DETECTION MONITORING PROGRAM
GROUNDWATER STATISTICAL ANALYSIS
QUARTERLY REPORT

SEPTEMBER 2014 SAMPLING EVENT

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TABLE OF CONTENTS

1.0 INTRODUCTION **1**
2.0 SITE BACKGROUND AND MONITORING NETWORK **1**
3.0 SITE HYDROGEOLOGY **2**
4.0 STATISTICAL PROCEDURES **3**
4.1 Background Outliers 3
4.2 Screening for Statistical Trends 3
4.3 Intra-Well Prediction Limits 4
4.4 Statistical Trends in Exceeding Constituents 6
5.0 STATISTICAL RESULTS SUMMARY **6**
6.0 REVISED STATISTICAL ANALYSIS PLAN **7**

TABLES

Table 1 ..... Detection Monitoring Wells – September 2014
Table 2 ..... Prediction Limit Exceedances – September 2014
Table 3 ..... Summary of VOC Detections at 114-AS
Table 4 ..... Summary of VOC Detections at 104-SS and 104-SD

APPENDICES

Appendix A ..... Statistical Power Curves
Appendix B ..... Potentiometric Surface Map
Appendix C ..... Alluvial Zone Statistical Evaluations
Appendix D ..... St. Louis Formation Statistical Evaluations
Appendix E ..... Salem Formation Statistical Evaluations
Appendix F ..... Laboratory Analytical Report

1.0 INTRODUCTION

On behalf of the Bridgeton Landfill, LLC - Bridgeton Landfill, Herst & Associates, Inc. has prepared this Detection Monitoring Program (DMP) Groundwater Statistical Analysis Quarterly Report for the September 2014 groundwater monitoring event. The September 2014 sampling was conducted by Herst & Associates, Inc. Laboratory analytical testing was performed by Pace Analytical Services, Inc. (Pace). The statistical evaluations were performed using the statistical analysis software package, *Sanitas*™, which follows a documented decision logic that incorporates the United States Environmental Protection Agency (USEPA's) *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance* (March 2009).

2.0 SITE BACKGROUND AND MONITORING NETWORK

Herst & Associates, Inc. statistically evaluated constituents from the September 2014 monitoring event using intra-well prediction limits. Prediction limits are considered a powerful tool for groundwater statistical analysis, when feasible, due to their inherent low false negative and false positive rates utilizing confirmatory resampling, if necessary.

There are three hydrostratigraphic zones that are statistically evaluated at the site. These zones are described in **Section 3** of this report. **Table 1** lists the wells analyzed in this report as well as the monitoring zone of each well. Each well is located hydraulically upgradient of the landfill, which is designed to maintain an inward hydraulic gradient. The background data utilized for this report includes samples collected from January 1997 through the previous monitoring event (May 2014).

Pursuant to Missouri Department of Natural Resources (MDNR) correspondence dated April 3, 2007, the facility has prepared statistical power curve graphs to allow MDNR to perform comparisons between the current DMP and USEPA-recommended standards. Under USEPA's *Unified Guidance*, intra-well prediction limits are constructed to have a site-wise false positive rate (SWFPR) of 10% annually, or 5% per event for a semi-annually sampled facility. Based on the smallest pre-screening background size of $n = 33$ for a parametric intra-well prediction limit in the Alluvial Zone, the power of the monitoring program is approximately 95% at 3 standard deviations and 99% at 4 standard deviations. Based on the smallest pre-screening background size of $n = 36$ for a non-parametric intra-well prediction limit in the Alluvial Zone, the power of the program is approximately 65% at 3 standard deviations and 90% at 4 standard deviations. Based on the smallest pre-screening background size of $n = 32$ for a parametric intra-well prediction limit in the St. Louis Zone, the power of the program is approximately 85% at 3 standard deviations and 99% at 4 standard deviations. Based on the smallest pre-screening background size of $n = 31$ for a non-parametric intra-well prediction limit in the St. Louis Zone, the power of the program is approximately 65% at 3 standard deviations and 90% at 4 standard deviations. Based on the smallest pre-screening background size of $n = 31$ for a parametric intra-well prediction limit in the Salem Zone, the power of the program is approximately 90% at 3 standard deviations and 99% at 4 standard deviations. Based on the smallest pre-screening background size of $n = 34$ for a non-parametric intra-well prediction limit in the Deep Salem Zone, the power of the program is approximately 65% at 3 standard deviations and 90% at 4 standard deviations. **Appendix A** presents the power curve graph for the facility's monitoring program. As the size of the background period increases, the statistical power will likewise increase.

A full suite of sample bottles was collected from each well during the September 2014 event. Field duplicates were collected at wells 104-SD and 105-SS. A field blank sample was also collected at well 104-SD. One trip blank was shipped to the laboratory with the samples.

For all constituents where both the original and duplicate results were greater than five times the reporting limit (RL), the results exhibited a relative percent difference (RPD) less than 20%. For constituents where the original and/or duplicate results were less than five times the RL, the following had results that exhibited a difference greater than the RL:

- 4-Methylphenol at PZ-104-SD: The original and duplicate sample concentrations were 21 ug/L and 240 ug/L, respectively, indicating a difference of 219 ug/L, which is greater than the lowest RL of 10 ug/L. There were no quality control issues directly associated with the 4-methylphenol results.

- Acetone at PZ-104-SD: The original and duplicate sample concentrations were 11 ug/L and 23 ug/L, respectively, indicating a difference of 13 ug/L, which is greater than the RL of 10 ug/L. There were no quality control issues directly associated with the acetone results.

- Phenol at PZ-104-SD: The original and duplicate sample concentrations were <10 ug/L and 26 ug/L, respectively, indicating a difference of 16 ug/L, which is greater than the RL of 10 ug/L. There were no quality control issues directly associated with the phenol results.

- Chemical Oxygen Demand (COD) at PZ-105-SS: The original and duplicate sample concentrations were <10 mg/L and 24 mg/L, respectively, indicating a difference of 14 mg/L, which is greater than the RL of 10 mg/L. Matrix spike (MS) and Matrix spike duplicate (MSD) results associated with the original sample did not meet laboratory control limits. The original sample result was therefore estimated.

3.0 SITE HYDROGEOLOGY

The hydrogeologic setting for the facility was defined in a *Hydrogeologic Characterization Report* (1995), a *Groundwater Monitoring Plan* (1995), a *Physical Characterization Technical Memorandum* (1996), and a *Site Characterization Summary Report* (1997), all by Golder Associates, Inc. According to the above-mentioned reports, three general hydrostratigraphic zones are identifiable at the Bridgeton Landfill.

Alluvium

This zone consists of alluvium and loess. The loess was picked up from braided glacial melt-out drainages. The thickness of the loess deposits is greatest in the eastern regions of the drainages and diminishes rapidly to the west. Thus, the bluffs and hills immediately east of the site are composed of loess deposits up to 80 feet thick. Loess was identified in deposits from 13 to 22 feet thick along the eastern edge of the landfill.

Loess is not commonly present along the western portion of the landfill. Where encountered, the loess deposits in the western portion of the site were about 10 to 15 feet thick. The alluvial deposits along the western edge of the site range in thickness up to about 120 feet. Alluvial deposits at the site typically consist of clay and silt materials overlying sands and gravels.

St. Louis Formation

The St. Louis Formation is the uppermost bedrock formation at the site. The St. Louis Formation is a limestone and dolomite. The depth to the top of the St. Louis Formation ranges from about 14 to 52 feet below ground surface along the western edge of the landfill. The top of the St. Louis Formation ranges between 425 and 460 feet MSL elevation in the eastern portion of the

site, and between 379 and 422 feet MSL elevation in the western portion of the site. This variation reflects the buried edge of the Missouri River valley and limestone bluffs upon which the quarry was sited. The thickness of the St. Louis Formation ranges from about 65 to 130 feet.

The Salem Formation

The Salem Formation is a limestone. Interbedded dolomite layers are common, and chert clasts, nodules, and layers are scattered throughout the formation at varying frequencies. The top of the Salem Formation is present at a depth of about 165 feet along the eastern edge of the landfill, at an elevation of about 320 feet MSL. Depth to the top of the Salem Formation along the western edge of the landfill ranges between 115 and 135 feet, with a corresponding elevation of about 328 to 340 feet MSL. The thickness of the Salem Formation is about 70 to 80 feet. The Salem Formation is adjacent to the lower portion of the landfill.

Appendix B presents a potentiometric surface map utilizing groundwater level data from the September 2014 monitoring event. Appendix B also includes a summary table of groundwater and leachate elevations, as well as the original leachate elevation data provided by Bridgeton Landfill.

4.0 STATISTICAL PROCEDURES

The *Sanitas*™ program was utilized to compile and statistically evaluate the data for the September 2014 monitoring event. Intra-well prediction interval analysis summary tables are presented in **Appendix C** for Alluvial Zone well 114-AS, **Appendix D** for the St. Louis Formation wells, and **Appendix E** for the Salem Formation wells.

4.1 Background Outliers

Prior to the determination of intra-well prediction limits, the background data were evaluated for the presence of statistical outliers. Where the background data size was $n < 20$, Dixon's outlier test was utilized with a Type I error rate of $\alpha = 0.05$, and where the background data size was $n \geq 20$, Rosner's outlier test was utilized with a Type I error rate of $\alpha = 0.01$. Dixon's and Rosner's tests are not appropriate for background data that are not normally or log-normally distributed. Accordingly, the data sets were evaluated for normality prior to outlier evaluation. The normality of background data was evaluated using the Shapiro-Wilk test with a Type I error rate of $\alpha = 0.1$ where $n < 10$, $\alpha = 0.05$ where $10 \leq n < 20$, and $\alpha = 0.05$ where $n \geq 20$. In those cases where the background data were determined to not be normally or log-normally distributed, outlier evaluation was not performed.

Statistical outliers identified by the outlier tests were removed from the background data prior to the determination of intra-well prediction limits. Outlier evaluation results are presented on the individual prediction limits graphs presented in **Appendices C, D,** and **E**.

4.2 Screening for Statistical Trends

Prior to the determination of intra-well prediction limits, the background data were evaluated for increasing statistical trends. Statistical trends were evaluated using the Mann-Kendall trend test at a confidence of 98% (Type I error rate of $\alpha = 0.01$ per tail). In those cases where the background data were determined to exhibit an increasing statistical trend (or either an increasing or decreasing statistical trend for field pH), the most recent background data were excluded until

the data no longer exhibited a statistical trend. For each constituent-well pair that exhibited an increasing statistical trend, this modified background data period was utilized in the determination of the intra-well prediction limit. Trend evaluation results, including a summary of the constituents-well pairs that utilized modified background data periods, are presented in **Appendices C, D,** and **E**.

4.3 Intra-Well Prediction Limits

The prediction limit is a statistical method used to compare a single observation to a group of observations. The prediction limit is calculated to include observations from the same population with a specified confidence. In groundwater monitoring, a prediction limit approach may be used to make comparisons between background and compliance data. The limit is developed to contain all future observations, within a certain probability. If any future observation exceeds the prediction limit, this is considered statistically significant evidence that the observation is not representative of background.

The background data were first evaluated for normality using the Shapiro-Wilk test with at Type I error rate of $\alpha = 0.1$ where $n < 10$, $\alpha = 0.05$ where $10 \leq n < 20$, and $\alpha = 0.05$ where $n \geq 20$. In those instances where the background data were not normally distributed, the data were transformed using each of the possible transformations in the "ladder of powers": $x^{1/2}$, x^2, $x^{1/3}$, x^3, $ln(x)$, x^4, x^5, x^6. Each transformed data set was then re-evaluated for normality. The first transformation that resulted in a normal distribution was utilized in the determination of the intra-well prediction limit.

In those instances where the background data were normal or transformed-normal and also consisted of less than 50% non-detects, a parametric intra-well prediction limit was determined. If 15% or less of the background data consisted of non-detects, the non-detects were replaced with concentrations equal to one-half of the reporting limit prior to the determination of parametric intra-well prediction limits. If greater than 15%, but less than 50% of the background data consisted of non-detects, then the mean and standard deviation utilized in the determination of the parametric intra-well prediction limit were estimated according to the Kaplan-Meier method.

In those instances where the background data were not normal or transformed-normal, or where the background data consisted of 50% or greater non-detects, a non-parametric intra-well prediction limit was determined.

Table 2 lists the prediction limit exceedances observed during the November 2014 event. Intra-well prediction limit summary tables and graphs are presented in **Appendices C**, **D**, and **E**.

During the September 2014 event, there were three results that exceeded their intra-well prediction limits in the Alluvial Zone: total arsenic, total phosphorus, and total organic carbon (TOC) at 114-AS.

Eighteen results exceeded their intra-well prediction limits in the St. Louis Formation: TOC at 100-SS; total calcium, chloride, total magnesium, sulfate, total dissolved solids (TDS), and TOC at 105-SS; chloride, total iron, total sodium, and TOC at 106-SS; TOC at 109-SS; TOC at 110-SS; total magnesium and TOC at 115-SS; TOC at 201A-SS; and nitrate/nitrite and TOC at 205-SS.

Twenty-eight results exceeded their intra-well prediction limits in the Salem Formation: TOC at 100-SD; total barium, chloride, total chromium, total magnesium, total sodium, field specific conductance, TDS, and TOC at 104-SD; ammonia, total barium, total boron, total calcium, COD, chloride, total chromium, total cobalt, total hardness, total iron, total magnesium, total nickel, total phosphorus, total sodium, field specific conductance, TDS, TOC, and total vanadium at 106-SD; and TOC at 111-SD.

Twenty-six of the forty-nine intra-well prediction limit exceedances observed during the September 2014 event had been observed during the previous event (May 2014): total arsenic and total phosphorus at 114-AS; total calcium, chloride, total magnesium, and sulfate at 105-SS; chloride and total iron at 106-SS; total manganese at 115-SS; total barium, chloride, total magnesium, total sodium, field specific conductance, and TDS at 104-SD; and total barium, total boron, total calcium, COD, chloride, total hardness, total iron, total magnesium, total phosphorus, TDS, and TOC at 106-SD.

Twenty-three new exceedances were observed during the September 2014 event: TOC at 114-AS; TOC at 100-SS; TDS and TOC at 105-SS; total sodium and TOC at 106-SS; TOC at 109-SS; TOC at 110-SS; TOC at 115-SS; TOC at 201A-SS; nitrate/nitrite and TOC at 205-SS; TOC at 100-SD; total chromium and TOC at 104-SD; ammonia, total chromium, total cobalt, total nickel, total sodium, field specific conductance, and total vanadium at 106-SD; and TOC at 111-SD. In accordance with MDNR correspondence to the Bridgeton Landfill, LLC dated October 23, 2003, the November 2014 event will be used to confirm the new exceedances.

The September 2014 event served as a confirmatory event for the new intra-well prediction limit exceedances that were observed during the May 2014 event. Twelve of the new exceedances that were observed during the May 2014 event were confirmed during the September 2014 event. The May 2014 exceedances that were not confirmed were: total barium at 105-SS, nitrate/nitrite at 106-SS, and total magnesium at 115-SS.

During the September 2014 event, 1,4-dichlorobenzene (5.9 ug/L), benzene (5.0 ug/L), and chlorobenzene (58 ug/L) were detected at well 114-AS. **Table 3** summarizes the historical VOC detections at 114-AS. As described in the MDNR's October 23, 2003 letter, VOC detections at upgradient well 114-AS appear to be related to the upgradient PM Resources, Inc. property.

During the September 2014 event, the following VOCs were detected at well 104-SD: acetone (11 ug/L), benzene (1,200 ug/L), ethylbenzene (13 ug/L), tetrahydrofuran (63 ug/L), toluene (34 ug/L), and total xylenes (25 ug/L). Detections of benzene and toluene were first observed at well 104-SD during the May 2012 event. Detections of ethylbenzene and total xylenes were first observed at 104-SD in November 2012. Detections of acetone were first observed at 104-SD in April 2013. Groundwater samples from 104-SD have not previously been analyzed for tetrahydrofuran during routine detection monitoring events. This constituent is being analyzed under an assessment monitoring program at 104-SD. VOC detections at 104-SD are summarized on **Table 4**. The confirmed VOC detections at 104-SD are currently being evaluated under the assessment monitoring program, as detailed in the December 17, 2013 *Assessment Monitoring Plan* (AMP).

During the September 2014 event, the following VOCs were detected at well 104-SS: 1,2,4-trimethylbenzene (6.3 ug/L), 1,4-dichlorobenzene (5.5 ug/L), benzene (1,500 ug/L), ethylbenzene (29 ug/L), p-isopropyltoluene (10 ug/L), PCB Aroclor 1221 (0.18 ug/L), tetrahydrofuran (2,000 ug/L), toluene (130 ug/L), and total xylenes (65 ug/L). Detections of 1,4-dichlorobenzene, benzene, ethylbenzene, toluene, and total xylenes were first observed at well 104-SS during the

November 2012 event. Groundwater samples from 104-SS have not previously been analyzed for 1,2,4-trimethylbenzene, p-isopropyltoluene, PCB Aroclor 112, or tetrahydrofuran during routine detection monitoring events. These constituents are being analyzed under an assessment monitoring program at 104-SS. VOC detections at 104-SS are summarized on **Table 4**. The confirmed VOC detections at 104-SS are currently being evaluated under the assessment monitoring program, as detailed in the AMP.

4.4 Statistical Trends in Exceeding Constituents

Each constituent that exceeded its intra-well prediction limit was evaluated for increasing statistical trends. Statistical trends were evaluated using the Mann-Kendall trend test at a confidence of 98% (Type I error rate of $\alpha = 0.01$ per tail).

Trend evaluation indicated that of the forty-nine constituents that exceeded intra-well prediction limits during the September 2014 monitoring event, twenty-five exhibited an upward statistical trend: total arsenic and total phosphorus at 114-AS; total calcium, chloride, total magnesium, sulfate, and TDS at 105-SS; chloride, total iron, and total sodium at 106-SS; TOC at 109-SS; TOC at 110-SS; total manganese and TOC at 115-SS; TOC at 205-SS; total barium, chloride, total magnesium, total sodium, field specific conductance, TDS, and TOC at 104-SD; ammonia and total barium at 106-SD; and TOC at 111-SD. Chloride, total sodium, field specific conductance, and TDS at 106-SD exhibited downward statistical trends.

Trend evaluation results for constituents that exceeded intra-well prediction limits are presented in **Appendices C**, **D**, and **E**. Also presented in **Appendices C**, **D**, and **E** are time series plots for each of the constituents that were statistically analyzed in this report.

5.0 STATISTICAL RESULTS SUMMARY

During the September 2014 monitoring event, there were three results that exceeded their respective intra-well prediction limits in the Alluvial Zone. Eighteen results exceeded their respective intra-well prediction limits in the St. Louis Formation. Twenty-eight results exceeded their respective intra-well prediction limits in the Salem Formation.

Twenty-three new exceedances were observed during the September 2014 event. The next sampling event (November 2014) will be used to confirm these new exceedances, pursuant to MDNR correspondence to the Bridgeton Landfill, LLC dated October 23, 2003.

The September 2014 event serves as a confirmatory event for the new intra-well prediction limit exceedances that were observed during the May 2014 event. Twelve of the exceedances that were observed during the May 2014 event were confirmed during the September 2014 event.

During the September 2014 event, 1,4-dichlorobenzene, benzene, and chlorobenzene were detected at well 114-AS. As described in the MDNR's October 23, 2003 letter, VOC detections at upgradient well 114-AS appear to be related to the upgradient PM Resources, Inc. property.

Pursuant to an October 23, 2003 letter from the MDNR, a groundwater demonstration report or assessment monitoring plan (AMP) may not be required for a well that exhibits a confirmed exceedance and upward trend for an inorganic constituent, unless the well also exhibits a confirmed organic constituent detection above the laboratory RL.

During the September 2014 event, well 104-SD exhibited confirmed exceedances and upward trends for inorganic constituents and also exhibited confirmed organic constituent detections. Total barium, chloride, total magnesium, total sodium, field specific conductance, and TDS exhibited confirmed exceedances and upward trends at 104-SD during the September 2014 event. Benzene, ethylbenzene, toluene, and total xylenes exhibited confirmed detections at 104-SD during the September 2014 event.

During the September 2014 event, well 104-SS exhibited confirmed organic constituent detections, but did not exhibit confirmed exceedances or upward trends for inorganic constituents. 1,4-Dichlorobenzene, benzene, ethylbenzene, toluene, and total xylenes exhibited confirmed detections at 104-SS during the September 2014 event.

Pursuant to Title 10 of the Missouri Code of State Regulations (CSR) 80-3.010 (11)(C)6.C the facility submitted an *Assessment Monitoring Plan* (AMP) on December 17, 2013 in response to the confirmed exceedances, upwards trends, and confirmed organic detections that were first observed at well 104-SD in November 2012 and at 104-SS in April 2013. In accordance with a July 30, 2014 comment letter from the MDNR and with an August 6, 2014 phone call between Mr. Andrew Wyatt of Herst & Associates, Inc. and Ms. Connie Rozycki of the MDNR, the facility performed the the first assessment monitoring event in September 2014, concurrently with the detection monitoring event. An *Assessment Monitoring Event Summary Report* for the September 2014 event was submitted to the MDNR on October 28, 2014.

Appendix F presents a copy of the laboratory analytical report for the September 2014 event.

6.0 REVISED STATISTICAL ANALYSIS PLAN

On November 23, 2010, the Bridgeton Landfill submitted a revised *Statistical Analysis Plan* to the MDNR. This Plan was intended to update and supersede the current statistical evaluation procedures at the facility, and was prepared according to the USEPA's *Unified Guidance* and recommendations provided by the MDNR. The Plan is currently under review by the MDNR. The statistical evaluation methods described in the Plan will be implemented following MDNR approval.

TABLES

TABLE 1 Detection Monitoring Wells – September 2014 BRIDGETON LANDFILL, LLC. – Bridgeton Landfill	
Zone	**Groundwater Wells**
Alluvial	114-AS
St. Louis Formation	100-SS, 104-SS, 105-SS, 106-SS, 109-SS 110-SS, 115-SS, 201A-SS, 205-SS
Salem Formation	100-SD, 104-SD, 106-SD, 111-SD

TABLE 2
Prediction Limit Exceedances – September 2014
BRIDGETON LANDFILL, LLC. – Bridgeton Landfill

Zone	Well	Parameter	Units	Result	Prediction Limit	Repeat from May 2014?	Trending?
Alluvial	114-AS	Arsenic, Total	mg/L	0.21	0.19	Yes	Increasing
		Phosphorus, Total	mg/L	1.9	1.7	Yes	Increasing
		Total Organic Carbon	mg/L	62	36	No	No
St. Louis Formation	100-SS	Total Organic Carbon	mg/L	31	2	No	No
	105-SS	Calcium, Total	mg/L	92	84	Yes	Increasing
		Chloride	mg/L	78	24	Yes	Increasing
		Magnesium, Total	mg/L	48	47	Yes	Increasing
		Sulfate	mg/L	80	54	Yes	Increasing
		Total Dissolved Solids	mg/L	580	540	No	Increasing
		Total Organic Carbon	mg/L	29	8	No	No
	106-SS	Chloride	mg/L	24	17	Yes	Increasing
		Iron, Total	mg/L	1.3	1.0	Yes	Increasing
		Sodium, Total	mg/L	18	17	No	Increasing
		Total Organic Carbon	mg/L	32	10	No	No
	109-SS	Total Organic Carbon	mg/L	31	6	No	Increasing
	110-SS	Total Organic Carbon	mg/L	66	29	No	Increasing
	115-SS	Manganese, Total	mg/L	0.073	0.019	Yes	Increasing
		Total Organic Carbon	mg/L	66	39	No	Increasing
	201A-SS	Total Organic Carbon	mg/L	33	2.8	No	No
	205-SS	Nitrate/Nitrite	mg/L	0.15	0.14	No	No
		Total Organic Carbon	mg/L	34	10	No	Increasing
Salem Formation	100-SD	Total Organic Carbon	mg/L	29	5	No	No
	104-SD	Barium, Total	mg/L	0.71	0.22	Yes	Increasing
		Chloride	mg/L	210	110	Yes	Increasing
		Chromium, Total	mg/L	0.013	0.012	No	No
		Magnesium, Total	mg/L	65	58	Yes	Increasing
		Sodium, Total	mg/L	150	32	Yes	Increasing
		Specific Condutance, Field	umhos/cm	1,457	1,400	Yes	Increasing
		Total Dissolved Solids	mg/L	1,100	760	Yes	Increasing
		Total Organic Carbon	mg/L	140	32	No	Increasing
	106-SD	Ammonia	mg/L	73	1.4	No	Increasing
		Barium, Total	mg/L	1.4	0.1	Yes	Increasing
		Boron, Total	mg/L	2.9	0.1	Yes	No
		Calcium, Total	mg/L	200	134	Yes	No
		Chemical Oxygen Demand	mg/L	940	230	Yes	No
		Chloride	mg/L	870	27	Yes	Decreasing
		Chromium, Total	mg/L	0.042	0.014	No	No
		Cobalt, Total	mg/L	0.012	0.005	No	No
		Hardness, Total	mg/L	1,300	584	Yes	No
		Iron, Total	mg/L	13	4	Yes	No
		Magnesium, Total	mg/L	190	63	Yes	No
		Nickel, Total	mg/L	0.06	0.01	No	No
		Phosphorus, Total	mg/L	0.19	0.17	Yes	No
		Sodium, Total	mg/L	560	59	No	Decreasing
		Specific Condutance, Field	mg/L	4,250	1,134	No	Decreasing
		Total Dissolved Solids	mg/L	3,200	698	Yes	Decreasing
		Total Organic Carbon	mg/L	370	76	Yes	No
		Vanadium, Total	mg/L	0.042	0.01	No	No
	111-SD	Total Organic Carbon	mg/L	30	6	No	Increasing

TABLE 3
Summary of VOC Detections at 114-AS
BRIDGETON LANDFILL, LLC. – Bridgeton Landfill

Sampling Date	Benzene (ug/L)	Chlorobenzene (ug/L)	1,4-Dichlorobenzene (ug/L)
8/25/1997	<5	7	<5
11/10/1997	<5	5.1	<5
2/16/1998	<5	<5	<5
5/27/1998	<5	<5	<5
11/12/1998	<5	7.2	<5
5/19/1999	<5	<5	<5
11/19/1999	<5	<5	<5
5/23/2000	<5	<5	<5
11/13/2000	<5	<5	<5
5/15/2001	<5	7.7	<5
11/7/2001	<5	5	<5
5/21/2002	<5	130	<5
7/24/2002*	NA	150	NA
11/19/2002	<5	120	5.5
5/28/2003	<5	110	6.2
11/20/2003	6.1	120	14
5/11/2004	5.4	130	18
11/17/2004	<5	96	11
5/25/2005	<5	102	12.2
11/30/2005	<5	120	16
5/23/2006	<5	95	17
11/8/2006	<5	87	12
5/17/2007	<5	76	8.7
11/7/2007	<5	95	11
5/7/2008	<5	64	9
11/5/2008	<5	72	9.4
5/8/2009	<5	43	<5
11/4/2009	<5	19	<5
5/20/2010	<5	24	<5
11/11/2010	<5	64	7
5/11/2011	<5	17	<5
11/18/2011	<5	14	<5
5/10/2012	<5	9.6	<5
11/27/2012	<5	42	<5
4/8/2013	8.9	86	5.4
10/8/2013	<5	69	6.3
5/28/2014	6.7	68	6.5
9/23/2014	5.0	58	5.9

Notes

* Denotes a confirmation sampling event.

NA: Not analyzed. 1,4-Dichlorobenzene and benzene were not detected during the previous event, and confirmation was not required.

As described in an October 23, 2003 letter from the MDNR, VOC detections at upgradient well 114-AS appear to be related to the upgradient PM Resources, Inc. property.

TABLE 4
Summary of VOC Detections at 104-SS and 104-SD
BRIDGETON LANDFILL, LLC. – Bridgeton Landfill

PZ-104-SS

Constituent	5/11/12		11/27/12		4/11/13		10/9/2013		5/28/2014		9/24/2014	
	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
1,2-Dichloroethane	ND	5.0	20	5.0	43 / 41	5.0	43 / 42	5.0	ND	5.0	ND	5.0
1,2,4-Trimethylbenzene	*	*	*	*	*	*	*	*	*	*	6.3	5.0
1,4-Dichlorobenzene	ND	5.0	8.2	5.0	6.3 / 6.8	5.0	7.5 / 7.1	5.0	6.8	5.0	5.5	5.0
2-Hexanone	ND	10	ND	10	72 / 68	10	52 / 54	10	ND	10	ND	10
4-Methyl-2-Pentanone	ND	10	63	10	220 / 210	10	210 / 210	10	ND	10	ND	10
Benzene	ND	5.0	1,100	50	2,400 / 2,500	100	2,200 / 2,100	50	1,200	25	1,500	50
Chloroethane	ND	10	ND	10	11 / ND	10	ND / ND	10	ND	10	ND	10
Ethylbenzene	ND	5.0	18	5.0	26 / 27	5.0	35 / 34	5.0	24	5.0	29	5.0
Methyl Ethyl Ketone	ND	10	ND	10	110 / 98	10	ND	10	ND	10	ND	10
p-Isopropyltoluene	*	*	*	*	*	*	*	*	*	*	10	10
PCB Aroclor 1221	*	*	*	*	*	*	*	*	*	*	0.18	0.1
Tetrahydrofuran	*	*	*	*	*	*	*	*	*	*	2,000	700
Toluene	ND	5.0	78	5.0	140 / 140	100	150 / 160	50	87	5.0	130	5.0
Xylenes, Total	ND	5.0	48	5.0	66 / 69	5.0	78 / 76	5.0	59	5.0	65	5.0

PZ-104-SD

Constituent	5/11/12		11/27/12		4/11/13		10/7/2013		5/28/2014		9/24/2014	
	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
1,2-Dichloroethane	ND	5.0	6.7 / 6.4	5.0	24	5.0	ND	5.0	ND / ND	5.0	ND / ND	5.0
1,4-Dichlorobenzene	ND	5.0	6.0 / 6.2	5.0	ND	5.0	5.4	5.0	ND / ND	5.0	ND / ND	5.0
2-Hexanone	ND	10	ND / ND	10	ND	10	19	10	ND / ND	10	ND / ND	10
4-Methyl-2-Pentanone	ND	10	ND / ND	10	ND	10	47	10	ND / ND	10	ND / ND	10
Acetone	ND	10	ND / ND	10	59	10	3,000	100	ND / ND	10	11 / 23	10
Benzene	57	5.0	350 / 330	10	1,000	100	920	10	1,300 / 1,300	25	1,200 / 1,200	20
Ethylbenzene	ND	5.0	11 / 11	5.0	24	5.0	18	5.0	20 / 20	5.0	13 / 13	5.0
Methyl Ethyl Ketone	ND	10	ND / ND	10	37	10	1,900	100	ND / ND	10	ND / ND	10
p-Cresol	*	*	*	*	*	*	*	*	*	*	21 / 240	10 / 100
Phenol	*	*	*	*	*	*	*	*	*	*	ND / 26	10
Tetrahydrofuran	*	*	*	*	*	*	*	*	*	*	63 / 58	25
Toluene	4.4	5.0	140 / 130	10	1,800	100	250	10	73 / 73	5.0	34 / 33	5.0
Xylenes, Total	ND	5.0	31 / 32	5.0	58	5.0	42	5.0	46/ 48	5.0	25 / 25	5.0

Notes

All concentrations presented in units of ug/L.

Duplicate sample results are presented alongside original sample (e.g., <5 / <5).

ND: Constituent not detected above the labroatory method detection limit (MDL)

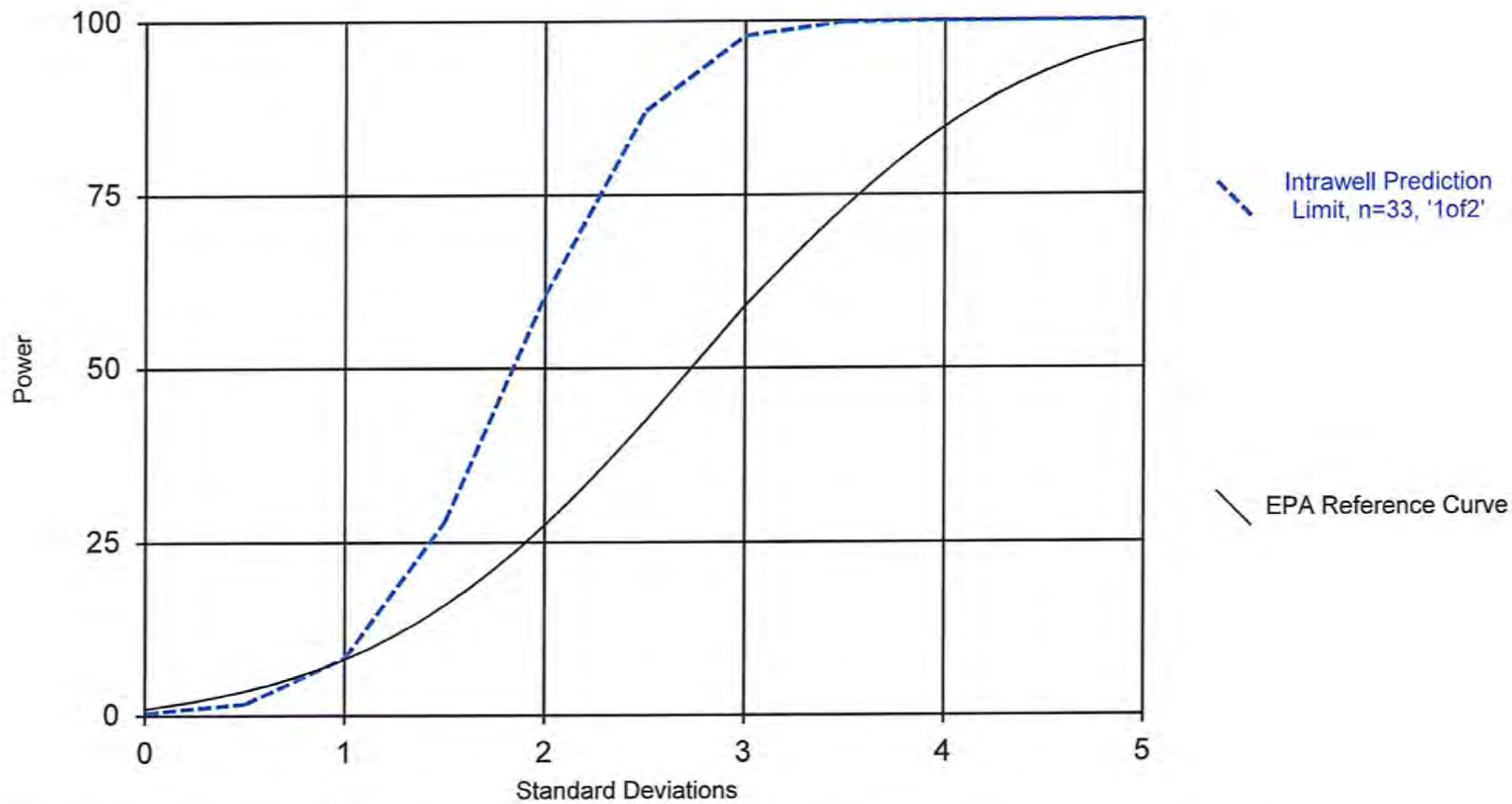
* Detection monitoring wells not analyzed for this constituent during routine detection monitoring events.

Constituent detected at or above the RL.

APPENDICES

APPENDIX A
STATISTICAL POWER CURVES

Power Curve

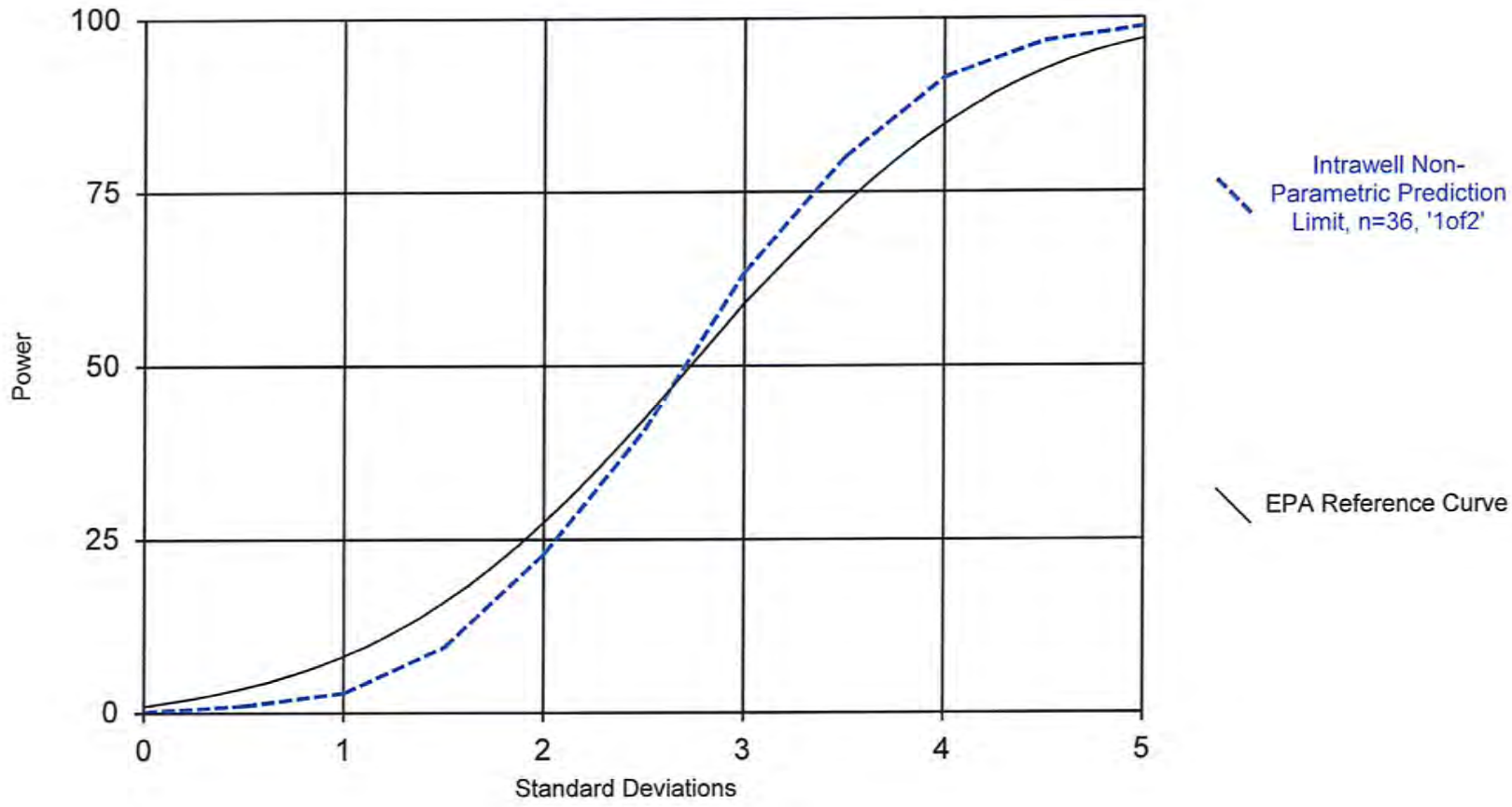


Kappa = 2.115, based on 1 compliance well and 34 constituents, evaluated quarterly (this report reflects annual total).

Analysis Run 11/24/2014 3:20 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

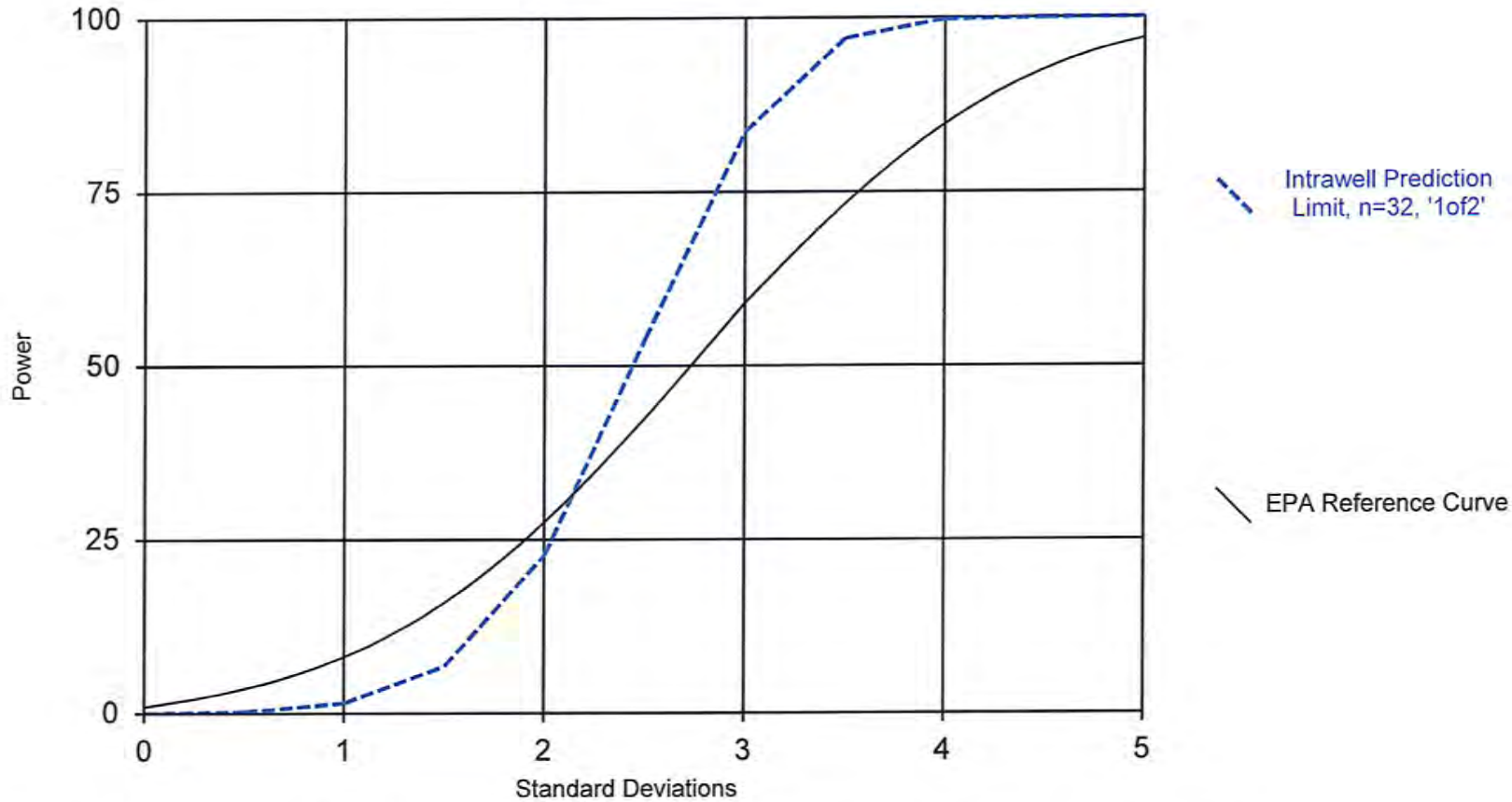
Power Curve



Analysis Run 11/24/2014 3:21 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Power Curve

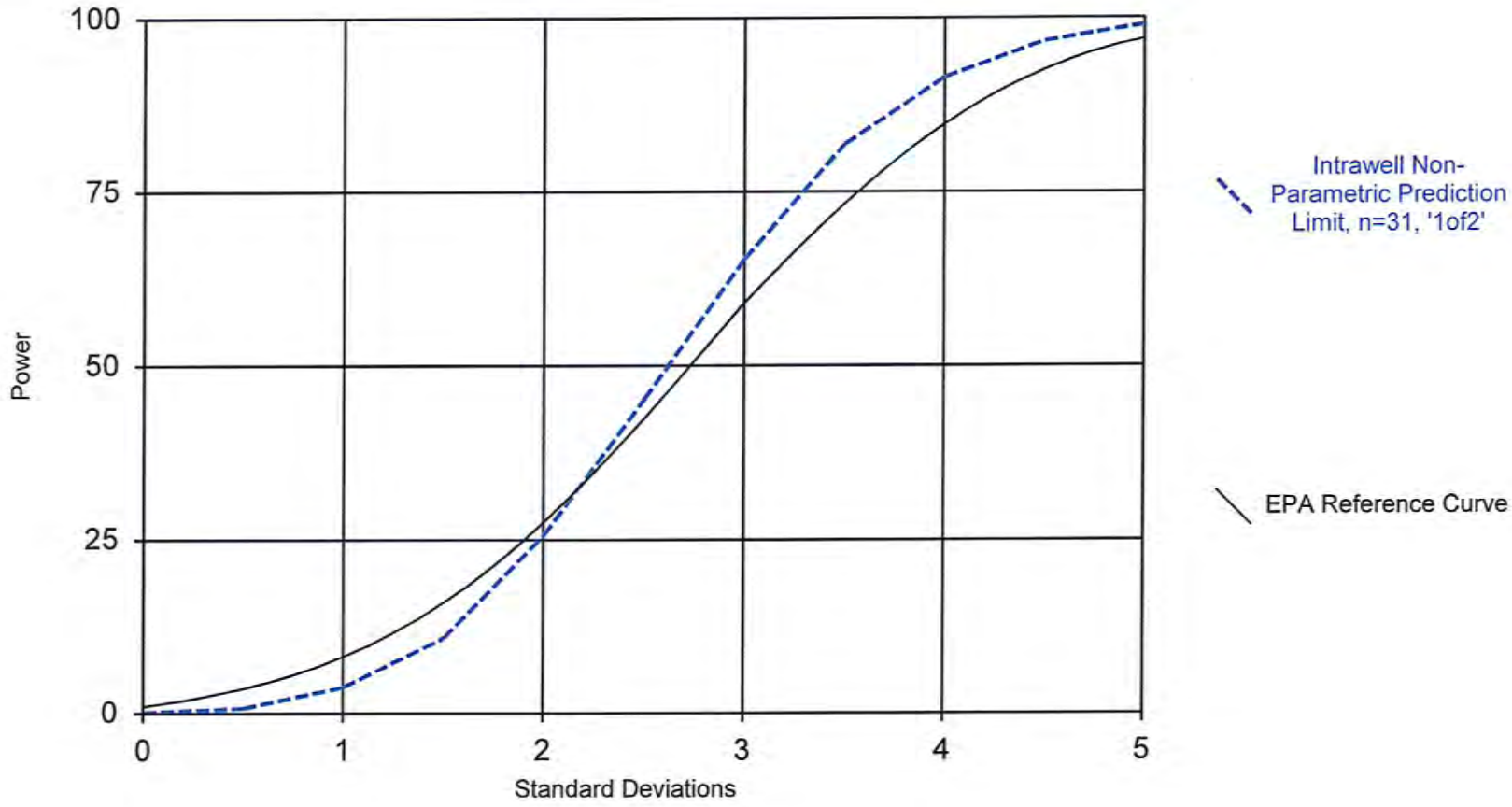


Kappa = 2.7, based on 9 compliance wells and 34 constituents, evaluated quarterly (this report reflects annual total).

Analysis Run 11/24/2014 3:24 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

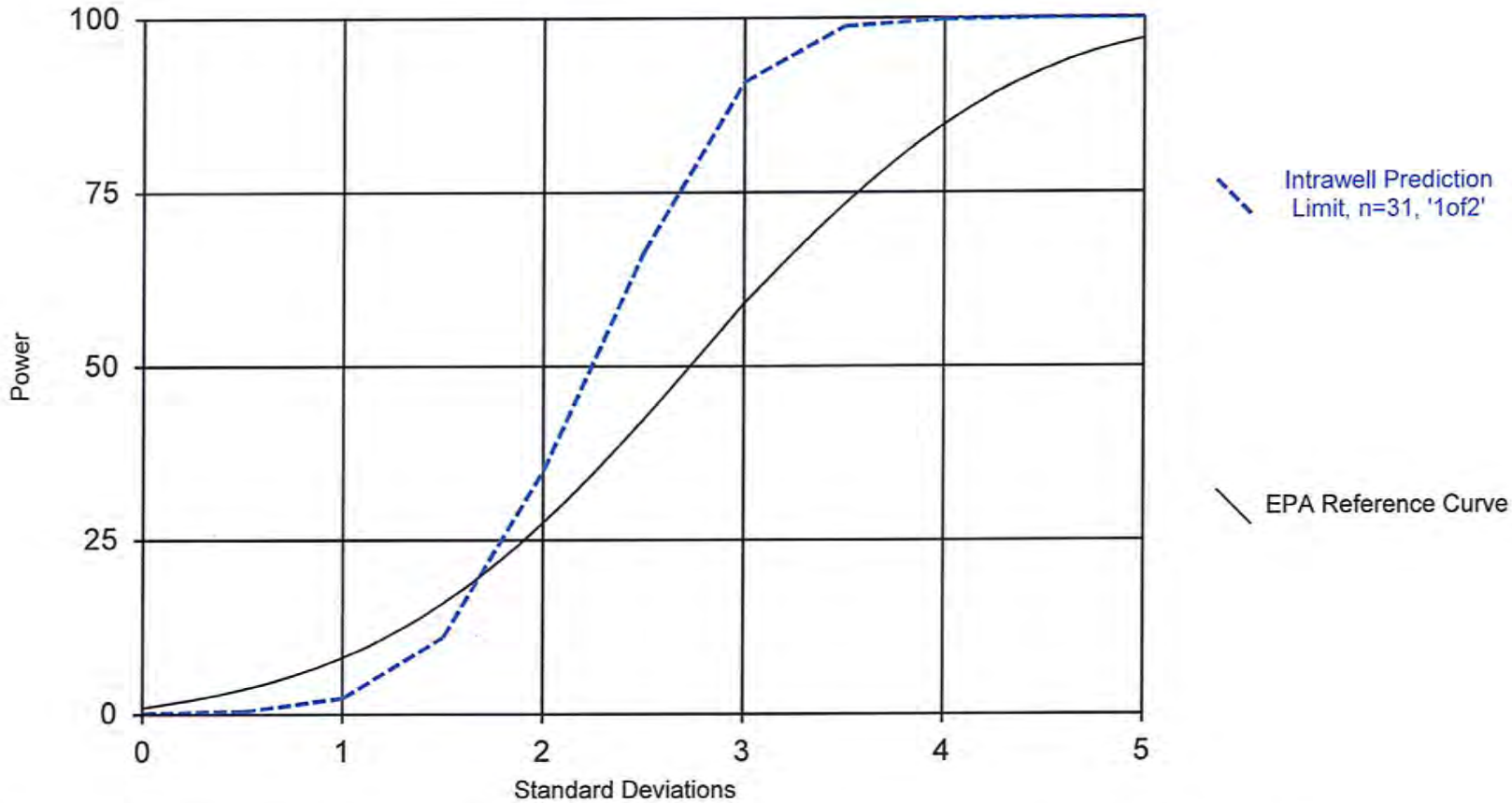
Power Curve



Analysis Run 11/24/2014 3:24 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Power Curve



Kappa = 2.504, based on 4 compliance wells and 34 constituents, evaluated quarterly (this report reflects annual total).

Analysis Run 11/24/2014 3:26 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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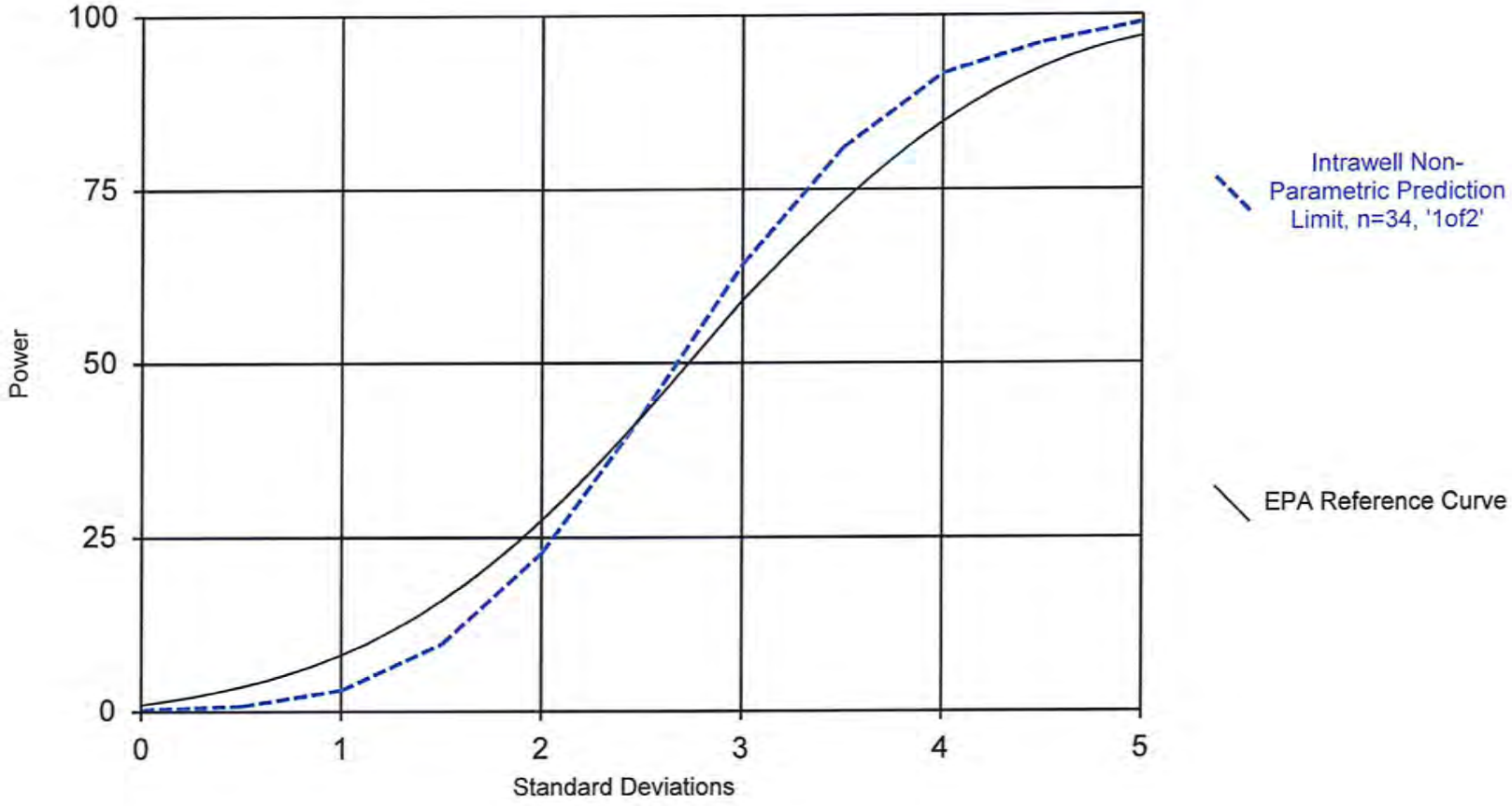
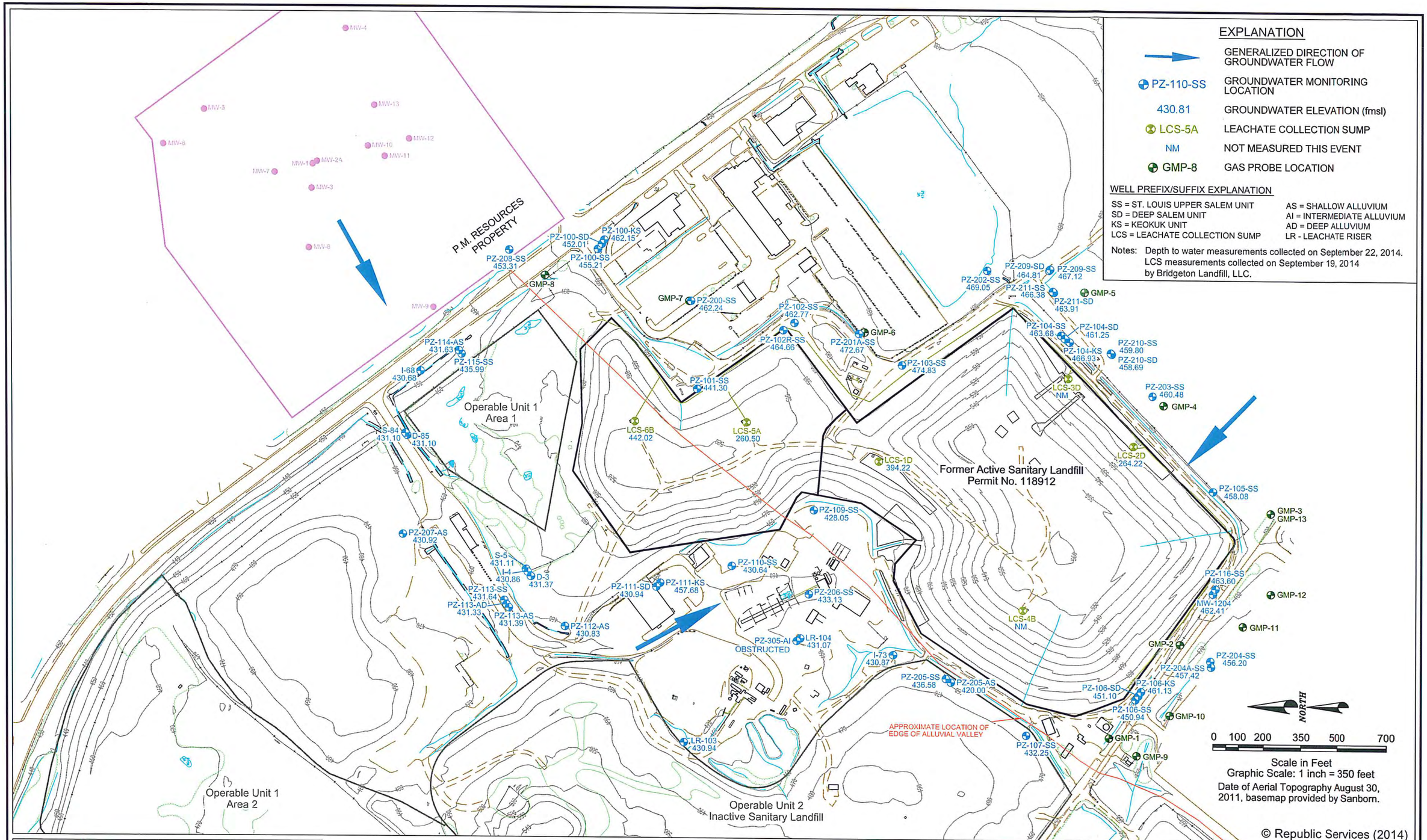
Power Curve



Analysis Run 11/24/2014 3:26 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

APPENDIX B
POTENTIOMETRIC SURFACE MAP



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HERST & ASSOCIATES, INC.®

Bridgeton Landfill, LLC
Bridgeton, Missouri

September 2014
Potentiometric Surface Map

Groundwater Elevation Summary Table
Bridgeton Landfill, LLC

Well	Top of PVC Casing Elevation (fmsl)	Depth to Water (ft)	Groundwater Elevation (fmsl)
D-3	468.74	37.37	431.37
D-85	457.67	26.57	431.10
I-4	466.14	35.28	430.86
I-68	450.60	19.92	430.68
I-73	462.39	31.52	430.87
LR-103	470.64	39.70	430.94
LR-104	459.52	28.45	431.07
MW-1204	485.76	23.35	462.41
PZ-100-KS	486.36	24.21	462.15
PZ-100-SD	486.49	34.48	452.01
PZ-100-SS	486.55	31.34	455.21
PZ-101-SS	491.56	50.26	441.30
PZ-102R-SS	486.45	21.79	464.66
PZ-102-SS	484.65	21.88	462.77
PZ-103-SS	484.21	9.38	474.83
PZ-104-KS	484.60	17.67	466.93
PZ-104-SD	484.15	22.90	461.25
PZ-104-SS	484.00	20.32	463.68
PZ-105-SS	484.04	25.96	458.08
PZ-106-KS	464.73	3.60	461.13
PZ-106-SD	463.84	12.74	451.10
PZ-106-SS	463.11	12.17	450.94
PZ-107-SS	465.41	33.16	432.25
PZ-108-SS	*	*	*
PZ-109-SS	458.55	30.50	428.05
PZ-110-SS	461.46	30.82	430.64
PZ-111-KS	465.80	8.12	457.68
PZ-111-SD	466.57	35.66	430.91
PZ-112-AS	462.53	31.70	430.83
PZ-113-AD	462.24	30.91	431.33
PZ-113-AS	462.19	30.80	431.39
PZ-113-SS	462.66	31.02	431.64
PZ-114-AS	452.14	20.51	431.63
PZ-115-SS	452.90	16.91	435.99
PZ-116-SS	486.44	22.84	463.60
PZ-200-SS	486.23	23.99	462.24
PZ-201A-SS	482.33	9.66	472.67
PZ-202-SS	481.82	12.77	469.05
PZ-203-SS	487.19	26.71	460.48
PZ-204A-SS	463.09	5.67	457.42
PZ-204-SS	465.28	9.08	456.20
PZ-205-AS	465.06	45.06	420.00
PZ-205-SS	466.68	30.10	436.58
PZ-206-SS	465.24	32.11	433.13
PZ-207-AS	462.65	31.73	430.92
PZ-208-SS	475.19	21.88	453.31
PZ-209-SS	489.68	22.56	467.12
PZ-209-SD	489.58	24.77	464.81
PZ-210-SS	486.90	27.10	459.80
PZ-210-SD	487.00	28.31	458.69
PZ-211-SS	487.41	21.03	466.38
PZ-211-SD	487.46	23.55	463.91
PZ-305-AI	464.44	Obstructed	Obstructed
S-5	466.63	35.52	431.11
S-84	457.45	26.35	431.10

Leachate Elevation Summary Table
Bridgeton Landfill, LLC

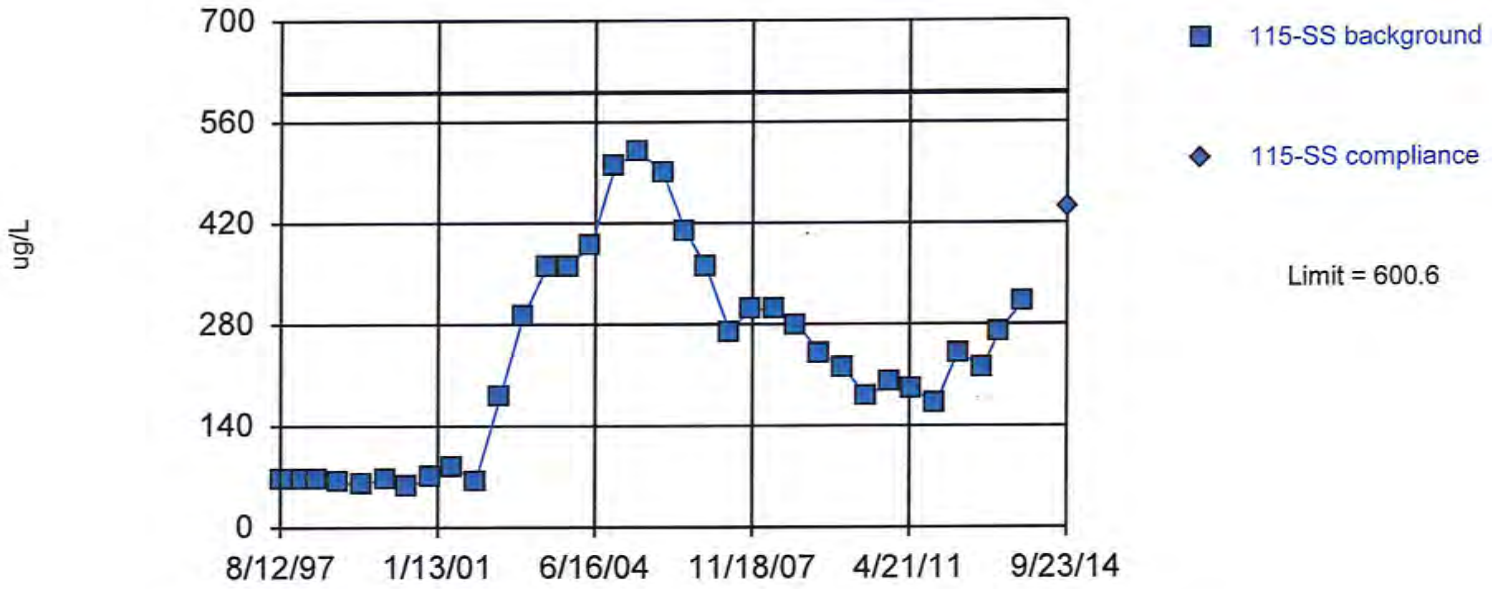
Sump Designation	Measured Height Above Transducer / Below Top of Casing (ft)	Sump Depth (ft)	Transducer / Bubbler Set Point From Bottom (ft)	Base of Sump Elevation (fmsl)	Depth to Liquid (ft)	Height of Leachate (ft)	Elevation of Leachate (fmsl)
LCS #1D	45.00	NA	97.00	252.22	NA	142.00	394.22
LCS #2D	13.90	NA	14.40	235.92	NA	28.30	264.22
LCS #3D	NA	140.00	NA	NA	NA	NA	NA
LCS #4B	NA	NA	12.00	256.60	NA	NA	NA
LCS #5A	10.10	NA	15.00	235.40	NA	25.10	260.50
LCS #6B	4.10	NA	9.40	428.52	NA	13.50	442.02

Notes:
Well top of casing elevations are from surveys performed: 8/13, 8/21-22, 8/29, and 8/31/12; 10/21-22/13; and 9/15/14.
Note: Hersi & Associates, Inc. performed depth to groundwater measurements on 9/22/14.
** Well PZ-108-SS removed between May and November 2012 due to overlap with landfill construction activities.*
Bridgeton Landfill personnel performed depth to leachate measurements on 9/19/14.
NA: Not applicable. Leachate height measurements at LCS #1D, LCS #2D, LCS #3D, LCS #4B, LCS #5A, LCS #6B measured from the set point of a dedicated pump / transducer via controller box.
The transducer at LCS #3D was not operational during the 9/19/14 leachate level event and is scheduled for replacement.
LCS #4B was not operational during the 9/19/14 leachate level event.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=228, Std. Dev.=139.9, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9107, critical = 0.91. Kappa = 2.664 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Barium Total Analysis Run 11/20/2014 3:14 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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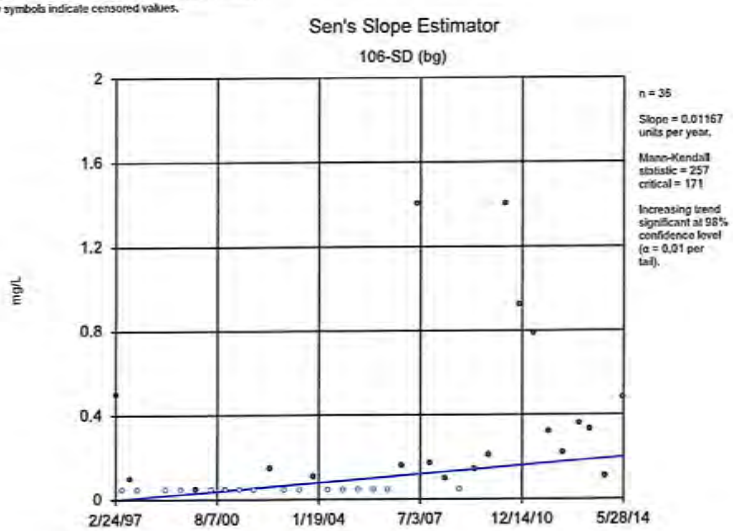
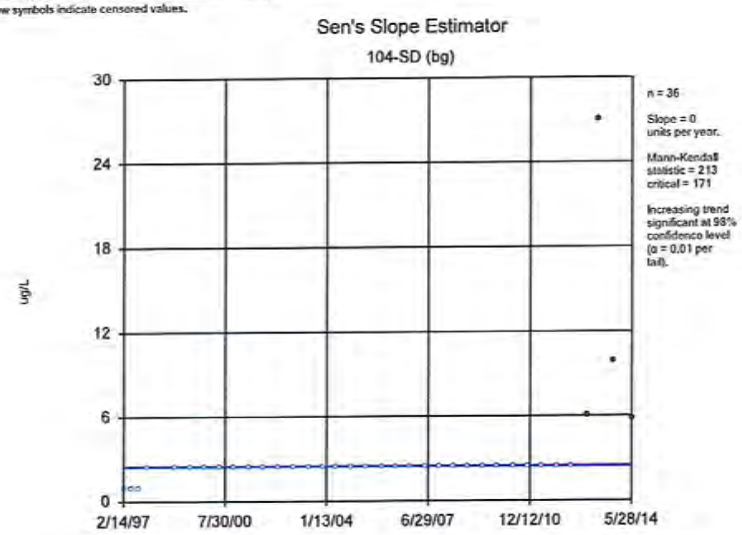
Hollow symbols indicate censored values.



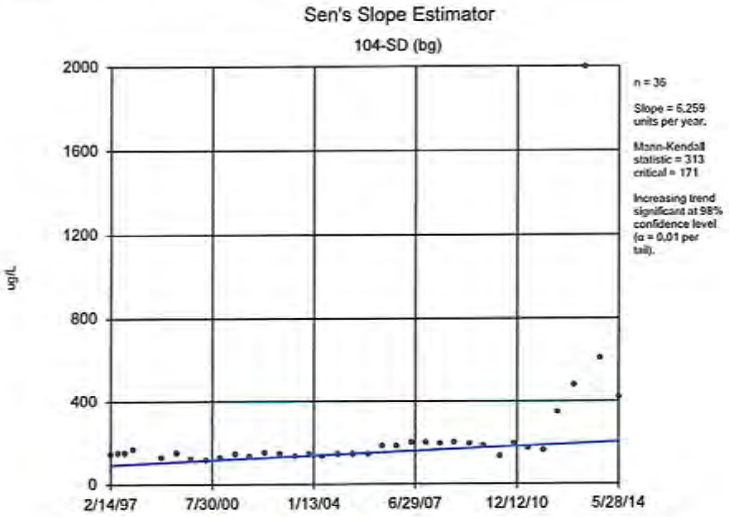
Constituent: Ammonia as N Analysis Run 11/20/2014 10:06 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



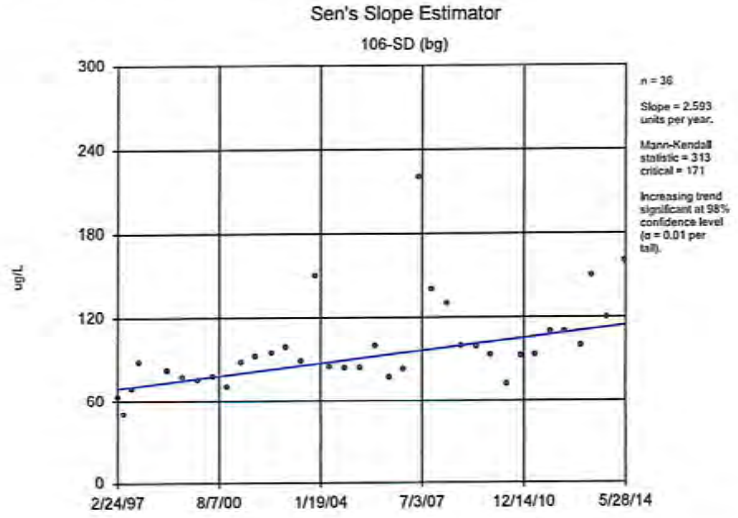
Constituent: Arsenic Total Analysis Run 11/20/2014 10:06 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



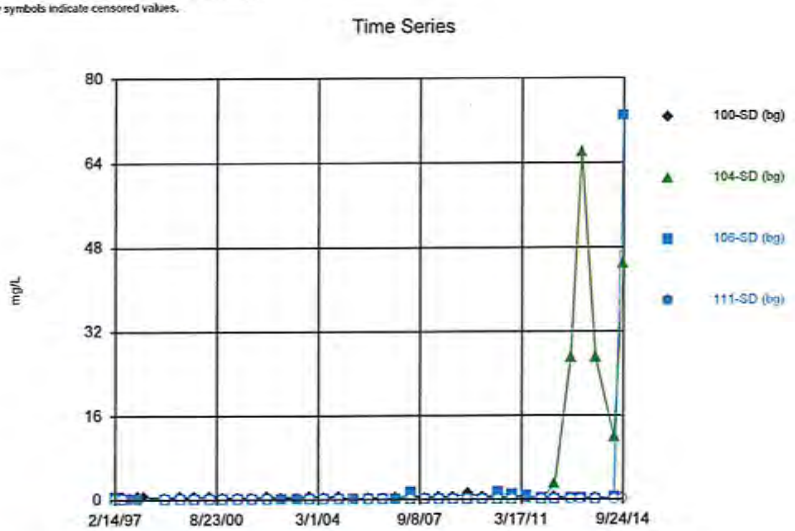
Constituent: Barium Total Analysis Run 11/20/2014 10:06 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



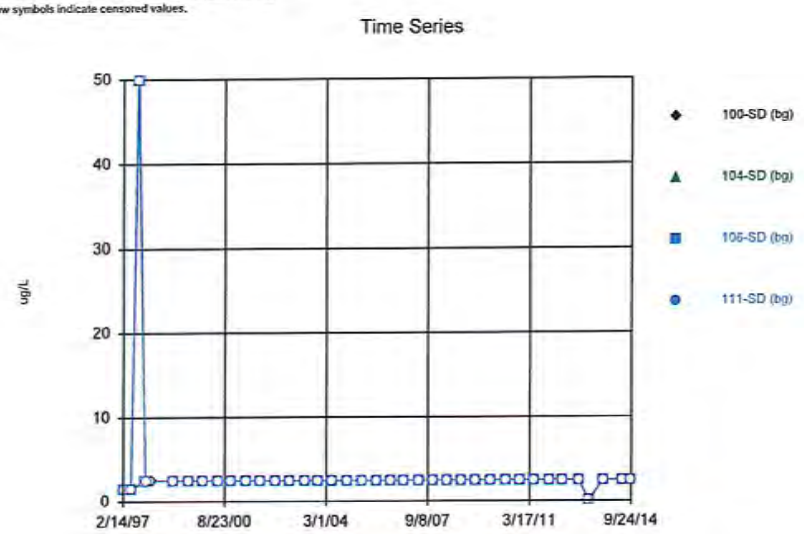
Constituent: Barium Total Analysis Run 11/20/2014 10:06 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



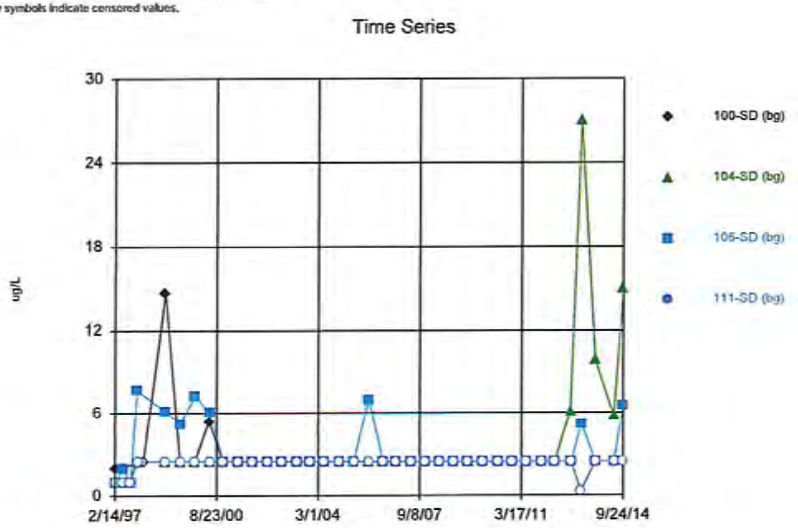
Constituent: Ammonia as N Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



Constituent: Antimony Total Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



Constituent: Arsenic Total Analysis Run 11/24/2014 10:37 AM
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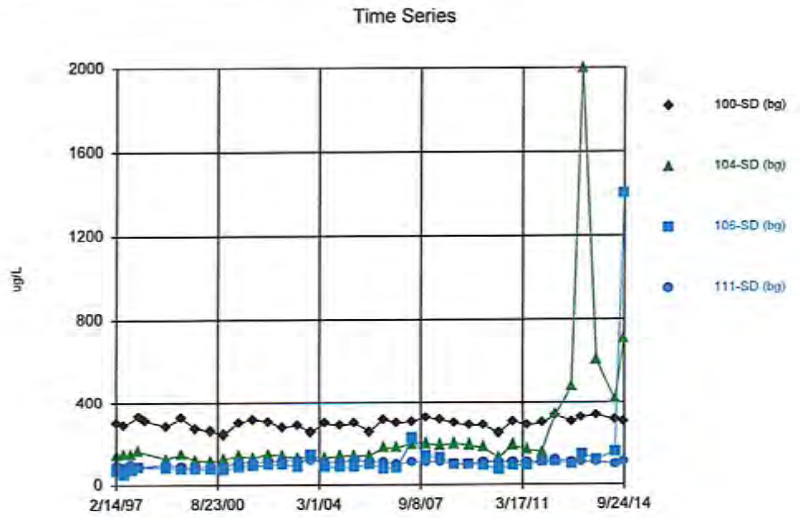
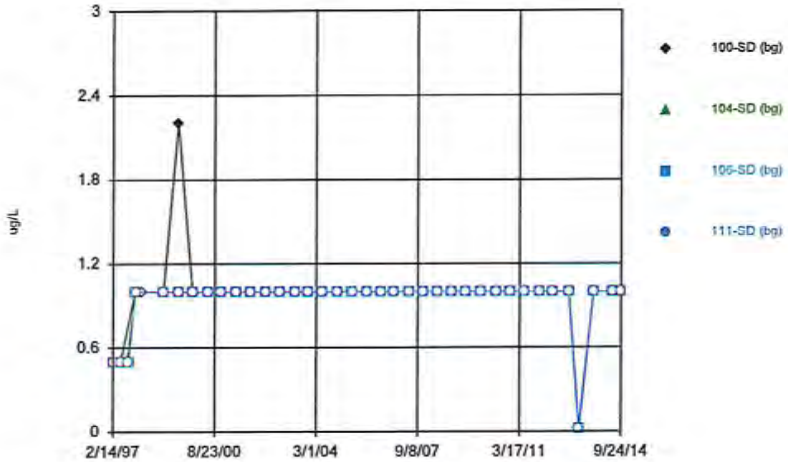


Constituent: Barium Total Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Total Analysis Run 11/24/2014 10:37 AM
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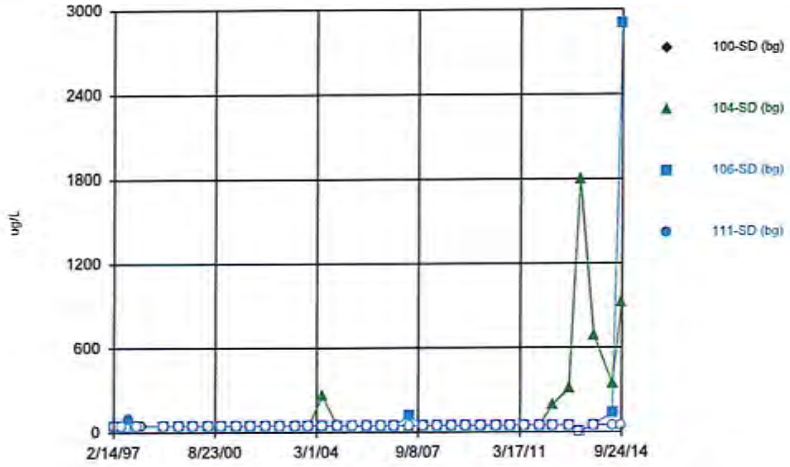
Hollow symbols indicate censored values.

Time Series



Constituent: Boron Total Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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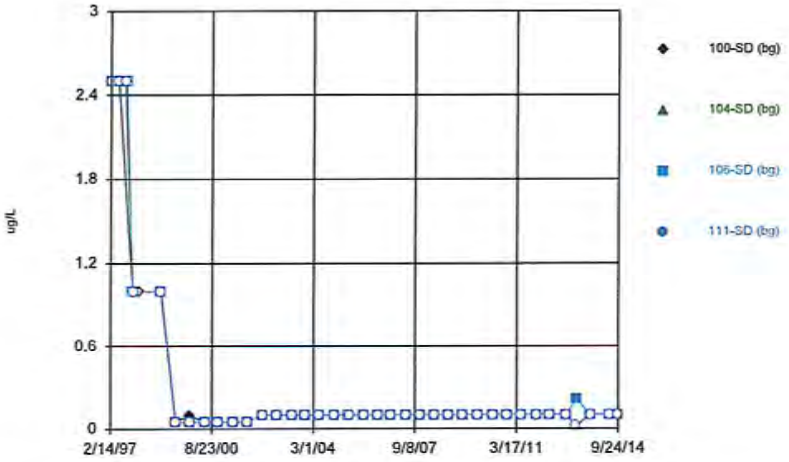
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Total Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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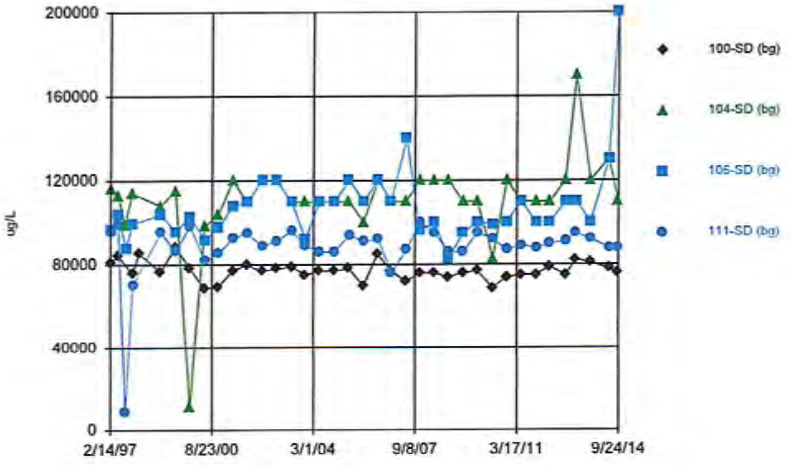
Time Series



Constituent: Calcium Total Analysis Run 11/24/2014 10:37 AM
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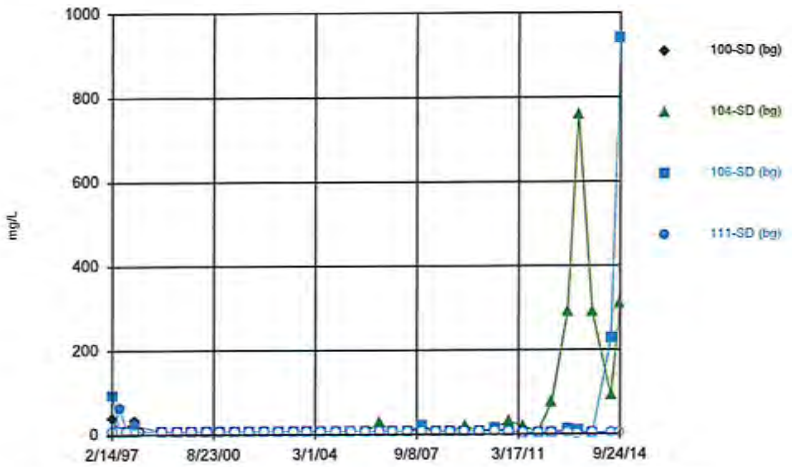
Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

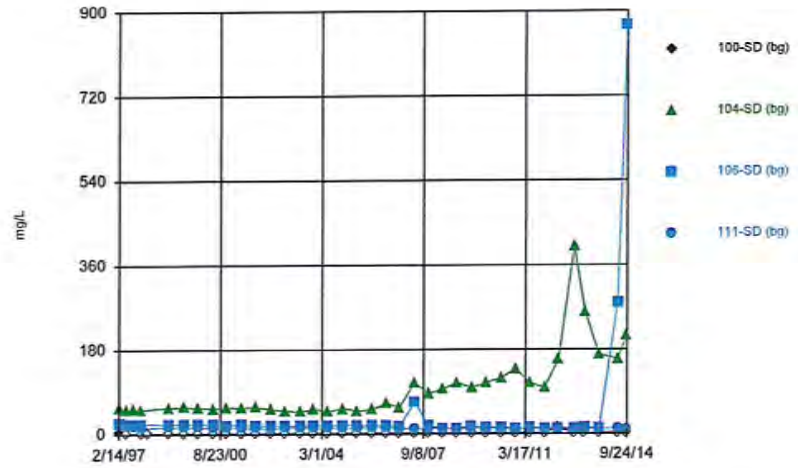
Time Series



Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Time Series



Constituent: Chloride Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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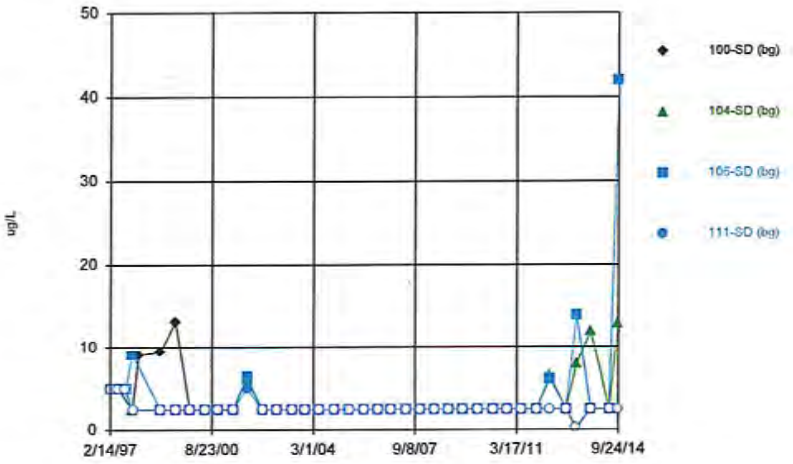
Hollow symbols indicate censored values.

Time Series



Constituent: Chromium Total Analysis Run 11/24/2014 10:37 AM
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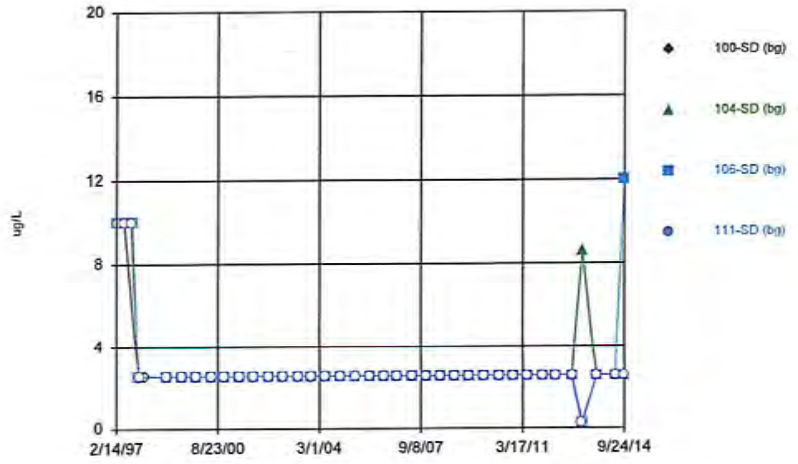
Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Total Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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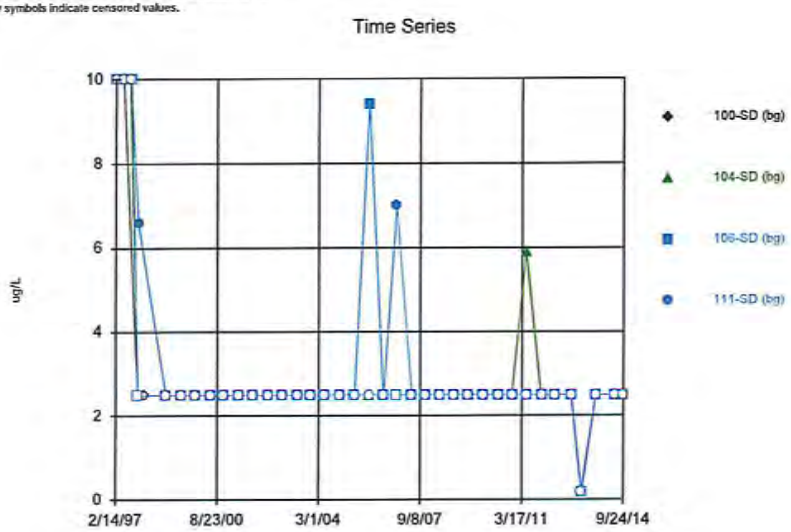
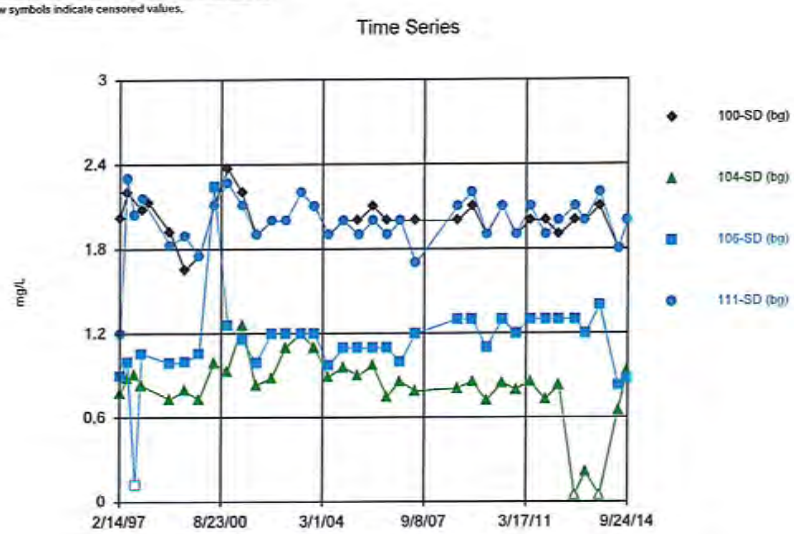
Hollow symbols indicate censored values.



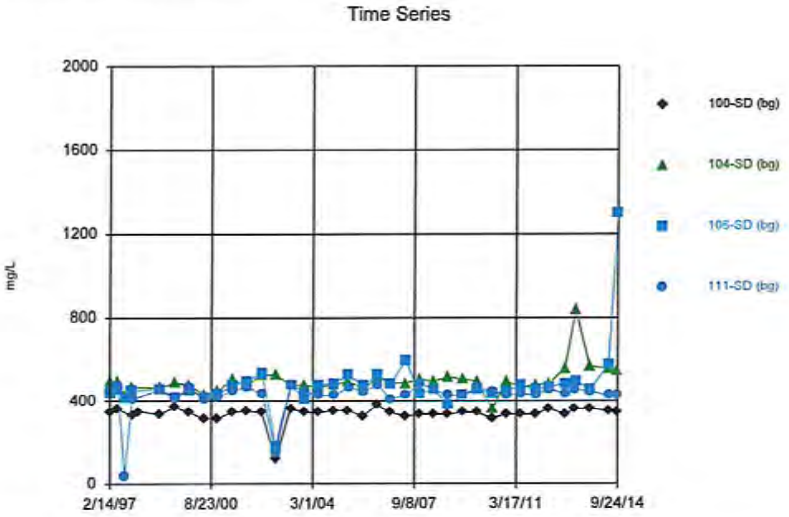
Constituent: Copper Total Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



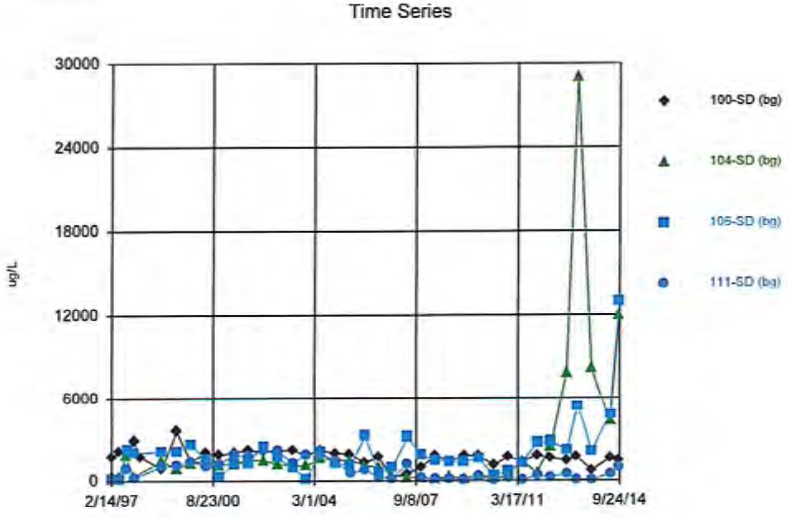
Constituent: Fluoride Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



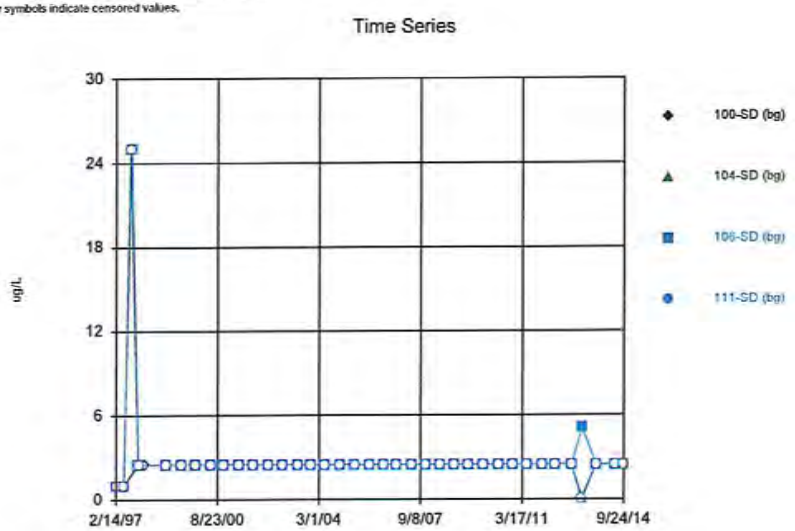
Constituent: Hardness Total Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



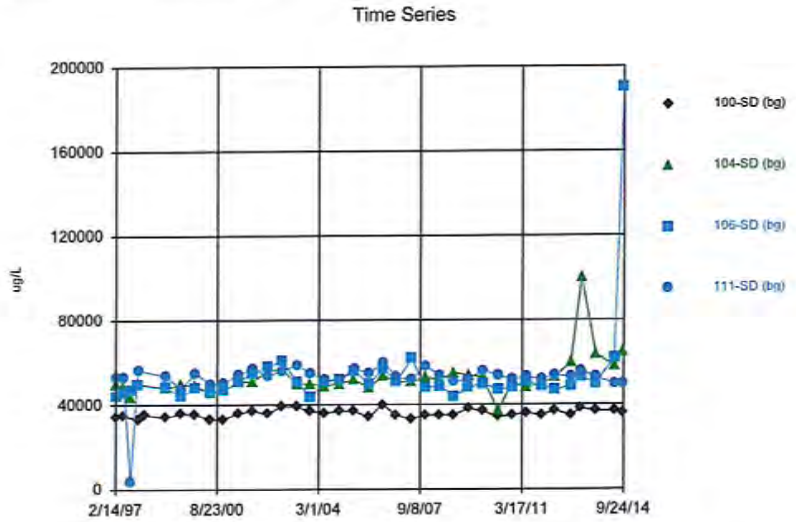
Constituent: Iron Total Analysis Run 11/24/2014 10:37 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



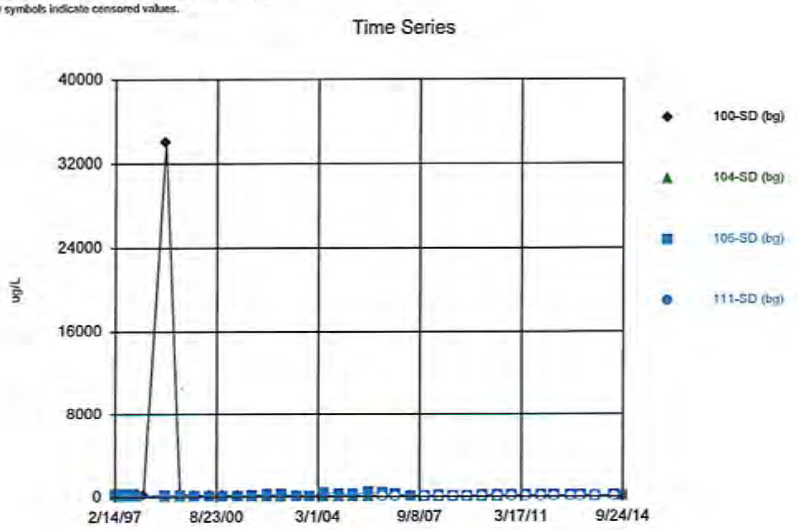
Constituent: Lead Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



Constituent: Magnesium Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



Constituent: Manganese Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
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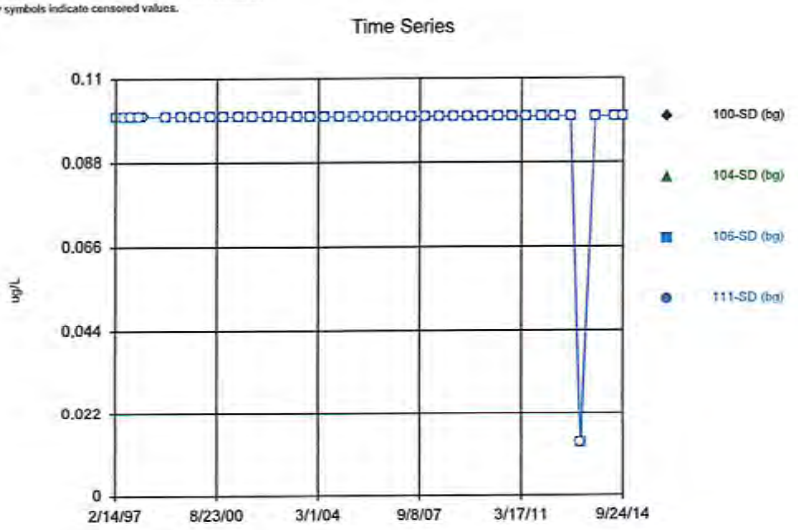
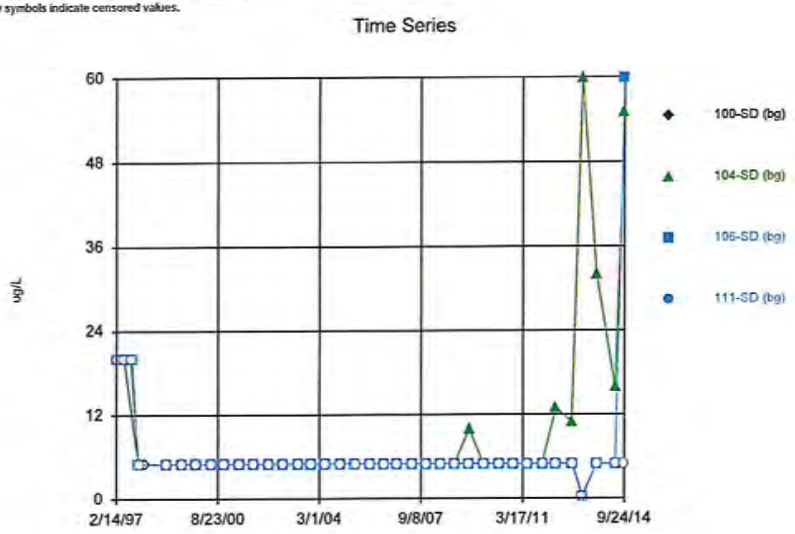


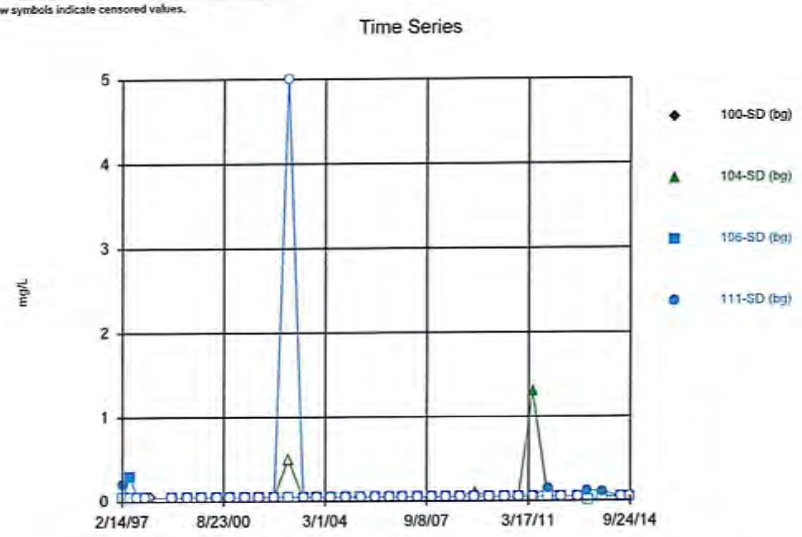
Constituent: Mercury Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



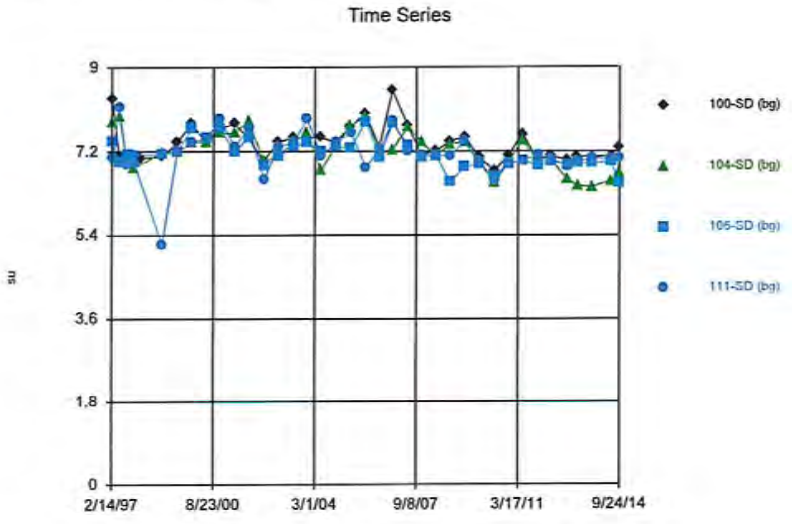
Constituent: Nickel Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



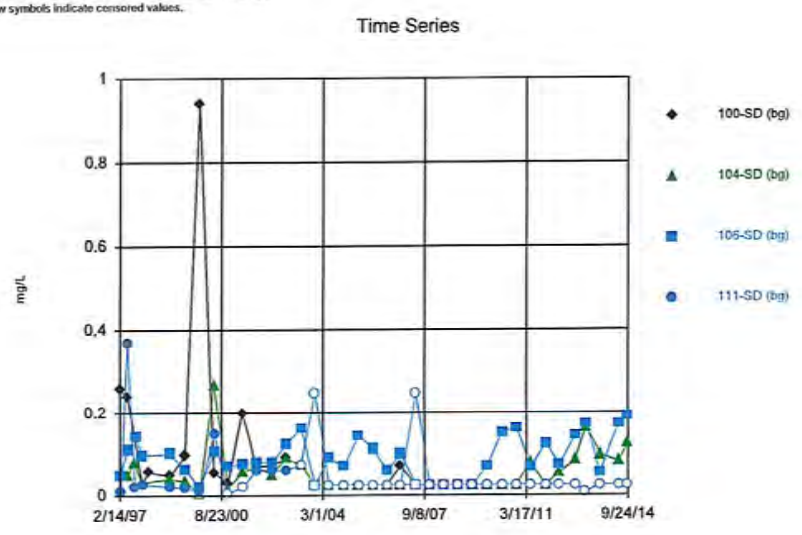
Constituent: Nitrate/Nitrite Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



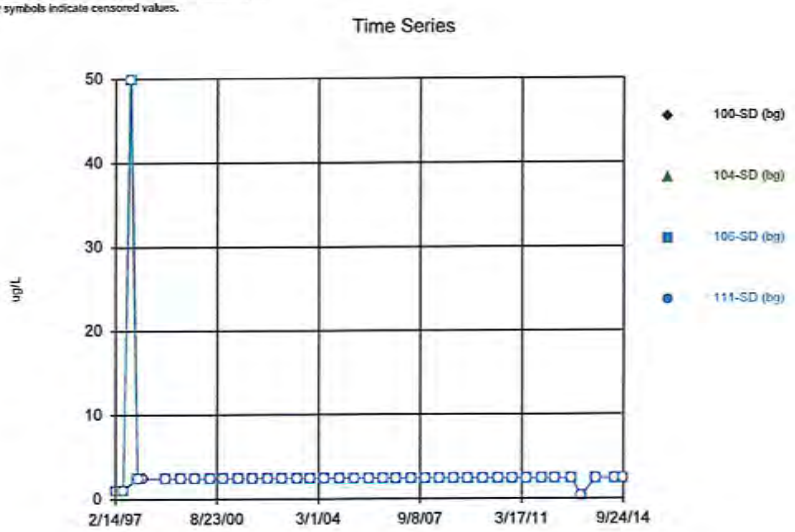
Constituent: pH [Field] Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



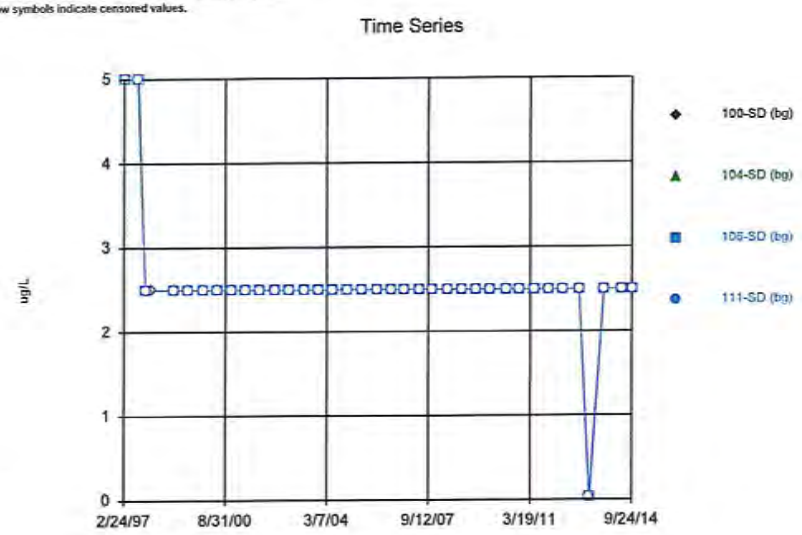
Constituent: Phosphorus Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



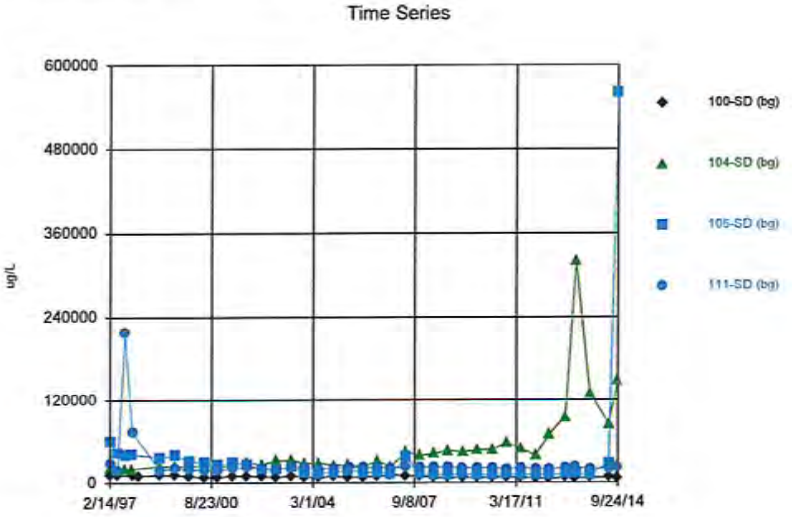
Constituent: Selenium Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



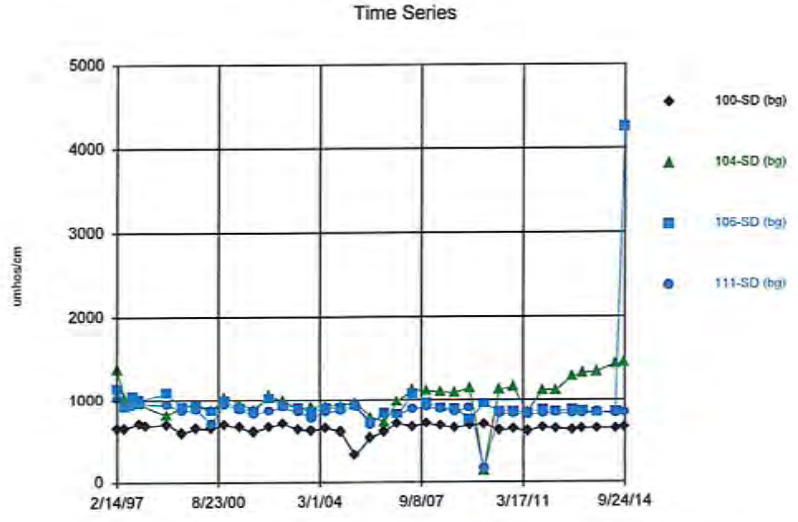
Constituent: Silver Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



Constituent: Sodium Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

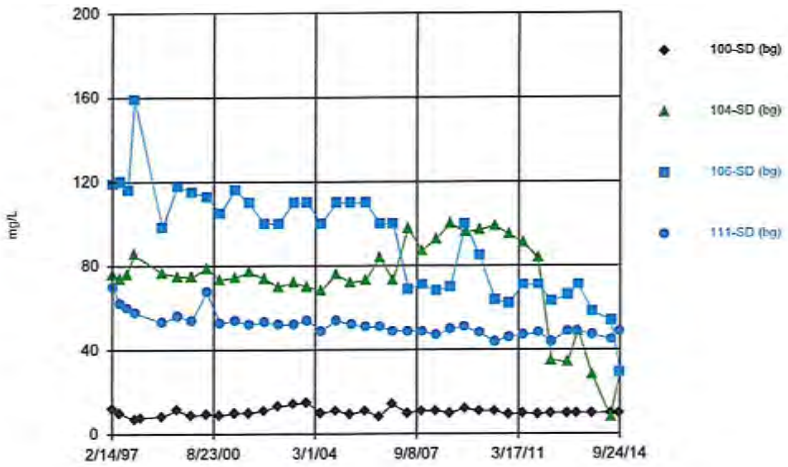
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

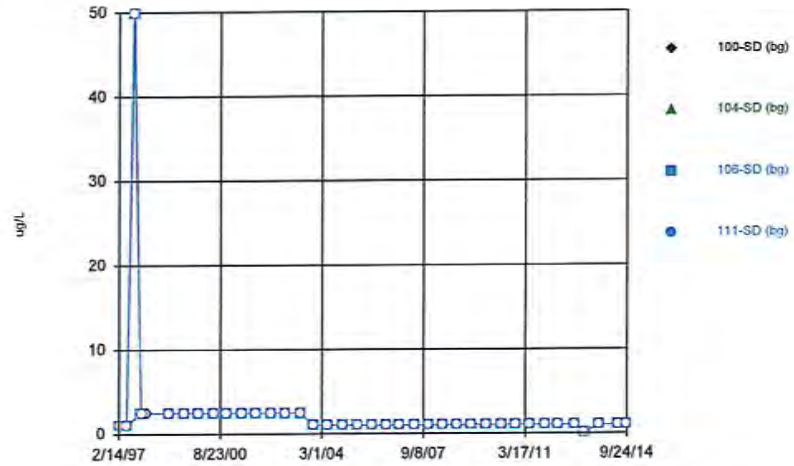
Time Series



Constituent: Sulfate as SO4 Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

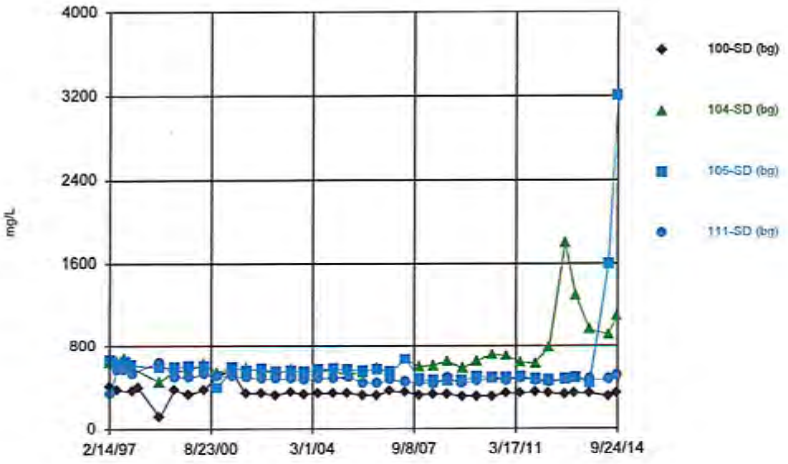
Time Series



Constituent: Thallium Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

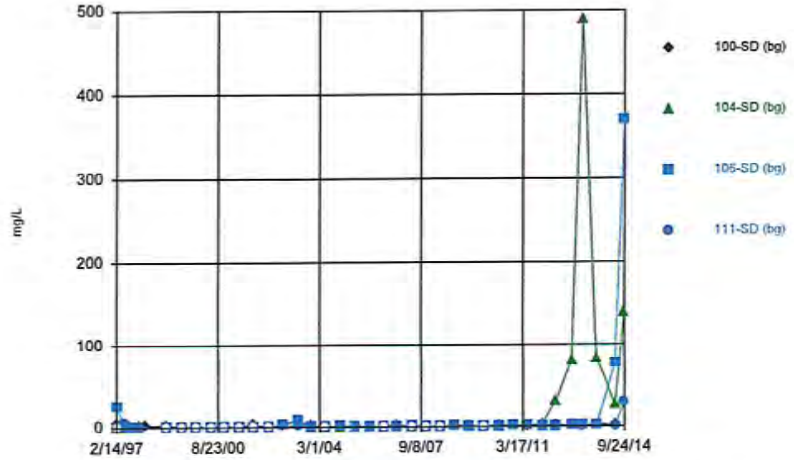
Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

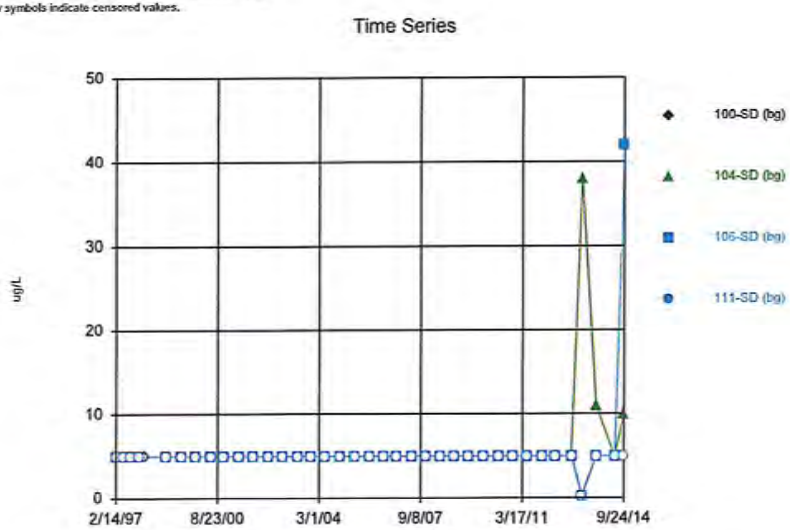
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Time Series



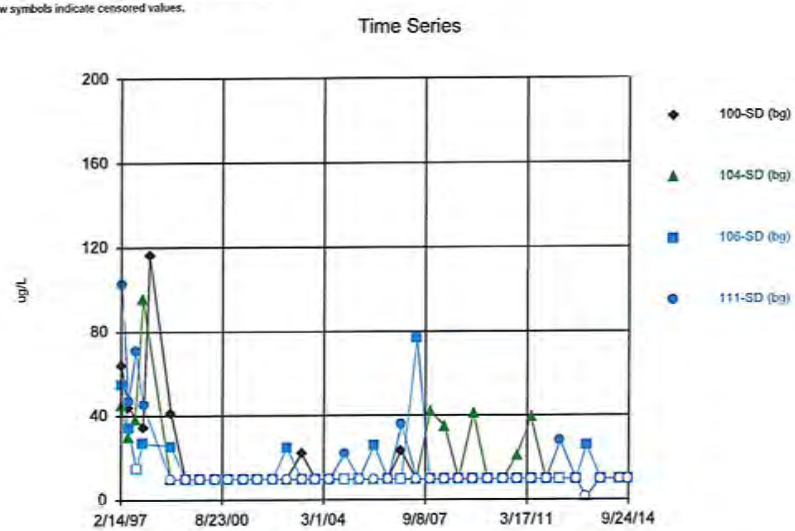
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



Constituent: Vanadium Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

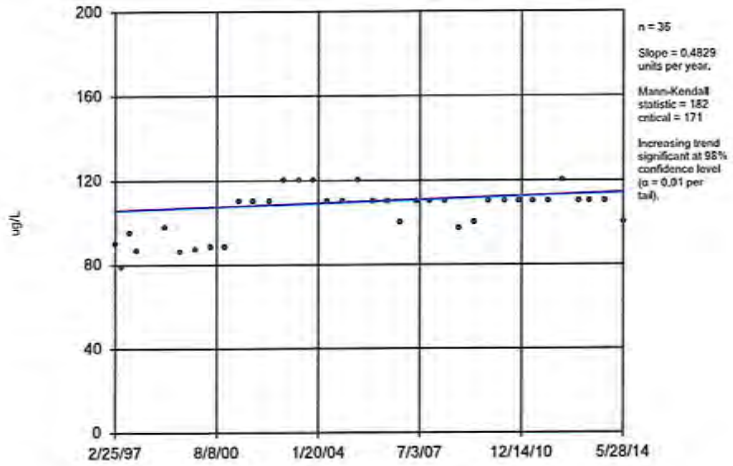


Constituent: Zinc Total Analysis Run 11/24/2014 10:38 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

111-SD (bg)



Constituent: Barium Total Analysis Run 11/20/2014 10:06 AM

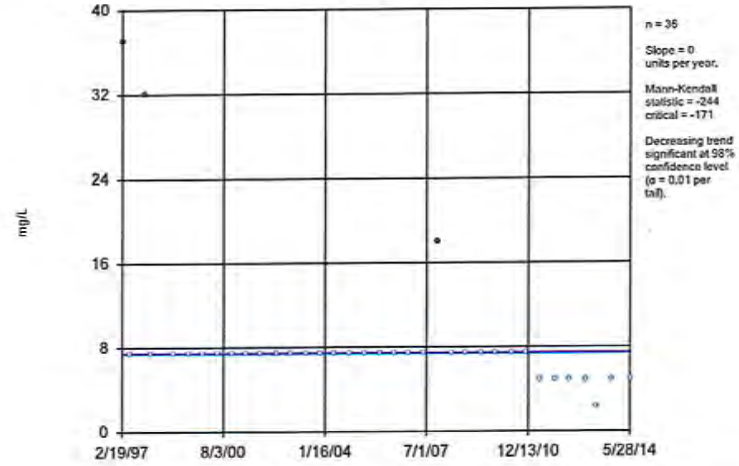
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SD (bg)



Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/20/2014 10:06 AM

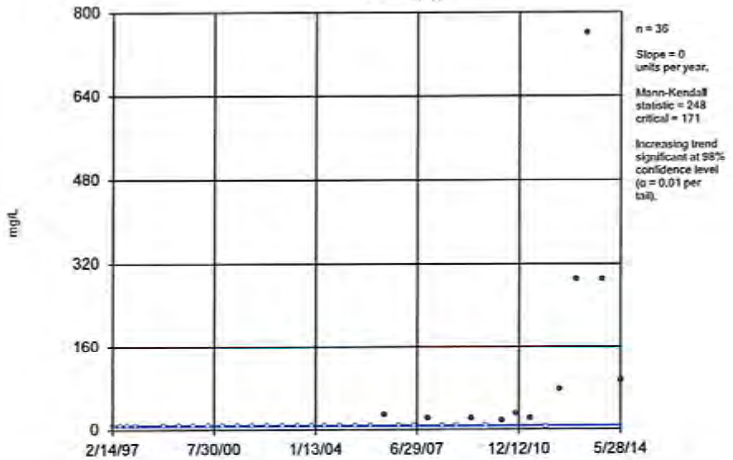
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

104-SD (bg)



Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/20/2014 10:06 AM

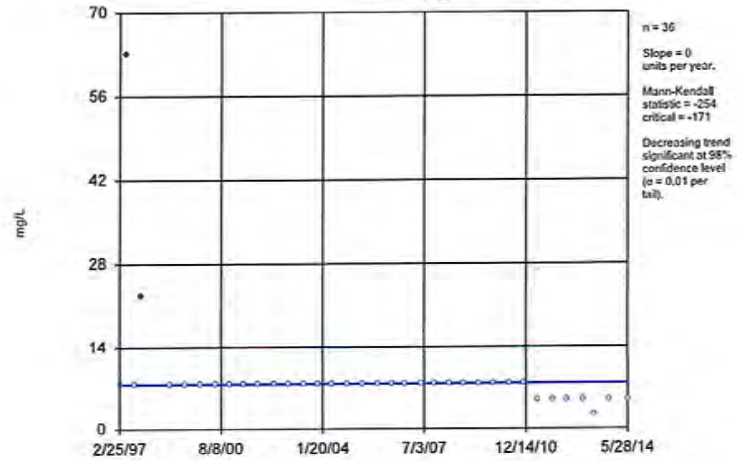
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

