	Thallium	FLDFLT	0	U	ND	0.003	MG/L	0.0015	MG/L
N-137-90	SS	10/2/1996 16:42	1996 Fall	Geomatrix	BR	SW7470	HG	Mercury	FLDFLT	0	U	ND	0.5	UG/L	0.00025	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW7041	SB	Antimony	TOTAL	0	U	ND	0.0175	MG/L	0.00875	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW7060	AS	Arsenic	TOTAL	0.014	J	TR	0.015	MG/L	0.014	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	BA	Barium	TOTAL	0.176		=	0.015	MG/L	0.176	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	CD	Cadmium	TOTAL	0	U	ND	0.015	MG/L	0.0075	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	CA	Calcium	TOTAL	166		=	1	MG/L	166	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	CR	Chromium	TOTAL	1.75		=	0.025	MG/L	1.75	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	FE	Iron	TOTAL	29.5		=	0	MG/L	29.5	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW7421	PB	Lead	TOTAL	0.0095		=	0.0055	MG/L	0.0095	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	MG	Magnesium	TOTAL	51		=	0	MG/L	51	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	MN	Manganese	TOTAL	0.581		=	0.015	MG/L	0.581	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	NI	Nickel	TOTAL	0.439		=	0.06	MG/L	0.439	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	K	Potassium	TOTAL	8.01		=	0	MG/L	8.01	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW7740	SE	Selenium	TOTAL	0	U	ND	0.0175	MG/L	0.00875	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	AG	Silver	TOTAL	0	U	ND	0.015	MG/L	0.0075	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW6010A	NA	Sodium	TOTAL	146		=	0	MG/L	146	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW7841	TL	Thallium	TOTAL	0	U	ND	0.003	MG/L	0.0015	MG/L
N-137-90	SS	10/2/1996 16:45	1996 Fall	Geomatrix	BR	SW7470	HG	Mercury	TOTAL	1.2		=	0.5	UG/L	0.0012	MG/L
N-137-90	SS	10/7/1996 12:00	1996 Fall	Geomatrix	AR	SW6010A	CA	Calcium	TOTAL	88		=	0.8	MG/L	88	MG/L
N-137-90	SS	10/7/1996 12:00	1996 Fall	Geomatrix	AR	SW6010A	CR	Chromium	TOTAL	0.0566		=	0.03	MG/L	0.0566	MG/L
N-137-90	SS	10/7/1996 12:00	1996 Fall	Geomatrix	AR	SW6010A	FE	Iron	TOTAL	0.894		=	0.5	MG/L	0.894	MG/L
N-137-90	SS	10/7/1996 12:00	1996 Fall	Geomatrix	AR	SW6010A	MG	Magnesium	TOTAL	42.9		=	0.1	MG/L	42.9	MG/L
N-137-90	SS	10/7/1996 12:00	1996 Fall	Geomatrix	AR	SW6010A	MN	Manganese	TOTAL	0.0324		=	0.015	MG/L	0.0324	MG/L
N-137-90	SS	10/7/1996 12:00	1996 Fall	Geomatrix	AR	SW6010A	NI	Nickel	TOTAL	0.104		=	0.1	MG/L	0.104	MG/L
N-137-90	SS	10/7/1996 12:00	1996 Fall	Geomatrix	AR	SW6010A	K	Potassium	TOTAL	5.18		=	1	MG/L	5.18	MG/L
N-137-90	SS	10/7/1996 12:00	1996 Fall	Geomatrix	AR	SW6010A	NA	Sodium	TOTAL	140		=	1.5	MG/L	140	MG/L
N-137-90	SS	10/7/1996 12:05	1996 Fall	Geomatrix	AR	SW6010A	CR	Chromium	FLDFLT	0	U	ND	0.03	MG/L	0.015	MG/L
N-137-90	SS	10/7/1996 12:05	1996 Fall	Geomatrix	AR	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.015	MG/L	0.0075	MG/L
N-137-90	SS	10/7/1996 12:05	1996 Fall	Geomatrix	AR	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.1	MG/L	0.05	MG/L
N-139-90	SS	10/8/1996 9:16	1996 Fall	Geomatrix	BR	SW6010A	CA	Calcium	TOTAL	397		=	0.8	MG/L	397	MG/L
N-139-90	SS	10/8/1996 9:16	1996 Fall	Geomatrix	BR	SW6010A	CR	Chromium	TOTAL	7.54		=	0.03	MG/L	7.54	MG/L
N-139-90	SS	10/8/1996 9:16	1996 Fall	Geomatrix	BR	SW6010A	FE	Iron	TOTAL	73.7		=	0.5	MG/L	73.7	MG/L
N-139-90	SS	10/8/1996 9:16	1996 Fall	Geomatrix	BR	SW6010A	MG	Magnesium	TOTAL	80.3		=	0.1	MG/L	80.3	MG/L
N-139-90	SS	10/8/1996 9:16	1996 Fall	Geomatrix	BR	SW6010A	MN	Manganese	TOTAL	1.46		=	0.015	MG/L	1.46	MG/L
N-139-90	SS	10/8/1996 9:16	1996 Fall	Geomatrix	BR	SW6010A	NI	Nickel	TOTAL	0.929		=	0.1	MG/L	0.929	MG/L
N-139-90	SS	10/8/1996 9:16	1996 Fall	Geomatrix	BR	SW6010A	K	Potassium	TOTAL	16.5		=	1	MG/L	16.5	MG/L
N-139-90	SS	10/8/1996 9:16	1996 Fall	Geomatrix	BR	SW6010A	NA	Sodium	TOTAL	152		=	1.5	MG/L	152	MG/L
N-139-90	SS	10/8/1996 9:20	1996 Fall	Geomatrix	BR	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.03	MG/L	0.015	MG/L
N-139-90	SS	10/8/1996 9:20	1996 Fall	Geomatrix	BR	SW6010A	MN	Manganese	FLDFLT	0.125		=	0.015	MG/L	0.125	MG/L
N-139-90	SS	10/8/1996 9:20	1996 Fall	Geomatrix	BR	SW6010A	NI	Nickel	FLDFLT	0.194		=	0.1	MG/L	0.194	MG/L
N-139-90	SS	10/8/1996 15:46	1996 Fall	Geomatrix	AR	SW6010A	CA	Calcium	TOTAL	100		=	0.8	MG/L	100	MG/L
N-139-90	SS	10/8/1996 15:46	1996 Fall	Geomatrix	AR	SW6010A	CR	Chromium	TOTAL	0	UJ	ND	0.03	MG/L	0.015	MG/L
N-139-90	SS	10/8/1996 15:46	1996 Fall	Geomatrix	AR	SW6010A	FE	Iron	TOTAL	0	UJ	ND	0.5	MG/L	0.25	MG/L
N-139-90	SS	10/8/1996 15:46	1996 Fall	Geomatrix	AR	SW6010A	MG	Magnesium	TOTAL	50.7		=	0.1	MG/L	50.7	MG/L
N-139-90	SS	10/8/1996 15:46	1996 Fall	Geomatrix	AR	SW6010A	MN	Manganese	TOTAL	0.0632		=	0.015	MG/L	0.0632	MG/L
N-139-90	SS	10/8/1996 15:46	1996 Fall	Geomatrix	AR	SW6010A	NI	Nickel	TOTAL	0.106		=	0.1	MG/L	0.106	MG/L
N-139-90	SS	10/8/1996 15:46	1996 Fall	Geomatrix	AR	SW6010A	K	Potassium	TOTAL	5.01		=	1	MG/L	5.01	MG/L
N-139-90	SS	10/8/1996 15:46	1996 Fall	Geomatrix	AR	SW6010A	NA	Sodium	TOTAL	164		=	1.5	MG/L	164	MG/L
N-139-90	SS	10/8/1996 15:48	1996 Fall	Geomatrix	AR	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.03	MG/L	0.015	MG/L
N-139-90	SS	10/8/1996 15:48	1996 Fall	Geomatrix	AR	SW6010A	MN	Manganese	FLDFLT	0.0602		=	0.015	MG/L	0.0602	MG/L
N-139-90	SS	10/8/1996 15:48	1996 Fall	Geomatrix	AR	SW6010A	NI	Nickel	FLDFLT	0.116		=	0.1	MG/L	0.116	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AL	Aluminum	TOTAL	0	U	ND	0.112	MG/L	0.056	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	FLDFLT	0.0751		=	0.025	MG/L	0.0751	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	TOTAL	0.0788		=	0.025	MG/L	0.0788	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*	*Stat Result*	*Stat Units*
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	FLDFLT	82.4		=	50	MG/L	82.4	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	TOTAL	84.4		=	50	MG/L	84.4	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	TOTAL	0.0213		=	0.0168	MG/L	0.0213	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	TOTAL	0.254		=	0.0775	MG/L	0.254	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	FLDFLT	43.2		=	34	MG/L	43.2	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	TOTAL	44.6		=	34	MG/L	44.6	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	MN	Manganese	TOTAL	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NI	Nickel	FLDFLT	0.0839		=	0.0321	MG/L	0.0839	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NI	Nickel	TOTAL	0.0939		=	0.0321	MG/L	0.0939	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	FLDFLT	4.61		=	4	MG/L	4.61	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	TOTAL	4.52		=	4	MG/L	4.52	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	FLDFLT	154		=	80	MG/L	154	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	TOTAL	155		=	80	MG/L	155	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	FLDFLT	0	UJ	ND	0.018	MG/L	0.009	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-137-90	SS	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	TOTAL	0.344		=	0.112	MG/L	0.344	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	FLDFLT	0.078		=	0.025	MG/L	0.078	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	TOTAL	0.0829		=	0.025	MG/L	0.0829	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	FLDFLT	87.6		=	50	MG/L	87.6	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	TOTAL	91.2		=	50	MG/L	91.2	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	TOTAL	0.411		=	0.0775	MG/L	0.411	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	FLDFLT	46.2		=	34	MG/L	46.2	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	TOTAL	47.8		=	34	MG/L	47.8	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	MN	Manganese	TOTAL	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.0321	MG/L	0.01605	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	FLDFLT	4.41		=	4	MG/L	4.41	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	TOTAL	4.5		=	4	MG/L	4.5	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	FLDFLT	158		=	80	MG/L	158	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	TOTAL	159		=	80	MG/L	159	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	FLDFLT	0.0642		=	0.018	MG/L	0.0642	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	TOTAL	0.066		=	0.018	MG/L	0.066	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-145-93	PVC	5/14/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	TOTAL	1.82		=	0.112	MG/L	1.82	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	FLDFLT	0.0915		=	0.025	MG/L	0.0915	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	TOTAL	0.109		=	0.025	MG/L	0.109	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	FLDFLT	98.4		=	50	MG/L	98.4	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	TOTAL	114		=	50	MG/L	114	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	TOTAL	0.19		=	0.0168	MG/L	0.19	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	FLDFLT	0.138		=	0.0775	MG/L	0.138	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	TOTAL	2.6		=	0.0775	MG/L	2.6	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	FLDFLT	52		=	34	MG/L	52	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	TOTAL	55.7		=	34	MG/L	55.7	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	FLDFLT	0.0613		=	0.0097	MG/L	0.0613	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	TOTAL	0.0992		=	0.0097	MG/L	0.0992	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NI	Nickel	FLDFLT	0.287		=	0.0321	MG/L	0.287	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NI	Nickel	TOTAL	0.333		=	0.0321	MG/L	0.333	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	FLDFLT	5.67		=	4	MG/L	5.67	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*	*Stat Result*	*Stat Units*
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	TOTAL	6.46		=	4	MG/L	6.46	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	FLDFLT	173		=	80	MG/L	173	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	TOTAL	183		=	80	MG/L	183	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	FLDFLT	0.0268		=	0.018	MG/L	0.0268	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	TOTAL	0.0248		=	0.018	MG/L	0.0248	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	HG	Mercury	TOTAL	0.129		=	0.1	UG/L	0.000129	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	TOTAL	1.33		=	0.112	MG/L	1.33	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	FLDFLT	0.0734		=	0.025	MG/L	0.0734	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	TOTAL	0.0817		=	0.025	MG/L	0.0817	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	FLDFLT	84.8		=	50	MG/L	84.8	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	TOTAL	92.3		=	50	MG/L	92.3	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	TOTAL	0.0211		=	0.0168	MG/L	0.0211	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	TOTAL	1.57		=	0.0775	MG/L	1.57	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	FLDFLT	44.3		=	34	MG/L	44.3	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	TOTAL	44.2		=	34	MG/L	44.2	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	TOTAL	0.0303		=	0.0097	MG/L	0.0303	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	FLDFLT	5.21		=	4	MG/L	5.21	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	TOTAL	5.76		=	4	MG/L	5.76	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	FLDFLT	158		=	80	MG/L	158	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	TOTAL	156		=	80	MG/L	156	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	FLDFLT	0.0393		=	0.018	MG/L	0.0393	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	TOTAL	0.0511		=	0.018	MG/L	0.0511	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-140-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	TOTAL	1.7		=	0.112	MG/L	1.7	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	FLDFLT	0.0809		=	0.025	MG/L	0.0809	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	TOTAL	0.0955		=	0.025	MG/L	0.0955	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	FLDFLT	84.7		=	50	MG/L	84.7	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	TOTAL	86.2		=	50	MG/L	86.2	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	TOTAL	0.0578		=	0.0168	MG/L	0.0578	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	TOTAL	1.9		=	0.0775	MG/L	1.9	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	FLDFLT	43.9		=	34	MG/L	43.9	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	TOTAL	42.8		=	34	MG/L	42.8	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	TOTAL	0.045		=	0.0097	MG/L	0.045	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.0321	MG/L	0.01605	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	FLDFLT	4.67		=	4	MG/L	4.67	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	TOTAL	5.23		=	4	MG/L	5.23	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	FLDFLT	163		=	80	MG/L	163	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	TOTAL	156		=	80	MG/L	156	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	FLDFLT	0	UJ	ND	0.018	MG/L	0.009	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-141-93	PVC	5/15/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AL	Aluminum	TOTAL	0.703		=	0.112	MG/L	0.703	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	FLDFLT	0.0943		=	0.025	MG/L	0.0943	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BA	Barium	TOTAL	0.106		=	0.025	MG/L	0.106	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	PVC/SS	Logdate	Event ID Descr.	Author	Notes	Anmcode	Parlabel	Analyte	Exmcode	Result	EPA Flags	Parvq	PQL	Units	Stat Result	Stat Units
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	FLDFLT	66.1		=	50	MG/L	66.1	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CA	Calcium	TOTAL	73.9		=	50	MG/L	73.9	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CR	Chromium	TOTAL	0.0183		=	0.0168	MG/L	0.0183	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	FE	Iron	TOTAL	1.03		=	0.0775	MG/L	1.03	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	FLDFLT	34.1		=	34	MG/L	34.1	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MG	Magnesium	TOTAL	35.8		=	34	MG/L	35.8	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	FLDFLT	0.2		=	0.0097	MG/L	0.2	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	MN	Manganese	TOTAL	0.225		=	0.0097	MG/L	0.225	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.0321	MG/L	0.01605	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	FLDFLT	5.6		=	4	MG/L	5.6	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	K	Potassium	TOTAL	5.92		=	4	MG/L	5.92	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	FLDFLT	165		=	80	MG/L	165	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	NA	Sodium	TOTAL	171		=	80	MG/L	171	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	FLDFLT	0.307		=	0.018	MG/L	0.307	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	ZN	Zinc	TOTAL	0.531		=	0.018	MG/L	0.531	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-149-97	PVC	5/16/1997 0:00	Addt. Field Inv. Report	URS	Round 1	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	TOTAL	2.21		=	0.112	MG/L	2.21	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	FLDFLT	0.0739		=	0.025	MG/L	0.0739	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	TOTAL	0.0865		=	0.025	MG/L	0.0865	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	FLDFLT	84.8		=	50	MG/L	84.8	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	TOTAL	96.3		=	50	MG/L	96.3	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	TOTAL	2.1		=	0.0775	MG/L	2.1	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	FLDFLT	44.4		=	34	MG/L	44.4	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	TOTAL	44.9		=	34	MG/L	44.9	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	TOTAL	0.038		=	0.0097	MG/L	0.038	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	FLDFLT	5.8		=	4	MG/L	5.8	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	TOTAL	5.77		=	4	MG/L	5.77	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	FLDFLT	157		=	80	MG/L	157	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	TOTAL	156		=	80	MG/L	156	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	FLDFLT	0.0201		=	0.018	MG/L	0.0201	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	TOTAL	0	UJ	ND	0.018	MG/L	0.009	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-140-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	TOTAL	0.562		=	0.112	MG/L	0.562	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	FLDFLT	0.0862		=	0.025	MG/L	0.0862	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	TOTAL	0.0919		=	0.025	MG/L	0.0919	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	FLDFLT	88.1		=	50	MG/L	88.1	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	TOTAL	90.8		=	50	MG/L	90.8	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	TOTAL	0.0177		=	0.0168	MG/L	0.0177	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	TOTAL	0.445		=	0.0775	MG/L	0.445	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	FLDFLT	45.6		=	34	MG/L	45.6	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	TOTAL	46.5		=	34	MG/L	46.5	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	TOTAL	0.0208		=	0.0097	MG/L	0.0208	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.0321	MG/L	0.01605	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	FLDFLT	4.57		=	4	MG/L	4.57	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*	*Stat Result*	*Stat Units*
