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Solid Waste Section
Florida Department of Environmental Protection
Southwest District Office

DATE: June 28, 2013

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RE: Water Quality Monitoring Plan Evaluation Report, Second Half 2009 through Second Half 2012, Lena Road Class I Landfill

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Plan Design Enable

Water Quality Monitoring Plan Evaluation
Second Half 2009 through Second Half 2012
Manatee County Solid Waste Division
Lena Road Class I Landfill
SWD-41-44795
Permit No: 39884-010-SO/01

July 2013

Prepared For:

Utilities Department
Solid Waste Division/Landfill
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Executive Summary

This water quality report presents the results of an evaluation of the water quality and elevation monitoring network at the Manatee County Lena Road Landfill, as based on the monitoring data collected during the period between the Second Half of 2009 through the Second Half of 2012.

The analytical results from the review period suggest that the Lena Road Landfill has had only a limited effect on the groundwater quality in the immediate vicinity. The most serious of these effects are the elevated concentrations of iron, TDS, and the low pH. Monitoring of the background monitoring well (BGW-1) indicates that elevated iron concentrations and the low pH are natural background conditions. By the end of the review period, concentrations of arsenic in the groundwater (which exceeded its criteria) had occurred in only a limited number of monitoring wells. There are no indications of any effects associated with a release of leachate or any type of "discharge" from the active landfill cells. A summary of the detection patterns in the water quality network is as follows:

- There were numerous inorganic analytes and several organic analytes detected in the leachate during the review period, and none of the analytes concentrations exceeded the regulatory criteria.

- In the groundwater, there were numerous inorganic detections and very infrequent organic detections. The only analytes that were consistently detected at concentrations in excess of the regulatory criteria in most of the monitoring wells were pH (low), iron, and TDS. The detection patterns with the occurrences of elevated TDS and low pH indicated that the exceedances occurred at generally the same well locations. The detection patterns for the occurrences of elevated iron concentrations exhibited a wide variation of concentrations at most of the monitoring wells. Based on the findings from the background monitoring well (BGW-1), the iron and low pH impacts are likely due to natural background conditions.

- Arsenic was detected at concentrations greater than its regulatory criteria at several monitoring wells. By the end of the review period (2012), the concentrations of arsenic in these wells slightly exceeded the criteria, as they generally fell within the range of 0.011 mg/l to 0.018 mg/l. The only monitoring well with a significantly elevated arsenic concentration was GW-10 (0.138 mg/l) during the Second Half of 2012.

- The following additional constituents were detected infrequently in certain monitoring wells at concentrations that exceeded their criteria: antimony, nitrate, selenium, and vanadium.

- Three analytes, fecal coliform, iron, and arsenic, were detected in the surface water at concentrations in excess of the regulatory criteria during the review period, and iron was the only constituent that was always detected at elevated concentrations.

With regard to the hydrological data from the review period, the direction of groundwater flow in the surficial aquifer beneath the Lena Road Landfill was generally from east and southeast to the west. The rate of groundwater flow was relatively slow. The water levels were within the screened intervals of all of the monitoring wells in the existing well network during all but one sampling event of the review period Due to the high water levels that occurred during the Second Half of 2012, the water table elevations were slightly above the top of the screens at GW-1, GW-3, GW-11, and GW-15. The well spacing is consistent with current Florida Administrative Code requirements.

Based on the findings of this evaluation, the water quality and water elevation monitoring network at the Lena Road Landfill appears to be adequate in meeting the objectives of the monitoring program. The current monitoring program, monitoring well network, sampling frequency, and list of parameters to be sampled are adequate for developing relevant site data. Arsenic concentrations at GW-10 should be closely monitored during future sampling events to ensure that there is no significant increasing trend for that parameter at that monitoring well. It should be noted that, in 2012, the FDEP removed the requirement for sampling and analysis of leachate at most Class I Solid Waste facilities. Manatee County can use its own discretion in regards to the need for further sampling of the site's leachate.

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1.0 Introduction

1.1 Background

This water quality monitoring plan evaluation report presents the results of an evaluation of the water quality and elevation monitoring network at Manatee County's Lena Road Landfill (LRL), as based on the monitoring data collected during the period between the second half of 2009 and the second half of 2012. The LRL facility operates under Permit Number 39884-010-SO/01, which is on file with the Florida Department of Environmental Protection (FDEP).

1.1.1 Water Quality Monitoring Network and Program

The LRL is constructed with a perimeter slurry wall in three stages that are designated Stages I, II, and III. Landfill leachate is collected by a leachate collection system. Specific Condition – Part E of the facility's current permit stipulates that the water quality program involves monitoring of the leachate, surface water, and the groundwater in the surficial (or shallow) aquifer. The monitoring network consists of the following components:

- Leachate samples are collected annually at the lift stations. There are currently three leachate lift stations, Numbered 1 – 3, at the LRL. A fourth leachate lift station is listed in the facility's current permit, and it will become active after initiation of waste disposal in Stage II footprint. Disposal in Stage II has not yet occurred.

- Currently, groundwater samples are collected from a network of 17 monitoring wells along the perimeter of the slurry wall. The wells are designated GW-1 through GW-17. There is also a background well, which is designated BGW-1. All of these wells monitor groundwater in the surficial aquifer. The current permit allows for the installation and sampling of additional monitoring wells, designated GW-18 through GW-28. These wells would be installed immediately prior to initiation of debris disposal in Stage II, which has not yet occurred.

- The surface water samples are collected from two points (one upstream at location SW-2 and one downstream at location SW-1) along the Cypress Strand. These locations have occasionally been dry in the past, but they contained sufficient water for sampling during all the semi-annual sampling events of the period covered by this report.

A summary of the components that comprise the existing water quality network is presented in Table 1-1. The layout of the LRL, including the well locations, is illustrated in Figure 1.

Part E of the facility's operating permit calls for groundwater and surface water samples to be collected from the facility's water quality network on a semiannual basis, and for leachate samples to be collected annually.

Specific Condition #E.1.a of the permit requires field work to be conducted in accordance with the FDEP's Standard Operating Procedures (SOPs) for Field Activities (DEP-SOP-001/01). The monitoring wells are purged and sampled with peristaltic pumps. Samples collected for analysis of Volatile Organic Compounds (VOCs) are done so in general accordance with Section FS 2221 of the SOPs.

The leachate samples are analyzed for the parameters listed in the State guidelines for Solid Waste Management Facilities, Rules 62-701.510(5) and 62-701.510(6)(c) of the Florida Administrative Code (FAC). The parameters include those specifically listed in the permit and the parameters listed in Appendix II of 40 Code of Federal Regulations (CFR) Part 258. Groundwater samples are analyzed in compliance with Rule 62-701.510(6)(d), including those parameters specifically listed in the permit and the parameters listed in Appendix I of 40 CFR Part 258. Surface water samples are analyzed in compliance with Rule 62-701.510(6)(e), including those parameters specifically listed in the permit and the parameters listed in Appendix I of 40 CFR Part 258..

Sample collection for the sampling events during the review period was performed by Manatee County staff. The samples were analyzed by the Manatee County Utilities Central Laboratory. Analysis of certain Appendix I parameters was subcontracted to Southern Analytical Laboratories, Inc. Both laboratories are NELAC-certified for the relevant parameters. Copies of the certificates of laboratory reports for all of the sampling events are on file with the FDEP.

1.1.2 Water Elevation Monitoring Network

The 17 monitoring wells along the perimeter of the slurry wall at the LRL are used in conjunction with 17 piezometers, designated PZ-1 through PZ-17, to monitor the water level elevation on either side of the slurry wall. The background monitoring well (BGW-1) is also part of the water elevation monitoring network. Water level elevations are also monitored at the East Lake, South Lake #1, and South Lake #2, which are immediately south and east of the LRL site. A summary of the components that comprise the water elevation network is presented in Table 1-2, and their locations are illustrated on Figure 1.

1.2 Objectives

This report was prepared in accordance with Rule 62-701.510(8)(b) of the FAC. This statute stipulates that the following issues be addressed in a Water Quality Monitoring Plan Evaluation:

- Tabular displays of any data which shows that a monitoring parameter has been detected and graphical displays of any leachate key indicator parameters detected (such as pH, specific conductance, TDS, TOC, sulfate, chloride, sodium, and iron), including hydrographs for all monitoring wells;
- Trend analyses of any parameters that were consistently detected in the monitoring network;
- A comparison of the detection trends between the shallow, middle, and deep aquifers;

- A comparison between the detection trends in the background wells and compliance wells;
- A correlation between related parameters, such as total dissolved solids and specific conductance;
- Discussion of erratic and/or poorly correlated data;
- An interpretation of the groundwater contour maps, including an evaluation of groundwater flow rates; and
- An evaluation of the adequacy of the water quality monitoring frequency and sampling locations based upon site conditions.

It should be noted that there are no compliance wells, nor a middle or deep aquifer zone, at the LRL facility.

2.0 Water Quality Analytical and Elevation Data Summary

A description of the leachate, groundwater, and surface water analytical results, as well as the water elevation information, for the seven sampling events during the period of review is presented in this section.

2.1 Water Quality Data Summary

2.1.1 Leachate Analytical Data Summary

Leachate analytical data were available for the following annual sampling events during the review period:

- First Half 2010
- First Half 2011
- First Half 2012

Summaries of the leachate analytical results for each event are presented in Tables 2-1 through 2-3 and are described below.

Parameters that were consistently detected in the leachate samples during the period of review were inorganic constituents, including antimony, arsenic, barium, carbonate alkalinity, chloride, cadmium, chromium, cobalt, copper, cyanide, iron, nickel, nitrate, sodium, sulfide, total ammonia-N, tin, total dissolved solids (TDS), vanadium, and zinc. Multiple organic constituents, including 1,2-dichloroethane, 1,4-dichlorobenzene, acetone, benzene, chlorobenzene, cis-1,2-dichloroethane, ethylbenzene, naphthalene, toluene, vinyl chloride, and xylene, were consistently detected in the leachate. Other organic constituents, such as 1,1-dichloroethane, 1,2-dichlorobenzene, 2-butanone, 2-methylnaphthalene, 3&4 methylphenol, acenaphthene, anthracene, chrysene, Endosulfan I, fluoranthene, fluorene, methylene chloride, phenanthrene, phenol, pyrene, tetrachloroethylene, and trichloroethylene, were detected in the leachate during the review period on a less frequent basis or in extremely low (trace) concentrations.

The concentration of every parameter that was detected in the leachate throughout the review period was compared to the regulatory levels listed in 40 CFR Part 261.24, as promulgated by the Florida solid waste regulations. A standard has not been established for every parameter. None of the parameter concentrations detected in the leachate during the review period exceeded their respective regulatory levels. In 2012, the FDEP dropped the requirement for sampling and analysis of leachate at most Class I landfill facilities in Florida. The Manatee County Utilities Department is currently evaluating whether it will continue to conduct sampling and analysis of leachate at this facility.

2.1.2 Groundwater Analytical Data Summary

Groundwater analytical results were available for every semi-annual sampling event during the review period. Summaries of the groundwater analytical results for the seven semi-annual sampling events from the Second Half of 2009 through the Second Half of 2012, inclusive, are presented in Tables 2-4 through 2-10.

There were several scattered organic parameters detected in the monitoring network during the review period, including acetone (GW-13, first half 2010, and GW-1, GW-2, GW-3, GW-5, GW-6, GW-7 and GW-9 through GW-13 - first half 2011), bromoform (GW-8, second half 2008), bromodichloromethane (BGW-1, first half 2012), bromomethane (GW-7 and GW-8, first half 2008), chlorobenzene (GW-10, second half 2010), chloroform (GW-1, GW-2, GW-3, GW-16, and GW-17, second half 2010, and BGW-1, first half 2012), dibromochloromethane (BGW-1, first half 2012), 1,4-Dichlorobenzene (GW-10, first half 2012), and xylenes (GW-10, second half 2008). These parameters were detected at very low concentration that did not approach their Maximum Contaminant Levels (MCLs) with the exception of dibromochloromethane and chloroform in the first half of 2012 at background monitor well BGW-1, which precludes the landfill as the source. Dibromochloromethane was detected at a concentration of 0.3 ug/L, which is 0.1 ug/L less than the MCL of 0.4 ug/L. Chloroform was detected at a concentration of 5.5 ug/L, which is 0.2 ug/L less than the MCL of 5.7 ug/L.

There were numerous inorganic parameters detected in the monitoring network during the review period. The concentrations of all of the parameters that were detected in the network were compared to their Maximum Contaminant Level (MCL) presented in Chapter 62-550 of the Florida Administrative Code (FAC) and Cleanup Target Level (CTL) presented in Chapter 62-777 FAC. A MCL is the maximum permissible level of a contaminant in water which is delivered to any user of a public water system. A CTL is not an FDEP standard as defined under the Florida Statutes, but is used as guidance for evaluating whether concentrations in groundwater exceed the minimum criteria under Rule 62-520.400 FAC and whether there may be groundwater quality concerns. Not every parameter has an MCL or CTL. Nine parameters - pH, nitrate, antimony, arsenic, iron, selenium, vanadium, ammonia, and TDS - were detected at least once during the review period in the surficial aquifer at concentrations in excess of their respective MCL or CTL. The parameters that were detected at concentrations in excess of the MCL or CTL are shaded in the analytical summary tables.

A description of the parameters that were detected at concentrations in excess of the regulatory criteria is presented below.

> pH – The MCL for pH, which is a secondary drinking water standard (SDWS), is any value outside of the range between 6.5 standard units (S.U.) and 8.5 S.U.. The pH values were lower than the MCL range at most of the wells during the review period, and ranged from a low of 5.1 S.U. at GW-17 to a high of 7.93 S.U. at BGW-1. The pH value at the background well, BGW-1, ranged from 5.8 to 7.93 during the period.

Nitrate – The MCL for Nitrate, which is a primary drinking water standard (PDWS), is 10 mg/L. Nitrate exceeded the MCL at wells GW-6 and GW-12 during the second half of 2009, and at well GW-12 during the second half of 2011.

Antimony – The MCL for Antimony, which is a PDWS, is 0.006 mg/L. Antimony was detected at a concentration slightly greater than the MCL once at GW-6, once at GW-12, once at GW-15, and once at GW-16, during the review period.

Arsenic – The MCL for Arsenic, which is a PDWS, is 0.01 mg/L. Arsenic was detected at a concentration greater than the MCL at least once during the period at every well in the network except GW-17. The arsenic concentrations consistently exceeded the MCL at wells GW-1, GW-2, GW-9, and GW-11.

Iron - Iron was detected at every well in the network through the period, and the concentrations at most of the wells, including the background well, were well above the standard. The MCL is a SDWS and is any concentration above 0.3 milligram per liter (mg/L). The iron concentration at these wells ranged from slightly over the standard to 21.0 mg/L. The iron concentrating at the background well ranged from 0.231 mg/L to 19.7 mg/L.

Selenium – The MCL for Selenium, which is a PDWS, is 0.05 mg/L. Selenium concentrations exceeded the MCL at wells GW-1 through GW-6, GW-12 through GW-17, and BGW-1 during the second half of 2011.

Vanadium – Vanadium has a CTL of 0.049 mg/l. Vanadium was detected at a concentration greater than its CTL at well GW-6 during the second half of 2009 and the first half of 2011, and at well GW-16 during the second half of 2011.

Ammonia – Ammonia has a CTL of 2.8 mg/L. The concentration of ammonia (as nitrogen) consistently exceeded the standard at GW-13. However, per a December 2012 memo, the FDEP Solid Waste Department no longer considers ammonia to be a contaminant of concern in groundwater. The elevated concentrations of ammonia at this well were noted, but there is no concern. No further discussion of findings for ammonia is provided in this report.

TDS – The MCL for TDS, which is a SDWS, is 500 mg/L. The TDS concentration consistently exceeded the standard at wells GW-6, GW-12, GW-13, and GW-14. The highest TDS concentrations were measured at GW-13 and GW-14, where they consistently ranged over 1,000 mg/L. The TDS concentration in the background well ranged from 297 mg/L to 436 mg/L.

During the Second Half of 2010, 17 of 18 monitoring wells at the site (including the background well) had elevated concentrations of arsenic (greater than 0.010 mg/l, see Table 2-6). To determine the potential cause of these elevated arsenic concentrations and to determine if any leakage of leachate could be the source, the County had several piezometers sampled for metals, and later they were sampled specifically for arsenic. Piezometers PZ-1, PZ-2, PZ-5, PZ-9, PZ-

11, PZ-12, PZ-14, and PZ-15 were sampled in September 2010 and again in March 2011. On both occasions, two different analysis methods were used for each sample (for arsenic): EPA Method 200.7 (ICP) and SM3113B (GFAAS). During both sampling events, the results from the GFAAS analysis were considerably lower than the EPA Method 200.7 results. The March 2011 results indicated that, using the GFAAS method, the arsenic concentrations equaled or slightly exceeded the standard at only three piezometers (PZ-2, PZ-5, and PZ-9). Previous sampling activities had used EPA Method 200.7.

The County had identified problems with the EPA 200.7 (ICP) method. The County noted that the ICP method had difficulty resolving matrix interferences, and it was not as sensitive a technique (i.e., method detection limits were higher) as the GFAAS method. As the County placed more confidence in the results using GFAAS, that technique was used for analysis of arsenic during the First Half of 2011 sampling event and all subsequent sampling events thereafter. The additional information regarding sampling of the piezometers for arsenic is included in Appendix A.

2.1.3 Surface Water Analytical Data Summary

Surface water analytical data were available for the following semi-annual sampling events during the review period:

- Second Half 2009
- First Half 2010
- Second Half 2010
- First Half 2011
- Second Half 2011
- First Half 2012
- Second Half 2012

Summaries of the surface water analytical results, including their respective surface water quality criteria (SWQC) for Class III Fresh Water presented in Chapter 62-302 FAC or CTL presented in Chapter 62-777 FAC, are presented in Tables 2-11 through 2-17.

Acetone and Toluene were the organic constituents detected in the surface water samples collected at upstream location SW-2 during the review period. Chloroform was the only organic constituent detected in the surface water samples collected at downstream location SW-1. The concentrations of these detected constituents were well below their respective CTLs.

There were numerous inorganic constituents detected in the surface water samples throughout the review period, including nitrate, nitrite, antimony, arsenic, barium, calcium, chromium, copper, iron, lead, magnesium, nickel, selenium, mercury, sodium, TDS, phosphorus, vanadium, fecal coliform, nitrogen, ammonia, and zinc. The concentrations of all of the constituents that were detected in the surface water were compared to their respective SWQC and CTL as a relative measure of the water quality.

The parameters that were detected in excess of the SWQCs or CTLs were fecal coliform, arsenic, and iron. Fecal coliform was detected at concentrations greater than the SWQC of 800 coliform

units per 100 ml per day at sample location SW-1 in the first half of 2009, second half of 2010, second half of 2011, and in both halves of 2012. Arsenic was detected above the SWQC of 0.05 mg/L at upstream sample location SW-2 in the first half of 2009, first and second half of 2010, and second half of 2012. The upstream location of SW-2 precludes the landfill being the source of the arsenic at SW-2. Iron was detected above the SWQC of 1.0 mg/L at both sample locations during the review period. With respect to the field measurements, the values for Dissolved Oxygen generally did not comply with the SWQCs, but these low dissolved oxygen levels are likely to be a background condition.

2.2 Water Elevation Data Summary

The groundwater elevation measurements were made at each monitoring well and surface water measuring location during every sampling event of the review period and were used to generate groundwater elevation contour maps for the surficial aquifer beneath the Lena Road Landfill. The maps were used to evaluate the groundwater flow direction and the water table gradient in the aquifer during the review period. Hydrographs for each monitoring well at the site were created for each groundwater sampling event. The groundwater elevation hydrographs are provided in Appendix B. During most of the review period, the water levels were within the screened interval at each monitoring well during each sampling event. Due to the high water levels that occurred during the Second Half of 2012, the water table elevations were slightly above the top of the screens at GW-1, GW-3, GW-11, and GW-15. A description of the water level data findings is presented in Section 4.1 of this report.

3.0 Water Quality Evaluation

3.1 Water Quality Trends

This section presents an evaluation of the general analytical data trends, statistical analysis of any prominent trends, comparisons of parameters, and a comparison of the background monitoring well data with the data from the down-gradient monitoring wells.

3.1.1 General Detection Pattern

Descriptions of the detection patterns of the parameters that were consistently detected at elevated concentrations in the leachate, groundwater, and surface water during the period of review are presented below. A summary of the detection patterns is also presented in Table 3-1.

Leachate

There were no parameters detected in the leachate at concentrations in excess of the regulatory criteria during the review period. The detection patterns of most of the parameters that were detected in the leachate were present at the same general concentration range during every sampling event of the review period.

Groundwater

The detection patterns for the four parameters that were regularly detected in the groundwater at concentrations in excess of their MCLs or SDWSs – pH, arsenic, iron, and TDS – were within the same general magnitude throughout the review period, except for iron. With the exception of iron (and the laboratory-related arsenic issue discussed above), these constituents were detected at the same locations in the monitoring network at comparable relative concentrations. To better illustrate the detection patterns with these analytes, concentrations of pH, arsenic, iron, and TDS from each sampling event (at each well) were plotted on graphs to demonstrate the changes in concentration over time. A graph is also provided for nitrate concentrations at GW-12. The graphs are presented in Appendix C. A summary of the findings is presented below.

pH – With the exception of several (varying) wells during each sampling event, the pH readings at all of the wells stayed within a very narrow range throughout the review period. Most of the wells had pH values between 6.0 – 6.5, but GW-17 and BGW-1 were frequently less than 6.0. GW-17 consistently had the lowest pH readings.

Arsenic – After the First Half of 2011 (as discussed in Section 2.1.2), concentrations of arsenic occasionally, but not always, exceeded the standard in GW-1, GW-2, GW-5, GW-9, GW-10, GW-11, and GW-13. There did not appear to be any particular pattern to the arsenic detections. Arsenic concentrations appeared to have leveled off or decreased, except at GW-10, over the course of the review period.

Iron – Similar to arsenic, the pattern with iron varied the most at those wells where the concentrations were consistently the highest. The greatest range of iron concentrations occurred at GW-1, GW-6, GW-10, GW-11, GW-15, and GW-17. Multiple monitoring wells exhibited elevated iron concentrations in late 2011 and early 2012, in comparison with prior sampling events. The concentration of iron in GW-15 continued to increase through the end of the review period.

Nitrate – The concentrations of nitrate varied widely throughout the review period at GW-12. The concentrations of nitrate dropped to less than the standard for most of the review period before increasing to greater than the standard in late 2012.

TDS – TDS concentration leveled off or gradually decreased at most monitoring wells during the review period. The most notable monitoring wells that exceeded the standard were: GW-2, GW-6, GW-12, GW-13, and GW-14. GW-12, GW-13, and GW-14 appeared to have gradual decreasing trends as the review period ended.

Surface Water

The analytes which were detected in the surface water at concentrations in excess of the State standards during the review period were fecal coliform, iron, and arsenic. The elevated concentrations of these parameters did not exhibit any specific trends. It is noted that iron and arsenic concentrations are also elevated in the groundwater, including the background monitoring well (generally, iron only).

3.1.2 Trend Analysis

The statistical trends in the groundwater analytical data for the three primary (non-field) parameters listed in the section above (iron, arsenic, and TDS) were evaluated using the Mann-Kendall Test for Trend (Helsel et al 2006). The line graphs are presented in Appendix C, which allow for visualizing the trends.

The Kendall Tau and the seasonal Kendall Tau tests are nonparametric statistical tests widely used to analyze data for trends where normality cannot be assumed. These methods can be used to determine whether data values are increasing, declining, or remaining relatively level over time. This is accomplished by computing a statistic (Tau) based on the differences among all possible data pairs, thus representing the net direction of movement of the time-series data. The number of positive differences minus the number of negative differences is then determined and this is used to calculate the Mann-Kendall Tau statistic. If the time-series data are systematically increasing (or decreasing) over time, then the resulting computed Tau statistic will be a relatively large positive (or negative) value. If, however, the change over time is negligible, then the number of positive pairs and the number of negative pairs will be approximately equal, and the Tau statistic will be small. The Tau statistic can thus be viewed as an estimate of the median slope of the set of slopes estimated for the lines connecting all possible pairs of data.

Using the Mann-Kendall Test for Trend, a significant trend has occurred if the p value is less than or equal to 0.05. If there is a significant trend, the tau correlation coefficient is reviewed in order to determine the direction and strength of the trend.

A summary of the findings for the p-values are presented in Table 3-2. As noted in Table 3-2, a significant trend was observed for one parameter in the following two monitoring wells:

- GW-12: decreasing trend for TDS
- GW-13: decreasing trend for TDS

It should be noted that the only significant trends observed were decreasing trends for TDS at GW-12 and GW-13.

Reference

Helsel, Dennis R., D.K. Mueller and J.R. Slack. "Computer Program for the Kendall Family of Trend Tests". U.S. Geological Survey Scientific Investigations Report 2005-5275. 2006.

3.1.3 Cross-Gradient Correlation

In order to evaluate any changes in groundwater quality on either side of the landfill in the predominant direction of groundwater flow, the concentrations of the parameters that were consistently detected in the monitoring well network at concentrations in excess of the regulatory criteria were graphed. The parameters that were graphed included pH, arsenic, iron, and TDS. Statistically relevant data sets for the review period were available for all 18 monitoring wells.

The graphs were constructed by plotting the data from the wells located on the predominantly up-gradient (east and southeast) side of the landfill on the left side of the graph, and plotting those on the downgradient (west) side of the landfill on the right. The background well, BGW-1, was placed on the left side of the plots, and the remaining wells were placed in sequence relative to their position with respect to the predominant groundwater flow direction beneath the landfill, with GW-9 considered to be the furthest downgradient.

The box plots are presented in Appendix D. The box plots are a graphical representation of the data, where the upper limit of the box is the 75^{th} percentile value of the data, the lower limit of the box is the 25^{th} percentile of the data, and the line in the interior of the box is the median (50^{th} percentile) of the data. In the box plots shown in Appendix D, the upper whisker represents the maximum value in the dataset, while the lower whisker represents the minimum value in the dataset. A summary of the observations for each parameter is presented below.

- *pH* – The pH detection pattern was very consistent during the period, and exhibited a pattern whereby the pH was generally between 6.0 – 6.5 at most monitoring wells. pH values most frequently achieved the SDWS (6.5 – 8.5) at GW-9, GW-10, and GW-13. GW-9 and GW-10 are on the downgradient side of the landfill. BGW-1 and GW-17, which are on the upgradient side of the landfill, generally had the lowest pH values.

- *Arsenic* – Elevated arsenic concentrations were found throughout the length of the landfill, but especially at GW-1, GW-9, GW-10, and GW-11. GW-9 and GW-10 are on the downgradient side of the landfill. Overall, arsenic concentrations appeared to be higher at the monitoring wells on the downgradient side of the landfill.

- *Iron* – Iron concentrations were generally high throughout the landfill, with elevated concentrations on the upgradient side (GW-15) and on the downgradient side (GW-10 and GW-11). The iron concentrations were also consistently high in the background well.

- *TDS* – The detection pattern with TDS did not appear to follow any particular pattern with regard to location on the upgradient or downgradient side of the landfill. The highest TDS concentrations were found most frequently at GW-6, GW-12, GW-13, and GW-14. Those wells generally correspond to the central section of the landfill.

3.1.4 Related Parameter Correlation

The concentrations of the parameters that were consistently detected in the monitoring network at concentrations in excess of the regulatory standards, and/or that have a natural affinity to one another, were plotted together to evaluate whether correlations existed. The evaluation was limited to the groundwater and included the following correlations:

- Turbidity versus Iron
- Turbidity versus Arsenic
- Arsenic versus Iron
- Conductivity versus TDS

A description of the evaluation results is presented below. The scatter plots associated with the above-listed parameters are provided in Appendix E. The primary method for visually determining whether there is a relationship between two variables for which there is a probable interaction is to create a scatter plot of the two variables. If there exists a clear pattern in the graphic, then further statistical testing may be warranted to define the extent of the relationship between the two variables.

Turbidity versus Iron

There was not very good correlation between the concentrations of iron versus turbidity at most of the wells throughout the review period. At most wells, the iron concentration was very high and the turbidity was low. The plots suggested that the only monitoring wells where a relationship between iron and turbidity was plausible were GW-5 and BGW-1.

Turbidity versus Arsenic

For the most part, there were poor correlations between turbidity and the arsenic concentrations at most wells.

Arsenic verses Iron

For the most part, there were poor correlations between the iron and the arsenic concentrations at most wells. The plots suggested that there appeared to be a very generalized correlation between arsenic concentrations and iron concentrations at GW-1 and GW-11. At these two wells, concentrations of iron tended to increase along with arsenic.

Conductivity versus TDS

Surprisingly, the correlation between TDS and conductivity was relatively poor at most of the well locations throughout the review period. Plots for approximately one-third of the monitoring wells showed a plausible correlation between TDS and conductivity. The conductivity correlated reasonably well with the TDS concentrations at GW-6, GW-7, GW-9, GW-10, GW-11, and GW-15.

4.0 Water Elevation Data Evaluation

4.1 Rainfall Patterns

The monthly rainfall totals for the review period, taken from a nearby Southwest Florida Water Management District measuring station, are presented in Table 4-1. The year 2009 was a slightly above-average year for precipitation, while 2010 and 2011 were slightly below average (89.9% and 91.9% of average, respectively). However, surface water was present at the surface water sampling locations during each sampling event. The rainfall amount in 2012 was 31.8% greater than the average rainfall amount. A portion of that difference was the result of Tropical Storm Debbie, which occurred in late June 2012, and dropped over 9 inches of rain in the site vicinity from June 23 through June 26, 2012.

4.2 Groundwater Flow Patterns

The groundwater elevation data from each sampling event during the review period were plotted and contoured to illustrate the groundwater flow direction and gradient. The plots are presented as Figures 2 through 8. These figures include the water table elevations at each monitoring well. Groundwater elevations for the review period are listed and compared on Table 4-2.

These maps (Figures 2 – 8) indicate that the general groundwater flow direction within the landfill property ranges from due west (from GW-16 toward GW-10) to west-northwest (from GW-16 toward GW-8). The hydraulic gradient from the highest elevation monitoring well (excluding BGW-1) to the lowest elevation monitoring well was calculated during each semi-annual sampling event. The highest hydraulic gradient was 0.001688 feet/foot in the First Half of 2012, and the lowest hydraulic gradient was 0.001235 feet/foot in the First Half of 2011. The average hydraulic gradient at the site was approximately 0.00149 feet/foot.