111-SD (bg)



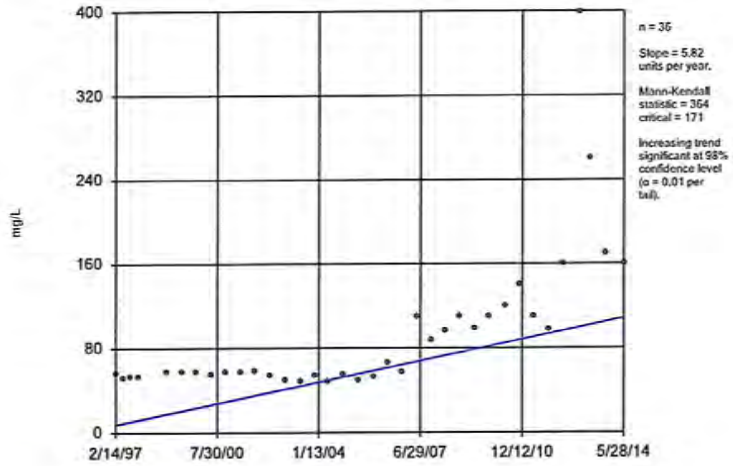
Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/20/2014 10:06 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

104-SD (bg)



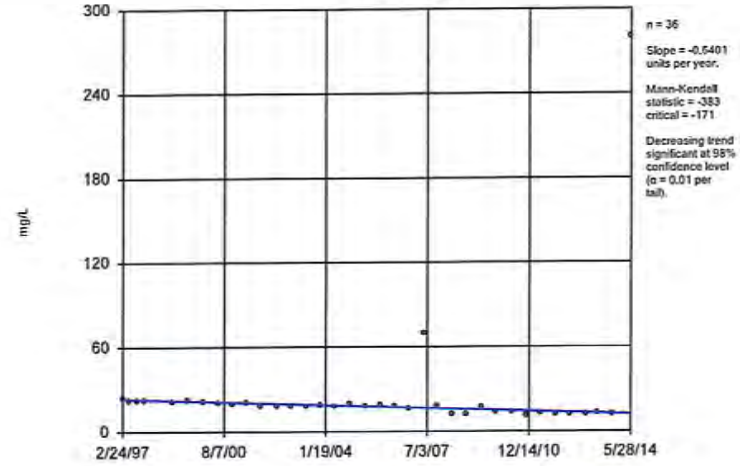
Constituent: Chloride Analysis Run 11/20/2014 10:06 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

106-SD (bg)



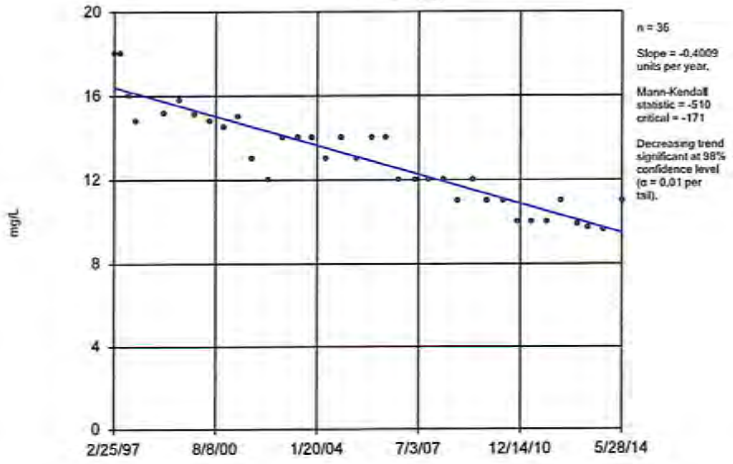
Constituent: Chloride Analysis Run 11/20/2014 10:06 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

111-SD (bg)



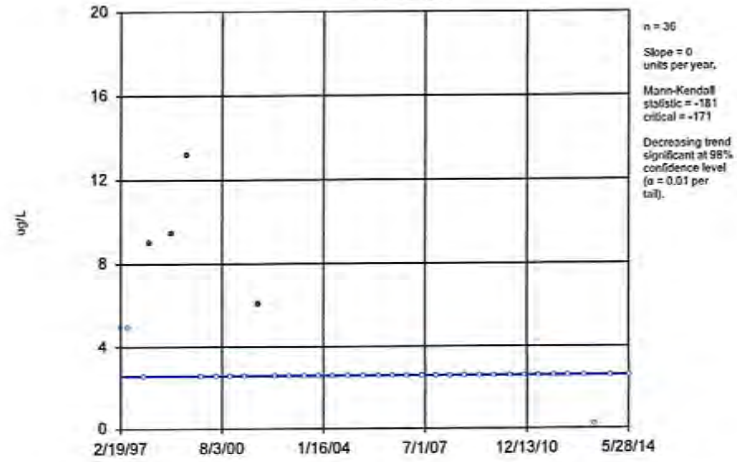
Constituent: Chloride Analysis Run 11/20/2014 10:06 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

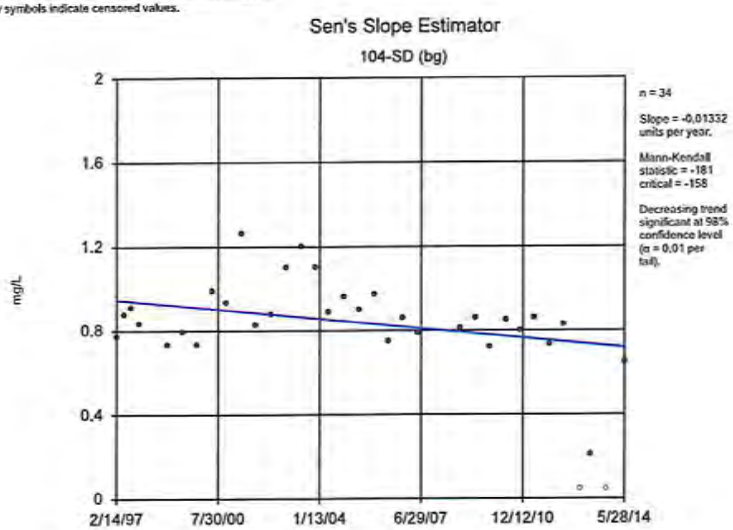
100-SD (bg)



Constituent: Chromium Total Analysis Run 11/20/2014 10:06 AM

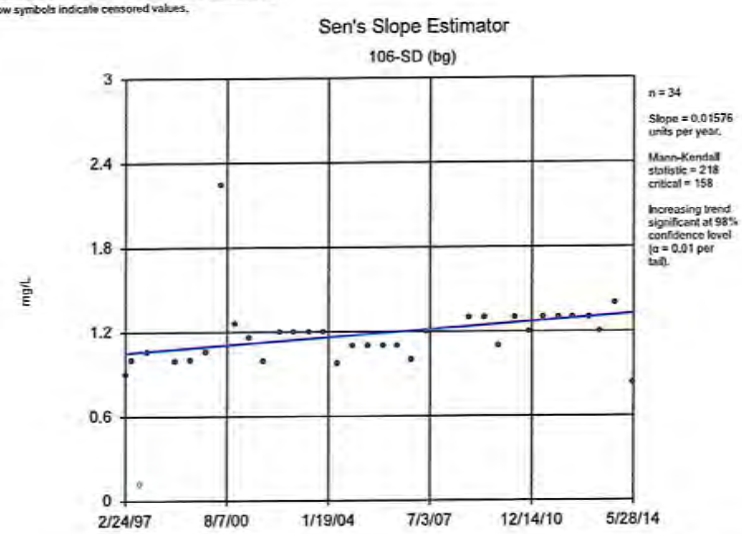
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



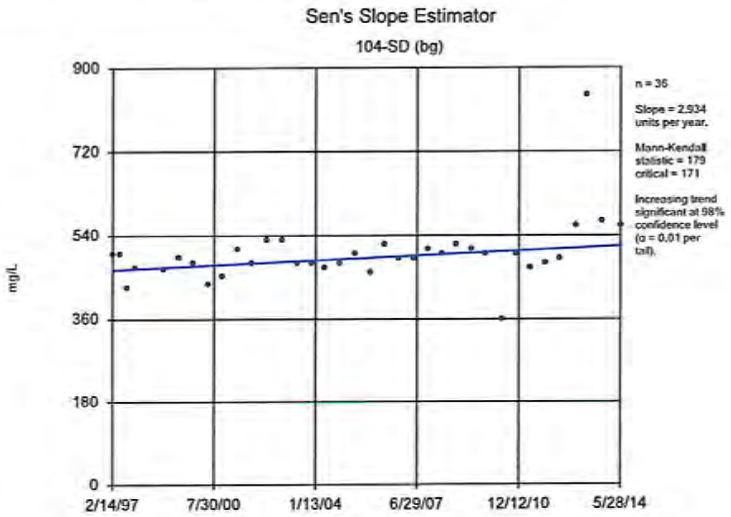
Constituent: Fluoride Analysis Run 11/20/2014 10:07 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



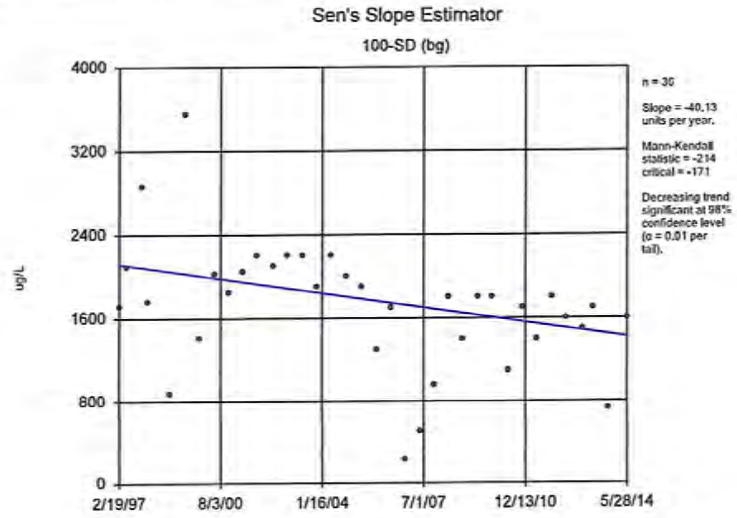
Constituent: Fluoride Analysis Run 11/20/2014 10:07 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



Constituent: Hardness Total Analysis Run 11/20/2014 10:07 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

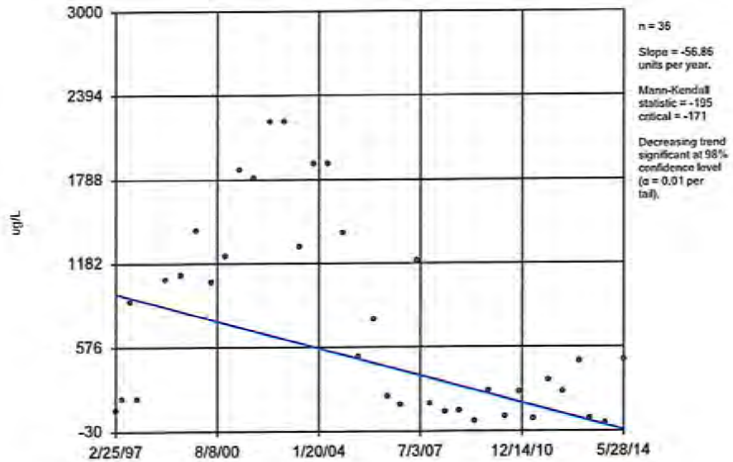


Constituent: Iron Total Analysis Run 11/20/2014 10:07 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

111-SD (bg)



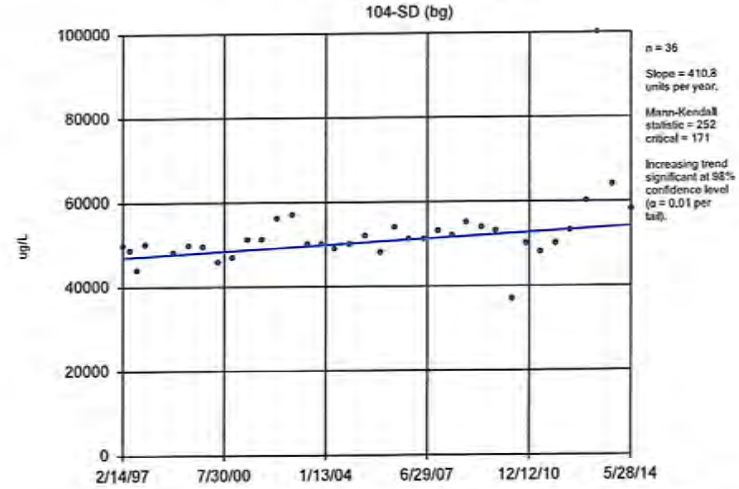
Constituent: Iron Total Analysis Run 11/20/2014 10:07 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

104-SD (bg)



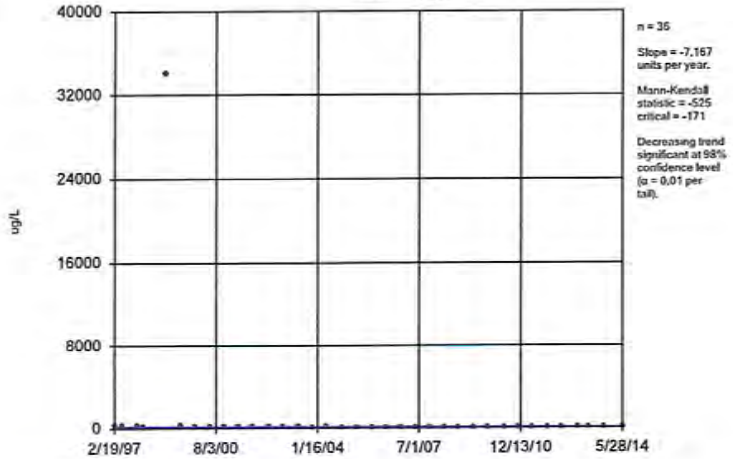
Constituent: Magnesium Total Analysis Run 11/20/2014 10:07 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

100-SD (bg)



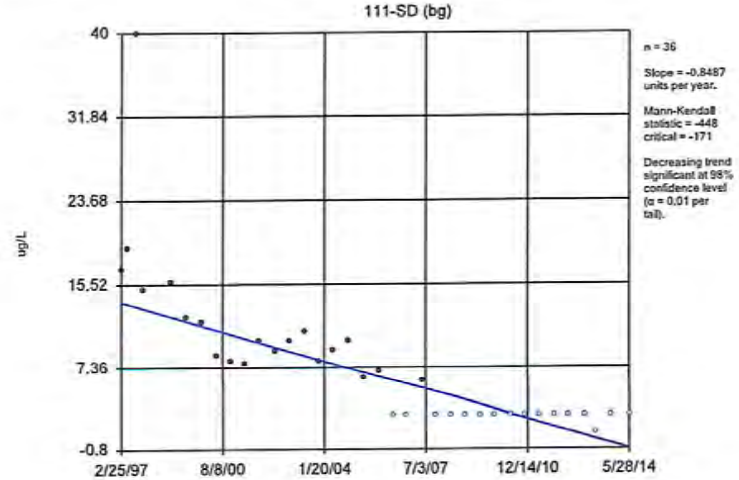
Constituent: Manganese Total Analysis Run 11/20/2014 10:07 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

111-SD (bg)



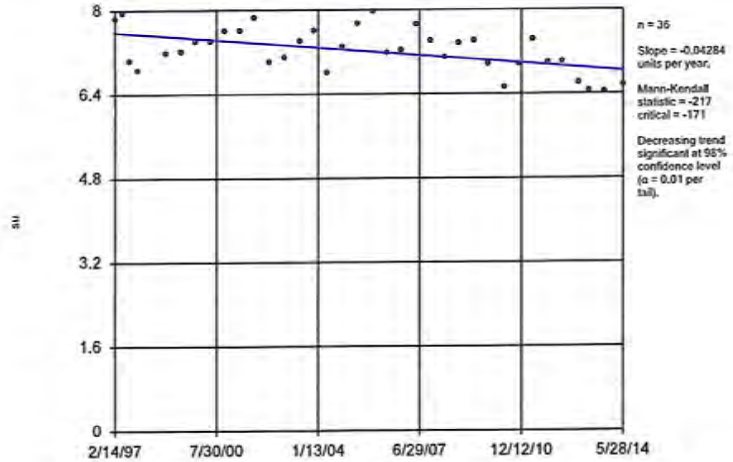
Constituent: Manganese Total Analysis Run 11/20/2014 10:07 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

104-SD (bg)



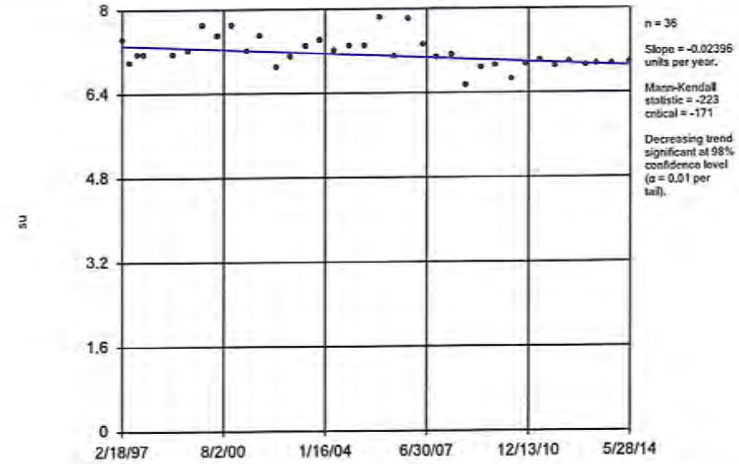
Constituent: pH [Field] Analysis Run 11/20/2014 10:07 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

106-SD (bg)



Constituent: pH [Field] Analysis Run 11/20/2014 10:07 AM

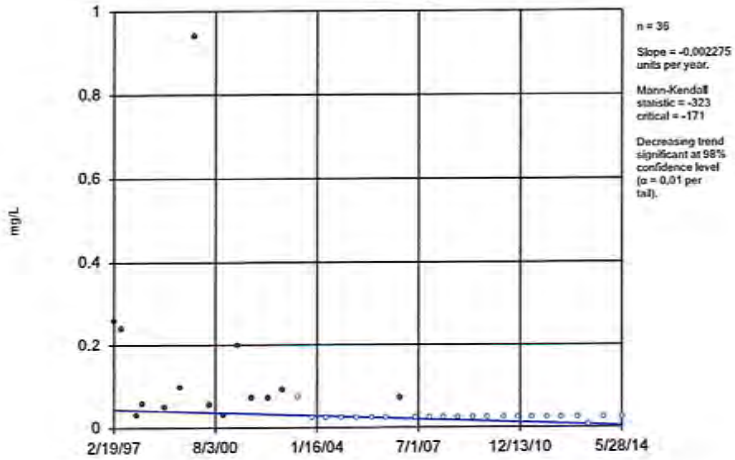
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SD (bg)



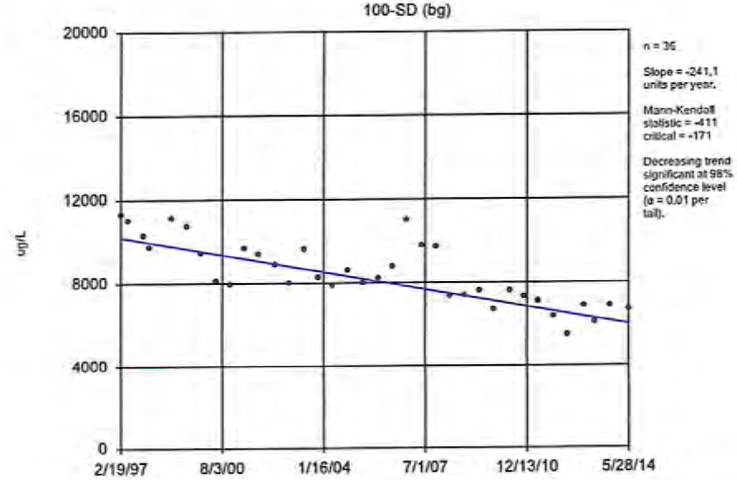
Constituent: Phosphorus Total Analysis Run 11/20/2014 10:08 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

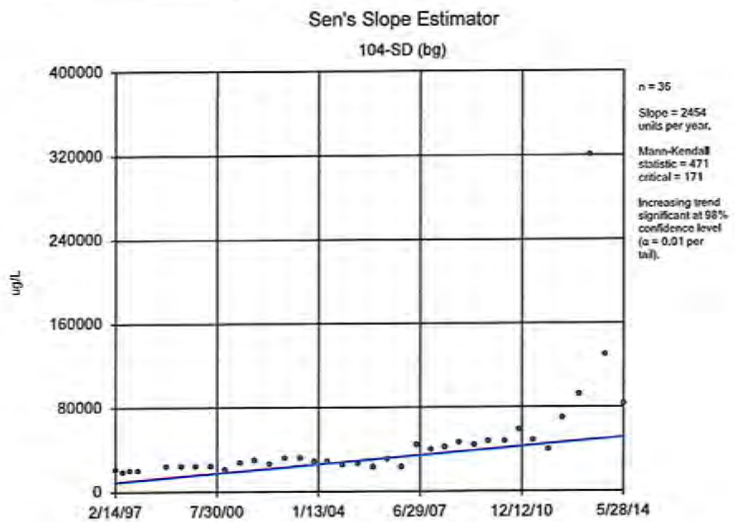
100-SD (bg)



Constituent: Sodium Total Analysis Run 11/20/2014 10:08 AM

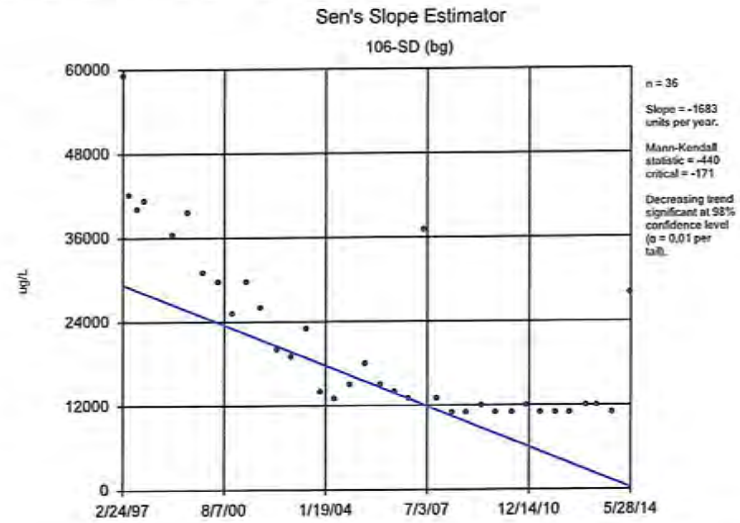
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



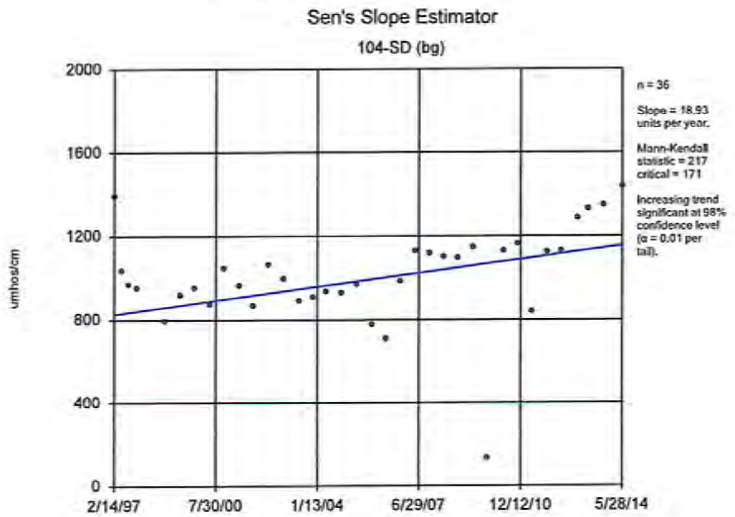
Constituent: Sodium Total Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



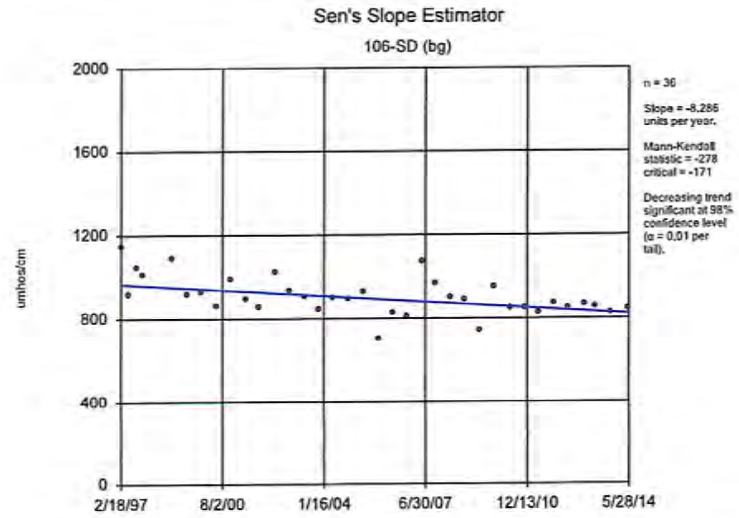
Constituent: Sodium Total Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



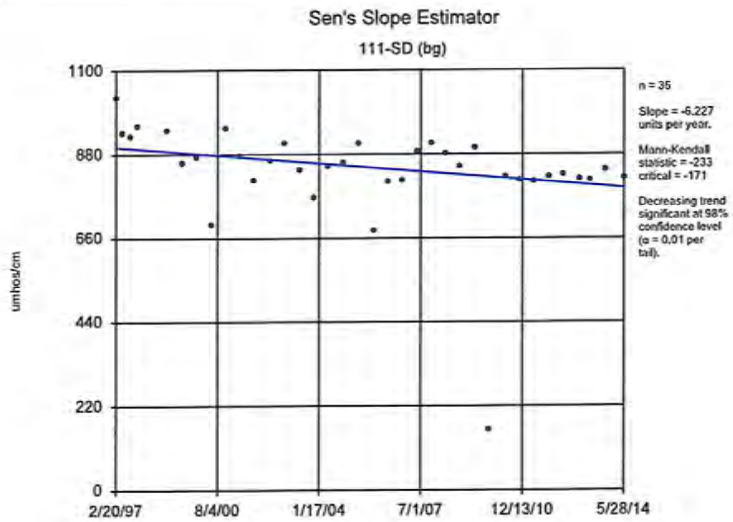
Constituent: Specific Conductance [Field] Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



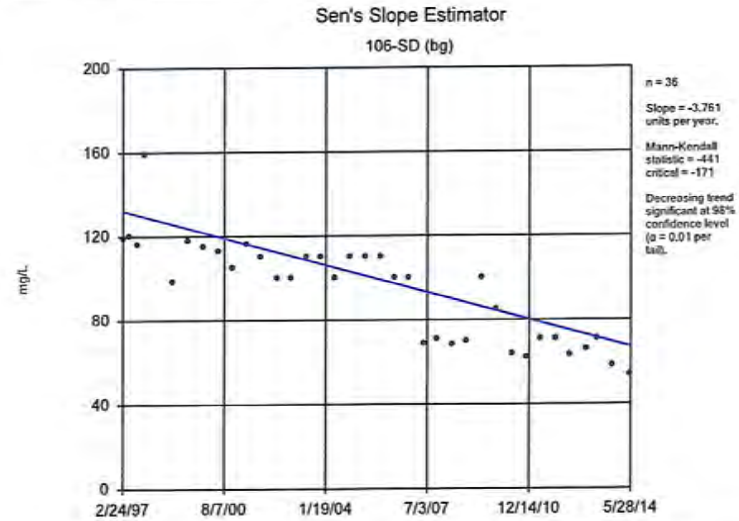
Constituent: Specific Conductance [Field] Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG



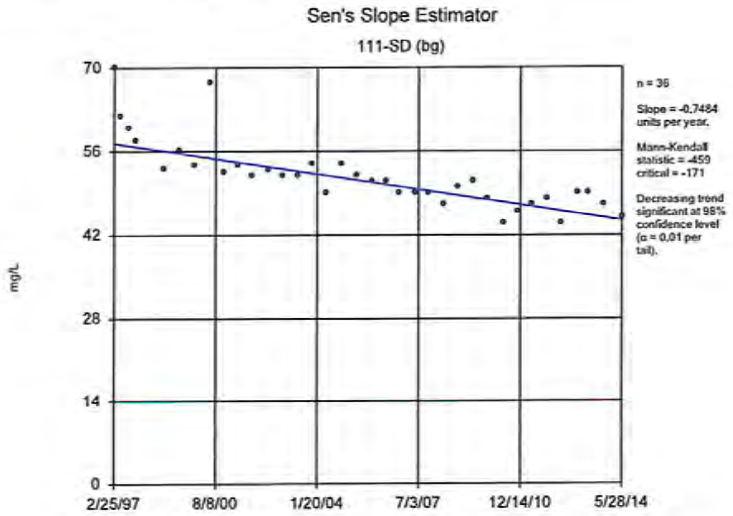
Constituent: Specific Conductance [Field] Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG



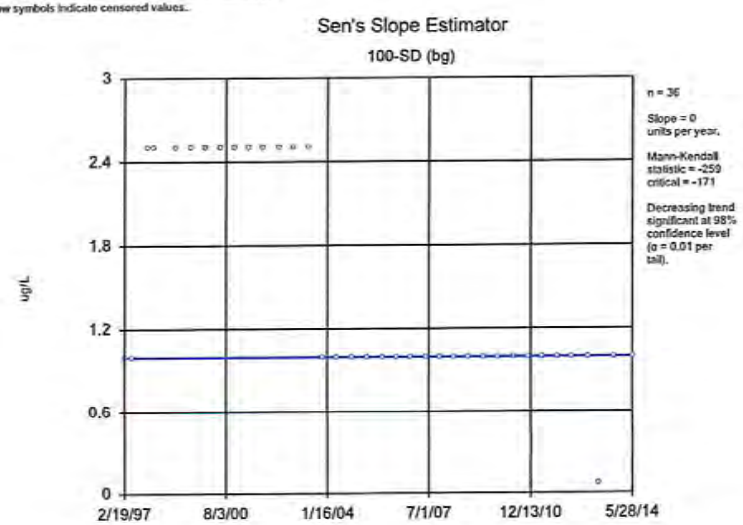
Constituent: Sulfate as SO4 Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG



Constituent: Sulfate as SO4 Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

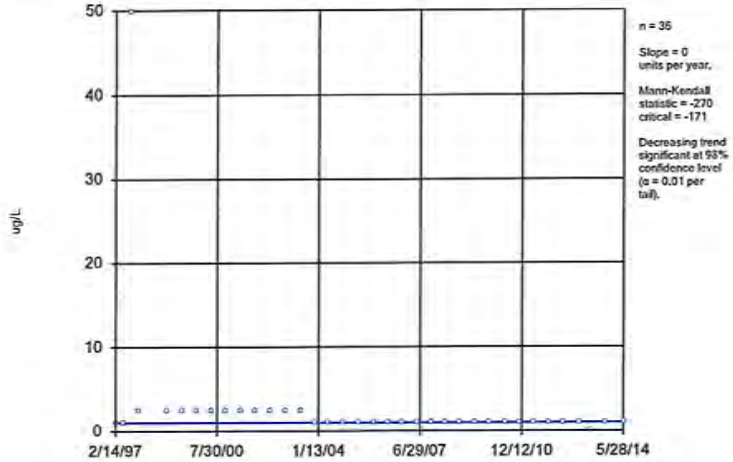


Constituent: Thallium Total Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

104-SD (bg)

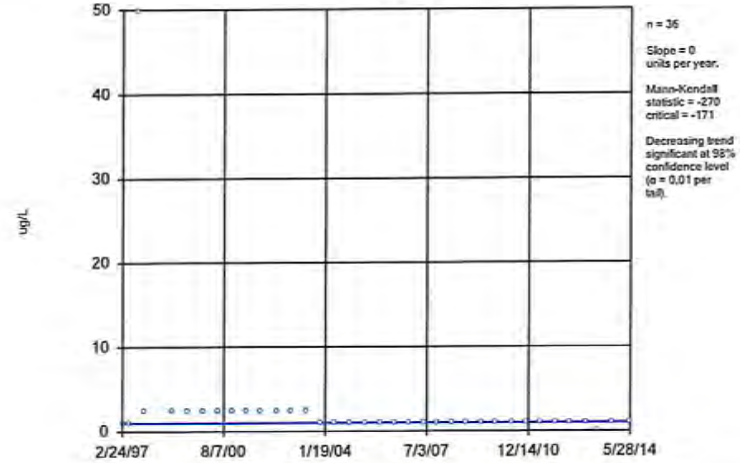


Constituent: Thallium Total Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)

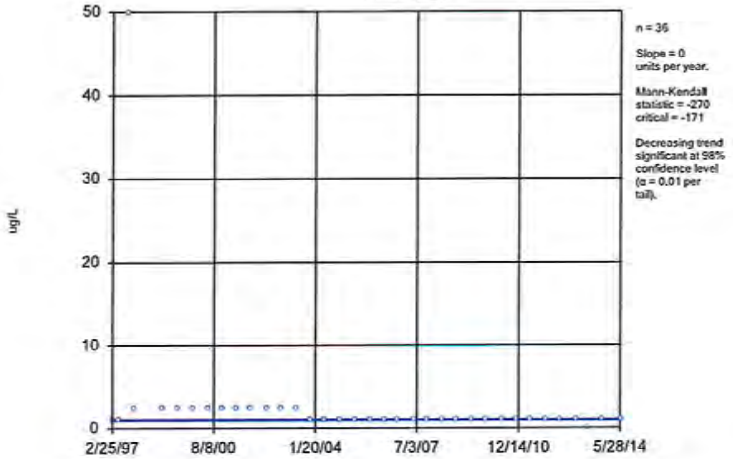


Constituent: Thallium Total Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

111-SD (bg)

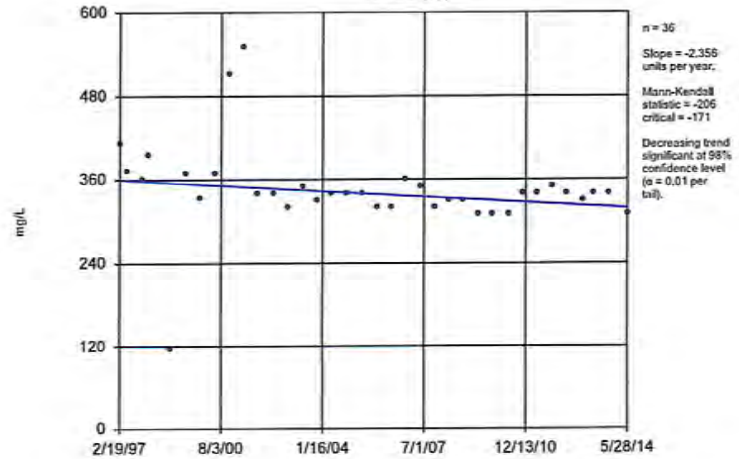


Constituent: Thallium Total Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

100-SD (bg)

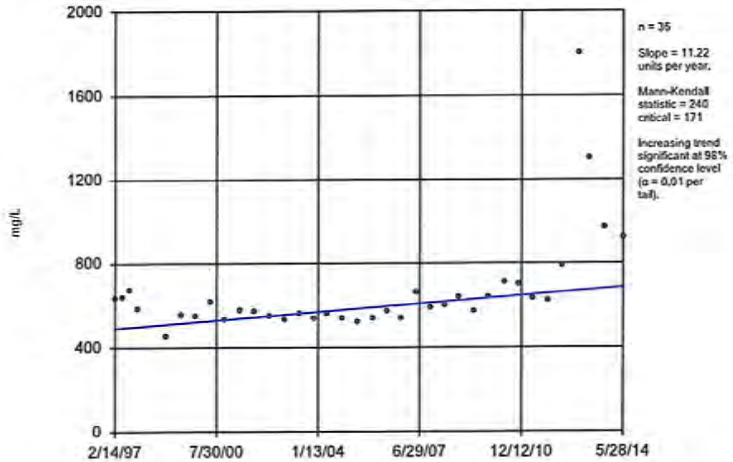


Constituent: Total Dissolved Solids [TDS] Analysis Run 11/20/2014 10:08 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

104-SD (bg)



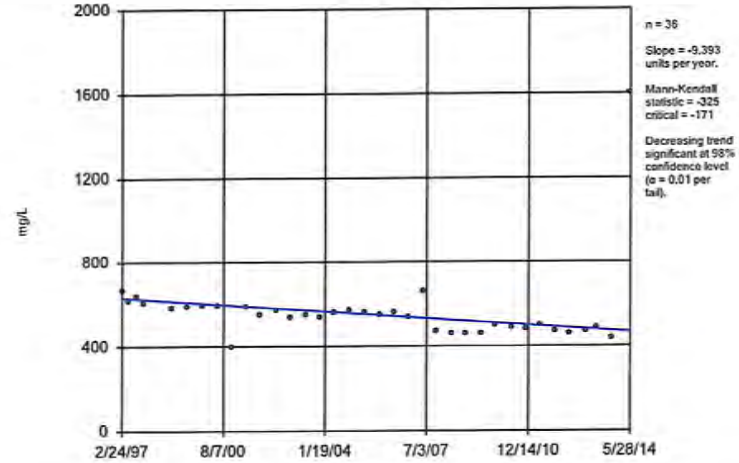
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/20/2014 10:08 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

106-SD (bg)



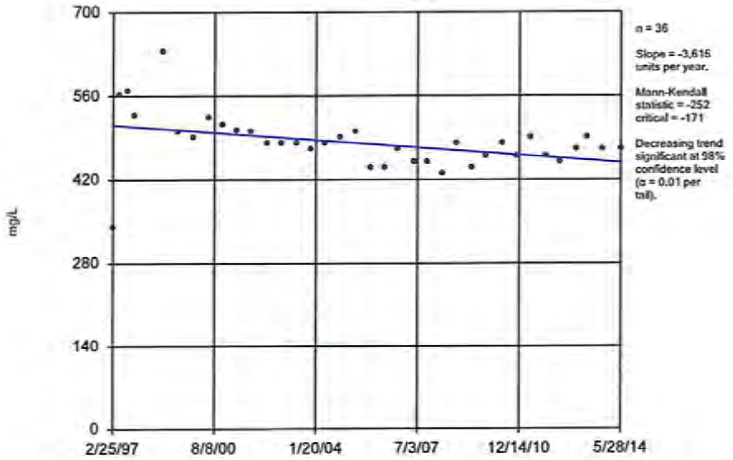
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/20/2014 10:08 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

111-SD (bg)



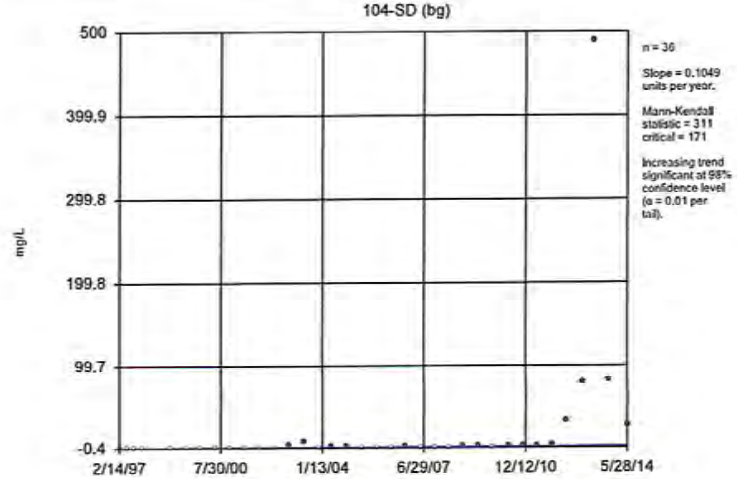
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/20/2014 10:08 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

104-SD (bg)



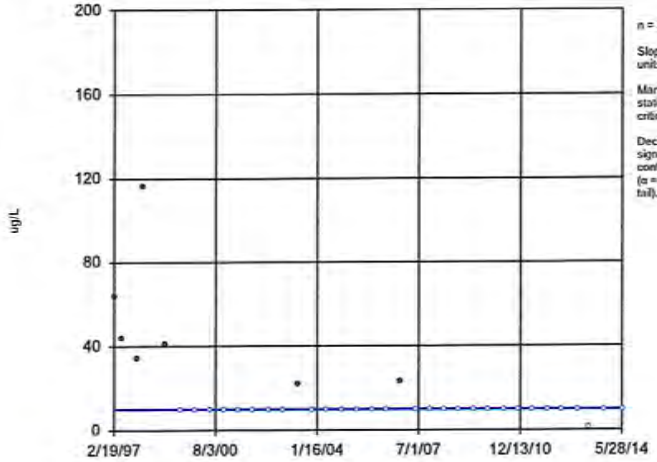
Constituent: Total Organic Carbon [TOC] Analysis Run 11/20/2014 10:08 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SD (bg)



n = 36

Slope = 0
units per year.

Mann-Kendall
statistic = -194
critical = -171

Decreasing trend
significant at 98%
confidence level
(α = 0.01 per
tail).

Constituent: Zinc Total Analysis Run 11/20/2014 10:08 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

INTRA-WELL PREDICTION LIMITS
SALEM FORMATION

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/24/2014, 10:19 AM

Constituent	Well	Upper Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Ammonia as N (mg/L)	100-SD	0.6395	0.35	No	33	0.4418	0.07958	0	None	No	0.0001937	Param Intra 1 of 2
Ammonia as N (mg/L)	104-SD	66	45	No	36	n/a	n/a	36.11	n/a	n/a	0.00142	NP Intra (normality) 1 of 2
Ammonia as N (mg/L)	111-SD	0.35	0.05ND	No	36	n/a	n/a	80.56	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Antimony Total (ug/L)	100-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Antimony Total (ug/L)	104-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Antimony Total (ug/L)	106-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Antimony Total (ug/L)	111-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Arsenic Total (ug/L)	100-SD	14.7	2.5ND	No	36	n/a	n/a	88.89	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Arsenic Total (ug/L)	104-SD	27	15	No	36	n/a	n/a	88.89	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Arsenic Total (ug/L)	106-SD	7.7	6.6	No	36	n/a	n/a	77.78	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Arsenic Total (ug/L)	111-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Barium Total (ug/L)	100-SD	349.9	300	No	36	290.3	24.24	0	None	No	0.0001937	Param Intra 1 of 2
Beryllium Total (ug/L)	100-SD	2.2	1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Beryllium Total (ug/L)	104-SD	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Beryllium Total (ug/L)	106-SD	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Beryllium Total (ug/L)	111-SD	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Boron Total (ug/L)	100-SD	100	50ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Boron Total (ug/L)	104-SD	1800	920	No	36	n/a	n/a	83.33	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Boron Total (ug/L)	**106-SD**	**140**	**2900**	**Yes**	**36**	**n/a**	**n/a**	**94.44**	**n/a**	**n/a**	**0.00142**	**NP Intra (NDs) 1 of 2**
Boron Total (ug/L)	111-SD	100	50ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Cadmium Total (ug/L)	100-SD	2.5	0.1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Cadmium Total (ug/L)	104-SD	0.2	0.1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Cadmium Total (ug/L)	106-SD	2.5	0.1ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Cadmium Total (ug/L)	111-SD	0.2	0.1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Calcium Total (ug/L)	100-SD	88151	76000	No	36	77164	4470	0	None	No	0.0001937	Param Intra 1 of 2
Calcium Total (ug/L)	104-SD	170000	110000	No	36	n/a	n/a	0	n/a	n/a	0.00142	NP Intra (normality) 1 of 2
Calcium Total (ug/L)	**106-SD**	**133877**	**200000**	**Yes**	**36**	**105364**	**11600**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Calcium Total (ug/L)	111-SD	103381	88000	No	34	90650	5143	0	None	No	0.0001937	Param Intra 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	100-SD	37	5ND	No	36	n/a	n/a	91.67	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	104-SD	760	310	No	36	n/a	n/a	69.44	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	**106-SD**	**230**	**940**	**Yes**	**36**	**n/a**	**n/a**	**83.33**	**n/a**	**n/a**	**0.00142**	**NP Intra (NDs) 1 of 2**
Chemical Oxygen Demand [COD] (mg/L)	111-SD	63	5ND	No	36	n/a	n/a	94.44	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Chloride (mg/L)	100-SD	13	1.5ND	No	36	n/a	n/a	94.44	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Chloride (mg/L)	**106-SD**	**26.62**	**870**	**Yes**	**34**	**17.25**	**3.784**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Chloride (mg/L)	111-SD	18.53	10	No	36	12.96	2.267	0	None	No	0.0001937	Param Intra 1 of 2
Chromium Total (ug/L)	100-SD	13.2	2.5ND	No	36	n/a	n/a	88.89	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Chromium Total (ug/L)	**104-SD**	**12**	**13**	**Yes**	**36**	**n/a**	**n/a**	**88.89**	**n/a**	**n/a**	**0.00142**	**NP Intra (NDs) 1 of 2**
Chromium Total (ug/L)	**106-SD**	**14**	**42**	**Yes**	**36**	**n/a**	**n/a**	**88.89**	**n/a**	**n/a**	**0.00142**	**NP Intra (NDs) 1 of 2**
Chromium Total (ug/L)	111-SD	5	2.5ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Cobalt Total (ug/L)	100-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Cobalt Total (ug/L)	104-SD	10	2.5ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Cobalt Total (ug/L)	**106-SD**	**5**	**12**	**Yes**	**36**	**n/a**	**n/a**	**100**	**n/a**	**n/a**	**0.00142**	**NP Intra (NDs) 1 of 2**
Cobalt Total (ug/L)	111-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Copper Total (ug/L)	100-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Copper Total (ug/L)	104-SD	10	2.5ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Copper Total (ug/L)	106-SD	10	2.5ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Copper Total (ug/L)	111-SD	10	2.5ND	No	36	n/a	n/a	94.44	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	100-SD	2.352	2	No	34	2.013	0.1369	0	None	No	0.0001937	Param Intra 1 of 2
Fluoride (mg/L)	104-SD	1.226	0.93	No	31	0.8766	0.1396	0	None	No	0.0001937	Param Intra 1 of 2
Fluoride (mg/L)	111-SD	2.374	2	No	33	2.011	0.1462	0	None	No	0.0001937	Param Intra 1 of 2

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/24/2014, 10:19 AM

Constituent	Well	Upper Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Hardness Total (mg/L)	100-SD	380.9	340	No	35	339.8	16.65	0	None	No	0.0001937	Param Intra 1 of 2
Hardness Total (mg/L)	**106-SD**	**583.5**	**1300**	**Yes**	**35**	**470.6**	**45.78**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Hardness Total (mg/L)	111-SD	502.6	430	No	34	446.9	22.52	0	None	No	0.0001937	Param Intra 1 of 2
Iron Total (ug/L)	100-SD	2970	1500	No	35	1654	533.5	0	None	No	0.0001937	Param Intra 1 of 2
Iron Total (ug/L)	104-SD	16770	12000	No	36	6.853	1.17	0	None	ln(x)	0.0001937	Param Intra 1 of 2
Iron Total (ug/L)	**106-SD**	**4139**	**13000**	**Yes**	**35**	**1666**	**1003**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Iron Total (ug/L)	111-SD	3946	1000	No	36	8.077	3.143	0	None	x^(1/3)	0.0001937	Param Intra 1 of 2
Lead Total (ug/L)	100-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Lead Total (ug/L)	104-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Lead Total (ug/L)	106-SD	25	2.5ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Lead Total (ug/L)	111-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Magnesium Total (ug/L)	100-SD	40098	36000	No	36	35814	1743	0	None	No	0.0001937	Param Intra 1 of 2
Magnesium Total (ug/L)	**106-SD**	**63008**	**190000**	**Yes**	**36**	**10.82**	**0.09234**	**0**	**None**	**ln(x)**	**0.0001937**	**Param Intra 1 of 2**
Magnesium Total (ug/L)	111-SD	60350	50000	No	35	53854	2634	0	None	No	0.0001937	Param Intra 1 of 2
Manganese Total (ug/L)	100-SD	34000	68	No	36	n/a	n/a	0	n/a	n/a	0.00142	NP Intra (normality) 1 of 2
Manganese Total (ug/L)	104-SD	175.9	160	No	36	104.8	28.91	0	None	No	0.0001937	Param Intra 1 of 2
Manganese Total (ug/L)	106-SD	461.3	92	No	36	181.1	114	0	None	No	0.0001937	Param Intra 1 of 2
Manganese Total (ug/L)	111-SD	40	7.4	No	36	n/a	n/a	44.44	n/a	n/a	0.00142	NP Intra (normality) 1 of 2
Mercury Total (ug/L)	100-SD	0.2	0.1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Mercury Total (ug/L)	104-SD	0.2	0.1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Mercury Total (ug/L)	106-SD	0.2	0.1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Mercury Total (ug/L)	111-SD	0.2	0.1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nickel Total (ug/L)	100-SD	10	5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nickel Total (ug/L)	104-SD	60	55	No	36	n/a	n/a	83.33	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nickel Total (ug/L)	**106-SD**	**10**	**60**	**Yes**	**36**	**n/a**	**n/a**	**100**	**n/a**	**n/a**	**0.00142**	**NP Intra (NDs) 1 of 2**
Nickel Total (ug/L)	111-SD	10	5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nitrate/Nitrite (mg/L)	100-SD	0.1	0.05ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nitrate/Nitrite (mg/L)	104-SD	1.3	0.05ND	No	36	n/a	n/a	94.44	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nitrate/Nitrite (mg/L)	106-SD	0.3	0.05ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nitrate/Nitrite (mg/L)	111-SD	5	0.05ND	No	36	n/a	n/a	88.89	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Phosphorus Total (mg/L)	100-SD	0.94	0.025ND	No	36	n/a	n/a	61.11	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Phosphorus Total (mg/L)	104-SD	0.268	0.12	No	36	n/a	n/a	50	n/a	n/a	0.00142	NP Intra (normality) 1 of 2
Phosphorus Total (mg/L)	**106-SD**	**0.173**	**0.19**	**Yes**	**36**	**0.07605**	**0.03946**	**16.67**	**Kaplan-Meier**	**No**	**0.0001937**	**Param Intra 1 of 2**
Phosphorus Total (mg/L)	111-SD	0.37	0.025ND	No	36	n/a	n/a	69.44	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Selenium Total (ug/L)	100-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Selenium Total (ug/L)	104-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Selenium Total (ug/L)	106-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Selenium Total (ug/L)	111-SD	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Silver Total (ug/L)	100-SD	5	2.5ND	No	34	n/a	n/a	100	n/a	n/a	0.001587	NP Intra (NDs) 1 of 2
Silver Total (ug/L)	104-SD	5	2.5ND	No	34	n/a	n/a	100	n/a	n/a	0.001587	NP Intra (NDs) 1 of 2
Silver Total (ug/L)	106-SD	5	2.5ND	No	35	n/a	n/a	100	n/a	n/a	0.001487	NP Intra (NDs) 1 of 2
Silver Total (ug/L)	111-SD	5	2.5ND	No	35	n/a	n/a	100	n/a	n/a	0.001487	NP Intra (NDs) 1 of 2
Sodium Total (ug/L)	100-SD	12280	6400	No	36	8473	1549	0	None	No	0.0001937	Param Intra 1 of 2
Sodium Total (ug/L)	**106-SD**	**59100**	**560000**	**Yes**	**36**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00142**	**NP Intra (normality) 1 of 2**
Sodium Total (ug/L)	111-SD	25409	21000	No	34	20929	1810	0	None	No	0.0001937	Param Intra 1 of 2
Specific Conductance [Field] (umhos/cm)	100-SD	722.8	634	No	35	632.1	36.77	0	None	No	0.0001937	Param Intra 1 of 2
Specific Conductance [Field] (umhos/cm)	**106-SD**	**1134**	**4250**	**Yes**	**36**	**905.1**	**93.05**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Specific Conductance [Field] (umhos/cm)	111-SD	1026	826	No	35	854.3	69.6	0	None	No	0.0001937	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	100-SD	14.62	10	No	36	10.35	1.736	0	None	No	0.0001937	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	104-SD	110	29	No	36	5902	2522	0	None	x^2	0.0001937	Param Intra 1 of 2

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/24/2014, 10:19 AM

Constituent	Well	Upper Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Sulfate as SO4 (mg/L)	106-SD	159	29	No	36	n/a	n/a	0	n/a	n/a	0.00142	NP Intra (normality) 1 of 2
Sulfate as SO4 (mg/L)	111-SD	63.68	49	No	35	51.4	4.982	0	None	No	0.0001937	Param Intra 1 of 2
Thallium Total (ug/L)	100-SD	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Thallium Total (ug/L)	104-SD	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Thallium Total (ug/L)	106-SD	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Thallium Total (ug/L)	111-SD	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	100-SD	400.6	340	No	33	18.46	0.6252	0	None	sqrt(x)	0.0001937	Param Intra 1 of 2
Total Dissolved Solids [TDS] (mg/L)	**106-SD**	**697.5**	**3200**	**Yes**	**35**	**535.9**	**65.54**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	111-SD	560.2	510	No	34	481.4	31.82	0	None	No	0.0001937	Param Intra 1 of 2
Total Organic Carbon [TOC] (mg/L)	**100-SD**	**5**	**29**	**Yes**	**36**	**n/a**	**n/a**	**30.56**	**n/a**	**n/a**	**0.00142**	**NP Intra (normality) 1 of 2**
Total Organic Carbon [TOC] (mg/L)	**106-SD**	**76**	**370**	**Yes**	**36**	**n/a**	**n/a**	**38.89**	**n/a**	**n/a**	**0.00142**	**NP Intra (normality) 1 of 2**
Total Organic Carbon [TOC] (mg/L)	**111-SD**	**6**	**30**	**Yes**	**36**	**n/a**	**n/a**	**41.67**	**n/a**	**n/a**	**0.00142**	**NP Intra (normality) 1 of 2**
Vanadium Total (ug/L)	100-SD	10	5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Vanadium Total (ug/L)	104-SD	38	10	No	36	n/a	n/a	94.44	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Vanadium Total (ug/L)	**106-SD**	**10**	**42**	**Yes**	**36**	**n/a**	**n/a**	**100**	**n/a**	**n/a**	**0.00142**	**NP Intra (NDs) 1 of 2**
Vanadium Total (ug/L)	111-SD	10	5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Zinc Total (ug/L)	100-SD	116	10ND	No	36	n/a	n/a	80.56	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Zinc Total (ug/L)	104-SD	95.5	10ND	No	36	n/a	n/a	75	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Zinc Total (ug/L)	106-SD	77	10ND	No	36	n/a	n/a	77.78	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Zinc Total (ug/L)	111-SD	103	10ND	No	36	n/a	n/a	80.56	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/24/2014, 10:19 AM

Constituent	Well	Upper Lim.	Lower Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH [Field] (su)	100-SD	8.35	6.471	7.28	No	36	2.717	0.07033	0	None	sqrt(x)	0.00009683	Param Intra 1 of 2
pH [Field] (su)	111-SD	8.121	6.338	7.06	No	35	7.229	0.3614	0	None	No	0.00009683	Param Intra 1 of 2

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/24/2014, 10:02 AM

Constituent	Well	Upper Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Ammonia as N (mg/L)	**106-SD**	**1.4**	**73**	**Yes**	**29**	**n/a**	**n/a**	**55.17**	**n/a**	**n/a**	**0.002152**	**NP Intra (NDs) 1 of 2**
Barium Total (ug/L)	**104-SD**	**224.9**	**710**	**Yes**	**28**	**12.29**	**1.062**	**0**	**None**	**sqrt(x)**	**0.0001937**	**Param Intra 1 of 2**
Barium Total (ug/L)	**106-SD**	**116.9**	**1400**	**Yes**	**11**	**75.8**	**12.33**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Barium Total (ug/L)	111-SD	128.1	110	No	12	94.03	10.7	0	None	No	0.0001937	Param Intra 1 of 2
Chloride (mg/L)	**104-SD**	**110**	**210**	**Yes**	**26**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.002637**	**NP Intra (normality) 1 of 2**
Fluoride (mg/L)	106-SD	1.402	0.87	No	23	1.108	0.1113	0	None	No	0.0001937	Param Intra 1 of 2
Hardness Total (mg/L)	104-SD	581.6	550	No	34	488.7	37.54	0	None	No	0.0001937	Param Intra 1 of 2
Magnesium Total (ug/L)	**104-SD**	**57838**	**65000**	**Yes**	**31**	**50655**	**2869**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Sodium Total (ug/L)	**104-SD**	**32139**	**150000**	**Yes**	**10**	**22220**	**2849**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Specific Conductance [Field] (umhos/cm)	**104-SD**	**1400**	**1457**	**Yes**	**33**	**1014**	**155.4**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Total Dissolved Solids [TDS] (mg/L)	**104-SD**	**760.1**	**1100**	**Yes**	**32**	**593.2**	**66.9**	**0**	**None**	**No**	**0.0001937**	**Param Intra 1 of 2**
Total Organic Carbon [TOC] (mg/L)	**104-SD**	**32**	**140**	**Yes**	**32**	**n/a**	**n/a**	**62.5**	**n/a**	**n/a**	**0.001789**	**NP Intra (NDs) 1 of 2**

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/24/2014, 10:02 AM

Constituent	Well	Upper Lim.	Lower Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH [Field] (su)	104-SD	8.243	6.297	6.75	No	34	7.27	0.393	0	None	No	0.00009683	Param Intra 1 of 2
pH [Field] (su)	106-SD	7.978	6.425	6.54	No	31	7.201	0.3102	0	None	No	0.00009683	Param Intra 1 of 2

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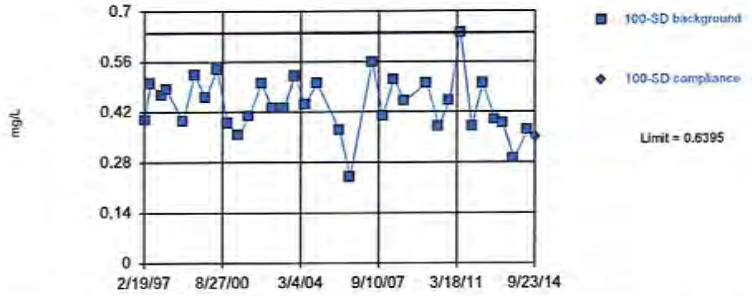
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.4418, Std. Dev.=0.07958, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9784, critical = 0.906. Kappa = 2.485 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Three background outliers were removed: <0.1 (5/24/2005); 0.13 (11/8/2006); 1.2 (5/8/2009).

Constituent: Ammonia as N Analysis Run 11/24/2014 10:12 AM

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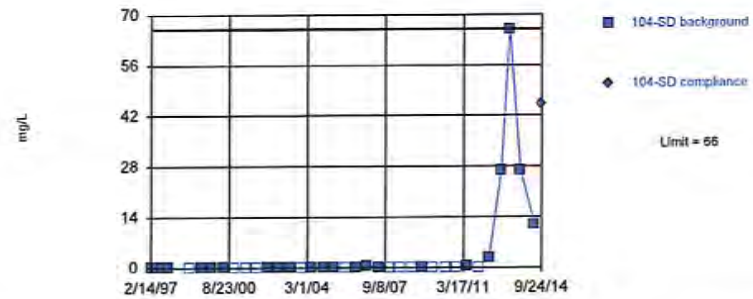
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 36.11% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Ammonia as N Analysis Run 11/24/2014 10:12 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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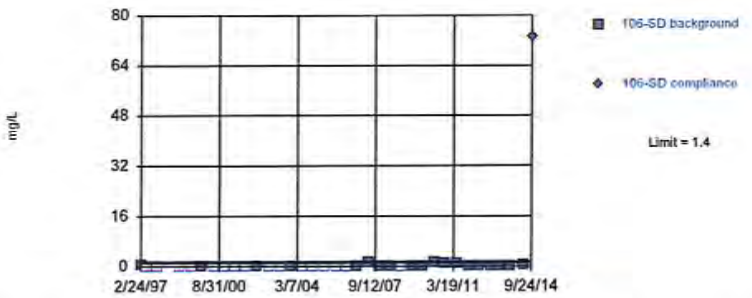
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 44.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Ammonia as N Analysis Run 11/24/2014 10:12 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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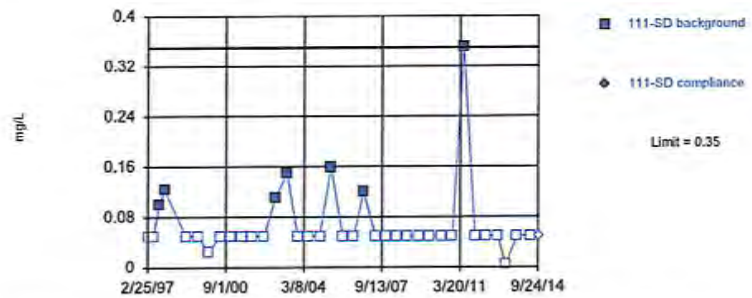
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 80.56% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Ammonia as N Analysis Run 11/24/2014 10:12 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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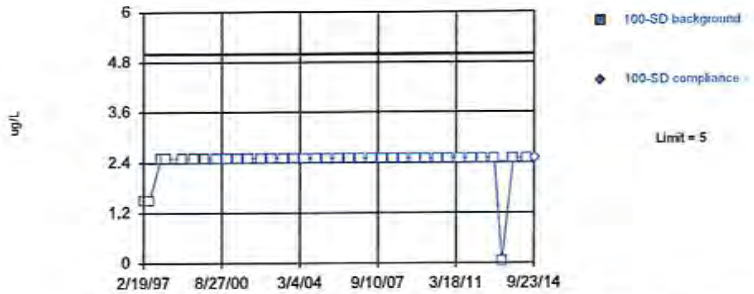
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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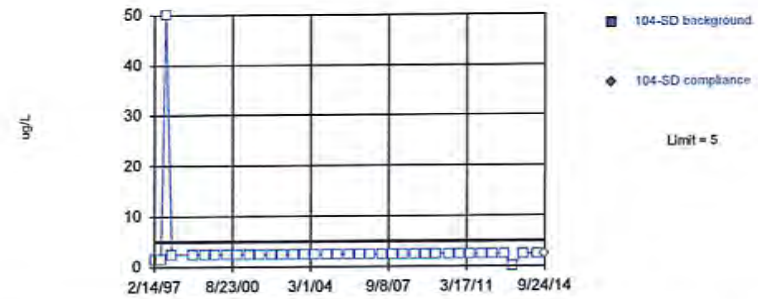
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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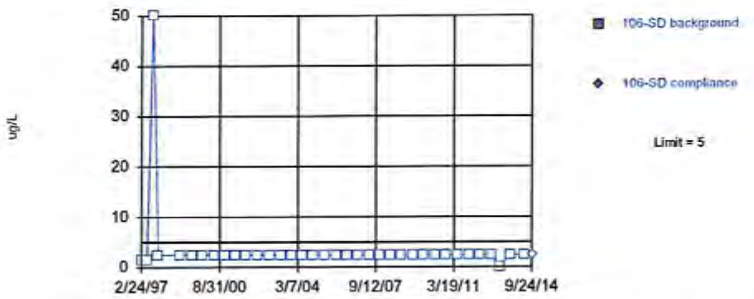
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



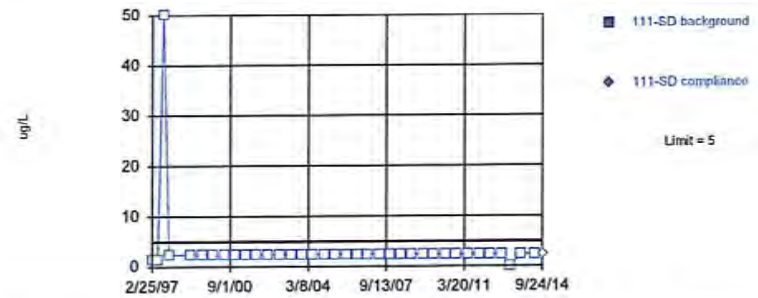
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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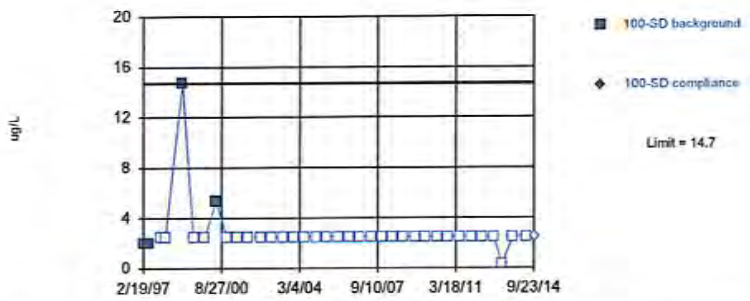
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Arsenic Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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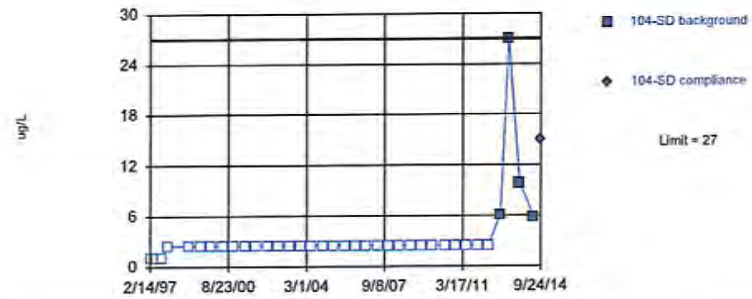
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Arsenic Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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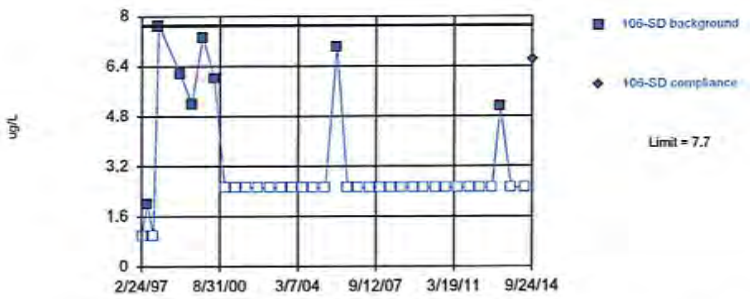
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

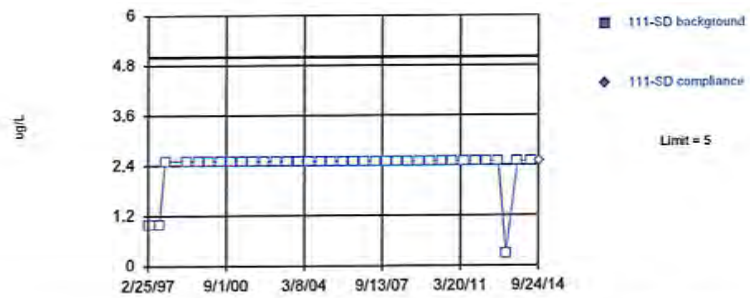
Constituent: Arsenic Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

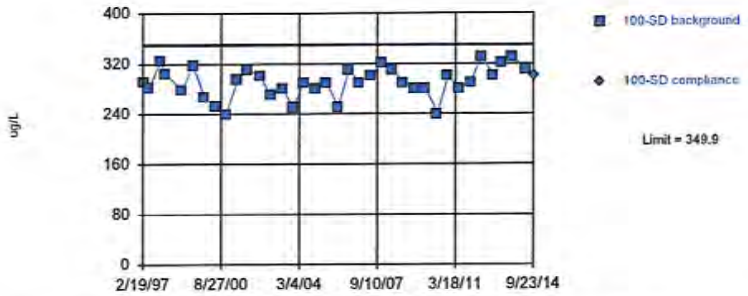
Constituent: Arsenic Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=290.3, Std. Dev.=24.24, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9514, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Barium Total Analysis Run 11/24/2014 10:12 AM

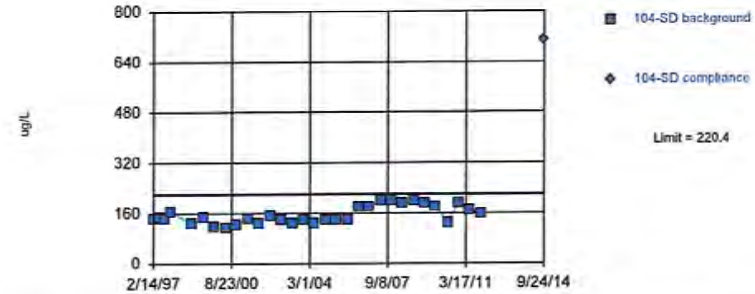
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=154.3, Std. Dev.=26.41, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9078, critical = 0.902. Kappa = 2.504 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Five background outliers were removed: 340 (5/11/2012); 480 (11/27/2012); 2000 (4/11/2013); 610 (10/7/2013); 420 (5/28/2014).

Constituent: Barium Total Analysis Run 11/24/2014 10:12 AM

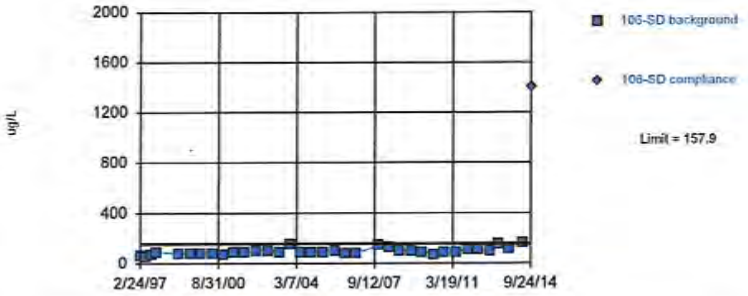
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=95.68, Std. Dev.=25.24, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9103, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 220 (5/21/2007).

Constituent: Barium Total Analysis Run 11/24/2014 10:12 AM

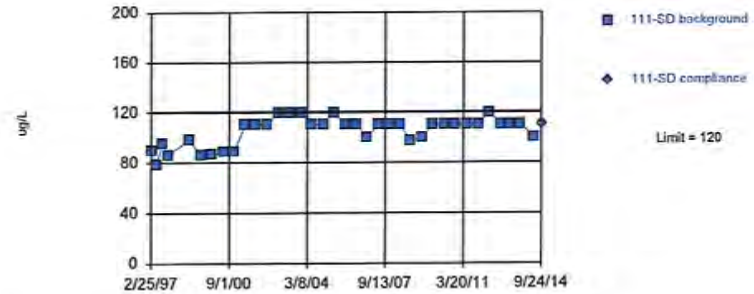
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

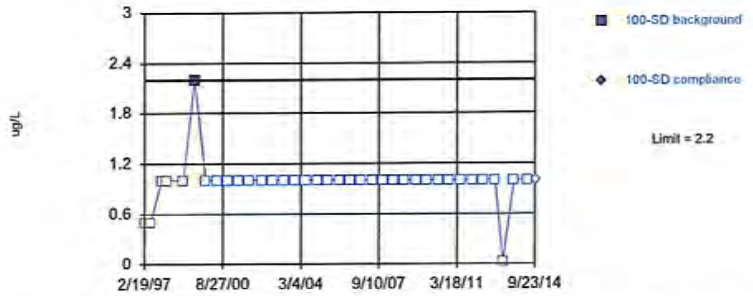
Constituent: Barium Total Analysis Run 11/24/2014 10:12 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



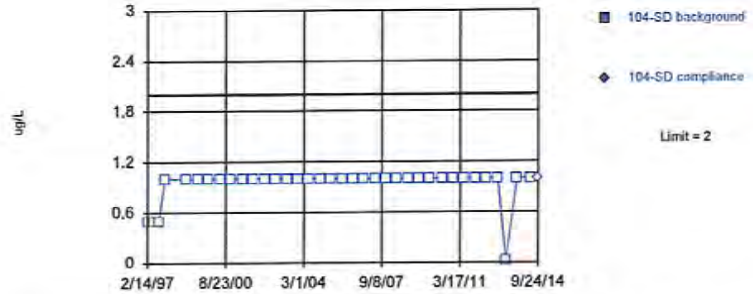
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



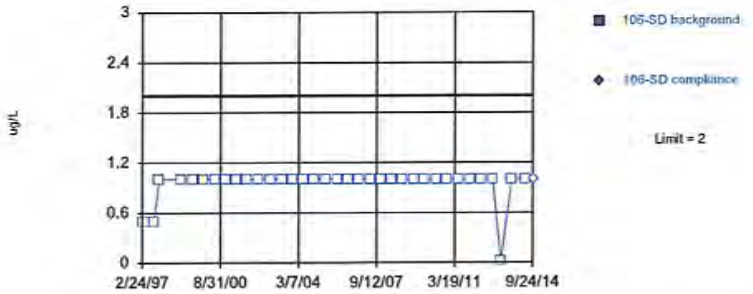
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 11/24/2014 10:12 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



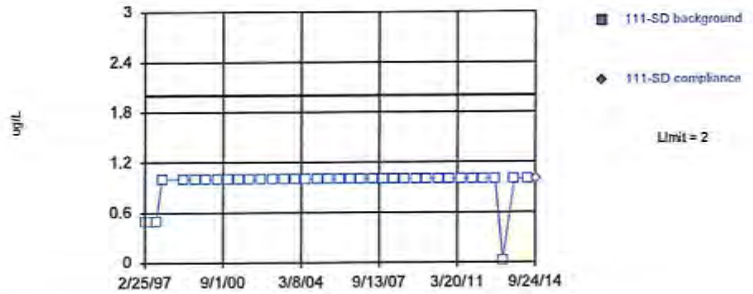
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

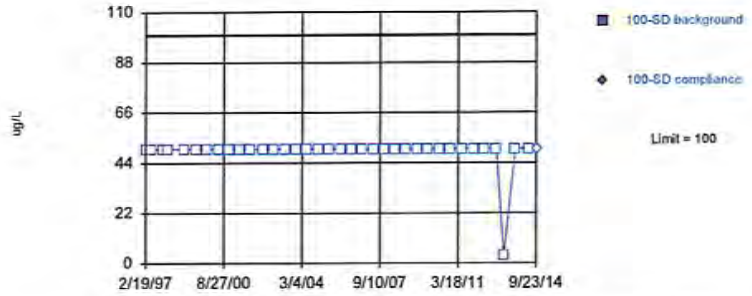
Constituent: Beryllium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

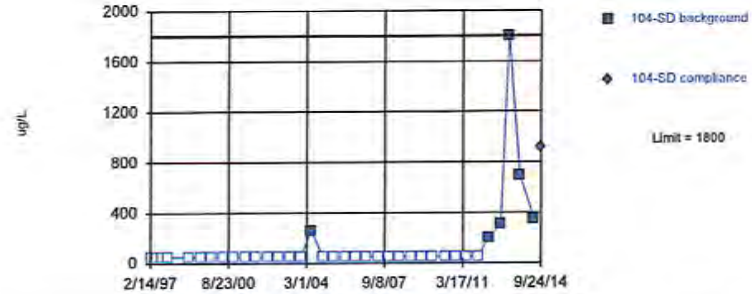
Constituent: Boron Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

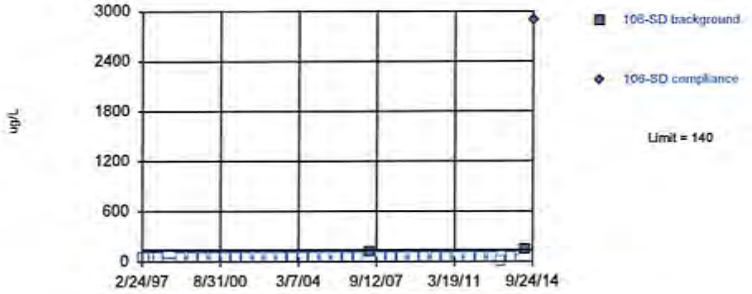
Constituent: Boron Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 94.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

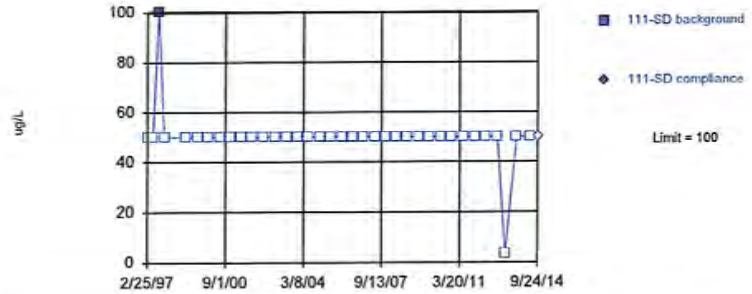
Constituent: Boron Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



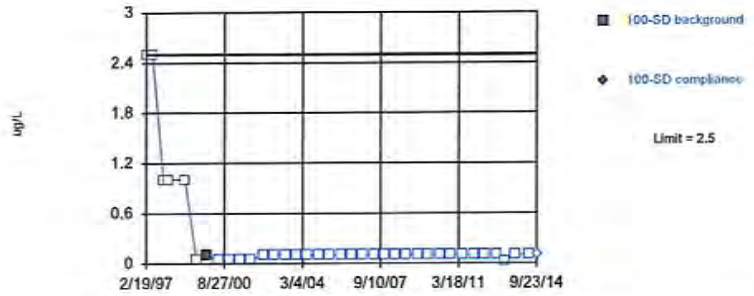
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Boron Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



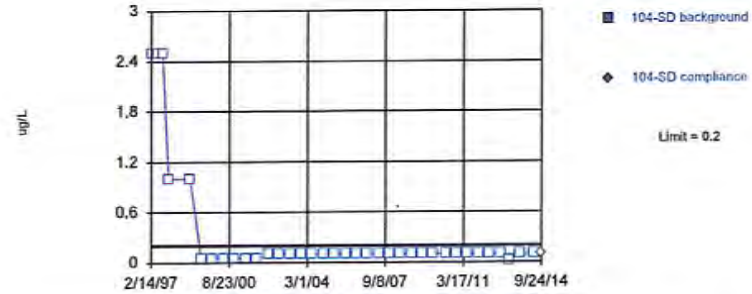
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cadmium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



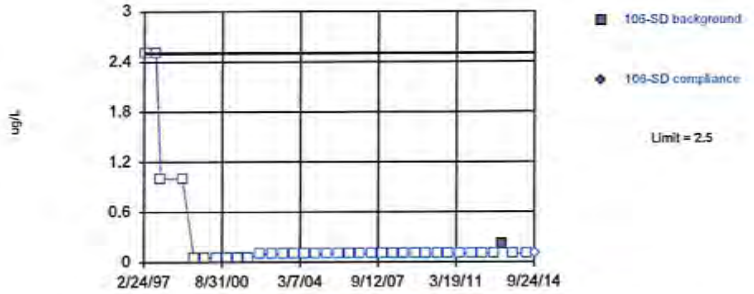
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cadmium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



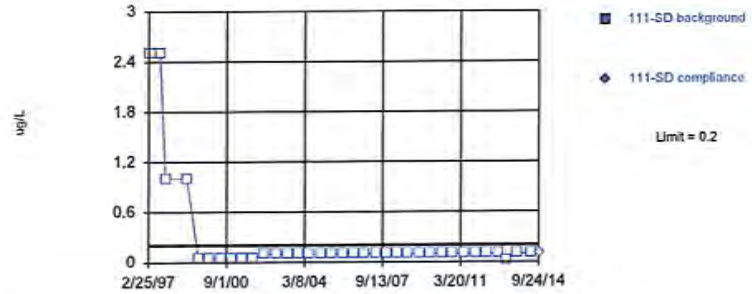
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cadmium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cadmium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric

Background Data Summary: Mean=77164, Std. Dev.=4470, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.955, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Calcium Total Analysis Run 11/24/2014 10:13 AM

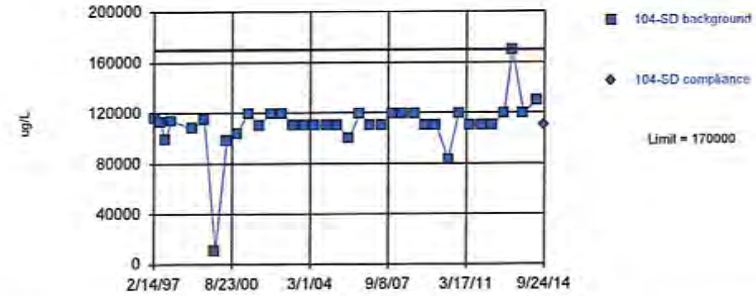
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Calcium Total Analysis Run 11/24/2014 10:13 AM

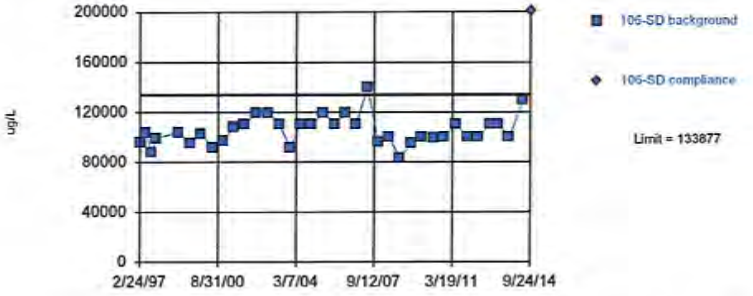
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=105364, Std. Dev.=11600, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9417, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Calcium Total Analysis Run 11/24/2014 10:13 AM

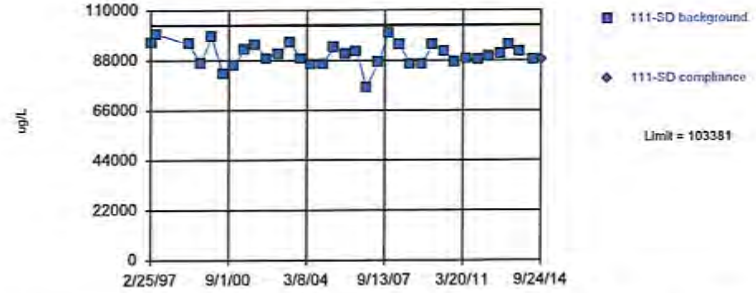
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=90650, Std. Dev.=5143, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9657, critical = 0.908. Kappa = 2.475 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 8590 (8/21/1997); 70400 (11/24/1997).

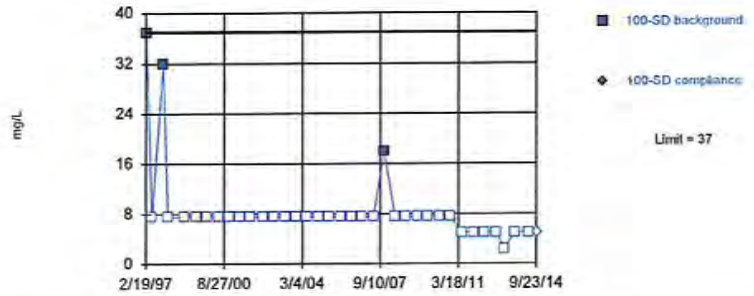
Constituent: Calcium Total Analysis Run 11/24/2014 10:13 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



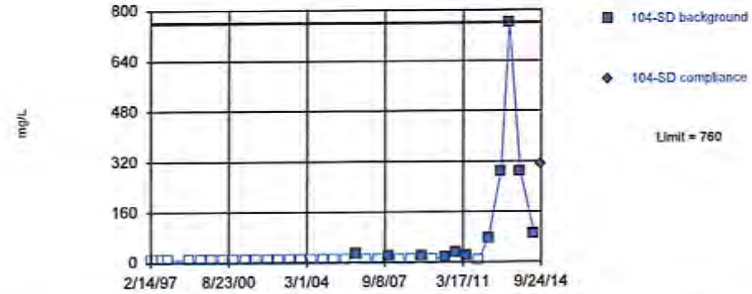
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



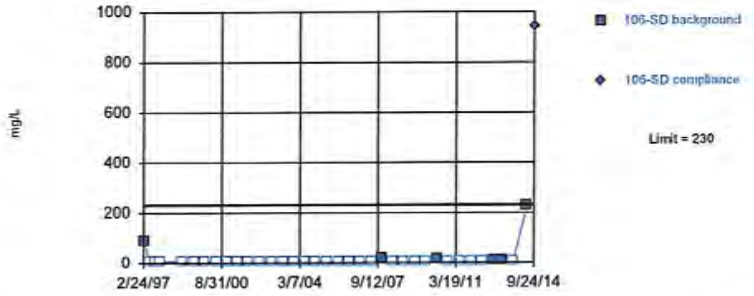
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 69.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



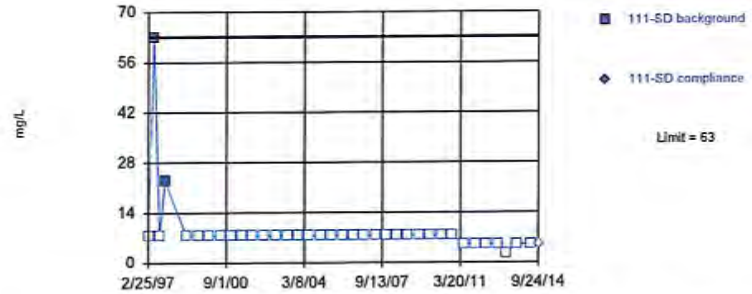
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric

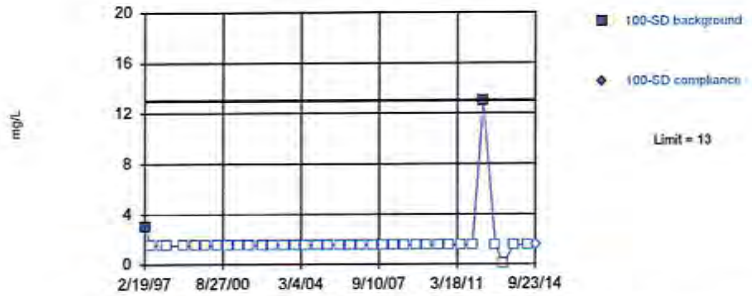


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 94.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

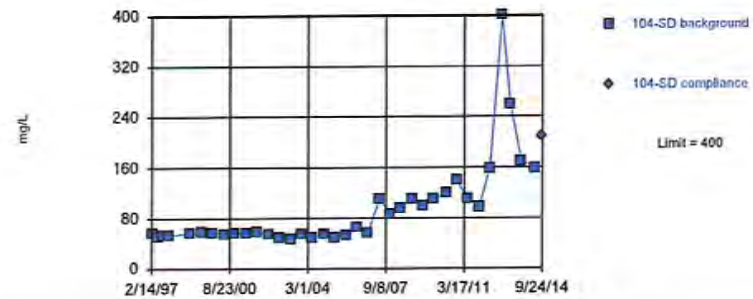


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 94.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chloride Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Within Limit

Prediction Limit
Intrawell Non-parametric

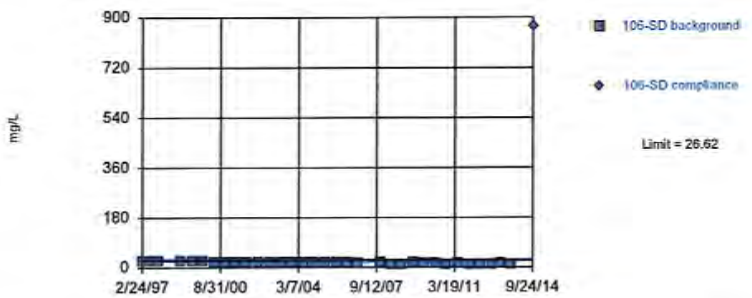


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chloride Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Exceeds Limit

Prediction Limit
Intrawell Parametric

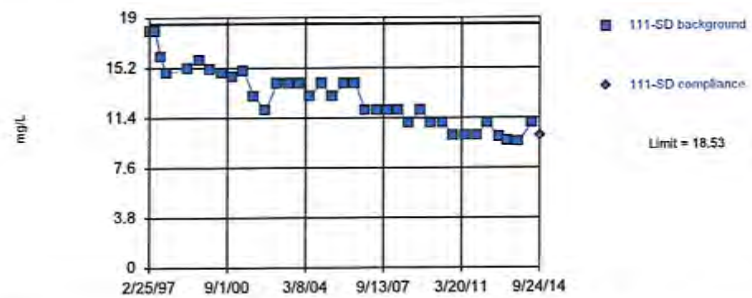


Background Data Summary: Mean=17.25, Std. Dev.=3.784, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9114, critical = 0.908. Kappa = 2.475 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 70 (5/21/2007); 280 (5/28/2014).

Constituent: Chloride Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=12.96, Std. Dev.=2.267, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9425, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

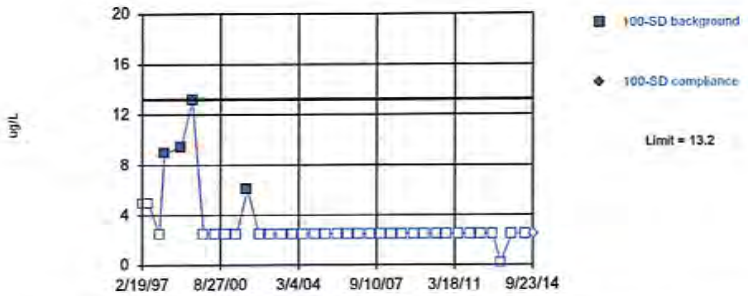
Constituent: Chloride Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

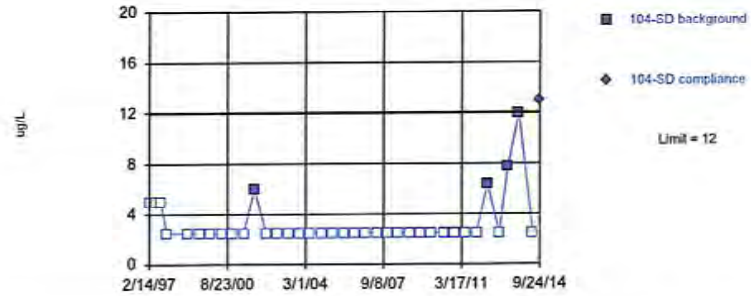
Constituent: Chromium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

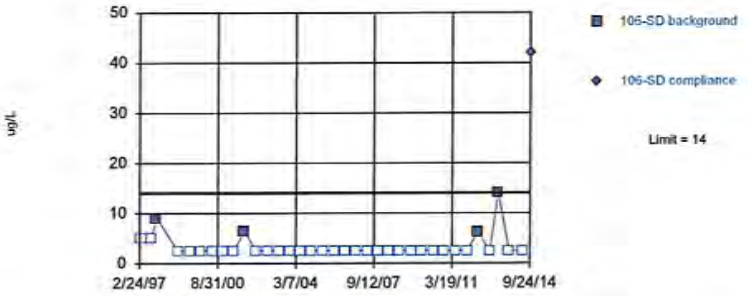
Constituent: Chromium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

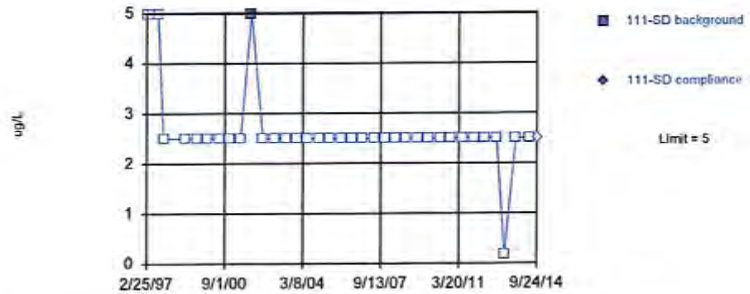
Constituent: Chromium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

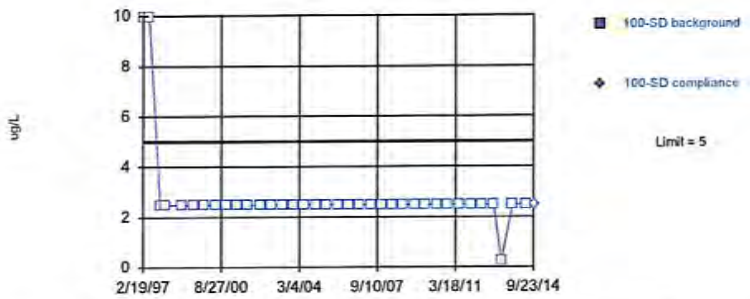
Constituent: Chromium Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

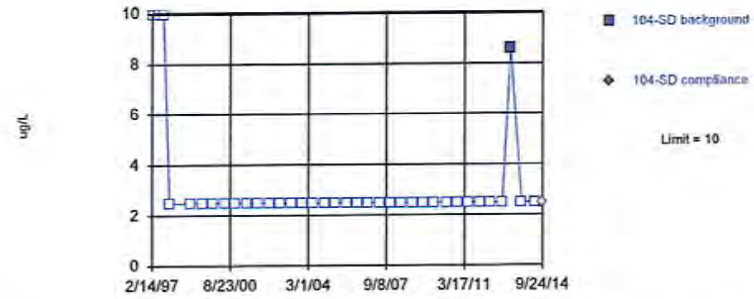
Constituent: Cobalt Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

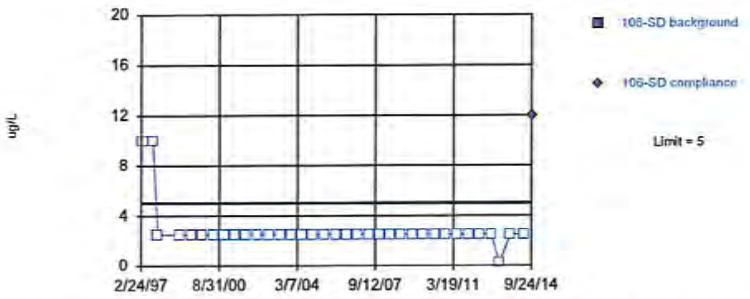
Constituent: Cobalt Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

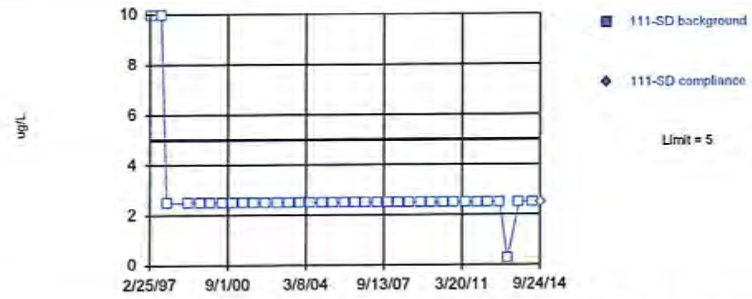
Constituent: Cobalt Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



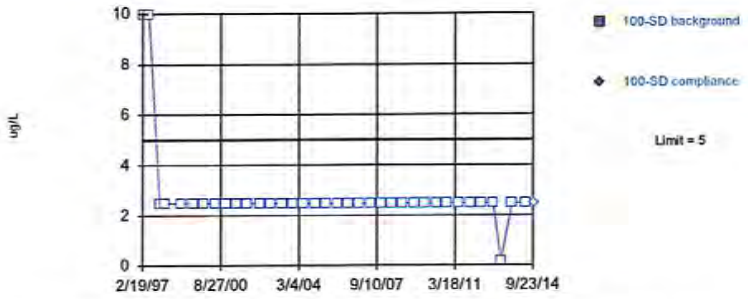
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cobalt Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



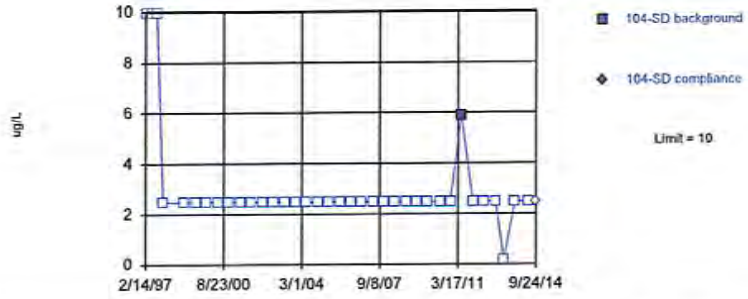
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



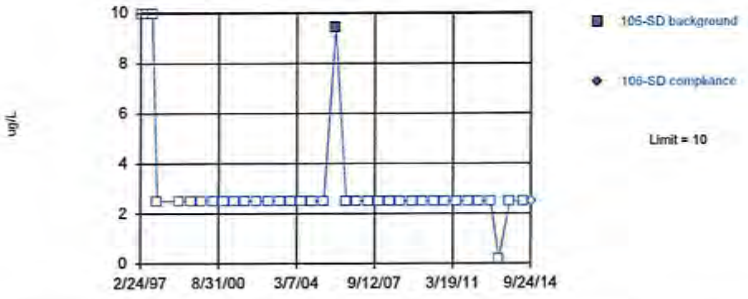
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



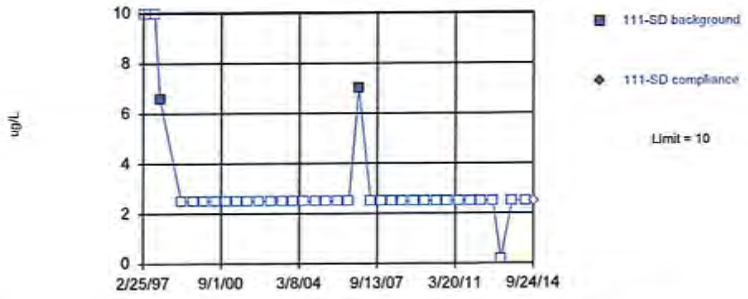
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 94.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

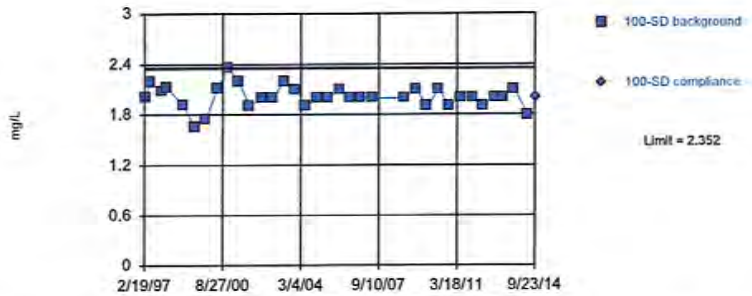
Constituent: Copper Total Analysis Run 11/24/2014 10:13 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.013, Std. Dev.=0.1369, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9498, critical = 0.908. Kappa = 2.475 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Fluoride Analysis Run 11/24/2014 10:13 AM

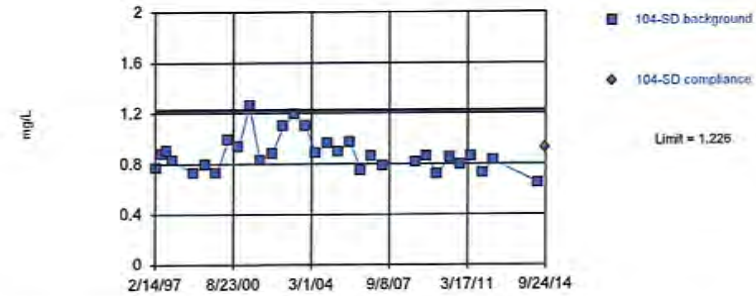
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.8766, Std. Dev.=0.1396, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9153, critical = 0.902. Kappa = 2.504 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Three background outliers were removed: <0.1 (11/27/2012); 0.21 (4/11/2013); <0.1 (10/7/2013).

Constituent: Fluoride Analysis Run 11/24/2014 10:13 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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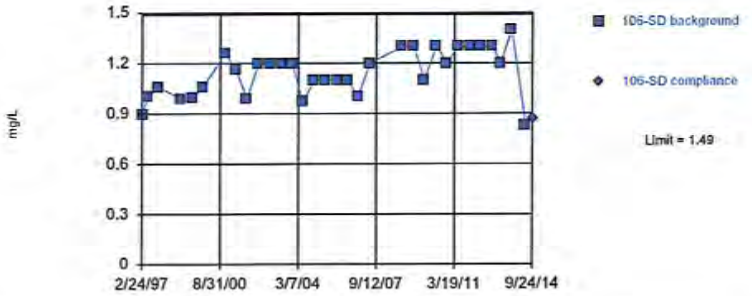
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.144, Std. Dev.=0.1385, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9503, critical = 0.904. Kappa = 2.494 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: <0.25 (8/28/1997); 2.24 (5/23/2000).

Constituent: Fluoride Analysis Run 11/24/2014 10:13 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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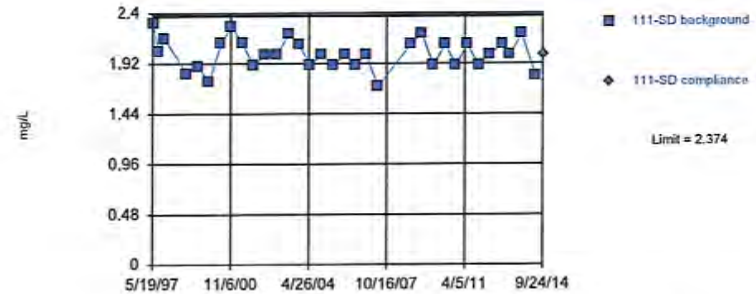
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.011, Std. Dev.=0.1462, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.967, critical = 0.906. Kappa = 2.485 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 1.2 (2/25/1997).

Constituent: Fluoride Analysis Run 11/24/2014 10:13 AM

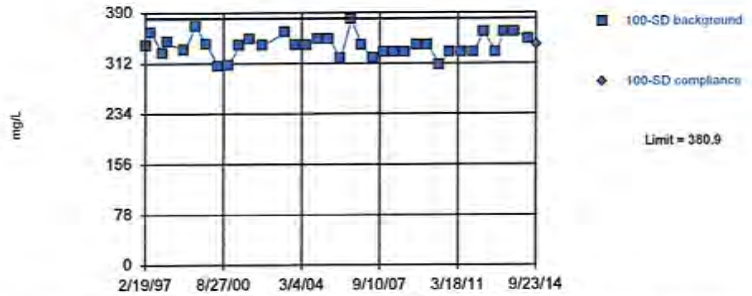
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=339.8, Std. Dev.=16.65, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9648, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 120 (11/19/2002).

Constituent: Hardness Total Analysis Run 11/24/2014 10:13 AM

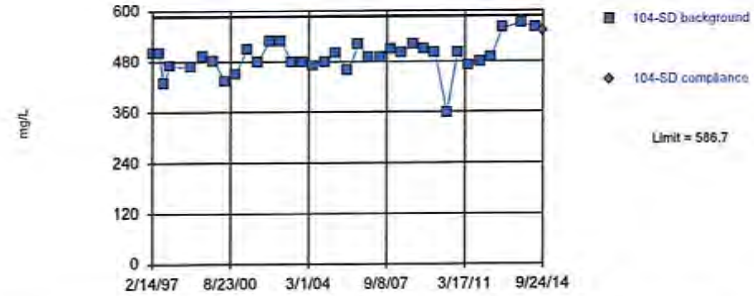
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=490.7, Std. Dev.=38.89, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9333, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 840 (4/11/2013).

Constituent: Hardness Total Analysis Run 11/24/2014 10:14 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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Exceeds Limit

Prediction Limit

Intrawell Parametric

Background Data Summary: Mean=470.6, Std. Dev.=45.78, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.945, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 180 (11/19/2002).

Constituent: Hardness Total Analysis Run 11/24/2014 10:14 AM

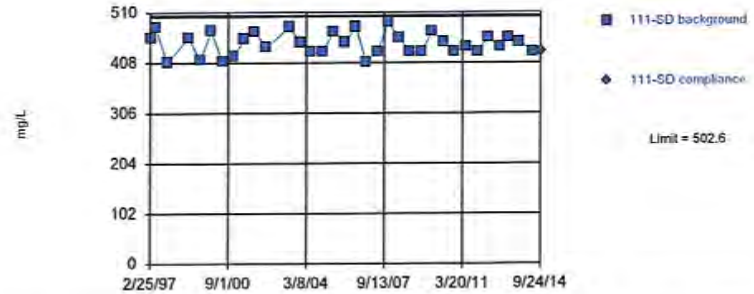
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=446.9, Std. Dev.=22.52, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9489, critical = 0.908. Kappa = 2.475 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 37.1 (8/21/1997); 150 (11/19/2002).

Constituent: Hardness Total Analysis Run 11/24/2014 10:14 AM

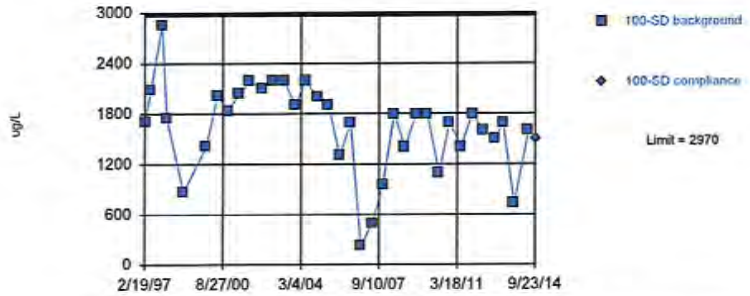
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1654, Std. Dev.=533.5, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9418, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 3550 (5/18/1999).

Constituent: Iron Total Analysis Run 11/24/2014 10:14 AM

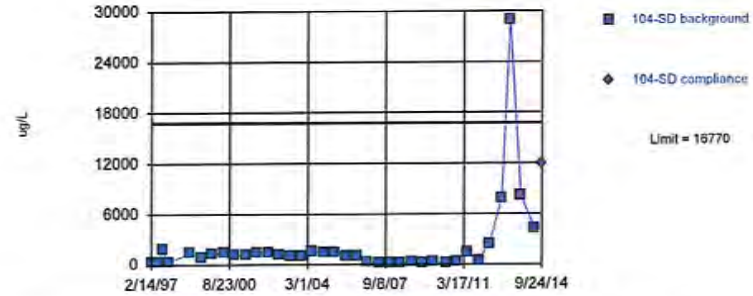
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=6.853, Std. Dev.=1.17, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9307, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Iron Total Analysis Run 11/24/2014 10:14 AM

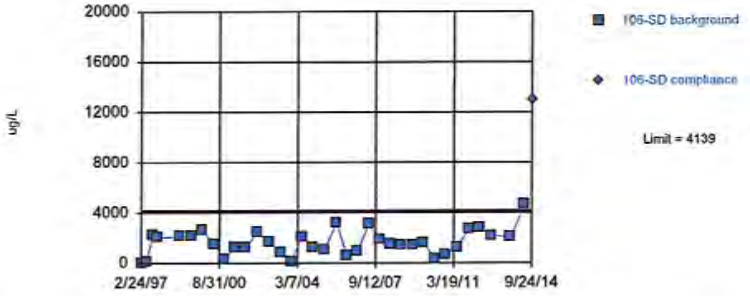
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1666, Std. Dev.=1003, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9602, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 5400 (4/9/2013).

Constituent: Iron Total Analysis Run 11/24/2014 10:14 AM

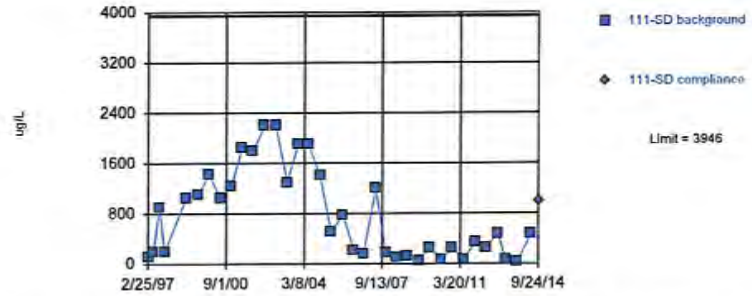
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=8.077, Std. Dev.=3.143, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9217, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

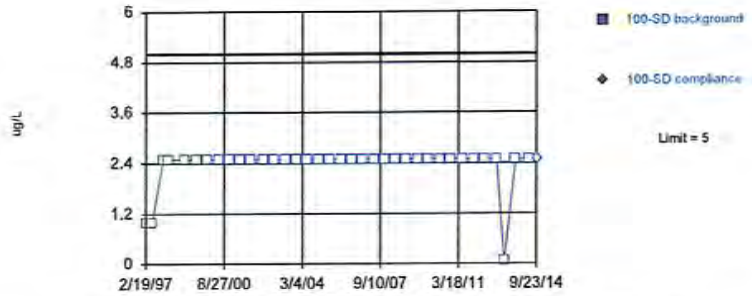
Constituent: Iron Total Analysis Run 11/24/2014 10:14 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



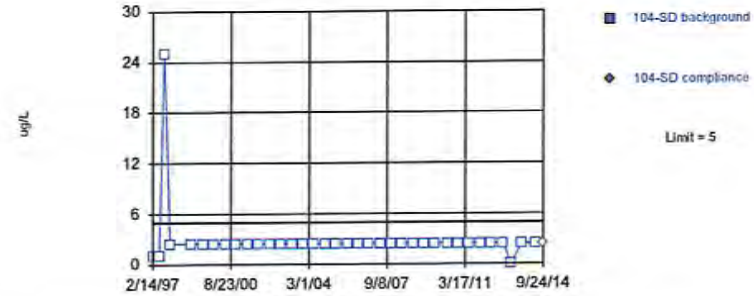
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Lead Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



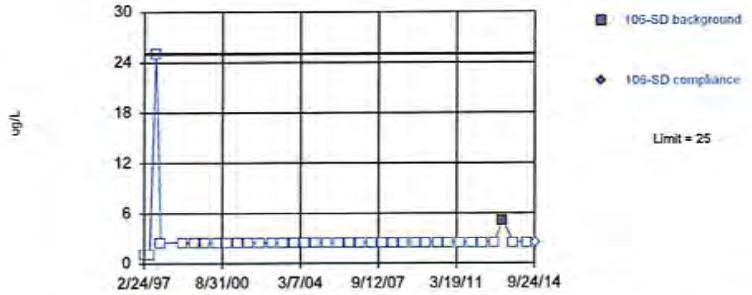
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Lead Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



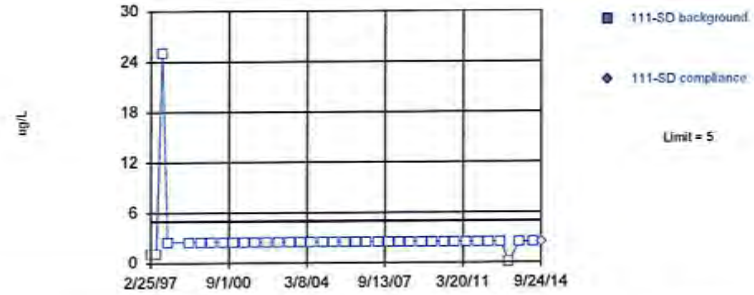
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Lead Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Lead Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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Within Limit

Prediction Limit

Intrawell Parametric

Background Data Summary: Mean=35814, Std. Dev.=1743, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9557, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Magnesium Total Analysis Run 11/24/2014 10:14 AM

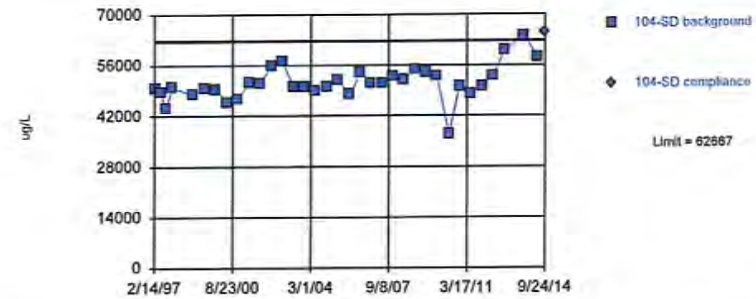
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=51123, Std. Dev.=4681, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9442, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 100000 (4/11/2013).

Constituent: Magnesium Total Analysis Run 11/24/2014 10:14 AM

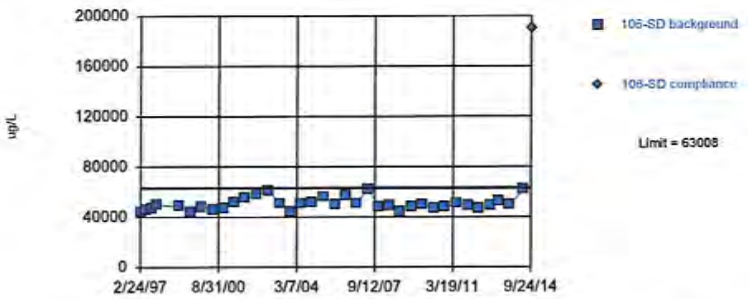
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=10.82, Std. Dev.=0.09234, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Magnesium Total Analysis Run 11/24/2014 10:14 AM

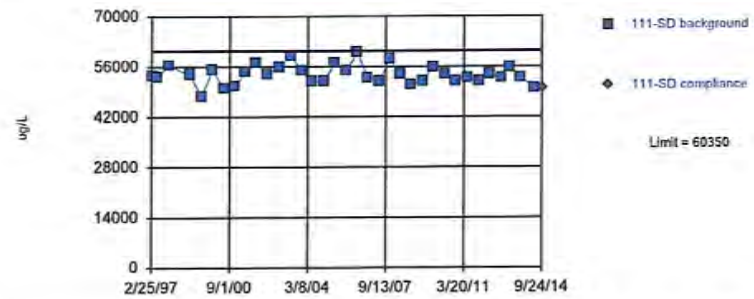
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=53854, Std. Dev.=2634, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9848, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 3810 (8/21/1997).

Constituent: Magnesium Total Analysis Run 11/24/2014 10:14 AM

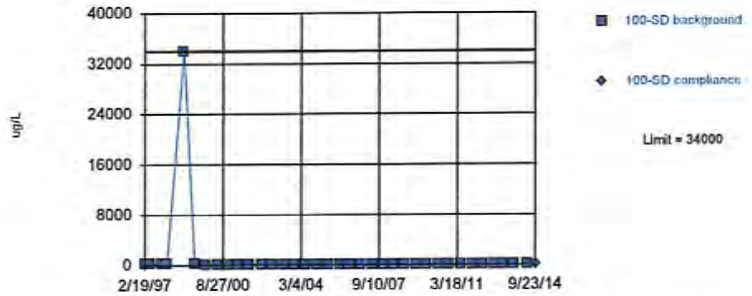
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Manganese Total Analysis Run 11/24/2014 10:14 AM

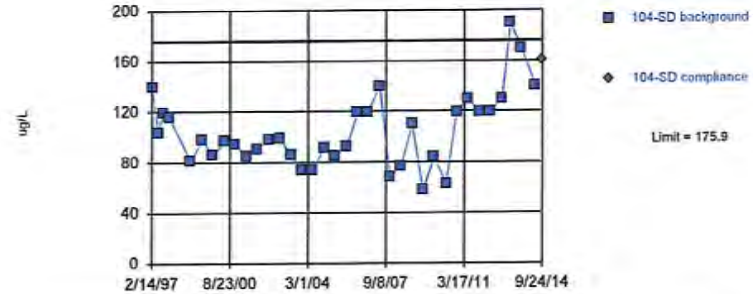
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=104.8, Std. Dev.=28.91, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9434, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Manganese Total Analysis Run 11/24/2014 10:14 AM

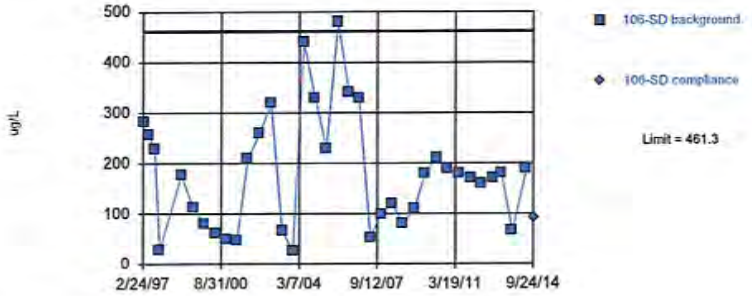
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=181.1, Std. Dev.=114, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9334, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Manganese Total Analysis Run 11/24/2014 10:14 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

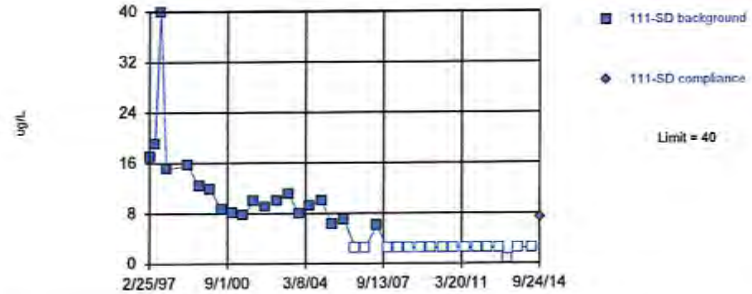
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 44.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Manganese Total Analysis Run 11/24/2014 10:14 AM

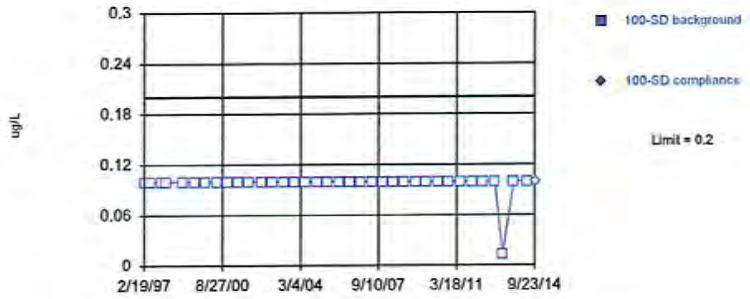
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

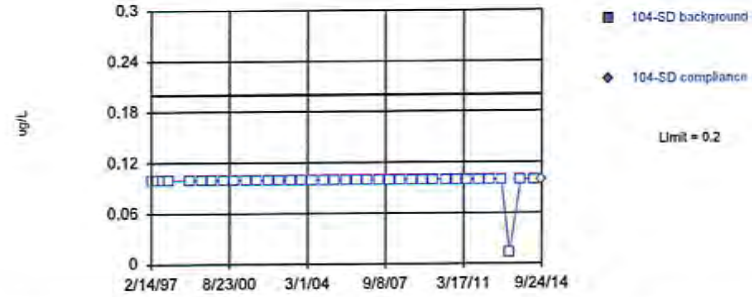
Constituent: Mercury Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

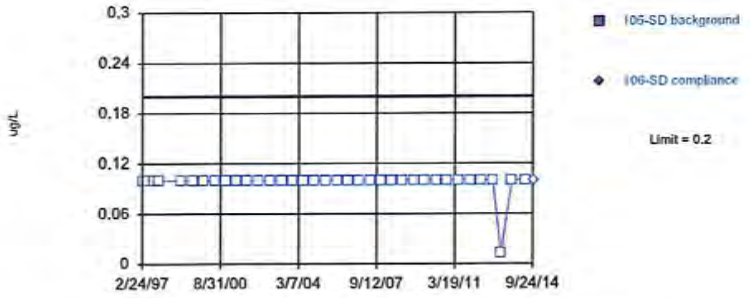
Constituent: Mercury Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

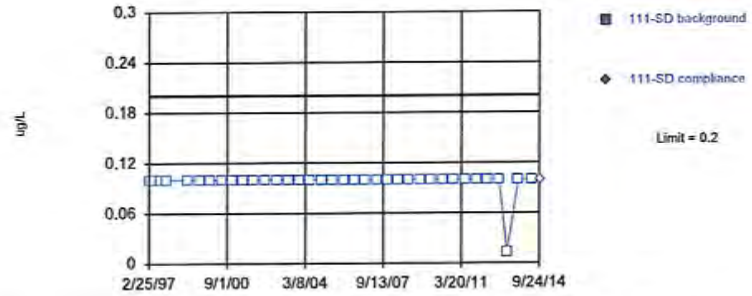
Constituent: Mercury Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

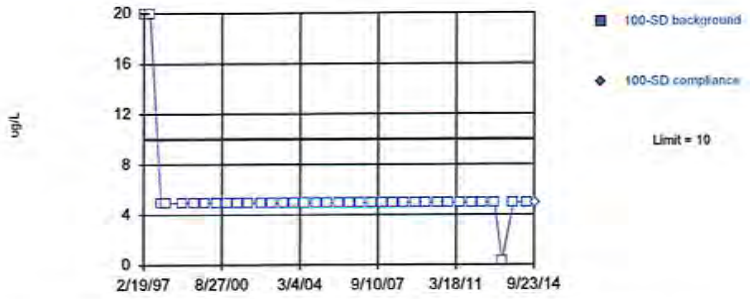
Constituent: Mercury Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nickel Total Analysis Run 11/24/2014 10:14 AM

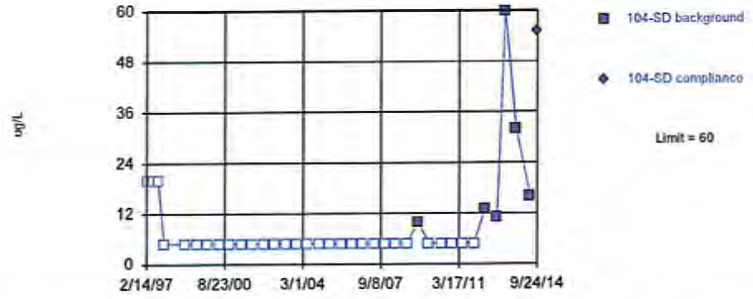
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nickel Total Analysis Run 11/24/2014 10:14 AM

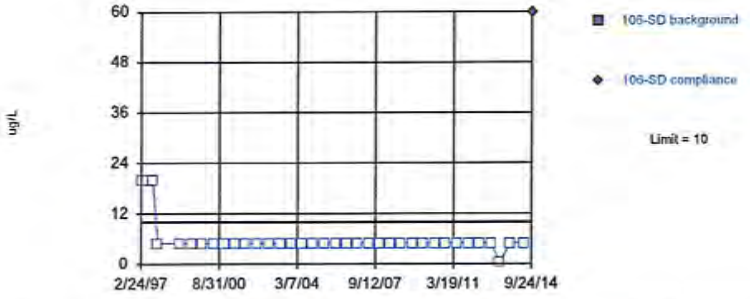
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nickel Total Analysis Run 11/24/2014 10:14 AM

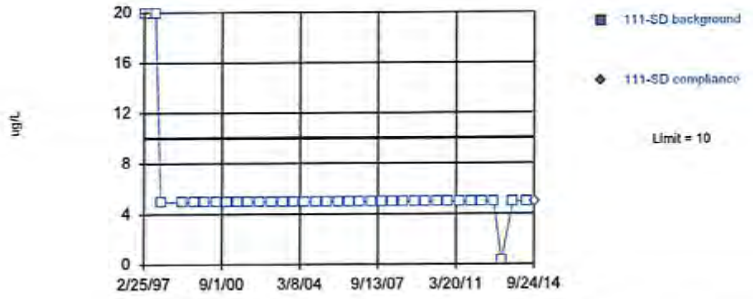
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

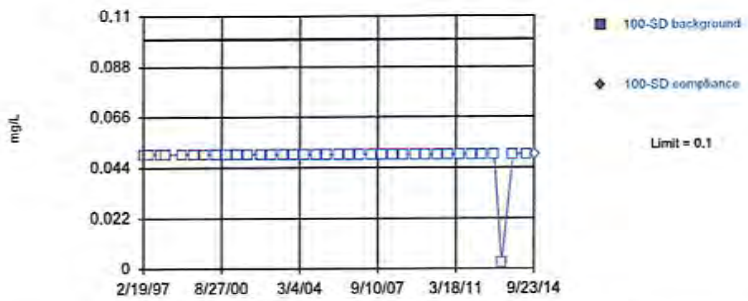
Constituent: Nickel Total Analysis Run 11/24/2014 10:14 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



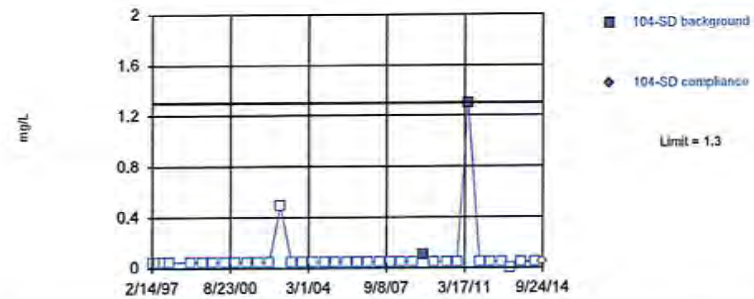
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nitrate/Nitrite Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



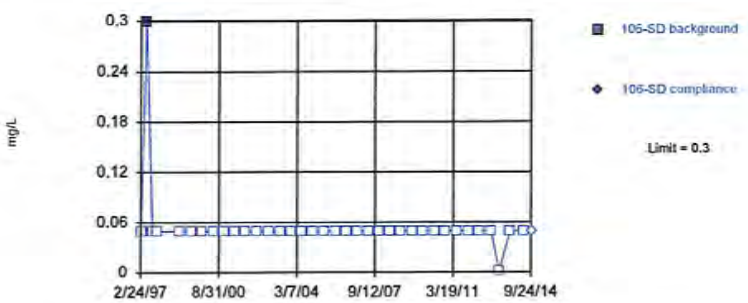
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 94.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nitrate/Nitrite Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



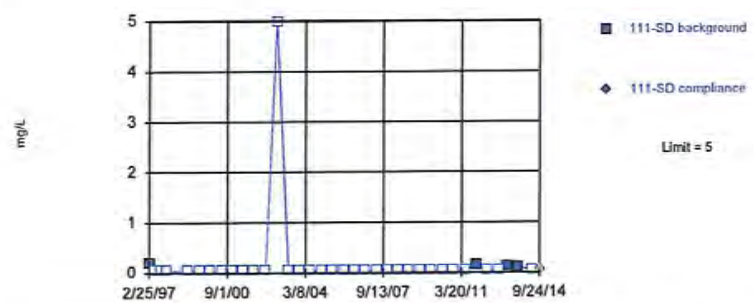
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nitrate/Nitrite Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

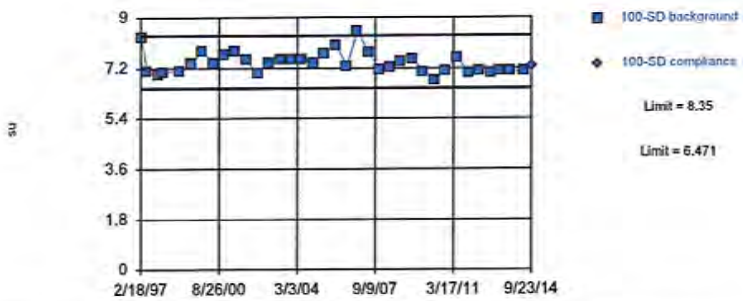
Constituent: Nitrate/Nitrite Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.717, Std. Dev.=0.07033, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 11/24/2014 10:14 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limits

Prediction Limit

Intrawell Parametric

Background Data Summary: Mean=7.227, Std. Dev.=0.4217, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9614, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 11/24/2014 10:14 AM

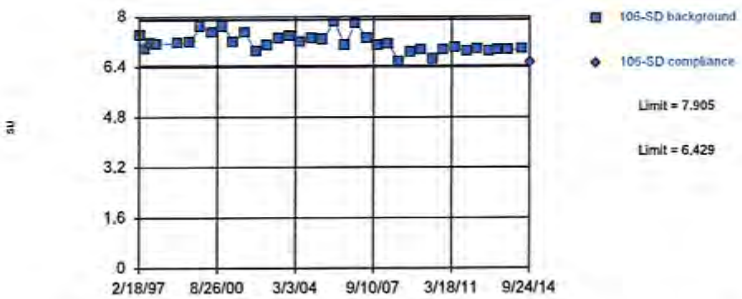
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.167, Std. Dev.=0.3002, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9535, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 11/24/2014 10:14 AM

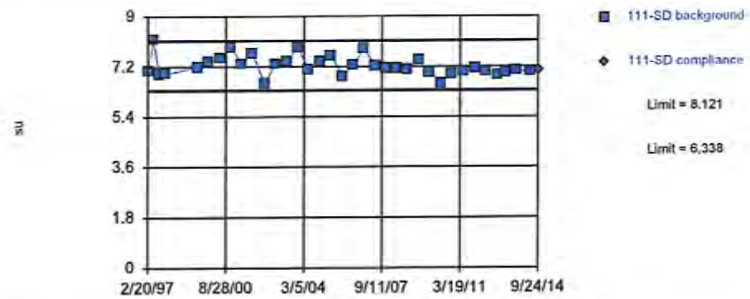
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.229, Std. Dev.=0.3614, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9404, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 5.2 (11/12/1998).