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	TOTAL	5.12		=	4	MG/L	5.12	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	FLDFLT	170		=	80	MG/L	170	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	TOTAL	174		=	80	MG/L	174	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	FLDFLT	0.0219		=	0.018	MG/L	0.0219	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	TOTAL	0	UJ	ND	0.018	MG/L	0.009	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-141-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	FLDFLT	0.933		=	0.112	MG/L	0.933	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	TOTAL	0.525		=	0.112	MG/L	0.525	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	FLDFLT	0.0779		=	0.025	MG/L	0.0779	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	TOTAL	0.0768		=	0.025	MG/L	0.0768	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	FLDFLT	87.8		=	50	MG/L	87.8	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	TOTAL	82.3		=	50	MG/L	82.3	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	FLDFLT	1.15		=	0.0775	MG/L	1.15	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	TOTAL	0.475		=	0.0775	MG/L	0.475	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	FLDFLT	46.5		=	34	MG/L	46.5	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	TOTAL	42.7		=	34	MG/L	42.7	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	MN	Manganese	TOTAL	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.0321	MG/L	0.01605	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	FLDFLT	5.07		=	4	MG/L	5.07	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	TOTAL	4.66		=	4	MG/L	4.66	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	FLDFLT	157		=	80	MG/L	157	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	TOTAL	144		=	80	MG/L	144	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	FLDFLT	0.104		=	0.018	MG/L	0.104	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	TOTAL	0	UJ	ND	0.018	MG/L	0.009	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-145-93	PVC	6/24/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	TOTAL	1.22		=	0.112	MG/L	1.22	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	FLDFLT	0.0797		=	0.025	MG/L	0.0797	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	TOTAL	0.0869		=	0.025	MG/L	0.0869	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	FLDFLT	87.4		=	50	MG/L	87.4	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	TOTAL	88.5		=	50	MG/L	88.5	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	TOTAL	0.207		=	0.0168	MG/L	0.207	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	FLDFLT	0.437		=	0.0775	MG/L	0.437	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	TOTAL	2.4		=	0.0775	MG/L	2.4	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	FLDFLT	46.1		=	34	MG/L	46.1	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	TOTAL	45.1		=	34	MG/L	45.1	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	TOTAL	0.067		=	0.0097	MG/L	0.067	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NI	Nickel	FLDFLT	0.14		=	0.0321	MG/L	0.14	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NI	Nickel	TOTAL	0.17		=	0.0321	MG/L	0.17	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	FLDFLT	5.03		=	4	MG/L	5.03	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	TOTAL	5.25		=	4	MG/L	5.25	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	FLDFLT	160		=	80	MG/L	160	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	TOTAL	156		=	80	MG/L	156	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	FLDFLT	0.0188		=	0.018	MG/L	0.0188	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	TOTAL	0	UJ	ND	0.018	MG/L	0.009	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-137-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	TOTAL	2.39		=	0.112	MG/L	2.39	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	FLDFLT	0.0944		=	0.025	MG/L	0.0944	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	TOTAL	0.129		=	0.025	MG/L	0.129	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*	*Stat Result*	*Stat Units*
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	FLDFLT	103		=	50	MG/L	103	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	TOTAL	119		=	50	MG/L	119	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	TOTAL	0.306		=	0.0168	MG/L	0.306	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	TOTAL	3.76		=	0.0775	MG/L	3.76	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	FLDFLT	54.2		=	34	MG/L	54.2	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	TOTAL	55.7		=	34	MG/L	55.7	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	FLDFLT	0	UJ	ND	0.0097	MG/L	0.00485	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	TOTAL	0.0835		=	0.0097	MG/L	0.0835	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NI	Nickel	FLDFLT	0.116		=	0.0321	MG/L	0.116	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NI	Nickel	TOTAL	0.158		=	0.0321	MG/L	0.158	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	FLDFLT	5.79		=	4	MG/L	5.79	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	TOTAL	6.28		=	4	MG/L	6.28	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	FLDFLT	177		=	80	MG/L	177	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	TOTAL	178		=	80	MG/L	178	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	FLDFLT	0.111		=	0.018	MG/L	0.111	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	TOTAL	0.15		=	0.018	MG/L	0.15	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	FLDFLT	0	UJ	ND	0.112	MG/L	0.056	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AL	Aluminum	TOTAL	0.708		=	0.112	MG/L	0.708	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SB	Antimony	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AS	Arsenic	FLDFLT	0	UJ	ND	0.0024	MG/L	0.0012	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	FLDFLT	0.0969		=	0.025	MG/L	0.0969	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BA	Barium	TOTAL	0.103		=	0.025	MG/L	0.103	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	BE	Beryllium	FLDFLT	0	UJ	ND	0.0011	MG/L	0.00055	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CD	Cadmium	FLDFLT	0	UJ	ND	0.0068	MG/L	0.0034	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	FLDFLT	69.2		=	50	MG/L	69.2	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CA	Calcium	TOTAL	73.4		=	50	MG/L	73.4	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CR	Chromium	FLDFLT	0	UJ	ND	0.0168	MG/L	0.0084	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CO	Cobalt	FLDFLT	0	UJ	ND	0.025	MG/L	0.0125	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	CU	Copper	FLDFLT	0	UJ	ND	0.0188	MG/L	0.0094	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	FLDFLT	0	UJ	ND	0.0775	MG/L	0.03875	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	FE	Iron	TOTAL	0.711		=	0.0775	MG/L	0.711	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	PB	Lead	FLDFLT	0	UJ	ND	0.0045	MG/L	0.00225	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	FLDFLT	35.1		=	34	MG/L	35.1	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MG	Magnesium	TOTAL	36		=	34	MG/L	36	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	FLDFLT	0.017		=	0.0097	MG/L	0.017	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	MN	Manganese	TOTAL	0.0333		=	0.0097	MG/L	0.0333	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NI	Nickel	FLDFLT	0	UJ	ND	0.0321	MG/L	0.01605	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	FLDFLT	5.25		=	4	MG/L	5.25	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	K	Potassium	TOTAL	5.75		=	4	MG/L	5.75	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	SE	Selenium	FLDFLT	0	UJ	ND	0.0025	MG/L	0.00125	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	AG	Silver	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	FLDFLT	174		=	80	MG/L	174	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	NA	Sodium	TOTAL	178		=	80	MG/L	178	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	TL	Thallium	FLDFLT	0	UJ	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	V	Vanadium	FLDFLT	0	UJ	ND	0.0276	MG/L	0.0138	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	FLDFLT	0.0514		=	0.018	MG/L	0.0514	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	ZN	Zinc	TOTAL	0.0723		=	0.018	MG/L	0.0723	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW6010A	HG	Mercury	FLDFLT	0	UJ	ND	0.1	UG/L	0.00005	MG/L
N-149-97	PVC	6/25/1997 0:00	Addt. Field Inv. Report	URS	Round 2	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	FLDFLT	0	U	ND	0.112	MG/L	0.056	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	TOTAL	0.382		=	0.382	MG/L	0.382	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	FLDFLT	0.0733		=	0.0733	MG/L	0.0733	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	TOTAL	0.0785		=	0.0785	MG/L	0.0785	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	FLDFLT	84		=	84	MG/L	84	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	TOTAL	90.3		=	90.3	MG/L	90.3	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	FLDFLT	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	FLDFLT	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	TOTAL	0.63		=	0.63	MG/L	0.63	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	FLDFLT	45		=	45	MG/L	45	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	TOTAL	47.1		=	47.1	MG/L	47.1	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	FLDFLT	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	TOTAL	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	FLDFLT	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	FLDFLT	5.84		=	5.84	MG/L	5.84	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	TOTAL	5.67		=	5.67	MG/L	5.67	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	FLDFLT	157		=	157	MG/L	157	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	TOTAL	165		=	165	MG/L	165	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*	*Stat Result*	*Stat Units*
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	FLDFLT	0	U	ND	0.018	MG/L	0.009	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-140-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	FLDFLT	0	U	ND	0.112	MG/L	0.056	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	TOTAL	0.566		=	0.566	MG/L	0.566	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	FLDFLT	0.0894		=	0.0894	MG/L	0.0894	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	TOTAL	0.0971		=	0.0971	MG/L	0.0971	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	FLDFLT	91.1		=	91.1	MG/L	91.1	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	TOTAL	96.1		=	96.1	MG/L	96.1	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	FLDFLT	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	TOTAL	0.02		=	0.0168	MG/L	0.02	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	FLDFLT	0.0261		=	0.0261	MG/L	0.0261	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	FLDFLT	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	TOTAL	0.662		=	0.662	MG/L	0.662	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	FLDFLT	48.4		=	48.4	MG/L	48.4	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	TOTAL	50.2		=	50.2	MG/L	50.2	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	FLDFLT	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	TOTAL	0.0165		=	0.0165	MG/L	0.0165	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	FLDFLT	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	FLDFLT	5.88		=	5.88	MG/L	5.88	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	TOTAL	5.87		=	5.87	MG/L	5.87	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	FLDFLT	177		=	177	MG/L	177	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	TOTAL	183		=	183	MG/L	183	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	FLDFLT	0	U	ND	0.018	MG/L	0.009	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	TOTAL	0.0533		=	0.0533	MG/L	0.0533	MG/L
N-141-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	FLDFLT	0	U	ND	0.112	MG/L	0.056	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	TOTAL	0.119		=	0.119	MG/L	0.119	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	FLDFLT	0.0776		=	0.0776	MG/L	0.0776	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	TOTAL	0.0774		=	0.0774	MG/L	0.0774	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	FLDFLT	86.6		=	86.6	MG/L	86.6	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	TOTAL	86.3		=	86.3	MG/L	86.3	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	FLDFLT	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	FLDFLT	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	TOTAL	0.137		=	0.137	MG/L	0.137	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	FLDFLT	47		=	47	MG/L	47	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	TOTAL	46.6		=	46.6	MG/L	46.6	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	FLDFLT	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	TOTAL	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	FLDFLT	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	FLDFLT	6.42		=	6.42	MG/L	6.42	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	TOTAL	5.79		=	5.79	MG/L	5.79	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	FLDFLT	156		=	156	MG/L	156	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	TOTAL	156		=	156	MG/L	156	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	FLDFLT	0	U	ND	0.018	MG/L	0.009	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-145-93	PVC	7/30/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	FLDFLT	0	U	ND	0.112	MG/L	0.056	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	TOTAL	0.199		=	0.199	MG/L	0.199	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	FLDFLT	0.0795		=	0.0795	MG/L	0.0795	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	TOTAL	0.078		=	0.078	MG/L	0.078	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	FLDFLT	88		=	88	MG/L	88	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	TOTAL	84.6		=	84.6	MG/L	84.6	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	TOTAL	0.0427		=	0.0168	MG/L	0.0427	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	TOTAL	0.028		=	0.028	MG/L	0.028	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	FLDFLT	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	TOTAL	0.588		=	0.588	MG/L	0.588	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	FLDFLT	47.6		=	47.6	MG/L	47.6	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	TOTAL	45.3		=	45.3	MG/L	45.3	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	FLDFLT	0.0099	J	TR	0.01	MG/L	0.0099	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	TOTAL	0.021		=	0.021	MG/L	0.021	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	TOTAL	0.154		=	0.154	MG/L	0.154	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	FLDFLT	6.15		=	6.15	MG/L	6.15	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	TOTAL	6.07		=	6.07	MG/L	6.07	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	FLDFLT	162		=	162	MG/L	162	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	TOTAL	155		=	155	MG/L	155	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	FLDFLT	0.0518		=	0.0518	MG/L	0.0518	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-137-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	FLDFLT	0	U	ND	0.112	MG/L	0.056	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	TOTAL	1.42		=	1.42	MG/L	1.42	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	FLDFLT	0.096		=	0.096	MG/L	0.096	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	TOTAL	0.106		=	0.106	MG/L	0.106	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