5.0 Summary, Conclusions and Recommendations

The analytical results from the review period suggest that the Lena Road Landfill has had only a limited effect on the groundwater quality in the immediate vicinity. The most serious of these effects are the elevated concentrations of iron, TDS, and the low pH. Monitoring of the background monitoring well (BGW-1) indicates that elevated iron concentrations and low pH are natural background conditions. Arsenic is also occasionally detected at concentrations greater than the standard in a number of the monitoring wells. However, the arsenic concentrations that exceeded the MCL after early 2011 (see discussion in Section 2.1.2) occurred in only a limited number of monitoring wells. There are no indications of any effects associated with a release of leachate or any type of "discharge" from the active landfill cells. A summary of the detection patterns in the water quality network is as follows:

- There were numerous inorganic analytes and several organic analytes detected in the leachate during the review period, and none of the analytes concentrations exceeded the regulatory criteria.

- In the groundwater, there were numerous inorganic detections and very infrequent organic detections. The only analytes that were consistently detected at concentrations in excess of the regulatory criteria in most of the monitoring wells were pH (low), iron, and TDS. The detection patterns with the occurrences of elevated TDS and low pH indicated that the exceedances occurred at generally the same well locations. The detection patterns for the occurrences of elevated iron concentrations exhibited a wide variation of concentrations at most of the monitoring wells. Based on the findings from the background monitoring well (BGW-1), the iron and low pH impacts are likely due to natural background conditions.

- Arsenic was detected at concentrations greater than its regulatory criteria at several monitoring wells. By the end of the review period (2012), the concentrations of arsenic in these wells slightly exceeded the criteria, as they generally fell within the range of 0.011 mg/l to 0.018 mg/l. The only monitoring well with a significantly elevated arsenic concentration was GW-10 (0.138 mg/l) during the Second Half of 2012.

- The following additional constituents were detected sporadically in certain monitoring wells at concentrations that exceeded their criteria: antimony infrequently in GW-6, GW-12, GW-15, and GW-16; nitrate occasionally in GW-6 and GW-12, selenium in multiple monitoring wells only in the Second Half of 2011; and vanadium infrequently in GW-6 and GW-16. These additional constituents will continue to be monitored to determine if there becomes any pattern or concern for the cause for their occurrences.

- Three analytes, fecal coliform, iron, and arsenic, were detected in the surface water at concentrations in excess of the regulatory criteria during the review period, and iron was the only constituent that was always detected at elevated concentrations.

The most significant detections in the water quality monitoring network during the review period were iron and TDS in the groundwater.

With regard to the hydrological data from the review period, the direction of groundwater in the surficial aquifer beneath the Lena Road Landfill was flowing generally from east and southeast to the west. The rate of groundwater flow is relatively slow. The water levels were within the screened intervals of all of the wells in the existing well network during all but one sampling event of the review period Due to the high water levels that occurred during the Second Half of 2012, the water table elevations were slightly above the top of the screens at GW-1, GW-3, GW-11, and GW-15. The well spacing is consistent with current Florida Administrative Code requirements.

Based on the findings of this evaluation, the water quality and elevation monitoring network at the Lena Road Landfill appears to be adequate in meeting the objectives of the monitoring program. The current monitoring program, monitoring well network, sampling frequency, and list of parameters to be sampled are adequate for developing relevant site data. Arsenic concentrations at GW-10 should be closely monitored during future sampling events to ensure that there is no significant increasing trend for that parameter at that monitoring well. It should be noted that, in 2012, the FDEP removed the requirement for sampling and analysis of leachate at most Class I Solid Waste facilities. Manatee County can use its own discretion in regards to the need for further sampling of the site's leachate.

6.0 Environmental Professional Qualifications and Signatures

The following environmental professional was responsible for the preparation of this water quality monitoring plan evaluation report.

Bradley J. Bayne, P.G.
Senior Geologist, Atkins

Mr. Bayne is a Florida-registered professional geologist with over 22 years of experience in the planning and performance of environmental projects.

6-17-13
Date

Bradley J. Bayne
Florida P.G. #1733

TABLES

TABLE 1-1
WATER QUALITY MONITORING NETWORK
LENA ROAD LANDFILL

Leachate Sampling Points	
Location	WACS Testsite Identification Number
Lift Station No. 1	21611
Lift Station No. 2	21612
Lift Station No. 3	21613

Groundwater Sampling Points (Monitoring Wells)			
Location/Well Identifier	Aquifer Monitored	Designation	WACS Testsite ID No.
GW-1	Surficial	Detection	21593
GW-2	Surficial	Detection	21594
GW-3	Surficial	Detection	21595
GW-4	Surficial	Detection	21596
GW-5	Surficial	Detection	21597
GW-6	Surficial	Detection	21598
GW-7	Surficial	Detection	21599
GW-8	Surficial	Detection	21600
GW-9	Surficial	Detection	21601
GW-10	Surficial	Detection	21602
GW-11	Surficial	Detection	21603
GW-12	Surficial	Detection	21604
GW-13	Surficial	Detection	21605
GW-14	Surficial	Detection	21606
GW-15	Surficial	Detection	21607
GW-16	Surficial	Detection	21608
GW-17	Surficial	Detection	21609
BGW-1	Surficial	Background	21610

Surface Water Sampling Points		
Identifier	Location	WACS Testsite ID No.
SW-1	Cypress Strand – Downstream	1663
SW-2	Cypress Strand - Upstream	1665

TABLE 1-2
WATER ELEVATION MONITORING NETWORK
LENA ROAD LANDFILL

Well Identifier	Top-of-Casing Elevation (Ft-NGVD)	Total Depth (Ft-TOC)	Screen Interval Elevation (Ft-NGVD)
Surficial Aquifer (Outside of Slurry Wall)			
GW-1	38.68	19.42	19.76-34.76
GW-2	40.92	19.41	22.01-37.01
GW-3	39.40	19.56	20.34-35.34
GW-4	40.53	19.63	21.4-36.4
GW-5	39.90	19.66	20.74-35.74
GW-6	38.95	19.54	19.91-34.91
GW-7	39.49	20.54	19.45-34.45
GW-8	39.75	20.32	19.93-34.93
GW-9	39.65	20.56	19.59-34.59
GW-10	38.34	20.15	18.69-33.69
GW-11	38.26	21.61	17.15-32.15
GW-12	42.09	20.27	22.32-37.32
GW-13	44.79	20.22	25.07-40.07
GW-14	39.63	20.15	19.98-34.98
GW-15	42.33	20.00	22.83-37.83
GW-16	44.41	20.15	24.76-39.76
GW-17	42.19	20.80	21.89-36.89
BGW-1	47.57	20.30	27.77-42.77
Surficial Aquifer (Inside of Slurry Wall)			
PZ-1	42.68	27.84	15.34-25.34
PZ-2	42.32	27.84	14.98-24.98
PZ-3	40.36	31.29	8.96-18.96
PZ-4	40.78	31.14	10.14-20.14
PZ-5	40.73	31.7	9.53-19.53
PZ-6	40.74	31.88	9.36-19.36
PZ-7	40.60	31.75	9.35-19.35
PZ-8	40.21	22.79	17.92-27.92
PZ-9	39.97	24.53	15.94-25.94
PZ-10	39.86	24.53	15.83-25.83
PZ-11	40.52	31.71	9.31-19.31
PZ-12	43.28	24.14	19.64-29.64
PZ-13	44.78	26.17	19.11-29.11
PZ-14	45.09	20.25	25.34-35.34
PZ-15	45.57	19.7	26.37-36.37
PZ-16	44.67	20.0	25.17-35.17
PZ-17	44.28	20.37	24.41-34.41
Lake Staff Gauges			
Lake		Elevation (Ft-NGVD)	
South 1		37.50	
South 2		46.40	
East Lake		46.50	

Table 2-1
Leachate Analytical Summary
Lena Road Landfill
2010

Analyte		Location:	Lift Station #1	Lift Station #2	Lift Station #3
		Sample Identifier:	Lift Station #1	Lift Station #2	Lift Station #3
		Date of Test:	03/09/10	03/09/10	03/09/10
	Standard(1)	Units			
Field Measurements					
pH		STD	6.82	6.79	6.23
Conductivity		umhos/cm	3,270	3,190	1,330
Dissolved Oxygen (DO)		mg/l	2.43	2.67	2.06
Temperature		degrees C	20.6	20.7	21.4
Inorganics					
Chloride by Ion Chromatography		mg/l	529	356	40.4
Nitrate as N by Ion Chromatography		mg/l	0.099	0.016 I	<MDL
Antimony		mg/l	<MDL	<MDL	<MDL
Arsenic	5.0	mg/l	0.005	0.008	0.006
Barium	100	mg/l	0.139	0.095	0.03
Beryllium		mg/l	<MDL	<MDL	<MDL
Cadmium	1.0	mg/l	0.0002 I	0.0003 I	0.0002 I
Chromium		mg/l	0.006	0.0025 I	<MDL
Cobalt		mg/l	0.017	0.011	0.0019 I
Copper		mg/l	0.014	0.0034 I	<MDL
Iron		mg/l	14.3	10.7	13.2
Lead	5,000	mg/l	<MDL	<MDL	<MDL
Mercury	200	ug/l	<MDL	<MDL	<MDL
Nickel		mg/l	0.017	0.013	0.0031 I
Selenium	1.0	mg/l	0.006	<MDL	<MDL
Silver		mg/l	0.0009 I	0.0007 I	<MDL
Sodium		mg/l	371	243	37.5
Thallium		mg/l	0.0037 I	<MDL	<MDL
Tin		mg/l	0.25 I	0.23 I	0.15 I
Vanadium		mg/l	0.033	0.019	0.006
Zinc		mg/l	0.02	0.015	0.014
Ammonia		mg/l	195	134	27.9
Total Dissolved Solids		mg/l	2320	1770	642
Alkalinity as CaCO3		mg/l	1510	1160	560
Cyanide, Total		ug/l	<0.005	<0.005	<0.005
Sulfide		ug/l	0.60	0.60	2.0
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane		ug/l	<0.1	<0.1	<0.1
1,1,1-Trichloroethane		ug/l	<0.09	<0.09	<0.09
1,1,2,2-Tetrachloroethane		ug/l	<.0.1	<0.1	<0.1
1,1,2-Trichloroethane		ug/l	<0.2	<0.2	<0.2
1,1-Dichloroethane		ug/l	1.0	0.62	0.85
1,1-Dichloroethene	700	ug/l	<0.1	<0.1	<0.1
1,1-Dichloropropene		ug/l	<0.2	<0.2	<0.2
1,2,3-Trichloropropane		ug/l	<0.2	<0.2	<0.2
1,2-Dichlorobenzene		ug/l	<0.1	<0.1	<0.1
1,2-Dichloroethane	500	ug/l	1.6	2.3	5.2
1,2-Dichloropropane		ug/l	<0.06	<0.06	0.99
1,3-Dichlorobenzene		ug/l	<0.1	<0.1	<0.1
1,3-Dichloropropane		ug/l	<0.02	<0.02	<0.02
1,4-Dichlorobenzene	7,500	ug/l	3.8	3.6	4.9
2,2-Dichloropropane		ug/l	<0.2	<0.2	<0.2
2-Butanone		ug/l	<0.6	16	49
2-Hexanone		ug/l	<0.3	<0.3	<0.3
4-Methyl-2-pentanone		ug/l	<0.33	<0.33	<0.33
Acetone		ug/l	43	34	40
Acetonitrile		ug/l	<0.7	<0.7	<0.7
Acrolein		ug/l	<0.6	<0.6	<0.6
Acrylonitrile		ug/l	<1.6	<1.6	<1.6
Allyl chloride		ug/l	<0.1	<0.1	<0.1
Benzene	500	ug/l	2.0	5.3	14.0
Bromochloromethane		ug/l	<0.2	<0.2	<0.2
Bromodichloromethane		ug/l	<0.1	<0.1	<0.1
Bromoform		ug/l	<0.1	<0.1	<0.1
Bromomethane		ug/l	<0.6	<0.6	<0.6
Carbon disulfide		ug/l	<0.1	<0.1	<0.1
Carbon tetrachloride	500	ug/l	<0.2	<0.2	<0.2
Chlorobenzene	100,000	ug/l	6.0	5.0	6.5
Chloroethane		ug/l	<0.4	<0.4	<0.4
Chloroform		ug/l	<0.1	<0.1	<0.1
Chloromethane		ug/l	<0.5	<0.5	<0.5
Chloroprene		ug/l	<0.2	<0.2	<0.2
cis-1,2-Dichloroethene		ug/l	0.93	3.2	9.9
cis-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1
Dibromochloromethane		ug/l	<0.2	<0.2	<0.2
Dibromomethane		ug/l	<0.2	<0.2	<0.2
Dichlorodiflouromethane		ug/l	<0.74	<0.74	<0.74
Ethyl methacrylate		ug/l	<0.1	<0.1	<0.1
Ethylbenzene		ug/l	2.1	3.5	9.2
Isobutyl Alcohol		ug/l	<7.9	<7.9	<7.9
Methacrylonitrile		ug/l	<0.3	<0.3	<0.3
Methyl methacrylate		ug/l	<0.2	<0.2	<0.2
Methyl Iodide (Iodomethane)		ug/l	<0.2	<0.2	<0.2

Analyte	Location:		Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:		Lift Station #1	Lift Station #2	Lift Station #3
	Date of Test:		03/09/10	03/09/10	03/09/10
	Standard(1)	Units			
Methylene Chloride		ug/l	13	5.0	0.83
MIBK (4-Methyl-2-pentanone)		ug/l	<0.4	<0.4	<0.4
Propionitrile		ug/l	<1.3	<1.3	<1.3
Styrene		ug/l	<0.1	<0.1	<0.1
Tetrachloroethene	700	ug/l	0.85	0.44 I	<0.2
Toluene		ug/l	3.3	3.8	8.5
trans-1,2-Dichloroethene		ug/l	<0.3	<0.3	0.44 I
trans-1,3-Dichloropropene		ug/l	<0.06	<0.06	<0.06
trans-1.4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3
Trichloroethene	500	ug/l	<0.1	<0.1	0.51
Trichlorofluoromethane		ug/l	0.65	<0.2	<0.2
Vinyl acetate		ug/l	<0.5	<0.5	<0.5
Vinyl chloride	200	ug/l	<0.4	<0.4	<0.4
Xylene, Total		ug/l	<4.0	4.5	<9.1
Pesticides and Herbicides					
4,4'-DDD		ug/l	<0.020	<0.020	<0.020
4,4'-DDE		ug/l	<0.048	<0.048	<0.048
4,4'-DDT		ug/l	<0.022	<0.022	<0.022
Aldrin		ug/l	<0.040	<0.040	<0.040
alpha-BHC		ug/l	<0.038	<0.038	<0.038
beta-BHC		ug/l	<0.046	<0.046	<0.046
Chlorodane (technical)	30	ug/l	<0.031	<0.031	<0.031
delta-BHC		ug/l	<0.022	<0.022	<0.022
Dieldrin		ug/l	<0.028	<0.028	<0.028
Endosulfan I		ug/l	0.12	0.13	<0.024
Endosulfan II		ug/l	<0.014	<0.014	<0.014
Endosulfan sulfate		ug/l	<0.027	<0.027	<0.027
Endrin	20	ug/l	<0.019	<0.019	<0.019
Endrin aldehyde		ug/l	<0.024	<0.024	<0.024
gamma-BHC (Lindane)	400	ug/l	<0.025	<0.025	<0.025
Heptachlor	8	ug/l	<0.027	<0.027	<0.027
Heptachlor epoxide		ug/l	<0.048	<0.048	<0.048
Methoxychlor		ug/l	<0.024	<0.024	<0.024
Toxaphene		ug/l	<0.090	<0.090	<0.090
Dimethoate		ug/l	<0.033	<0.033	<0.033
Disulfoton		ug/l	<0.034	<0.034	<0.034
Famphur		ug/l	<0.035	<0.035	<0.035
Isodrin		ug/l	<1.8	<1.8	<1.8
Methyl parathion		ug/l	<0.020	<0.020	<0.020
Parathion		ug/l	<2.3	<2.3	<2.3
Phorate		ug/l	<0.032	<0.032	<0.032
Thionazin		ug/l	<1.7	<1.7	<1.7
2,4,5-T		ug/l	<0.053	<0.053	<0.053
2,4-D		ug/l	<0.091	<0.091	<0.091
Dinoseb		ug/l	<0.28	<0.28	<0.28
Silvex (2,4,5-TP)		ug/l	<0.056	<0.056	<0.056
Pentachlorophenol		ug/l	<0.043	<0.043	<0.043
Dibromochloropropane		ug/l	<0.005	<0.005	<0.005
Ethylene Dibromide		ug/l	<0.005	<0.005	<0.005
Plychlorinated biphenyls					
PCB-1016		ug/l	<0.17	<0.17	<0.17
PCB-1221		ug/l	<0.17	<0.17	<0.17
PCB-1232		ug/l	<0.17	<0.17	<0.17
PCB-1242		ug/l	<0.17	<0.17	<0.17
PCB-1248		ug/l	<0.17	<0.17	<0.17
PCB-1254		ug/l	<0.17	<0.17	<0.17
PCB-1260		ug/l	<0.17	<0.17	<0.17
Semivolatile Analyses					
1,2,4,5-Tetrachlorobenzene		ug/l	<1.2	<1.2	<1.2
1,2,4- Trichlorobenzene		ug/l	<1.1	<1.1	<1.1
1,3,5-Trinitrobenzene		ug/l	<2.3	<2.3	<2.3
1,3-Dinitrobenzene		ug/l	<1.5	<1.5	<1.5
1,4-Naphthoquinone		ug/l	<2.1	<2.1	<2.1
1-Naphthylamine		ug/l	<4.0	<4.0	<4.0
2,2'-oxybis (2-chloropropane)		ug/l	<3.1	<3.1	<3.1
2,3,4,6-Tetrachlorophenol		ug/l	<1.3	<1.3	<1.3
2,4,5-Trichlorophenol	400,000	ug/l	<1.4	<1.4	<1.4
2,4,6-Trichlorophenol	2,000	ug/l	<2.8	<2.8	<2.8
2,4-Dichlorophenol		ug/l	<3.1	<3.1	<3.1
2,4-Dimethylphenol		ug/l	<2.9	<2.9	<2.9
2,4-Dinitrophenol		ug/l	<2.7	<2.7	<2.7
2,4-Dinitrotoluene	13,000	ug/l	<0.026	<0.026	<0.026
2,6-Dichlorophenol		ug/l	<1.6	<1.6	<1.6
2,6-Dinitrotluene		ug/l	<1.3	<1.3	<1.3
2-Acetylaminofluorence		ug/l	<2.2	<2.2	<2.2
2-Chloronaphthalene		ug/l	<1.2	<1.2	<1.2
2-Chlorophenol		ug/l	<3.4	<3.4	<3.4
2-Methylnaphthalene		ug/l	<3.3	<3.3	<3.3
2-Methylphenol		ug/l	<1.2	<1.2	<1.2
2-Naphthylamine		ug/l	<1.5	<1.5	<1.5
2-Nitroaniline		ug/l	<3.3	<3.3	<3.3
2-Nitrophenol		ug/l	<1.3	<1.3	<1.3
2-Toluidine		ug/l	<3.3	<3.3	<3.3
3&4 Methylphenol		ug/l	<2.8	<2.8	<2.8

Analyte	Location:		Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:		Lift Station #1	Lift Station #2	Lift Station #3
	Date of Test:		03/09/10	03/09/10	03/09/10
	Standard(1)	Units			
3,3'-Dichlorobenzidine		ug/l	<2.4	<2.4	<2.4
3,3'-Dimethylbenzidine		ug/l	<8.5	<8.5	<8.5
3-Methylcholanthrene		ug/l	<1.6	<1.6	<1.6
3-Nitroaniline		ug/l	<1.6	<1.6	<1.6
4,6-Dinitro-2-methylphenol		ug/l	<4.4	<4.4	<4.4
4-Aminobiphenyl		ug/l	<1.6	<1.6	<1.6
4-Bromophenyl phenyl ether		ug/l	<2.6	<2.6	<2.6
4-Chloro-3-methylphenol		ug/l	<1.9	<1.9	<1.9
4-Chloroaniline		ug/l	<1.1	<1.1	<1.1
4-Chlorophenyl phenyl ether		ug/l	<1.6	<1.6	<1.6
4-Nitroaniline		ug/l	<2.0	<2.0	<2.0
4-Nitrophenol		ug/l	<1.7	<1.7	<1.7
7,12-Dimethylbenz(a)anthrancene		ug/l	<1.8	<1.8	<1.8
Acenaphthene		ug/l	<1.2	<1.2	<1.2
Acenaphthylene		ug/l	<1.2	<1.2	<1.2
Acetophenone		ug/l	<1.9	<1.9	<1.9
Anthrancene		ug/l	<0.034	<0.034	<0.034
Benzo[a]anthracene		ug/l	<0.022	<0.022	<0.022
Benzo[a]pyrene		ug/l	<0.024	<0.024	<0.024
Benzo[b]fluoranthene		ug/l	<0.028	<0.028	<0.028
Benzo[g,h,I]perylene		ug/l	<0.036	<0.036	<0.036
Benzo[k]fluoranthene		ug/l	<0.033	<0.033	<0.033
Benzyl alcohol		ug/l	<1.5	<1.5	<1.5
Bis(2-choroethoxy)methane		ug/l	<1.5	<1.5	<1.5
Bis(2-chloroethyl)ether		ug/l	<1.9	<1.9	<1.9
Bis(2-ethylhexyl)phthalate		ug/l	<1.9	<1.9	<1.9
Butyl Benzyl phthalate		ug/l	<2.1	<2.1	<2.1
Chrysene		ug/l	<0.027	<0.027	<0.027
Dialla		ug/l	<0.028	<0.028	<0.028
Dibenz(a,h)anthrancene		ug/l	<0.038	<0.038	<0.038
Dibenzofuran		ug/l	<1.2	<1.2	<1.2
Diethyl phthalate		ug/l	<1.4	<1.4	<1.4
Dimethylphthalate		ug/l	<1.0	<1.0	<1.0
Di-n-butyl phthalate		ug/l	<1.8	<1.8	<1.8
Di-n-octyl phthalate		ug/l	<1.9	<1.9	<1.9
Diphenylamine		ug/l	<3.0	<3.0	<3.0
Ethyl methanesulfonade		ug/l	<1.7	<1.7	<1.7
Fluoranthene		ug/l	<0.032	<0.032	<0.032
Fluorene		ug/l	<1.2	<1.2	<1.2
Hexachlorobenzene	130	ug/l	<0.033	<0.033	<0.033
Hexachlorobutadiene	500	ug/l	<0.031	<0.031	<0.031
Hexachlorocyclopentadience		ug/l	<1.2	<1.2	<1.2
Hexachloroethane		ug/l	<1.1	<1.1	<1.1
Hexachloropropene		ug/l	<1.1	<1.1	<1.1
Indeno[1,2,3-cd]pyrene		ug/l	<0.038	<0.038	<0.038
Kepone		ug/l	<3.5	<3.5	<3.5
Isosafrole		ug/l	<1.4	<1.4	<1.4
Methapyrilene		ug/l	<5.8	<5.8	<5.8
Methyl methanesulfonate		ug/l	<1.4	<1.4	<1.4
Naphthalene		ug/l	<1.3	<1.4	<1.4
Nitrobenzene	2,000	ug/l	<1.6	<1.6	<1.6
N-Nitrosodiethylamine		ug/l	<1.6	<1.6	<1.6
N-Nitrosodimethylamine		ug/l	<1.0	<1.0	<1.0
N-Nitrosodi-n-butylamine		ug/l	<1.3	<1.3	<1.3
N-Nitrosodi-n-propylamine		ug/l	<2.4	<2.4	<2.4
N-Nitrosodiphenylamine		ug/l	<3.0	<3.0	<3.0
N-Nitrosomethylethylamine		ug/l	<1.5	<1.5	<1.5
N-Nitrosopiperidine		ug/l	<1.4	<1.4	<1.4
N-Nitrosopyrrolidine		ug/l	<1.6	<1.6	<1.6
o,o'o''-Triethylphosphorothioate		ug/l	<1.4	<1.4	<1.4
o-Toluidine		ug/l	<2.7	<2.7	<2.7
p-Dimethylamino azobenzene		ug/l	<1.7	<1.7	<1.7
Pentachlorobenzene		ug/l	<0.031	<0.031	<0.031
Pentachloronitrobenzene		ug/l	<0.027	<0.027	<0.027
Phenacetin		ug/l	<2.0	<2.0	<2.0
Phenanthrene		ug/l	<1.7	<1.7	<1.7
Phenol		ug/l	<2.0	<2.0	<2.0
Pronamide		ug/l	<1.5	<1.5	<1.5
Pyrene		ug/l	<0.032	<0.032	<0.032
Safrole, Total		ug/l	<1.3	<1.3	<1.3
Chlorobenzilate		ug/l	<0.020	<0.020	<0.020

Notes: (1) - Regulatory standard listed in 40 CFR Part 261.24. Analyte concentrations shown with shading represent an exceedance ot the regulatory level.

NR = Not reported I = value between MDL and practical quantitation limit

Abbreviations: MDL =method detection limit; mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nepholometric turbidity units.

Table 2-2
Leachate Analytical Summary
Lena Road Landfill
2011

Analyte		Location:	Lift Station #1	Lift Station #2	Lift Station #3
		Sample Identifier:	Lift Station #1	Lift Station #2	Lift Station #3
		Date of Test:	04/26/11	04/26/11	04/26/11
	Standard(1)	Units			
Field Measurements					
pH		STD	6.50	6.50	6.47
Conductivity		umhos/cm	1,380	3,340	2,970
Dissolved Oxygen (DO)		mg/l	4.69	4.84	5.90
Temperature		degrees C	27.1	26.0	26.4
Turbidity		NTU	14.5	15.6	12.9
Inorganics					
Chemical Oxygen Demand		mg/l	418	389	380
Nitrate as N by Ion Chromatography		mg/l	NR	NR	NR
Antimony		mg/l	0.0044 I	0.006	<0.0039
Arsenic	5.0	mg/l	0.023	0.023	0.021
Barium	100	mg/l	0.105	0.107	0.089
Beryllium		mg/l	<0.00004	<0.00004	<0.00004
Cadmium	1.0	mg/l	<0.0004	<0.0004	<0.0004
Chromium		mg/l	0.006	0.006	0.005
Cobalt		mg/l	0.011	0.011	0.009
Copper		mg/l	<0.0009	<0.0009	<0.0009
Iron		mg/l	14.0	13.7	14.2
Lead	5,000	mg/l	<0.0017	<0.0017	<0.0017
Mercury	200	ug/l	NR	NR	NR
Nickel		mg/l	0.011	0.011	0.008
Selenium	1.0	mg/l	<0.0046	<0.0046	<0.0046
Silver		mg/l	<0.0007	<0.0007	<0.0007
Sodium		mg/l	272	269	220
Thallium		mg/l	<0.0015	<0.0016	<0.0016
Tin		mg/l	<0.0017	<0.0017	<0.0017
Vanadium		mg/l	0.022	0.021	0.018
Zinc		mg/l	0.012	0.011	0.009
Ammonia		mg/l	126	129	108
Total Dissolved Solids		mg/l	NR	NR	NR
Alkalinity as CaCO3		mg/l	NR	NR	NR
Cyanide, Total		ug/l	0.0070 I	<0.005	<0.005
Sulfide		ug/l	1.20	0.82	1.2
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane		ug/l	<0.2	<0.2	<0.2
1,1,1-Trichloroethane		ug/l	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane		ug/l	<0.2	<0.2	<0.2
1,1,2-Trichloroethane		ug/l	<0.2	<0.2	<0.2
1,1-Dichloroethane		ug/l	0.2 I	0.2 I	0.3 I
1,1-Dichloroethene	700	ug/l	<0.2	<0.2	<0.2
1,1-Dichloropropene		ug/l	<0.2	<0.2	<0.2
1,2,3-Trichloropropane		ug/l	<0.4	<0.4	<0.4
1,2-Dichlorobenzene		ug/l	0.2 I	0.1 I	0.2 I
1,2-Dichloroethane	500	ug/l	0.9	0.7 I	1.7
1,2-Dichloropropane		ug/l	0.4 I	0.2 I	0.4 I
1,3-Dichlorobenzene		ug/l	<0.07	3.5	<0.07
1,3-Dichloropropane		ug/l	<0.1	<0.1	<0.1
1,4-Dichlorobenzene	7,500	ug/l	5.1	3.3	3.8
2,2-Dichloropropane		ug/l	<0.3	<0.3	<0.3
2-Butanone		ug/l	<2.0	<2.0	5.8
2-Hexanone		ug/l	<2.1	<2.1	<2.1
4-Methlyl-2-pentanone		ug/l	<2.6	<2.6	<2.6
Acetone		ug/l	16	9.3	6.5
Acetonitrile		ug/l	35	<2.1	<2.1
Acrolein		ug/l	<1.2	<1.2	<1.2
Acrylonitrile		ug/l	<1.3	<1.3	<1.3
Allyl chloride		ug/l	<0.2	<0.2	<0.2
Benzene	500	ug/l	5.3	3.5	6.3
Bromochloromethane		ug/l	<0.1	<0.1	<0.1
Bromodichloromethane		ug/l	<0.2	<0.2	<0.2
Bromoform		ug/l	<0.2	<0.2	<0.2
Bromomethane		ug/l	<0.4	<0.4	<0.4
Carbon disulfide		ug/l	<0.2	<0.2	<0.2
Carbon tetrachloride	500	ug/l	<0.2	<0.2	<0.2
Chlorobenzene	100,000	ug/l	5.4	4.5	6.9
Chloroethane		ug/l	<0.4	<0.4	<0.4
Chloroform		ug/l	<0.2	<0.2	<0.2
Chloromethane		ug/l	<0.4	<0.4	<0.4
Chloroprene		ug/l	<0.2	<0.2	<0.2
cis-1,2-Dichloroethene		ug/l	0.4 I	0.5 I	2.5
cis-1,3-Dichloropropene		ug/l	<0.2	<0.2	<0.2
Dibromochloromethane		ug/l	<0.1	<0.1	<0.1
Dibromomethane		ug/l	<0.2	<0.2	<0.2
Dichlorodiflouromethane		ug/l	<0.5	<0.5	<0.5
Ethyl methacrylate		ug/l	<0.3	<0.3	<0.3
Ethylbenzene		ug/l	15	8.5	4.0
Isobutyl Alcohol		ug/l	<14	<14	<14
Methacrylonitrile		ug/l	<0.2	<0.2	<0.2
Methyl methacrylate		ug/l	<0.3	<0.3	<0.3