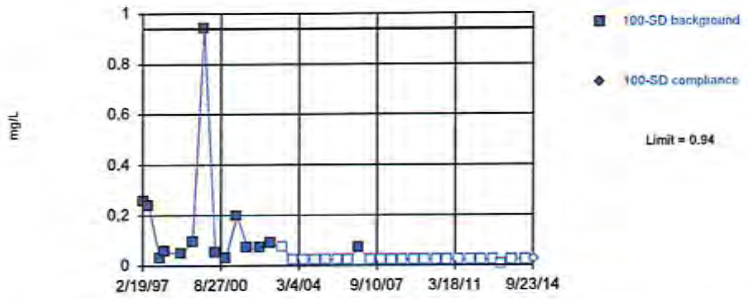
Constituent: pH [Field] Analysis Run 11/24/2014 10:14 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



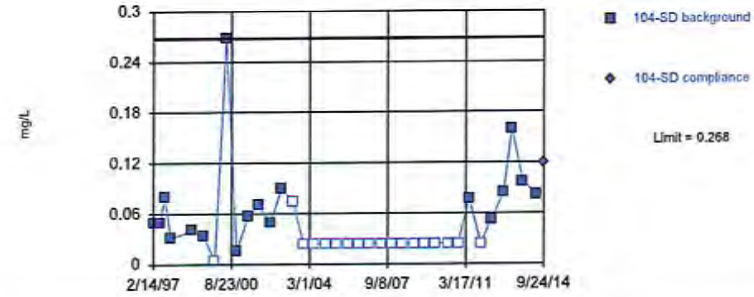
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 61.11% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Phosphorus Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



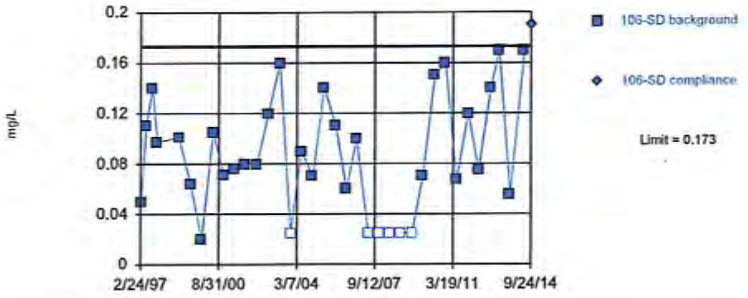
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 50% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Phosphorus Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Parametric



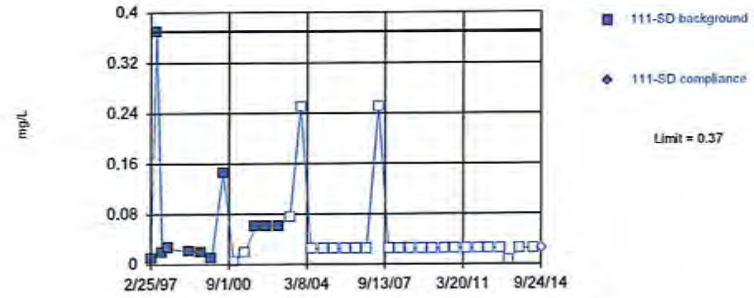
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.07605, Std. Dev.=0.03946, n=36, 16.67% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9347, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Phosphorus Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



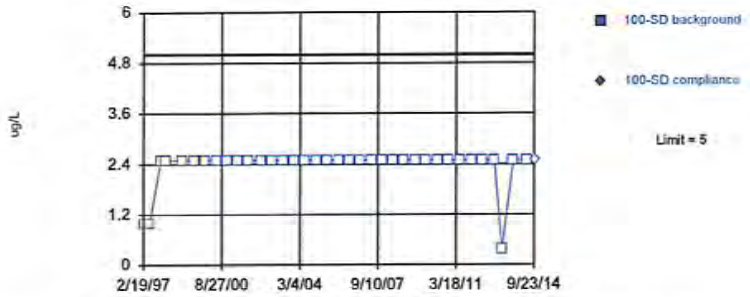
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 69.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Phosphorus Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



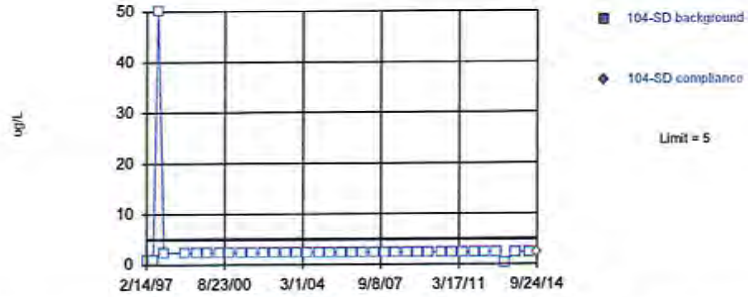
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Selenium Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



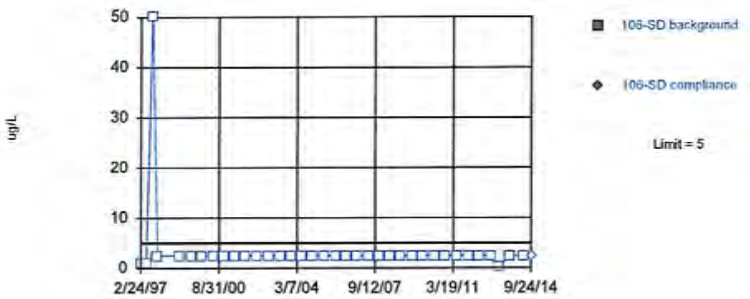
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Selenium Total Analysis Run 11/24/2014 10:14 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



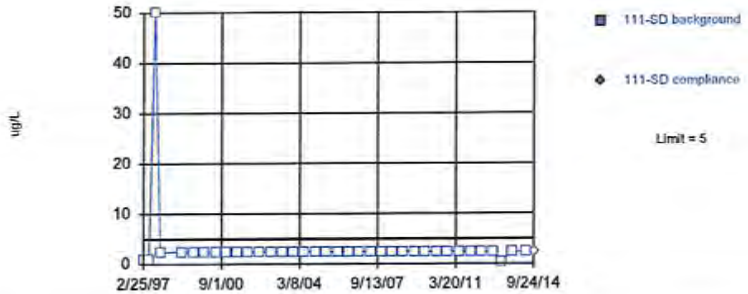
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Selenium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

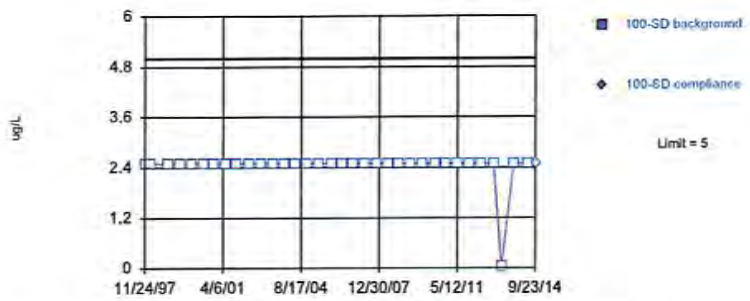
Constituent: Selenium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 34) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.006335. Individual comparison alpha = 0.001587 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Silver Total Analysis Run 11/24/2014 10:15 AM

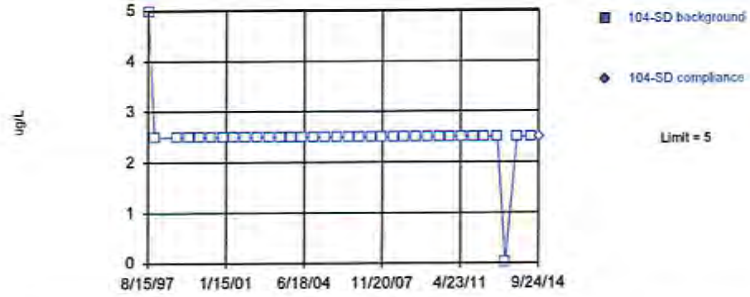
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 34) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.006335. Individual comparison alpha = 0.001587 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Silver Total Analysis Run 11/24/2014 10:15 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric

Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 35) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005934. Individual comparison alpha = 0.001487 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Silver Total Analysis Run 11/24/2014 10:15 AM

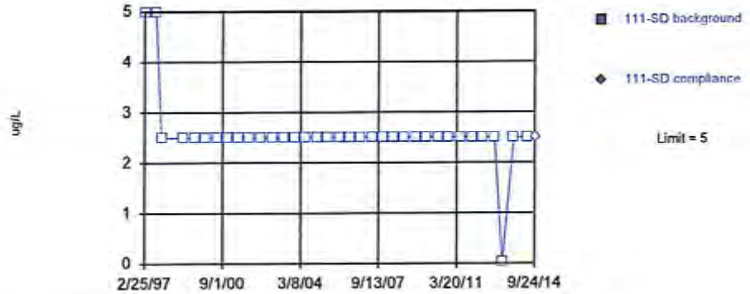
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 35) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005934. Individual comparison alpha = 0.001487 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Silver Total Analysis Run 11/24/2014 10:15 AM

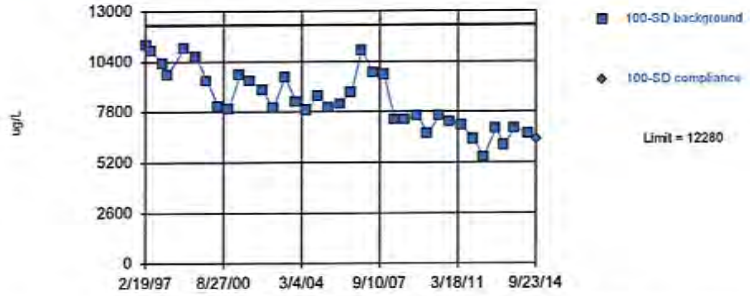
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hurst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8473, Std. Dev.=1549, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9598, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Sodium Total Analysis Run 11/24/2014 10:15 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hurst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric

Background Data Summary (based on natural log transformation): Mean=10.44, Std. Dev.=0.4766, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9101, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 320000 (4/11/2013).

Constituent: Sodium Total Analysis Run 11/24/2014 10:15 AM

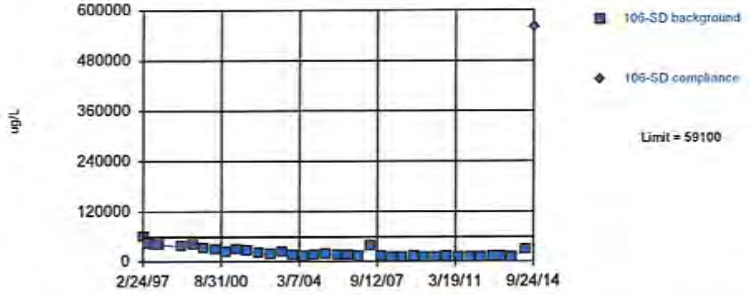
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hurst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Sodium Total Analysis Run 11/24/2014 10:15 AM

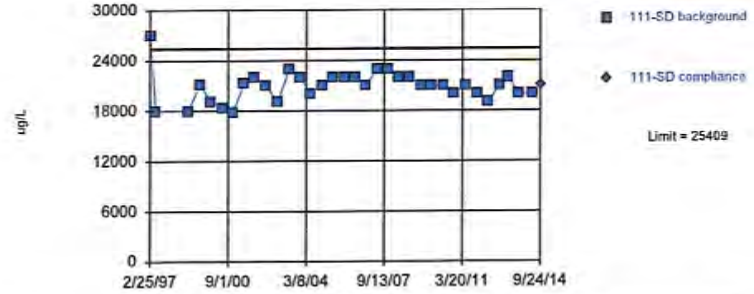
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hurst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20929, Std. Dev.=1810, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.917, critical = 0.908. Kappa = 2.475 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 218000 (8/21/1997); 73500 (11/24/1997).

Constituent: Sodium Total Analysis Run 11/24/2014 10:15 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric

Background Data Summary: Mean=632.1, Std. Dev.=36.77, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9627, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 325 (5/24/2005).

Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 10:15 AM

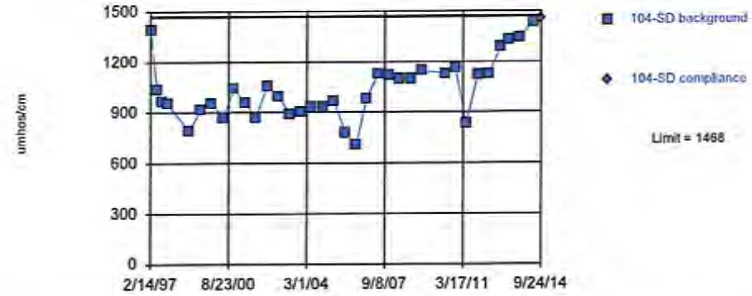
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1036, Std. Dev.=175.3, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9596, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 130.2 (11/4/2009).

Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 10:15 AM

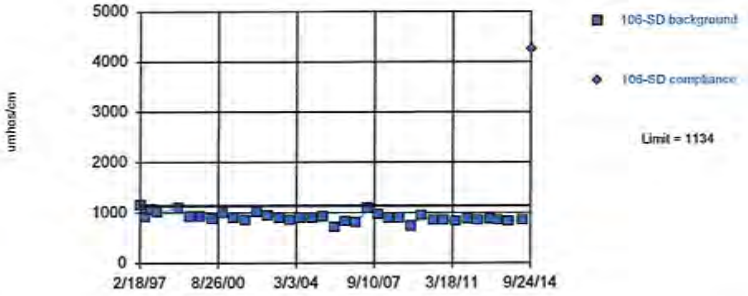
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=905.1, Std. Dev.=93.05, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9536, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 10:15 AM

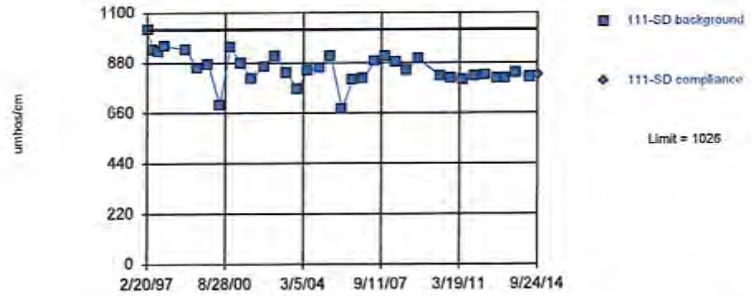
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=854.3, Std. Dev.=69.6, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.962, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 157.9 (11/3/2009).

Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 10:15 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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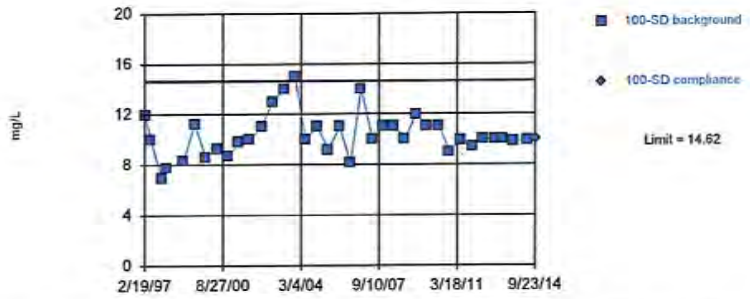
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=10.35, Std. Dev.=1.736, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9375, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Sulfate as SO4 Analysis Run 11/24/2014 10:15 AM

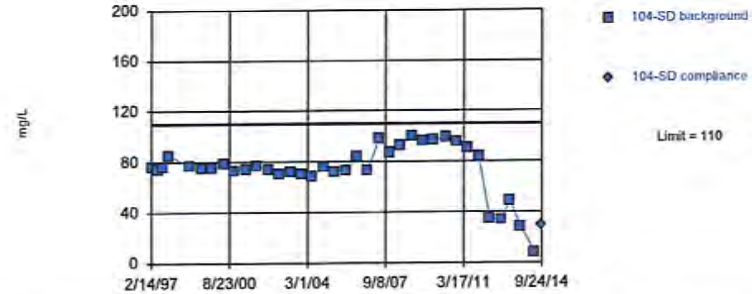
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=5902, Std. Dev.=2522, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9157, critical = 0.912. Kappa = 2.458 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Sulfate as SO4 Analysis Run 11/24/2014 10:15 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Non-parametric

Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Sulfate as SO4 Analysis Run 11/24/2014 10:15 AM

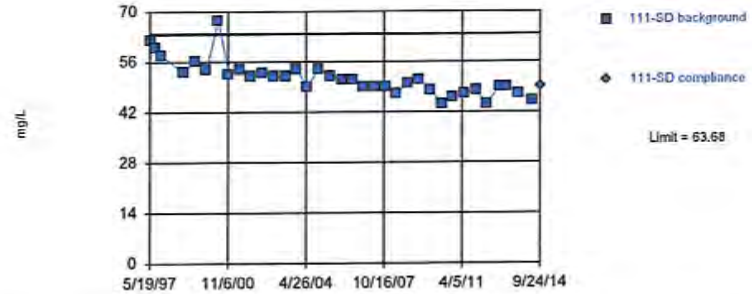
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=51.4, Std. Dev.=4.982, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9166, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 70 (2/25/1997).

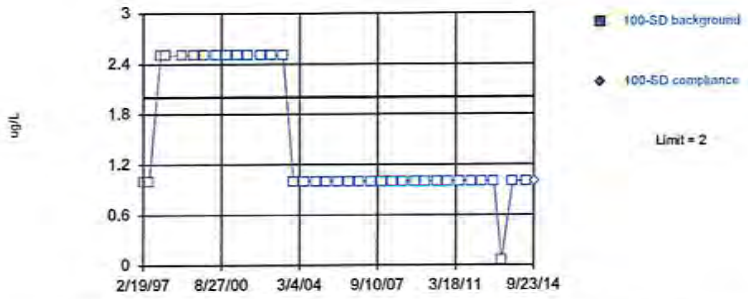
Constituent: Sulfate as SO4 Analysis Run 11/24/2014 10:15 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



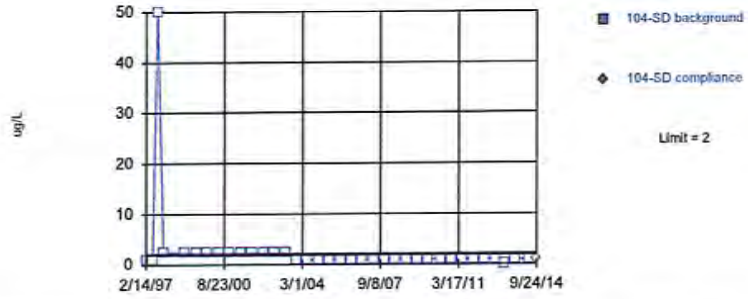
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



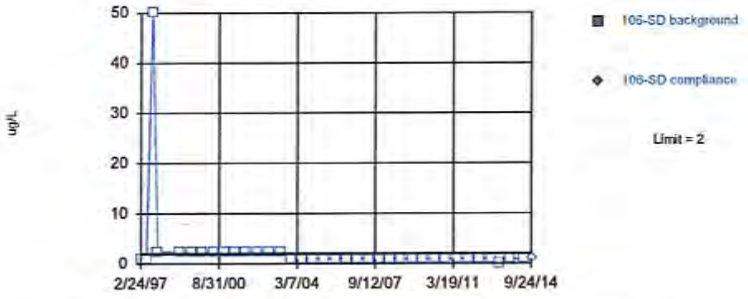
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



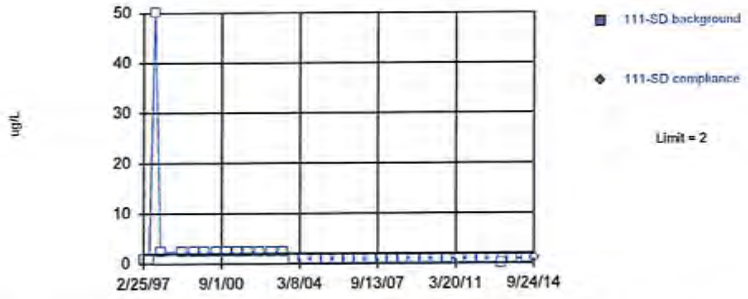
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Thallium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

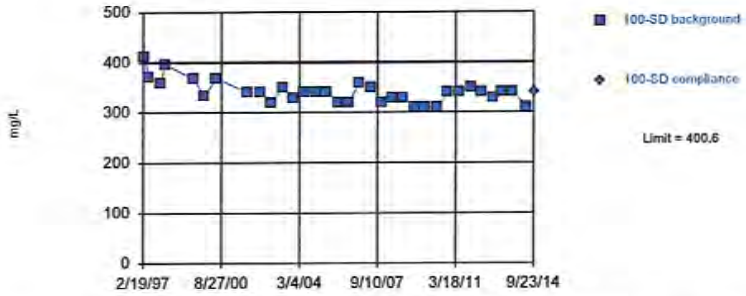
Constituent: Thallium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=18.46, Std. Dev.=0.6252, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.912, critical = 0.906. Kappa = 2.485 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Three background outliers were removed: 116 (11/14/1998); 512 (11/13/2000); 551 (5/15/2001).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 10:15 AM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric

Background Data Summary: Mean=593.2, Std. Dev.=66.9, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9462, critical = 0.904. Kappa = 2.494 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Four background outliers were removed: 1800 (11/27/2012); 1300 (4/11/2013); 970 (10/7/2013); 920 (5/28/2014).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 10:15 AM

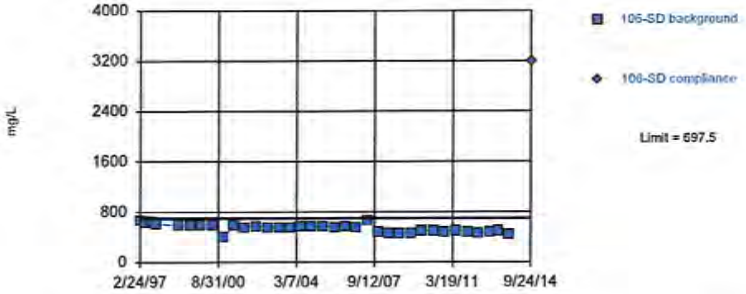
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=535.9, Std. Dev.=65.54, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9648, critical = 0.91. Kappa = 2.466 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 1600 (5/28/2014).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 10:15 AM

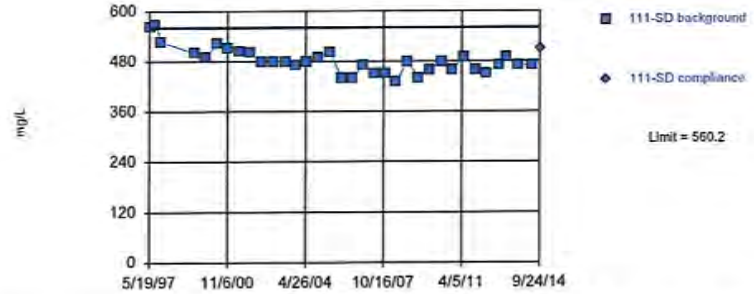
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=481.4, Std. Dev.=31.82, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9332, critical = 0.908. Kappa = 2.475 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 340 (2/25/1997); 634 (11/12/1998).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 10:15 AM

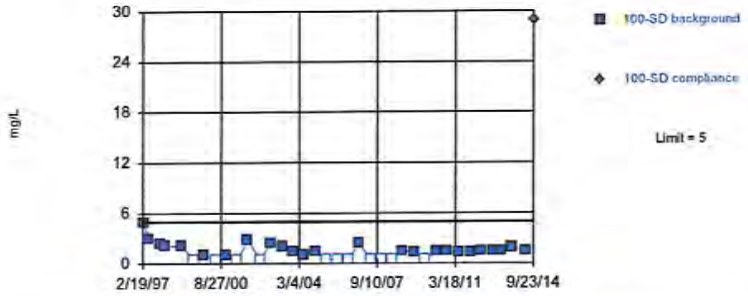
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 30.56% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

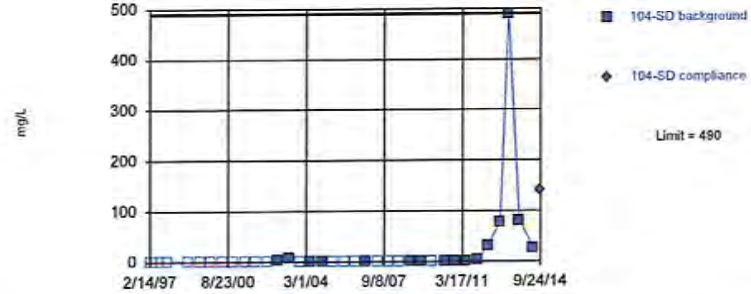
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

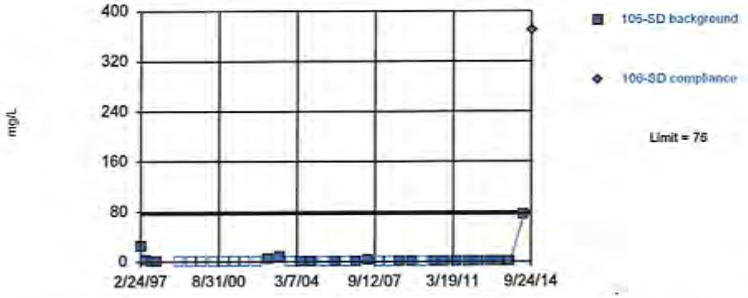
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 38.89% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

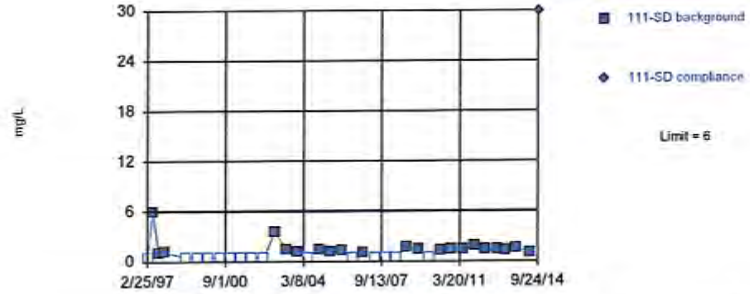
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. 41.67% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

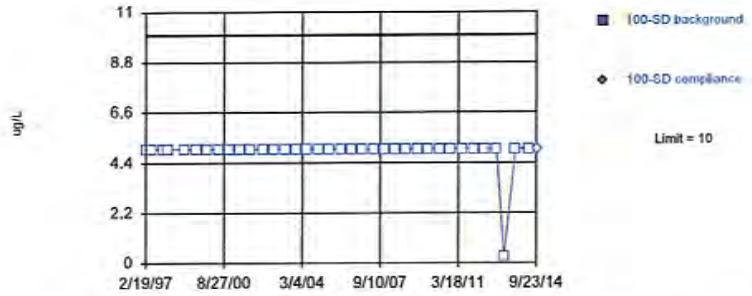
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

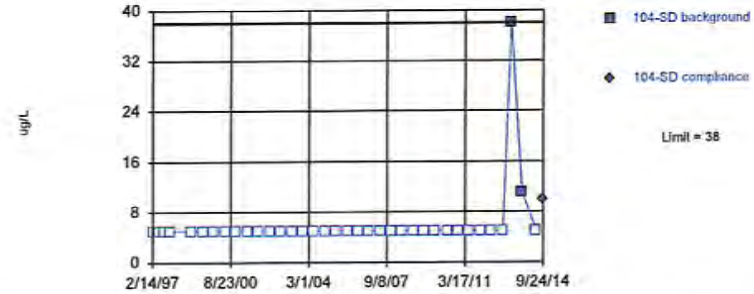
Constituent: Vanadium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 94.44% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

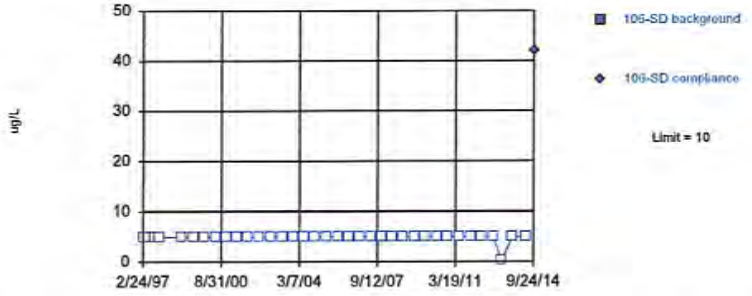
Constituent: Vanadium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

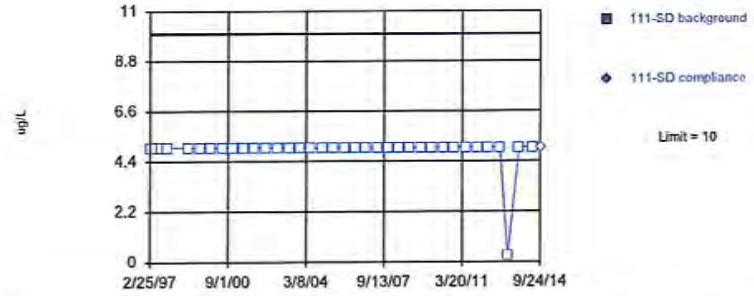
Constituent: Vanadium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



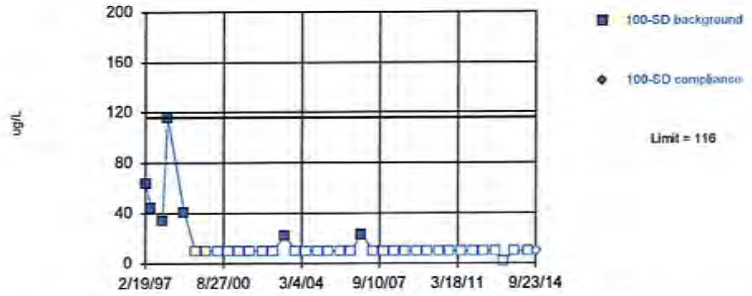
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



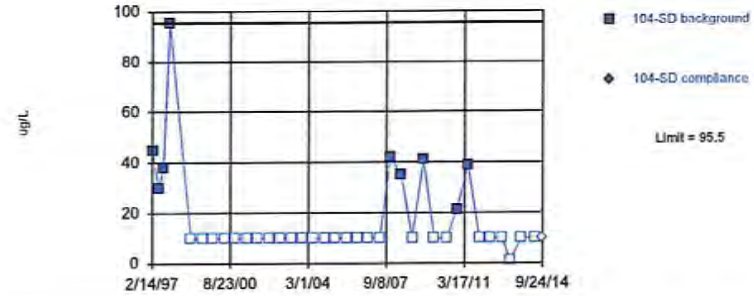
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 80.56% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Zinc Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



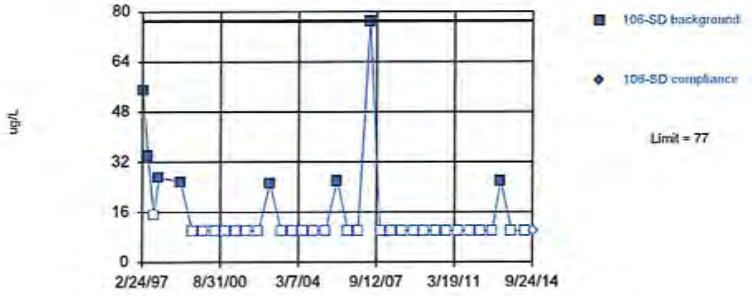
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 75% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Zinc Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



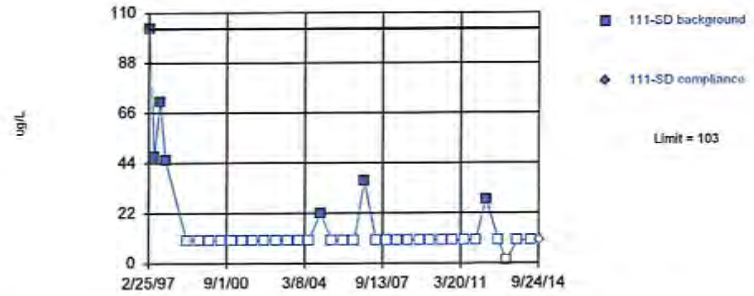
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Zinc Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 80.56% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

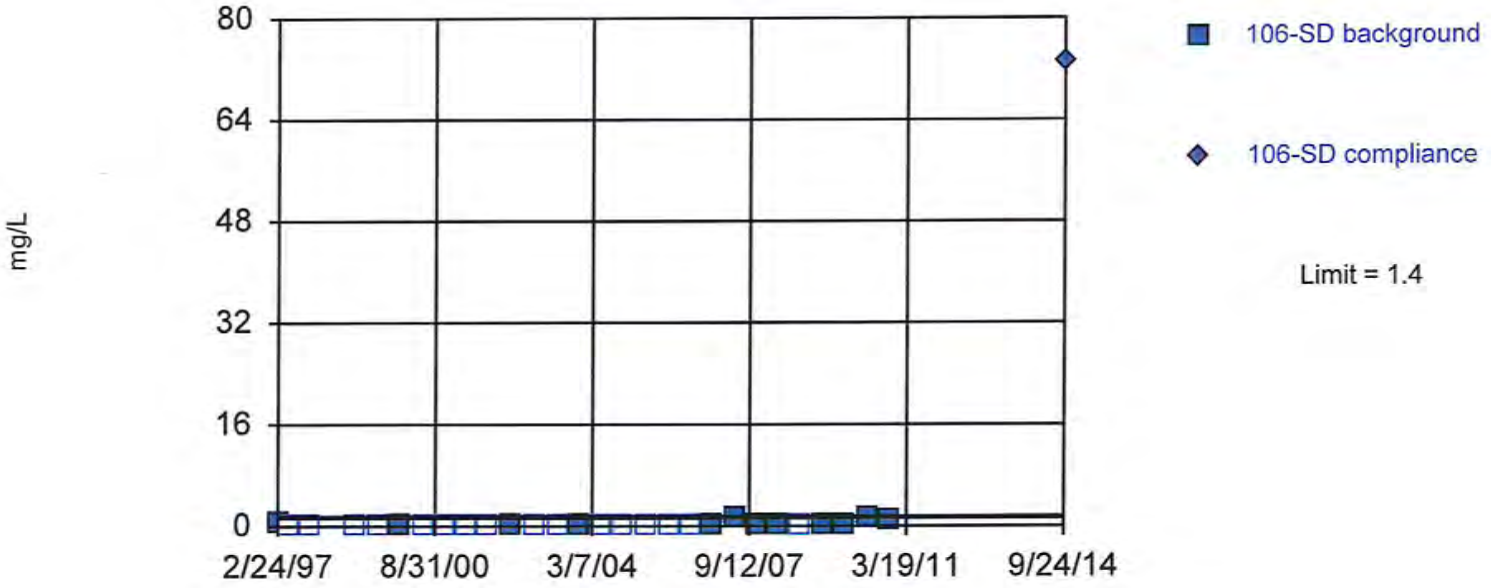
Constituent: Zinc Total Analysis Run 11/24/2014 10:15 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 29 background values. 55.17% NDs. Well-constituent pair annual alpha = 0.00858. Individual comparison alpha = 0.002152 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

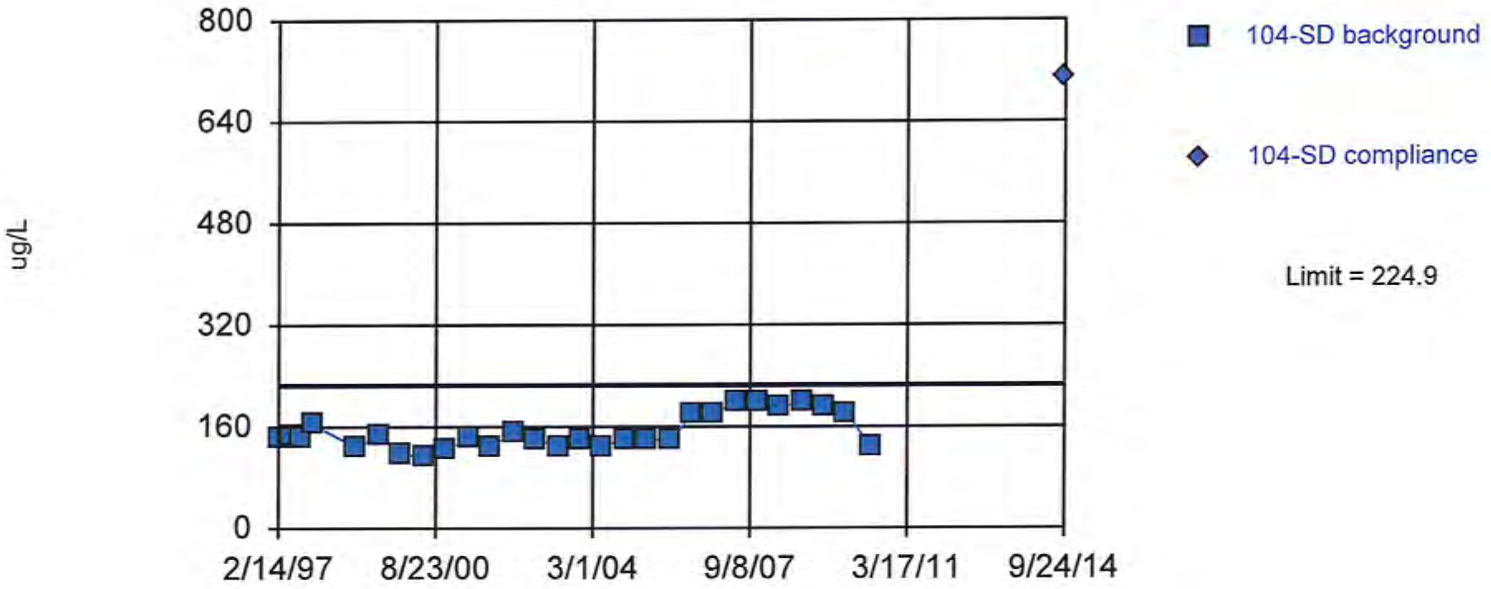
Constituent: Ammonia as N Analysis Run 11/24/2014 9:51 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=12.29, Std. Dev.=1.062, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8976, critical = 0.896. Kappa = 2.544 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

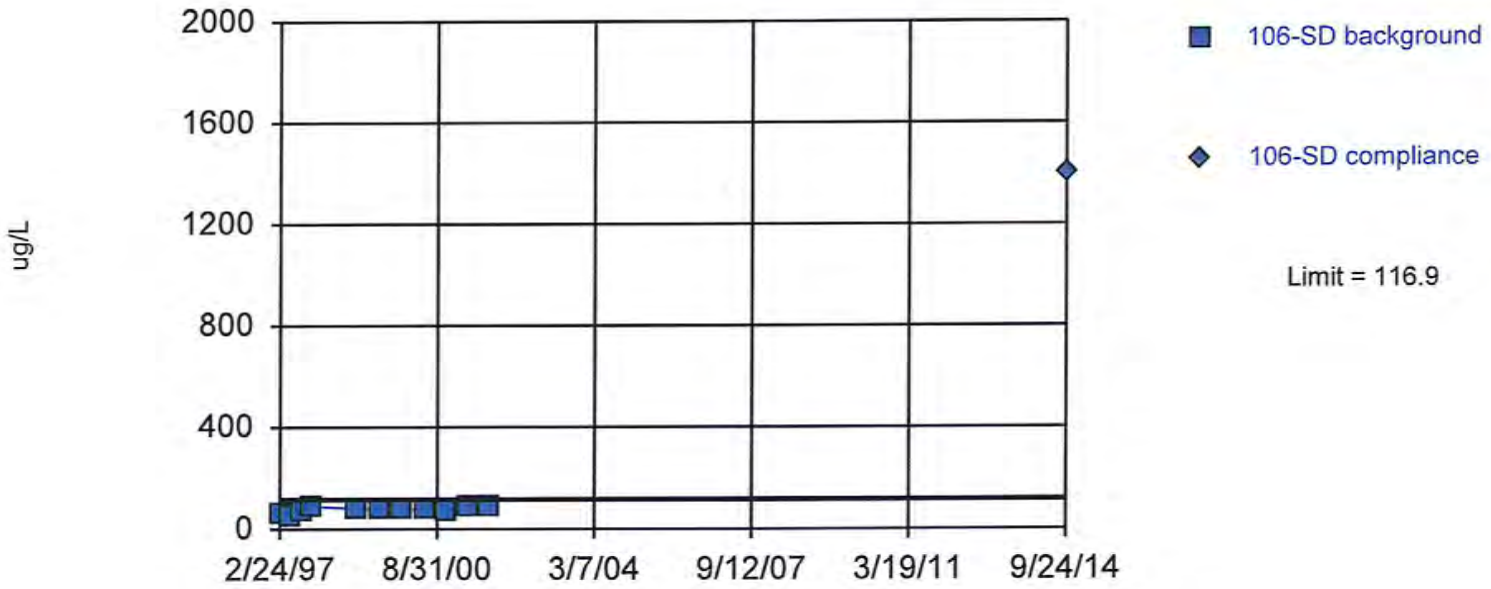
Constituent: Barium Total Analysis Run 11/24/2014 9:40 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=75.8, Std. Dev.=12.33, n=11. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9524, critical = 0.85. Kappa = 3.335 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Dixon's Outlier Test was performed on the background data. No background outliers were found.

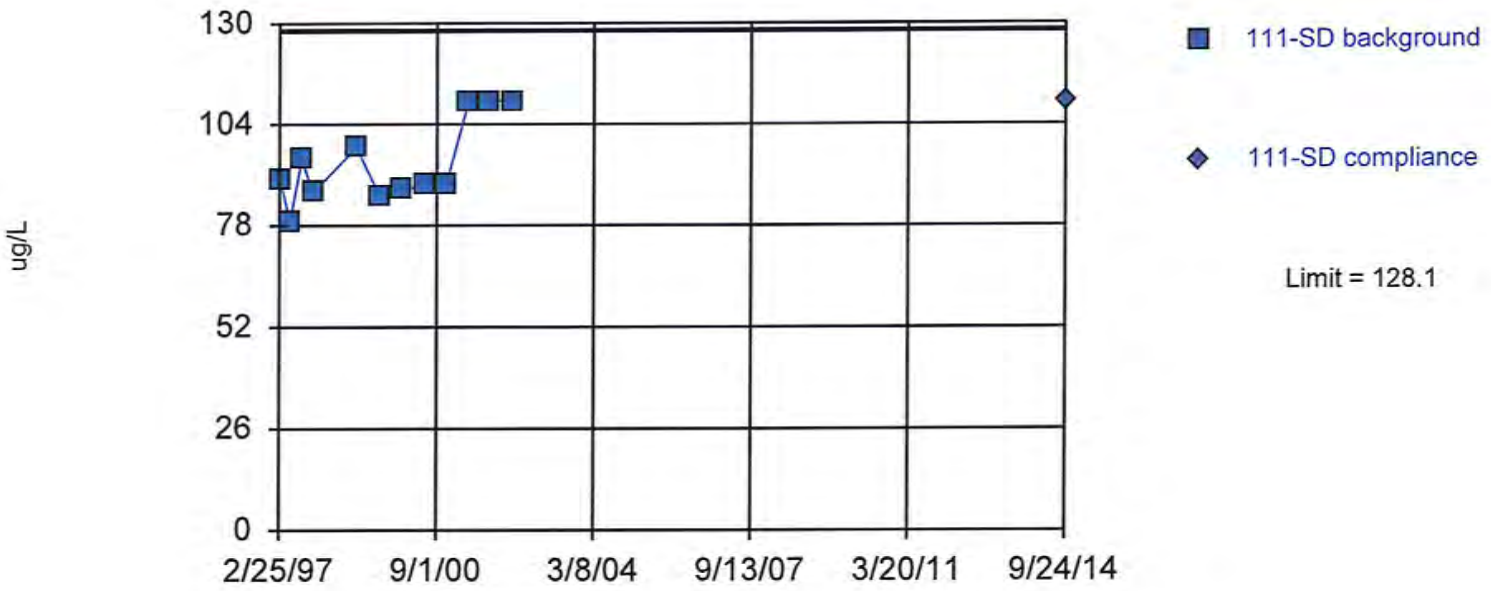
Constituent: Barium Total Analysis Run 11/24/2014 9:40 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=94.03, Std. Dev.=10.7, n=12. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8608, critical = 0.859. Kappa = 3.187 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

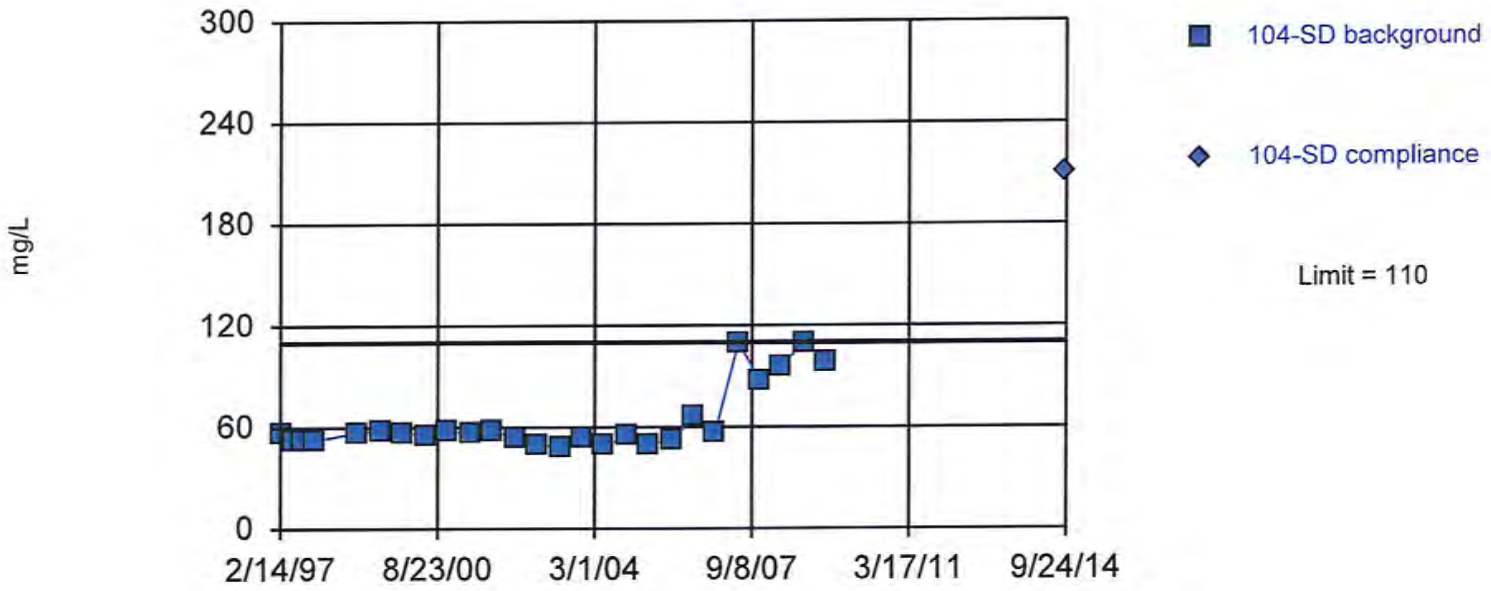
Constituent: Barium Total Analysis Run 11/24/2014 9:41 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 26 background values. Well-constituent pair annual alpha = 0.01051. Individual comparison alpha = 0.002637 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

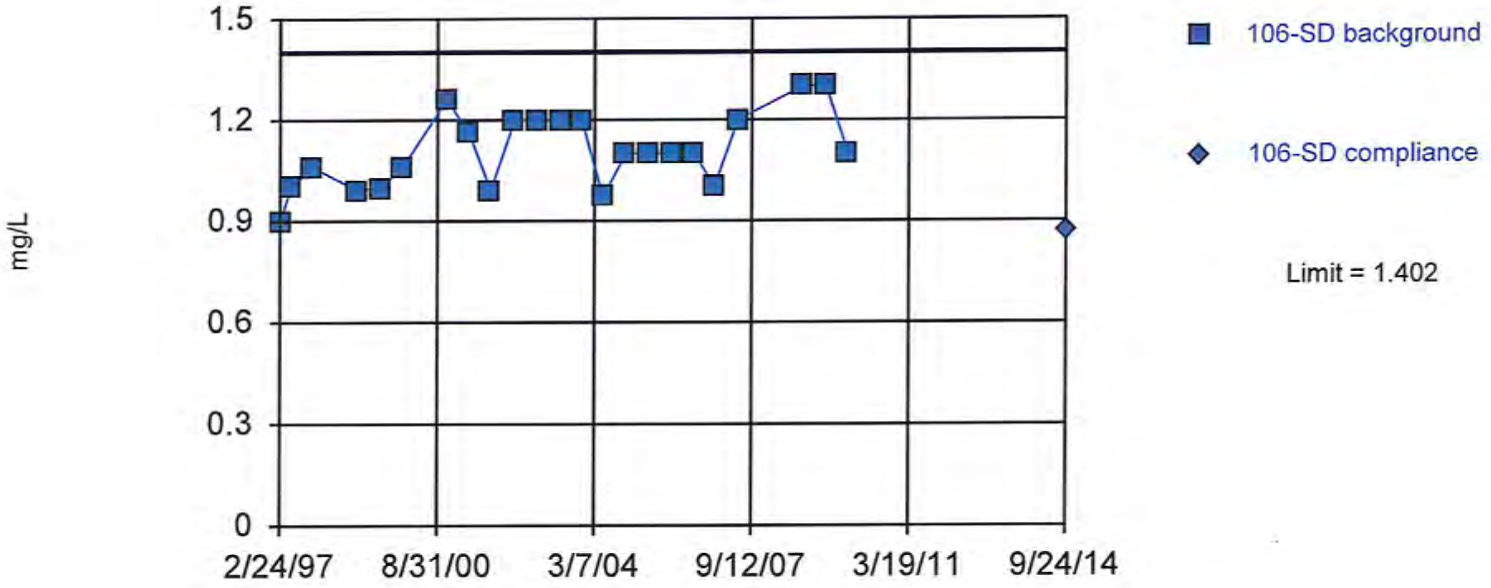
Constituent: Chloride Analysis Run 11/24/2014 9:41 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.108, Std. Dev.=0.1113, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9504, critical = 0.881. Kappa = 2.637 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: <0.25 (8/28/1997); 2.24 (5/23/2000).

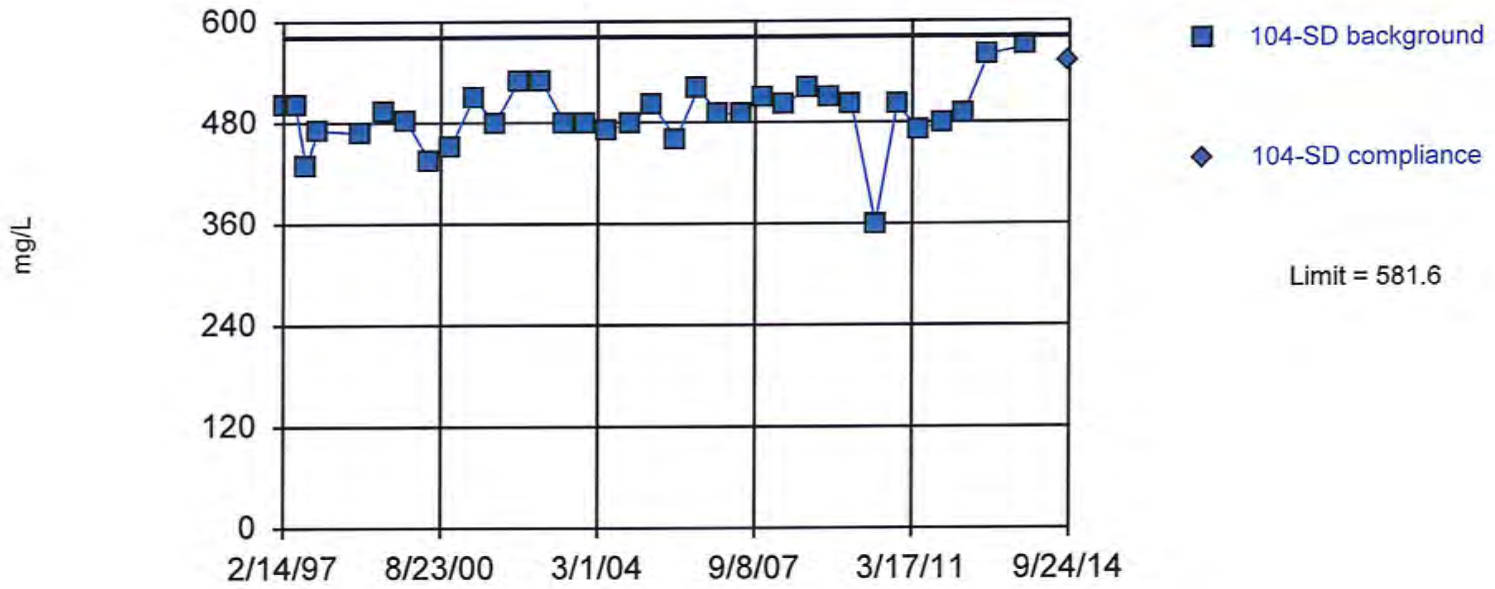
Constituent: Fluoride Analysis Run 11/24/2014 9:41 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=488.7, Std. Dev.=37.54, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9272, critical = 0.908. Kappa = 2.475 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 840 (4/11/2013).

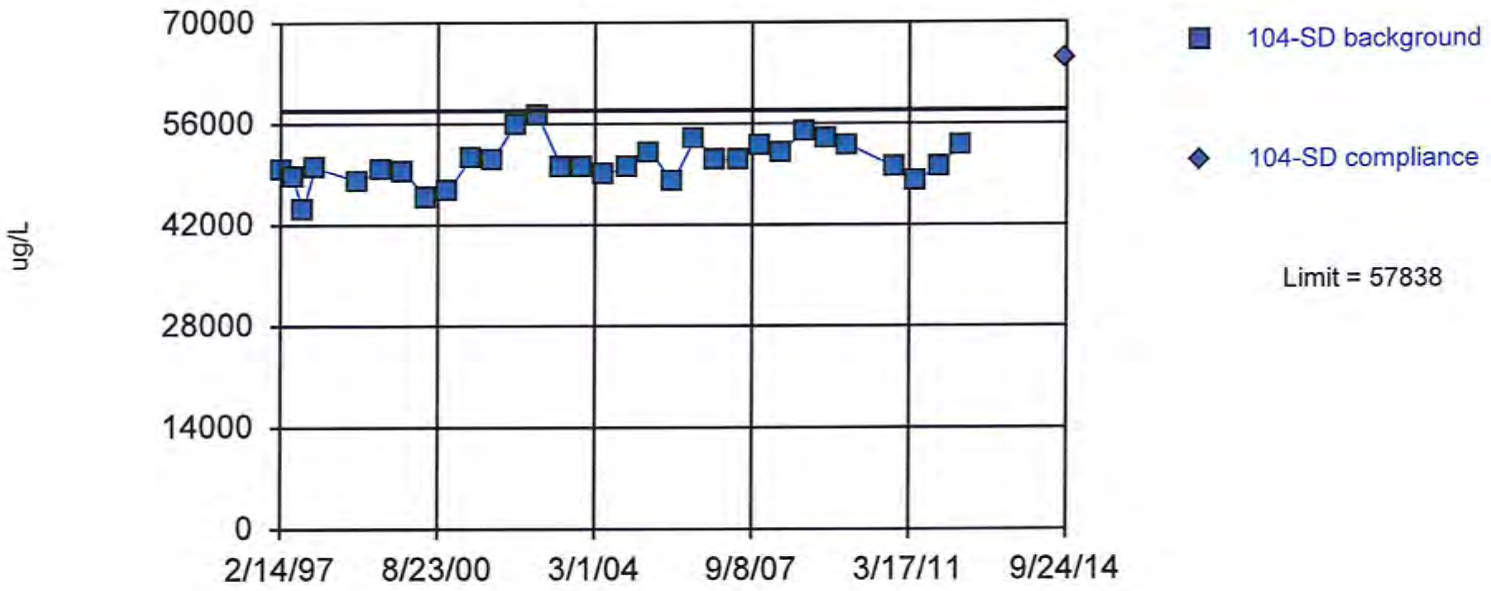
Constituent: Hardness Total Analysis Run 11/24/2014 10:01 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=50655, Std. Dev.=2869, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9803, critical = 0.902. Kappa = 2.504 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 37000 (5/20/2010).

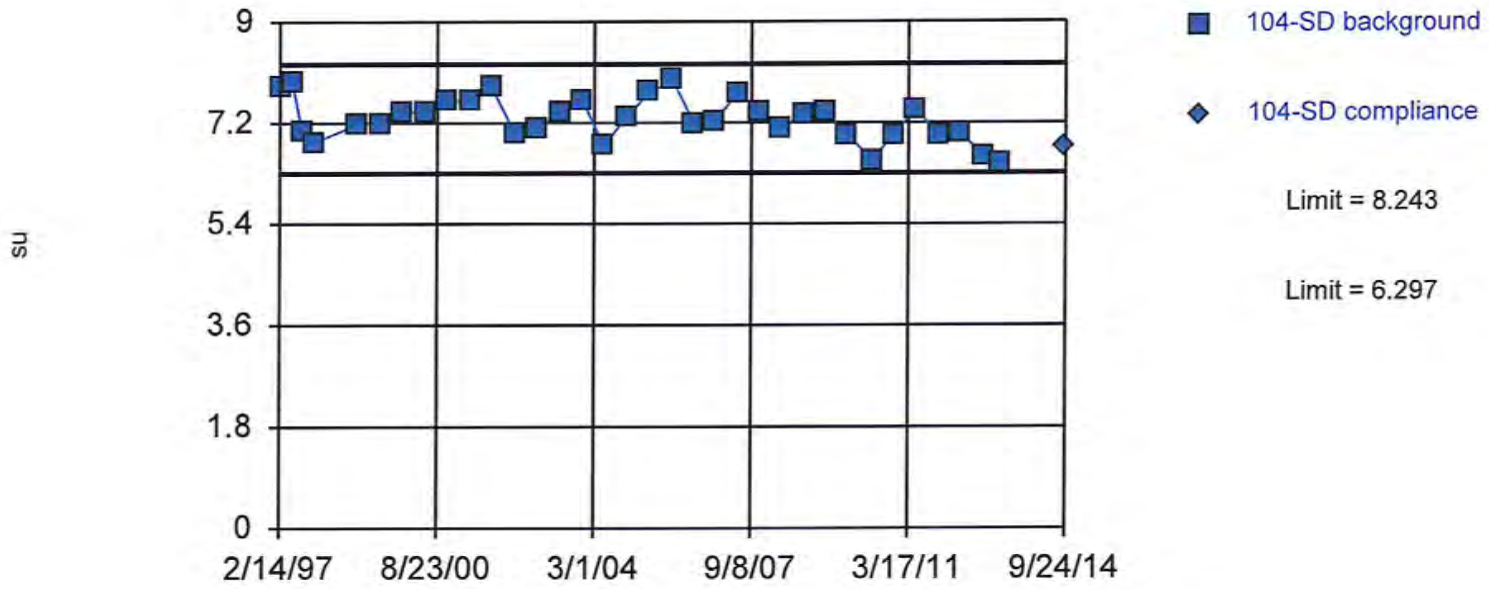
Constituent: Magnesium Total Analysis Run 11/24/2014 9:42 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.27, Std. Dev.=0.393, n=34. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9705, critical = 0.908. Kappa = 2.475 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

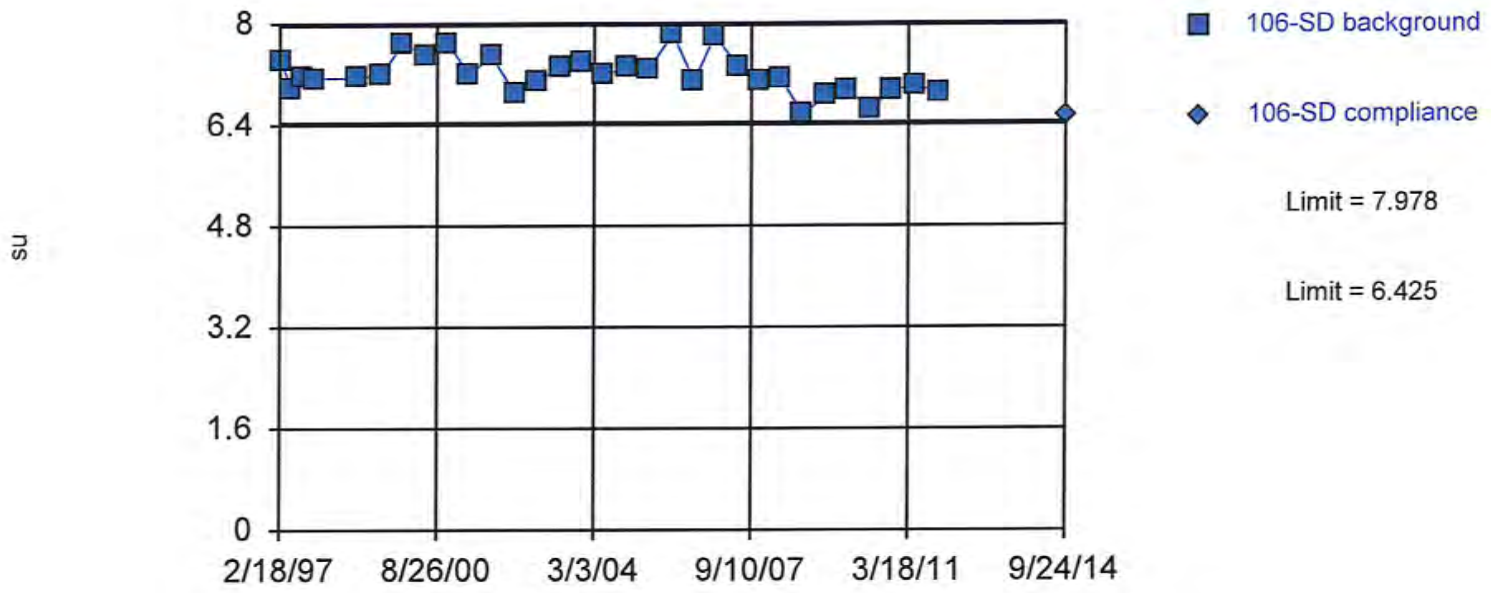
Constituent: pH [Field] Analysis Run 11/24/2014 9:43 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.201, Std. Dev.=0.3102, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9718, critical = 0.902. Kappa = 2.504 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 11/24/2014 9:43 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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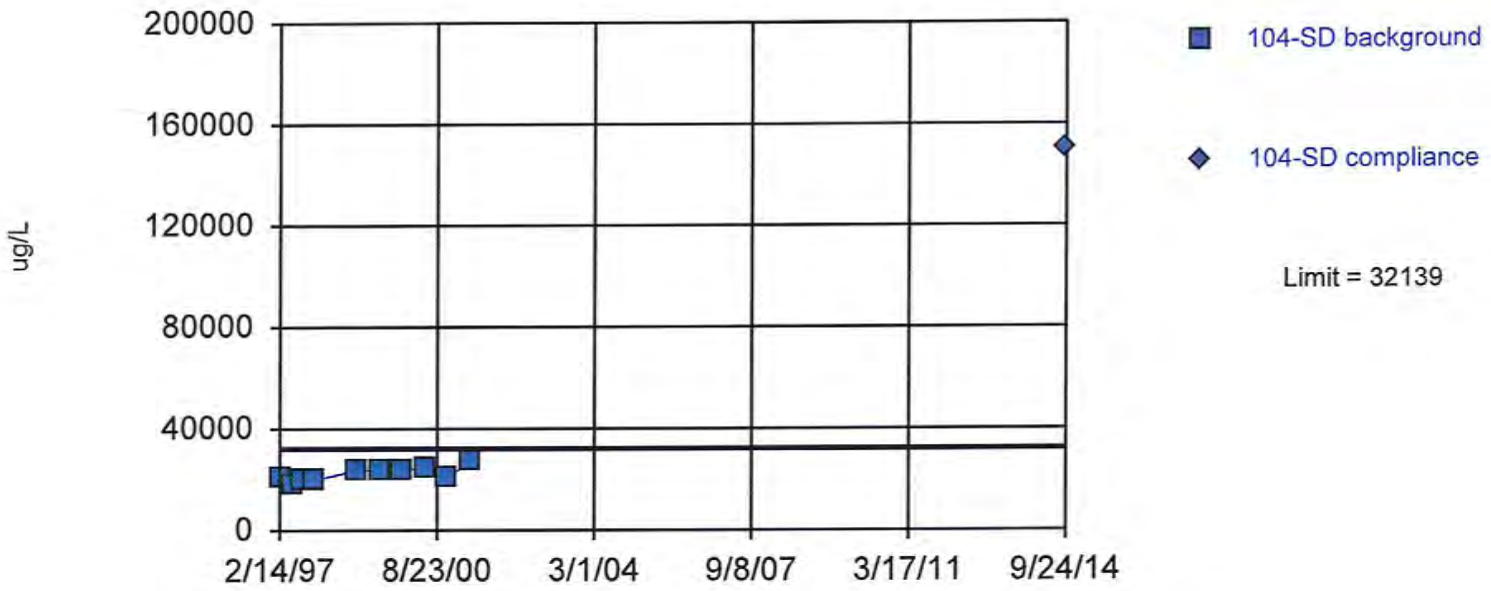
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=22220, Std. Dev.=2849, n=10. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9397, critical = 0.842. Kappa = 3.482 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

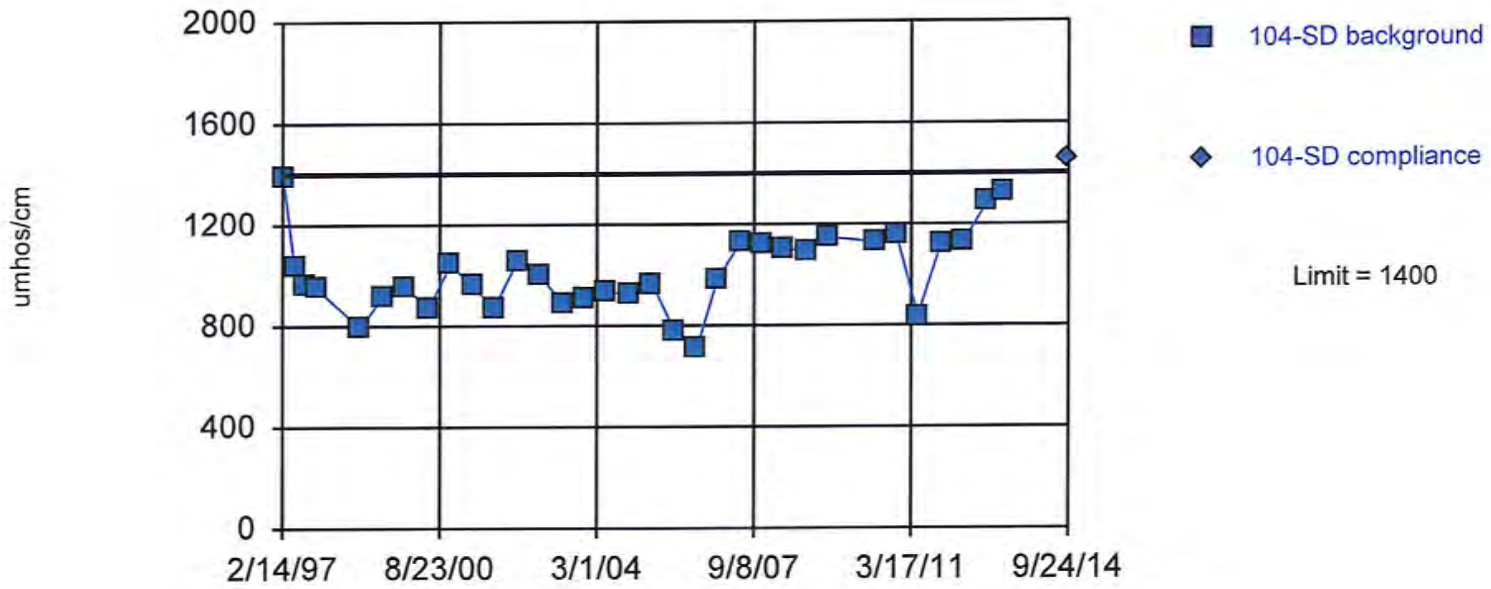
Constituent: Sodium Total Analysis Run 11/24/2014 9:43 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1014, Std. Dev.=155.4, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9726, critical = 0.906. Kappa = 2.485 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 130.2 (11/4/2009).

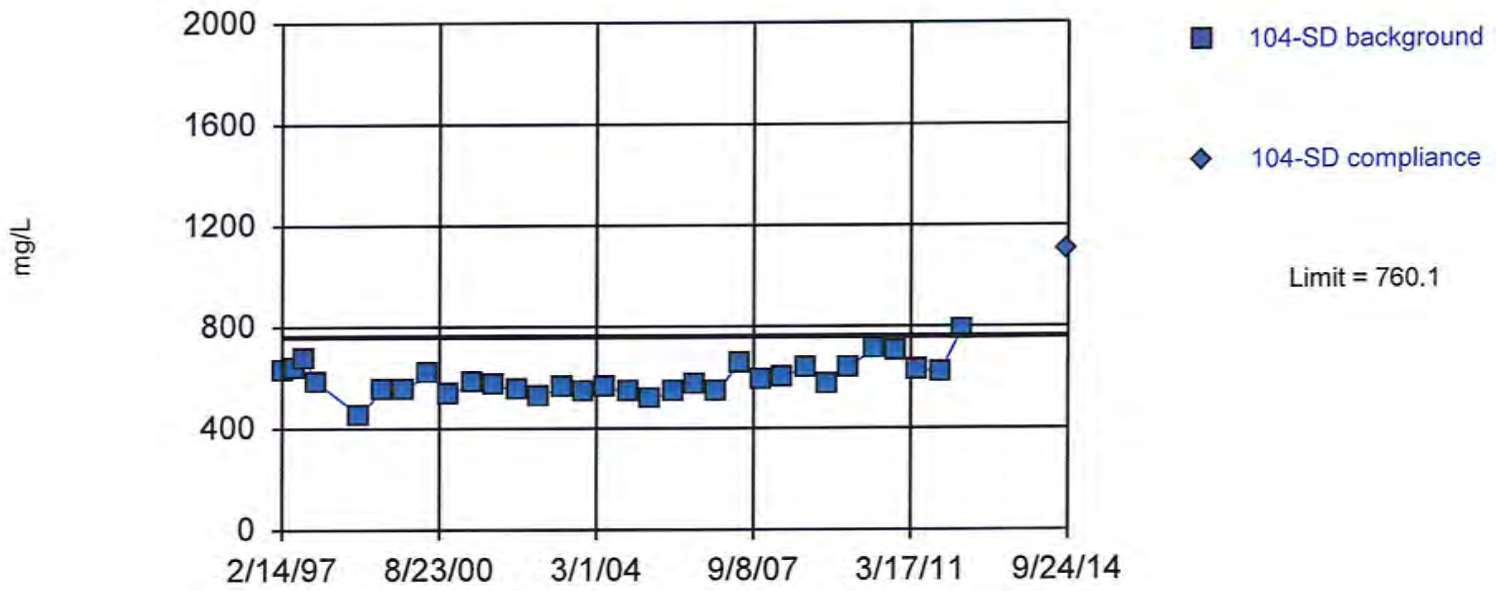
Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 9:44 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=593.2, Std. Dev.=66.9, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9462, critical = 0.904. Kappa = 2.494 (c=34, w=4, 1 of 2, event alpha = 0.026). Report alpha = 0.0001937. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 1800 (11/27/2012).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 9:44 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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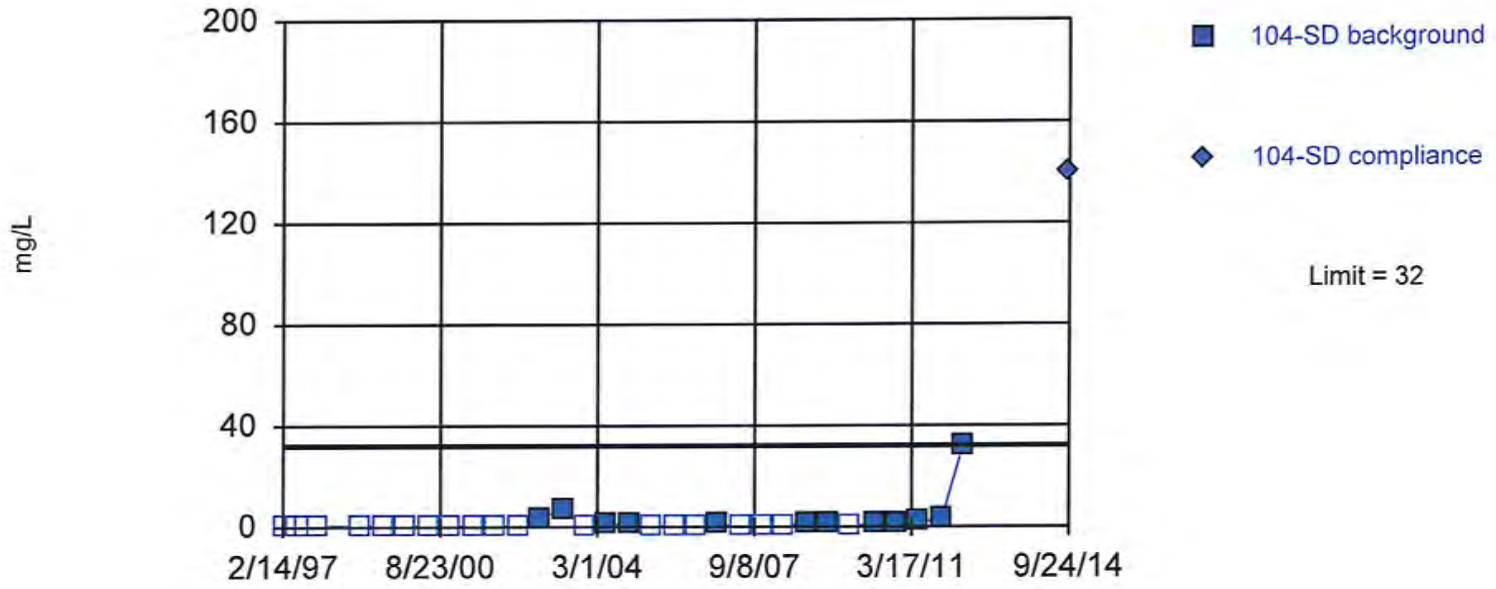
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 32 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.007136. Individual comparison alpha = 0.001789 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 9:45 AM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

TREND EVALUATION OF EXCEEDING CONSTITUENTS
SALEM FORMATION

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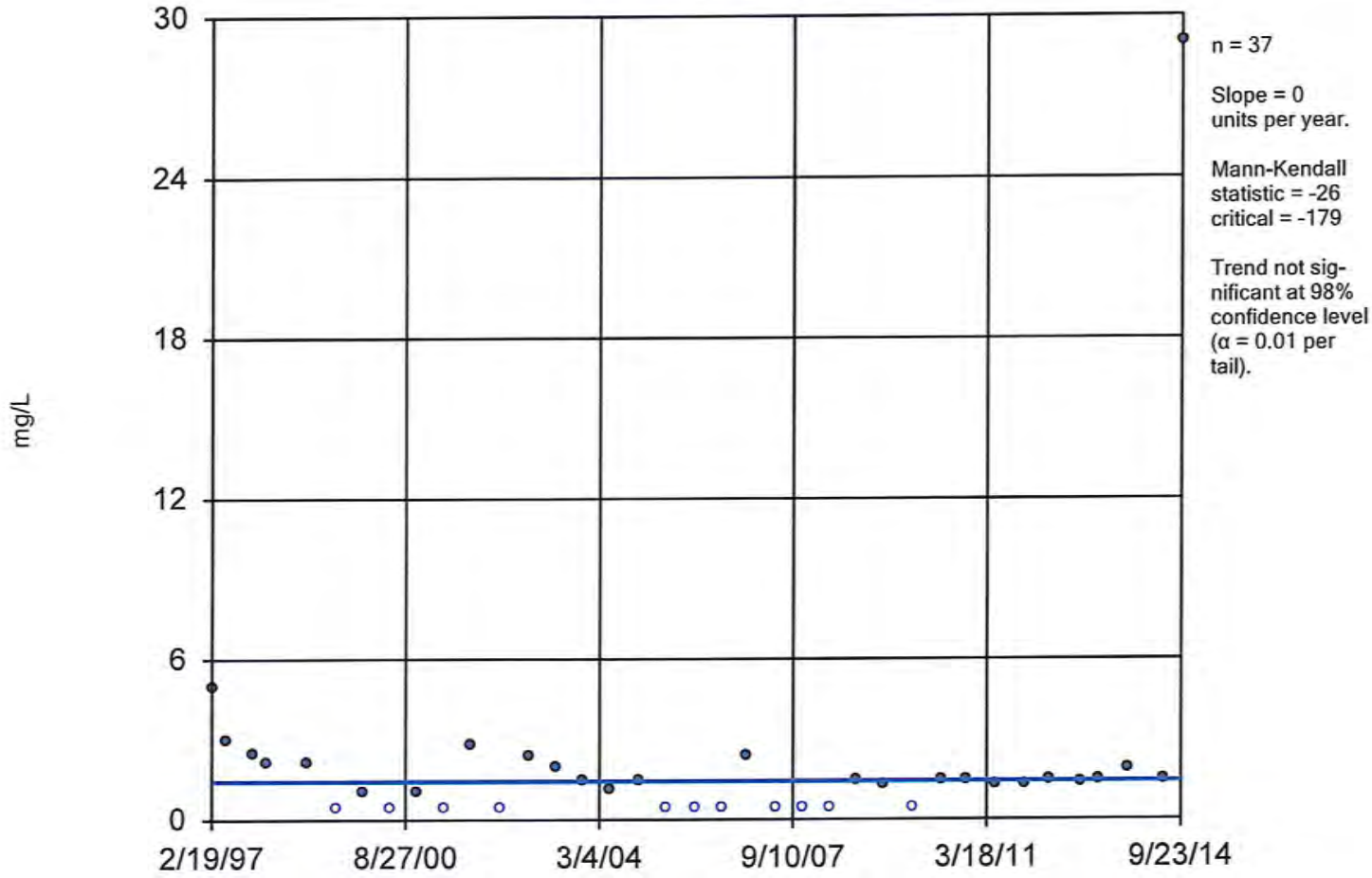
Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SD (bg)



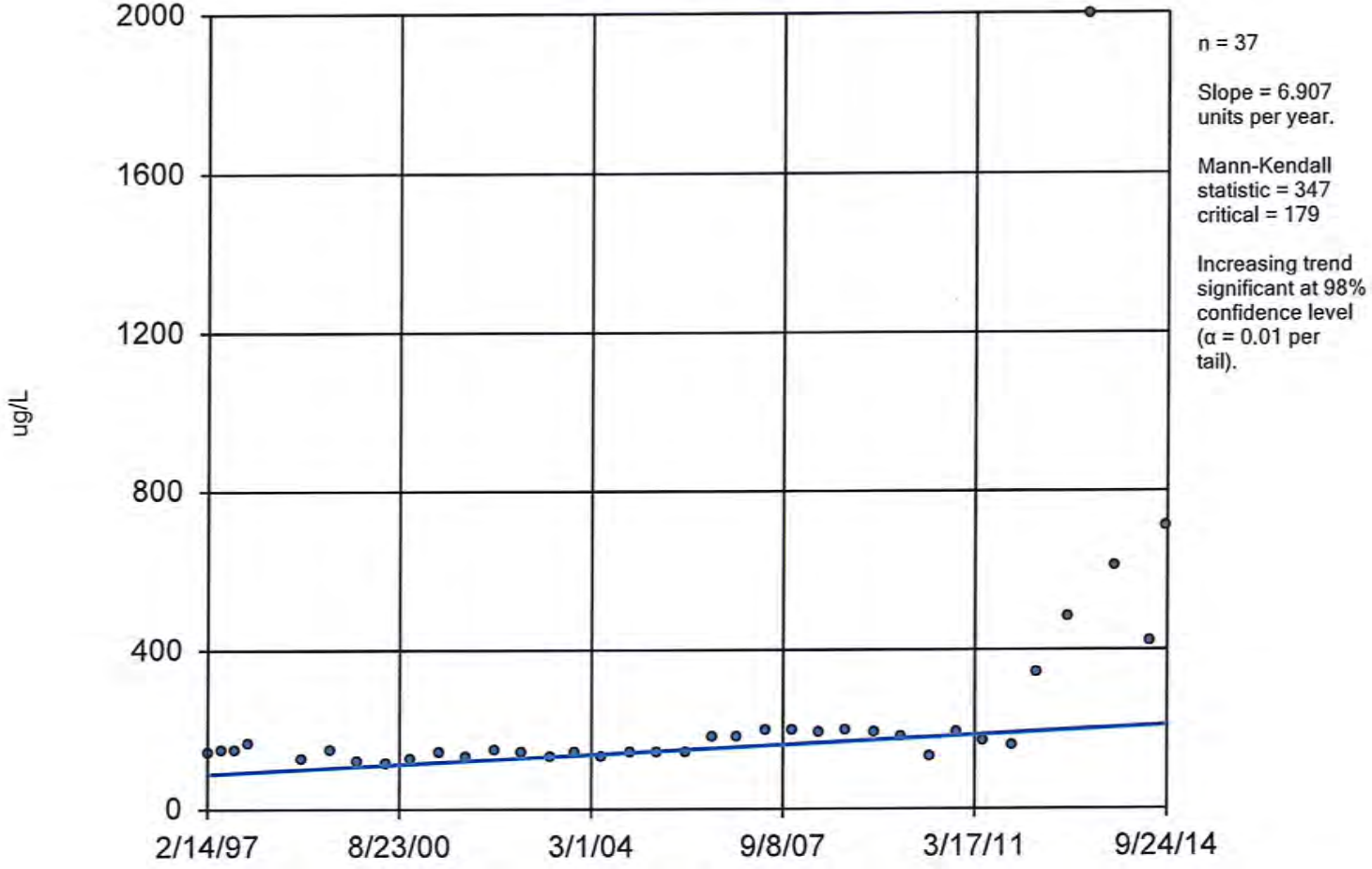
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 2:45 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

104-SD (bg)



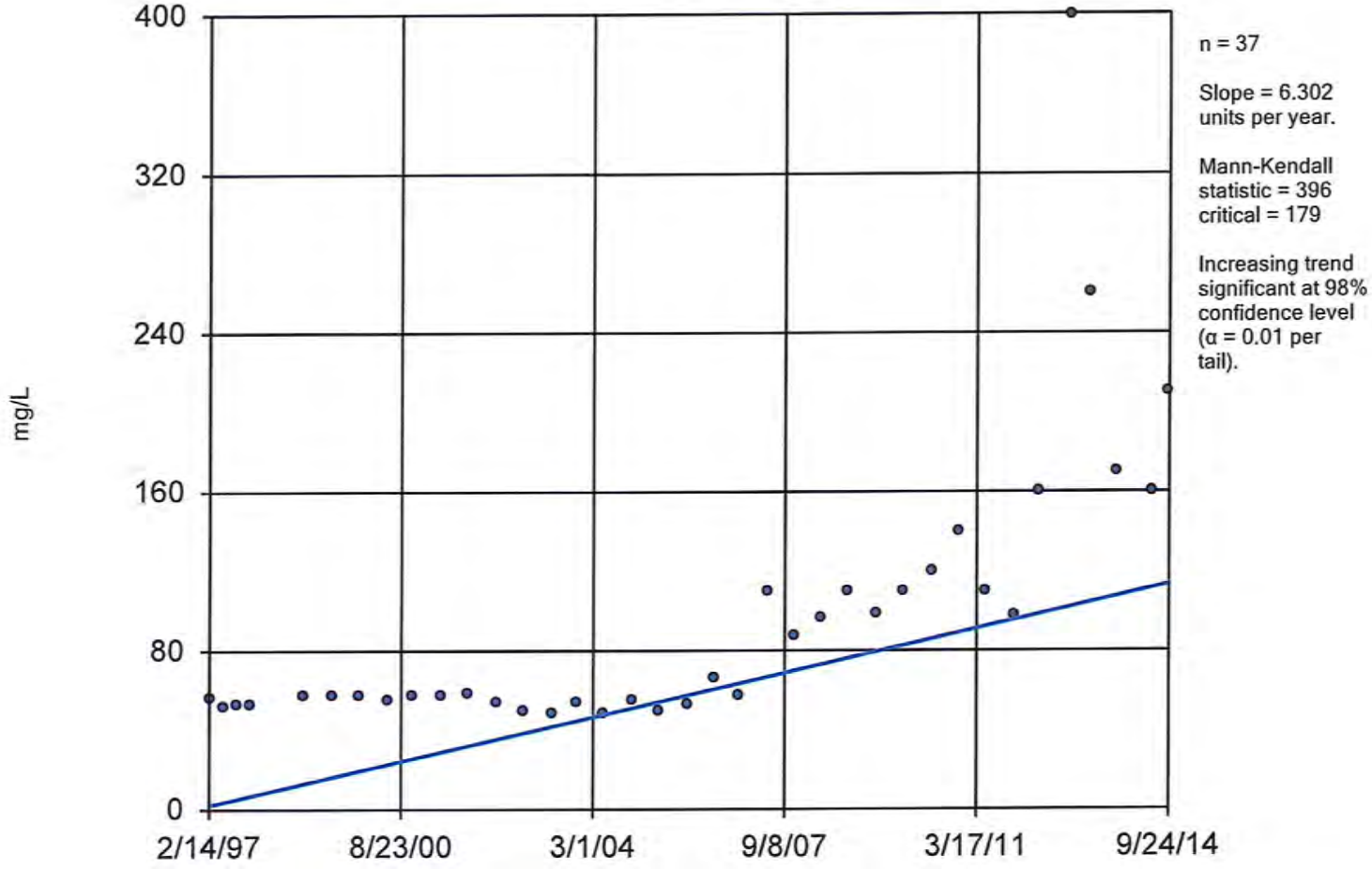
Constituent: Barium Total Analysis Run 11/24/2014 2:48 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

104-SD (bg)



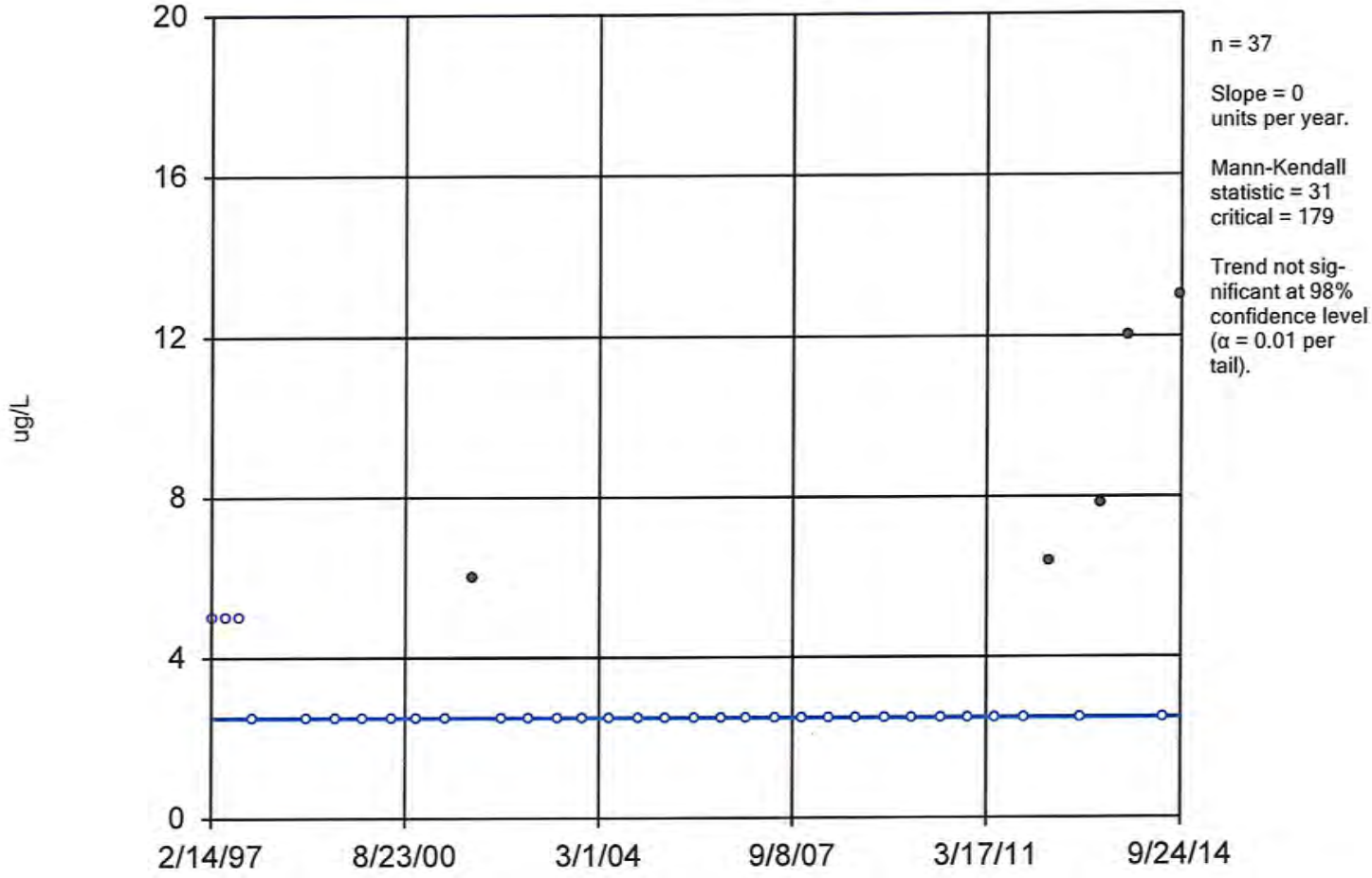
Constituent: Chloride Analysis Run 11/24/2014 2:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

104-SD (bg)



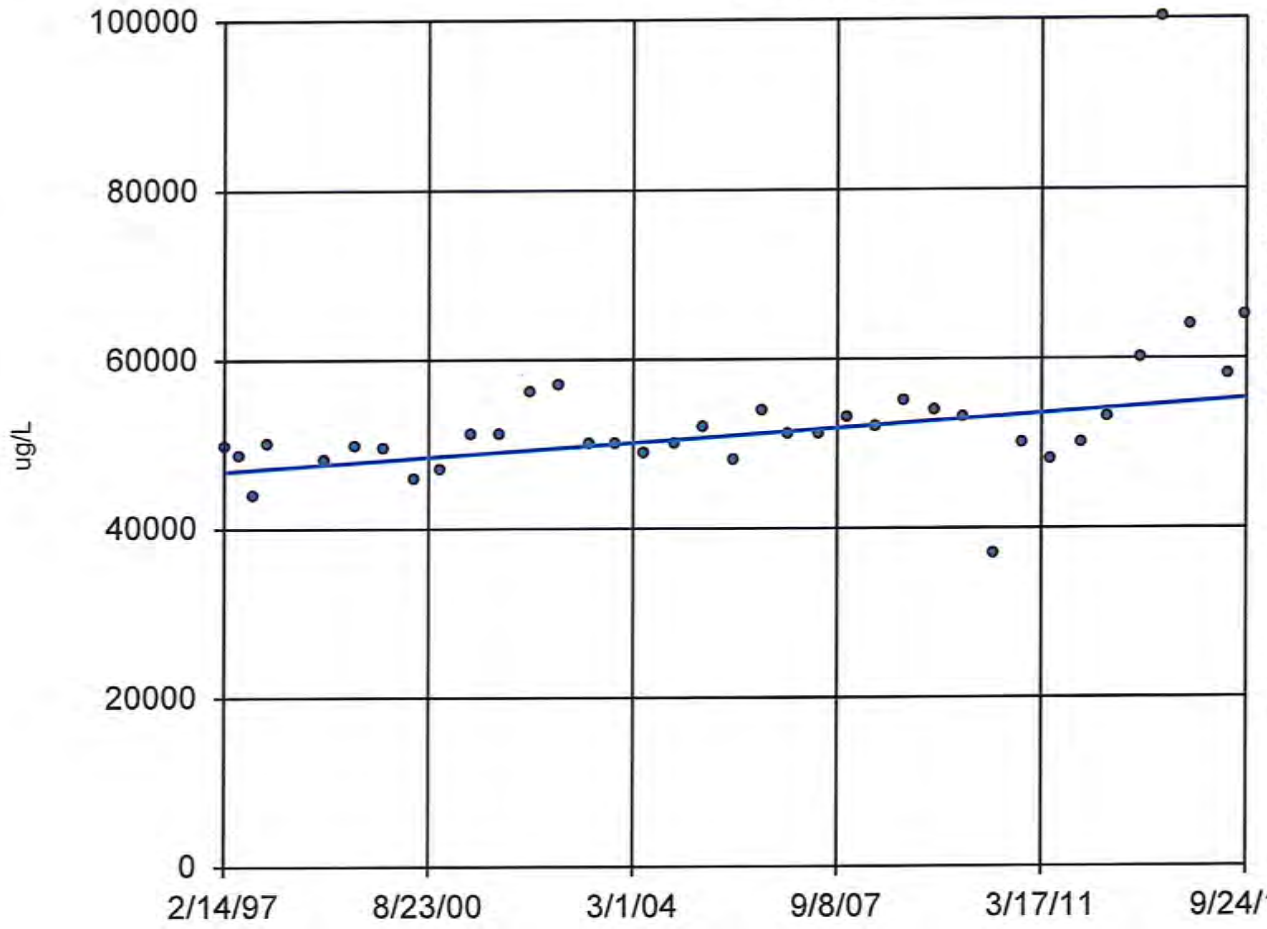
Constituent: Chromium Total Analysis Run 11/24/2014 2:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

104-SD (bg)



n = 37

Slope = 483.1 units per year.

Mann-Kendall statistic = 286
critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

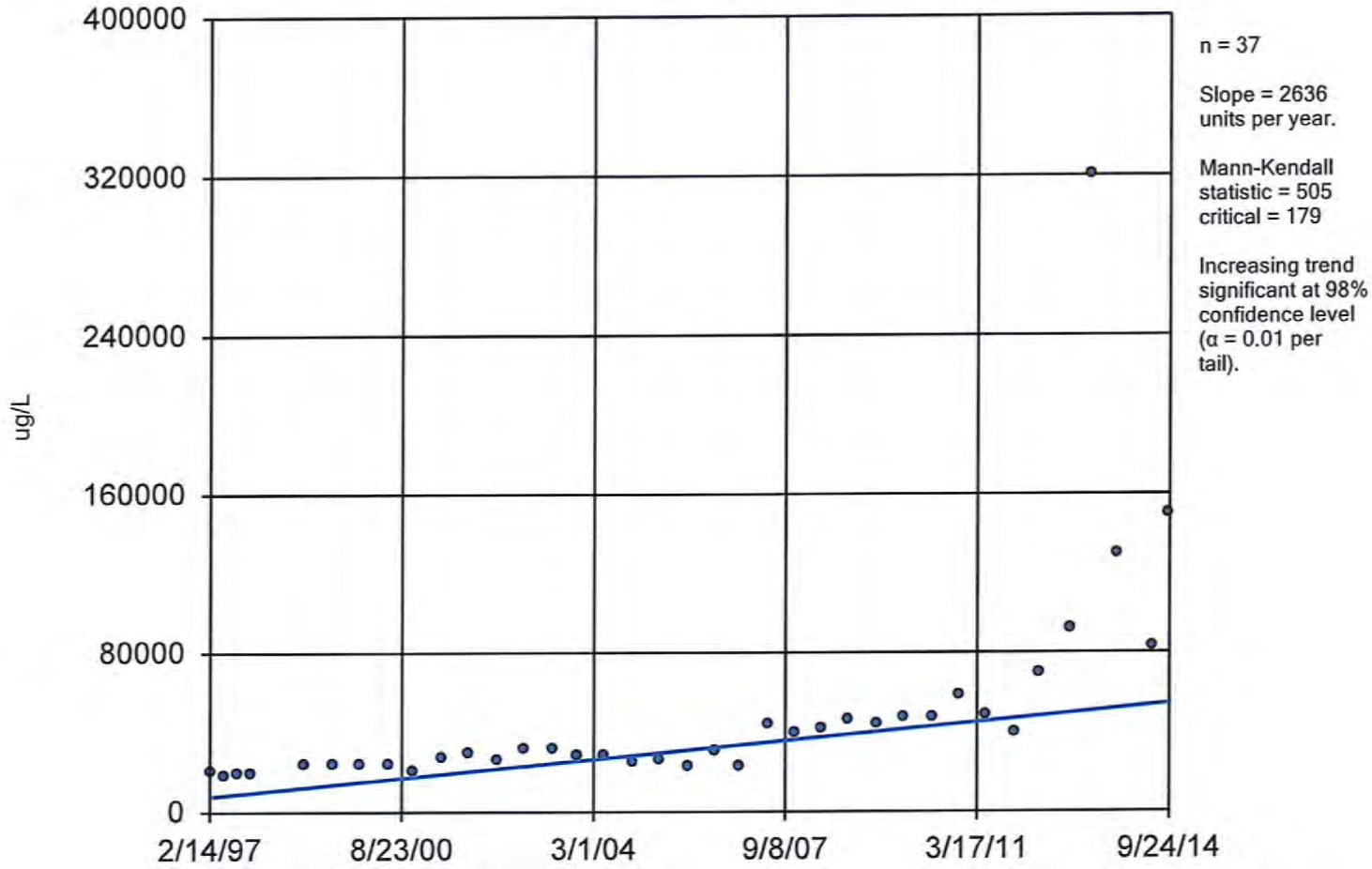
Constituent: Magnesium Total Analysis Run 11/24/2014 2:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

104-SD (bg)

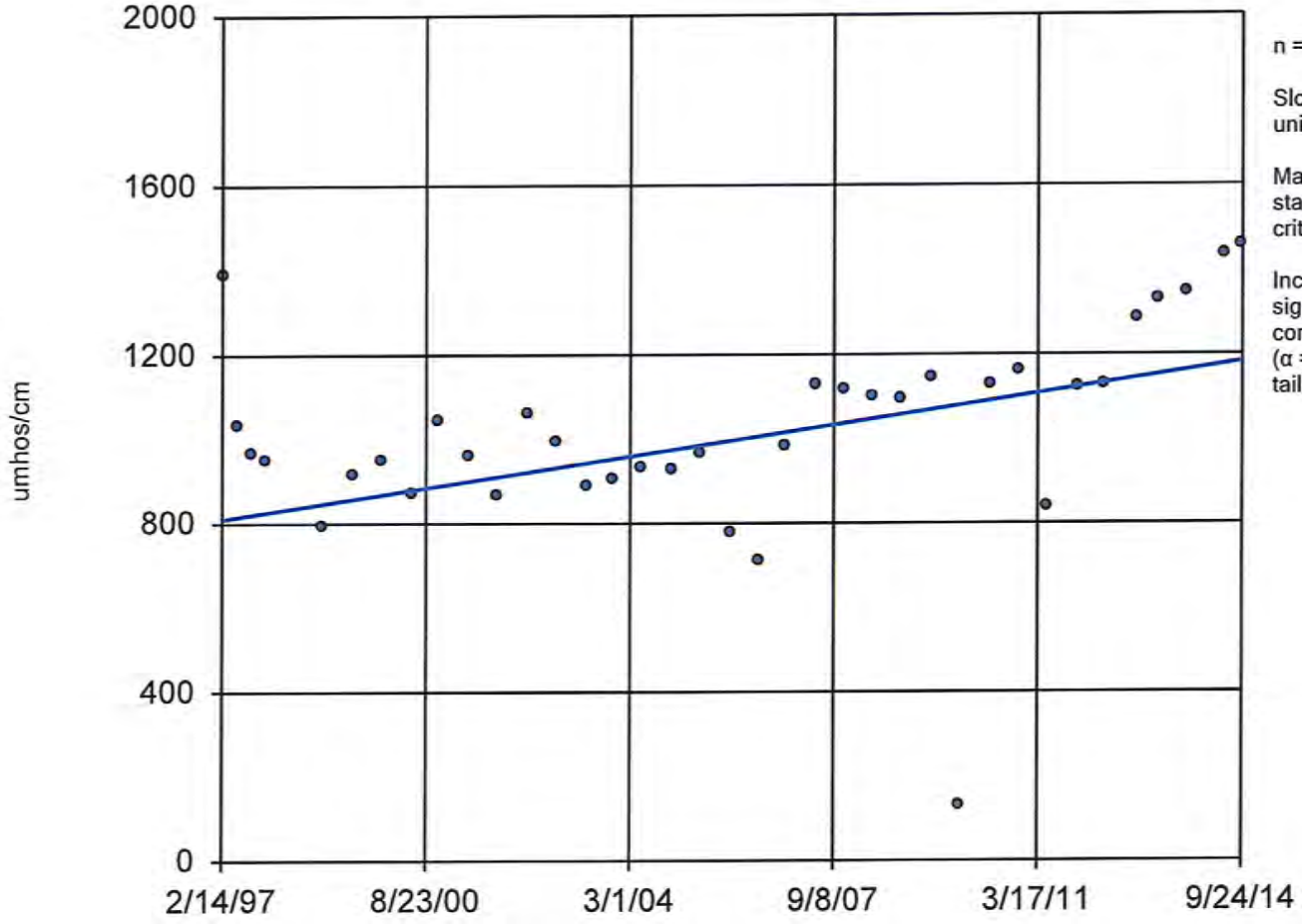


Constituent: Sodium Total Analysis Run 11/24/2014 2:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sen's Slope Estimator

104-SD (bg)



n = 37

Slope = 21.12 units per year.

Mann-Kendall statistic = 253
critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

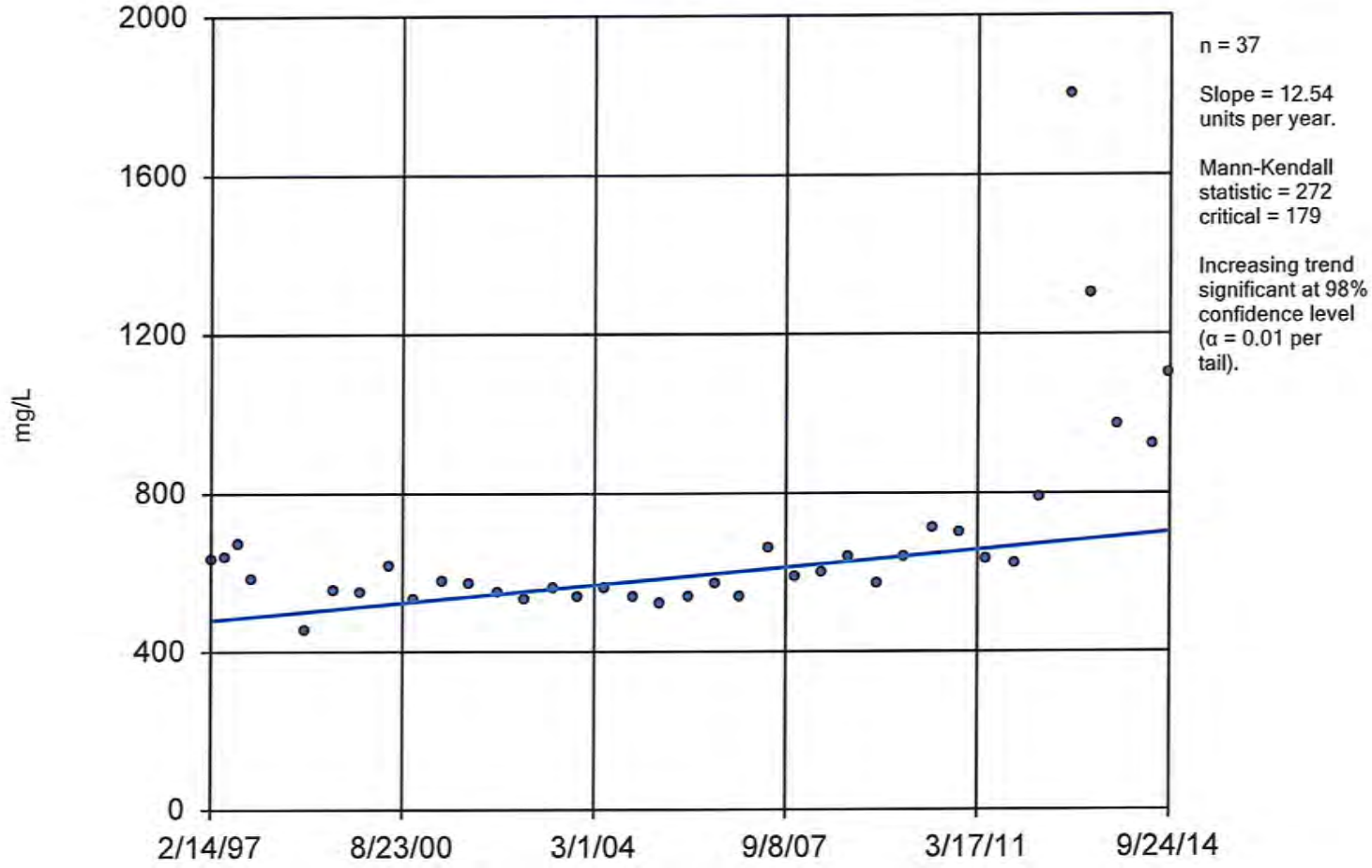
Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 2:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

104-SD (bg)



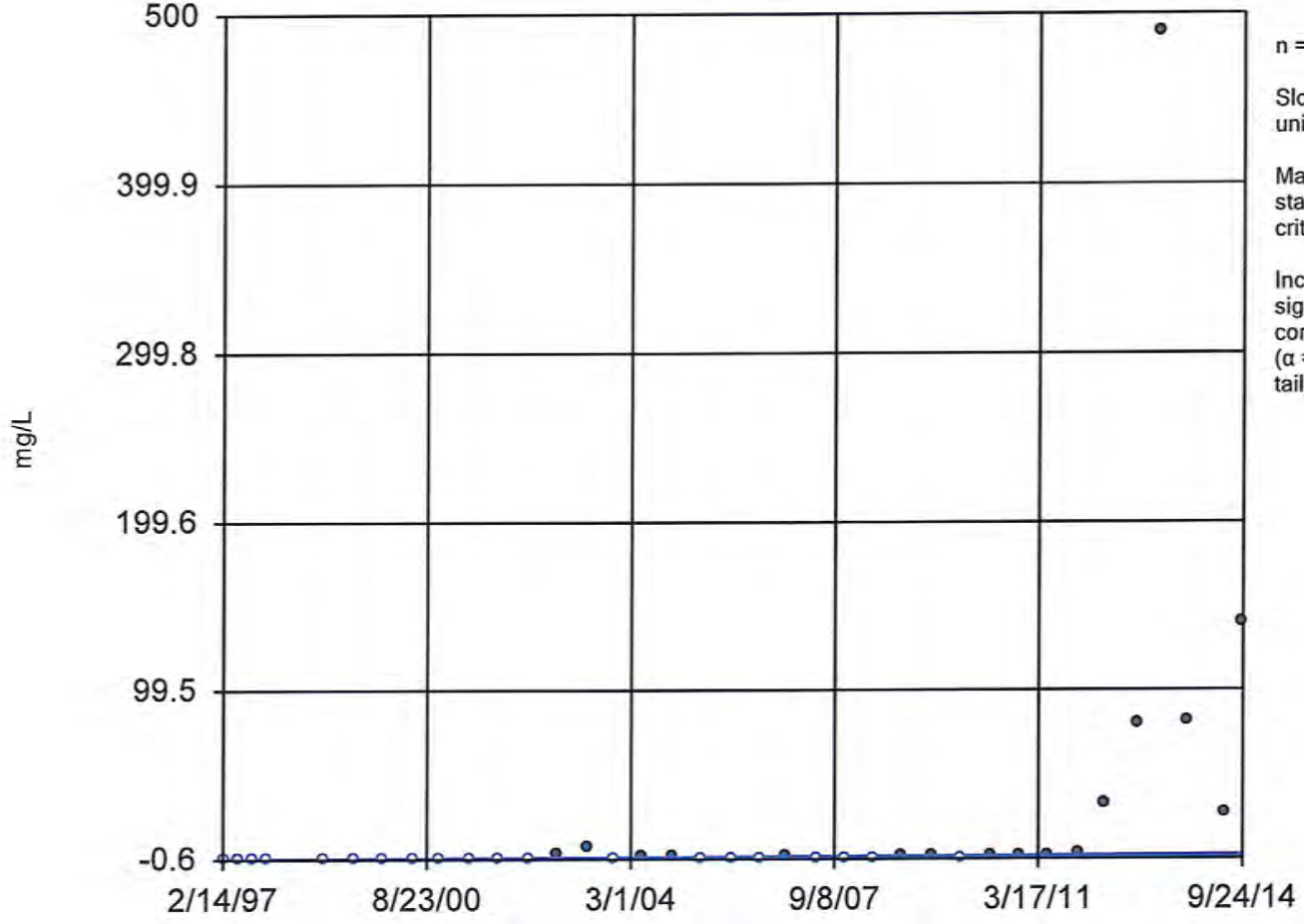
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 2:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

104-SD (bg)



n = 37

Slope = 0.1199 units per year.