Well ID	PVC/SS	Logdate	Event ID Descr.	Author	Notes	Anmcode	Parlabel	Analyte	Exmcode	Result	EPA Flags	Parvq	PQL	Units	Stat Result	Stat Units
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	FLDFLT	104		=	104	MG/L	104	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	TOTAL	111		=	111	MG/L	111	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	FLDFLT	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	TOTAL	0.475		=	0.0168	MG/L	0.475	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	FLDFLT	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	TOTAL	3.66		=	3.66	MG/L	3.66	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	FLDFLT	56.1		=	56.1	MG/L	56.1	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	TOTAL	55.3		=	55.3	MG/L	55.3	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	FLDFLT	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	TOTAL	0.0614		=	0.0614	MG/L	0.0614	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	FLDFLT	0.05		=	0.05	MG/L	0.05	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	TOTAL	0.104		=	0.104	MG/L	0.104	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	FLDFLT	6.06		=	6.06	MG/L	6.06	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	TOTAL	6.08		=	6.08	MG/L	6.08	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	FLDFLT	183		=	183	MG/L	183	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	TOTAL	178		=	178	MG/L	178	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	FLDFLT	0.0683		=	0.0683	MG/L	0.0683	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	TOTAL	0	U	ND	0.018	MG/L	0.009	MG/L
N-139-90	SS	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	FLDFLT	0	U	ND	0.112	MG/L	0.056	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AL	Aluminum	TOTAL	0.687		=	0.687	MG/L	0.687	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7041	SB	Antimony	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AS	Arsenic	TOTAL	0	U	ND	0.0024	MG/L	0.0012	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	FLDFLT	0.101		=	0.101	MG/L	0.101	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BA	Barium	TOTAL	0.105		=	0.105	MG/L	0.105	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	BE	Beryllium	TOTAL	0	U	ND	0.0011	MG/L	0.00055	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CD	Cadmium	TOTAL	0	U	ND	0.0068	MG/L	0.0034	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	FLDFLT	71.2		=	71.2	MG/L	71.2	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CA	Calcium	TOTAL	75.9		=	75.9	MG/L	75.9	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	FLDFLT	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CR	Chromium	TOTAL	0	U	ND	0.0168	MG/L	0.0084	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	FLDFLT	0	U	ND	0.025	MG/L	0.0125	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CO	Cobalt	TOTAL	0	U	ND	0.025	MG/L	0.0125	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	CU	Copper	TOTAL	0	U	ND	0.0188	MG/L	0.0094	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	FLDFLT	0	U	ND	0.0775	MG/L	0.03875	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	FE	Iron	TOTAL	0.885		=	0.885	MG/L	0.885	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	PB	Lead	TOTAL	0	U	ND	0.0045	MG/L	0.00225	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	FLDFLT	37.2		=	37.2	MG/L	37.2	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MG	Magnesium	TOTAL	37.6		=	37.6	MG/L	37.6	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	FLDFLT	0	U	ND	0.0097	MG/L	0.00485	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	MN	Manganese	TOTAL	0.0294		=	0.0294	MG/L	0.0294	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NI	Nickel	TOTAL	0	U	ND	0.0321	MG/L	0.01605	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	FLDFLT	4.73		=	4.73	MG/L	4.73	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	K	Potassium	TOTAL	5.67		=	5.67	MG/L	5.67	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	SE	Selenium	TOTAL	0	U	ND	0.0025	MG/L	0.00125	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	AG	Silver	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	FLDFLT	178		=	178	MG/L	178	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	NA	Sodium	TOTAL	179		=	179	MG/L	179	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7841	TL	Thallium	TOTAL	0	U	ND	0.01	MG/L	0.005	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	V	Vanadium	TOTAL	0	U	ND	0.0276	MG/L	0.0138	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	FLDFLT	0.0256		=	0.0256	MG/L	0.0256	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW6010	ZN	Zinc	TOTAL	0.0776		=	0.0776	MG/L	0.0776	MG/L
N-149-97	PVC	7/31/1997 0:00	Addt. Field Inv. Report	URS	Round 3	SW7470	HG	Mercury	TOTAL	0	U	ND	0.1	UG/L	0.00005	MG/L
N-139-90	SS	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	CR	Chromium	FLDFLT	0	U	ND	0.05	MG/L	0.025	MG/L
N-139-90	SS	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	CR	Chromium	TOTAL	0.302		=	0.05	MG/L	0.302	MG/L
N-139-90	SS	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	MN	Manganese	FLDFLT	0.104		=	0.01	MG/L	0.104	MG/L
N-139-90	SS	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	MN	Manganese	TOTAL	0.118		=	0.01	MG/L	0.118	MG/L
N-139-90	SS	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	NI	Nickel	FLDFLT	0.412		=	0.15	MG/L	0.412	MG/L
N-139-90	SS	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	NI	Nickel	TOTAL	0.378		=	0.15	MG/L	0.378	MG/L
N-149-97	PVC	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	CR	Chromium	FLDFLT	0	U	ND	0.05	MG/L	0.025	MG/L
N-149-97	PVC	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	CR	Chromium	TOTAL	0.085		=	0.05	MG/L	0.085	MG/L
N-149-97	PVC	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	MN	Manganese	FLDFLT	0.006	J	TR	0.01	MG/L	0.006	MG/L
N-149-97	PVC	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	MN	Manganese	TOTAL	0.134		=	0.01	MG/L	0.134	MG/L
N-149-97	PVC	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	NI	Nickel	FLDFLT	0	U	ND	0.15	MG/L	0.075	MG/L
N-149-97	PVC	12/1/1997 12:00	1997 Fall	Kleinfelder		SW6010A	NI	Nickel	TOTAL	0.054	J	TR	0.15	MG/L	0.054	MG/L
N-137-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.082		=	0.005	MG/L	0.082	MG/L
N-137-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	3.6		=	0.002	MG/L	3.6	MG/L
N-137-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0.072		=	0.02	MG/L	0.072	MG/L
N-137-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	0.72		=	0.01	MG/L	0.72	MG/L
N-137-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	3.1		=	0.04	MG/L	3.1	MG/L
N-137-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.051		=	0.02	MG/L	0.051	MG/L
N-137-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW7470	HG	Mercury	TOTAL	0.00033		=	0.5	UG/L	0.00000033	MG/L
N-139-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.28		=	0.005	MG/L	0.28	MG/L
N-139-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	5.6		=	0.002	MG/L	5.6	MG/L
N-139-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0.27		=	0.02	MG/L	0.27	MG/L
N-139-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	5.7		=	0.01	MG/L	5.7	MG/L
N-139-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	7.6		=	0.04	MG/L	7.6	MG/L
N-139-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.058		=	0.02	MG/L	0.058	MG/L
N-139-90	SS	1/3/2002 0:00	2001 Fall	Kleinfelder		SW7470	HG	Mercury	TOTAL	0.00027		=	0.5	UG/L	0.00000027	MG/L
N-149-97	PVC	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.099		=	0.005	MG/L	0.099	MG/L
N-149-97	PVC	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	0.16		=	0.002	MG/L	0.16	MG/L
N-149-97	PVC	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0.0019	J	=	0.02	MG/L	0.0019	MG/L
N-149-97	PVC	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	0.04		=	0.01	MG/L	0.04	MG/L
N-149-97	PVC	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	0.12		=	0.04	MG/L	0.12	MG/L
N-149-97	PVC	1/3/2002 0:00	2001 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.042		=	0.02	MG/L	0.042	MG/L
N-149-97	PVC	1/3/2002 0:00	2001 Fall	Kleinfelder		SW7470	HG	Mercury	TOTAL	0.00021	U	ND	0.5	UG/L	0.00025	MG/L
N-137-90	SS	5/14/2002 8:37	2002 Spring	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.075		=	0.005	MG/L	0.075	MG/L
N-137-90	SS	5/14/2002 8:37	2002 Spring	Kleinfelder		SW6010B	CR	Chromium	TOTAL	0.18		=	0.002	MG/L	0.18	MG/L
N-137-90	SS	5/14/2002 8:37	2002 Spring	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0.0068	J	TR	0.02	MG/L	0.0068	MG/L
N-137-90	SS	5/14/2002 8:37	2002 Spring	Kleinfelder		SW6010B	MN	Manganese	TOTAL	0.086		=	0.01	MG/L	0.086	MG/L
N-137-90	SS	5/14/2002 8:37	2002 Spring	Kleinfelder		SW6010B	NI	Nickel	TOTAL	0.29		=	0.04	MG/L	0.29	MG/L
N-137-90	SS	5/14/2002 8:37	2002 Spring	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.014	J	TR	0.02	MG/L	0.014	MG/L
N-137-90	SS	5/14/2002 8:37	2002 Spring	Kleinfelder		SW7470	HG	Mercury	TOTAL	0	U	ND	0.5	UG/L	0.00025	MG/L
N-139-90	SS	5/14/2002 9:03	2002 Spring	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.12		=	0.005	MG/L	0.12	MG/L
N-139-90	SS	5/14/2002 9:03	2002 Spring	Kleinfelder		SW6010B	CR	Chromium	TOTAL	0.19		=	0.002	MG/L	0.19	MG/L
N-139-90	SS	5/14/2002 9:03	2002 Spring	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0.043		=	0.02	MG/L	0.043	MG/L
N-139-90	SS	5/14/2002 9:03	2002 Spring	Kleinfelder		SW6010B	MN	Manganese	TOTAL	0.68	J	=	0.01	MG/L	0.68	MG/L
N-139-90	SS	5/14/2002 9:03	2002 Spring	Kleinfelder		SW6010B	NI	Nickel	TOTAL	2.6		=	0.04	MG/L	2.6	MG/L
N-139-90	SS	5/14/2002 9:03	2002 Spring	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.05		=	0.02	MG/L	0.05	MG/L
N-139-90	SS	5/14/2002 9:03	2002 Spring	Kleinfelder		SW7470	HG	Mercury	TOTAL	0	U	ND	0.5	UG/L	0.00025	MG/L
N-149-97	PVC	5/14/2002 9:27	2002 Spring	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.096		=	0.005	MG/L	0.096	MG/L
N-149-97	PVC	5/14/2002 9:27	2002 Spring	Kleinfelder		SW6010B	CR	Chromium	TOTAL	0.018		=	0.002	MG/L	0.018	MG/L
N-149-97	PVC	5/14/2002 9:27	2002 Spring	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0	U	ND	0.02	MG/L	0.01	MG/L
N-149-97	PVC	5/14/2002 9:27	2002 Spring	Kleinfelder		SW6010B	MN	Manganese	TOTAL	0.016		=	0.01	MG/L	0.016	MG/L
N-149-97	PVC	5/14/2002 9:27	2002 Spring	Kleinfelder		SW6010B	NI	Nickel	TOTAL	0.034	J	TR	0.04	MG/L	0.034	MG/L
N-149-97	PVC	5/14/2002 9:27	2002 Spring	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.028		=	0.02	MG/L	0.028	MG/L
N-149-97	PVC	5/14/2002 9:27	2002 Spring	Kleinfelder		SW7470	HG	Mercury	TOTAL	0	U	ND	0.5	UG/L	0.00025	MG/L