Analyte	Location:		Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:		Lift Station #1	Lift Station #2	Lift Station #3
	Date of Test:		04/26/11	04/26/11	04/26/11
	Standard(1)	Units			
Methyl Iodide (Iodomethane)		ug/l	<2.1	<2.1	<2.1
Methylene Chloride		ug/l	<0.2	<0.2	<0.2
MIBK (4-Methyl-2-pentanone)		ug/l	<2.6	<2.6	<2.6
Propionitrile		ug/l	<2.2	<2.2	<2.2
Styrene		ug/l	<0.05	<0.05	<0.05
Tetrachloroethene	700	ug/l	<0.1	<0.1	<0.1
Toluene		ug/l	0.9	0.6 I	0.5 I
trans-1,2-Dichloroethene		ug/l	<0.2	<0.2	<0.2
trans-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1
trans-1.4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3
Trichloroethene	500	ug/l	<0.2	<0.2	<0.2
Trichlorofluoromethane		ug/l	<0.2	<0.2	<0.2
Vinyl acetate		ug/l	<0.4	<0.4	<0.4
Vinyl chloride	200	ug/l	1.3 I	1.1 I	3.4
Xylene, Total		ug/l	16	8.7	2.8
Pesticides and Herbicides					
4,4'-DDD		ug/l	<0.010	<0.010	<0.010
4,4'-DDE		ug/l	<0.007	<0.007	<0.007
4,4'-DDT		ug/l	<0.010	<0.010	<0.010
Aldrin		ug/l	<0.005	<0.005	<0.005
alpha-BHC		ug/l	<0.009	<0.009	<0.009
beta-BHC		ug/l	<0.008	<0.008	<0.008
Chlorodane (technical)	30	ug/l	<0.052	<0.051	<0.052
delta-BHC		ug/l	<0.006	<0.006	<0.006
Dieldrin		ug/l	<0.010	<0.010	<0.010
Endosulfan I		ug/l	<0.010	<0.010	<0.010
Endosulfan II		ug/l	<0.008	<0.008	<0.008
Endosulfan sulfate		ug/l	<0.010	<0.010	<0.010
Endrin	20	ug/l	<0.010	<0.010	<0.010
Endrin aldehyde		ug/l	<0.010	<0.010	<0.010
gamma-BHC (Lindane)	400	ug/l	<0.009	<0.009	<0.009
Heptachlor	8	ug/l	<0.008	<0.008	<0.008
Heptachlor epoxide		ug/l	<0.010	<0.010	<0.010
Methoxychlor		ug/l	<0.049	<0.048	<0.049
Toxaphene		ug/l	<0.13	<0.13	<0.14
Dimethoate		ug/l	<0.3	<0.3	<0.3
Disulfoton		ug/l	<0.2	<0.2	<0.2
Famphur		ug/l	<0.5	<0.09	<0.5
Isodrin		ug/l	<0.4	<0.07	<0.4
Methyl parathion		ug/l	<0.3	<0.06	<0.3
Parathion		ug/l	<0.4	<0.09	<0.4
Phorate		ug/l	<0.3	<0.06	<0.3
Thionazin		ug/l	<0.4	<0.08	<0.4
2,4,5-T		ug/l	<0.070	<0.070	<0.070
2,4-D		ug/l	<0.090	<0.090	<0.090
Dinoseb		ug/l	<3.0	<0.3	<3.0
Silvex (2,4,5-TP)		ug/l	<0.090	<0.090	<0.090
Pentachlorophenol		ug/l	<2	<0.3	<2
Dibromochloropropane		ug/l	<0.0056	<0.0067	<0.0068
Ethylene Dibromide		ug/l	<0.0056	<0.0067	<0.0068
Plychlorinated biphenyls					
PCB-1016		ug/l	<0.068	<0.068	<0.068
PCB-1221		ug/l	<0.073	<0.073	<0.073
PCB-1232		ug/l	<0.073	<0.073	<0.073
PCB-1242		ug/l	<0.068	<0.068	<0.069
PCB-1248		ug/l	<0.073	<0.073	<0.073
PCB-1254		ug/l	<0.073	<0.073	<0.073
PCB-1260		ug/l	<0.066	<0.066	<0.067
Semivolatile Analyses					
1,2,4,5-Tetrachlorobenzene		ug/l	<0.2	<0.4	<0.2
1,2,4- Trichlorobenzene		ug/l	<0.2	<0.05	<0.2
1,3,5-Trinitrobenzene		ug/l	<1	<0.2	<1
1,3-Dinitrobenzene		ug/l	<0.3	<0.07	<0.3
1,4-Naphthoquinone		ug/l	<1	<0.2	<1
1-Naphthylamine		ug/l	<0.7	<0.1	<0.7
2,2'-oxybis (2-chloropropane)		ug/l	<0.3	<0.3	<0.3
2,3,4,6-Tetrachlorophenol		ug/l	<0.5	<0.1	<0.5
2,4,5-Trichlorophenol	400,000	ug/l	<0.2	<0.04	<0.2
2,4,6-Trichlorophenol	2,000	ug/l	<0.3	<0.05	<0.3
2,4-Dichlorophenol		ug/l	<0.3	<0.06	<0.3
2,4-Dimethylphenol		ug/l	<2	<0.5	<2
2,4-Dinitrophenol		ug/l	<11	<2	<11
2,4-Dinitrotoluene	13,000	ug/l	<0.2	<0.05	<0.2
2,6-Dichlorophenol		ug/l	<0.3	<0.06	<0.3
2,6-Dinitrotluene		ug/l	<0.4	<0.08	<0.4
2-Acetylaminofluorence		ug/l	<0.3	<0.06	<0.3
2-Chloronaphthalene		ug/l	<0.2	<0.04	<0.2
2-Chlorophenol		ug/l	<0.3	<0.06	<0.3
2-Methylnaphthalene		ug/l	1	0.2	0.5
2-Methylphenol		ug/l	<0.5	<0.1	<0.5
2-Naphthylamine		ug/l	<0.7	<0.1	<0.7
2-Nitroaniline		ug/l	<0.2	<0.04	<0.2
2-Nitrophenol		ug/l	<0.3	<0.06	<0.3
2-Toluidine		ug/l	<0.7	<0.05	<0.7

Analyte	Location:		Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:		Lift Station #1	Lift Station #2	Lift Station #3
	Date of Test:		04/26/11	04/26/11	04/26/11
	Standard(1)	Units			
3&4 Methylphenol		ug/l	<0.5	2	<0.5
3,3'-Dichlorobenzidine		ug/l	<1	<0.3	<1
3,3'-Dimethylbenzidine		ug/l	<1	<0.3	<1
3-Methylcholanthrene		ug/l	<0.3	<0.05	<0.3
3-Nitroaniline		ug/l	<0.5	<0.09	<0.5
4,6-Dinitro-2-methylphenol		ug/l	<1	<0.2	<1
4-Aminobiphenyl		ug/l	<0.6	<0.1	<0.6
4-Bromophenyl phenyl ether		ug/l	<0.6	<0.1	<0.6
4-Chloro-3-methylphenol		ug/l	<0.3	<0.05	<0.3
4-Chloroaniline		ug/l	<0.6	<0.1	<0.6
4-Chlorophenyl phenyl ether		ug/l	<0.3	<0.06	<0.3
4-Nitroaniline		ug/l	<0.5	<0.1	<0.5
4-Nitrophenol		ug/l	<0.5	<0.1	<0.5
7,12-Dimethylbenz(a)anthrancene		ug/l	<0.3	<0.06	<0.3
Acenaphthene		ug/l	0.6	0.1	0.3
Acenaphthylene		ug/l	<0.002	<0.002	<0.002
Acetophenone		ug/l	<0.3	0.4 I	<0.3
Anthrancene		ug/l	0.4	0.06	0.2
Benzo[a]anthracene		ug/l	<0.002	0.02	0.003
Benzo[a]pyrene		ug/l	<0.002	<0.002	<0.002
Benzo[b]fluoranthene		ug/l	<0.003	<0.003	<0.003
Benzo[g,h,l]perylene		ug/l	<0.01	<0.01	<0.01
Benzo[k]fluoranthene		ug/l	<0.005	<0.005	<0.005
Benzyl alcohol		ug/l	<0.7	<0.1	<0.7
Bis(2-choroethoxy)methane		ug/l	<0.3	<0.07	<0.3
Bis(2-chloroethyl)ether		ug/l	<0.3	<0.06	<0.3
Bis(2-ethylhexyl)phthalate		ug/l	<3	<0.6	<3
Butyl Benzyl phthalate		ug/l	<0.7	<0.1	<0.7
Chrysene		ug/l	<0.003	<0.003	0.03
Diallate		ug/l	<0.4	<0.08	<0.4
Dibenz(a,h)anthrancene		ug/l	<0.01	<0.01	<0.01
Dibenzofuran		ug/l	<0.2	<0.04	<0.2
Diethyl phthalate		ug/l	<0.7	<0.1	<0.7
Dimethylphthalate		ug/l	<1	<0.2	<1
Di-n-butyl phthalate		ug/l	<0.6	<0.1	<0.6
Di-n-octyl phthalate		ug/l	<0.5	<0.1	<0.5
Diphenylamine		ug/l	<0.4	0.1 I	<0.4
Ethyl methanesulfonade		ug/l	<0.4	<0.08	<0.4
Fluoranthene		ug/l	<0.001	0.04	0.07
Fluorene		ug/l	<0.5	0.1	0.2
Hexachlorobenzene	130	ug/l	<0.4	<0.08	<0.4
Hexachlorobutadiene	500	ug/l	<0.2	<0.05	<0.2
Hexachlorocyclopentadience		ug/l	<0.2	<0.05	<0.2
Hexachloroethane		ug/l	<0.4	<0.08	<0.4
Hexachloropropene		ug/l	<0.4	<0.07	<0.4
Indeno[1,2,3-cd]pyrene		ug/l	<0.005	<0.005	<0.005
Kepone		ug/l	<0.4	<0.08	<0.4
Isosafrole		ug/l	<0.3	<0.06	<0.3
Methapyrilene		ug/l	<4	<0.7	<4
Methyl methanesulfonate		ug/l	<0.3	<0.05	<0.3
Naphthalene		ug/l	1	0.4	0.5
Nitrobenzene	2,000	ug/l	<0.4	<0.08	<0.4
N-Nitrosodiethylamine		ug/l	<0.3	<0.05	<0.3
N-Nitrosodimethylamine		ug/l	<0.3	<0.08	<0.3
N-Nitrosodi-n-butylamine		ug/l	<0.4	<0.06	<0.4
N-Nitrosodi-n-propylamine		ug/l	<0.3	<0.07	<0.3
N-Nitrosodiphenylamine		ug/l	<0.4	<0.2	<0.4
N-Nitrosomethylethylamine		ug/l	<0.7	<0.1	<0.7
N-Nitrosopiperidine		ug/l	<0.4	<0.08	<0.4
N-Nitrosopyrrolidine		ug/l	<0.7	<0.1	<0.7
o,o'o"-Triethylphosphorothioate		ug/l	<0.4	<0.8	<0.4
o-Toluidine		ug/l	<0.7	<0.1	<0.7
p-Dimethylamino azobenzene		ug/l	<0.3	<0.06	<0.3
Pentachlorobenzene		ug/l	<0.3	<0.07	<0.3
Pentachloronitrobenzene		ug/l	<0.4	<0.07	<0.4
Phenacetin		ug/l	<0.6	<0.1	<0.6
Phenanthrene		ug/l	0.2	0.04	0.08
Phenol		ug/l	<0.2	0.9	0.5 I
Pronamide		ug/l	<0.3	<0.06	<0.3
Pyrene		ug/l	0.07	0.1	0.06
Safrole, Total		ug/l	<0.3	<0.06	<0.3
Chlorobenzilate		ug/l	<0.9	<0.2	<0.9

Notes: (1) - Regulatory standard listed in 40 CFR Part 261.24. Analyte concentrations shown with shading represent an exceedance ot the regulatory level.

NR = Not reported I = value between MDL and practical quantitation limit

Abbreviations: MDL = method detection limit; mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nepholometric turbidity units.

Table 2-3
Leachate Analytical Summary
Lena Road Landfill
2012

Analyte		Location:	Lift Station #1	Lift Station #2	Lift Station #3
		Sample Identifier:	Lift Station #1	Lift Station #2	Lift Station #3
		Date of Test:	03/19/12	03/19/12	03/19/12
	Standard(1)	Units			
Field Measurements					
pH		STD	7.46	7.48	7.45
Conductivity		umhos/cm	3,340	3,100	2,650
Dissolved Oxygen (DO)		mg/l	9.98	9.86	8.18
Temperature		degrees C	26.5	27.2	26.4
Turbidity		NTU	5.77	5.69	5.41
Inorganics					
Chloride		mg/l	366	482	352
Nitrate as N by Ion Chromatography		mg/l	<0.0046	<0.0046	<0.0046
Antimony		mg/l	<0.0039	<0.0039	<0.0039
Arsenic	5.0	mg/l	0.04	0.036	0.037
Barium	100	mg/l	0.107	0.134	0.102
Beryllium		mg/l	<0.00004	<0.00004	<0.00004
Cadmium	1.0	mg/l	<0.0004	<0.0004	<0.0004
Chromium		mg/l	0.008	0.010	0.007
Cobalt		mg/l	0.011	0.016	0.01
Copper		mg/l	0.0017 I	<0.0009	<0.0009
Iron		mg/l	7.21	9.74	6.69
Lead	5,000	mg/l	<0.0017	<0.0017	<0.0017
Mercury	200	ug/l	<0.000068	<0.000068	<0.000068
Nickel		mg/l	0.012	0.015	0.011
Selenium	1.0	mg/l	<0.0046	<0.0046	<0.0046
Silver		mg/l	<0.0007	<0.0007	<0.0007
Sodium		mg/l	262	357	241
Thallium		mg/l	<0.0016	<0.0016	<0.0016
Tin		mg/l	0.0036 I	0.0041 I	0.0040 I
Vanadium		mg/l	0.021	0.027	0.02
Zinc		mg/l	<0.0029	0.0043 I	<0.0029
Ammonia		mg/l	141	193	130
Total Dissolved Solids		mg/l	1780	2200	1650
Alkalinity as CaCO3		mg/l	NR	NR	NR
Cyanide, Total		ug/l	0.008 I	<0.0054	0.0070 I
Sulfide		ug/l	2.8	2.0	2.2
Volatile Organic Compounds					
1,1,1,2-Tetrachloroethane		ug/l	<0.2	<0.2	<0.2
1,1,1-Trichloroethane		ug/l	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane		ug/l	<0.2	<0.2	<0.2
1,1,2-Trichloroethane		ug/l	<0.2	<0.2	<0.2
1,1-Dichloroethane		ug/l	<0.2	<0.2	0.3 I
1,1-Dichloroethene	700	ug/l	<0.2	<0.2	<0.2
1,1-Dichloropropene		ug/l	<0.2	<0.2	<0.2
1,2,3-Trichloropropane		ug/l	<0.4	<0.4	<0.4
1,2-Dichlorobenzene		ug/l	0.2 I	0.2 I	0.2 I
1,2-Dichloroethane	500	ug/l	1.0	1.1	1.2
1,2-Dichloropropane		ug/l	<0.2	<0.2	<0.2
1,3-Dichlorobenzene		ug/l	<0.07	<0.07	<0.07
1,3-Dichloropropane		ug/l	<0.1	<0.1	<0.1
1,4-Dichlorobenzene	7,500	ug/l	3.9	4.3	4.3
2,2-Dichloropropane		ug/l	<0.3	<0.3	<0.3
2-Butanone		ug/l	<2.0	<2.0	<2.0
2-Hexanone		ug/l	<2.1	<2.1	<2.1
4-Methlyl-2-pentanone		ug/l	NR	NR	NR
Acetone		ug/l	9.0	6.9	7.9
Acetonitrile		ug/l	<2.1	<2.1	<2.1
Acrolein		ug/l	<1.2	<1.2	<1.2
Acrylonitrile		ug/l	<1.3	<1.3	<1.3
Allyl chloride		ug/l	<0.2	<0.2	<0.2
Benzene	500	ug/l	3.6	4.0	4.1
Bromochloromethane		ug/l	<0.1	<0.1	<0.1
Bromodichloromethane		ug/l	<0.2	<0.2	<0.2
Bromoform		ug/l	<0.2	<0.2	<0.2
Bromomethane		ug/l	<0.4	<0.4	<0.4
Carbon disulfide		ug/l	<0.2	<0.2	<0.2
Carbon tetrachloride	500	ug/l	<0.2	<0.2	<0.2
Chlorobenzene	100,000	ug/l	5.3	5.9	5.4
Chloroethane		ug/l	<0.4	<0.4	<0.4
Chloroform		ug/l	<0.2	<0.2	<0.2
Chloromethane		ug/l	<0.4	<0.4	<0.4
Chloroprene		ug/l	<0.2	<0.2	<0.2
cis-1,2-Dichloroethene		ug/l	0.7 I	0.7 I	0.7 I
cis-1,3-Dichloropropene		ug/l	<0.2	<0.2	<0.2
Dibromochloromethane		ug/l	<0.1	<0.1	<0.1
Dibromomethane		ug/l	<0.2	<0.2	<0.2
Dichlorodiflouromethane		ug/l	<0.5	<0.5	<0.5
Ethyl methacrylate		ug/l	<0.3	<0.3	<0.3
Ethylbenzene		ug/l	1.9	2.3	2.5
Isobutyl Alcohol		ug/l	<14	<14	<14
Methacrylonitrile		ug/l	<0.2	<0.2	<0.2
Methyl methacrylate		ug/l	<0.3	<0.3	<0.3

Analyte	Location:		Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:		Lift Station #1	Lift Station #2	Lift Station #3
	Date of Test:		03/19/12	03/19/12	03/19/12
	Standard(1)	Units			
Methyl Iodide (Iodomethane)		ug/l	<0.2	<0.2	<2.1
Methylene Chloride		ug/l	<0.2	<0.2	<0.2
MIBK (4-Methyl-2-pentanone)		ug/l	<2.6	<2.6	<2.6
Propionitrile		ug/l	<2.2	<2.2	<2.2
Styrene		ug/l	<0.05	<0.05	<0.05
Tetrachloroethene	700	ug/l	<0.1	<0.1	<0.1
Toluene		ug/l	0.4 I	0.5 I	0.5 I
trans-1,2-Dichloroethene		ug/l	<0.2	<0.2	<0.2
trans-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1
trans-1.4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3
Trichloroethene	500	ug/l	<0.2	<0.2	<0.2
Trichlorofluoromethane		ug/l	<0.2	<0.2	<0.2
Vinyl acetate		ug/l	<0.4	<0.4	<0.4
Vinyl chloride	200	ug/l	1.8	2.1	2.4
Xylene, Total		ug/l	5.3	5.6	6.3
Pesticides and Herbicides					
4,4'-DDD		ug/l	<0.1	<0.11	<0.1
4,4'-DDE		ug/l	<0.074	<0.078	<0.073
4,4'-DDT		ug/l	<0.099	<0.10	<0.098
Aldrin		ug/l	<0.049	<0.051	<0.048
alpha-BHC		ug/l	<0.089	<0.093	<0.088
beta-BHC		ug/l	<0.081	<0.086	<0.080
Chlorodane (technical)	30	ug/l	<0.53	<0.56	<0.52
delta-BHC		ug/l	<0.062	<0.066	<0.061
Dieldrin		ug/l	<0.099	<0.10	<0.098
Endosulfan I		ug/l	<0.1	<0.11	<0.1
Endosulfan II		ug/l	<0.087	<0.091	<0.085
Endosulfan sulfate		ug/l	<0.099	<0.10	<0.098
Endrin	20	ug/l	<0.1	<0.11	<0.1
Endrin aldehyde		ug/l	<0.1	<0.11	<0.1
gamma-BHC (Lindane)	400	ug/l	<0.091	<0.096	<0.090
Heptachlor	8	ug/l	<0.08	<0.084	<0.079
Heptachlor epoxide		ug/l	<0.1	<0.11	<0.1
Methoxychlor		ug/l	<0.5	<0.52	<0.49
Toxaphene		ug/l	<1.4	<1.4	<1.4
Dimethoate		ug/l	<1	<0.6	<0.6
Disulfoton		ug/l	<0.7	<0.4	<0.4
Famphur		ug/l	<2	<0.9	<0.9
Isodrin		ug/l	<1	<0.7	<0.7
Methyl parathion		ug/l	<1	<0.6	<0.6
Parathion		ug/l	<2	<0.9	<0.9
Phorate		ug/l	<1	<0.6	<0.6
Thionazin		ug/l	<2	<0.9	<0.9
2,4,5-T		ug/l	<1.4	<1.4	<1.4
2,4-D		ug/l	<1.8	<1.8	<1.8
Dinoseb		ug/l	<6.0	<6.0	<6.0
Silvex (2,4,5-TP)		ug/l	<1.8	<1.8	<1.8
Pentachlorophenol		ug/l	<7	<3	<3
Dibromochloropropane		ug/l	<0.0058	<0.0060	0.0070 I
Ethylene Dibromide		ug/l	<0.0058	<0.0060	<0.0057
Plychlorinated biphenyls					
PCB-1016		ug/l	<0.070	<0.073	<0.069
PCB-1221		ug/l	<0.074	<0.078	<0.073
PCB-1232		ug/l	<0.074	<0.078	<0.073
PCB-1242		ug/l	<0.070	<0.073	<0.069
PCB-1248		ug/l	<0.074	<0.078	<0.073
PCB-1254		ug/l	<0.074	<0.078	<0.073
PCB-1260		ug/l	<0.068	<0.071	<0.067
Semivolatile Analyses					
1,2,4,5-Tetrachlorobenzene		ug/l	<0.8	<0.8	<0.4
1,2,4- Trichlorobenzene		ug/l	<1	<0.5	<0.5
1,3,5-Trinitrobenzene		ug/l	<5	<2	<2
1,3-Dinitrobenzene		ug/l	<1	<0.7	<0.7
1,4-Naphthoquinone		ug/l	<5	<3	<3
1-Naphthylamine		ug/l	<3	<1	<1
2,2'-oxybis (2-chloropropane)		ug/l	<1	<0.3	<0.3
2,3,4,6-Tetrachlorophenol		ug/l	<2	<1	<1
2,4,5-Trichlorophenol	400,000	ug/l	<0.9	<0.4	<0.4
2,4,6-Trichlorophenol	2,000	ug/l	<1	<0.6	<0.6
2,4-Dichlorophenol		ug/l	<1	<0.6	<0.6
2,4-Dimethylphenol		ug/l	<9	<5	<5
2,4-Dinitrophenol		ug/l	<44	<22	<22
2,4-Dinitrotoluene	13,000	ug/l	<0.9	<0.5	<0.5
2,6-Dichlorophenol		ug/l	<1	<0.7	<0.7
2,6-Dinitrotluene		ug/l	<2	<0.8	<0.8
2-Acetylaminofluorence		ug/l	<1	<0.6	<0.6
2-Chloronaphthalene		ug/l	<0.8	<0.4	<0.4
2-Chlorophenol		ug/l	<1	<0.6	<0.6
2-Methylnaphthalene		ug/l	NR	NR	NR
2-Methylphenol		ug/l	<2	<1	<1
2-Naphthylamine		ug/l	<3	<1	<1
2-Nitroaniline		ug/l	<0.7	<0.4	<0.4
2-Nitrophenol		ug/l	<1	<0.6	<0.6
2-Toluidine		ug/l	<3	<1	<1

Analyte	Location:		Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:		Lift Station #1	Lift Station #2	Lift Station #3
	Date of Test:		03/19/12	03/19/12	03/19/12
	Standard(1)	Units			
3&4 Methylphenol		ug/l	<2	<1	<1
3,3'-Dichlorobenzidine		ug/l	<5	<3	<3
3,3'-Dimethylbenzidine		ug/l	<5	<3	<3
3-Methylcholanthrene		ug/l	<1	<0.6	<0.6
3-Nitroaniline		ug/l	<2	<1	<1
4,6-Dinitro-2-methylphenol		ug/l	<5	<2	<2
4-Aminobiphenyl		ug/l	<2	<1	<1
4-Bromophenyl phenyl ether		ug/l	<2	<1	<1
4-Chloro-3-methylphenol		ug/l	<1	<0.5	<0.5
4-Chloroaniline		ug/l	<2	<1	<1
4-Chlorophenyl phenyl ether		ug/l	<1	<0.7	<0.7
4-Nitroaniline		ug/l	<2	<1	<1
4-Nitrophenol		ug/l	<2	<1	<1
7,12-Dimethylbenz(a)anthrancene		ug/l	<1	<0.6	<0.6
Acenaphthene		ug/l	NR	NR	NR
Acenaphthylene		ug/l	NR	NR	NR
Acetophenone		ug/l	<1	<0.5	<0.5
Anthrancene		ug/l	0.54	0.55	0.56
Benzo[a}anthracene		ug/l	<0.002	<0.002	<0.002
Benzo[a]pyrene		ug/l	<0.003	<0.003	<0.003
Benzo[b]fluoranthene		ug/l	<0.003	<0.003	<0.003
Benzo[g,h,I]perylene		ug/l	<0.01	<0.01	<0.01
Benzo[k]fluoranthene		ug/l	<0.003	<0.003	<0.003
Benzyl alcohol		ug/l	<3	<1	<1
Bis(2-choroethoxy)methane		ug/l	<1	<0.7	<0.7
Bis(2-chloroethyl)ether		ug/l	<1	<0.7	<0.7
Bis(2-ethylhexyl)phthalate		ug/l	<12	<6	<6
Butyl Benzyl phthalate		ug/l	<3	<1	<1
Chrysene		ug/l	<0.004	<0.004	<0.004
Diallate		ug/l	<2	<0.8	<0.8
Dibenz(a,h)anthrancene		ug/l	<0.009	<0.009	<0.009
Dibenzofuran		ug/l	<0.8	<0.4	<0.4
Diethyl phthalate		ug/l	<3	<1	<1
Dimethylphthalate		ug/l	<4	<2	<2
Di-n-butyl phthalate		ug/l	<3	<1	<1
Di-n-octyl phthalate		ug/l	<2	<1	<1
Diphenylamine		ug/l	<2	<0.8	<0.8
Ethyl methanesulfonade		ug/l	<2	<0.8	<0.8
Fluoranthene		ug/l	0.044	0.054	0.051
Fluorene		ug/l	0.26	0.29	0.28
Hexachlorobenzene	130	ug/l	<2	<0.8	<0.8
Hexachlorobutadiene	500	ug/l	<1	<0.5	<0.5
Hexachlorocyclopentadience		ug/l	<1	<0.5	<0.5
Hexachloroethane		ug/l	<2	<0.8	<0.8
Hexachloropropene		ug/l	<2	<0.8	<0.8
Indeno[1,2,3-cd]pyrene		ug/l	<0.007	<0.007	<0.007
Kepone		ug/l	<2	<0.8	<0.8
Isosafrole		ug/l	<1	<0.8	<0.8
Methapyrilene		ug/l	<15	<8	<8
Methyl methanesulfonate		ug/l	<1	<0.6	<0.6
Naphthalene		ug/l	1.2	1.4	1.3
Nitrobenzene	2,000	ug/l	<2	<0.8	<0.8
N-Nitrosodiethylamine		ug/l	<1	<0.6	<0.6
N-Nitrosodimethylamine		ug/l	<1	<0.6	<0.6
N-Nitrosodi-n-butylamine		ug/l	NR	NR	NR
N-Nitrosodi-n-propylamine		ug/l	<1	<0.7	<0.7
N-Nitrosodiphenylamine		ug/l	<5	<2	<2
N-Nitrosomethylethylamine		ug/l	<3	<1	<1
N-Nitrosopiperidine		ug/l	<2	<0.9	<0.9
N-Nitrosopyrrolidine		ug/l	<3	<1	<1
o,o'o"-Triethylphosphorothioate		ug/l	<2	<0.8	<0.8
o-Toluidine		ug/l	<3	<1	<1
p-Dimethylamino azobenzene		ug/l	<1	<0.6	<0.6
Pentachlorobenzene		ug/l	<1	<0.7	<0.7
Pentachloronitrobenzene		ug/l	<2	<0.8	<0.8
Phenacetin		ug/l	<3	<1	<1
Phenanthrene		ug/l	0.15	0.18	0.14
Phenol		ug/l	<0.9	<0.5	<0.5
Pronamide		ug/l	<0.3	<0.6	<0.6
Pyrene		ug/l	0.039	<0.002	<0.048
Safrole, Total		ug/l	<1	<0.6	<0.6
Chlorobenzilate		ug/l	<4	<2	<2

Notes: (1) - Regulatory standard listed in 40 CFR Part 261.24. Analyte concentrations shown with shading represent an exceedance ot the regulatory level.

NR = Not reported I = value between MDL and practical quantitation limit

Abbreviations: MDL = method detection limit; mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nepholometric turbidity units.