Mann-Kendall statistic = 345
critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

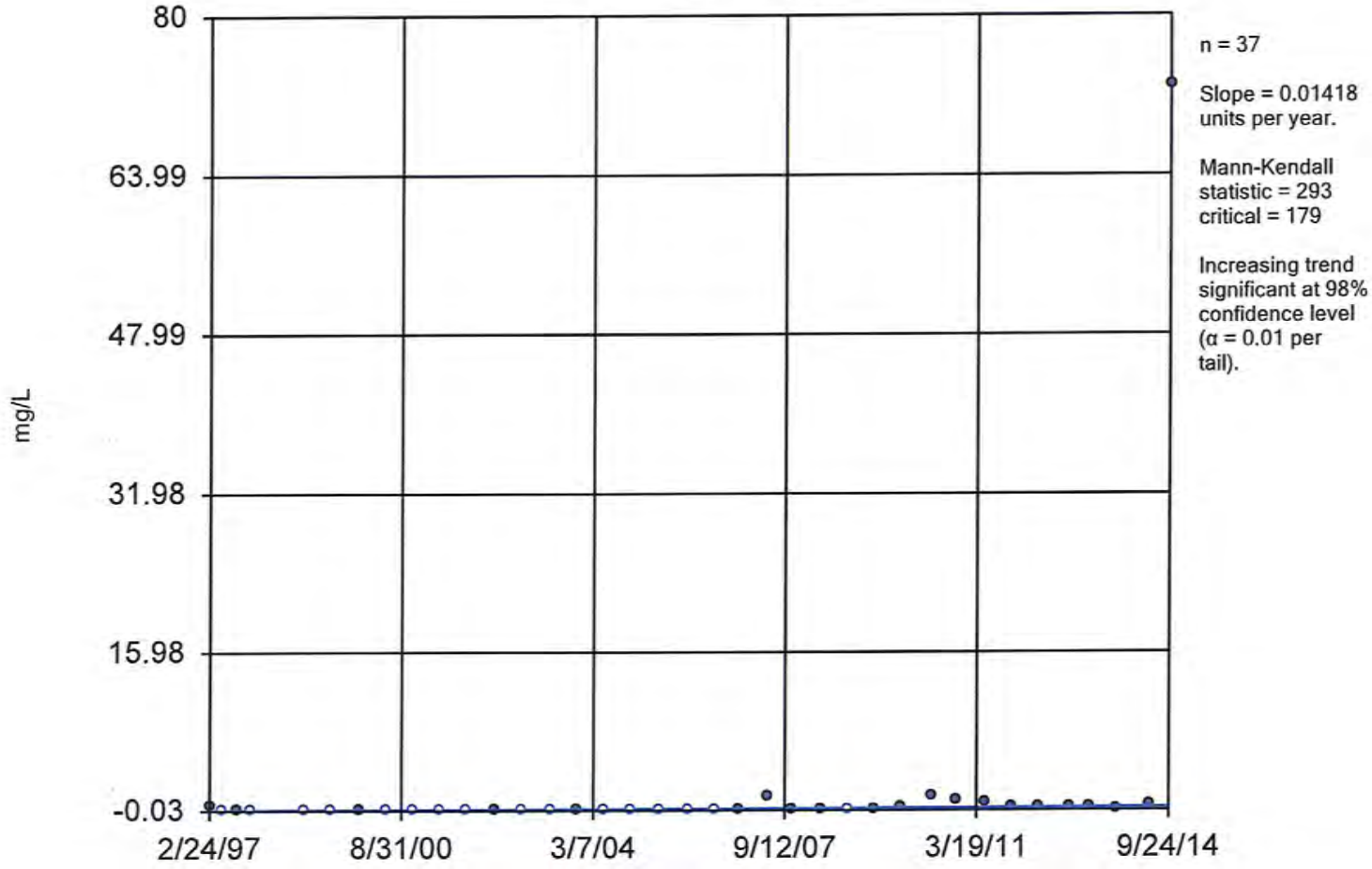
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 2:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



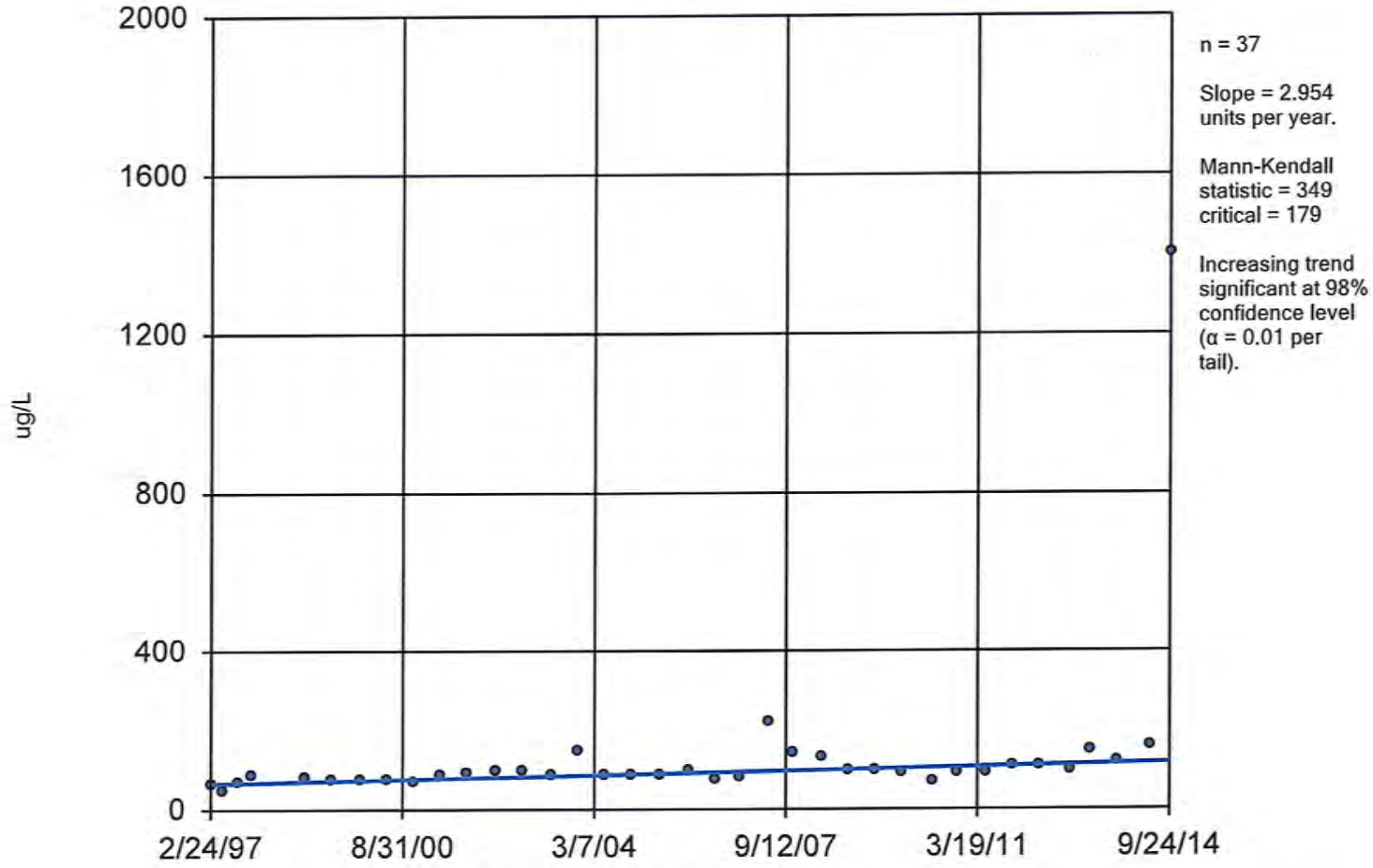
Constituent: Ammonia as N Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

106-SD (bg)



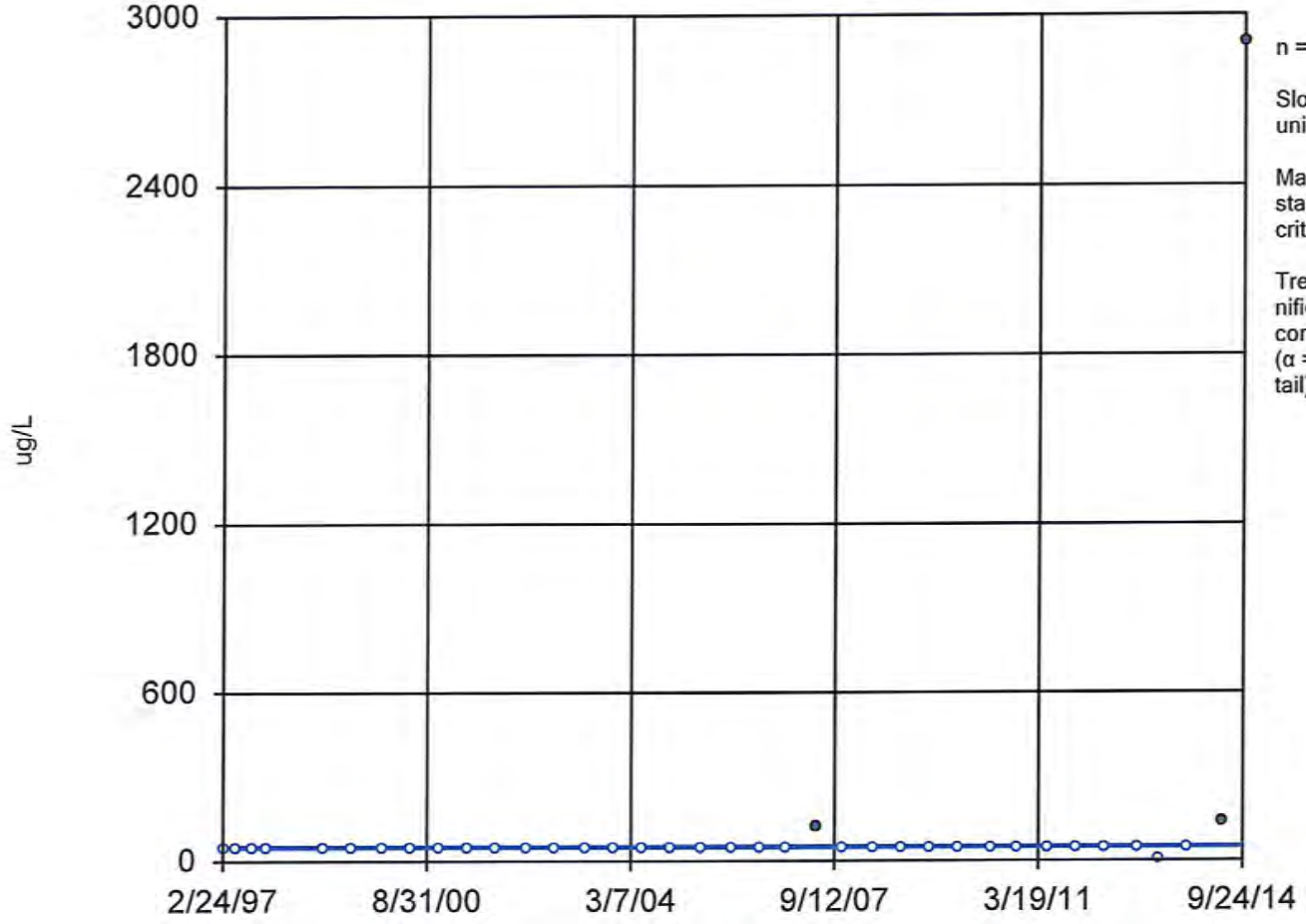
Constituent: Barium Total Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



n = 37

Slope = 0 units per year.

Mann-Kendall statistic = 48
critical = 179

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Total Analysis Run 11/24/2014 2:53 PM View: 1
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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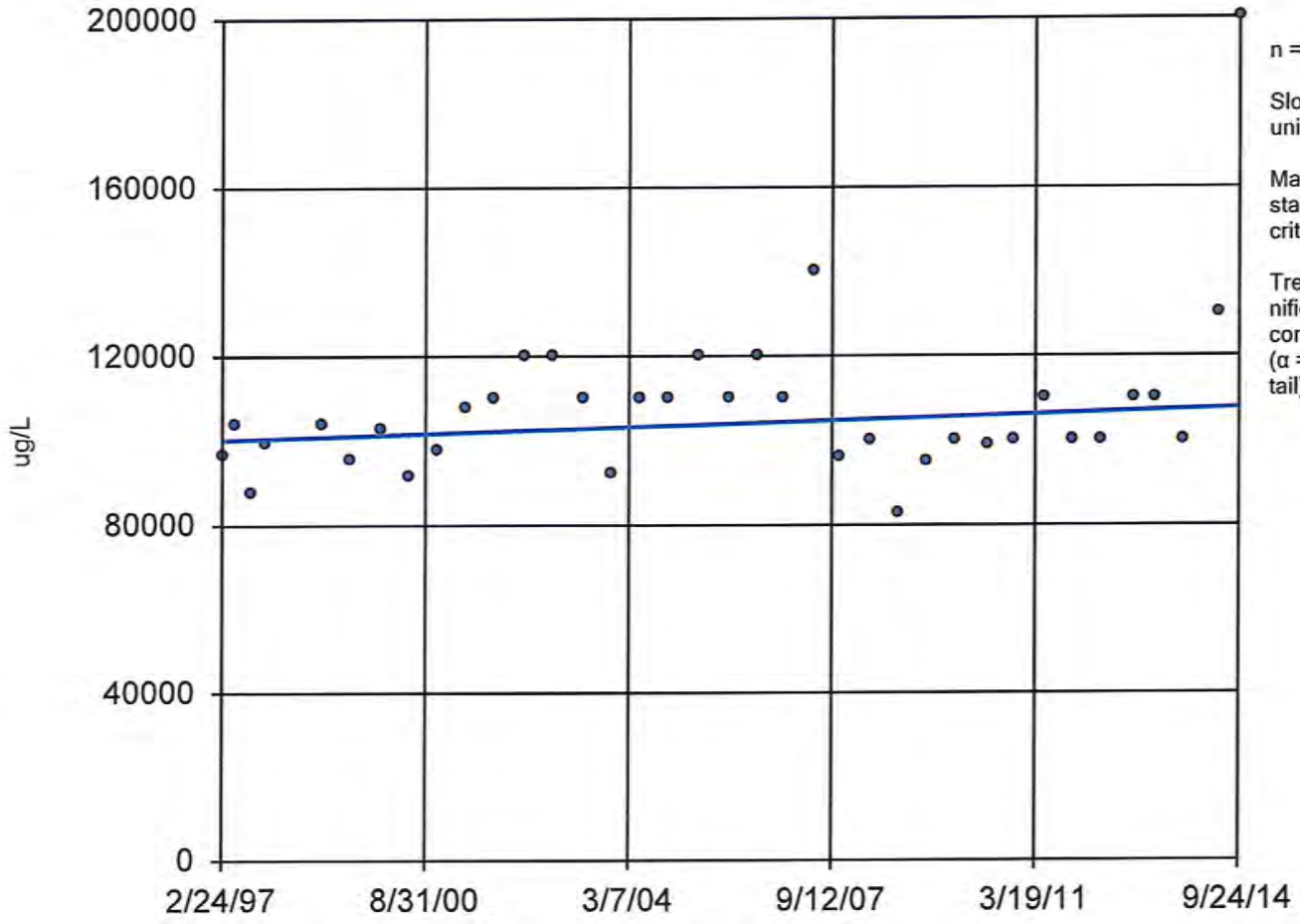
Sen's Slope Estimator

106-SD (bg)



n = 37

Slope = 428 units per year.

Mann-Kendall statistic = 136 critical = 179

Trend not significant at 98% confidence level (α = 0.01 per tail).

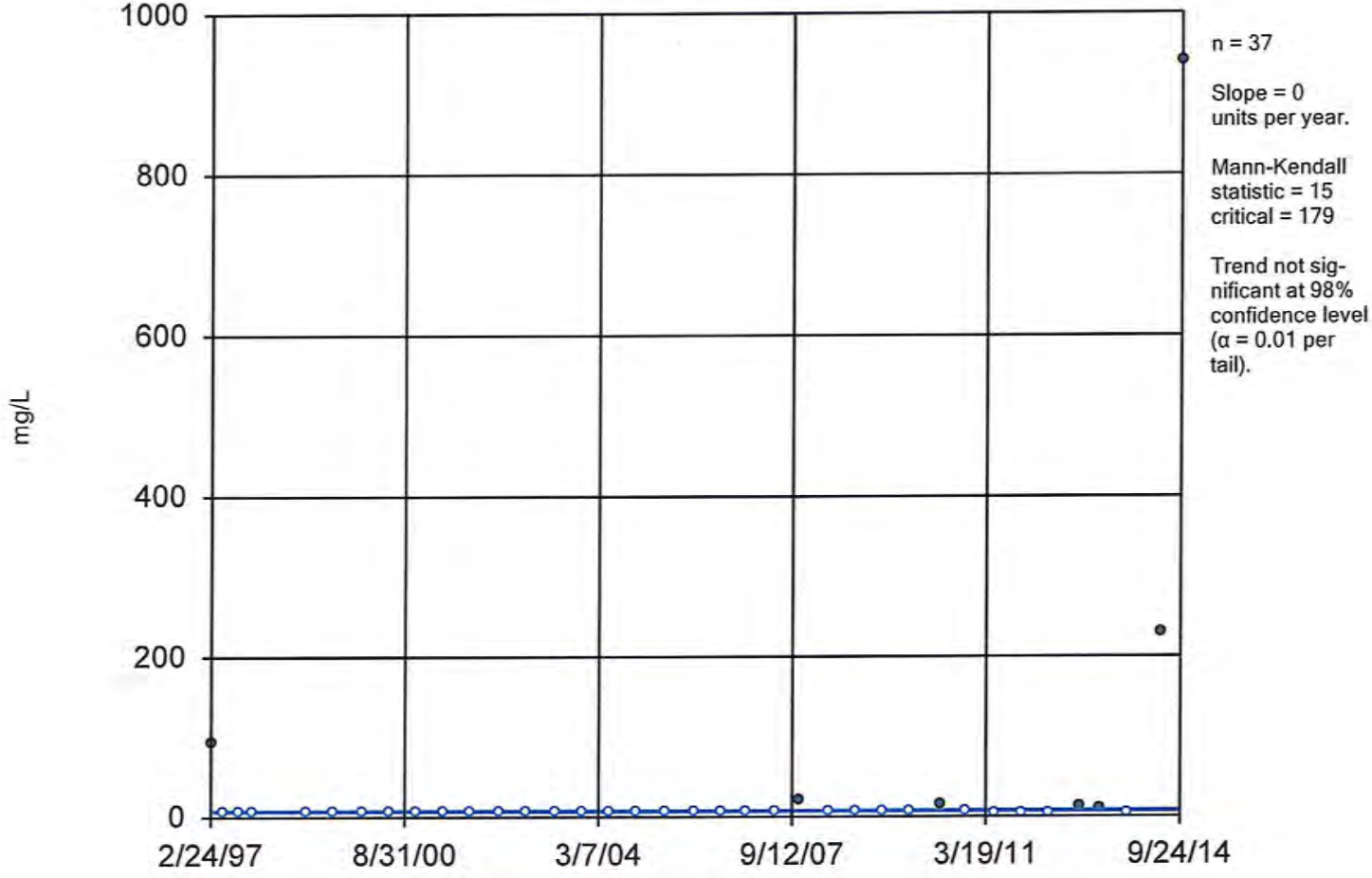
Constituent: Calcium Total Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



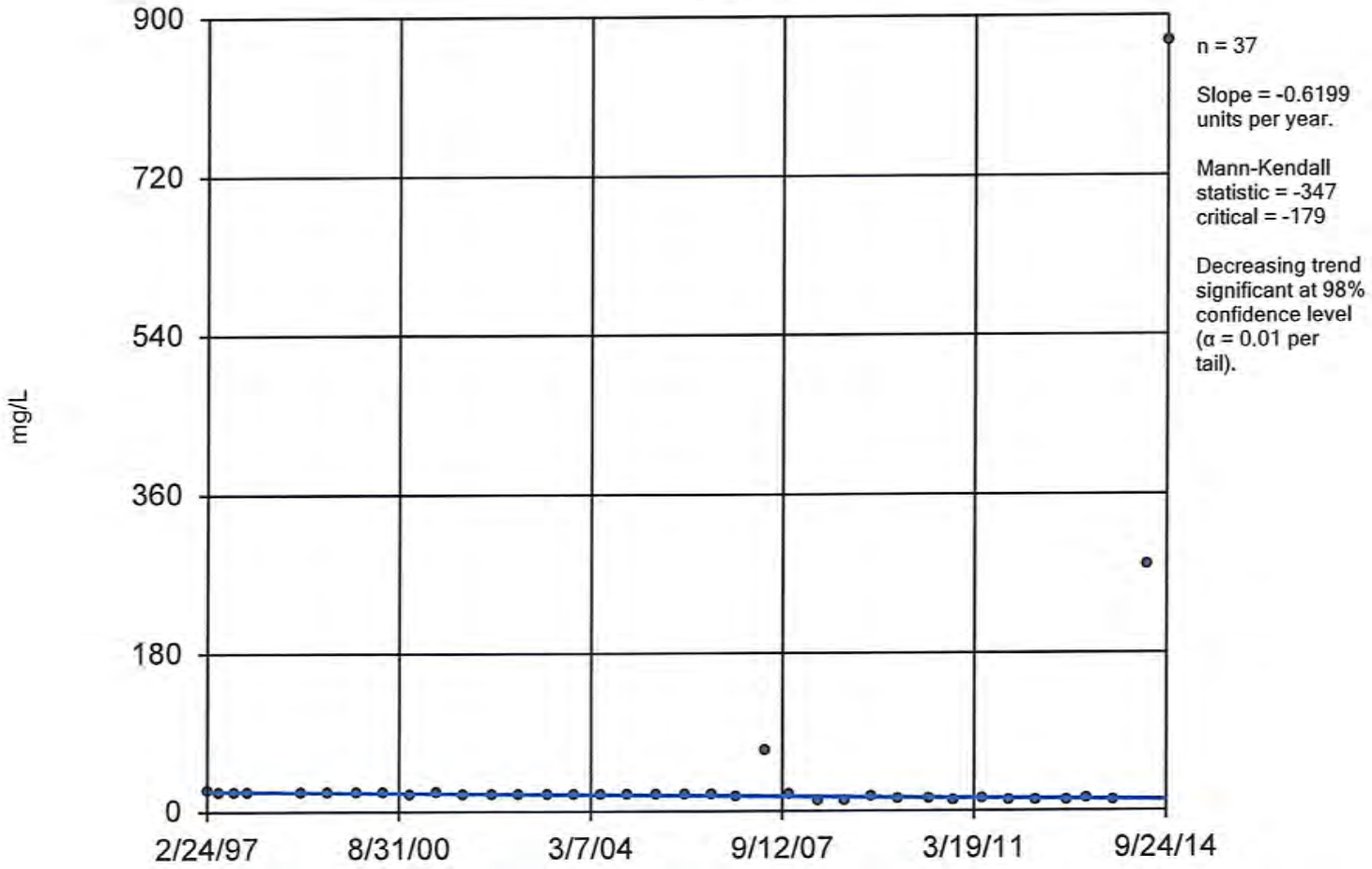
Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

106-SD (bg)



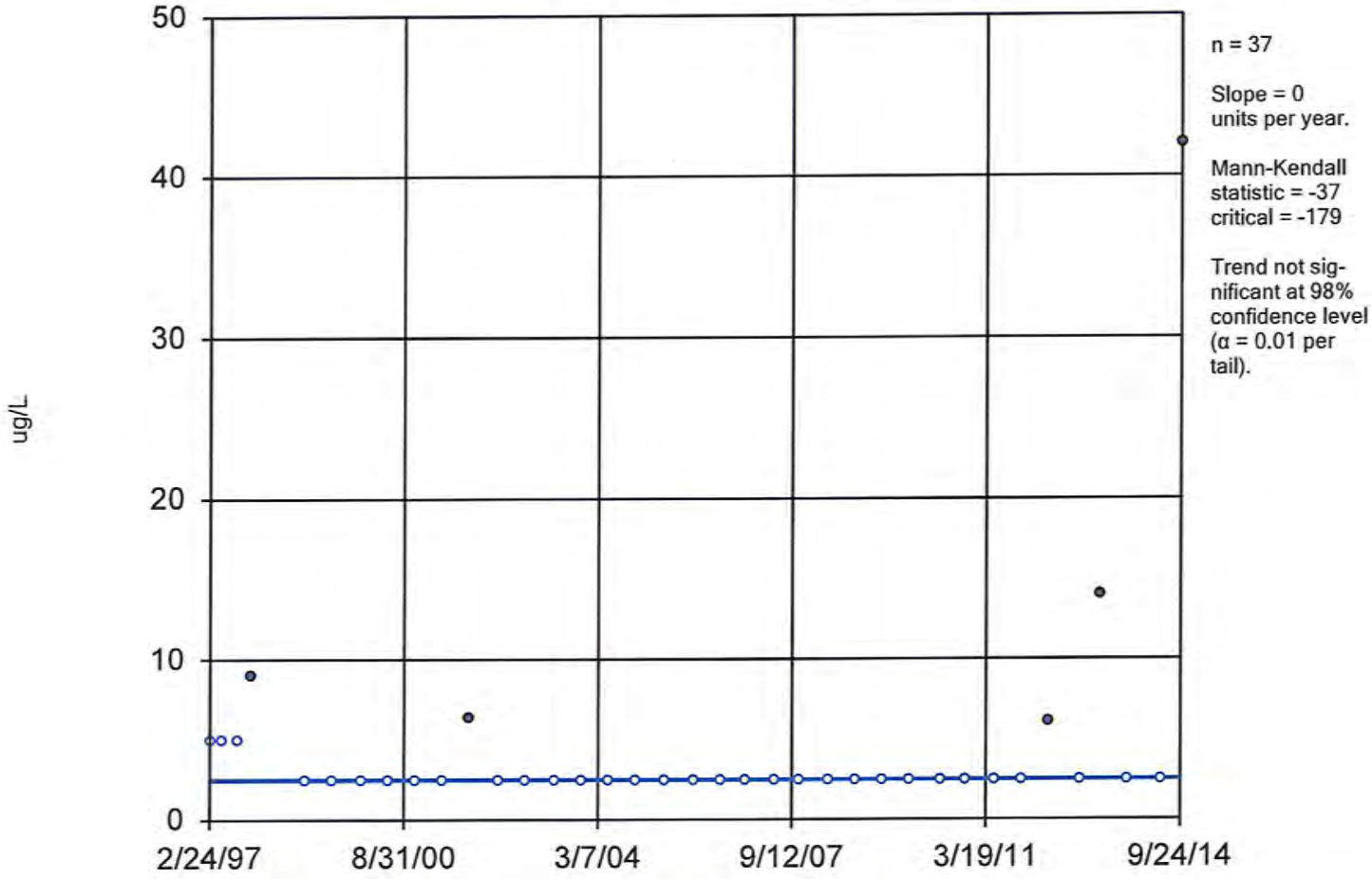
Constituent: Chloride Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



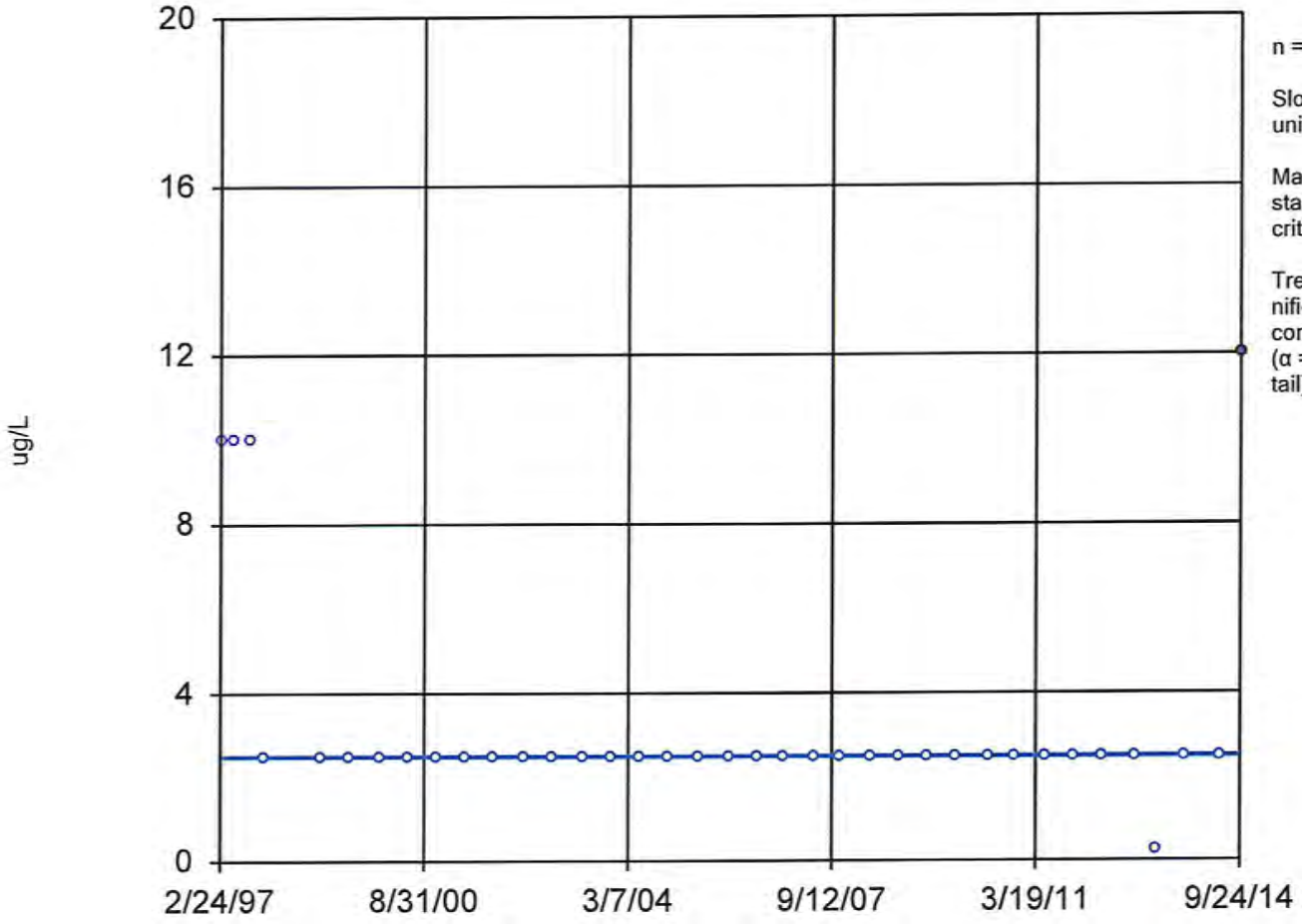
Constituent: Chromium Total Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



n = 37

Slope = 0
units per year.

Mann-Kendall
statistic = -91
critical = -179

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Total Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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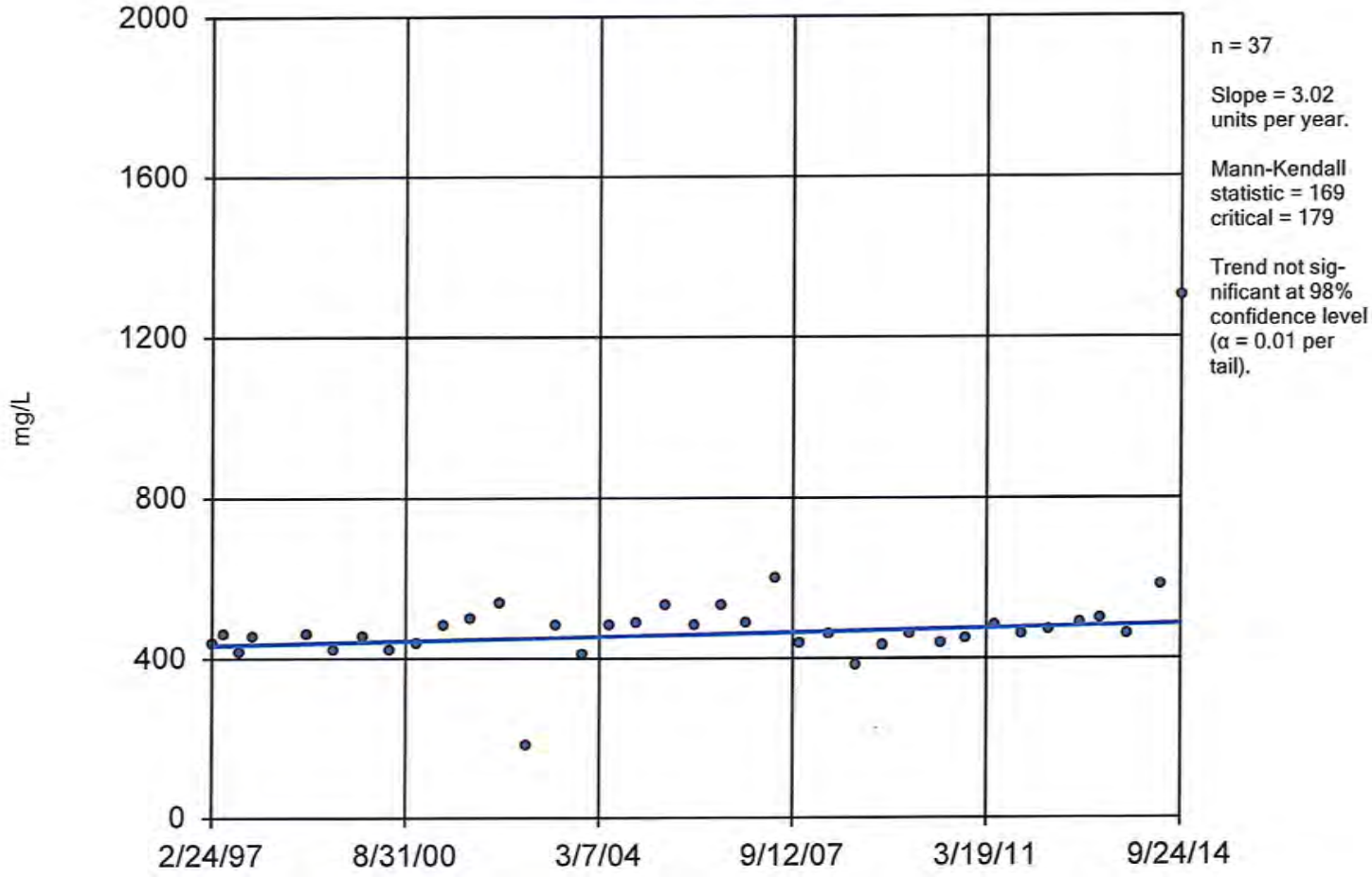
Sen's Slope Estimator

106-SD (bg)



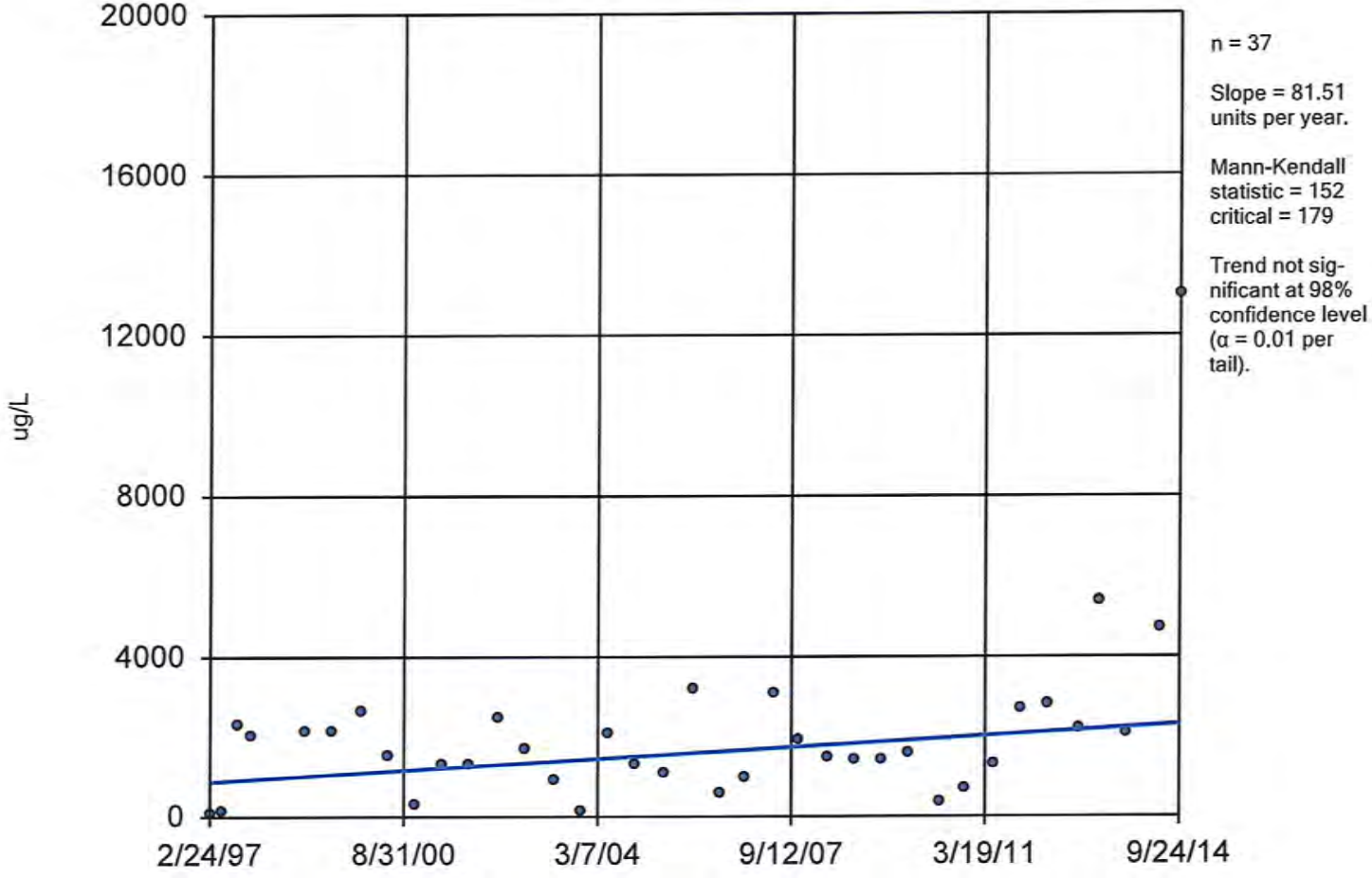
Constituent: Hardness Total Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

106-SD (bg)



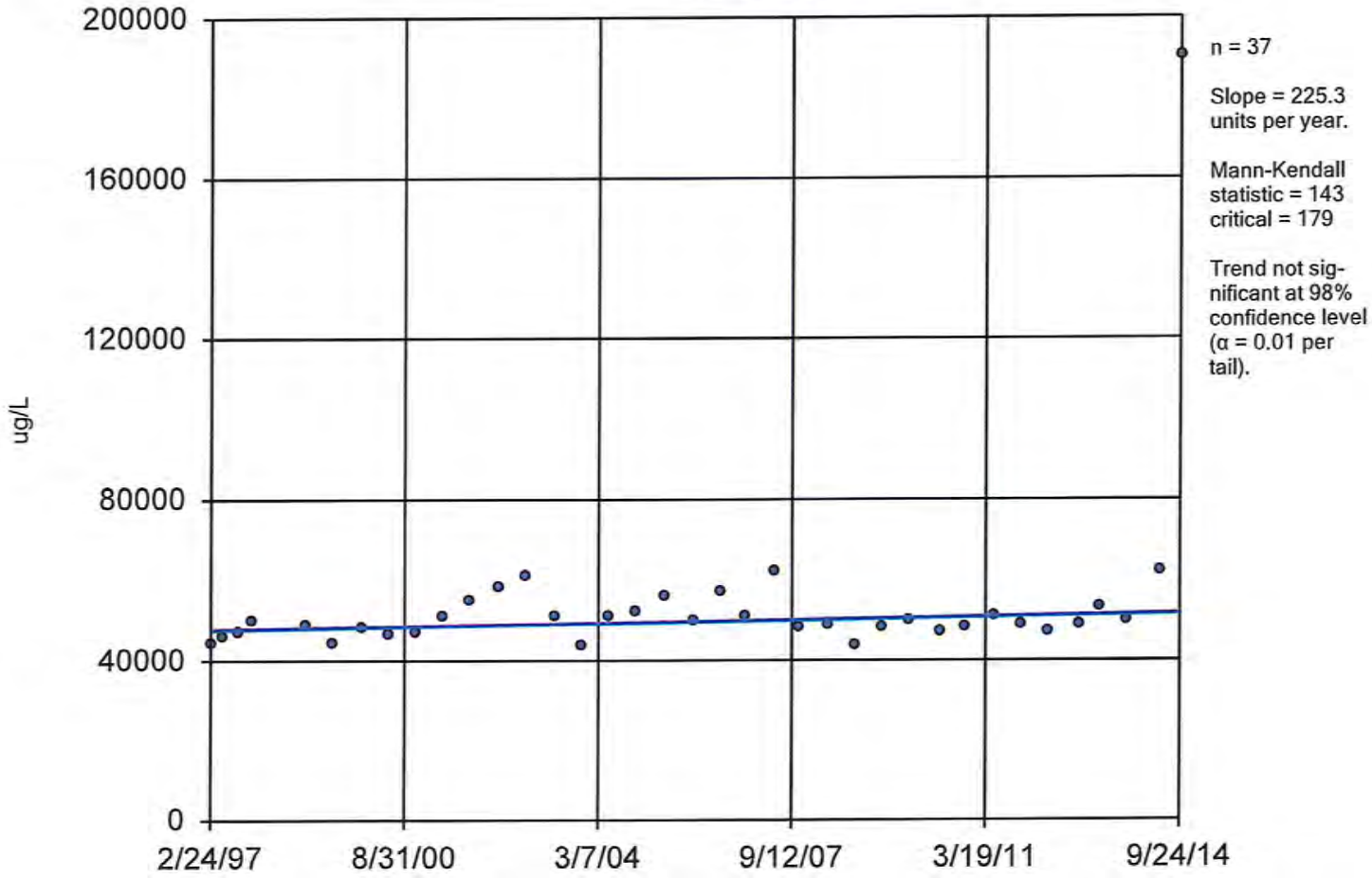
Constituent: Iron Total Analysis Run 11/24/2014 2:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

106-SD (bg)



Constituent: Magnesium Total Analysis Run 11/24/2014 2:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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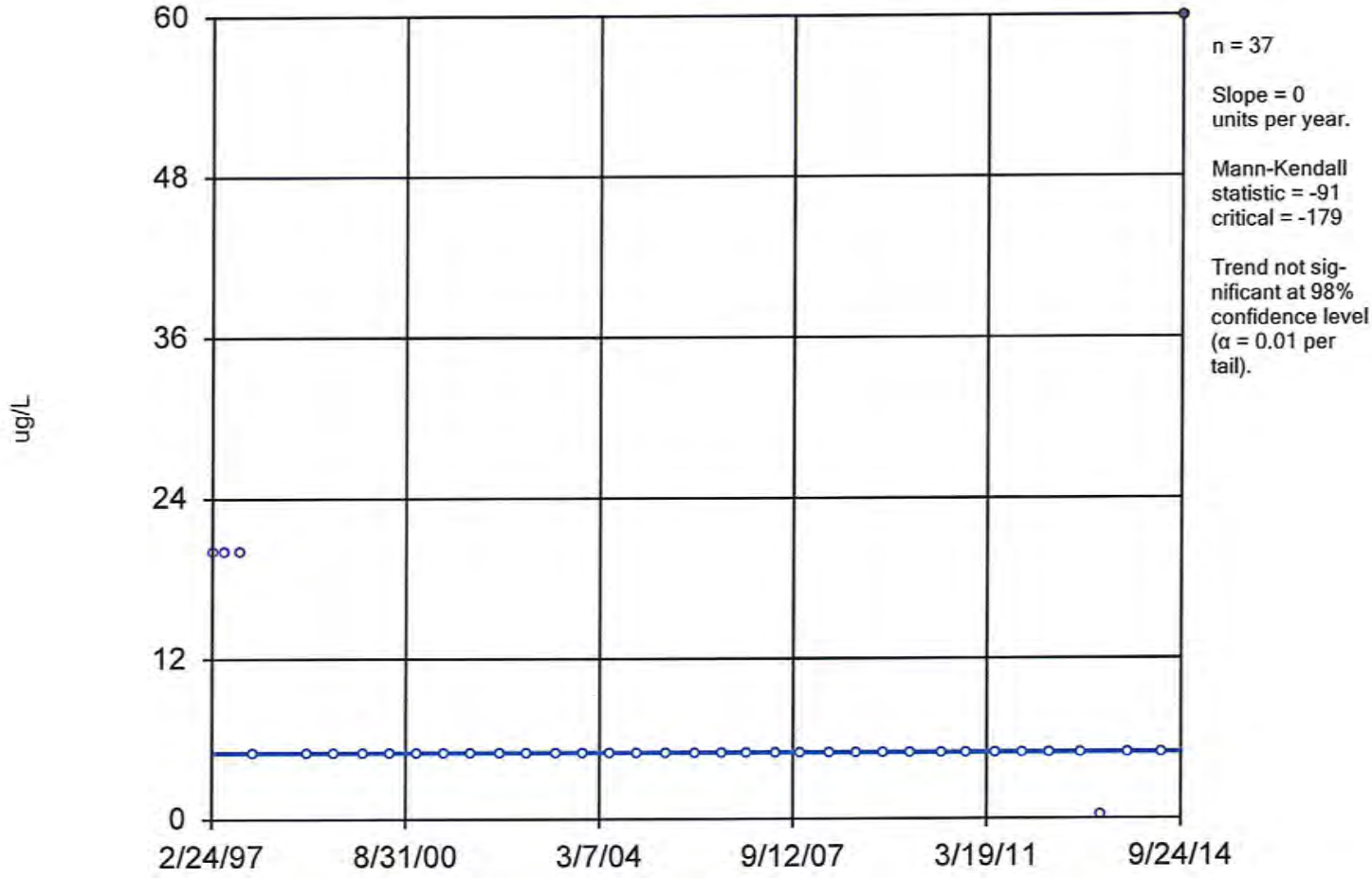
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



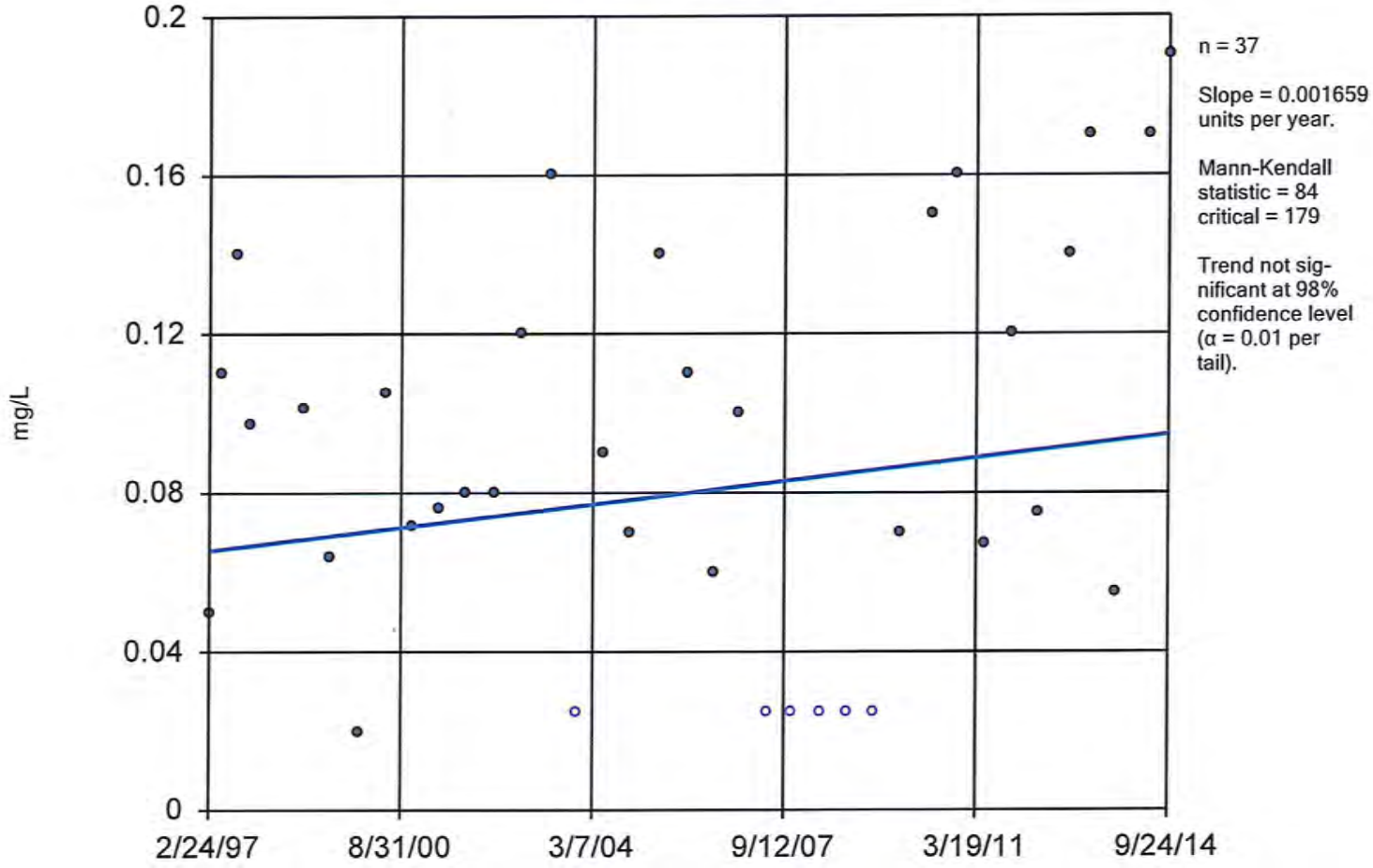
Constituent: Nickel Total Analysis Run 11/24/2014 2:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



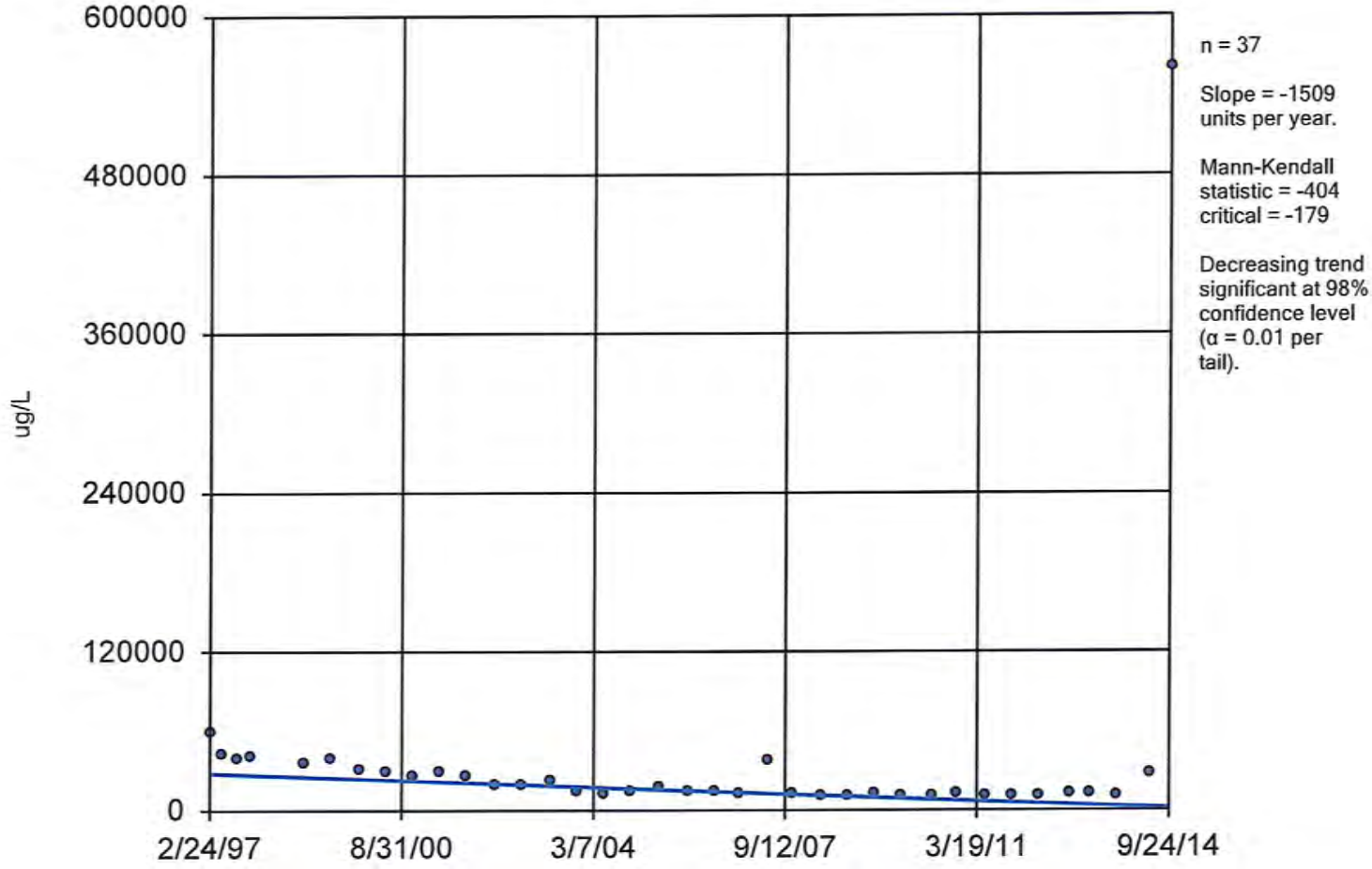
Constituent: Phosphorus Total Analysis Run 11/24/2014 2:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

106-SD (bg)



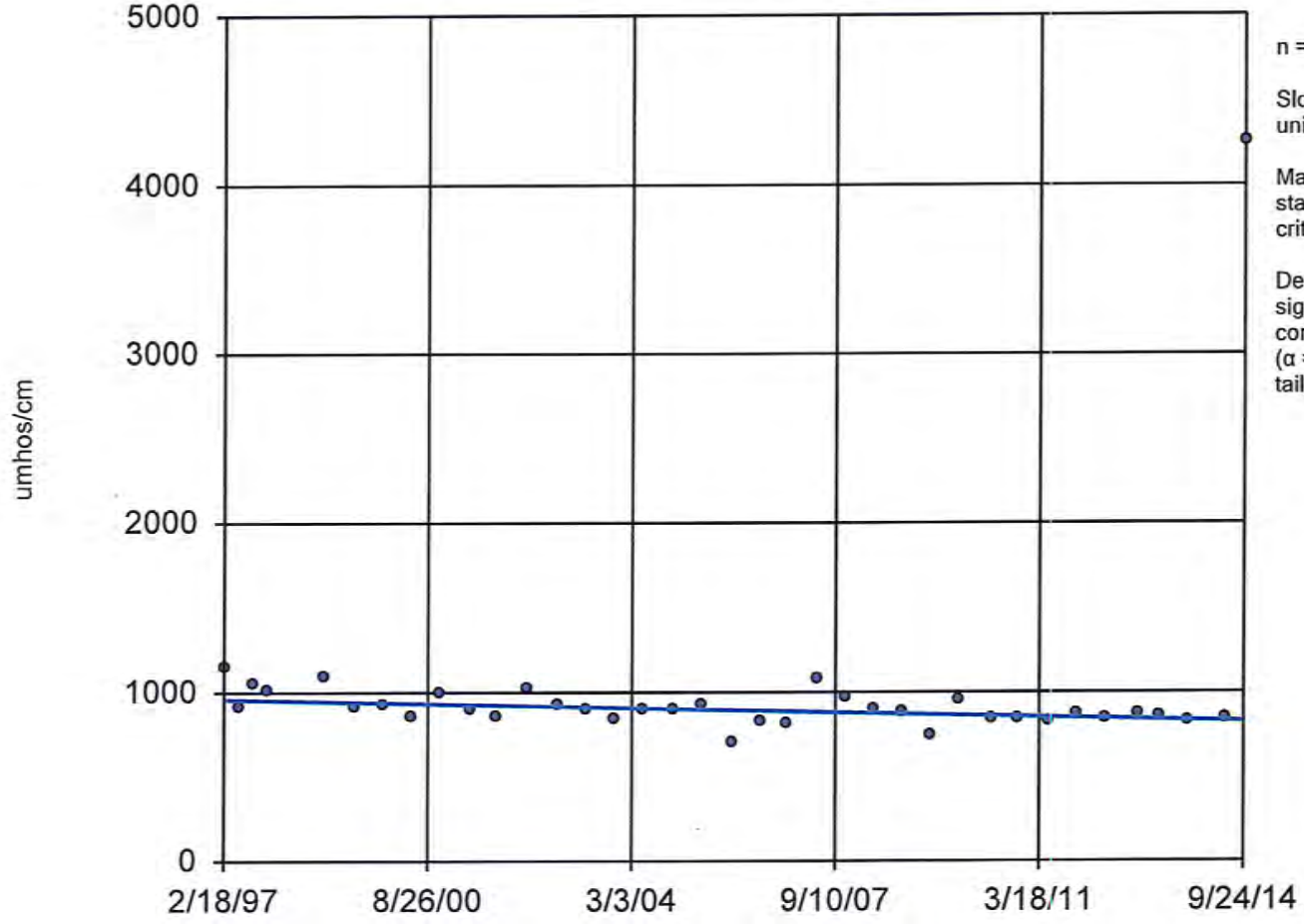
Constituent: Sodium Total Analysis Run 11/24/2014 2:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

106-SD (bg)



n = 37

Slope = -7.391 units per year.

Mann-Kendall statistic = -242
critical = -179

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

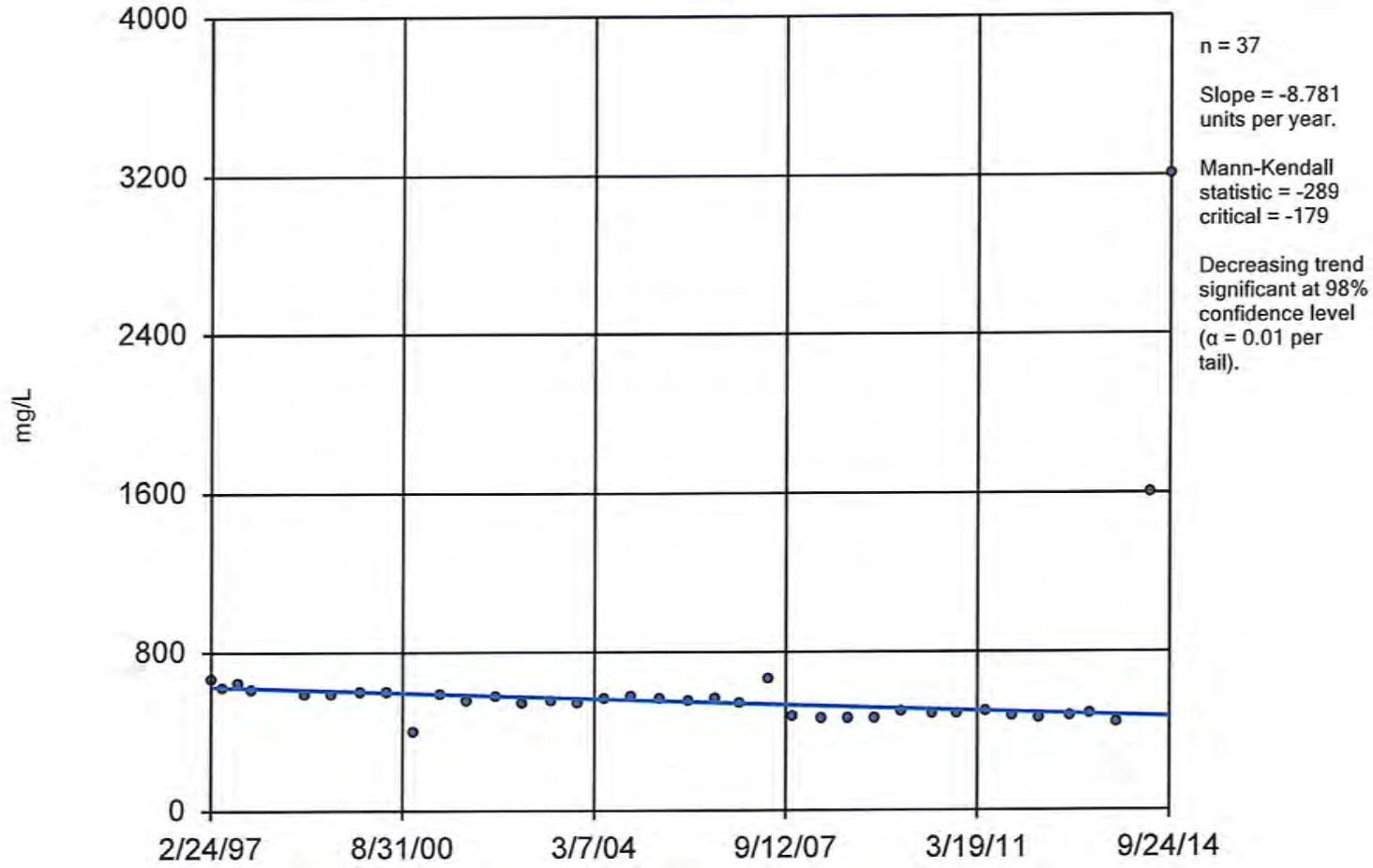
Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 2:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

106-SD (bg)



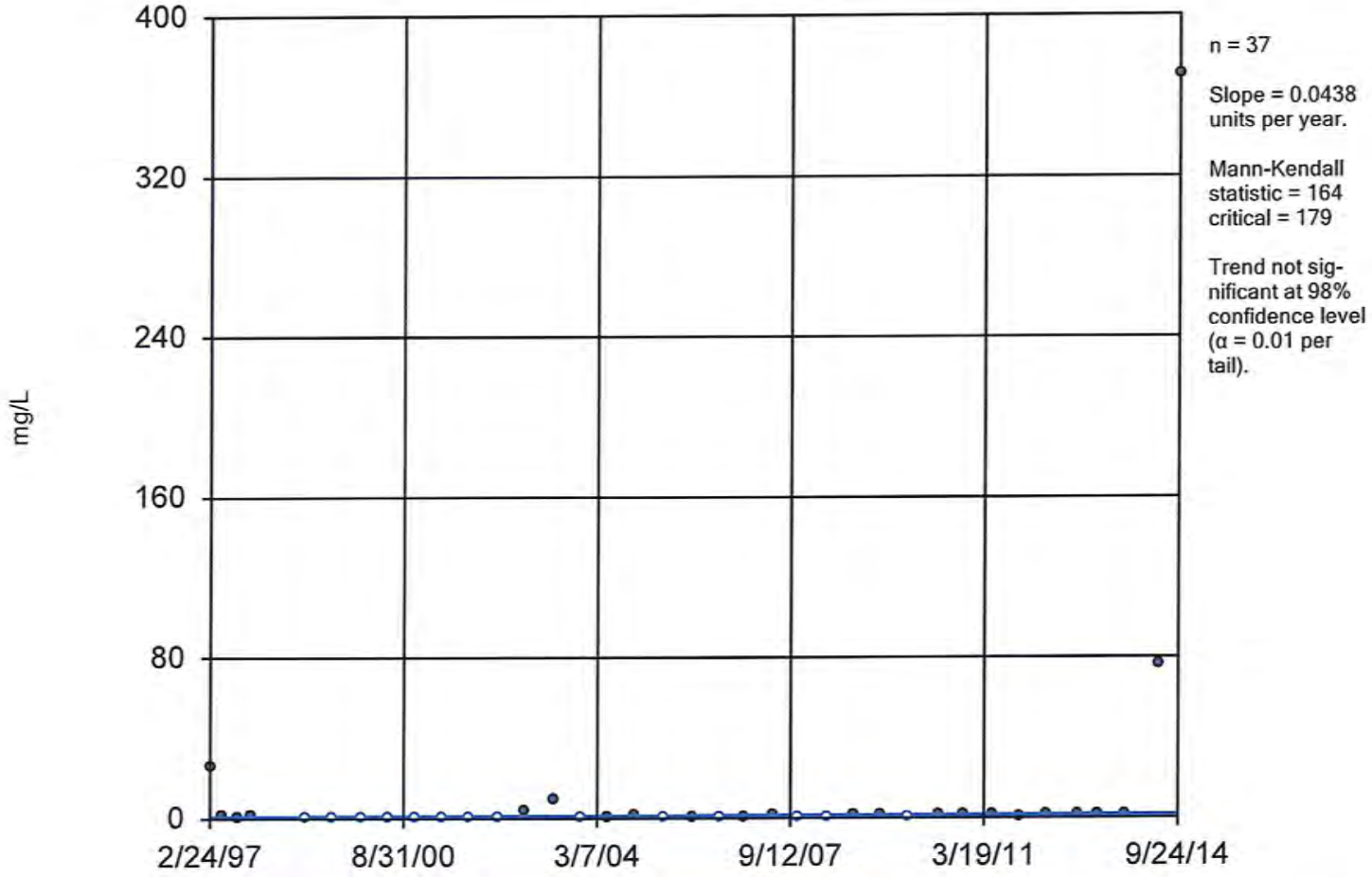
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 2:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



n = 37

Slope = 0.0438 units per year.

Mann-Kendall statistic = 164
critical = 179

Trend not significant at 98% confidence level (α = 0.01 per tail).

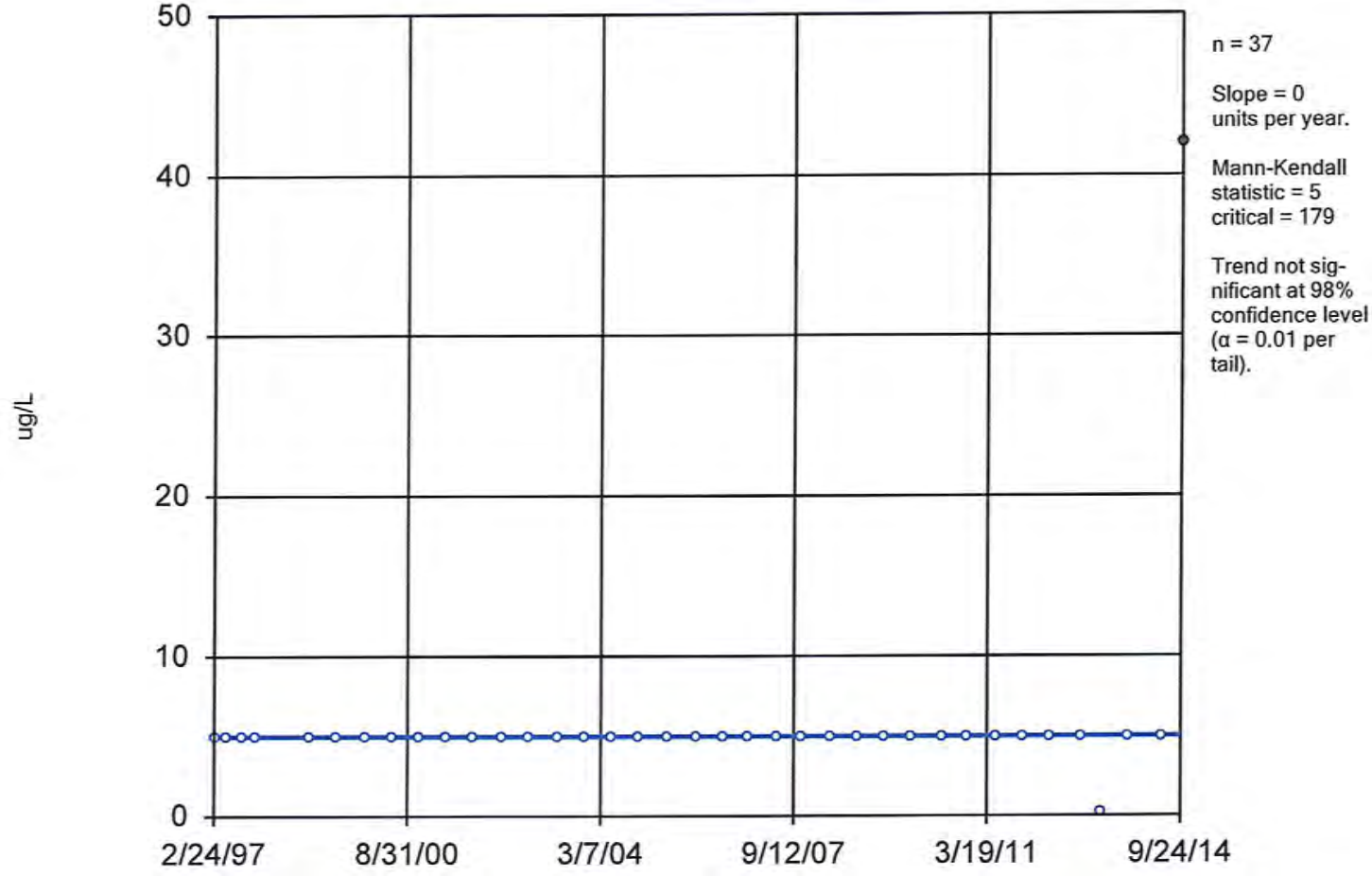
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 2:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SD (bg)



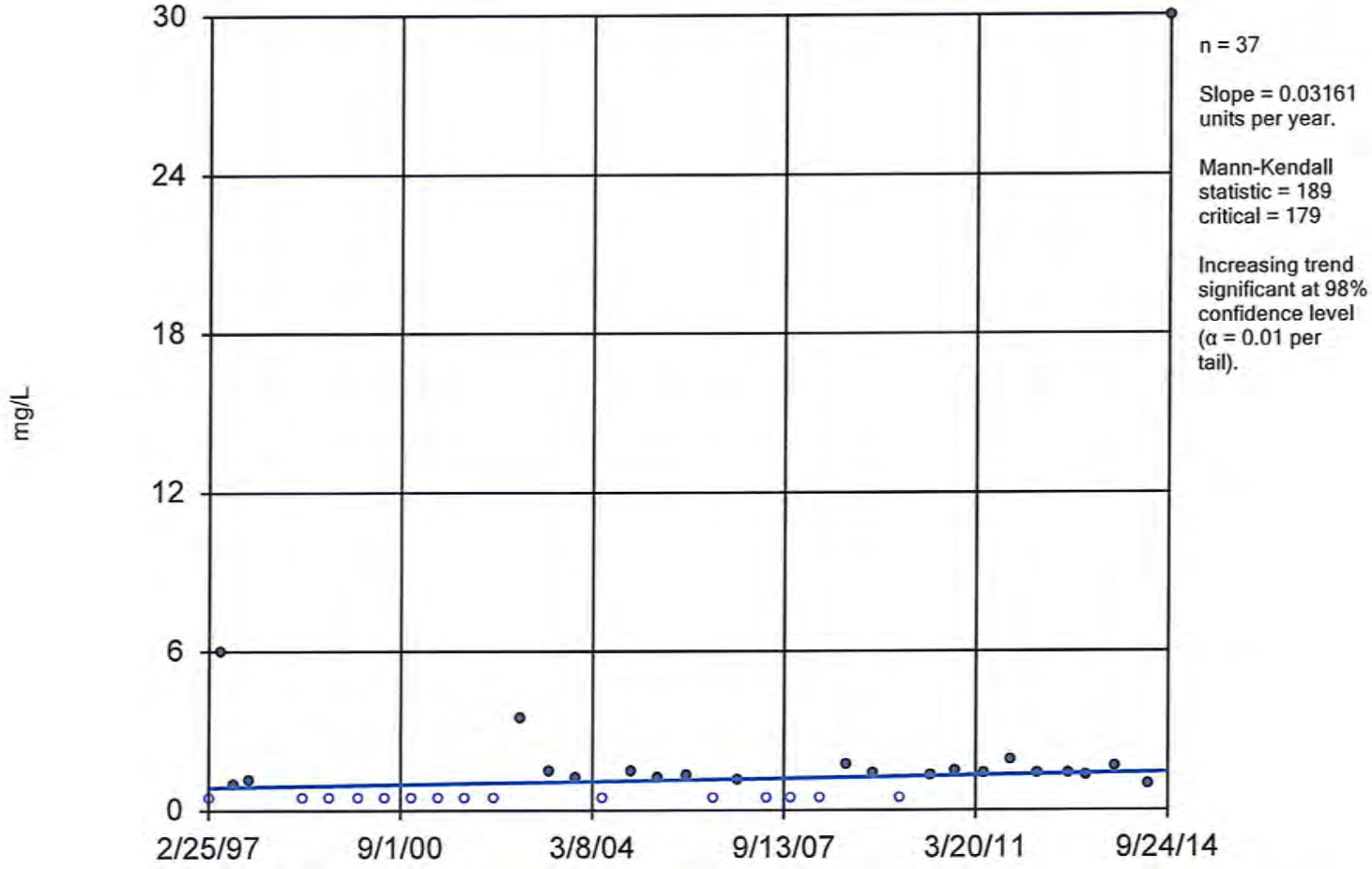
Constituent: Vanadium Total Analysis Run 11/24/2014 2:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

111-SD (bg)



n = 37

Slope = 0.03161 units per year.

Mann-Kendall statistic = 189
critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 2:55 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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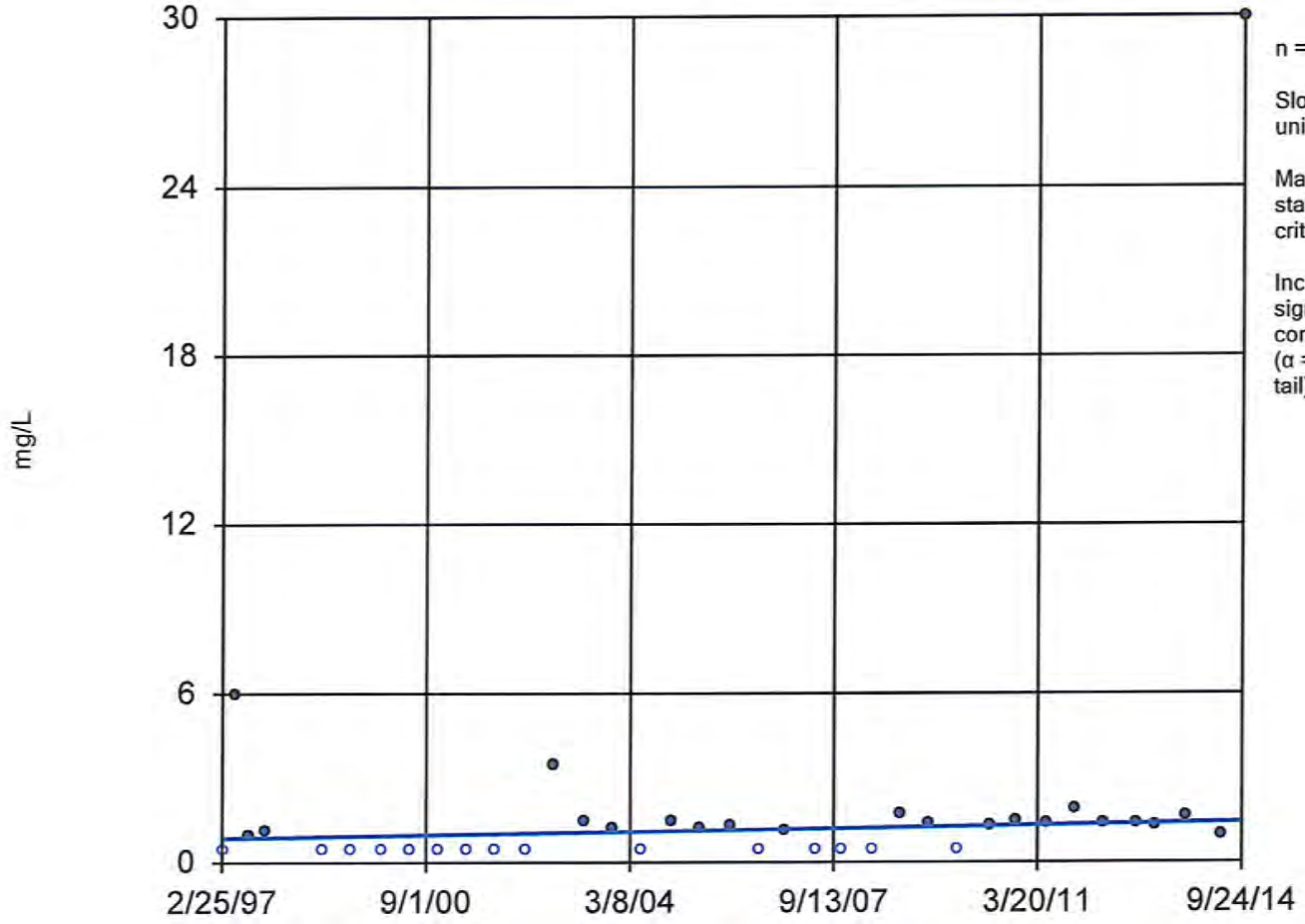
Hollow symbols indicate censored values.

Sen's Slope Estimator

111-SD (bg)



n = 37

Slope = 0.03161 units per year.

Mann-Kendall statistic = 189
critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 2:55 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

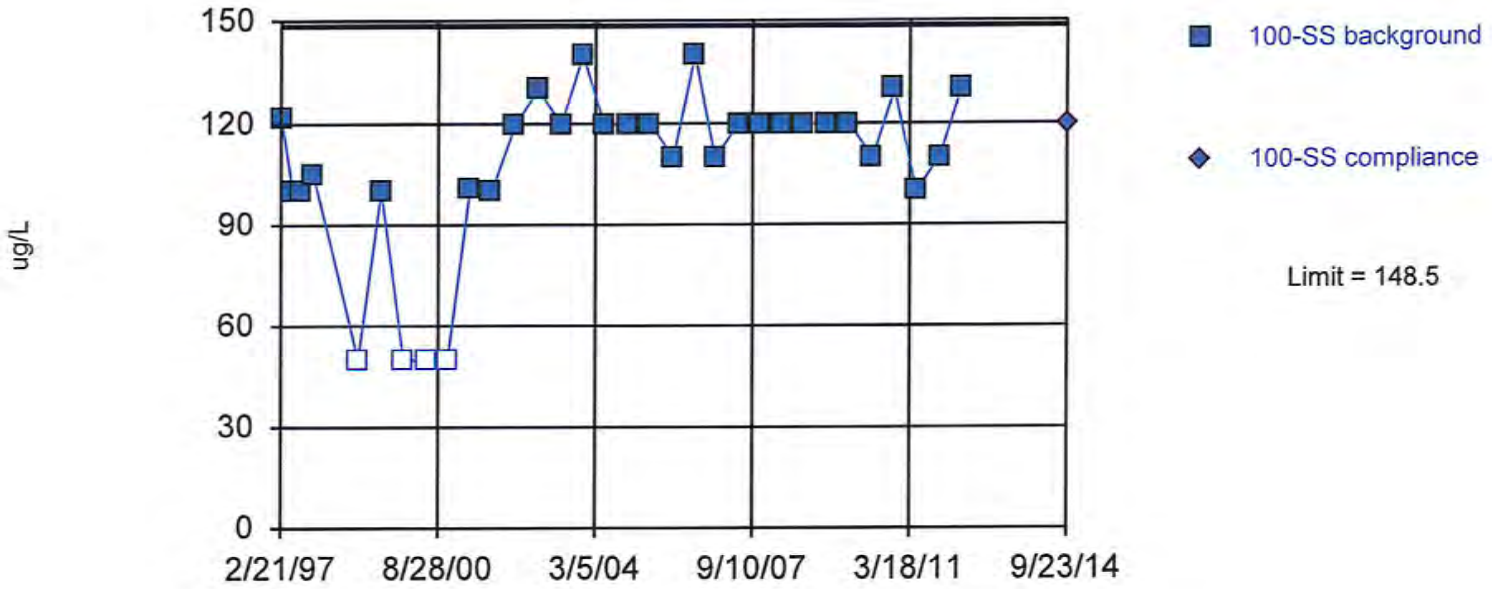
TIME SERIES TREND ANALYSIS
SALEM FORMATION

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation): Mean=1434837, Std. Dev.=680436, n=32, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9138, critical = 0.904. Kappa = 2.7 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Boron Total Analysis Run 11/20/2014 3:15 PM View: 1

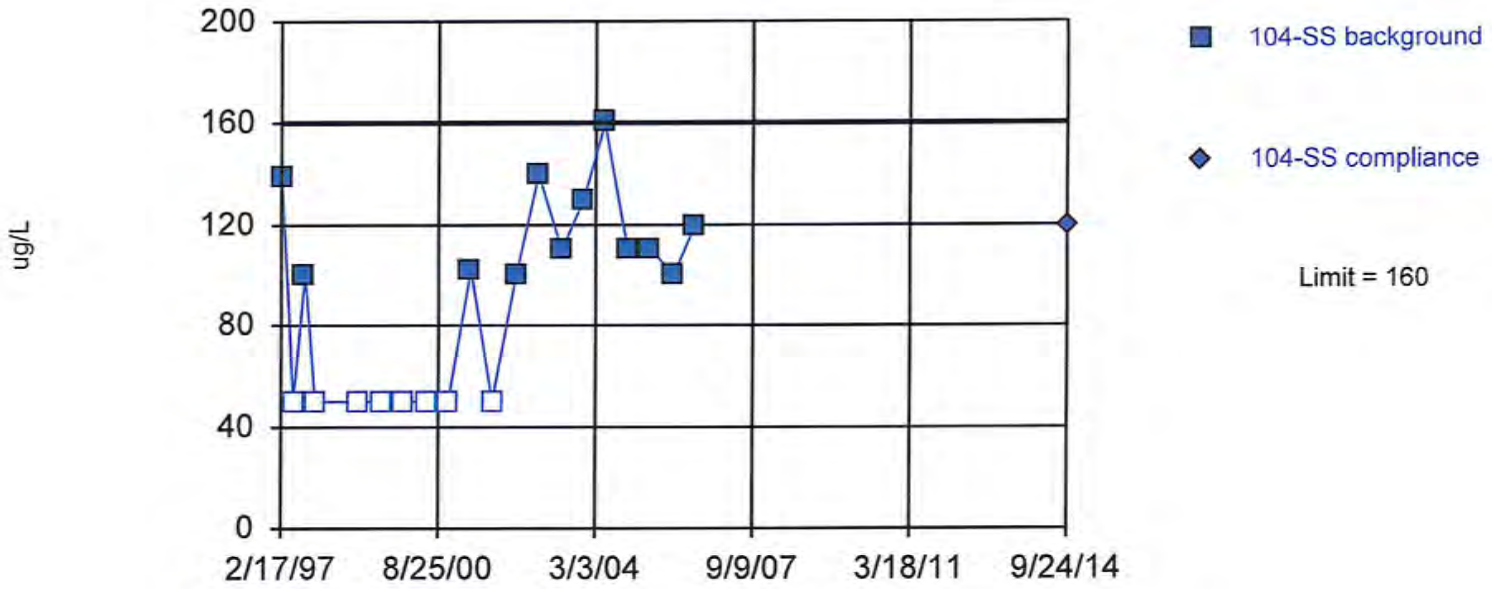
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 20 background values. 40% NDs. Well-constituent pair annual alpha = 0.01677. Individual comparison alpha = 0.004219 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

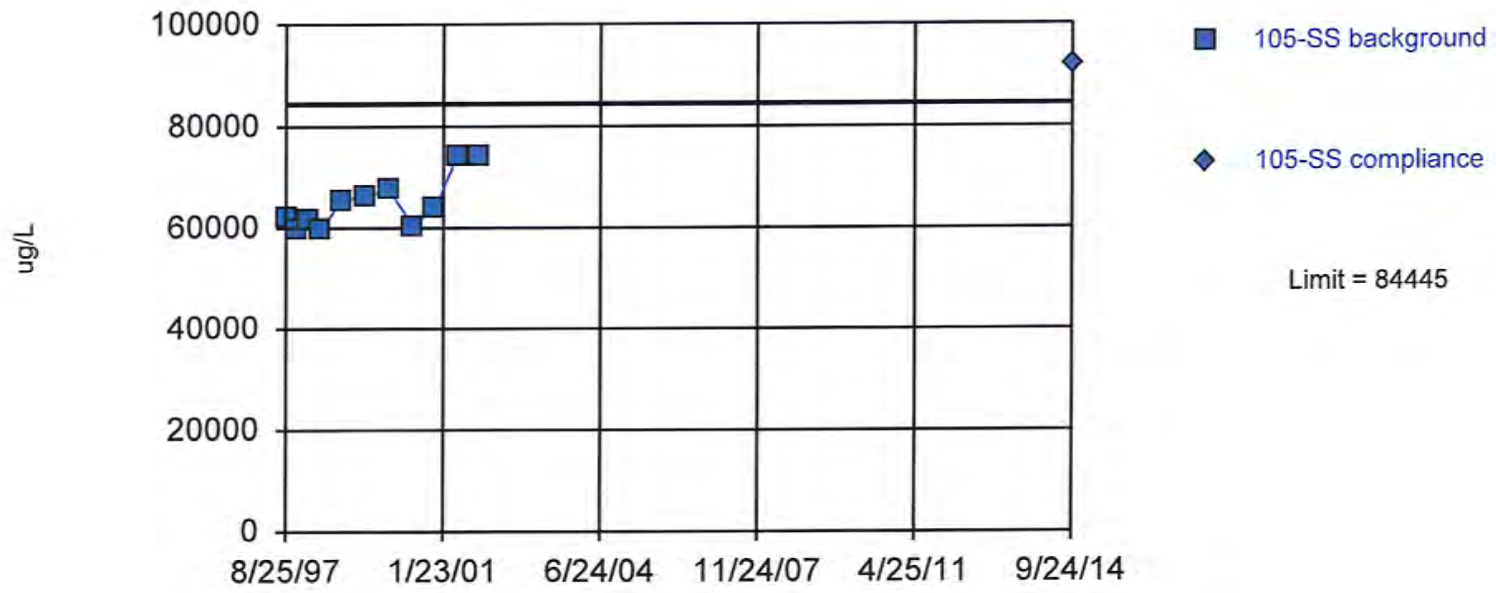
Constituent: Boron Total Analysis Run 11/20/2014 3:15 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=65055, Std. Dev.=5201, n=11. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8651, critical = 0.85. Kappa = 3.728 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

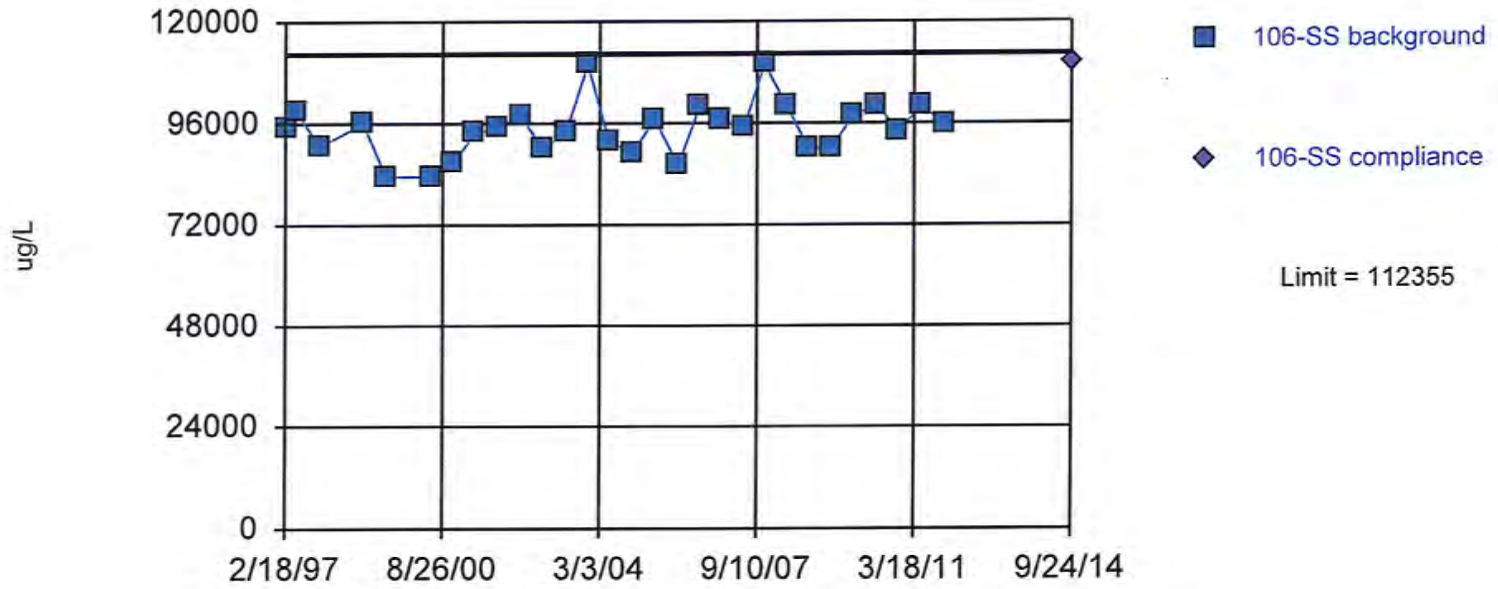
Constituent: Calcium Total Analysis Run 11/20/2014 3:17 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=94807, Std. Dev.=6401, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9465, critical = 0.898. Kappa = 2.741 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 60000 (8/25/1997); 9000 (11/19/1999).

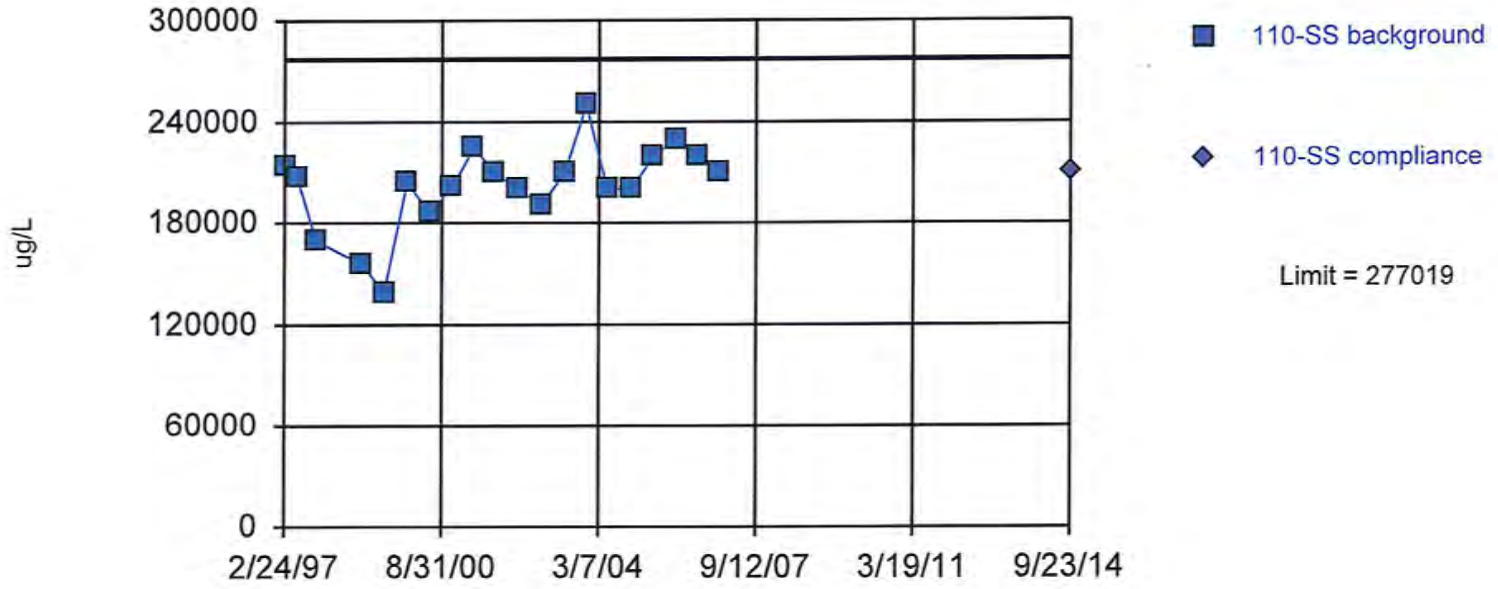
Constituent: Calcium Total Analysis Run 11/20/2014 4:06 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=202050, Std. Dev.=25357, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9342, critical = 0.868. Kappa = 2.957 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 91000 (8/22/1997).

Constituent: Calcium Total Analysis Run 11/20/2014 3:18 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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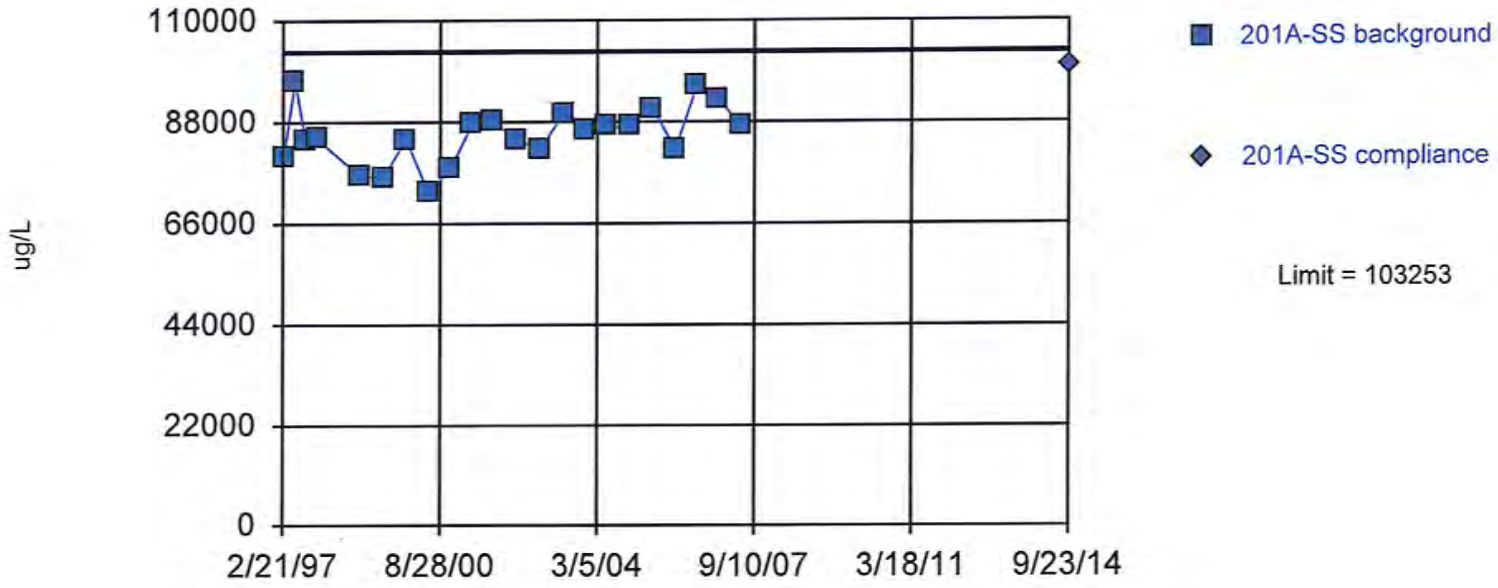
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=85186, Std. Dev.=6232, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9801, critical = 0.878. Kappa = 2.899 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

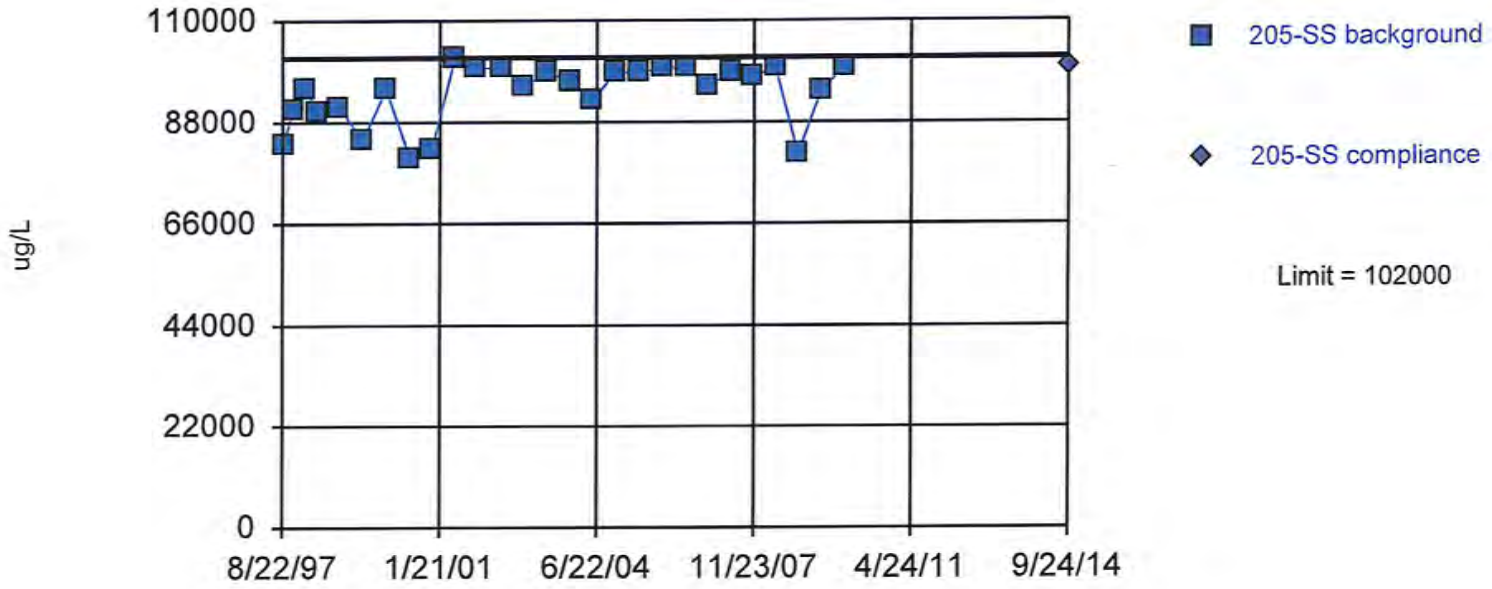
Constituent: Calcium Total Analysis Run 11/20/2014 3:20 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. Well-constituent pair annual alpha = 0.009865. Individual comparison alpha = 0.002475 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

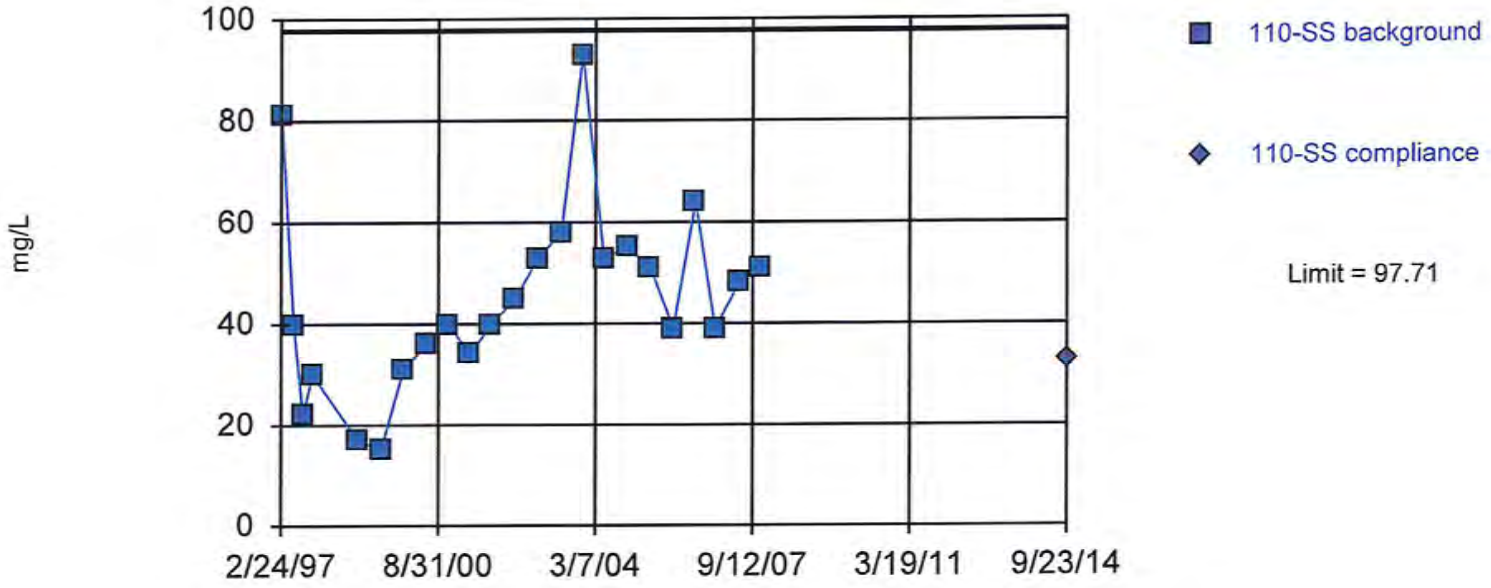
Constituent: Calcium Total Analysis Run 11/20/2014 3:21 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=45, Std. Dev.=18.37, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9456, critical = 0.881. Kappa = 2.87 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/20/2014 3:21 PM View: 1

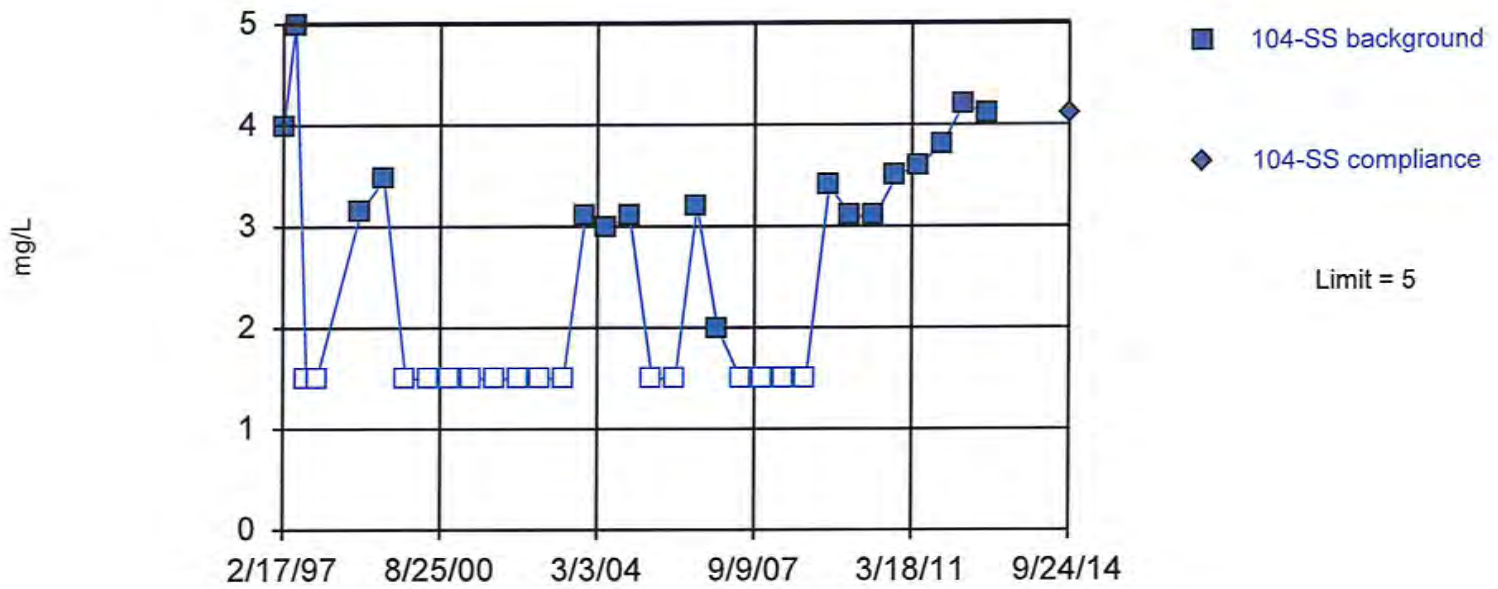
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 33 background values. 48.48% NDs. Well-constituent pair annual alpha = 0.006735. Individual comparison alpha = 0.001688 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

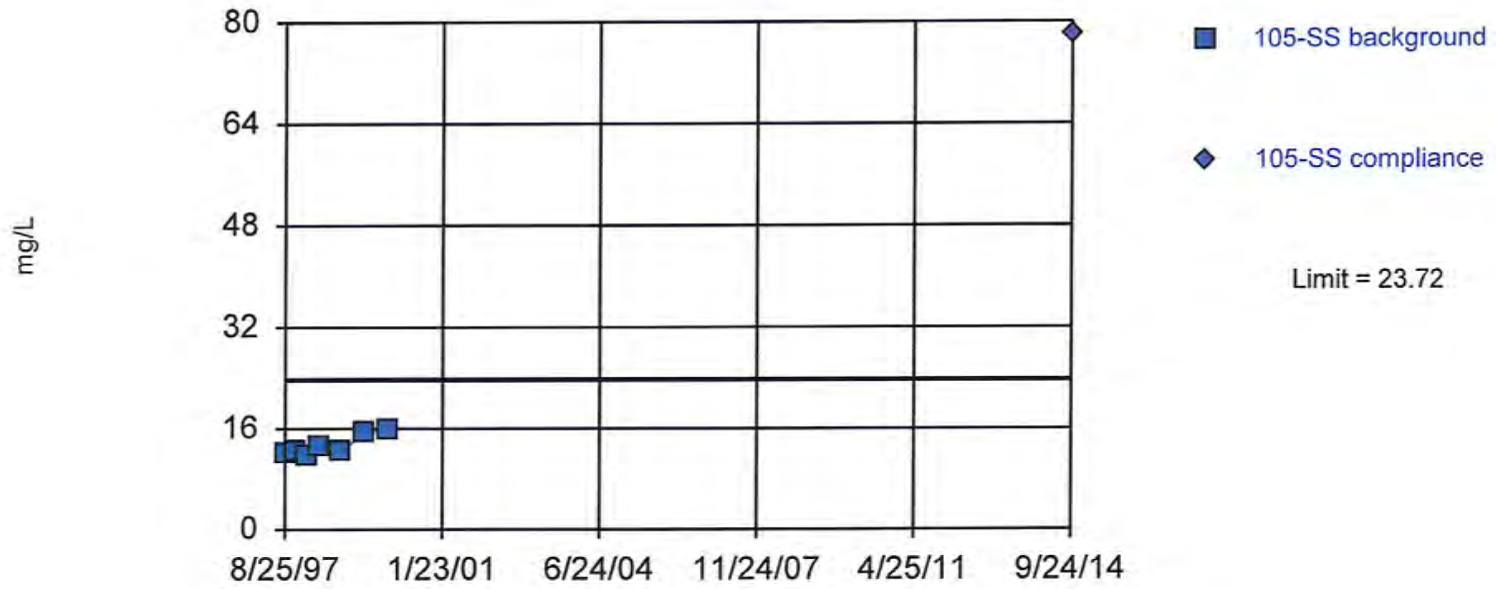
Constituent: Chloride Analysis Run 11/20/2014 3:22 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=3.649, Std. Dev.=0.2253, n=7. Normality test: Shapiro Wilk @alpha = 0.1, calculated = 0.8443, critical = 0.838. Kappa = 5.42 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

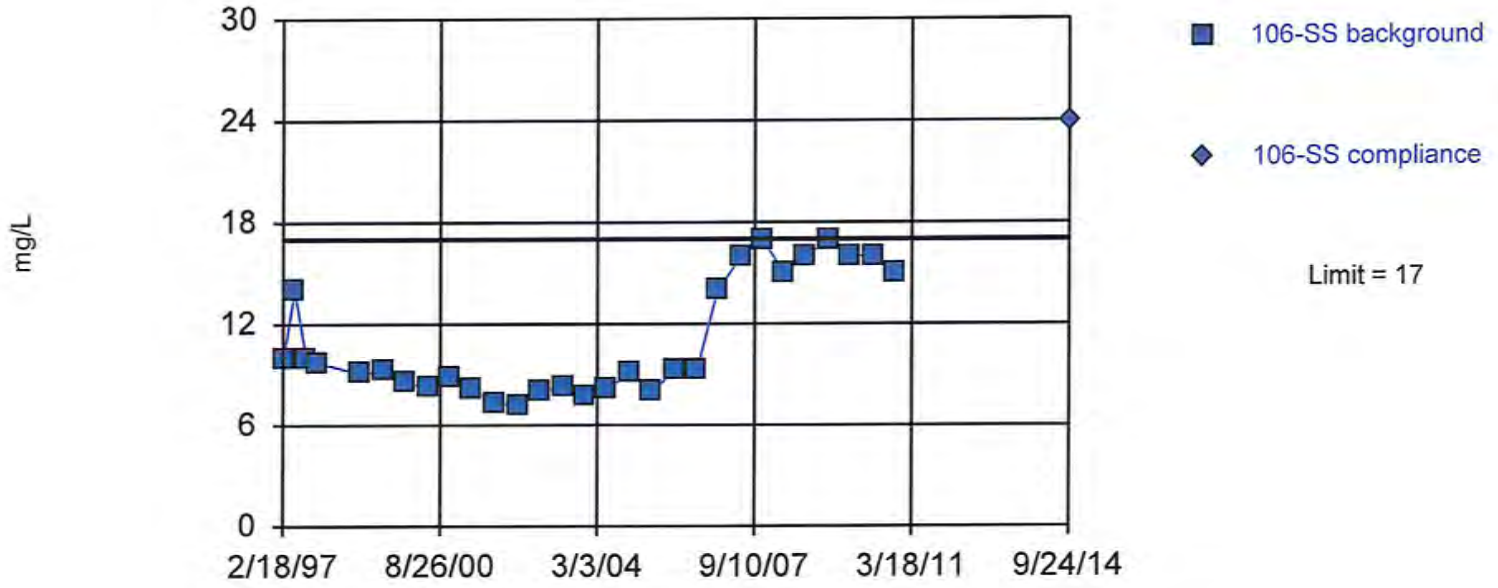
Constituent: Chloride Analysis Run 11/20/2014 3:23 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 29 background values. Well-constituent pair annual alpha = 0.00858. Individual comparison alpha = 0.002152 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

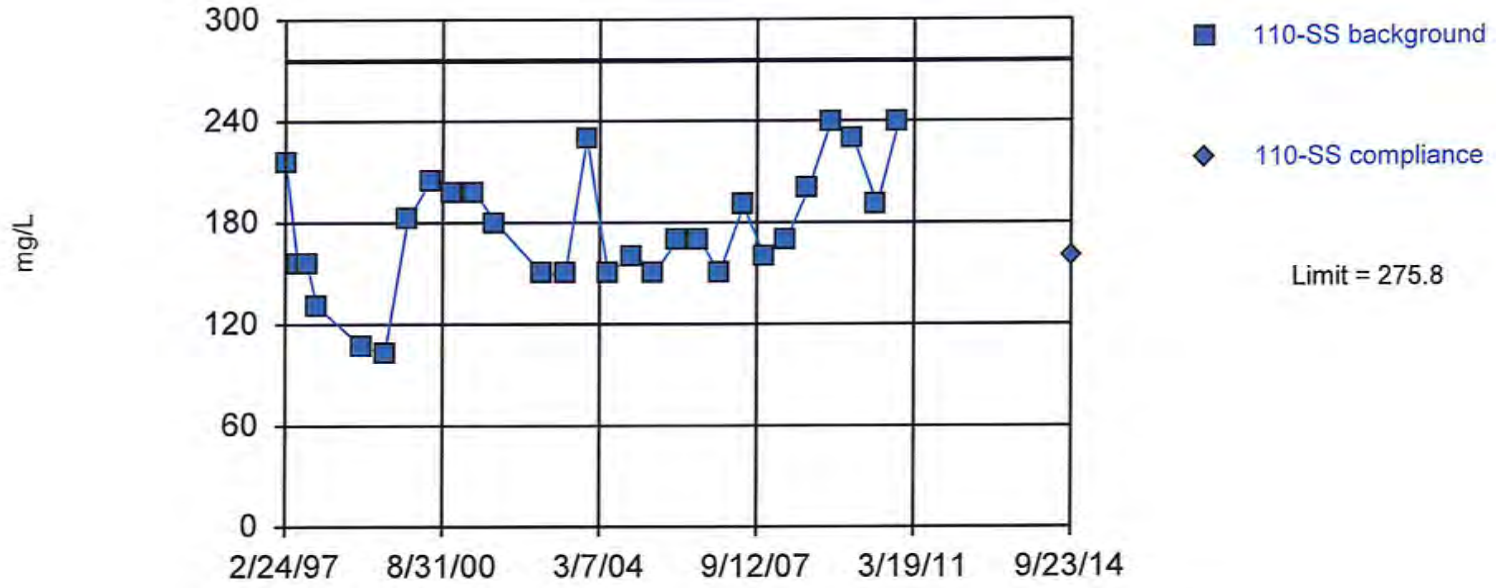
Constituent: Chloride Analysis Run 11/20/2014 3:23 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=176, Std. Dev.=36.15, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9609, critical = 0.896. Kappa = 2.759 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. One background outlier was removed: <3 (5/21/2002).

Constituent: Chloride Analysis Run 11/20/2014 3:24 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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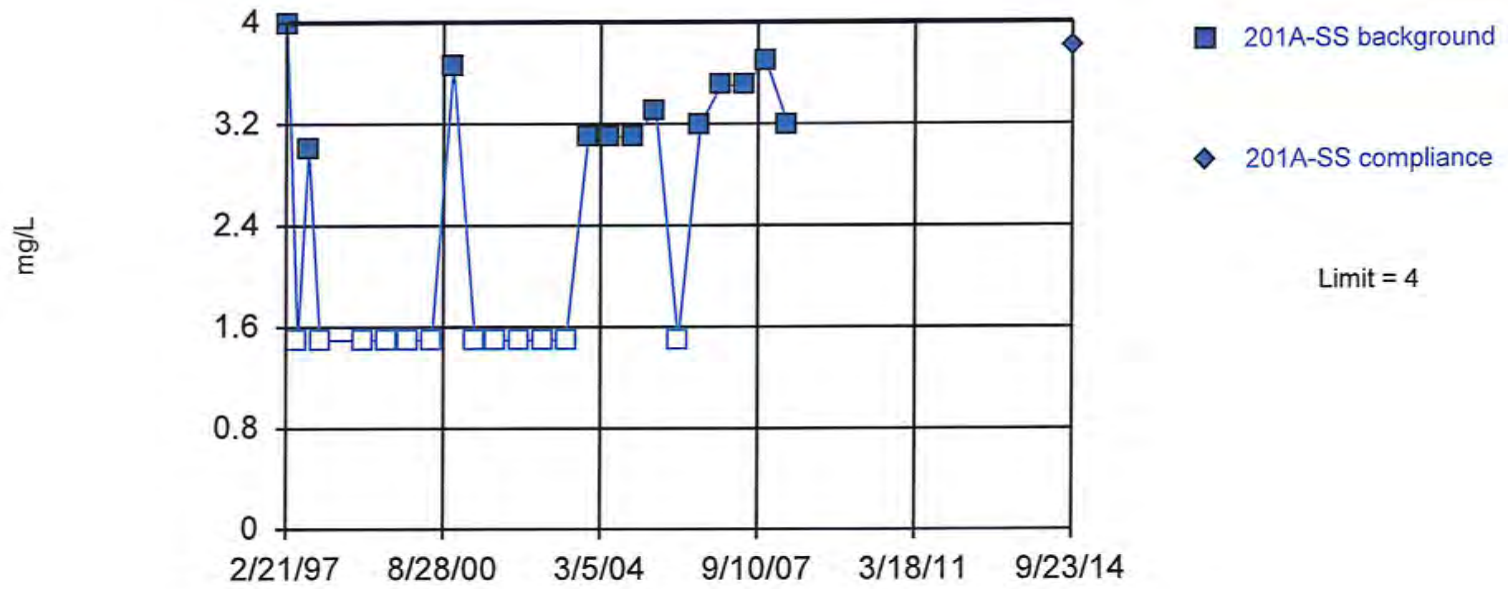
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 24 background values. 50% NDs. Well-constituent pair annual alpha = 0.01227. Individual comparison alpha = 0.003083 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

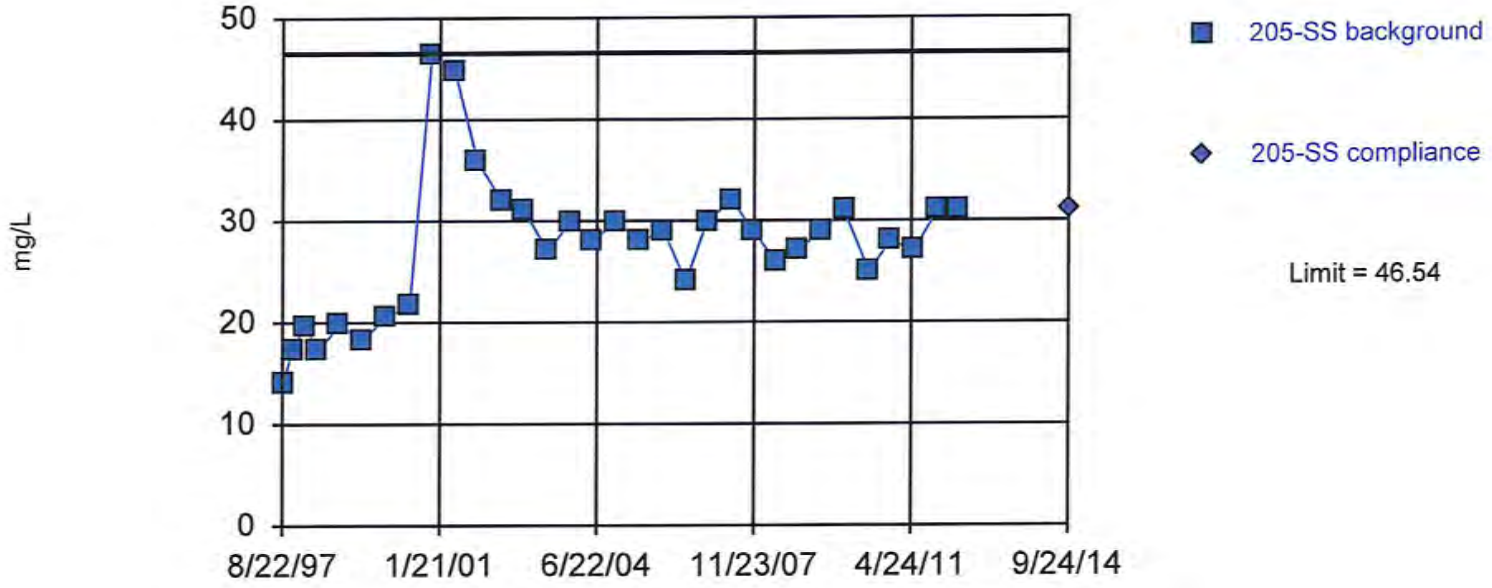
Constituent: Chloride Analysis Run 11/20/2014 3:24 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=27.53, Std. Dev.=7.044, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9287, critical = 0.904. Kappa = 2.7 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

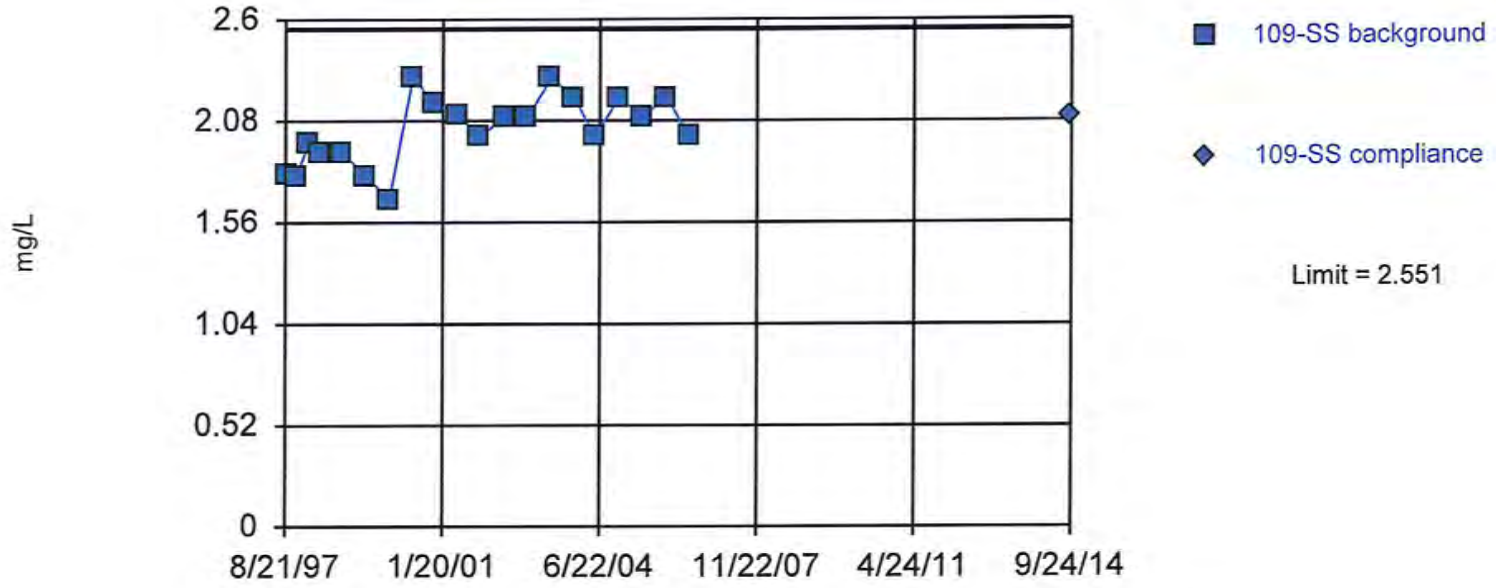
Constituent: Chloride Analysis Run 11/20/2014 3:26 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.034, Std. Dev.=0.1749, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9583, critical = 0.868. Kappa = 2.957 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

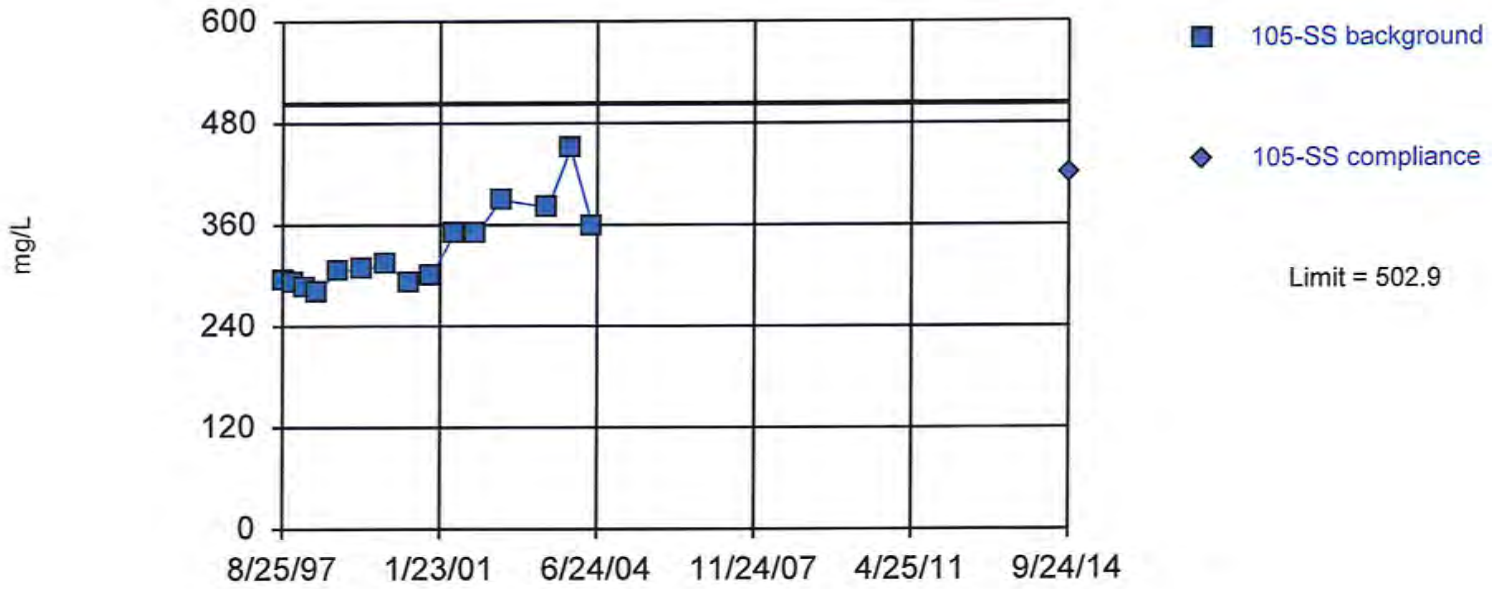
Constituent: Fluoride Analysis Run 11/20/2014 3:27 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=6.897, Std. Dev.=0.3248, n=15. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8812, critical = 0.881. Kappa = 3.25 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Dixon's Outlier Test was performed on the background data. One background outlier was removed: 130 (11/19/2002).