Appendix B
Comprehensive List of Analytes and Detections Used for Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

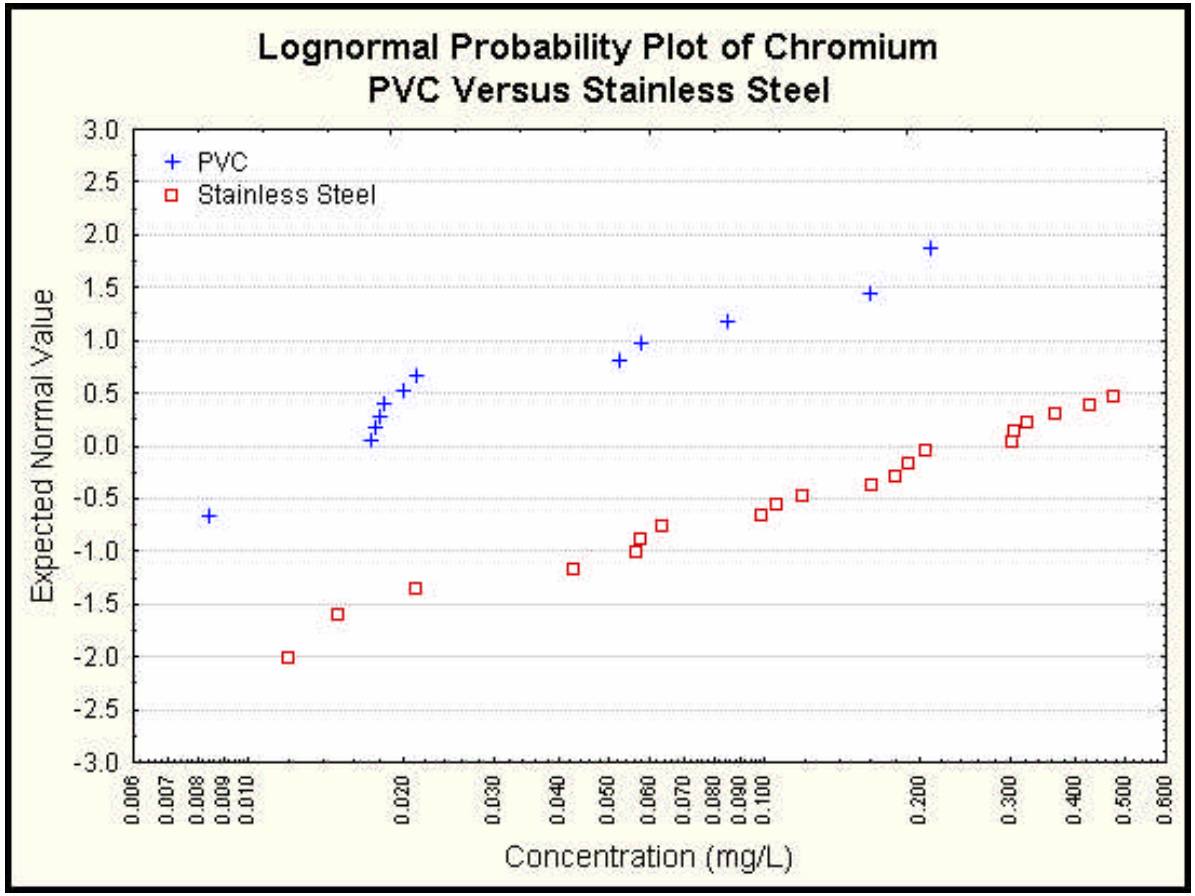
Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*	*Stat Result*	*Stat Units*
N-137-90	SS	10/17/2002 10:22	2002 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.1		=	0.005	MG/L	0.1	MG/L
N-137-90	SS	10/17/2002 10:22	2002 Fall	Kleinfelder		SW6010B	CR	Chromium	FLDFLT	0.015		=	0.0006	MG/L	0.015	MG/L
N-137-90	SS	10/17/2002 10:22	2002 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	3.5	J	=	0.0006	MG/L	3.5	MG/L
N-137-90	SS	10/17/2002 10:22	2002 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0.056		=	0.02	MG/L	0.056	MG/L
N-137-90	SS	10/17/2002 10:22	2002 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	0.55		=	0.01	MG/L	0.55	MG/L
N-137-90	SS	10/17/2002 10:22	2002 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	1.5		=	0.04	MG/L	1.5	MG/L
N-137-90	SS	10/17/2002 10:22	2002 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.057		=	0.02	MG/L	0.057	MG/L
N-137-90	SS	10/17/2002 10:22	2002 Fall	Kleinfelder		SW7470A	HG	Mercury	METHOD	0	U	ND	0.5	UG/L	0.00025	MG/L
N-139-90	SS	10/17/2002 11:28	2002 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.14		=	0.005	MG/L	0.14	MG/L
N-139-90	SS	10/17/2002 11:28	2002 Fall	Kleinfelder		SW6010B	CR	Chromium	FLDFLT	0.019	J	=	0.0006	MG/L	0.019	MG/L
N-139-90	SS	10/17/2002 11:28	2002 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	0.43	J	=	0.0006	MG/L	0.43	MG/L
N-139-90	SS	10/17/2002 11:28	2002 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0.019	J	TR	0.02	MG/L	0.019	MG/L
N-139-90	SS	10/17/2002 11:28	2002 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	0.24		=	0.01	MG/L	0.24	MG/L
N-139-90	SS	10/17/2002 11:28	2002 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	0.99		=	0.04	MG/L	0.99	MG/L
N-139-90	SS	10/17/2002 11:28	2002 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.081		=	0.02	MG/L	0.081	MG/L
N-139-90	SS	10/17/2002 11:28	2002 Fall	Kleinfelder		SW7470A	HG	Mercury	METHOD	0	U	ND	0.5	UG/L	0.00025	MG/L
N-149-97	PVC	10/17/2002 12:07	2002 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	0.11		=	0.005	MG/L	0.11	MG/L
N-149-97	PVC	10/17/2002 12:07	2002 Fall	Kleinfelder		SW6010B	CR	Chromium	FLDFLT	0.025	J	=	0.0006	MG/L	0.025	MG/L
N-149-97	PVC	10/17/2002 12:07	2002 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	0.21	J	=	0.0006	MG/L	0.21	MG/L
N-149-97	PVC	10/17/2002 12:07	2002 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	0.0064	U	TR	0.02	MG/L	0.0064	MG/L
N-149-97	PVC	10/17/2002 12:07	2002 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	0.096		=	0.01	MG/L	0.096	MG/L
N-149-97	PVC	10/17/2002 12:07	2002 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	0.32		=	0.04	MG/L	0.32	MG/L
N-149-97	PVC	10/17/2002 12:07	2002 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	0.067		=	0.02	MG/L	0.067	MG/L
N-149-97	PVC	10/17/2002 12:07	2002 Fall	Kleinfelder		SW7470A	HG	Mercury	METHOD	0	U	ND	0.5	UG/L	0.00025	MG/L