Table 2-4
Lena Road Groundwater Analytical Summary
Second Half 2009

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE27722	AE27731	AE27732	AE27733	AE27734	AE27735	AE27736	AE27737	AE27738	AE27723	AE27724	AE27725	AE27726	AE27727	AE27728	AE27729	AE27730	AE27721
	Date of Test:		9/9/09	9/9/09	9/9/09	9/9/09	9/9/09	9/9/09	9/9/09	9/9/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09
	MCL/ CTL[1]	Units																		
Field Measurements																				
Depth-to-Groundwater[(2)]		ft	5.73	7.91	5.36	7.47	7.51	7.11	8.71	9.89	10.08	9.03	7.51	10.48	12.52	6.22	8.71	10.01	8.63	9.66
Temperature		deg. C	26.5	27.2	26.3	26.6	27.3	27.0	27.4	28.2	27.3	27.0	26.3	26.3	26.2	26.3	26.2	26.5	26.3	25.4
pH	**6.5-8.5**	STD	6.1	6.1	6	6	6.3	6.4	6.2	6.1	6.4	6.5	6.2	6.1	6.5	6.4	6.3	6.2	5.3	5.8
Conductivity		umhos/cm	610	504	673	464	598	1,302	642	616	870	803	489	1141	2,200	2,155	846	679	186	640
Dissolved Oxygen (DO)		mg/l	0.2	0.2	0.2	0.3	0.2	0.3	0.1	0.1	0.4	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1
Turbidity		NTU	6.6	7.4	5.7	20.0	3.2	17.0	6.9	14.0	1.9	11.0	9.7	7.6	3.0	5.4	1.9	6.0	7.1	1.4
Inorganics																				
Chloride By Ion Chromatography	**250**	mg/l	18.8	14.6	36.4	7.39	10.8	8.3	18.2	21.4	14.8	6.6	23.3	9.6	49.4	112.0	110.0	93.4	5.9	47.8
Nitrate as N by Ion Chromatography	**10**	mg/l	<0.006	<0.006	0.14	2.03	4.06	15.2	1.22	0.062	0.108	0.216	<0.006	18.9	0.461	0.056	0.013 I	0.098	0.062	0.018 I
Antimony	**0.006**	mg/l	0.0022 I	0.0024 I	0.0033 I	0.0039 I	0.006 J	0.007	0.0032 I	0.0021 I	0.0041 I	<0.0009	0.0019 I	0.006	0.0042 I	0.0041 I	0.0025 I	0.0013 I	0.0013 I	<0.0009
Arsenic	**0.01**	mg/l	0.025	0.015 I	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	0.020	<0.007	0.052	<0.007	<0.007	0.008 I	<0.007	<0.007	<0.007	<0.007
Barium	**2**	mg/l	0.016	0.013	0.018	0.019	0.018	0.026	0.023	0.024	0.024	0.021	0.014	0.078	0.055	0.085	0.077	0.032	0.006	0.019
Beryllium	**0.004**	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Cadmium	**0.005**	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chromium	**0.1**	mg/l	0.003 I	0.003 I	0.004	0.006	0.002 I	0.003 I	0.002 I	0.004	0.001 I	0.002 I	0.004	0.003 I	0.003 I	0.003 I	0.004	0.003 I	0.008	0.001 I
Cobalt	0.14	mg/l	0.002 I	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003 I	0.002 I	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	**1**	mg/l	<0.005	<0.005	<0.005	0.006 I	0.005 I	0.005 I	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Iron	**0.3**	mg/l	11.8	8.62	1.79	0.436	0.163	0.443	0.349	0.415	2.55	1.19	21.7	0.347	1.63	0.394	24.5	1.96	7.98	0.269
Lead	**0.015**	mg/l	<0.005	<0.003	0.004 I	0.004 I	<0.003	<0.005	<0.005	<0.005	<0.005	<0.005	0.006 I	<0.005	<0.005	<0.005	<0.005	0.006 I	<0.005	<0.005
Mercury Cold Vapor	**0.002**	mg/l	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Nickel	**0.1**	mg/l	0.006	0.004	0.003 I	0.004	0.003 I	0.003 I	0.003 I	0.003 I	0.003 I	0.003 I	0.008	0.004	0.002 I	0.004	0.002 I	0.004	0.002 I	0.004
Selenium	**0.05**	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010	0.022 I	<0.010	<0.010	<0.010	<0.010	<0.010	0.013	0.036	0.035	<0.010	<0.010	<0.010	<0.010
Silver	**0.1**	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Sodium	**160**	mg/l	16.8	12.9	31.5	7.92	10.1	14.4	14.6	13.3	9.37	5.34	14.7	7.98	43.1	59.6	61.1	74	5.8	47.6
Thallium by GFAAS	**0.002**	mg/l	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.0006 I	<0.0004	<0.0004	0.0006 I	<0.0004	0.0006 I	0.0007 I	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Vanadium	0.049	mg/l	0.014	0.009	0.021	0.027	0.025	0.081	0.015	0.0061	0.006	0.0031	0.0069	0.019	0.0072	0.0022	0.014	0.011	0.027	0.0044
Zinc	**5**	mg/l	<0.030	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.016 I	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Ammonia	2.8	mg/l	0.65	1.02	0.847	1.34	0.043	0.097	0.442	0.775	0.716	1.23	1.38	1.31	4.34	2.44	1.35	1.05	1.8	0.757
Total Dissolved Solids (TDS)	**500**	mg/l	479	373	482	343	415	1050	484	488	559	462	316	877	1870	1920	572	444	135	418
Volatile Organics																				
1,1,1,2-Tetrachloroethane	5	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-Trichloroethane	**200**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
1,1,2,2-Tetrachloroethane	200	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-Trichloroethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethene	**7**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-Trichloropropane	20	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	**600**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloropropane	**5**	ug/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
1,4-Dichlorobenzene	**75**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-Hexanone		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE27722	AE27731	AE27732	AE27733	AE27734	AE27735	AE27736	AE27737	AE27738	AE27723	AE27724	AE27725	AE27726	AE27727	AE27728	AE27729	AE27730	AE27721
	Date of Test:		9/9/09	9/9/09	9/9/09	9/9/09	9/9/09	9/9/09	9/9/09	9/9/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09	9/10/09
	MCL/ CTL[1]	Units																		
Acetone	6,300	ug/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Acrylonitrile		ug/l	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Benzene	**1**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	91	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	600	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	4.4	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	9.8	ug/l	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Carbon Disulfide	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.28 I	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	**100**	ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chloroethane	12	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chloroform	70	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloromethane	2.7	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	**70**	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
cis-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloromethane	0.4	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichloromethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	**700**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iodomethane		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MEK (2-Butanone)	4,200	ug/l	<0.6	<0.6	<0.6	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55	<0.55
Methylene chloride	**5**	ug/l	<0.1	<0.1	<0.1	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
MIBK (4-Methlyl-2-pentanone)		ug/l	<0.4	<0.4	<0.4	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
o-Xylene		ug/l	<0.1	<0.1	<0.1	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Styrene	**100**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene	**3**	ug/l	<0.2	<0.2	<0.2	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16
Toluene	**1,000**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,2-Dichloroethene	**100**	ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
trans-1,3-Dichloropropene		ug/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
trans-1,4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	<0.28
Trichloroethene	**3**	ug/l	<0.1	<0.1	<0.1	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Trichlorofluoromethane	2,100	ug/l	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
Vinyl acetate	88	ug/l	<0.5	<0.5	<0.5	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53	<0.53
Vinyl chloride	**1**	ug/l	<0.4	<0.4	<0.4	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38	<0.38
Total xylenes	**10,000**	ug/l	<0.1	<0.1	<0.1	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
Dibromochloropropane	**2**	ug/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylene Dibromide	**0.02**	ug/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

(1) Maximum Contaminant Levels (MCL) presented in Chapter 62-550, FAC in **bold font** and Cleanup Target Levels (CTL) presented in Chapter 62-777 FAC.Analyte concentrations shown with shading identify exceedance of a MCL or CTL.

(2) As measured from the top of well casing. I = between Method Detection Limit and Practical Quantitation Limit

Table 2-5
Lena Road Groundwater Analytical Summary
First Half 2010

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE30443	AE30452	AE30453	AE30454	AE30455	AE30456	AE30457	AE30458	AE30459	AE30444	AE30445	AE30446	AE30447	AE30448	AE30449	AE30450	AE30541	AE30442
	Date of Test:		3/10/10	3/10/10	3/10/10	3/10/10	3/10/10	3/11/10	3/11/10	3/11/10	3/11/10	3/11/10	3/15/10	3/15/10	3/15/10	3/15/10	3/18/10	3/18/10	3/18/10	3/18/10
	MCL/ CTL[1]	Units																		
Field Measurements																				
Depth-to-Groundwater[(2)]		ft	6.2	8.3	6.4	8	8	7.9	10.3	12	11.4	11	6.7	9.7	11.7	4.6	6.7	8.7	8	7
Temperature		deg. C	20.5	20.1	20.8	20.7	21.6	20.5	20.4	20.8	21.9	21.1	18.1	21.4	21.6	18.0	18.7	21.2	20.9	20.7
pH	**6.5-8.5**	STD	6.47	6.25	6.21	6.27	6.31	6.33	6.3	6.47	6.74	6.68	6.08	6.28	6.67	6.7	6.60	6.45	5.52	6.15
Conductivity		umhos/cm	668	960	706	456	733	1,810	614	665	840	719	842	1100	2,430	1,840	615	712	124	615
Dissolved Oxygen (DO)		mg/l	1.36	0.94	0.88	0.85	0.31	0.79	0.45	0.76	0.43	0.51	1.74	0.75	1.04	0.93	1.9	0.88	0.92	1.33
Turbidity		NTU	1.36	15.2	4.80	35.4	1.64	1.68	3.72	24.30	0.96	2.49	7.95	2.74	9.32	2.22	3.74	1.66	5.65	1.31
Inorganics																				
Chloride By Ion Chromatography	**250**	mg/l	20.8	44.5	22.4	5.23	22.1	13.0	76.1	21.0	15.6	16.0	60.7	8.21	38.8	41.6	64.6	87.8	5.9	62.5
Nitrate as N by Ion Chromatography	**10**	mg/l	0.583	0.276	2.14	0.369	2.24	0.261	0.066	<0.006	<0.006	0.364	<0.006	6.39	1.7	<0.006	0.107	<0.006	<0.006	<0.006
Antimony	**0.006**	mg/l	0.0019 I	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	0.0029 I	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
Arsenic	**0.01**	mg/l	0.007	0.007	0.0014 I	<0.0012	0.0016	0.0017	0.0018 I	0.0049 I	0.012	0.0029 I	0.015	0.0028 I	0.0030 I	0.0038 I	0.0033 I	0.0018 I	0.0017 I	<0.0012
Barium	**2**	mg/l	0.016	0.016	0.009	0.014	0.017	0.022	0.014	0.03	0.022	0.022	0.028	0.056	0.054	0.051	0.037	0.028	0.0046 I	0.018
Beryllium	**0.004**	mg/l	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003 I	<0.0001
Cadmium	**0.005**	mg/l	<0.0002	<0.0002	0.0002 I	0.0003 I	0.0003 I	0.0006 I	0.0002 I	0.0003 I	<0.0002	0.0003 I	0.0004 I	0.0002 I	<0.0002	<0.0002	0.0002 I	<0.0002	<0.0002	<0.0002
Chromium	**0.1**	mg/l	<0.0008	<0.0008	0.0008 I	0.0035 I	0.0011 I	<0.0008	0.0008 I	0.0027 I	<0.0008	0.0026 I	<0.0008	<0.0008	<0.0008	<0.0008	0.0018 I	<0.0008	0.007	<0.0008
Cobalt	0.14	mg/l	0.0019 I	0.0005 I	0.0006 I	0.0006 I	0.0009 I	0.0015 I	0.0006 I	0.0005 I	<0.0004	0.0007 I	0.0023 I	0.0018 I	0.0010 I	0.0016 I	0.0005 I	<0.0004	0.0004 I	<0.0004
Copper	**1**	mg/l	<0.0006	<0.0006	<0.0006	0.0023 I	0.0011 I	<0.0006	<0.0006	<0.0006	<0.0006	0.0018 I	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Iron	**0.3**	mg/l	2.62	1.68	0.402	0.78	0.984	1.23	0.104	0.187	3.69	2.88	7.53	0.097	1.45	3.18	6.32	1.16	7.46	0.231
Lead	**0.015**	mg/l	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	0.0027 I	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015
Mercury Cold Vapor	**0.002**	mg/l	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011	<0.000011
Nickel	**0.1**	mg/l	0.0030 I	0.0017 I	0.0014 I	0.0015 I	0.0013 I	0.0013 I	0.0008 I	0.0011 I	<0.0003	0.0018 I	0.0043 I	0.0016 I	0.0008 I	0.0017 I	0.0008 I	0.0016 I	0.0006 I	0.0012 I
Selenium	**0.05**	mg/l	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	0.005	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	0.010	0.022	<0.0046	<0.0046	<0.0046	<0.0046	0.007
Silver	**0.1**	mg/l	0.0007 I	0.0010 I	<0.0006	<0.0006	<0.0006	0.0020 I	<0.0006	0.0007 I	0.0006 I	<0.0006	<0.0006	0.0014	0.0035 I	0.0026 I	<0.0006	<0.0006	<0.0006	<0.0006
Sodium	**160**	mg/l	15.7	37	21.2	4.68	14.3	18.4	12.5	10.7	9.46	8.74	24.9	7.64	40.8	34.1	36.1	69.8	3.91	40.7
Thallium by GFAAS	**0.002**	mg/l	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.0008 I	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Vanadium	0.049	mg/l	0.019	0.01	0.007	0.0014	0.012	0.05	0.0032 I	0.006	0.0021 I	0.005	0.0035	0.012	0.011	<0.0006	0.015	0.006	0.027	0.006
Zinc	**5**	mg/l	0.019	0.018	0.012	0.0014	0.0039 I	0.007	0.015	0.016	0.019	0.024	0.032	0.009	0.006	0.007	0.008	0.009	0.0039 I	0.009
Ammonia	2.8	mg/l	0.164	1.03	0.224	<0.009	0.798	1.06	0.444	<0.009	1.56	2.37	0.342	<0.009	5.49	0.242	0.575	0.972	1.47	0.219
Total Dissolved Solids (TDS)	**500**	mg/l	421	625	499	302	471	1280	413	459	470	397	525	762	1750	1330	280	421	109	367
Volatile Organics																				
1,1,1,2-Tetrachloroethane	5	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-Trichloroethane	**200**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
1,1,2,2-Tetrachloroethane	200	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-Trichloroethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethene	**7**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-Trichloropropane	20	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	**600**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloropropane	**5**	ug/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
1,4-Dichlorobenzene	**75**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-Hexanone		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE30443	AE30452	AE30453	AE30454	AE30455	AE30456	AE30457	AE30458	AE30459	AE30444	AE30445	AE30446	AE30447	AE30448	AE30449	AE30450	AE30541	AE30442
	Date of Test:		3/10/10	3/10/10	3/10/10	3/10/10	3/10/10	3/11/10	3/11/10	3/11/10	3/11/10	3/11/10	3/15/10	3/15/10	3/15/10	3/15/10	3/18/10	3/18/10	3/18/10	3/18/10
	MCL/ CTL[1]	Units																		
Acetone	6,300	ug/l	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	3.6 I	<1.9	<1.9	<1.9	<1.9	<1.9
Acrylonitrile		ug/l	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Benzene	**1**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	91	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	600	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	4.4	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	9.8	ug/l	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Carbon Disulfide	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	**100**	ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.81	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chloroethane	12	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chloroform	70	ug/l	<0.1	0.16 I	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.90	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloromethane	2.7	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	**70**	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
cis-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloromethane	0.4	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichloromethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	**700**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iodomethane		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MEK (2-Butanone)	4,200	ug/l	<0.6	<0.6	<0.6	<0.6	<0.55	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Methylene chloride	**5**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.13	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MIBK (4-Methlyl-2-pentanone)		ug/l	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
o-Xylene		ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Styrene	**100**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	**1,000**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,2-Dichloroethene	**100**	ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
trans-1,3-Dichloropropene		ug/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
trans-1,4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Trichloroethene	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichlorofluoromethane	2,100	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl acetate	88	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	**1**	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Total xylenes	**10,000**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloropropane	**2**	ug/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylene Dibromide	**0.02**	ug/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

(1) Maximum Contaminant Levels (MCL) presented in Chapter 62-550, FAC in **bold font** and Cleanup Target Levels (CTL) presented in Chapter 62-777 FAC.Analyte concentrations shown with shading identify exceedance of a MCL or CTL.

(2) As measured from the top of well casing. I = between Method Detection Limit and Practical Quantitation Limit

Table 2-6
Lena Road Groundwater Analytical Summary
Second Half 2010

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE34299	AE34308	AE34309	AE34310	AE34311	AE34312	AE34313	AE34314	AE34315	AE34300	AE34301	AE34302	AE34303	AE34304	AE34305	AE34306	AE34307	AE34298
	Date of Test:		9/15/10	9/15/10	9/15/10	9/20/10	9/20/10	9/20/10	9/20/10	9/20/10	9/20/10	9/21/10	9/21/10	9/21/10	9/21/10	9/21/10	9/22/10	9/22/10	9/22/10	9/15/10
	MCL/ CTL[1]	Units																		
Field Measurements																				
Depth-to-Groundwater[(2)]		ft	6.6	8.4	5	8.2	7.8	8	10.2	12.7	11.2	10.3	7.9	10.7	12.7	6.2	7.5	9.5	8.8	8.9
Temperature		deg. C	27.0	28.1	27.2	26.6	27.4	27.0	27.6	28.1	27.3	27.4	26.7	27.1	27.2	27.6	26.7	26.2	26.8	25.7
pH	**6.5-8.5**	STD	6.55	6.51	6.23	6.26	6.41	6.34	6.33	6.43	6.59	6.67	6.60	6.35	6.62	6.61	6.54	6.44	5.38	6.02
Conductivity		umhos/cm	718	640	623	421	576	1,200	619	584	775	612	424	1030	1,920	1,950	619	740	108	717
Dissolved Oxygen (DO)		mg/l	1.21	1.22	1.04	1.16	1.93	0.98	1.07	1.45	1.62	1.36	5.43	1.13	1.01	1.43	1.38	1.37	2.24	2.22
Turbidity		NTU	1.64	2.93	4.41	4.81	1.88	3.02	3.08	2.68	3.98	3.57	3.06	0.89	2.41	0.87	3.76	1.85	3.89	0.63
Inorganics																				
Chloride By Ion Chromatography	**250**	mg/l	19.1	19.8	28.4	6.93	11.4	8.95	25.3	22.0	5.32	11.7	18.0	6.37	33.7	125.0	52.7	88.7	5.08	64.7
Nitrate as N by Ion Chromatography	**10**	mg/l	<0.006	0.107	0.041	0.301	0.849	0.066	0.033	0.025	0.03	0.076	0.338	<0.006	0.273	1.98	0.122	0.031	0.052	0.116
Antimony	**0.006**	mg/l	<0.0039	<0.0039	<0.0039	<0.0039	0.006	0.005	<0.0039	<0.0039	0.0040 I	<0.0039	<0.0039	0.007	0.005	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039
Arsenic	**0.01**	mg/l	0.068	0.030	0.026	0.018	0.018	0.034	0.027	0.029	0.038	0.042	0.038	0.032	0.034	0.0320	0.024	0.015	0.006	0.020
Barium	**2**	mg/l	0.022	0.023	0.014	0.017	0.017	0.025	0.02	0.049	0.021	0.024	0.017	0.051	0.052	0.071	0.048	0.031	0.006	0.022
Beryllium	**0.004**	mg/l	0.0004 I	<0.00004	<0.00004	0.00024 I	<0.00004	<0.00004	0.00007 I	0.00030 I	<0.00004	0.00004 I	0.00006 I	<0.00004	<0.00004	<0.00004	0.00016 I	0.00009 I	0.00045 I	<0.00004
Cadmium	**0.005**	mg/l	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.0007 I	<0.0004	0.0003 I	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Chromium	**0.1**	mg/l	0.0016 I	<0.0019 I	0.0021 I	0.0048 I	0.0028 I	0.0018 I	0.0022 I	0.009	0.0008 I	0.0018 I	0.0016 I	0.0013 I	0.0024 I	0.0018 I	0.0041 I	0.0017 I	0.008	0.0010 I
Cobalt	0.14	mg/l	0.0012 I	<0.0003	0.0008 I	<0.0003	0.0004 I	0.0003 I	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0006 I	<0.0003	0.0007 I	<0.0003	<0.0003	<0.0003	<0.0003
Copper	**1**	mg/l	<0.0009	<0.0009	<0.0009	0.0028 I	0.0028 I	0.0022 I	0.0011 I	0.0017 I	<0.0009	0.006	<0.0009	0.0036 I	0.0020 I	<0.0009	<0.0009	0.0014 I	0.0010 I	0.0010 I
Iron	**0.3**	mg/l	11.8	1.25	4.11	0.575	0.336	1.63	0.200	0.397	1.52	1.91	5.54	0.069	0.726	1.22	15.7	0.689	6.29	0.267
Lead	**0.015**	mg/l	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Mercury Cold Vapor	**0.002**	mg/l	<0.000011	<0.000011	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000011
Nickel	**0.1**	mg/l	0.0029 I	0.0021 I	0.0019 I	0.0018 I	0.0014 I	0.0012 I	0.0014 I	0.0023 I	0.0012 I	0.0022 I	0.0010 I	0.0016 I	0.0012 I	0.0029 I	0.0014 I	0.0026 I	0.0010 I	0.0019 I
Selenium	**0.05**	mg/l	<0.0046	<0.0046	<0.0046	<0.0046	0.0046 I	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	0.043	0.022	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046
Silver	**0.1**	mg/l	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	0.0008 I	<0.0007	0.0008	0.0008 I	0.0009 I	<0.0007	<0.0007	<0.0007	<0.0007
Sodium	**160**	mg/l	20.2	22.8	26.7	6.47	9.74	14.3	15.1	14.9	7.9	7.15	13.6	6.85	43.9	90.8	49.3	76.8	3.69	47.2
Thallium by GFAAS	**0.002**	mg/l	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Vanadium	0.049	mg/l	0.01	0.009	0.011	0.02	0.016	0.038	0.008	0.009	0.009	0.0033	0.0039 I	0.014	0.015	0.0007 I	0.028	0.007	0.033	0.007
Zinc	**5**	mg/l	0.0036 I	0.0034	<0.0029	<0.0029	0.005	<0.0029	<0.0029	0.0034 I	0.006	0.03	0.0029 I	0.0035 I	<0.0029	<0.0029	<0.0029	0.0031 I	0.0031 I	<0.0029
Ammonia	2.8	mg/l	0.543	0.526	0.96	0.196	0.164	0.743	0.245	0.62	0.662	3.71	0.877	<0.018	1.5	0.228	0.948	0.869	1.11	0.191
Total Dissolved Solids (TDS)	**500**	mg/l	484	417	448	294	406	940	436	481	481	369	298	825	1700	1570	431	462	142	422
Volatile Organics																				
1,1,1,2-Tetrachloroethane	5	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,1-Trichloroethane	**200**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
1,1,2,2-Tetrachloroethane	200	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1,2-Trichloroethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethene	**7**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2,3-Trichloropropane	20	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	**600**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloropropane	**5**	ug/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
1,4-Dichlorobenzene	**75**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
2-Hexanone		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE34299	AE34308	AE34309	AE34310	AE34311	AE34312	AE34313	AE34314	AE34315	AE34300	AE34301	AE34302	AE34303	AE34304	AE34305	AE34306	AE34307	AE34298
	Date of Test:		9/15/10	9/15/10	9/15/10	9/20/10	9/20/10	9/20/10	9/20/10	9/20/10	9/20/10	9/21/10	9/21/10	9/21/10	9/21/10	9/21/10	9/22/10	9/22/10	9/22/10	9/15/10
	MCL/ CTL[1]	Units																		
Acetone	6,300	ug/l	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
Acrylonitrile		ug/l	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Benzene	**1**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	91	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromodichloromethane	600	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromoform	4.4	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromomethane	9.8	ug/l	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Carbon Disulfide	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	**100**	ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	0.61	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chloroethane	12	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chloroform	70	ug/l	0.17 I	0.19 I	0.14 I	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.14 I	0.15 I	<0.1
Chloromethane	2.7	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene	**70**	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
cis-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloromethane	0.4	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichloromethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	**700**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Iodomethane		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MEK (2-Butanone)	4,200	ug/l	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6
Methylene chloride	**5**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
MIBK (4-Methlyl-2-pentanone)		ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
o-Xylene		ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Styrene	**100**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Toluene	**1,000**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,2-Dichloroethene	**100**	ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
trans-1,3-Dichloropropene		ug/l	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
trans-1,4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Trichloroethene	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichlorofluoromethane	2,100	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl acetate	88	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	**1**	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Total xylenes	**10,000**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloropropane	**2**	ug/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylene Dibromide	**0.02**	ug/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

(1) Maximum Contaminant Levels (MCL) presented in Chapter 62-550, FAC in **bold font** and Cleanup Target Levels (CTL) presented in Chapter 62-777 FAC.Analyte concentrations shown with shading identify exceedance of a MCL or CTL.

(2) As measured from the top of well casing. I = between Method Detection Limit and Practical Quantitation Limit NR = Not Reported

Table 2-7
Lena Road Groundwater Analytical Summary
First Half 2011

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE37584	AE37585	AE37586	AE37587	AE37588	AE37589	AE37590	AE37591	AE37952	AE37593	AE37594	AE37595	AE37596	AE37597	AE37598	AE37599	AE37600	AE38471
	Date of Test:		5/2/11	5/2/11	5/2/11	5/2/11	5/3/11	5/3/11	5/3/11	5/3/11	5/3/11	5/4/11	5/4/11	5/4/11	5/4/11	5/4/11	5/5/11	5/5/11	5/5/11	5/5/11
	MCL/ CTL[1]	Units																		
Field Measurements																				
Depth-to-Groundwater[(2)]		ft	7	9	6	8.3	8.2	8	10.3	11.3	11	9.5	7.6	11	12.4	6.6	8.9	10	8.7	9.4
Temperature		deg. C	23.4	24.0	24.0	24.3	24.2	24.1	24.2	24.2	24.9	23.8	24.0	23.6	24.4	23.8	23.0	23.0	23.1	22.3
pH	**6.5-8.5**	STD	6.67	6.32	6.23	6.18	6.33	6.43	6.30	6.60	7.18	6.83	6.49	6.40	6.67	6.66	6.37	6.22	5.36	5.90
Conductivity		umhos/cm	605	693	636	356	597	1,450	639	746	751	701	649	918	1,660	1,490	731	717	249	538
Dissolved Oxygen (DO)		mg/l	4.85	5.22	3.73	3.2	5.7	5.66	4.97	3.89	5.32	1.79	3.21	5.81	1.54	0.77	0.95	0.74	0.55	0.77
Turbidity		NTU	2.76	6.93	6.83	14.3	4.55	19.50	9.96	14.5	4.17	1.79	1.17	1.90	6.73	0.91	0.79	4.86	13.70	0.05
Inorganics																				
Chloride By Ion Chromatography	**250**	mg/l	25.3	31.3	29.7	13.4	14.4	9.91	31.4	30.8	16.2	25.3	44.4	6.29	36.6	61.8	59.8	72.7	2.46	30.9
Nitrate as N by Ion Chromatography	**10**	mg/l	0.027	0.388	8.32	0.258	0.469	<0.023	0.614	<0.023	<0.023	0.172	0.052	8.58	<0.023	<0.023	0.374	0.023 I	0.207	0.03
Antimony	**0.006**	mg/l	<0.0039	<0.0039	<0.0039	<0.0039	0.006	0.0046	0.0040 I	<0.0039	<0.0039	0.005	<0.0039	0.006	0.005	<0.0039	0.0042 I	<0.0039	0.0040 I	<0.0039
Arsenic by GFAAS	**0.01**	mg/l	0.033	0.007	0.002	0.001	0.013	0.004	0.004	0.005	0.015	0.006	0.026	0.002	0.009	0.007	0.008	0.002	0.003	0.002
Barium	**2**	mg/l	0.022	0.034	0.014	0.014	0.016	0.024	0.019	0.031	0.026	0.024	0.019	0.046	0.041	0.05	0.048	0.032	0.015	0.013
Beryllium	**0.004**	mg/l	<0.00004	<0.00004	<0.00004	0.00013 I	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004	<0.00004	0.0002 I	<0.00004
Cadmium	**0.005**	mg/l	0.0009 I	0.0005 I	0.0004 I	0.0004 I	0.0004 I	0.0008 I	<0.0004	<0.0004	<0.0004	<0.0004	0.0005 I	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Chromium	**0.1**	mg/l	0.0014 I	<0.0019 I	0.0019 I	0.0044 I	0.0035 I	0.0021 I	0.0024 I	0.0026 I	<0.0007	0.0009 I	0.0014 I	0.0013 I	0.0032 I	0.0010 I	0.041	0.0014 I	0.007	<0.0007
Cobalt	0.14	mg/l	0.0019 I	0.0004 I	0.0004 I	0.0006 I	<0.0003	0.0006 I	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0008 I	0.0003 I	<0.0003	0.0004 I	<0.0003	0.0022 I	0.0029
Copper	**1**	mg/l	<0.0009	<0.0009	0.0013 I	0.0029 I	0.0025 I	0.0019 I	<0.0009	0.0011 I	0.0010 I	<0.0009	<0.0009	0.0018 I	<0.0009	<0.0009	<0.0009	<0.0009	0.007	<0.0009
Iron	**0.3**	mg/l	9.94	0.665	0.443	0.496	0.442	1.78	0.155	0.096	3.66	0.908	7.17	0.086	6.7	0.144	17.8	1.15	1.72	19.7
Lead	**0.015**	mg/l	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	0.0017 I	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Mercury Cold Vapor	**0.002**	mg/l	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	0.000087 I
Nickel	**0.1**	mg/l	0.0036 I	0.0026 I	0.0019 I	0.0021 I	0.0011 I	0.0009 I	0.0008 I	0.0008 I	<0.0002	0.0004 I	0.0011 I	0.0010 I	0.0004 I	0.0014 I	0.0003 I	0.0014 I	0.0027 I	0.006
Selenium	**0.05**	mg/l	<0.0046	0.008	<0.0046	<0.0046	<0.0046	<0.0046	0.006	<0.0046	<0.0046	<0.0046	<0.0046	0.018	<0.0046	<0.0046	<0.0046	<0.0046	0.01	<0.0046
Silver	**0.1**	mg/l	<0.0007	<0.0007	<0.0007	0.0008 I	<0.0007	0.0007 I	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	0.0008 I	<0.0007	<0.0007	<0.0007	<0.0007
Sodium	**160**	mg/l	29.8	19	21.5	6.63	10	12.4	16.3	16.6	10.4	10.1	20.3	6.93	32.9	38.9	53.4	75.3	5.04	72.6
Thallium by GFAAS	**0.002**	mg/l	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0003 I	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0003 I	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Vanadium	0.049	mg/l	0.01	0.015	0.011	0.014	0.018	0.044	0.0041 I	0.0034 I	0.0030 I	0.0026 I	0.007	0.012	0.012	<0.0005	0.024	0.011	0.08	0.0023 I
Zinc	**5**	mg/l	0.007	0.0032	0.0030 I	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	0.012	0.005	0.0033 I	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	0.0037 I	0.0045 I
Ammonia	2.8	mg/l	0.621	1.31	0.153	0.258	0.391	1.13	0.261	0.893	1.84	3.54	0.481	0.026 I	6.96	0.065	1.18	0.85	1.07	1.38
Total Dissolved Solids (TDS)	**500**	mg/l	427	562	500	289	416	1060	471	544	454	408	437	643	1100	1160	454	417	192	309
Volatile Organics																				
1,1,1,2-Tetrachloroethane	5	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	**200**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	200	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethene	**7**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	20	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-Dichlorobenzene	**600**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloropropane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	**75**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2-Hexanone		ug/l	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE37584	AE37585	AE37586	AE37587	AE37588	AE37589	AE37590	AE37591	AE37952	AE37593	AE37594	AE37595	AE37596	AE37597	AE37598	AE37599	AE37600	AE38471
	Date of Test:		5/2/11	5/2/11	5/2/11	5/2/11	5/3/11	5/3/11	5/3/11	5/3/11	5/3/11	5/4/11	5/4/11	5/4/11	5/4/11	5/4/11	5/5/11	5/5/11	5/5/11	5/5/11
	MCL/ CTL[1]	Units																		
Acetone	6,300	ug/l	3.3 I	3.5 I	2.4 I	<2.0	2.1 I	3.6 I	2.3 I	<2.0	4.3	5.9	2.3 I	3.4 I	2.5 I	<2.0	<2.0	<2.0	<2.0	<2.0
Acrylonitrile		ug/l	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Benzene	**1**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	91	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromodichloromethane	600	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	4.4	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	9.8	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Carbon Disulfide	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2 I	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon tetrachloride	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	**100**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.6 I	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroethane	12	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chloroform	70	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	2.7	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
cis-1,2-Dichloroethene	**70**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
cis-1,3-Dichloropropene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	0.4	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichloromethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	**700**	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Iodomethane		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MEK (2-Butanone)	4,200	ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methylene chloride	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MIBK (4-Methlyl-2-pentanone)		ug/l	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6
o-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	**100**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tetrachloroethene	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	**1,000**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
trans-1,2-Dichloroethene	**100**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
trans-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Trichloroethene	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	2,100	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl acetate	88	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Vinyl chloride	**1**	ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total xylenes	**10,000**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloropropane	**2**	ug/l	<0.0054	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0054	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053
Ethylene Dibromide	**0.02**	ug/l	<0.0054	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0054	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053

(1) Maximum Contaminant Levels (MCL) presented in Chapter 62-550, FAC in **bold font** and Cleanup Target Levels (CTL) presented in Chapter 62-777 FAC.Analyte concentrations shown with shading identify exceedance of a MCL or CTL.