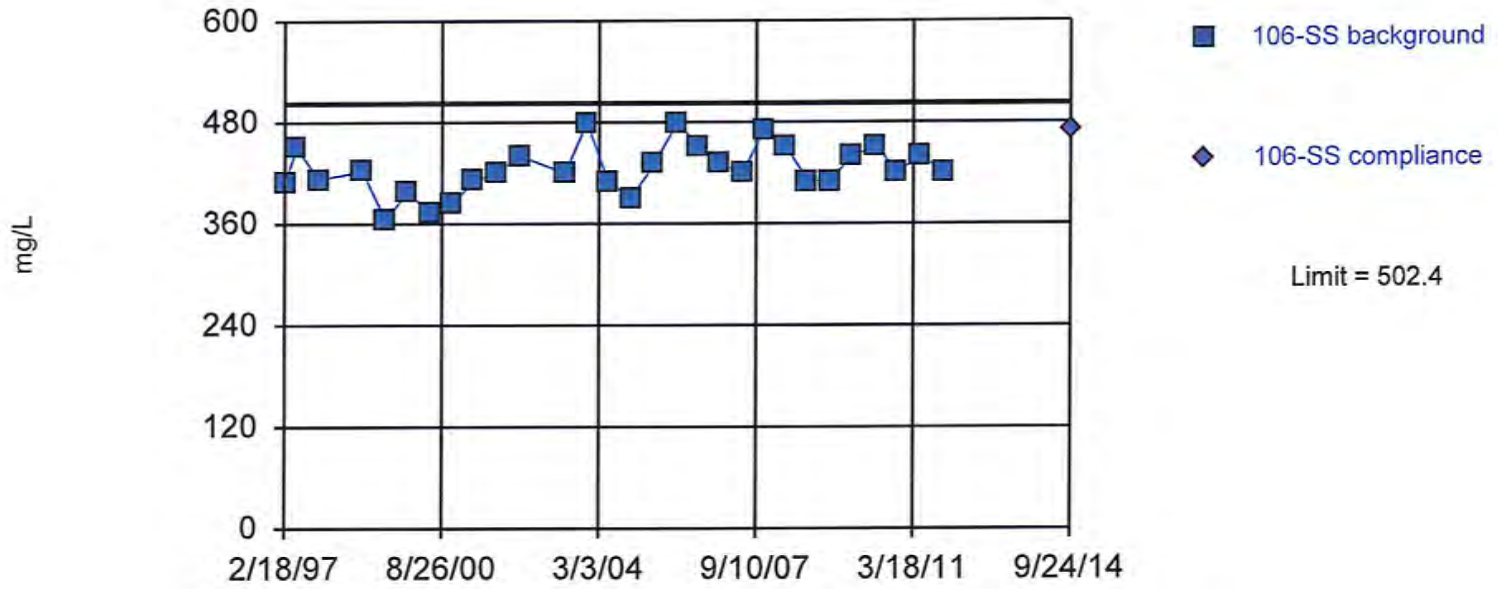
Constituent: Hardness Total Analysis Run 11/20/2014 3:29 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=424.3, Std. Dev.=28.5, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9671, critical = 0.898. Kappa = 2.741 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 265 (8/25/1997); 130 (11/19/2002).

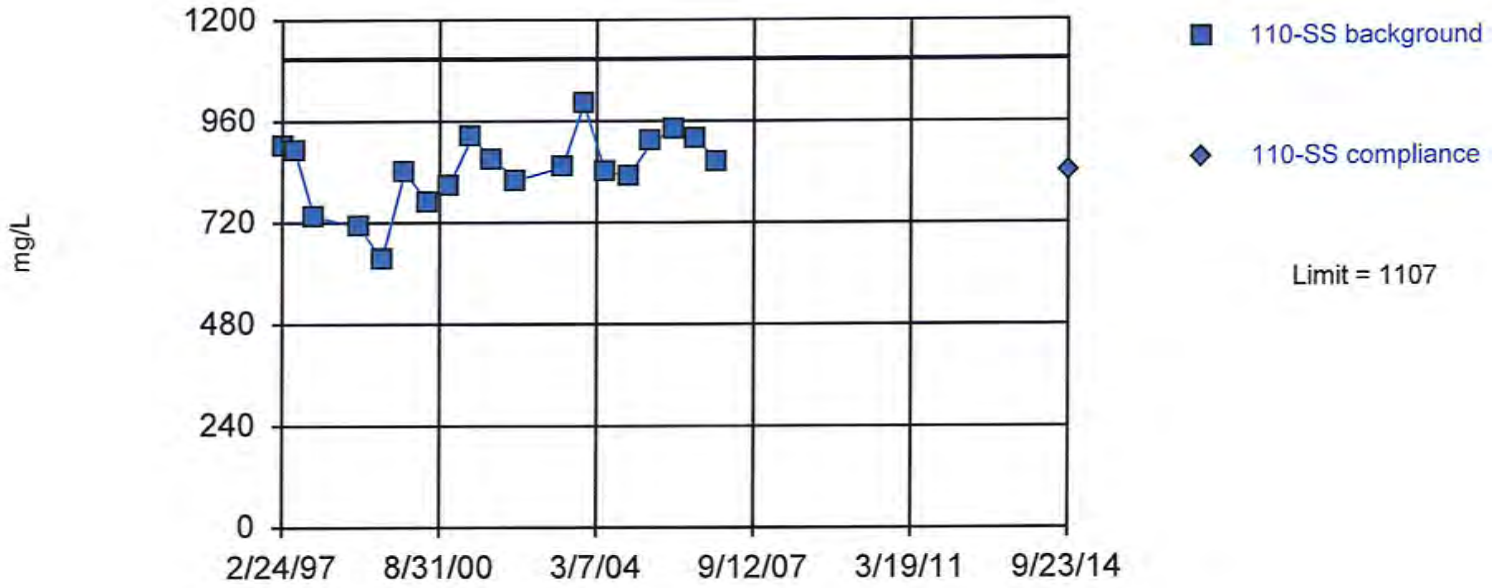
Constituent: Hardness Total Analysis Run 11/20/2014 3:29 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=844.6, Std. Dev.=87.33, n=19. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9634, critical = 0.901. Kappa = 3.006 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. Two background outliers were removed: 437 (8/22/1997); 270 (11/19/2002).

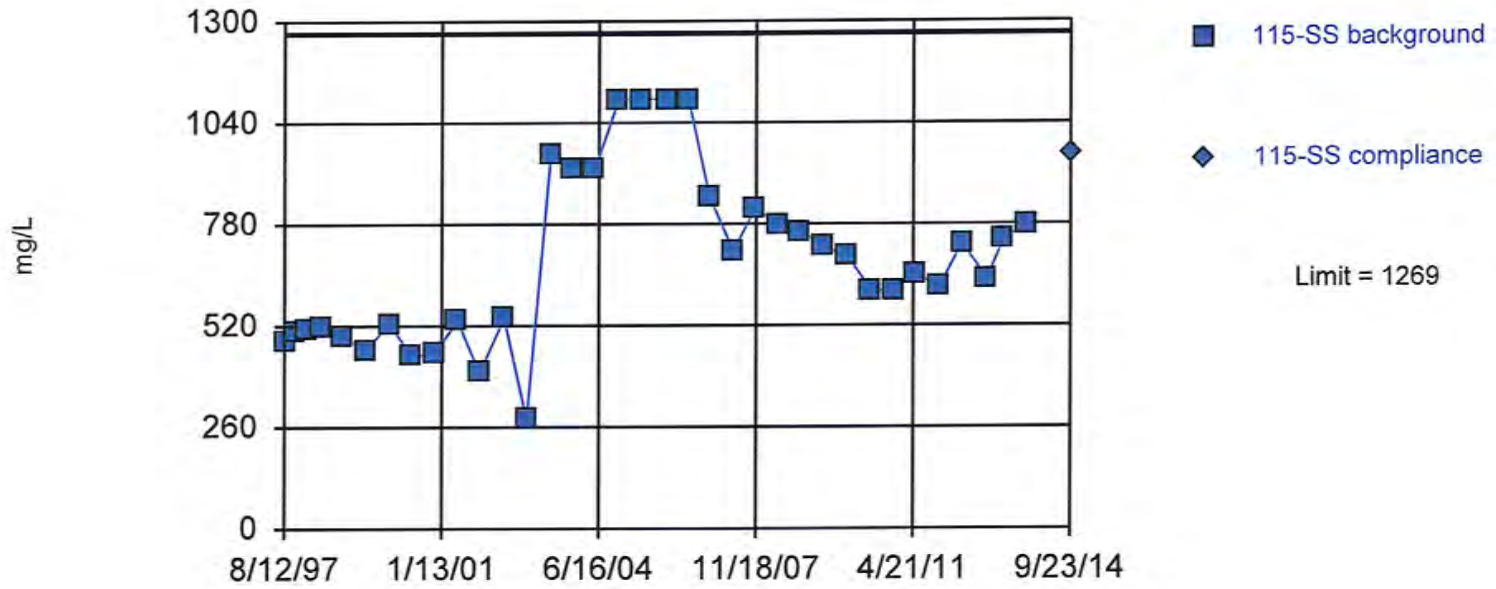
Constituent: Hardness Total Analysis Run 11/20/2014 3:31 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=687.2, Std. Dev.=218.3, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9422, critical = 0.91. Kappa = 2.664 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

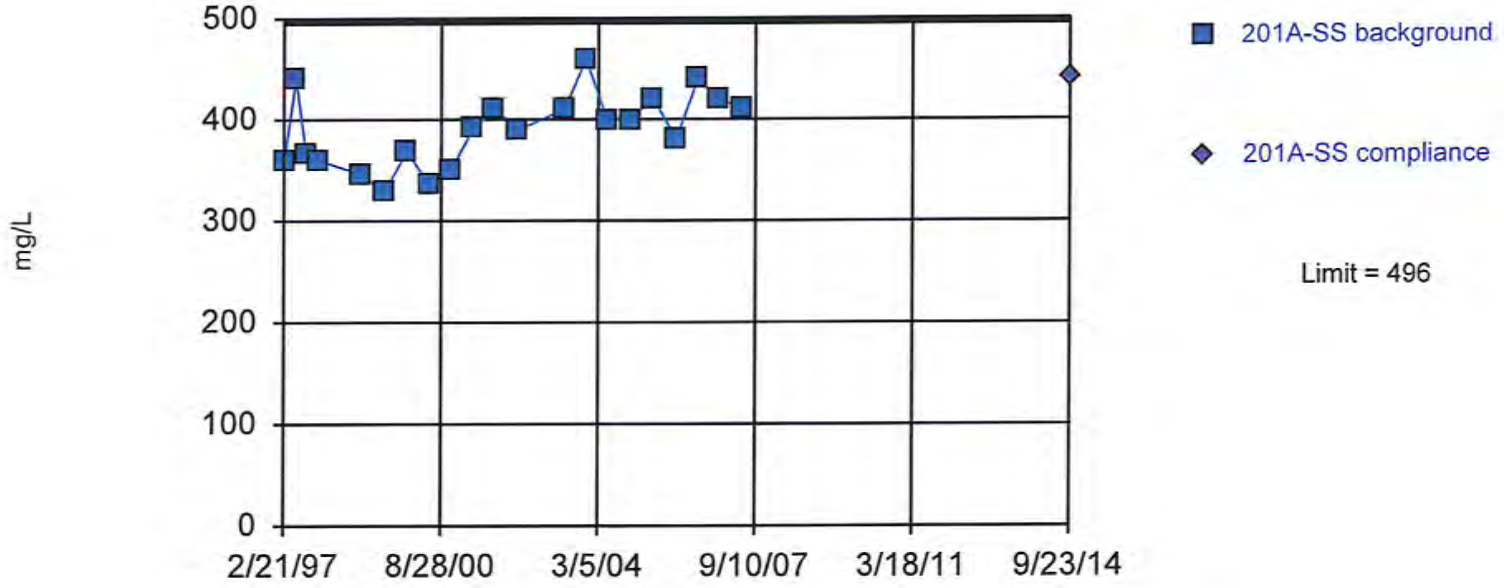
Constituent: Hardness Total Analysis Run 11/20/2014 3:31 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=389.8, Std. Dev.=36.3, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9761, critical = 0.873. Kappa = 2.928 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 120 (11/19/2002).

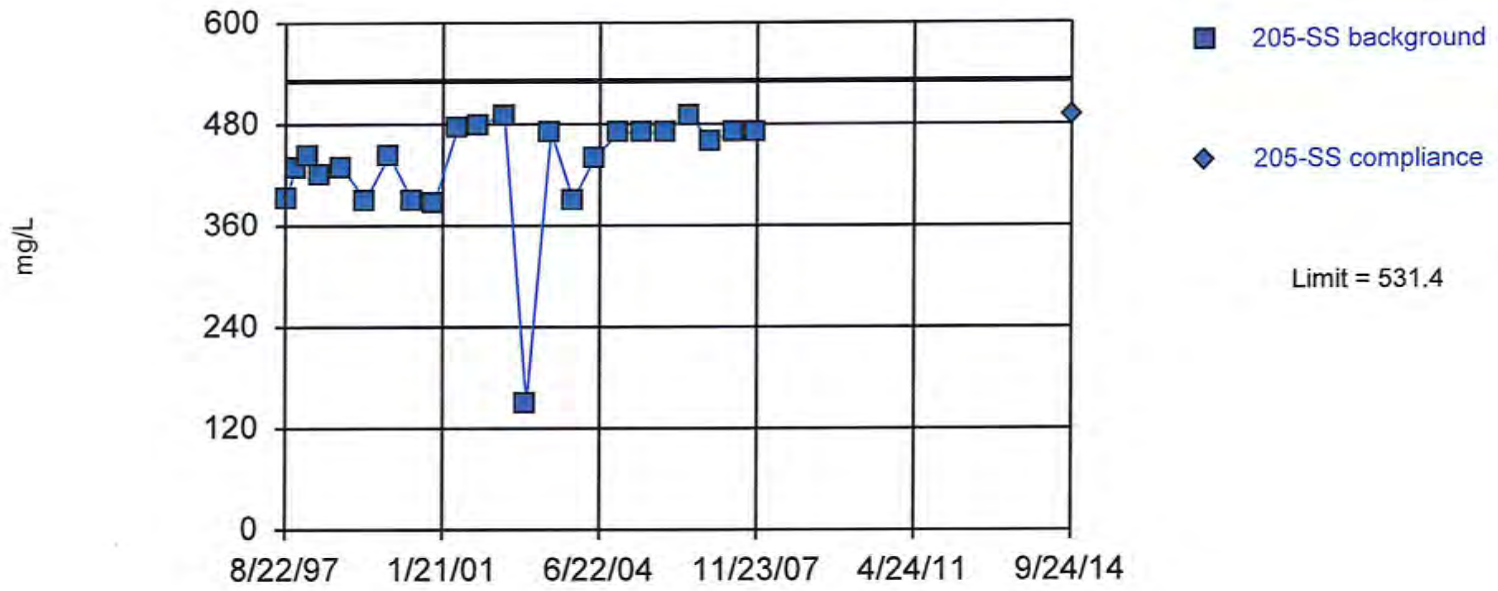
Constituent: Hardness Total Analysis Run 11/20/2014 3:32 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on x^4 transformation): Mean=3.8e10, Std. Dev.=1.4e10, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.914, critical = 0.881. Kappa = 2.87 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. After outlier removal distribution was non-normal, so outlier results were invalidated.

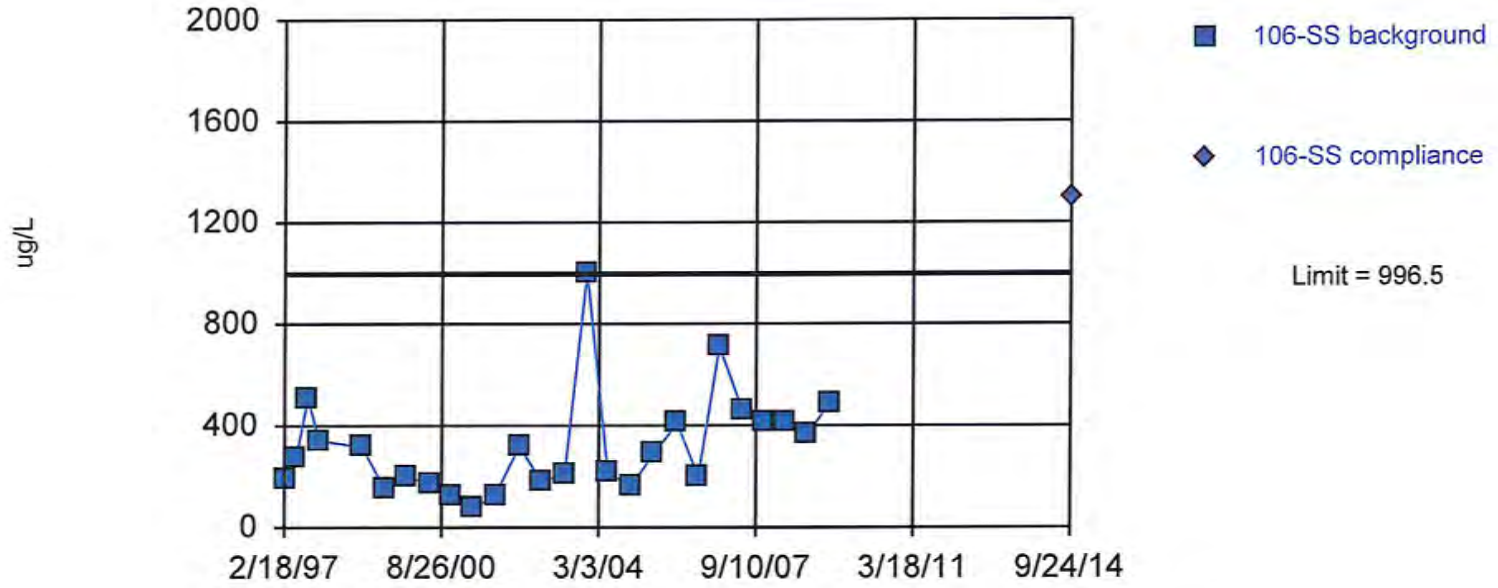
Constituent: Hardness Total Analysis Run 11/20/2014 3:32 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=17.18, Std. Dev.=5.15, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9451, critical = 0.891. Kappa = 2.795 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

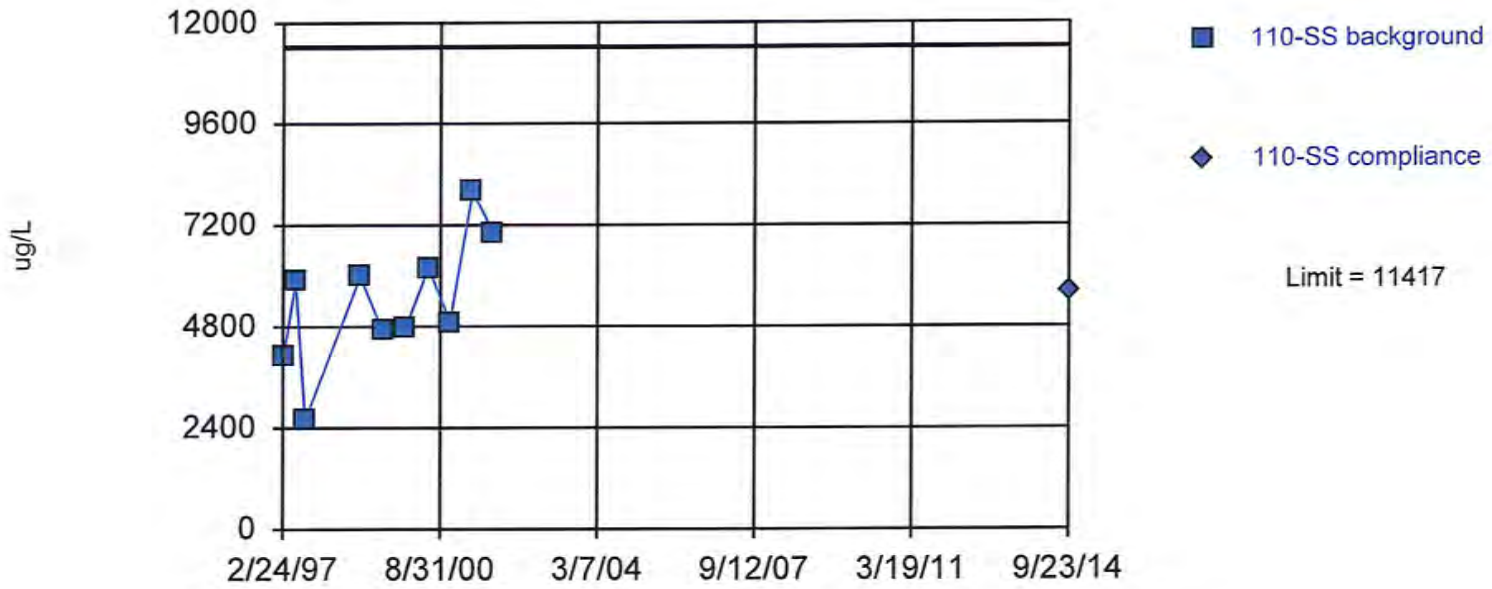
Constituent: Iron Total Analysis Run 11/20/2014 4:00 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5406, Std. Dev.=1536, n=10. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9827, critical = 0.842. Kappa = 3.913 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Dixon's Outlier Test was performed on the background data. One background outlier was removed: <18.2 (11/8/1997).

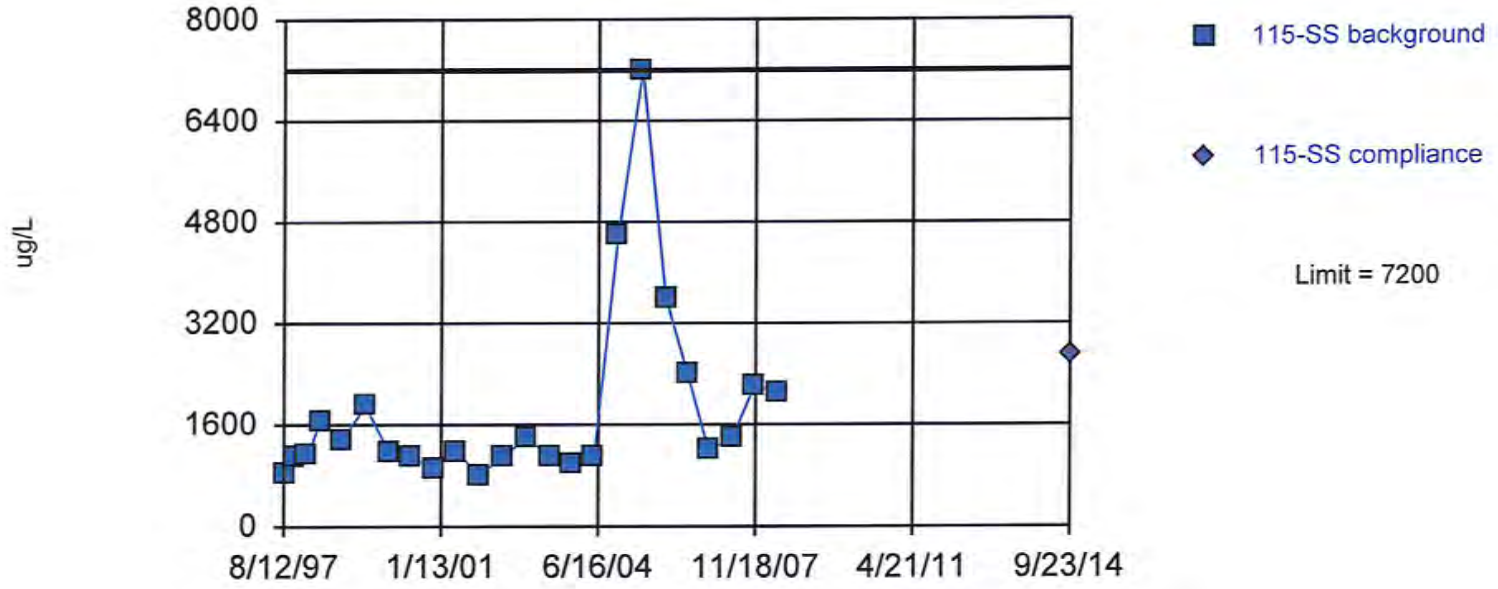
Constituent: Iron Total Analysis Run 11/20/2014 3:35 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 24 background values. Well-constituent pair annual alpha = 0.01227. Individual comparison alpha = 0.003083 (1 of 2). Distribution was found to be non-normal after removal of suspect values, so outliers could not be indentified.

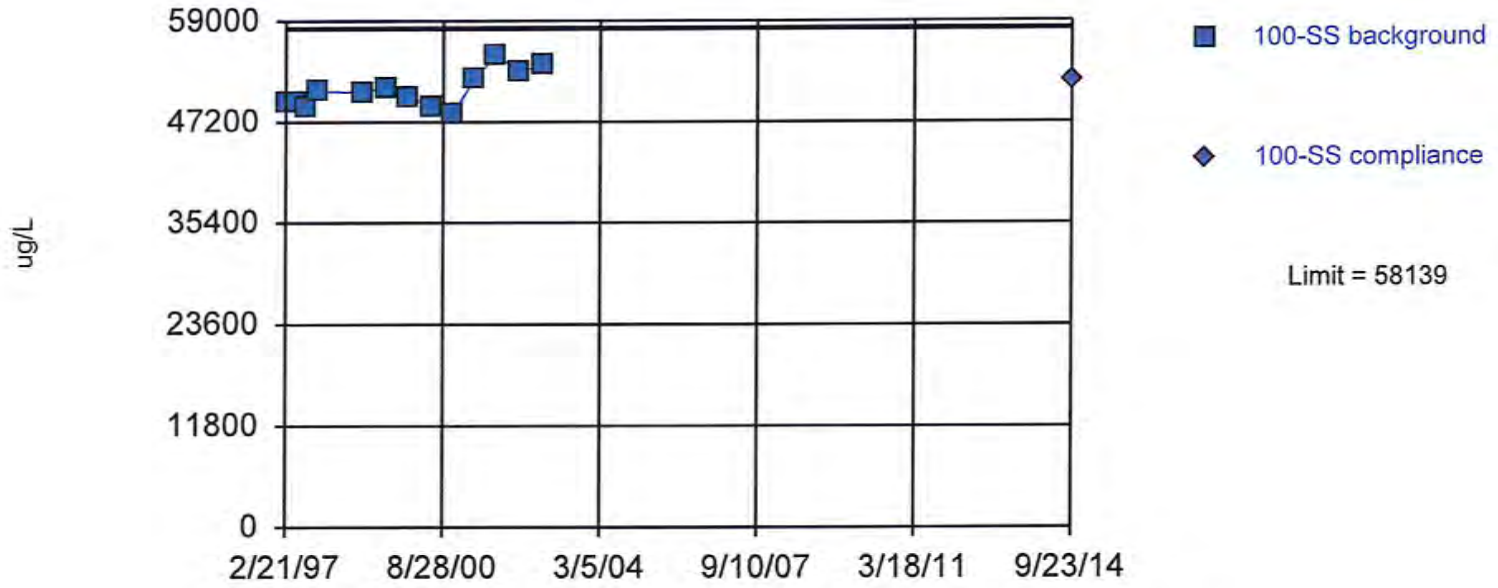
Constituent: Iron Total Analysis Run 11/20/2014 3:36 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=50954, Std. Dev.=2085, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9349, critical = 0.866. Kappa = 3.446 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Magnesium Total Analysis Run 11/20/2014 3:37 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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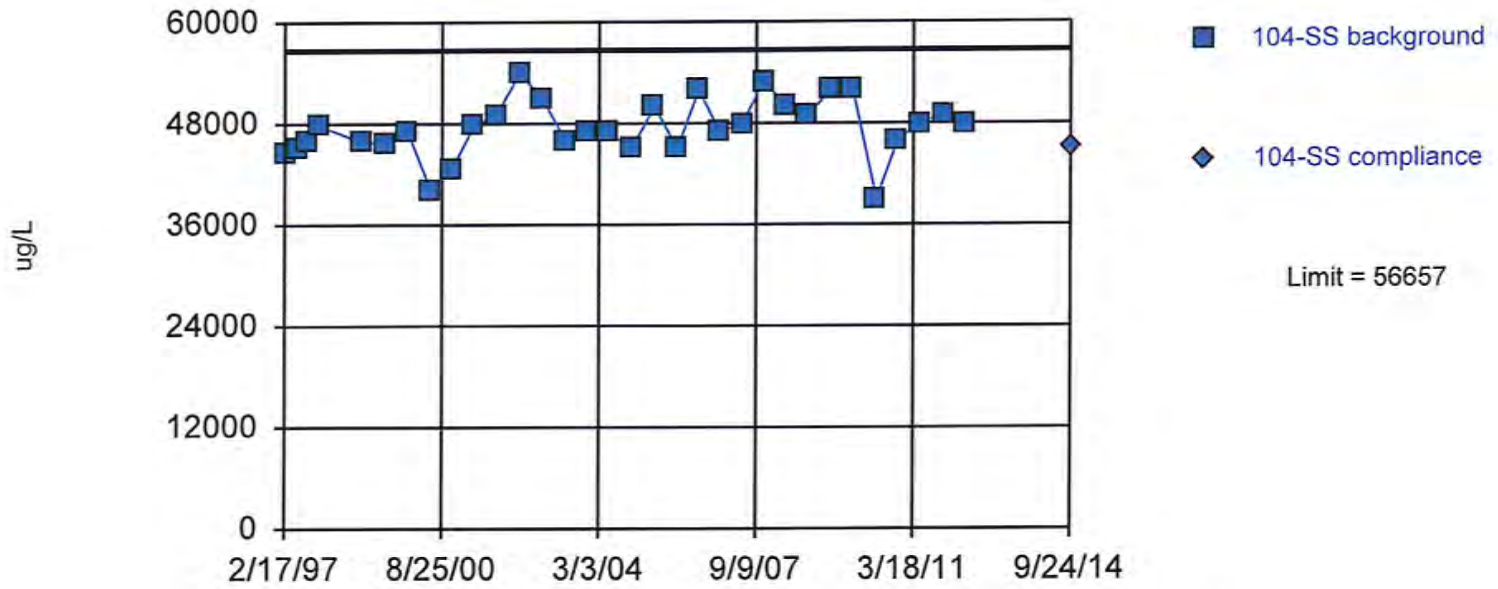
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=47478, Std. Dev.=3400, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9667, critical = 0.904. Kappa = 2.7 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

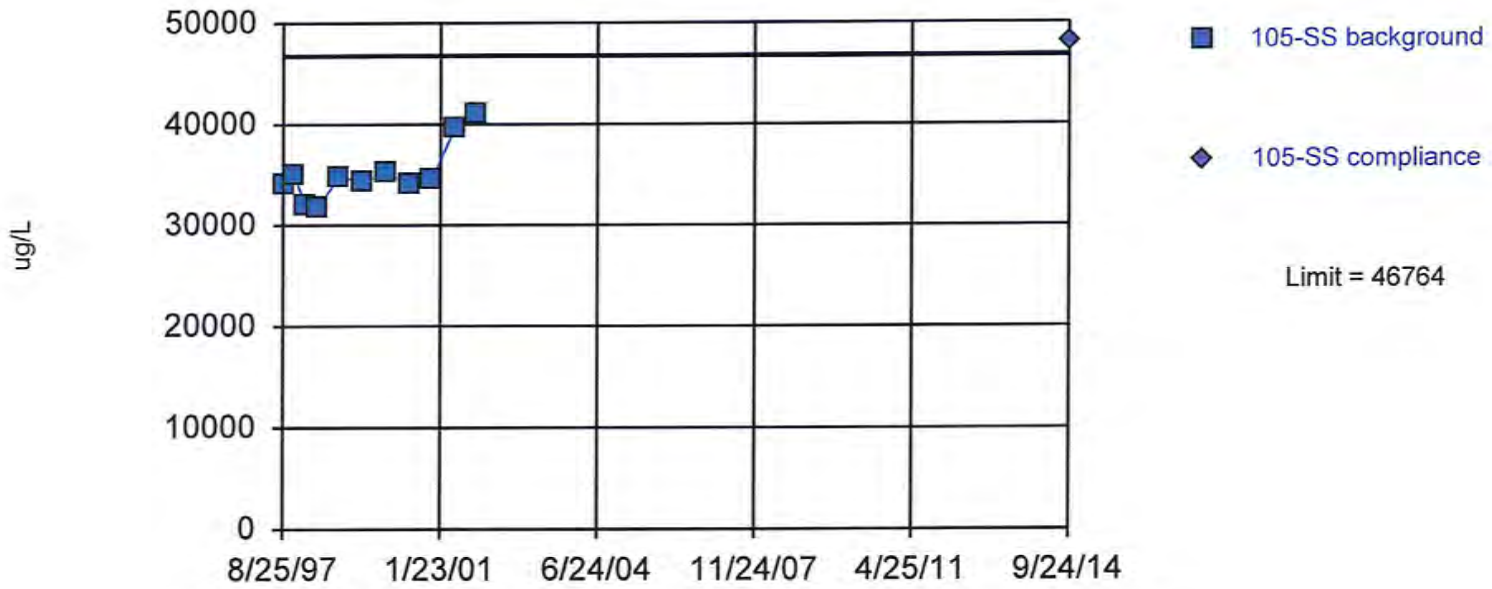
Constituent: Magnesium Total Analysis Run 11/20/2014 3:37 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=10.46, Std. Dev.=0.07764, n=11. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.8517, critical = 0.85. Kappa = 3.728 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

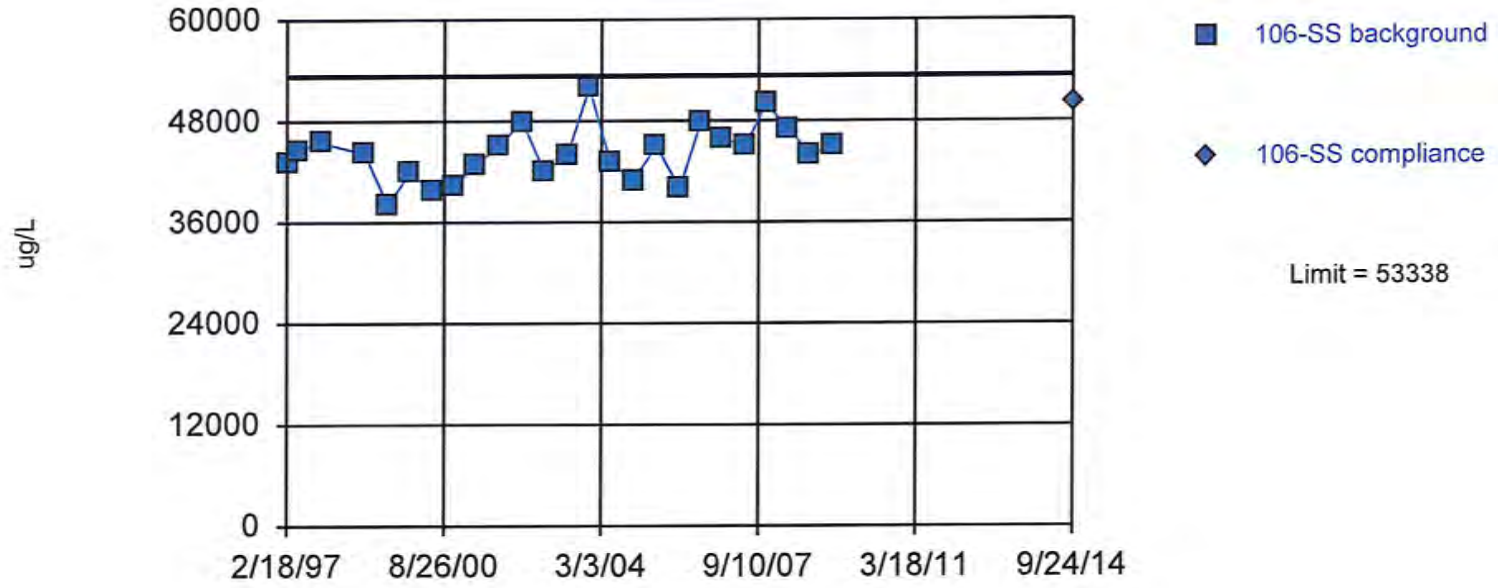
Constituent: Magnesium Total Analysis Run 11/20/2014 3:38 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=44220, Std. Dev.=3242, n=25. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9781, critical = 0.888. Kappa = 2.812 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 28000 (8/25/1997).

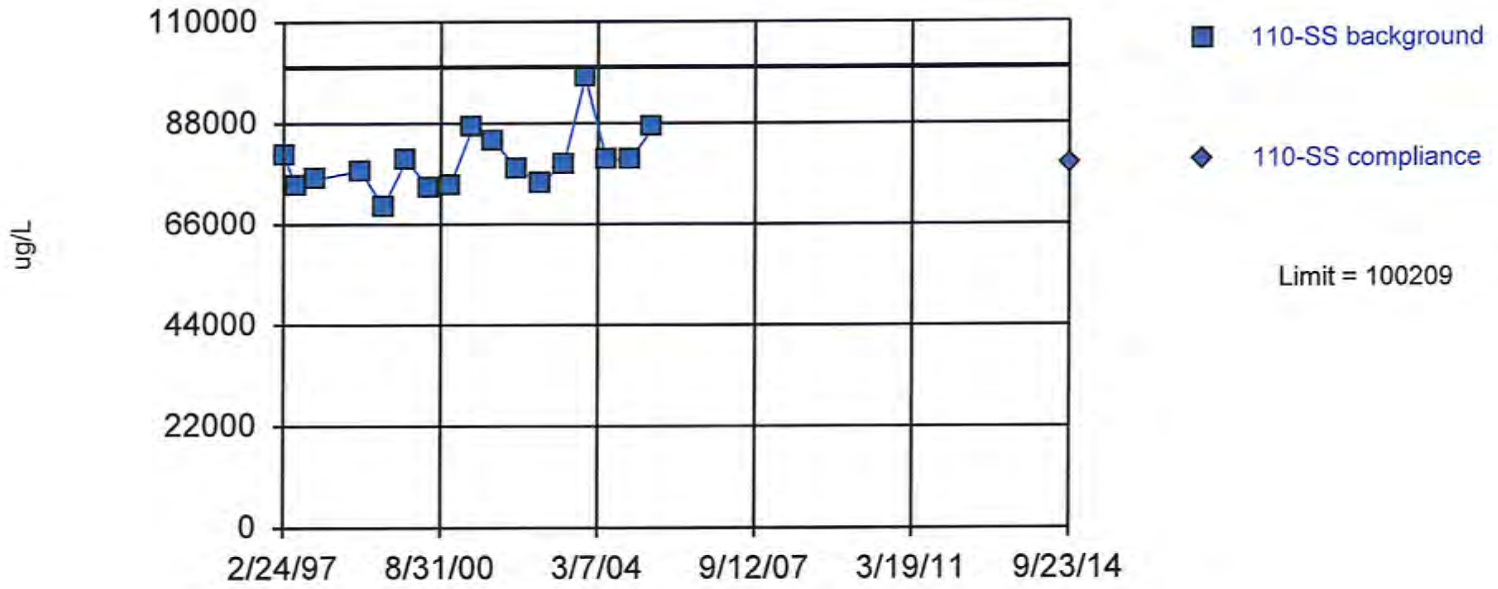
Constituent: Magnesium Total Analysis Run 11/20/2014 3:38 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=79741, Std. Dev.=6595, n=17. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9023, critical = 0.892. Kappa = 3.104 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Dixon's Outlier Test was performed on the background data. One background outlier was removed: 51000 (8/22/1997).

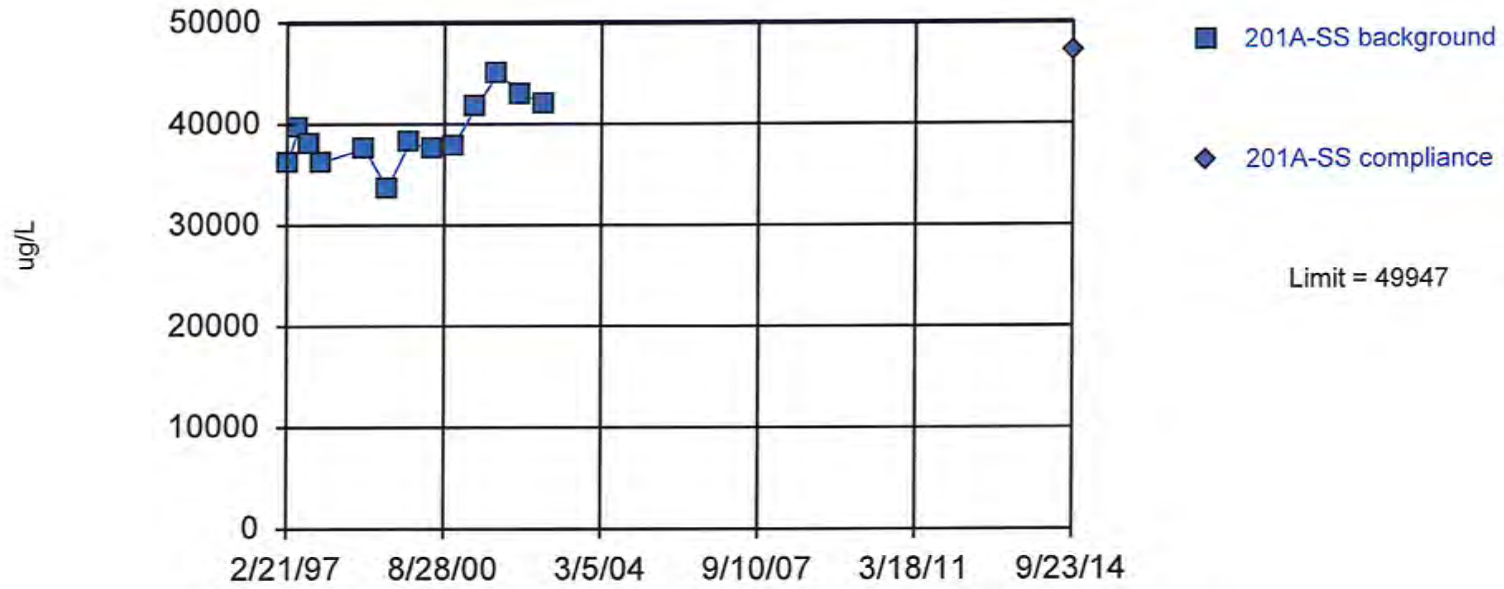
Constituent: Magnesium Total Analysis Run 11/20/2014 3:40 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=38969, Std. Dev.=3186, n=13. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9548, critical = 0.866. Kappa = 3.446 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

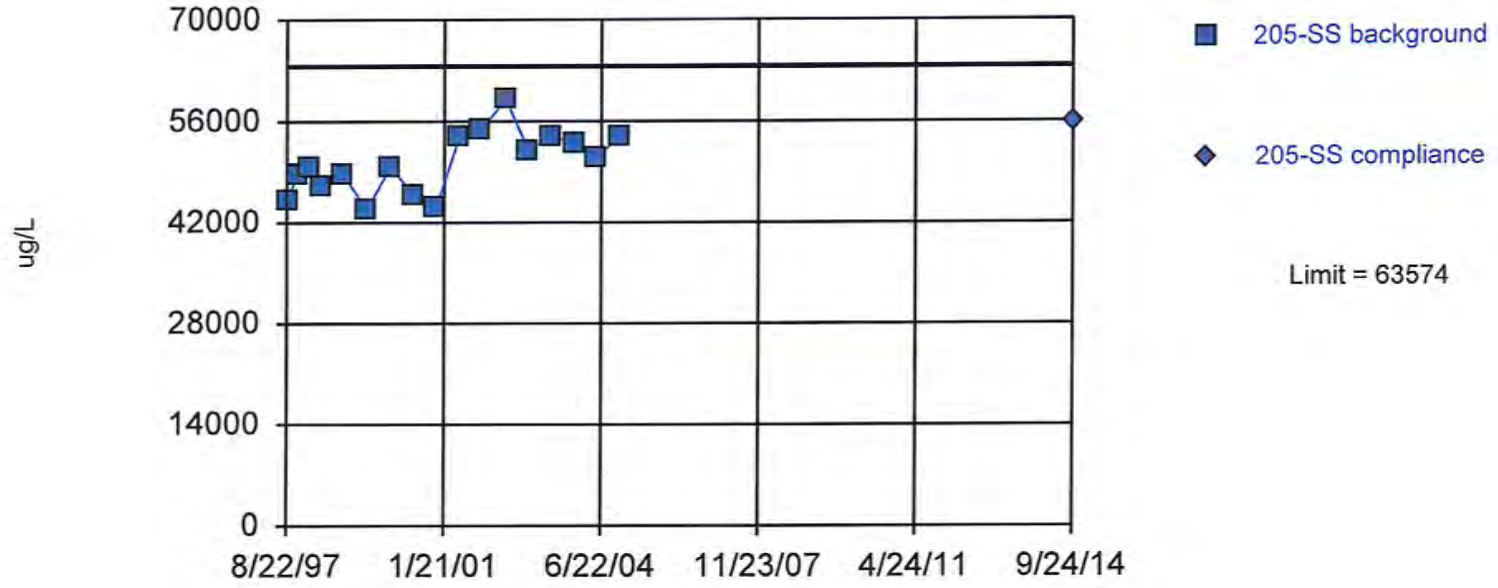
Constituent: Magnesium Total Analysis Run 11/20/2014 3:40 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=50259, Std. Dev.=4290, n=17. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9651, critical = 0.892. Kappa = 3.104 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Magnesium Total Analysis Run 11/21/2014 2:32 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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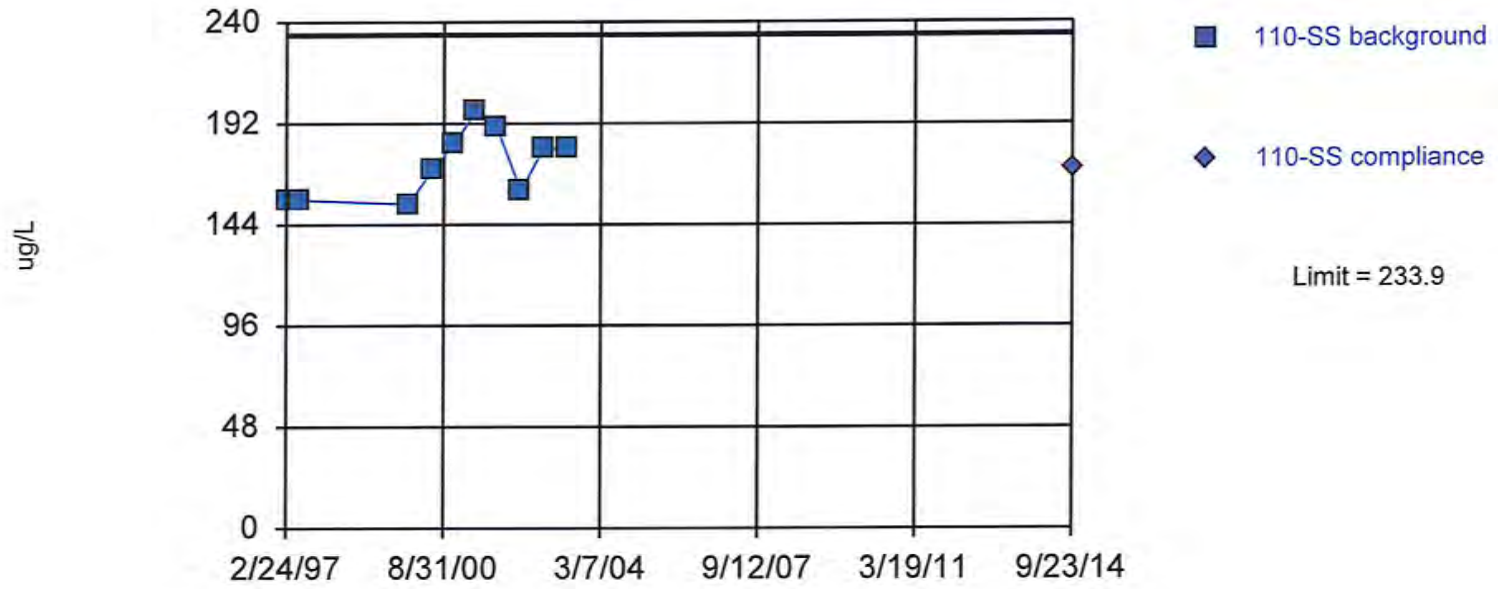
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=172.6, Std. Dev.=15.66, n=10. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.911, critical = 0.842. Kappa = 3.913 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Dixon's Outlier Test was performed on the background data. Four background outliers were removed: 20 (8/22/1997); 101 (11/8/1997); 70.8 (11/13/1998); 54.5 (5/18/1999).

Constituent: Manganese Total Analysis Run 11/20/2014 3:42 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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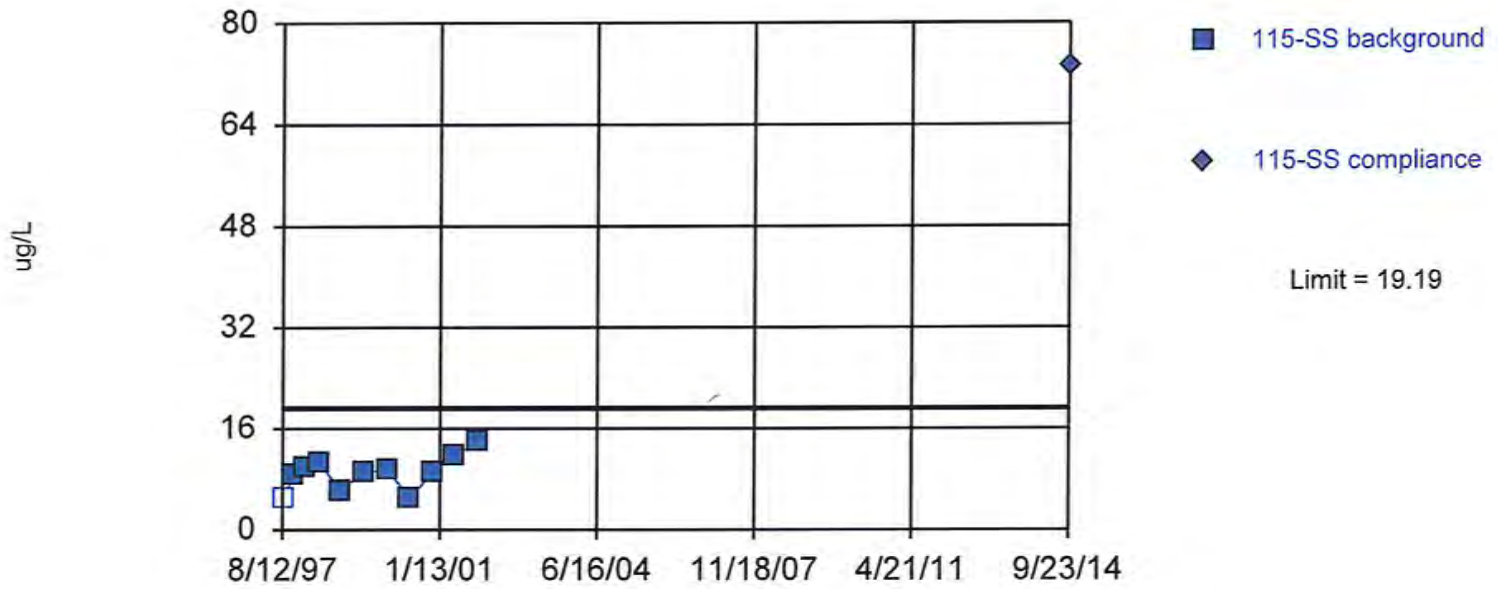
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.983, Std. Dev.=2.739, n=11, 9.091% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9428, critical = 0.85. Kappa = 3.728 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Dixon's Outlier Test was performed on the background data. One background outlier was removed: 47 (5/21/2002).

Constituent: Manganese Total Analysis Run 11/20/2014 3:43 PM View: 1

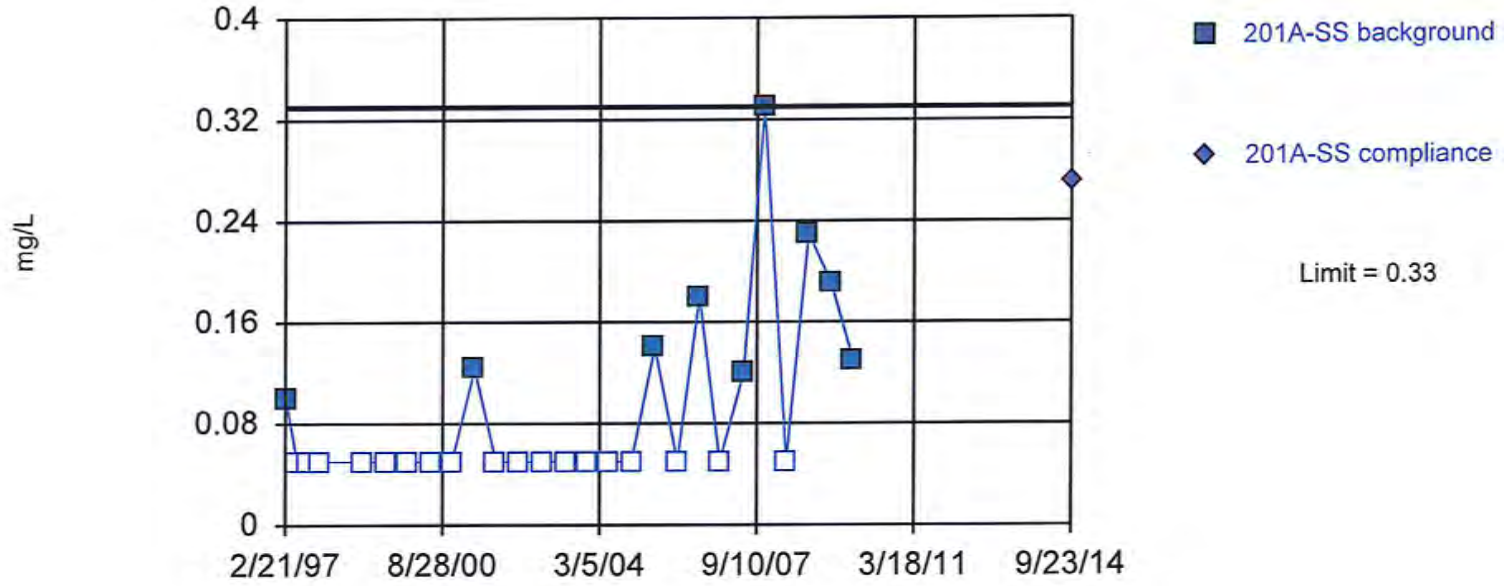
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.009865. Individual comparison alpha = 0.002475 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

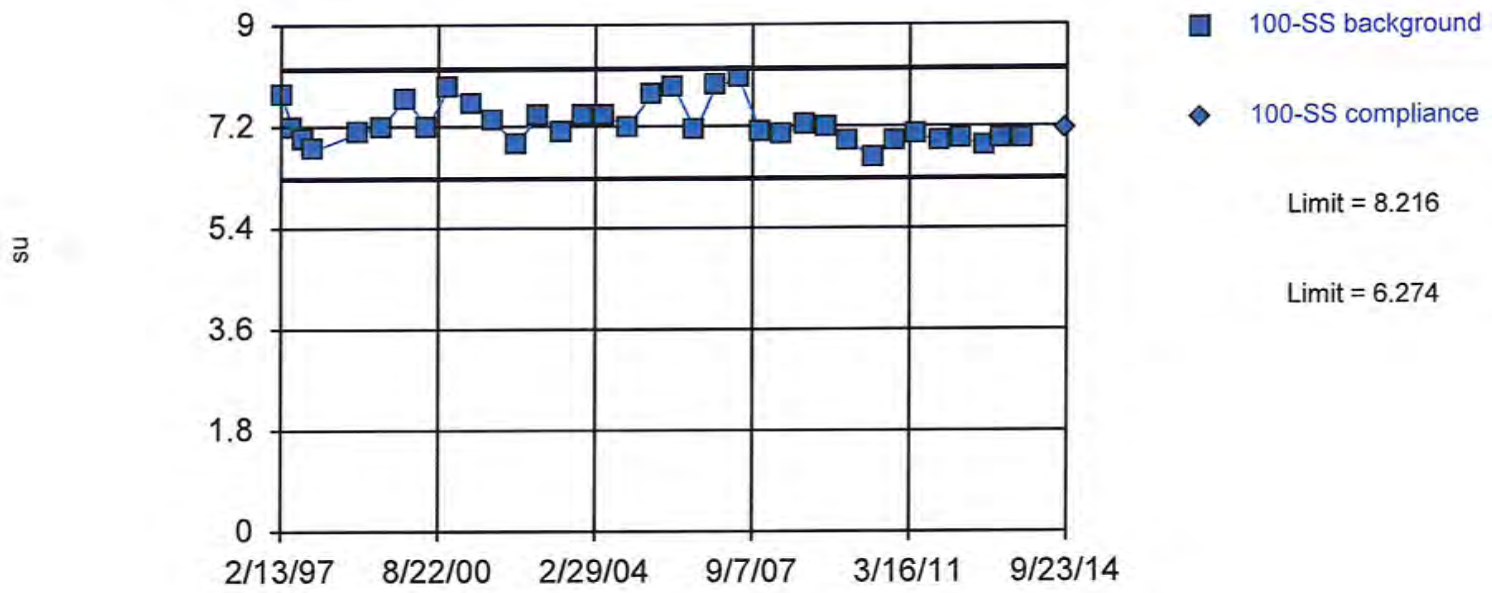
Constituent: Nitrate/Nitrite Analysis Run 11/20/2014 3:43 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.245, Std. Dev.=0.3646, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9189, critical = 0.91. Kappa = 2.664 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 11/20/2014 3:46 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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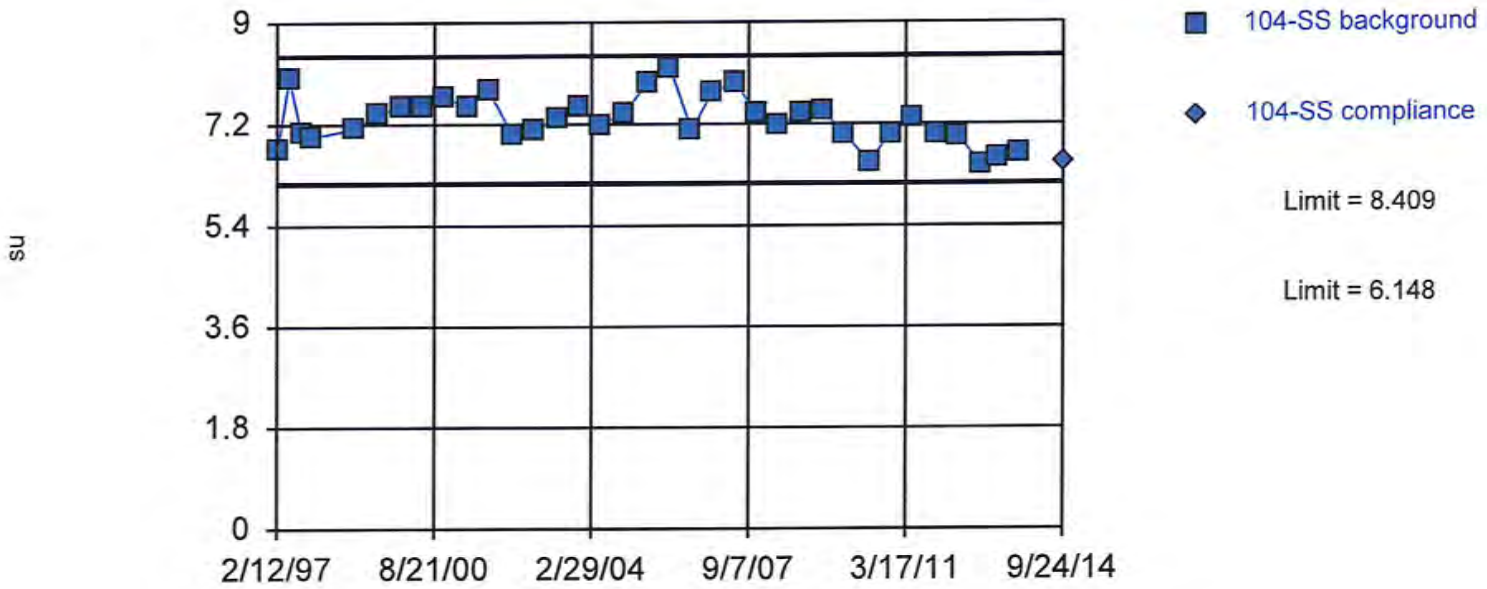
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.279, Std. Dev.=0.4243, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9741, critical = 0.91. Kappa = 2.664 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

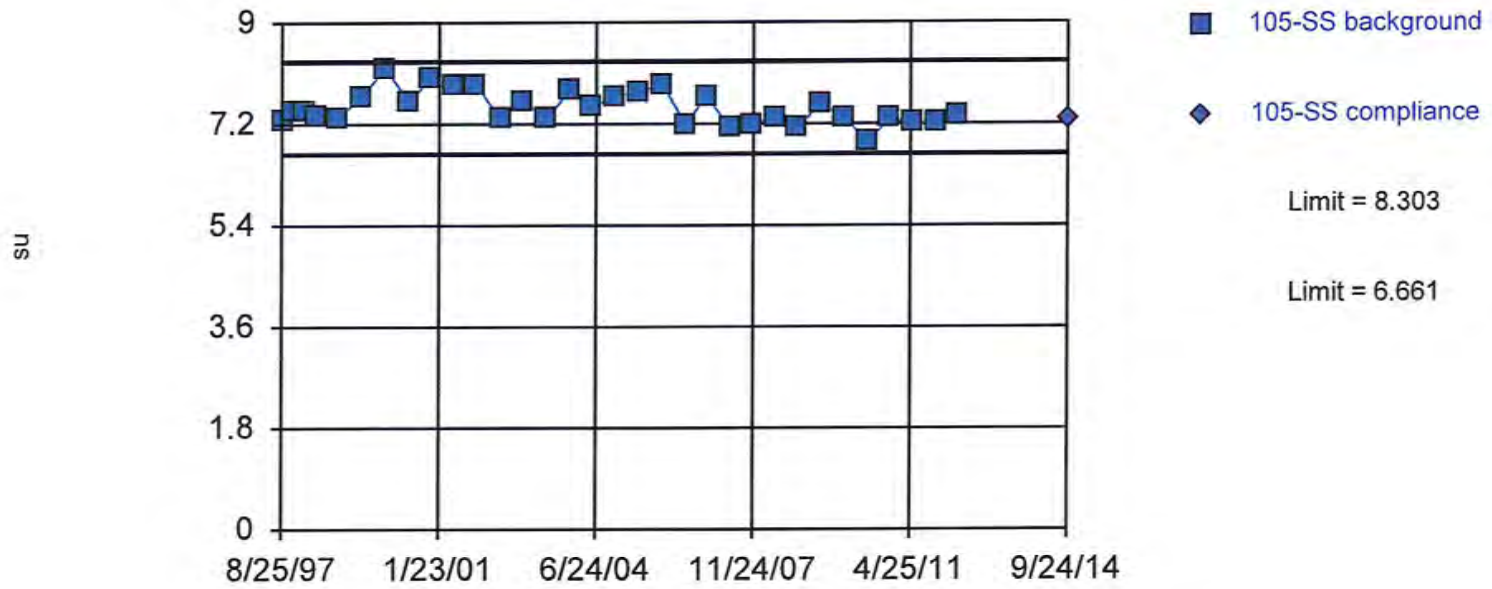
Constituent: pH [Field] Analysis Run 11/20/2014 3:46 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.482, Std. Dev.=0.3041, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9568, critical = 0.904. Kappa = 2.7 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

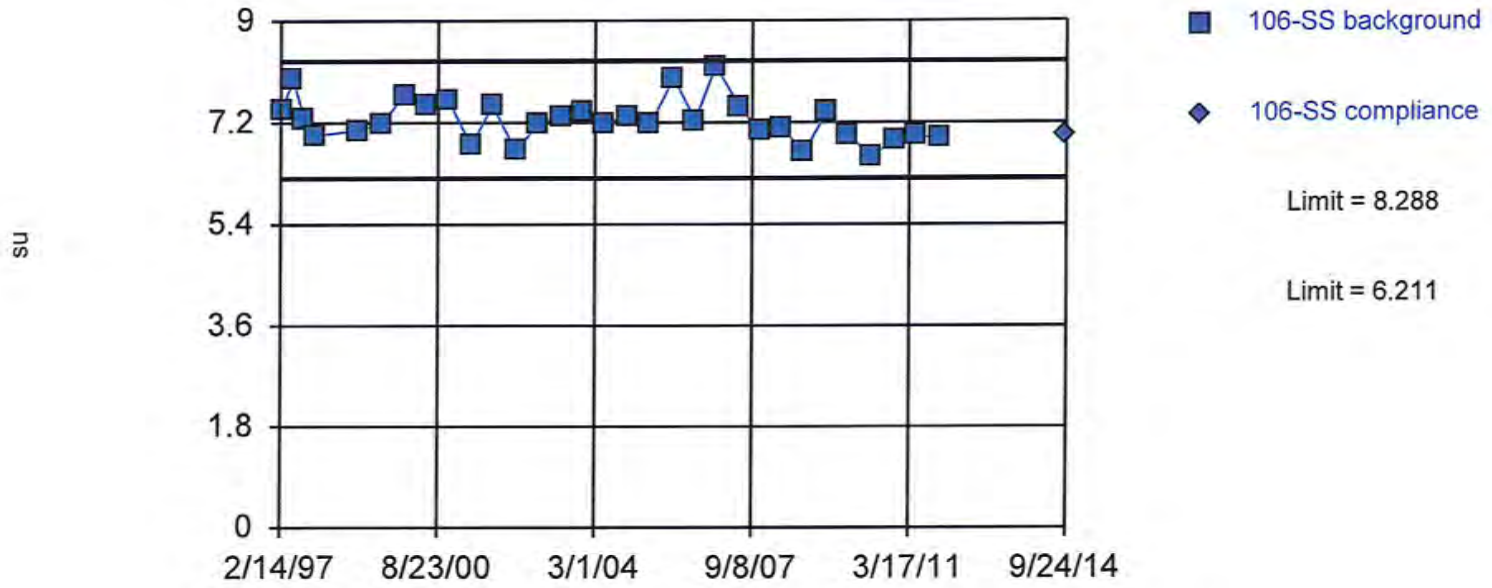
Constituent: pH [Field] Analysis Run 11/20/2014 3:47 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.25, Std. Dev.=0.3831, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9667, critical = 0.902. Kappa = 2.712 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 11/20/2014 3:47 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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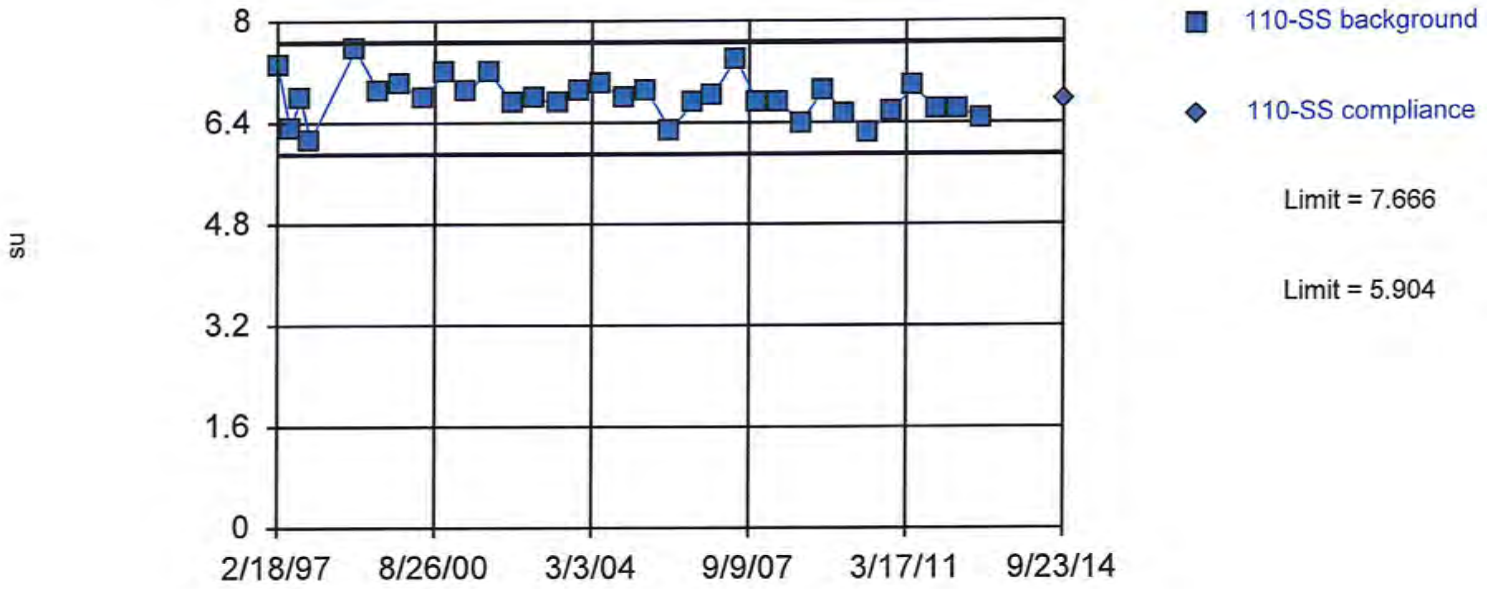
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.785, Std. Dev.=0.3278, n=33. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9777, critical = 0.906. Kappa = 2.688 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 11/20/2014 3:48 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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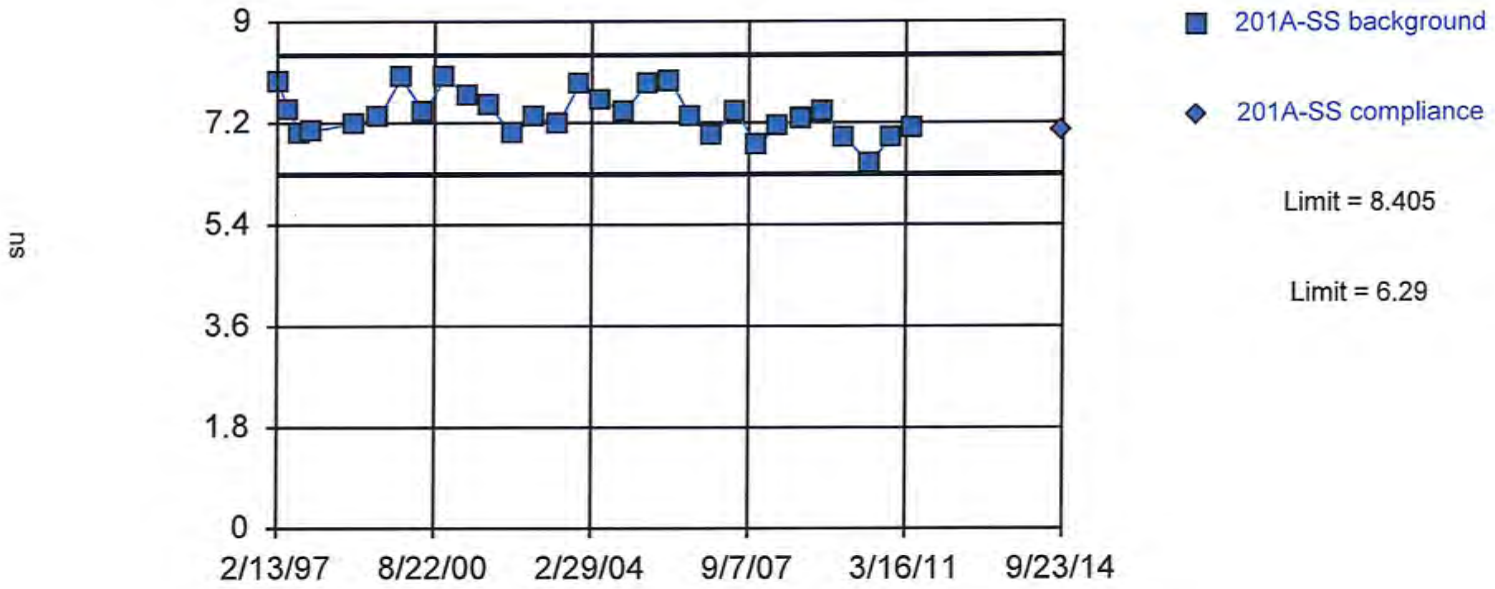
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.348, Std. Dev.=0.3882, n=30. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9537, critical = 0.9. Kappa = 2.724 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

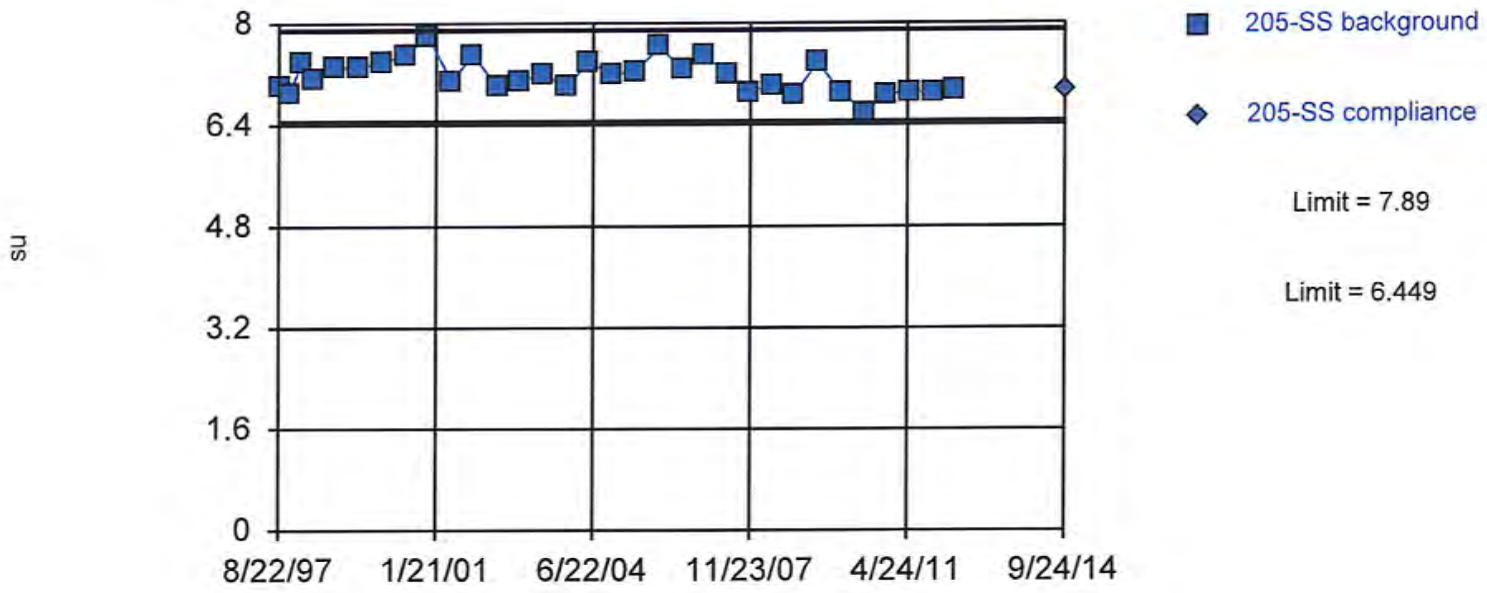
Constituent: pH [Field] Analysis Run 11/20/2014 3:48 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.169, Std. Dev.=0.2669, n=32. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9726, critical = 0.904. Kappa = 2.7 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: pH [Field] Analysis Run 11/20/2014 3:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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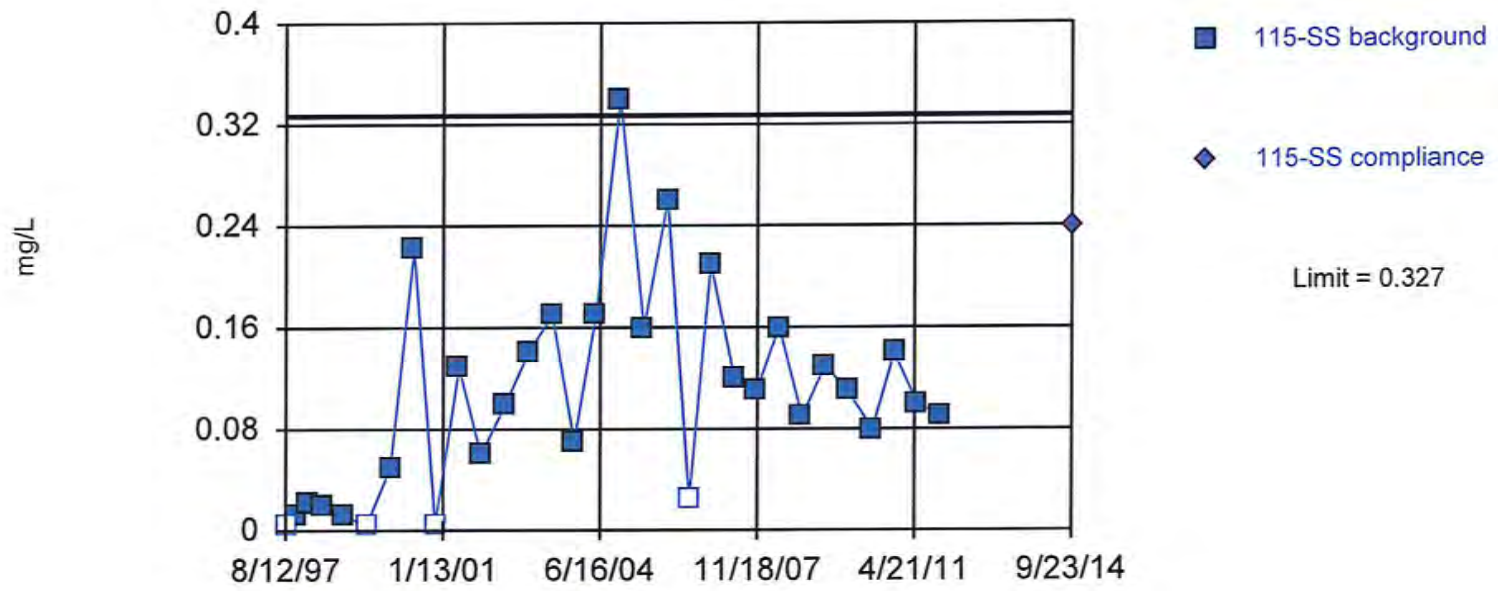
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.107, Std. Dev.=0.08113, n=31, 12.9% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9317, critical = 0.902. Kappa = 2.712 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

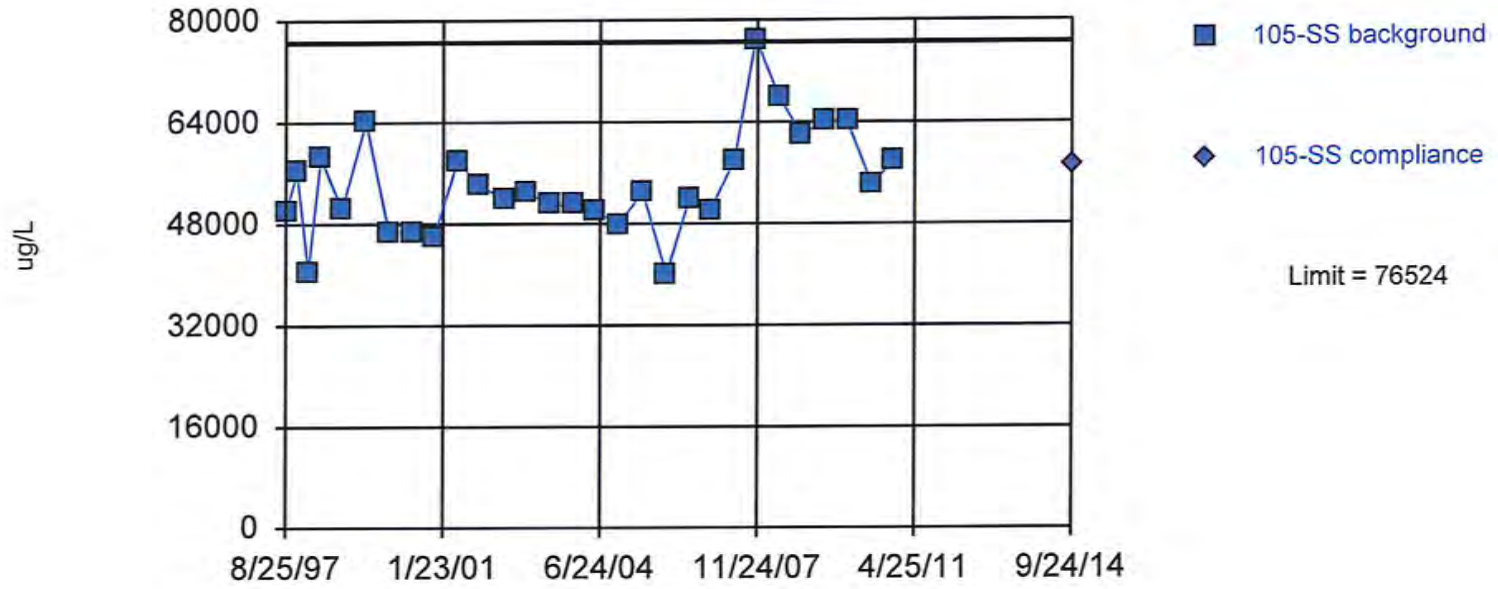
Constituent: Phosphorus Total Analysis Run 11/20/2014 3:49 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=54345, Std. Dev.=8091, n=29. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9568, critical = 0.898. Kappa = 2.741 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

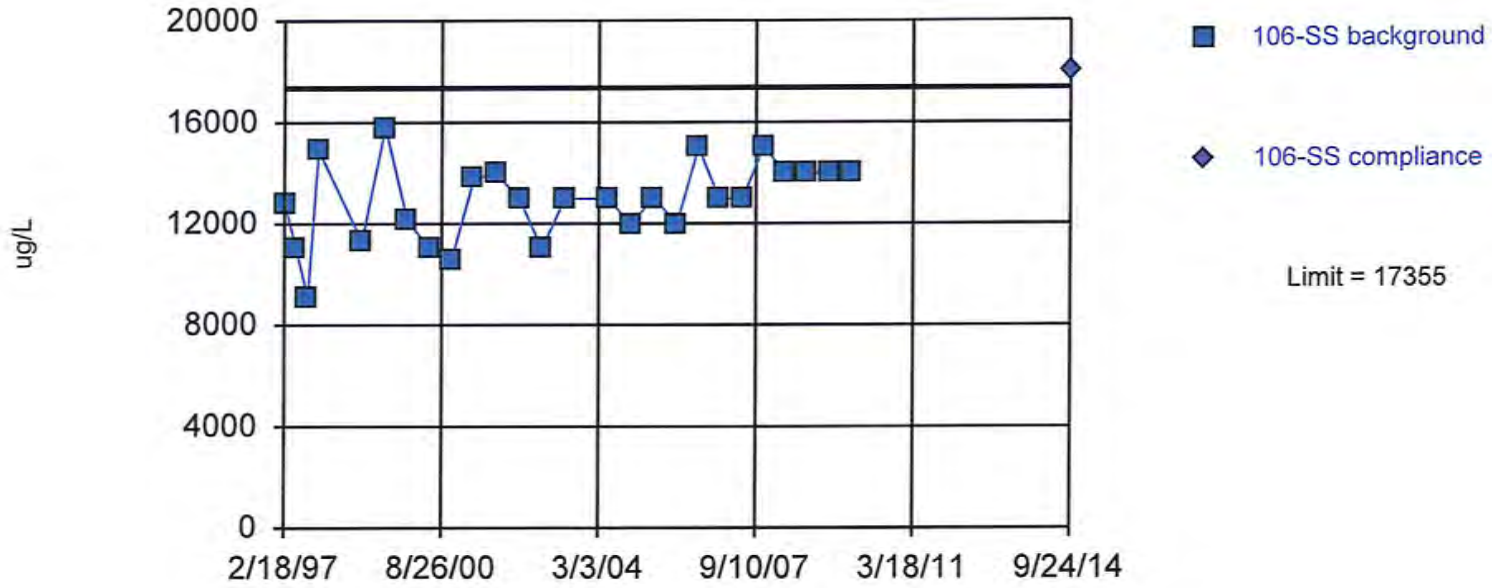
Constituent: Sodium Total Analysis Run 11/20/2014 3:50 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=12900, Std. Dev.=1594, n=26. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9652, critical = 0.891. Kappa = 2.795 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 20000 (11/20/2003).

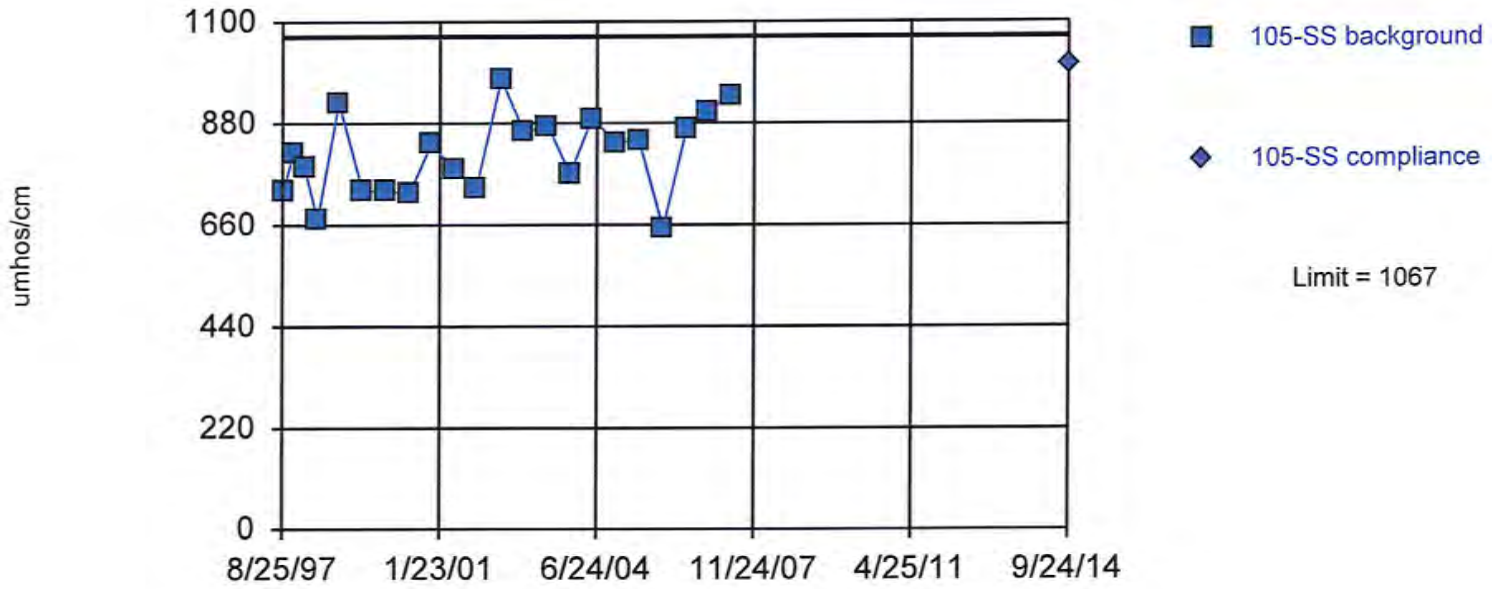
Constituent: Sodium Total Analysis Run 11/20/2014 3:51 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=813.5, Std. Dev.=87.59, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9753, critical = 0.878. Kappa = 2.899 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

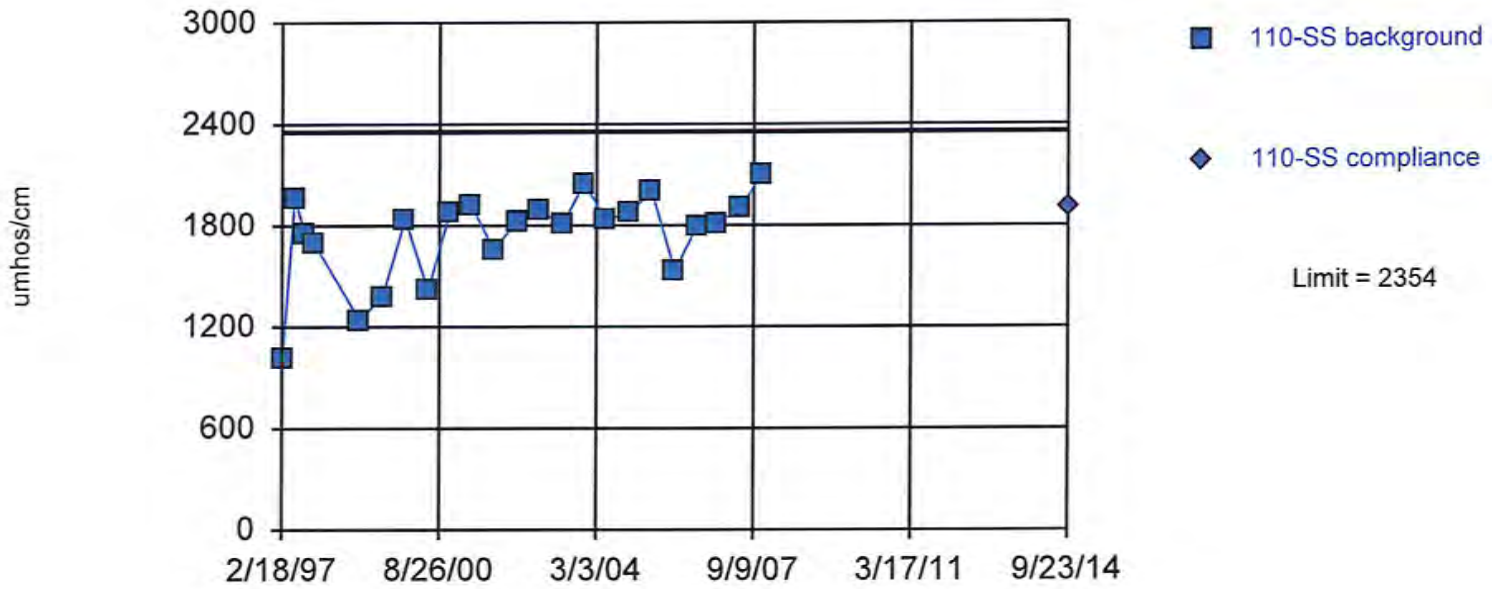
Constituent: Specific Conductance [Field] Analysis Run 11/20/2014 3:52 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=3111168, Std. Dev.=847513, n=23. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9226, critical = 0.881. Kappa = 2.87 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Rosner's Outlier Test was performed on the background data. No background outliers were found.

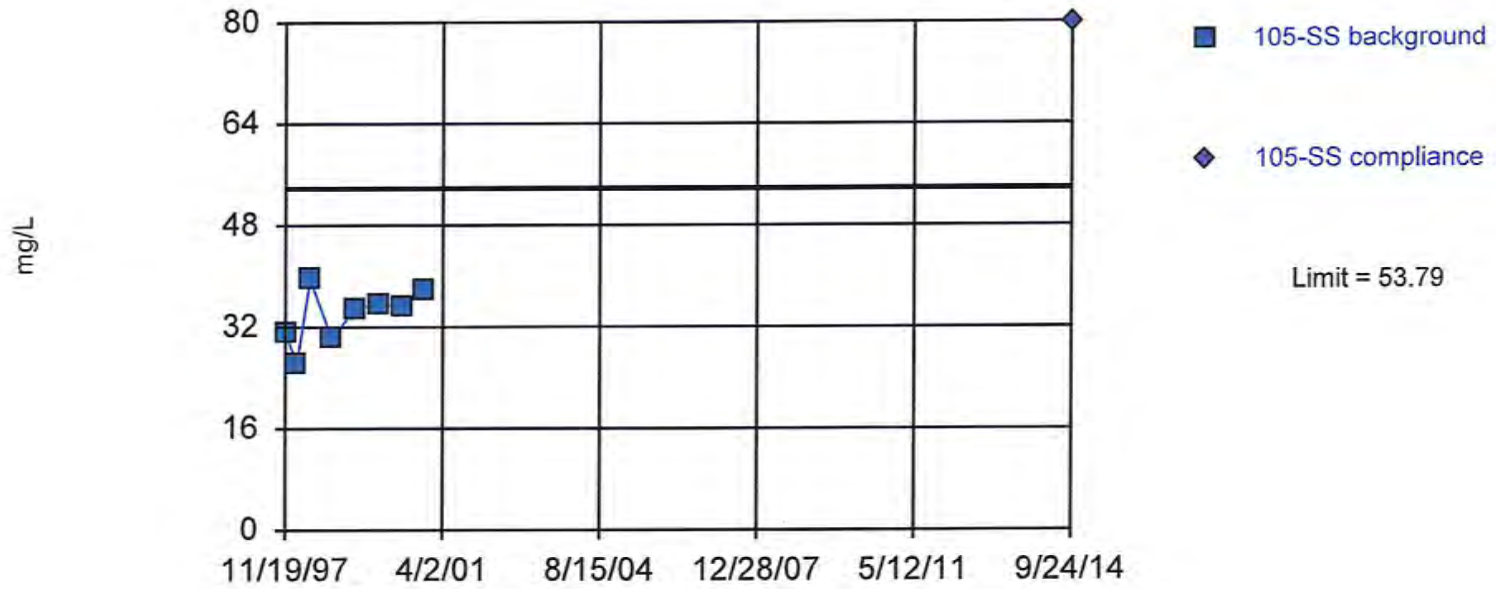
Constituent: Specific Conductance [Field] Analysis Run 11/20/2014 3:53 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=33.83, Std. Dev.=4.344, n=8. Normality test: Shapiro Wilk @alpha = 0.1, calculated = 0.9502, critical = 0.851. Kappa = 4.597 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. Dixon's Outlier Test was performed on the background data. One background outlier was removed: 13 (8/25/1997).

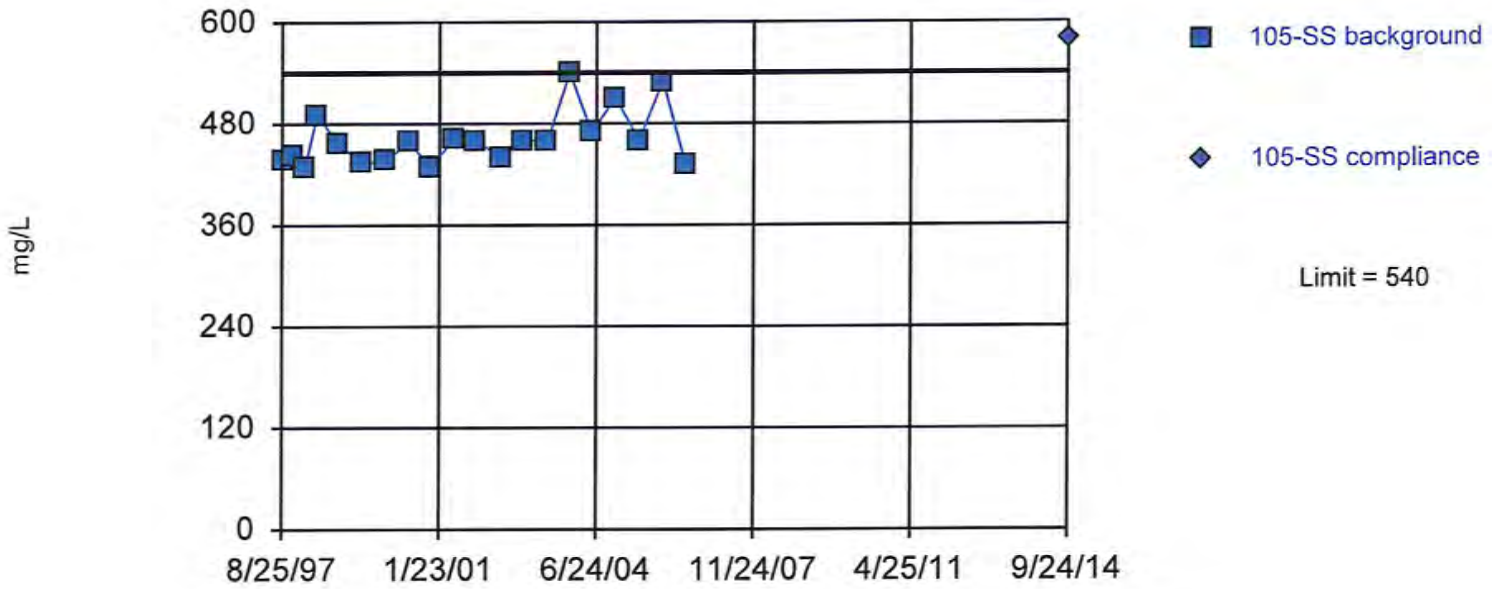
Constituent: Sulfate as SO4 Analysis Run 11/20/2014 3:54 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 20 background values. Well-constituent pair annual alpha = 0.01677. Individual comparison alpha = 0.004219 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

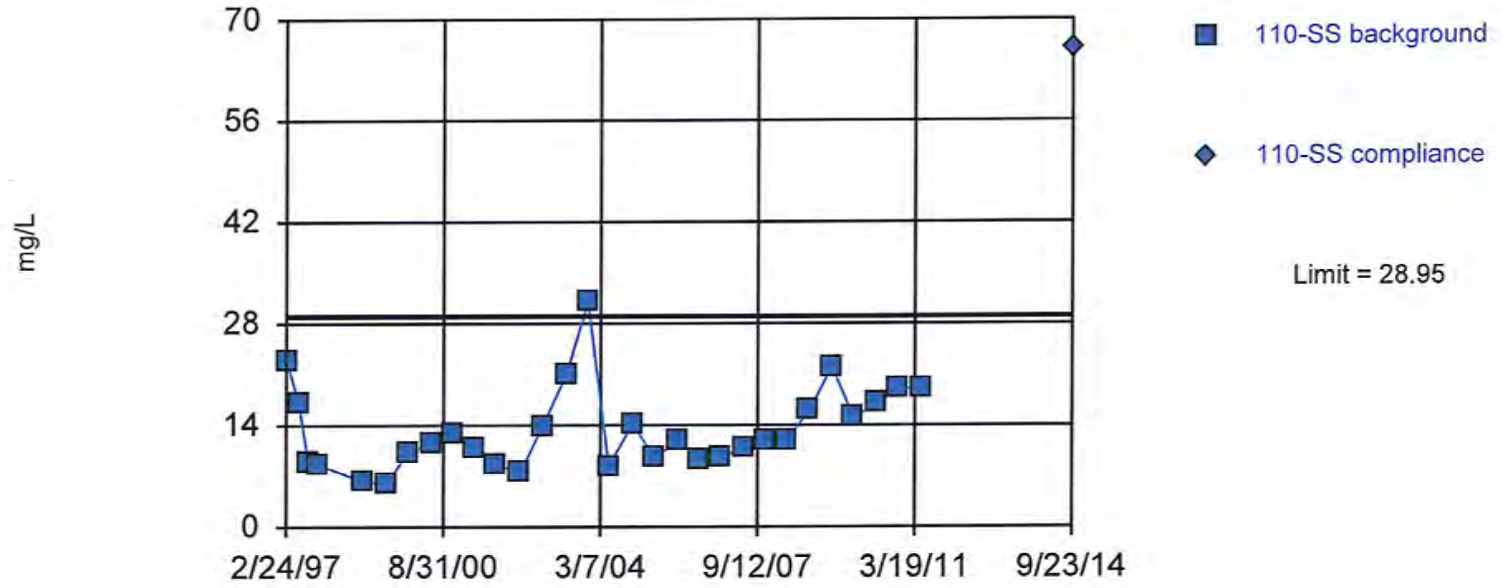
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/20/2014 3:55 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=13.46, Std. Dev.=5.687, n=30. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9076, critical = 0.9. Kappa = 2.724 (c=34, w=9, 1 of 2, event alpha = 0.026). Report alpha = 0.00008608. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Organic Carbon [TOC] Analysis Run 11/20/2014 3:56 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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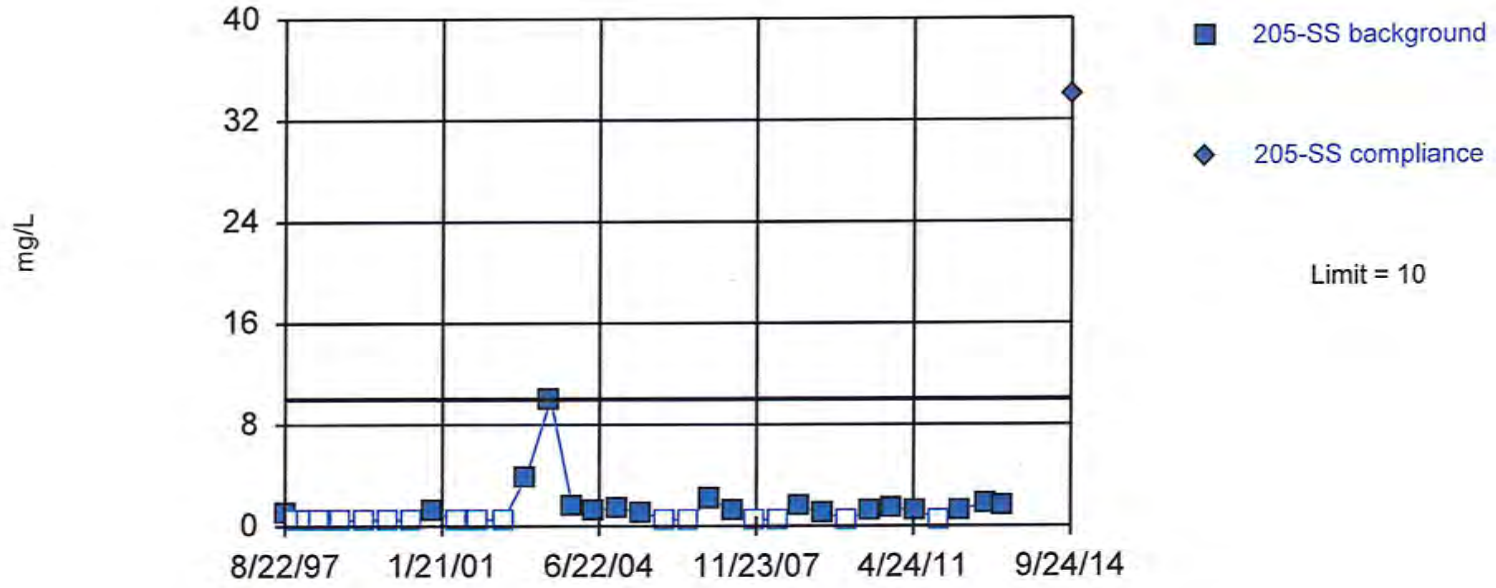
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 34 background values. 47.06% NDs. Well-constituent pair annual alpha = 0.006335. Individual comparison alpha = 0.001587 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Total Organic Carbon [TOC] Analysis Run 11/20/2014 3:57 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

TREND EVALUATION OF EXCEEDING CONSTITUENTS
ST. LOUIS FORMATION

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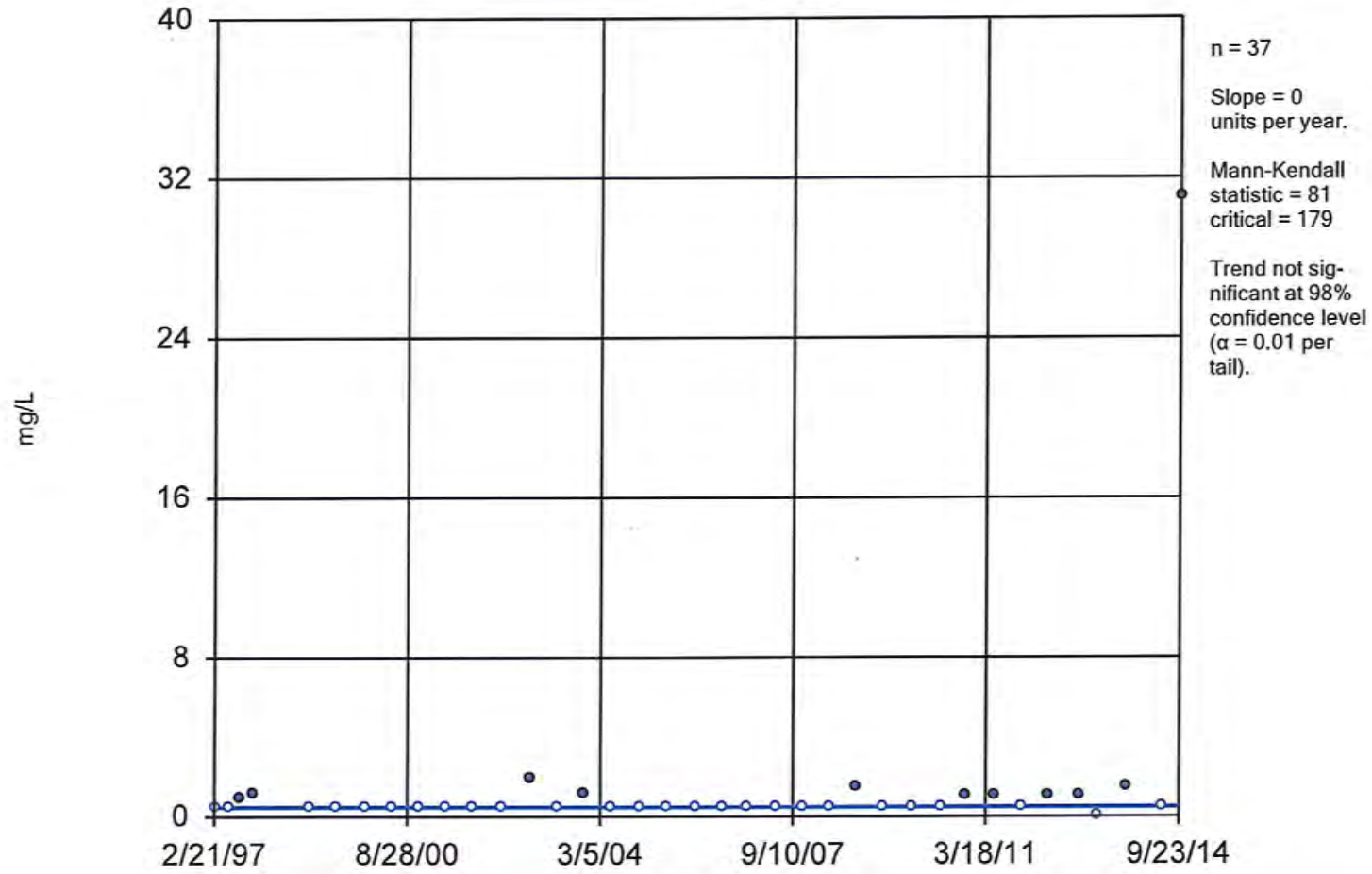
Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SS (bg)



Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:35 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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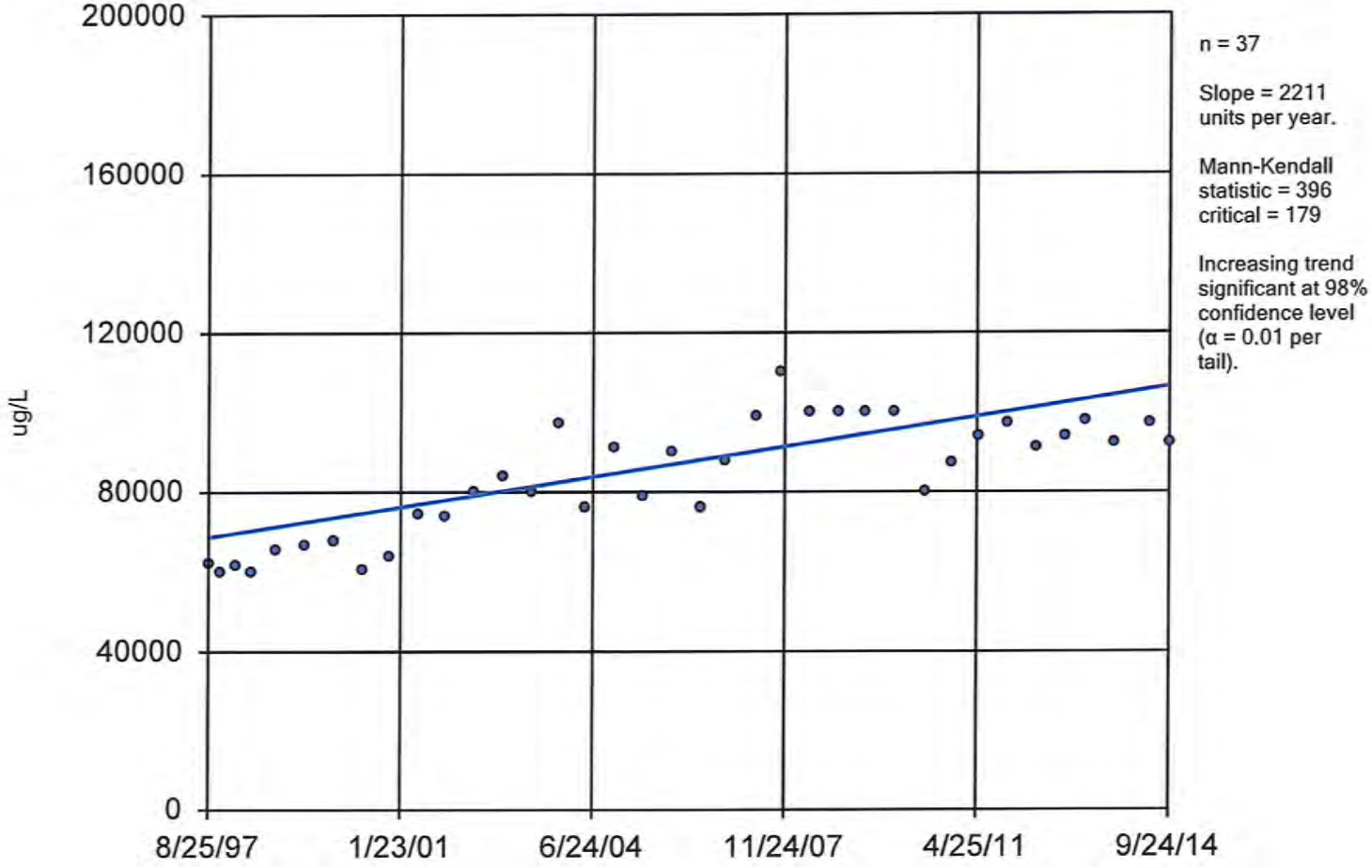
Sen's Slope Estimator

105-SS (bg)



Constituent: Calcium Total Analysis Run 11/24/2014 1:36 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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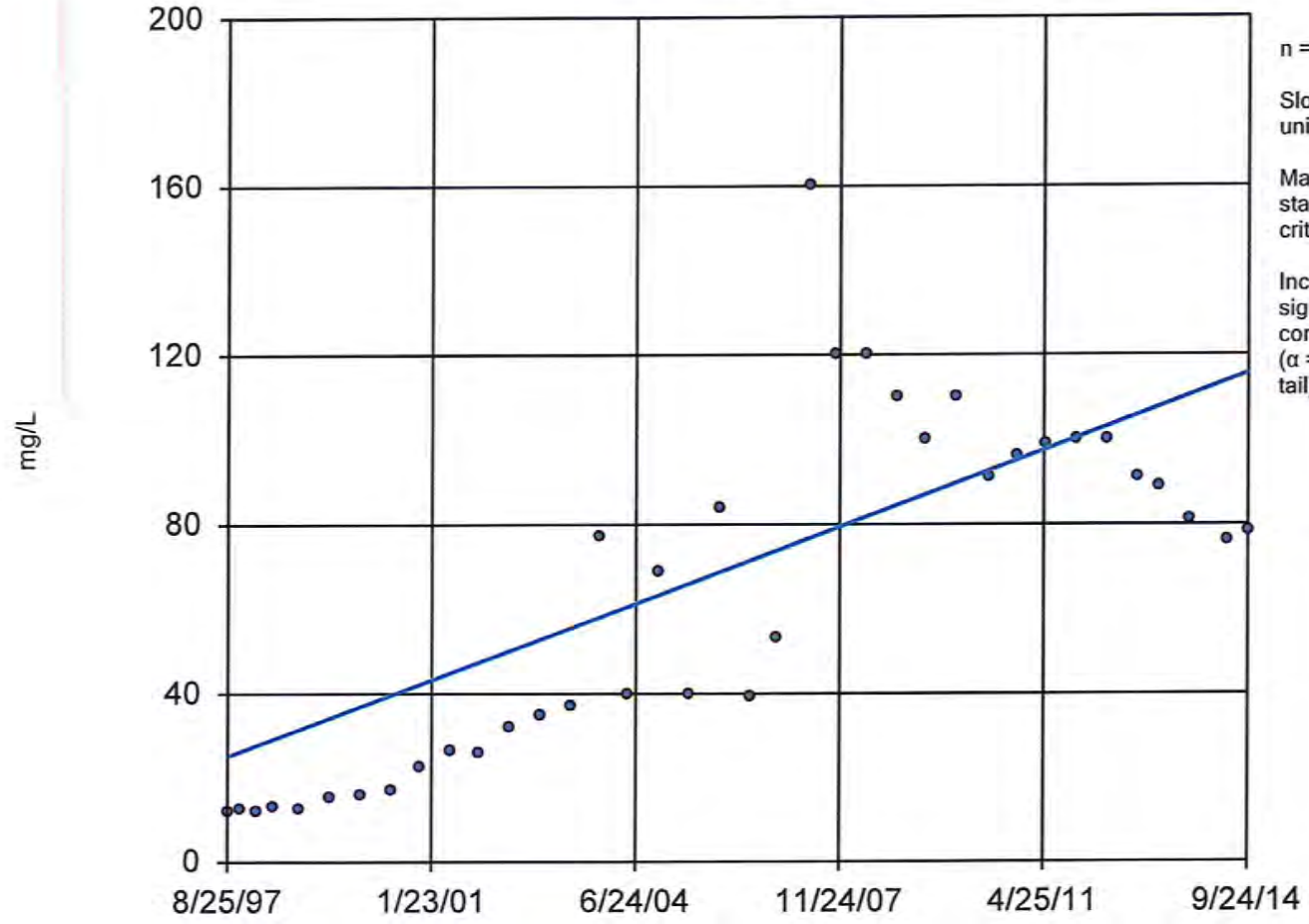
Sen's Slope Estimator

105-SS (bg)



n = 37

Slope = 5.289 units per year.

Mann-Kendall statistic = 412
critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

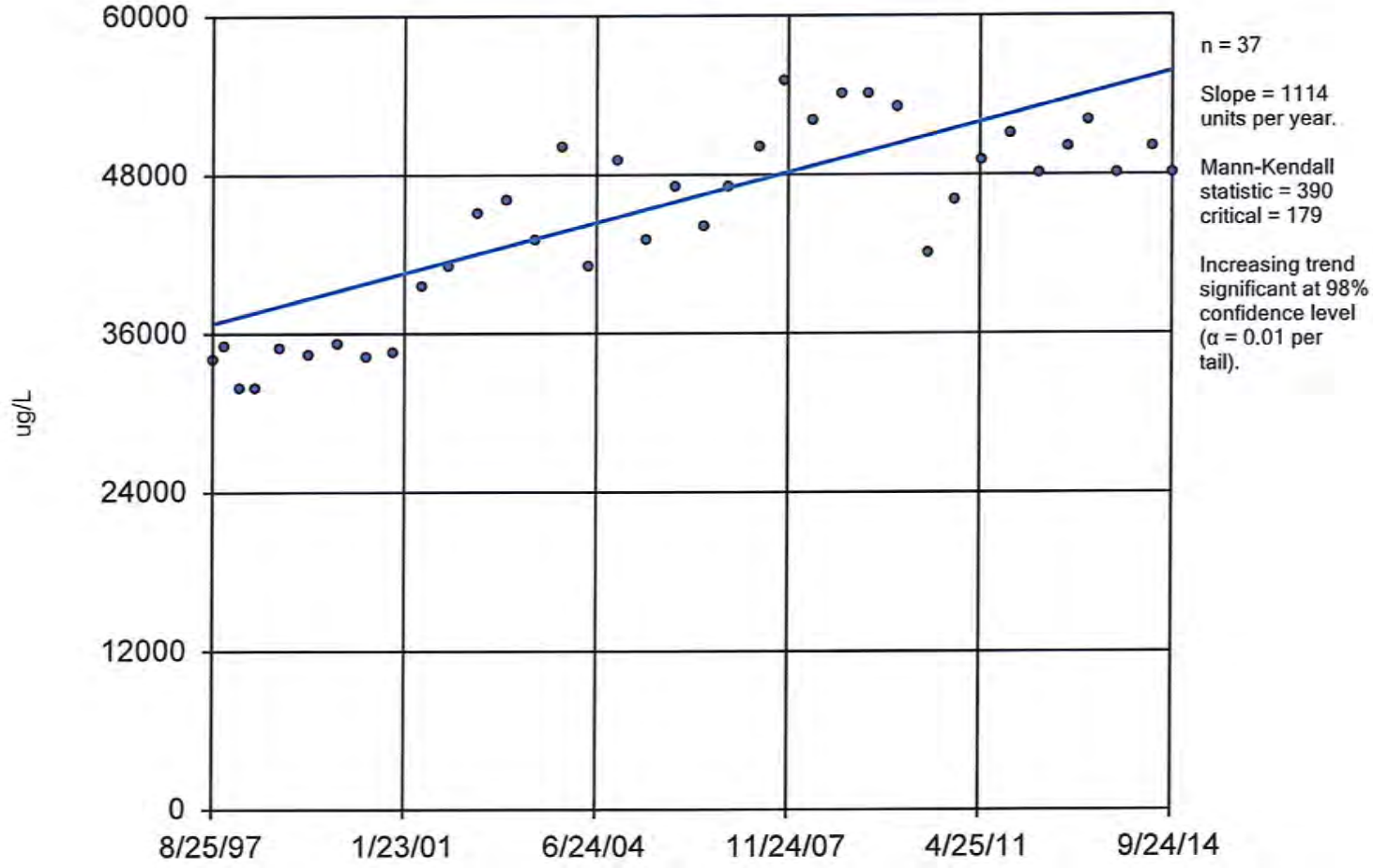
Constituent: Chloride Analysis Run 11/24/2014 1:37 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

105-SS (bg)

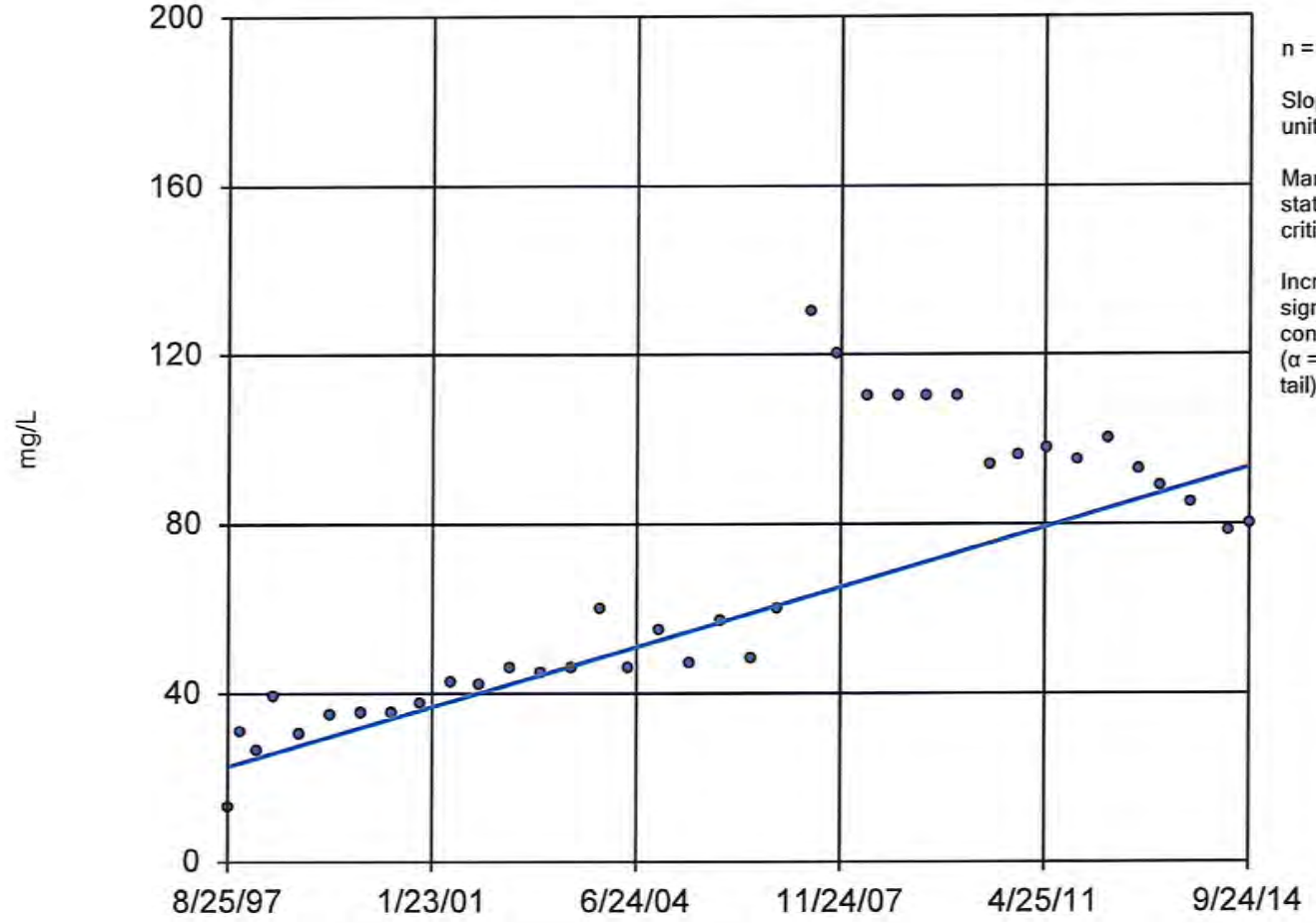


Constituent: Magnesium Total Analysis Run 11/24/2014 1:37 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sen's Slope Estimator

105-SS (bg)



n = 37

Slope = 4.13 units per year.