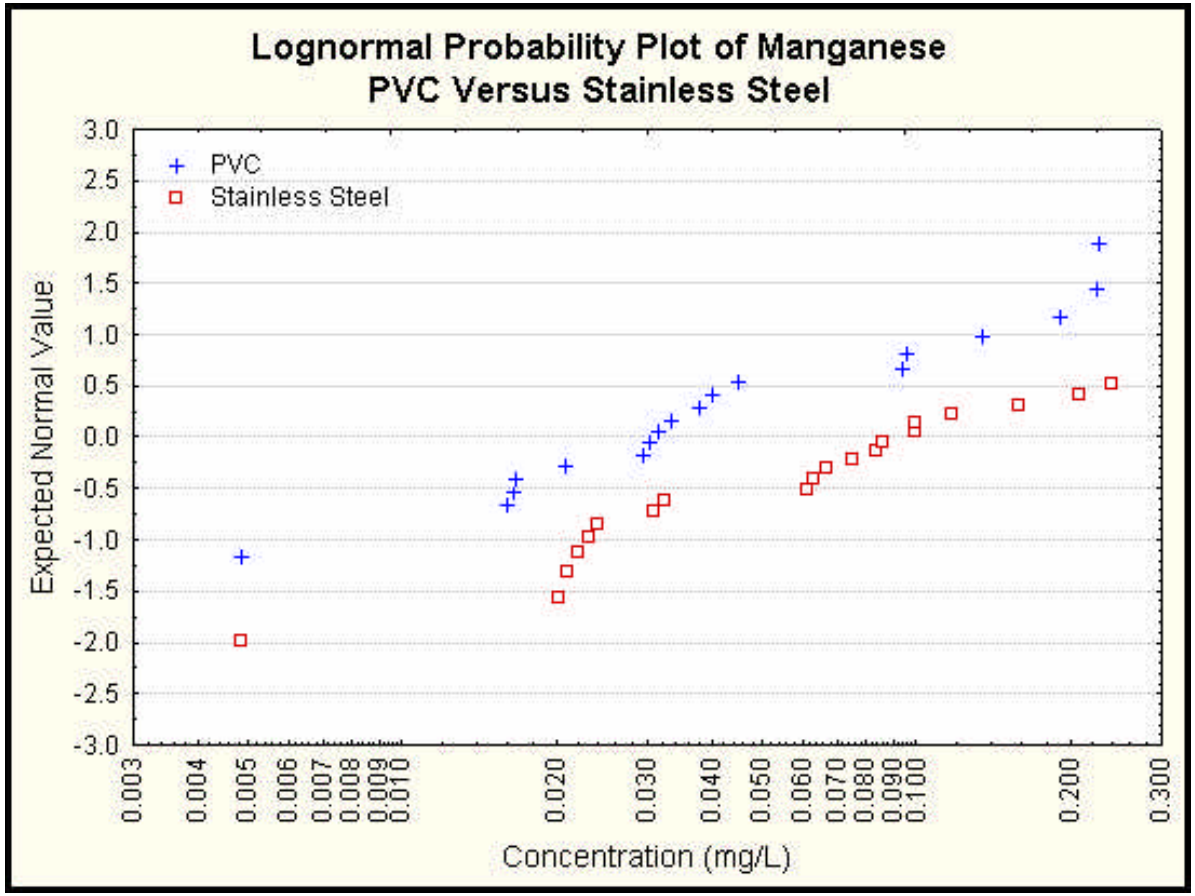
Appendix B
Comprehensive List of Analytes and Detections Eliminated from Statistical Data Set
X-Ray Lagoon, SWMU 3
Tooele Army Depot, Utah

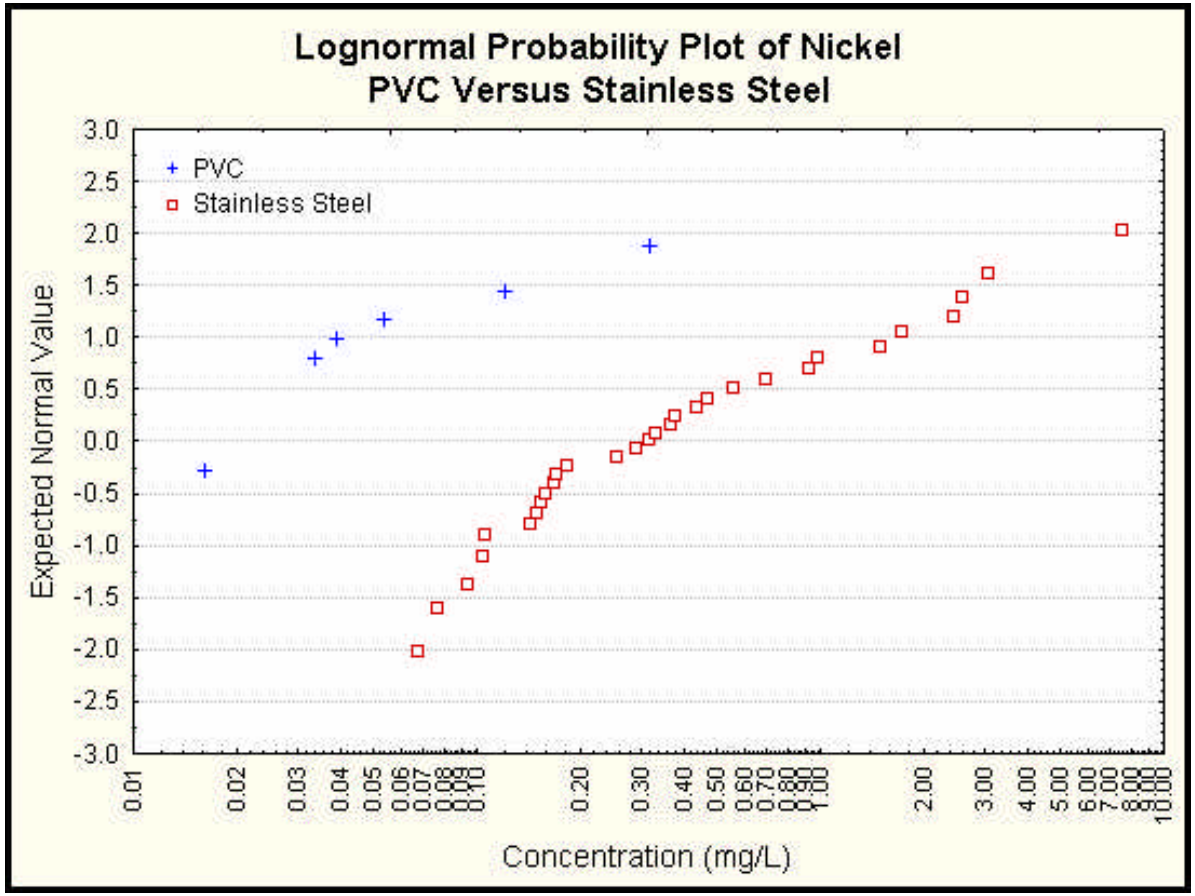
Well ID	*PVC/SS*	*Logdate*	*Event ID Descr.*	*Author*	*Notes*	*Anmcode*	*Parlabel*	*Analyte*	*Exmcode*	*Smcode*	*Result*	*EPA Flags*	*Parvq*	*PQL*	*Units*
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	AL	Aluminum	TOTAL	HI	23		=	2.8	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW7041	SB	Antimony	TOTAL	HI	0	U	ND	0.005	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	AS	Arsenic	TOTAL	HI	0.0034		=	0.0034	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	BA	Barium	TOTAL	HI	0.281		=	0.119	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	BE	Beryllium	TOTAL	HI	0	U	ND	0.0011	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CD	Cadmium	TOTAL	HI	0	U	ND	0.0068	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CA	Calcium	TOTAL	HI	126		=	126	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CR	Chromium	TOTAL	HI	3.5		=	1.2	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CO	Cobalt	TOTAL	HI	0.0488		=	0.025	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	CU	Copper	TOTAL	HI	0	U	ND	0.0188	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	FE	Iron	TOTAL	HI	42.3		=	8.89	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	PB	Lead	TOTAL	HI	0.0066		=	0.0066	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	MG	Magnesium	TOTAL	HI	51.1		=	51.1	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	MN	Manganese	TOTAL	HI	0.669		=	0.147	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	NI	Nickel	TOTAL	HI	0.434		=	0.235	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	K	Potassium	TOTAL	HI	9.29		=	5.34	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	SE	Selenium	TOTAL	HI	0	U	ND	0.0025	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	AG	Silver	TOTAL	HI	0	U	ND	0.01	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	NA	Sodium	TOTAL	HI	173		=	173	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	TL	Thallium	TOTAL	HI	0	U	ND	0.125	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	V	Vanadium	TOTAL	HI	62.8		=	0.0276	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW6010	ZN	Zinc	TOTAL	HI	0.0275		=	0.0275	MG/L
N-138-90	SS	4/27/1993 12:00	Phase II RFI	Rust E&I	Round 1	SW7470	HG	Mercury	TOTAL	HI	0	U	ND	0.1	UG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	AL	Aluminum	TOTAL	HI	480		=	480	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW7041	SB	Antimony	TOTAL	HI	0.0071		=	0.0071	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	AS	Arsenic	TOTAL	HI	0.0369		=	0.0369	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	BA	Barium	TOTAL	HI	3.38		=	3.38	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	BE	Beryllium	TOTAL	HI	0.0286		=	0.0286	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CD	Cadmium	TOTAL	HI	0.0097		=	0.0097	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CA	Calcium	TOTAL	HI	3900		=	3900	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CR	Chromium	TOTAL	HI	0.634		=	0.634	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CO	Cobalt	TOTAL	HI	0.208		=	0.208	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	CU	Copper	TOTAL	HI	0.462		=	0.462	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	FE	Iron	TOTAL	HI	466		=	466	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	PB	Lead	TOTAL	HI	0.35		=	0.35	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	MG	Magnesium	TOTAL	HI	450		=	450	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	MN	Manganese	TOTAL	HI	13	J	=	13	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	NI	Nickel	TOTAL	HI	0.612		=	0.612	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	K	Potassium	TOTAL	HI	125		=	125	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	SE	Selenium	TOTAL	HI	0	U	ND	0.0025	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	AG	Silver	TOTAL	HI	0	U	ND	0.02	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	NA	Sodium	TOTAL	HI	170		=	170	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	TL	Thallium	TOTAL	HI	0	U	ND	0.25	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	V	Vanadium	TOTAL	HI	0.484		=	0.484	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW6010	ZN	Zinc	TOTAL	HI	2.24		=	2.24	MG/L
N-141-93	PVC	7/29/1993 12:00	Phase II RFI	Rust E&I	After installation	SW7470	HG	Mercury	TOTAL	HI	3.7		=	3.7	UG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AL	Aluminum	TOTAL	HI	3.72		=	3.72	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7041	SB	Antimony	TOTAL	HI	0	U	ND	0.01	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AS	Arsenic	TOTAL	HI	0	U	ND	0.0024	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BA	Barium	TOTAL	HI	0.11		=	0.11	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	BE	Beryllium	TOTAL	HI	0	U	ND	0.0011	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CD	Cadmium	TOTAL	HI	0	U	ND	0.0068	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CA	Calcium	TOTAL	HI	110		=	110	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CR	Chromium	TOTAL	HI	2.6		=	2.6	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CO	Cobalt	TOTAL	HI	0	U	ND	0.025	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	CU	Copper	TOTAL	HI	0.0273		=	0.0273	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	FE	Iron	TOTAL	HI	14.4		=	14.4	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	PB	Lead	TOTAL	HI	0	U	ND	0.0045	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MG	Magnesium	TOTAL	HI	51.7		=	51.7	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	MN	Manganese	TOTAL	HI	0.196		=	0.196	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	FLDFLT	HI	0.396		=	0.396	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NI	Nickel	TOTAL	HI	0.5		=	0.5	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	K	Potassium	TOTAL	HI	6.19		=	6.19	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	SE	Selenium	TOTAL	HI	0	U	ND	0.0025	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	AG	Silver	TOTAL	HI	0	U	ND	0.01	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	NA	Sodium	TOTAL	HI	160		=	160	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	TL	Thallium	TOTAL	HI	0	U	ND	0.125	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	V	Vanadium	TOTAL	HI	0	U	ND	0.0276	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW6010	ZN	Zinc	TOTAL	HI	0.0903		=	0.0903	MG/L
N-138-90	SS	10/28/1993 0:00	Phase II RFI	Rust E&I	Round 2	SW7470	HG	Mercury	TOTAL	HI	0	U	ND	0.1	UG/L
N-137-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	KB	0.086		=	0.005	MG/L
N-137-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	KB	1.1		=	0.002	MG/L
N-137-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	KB	0.021		=	0.02	MG/L
N-137-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	KB	0.29		=	0.01	MG/L
N-137-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	NI	Nickel	FLDFLT	KB	0.154		=	0.154	MG/L
N-137-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	KB	0.84		=	0.04	MG/L
N-137-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	KB	0.037		=	0.02	MG/L
N-137-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW7470	HG	Mercury	TOTAL	KB	0.1	J	TR	0.5	UG/L
N-139-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	KB	0.26		=	0.005	MG/L
N-139-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	KB	55.6		=	0.002	MG/L
N-139-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	KB	1.1		=	0.02	MG/L
N-139-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	KB	15.1		=	0.01	MG/L
N-139-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	KB	75.1		=	0.04	MG/L
N-139-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	KB	0.93		=	0.02	MG/L
N-139-90	SS	12/26/2001 14:07	2001 Fall	Kleinfelder		SW7470	HG	Mercury	TOTAL	KB	0.1	J	TR	0.5	UG/L
N-149-97	PVC	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	BA	Barium	TOTAL	KB	0.11		=	0.005	MG/L
N-149-97	PVC	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	CR	Chromium	TOTAL	KB	0.4		=	0.002	MG/L
N-149-97	PVC	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	CO	Cobalt	TOTAL	KB	0.0026	J	TR	0.02	MG/L
N-149-97	PVC	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	MN	Manganese	TOTAL	KB	0.047		=	0.01	MG/L
N-149-97	PVC	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	NI	Nickel	TOTAL	KB	0.11		=	0.04	MG/L
N-149-97	PVC	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	ZN	Zinc	TOTAL	KB	0.16		=	0.02	MG/L
N-149-97	PVC	12/26/2001 14:07	2001 Fall	Kleinfelder		SW6010B	HG	Mercury	TOTAL	KB	0	U	ND	0.5	UG/L