(2) As measured from the top of well casing. I = between Method Detection Limit and Practical Quantitation Limit

Table 2-8
Lena Road Groundwater Analytical Summary
Second Half 2011

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE39993	AE39974	AE39975	AE39976	AE39977	AE39778	AE39821	AE39820	AE39819	AE39966	AE39967	AE39968	AE39969	AE39970	AE39971	AE39972	AE39973	AE39965
	Date of Test:		9/13/11	9/14/11	9/14/11	9/14/11	9/13/11	9/13/11	9/15/11	9/15/11	9/15/11	9/15/11	9/14/11	9/14/11	9/13/11	9/13/11	9/13/11	9/13/11	9/13/11	9/13/11
	MCL/ CTL[1]	Units																		
Field Measurements																				
Depth-to-Groundwater[(2)]		ft	4.5	6.9	6.5	7.8	7.2	6.5	8.8	10.1	10.9	10.2	8.3	10.8	11.8	8.2	9.1	10.7	7.8	9
Temperature		deg. C	26.8	27.4	27.5	26.7	27.9	27.8	27.7	28.2	29.3	28.2	27.5	26.8	27.6	27.8	27.2	26.8	27.0	25.6
pH	**6.5-8.5**	STD	6.47	6.49	6.2	6.29	6.36	6.64	6.30	6.41	6.54	6.80	6.43	6.42	6.63	6.62	6.44	6.81	5.34	6.07
Conductivity		umhos/cm	715	970	751	518	600	1,280	753	746	753	739	482	1000	1,840	1,400	831	720	534	513
Dissolved Oxygen (DO)		mg/l	3.5	4.21	4	4.32	2.9	26.2	5.09	3.88	4.69	4.71	4.34	5.38	3.62	3.52	3.36	2.68	3.43	4.09
Turbidity		NTU	2.20	3.74	4.87	8.41	2.49	4.53	3.88	14.4	1.20	7.91	1.02	1.42	2.31	11.20	1.35	1.51	10.81	2.86
Inorganics																				
Chloride By Ion Chromatography	**250**	mg/l	0.257	30.0	24.2	6.79	9.8	6.08	35.5	36.8	13.1	3.5	28.9	6.18	27.8	5.28	115.0	95.1	6.75	27.4
Nitrate as N by Ion Chromatography	**10**	mg/l	0.112	0.021 I	0.551	3.1	2.35	0.975	0.806	0.49	0.009 I	0.007 I	0.006 I	22.4	4.42	<0.0046	<0.0046	<0.0046	1.24	<0.0046
Antimony	**0.006**	mg/l	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	0.008	<0.0039	<0.0039
Arsenic by GFAAS	**0.01**	mg/l	0.008	0.015	0.002	0.002	0.002	0.002	0.008	0.006	0.020	0.072	0.049	0.002	0.005	0.007	0.008	0.005	0.007	0.0006 I
Barium	**2**	mg/l	0.022	0.031	0.016	0.017	0.017	0.02	0.023	0.03	0.021	0.036	0.016	0.047	0.042	0.051	0.056	0.037	0.023	0.016
Beryllium	**0.004**	mg/l	0.0001 I	0.0001 I	0.0008 I	0.0001 I	0.0001 I	0.0001 I	<0.00004	0.0002 I	<0.00004	0.0001 I	<0.00004	0.00005 I	0.00004 I	0.00004 I	0.0001	0.0001 I	0.0004 I	<0.00004
Cadmium	**0.005**	mg/l	<0.0004	0.0010 I	<0.0004	<0.0004	<0.0004	<0.0004	0.019	0.017	0.008	0.0023 I	0.0025 I	<0.0004	<0.0004	0.0014 I	0.0028 I	0.0006 I	0.0012 I	<0.0004
Chromium	**0.1**	mg/l	0.0013 I	0.0018 I	0.0022 I	0.0026 I	0.0027 I	0.0022 I	0.0022 I	0.0031 I	0.0011 I	0.0042 I	0.0022 I	0.0020 I	0.0032 I	0.0011 I	0.0031 I	0.0026 I	0.008	0.0010 I
Cobalt	0.14	mg/l	0.0006 I	0.0005 I	0.0005 I	0.0004 I	0.0003 I	0.0003 I	<0.0003	0.0004 I	<0.0003	0.0005 I	0.0009 I	0.0010 I	0.0005 I	0.0016 I	0.0008 I	0.0003 I	0.0024 I	<0.0003
Copper	**1**	mg/l	0.0011 I	<0.0009	0.0010 I	0.0022 I	0.0019 I	0.0014 I	<0.0009	<0.0009	<0.0009	0.0022 I	<0.0009	0.0017 I	<0.0009	<0.0009	<0.0009	<0.0009	0.005	<0.0009
Iron	**0.3**	mg/l	0.528	4.91	0.827	0.477	0.104	<0.046	0.227	0.128	2.54	10.1	12.6	<0.046	0.362	9.57	19.6	3.17	4.05	0.309
Lead	**0.015**	mg/l	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Mercury Cold Vapor	**0.002**	mg/l	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068
Nickel	**0.1**	mg/l	0.0020 I	0.0018 I	0.0012 I	0.0008 I	0.0012 I	0.0012 I	0.0018 I	0.0016 I	0.0004 I	0.0004 I	0.0016 I	0.0021 I	0.0021 I	0.0018 I	0.0003 I	0.0021 I	0.0022 I	0.0019 I
Selenium	**0.05**	mg/l	0.255	0.245	0.195	0.132	0.137	0.433	0.016	<0.0046	<0.0046	<0.0046	0.084	0.377	0.598	0.515	0.068	0.072	0.08	0.099
Silver	**0.1**	mg/l	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	0.0013 I	0.0011	0.0014 I	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007
Sodium	**160**	mg/l	16.4	28.1	26.6	6.2	7.14	8.54	19	16.8	8.36	5.25	16	6.72	34.9	14.6	55.3	67.9	4.69	18.2
Thallium by GFAAS	**0.002**	mg/l	<0.0003	<0.0003	0.0003 I	<0.0003	<0.0003	0.0004 I	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0004 I	<0.0003	0.0003 I	<0.0003	<0.0003	0.0006 I	<0.0003
Vanadium	0.049	mg/l	0.025	0.007	0.012	0.015	0.016	0.027	0.0011 I	0.0038 I	0.0036 I	0.005	0.007	0.015	0.028	<0.0005	0.021	0.016	0.069	0.0028 I
Zinc	**5**	mg/l	0.0030 I	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	0.014	0.0049 I	<0.0029	<0.0029	<0.0029	0.007	<0.0029	0.003 I	<0.0029
Ammonia	2.8	mg/l	0.379	1.78	0.619	0.143	0.207	0.187	0.416	0.604	1.22	2.18	0.43	0.119	5.87	0.352	1.96	0.625	1.71	2.88
Total Dissolved Solids (TDS)	**500**	mg/l	448	297	483	325	403	911	496	490	473	410	373	701	1290	1050	516	400	295	297
Volatile Organics																				
1,1,1,2-Tetrachloroethane	5	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	**200**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	200	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	700	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,1-Dichloroethene	**7**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	20	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-Dichlorobenzene	**600**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloropropane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	**75**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2-Hexanone		ug/l	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE39993	AE39974	AE39975	AE39976	AE39977	AE39778	AE39821	AE39820	AE39819	AE39966	AE39967	AE39968	AE39969	AE39970	AE39971	AE39972	AE39973	AE39965
	Date of Test:		9/13/11	9/14/11	9/14/11	9/14/11	9/13/11	9/13/11	9/15/11	9/15/11	9/15/11	9/15/11	9/14/11	9/14/11	9/13/11	9/13/11	9/13/11	9/13/11	9/13/11	9/13/11
	MCL/ CTL[1]	Units																		
Acetone	6,300	ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Acrylonitrile		ug/l	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Benzene	**1**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	91	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromodichloromethane	600	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromoform	4.4	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	9.8	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Carbon Disulfide	700	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1
Carbon tetrachloride	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	**100**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2 I	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroethane	12	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chloroform	70	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chloromethane	2.7	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
cis-1,2-Dichloroethene	**70**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
cis-1,3-Dichloropropene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	0.4	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dichloromethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	**700**	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Iodomethane		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MEK (2-Butanone)	4,200	ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methylene chloride	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MIBK (4-Methlyl-2-pentanone)		ug/l	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6
o-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Styrene	**100**	ug/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1
Tetrachloroethene	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	**1,000**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
trans-1,2-Dichloroethene	**100**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
trans-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Trichloroethene	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	2,100	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl acetate	88	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Vinyl chloride	**1**	ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total xylenes	**10,000**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloropropane	**2**	ug/l	<0.0054	<0.0054	<0.0054	<0.0053	<0.0054	<0.0056	<0.0054	<0.0053	<0.0053	<0.0054	<0.0054	<0.0053	<0.0053	<0.0055	<0.0054	<0.0054	<0.0054	<0.0055
Ethylene Dibromide	**0.02**	ug/l	<0.0054	<0.0054	<0.0054	<0.0053	<0.0054	<0.0056	<0.0054	<0.0053	<0.0053	<0.0054	<0.0054	<0.0053	<0.0053	<0.0055	<0.0054	<0.0054	<0.0054	<0.0055

(1) Maximum Contaminant Levels (MCL) presented in Chapter 62-550, FAC in **bold font** and Cleanup Target Levels (CTL) presented in Chapter 62-777 FAC.Analyte concentrations shown with shading identify exceedance of a MCL or CTL.

(2) As measured from the top of well casing. I = between Method Detection Limit and Practical Quantitation Limit

Table 2-9
Lena Road Groundwater Analytical Summary
First Half 2012

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE44015	AE44016	AE44017	AE44018	AE44019	AE44020	AE43918	AE43919	AE43920	AE43916	AE43917	AE43921	AE43922	AE43923	AE43924	AE43925	AE43926	AE43915
	Date of Test:		3/19/12	3/19/12	3/19/12	3/19/12	3/19/12	3/20/12	3/20/12	3/20/12	3/20/12	3/23/12	3/23/12	3/23/12	3/23/12	3/20/12	3/20/12	3/20/12	3/20/12	3/28/12
	MCL/ CTL[1]	Units																		
Field Measurements																				
Depth-to-Groundwater[(2)]		ft	9.17	10	8.8	10.7	10.2	9.92	13	14.41	14.52	13.2	8.32	12.27	12.72	7.9	9.1	13.3	10.6	13.7
Temperature		deg. C	22.3	22.8	23.6	23.0	24.5	23.1	23.3	24.2	24.9	23.6	23.5	23.8	24.3	22.5	22.7	22.6	22.7	22.9
pH	**6.5-8.5**	STD	6.47	6.46	6.06	5.99	6.15	6.27	6.24	6.32	6.61	6.62	6.77	6.32	6.84	7.05	6.95	7.02	5.78	7.93
Conductivity		umhos/cm	609	789	606	374	552	747	702	617	734	711	601	718	1640	1700	708	688	543	620
Dissolved Oxygen (DO)		mg/l	0.47	1.98	0.68	0.91	0.62	0.46	0.62	1	0.41	0.45	1.75	0.39	0.68	7.47	7.36	6.23	6.34	7.93
Turbidity		NTU	6.31	2.91	4.86	13.10	0.63	0.91	1.58	10.60	6.01	2.01	0.85	3.19	2.12	4.37	3.71	8.81	23.60	2.07
Inorganics																				
Chloride By Ion Chromatography	**250**	mg/l	28.2	31.9	38.3	21.4	17.0	NR	38.5	34.3	22.1	26.9	33.5	11.5	29.6	158.0	75.2	85.2	8.6	70.0
Nitrate as N by Ion Chromatography	**10**	mg/l	0.013 I	<0.0046	0.015 I	0.020 I	<0.0046	0.54	0.006 I	0.007 I	<0.0046	0.09	0.057	1.21	1.21	<0.0046	0.26	0.037	0.016 I	0.145
Antimony	**0.006**	mg/l	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039
Arsenic by GFAAS	**0.01**	mg/l	0.018	0.013	0.0019	0.0016	0.003	0.009	0.0022	0.006	0.015	0.0013	0.006	0.007	0.003	0.003	0.004	0.0021	0.003	0.005
Barium	**2**	mg/l	0.02	0.03	0.012	0.013	0.016	0.012	0.023	0.037	0.023	0.029	0.016	0.048	0.033	0.072	0.072	0.031	0.027	0.016
Beryllium	**0.004**	mg/l	0.0004 I	0.0003 I	0.0003 I	0.0003 I	0.0003 I	0.0003 I	0.0003 I	<0.00004	0.0002 I	0.0003 I	0.0003 I	0.0004 I	0.0005 I	0.0005 I	0.0004 I	0.0004 I	0.0004 I	<0.00004
Cadmium	**0.005**	mg/l	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Chromium	**0.1**	mg/l	0.0027 I	0.0028 I	0.0037 I	0.005	0.006	0.0026 I	0.003 I	0.005	0.0016 I	0.0023 I	0.0025 I	0.0032 I	0.0046 I	0.0041 I	0.0035 I	0.0026 I	0.006	0.001 I
Cobalt	0.14	mg/l	0.0016 I	0.0003 I	0.0020 I	0.0011 I	0.0011 I	0.0012 I	<0.0003	<0.0003	<0.0003 I	<0.0003	<0.0003	0.0027 I	<0.0003	0.0008 I	<0.0003	<0.0003	0.0027 I	0.0006 I
Copper	**1**	mg/l	<0.0009	<0.0009	<0.0009	0.0010 I	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	0.004 I	<0.0009
Iron	**0.3**	mg/l	4.85	4.01	7.72	7.01	5.49	16.2	0.083 I	0.198	3	1.34	1.39	0.272	2.19	5.07	21.0	1.50	11.4	2.67
Lead	**0.015**	mg/l	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Mercury Cold Vapor	**0.002**	mg/l	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068
Nickel	**0.1**	mg/l	0.006	0.0035 I	0.0042 I	0.0034 I	0.0043 I	0.0031 I	0.0028 I, J,V	0.0033 I, J,V	0.0021 I, J,V	0.005 J,V	0.0026 I, J,V	0.004 I, J,V	0.0028 I, J,V	0.005 J,V	0.0022 I,J,V	0.0028 I,J,V	0.0043 I,J,V	0.0024 I
Selenium	**0.05**	mg/l	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046	<0.0046
Silver	**0.1**	mg/l	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007
Sodium	**160**	mg/l	27.3	22.2	32.6	10.1	16.2	12.8	22	17.2	11.1	14.4	17.7	8.72	30.2	79	49.3	77.3	8.09	47
Thallium by GFAAS	**0.002**	mg/l	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003 I	<0.0003	<0.0003	0.0009 I	<0.0003	<0.0003	<0.0003	<0.0003	0.0004 I	<0.0003
Vanadium	0.049	mg/l	0.01	0.0045 I	0.009	0.012	0.01	0.012	0.0039 I	0.007	0.0047 I	0.0028 I	0.0043 I	0.017	0.006	0.001 I	0.013	0.016	0.026	0.004 I
Zinc	**5**	mg/l	0.008	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0034 I	0.011	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	0.0042	0.008	0.059
Ammonia	2.8	mg/l	0.313	1.63	0.611	1.73	1.94	0.837	0.373	0.643	0.837	2.96	2.1	0.215	4.4	0.201	1.43	0.554	2.33	2.24
Total Dissolved Solids (TDS)	**500**	mg/l	481	565	454	297	416	482	492	453	459	422	406	505	1110	1580	498	464	421	403
Volatile Organics																				
1,1,1,2-Tetrachloroethane	5	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,1-Trichloroethane	**200**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane	200	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1,2-Trichloroethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethane	700	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,1-Dichloroethene	**7**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2,3-Trichloropropane	20	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
1,2-Dichlorobenzene	**600**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloroethane	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
1,2-Dichloropropane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	**75**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2 I	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
2-Hexanone		ug/l	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1	<2.1

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE44015	AE44016	AE44017	AE44018	AE44019	AE44020	AE43918	AE43919	AE43920	AE43916	AE43917	AE43921	AE43922	AE43923	AE43924	AE43925	AE43926	AE43915
	Date of Test:		3/19/12	3/19/12	3/19/12	3/19/12	3/19/12	3/20/12	3/20/12	3/20/12	3/20/12	3/23/12	3/23/12	3/23/12	3/23/12	3/20/12	3/20/12	3/20/12	3/20/12	3/28/12
	MCL/ CTL[1]	Units																		
Acetone	6,300	ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Acrylonitrile		ug/l	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3	<1.3
Benzene	**1**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromochloromethane	91	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bromodichloromethane	600	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	1.2
Bromoform	4.4	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromomethane	9.8	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Carbon Disulfide	700	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Carbon tetrachloride	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	**100**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chloroethane	12	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chloroform	70	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	5.5
Chloromethane	2.7	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
cis-1,2-Dichloroethene	**70**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
cis-1,3-Dichloropropene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dibromochloromethane	0.4	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Dichloromethane	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Ethylbenzene	**700**	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Iodomethane		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
m,p-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
MEK (2-Butanone)	4,200	ug/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methylene chloride	**5**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
MIBK (4-Methlyl-2-pentanone)		ug/l	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6
o-Xylene		ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Styrene	**100**	ug/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Tetrachloroethene	**3**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	**1,000**	ug/l	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
trans-1,2-Dichloroethene	**100**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
trans-1,3-Dichloropropene		ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
trans-1,4-Dichloro-2-butene		ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Trichloroethene	**3**	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Trichlorofluoromethane	2,100	ug/l	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Vinyl acetate	88	ug/l	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Vinyl chloride	**1**	ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Total xylenes	**10,000**	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Dibromochloropropane	**2**	ug/l	<0.0058	<0.0057	<0.0056	<0.0059	<0.0057	<0.0058	<0.0057	<0.0057	<0.0056	<0.0057	<0.0057	<0.0056	<0.0057	<0.0057	<0.0057	<0.0057	<0.0056	<0.0057
Ethylene Dibromide	**0.02**	ug/l	<0.0058	<0.0057	<0.0056	<0.0059	<0.0057	<0.0058	<0.0057	<0.0057	<0.0056	<0.0057	<0.0057	<0.0056	<0.0057	<0.0057	<0.0057	<0.0057	<0.0056	<0.0057

(1) Maximum Contaminant Levels (MCL) presented in Chapter 62-550, FAC in **bold font** and Cleanup Target Levels (CTL) presented in Chapter 62-777 FAC.Analyte concentrations shown with shading identify exceedance of a MCL or CTL.

(2) As measured from the top of well casing. I = between Method Detection Limit and Practical Quantitation Limit NR = Not Reported

Table 2-10
Lena Road Groundwater Analytical Summary
Second Half 2012

		Well:	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
		Sample Identifier:	AE46573	AE46582	AE46583	AE46584	AE46585	AE46586	AE46587	AE46588	AE46589	AE46574	AE46575	AE46576	AE46577	AE46578	AE46579	AE46580	AE46581	AE46572
		Date of Test:	8/22/12	8/22/12	8/22/12	8/23/12	8/23/12	8/23/12	8/29/12	8/29/12	8/30/12	8/30/12	8/22/12	8/22/12	8/22/12	8/22/12	8/21/12	8/21/12	8/21/12	8/21/12
	MCL/ CTL[1]	Units																		
Field Measurements																				
Depth-to-Groundwater[(2)]		ft	3.54	5.2	4	6.23	6.57	5.92	7.82	8.83	7.9	7.2	5.6	10.1	10.3	4.9	7.3	6.4	7.1	7.3
Temperature		deg. C	26.6	27.4	27.7	27.2	27.5	27.6	27.8	28.6	29.2	28.5	28.8	27.0	27.0	28.3	27.3	26.8	26.7	26.9
pH	**6.5-8.5**	STD	6.31	6.37	6.28	6.17	6.39	6.52	6.43	6.39	6.73	6.81	6.63	6.12	6.45	6.37	5.74	5.66	5.10	6.10
Conductivity		umhos/cm	827	1030	667	443	555	1440	615	618	702	1030	1320	1240	1390	1380	1280	1930	1530	1660
Dissolved Oxygen (DO)		mg/l	1.14	1.84	0.21	0.72	0.33	4.92	2.09	0.72	3.06	5.2	3.34	5.14	5.01	6.28	5.95	5.48	5.73	7.18
Turbidity		NTU	0.10	0.10	4.99	9.20	3.58	1.90	3.00	4.30	0.60	10.90	6.82	1.81	1.37	1.13	1.73	3.81	1.81	0.96
Inorganics																				
Chloride By Ion Chromatography	**250**	mg/l	25.9	42.5	18.4	10.6	7.5	6.7	12.7	19.6	7.7	5.9	10.8	5.4	22.1	5.0	88.8	87.8	6.7	33.5
Nitrate as N by Ion Chromatography[3I]	**10**	mg/l	0.2	0.488	0.005 I	0.35 Q	0.274 Q	0.085 Q	0.525	0.096	1.69	0.02 I	0.013 I	12.9	<0.0046	0.06	0.02 I	<0.0046	2.66	0.021 I
Antimony	**0.006**	mg/l	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	0.013	<0.0039	0.0042 I	<0.0039
Arsenic by GFAAS	**0.01**	mg/l	0.005	0.010	0.004	0.0022	0.0023	0.006	0.006	0.005	0.011	0.138	0.017	0.003	0.013	0.004	0.008	0.003	0.004	0.0022
Barium	**2**	mg/l	0.028	0.031	0.016	0.016	0.014	0.024	0.016	0.025	0.018	0.026	0.008	0.036	0.036	0.063	0.089	0.034	0.015	0.018
Beryllium	**0.004**	mg/l	0.0005 I	0.0007 I,J	0.0005 I,J	0.0004 I,J	0.0004 I,J	0.0008 I,J	0.0005 I,J	0.0004 I,J	0.0004 I,J	0.0007 I	<0.00004	0.0002 I	0.0004 I	0.0002 I	0.0003 I	<0.00004	<0.00004	<0.00004
Cadmium	**0.005**	mg/l	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Chromium	**0.1**	mg/l	0.0011 I	0.002 I	0.0019 I	0.004 I	0.0029 I	0.0033 I	0.0022 I	0.0036 I	0.0011 I	0.0031 I	0.0016 I	0.0019 I	0.0046 I	0.0026 I	0.0039 I	0.0027 I	0.011	0.00023 I
Cobalt	0.14	mg/l	0.00090 I	<0.0003	0.0006 I	<0.0003	0.0005 I	0.0003 I	<0.0003	0.0004 I	<0.0003	0.00050 I	0.00030 I	0.00050 I	0.00030 I	0.00040 I	0.00070 I	<0.0003	0.0009 I	<0.0003
Copper	**1**	mg/l	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	0.0016 I	<0.0009
Iron	**0.3**	mg/l	1.16	0.467	2.43	0.329	0.182	0.244	0.354	0.212	1.64	6.62	2.81	0.137	2.03	0.339	27.3	0.405	5.77	0.997
Lead	**0.015**	mg/l	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017
Mercury Cold Vapor	**0.002**	mg/l	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068	<0.000068
Nickel	**0.1**	mg/l	0.0023 I,J,V	0.0026 I,J	0.0017 I,J	0.0015 I,J	0.0012 I,J	0.0018 I,J	0.0010 I,J	0.0019 I,J	0.0009 I,J	0.0025 I,J,V	0.0014 I,J,V	0.0016 I,J,V	0.0012 I,J,V	0.0012 I,J,V	0.0006 I,J,V	0.0026 I,J,V	0.0027 I,J,V	0.0023 I,J,V
Selenium	**0.05**	mg/l	<0.0046	0.008	0.01	0.011	<0.0046	0.015	0.023	0.007	<0.0046	<0.0046	0.01	0.029	0.021	0.006	<0.0046	0.0047 I	0.007	0.011
Silver	**0.1**	mg/l	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007
Sodium	**160**	mg/l	18.7	29	12.8	5.58	5.81	6.61	10.6	13.6	6.84	4.94	8.09	4.99	26.8	8.14	63	65.3	4.01	31.5
Thallium by GFAAS	**0.002**	mg/l	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.0003 I	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Vanadium	0.049	mg/l	0.023	0.021	0.01	0.015	0.014	0.024	0.016	0.0044 I	0.0036 I	0.006	0.0032	0.019	0.013	0.0005 I	0.018	0.0182	0.051	0.014
Zinc	**5**	mg/l	0.0040 I	<0.0029	0.0038 I	<0.0029	<0.0029	0.003 I	<0.0029	0.0031 I	<0.0029	0.0037 I	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	<0.0029	0.0032 I	<0.0029
Ammonia	2.8	mg/l	0.38	1.29	0.658	0.63	0.406	1.74	0.309	0.798	1.14	2.72	1.11	0.235	2.02	0.816	1.89	0.898	1.76	1.79
Total Dissolved Solids (TDS)	**500**	mg/l	538	687	464	286	363	987	379	437	409	572	288	570	1100	1480	727	438	136	436
Volatile Organics																				
1,1,1,2-Tetrachloroethane	5	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	**200**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	200	ug/l	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12
1,1,2-Trichloroethane	**5**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	700	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	**7**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2,3-Trichloropropane	20	ug/l	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36
1,2-Dichlorobenzene	**600**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	**3**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	**5**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	**75**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
2-Hexanone		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		AE46573	AE46582	AE46583	AE46584	AE46585	AE46586	AE46587	AE46588	AE46589	AE46574	AE46575	AE46576	AE46577	AE46578	AE46579	AE46580	AE46581	AE46572
	Date of Test:		8/22/12	8/22/12	8/22/12	8/23/12	8/23/12	8/23/12	8/29/12	8/29/12	8/30/12	8/30/12	8/22/12	8/22/12	8/22/12	8/22/12	8/21/12	8/21/12	8/21/12	8/21/12
	MCL/ CTL[1]	Units																		
Acetone	6,300	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acrylonitrile		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene	**1**	ug/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bromochloromethane	91	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	600	ug/l	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27
Bromoform	4.4	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	9.8	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Disulfide	700	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Carbon tetrachloride	**3**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	**100**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	12	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	70	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	2.7	ug/l	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62	<0.62
cis-1,2-Dichloroethene	**70**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene		ug/l	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Dibromochloromethane	0.4	ug/l	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26	<0.26
Dichloromethane	**5**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	**700**	ug/l	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Iodomethane		ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-Xylene		ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MEK (2-Butanone)	4,200	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylene chloride	**5**	ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
MIBK (4-Methlyl-2-pentanone)		ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene		ug/l	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Styrene	**100**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	**3**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	**1,000**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene	**100**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene		ug/l	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
trans-1,4-Dichloro-2-butene		ug/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	**3**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	2,100	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl acetate	88	ug/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	**1**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total xylenes	**10,000**	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloropropane	**2**	ug/l	<0.0049	<0.0049	<0.0050	<0.0049	<0.0050	<0.0050	<0.0049	<0.0048	<0.0049	<0.0050	<0.0049	<0.0049	<0.0050	<0.0049	<0.0049	<0.0049	<0.0050	<0.0050
Ethylene Dibromide	**0.02**	ug/l	<0.0063	<0.0062	<0.0063	<0.0062	<0.0063	<0.0064	<0.0062	<0.0061	<0.0062	<0.0063	<0.0062	<0.0063	<0.0064	<0.0062	<0.0062	<0.0062	<0.0063	<0.0063

(1) Maximum Contaminant Levels (MCL) presented in Chapter 62-550, FAC in **bold font** and Cleanup Target Levels (CTL) presented in Chapter 62-777 FAC.Analyte concentrations shown with shading identify exceedance of a MCL or CTL.