Mann-Kendall statistic = 410 critical = 179

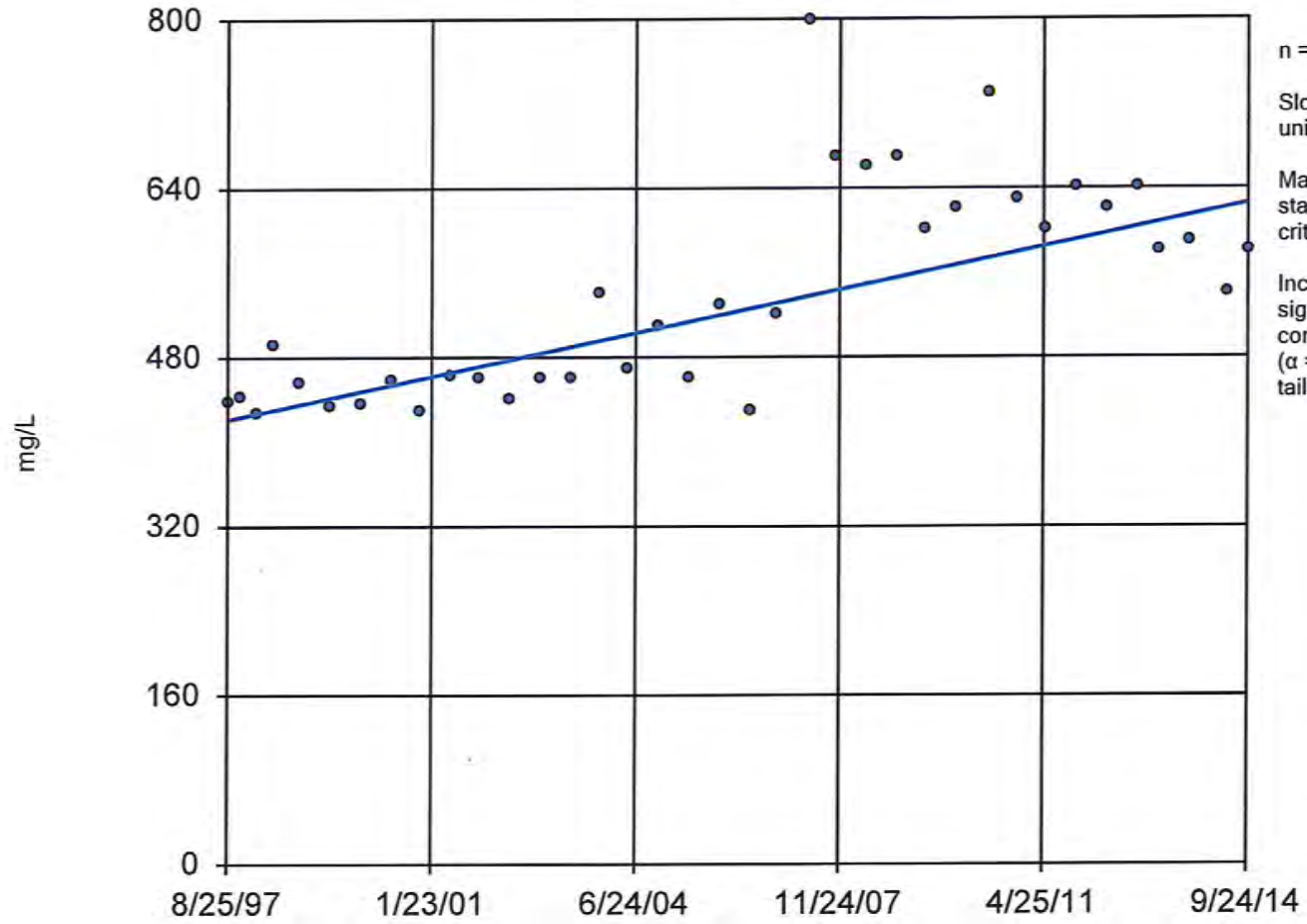
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate as SO4 Analysis Run 11/24/2014 1:37 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sen's Slope Estimator

105-SS (bg)



n = 37

Slope = 11.95 units per year.

Mann-Kendall statistic = 348
critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 1:38 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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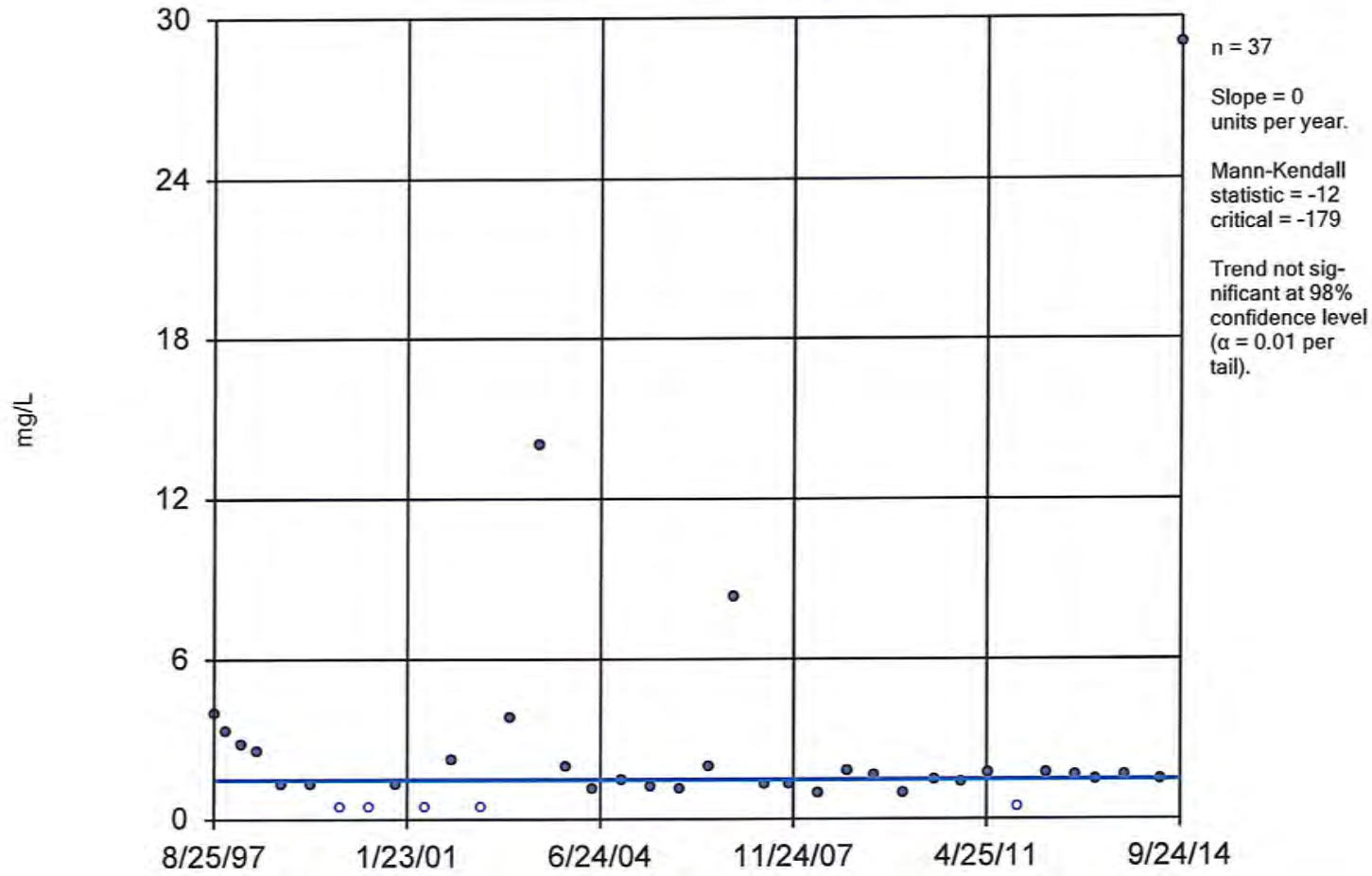
Hollow symbols indicate censored values.

Sen's Slope Estimator

105-SS (bg)



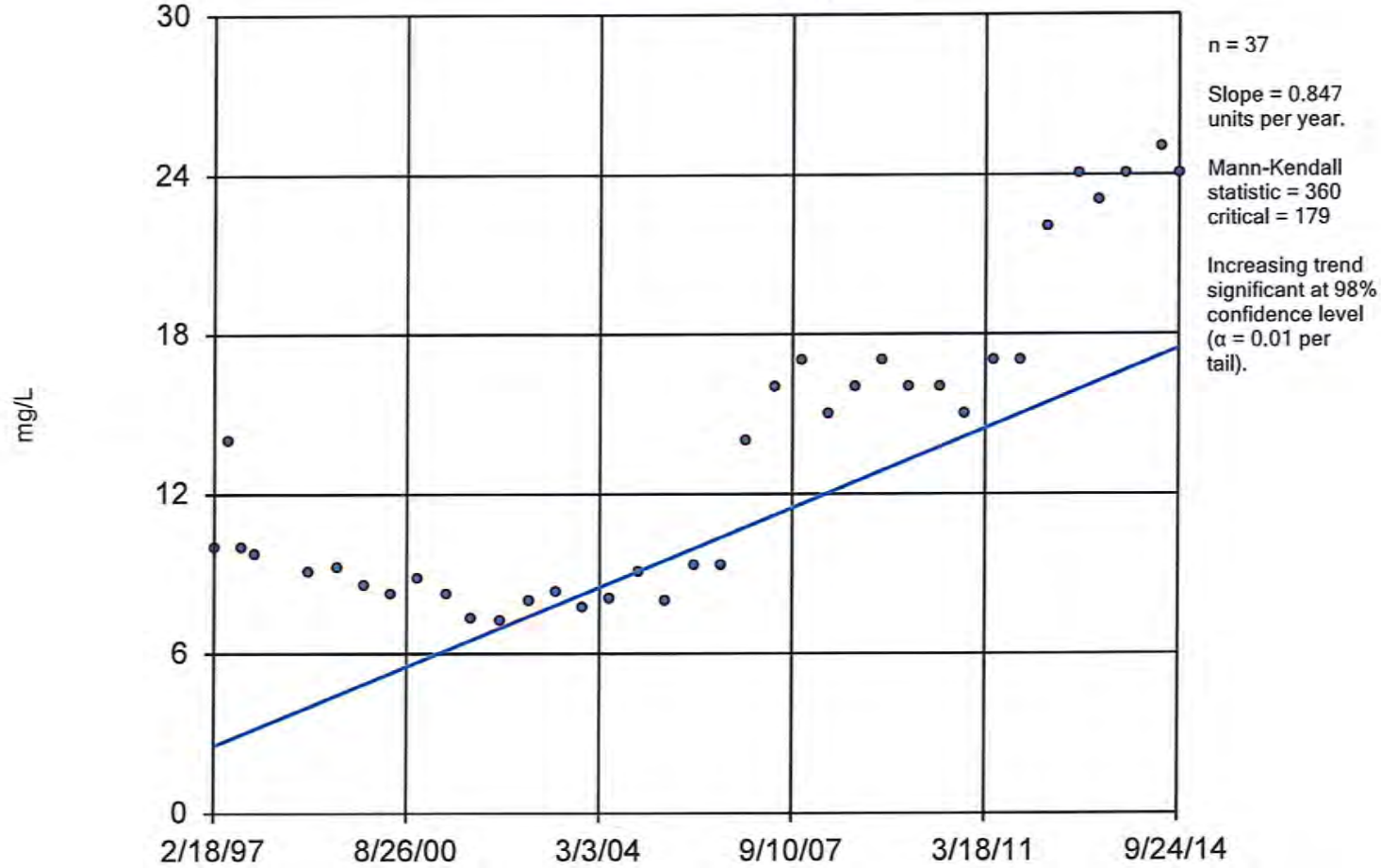
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:38 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

106-SS (bg)

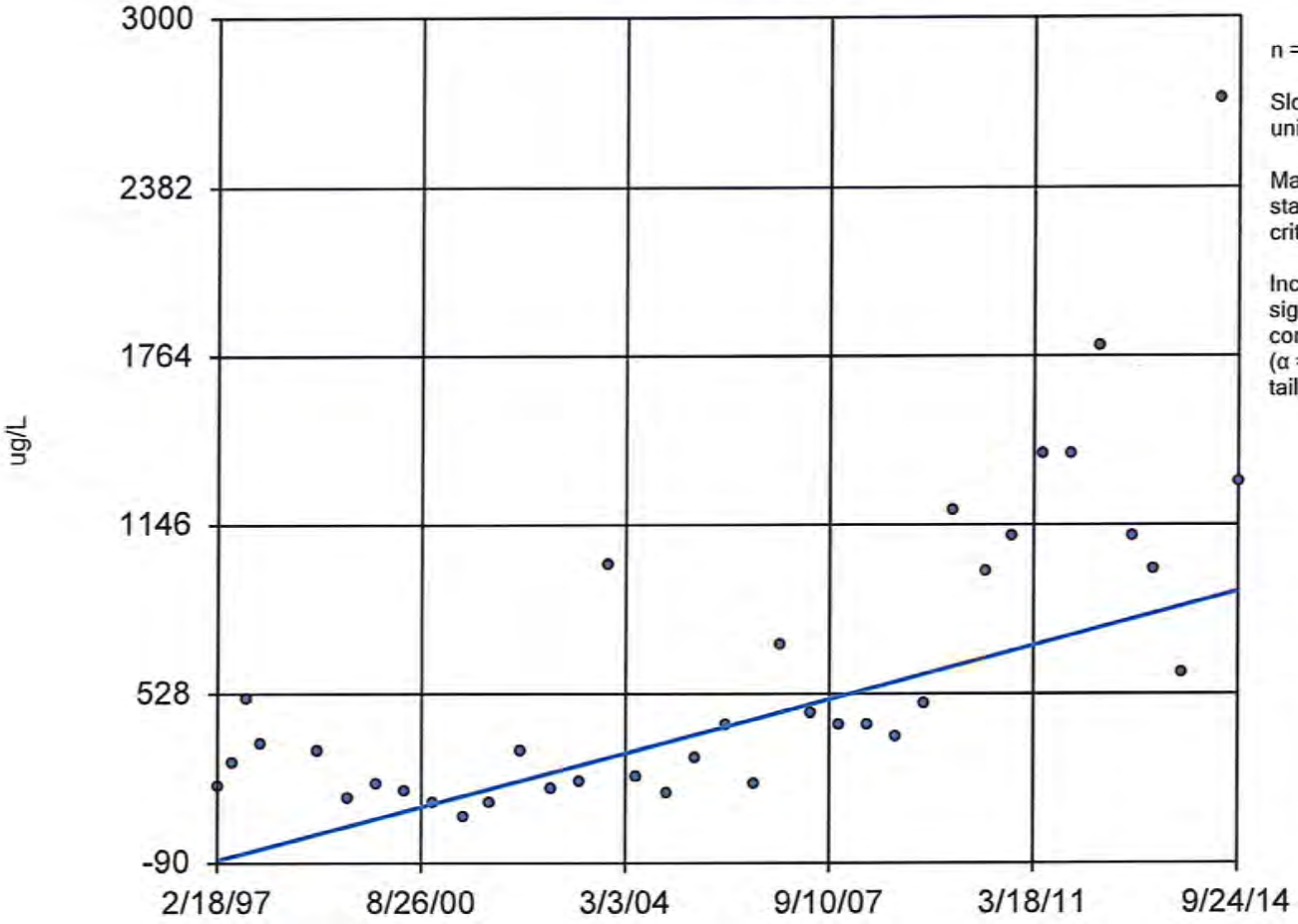


Constituent: Chloride Analysis Run 11/24/2014 1:38 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sen's Slope Estimator

106-SS (bg)



n = 37

Slope = 55.79 units per year.

Mann-Kendall statistic = 376 critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Iron Total Analysis Run 11/24/2014 1:38 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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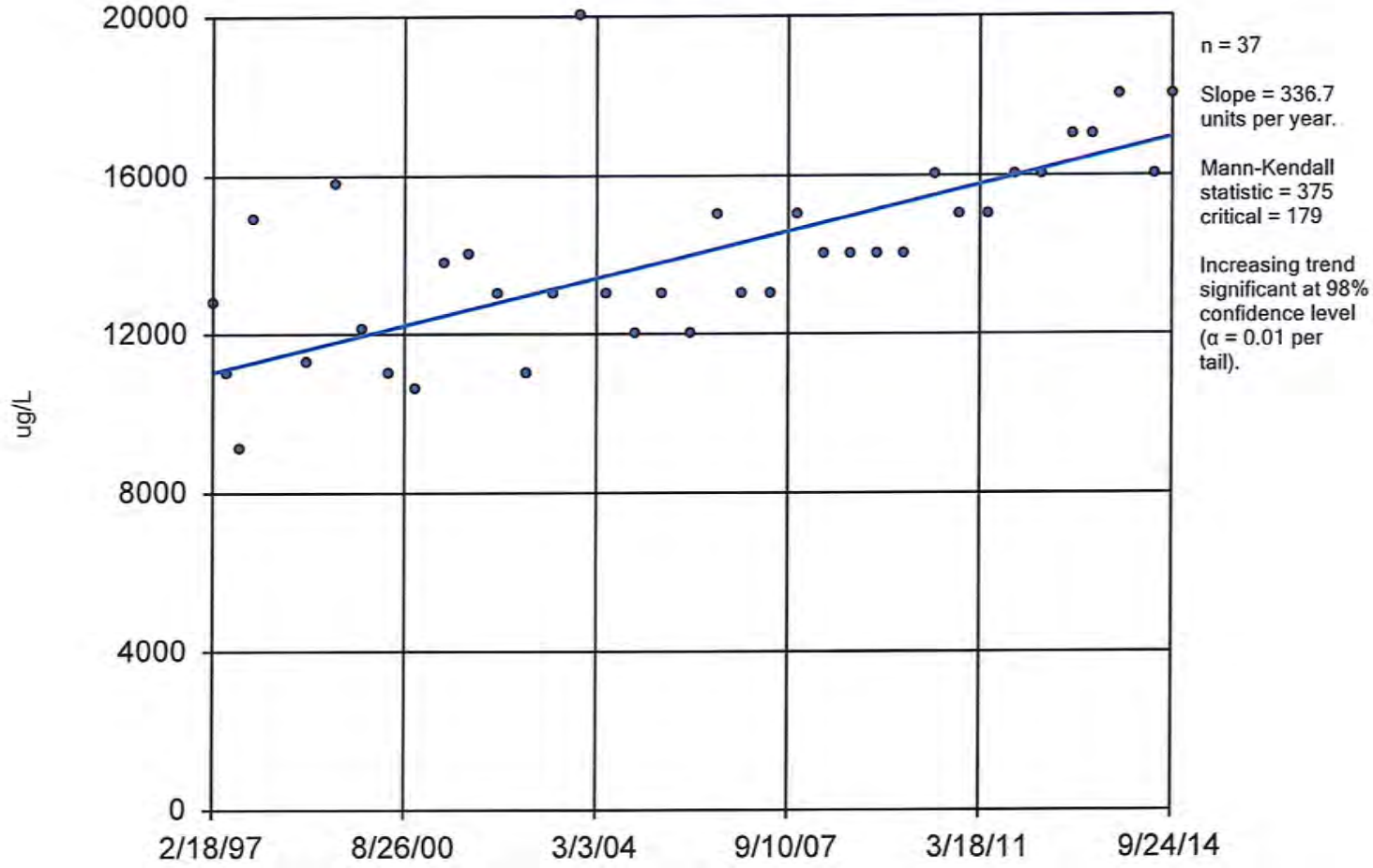
Sen's Slope Estimator

106-SS (bg)



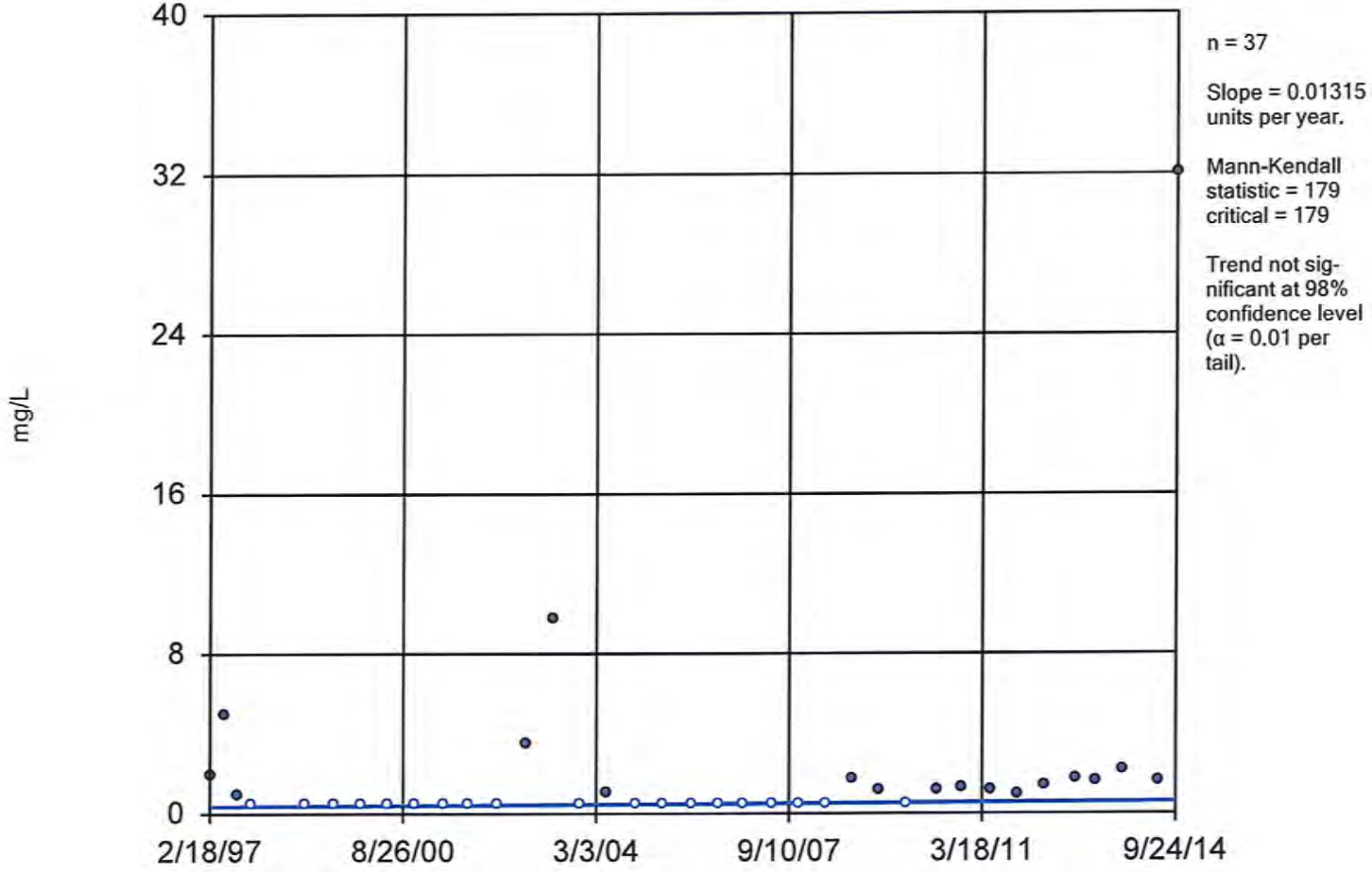
Constituent: Sodium Total Analysis Run 11/24/2014 1:39 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

106-SS (bg)



n = 37

Slope = 0.01315 units per year.

Mann-Kendall statistic = 179
critical = 179

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:39 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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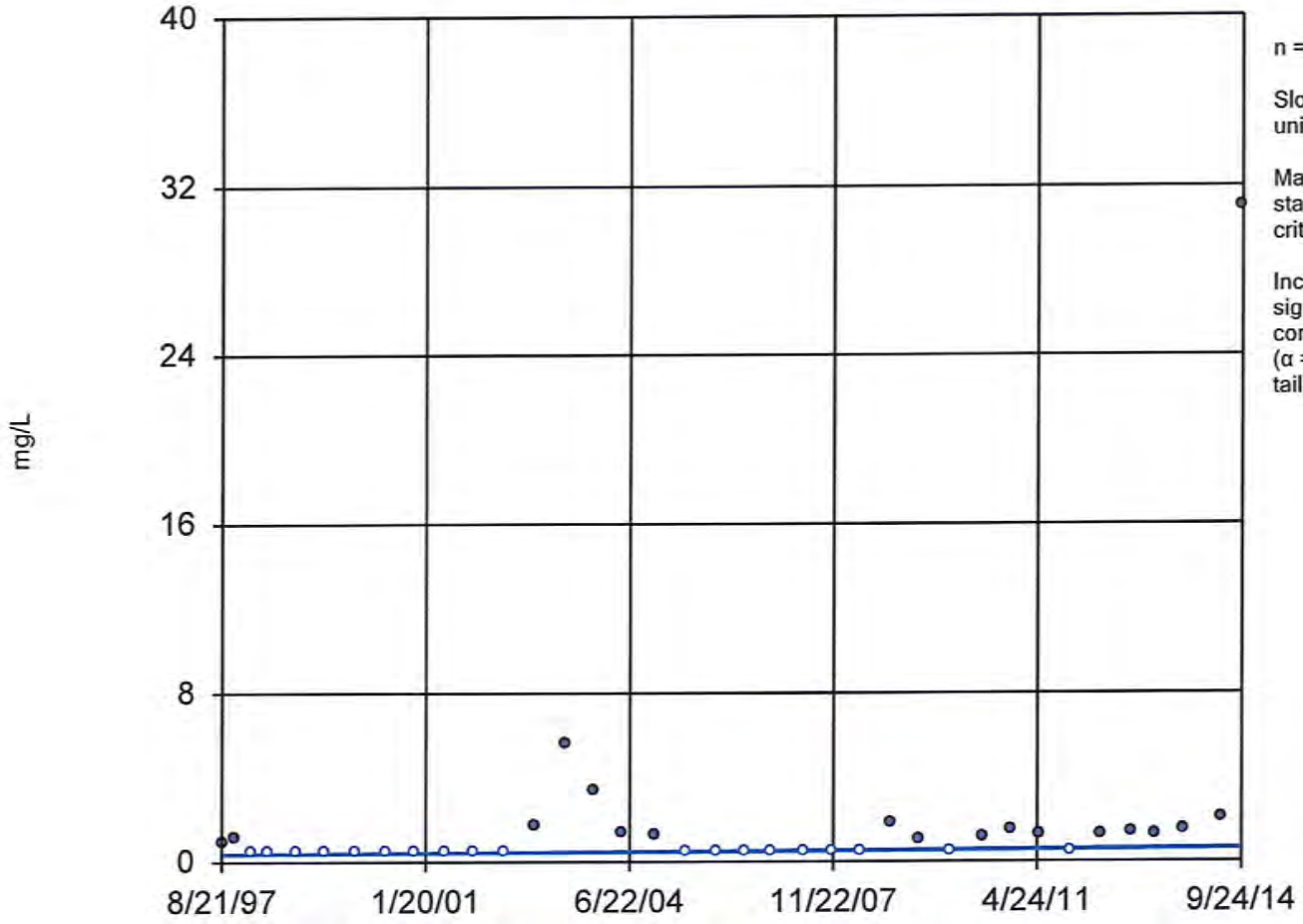
Hollow symbols indicate censored values.

Sen's Slope Estimator

109-SS (bg)



n = 37

Slope = 0.01391 units per year.

Mann-Kendall statistic = 193
critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

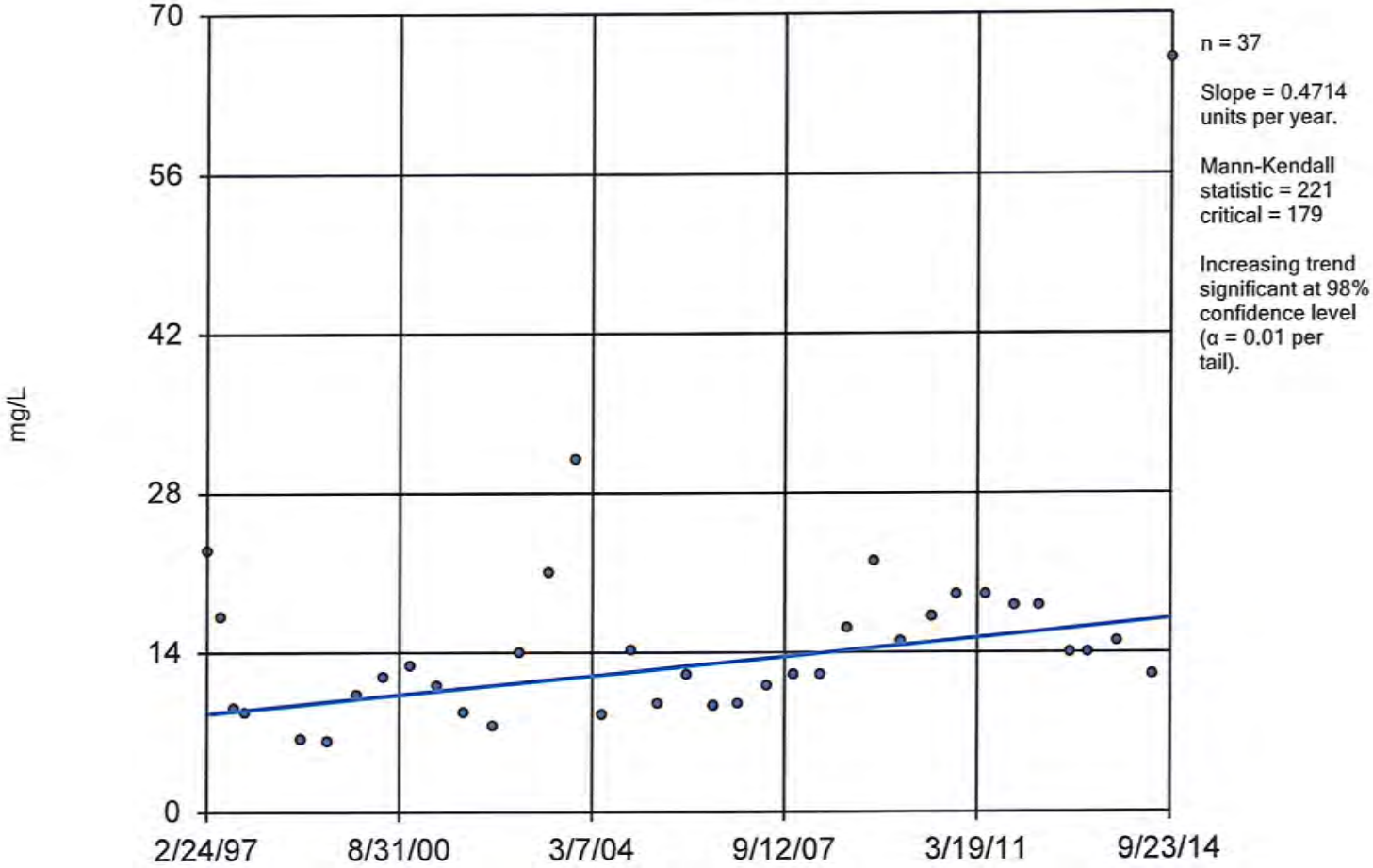
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:39 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Sen's Slope Estimator

110-SS (bg)



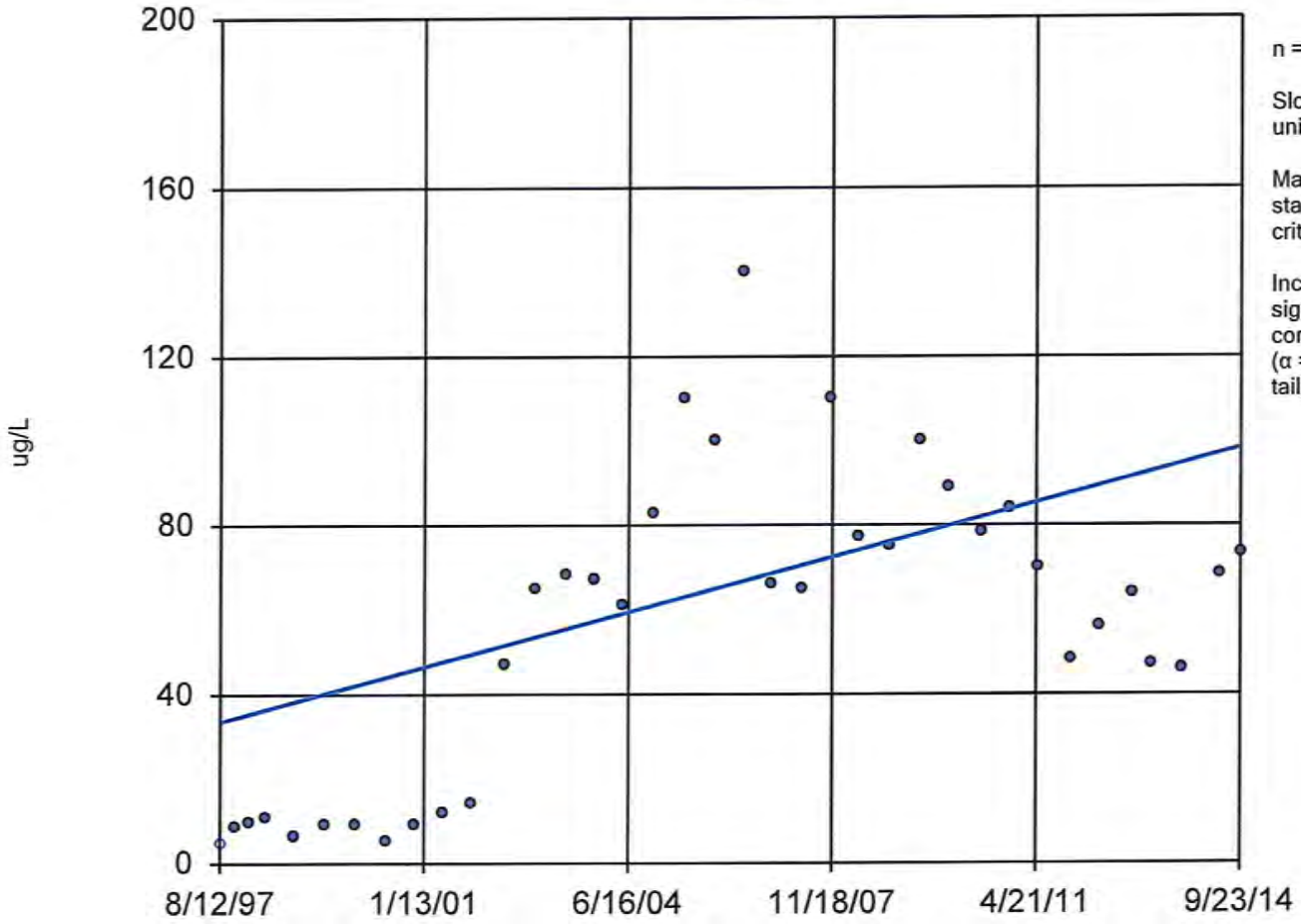
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:39 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

115-SS (bg)



n = 37

Slope = 3.775 units per year.

Mann-Kendall statistic = 263 critical = 179

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

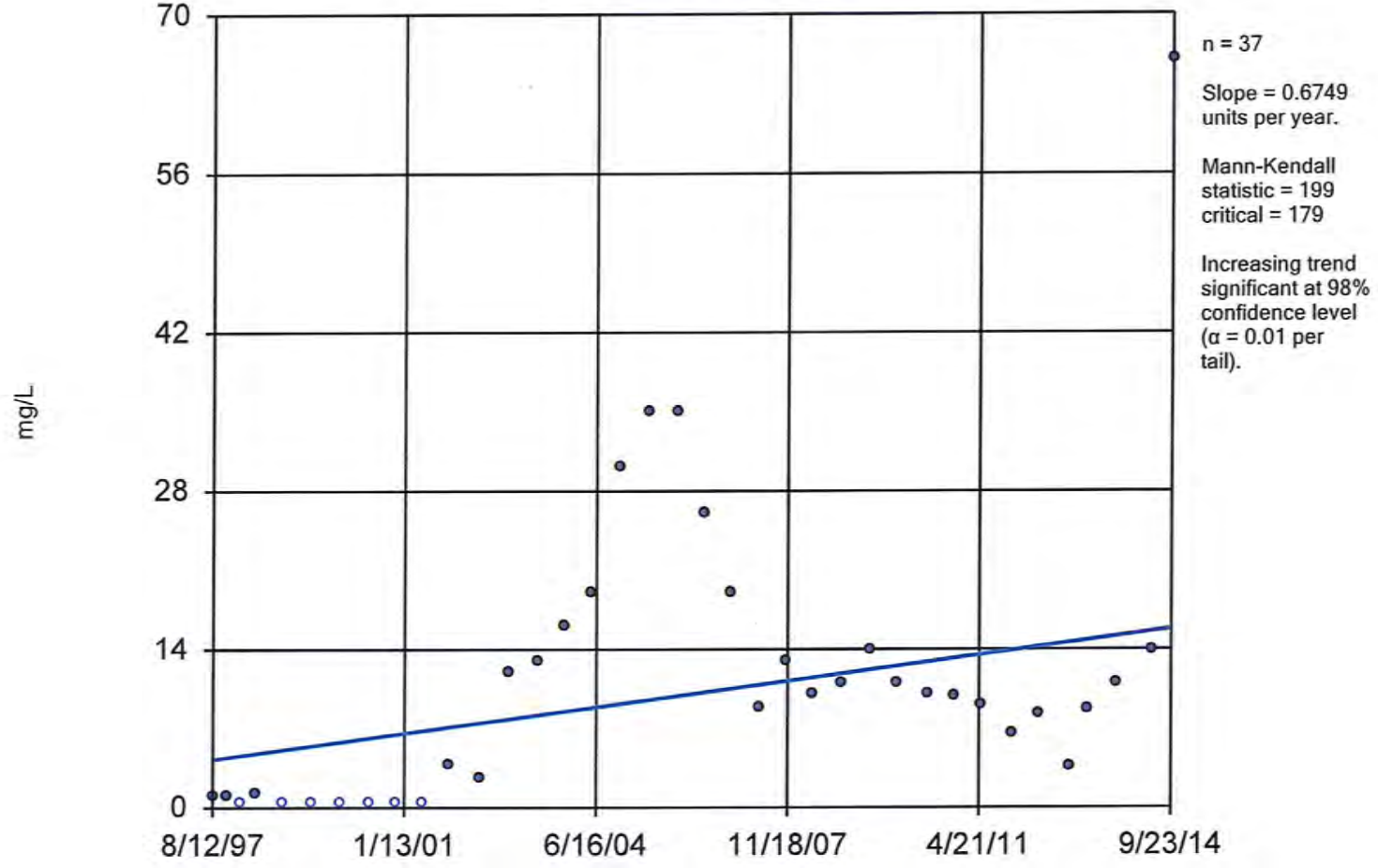
Constituent: Manganese Total Analysis Run 11/24/2014 1:40 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

115-SS (bg)



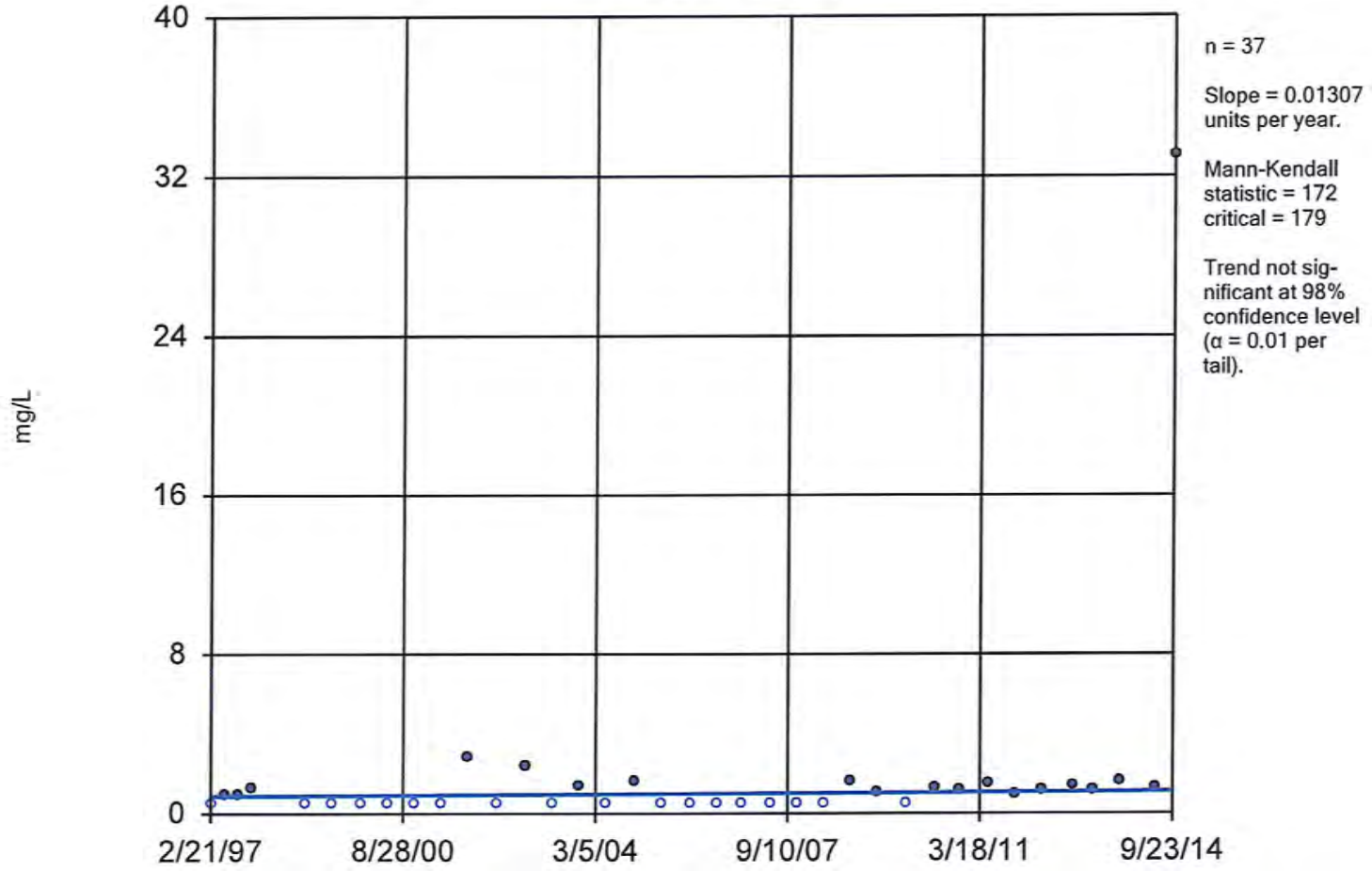
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:40 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

201A-SS (bg)



n = 37

Slope = 0.01307 units per year.

Mann-Kendall statistic = 172
critical = 179

Trend not significant at 98% confidence level (α = 0.01 per tail).

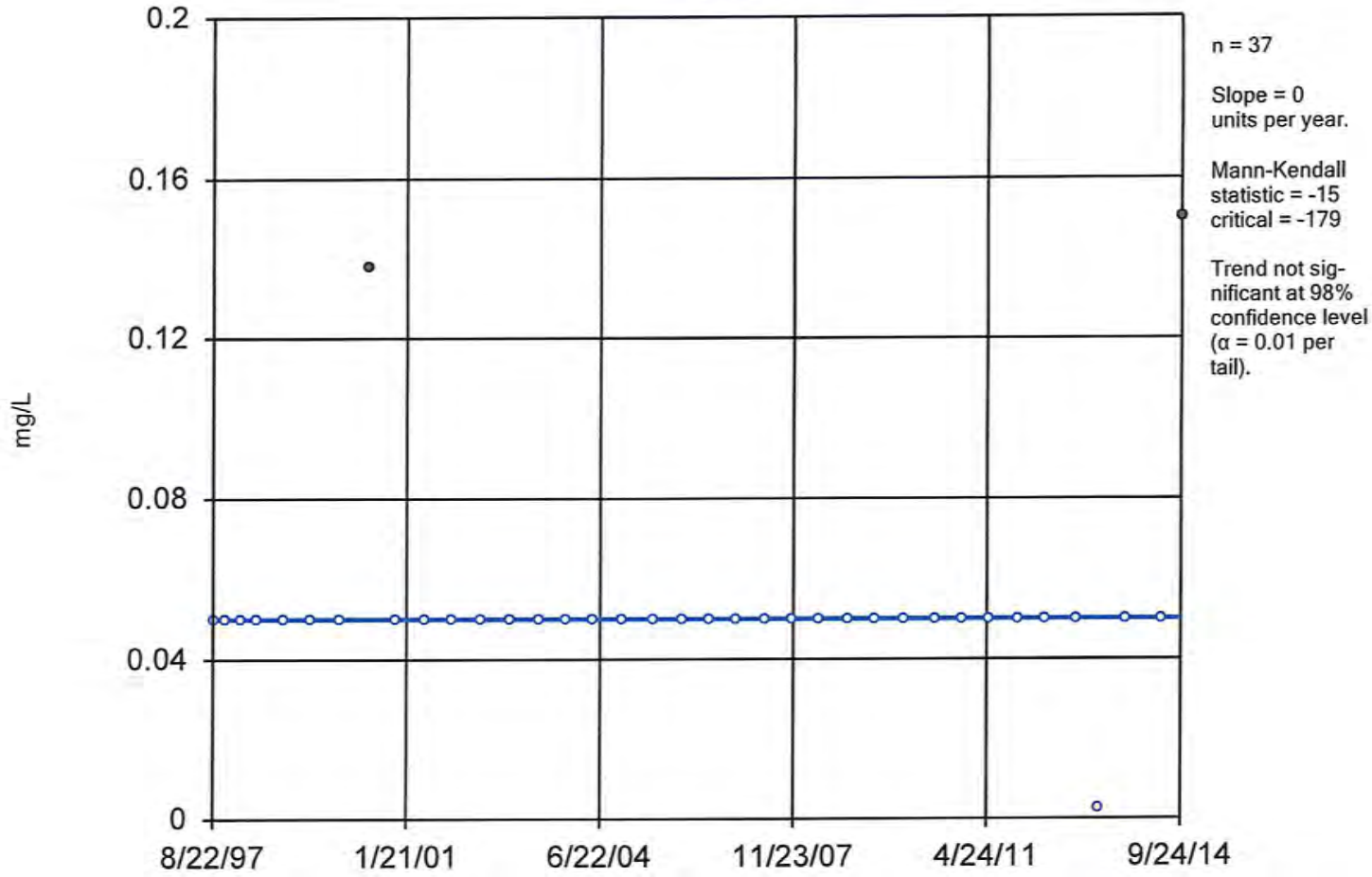
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:40 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

205-SS (bg)



n = 37

Slope = 0
units per year.

Mann-Kendall
statistic = -15
critical = -179

Trend not significant at 98% confidence level (α = 0.01 per tail).

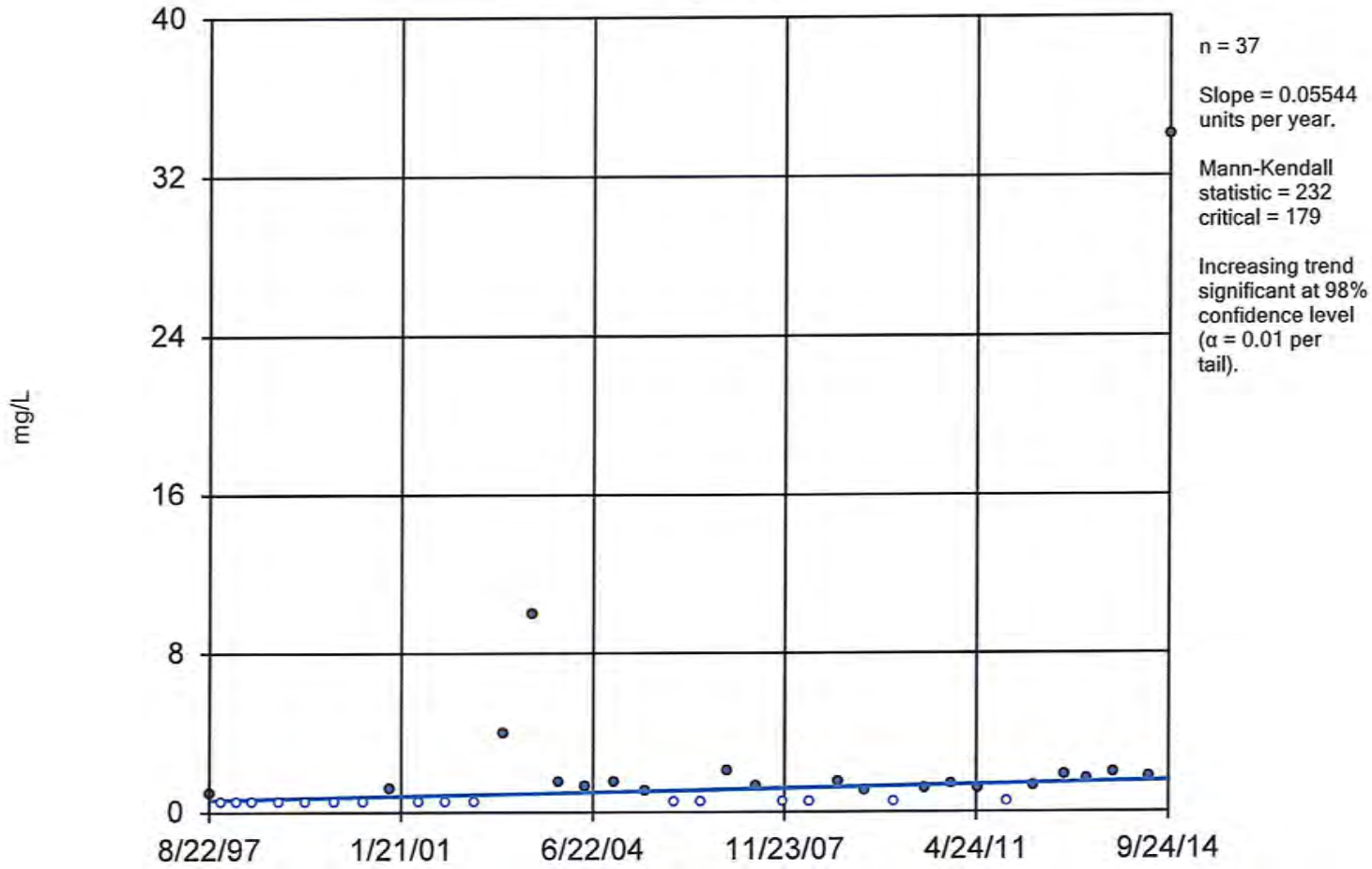
Constituent: Nitrate/Nitrite Analysis Run 11/24/2014 1:41 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

205-SS (bg)



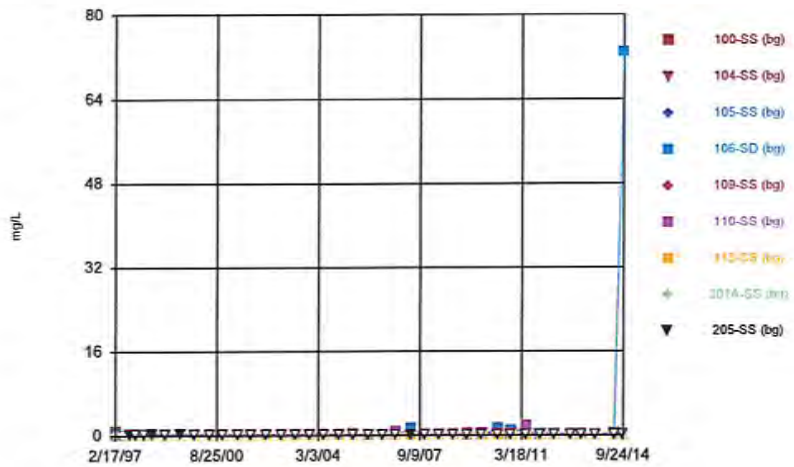
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:41 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

TIME SERIES TREND ANALYSIS
ST. LOUIS FORMATION

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

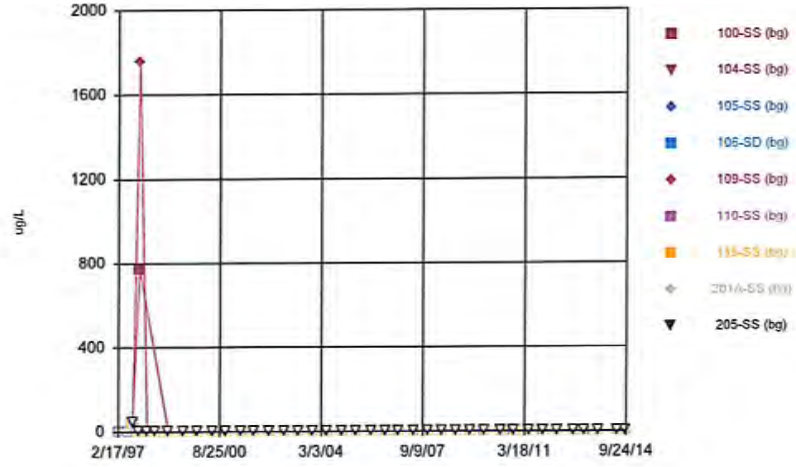
Time Series



Constituent: Ammonia as N Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

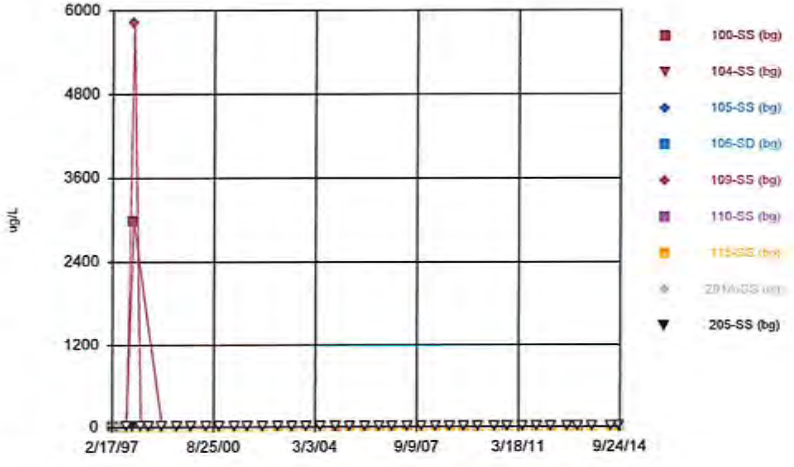
Time Series



Constituent: Antimony Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

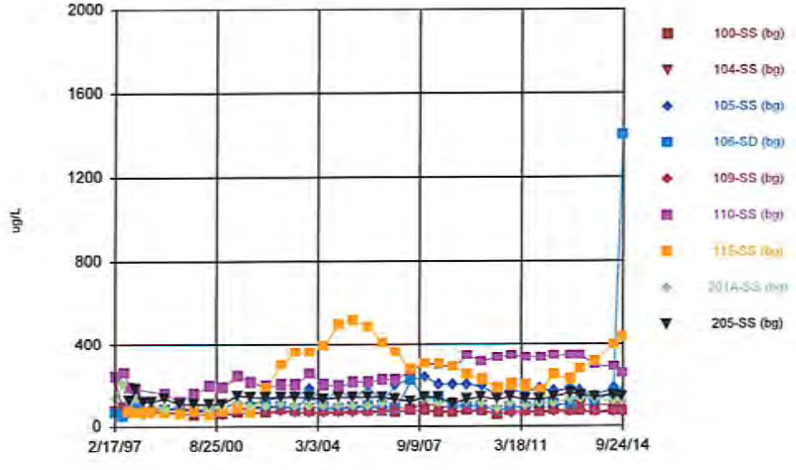
Time Series



Constituent: Arsenic Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

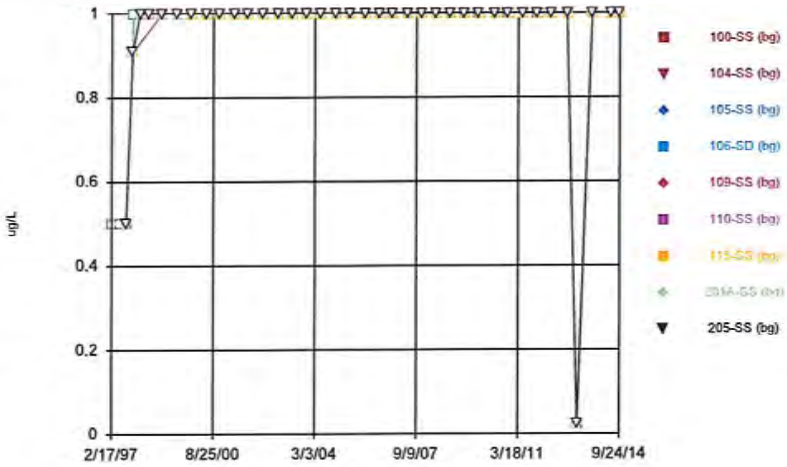
Time Series



Constituent: Barium Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

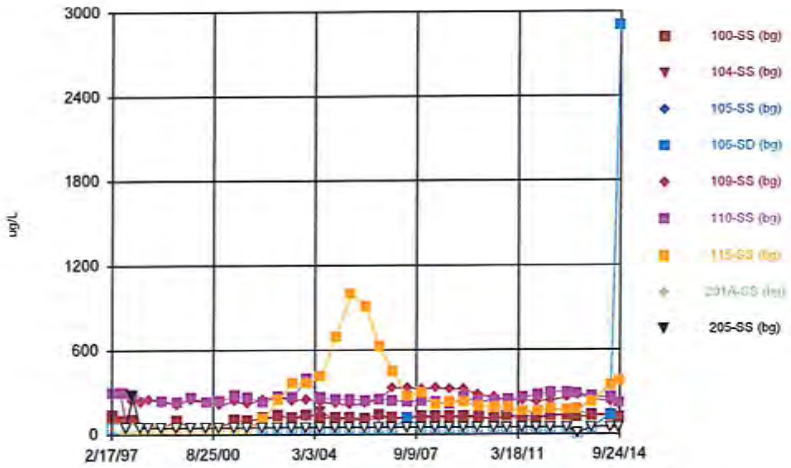
Time Series



Constituent: Beryllium Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

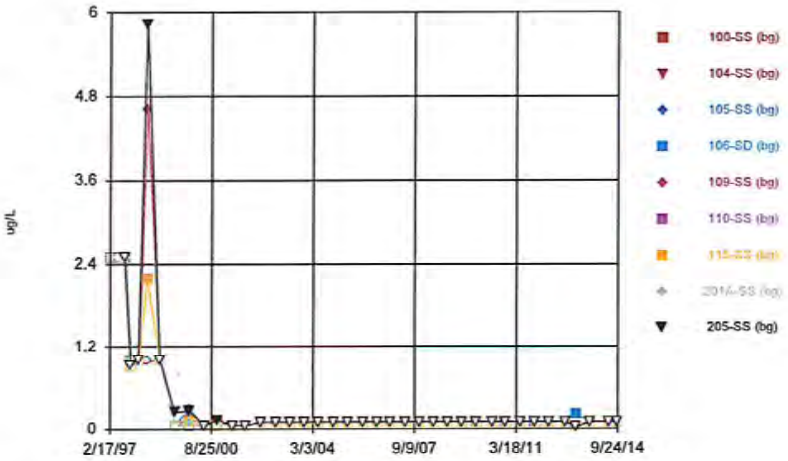
Time Series



Constituent: Boron Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

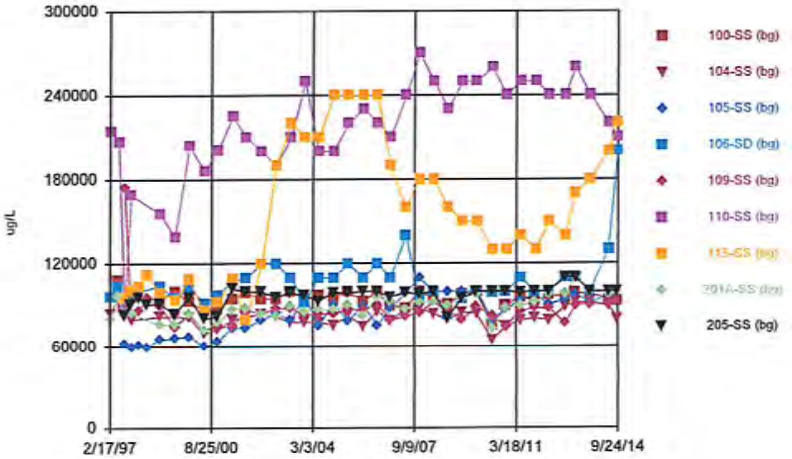
Time Series



Constituent: Cadmium Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

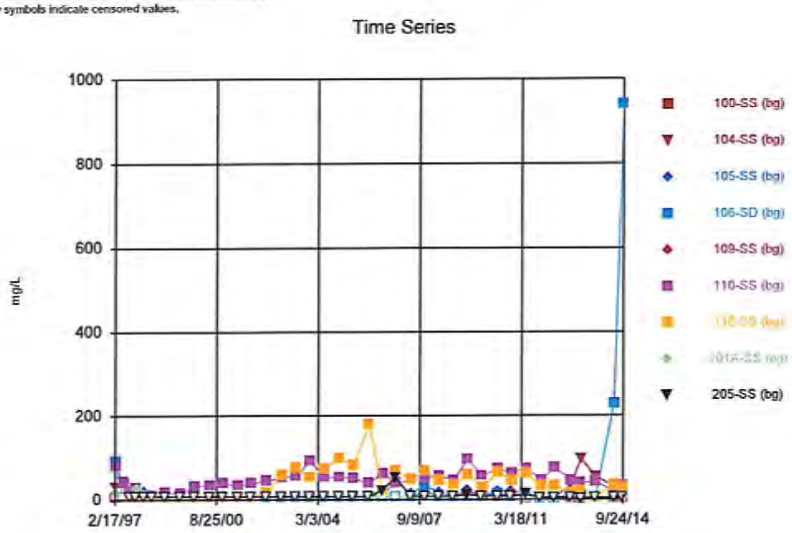
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Time Series



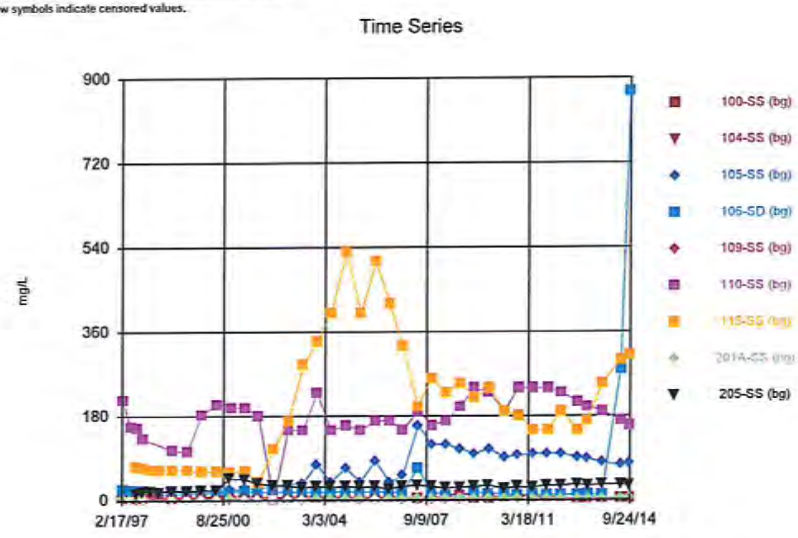
Constituent: Calcium Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



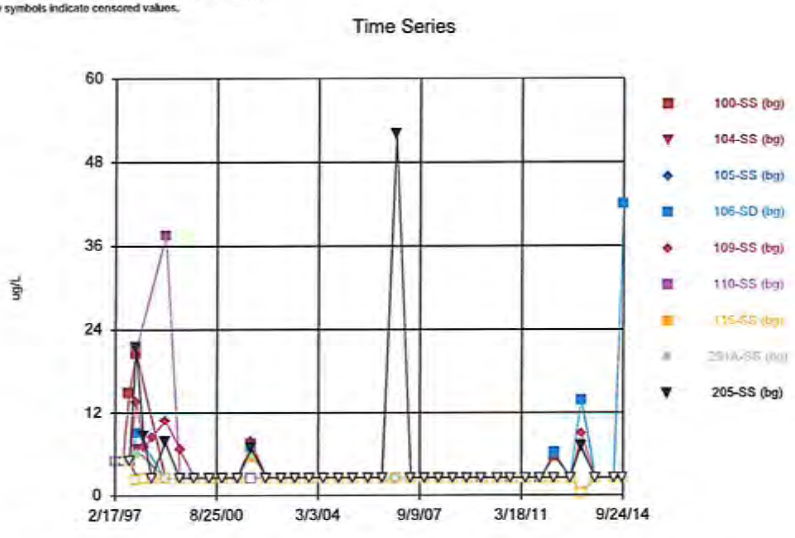
Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



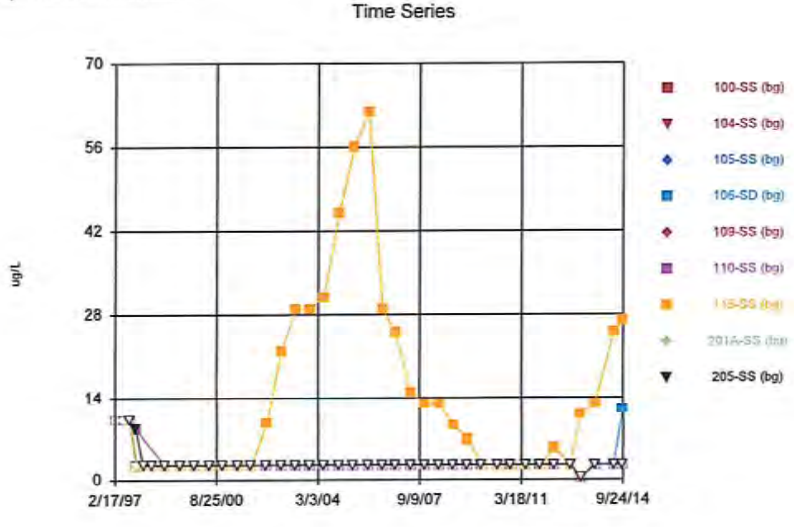
Constituent: Chloride Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



Constituent: Chromium Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

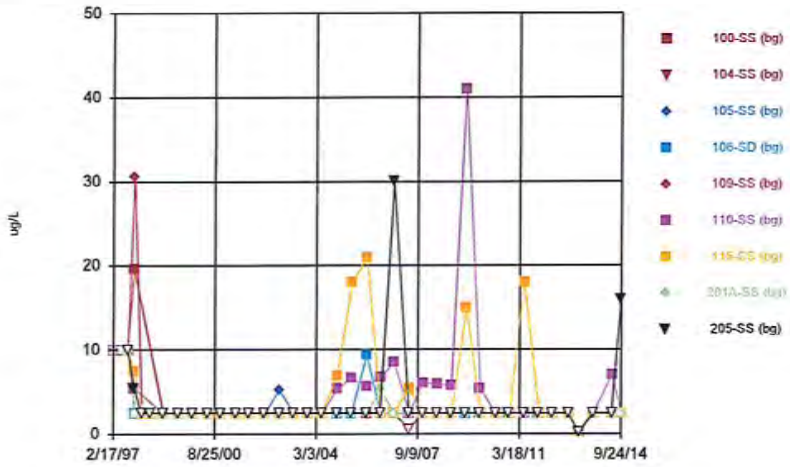
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



Constituent: Cobalt Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

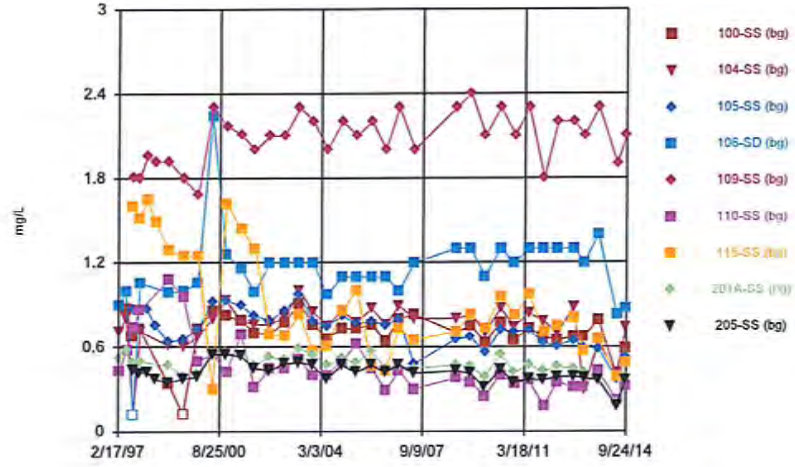
Time Series



Constituent: Copper Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

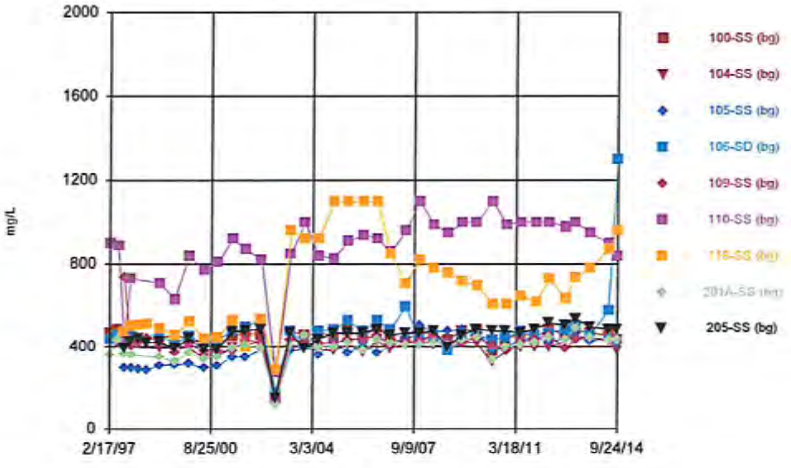
Time Series



Constituent: Fluoride Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

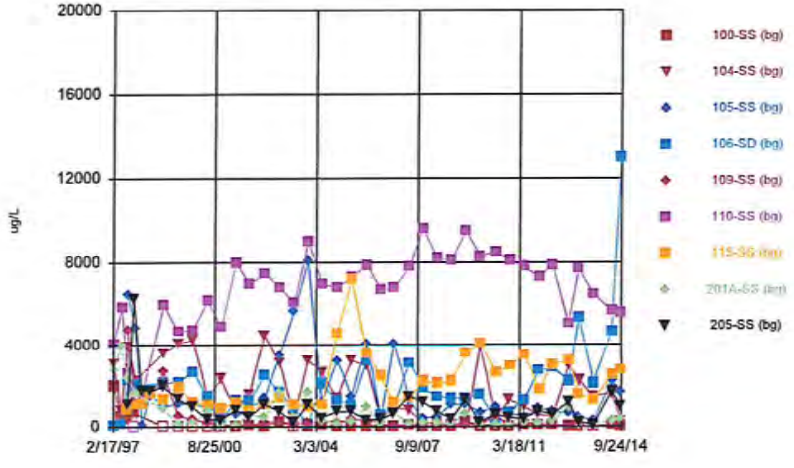
Time Series



Constituent: Hardness Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

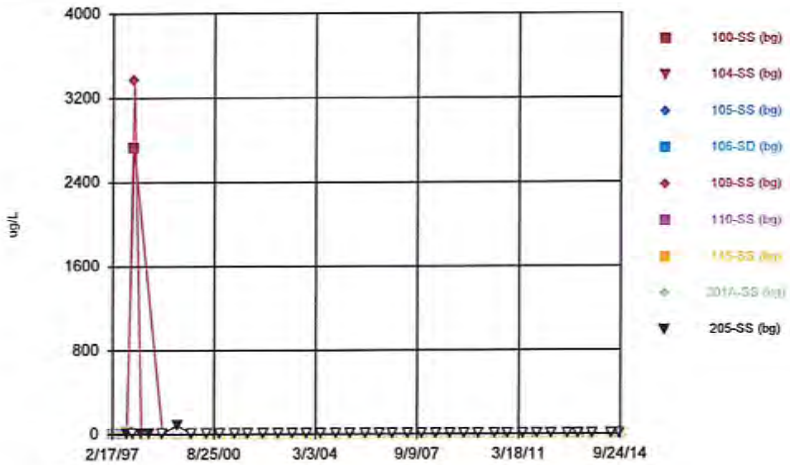
Time Series



Constituent: Iron Total Analysis Run 11/24/2014 10:46 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

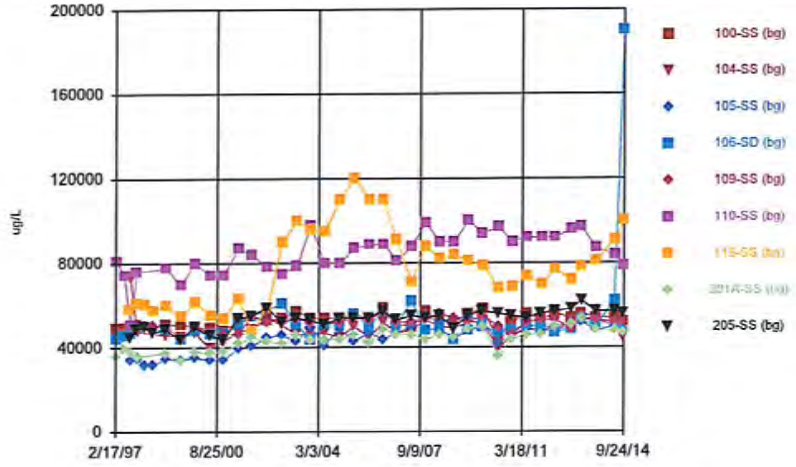
Time Series



Constituent: Lead Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

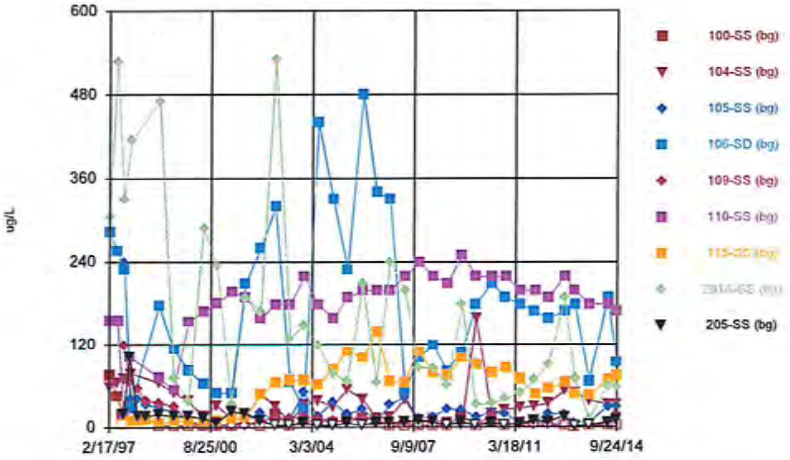
Time Series



Constituent: Magnesium Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

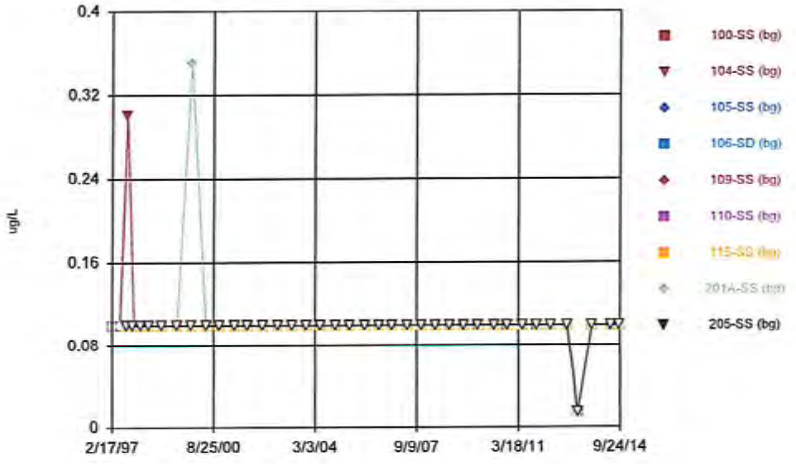
Time Series



Constituent: Manganese Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Time Series



Constituent: Mercury Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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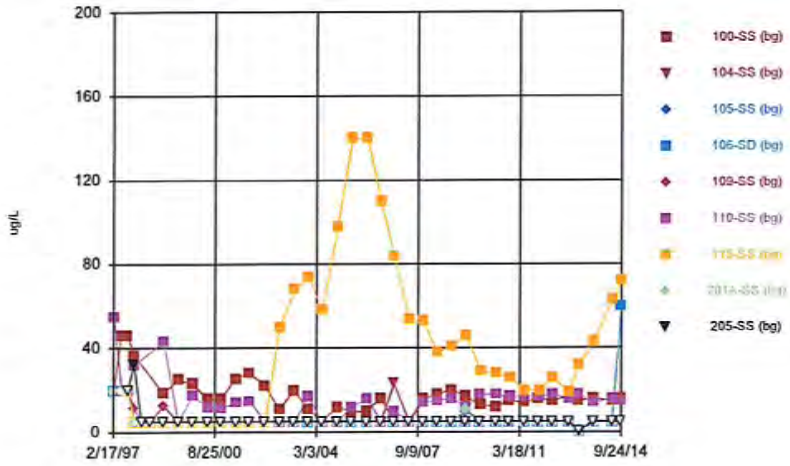
Hollow symbols indicate censored values.

Time Series



Constituent: Nickel Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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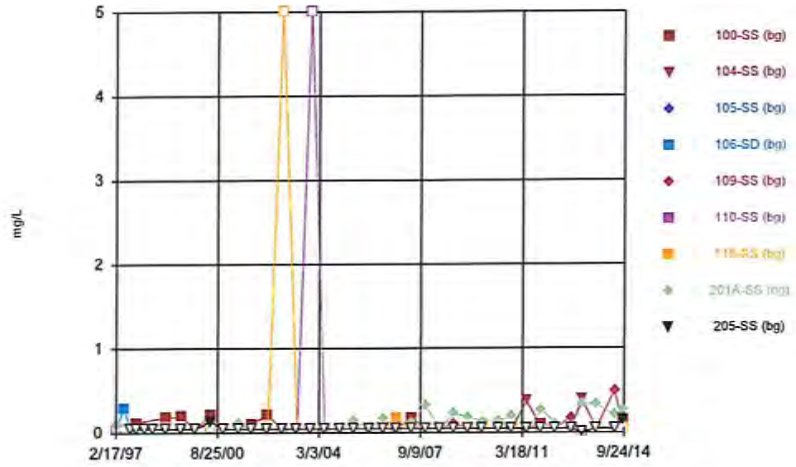
Time Series



Constituent: Nitrate/Nitrite Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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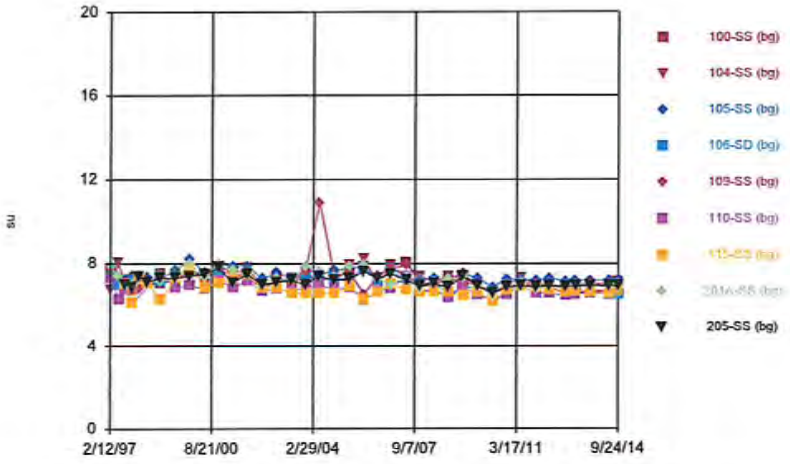
Time Series



Constituent: pH [Field] Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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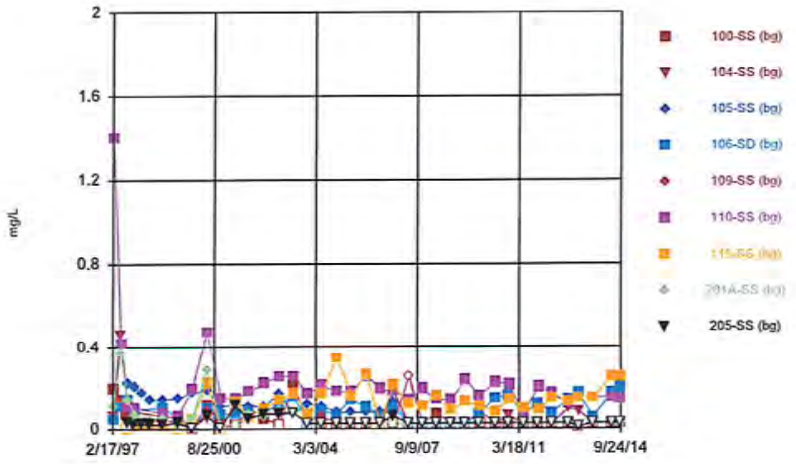
Time Series



Constituent: Phosphorus Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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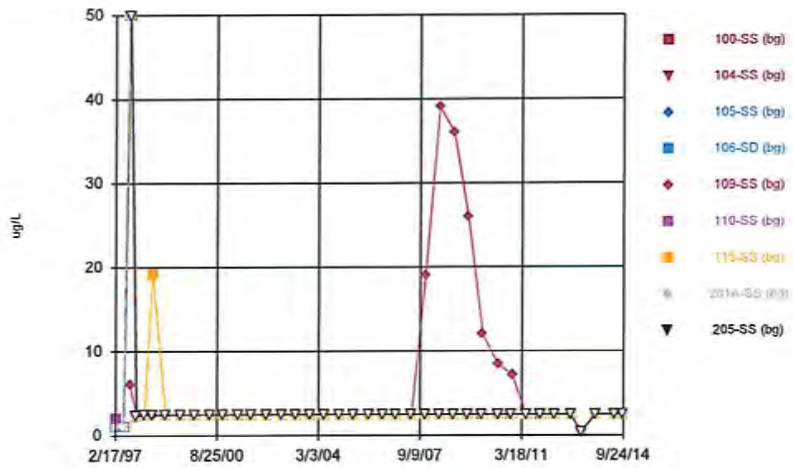
Time Series



Constituent: Selenium Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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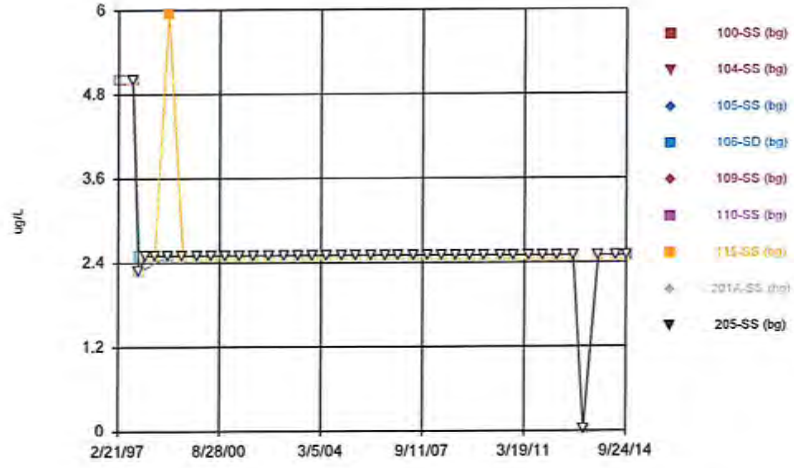
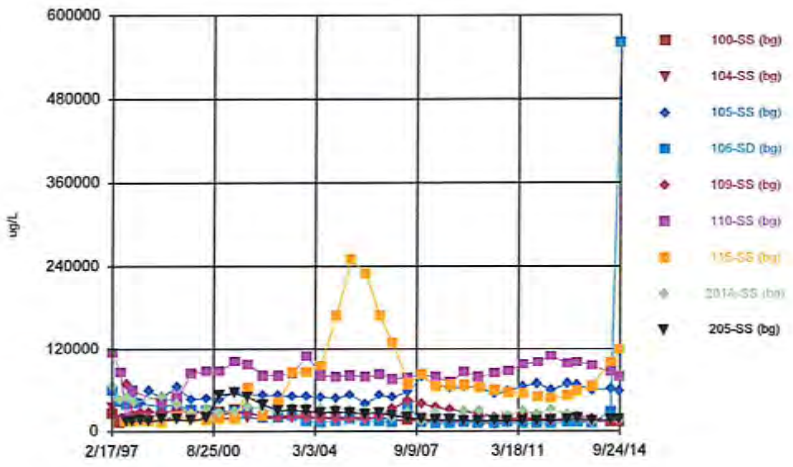
Time Series



Constituent: Silver Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

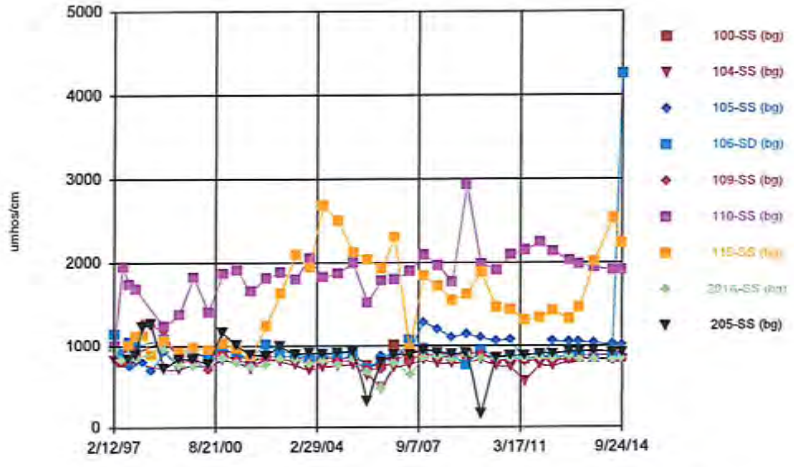
Time Series



Constituent: Sodium Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

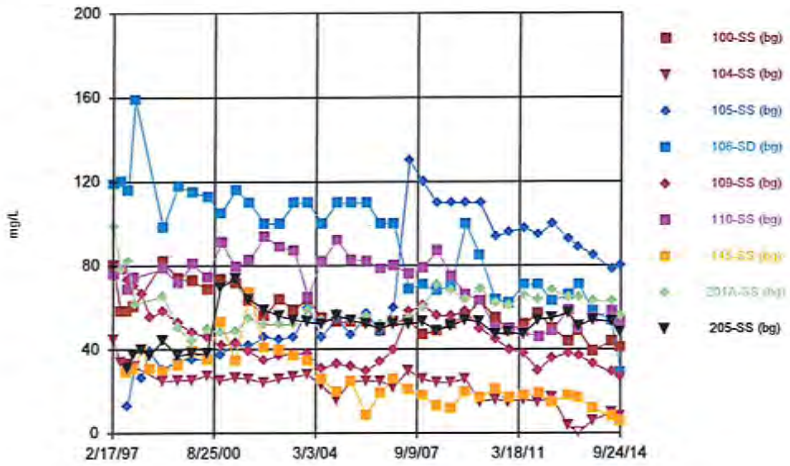
Time Series



Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Time Series



Constituent: Sulfate as SO4 Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
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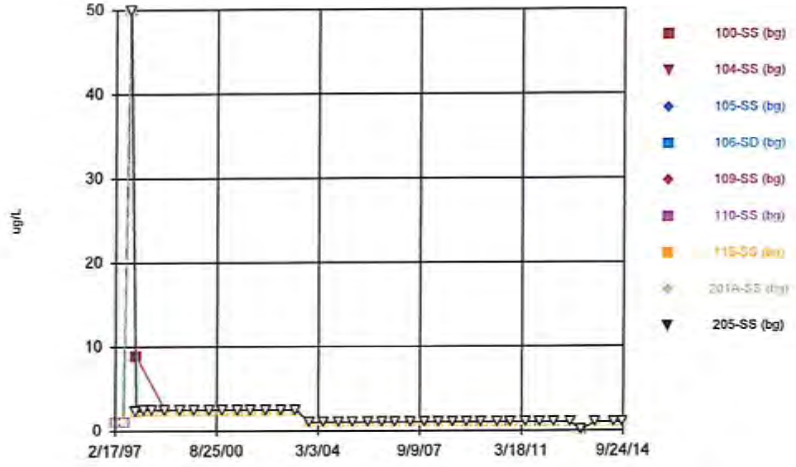
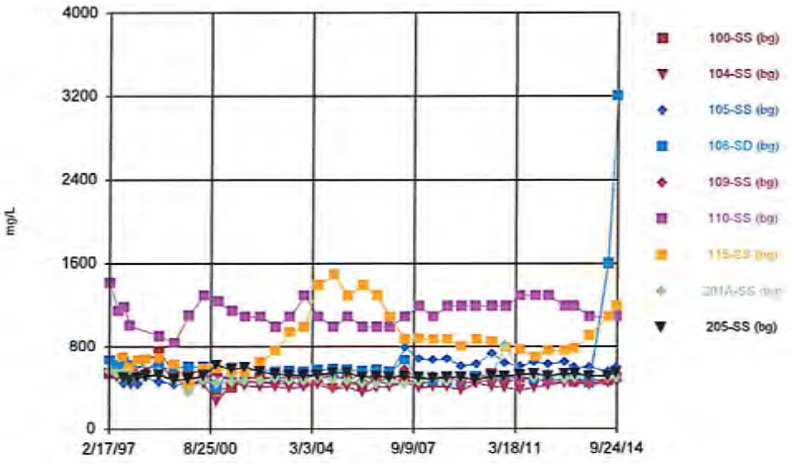
Time Series



Constituent: Thallium Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

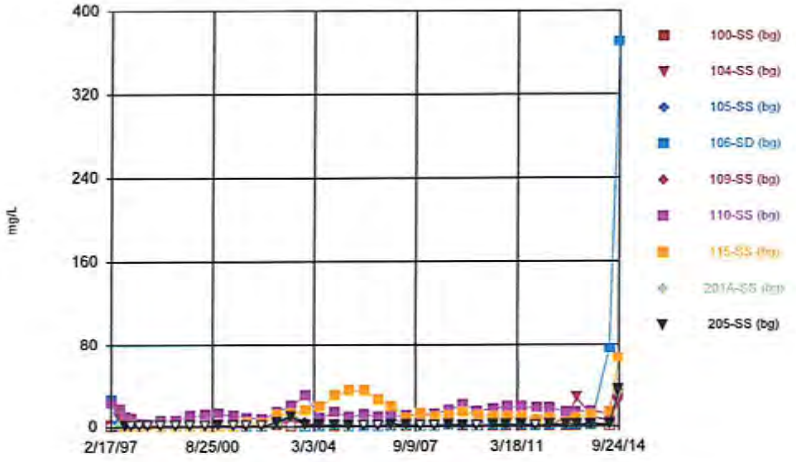
Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

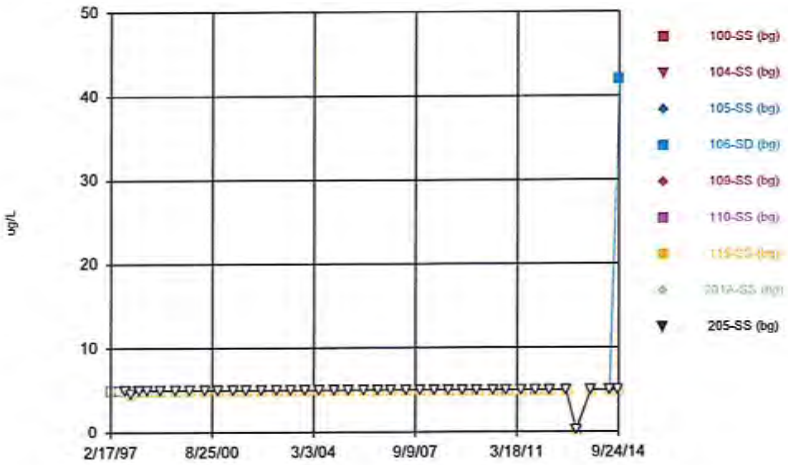
Time Series



Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

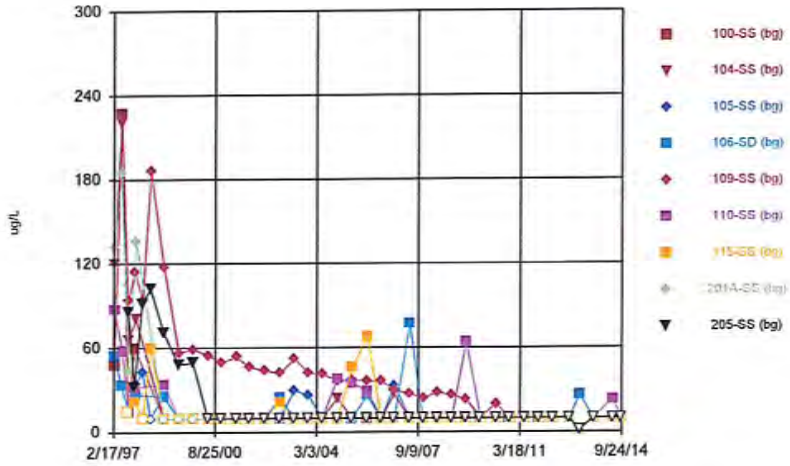
Time Series



Constituent: Vanadium Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Total Analysis Run 11/24/2014 10:47 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

APPENDIX E
STATISTICAL EVALUATIONS
SALEM FORMATION

TREND EVALUATION OF BACKGROUND DATA
SALEM FORMATION

Background data were evaluated for increasing statistical trends (or either increasing or decreasing trends for field pH). In those cases where the background data were determined to exhibit a statistical trend, the most recent background data were excluded until the data no longer exhibited a statistical trend. For each of the constituent-well pairs listed below, the specified modified background data period was utilized in the determination of the intra-well prediction limit.

Salem Formation

- Ammonia at 106-SD (2/97 through 11/10)
- Barium at 104-SD (2/97 through 5/10)
- Barium at 106-SD (2/97 through 11/01)
- Barium at 111-SD (2/97 through 5/02)
- Chloride at 104-SD (2/97 through 5/09)
- Fluoride at 106-SD (2/97 through 11/09)
- Hardness at 104-SD (2/97 through 10/13)
- Magnesium at 104-SD (2/97 through 5/12)
- pH at 104-SD (2/97 through 4/13)
- pH at 106-SD (2/97 through 11/11)
- Sodium at 104-SD (2/97 through 5/01)
- Specific conductance at 104-SD (2/97 through 4/13)
- Total dissolved solids at 104-SD (2/97 through 11/12)
- Total organic carbon at 104-SD (2/97 through 5/12)

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/20/2014, 10:15 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Ammonia as N (mg/L)	100-SD (bg)	-0.002488	-66	-171	No	36	2.778	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	104-SD (bg)	0	22	171	No	36	36.11	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	**106-SD (bg)**	**0.01167**	**257**	**171**	**Yes**	**36**	**44.44**	**n/a**	**n/a**	**0.02**	**NP**
Ammonia as N (mg/L)	111-SD (bg)	0	-45	-171	No	36	80.56	n/a	n/a	0.02	NP
Antimony Total (ug/L)	100-SD (bg)	0	35	171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	104-SD (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	106-SD (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	111-SD (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	100-SD (bg)	0	-16	-171	No	36	88.89	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	**104-SD (bg)**	**0**	**213**	**171**	**Yes**	**36**	**88.89**	**n/a**	**n/a**	**0.02**	**NP**
Arsenic Total (ug/L)	106-SD (bg)	0	-24	-171	No	36	77.78	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	111-SD (bg)	0	65	171	No	36	100	n/a	n/a	0.02	NP
Barium Total (ug/L)	100-SD (bg)	1.153	103	171	No	36	0	n/a	n/a	0.02	NP
Barium Total (ug/L)	**104-SD (bg)**	**6.259**	**313**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (ug/L)	**106-SD (bg)**	**2.593**	**313**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (ug/L)	**111-SD (bg)**	**0.4829**	**182**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Beryllium Total (ug/L)	100-SD (bg)	0	9	171	No	36	97.22	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	104-SD (bg)	0	65	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	106-SD (bg)	0	65	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	111-SD (bg)	0	65	171	No	36	100	n/a	n/a	0.02	NP
Boron Total (ug/L)	100-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Boron Total (ug/L)	104-SD (bg)	0	157	171	No	36	83.33	n/a	n/a	0.02	NP
Boron Total (ug/L)	106-SD (bg)	0	12	171	No	36	94.44	n/a	n/a	0.02	NP
Boron Total (ug/L)	111-SD (bg)	0	-61	-171	No	36	97.22	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	100-SD (bg)	0	-70	-171	No	36	97.22	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	104-SD (bg)	0	-43	-171	No	36	100	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	106-SD (bg)	0	9	171	No	36	97.22	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	111-SD (bg)	0	-43	-171	No	36	100	n/a	n/a	0.02	NP
Calcium Total (ug/L)	100-SD (bg)	-188.1	-98	-171	No	36	0	n/a	n/a	0.02	NP
Calcium Total (ug/L)	104-SD (bg)	272.1	143	171	No	36	0	n/a	n/a	0.02	NP
Calcium Total (ug/L)	106-SD (bg)	241.2	100	171	No	36	0	n/a	n/a	0.02	NP
Calcium Total (ug/L)	111-SD (bg)	0	7	171	No	36	0	n/a	n/a	0.02	NP
Chemical Oxygen Demand [COD] (mg/L)	**100-SD (bg)**	**0**	**-244**	**-171**	**Yes**	**36**	**91.67**	**n/a**	**n/a**	**0.02**	**NP**
Chemical Oxygen Demand [COD] (mg/L)	**104-SD (bg)**	**0**	**248**	**171**	**Yes**	**36**	**69.44**	**n/a**	**n/a**	**0.02**	**NP**
Chemical Oxygen Demand [COD] (mg/L)	106-SD (bg)	0	-21	-171	No	36	83.33	n/a	n/a	0.02	NP
Chemical Oxygen Demand [COD] (mg/L)	**111-SD (bg)**	**0**	**-254**	**-171**	**Yes**	**36**	**94.44**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	100-SD (bg)	0	-36	-171	No	36	94.44	n/a	n/a	0.02	NP
Chloride (mg/L)	**104-SD (bg)**	**5.82**	**364**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**106-SD (bg)**	**-0.6401**	**-383**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**111-SD (bg)**	**-0.4009**	**-510**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chromium Total (ug/L)	**100-SD (bg)**	**0**	**-181**	**-171**	**Yes**	**36**	**88.89**	**n/a**	**n/a**	**0.02**	**NP**
Chromium Total (ug/L)	104-SD (bg)	0	-5	-171	No	36	88.89	n/a	n/a	0.02	NP
Chromium Total (ug/L)	106-SD (bg)	0	-73	-171	No	36	88.89	n/a	n/a	0.02	NP
Chromium Total (ug/L)	111-SD (bg)	0	-141	-171	No	36	97.22	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	100-SD (bg)	0	-97	-171	No	36	100	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	104-SD (bg)	0	-71	-171	No	36	97.22	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	106-SD (bg)	0	-127	-171	No	36	100	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	111-SD (bg)	0	-127	-171	No	36	100	n/a	n/a	0.02	NP
Copper Total (ug/L)	100-SD (bg)	0	-97	-171	No	36	100	n/a	n/a	0.02	NP
Copper Total (ug/L)	104-SD (bg)	0	-106	-171	No	36	97.22	n/a	n/a	0.02	NP

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/20/2014, 10:15 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Copper Total (ug/L)	106-SD (bg)	0	-128	-171	No	36	97.22	n/a	n/a	0.02	NP
Copper Total (ug/L)	111-SD (bg)	0	-154	-171	No	36	94.44	n/a	n/a	0.02	NP
Fluoride (mg/L)	100-SD (bg)	-0.001267	-98	-158	No	34	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	**104-SD (bg)**	**-0.01332**	**-181**	**-158**	**Yes**	**34**	**5.882**	**n/a**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	**106-SD (bg)**	**0.01576**	**218**	**158**	**Yes**	**34**	**2.941**	**n/a**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	111-SD (bg)	0	-7	-158	No	34	0	n/a	n/a	0.02	NP
Hardness Total (mg/L)	100-SD (bg)	0	-6	-171	No	36	0	n/a	n/a	0.02	NP
Hardness Total (mg/L)	**104-SD (bg)**	**2.934**	**179**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Hardness Total (mg/L)	106-SD (bg)	2.52	133	171	No	36	0	n/a	n/a	0.02	NP
Hardness Total (mg/L)	111-SD (bg)	0	31	171	No	36	0	n/a	n/a	0.02	NP
Iron Total (ug/L)	**100-SD (bg)**	**-40.13**	**-214**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	104-SD (bg)	6.456	23	171	No	36	0	n/a	n/a	0.02	NP
Iron Total (ug/L)	106-SD (bg)	56.13	116	171	No	36	0	n/a	n/a	0.02	NP
Iron Total (ug/L)	**111-SD (bg)**	**-56.86**	**-195**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Lead Total (ug/L)	100-SD (bg)	0	35	171	No	36	100	n/a	n/a	0.02	NP
Lead Total (ug/L)	104-SD (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Lead Total (ug/L)	106-SD (bg)	0	63	171	No	36	97.22	n/a	n/a	0.02	NP
Lead Total (ug/L)	111-SD (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Magnesium Total (ug/L)	100-SD (bg)	89.67	125	171	No	36	0	n/a	n/a	0.02	NP
Magnesium Total (ug/L)	**104-SD (bg)**	**410.8**	**252**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium Total (ug/L)	106-SD (bg)	185.3	107	171	No	36	0	n/a	n/a	0.02	NP
Magnesium Total (ug/L)	111-SD (bg)	0	-12	-171	No	36	0	n/a	n/a	0.02	NP
Manganese Total (ug/L)	**100-SD (bg)**	**-7.167**	**-525**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Manganese Total (ug/L)	104-SD (bg)	1.676	93	171	No	36	0	n/a	n/a	0.02	NP
Manganese Total (ug/L)	106-SD (bg)	0	1	171	No	36	0	n/a	n/a	0.02	NP
Manganese Total (ug/L)	**111-SD (bg)**	**-0.8487**	**-448**	**-171**	**Yes**	**36**	**44.44**	**n/a**	**n/a**	**0.02**	**NP**
Mercury Total (ug/L)	100-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	104-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	106-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	111-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Nickel Total (ug/L)	100-SD (bg)	0	-97	-171	No	36	100	n/a	n/a	0.02	NP
Nickel Total (ug/L)	104-SD (bg)	0	72	171	No	36	83.33	n/a	n/a	0.02	NP
Nickel Total (ug/L)	106-SD (bg)	0	-127	-171	No	36	100	n/a	n/a	0.02	NP
Nickel Total (ug/L)	111-SD (bg)	0	-127	-171	No	36	100	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	100-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	104-SD (bg)	0	0	171	No	36	94.44	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	106-SD (bg)	0	-63	-171	No	36	97.22	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	111-SD (bg)	0	35	171	No	36	88.89	n/a	n/a	0.02	NP
pH [Field] (su)	100-SD (bg)	-0.0226	-117	-171	No	36	0	n/a	n/a	0.02	NP
pH [Field] (su)	**104-SD (bg)**	**-0.04284**	**-217**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
pH [Field] (su)	**106-SD (bg)**	**-0.02396**	**-223**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
pH [Field] (su)	111-SD (bg)	-0.02523	-144	-171	No	36	0	n/a	n/a	0.02	NP
Phosphorus Total (mg/L)	**100-SD (bg)**	**-0.002275**	**-323**	**-171**	**Yes**	**36**	**61.11**	**n/a**	**n/a**	**0.02**	**NP**
Phosphorus Total (mg/L)	104-SD (bg)	0	11	171	No	36	50	n/a	n/a	0.02	NP
Phosphorus Total (mg/L)	106-SD (bg)	0.0007375	48	171	No	36	16.67	n/a	n/a	0.02	NP
Phosphorus Total (mg/L)	111-SD (bg)	0	-13	-171	No	36	69.44	n/a	n/a	0.02	NP
Selenium Total (ug/L)	100-SD (bg)	0	35	171	No	36	100	n/a	n/a	0.02	NP
Selenium Total (ug/L)	104-SD (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Selenium Total (ug/L)	106-SD (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Selenium Total (ug/L)	111-SD (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/20/2014, 10:15 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Silver Total (ug/L)	100-SD (bg)	0	-29	-158	No	34	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	104-SD (bg)	0	-61	-158	No	34	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	106-SD (bg)	0	-94	-166	No	35	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	111-SD (bg)	0	-94	-166	No	35	100	n/a	n/a	0.02	NP
Sodium Total (ug/L)	**100-SD (bg)**	**-241.1**	**-411**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	**104-SD (bg)**	**2454**	**471**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	**106-SD (bg)**	**-1683**	**-440**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	111-SD (bg)	0	-57	-171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	100-SD (bg)	-1.202	-71	-171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	**104-SD (bg)**	**18.93**	**217**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Specific Conductance [Field] (umhos/cm)	**106-SD (bg)**	**-8.286**	**-278**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Specific Conductance [Field] (umhos/cm)	**111-SD (bg)**	**-6.227**	**-233**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate as SO4 (mg/L)	100-SD (bg)	0	38	171	No	36	0	n/a	n/a	0.02	NP
Sulfate as SO4 (mg/L)	104-SD (bg)	-0.2523	-32	-171	No	36	0	n/a	n/a	0.02	NP
Sulfate as SO4 (mg/L)	**106-SD (bg)**	**-3.761**	**-441**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate as SO4 (mg/L)	**111-SD (bg)**	**-0.7484**	**-459**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**100-SD (bg)**	**0**	**-259**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**104-SD (bg)**	**0**	**-270**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**106-SD (bg)**	**0**	**-270**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**111-SD (bg)**	**0**	**-270**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**100-SD (bg)**	**-2.356**	**-206**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**104-SD (bg)**	**11.22**	**240**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**106-SD (bg)**	**-9.393**	**-325**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**111-SD (bg)**	**-3.616**	**-252**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Organic Carbon [TOC] (mg/L)	100-SD (bg)	0	-62	-171	No	36	30.56	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	**104-SD (bg)**	**0.1049**	**311**	**171**	**Yes**	**36**	**55.56**	**n/a**	**n/a**	**0.02**	**NP**
Total Organic Carbon [TOC] (mg/L)	106-SD (bg)	0.02135	128	171	No	36	38.89	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	111-SD (bg)	0.01895	153	171	No	36	41.67	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	100-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	104-SD (bg)	0	63	171	No	36	94.44	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	106-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	111-SD (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Zinc Total (ug/L)	**100-SD (bg)**	**0**	**-194**	**-171**	**Yes**	**36**	**80.56**	**n/a**	**n/a**	**0.02**	**NP**
Zinc Total (ug/L)	104-SD (bg)	0	-79	-171	No	36	75	n/a	n/a	0.02	NP
Zinc Total (ug/L)	106-SD (bg)	0	-130	-171	No	36	77.78	n/a	n/a	0.02	NP
Zinc Total (ug/L)	111-SD (bg)	0	-138	-171	No	36	80.56	n/a	n/a	0.02	NP

LCS Number	Date Reading Collected	Measured Liquid Level Above Transducer (Ft.)	Transducer Height above Floor of Quarry (Ft.)	Base of Sump Elevation (Ft. MSL)	Height of Liquid (feet)	Elevation of Leachate (Ft. MSL)	Compliance Level (Ft. Above Quarry Floor)	Pump on during measurement? (Y/N)	Technician initials	Liquid level meter used	Comments
LCS- 1D	9/19/14	45.0	97.0	252.22	142.0	394.22	30.00	Y	D. Bouchard	Dedicated Transducer	

LCS Number	Date Reading Collected	Measured Liquid Level Above Transducer (Ft.)	Transducer Height above Floor of Quarry (Ft.)	Base of Sump Elevation (Ft. MSL)	Height of Liquid (Ft.)	Elevation of Leachate (Ft. MSL)	Compliance Level (Ft. Above Quarry Floor)	Pump on during measurement? (Y/N)	Technician initials	Liquid level meter used	Comments
LCS- 2D	9/19/14	13.9	14.4	235.92	26.3	264.22	30.00	Y	D.Bouchard	Dedicated Transducer	

LCS Number	Date Reading Collected	Measured Liquid Level in Well (Ft.)	Well Total Depth from Top of Casing (Ft.)	Pump on during measurement? (Y/N)	Technician initials	Liquid level meter used	Comments
LCS- 3D	9/19/14		140	Y	D. Bouchard	Dedicated Transducer	Transducer Melted, seeking replacement

LCS Number	Date Reading Collected	Measured Liquid Level Above Transducer (Ft.)	Transducer Height above Floor of Quarry (Ft.)	Base of Sump Elevation (Ft. MSL)	Height of Liquid (Ft.)	Elevation of Leachate (Ft. MSL)	Compliance Level (Ft. Above Quarry Floor)	Pump on during measurement? (Y/N)	Technician initials	Liquid level meter used	Comments
LCS- 4B	9/19/14					0.00	30.00	N/A	D. Bouchard	N/A	Non-Operational

LCS Number	Date Reading Collected	Measured Liquid Level Above Transducer (Ft.)	Transducer Height above Floor of Quarry (Ft.)	Base of Sump Elevation (Ft. MSL)	Height of Liquid (Ft.)	Elevation of Leachate (Ft. MSL)	Compliance Level (Ft. Above Quarry Floor)	Pump on during measurement? (Y/N)	Technician initials	Liquid level meter used	Comments
LCS- 5A	9/19/14	10.1	15.0	235.4	25.1	260.50	50.00	Y	D. Bouchard	Dedicated Transducer	

LCS Number	Date Reading Collected	Measured Liquid Level Above Transducer (Ft.)	Transducer Height above Floor of Quarry (Ft.)	Base of Sump Elevation (Ft. MSL)	Height of Liquid (Ft.)	Elevation of Leachate (Ft. MSL)	Compliance Level (Ft. Above Quarry Floor)	Pump on during measurement? (Y/N)	Technician initials	Liquid level meter used	Comments
LCS- 6B	9/19/14	4.1	9.4	428.52	13.5	442.02	50.00	Y	D. Bouchard	Dedicated Transducer	

APPENDIX C
STATISTICAL EVALUATIONS
ALLUVIAL ZONE

TREND EVALUATION OF BACKGROUND DATA
ALLUVIAL ZONE

Background data were evaluated for increasing statistical trends (or either increasing or decreasing trends for field pH). In those cases where the background data were determined to exhibit a statistical trend, the most recent background data were excluded until the data no longer exhibited a statistical trend. For each of the constituent-well pairs listed below, the specified modified background data period was utilized in the determination of the intra-well prediction limit.

Alluvial Zone

- Arsenic at 114-AS (8/97 through 11/07)
- Iron at 114-AS (8/97 through 5/06)
- Phosphorus at 114-AS (8/97 through 11/05)

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/19/2014, 3:57 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Ammonia as N (mg/L)	114-AS (bg)	0.1211	163	171	No	36	2.778	n/a	n/a	0.02	NP
Antimony Total (ug/L)	114-AS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	**114-AS (bg)**	**8.555**	**351**	**171**	**Yes**	**36**	**2.778**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (ug/L)	114-AS (bg)	-7.678	-109	-171	No	36	0	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	114-AS (bg)	0	36	171	No	36	100	n/a	n/a	0.02	NP
Boron Total (ug/L)	114-AS (bg)	3.743	123	171	No	36	0	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	114-AS (bg)	0	-31	-171	No	36	91.67	n/a	n/a	0.02	NP
Calcium Total (ug/L)	**114-AS (bg)**	**-6083**	**-268**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chemical Oxygen Demand [COD] (mg/L)	114-AS (bg)	4.381	164	171	No	36	8.333	n/a	n/a	0.02	NP
Chloride (mg/L)	114-AS (bg)	1.742	37	171	No	36	0	n/a	n/a	0.02	NP
Chromium Total (ug/L)	114-AS (bg)	0	-26	-171	No	36	97.22	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	114-AS (bg)	-0.4781	-161	-171	No	36	30.56	n/a	n/a	0.02	NP
Copper Total (ug/L)	114-AS (bg)	0	-39	-171	No	36	86.11	n/a	n/a	0.02	NP
Fluoride (mg/L)	114-AS (bg)	0	-10	-158	No	34	17.65	n/a	n/a	0.02	NP
Hardness Total (mg/L)	**114-AS (bg)**	**-21.28**	**-254**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	**114-AS (bg)**	**3806**	**227**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Lead Total (ug/L)	114-AS (bg)	0	-28	-171	No	36	97.22	n/a	n/a	0.02	NP
Magnesium Total (ug/L)	**114-AS (bg)**	**-1707**	**-259**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Manganese Total (ug/L)	**114-AS (bg)**	**-193.6**	**-219**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Mercury Total (ug/L)	114-AS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Nickel Total (ug/L)	114-AS (bg)	0	42	171	No	36	58.33	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	114-AS (bg)	0	-76	-171	No	36	83.33	n/a	n/a	0.02	NP
pH [Field] (su)	114-AS (bg)	0.01287	123	171	No	36	0	n/a	n/a	0.02	NP
Phosphorus Total (mg/L)	**114-AS (bg)**	**0.09177**	**330**	**171**	**Yes**	**36**	**2.778**	**n/a**	**n/a**	**0.02**	**NP**
Selenium Total (ug/L)	114-AS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	114-AS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Sodium Total (ug/L)	114-AS (bg)	0	-3	-171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	114-AS (bg)	-27.59	-88	-171	No	36	0	n/a	n/a	0.02	NP
Sulfate as SO4 (mg/L)	**114-AS (bg)**	**-2.238**	**-368**	**-171**	**Yes**	**36**	**33.33**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**114-AS (bg)**	**-0.1072**	**-326**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids [TDS] (mg/L)	114-AS (bg)	-20.08	-166	-171	No	36	0	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	114-AS (bg)	0.2843	96	171	No	36	5.556	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	114-AS (bg)	0	-4	-171	No	36	97.22	n/a	n/a	0.02	NP
Zinc Total (ug/L)	114-AS (bg)	0	-119	-171	No	36	88.89	n/a	n/a	0.02	NP

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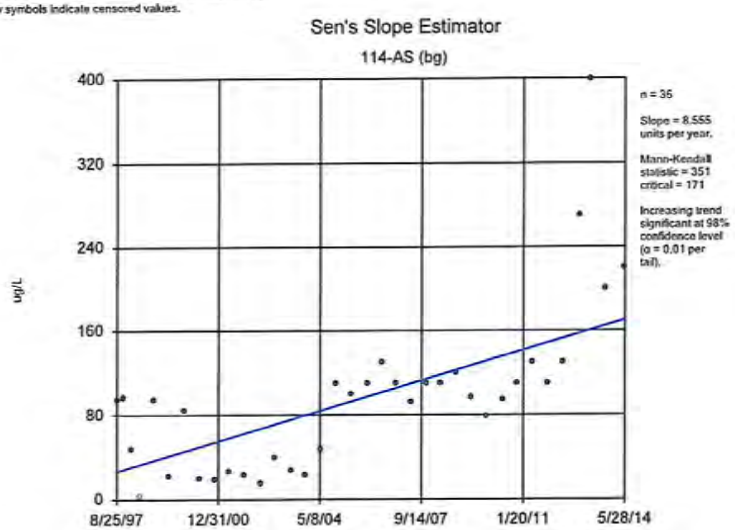
Hollow symbols indicate censored values.



Constituent: Arsenic Total Analysis Run 11/19/2014 3:55 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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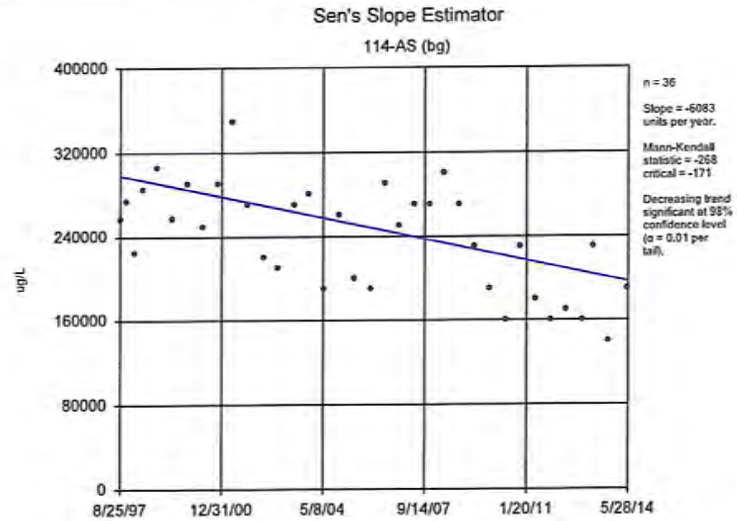

Constituent: Calcium Total Analysis Run 11/19/2014 3:55 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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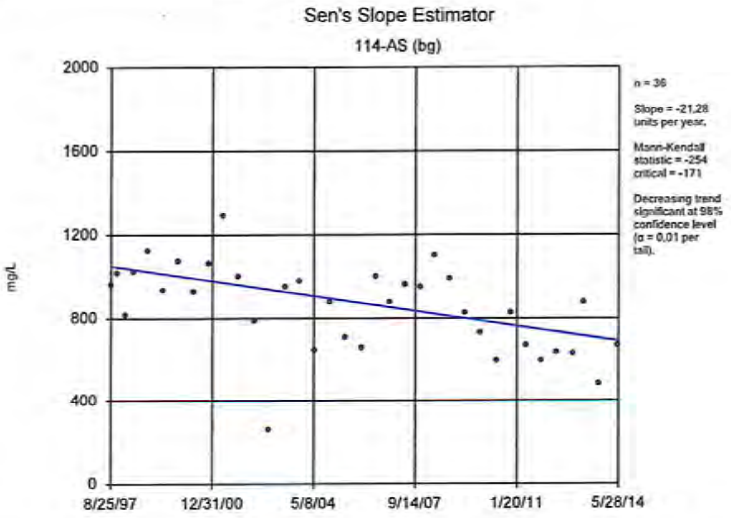

Constituent: Hardness Total Analysis Run 11/19/2014 3:55 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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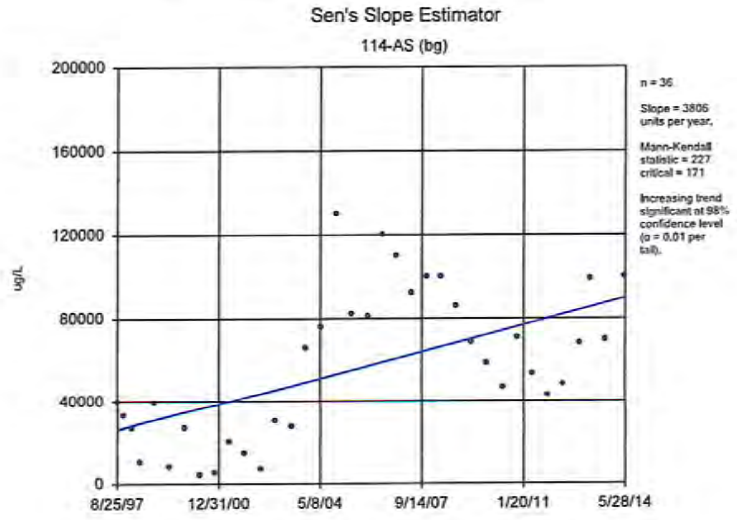

Constituent: Iron Total Analysis Run 11/19/2014 3:55 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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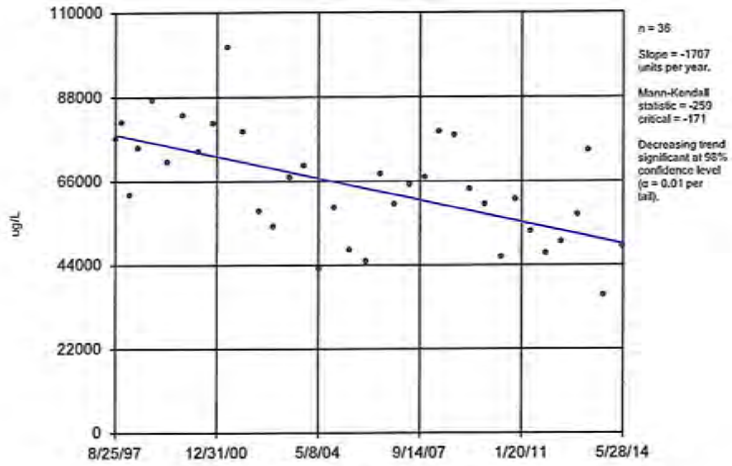
Sen's Slope Estimator

114-AS (bg)



Constituent: Magnesium Total Analysis Run 11/19/2014 3:55 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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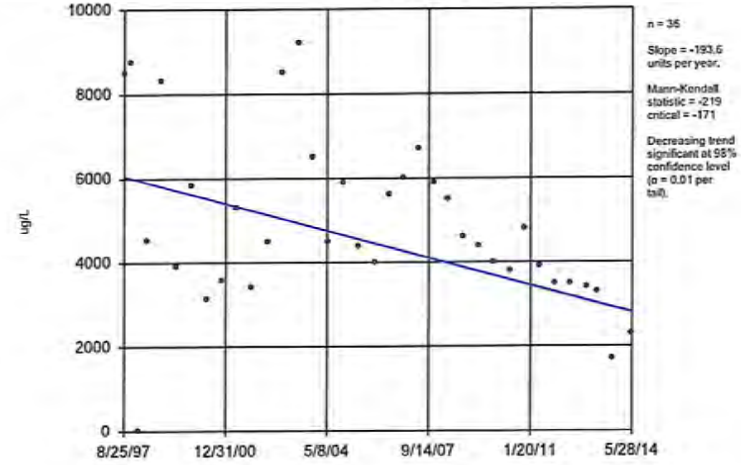
Sen's Slope Estimator

114-AS (bg)



Constituent: Manganese Total Analysis Run 11/19/2014 3:55 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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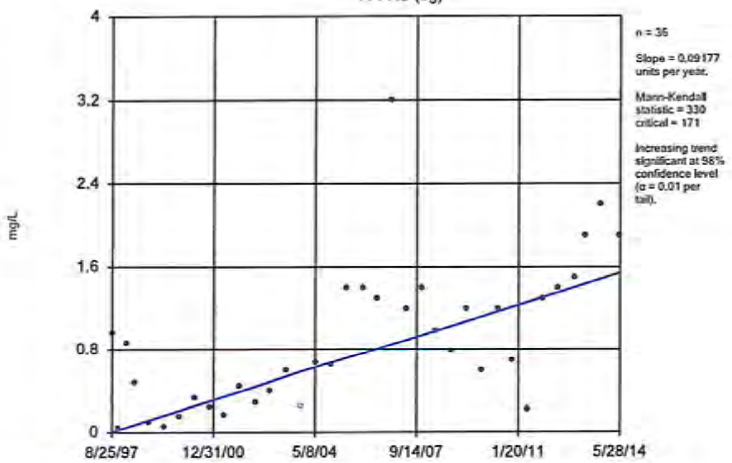
Sen's Slope Estimator

114-AS (bg)



Constituent: Phosphorus Total Analysis Run 11/19/2014 3:55 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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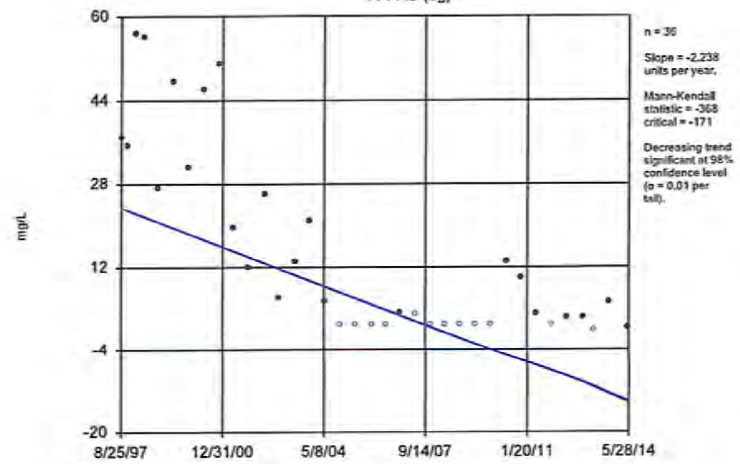
Sen's Slope Estimator

114-AS (bg)



Constituent: Sulfate as SO4 Analysis Run 11/19/2014 3:55 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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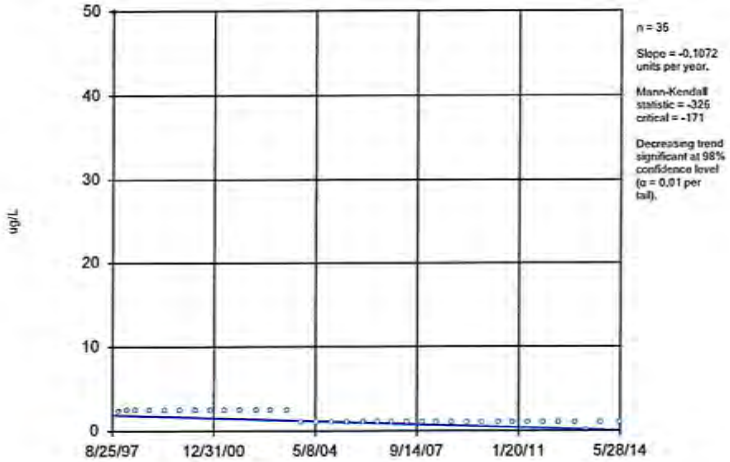
Sen's Slope Estimator

114-AS (bg)



n = 35

Slope = -0.1072 units per year.