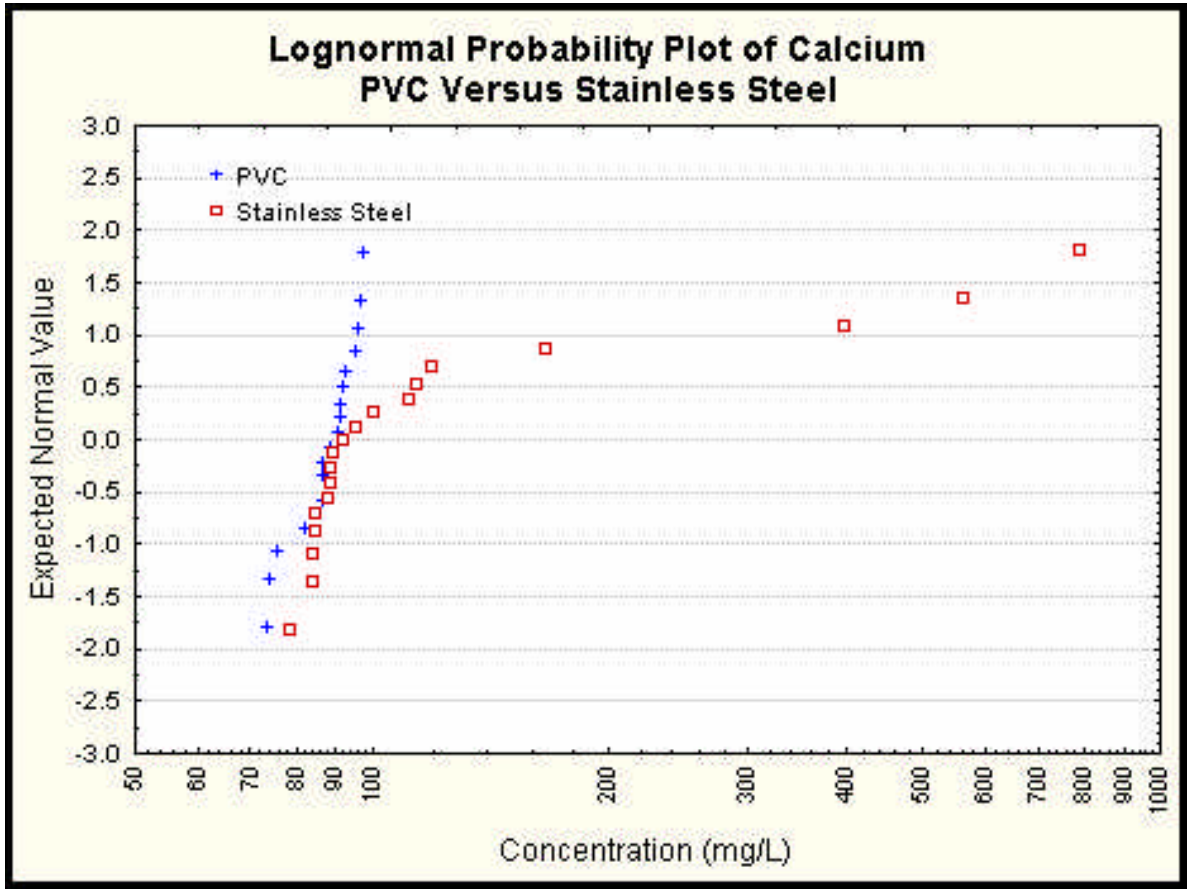
APPENDIX C

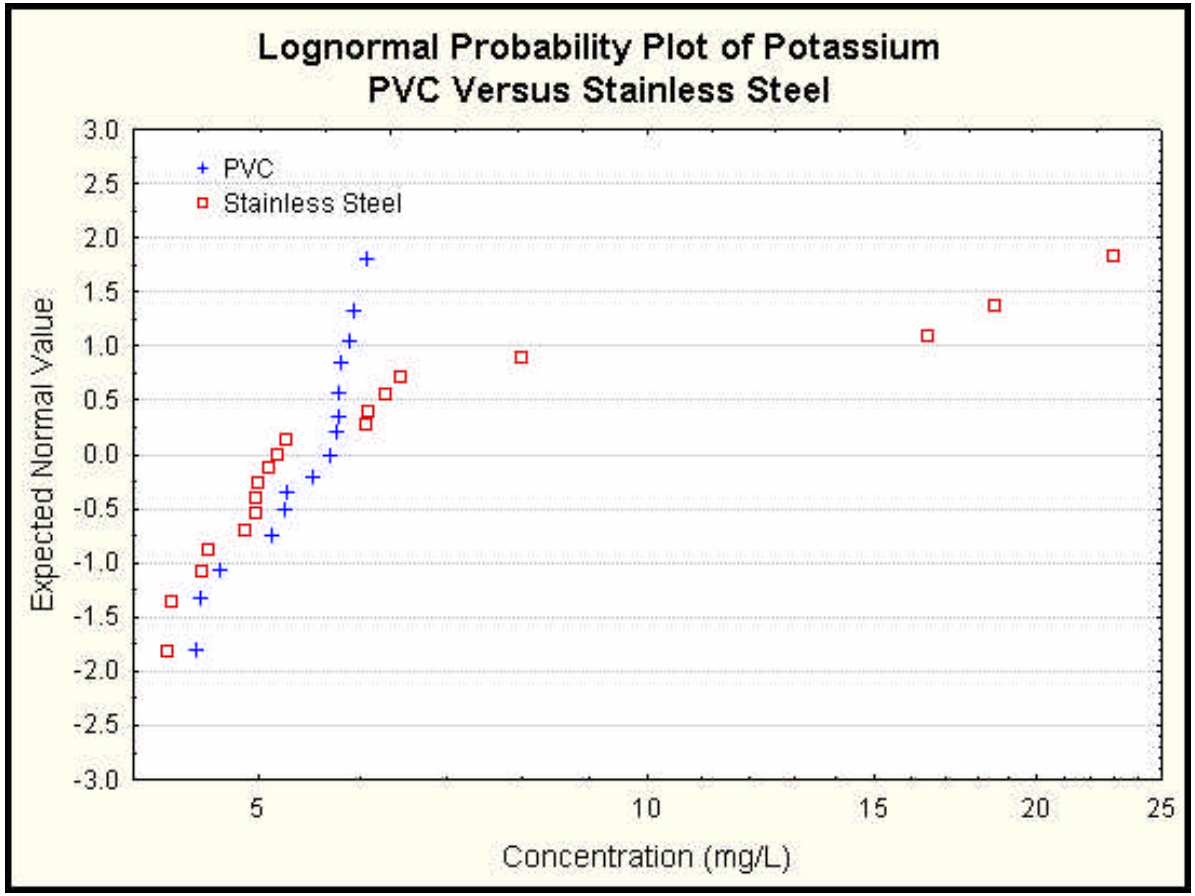
Individual Statistical Plots

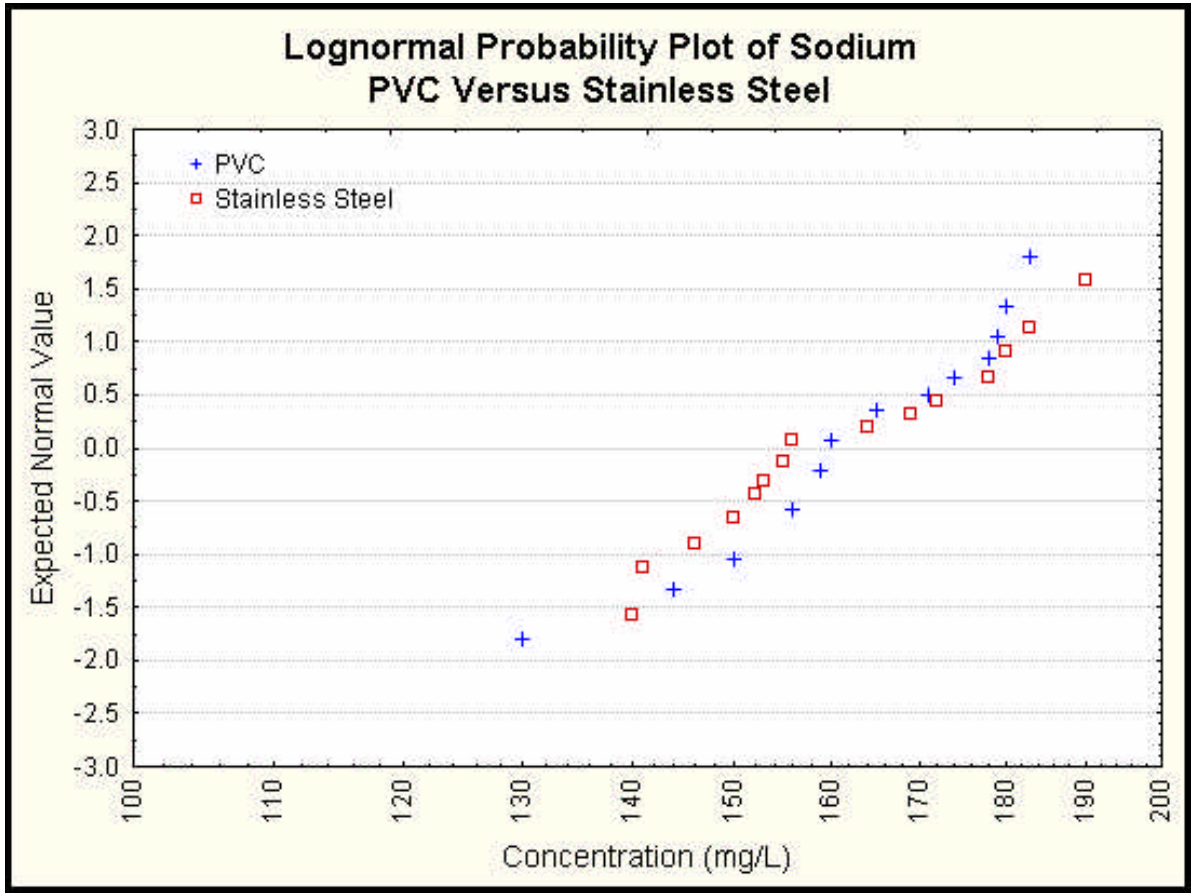

Lognormal Probability Plot of Chromium
PVC Versus Stainless Steel
PVC
Stainless Steel
Expected Normal Value
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
0.006
0.007
0.008
0.009
0.010
0.020
0.030
0.040
0.050
0.060
0.070
0.080
0.090
0.100
0.200
0.300
0.400
0.500
0.600
Concentration (mg/L)