(2) As measured from the top of well casing. I = between Method Detection Limit and Practical Quantitation Limit NR = Not Reported

[3] Nitrate as N by Ion Chromotography samples collected between the dates of 9/10/12 - 9/11/12 Q = Sample Preserved after 48 hours from collection, analyzed after holding time expired

Table 2-11
Surface Water Analytical Summary
Second Half 2009

Analyte		Location:	SW-1	SW-2
		Sample Identifier:	SW-1	SW-2
		Date of Test:	09/09/09	09/09/09
	Criteria/ CTL[1]	Units		
Field Measurements				
Temperature		deg. C	26.60	27.6
pH		STD	6.6	6.1
Conductivity	**1250**	umhos/cm	486	864
Dissolved Oxygen (DO)	**≥5**	mg/l	2.3	1.3
Turbidity	**≤29 above BG**	NTU	35	220
Inorganics				
Nitrate N by Ion Chromatography		mg/l	0.167	0.109
Nitrite N by Ion Chromatography		mg/l	0.030	<MDL
Antimony	**4.3**	mg/l	<MDL	<MDL
Arsenic	**0.05**	mg/l	<MDL	0.182
Barium		mg/l	0.012	0.060
Beryllium	**0.00013**	mg/l	<MDL	<MDL
Cadmium	**Note 2**	mg/l	<MDL	<MDL
Calcium		mg/l	43.0	74.1
Chromium	**Note 3**	mg/l	0.004	0.004
Cobalt		mg/l	<MDL	<MDL
Copper	**Note 4**	mg/l	<MDL	<MDL
Iron	**1.0**	mg/l	5.04	48.7
Lead	**Note 5**	mg/l	<MDL	<MDL
Magnesium		mg/l	12.1	19.4
Mercury	**0.012**	ug/l	0.001	0.00082
Nickel		mg/l	0.003	0.003
Selenium	**0.005**	mg/l	<MDL	0.0005
Silver		mg/l	<MDL	<MDL
Sodium		mg/l	40.1	88.7
Thallium	**0.0063**	mg/l	<MDL	<MDL
Total Hardness		mg/l	157	265
Vanadium		mg/l	0.0034	0.0062
Zinc	**Note 7**	mg/l	<MDL	<MDL
Chemical Oxygen Demand (COD)		mg/l	92.7	151
Total Organic Carbon		mg/l	33.2	47.6
Fecal coliform	**800**	cfu/100 ml	890	240
Total Kjeldahl Nitrogen		mg/l	1.65	2.36
Total Phosphate as P		mg/l	0.94	0.26
Ammonia		mg/l	0.284	0.058
Total Nitrogen		mg/l	1.85	2.47
Unionized ammonia		mg/l	0.00087	0.00006
Total Dissolved Solids (TDS)		mg/l	367	647
Total Suspended Solids (TSS)		mg/l	7.00	5.80
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane		ug/l	0.1 U	0.1 U
1,1,1-Trichloroethane	270	ug/l	0.09 U	0.09 U
1,1,2,2-Tetrachloroethane	**10.8**	ug/l	0.1 U	0.1 U
1,1,2-Trichloroethane	16	ug/l	0.2 U	0.2 U
1,1-Dichloroethene	**3.2**	ug/l	0.1 U	0.1 U
1,1-Dichloroethane		ug/l	0.1 U	0.1 U
1,2,3-Trichloropropane	0.2	ug/l	0.2 U	0.2 U

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		09/09/09	09/09/09
	Criteria/ CTL[1]	Units		
1,2-Dibromo-3-chloropropane		ug/l	0.005 U	0.005 U
1,2-Dibromoethane (EDB)	13	ug/l	0.005 U	0.005 U
1,2-Dichlorobenzene	99	ug/l	0.1 U	0.1 U
1,2-Dichloropropane	14	ug/l	0.06 U	0.06 U
1,4-Dichlorobenzene	3	ug/l	0.1 U	0.1 U
2-Hexanone		ug/l	0.3 U	0.3 U
Acetone	1700	ug/l	2 U	2 U
Acrylonitrile	0.2	ug/l	2 U	2 U
Benzene	**71.28**	ug/l	0.1 U	0.1 U
Bromochloromethane		ug/l	0.2 U	0.2 U
Bromodichloromethane	**22**	ug/l	0.1 U	0.1 U
Bromoform	**360**	ug/l	0.1 U	0.1 U
Bromomethane	35	ug/l	0.6 U	0.6 U
Carbon disulfide	110	ug/l	0.1 U	0.1 U
Carbon tetrachloride	**4.42**	ug/l	0.2 U	0.2 U
Chlorobenzene	17	ug/l	0.04 U	0.04 U
Chloroethane		ug/l	0.4 U	0.4 U
Chloroform	**470.8**	ug/l	0.1 U	0.1 U
Chloromethane	**470.8**	ug/l	0.5 U	0.5 U
cis-1,2-Dichloroethene		ug/l	0.08 U	0.08 U
cis-1,3-Dichloropropene	12	ug/l	0.1 U	0.1 U
Dibromochloromethane	**22**	ug/l	0.2 U	0.2 U
Dibromomethane		ug/l	0.2 U	0.2 U
Ethylbenzene	610	ug/l	0.1 U	0.1 U
Iodomethane		ug/l	0.2 U	0.2 U
m,p-Xylenes		ug/l	0.2 U	0.2 U
MEK (2-Butanone)	120,000	ug/l	0.6 U	0.6 U
Methylene chloride	**1580**	ug/l	0.1 U	0.1 U
4-Methlyl-2-pentanone		ug/l	0.4 U	0.4 U
o-Xylene		ug/l	0.1 U	0.1 U
Styrene	460	ug/l	0.1 U	0.1 U
Tetrachloroethene	**10.8**	ug/l	0.2 U	0.2 U
Toluene	480	ug/l	0.1 U	0.1 U
trans-1,2-Dichloroethene	11,000	ug/l	0.3 U	0.3 U
trans-1,3-Dichloropropene	12	ug/l	0.06 U	0.06 U
t-1,4-Dichloro-2-butene		ug/l	0.3 U	0.3 U
Trichloroethene	**80.7**	ug/l	0.1 U	0.1 U
Trichlorofluoromethane		ug/l	0.2 U	0.2 U
Vinyl acetate	700	ug/l	0.5 U	0.5 U
Vinyl chloride	2.4	ug/l	0.4 U	0.4 U
Xylenes, Total	370	ug/l	0.1 U	0.1 U

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; mg/m3 = milligrams per cubic meter; NTU = nepholometric turbidity units; BDL = Below Detection Limit. U = Compound was analyzed for but not detected

Notes:

(1) Surface water quality criteria presented in Chapter 62-302, FAC in **bold font** and Cleanup Target levels (CTL) presented in Chapter 62-777 FAC. Analyte concentrations shown with shading identify exceedance of a criteria or CTL.

(2) Cd less than or equal to e(0.7409(InH)-4.719)

(3) Cr less than or equal to e(0.819(InH)+0.6848)

(4) Cu less than or equal to e(0845(InH)-1.702)

(5) Pb less than or equal to e(1.273(InH)-4.705)

(6) Ni less than or equal to e(0.846(InH)+0.0584)

(7) Zn less than or equal to e(0.8473(InH)+0.884)

Table 2-12
Surface Water Analytical Summary
First Half 2010

Analyte		Location:	SW-1	SW-2
		Sample Identifier:	SW-1	SW-2
		Date of Test:	03/08/10	03/08/10
	Criteria/ CTL[1]	Units		
Field Measurements				
Temperature		deg. C	12.00	12.1
pH		STD	7.26	6.65
Conductivity	**1250**	umhos/cm	644	727
Dissolved Oxygen (DO)	**≥5**	mg/l	1.2	2.92
Turbidity	**≤29 above BG**	NTU	8.43	34.5
Inorganics				
Nitrate N by Ion Chromatography		mg/l	0.038	0.015
Nitrite N by Ion Chromatography		mg/l	<MDL	<MDL
Antimony	**4.3**	mg/l	<MDL	<MDL
Arsenic	**0.05**	mg/l	0.0017	0.178
Barium		mg/l	0.012	0.049
Beryllium	**0.00013**	mg/l	<MDL	<MDL
Cadmium	**Note 2**	mg/l	<MDL	0.0004
Calcium		mg/l	37.0	34.3
Chromium	**Note 3**	mg/l	<MDL	<MDL
Cobalt		mg/l	<MDL	<MDL
Copper	**Note 4**	mg/l	<MDL	0.0007
Iron	**1.0**	mg/l	1.19	46.5
Lead	**Note 5**	mg/l	<MDL	0.0017
Magnesium		mg/l	12.4	12.8
Mercury	**0.012**	ug/l	<0.01 U	<0.01 U
Nickel		mg/l	0.0016	0.0014
Selenium	**0.005**	mg/l	<MDL	<MDL
Silver		mg/l	<MDL	<MDL
Thallium	**0.0063**	mg/l	<MDL	<MDL
Total Hardness		mg/l	144	138
Vanadium		mg/l	0.0016	0.007
Zinc	**Note 7**	mg/l	0.010	0.012
Chemical Oxygen Demand (COD)		mg/l	64.2	129
Total Organic Carbon		mg/l	22.0	35.3
Fecal coliform	**800**	cfu/100 ml	460	220
Total Kjeldahl Nitrogen		mg/l	1.15	2.14
Total Phosphate as P		mg/l	0.194	0.196
Ammonia		mg/l	0.881	0.054
Total Nitrogen		mg/l	1.19	2.16
Unionized ammonia		mg/l	0.00422	0.00006
Total Dissolved Solids (TDS)		mg/l	364	383
Total Suspended Solids (TSS)		mg/l	1.20	128
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane		ug/l	<MDL	<MDL
1,1,1-Trichloroethane	270	ug/l	<MDL	<MDL
1,1,2,2-Tetrachloroethane	**10.8**	ug/l	<MDL	<MDL
1,1,2-Trichloroethane	16	ug/l	<MDL	<MDL
1,1-Dichloroethene	**3.2**	ug/l	<MDL	<MDL
1,1-Dichloroethane		ug/l	<MDL	<MDL
1,2,3-Trichloropropane	0.2	ug/l	<MDL	<MDL
1,2-Dibromo-3-chloropropane		ug/l	<MDL	<MDL
1,2-Dibromoethane	13	ug/l	<MDL	<MDL

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		03/08/10	03/08/10
	Criteria/ CTL[1]	Units		
1,2-Dichlorobenzene	99	ug/l	<MDL	<MDL
1,2-Dichloroethane	37	ug/l	<MDL	<MDL
1,2-Dichloropropane	14	ug/l	<MDL	<MDL
1,4-Dichlorobenzene	3	ug/l	<MDL	<MDL
2-Hexanone		ug/l	<MDL	<MDL
Acetone	1700	ug/l	<MDL	2.2
Acrylonitrile	0.2	ug/l	<MDL	<MDL
Benzene	**71.28**	ug/l	<MDL	<MDL
Bromochloromethane		ug/l	<MDL	<MDL
Bromodichloromethane	**22**	ug/l	<MDL	<MDL
Bromoform	**360**	ug/l	<MDL	<MDL
Bromomethane	35	ug/l	<MDL	<MDL
Carbon disulfide	110	ug/l	<MDL	<MDL
Carbon tetrachloride	**4.42**	ug/l	<MDL	<MDL
Chlorobenzene	17	ug/l	<MDL	<MDL
Chloroethane		ug/l	<MDL	<MDL
Chloroform	**470.8**	ug/l	<MDL	<MDL
Chloromethane	**470.8**	ug	<MDL	<MDL
Chlorophyll A		mg/m3	<2 U	9.1
cis-1,2-Dichloroethene		ug/l	<MDL	<MDL
cis-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
Dibromochloromethane	**22**	ug/l	<MDL	<MDL
Dibromomethane		ug/l	<MDL	<MDL
Ethylbenzene	610	ug/l	<MDL	<MDL
Iodomethane		ug/l	<MDL	<MDL
m,p-Xylenes		ug/l	<MDL	<MDL
MEK (2-Butanone)	120,000	ug/l	<MDL	<MDL
Methylene chloride	**1580**	ug/l	<MDL	<MDL
4-Methlyl-2-pentanone		ug/l	<MDL	<MDL
o-Xylene		ug/l	<MDL	<MDL
Styrene	460	ug/l	<MDL	<MDL
Tetrachloroethene	**10.8**	ug/l	<MDL	<MDL
Toluene	480	ug/l	<MDL	<MDL
trans-1,2-Dichloroethene	11,000	ug/l	<MDL	<MDL
trans-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
t-1,4-Dichloro-2-butene		ug/l	<MDL	<MDL
Trichloroethene	**80.7**	ug/l	<MDL	<MDL
Trichlorofluoromethane		ug/l	<MDL	<MDL
Vinyl acetate	700	ug/l	<MDL	<MDL
Vinyl chloride	2.4	ug/l	<MDL	<MDL
Xylenes, Total	370	ug/l	<MDL	<MDL

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; mg/m3 = milligrams per cubic meter; NTU = nepholometric turbidity units; MDL = Method Detection Limit. U = Compound was analyzed for but not detected

Notes:

(1) Surface water quality criteria presented in Chapter 62-302, FAC in **bold font** and Cleanup Target levels (CTL) presented in Chapter 62-777 FAC. Analyte concentrations shown with shading identify exceedance of a criteria or CTL.

(2) Cd less than or equal to e(0.7409(InH)-4.719)

(3) Cr less than or equal to e(0.819(InH)+0.6848)

(4) Cu less than or equal to e(0845(InH)-1.702)

(5) Pb less than or equal to e(1.273(InH)-4.705)

(6) Ni less than or equal to e(0.846(InH)+0.0584)

(7) Zn less than or equal to e(0.8473(InH)+0.884)

Table 2-13
Surface Water Analytical Summary
Second Half 2010

Analyte		Location:	SW-1	SW-2
		Sample Identifier:	SW-1	SW-2
		Date of Test:	09/16/10	09/16/10
	Criteria/ CTL[1]	Units		
Field Measurements				
Temperature		deg. C	25.20	25.1
pH		STD	7.04	6.41
Conductivity	**1250**	umhos/cm	400	640
Dissolved Oxygen (DO)	**≥5**	mg/l	4.91	4.02
Turbidity	**≤29 above BG**	NTU	10.9	56.8
Inorganics				
Nitrate N by Ion Chromatography		mg/l	0.130	<MDL
Nitrite N by Ion Chromatography		mg/l	<MDL	<MDL
Antimony	**4.3**	mg/l	0.0047	0.007
Arsenic	**0.05**	mg/l	0.016	0.175
Barium		mg/l	0.011	0.041
Beryllium	**0.00013**	mg/l	0.00008	0.00010
Cadmium	**Note 2**	mg/l	<MDL	0.0009
Calcium		mg/l	31.9	40.7
Chromium	**Note 3**	mg/l	0.0018	0.0024
Cobalt		mg/l	<MDL	<MDL
Copper	**Note 4**	mg/l	<MDL	0.0028
Iron	**1.0**	mg/l	3.04	33.5
Lead	**Note 5**	mg/l	<MDL	0.0023
Magnesium		mg/l	9.58	11.5
Mercury	**0.012**	ug/l	<0.068 U	<0.068 U
Nickel		mg/l	0.0014	0.0043
Selenium	**0.005**	mg/l	<MDL	<MDL
Silver		mg/l	<MDL	<MDL
Sodium		mg/l	33.8	NR
Thallium	**0.0063**	mg/l	<MDL	<MDL
Total Hardness		mg/l	119	149
Vanadium		mg/l	0.0023	0.0027
Zinc	**Note 7**	mg/l	0.008	0.011
Chemical Oxygen Demand (COD)		mg/l	61.7	190
Total Organic Carbon		mg/l	21.9	41.6
Fecal coliform	**800**	cfu/100 ml	1430	70
Total Kjeldahl Nitrogen		mg/l	1.04	1.95
Total Phosphate as P		mg/l	0.696	0.997
Ammonia		mg/l	0.098	0.053
Total Nitrogen		mg/l	1.17	1.95
Unionized ammonia		mg/l	0.11900	0.00009
Total Dissolved Solids (TDS)		mg/l	279	410
Total Suspended Solids (TSS)		mg/l	10.3	381
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane		ug/l	<MDL	<MDL
1,1,1-Trichloroethane	270	ug/l	<MDL	<MDL
1,1,2,2-Tetrachloroethane	**10.8**	ug/l	<MDL	<MDL
1,1,2-Trichloroethane	16	ug/l	<MDL	<MDL
1,1-Dichloroethene	**3.2**	ug/l	<MDL	<MDL
1,1-Dichloroethane		ug/l	<MDL	<MDL
1,2,3-Trichloropropane	0.2	ug/l	<MDL	<MDL
1,2-Dibromo-3-chloropropane		ug/l	<MDL	<MDL

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		09/16/10	09/16/10
	Criteria/ CTL[1]	Units		
1,2-Dibromoethane	13	ug/l	<MDL	<MDL
1,2-Dichlorobenzene	99	ug/l	<MDL	<MDL
1,2-Dichloropropane	14	ug/l	<MDL	<MDL
1,4-Dichlorobenzene	3	ug/l	<MDL	<MDL
2-Hexanone		ug/l	<MDL	<MDL
Acetone	1700	ug/l	<MDL	<MDL
Acrylonitrile	0.2	ug/l	<MDL	<MDL
Benzene	**71.28**	ug/l	<MDL	<MDL
Bromochloromethane		ug/l	<MDL	<MDL
Bromodichloromethane	**22**	ug/l	<MDL	<MDL
Bromoform	**360**	ug/l	<MDL	<MDL
Bromomethane	35	ug/l	<MDL	<MDL
Carbon disulfide	110	ug/l	<MDL	<MDL
Carbon tetrachloride	**4.42**	ug/l	<MDL	<MDL
Chlorobenzene	17	ug/l	<MDL	<MDL
Chloroethane		ug/l	<MDL	<MDL
Chloroform	**470.8**	ug/l	<MDL	<MDL
Chloromethane	**470.8**	ug	<MDL	<MDL
Chlorophyll A		mg/m3	<2 U	<2 U
cis-1,2-Dichloroethene		ug/l	<MDL	<MDL
cis-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
Dibromochloromethane	**22**	ug/l	<MDL	<MDL
Dibromomethane		ug/l	<MDL	<MDL
Ethylbenzene	610	ug/l	<MDL	<MDL
Iodomethane		ug/l	<MDL	<MDL
m,p-Xylenes		ug/l	<MDL	<MDL
MEK (2-Butanone)	120,000	ug/l	<MDL	<MDL
Methylene chloride	**1580**	ug/l	<MDL	<MDL
4-Methlyl-2-pentanone		ug/l	<MDL	<MDL
o-Xylene		ug/l	<MDL	<MDL
Styrene	460	ug/l	<MDL	<MDL
Tetrachloroethene	**10.8**	ug/l	<MDL	<MDL
Toluene	480	ug/l	<MDL	<MDL
trans-1,2-Dichloroethene	11,000	ug/l	<MDL	<MDL
trans-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
t-1,4-Dichloro-2-butene		ug/l	<MDL	<MDL
Trichloroethene	**80.7**	ug/l	<MDL	<MDL
Trichlorofluoromethane		ug/l	<MDL	<MDL
Vinyl acetate	700	ug/l	<MDL	<MDL
Vinyl chloride	2.4	ug/l	<MDL	<MDL
Xylenes, Total	370	ug/l	<MDL	<MDL

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; mg/m3 = milligrams per cubic meter; NTU = nepholometric turbidity units; MDL = Method Detection Limit. U = Compound was analyzed for but not detected

Notes:

(1) Surface water quality criteria presented in Chapter 62-302, FAC in **bold font** and Cleanup Target levels (CTL) presented in Chapter 62-777 FAC. Analyte concentrations shown with shading identify exceedance of a criteria or CTL.

(2) Cd less than or equal to e(0.7409(InH)-4.719) NR = not reported

(3) Cr less than or equal to e(0.819(InH)+0.6848)

(4) Cu less than or equal to e(0845(InH)-1.702)

(5) Pb less than or equal to e(1.273(InH)-4.705)

(6) Ni less than or equal to e(0.846(InH)+0.0584) (7) Zn less than or equal to e(0.8473(InH)+0.884)

Table 2-14
Surface Water Analytical Summary
First Half 2011

Analyte		Location:	SW-1	SW-2
		Sample Identifier:	SW-1	SW-2
		Date of Test:	03/31/11	03/31/11
	Criteria/ CTL[1]	Units		
Field Measurements				
Temperature		deg. C	25.40	26.2
pH		STD	6.3	5.5
Conductivity	**1250**	umhos/cm	NR	NR
Dissolved Oxygen (DO)	**≥5**	mg/l	NR	NR
Turbidity	**≤29 above BG**	NTU	NR	NR
Inorganics				
Nitrate N by Ion Chromatography		mg/l	NR	NR
Nitrite N by Ion Chromatography		mg/l	NR	NR
Antimony	**4.3**	mg/l	<0.0039	<0.0039
Arsenic	**0.05**	mg/l	0.018	0.027
Barium		mg/l	0.019	0.034
Beryllium	**0.00013**	mg/l	<0.00004	0.00005
Cadmium	**Note 2**	mg/l	0.0006	0.0005
Calcium		mg/l	55.0	46.5
Chromium	**Note 3**	mg/l	0.0013	0.0009
Cobalt		mg/l	<0.0003	0.0006
Copper	**Note 4**	mg/l	0.009	0.0026
Iron	**1.0**	mg/l	1.24	2.99
Lead	**Note 5**	mg/l	<0.0017	<0.0017
Magnesium		mg/l	14.9	14.6
Mercury	**0.012**	ug/l	0.0033	0.0038
Nickel		mg/l	0.0034	0.0028
Selenium	**0.005**	mg/l	<0.0046	<0.0046
Silver		mg/l	<0.0007	<0.0007
Thallium	**0.0063**	mg/l	<0.0016	<0.0016
Total Hardness		mg/l	199	176
Vanadium		mg/l	0.0023	0.0005
Zinc	**Note 7**	mg/l	0.028	0.022
Carbonaceous BOD (5 day)		mg/l	4.12	<2.00
Chemical Oxygen Demand (COD)		mg/l	86.9	82.1
Total Organic Carbon		mg/l	29.4	25.8
Fecal coliform	**800**	cfu/100 ml	<1	NR
Total Kjeldahl Nitrogen		mg/l	2.35	1.29
Total Phosphate as P		mg/l	0.462	0.042
Ammonia		mg/l	0.161	0.04
Total Nitrogen		mg/l	2.63	1.4
Unionized ammonia		mg/l	0.00023	0.00001
Total Dissolved Solids (TDS)		mg/l	444	571
Total Suspended Solids (TSS)		mg/l	4.80	7.00
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane		ug/l	<MDL	<MDL
1,1,1-Trichloroethane	270	ug/l	<MDL	<MDL
1,1,2,2-Tetrachloroethane	**10.8**	ug/l	<MDL	<MDL
1,1,2-Trichloroethane	16	ug/l	<MDL	<MDL
1,1-Dichloroethene	**3.2**	ug/l	<MDL	<MDL
1,1-Dichloroethane		ug/l	<MDL	<MDL
1,2,3-Trichloropropane	0.2	ug/l	<MDL	<MDL
1,2-Dibromo-3-chloropropane		ug/l	<MDL	<MDL

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		03/31/11	03/31/11
	Criteria/ CTL[1]	Units		
1,2-Dibromoethane	13	ug/l	<MDL	<MDL
1,2-Dichlorobenzene	99	ug/l	<MDL	<MDL
1,2-Dichloroethane	37	ug/l	NR	<MDL
1,2-Dichloropropane	14	ug/l	<MDL	<MDL
1,4-Dichlorobenzene	3	ug/l	<MDL	<MDL
2-Hexanone		ug/l	<MDL	<MDL
Acetone	1700	ug/l	<MDL	<MDL
Acrylonitrile	0.2	ug/l	<MDL	<MDL
Benzene	**71.28**	ug/l	<MDL	<MDL
Bromochloromethane		ug/l	<MDL	<MDL
Bromodichloromethane	**22**	ug/l	<MDL	<MDL
Bromoform	**360**	ug/l	<MDL	<MDL
Bromomethane	35	ug/l	<MDL	<MDL
Carbon disulfide	110	ug/l	<MDL	<MDL
Carbon tetrachloride	**4.42**	ug/l	<MDL	<MDL
Chlorobenzene	17	ug/l	<MDL	<MDL
Chloroethane		ug/l	<MDL	<MDL
Chloroform	**470.8**	ug/l	0.6	<MDL
Chloromethane	**470.8**	ug	<MDL	<MDL
Chlorophyll A		mg/m3	5.5	<2 U
cis-1,2-Dichloroethene		ug/l	<MDL	<MDL
cis-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
Dibromochloromethane	**22**	ug/l	<MDL	<MDL
Dibromomethane		ug/l	<MDL	<MDL
Ethylbenzene	610	ug/l	<MDL	<MDL
Iodomethane		ug/l	<MDL	<MDL
m,p-Xylenes		ug/l	<MDL	<MDL
MEK (2-Butanone)	120,000	ug/l	<MDL	<MDL
Methylene chloride	**1580**	ug/l	<MDL	<MDL
4-Methlyl-2-pentanone		ug/l	<MDL	<MDL
o-Xylene		ug/l	<MDL	<MDL
Styrene	460	ug/l	<MDL	<MDL
Tetrachloroethene	**10.8**	ug/l	<MDL	<MDL
Toluene	480	ug/l	<MDL	<MDL
trans-1,2-Dichloroethene	11,000	ug/l	<MDL	<MDL
trans-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
t-1,4-Dichloro-2-butene		ug/l	<MDL	<MDL
Trichloroethene	**80.7**	ug/l	<MDL	<MDL
Trichlorofluoromethane		ug/l	<MDL	<MDL
Vinyl acetate	700	ug/l	<MDL	<MDL
Vinyl chloride	2.4	ug/l	<MDL	<MDL
Xylenes, Total	370	ug/l	<MDL	<MDL

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; mg/m3 = milligrams per cubic meter; NTU = nepholometric turbidity units; MDL = Method Detection Limit. U = Compound was analyzed for but not detected

Notes:

(1) Surface water quality criteria presented in Chapter 62-302, FAC in **bold font** and Cleanup Target levels (CTL) presented in Chapter 62-777 FAC. Analyte concentrations shown with shading identify exceedance of a criteria or CTL.

(2) Cd less than or equal to e(0.7409(InH)-4.719) NR = not reported

(3) Cr less than or equal to e(0.819(InH)+0.6848)

(4) Cu less than or equal to e(0845(InH)-1.702)

(5) Pb less than or equal to e(1.273(InH)-4.705)

(6) Ni less than or equal to e(0.846(InH)+0.0584) (7) Zn less than or equal to e(0.8473(InH)+0.884)

Table 2-15
Surface Water Analytical Summary
Second Half 2011

Analyte		Location:	SW-1	SW-2
		Sample Identifier:	SW-1	SW-2
		Date of Test:	09/19/11	09/19/11
	Criteria/ CTL[1]	Units		
Field Measurements				
Temperature		deg. C	24.80	25.5
pH		STD	7.07	6.84
Conductivity	**1250**	umhos/cm	NR	NR
Dissolved Oxygen (DO)	**≥5**	mg/l	NR	NR
Turbidity	**≤29 above BG**	NTU	NR	NR
Inorganics				
Nitrate N by Ion Chromatography		mg/l	0.185	<0.0046
Nitrite N by Ion Chromatography		mg/l	0.023	<0.0023
Antimony	**4.3**	mg/l	<0.0039	<0.0039
Arsenic	**0.05**	mg/l	0.024	0.042
Barium		mg/l	0.013	0.018
Beryllium	**0.00013**	mg/l	<0.000004	<0.00004
Cadmium	**Note 2**	mg/l	0.034	0.022
Calcium		mg/l	39.4	27.1
Chromium	**Note 3**	mg/l	0.0014	0.0016
Cobalt		mg/l	<0.0003	<0.0003
Copper	**Note 4**	mg/l	<0.0009	<0.0009
Iron	**1.0**	mg/l	3.3	8.09
Lead	**Note 5**	mg/l	<0.0017	0.0036
Magnesium		mg/l	10.9	9.32
Mercury	**0.012**	ug/l	0.0023	0.00024
Nickel		mg/l	0.0020	0.0004
Selenium	**0.005**	mg/l	<0.0046	<0.0046
Silver		mg/l	<0.0007	<0.0007
Thallium	**0.0063**	mg/l	0.019	0.017
Total Hardness		mg/l	143	106
Vanadium		mg/l	0.0019	0.0015
Zinc	**Note 7**	mg/l	0.011	0.0036
Carbonaceous BOD (5 day)		mg/l	<2.00	<2.00
Chemical Oxygen Demand (COD)		mg/l	76.8	79.5
Total Organic Carbon		mg/l	33.7	30.7
Fecal coliform	**800**	cfu/100 ml	3700	150
Total Kjeldahl Nitrogen		mg/l	1.65	1.13
Total Phosphate as P		mg/l	0.582	0.326
Ammonia		mg/l	0.292	0.116
Total Nitrogen		mg/l	1.86	1.13
Unionized ammonia		mg/l	0.00232	0.00057
Total Dissolved Solids (TDS)		mg/l	297	229
Total Suspended Solids (TSS)		mg/l	8.40	8.40
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane		ug/l	<MDL	<MDL
1,1,1-Trichloroethane	270	ug/l	<MDL	<MDL
1,1,2,2-Tetrachloroethane	**10.8**	ug/l	<MDL	<MDL
1,1,2-Trichloroethane	16	ug/l	<MDL	<MDL
1,1-Dichloroethene	**3.2**	ug/l	<MDL	<MDL
1,1-Dichloroethane		ug/l	<MDL	<MDL
1,2,3-Trichloropropane	0.2	ug/l	<MDL	<MDL
1,2-Dibromo-3-chloropropane		ug/l	<MDL	<MDL

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		09/19/11	09/19/11
	Criteria/ CTL[1]	Units		
1,2-Dibromoethane	13	ug/l	<MDL	<MDL
1,2-Dichlorobenzene	99	ug/l	<MDL	<MDL
1,2-Dichloroethane	37	ug/l	NR	<MDL
1,2-Dichloropropane	14	ug/l	<MDL	<MDL
1,4-Dichlorobenzene	3	ug/l	<MDL	<MDL
2-Hexanone		ug/l	<MDL	<MDL
Acetone	1700	ug/l	<MDL	<MDL
Acrylonitrile	0.2	ug/l	<MDL	<MDL
Benzene	**71.28**	ug/l	<MDL	<MDL
Bromochloromethane		ug/l	<MDL	<MDL
Bromodichloromethane	**22**	ug/l	<MDL	<MDL
Bromoform	**360**	ug/l	<MDL	<MDL
Bromomethane	35	ug/l	<MDL	<MDL
Carbon disulfide	110	ug/l	<MDL	<MDL
Carbon tetrachloride	**4.42**	ug/l	<MDL	<MDL
Chlorobenzene	17	ug/l	<MDL	<MDL
Chloroethane		ug/l	<MDL	<MDL
Chloroform	**470.8**	ug/l	<MDL	<MDL
Chloromethane	**470.8**	ug	<MDL	<MDL
Chlorophyll A		mg/m3	<0.5 U	<0.5 U
cis-1,2-Dichloroethene		ug/l	<MDL	<MDL
cis-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
Dibromochloromethane	**22**	ug/l	<MDL	<MDL
Dibromomethane		ug/l	<MDL	<MDL
Ethylbenzene	610	ug/l	<MDL	<MDL
Iodomethane		ug/l	<MDL	<MDL
m,p-Xylenes		ug/l	<MDL	<MDL
MEK (2-Butanone)	120,000	ug/l	<MDL	<MDL
Methylene chloride	**1580**	ug/l	<MDL	<MDL
4-Methlyl-2-pentanone		ug/l	<MDL	<MDL
o-Xylene		ug/l	<MDL	<MDL
Styrene	460	ug/l	<MDL	<MDL
Tetrachloroethene	**10.8**	ug/l	<MDL	<MDL
Toluene	480	ug/l	<MDL	0.1 I
trans-1,2-Dichloroethene	11,000	ug/l	<MDL	<MDL
trans-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
t-1,4-Dichloro-2-butene		ug/l	<MDL	<MDL
Trichloroethene	**80.7**	ug/l	<MDL	<MDL
Trichlorofluoromethane		ug/l	<MDL	<MDL
Vinyl acetate	700	ug/l	<MDL	<MDL
Vinyl chloride	2.4	ug/l	<MDL	<MDL
Xylenes, Total	370	ug/l	<MDL	<MDL

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; mg/m3 = milligrams per cubic meter; NTU = nepholometric turbidity units; MDL = Method Detection Limit. U = Compound was analyzed for but not detected

Notes:

(1) Surface water quality criteria presented in Chapter 62-302, FAC in **bold font** and Cleanup Target levels (CTL) presented in Chapter 62-777 FAC. Analyte concentrations shown with shading identify exceedance of a criteria or CTL.