Mann-Kendall statistic = -326
critical = -171

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Thallium Total Analysis Run 11/19/2014 3:55 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

INTRA-WELL PREDICTION LIMITS
ALLUVIAL ZONE

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/20/2014, 11:28 AM

Constituent	Well	Upper Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Ammonia as N (mg/L)	114-AS	14.69	4.7	No	36	1.215	0.588	2.778	None	x^(1/3)	0.0007744	Param Intra 1 of 2
Antimony Total (ug/L)	114-AS	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Barium Total (ug/L)	114-AS	1091	690	No	36	740.6	166.9	0	None	No	0.0007744	Param Intra 1 of 2
Beryllium Total (ug/L)	114-AS	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Boron Total (ug/L)	114-AS	660	160	No	36	n/a	n/a	0	n/a	n/a	0.00142	NP Intra (normality) 1 of 2
Cadmium Total (ug/L)	114-AS	5.94	0.1ND	No	36	n/a	n/a	91.67	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Calcium Total (ug/L)	114-AS	343367	180000	No	36	237778	50338	0	None	No	0.0007744	Param Intra 1 of 2
Chemical Oxygen Demand [COD] (mg/L)	114-AS	246.8	34	No	36	8.204	3.578	8.333	None	sqrt(x)	0.0007744	Param Intra 1 of 2
Chloride (mg/L)	114-AS	587	360	No	36	349	113.4	0	None	No	0.0007744	Param Intra 1 of 2
Chromium Total (ug/L)	114-AS	5.4	2.5ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Cobalt Total (ug/L)	114-AS	38.4	2.5ND	No	36	1.91	0.6981	30.56	Kaplan-Meier	x^(1/3)	0.0007744	Param Intra 1 of 2
Copper Total (ug/L)	114-AS	108	2.5ND	No	36	n/a	n/a	86.11	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	114-AS	0.4757	0.16	No	33	0.2697	0.09743	18.18	Kaplan-Meier	No	0.0007744	Param Intra 1 of 2
Hardness Total (mg/L)	114-AS	1282	630	No	36	848.3	206.6	0	None	No	0.0007744	Param Intra 1 of 2
Lead Total (ug/L)	114-AS	25	2.5ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Magnesium Total (ug/L)	114-AS	95092	45000	No	36	64708	14485	0	None	No	0.0007744	Param Intra 1 of 2
Manganese Total (ug/L)	114-AS	9145	2200	No	36	4879	2034	0	None	No	0.0007744	Param Intra 1 of 2
Mercury Total (ug/L)	114-AS	0.2	0.1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nickel Total (ug/L)	114-AS	84	5ND	No	36	n/a	n/a	58.33	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Nitrate/Nitrite (mg/L)	114-AS	5	0.39	No	36	n/a	n/a	83.33	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Selenium Total (ug/L)	114-AS	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Silver Total (ug/L)	114-AS	5	2.5ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Sodium Total (ug/L)	114-AS	312846	150000	No	36	190639	58261	0	None	No	0.0007744	Param Intra 1 of 2
Specific Conductance [Field] (umhos/cm)	114-AS	3493	2370	No	35	2327	554.4	0	None	No	0.0007744	Param Intra 1 of 2
Sulfate as SO4 (mg/L)	114-AS	477.8	1ND	No	36	0.9265	2.499	33.33	Kaplan-Meier	ln(x)	0.0007744	Param Intra 1 of 2
Thallium Total (ug/L)	114-AS	2	1ND	No	36	n/a	n/a	100	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	114-AS	1896	1300	No	36	1363	254.1	0	None	No	0.0007744	Param Intra 1 of 2
Total Organic Carbon [TOC] (mg/L)	**114-AS**	**36.47**	**62**	**Yes**	**36**	**3.408**	**1.254**	**5.556**	**None**	**sqrt(x)**	**0.0007744**	**Param Intra 1 of 2**
Vanadium Total (ug/L)	114-AS	12	5ND	No	36	n/a	n/a	97.22	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2
Zinc Total (ug/L)	114-AS	48	10ND	No	36	n/a	n/a	88.89	n/a	n/a	0.00142	NP Intra (NDs) 1 of 2

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/20/2014, 11:29 AM

Constituent	Well	Upper Lim.	Lower Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH [Field] (su)	114-AS	7.239	5.949	6.68	No	36	6.594	0.3077	0	None	No	0.0003872	Param Intra 1 of 2

Prediction Limit

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/20/2014, 2:04 PM

Constituent	Well	Upper Lim.	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic Total (ug/L)	**114-AS**	**190.9**	**210**	**Yes**	**23**	**7.394**	**2.888**	**4.348**	**None**	**sqrt(x)**	**0.0007744**	**Param Intra 1 of 2**
Iron Total (ug/L)	114-AS	151800	98000	No	20	186.6	89.3	0	None	sqrt(x)	0.0007744	Param Intra 1 of 2
Phosphorus Total (mg/L)	**114-AS**	**1.728**	**1.9**	**Yes**	**19**	**0.6448**	**0.2909**	**5.263**	**None**	**sqrt(x)**	**0.0007744**	**Param Intra 1 of 2**

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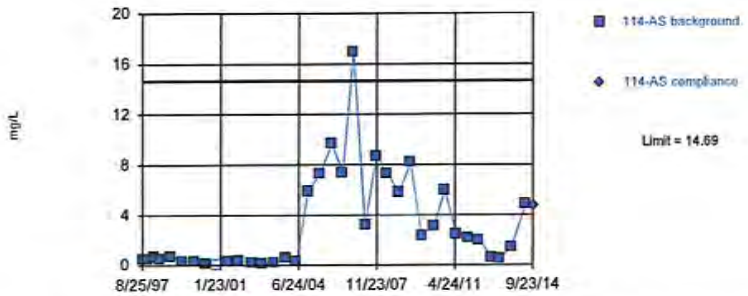
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on cube root transformation): Mean=1.215, Std. Dev.=0.588, n=36, 2.778% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9126, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Ammonia as N Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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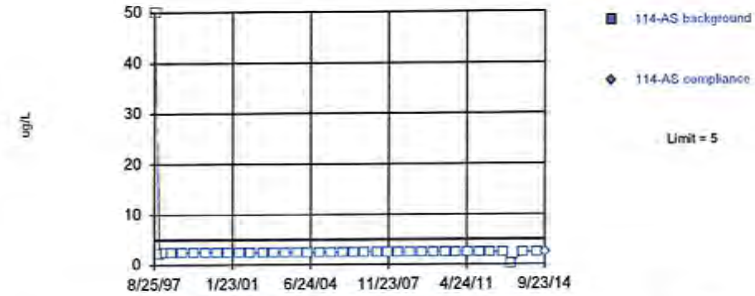
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Antimony Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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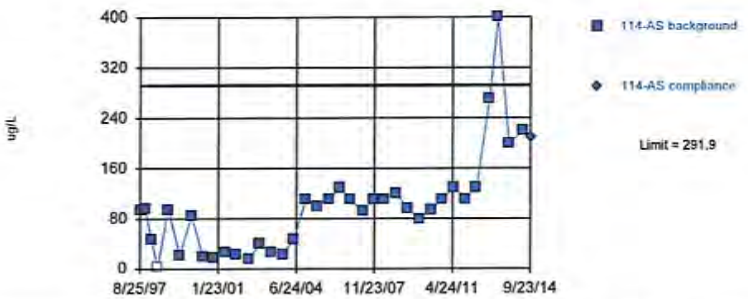
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Parametric

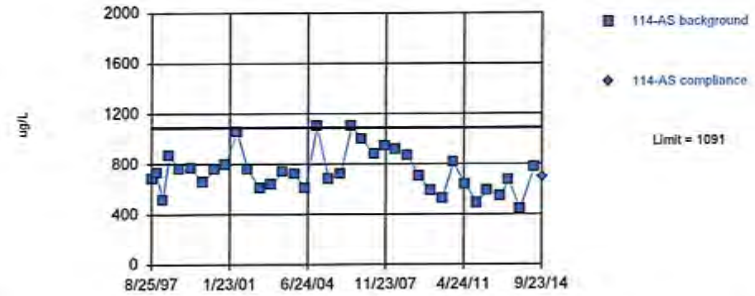


Background Data Summary (based on square root transformation): Mean=9.141, Std. Dev.=3.787, n=36, 2.778% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9358, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Arsenic Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=740.6, Std. Dev.=166.9, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9612, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Barium Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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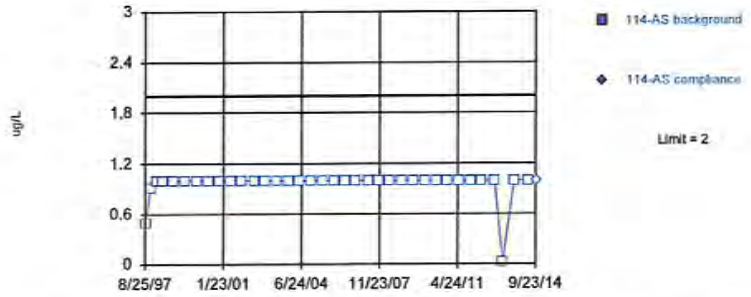
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Beryllium Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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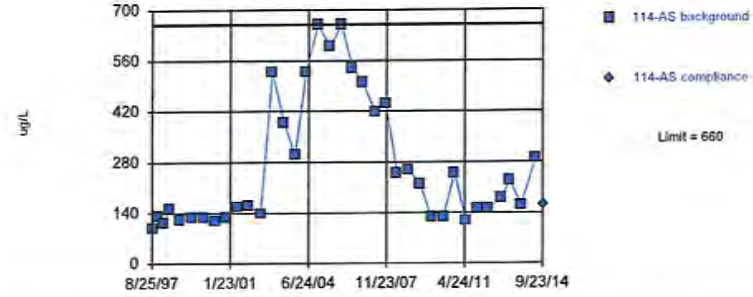
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 36 background values. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Boron Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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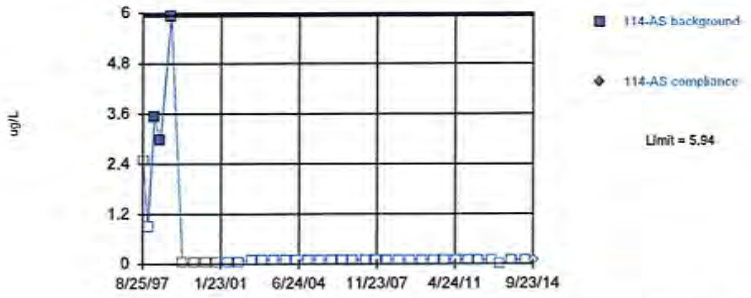
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



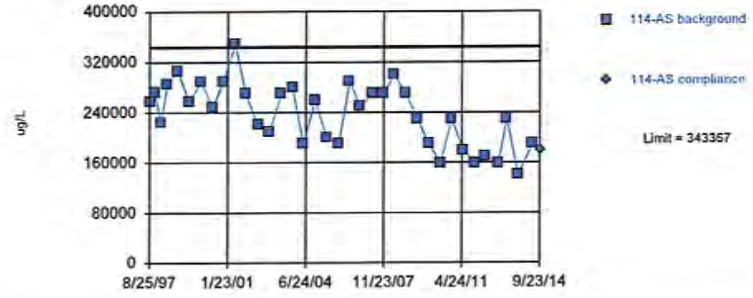
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 91.67% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cadmium Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=237778, Std. Dev.=50338, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9601, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Calcium Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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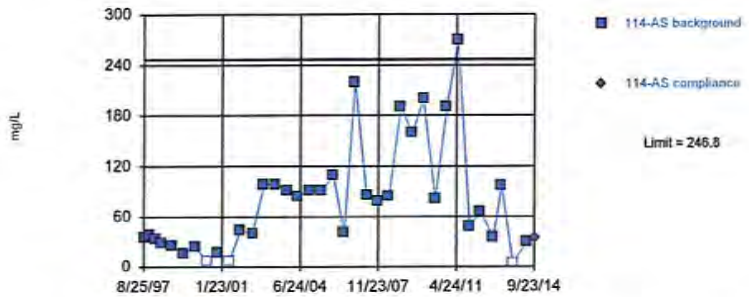
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=8.204, Std. Dev.=3.578, n=36, 8.333% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9528, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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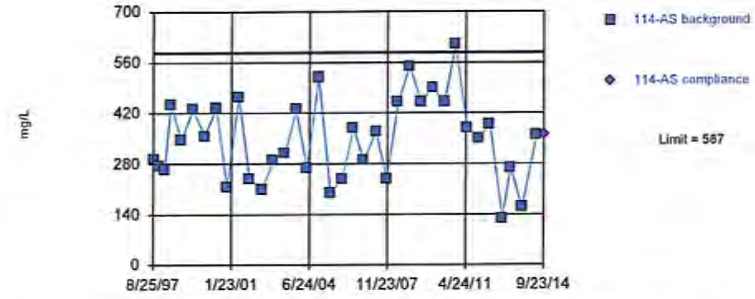
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=349, Std. Dev.=113.4, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9795, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Chloride Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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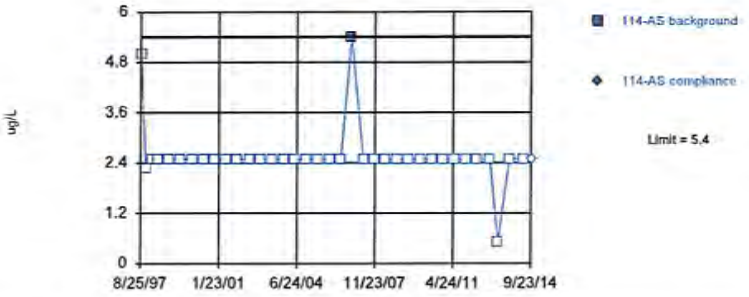
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Non-parametric

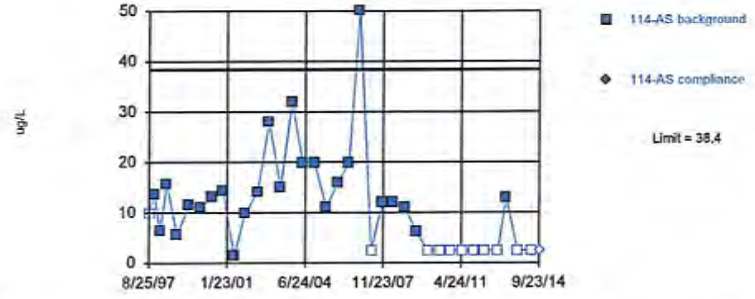


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Chromium Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=1.91, Std. Dev.=0.6981, n=36, 30.56% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9142, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Cobalt Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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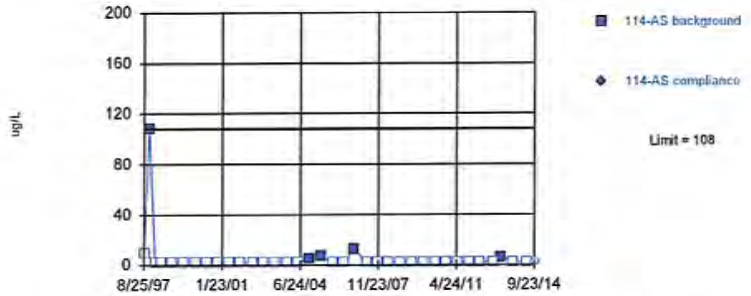
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



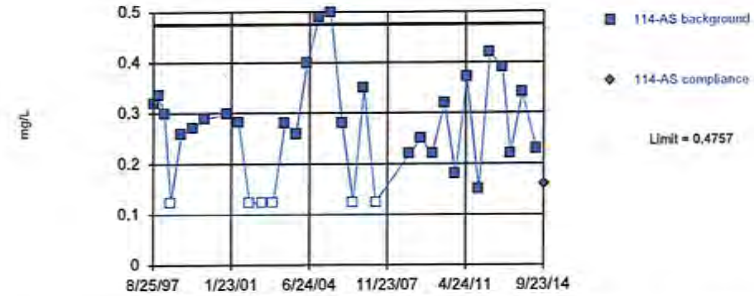
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 86.11% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Copper Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



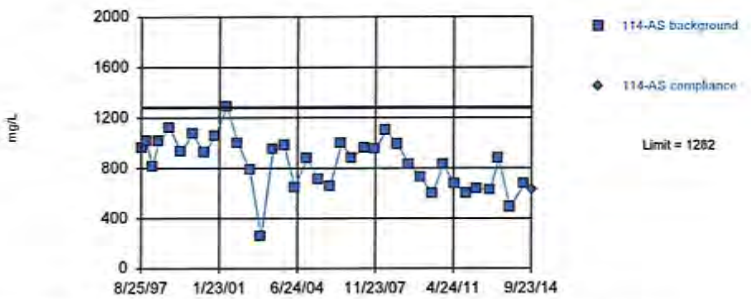
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.2697, Std. Dev.=0.09743, n=33, 18.18% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9445, critical = 0.906. Kappa = 2.115 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 1.23 (5/23/2000).

Constituent: Fluoride Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Within Limit

Prediction Limit

Intrawell Parametric



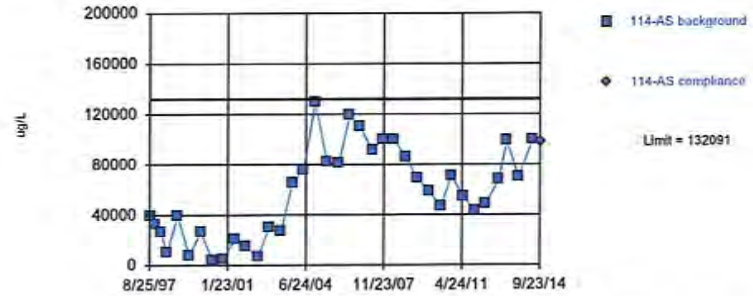
Background Data Summary: Mean=848.3, Std. Dev.=206.6, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9668, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Hardness Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=57348, Std. Dev.=35632, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9517, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Iron Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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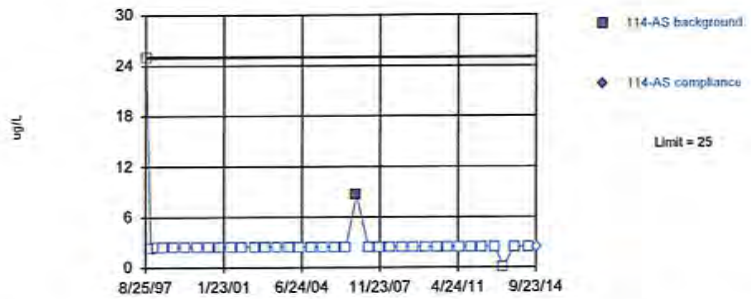
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



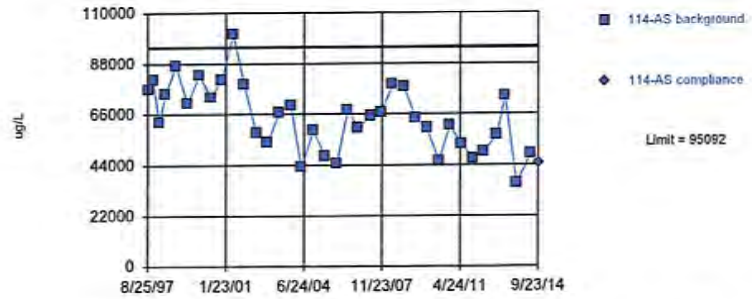
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Lead Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Within Limit

Prediction Limit

Intrawell Parametric



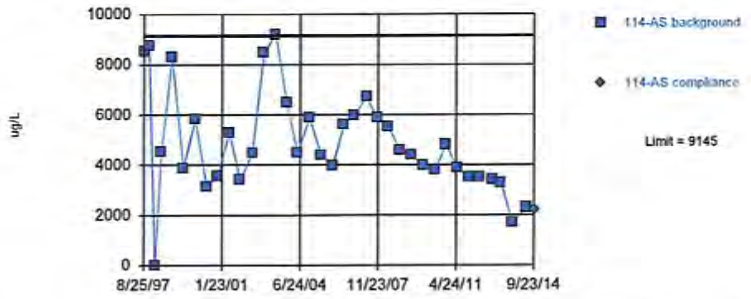
Background Data Summary: Mean=64708, Std. Dev.=14485, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9844, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Magnesium Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4879, Std. Dev.=2034, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9478, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Manganese Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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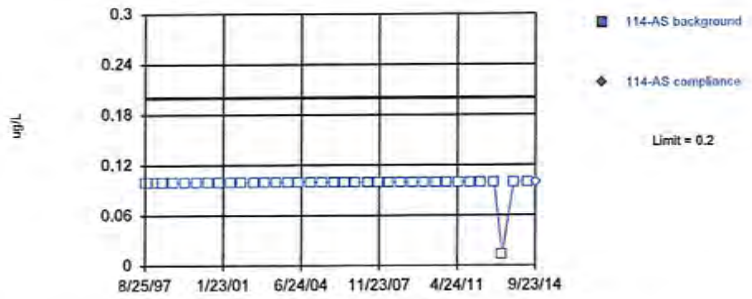
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

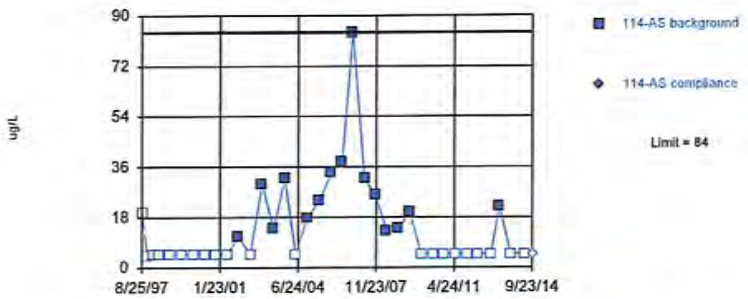
Constituent: Mercury Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 58.33% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

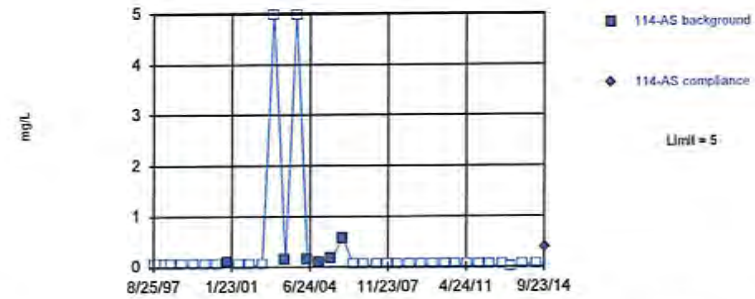
Constituent: Nickel Total Analysis Run 11/20/2014 10:52 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Nitrate/Nitrite Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Within Limits

Prediction Limit

Intrawell Parametric

Background Data Summary: Mean=6.594, Std. Dev.=0.3077, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9283, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

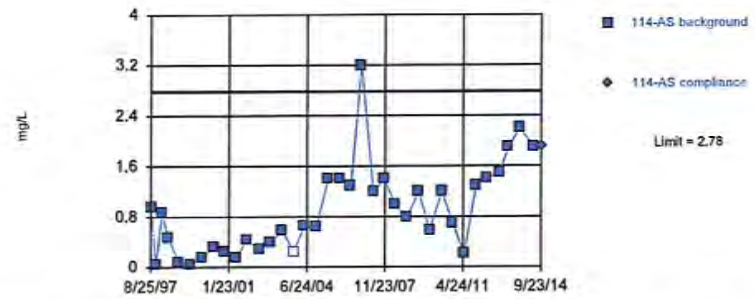
Constituent: pH [Field] Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



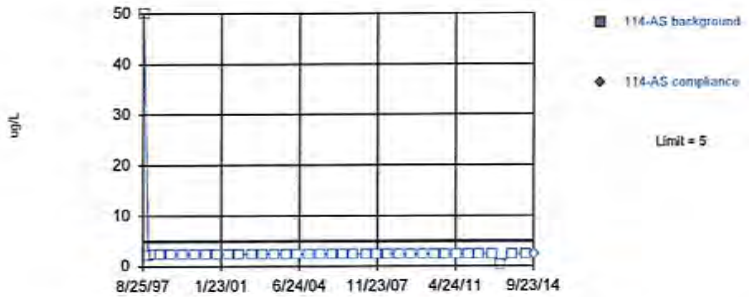
Background Data Summary (based on square root transformation): Mean=0.872, Std. Dev.=0.3792, n=36, 2.778% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9732, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Phosphorus Total Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



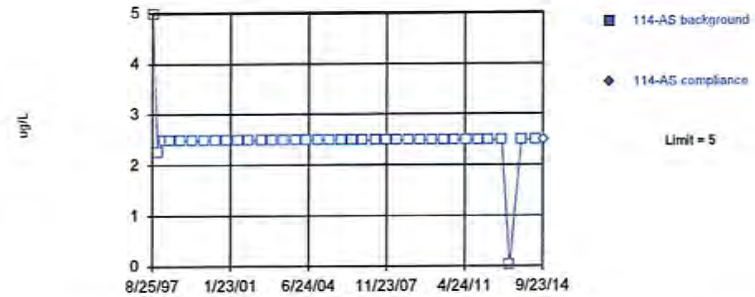
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Selenium Total Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



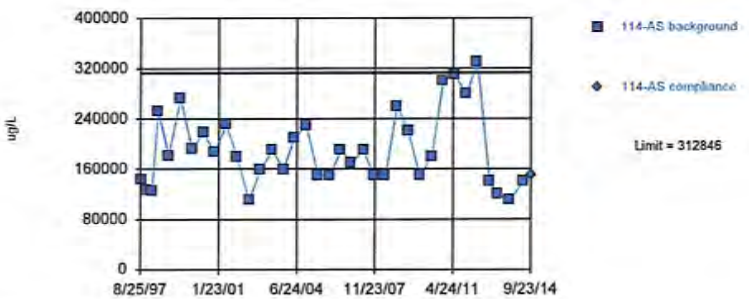
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Silver Total Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Within Limit

Prediction Limit

Intrawell Parametric



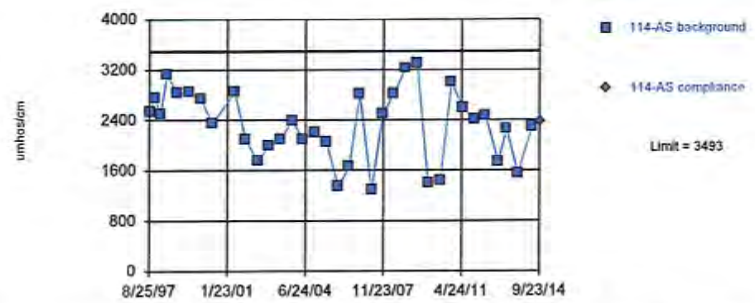
Background Data Summary: Mean=190639, Std. Dev.=58261, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9272, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Sodium Total Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2327, Std. Dev.=554.4, n=35. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9597, critical = 0.91. Kappa = 2.103 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. Rosner's Outlier Test was performed on the background data. One background outlier was removed: 280 (11/13/2000).

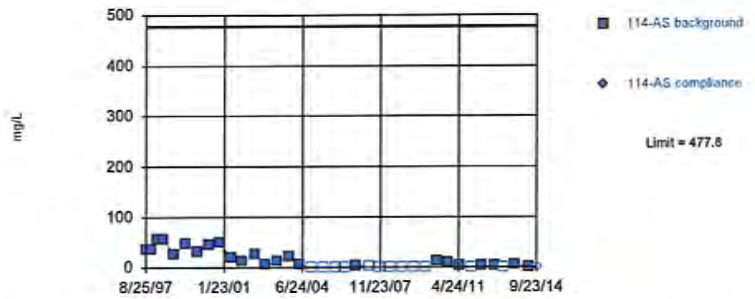
Constituent: Specific Conductance [Field] Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=0.9265, Std. Dev.=2.499, n=36, 33.33% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9129, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. After outlier removal distribution was non-normal, so outlier results were invalidated.

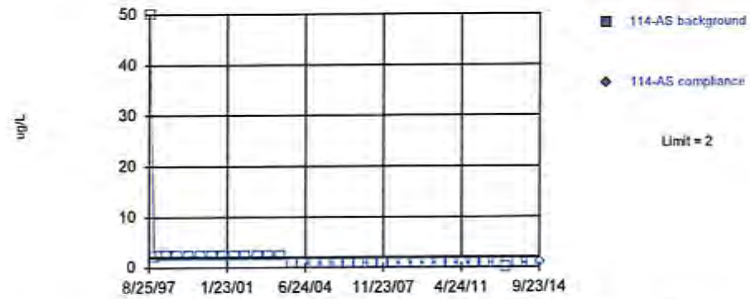
Constituent: Sulfate as SO4 Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 36) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

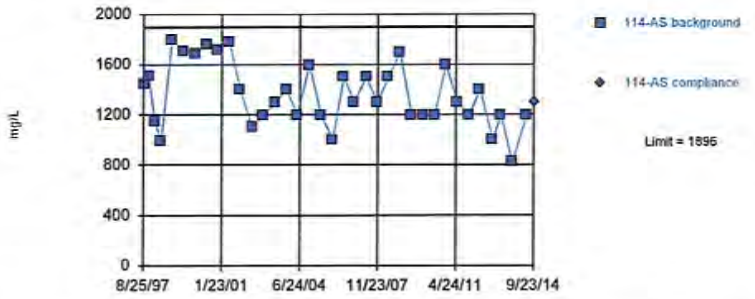
Constituent: Thallium Total Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1363, Std. Dev.=254.1, n=36. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9501, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric

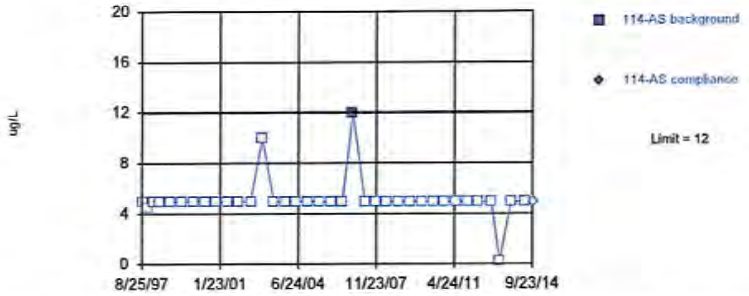
Background Data Summary (based on square root transformation): Mean=3.408, Std. Dev.=1.254, n=36, 5.556% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9656, critical = 0.912. Kappa = 2.098 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. Rosner's Outlier Test was performed on the background data. No background outliers were found.

Constituent: Total Organic Carbon [TOC] Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.49 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



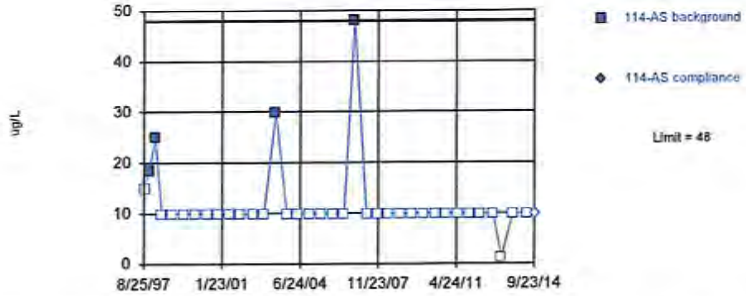
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 97.22% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Vanadium Total Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.49 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 36 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.005668. Individual comparison alpha = 0.00142 (1 of 2). After outlier removal distribution was non-normal, so outlier results were invalidated.

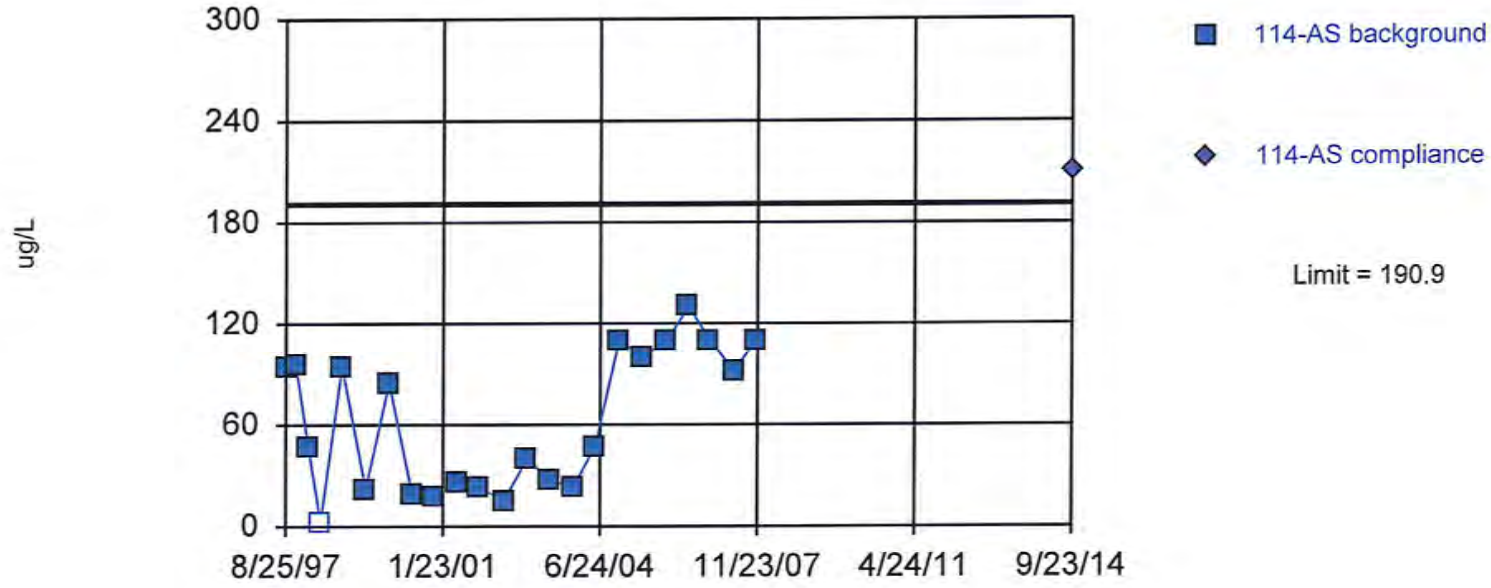
Constituent: Zinc Total Analysis Run 11/20/2014 10:53 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=7.394, Std. Dev.=2.888, n=23, 4.348% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8921, critical = 0.881. Kappa = 2.224 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. After outlier removal distribution was non-normal, so outlier results were invalidated.

Constituent: Arsenic Total Analysis Run 11/20/2014 11:06 AM View: 1

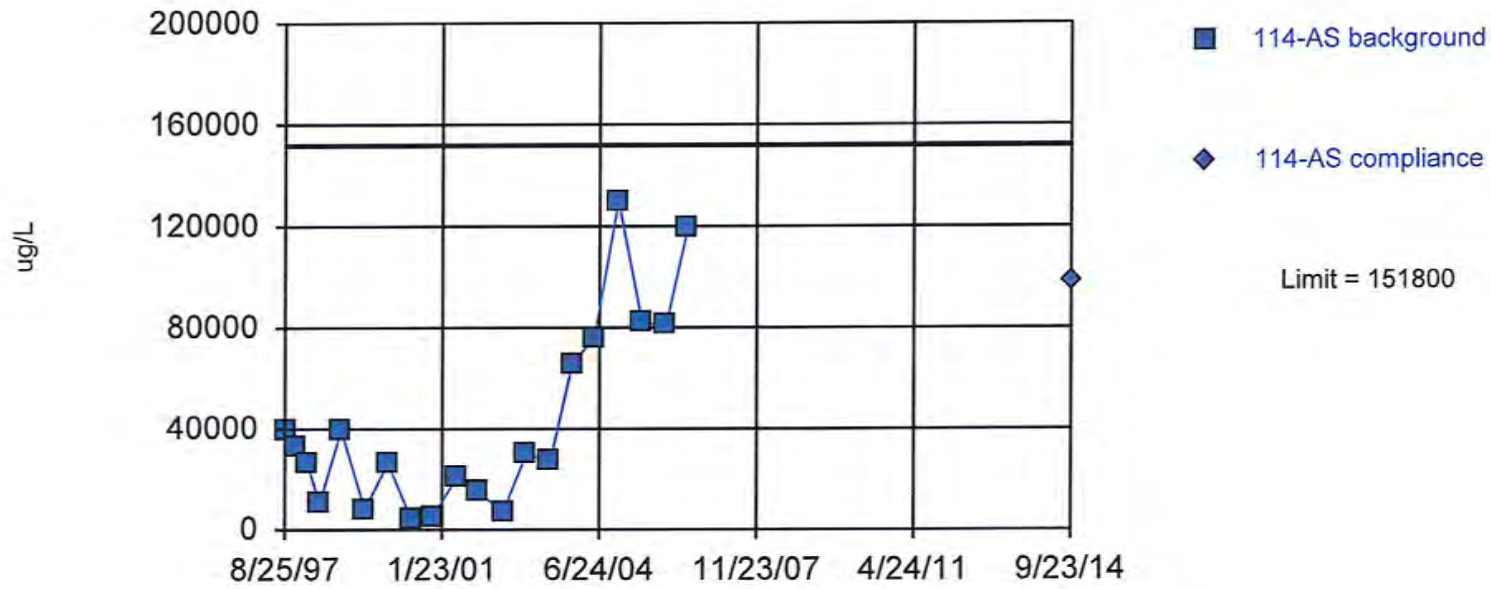
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=186.6, Std. Dev.=89.3, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9386, critical = 0.868. Kappa = 2.274 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Iron Total Analysis Run 11/20/2014 11:12 AM View: 1

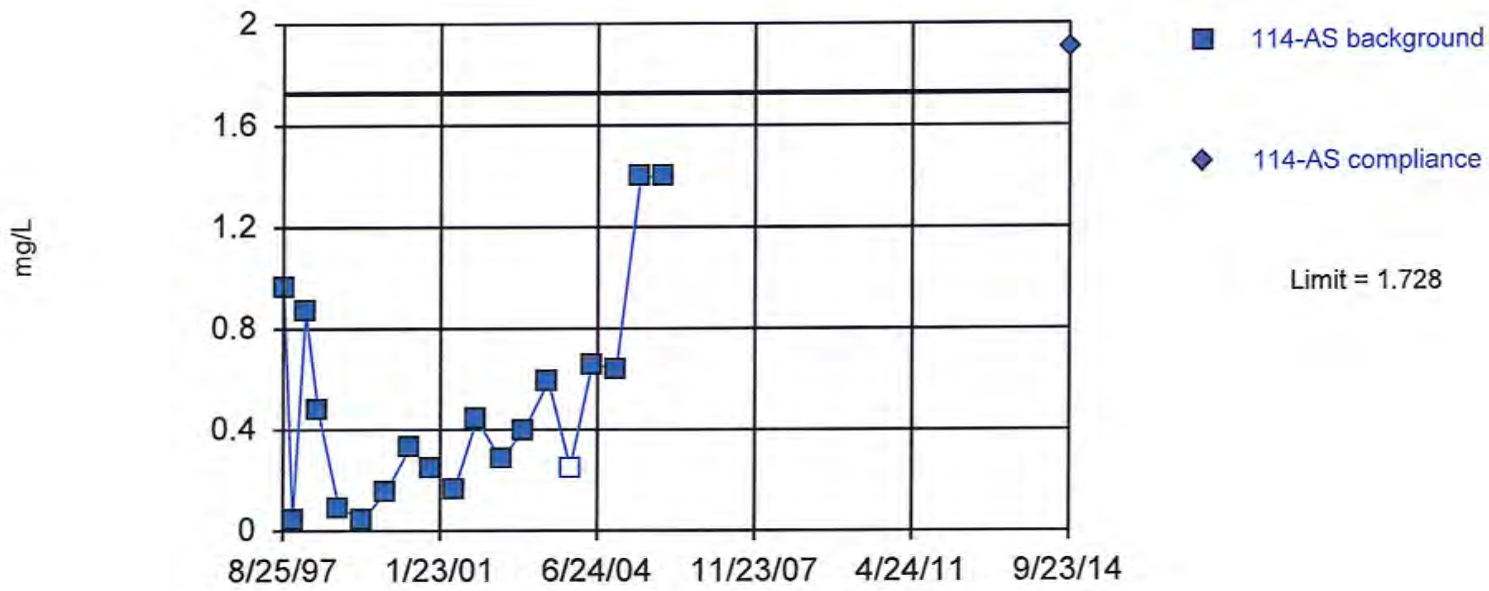
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.6448, Std. Dev.=0.2909, n=19, 5.263% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9616, critical = 0.901. Kappa = 2.302 (c=34, w=1, 1 of 2, event alpha = 0.026). Report alpha = 0.0007744. The EPA 1989 Outlier Test was performed on the background data. No background outliers were found.

Constituent: Phosphorus Total Analysis Run 11/20/2014 11:13 AM View: 1

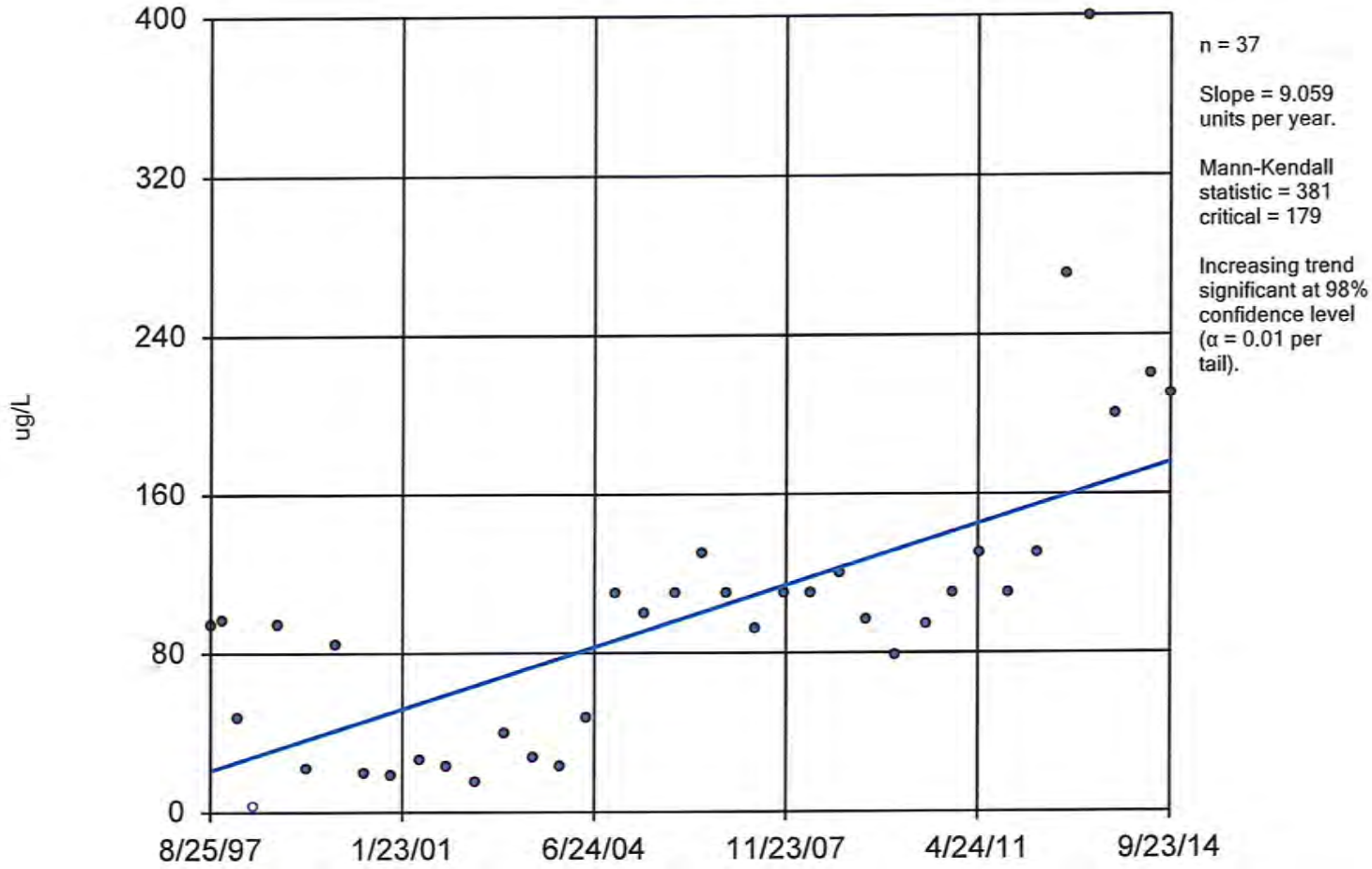
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

TREND EVALUATION OF EXCEEDING CONSTITUENTS
ALLUVIAL ZONE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

114-AS (bg)



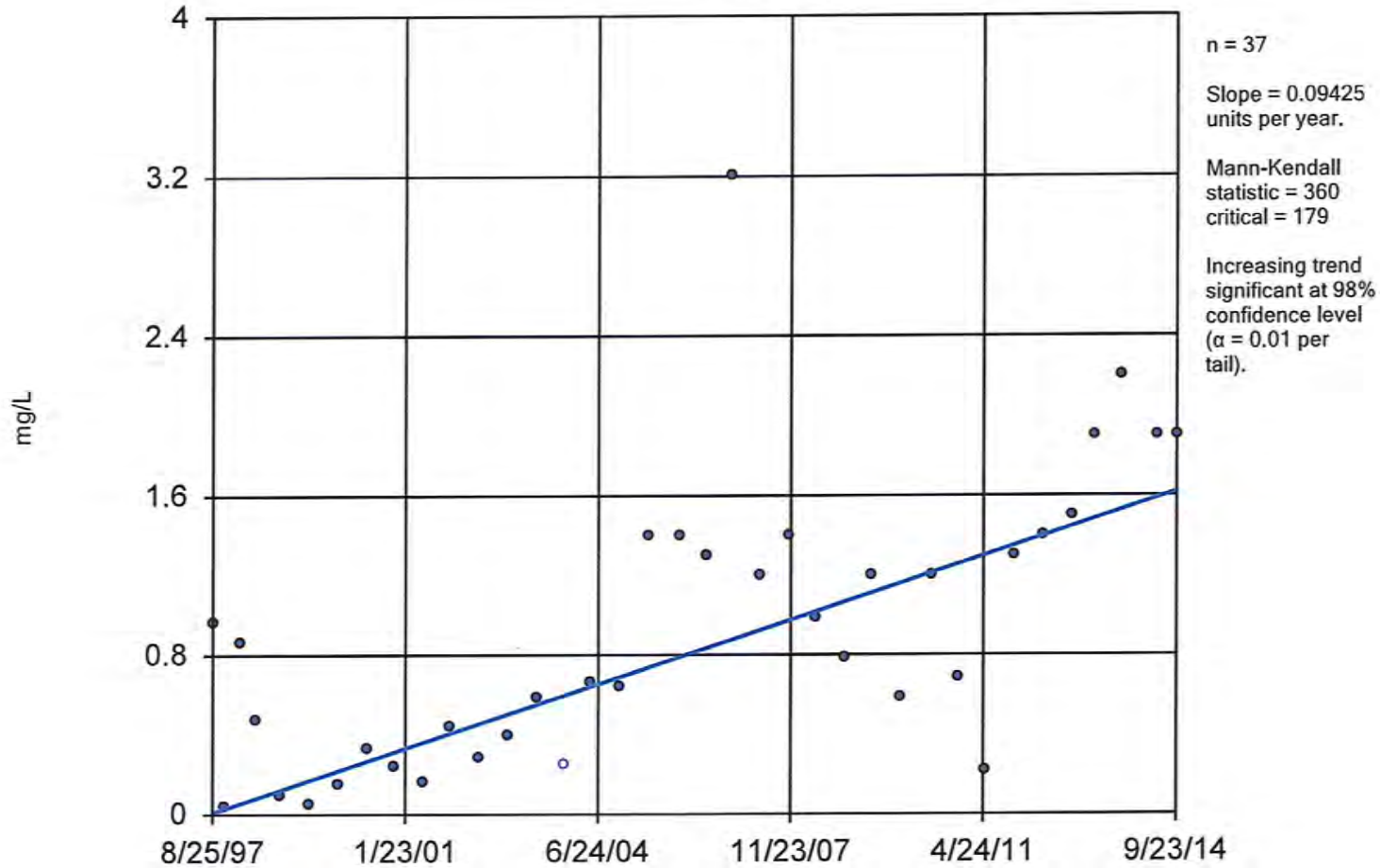
Constituent: Arsenic Total Analysis Run 11/24/2014 1:30 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

114-AS (bg)



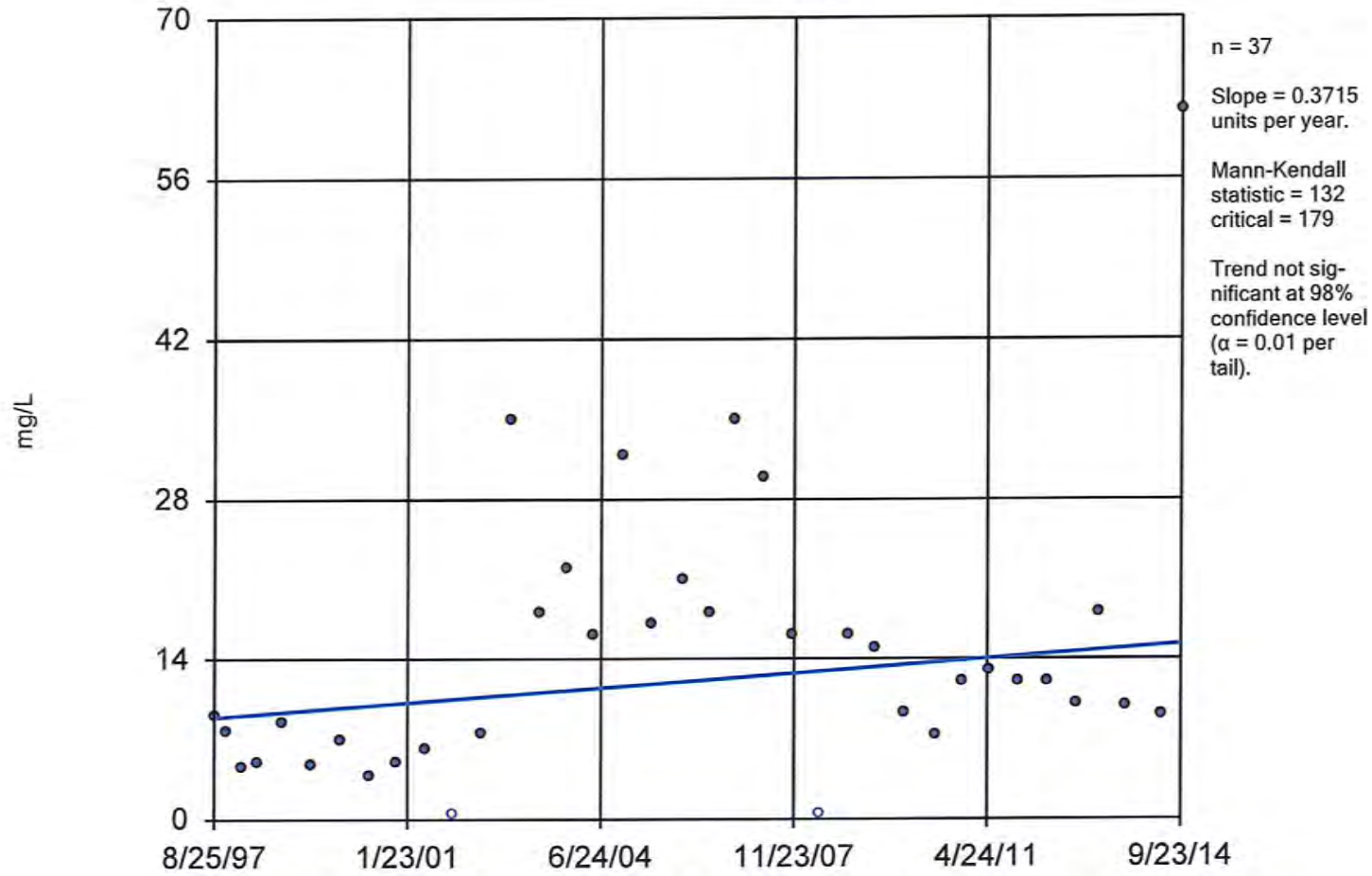
Constituent: Phosphorus Total Analysis Run 11/24/2014 1:31 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

114-AS (bg)



n = 37

Slope = 0.3715 units per year.

Mann-Kendall statistic = 132
critical = 179

Trend not significant at 98% confidence level (α = 0.01 per tail).

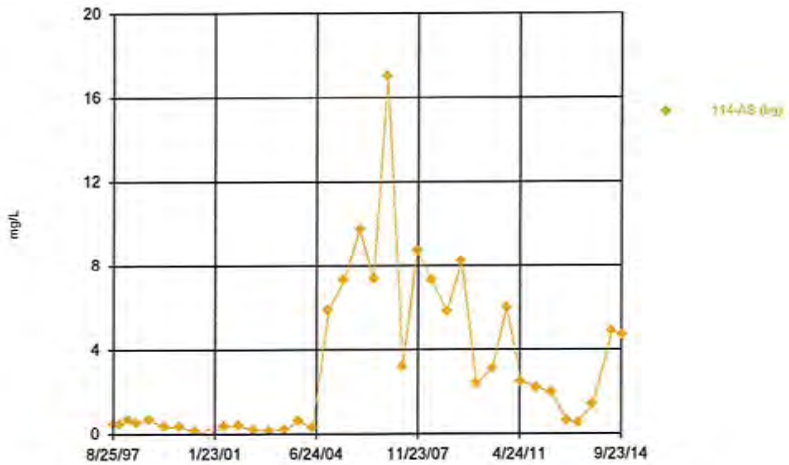
Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 1:31 PM View: 1

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

TIME SERIES TREND ANALYSIS
ALLUVIAL ZONE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

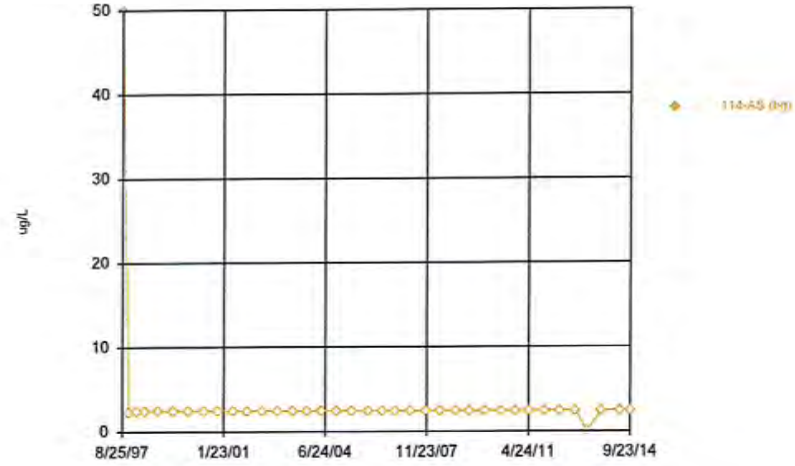
Time Series



Constituent: Ammonia as N Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

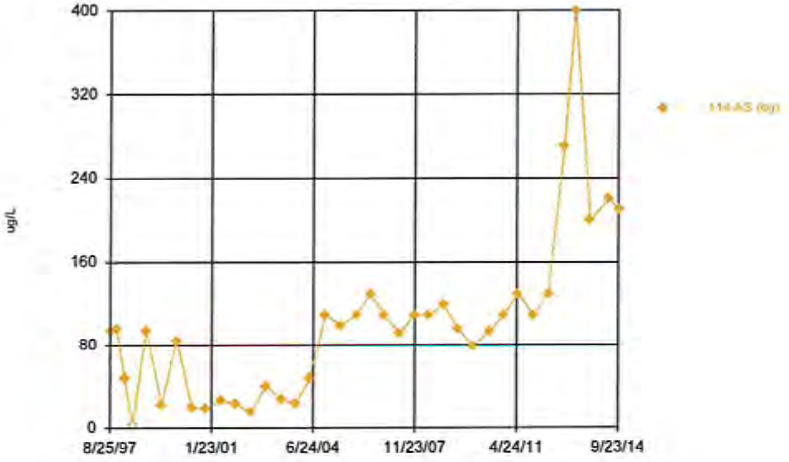
Time Series



Constituent: Antimony Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

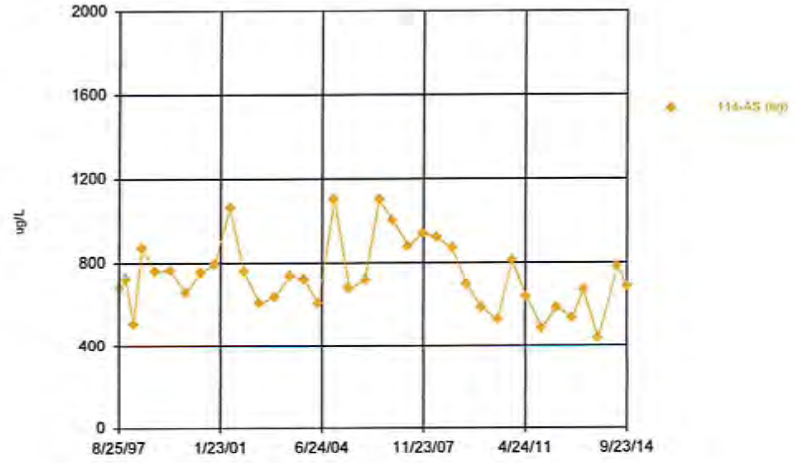
Time Series



Constituent: Arsenic Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

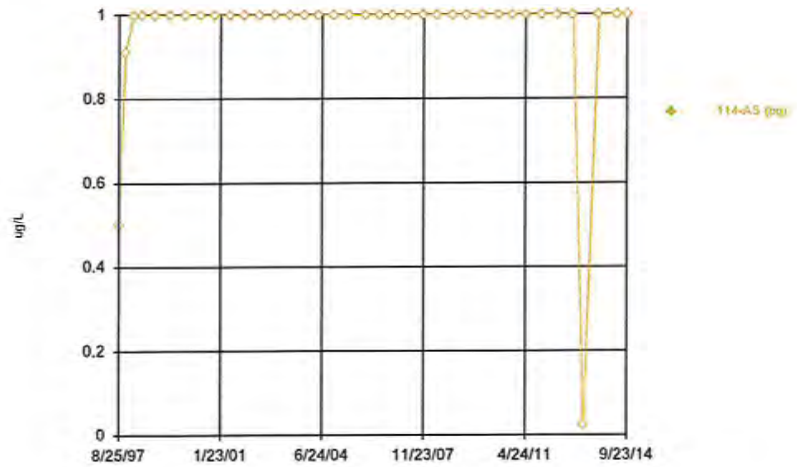
Time Series



Constituent: Barium Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

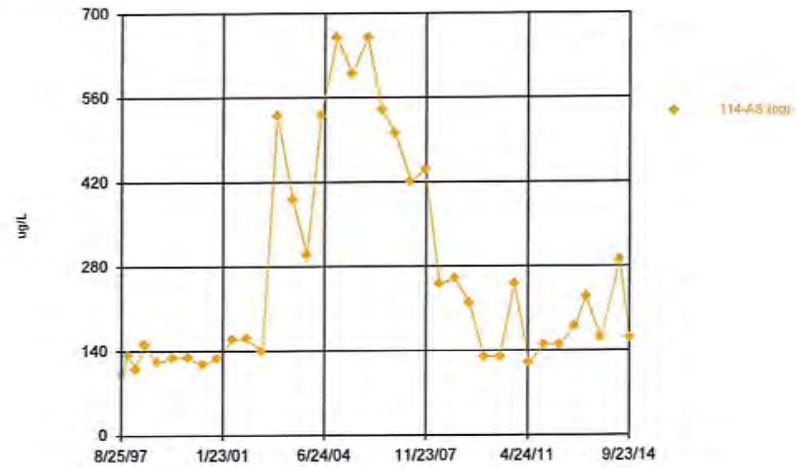
Time Series



Constituent: Beryllium Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

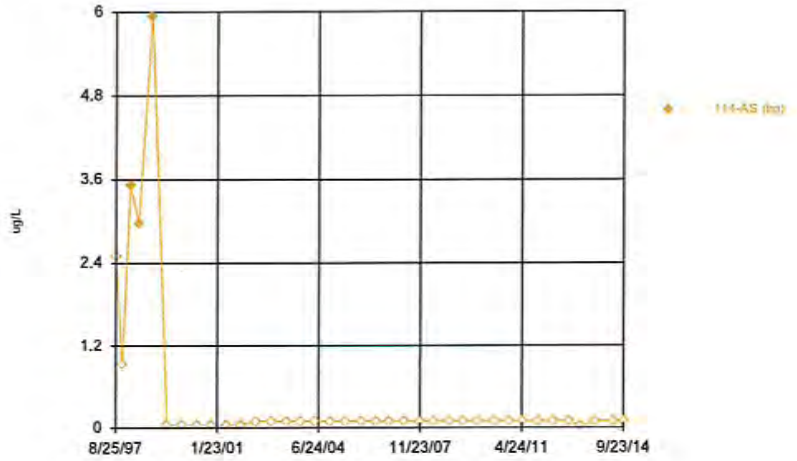
Time Series



Constituent: Boron Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

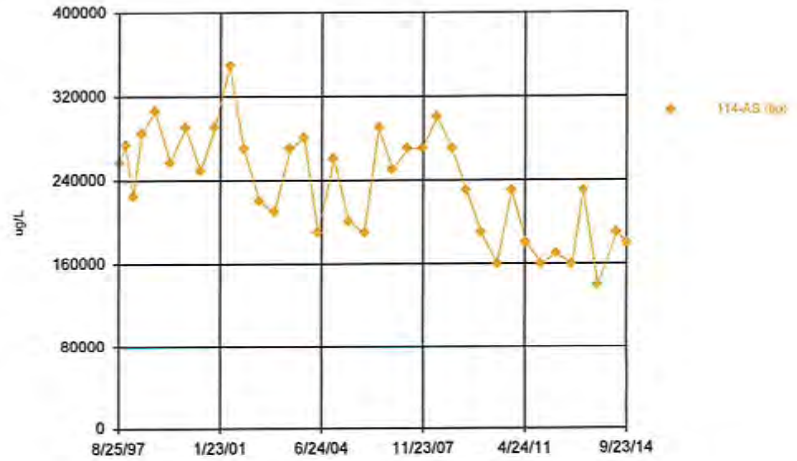
Time Series



Constituent: Cadmium Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

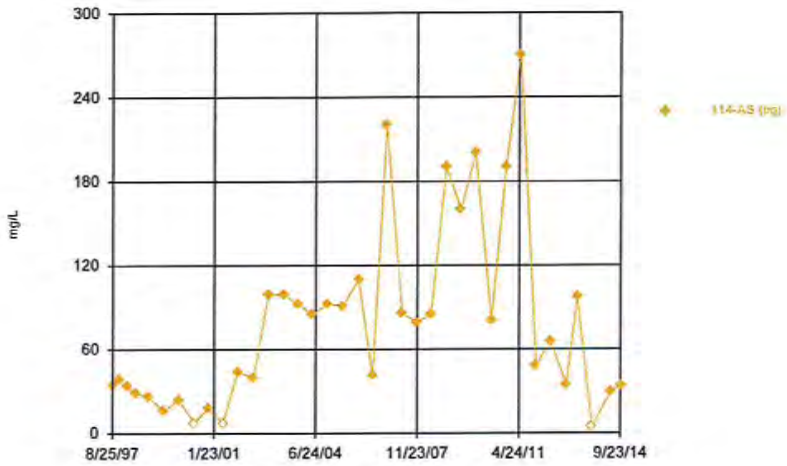
Time Series



Constituent: Calcium Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hurst Associates, UG
Hollow symbols indicate censored values.

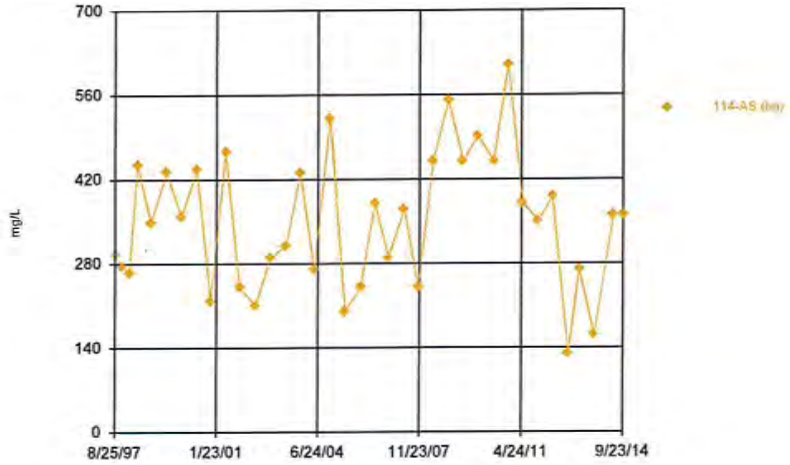
Time Series



Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hurst Associates, UG

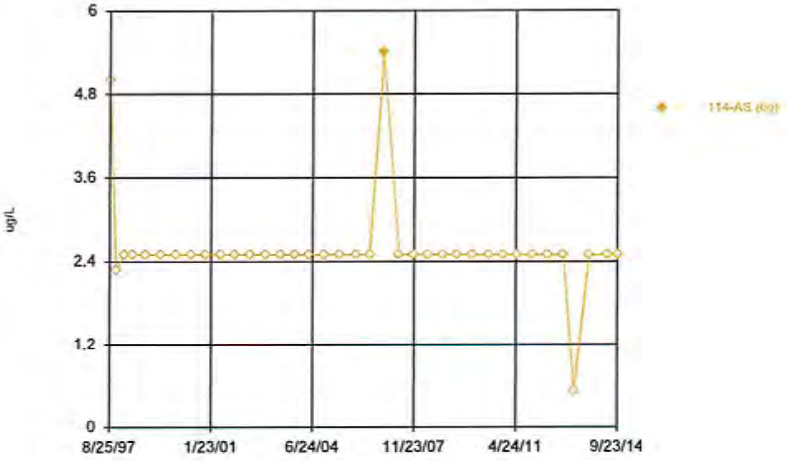
Time Series



Constituent: Chloride Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hurst Associates, UG
Hollow symbols indicate censored values.

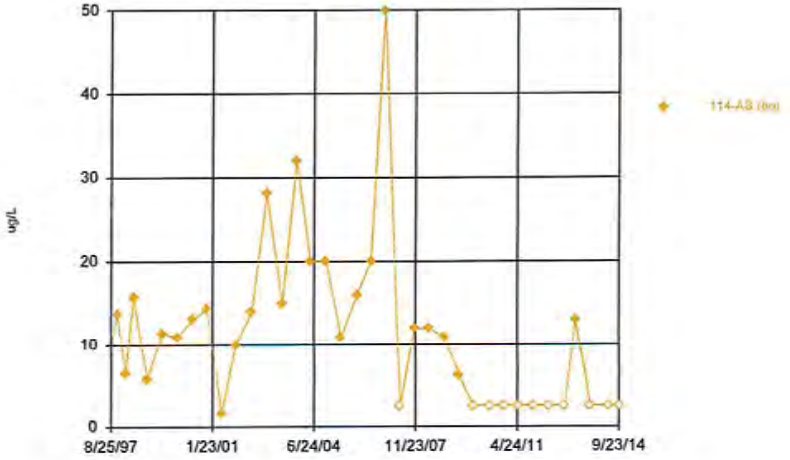
Time Series



Constituent: Chromium Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hurst Associates, UG
Hollow symbols indicate censored values.

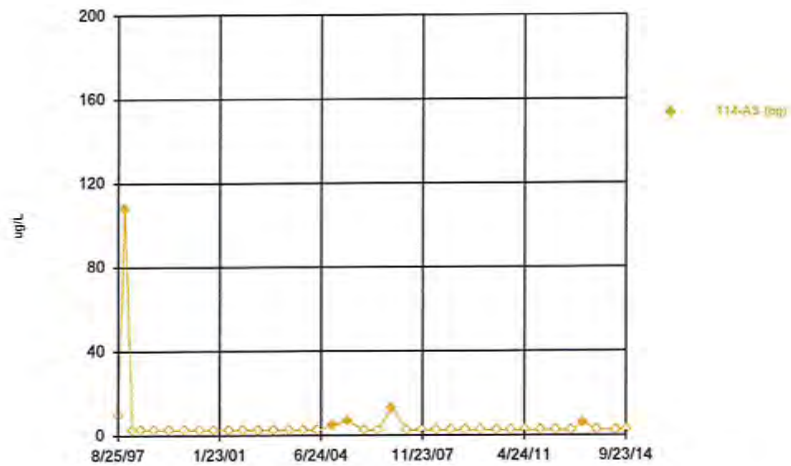
Time Series



Constituent: Cobalt Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

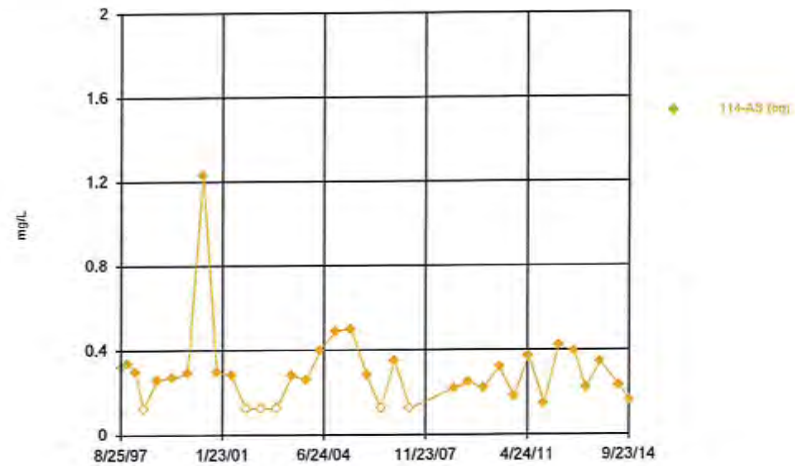
Time Series



Constituent: Copper Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

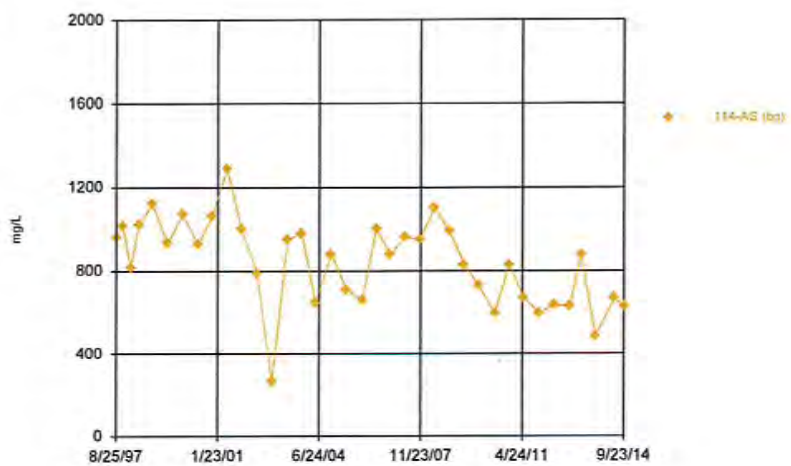
Time Series



Constituent: Fluoride Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

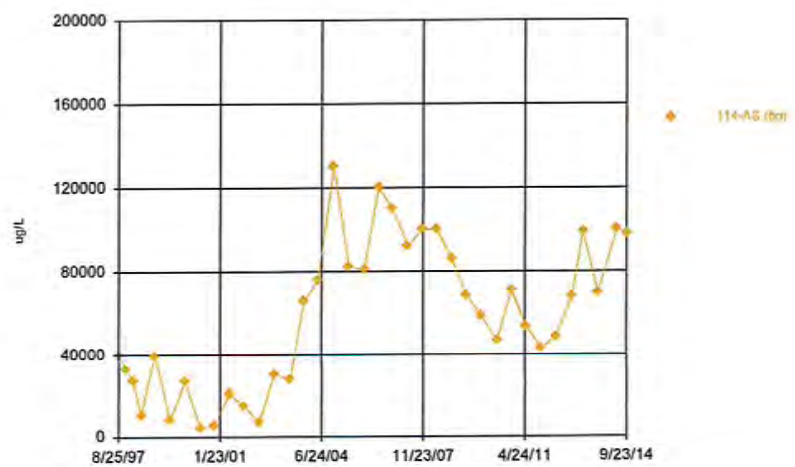
Time Series



Constituent: Hardness Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

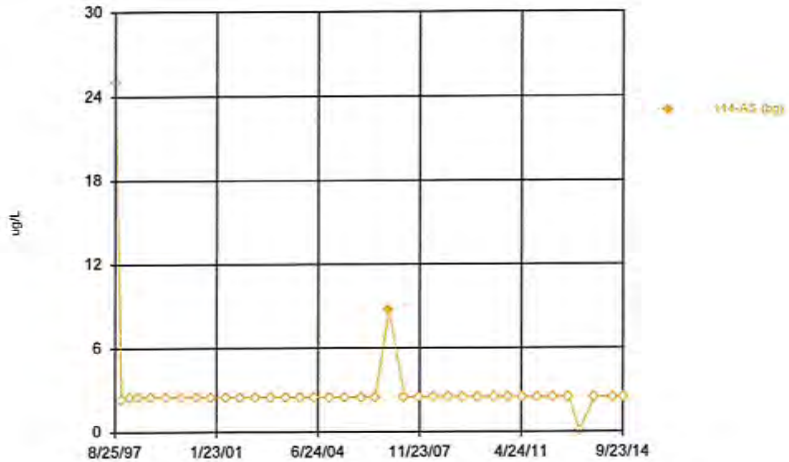
Time Series



Constituent: Iron Total Analysis Run 11/24/2014 10:41 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

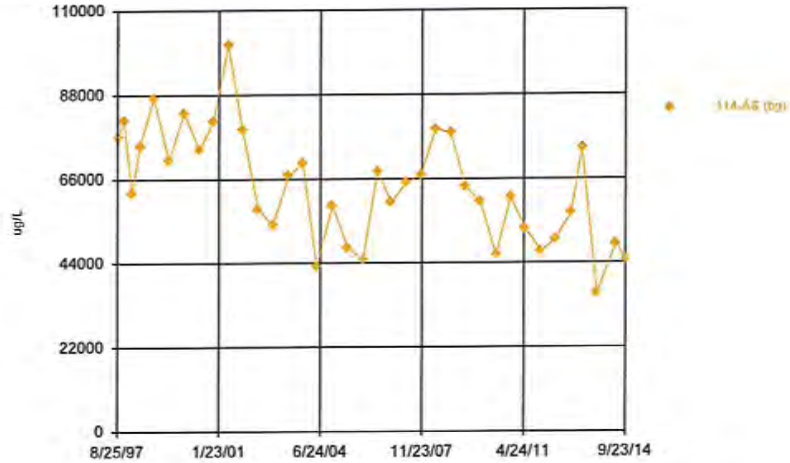
Time Series



Constituent: Lead Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

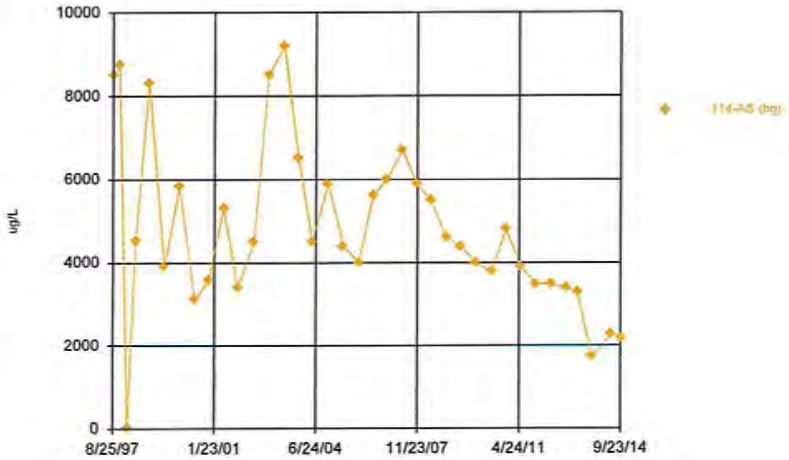
Time Series



Constituent: Magnesium Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

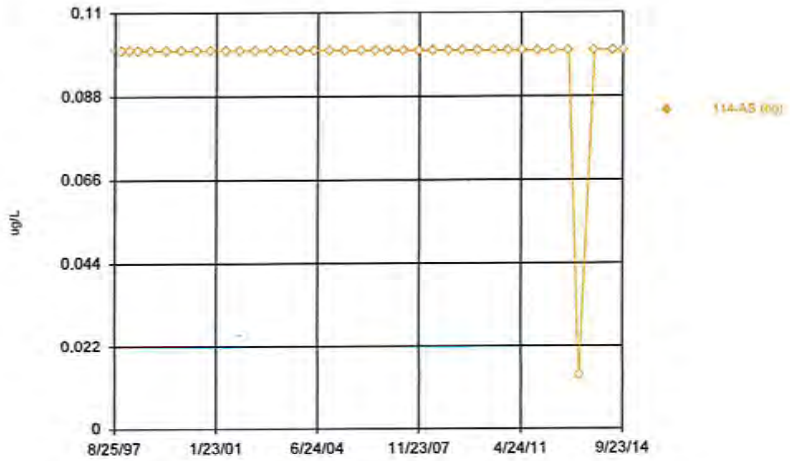
Time Series



Constituent: Manganese Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

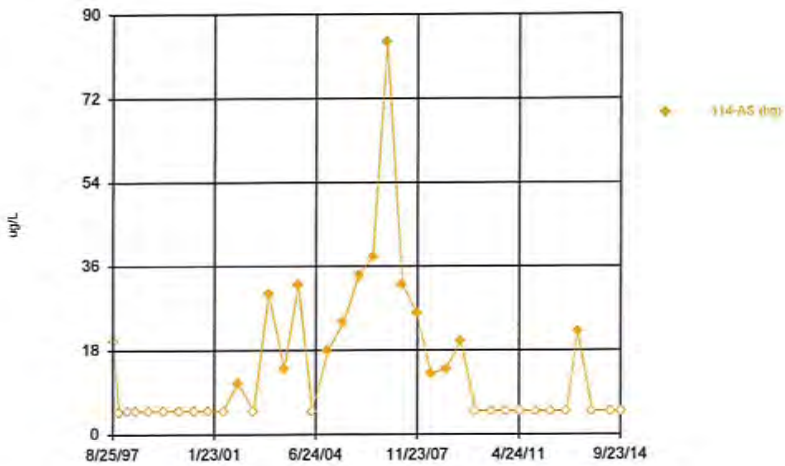
Time Series



Constituent: Mercury Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

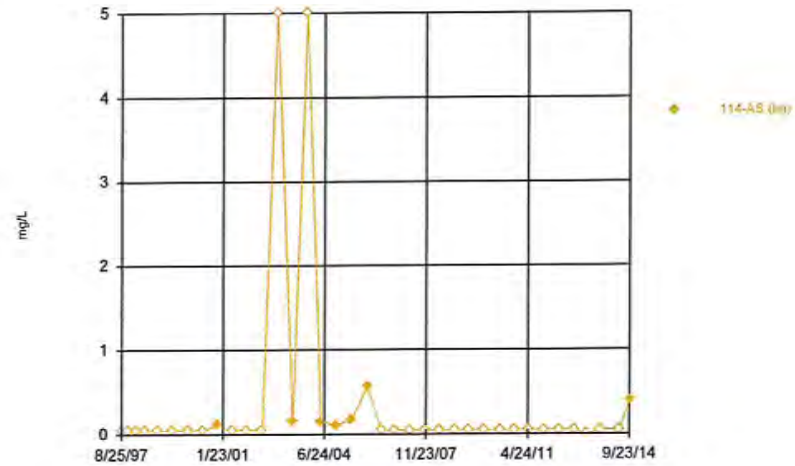
Time Series



Constituent: Nickel Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

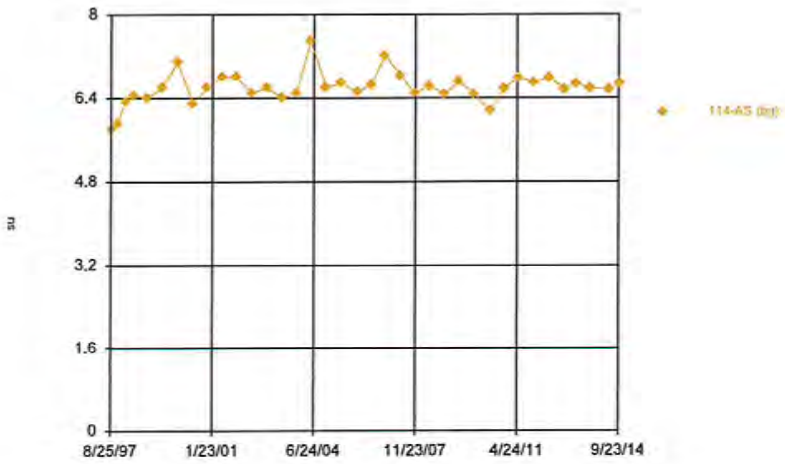
Time Series



Constituent: Nitrate/Nitrite Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

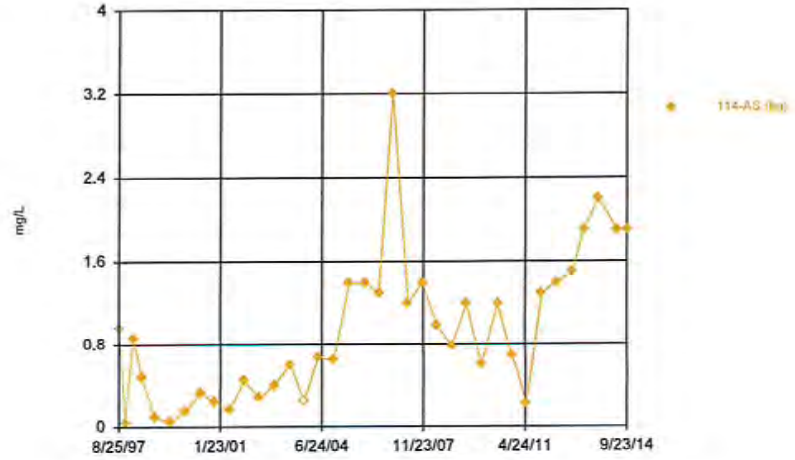
Time Series



Constituent: pH [Field] Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

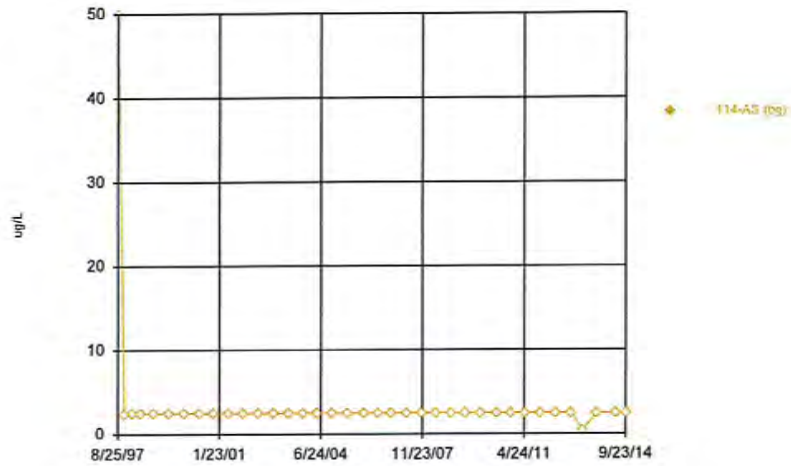
Time Series



Constituent: Phosphorus Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

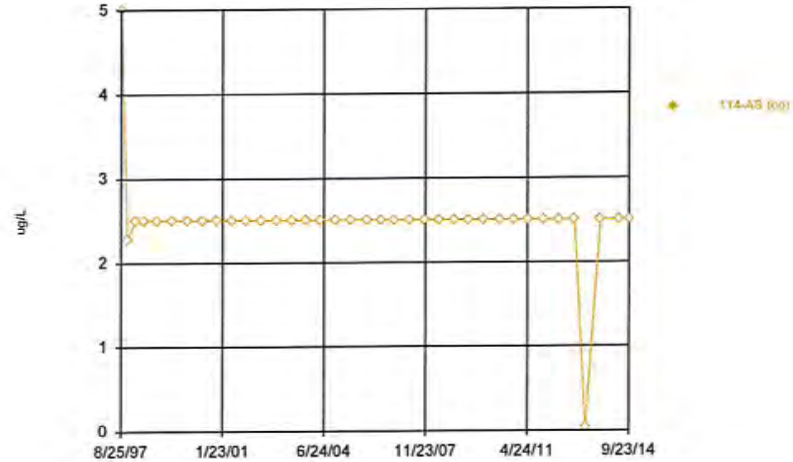
Time Series



Constituent: Selenium Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

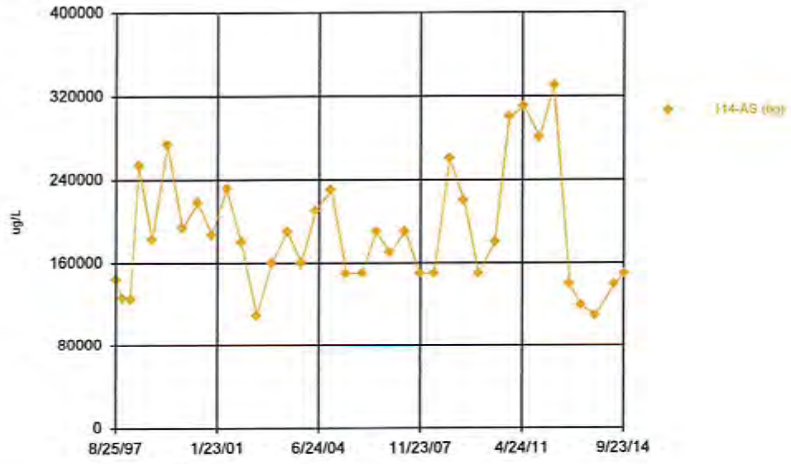
Time Series



Constituent: Silver Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

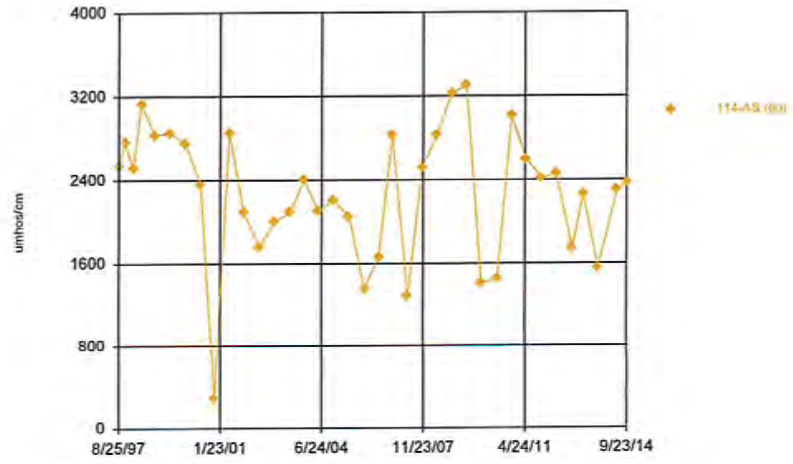
Time Series



Constituent: Sodium Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

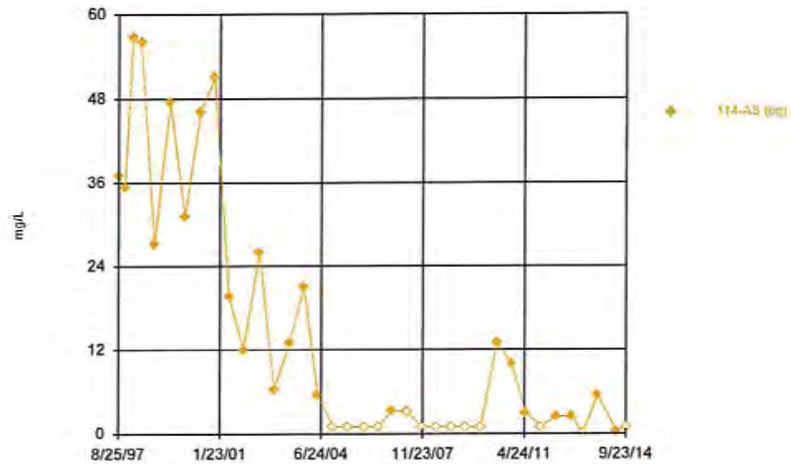
Time Series



Constituent: Specific Conductance [Field] Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

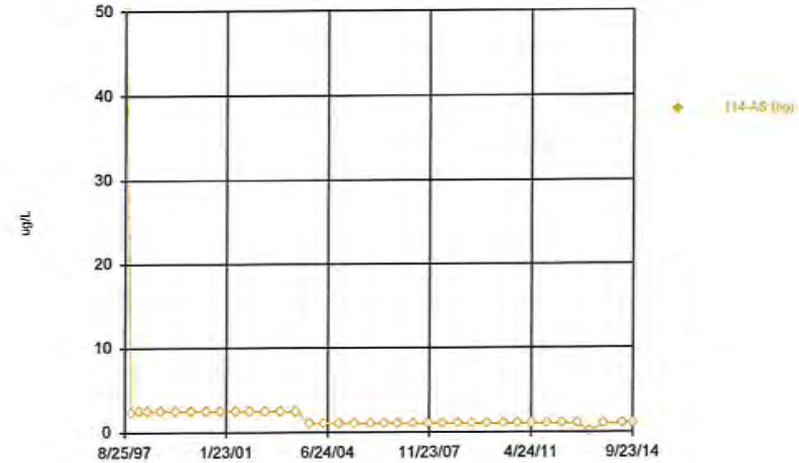
Time Series



Constituent: Sulfate as SO4 Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

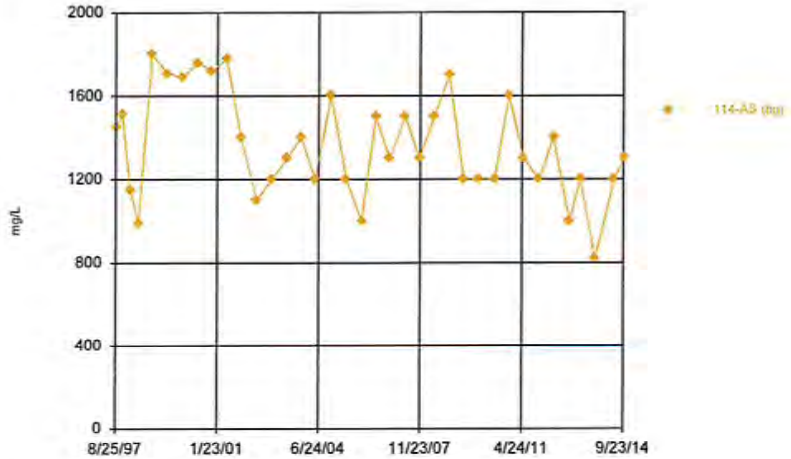
Time Series



Constituent: Thallium Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

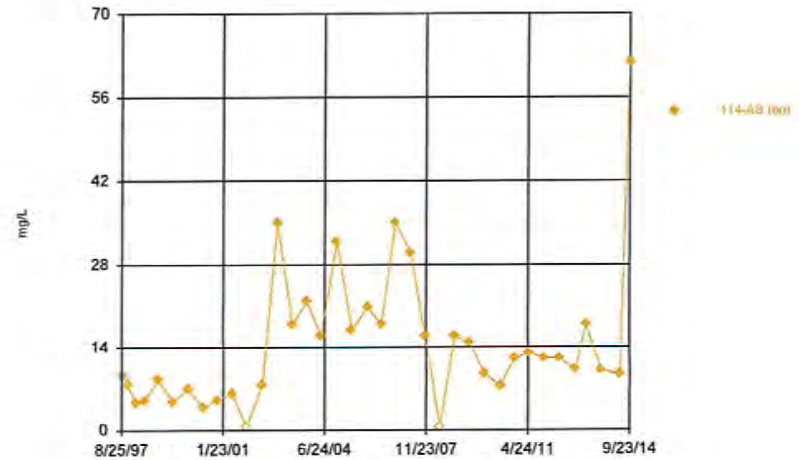
Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

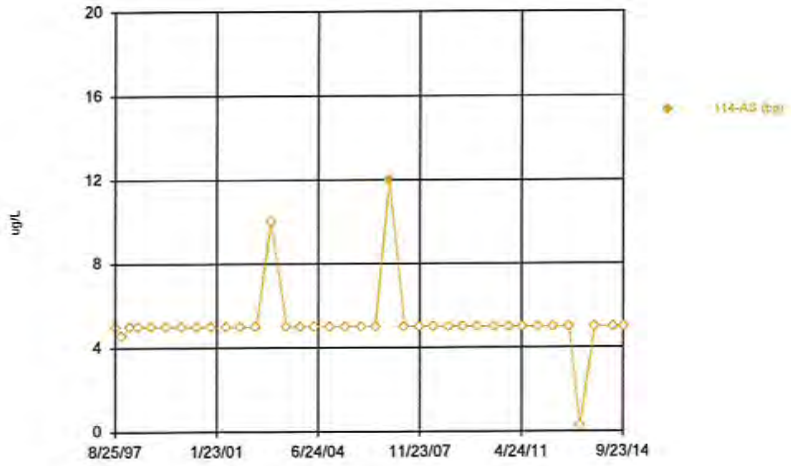
Time Series



Constituent: Total Organic Carbon [TOC] Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

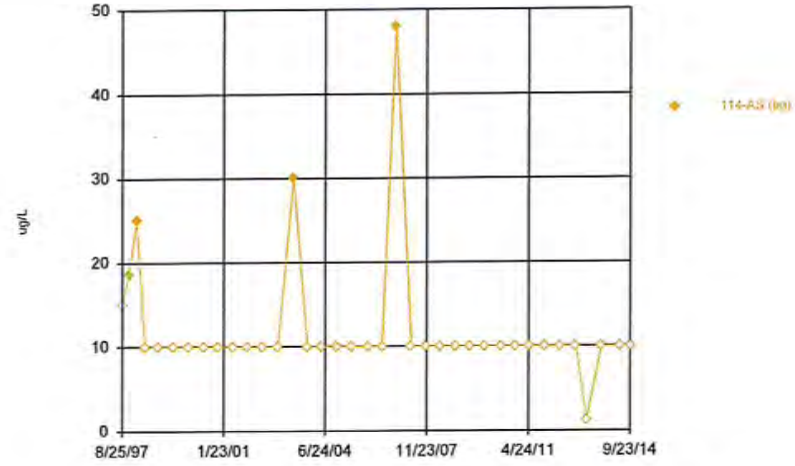
Time Series



Constituent: Vanadium Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Total Analysis Run 11/24/2014 10:42 AM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

APPENDIX D
STATISTICAL EVALUATIONS
ST. LOUIS FORMATION

TREND EVALUATION OF BACKGROUND DATA
ST. LOUIS FORMATION

Background data were evaluated for increasing statistical trends (or either increasing or decreasing trends for field pH). In those cases where the background data were determined to exhibit a statistical trend, the most recent background data were excluded until the data no longer exhibited a statistical trend. For each of the constituent-well pairs listed below, the specified modified background data period was utilized in the determination of the intra-well prediction limit.

St. Louis Formation

- Barium at 105-SS (8/97 through 11/02)
- Barium at 110-SS (2/97 through 5/07)
- Barium at 115-SS (8/97 through 10/13)
- Boron at 100-SS (2/97 through 5/12)
- Boron at 104-SS (2/97 through 5/06)
- Calcium at 105-SS (8/97 through 11/01)
- Calcium at 106-SS (2/97 through 11/11)
- Calcium at 110-SS (2/97 through 11/06)
- Calcium at 201A-SS (2/97 through 5/07)
- Calcium at 205-SS (8/97 through 11/09)
- Chemical oxygen demand at 110-SS (2/97 through 11/07)
- Chloride at 104-SS (2/97 through 11/12)
- Chloride at 105-SS (8/97 through 11/99)
- Chloride at 106-SS (2/97 through 11/10)
- Chloride at 110-SS (2/97 through 11/10)
- Chloride at 201A-SS (2/97 through 5/08)
- Chloride at 205-SS (8/97 through 5/12)
- Fluoride at 109-SS (8/97 through 5/06)
- Hardness at 105-SS (8/97 through 5/04)
- Hardness at 106-SS (2/97 through 11/11)
- Hardness at 110-SS (2/97 through 11/06)
- Hardness at 115-SS (8/97 through 10/13)
- Hardness at 201A-SS (2/97 through 5/07)
- Hardness at 205-SS (8/97 through 11/07)
- Iron at 106-SS (2/97 through 5/09)
- Iron at 110-SS (2/97 through 11/01)
- Iron at 115-SS (8/97 through 5/08)
- Magnesium at 100-SS (2/97 through 11/02)
- Magnesium at 104-SS (2/97 through 5/12)
- Magnesium at 105-SS (8/97 through 11/01)
- Magnesium at 106-SS (2/97 through 5/09)
- Magnesium at 110-SS (2/97 through 5/05)
- Magnesium at 201A-SS (2/97 through 11/02)
- Magnesium at 205-SS (8/97 through 11/04)
- Manganese at 110-SS (2/97 through 5/03)
- Manganese at 115-SS (8/97 through 5/02)
- Nitrate/Nitrite at 201A-SS (2/97 through 11/09)
- pH at 100-SS (2/97 through 10/13)
- pH at 104-SS (2/97 through 10/13)
- pH at 105-SS (8/97 through 5/12)
- pH at 106-SS (2/97 through 11/11)
- pH at 110-SS (2/97 through 11/12)
- pH at 201A-SS (2/97 through 5/11)
- pH at 205-SS (8/97 through 5/12)
- Phosphorous at 115-SS (8/97 through 11/11)
- Sodium at 105-SS (8/97 through 11/10)
- Sodium at 106-SS (2/97 through 11/09)
- Specific conductance at 105-SS (8/97 through 5/07)
- Specific conductance at 110-SS (2/97 through 11/07)
- Sulfate at 105-SS (11/97 through 11/00)
- Total dissolved solids at 105-SS (8/97 through 5/06)
- Total organic carbon at 110-SS (2/97 through 5/11)
- Total organic carbon at 205-SS (8/97 through 4/13)

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/19/2014, 4:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Ammonia as N (mg/L)	100-SS (bg)	0	-47	-171	No	36	91.67	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	104-SS (bg)	0	96	171	No	36	80.56	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	105-SS (bg)	0	-118	-171	No	36	83.33	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	106-SS (bg)	0	59	171	No	36	66.67	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	109-SS (bg)	0	-50	-171	No	36	86.11	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	110-SS (bg)	0.008472	133	171	No	36	5.556	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	115-SS (bg)	0	-19	-171	No	36	69.44	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	201A-SS (bg)	0	-35	-171	No	36	88.89	n/a	n/a	0.02	NP
Ammonia as N (mg/L)	205-SS (bg)	0	-87	-171	No	36	88.89	n/a	n/a	0.02	NP
Antimony Total (ug/L)	100-SS (bg)	0	-26	-171	No	36	97.22	n/a	n/a	0.02	NP
Antimony Total (ug/L)	104-SS (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	105-SS (bg)	0	-65	-171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	106-SS (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	109-SS (bg)	0	-96	-171	No	36	97.22	n/a	n/a	0.02	NP
Antimony Total (ug/L)	110-SS (bg)	0	34	171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	115-SS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	201A-SS (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Antimony Total (ug/L)	205-SS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	100-SS (bg)	0	34	171	No	36	97.22	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	104-SS (bg)	0	18	171	No	36	91.67	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	105-SS (bg)	0	-65	-171	No	36	97.22	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	106-SS (bg)	0	98	171	No	36	52.78	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	109-SS (bg)	0	-159	-171	No	36	88.89	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	110-SS (bg)	0	-92	-171	No	36	91.67	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	115-SS (bg)	0	123	171	No	36	61.11	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	201A-SS (bg)	0	-77	-171	No	36	86.11	n/a	n/a	0.02	NP
Arsenic Total (ug/L)	205-SS (bg)	0	-30	-171	No	36	97.22	n/a	n/a	0.02	NP
Barium Total (ug/L)	100-SS (bg)	0.2585	110	171	No	36	0	n/a	n/a	0.02	NP
Barium Total (ug/L)	104-SS (bg)	0.6673	158	171	No	36	0	n/a	n/a	0.02	NP
Barium Total (ug/L)	**105-SS (bg)**	**6.575**	**327**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (ug/L)	106-SS (bg)	0	24	171	No	36	0	n/a	n/a	0.02	NP
Barium Total (ug/L)	109-SS (bg)	0	32	171	No	36	0	n/a	n/a	0.02	NP
Barium Total (ug/L)	**110-SS (bg)**	**10.05**	**403**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (ug/L)	**115-SS (bg)**	**11.74**	**190**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Barium Total (ug/L)	201A-SS (bg)	0.3487	68	171	No	36	0	n/a	n/a	0.02	NP
Barium Total (ug/L)	205-SS (bg)	0.3719	143	171	No	36	0	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	100-SS (bg)	0	96	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	104-SS (bg)	0	65	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	105-SS (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	106-SS (bg)	0	65	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	109-SS (bg)	0	36	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	110-SS (bg)	0	96	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	115-SS (bg)	0	36	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	201A-SS (bg)	0	65	171	No	36	100	n/a	n/a	0.02	NP
Beryllium Total (ug/L)	205-SS (bg)	0	36	171	No	36	100	n/a	n/a	0.02	NP
Boron Total (ug/L)	**100-SS (bg)**	**1.47**	**224**	**171**	**Yes**	**36**	**11.11**	**n/a**	**n/a**	**0.02**	**NP**
Boron Total (ug/L)	**104-SS (bg)**	**3.89**	**328**	**171**	**Yes**	**36**	**22.22**	**n/a**	**n/a**	**0.02**	**NP**
Boron Total (ug/L)	105-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Boron Total (ug/L)	106-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Boron Total (ug/L)	109-SS (bg)	1.101	92	171	No	36	0	n/a	n/a	0.02	NP

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/19/2014, 4:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron Total (ug/L)	110-SS (bg)	0	27	171	No	36	2.778	n/a	n/a	0.02	NP
Boron Total (ug/L)	115-SS (bg)	9.847	164	171	No	36	30.56	n/a	n/a	0.02	NP
Boron Total (ug/L)	201A-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Boron Total (ug/L)	205-SS (bg)	0	-63	-171	No	36	97.22	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	100-SS (bg)	0	-65	-171	No	36	97.22	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	104-SS (bg)	0	-43	-171	No	36	100	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	105-SS (bg)	0	-92	-171	No	36	97.22	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	106-SS (bg)	0	-90	-171	No	36	97.22	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	109-SS (bg)	0	-87	-171	No	36	94.44	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	110-SS (bg)	0	-42	-171	No	36	100	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	115-SS (bg)	0	-89	-171	No	36	94.44	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	201A-SS (bg)	0	-70	-171	No	36	97.22	n/a	n/a	0.02	NP
Cadmium Total (ug/L)	**205-SS (bg)**	**0**	**-188**	**-171**	**Yes**	**36**	**88.89**	**n/a**	**n/a**	**0.02**	**NP**
Calcium Total (ug/L)	100-SS (bg)	0	14	171	No	36	0	n/a	n/a	0.02	NP
Calcium Total (ug/L)	104-SS (bg)	229.7	66	171	No	36	0	n/a	n/a	0.02	NP
Calcium Total (ug/L)	**105-SS (bg)**	**2327**	**385**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Calcium Total (ug/L)	**106-SS (bg)**	**521**	**205**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Calcium Total (ug/L)	109-SS (bg)	159.1	70	171	No	36	0	n/a	n/a	0.02	NP
Calcium Total (ug/L)	**110-SS (bg)**	**4554**	**340**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Calcium Total (ug/L)	115-SS (bg)	3836	162	171	No	36	0	n/a	n/a	0.02	NP
Calcium Total (ug/L)	**201A-SS (bg)**	**1011**	**330**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Calcium Total (ug/L)	**205-SS (bg)**	**575.8**	**286**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chemical Oxygen Demand [COD] (mg/L)	**100-SS (bg)**	**0**	**-189**	**-171**	**Yes**	**36**	**97.22**	**n/a**	**n/a**	**0.02**	**NP**
Chemical Oxygen Demand [COD] (mg/L)	104-SS (bg)	0	-18	-171	No	36	83.33	n/a	n/a	0.02	NP
Chemical Oxygen Demand [COD] (mg/L)	105-SS (bg)	0	-45	-171	No	36	72.22	n/a	n/a	0.02	NP
Chemical Oxygen Demand [COD] (mg/L)	**106-SS (bg)**	**0**	**-227**	**-171**	**Yes**	**36**	**88.89**	**n/a**	**n/a**	**0.02**	**NP**
Chemical Oxygen Demand [COD] (mg/L)	109-SS (bg)	0	-156	-171	No	36	94.44	n/a	n/a	0.02	NP
Chemical Oxygen Demand [COD] (mg/L)	**110-SS (bg)**	**1.565**	**176**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chemical Oxygen Demand [COD] (mg/L)	115-SS (bg)	1.473	132	171	No	36	33.33	n/a	n/a	0.02	NP
Chemical Oxygen Demand [COD] (mg/L)	**201A-SS (bg)**	**0**	**-254**	**-171**	**Yes**	**36**	**94.44**	**n/a**	**n/a**	**0.02**	**NP**
Chemical Oxygen Demand [COD] (mg/L)	205-SS (bg)	0	-113	-171	No	36	88.89	n/a	n/a	0.02	NP
Chloride (mg/L)	100-SS (bg)	-0.1076	-124	-171	No	36	0	n/a	n/a	0.02	NP
Chloride (mg/L)	**104-SS (bg)**	**0.09745**	**218**	**171**	**Yes**	**36**	**44.44**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**105-SS (bg)**	**5.519**	**406**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**106-SS (bg)**	**0.8134**	**328**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**109-SS (bg)**	**-0.1288**	**-312**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**110-SS (bg)**	**3.744**	**210**	**171**	**Yes**	**36**	**2.778**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	115-SS (bg)	8.494	140	171	No	36	0	n/a	n/a	0.02	NP
Chloride (mg/L)	**201A-SS (bg)**	**0.132**	**366**	**171**	**Yes**	**36**	**33.33**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	**205-SS (bg)**	**0.657**	**222**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chromium Total (ug/L)	100-SS (bg)	0	-137	-171	No	36	88.89	n/a	n/a	0.02	NP
Chromium Total (ug/L)	104-SS (bg)	0	-164	-171	No	36	94.44	n/a	n/a	0.02	NP
Chromium Total (ug/L)	105-SS (bg)	0	-78	-171	No	36	97.22	n/a	n/a	0.02	NP
Chromium Total (ug/L)	106-SS (bg)	0	-100	-171	No	36	91.67	n/a	n/a	0.02	NP
Chromium Total (ug/L)	109-SS (bg)	0	-160	-171	No	36	80.56	n/a	n/a	0.02	NP
Chromium Total (ug/L)	**110-SS (bg)**	**0**	**-174**	**-171**	**Yes**	**36**	**94.44**	**n/a**	**n/a**	**0.02**	**NP**
Chromium Total (ug/L)	115-SS (bg)	0	-46	-171	No	36	97.22	n/a	n/a	0.02	NP
Chromium Total (ug/L)	201A-SS (bg)	0	-102	-171	No	36	91.67	n/a	n/a	0.02	NP
Chromium Total (ug/L)	205-SS (bg)	0	-104	-171	No	36	83.33	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	100-SS (bg)	0	-96	-171	No	36	100	n/a	n/a	0.02	NP

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/19/2014, 4:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Cobalt Total (ug/L)	104-SS (bg)	0	-127	-171	No	36	100	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	105-SS (bg)	0	-65	-171	No	36	100	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	106-SS (bg)	0	-127	-171	No	36	100	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	109-SS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	110-SS (bg)	0	-158	-171	No	36	97.22	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	115-SS (bg)	0	74	171	No	36	47.22	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	201A-SS (bg)	0	-127	-171	No	36	100	n/a	n/a	0.02	NP
Cobalt Total (ug/L)	205-SS (bg)	0	-98	-171	No	36	97.22	n/a	n/a	0.02	NP
Copper Total (ug/L)	100-SS (bg)	0	-152	-171	No	36	97.22	n/a	n/a	0.02	NP
Copper Total (ug/L)	104-SS (bg)	0	-132	-171	No	36	100	n/a	n/a	0.02	NP
Copper Total (ug/L)	105-SS (bg)	0	-76	-171	No	36	97.22	n/a	n/a	0.02	NP
Copper Total (ug/L)	106-SS (bg)	0	-124	-171	No	36	97.22	n/a	n/a	0.02	NP
Copper Total (ug/L)	109-SS (bg)	0	-96	-171	No	36	97.22	n/a	n/a	0.02	NP
Copper Total (ug/L)	110-SS (bg)	0	-54	-171	No	36	66.67	n/a	n/a	0.02	NP
Copper Total (ug/L)	115-SS (bg)	0	-44	-171	No	36	80.56	n/a	n/a	0.02	NP
Copper Total (ug/L)	201A-SS (bg)	0	-126	-171	No	36	97.22	n/a	n/a	0.02	NP
Copper Total (ug/L)	205-SS (bg)	0	-90	-171	No	36	94.44	n/a	n/a	0.02	NP
Fluoride (mg/L)	100-SS (bg)	-0.006253	-126	-158	No	34	2.941	n/a	n/a	0.02	NP
Fluoride (mg/L)	104-SS (bg)	0.001993	26	158	No	34	2.941	n/a	n/a	0.02	NP
Fluoride (mg/L)	**105-SS (bg)**	**-0.01755**	**-291**	**-158**	**Yes**	**34**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	106-SS (bg)	-0.004077	-86	-158	No	34	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	**109-SS (bg)**	**0.01631**	**165**	**158**	**Yes**	**34**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	**110-SS (bg)**	**-0.01995**	**-309**	**-158**	**Yes**	**34**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	**115-SS (bg)**	**-0.05009**	**-228**	**-158**	**Yes**	**34**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	**201A-SS (bg)**	**-0.007078**	**-230**	**-158**	**Yes**	**34**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	**205-SS (bg)**	**-0.005615**	**-172**	**-158**	**Yes**	**34**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Hardness Total (mg/L)	100-SS (bg)	1.007	87	171	No	36	0	n/a	n/a	0.02	NP
Hardness Total (mg/L)	104-SS (bg)	1.726	135	171	No	36	0	n/a	n/a	0.02	NP
Hardness Total (mg/L)	**105-SS (bg)**	**10.81**	**371**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Hardness Total (mg/L)	**106-SS (bg)**	**2.858**	**200**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Hardness Total (mg/L)	109-SS (bg)	1.292	119	171	No	36	0	n/a	n/a	0.02	NP
Hardness Total (mg/L)	**110-SS (bg)**	**15.56**	**333**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Hardness Total (mg/L)	**115-SS (bg)**	**15.39**	**175**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Hardness Total (mg/L)	**201A-SS (bg)**	**5.185**	**296**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Hardness Total (mg/L)	**205-SS (bg)**	**5.046**	**325**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	100-SS (bg)	0.3637	34	171	No	36	19.44	n/a	n/a	0.02	NP
Iron Total (ug/L)	**104-SS (bg)**	**-112.3**	**-174**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	**105-SS (bg)**	**-54.5**	**-174**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	**106-SS (bg)**	**52.92**	**348**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	**109-SS (bg)**	**-25.62**	**-317**	**-171**	**Yes**	**36**	**5.556**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	**110-SS (bg)**	**180.8**	**234**	**171**	**Yes**	**36**	**2.778**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	**115-SS (bg)**	**95.53**	**248**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	**201A-SS (bg)**	**-39.94**	**-211**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Iron Total (ug/L)	**205-SS (bg)**	**-44.7**	**-176**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Lead Total (ug/L)	100-SS (bg)	0	-89	-171	No	36	94.44	n/a	n/a	0.02	NP
Lead Total (ug/L)	104-SS (bg)	0	-62	-171	No	36	94.44	n/a	n/a	0.02	NP
Lead Total (ug/L)	105-SS (bg)	0	-65	-171	No	36	100	n/a	n/a	0.02	NP
Lead Total (ug/L)	106-SS (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Lead Total (ug/L)	109-SS (bg)	0	-96	-171	No	36	97.22	n/a	n/a	0.02	NP
Lead Total (ug/L)	110-SS (bg)	0	34	171	No	36	100	n/a	n/a	0.02	NP