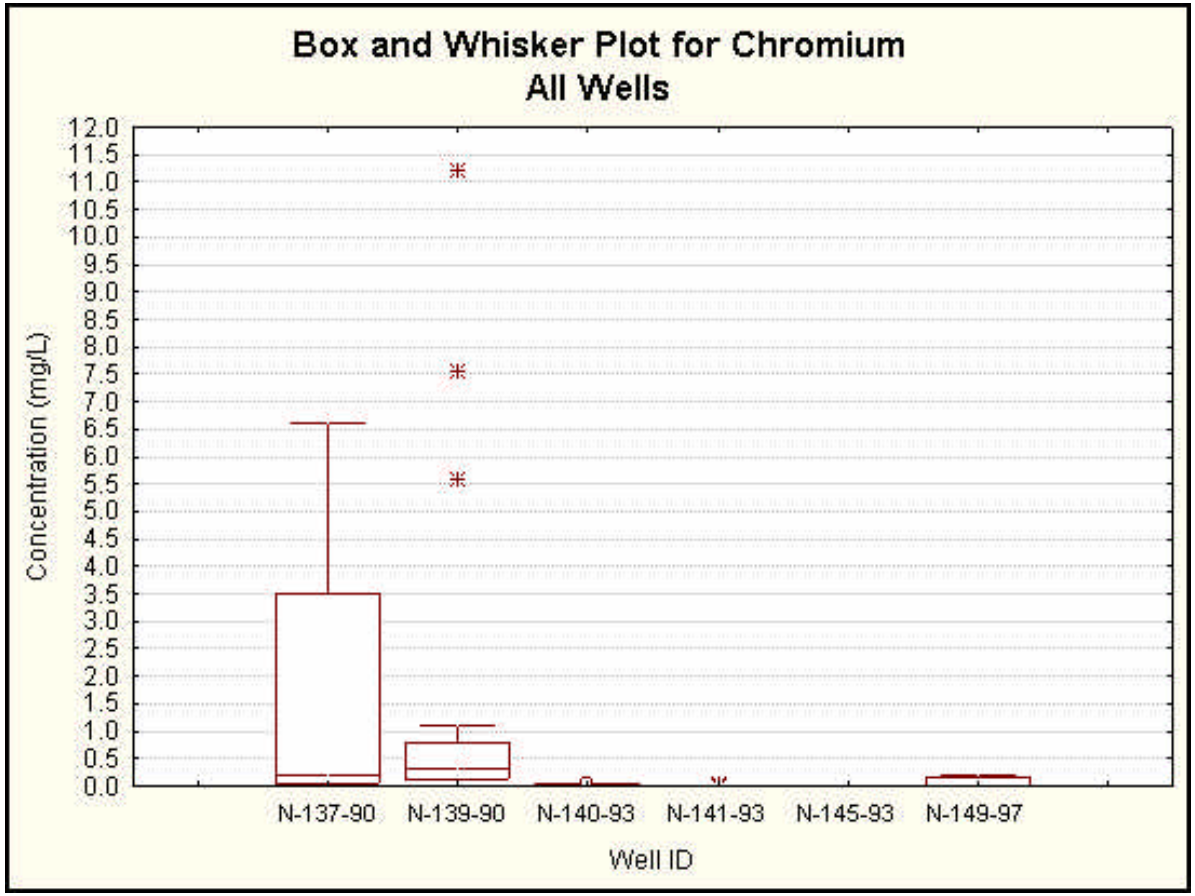

Lognormal Probability Plot of Manganese
PVC Versus Stainless Steel
PVC
Stainless Steel
Expected Normal Value
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
0.003
0.004
0.005
0.006
0.007
0.008
0.009
0.010
0.020
0.030
0.040
0.050
0.060
0.070
0.080
0.090
0.100
0.200
0.300
Concentration (mg/L)

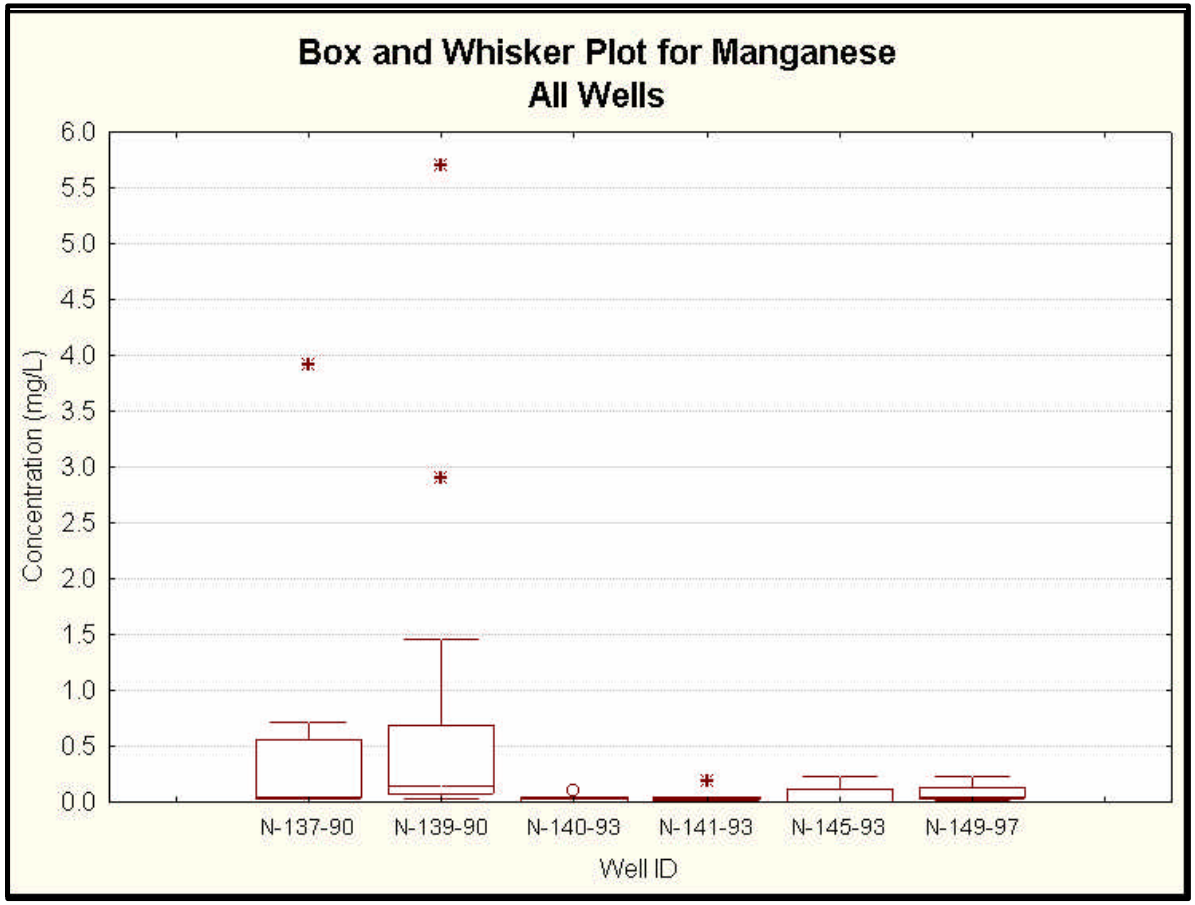

Lognormal Probability Plot of Nickel
PVC Versus Stainless Steel
PVC
Stainless Steel
Expected Normal Value
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
0.90
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.00
Concentration (mg/L)

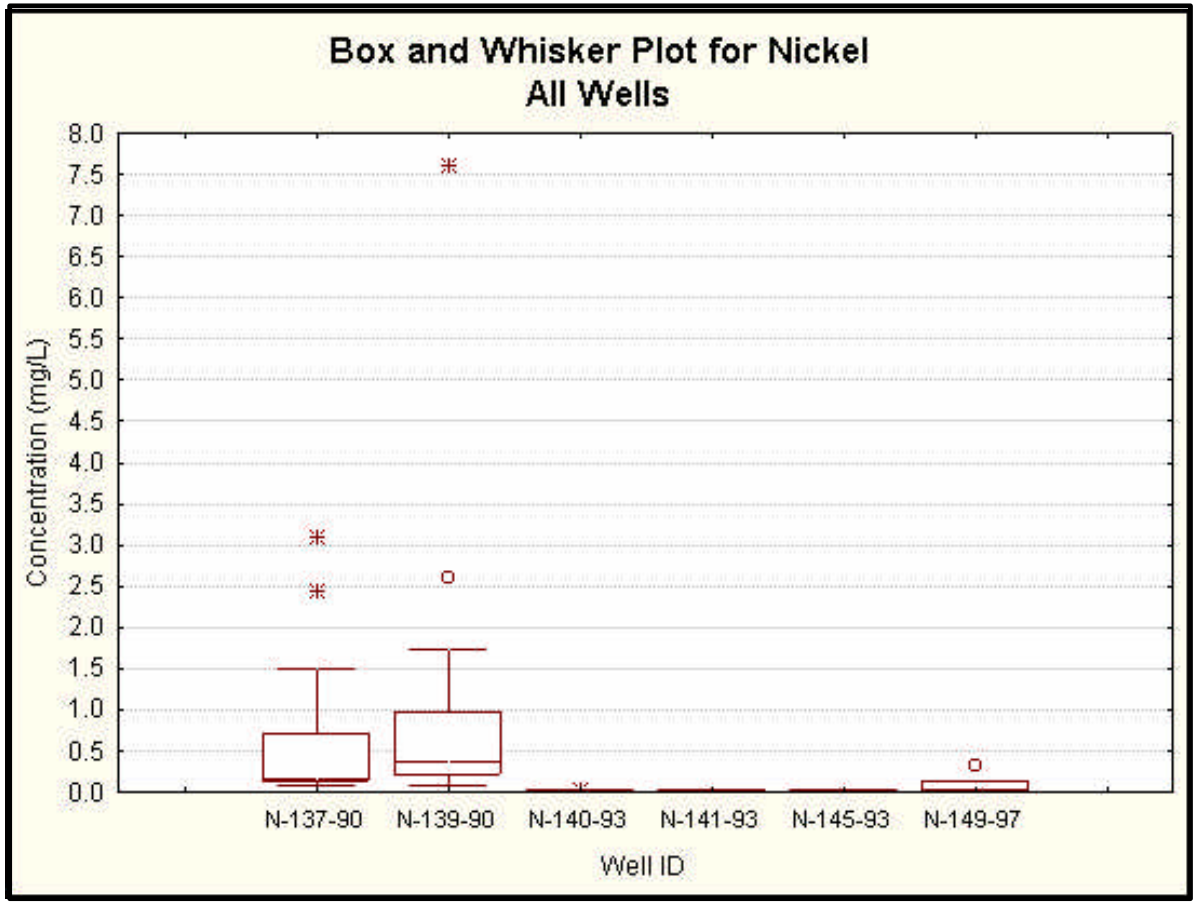

Lognormal Probability Plot of Calcium
PVC Versus Stainless Steel
PVC
Stainless Steel
Expected Normal Value
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
50
60
70
80
90
100
200
300
400
500
600
700
800
900
1000
Concentration (mg/L)