(2) Cd less than or equal to e(0.7409(InH)-4.719) NR = not reported

(3) Cr less than or equal to e(0.819(InH)+0.6848)

(4) Cu less than or equal to e(0845(InH)-1.702)

(5) Pb less than or equal to e(1.273(InH)-4.705)

(6) Ni less than or equal to e(0.846(InH)+0.0584) (7) Zn less than or equal to e(0.8473(InH)+0.884)

Table 2-16
Surface Water Analytical Summary
First Half 2012

Analyte		Location:	SW-1	SW-2
		Sample Identifier:	SW-1	SW-2
		Date of Test:	06/04/12	06/05/12
	Criteria/ CTL[1]	Units		
Field Measurements				
Temperature		deg. C	23.70	24
pH		STD	6.83	5.24
Conductivity	**1250**	umhos/cm	689	690
Dissolved Oxygen (DO)	**≥5**	mg/l	4.94	0.01
Turbidity	**≤29 above BG**	NTU	6.23	19.82
Inorganics				
Nitrate N by Ion Chromatography		mg/l	0.052	0.018
Nitrite N by Ion Chromatography		mg/l	<0.0023	<0.0023
Antimony	**4.3**	mg/l	<0.0039	<0.0039
Arsenic	**0.05**	mg/l	0.049	0.204
Barium		mg/l	0.028	0.038
Beryllium	**0.00013**	mg/l	0.00009	<0.00004
Cadmium	**Note 2**	mg/l	<0.00004	0.0007
Calcium		mg/l	68.4	52.8
Chromium	**Note 3**	mg/l	0.0024	0.003
Cobalt		mg/l	0.0008	0.0012
Copper	**Note 4**	mg/l	0.0018	0.009
Iron	**1.0**	mg/l	2.09	19.3
Lead	**Note 5**	mg/l	<0.0017	0.0037
Magnesium		mg/l	18.7	17
Mercury	**0.012**	ug/l	0.0043	0.0069
Nickel		mg/l	0.0025	0.0025
Selenium	**0.005**	mg/l	<0.0046	0.042
Silver		mg/l	<0.0007	<0.0007
Thallium	**0.0063**	mg/l	<0.0016	<0.0016
Total Hardness		mg/l	248	202
Vanadium		mg/l	0.0015	0.006
Zinc	**Note 7**	mg/l	0.012	0.019
Carbonaceous BOD (5 day)		mg/l	<2.00	5.20
Chemical Oxygen Demand (COD)		mg/l	80.2	206
Total Organic Carbon		mg/l	23.1	78.0
Fecal coliform	**800**	cfu/100 ml	1400	220
Total Kjeldahl Nitrogen		mg/l	1.31	3.38
Total Phosphate as P		mg/l	0.291	0.253
Ammonia		mg/l	0.22	0.177
Total Nitrogen		mg/l	1.36	3.4
Unionized ammonia		mg/l	0.00093	0.00002
Total Dissolved Solids (TDS)		mg/l	526	507
Total Suspended Solids (TSS)		mg/l	4.2	56.0
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane		ug/l	<MDL	<MDL
1,1,1-Trichloroethane	270	ug/l	<MDL	<MDL
1,1,2,2-Tetrachloroethane	**10.8**	ug/l	<MDL	<MDL
1,1,2-Trichloroethane	16	ug/l	<MDL	<MDL
1,1-Dichloroethene	**3.2**	ug/l	<MDL	<MDL
1,1-Dichloroethane		ug/l	<MDL	<MDL
1,2,3-Trichloropropane	0.2	ug/l	<MDL	<MDL
1,2-Dibromo-3-chloropropane		ug/l	<MDL	<MDL

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		06/04/12	06/05/12
	Criteria/ CTL[1]	Units		
1,2-Dibromoethane	13	ug/l	<MDL	<MDL
1,2-Dichlorobenzene	99	ug/l	<MDL	<MDL
1,2-Dichloroethane	37	ug/l	NR	<MDL
1,2-Dichloropropane	14	ug/l	<MDL	<MDL
1,4-Dichlorobenzene	3	ug/l	<MDL	<MDL
2-Hexanone		ug/l	<MDL	<MDL
Acetone	1700	ug/l	<MDL	2.1
Acrylonitrile	0.2	ug/l	<MDL	<MDL
Benzene	**71.28**	ug/l	<MDL	<MDL
Bromochloromethane		ug/l	<MDL	<MDL
Bromodichloromethane	**22**	ug/l	<MDL	<MDL
Bromoform	**360**	ug/l	<MDL	<MDL
Bromomethane	35	ug/l	<MDL	<MDL
Carbon disulfide	110	ug/l	<MDL	<MDL
Carbon tetrachloride	**4.42**	ug/l	<MDL	<MDL
Chlorobenzene	17	ug/l	<MDL	<MDL
Chloroethane		ug/l	<MDL	<MDL
Chloroform	**470.8**	ug/l	0.3	<MDL
Chloromethane	**470.8**	ug	<MDL	<MDL
Chlorophyll A		mg/m3	0.5	13
cis-1,2-Dichloroethene		ug/l	<MDL	<MDL
cis-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
Dibromochloromethane	**22**	ug/l	<MDL	<MDL
Dibromomethane		ug/l	<MDL	<MDL
Ethylbenzene	610	ug/l	<MDL	<MDL
Iodomethane		ug/l	<MDL	<MDL
m,p-Xylenes		ug/l	<MDL	<MDL
MEK (2-Butanone)	120,000	ug/l	<MDL	<MDL
Methylene chloride	**1580**	ug/l	<MDL	<MDL
4-Methlyl-2-pentanone		ug/l	<MDL	<MDL
o-Xylene		ug/l	<MDL	<MDL
Styrene	460	ug/l	<MDL	<MDL
Tetrachloroethene	**10.8**	ug/l	<MDL	<MDL
Toluene	480	ug/l	<MDL	<MDL
trans-1,2-Dichloroethene	11,000	ug/l	<MDL	<MDL
trans-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
t-1,4-Dichloro-2-butene		ug/l	<MDL	<MDL
Trichloroethene	**80.7**	ug/l	<MDL	<MDL
Trichlorofluoromethane		ug/l	<MDL	<MDL
Vinyl acetate	700	ug/l	<MDL	<MDL
Vinyl chloride	2.4	ug/l	<MDL	<MDL
Xylenes, Total	370	ug/l	<MDL	<MDL

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; mg/m3 = milligrams per cubic meter; NTU = nepholometric turbidity units; MDL = Method Detection Limit. U = Compound was analyzed for but not detected

Notes:

(1) Surface water quality criteria presented in Chapter 62-302, FAC in **bold font** and Cleanup Target levels (CTL) presented in Chapter 62-777 FAC. Analyte concentrations shown with shading identify exceedance of a criteria or CTL.

(2) Cd less than or equal to e(0.7409(InH)-4.719) NR = Not reported

(3) Cr less than or equal to e(0.819(InH)+0.6848)

(4) Cu less than or equal to e(0845(InH)-1.702)

(5) Pb less than or equal to e(1.273(InH)-4.705)

(6) Ni less than or equal to e(0.846(InH)+0.0584) (7) Zn less than or equal to e(0.8473(InH)+0.884)

Table 2-17
Surface Water Analytical Summary
Second Half 2012

Analyte		Location:	SW-1	SW-2
		Sample Identifier:	SW-1	SW-2
		Date of Test:	09/05/12	09/05/12
	Criteria/ CTL[1]	Units		
Field Measurements				
Temperature		deg. C	25.40	24.9
pH		STD	7.11	6.47
Conductivity	**1250**	umhos/cm	461	772
Dissolved Oxygen (DO)	**≥5**	mg/1	2.51	1.85
Turbidity	**≤29 above BG**	NTU	11.31	8.84
Inorganics				
Nitrate N by Ion Chromatography		mg/l	0.121	0.008
Nitrite N by Ion Chromatography		mg/l	<0.0023	<0.0023
Antimony	**4.3**	mg/l	<0.0039	<0.0039
Arsenic	**0.05**	mg/l	0.038	0.073
Barium		mg/l	0.14	0.034
Beryllium	**0.00013**	mg/l	0.00004	0.00004
Cadmium	**Note 2**	mg/l	<0.0004	<0.0004
Calcium		mg/l	37.4	53.2
Chromium	**Note 3**	mg/l	0.0021	0.0029
Cobalt		mg/l	<0.0003	<0.0003
Copper	**Note 4**	mg/l	<0.0009	<0.0009
Iron	**1.0**	mg/l	2.31	8.25
Lead	**Note 5**	mg/l	<0.0017	<0.0017
Magnesium		mg/l	12.6	16.5
Mercury	**0.012**	ug/l	0.00414	0.00208
Nickel		mg/l	0.0015	0.0016
Selenium	**0.005**	mg/l	<0.0046	0.008
Silver		mg/l	<0.0007	<0.0007
Sodium		mg/l	32.3	NR
Thallium	**0.0063**	mg/l	<0.0016	<0.0016
Total Hardness		mg/l	145	201
Vanadium		mg/l	0.0026	0.0030
Zinc	**Note 7**	mg/l	<0.0029	<0.0029
Carbonaceous BOD (5 day)		mg/l	<0.200	<2.00
Chemical Oxygen Demand (COD)		mg/l	68.2	134
Total Organic Carbon		mg/l	26.8	57.5
Fecal coliform	**800**	cfu/100 ml	1110	50
Total Kjeldahl Nitrogen		mg/l	1.50	2.59
Total Phosphate as P		mg/l	0.468	0.586
Ammonia		mg/l	0.176	0.199
Total Nitrogen		mg/l	1.62	2.6
Unionized ammonia		mg/l	0.00160	0.0004
Total Dissolved Solids (TDS)		mg/l	300	495
Total Suspended Solids (TSS)		mg/l	11.1	24.2
Volatile Organic Compounds				
1,1,1,2-Tetrachloroethane		ug/l	<MDL	<MDL
1,1,1-Trichloroethane	270	ug/l	<MDL	<MDL
1,1,2,2-Tetrachloroethane	**10.8**	ug/l	<MDL	<MDL
1,1,2-Trichloroethane	16	ug/l	<MDL	<MDL
1,1-Dichloroethene	**3.2**	ug/l	<MDL	<MDL
1,1-Dichloroethane		ug/l	<MDL	<MDL
1,2,3-Trichloropropane	0.2	ug/l	<MDL	<MDL

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		09/05/12	09/05/12
	Criteria/ CTL[1]	Units		
1,2-Dibromo-3-chloropropane		ug/l	<MDL	<MDL
1,2-Dibromoethane	13	ug/l	<MDL	<MDL
1,2-Dichlorobenzene	99	ug/l	<MDL	<MDL
1,2-Dichloroethane	37	ug/l	NR	<MDL
1,2-Dichloropropane	14	ug/l	<MDL	<MDL
1,4-Dichlorobenzene	3	ug/l	<MDL	<MDL
2-Hexanone		ug/l	<MDL	<MDL
Acetone	1700	ug/l	<MDL	<MDL
Acrylonitrile	0.2	ug/l	<MDL	<MDL
Benzene	**71.28**	ug/l	<MDL	<MDL
Bromochloromethane		ug/l	<MDL	<MDL
Bromodichloromethane	**22**	ug/l	<MDL	<MDL
Bromoform	**360**	ug/l	<MDL	<MDL
Bromomethane	35	ug/l	<MDL	<MDL
Carbon disulfide	110	ug/l	<MDL	<MDL
Carbon tetrachloride	**4.42**	ug/l	<MDL	<MDL
Chlorobenzene	17	ug/l	<MDL	<MDL
Chloroethane		ug/l	<MDL	<MDL
Chloroform	**470.8**	ug/l	<MDL	<MDL
Chloromethane	**470.8**	ug	<MDL	<MDL
Chlorophyll A		mg/m3	4.7	43.7
cis-1,2-Dichloroethene		ug/l	<MDL	<MDL
cis-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
Dibromochloromethane	**22**	ug/l	<MDL	<MDL
Dibromomethane		ug/l	<MDL	<MDL
Ethylbenzene	610	ug/l	<MDL	<MDL
Iodomethane		ug/l	<MDL	<MDL
m,p-Xylenes		ug/l	<MDL	<MDL
MEK (2-Butanone)	120,000	ug/l	<MDL	<MDL
Methylene chloride	**1580**	ug/l	<MDL	<MDL
4-Methlyl-2-pentanone		ug/l	<MDL	<MDL
o-Xylene		ug/l	<MDL	<MDL
Styrene	460	ug/l	<MDL	<MDL
Tetrachloroethene	**10.8**	ug/l	<MDL	<MDL
Toluene	480	ug/l	<MDL	0.63
trans-1,2-Dichloroethene	11,000	ug/l	<MDL	<MDL
trans-1,3-Dichloropropene	12	ug/l	<MDL	<MDL
t-1,4-Dichloro-2-butene		ug/l	<MDL	<MDL
Trichloroethene	**80.7**	ug/l	<MDL	<MDL
Trichlorofluoromethane		ug/l	<MDL	<MDL
Vinyl acetate	700	ug/l	<MDL	<MDL
Vinyl chloride	2.4	ug/l	<MDL	<MDL
Xylenes, Total	370	ug/l	<MDL	<MDL

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; mg/m3 = milligrams per cubic meter; NTU = nepholometric turbidity units; MDL = Method Detection Limit. U = Compound was analyzed for but not detected

Notes:

(1) Surface water quality criteria presented in Chapter 62-302, FAC in **bold font** and Cleanup Target levels (CTL) presented in Chapter 62-777 FAC. Analyte concentrations shown with shading identify exceedance of a criteria or CTL.

(2) Cd less than or equal to e(0.7409(InH)-4.719) NR = not reported

(3) Cr less than or equal to e(0.819(InH)+0.6848)

(4) Cu less than or equal to e(0845(InH)-1.702) (6) Ni less than or equal to e(0.846(InH)+0.0584)

(5) Pb less than or equal to e(1.273(InH)-4.705) (7) Zn less than or equal to e(0.8473(InH)+0.884)

Table 3-1
Summary of Water Quality Data Trends

Parameter	Trend in Concentration	Comments
Leachate		
Inorganics	Steady	Several inorganics were detected during all sampling events of the review period, and concentrations remained within the same general range. No analytes were detected at concentrations in excess of regulatory standards.
Organics	Steady	There were a few organic detections during all sampling events of the review period, but none in excess of regulatory standards.
Groundwater		
pH	Steady	The pH values remained in a relatively narrow range at most of the wells throughout the review period. The values were generally lower than the SDWS range at many of the wells.
Antimony	Infrequent	Antimony was detected very infrequently at concentrations slightly greater than the MCL at GW-6, GW-12, GW-15, and GW-16.
Arsenic	Steady	Arsenic was detected at concentrations above the MCL at most of the wells in the network during at least one sampling event. After early 2011, when a different analysis method was used, arsenic concentrations exceeded the MCL only at the following wells: GW-1, GW-2, GW-5, GW-9, GW-10, GW-11, and GW-13.
Iron	Wide Variations, but within historical range	Concentrations of iron were higher than the SDWS at most wells throughout most of the review period. Iron concentrations at several of the wells, including the background monitoring well, ranged over three orders of magnitude in variation.
Selenium	Infrequent	Concentrations of selenium were higher than the MCL at thirteen wells during only one sampling event (the second half of 2011).
Vanadium	Infrequent	Vanadium was detected very infrequently at concentrations slightly greater than the MCL at GW-6 and GW-16.
TDS	Steady	The TDS concentration was steady at most of the wells during the period. The concentrations were consistently higher than the SDWS at several wells during the period.

MCL = Maximum Contaminant Level.
SDWS = Secondary Drinking Water Standard.

Table 3-1 (continued)
Summary of Water Quality Data Trends

Parameter	Trend in Concentration	Comments
Surface Water		
Iron	Steady	Detected at concentrations in excess of the SWCTL at every sampling point sampled during the review period where surface water samples were collected. The concentrations of iron were consistently higher in SW-2 than in SW-1.
Arsenic	Steady	Detected at concentrations in excess of the SWCTL at SW-2 during five of the seven sampling events. Did not exceed SWCTL at SW-1.
Fecal Coliform	Steady	Fecal coliform was detected at concentrations in excess of the standard at one sampling point (SW-1) during five of the seven sampling events.

SWCTL = Surface Water Cleanup Target Level.

Table 3-2
Mann-Kendall Trend Test p-values
Lena Road Landfill
July 2013 Water Quality Evaluation Report (data from 2nd Half 2009 - 2nd Half 2012)

Parameter	P-values																	
	BGW-1	GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17
Arsenic	0.65	0.37	0.65	0.88	0.88	0.65	1.00	1.00	0.76	0.45	0.55	0.37	1.00	1.00	0.29	0.88	0.88	1.00
Iron	0.23	0.17	0.23	0.37	0.76	1.00	0.76	1.00	0.76	0.55	0.55	0.13	0.76	1.00	1.00	0.13	0.55	0.55
Total Dissolved Solids (TDS)	1.00	0.23	0.37	0.76	0.13	0.29	0.23	1.00	0.37	0.07	0.23	0.55	**0.04**	**0.02**	0.55	0.23	1.00	0.13

bold = statistically significant trend

TABLE 4-1
MONTHLY RAINFALL DATA DURING REVIEW PERIOD
LENA ROAD LANDFILL

MONTH	AVERAGE RAINFALL (inches)	2009 RAINFALL (inches)	2010 RAINFALL (inches)	2011 RAINFALL (inches)	2012 RAINFALL (inches)
JANUARY	2.09	*1.85*	3.21	3.67	0.94
FEBRUARY	2.91	*0.69*	2.72	0.97	0.64
MARCH	3.15	*0.86*	4.36	8.59	2.84
APRIL	2.31	*2.23*	2.54	2.93	4.66
MAY	2.81	*5.25*	1.78	1.11	2.30
JUNE	6.67	*6.32*	8.68	5.21	24.07
JULY	7.30	8.67	6.59	6.57	13.25
AUGUST	8.70	10.90	12.26	7.17	11.62
SEPTEMBER	8.50	11.53	1.89	6.56	3.67
OCTOBER	3.20	0.89	0.00	3.53	3.44
NOVEMBER	1.80	3.67	1.67	0.84	0.76
DECEMBER	2.30	2.74	0.79	0.38	0.00
TOTAL	**51.74**	**55.60**	**46.49**	**47.53**	**68.19**

Source: Southwest Florida Water Management District monitoring site located at Bradenton, FL (Cypress Strand)
italicized amounts are not from this reporting period

Table 4-2
Groundwater Elevation Data Summary
Manatee County
Lena Road Landfill

Monitoring Well	Top-of-Casing Elevation (Ft-NGVD)	Screen Interval Elevation (Ft-NGVD)	Date Measured	Depth-to-Groundwater (feet)	Groundwater Elevation (Ft-NGVD)
GW-1	38.68	19.76-34.76	Second Half 2009	5.73	32.95
			First Half 2010	6.20	32.48
			Second Half 2010	6.60	32.08
			First Half 2011	7.00	31.68
			Second Half 2011	4.50	34.18
			First Half 2012	9.17	29.51
			Second Half 2012	3.54	35.14
GW-2	40.92	22.01-37.01	Second Half 2009	7.91	33.01
			First Half 2010	8.30	32.62
			Second Half 2010	8.40	32.52
			First Half 2011	9.00	31.92
			Second Half 2011	6.90	34.02
			First Half 2012	10.00	30.92
			Second Half 2012	5.20	35.72
GW-3	39.40	20.34-35.34	Second Half 2009	5.36	34.04
			First Half 2010	6.40	33.00
			Second Half 2010	5.00	34.40
			First Half 2011	6.00	33.40
			Second Half 2011	6.50	32.90
			First Half 2012	8.80	30.60
			Second Half 2012	4.00	35.40
GW-4	40.53	21.40-36.40	Second Half 2009	7.47	33.06
			First Half 2010	8.00	32.53
			Second Half 2010	8.20	32.33
			First Half 2011	8.30	32.23
			Second Half 2011	7.80	32.73
			First Half 2012	10.70	29.83
			Second Half 2012	6.23	34.30
GW-5	39.90	20.74-35.74	Second Half 2009	7.51	32.39
			First Half 2010	8.00	31.90
			Second Half 2010	7.80	32.10
			First Half 2011	8.20	31.70
			Second Half 2011	7.20	32.70
			First Half 2012	10.20	29.70
			Second Half 2012	6.57	33.33

Monitoring Well	Top-of-Casing Elevation (Ft-NGVD)	Screen Interval Elevation (Ft-NGVD)	Date Measured	Depth-to-Groundwater (feet)	Groundwater Elevation (Ft-NGVD)
GW-6	38.95	19.91-34.91	Second Half 2009	7.11	31.84
			First Half 2010	7.90	31.05
			Second Half 2010	8.00	30.95
			First Half 2011	8.00	30.95
			Second Half 2011	6.50	32.45
			First Half 2012	9.92	29.03
			Second Half 2012	5.92	33.03
GW-7	39.49	19.45-34.45	Second Half 2009	8.71	30.78
			First Half 2010	10.30	29.19
			Second Half 2010	10.20	29.29
			First Half 2011	10.30	29.19
			Second Half 2011	8.80	30.69
			First Half 2012	13.00	26.49
			Second Half 2012	7.82	31.67
GW-8	39.75	19.45-34.45	Second Half 2009	9.89	29.86
			First Half 2010	12.00	27.75
			Second Half 2010	12.70	27.05
			First Half 2011	11.30	28.45
			Second Half 2011	10.10	29.65
			First Half 2012	14.41	25.34
			Second Half 2012	8.83	30.92
GW-9	39.65	19.59-34.59	Second Half 2009	10.08	29.57
			First Half 2010	11.40	28.25
			Second Half 2010	11.20	28.45
			First Half 2011	11.00	28.65
			Second Half 2011	10.90	28.75
			First Half 2012	14.52	25.13
			Second Half 2012	7.90	31.75
GW-10	38.34	18.69-33.69	Second Half 2009	9.03	29.31
			First Half 2010	11.00	27.34
			Second Half 2010	10.30	28.04
			First Half 2011	9.50	28.84
			Second Half 2011	10.20	28.14
			First Half 2012	13.20	25.14
			Second Half 2012	7.20	31.14

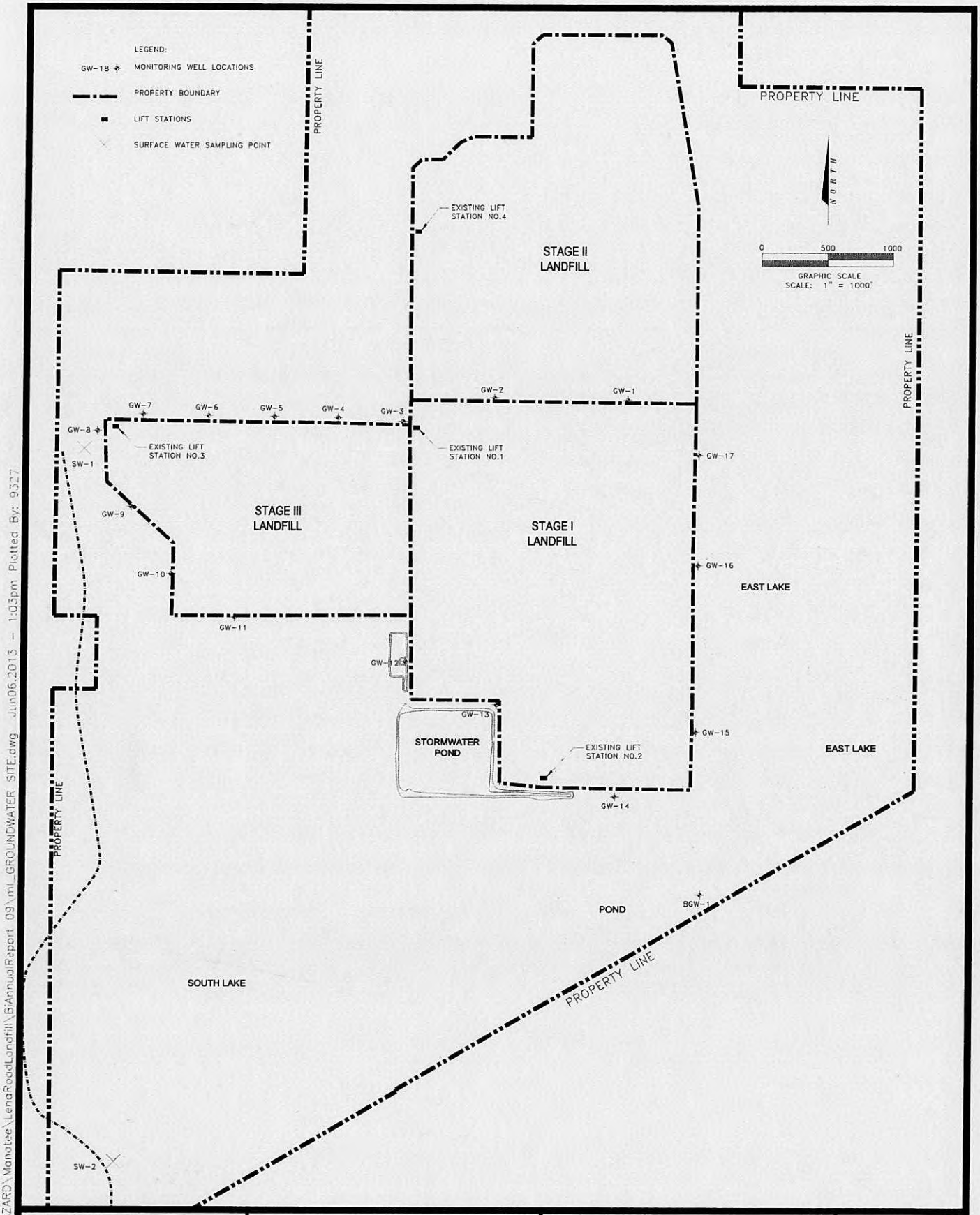
Monitoring Well	Top-of-Casing Elevation (Ft-NGVD)	Screen Interval Elevation (Ft-NGVD)	Date Measured	Depth-to-Groundwater (feet)	Groundwater Elevation (Ft-NGVD)
GW-11	38.26	17.15-32.15	Second Half 2009	7.51	30.75
			First Half 2010	6.70	31.56
			Second Half 2010	7.90	30.36
			First Half 2011	7.60	30.66
			Second Half 2011	8.30	29.96
			First Half 2012	8.32	29.94
			Second Half 2012	5.60	32.66
GW-12	42.09	22.32-37.32	Second Half 2009	10.48	31.61
			First Half 2010	9.70	32.39
			Second Half 2010	10.70	31.39
			First Half 2011	11.00	31.09
			Second Half 2011	10.80	31.29
			First Half 2012	12.27	29.82
			Second Half 2012	10.10	31.99
GW-13	44.79	25.07-40.07	Second Half 2009	12.52	32.27
			First Half 2010	11.70	33.09
			Second Half 2010	12.70	32.09
			First Half 2011	12.40	32.39
			Second Half 2011	11.80	32.99
			First Half 2012	12.72	32.07
			Second Half 2012	10.30	34.49
GW-14	39.63	19-98-34.98	Second Half 2009	6.22	33.41
			First Half 2010	4.60	35.03
			Second Half 2010	6.20	33.43
			First Half 2011	6.60	33.03
			Second Half 2011	8.20	31.43
			First Half 2012	7.90	31.73
			Second Half 2012	4.90	34.73
GW-15	42.33	22.83-37.83	Second Half 2009	8.71	33.62
			First Half 2010	6.70	35.63
			Second Half 2010	7.50	34.83
			First Half 2011	8.90	33.43
			Second Half 2011	9.10	33.23
			First Half 2012	9.10	33.23
			Second Half 2012	7.30	35.03

Monitoring Well	Top-of-Casing Elevation (Ft-NGVD)	Screen Interval Elevation (Ft-NGVD)	Date Measured	Depth-to-Groundwater (feet)	Groundwater Elevation (Ft-NGVD)
GW-16	44.41	24.76-39.76	Second Half 2009	10.01	34.40
			First Half 2010	8.70	35.71
			Second Half 2010	9.50	34.91
			First Half 2011	10.00	34.41
			Second Half 2011	10.70	33.71
			First Half 2012	13.30	31.11
			Second Half 2012	6.40	38.01
GW-17	42.19	21.89-36.89	Second Half 2009	8.63	33.56
			First Half 2010	8.00	34.19
			Second Half 2010	8.80	33.39
			First Half 2011	8.70	33.49
			Second Half 2011	7.80	34.39
			First Half 2012	10.60	31.59
			Second Half 2012	7.10	35.09
BGW-1	47.57	27.77-42.77	Second Half 2009	9.60	37.97
			First Half 2010	7.00	40.57
			Second Half 2010	8.90	38.67
			First Half 2011	9.40	38.17
			Second Half 2011	9.00	38.57
			First Half 2012	13.70	33.87
			Second Half 2012	7.30	40.27

NM = Not measured.

Ft-NGVD = Feet above the National Geodetic Vertical Datum.