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/19/2014, 4:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Lead Total (ug/L)	115-SS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Lead Total (ug/L)	201A-SS (bg)	0	-124	-171	No	36	94.44	n/a	n/a	0.02	NP
Lead Total (ug/L)	205-SS (bg)	0	-51	-171	No	36	88.89	n/a	n/a	0.02	NP
Magnesium Total (ug/L)	**100-SS (bg)**	**283.8**	**219**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium Total (ug/L)	**104-SS (bg)**	**313.4**	**241**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium Total (ug/L)	**105-SS (bg)**	**1154**	**382**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium Total (ug/L)	**106-SS (bg)**	**334.1**	**231**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium Total (ug/L)	109-SS (bg)	140.9	104	171	No	36	0	n/a	n/a	0.02	NP
Magnesium Total (ug/L)	**110-SS (bg)**	**1315**	**358**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium Total (ug/L)	115-SS (bg)	1257	149	171	No	36	0	n/a	n/a	0.02	NP
Magnesium Total (ug/L)	**201A-SS (bg)**	**745.7**	**388**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Magnesium Total (ug/L)	**205-SS (bg)**	**570.8**	**380**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Manganese Total (ug/L)	100-SS (bg)	0	-151	-171	No	36	52.78	n/a	n/a	0.02	NP
Manganese Total (ug/L)	104-SS (bg)	-1.145	-114	-171	No	36	2.778	n/a	n/a	0.02	NP
Manganese Total (ug/L)	105-SS (bg)	-0.7551	-117	-171	No	36	2.778	n/a	n/a	0.02	NP
Manganese Total (ug/L)	106-SS (bg)	0.6219	113	171	No	36	0	n/a	n/a	0.02	NP
Manganese Total (ug/L)	**109-SS (bg)**	**-1.17**	**-310**	**-171**	**Yes**	**36**	**44.44**	**n/a**	**n/a**	**0.02**	**NP**
Manganese Total (ug/L)	**110-SS (bg)**	**4.663**	**301**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Manganese Total (ug/L)	**115-SS (bg)**	**3.827**	**249**	**171**	**Yes**	**36**	**2.778**	**n/a**	**n/a**	**0.02**	**NP**
Manganese Total (ug/L)	**201A-SS (bg)**	**-14.4**	**-271**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Manganese Total (ug/L)	**205-SS (bg)**	**-0.7677**	**-239**	**-171**	**Yes**	**36**	**27.78**	**n/a**	**n/a**	**0.02**	**NP**
Mercury Total (ug/L)	100-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	104-SS (bg)	0	-61	-171	No	36	97.22	n/a	n/a	0.02	NP
Mercury Total (ug/L)	105-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	106-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	109-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	110-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	115-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Mercury Total (ug/L)	201A-SS (bg)	0	-53	-171	No	36	97.22	n/a	n/a	0.02	NP
Mercury Total (ug/L)	205-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Nickel Total (ug/L)	**100-SS (bg)**	**-0.6071**	**-195**	**-171**	**Yes**	**36**	**11.11**	**n/a**	**n/a**	**0.02**	**NP**
Nickel Total (ug/L)	104-SS (bg)	0	-118	-171	No	36	97.22	n/a	n/a	0.02	NP
Nickel Total (ug/L)	105-SS (bg)	0	-50	-171	No	36	97.22	n/a	n/a	0.02	NP
Nickel Total (ug/L)	106-SS (bg)	0	-158	-171	No	36	97.22	n/a	n/a	0.02	NP
Nickel Total (ug/L)	109-SS (bg)	0	-124	-171	No	36	94.44	n/a	n/a	0.02	NP
Nickel Total (ug/L)	110-SS (bg)	0	14	171	No	36	27.78	n/a	n/a	0.02	NP
Nickel Total (ug/L)	115-SS (bg)	1.364	144	171	No	36	33.33	n/a	n/a	0.02	NP
Nickel Total (ug/L)	201A-SS (bg)	0	-114	-171	No	36	97.22	n/a	n/a	0.02	NP
Nickel Total (ug/L)	205-SS (bg)	0	-96	-171	No	36	97.22	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	100-SS (bg)	0	-123	-171	No	36	77.78	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	104-SS (bg)	0	36	171	No	36	91.67	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	105-SS (bg)	0	-42	-171	No	36	94.44	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	106-SS (bg)	0	-56	-171	No	36	91.67	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	109-SS (bg)	0	50	171	No	36	91.67	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	110-SS (bg)	0	-47	-171	No	36	100	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	115-SS (bg)	0	-36	-171	No	36	97.22	n/a	n/a	0.02	NP
Nitrate/Nitrite (mg/L)	**201A-SS (bg)**	**0.006489**	**253**	**171**	**Yes**	**36**	**55.56**	**n/a**	**n/a**	**0.02**	**NP**
Nitrate/Nitrite (mg/L)	205-SS (bg)	0	-51	-171	No	36	97.22	n/a	n/a	0.02	NP
pH [Field] (su)	**100-SS (bg)**	**-0.02341**	**-180**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
pH [Field] (su)	**104-SS (bg)**	**-0.03373**	**-175**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/19/2014, 4:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH [Field] (su)	**105-SS (bg)**	**-0.02833**	**-232**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
pH [Field] (su)	**106-SS (bg)**	**-0.03144**	**-224**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
pH [Field] (su)	109-SS (bg)	-0.02062	-137	-171	No	36	0	n/a	n/a	0.02	NP
pH [Field] (su)	**110-SS (bg)**	**-0.02473**	**-194**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
pH [Field] (su)	115-SS (bg)	-0.02419	-142	-171	No	36	0	n/a	n/a	0.02	NP
pH [Field] (su)	**201A-SS (bg)**	**-0.03728**	**-258**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
pH [Field] (su)	**205-SS (bg)**	**-0.02315**	**-209**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Phosphorus Total (mg/L)	**100-SS (bg)**	**0**	**-174**	**-171**	**Yes**	**36**	**66.67**	**n/a**	**n/a**	**0.02**	**NP**
Phosphorus Total (mg/L)	104-SS (bg)	0	-65	-171	No	36	55.56	n/a	n/a	0.02	NP
Phosphorus Total (mg/L)	**105-SS (bg)**	**-0.01017**	**-442**	**-171**	**Yes**	**36**	**44.44**	**n/a**	**n/a**	**0.02**	**NP**
Phosphorus Total (mg/L)	106-SS (bg)	0	-92	-171	No	36	69.44	n/a	n/a	0.02	NP
Phosphorus Total (mg/L)	109-SS (bg)	0	-84	-171	No	36	69.44	n/a	n/a	0.02	NP
Phosphorus Total (mg/L)	110-SS (bg)	-0.002445	-73	-171	No	36	2.778	n/a	n/a	0.02	NP
Phosphorus Total (mg/L)	**115-SS (bg)**	**0.007703**	**219**	**171**	**Yes**	**36**	**11.11**	**n/a**	**n/a**	**0.02**	**NP**
Phosphorus Total (mg/L)	**201A-SS (bg)**	**-0.0007982**	**-212**	**-171**	**Yes**	**36**	**66.67**	**n/a**	**n/a**	**0.02**	**NP**
Phosphorus Total (mg/L)	205-SS (bg)	0	-32	-171	No	36	66.67	n/a	n/a	0.02	NP
Selenium Total (ug/L)	100-SS (bg)	0	34	171	No	36	100	n/a	n/a	0.02	NP
Selenium Total (ug/L)	104-SS (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Selenium Total (ug/L)	105-SS (bg)	0	-65	-171	No	36	100	n/a	n/a	0.02	NP
Selenium Total (ug/L)	106-SS (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Selenium Total (ug/L)	109-SS (bg)	0	65	171	No	36	77.78	n/a	n/a	0.02	NP
Selenium Total (ug/L)	110-SS (bg)	0	33	171	No	36	97.22	n/a	n/a	0.02	NP
Selenium Total (ug/L)	115-SS (bg)	0	-62	-171	No	36	97.22	n/a	n/a	0.02	NP
Selenium Total (ug/L)	201A-SS (bg)	0	3	171	No	36	100	n/a	n/a	0.02	NP
Selenium Total (ug/L)	205-SS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	100-SS (bg)	0	-96	-171	No	36	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	104-SS (bg)	0	-94	-166	No	35	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	105-SS (bg)	0	-65	-171	No	36	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	106-SS (bg)	0	-61	-158	No	34	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	109-SS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	110-SS (bg)	0	-96	-171	No	36	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	115-SS (bg)	0	-58	-171	No	36	97.22	n/a	n/a	0.02	NP
Silver Total (ug/L)	201A-SS (bg)	0	-127	-171	No	36	100	n/a	n/a	0.02	NP
Silver Total (ug/L)	205-SS (bg)	0	-32	-171	No	36	100	n/a	n/a	0.02	NP
Sodium Total (ug/L)	**100-SS (bg)**	**-818.7**	**-346**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	**104-SS (bg)**	**-577.6**	**-322**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	**105-SS (bg)**	**952.7**	**257**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	**106-SS (bg)**	**328.8**	**342**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	**109-SS (bg)**	**-607.4**	**-252**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	110-SS (bg)	926.5	122	171	No	36	0	n/a	n/a	0.02	NP
Sodium Total (ug/L)	**115-SS (bg)**	**2954**	**189**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	**201A-SS (bg)**	**-1425**	**-360**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sodium Total (ug/L)	205-SS (bg)	-494.5	-170	-171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	100-SS (bg)	-3.993	-154	-171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	104-SS (bg)	0.627	13	171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	**105-SS (bg)**	**19.75**	**283**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Specific Conductance [Field] (umhos/cm)	106-SS (bg)	2.639	94	171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	109-SS (bg)	-2.161	-79	-171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	**110-SS (bg)**	**26.64**	**296**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Specific Conductance [Field] (umhos/cm)	115-SS (bg)	36.68	164	171	No	36	0	n/a	n/a	0.02	NP

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/19/2014, 4:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Specific Conductance [Field] (umhos/cm)	201A-SS (bg)	0.7218	31	171	No	36	0	n/a	n/a	0.02	NP
Specific Conductance [Field] (umhos/cm)	205-SS (bg)	1.292	50	171	No	36	0	n/a	n/a	0.02	NP
Sulfate as SO4 (mg/L)	**100-SS (bg)**	**-1.481**	**-385**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate as SO4 (mg/L)	**104-SS (bg)**	**-1.199**	**-389**	**-171**	**Yes**	**36**	**2.778**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate as SO4 (mg/L)	**105-SS (bg)**	**4.363**	**402**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate as SO4 (mg/L)	106-SS (bg)	0.2655	95	171	No	36	0	n/a	n/a	0.02	NP
Sulfate as SO4 (mg/L)	**109-SS (bg)**	**-1.336**	**-248**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate as SO4 (mg/L)	**110-SS (bg)**	**-1.781**	**-232**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate as SO4 (mg/L)	**115-SS (bg)**	**-1.505**	**-359**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate as SO4 (mg/L)	201A-SS (bg)	0.8775	162	171	No	36	0	n/a	n/a	0.02	NP
Sulfate as SO4 (mg/L)	205-SS (bg)	0.3999	103	171	No	36	0	n/a	n/a	0.02	NP
Thallium Total (ug/L)	**100-SS (bg)**	**0**	**-280**	**-171**	**Yes**	**36**	**97.22**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**104-SS (bg)**	**0**	**-270**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**105-SS (bg)**	**-0.1108**	**-338**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**106-SS (bg)**	**0**	**-270**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**109-SS (bg)**	**-0.1072**	**-326**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**110-SS (bg)**	**0**	**-260**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**115-SS (bg)**	**-0.1072**	**-326**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**201A-SS (bg)**	**0**	**-270**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Thallium Total (ug/L)	**205-SS (bg)**	**-0.1072**	**-326**	**-171**	**Yes**	**36**	**100**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids [TDS] (mg/L)	**100-SS (bg)**	**-4.168**	**-265**	**-171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids [TDS] (mg/L)	104-SS (bg)	-2.023	-133	-171	No	36	0	n/a	n/a	0.02	NP
Total Dissolved Solids [TDS] (mg/L)	**105-SS (bg)**	**12.8**	**339**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids [TDS] (mg/L)	106-SS (bg)	1.778	126	171	No	36	0	n/a	n/a	0.02	NP
Total Dissolved Solids [TDS] (mg/L)	109-SS (bg)	-2.388	-133	-171	No	36	0	n/a	n/a	0.02	NP
Total Dissolved Solids [TDS] (mg/L)	110-SS (bg)	0.9352	98	171	No	36	0	n/a	n/a	0.02	NP
Total Dissolved Solids [TDS] (mg/L)	115-SS (bg)	14.46	140	171	No	36	0	n/a	n/a	0.02	NP
Total Dissolved Solids [TDS] (mg/L)	201A-SS (bg)	0	48	171	No	36	0	n/a	n/a	0.02	NP
Total Dissolved Solids [TDS] (mg/L)	205-SS (bg)	0	0	171	No	36	0	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	100-SS (bg)	0	45	171	No	36	72.22	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	104-SS (bg)	0	109	171	No	36	47.22	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	105-SS (bg)	-0.0255	-48	-171	No	36	13.89	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	106-SS (bg)	0	143	171	No	36	52.78	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	109-SS (bg)	0	157	171	No	36	52.78	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	**110-SS (bg)**	**0.4076**	**185**	**171**	**Yes**	**36**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Organic Carbon [TOC] (mg/L)	115-SS (bg)	0.6102	163	171	No	36	19.44	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	201A-SS (bg)	0	136	171	No	36	50	n/a	n/a	0.02	NP
Total Organic Carbon [TOC] (mg/L)	**205-SS (bg)**	**0.04406**	**196**	**171**	**Yes**	**36**	**44.44**	**n/a**	**n/a**	**0.02**	**NP**
Vanadium Total (ug/L)	100-SS (bg)	0	-3	-171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	104-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	105-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	106-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	109-SS (bg)	0	1	171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	110-SS (bg)	0	-3	-171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	115-SS (bg)	0	1	171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	201A-SS (bg)	0	-31	-171	No	36	100	n/a	n/a	0.02	NP
Vanadium Total (ug/L)	205-SS (bg)	0	1	171	No	36	100	n/a	n/a	0.02	NP
Zinc Total (ug/L)	100-SS (bg)	0	-155	-171	No	36	91.67	n/a	n/a	0.02	NP
Zinc Total (ug/L)	104-SS (bg)	0	-160	-171	No	36	83.33	n/a	n/a	0.02	NP
Zinc Total (ug/L)	105-SS (bg)	0	-160	-171	No	36	83.33	n/a	n/a	0.02	NP

Trend Test

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE Printed 11/19/2014, 4:12 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Zinc Total (ug/L)	106-SS (bg)	0	-153	-171	No	36	91.67	n/a	n/a	0.02	NP
Zinc Total (ug/L)	**109-SS (bg)**	**-4.076**	**-557**	**-171**	**Yes**	**36**	**25**	**n/a**	**n/a**	**0.02**	**NP**
Zinc Total (ug/L)	110-SS (bg)	0	-140	-171	No	36	75	n/a	n/a	0.02	NP
Zinc Total (ug/L)	115-SS (bg)	0	-124	-171	No	36	86.11	n/a	n/a	0.02	NP
Zinc Total (ug/L)	201A-SS (bg)	0	-155	-171	No	36	88.89	n/a	n/a	0.02	NP
Zinc Total (ug/L)	**205-SS (bg)**	**0**	**-230**	**-171**	**Yes**	**36**	**80.56**	**n/a**	**n/a**	**0.02**	**NP**

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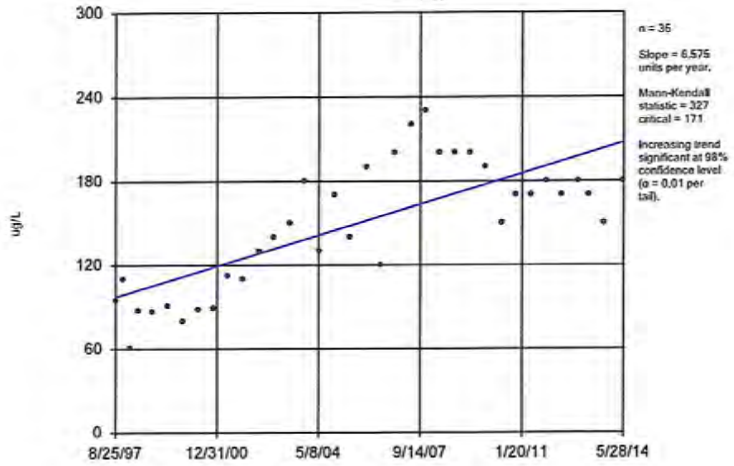
Sen's Slope Estimator

105-SS (bg)



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Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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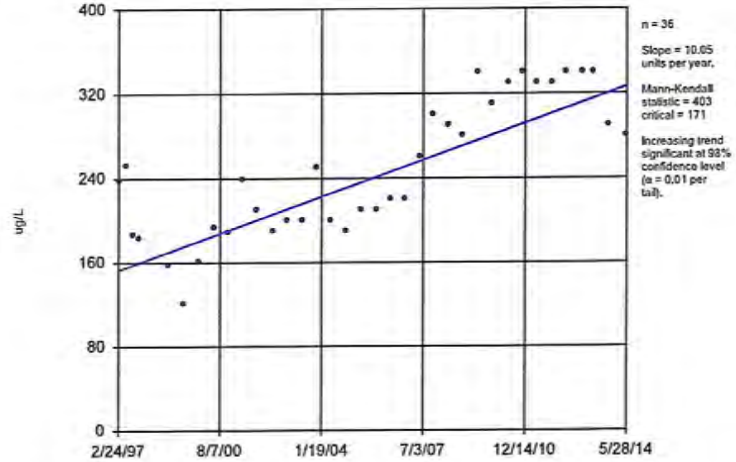
Sen's Slope Estimator

110-SS (bg)



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Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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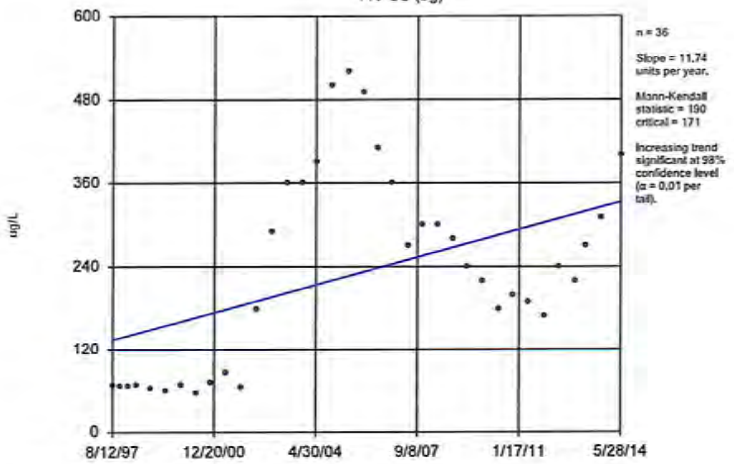
Sen's Slope Estimator

115-SS (bg)



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Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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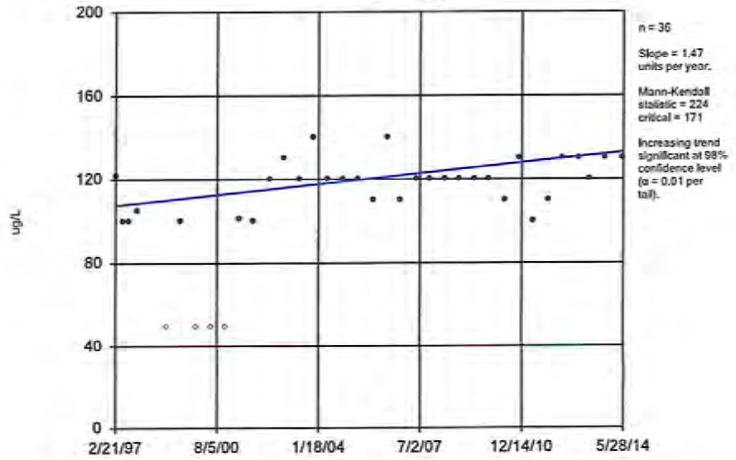
Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SS (bg)



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Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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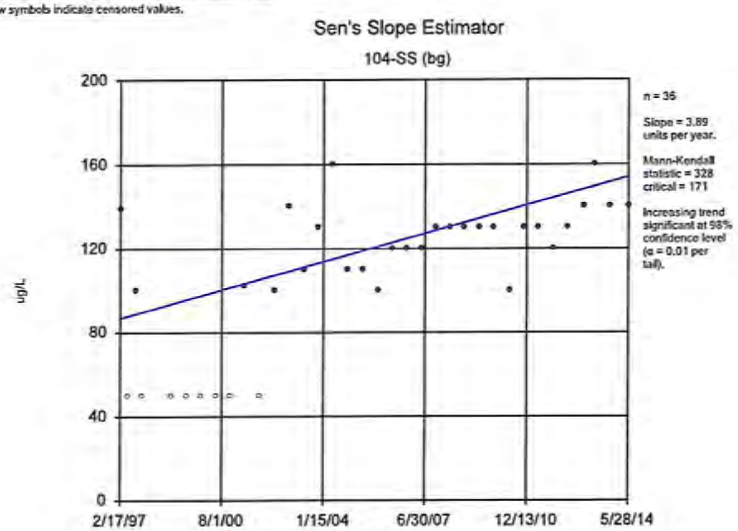
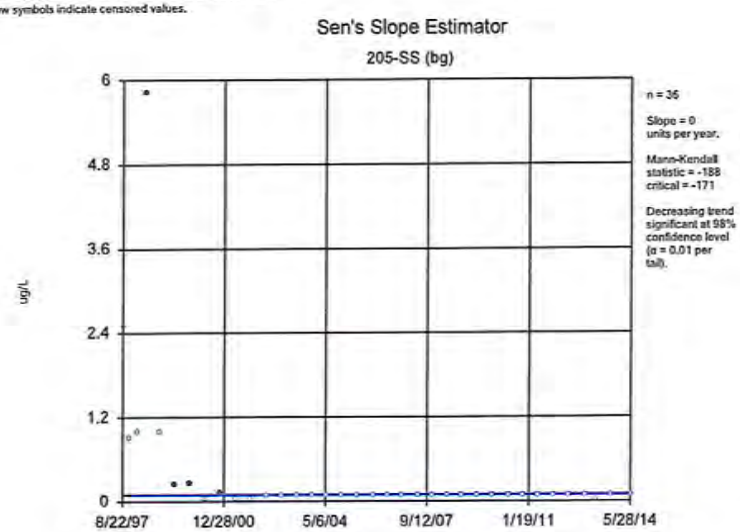


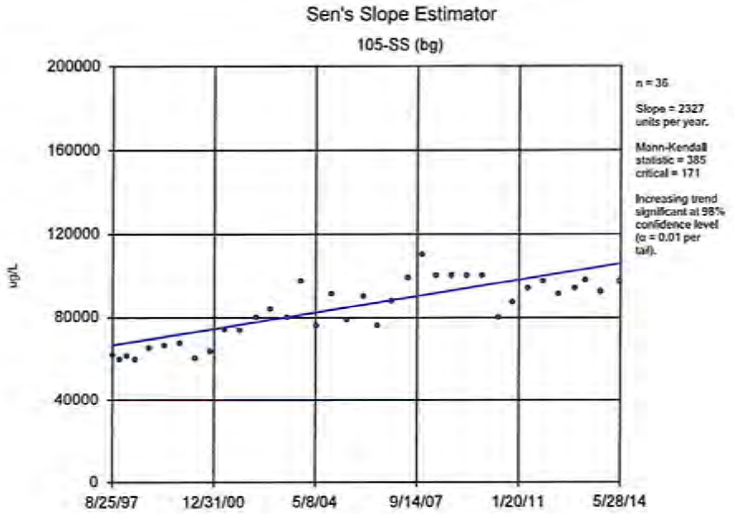
Constituent: Boron Total Analysis Run 11/19/2014 4:03 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



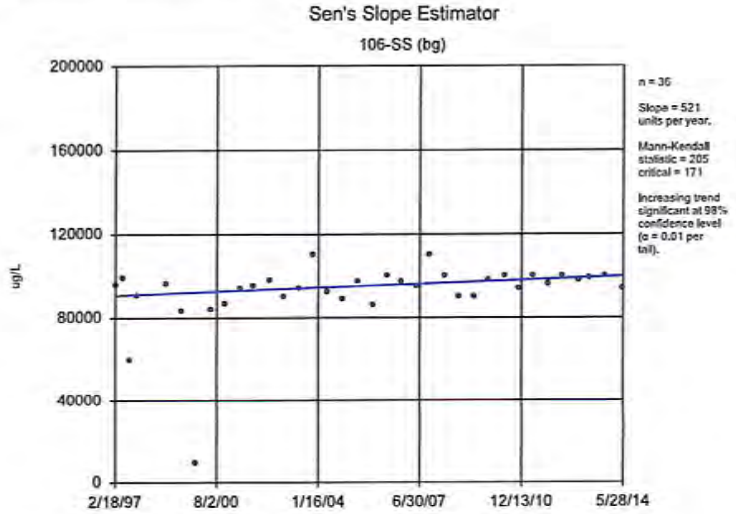
Constituent: Cadmium Total Analysis Run 11/19/2014 4:04 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



Constituent: Calcium Total Analysis Run 11/19/2014 4:04 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

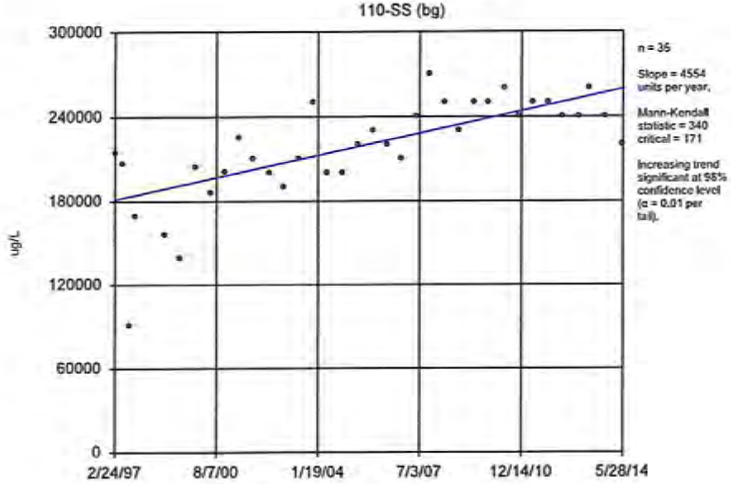


Constituent: Calcium Total Analysis Run 11/19/2014 4:04 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

110-SS (bg)



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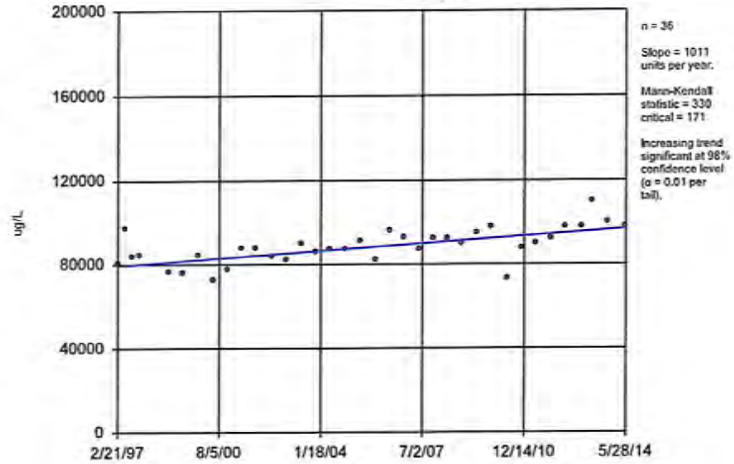
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

201A-SS (bg)



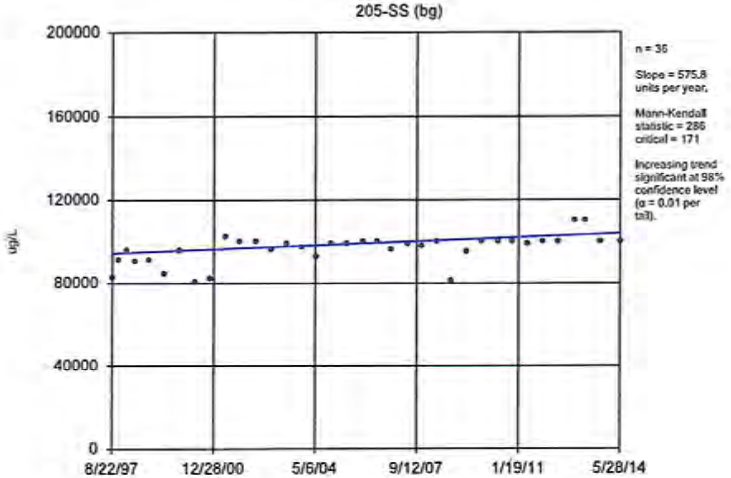
Constituent: Calcium Total Analysis Run 11/19/2014 4:04 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

205-SS (bg)



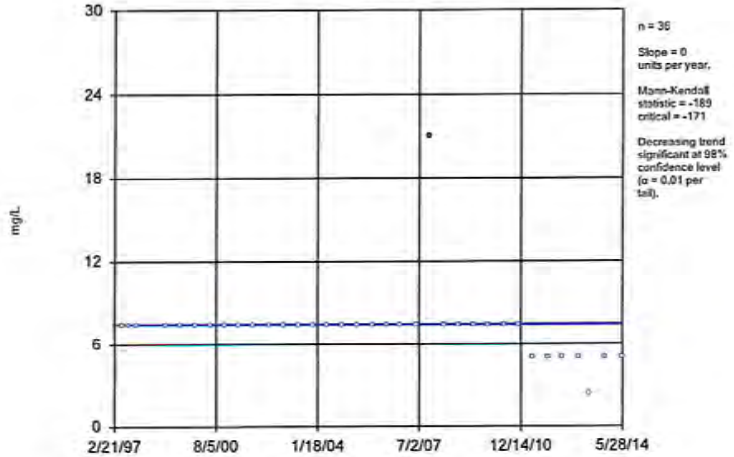
Constituent: Calcium Total Analysis Run 11/19/2014 4:04 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SS (bg)



Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/19/2014 4:04 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
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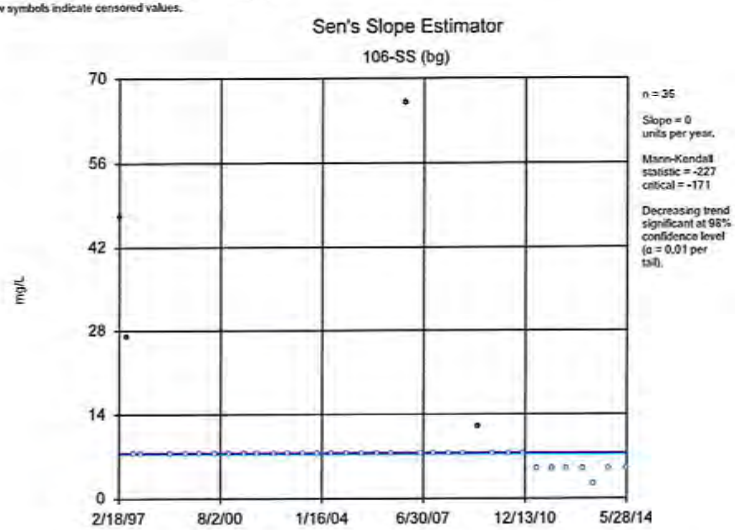
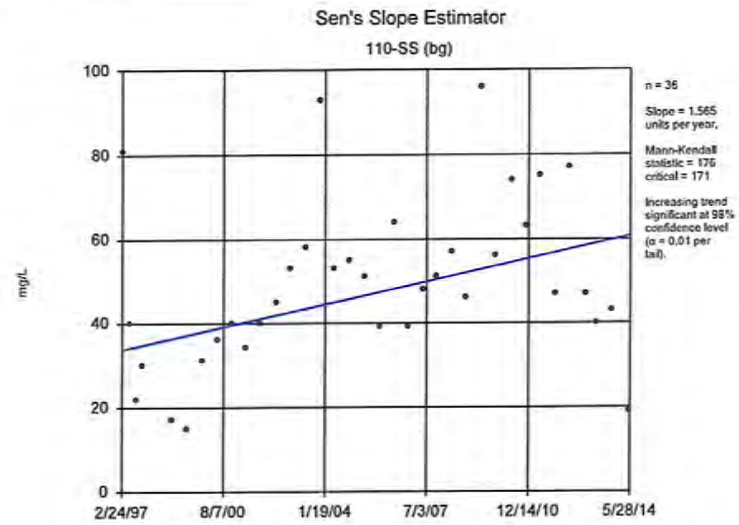


Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/19/2014 4:04 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/19/2014 4:04 PM
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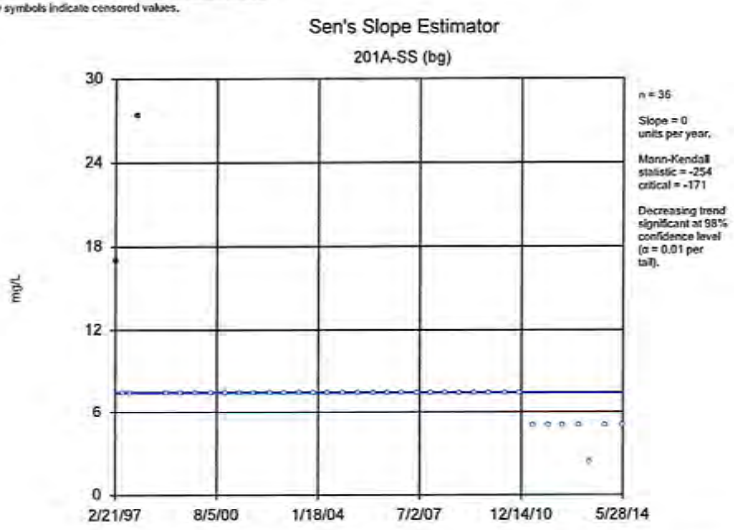
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.



Constituent: Chemical Oxygen Demand [COD] Analysis Run 11/19/2014 4:04 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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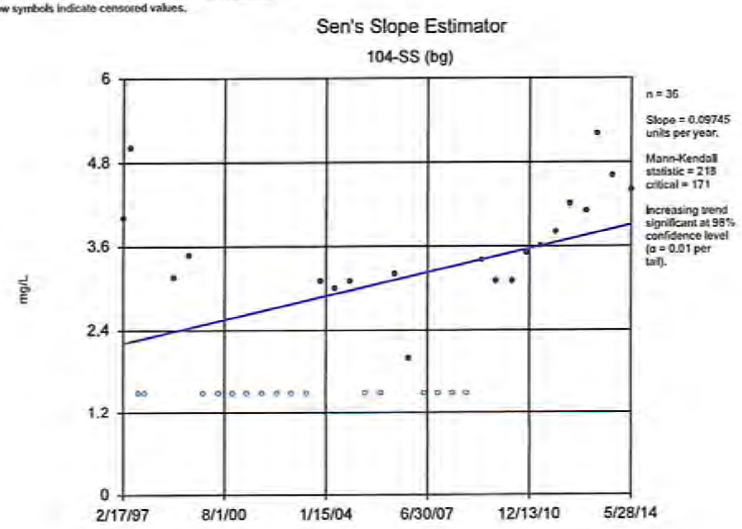
Hollow symbols indicate censored values.

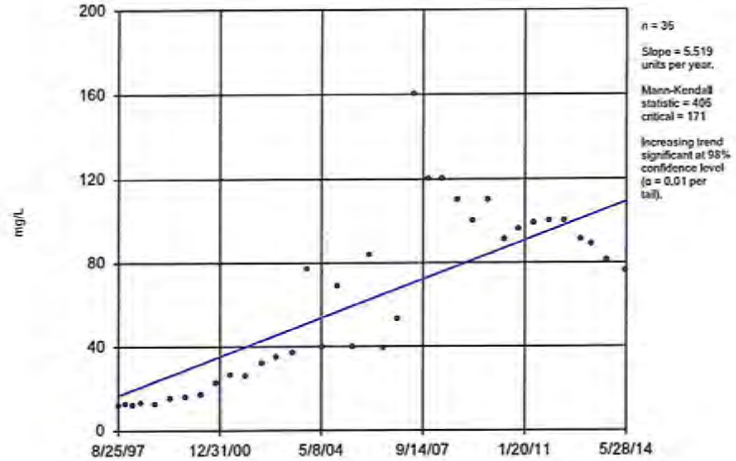


Constituent: Chloride Analysis Run 11/19/2014 4:04 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

105-SS (bg)



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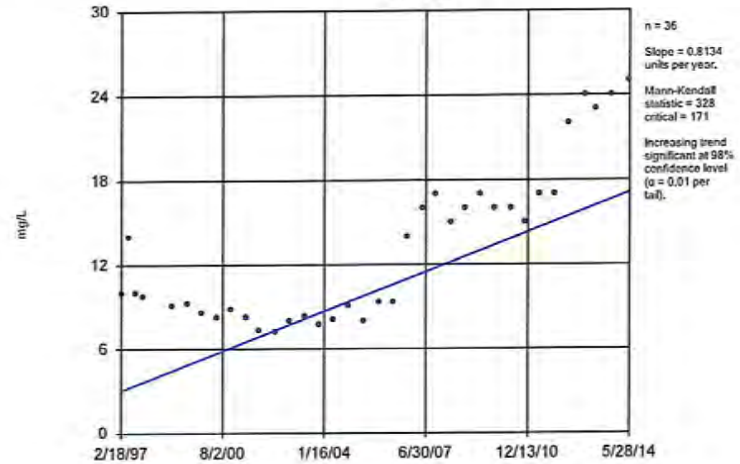
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

106-SS (bg)



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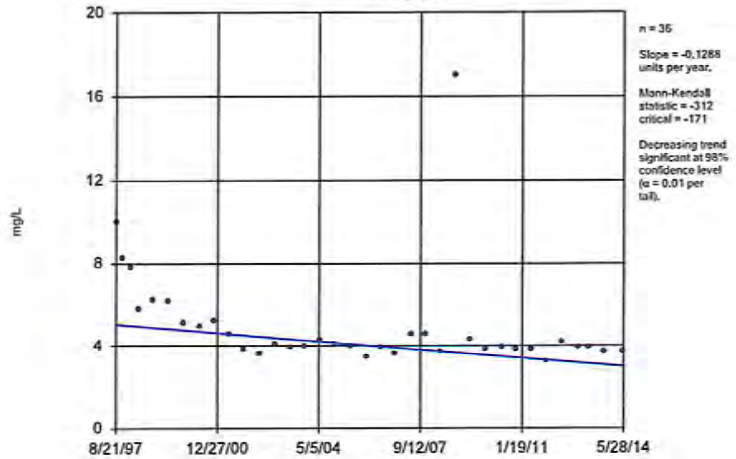
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

109-SS (bg)



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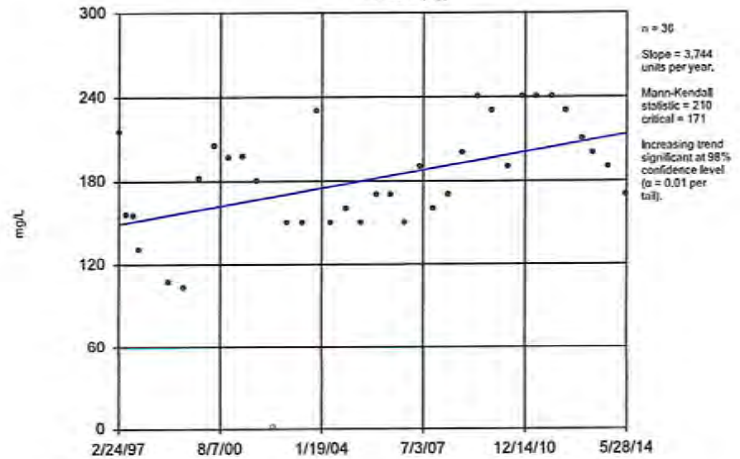
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

110-SS (bg)



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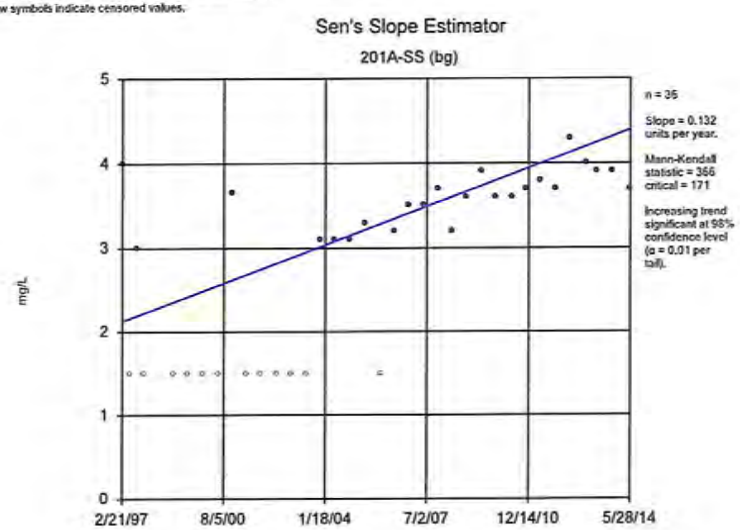

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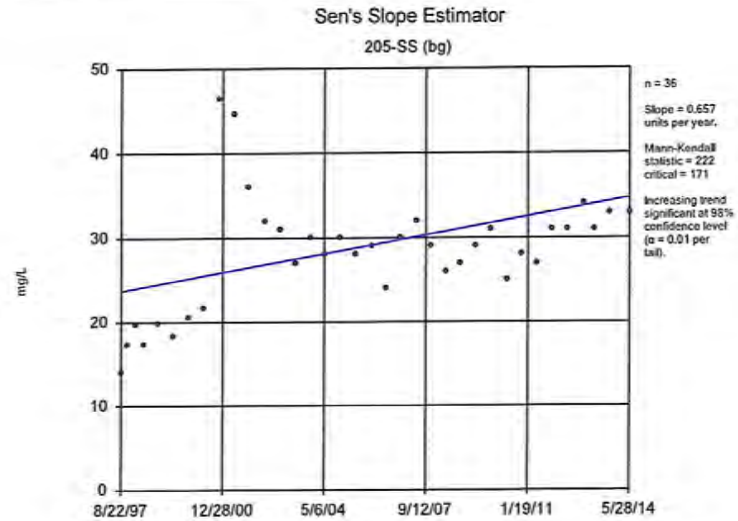

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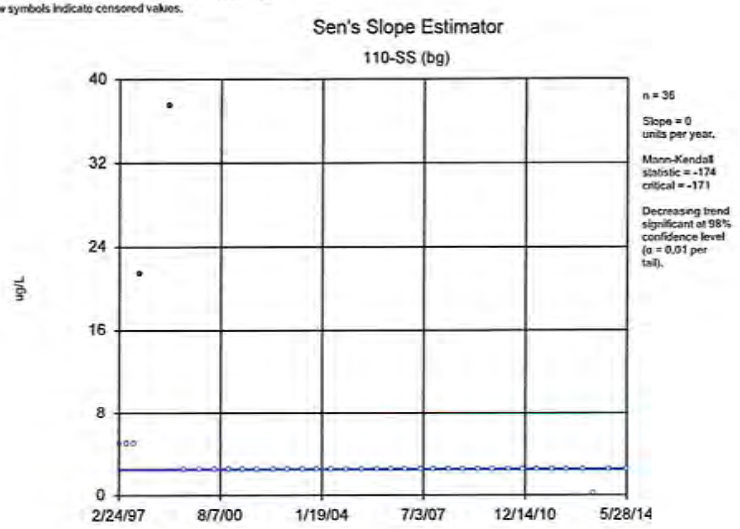
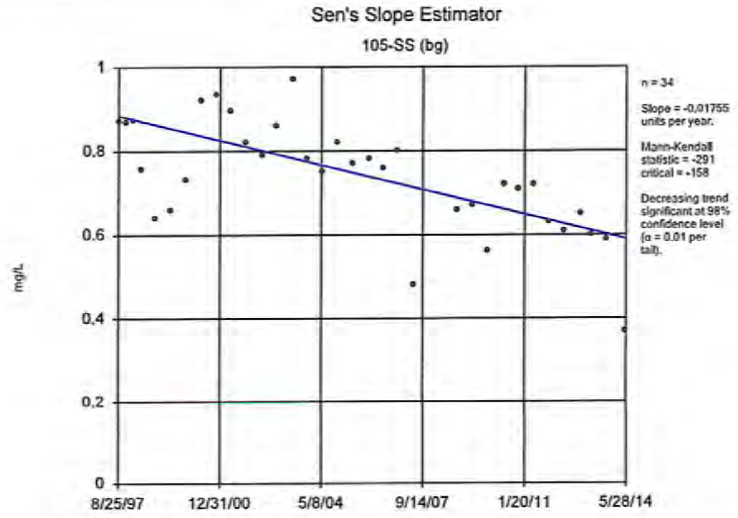


Constituent: Chromium Total Analysis Run 11/19/2014 4:04 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG



Constituent: Fluoride Analysis Run 11/19/2014 4:05 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Constituent: Fluoride Analysis Run 11/19/2014 4:05 PM
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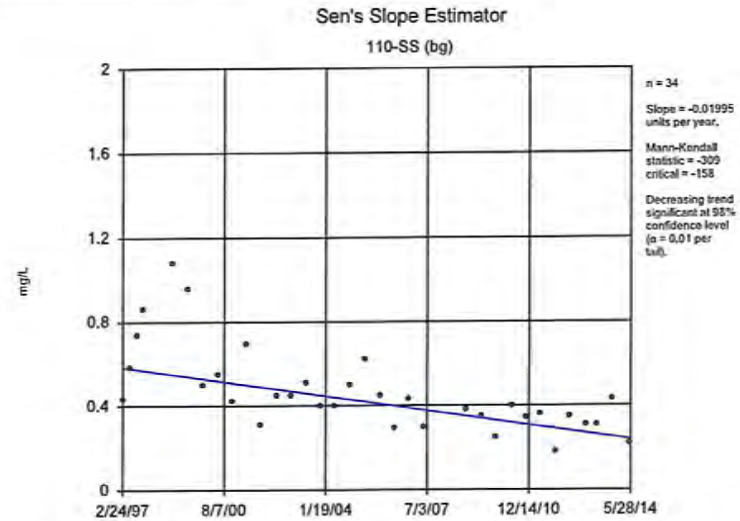

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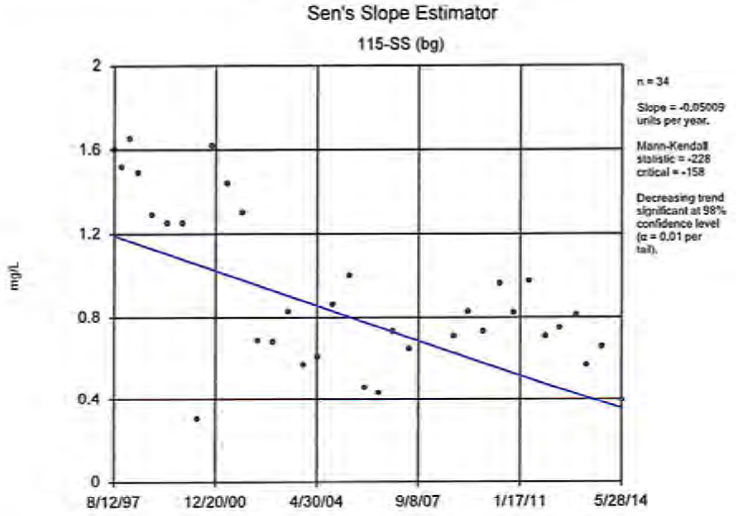

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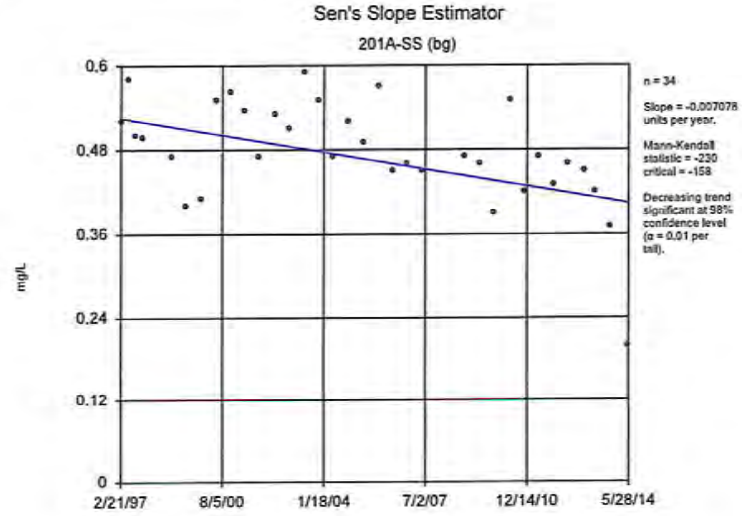
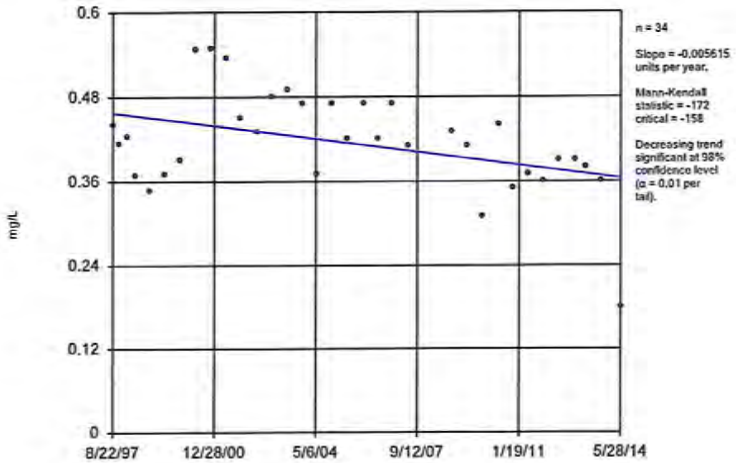


Constituent: Fluoride Analysis Run 11/19/2014 4:05 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

205-SS (bg)



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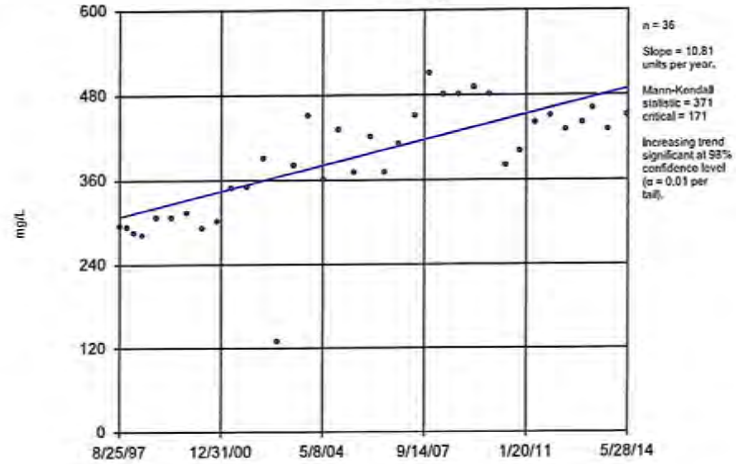
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

105-SS (bg)



Constituent: Hardness Total Analysis Run 11/19/2014 4:05 PM

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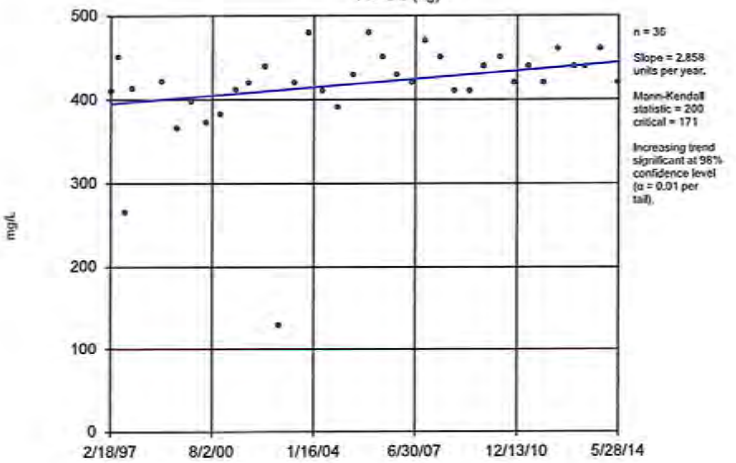
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

106-SS (bg)



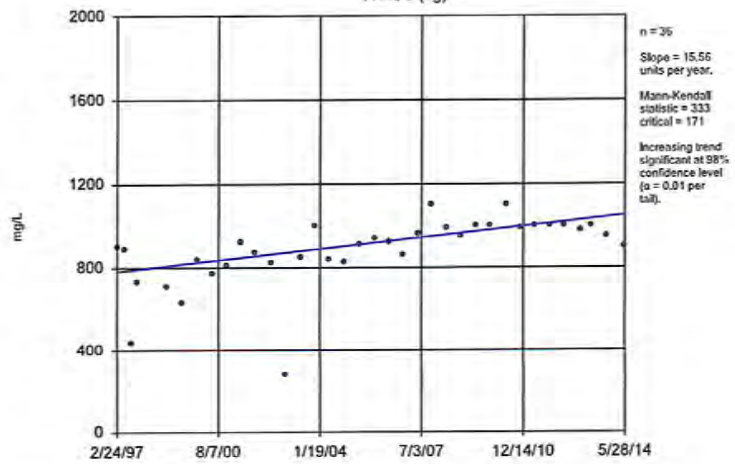
Constituent: Hardness Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

110-SS (bg)



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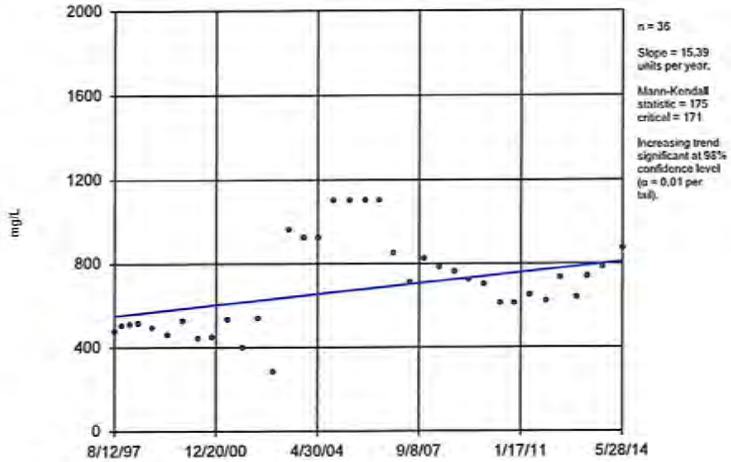
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

115-SS (bg)



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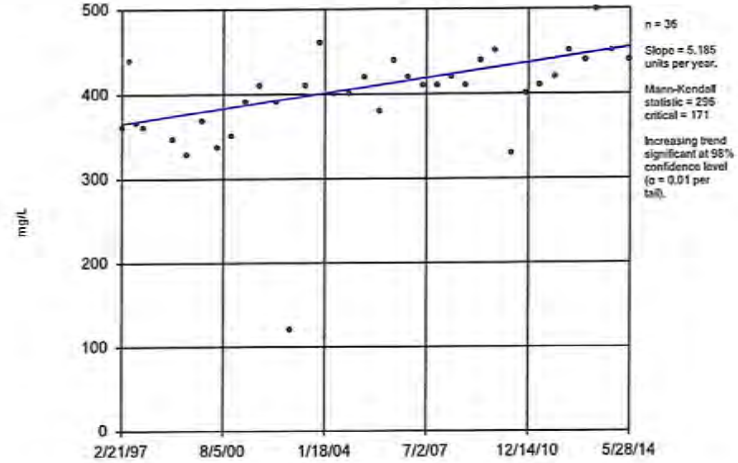
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

201A-SS (bg)



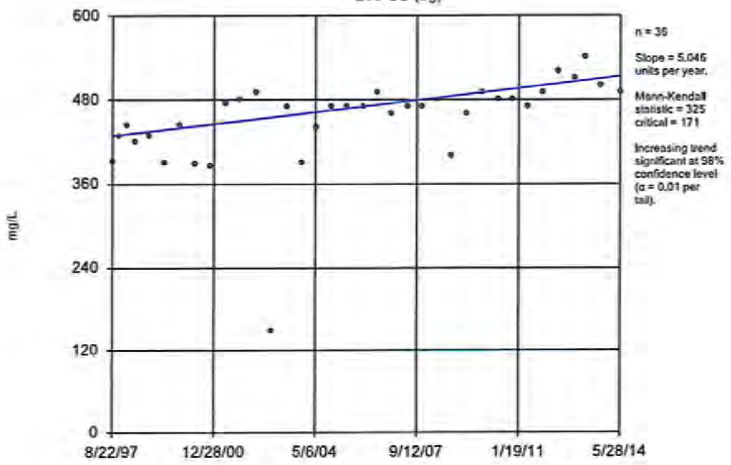
Constituent: Hardness Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

205-SS (bg)



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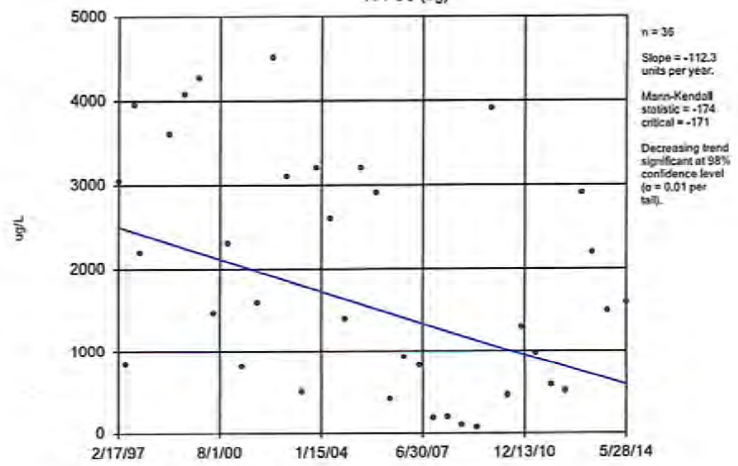
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

104-SS (bg)



Constituent: Iron Total Analysis Run 11/19/2014 4:05 PM

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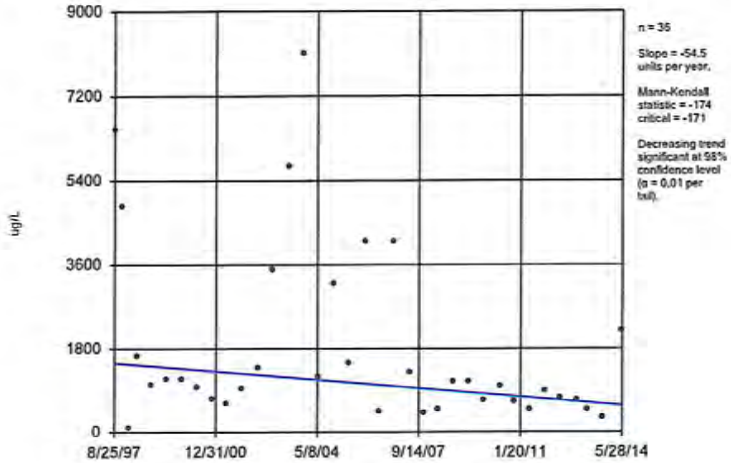
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

105-SS (bg)



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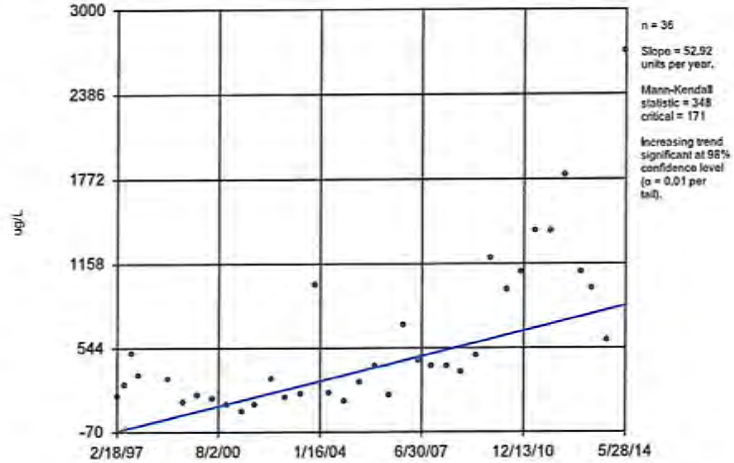
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

106-SS (bg)



Constituent: Iron Total Analysis Run 11/19/2014 4:05 PM

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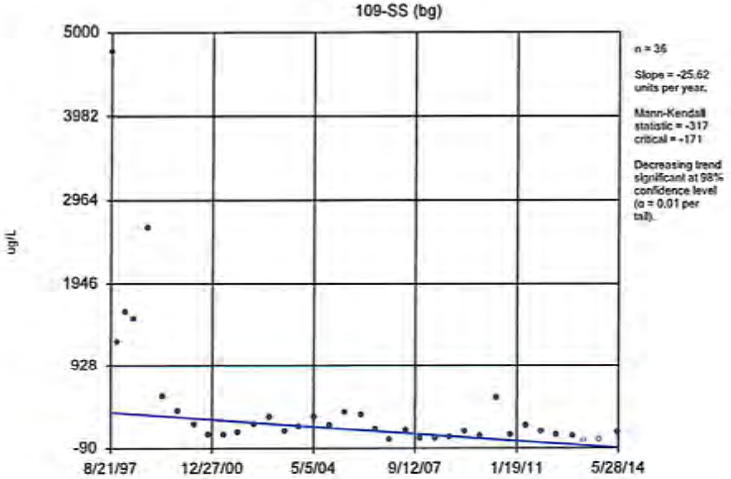
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

109-SS (bg)



Constituent: Iron Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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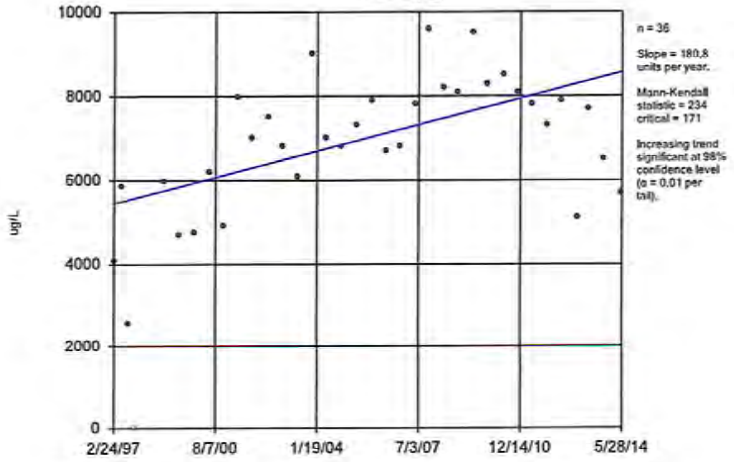
Hollow symbols indicate censored values.

Sen's Slope Estimator

110-SS (bg)



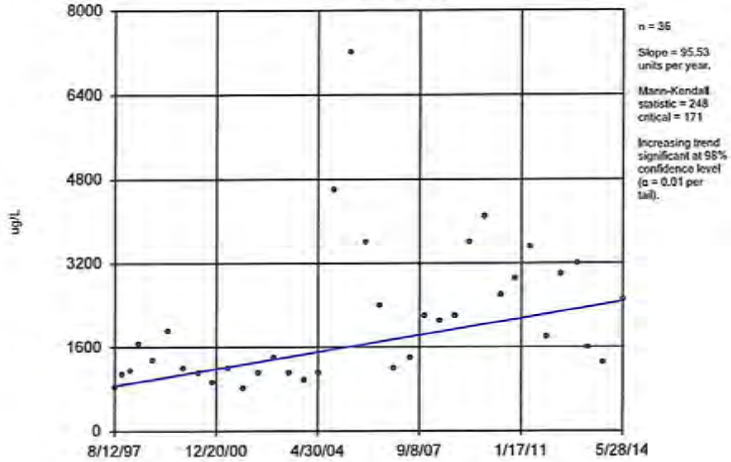
Constituent: Iron Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

115-SS (bg)



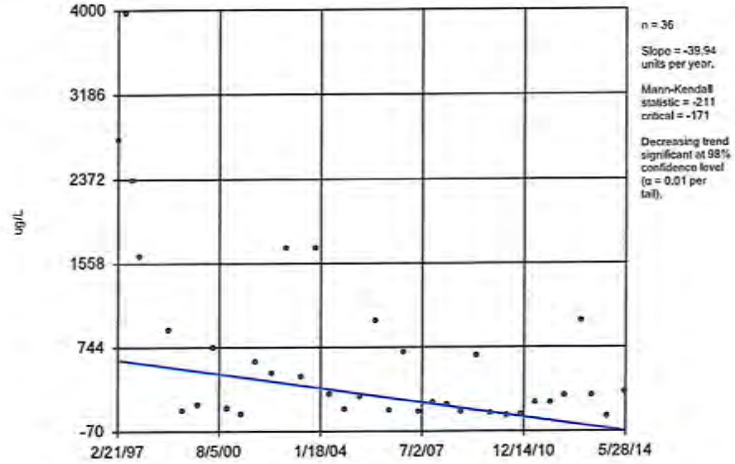
Constituent: Iron Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

201A-SS (bg)



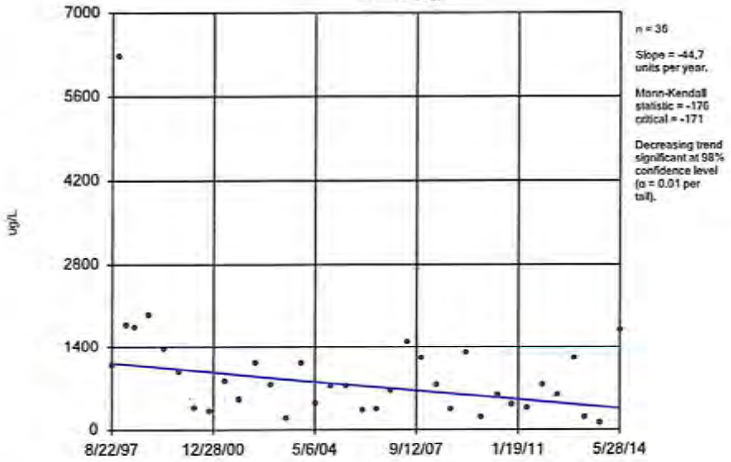
Constituent: Iron Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

205-SS (bg)



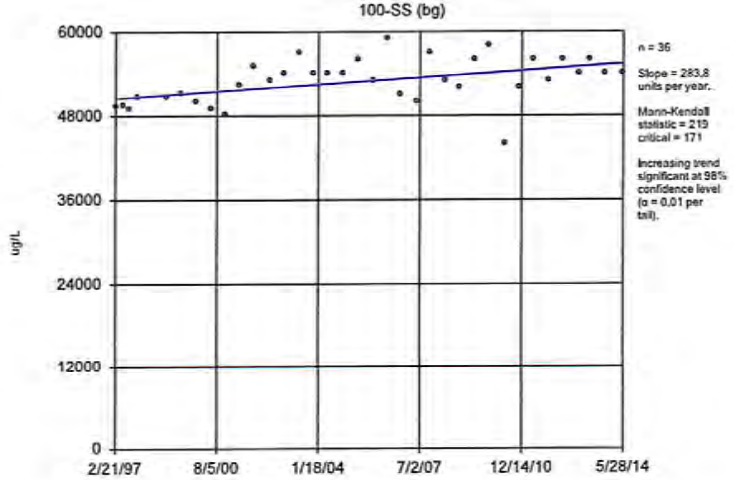
Constituent: Iron Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

100-SS (bg)



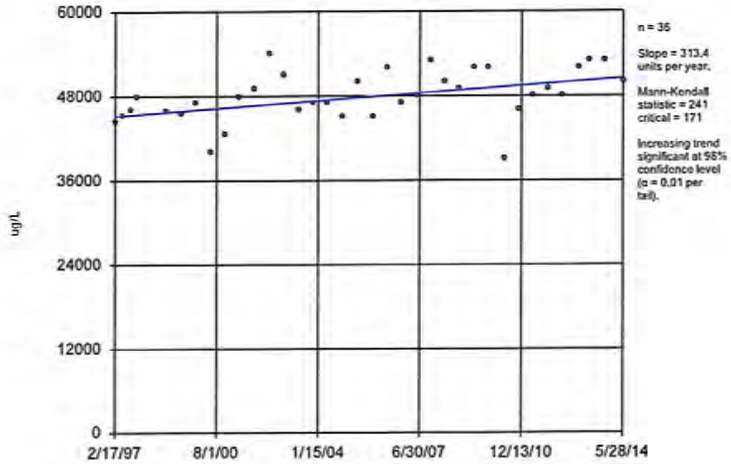
Constituent: Magnesium Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

104-SS (bg)



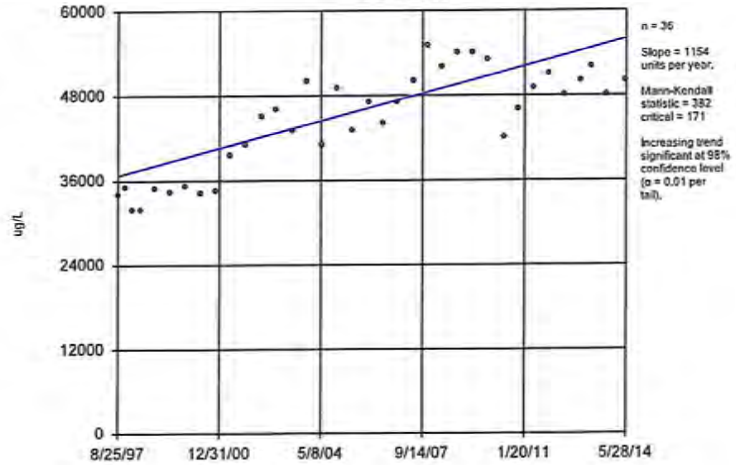
Constituent: Magnesium Total Analysis Run 11/19/2014 4:05 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

105-SS (bg)



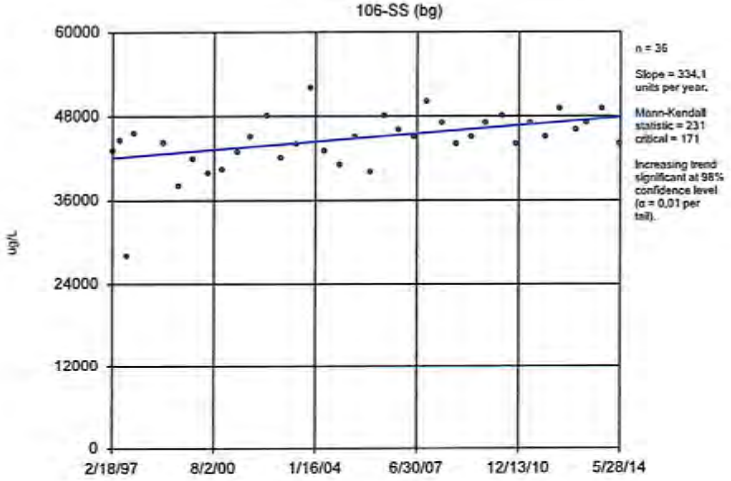
Constituent: Magnesium Total Analysis Run 11/19/2014 4:06 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

106-SS (bg)



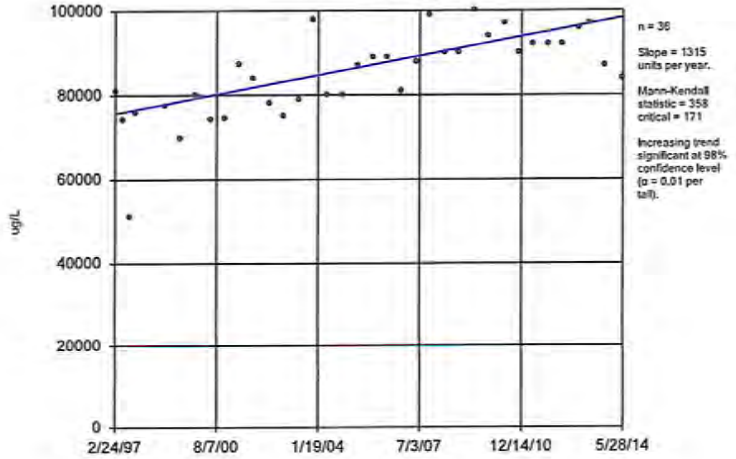
Constituent: Magnesium Total Analysis Run 11/19/2014 4:06 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

110-SS (bg)



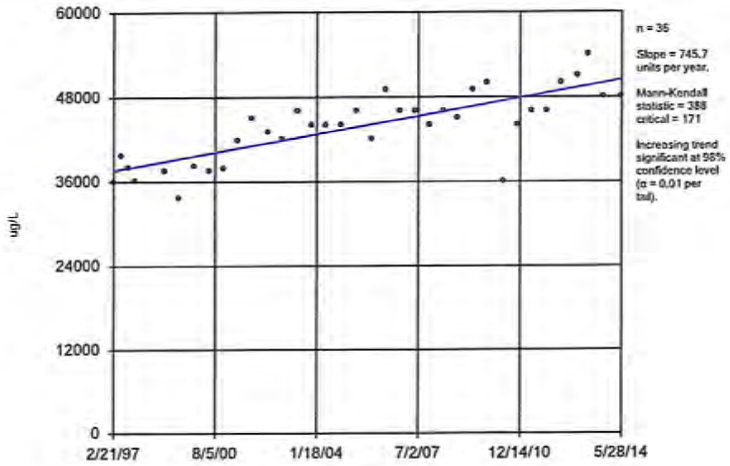
Constituent: Magnesium Total Analysis Run 11/19/2014 4:06 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

201A-SS (bg)



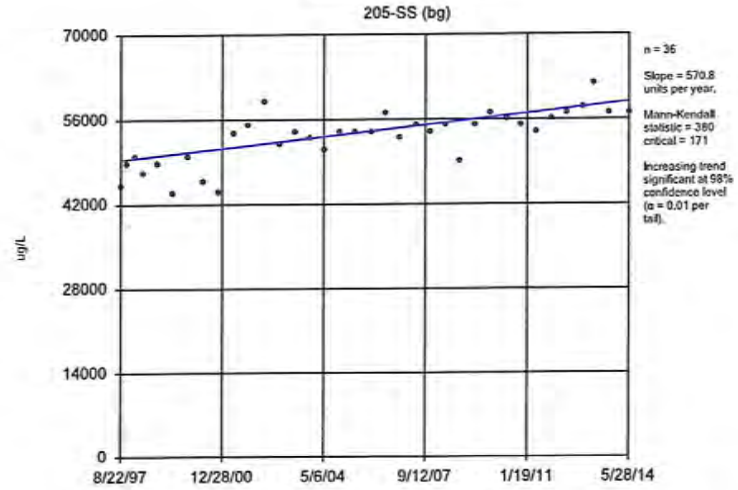
Constituent: Magnesium Total Analysis Run 11/19/2014 4:06 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

205-SS (bg)



Constituent: Magnesium Total Analysis Run 11/19/2014 4:06 PM

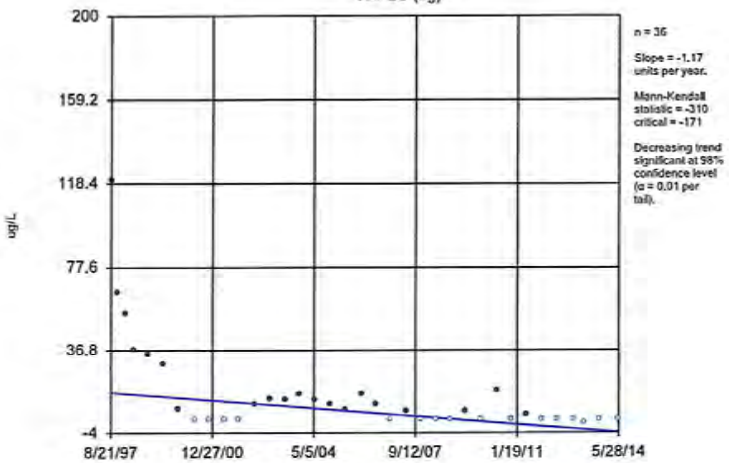
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

109-SS (bg)



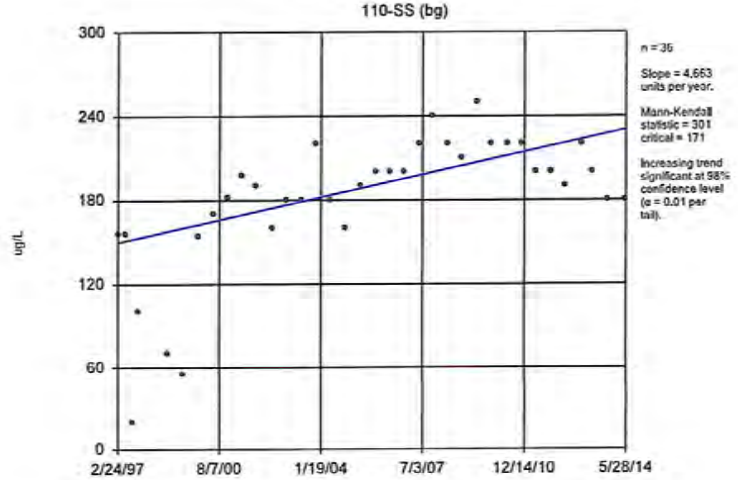
Constituent: Manganese Total Analysis Run 11/19/2014 4:06 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

110-SS (bg)



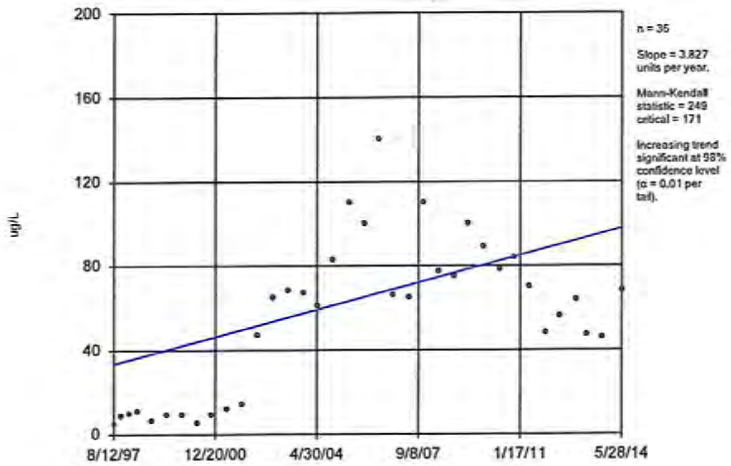
Constituent: Manganese Total Analysis Run 11/19/2014 4:06 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

115-SS (bg)

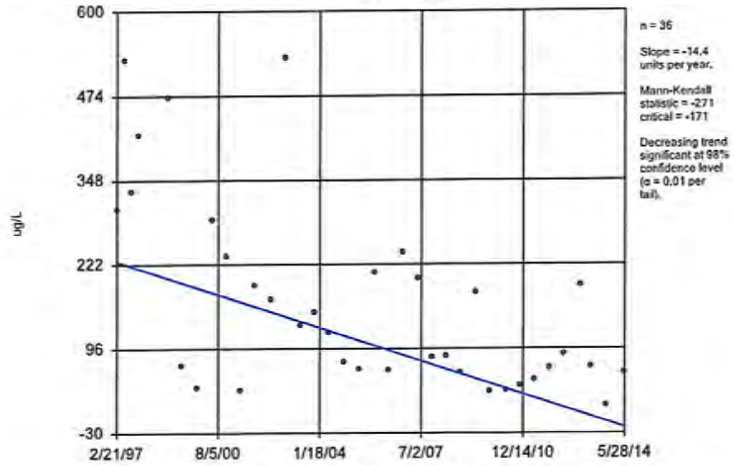


Constituent: Manganese Total Analysis Run 11/19/2014 4:06 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

201A-SS (bg)

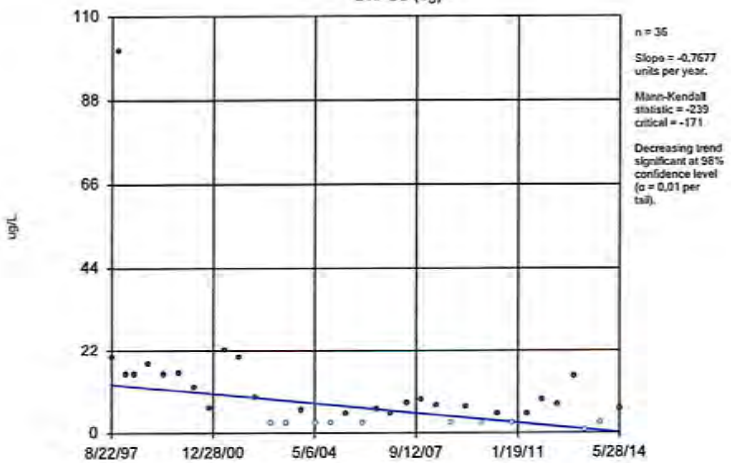


Constituent: Manganese Total Analysis Run 11/19/2014 4:06 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

205-SS (bg)

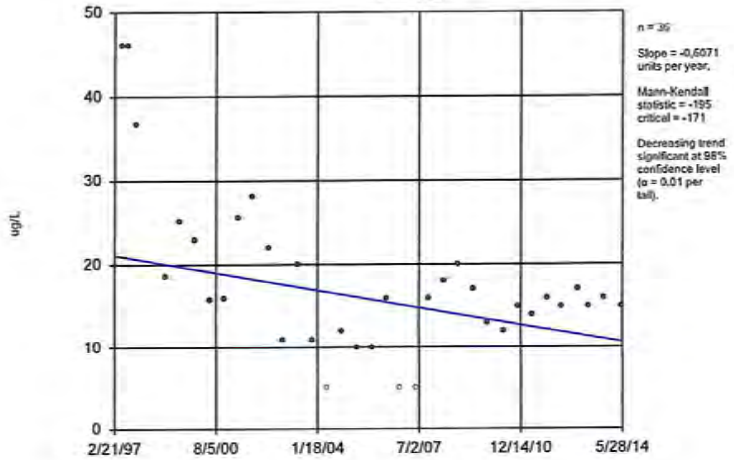


Constituent: Manganese Total Analysis Run 11/19/2014 4:06 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SS (bg)

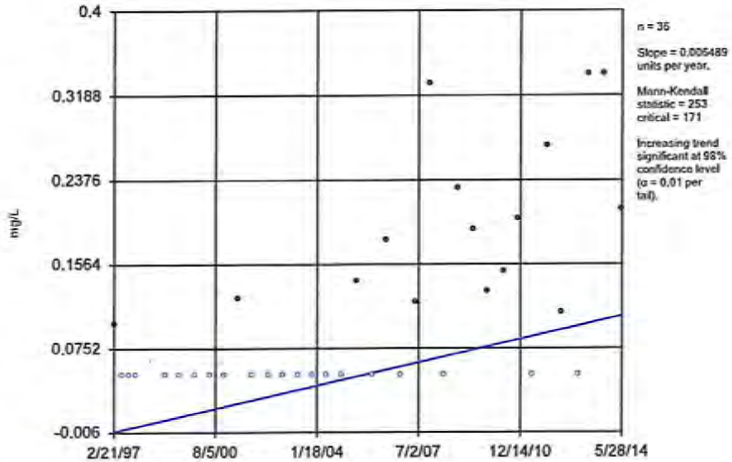


Constituent: Nickel Total Analysis Run 11/19/2014 4:06 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

201A-SS (bg)

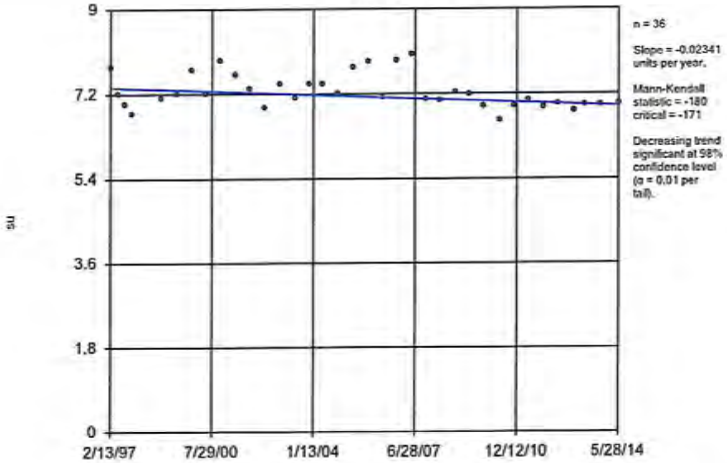


Constituent: Nitrate/Nitrite Analysis Run 11/19/2014 4:06 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

100-SS (bg)

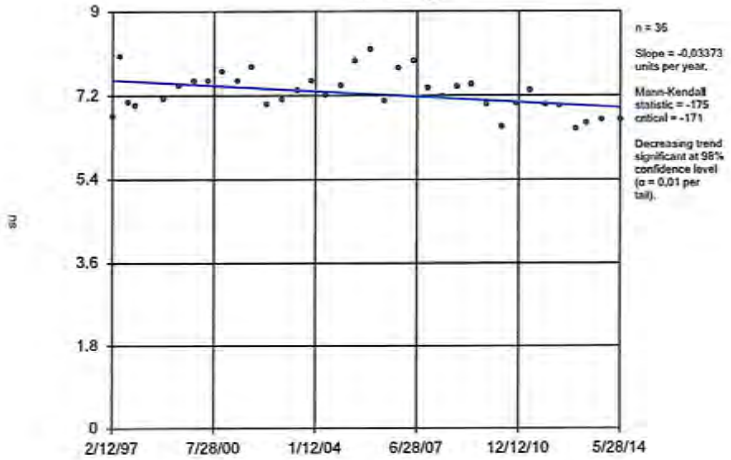


Constituent: pH [Field] Analysis Run 11/19/2014 4:06 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

104-SS (bg)

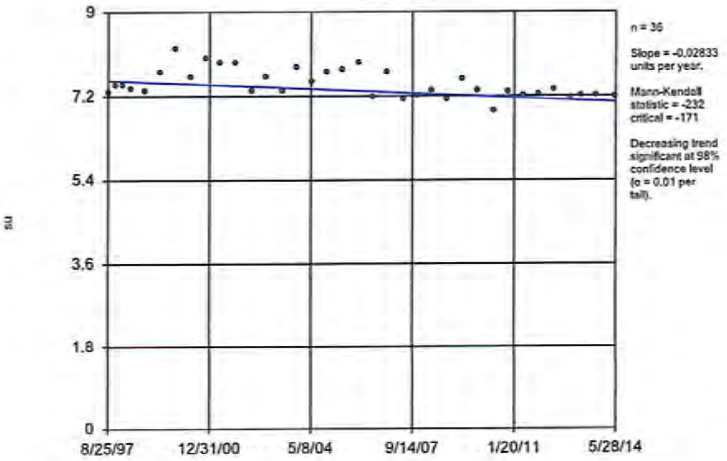


Constituent: pH [Field] Analysis Run 11/19/2014 4:06 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

105-SS (bg)

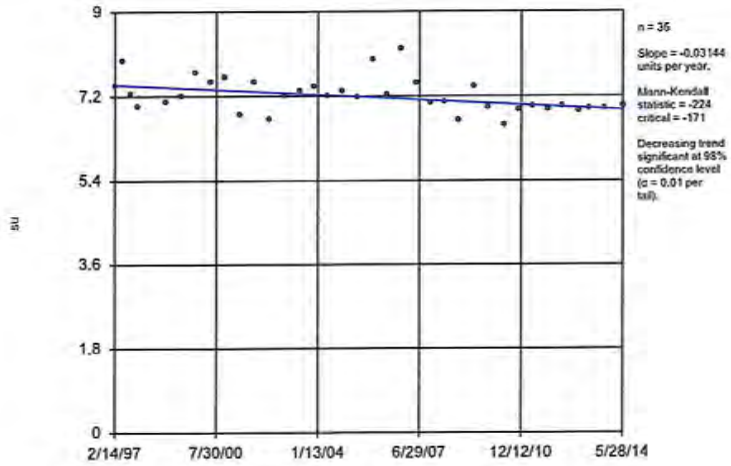


Constituent: pH [Field] Analysis Run 11/19/2014 4:06 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

106-SS (bg)



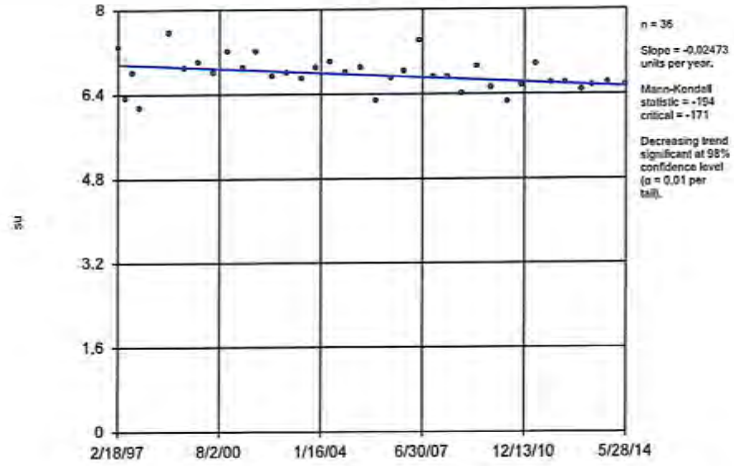
Constituent: pH [Field] Analysis Run 11/19/2014 4:06 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

110-SS (bg)



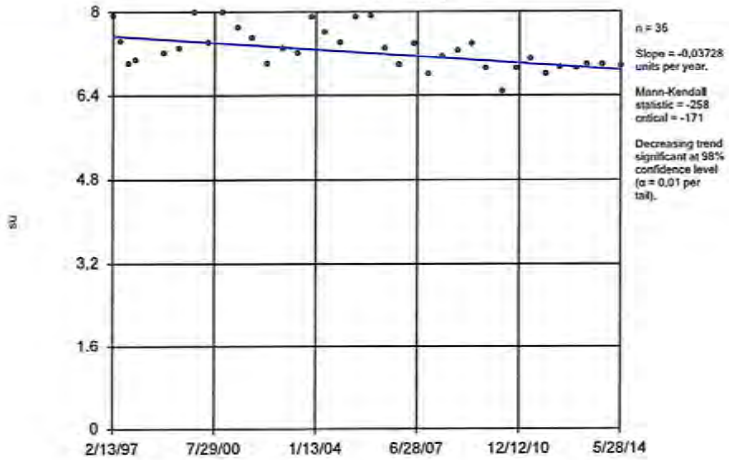
Constituent: pH [Field] Analysis Run 11/19/2014 4:07 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

201A-SS (bg)



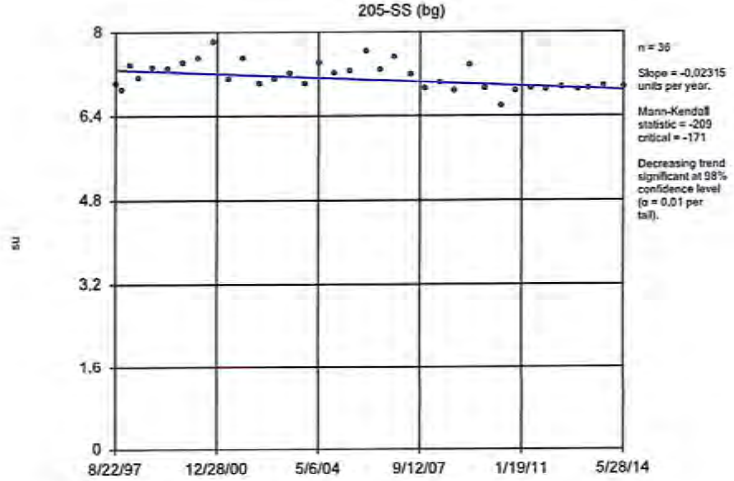
Constituent: pH [Field] Analysis Run 11/19/2014 4:07 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

205-SS (bg)



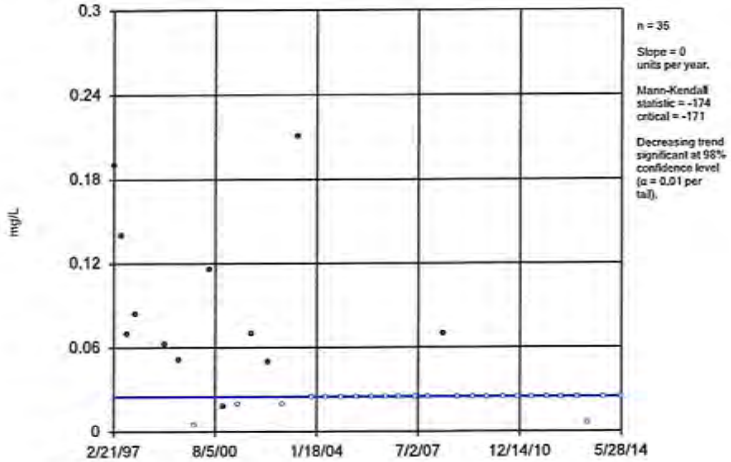
Constituent: pH [Field] Analysis Run 11/19/2014 4:07 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

100-SS (bg)

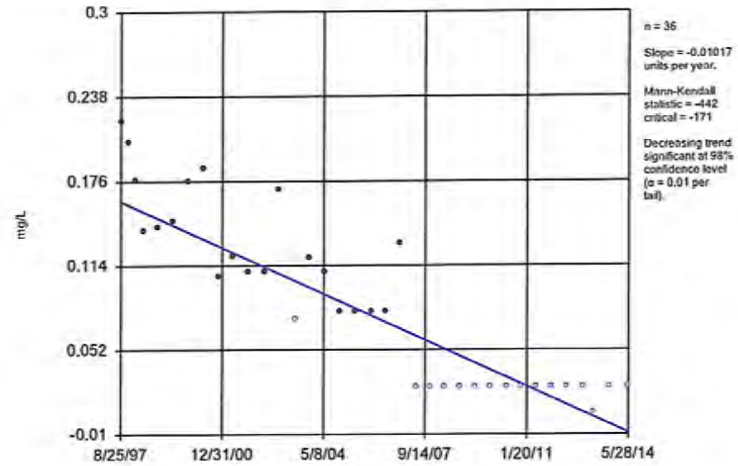


Constituent: Phosphorus Total Analysis Run 11/19/2014 4:07 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

105-SS (bg)



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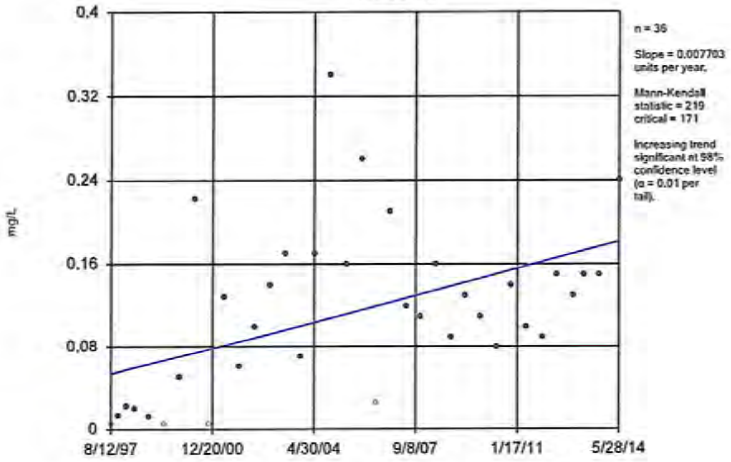
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

115-SS (bg)

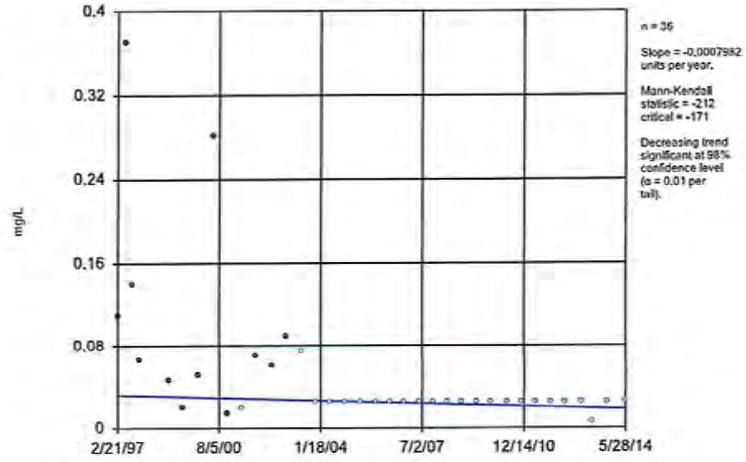


Constituent: Phosphorus Total Analysis Run 11/19/2014 4:07 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

201A-SS (bg)



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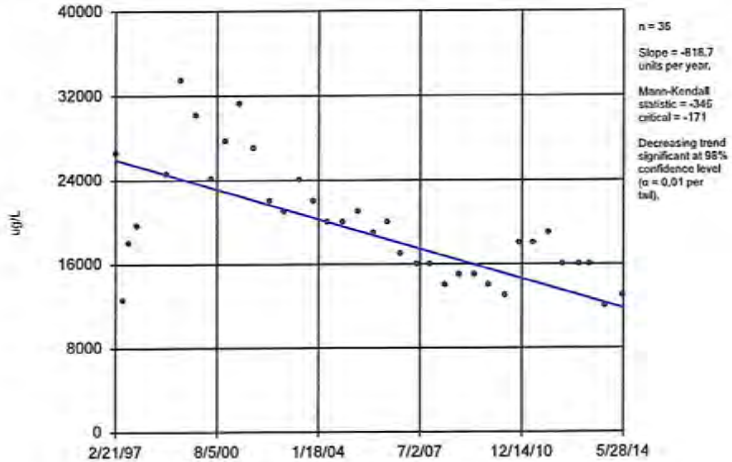
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

100-SS (bg)



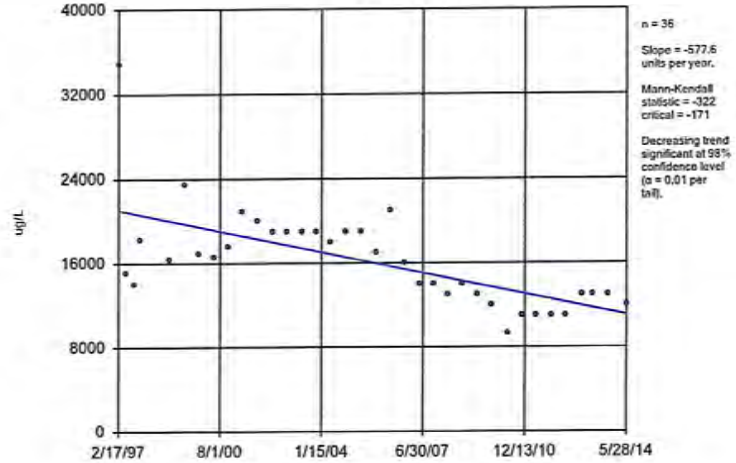
Constituent: Sodium Total Analysis Run 11/19/2014 4:07 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

104-SS (bg)



Constituent: Sodium Total Analysis Run 11/19/2014 4:07 PM

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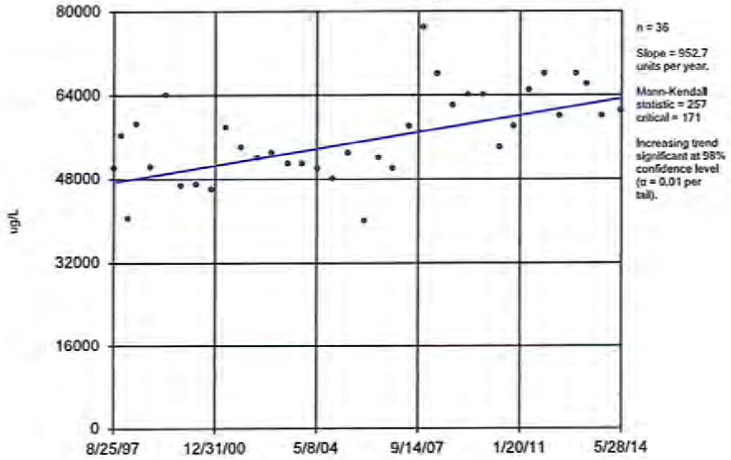
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

105-SS (bg)



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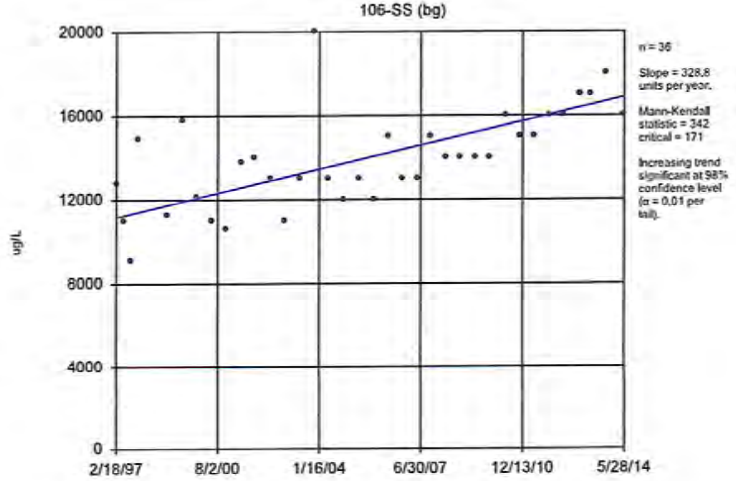
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

106-SS (bg)



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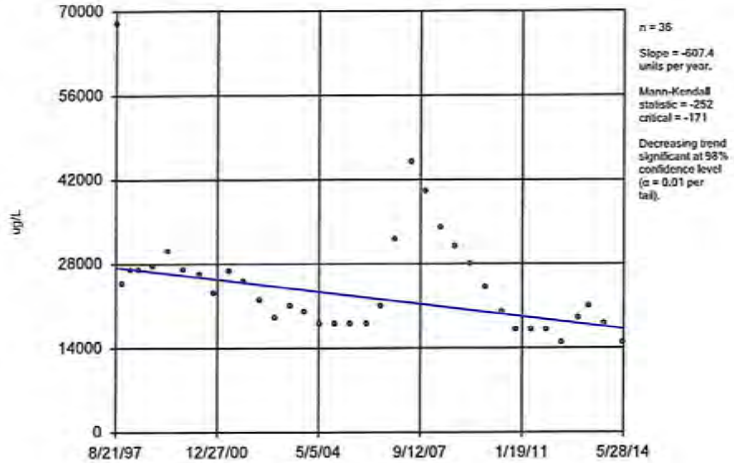
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

109-SS (bg)



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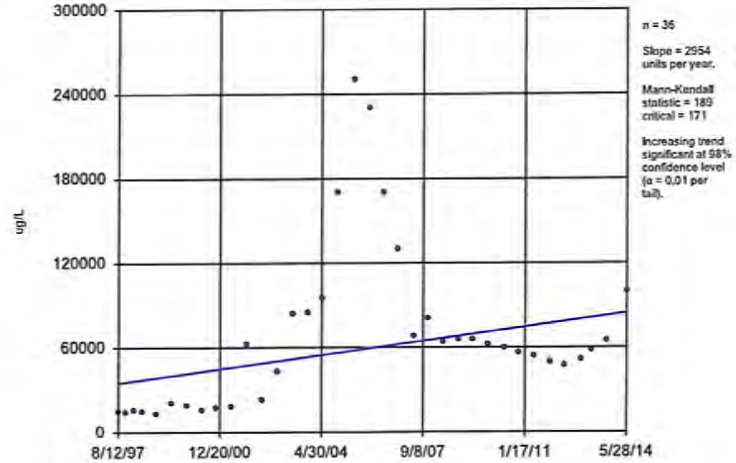
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

115-SS (bg)



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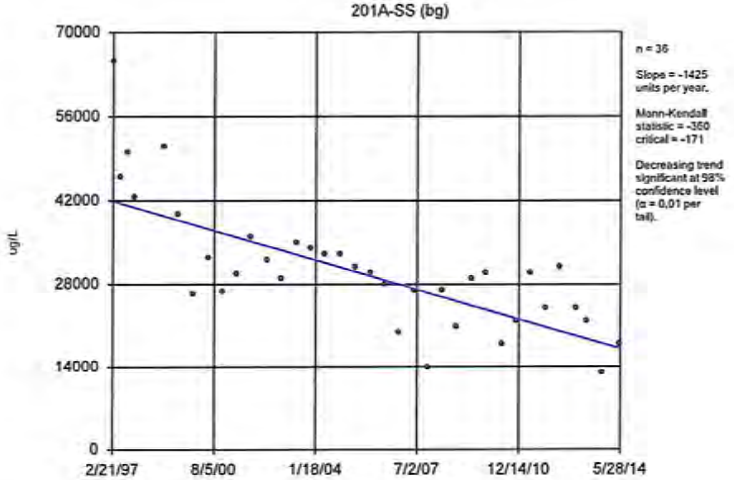
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

201A-SS (bg)



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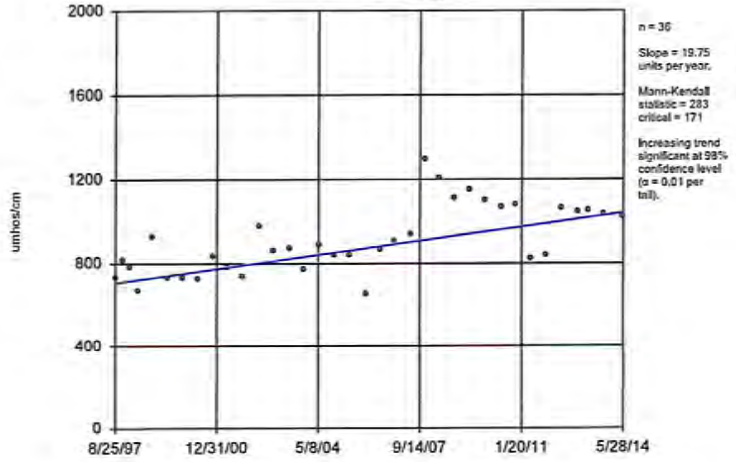
Sanitas™ v.9.4.40 Sanitas software licensed to Herst Associates, UG

Sen's Slope Estimator

105-SS (bg)



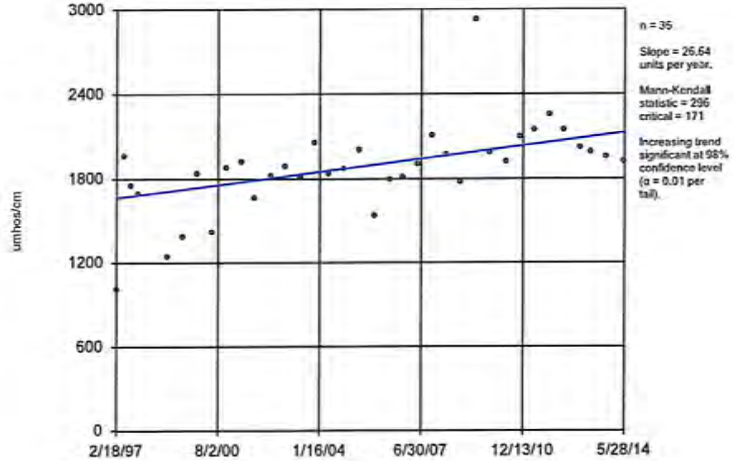
Constituent: Specific Conductance [Field] Analysis Run 11/19/2014 4:07 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

110-SS (bg)



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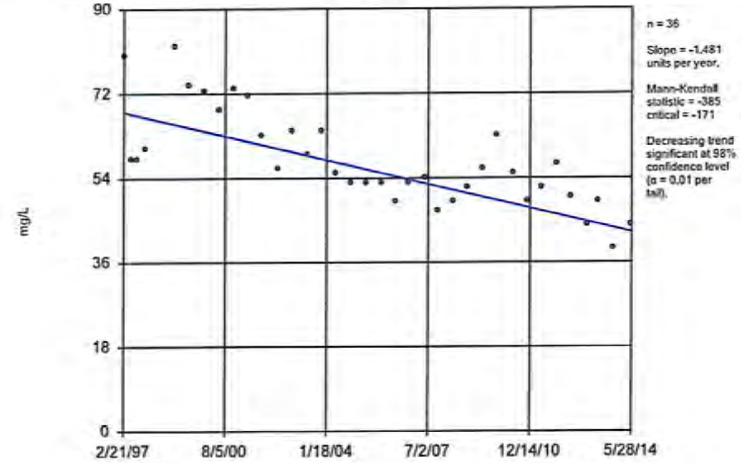
Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

100-SS (bg)



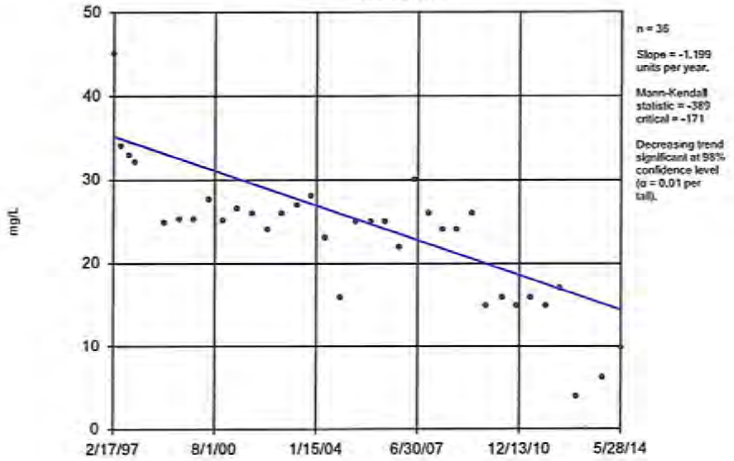
Constituent: Sulfate as SO4 Analysis Run 11/19/2014 4:08 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

104-SS (bg)



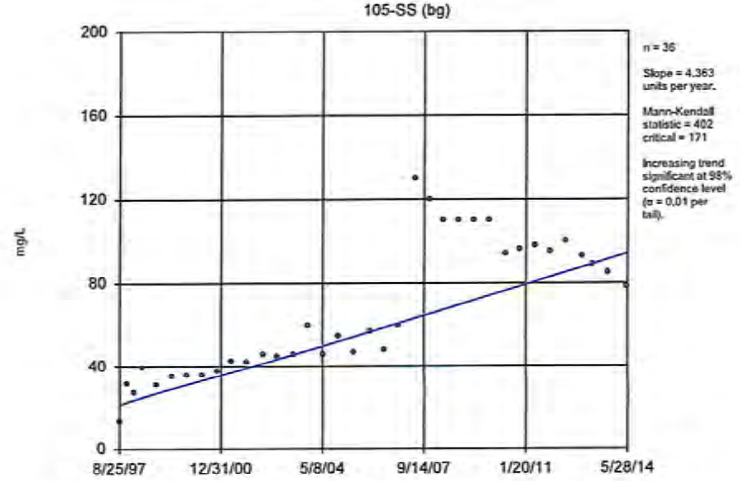
Constituent: Sulfate as SO4 Analysis Run 11/19/2014 4:08 PM

Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG

Sen's Slope Estimator

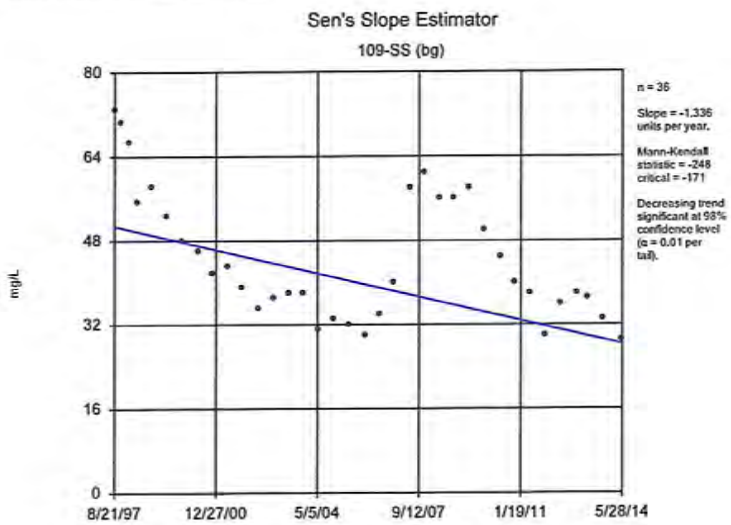
105-SS (bg)



Constituent: Sulfate as SO4 Analysis Run 11/19/2014 4:08 PM

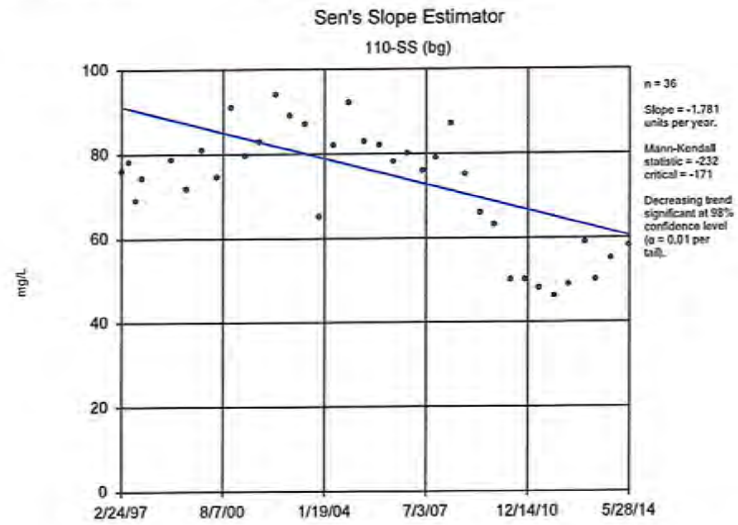
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG



Constituent: Sulfate as SO4 Analysis Run 11/19/2014 4:08 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG



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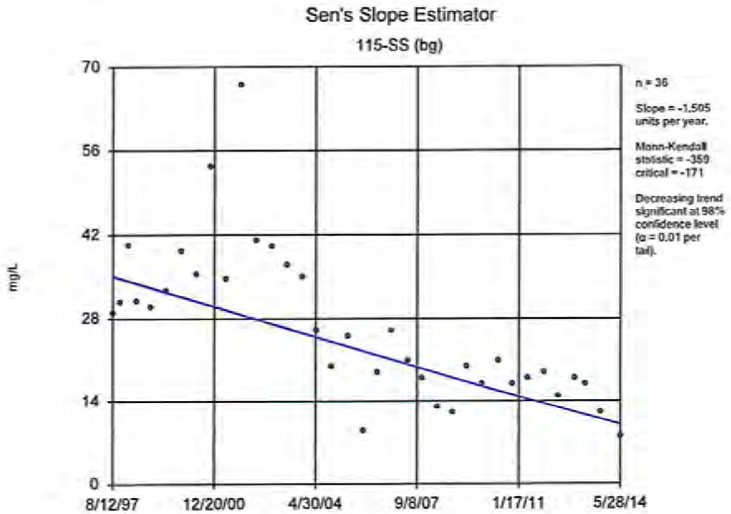
Sanitas™ v.9.4.40 Sanitas software licensed to Hirst Associates, UG



Constituent: Sulfate as SO4 Analysis Run 11/19/2014 4:08 PM
Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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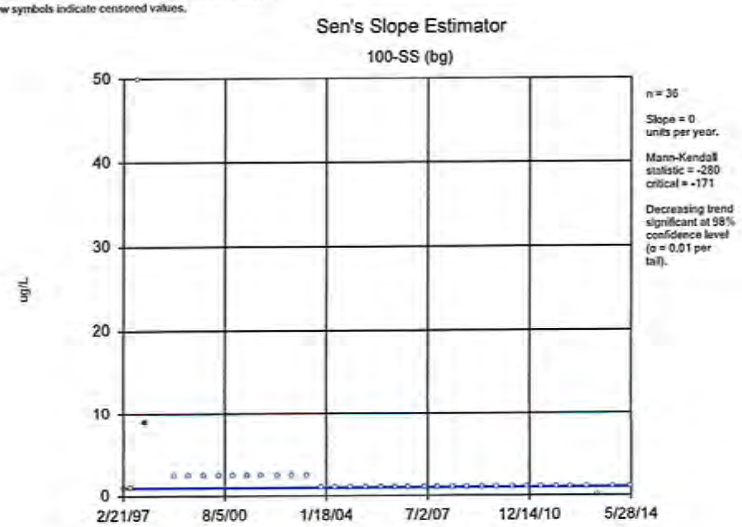

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Facility: Bridgeton LF Client: Bridgeton LF Data File: BRIDGE

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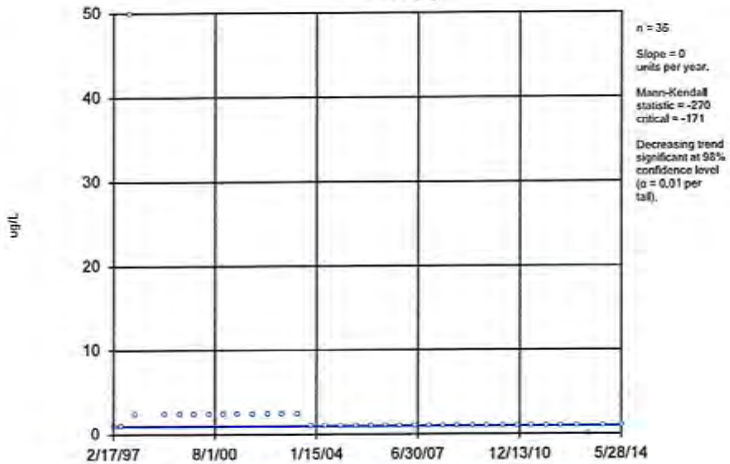
Hollow symbols indicate censored values.

Sen's Slope Estimator

104-SS (bg)



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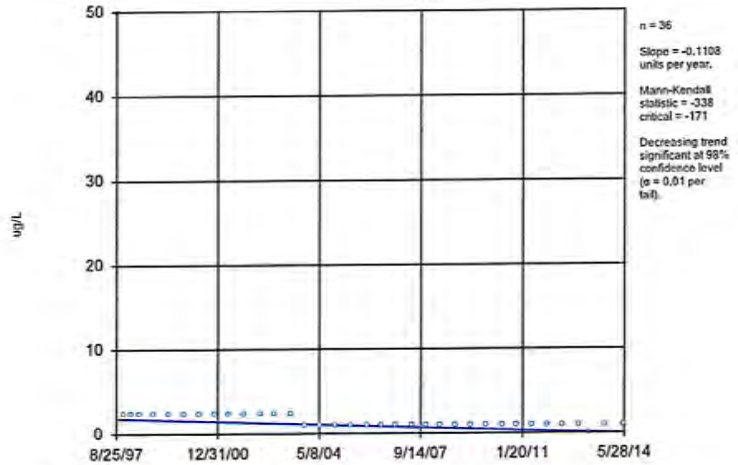
Hollow symbols indicate censored values.

Sen's Slope Estimator

105-SS (bg)



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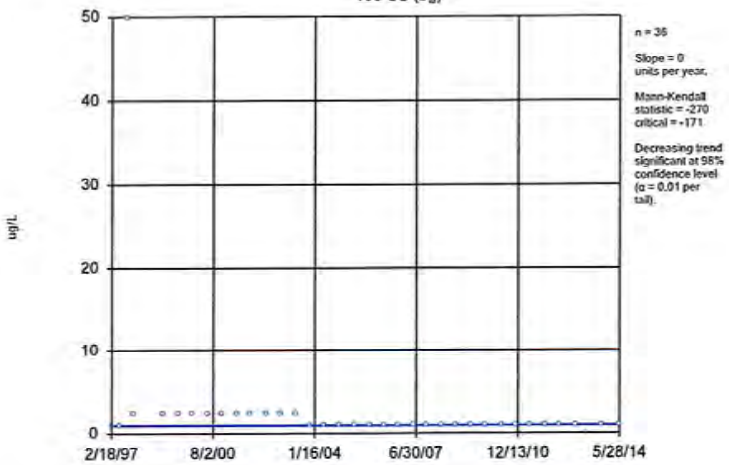
Sen's Slope Estimator

106-SS (bg)



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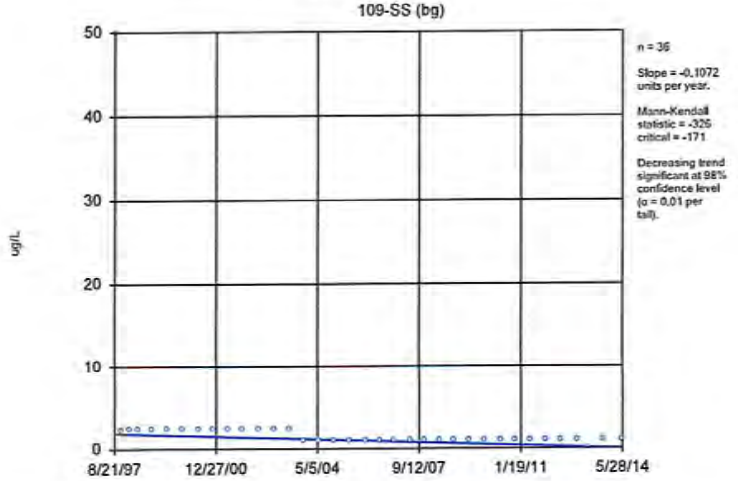
Hollow symbols indicate censored values.

Sen's Slope Estimator

109-SS (bg)



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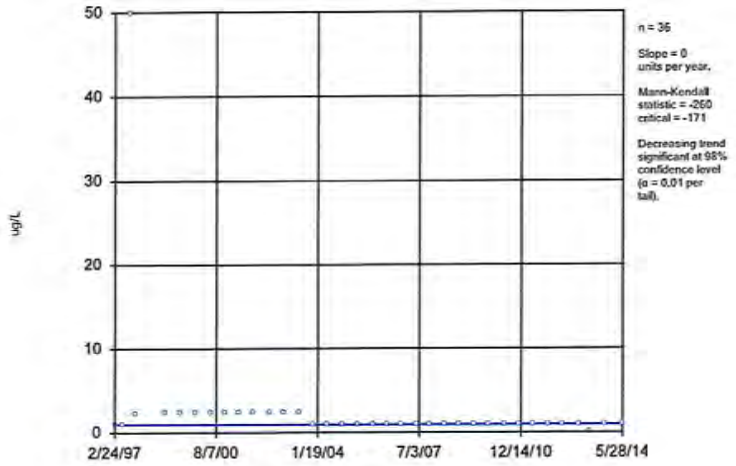
Hollow symbols indicate censored values.

Sen's Slope Estimator

110-SS (bg)



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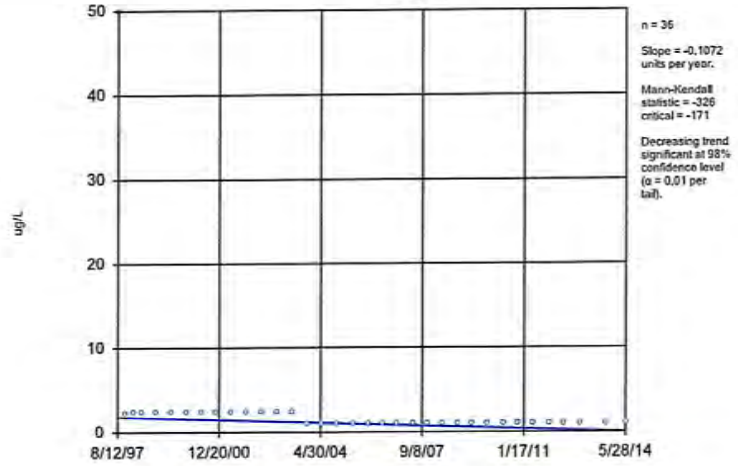
Sen's Slope Estimator

115-SS (bg)



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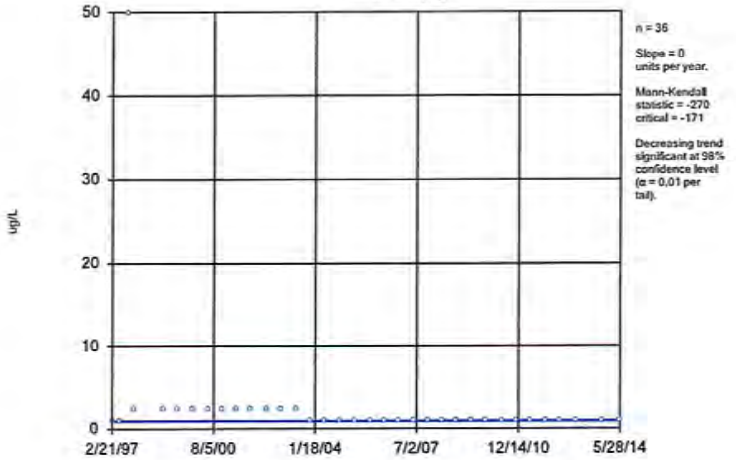
Sen's Slope Estimator

201A-SS (bg)



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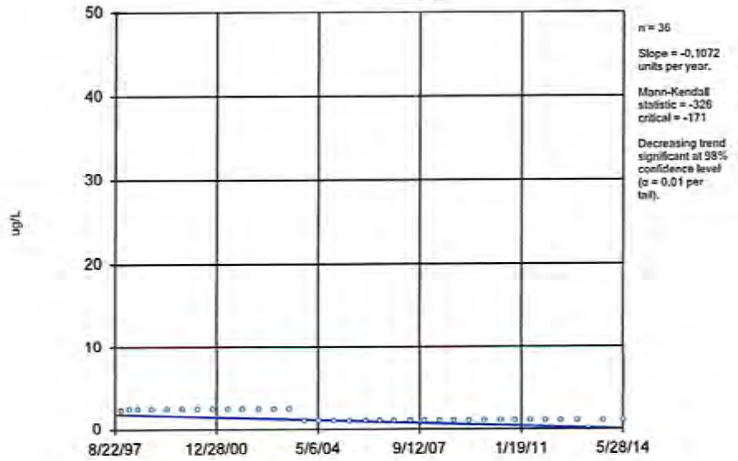
Sen's Slope Estimator

205-SS (bg)



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