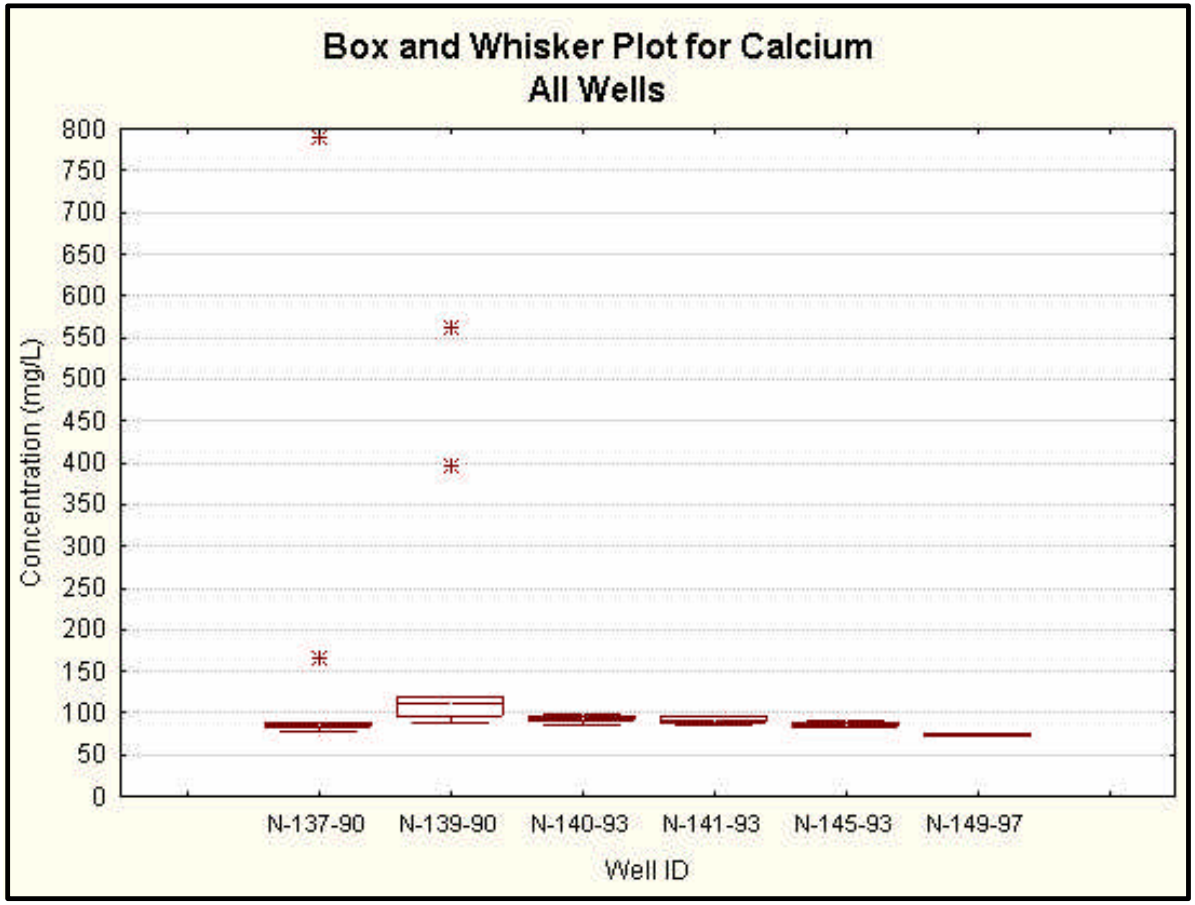

Lognormal Probability Plot of Potassium
PVC Versus Stainless Steel
PVC
Stainless Steel
Expected Normal Value
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
5
10
15
20
25
Concentration (mg/L)

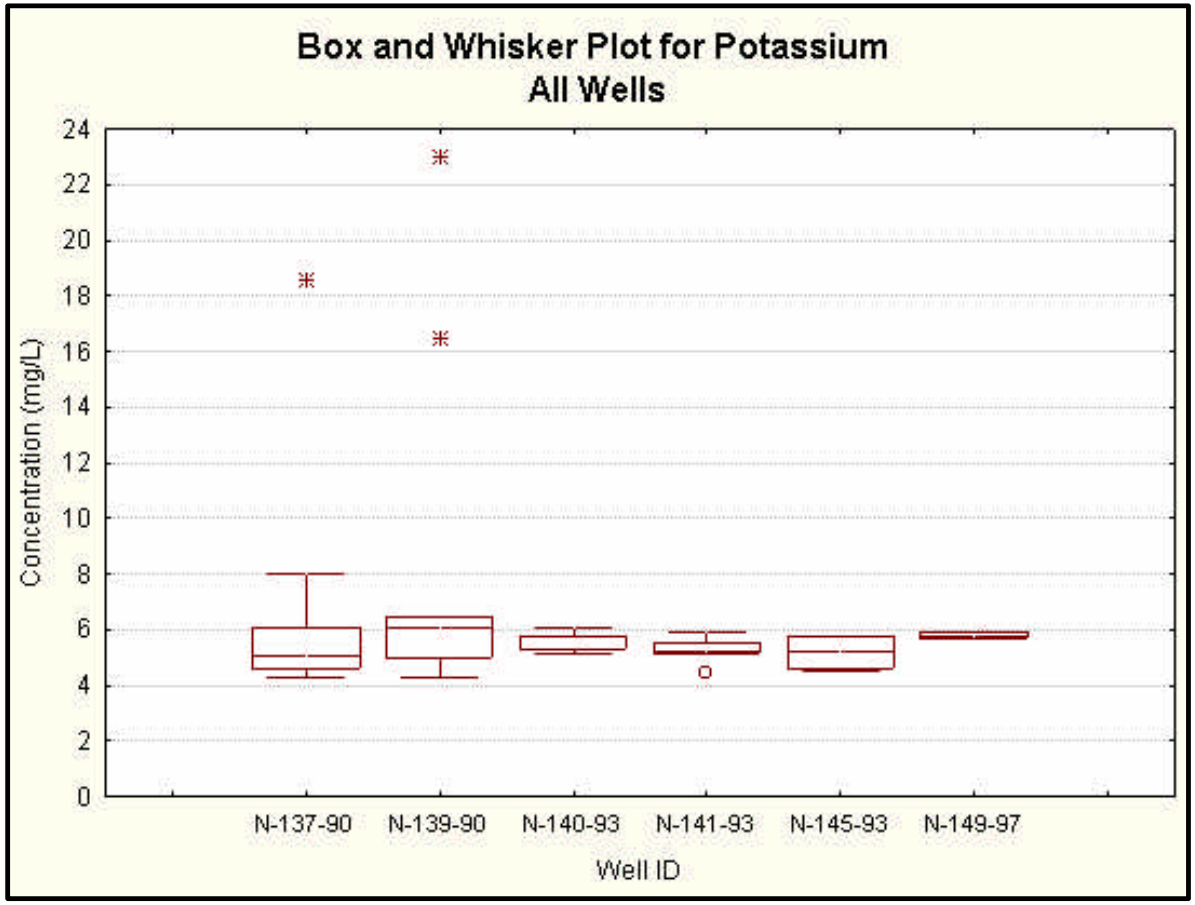

Lognormal Probability Plot of Sodium
PVC Versus Stainless Steel
PVC
Stainless Steel
Expected Normal Value
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
100
110
120
130
140
150
160
170
180
190
200
Concentration (mg/L)

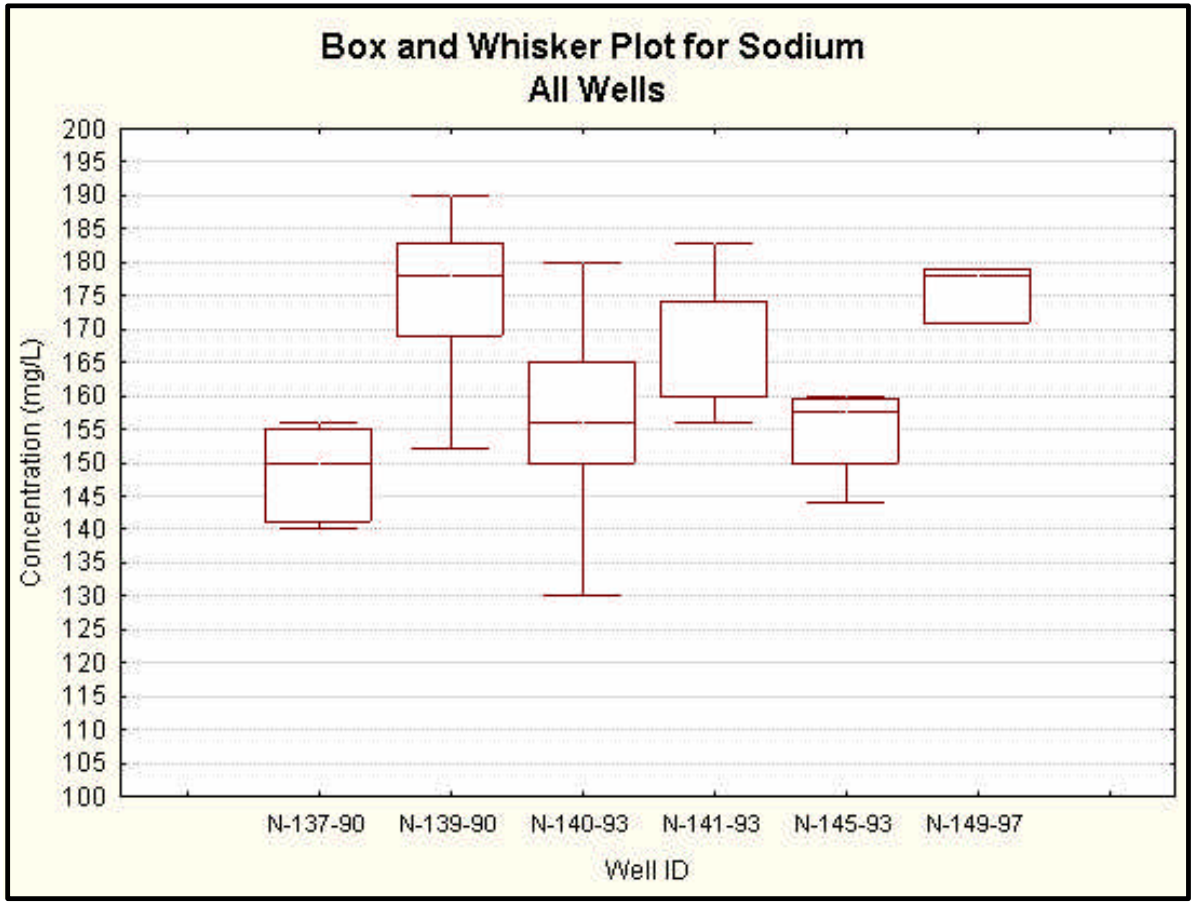

Box and Whisker Plot for Chromium
All Wells
Concentration (mg/L)
12.0
11.5
11.0
10.5
10.0
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
N-137-90
N-139-90
N-140-93
N-141-93
N-145-93
N-149-97
Well ID


Box and Whisker Plot for Manganese
All Wells
Concentration (mg/L)
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
N-137-90
N-139-90
N-140-93
N-141-93
N-145-93
N-149-97
Well ID


Box and Whisker Plot for Nickel
All Wells
Concentration (mg/L)
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
N-137-90
N-139-90
N-140-93
N-141-93
N-145-93
N-149-97
Well ID


Box and Whisker Plot for Calcium
All Wells
Concentration (mg/L)
800
750
700
650
600
550
500
450
400
350
300
250
200
150
100
50
0
N-137-90
N-139-90
N-140-93
N-141-93
N-145-93
N-149-97
Well ID


Box and Whisker Plot for Potassium
All Wells
Concentration (mg/L)
24
22
20
18
16
14
12
10
8
6
4
2
0
N-137-90
N-139-90
N-140-93
N-141-93
N-145-93
N-149-97
Well ID


Box and Whisker Plot for Sodium
All Wells
Concentration (mg/L)
200
195
190
185
180
175
170
165
160
155
150
145
140
135
130
125
120
115
110
105
100
N-137-90
N-139-90
N-140-93
N-141-93
N-145-93
N-149-97
Well ID