FIGURES



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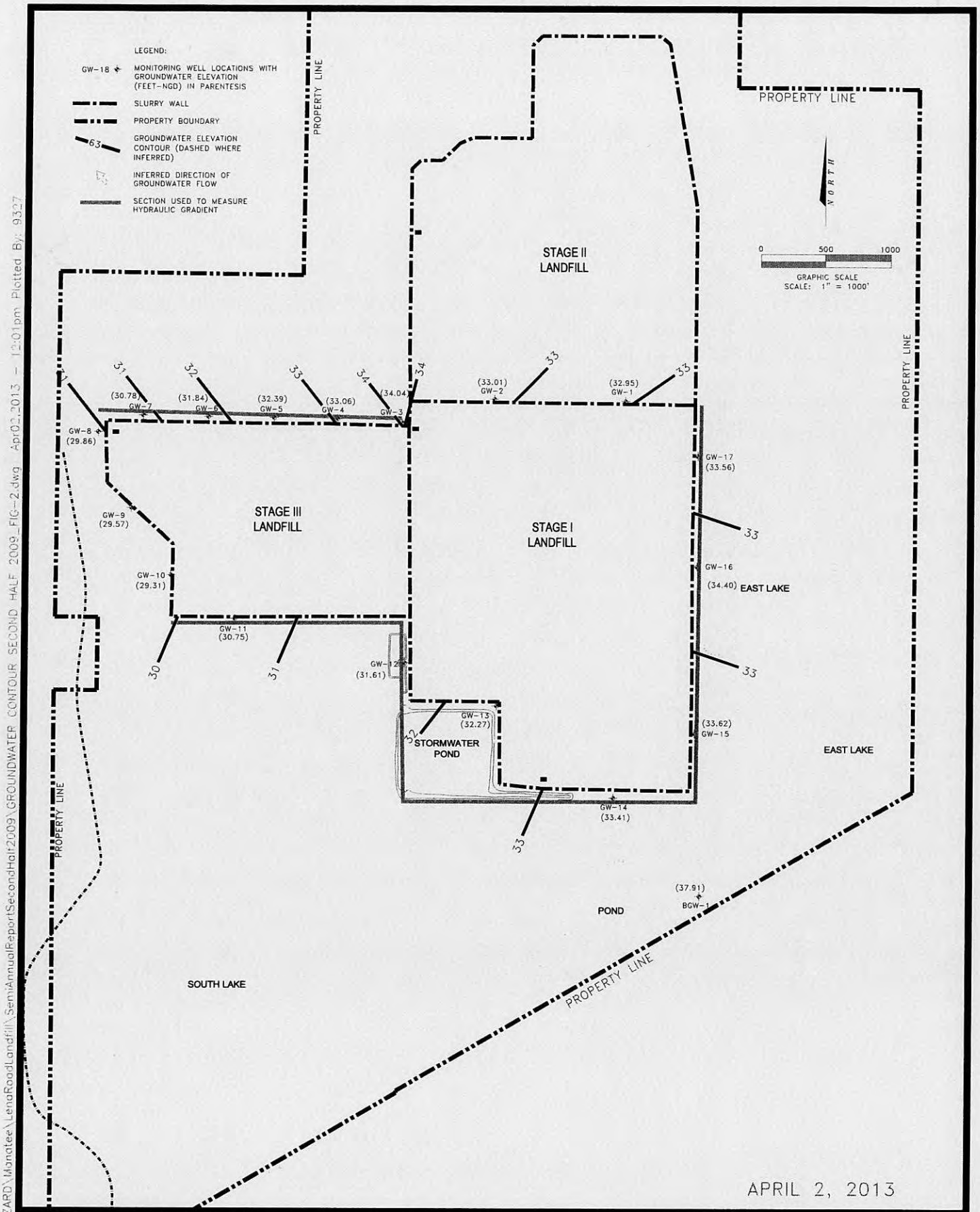
PBS&J	LENA ROAD LANDFILL MANATEE COUNTY, FLORIDA	SITE PLAN	FIG. 1



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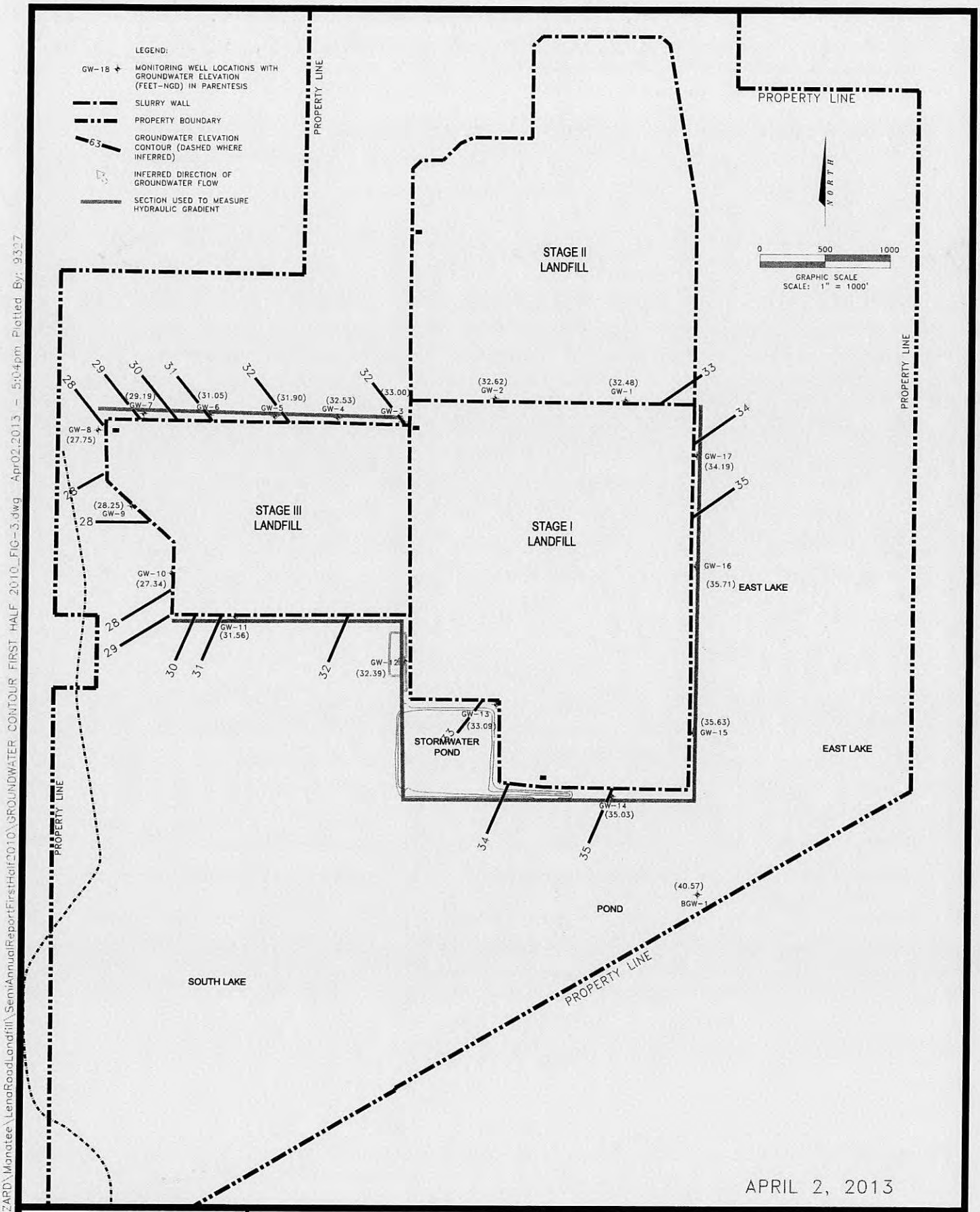
PBS&J	LENA ROAD LANDFILL MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP SECOND HALF 2009	FIG. 2



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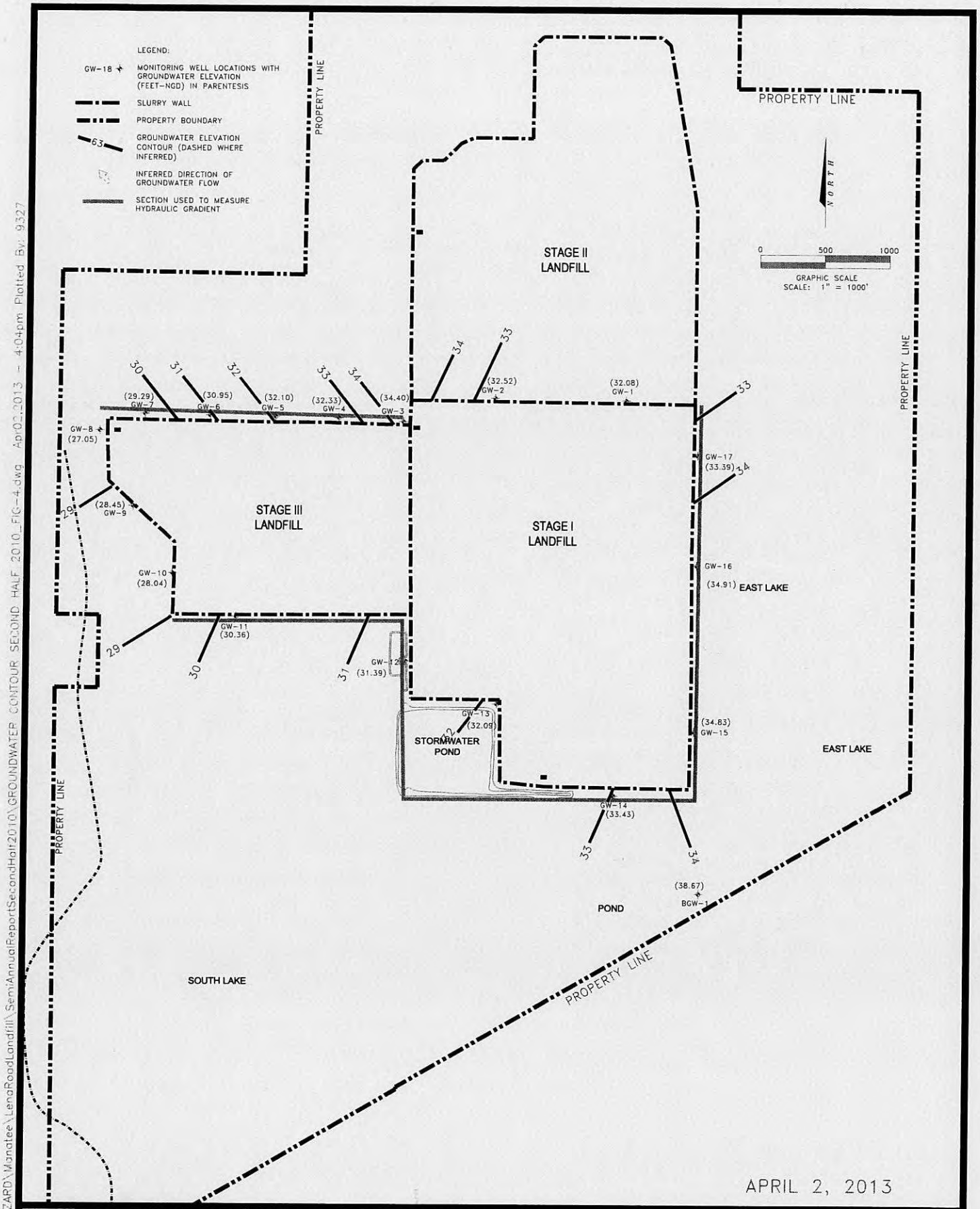
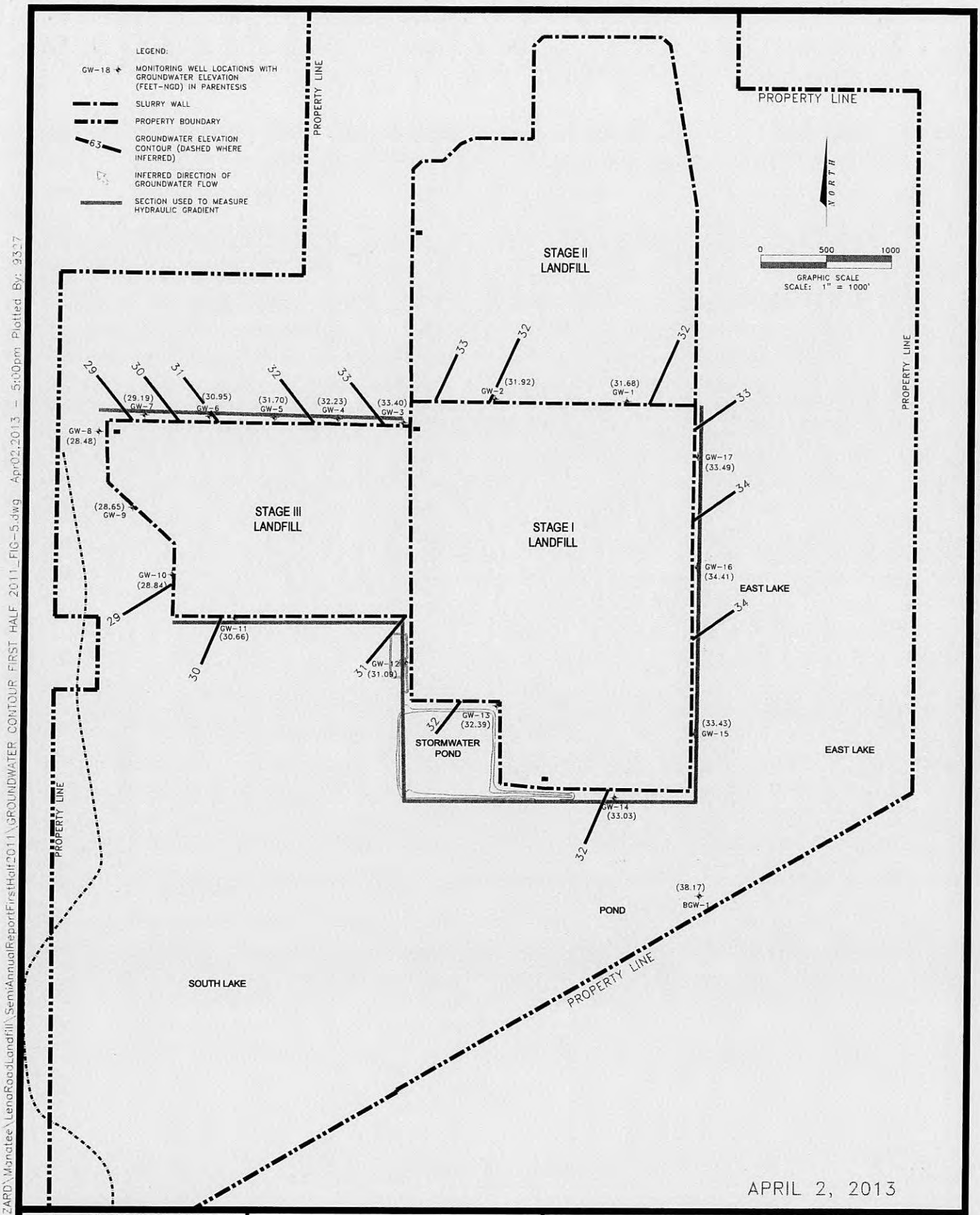
PBS&J	LENA ROAD LANDFILL MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP FIRST HALF 2010	FIG. 3



APRIL 2, 2013

PBS&J	LENA ROAD LANDFILL MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP SECOND HALF 2010	FIG. 4

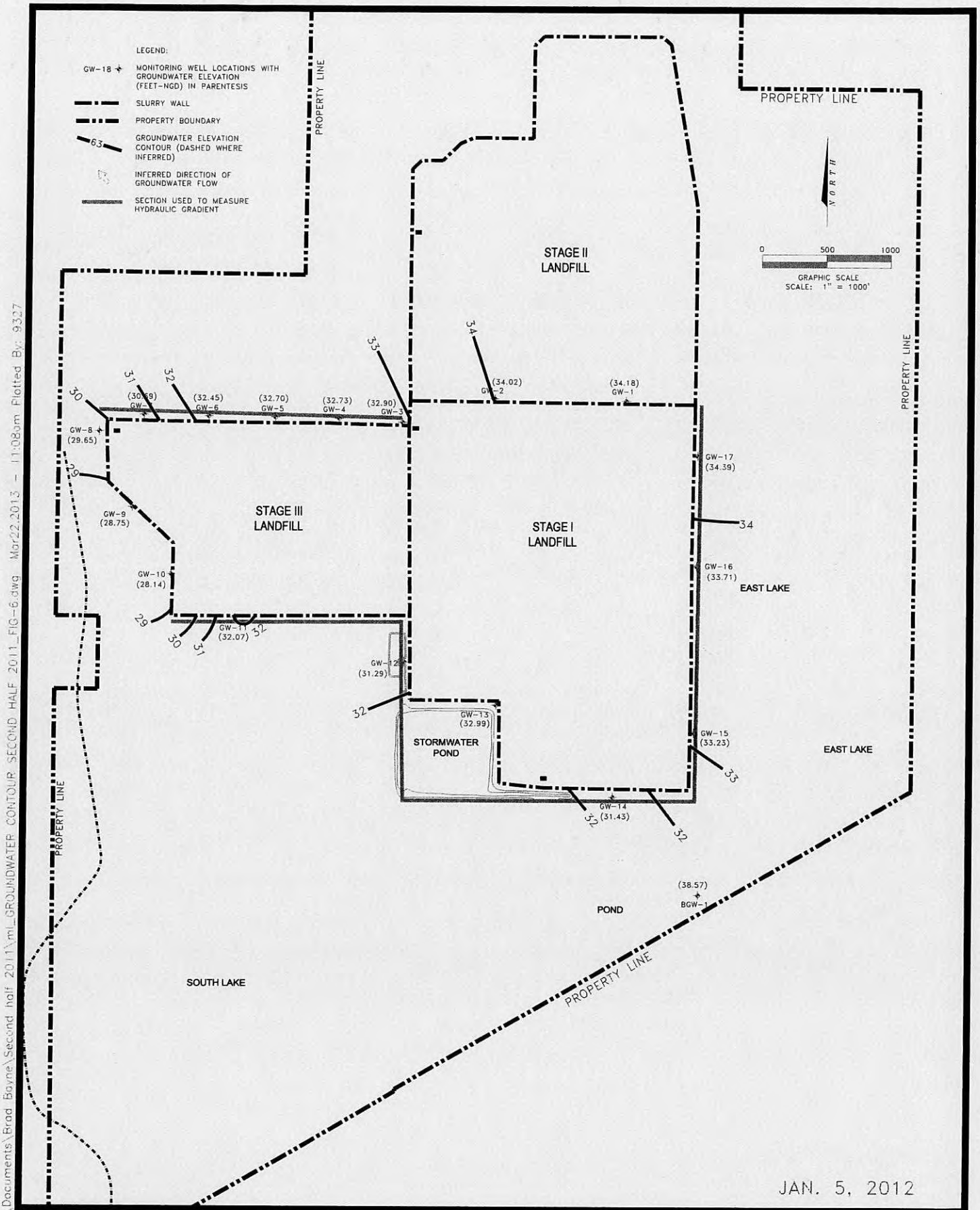
U:\SO\OldC\HAZARD\Manatee\LenaRoadLandfill\SemiAnnualReportSecondHalf2010\GROUNDWATER CONTOUR SECOND HALF 2010_FIG-4.dwg Apr02,2013 - 4:04pm Plotted By: 9327



APRIL 2, 2013

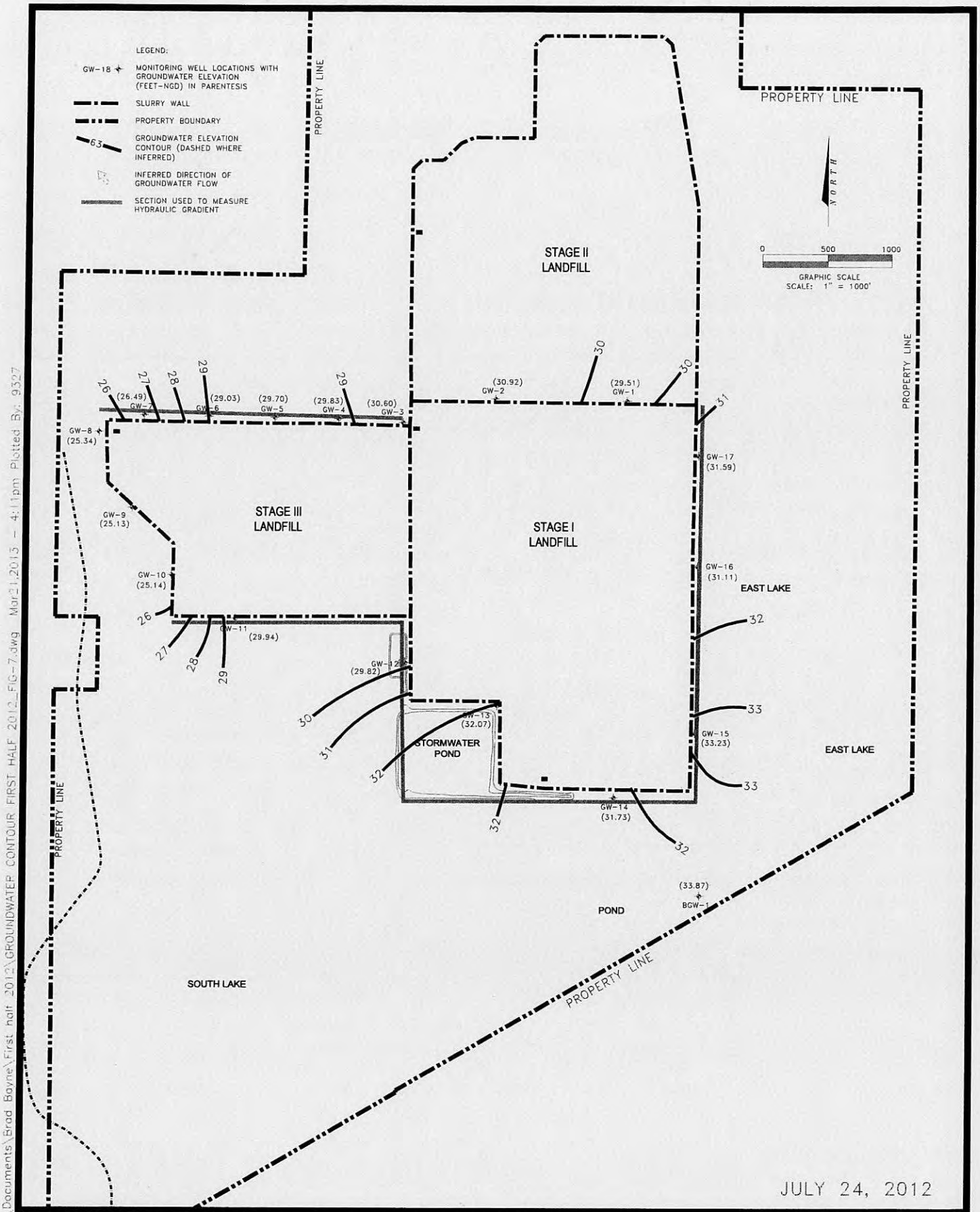
PBS&J	LENA ROAD LANDFILL MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP FIRST HALF 2011	FIG. 5

U:\SO\OldG\HAZARD\Manatee\LenaRoadLandfill\SemiAnnualReportFirstHalf2011\GROUNDWATER CONTOUR FIRST HALF 2011_FIG-5.dwg Apr02,2013 - 5:00pm Plotted By: 3327



C:\Users\9327\Documents\Brad Bayne\Second half 2011\ml_GROUNDWATER CONTOUR SECOND HALF 2011_FIG-6.dwg Mar22,2013 - 11:08am Plotted By: 9327

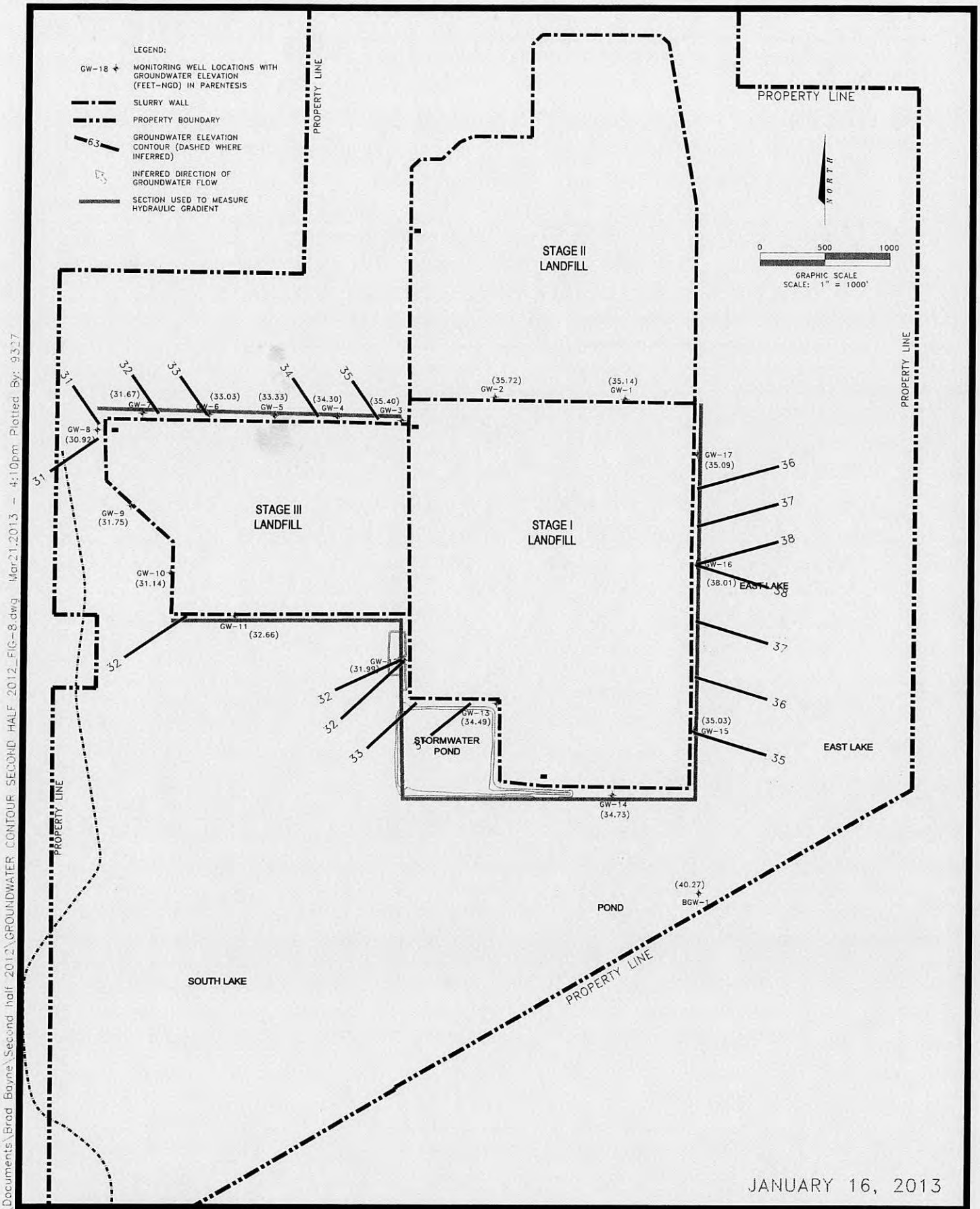
PBS&J	LENA ROAD LANDFILL MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP SECOND HALF 2011	FIG. 6



JULY 24, 2012

PBS&J	LENA ROAD LANDFILL MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP FIRST HALF 2012	FIG. 7

C:\Users\9327\Documents\Brad Bayne\First half 2012\GROUNDWATER CONTOUR FIRST HALF 2012_FIG-7.dwg Mar 21, 2013 - 4:11pm Plotted By: 9327



JANUARY 16, 2013

C:\Users\9327\Documents\Brad Bayne\Second half 2012\GROUNDWATER CONTOUR SECOND HALF 2012_FIG-8.dwg Mar 21, 2013 - 4:10pm Plotted By: 9327

PBS&J	LENA ROAD LANDFILL MANATEE COUNTY, FLORIDA	GROUNDWATER ELEVATION CONTOUR MAP SECOND HALF 2012	FIG. 8

APPENDIX A

Additional Arsenic Groundwater Data

Miller, Joseph L

From: jeff.goodwin@mymanatee.org
Sent: Monday, May 09, 2011 2:31 PM
To: bryan.white@mymanatee.org
Cc: Miller, Joseph L
Subject: Arsenic levels in piezometers
Attachments: lena piezometers arsenic.xls

Bryan,

Please find attached data associated with sampling at the piezometers in March of this year. As planned, we collected samples for arsenic analysis and split with our contract lab to compare results. Additionally, we analyzed in our lab using two techniques, ICP-AES and GFAAS, and had the contract lab do the very same. As you can see there are problems associated with the ICP method, specifically this method has difficulty resolving matrix interferences and is not as sensitive a technique (i.e. detection limits are higher) than the GFAAS method.

We are much more confident with the results generated using the GFAAS method for these type samples. And as such, see only three piezometers that exceed the 0.010 mg/L groundwater standard, PZ-2; PZ-5; and actually PZ-9 is right at the limit. Also, does not appear to be a strong correlation between arsenic concentration and turbidity levels.

For future sampling events at the monitoring wells, we will utilize the GFAAS technique to analyze arsenic ensuring more accurate results.

Please let me know if you have any questions or require further interpretation of the data.

Jeff Goodwin
Manatee County Utilities
Central Laboratory/Industrial Compliance
4751 66th Street West
Bradenton, FL 34210
p. 941-792-8811 ext. 5235
fax 941-795-3477
www.mymanatee.org

Sample Location	Collection Date	Parameter	Method	Result	Units	MDL				
Lena Road Piezometer PZ-1	03/21/2011	Arsenic ICP	EPA 200.7	0.017	mg/L	0.0038	Field Turbidity	6.4	NTU	0.02
Lena Road Piezometer PZ-1	03/21/2011	Arsenic-Contract Lab ICP	EPA 200.7	<0.010	mg/L	0.01				
Lena Road Piezometer PZ-1	03/21/2011	Arsenic by GFAAS	SM 3113B	<0.00034	mg/L	0.0003				
Lena Road Piezometer PZ-1	03/21/2011	Arsenic-Contract Lab GFAAS	SM 3113B	0.0017	mg/L	0.001				
Lena Road Piezometer PZ-11	03/21/2011	Arsenic ICP	EPA 200.7	0.01	mg/L	0.0038	Field Turbidity	3.36	NTU	0.02
Lena Road Piezometer PZ-11	03/21/2011	Arsenic-Contract Lab ICP	EPA 200.7	<0.010	mg/L	0.01				
Lena Road Piezometer PZ-11	03/21/2011	Arsenic by GFAAS	SM 3113B	0.0008	mg/L	0.0003				
Lena Road Piezometer PZ-11	03/21/2011	Arsenic-Contract Lab GFAAS	SM 3113B	0.0015	mg/L	0.001				
Lena Road Piezometer PZ-12	03/22/2011	Arsenic ICP	EPA 200.7	0.019	mg/L	0.0038	Field Turbidity	2.6	NTU	0.02
Lena Road Piezometer PZ-12	03/22/2011	Arsenic-Contract Lab ICP	EPA 200.7	<0.010	mg/L	0.01				
Lena Road Piezometer PZ-12	03/22/2011	Arsenic by GFAAS	SM 3113B	0.004	mg/L	0.0003				
Lena Road Piezometer PZ-12	03/22/2011	Arsenic-Contract Lab GFAAS	SM 3113B	0.0046	mg/L	0.001				
Lena Road Piezometer PZ-14	03/22/2011	Arsenic ICP	EPA 200.7	0.017	mg/L	0.0038	Field Turbidity	2.83	NTU	0.02
Lena Road Piezometer PZ-14	03/22/2011	Arsenic-Contract Lab ICP	EPA 200.7	<0.010	mg/L	0.01				
Lena Road Piezometer PZ-14	03/22/2011	Arsenic by GFAAS	SM 3113B	0.005	mg/L	0.0003				
Lena Road Piezometer PZ-14	03/22/2011	Arsenic-Contract Lab GFAAS	SM 3113B	0.005	mg/L	0.001				
Lena Road Piezometer PZ-15	03/22/2011	Arsenic ICP	EPA 200.7	0.015	mg/L	0.0038	Field Turbidity	0.91	NTU	0.02
Lena Road Piezometer PZ-15	03/22/2011	Arsenic-Contract Lab ICP	EPA 200.7	<0.010	mg/L	0.01				
Lena Road Piezometer PZ-15	03/22/2011	Arsenic by GFAAS	SM 3113B	0.002	mg/L	0.0003				
Lena Road Piezometer PZ-15	03/22/2011	Arsenic-Contract Lab GFAAS	SM 3113B	0.0018	mg/L	0.001				
Lena Road Piezometer PZ-2	03/21/2011	Arsenic ICP	EPA 200.7	0.034	mg/L	0.0038	Field Turbidity	0.81	NTU	0.02
Lena Road Piezometer PZ-2	03/21/2011	Arsenic-Contract Lab ICP	EPA 200.7	<0.010	mg/L	0.01				
Lena Road Piezometer PZ-2	03/21/2011	Arsenic by GFAAS	SM 3113B	0.02	mg/L	0.0003				
Lena Road Piezometer PZ-2	03/21/2011	Arsenic-Contract Lab GFAAS	SM 3113B	0.016	mg/L	0.001				
Lena Road Piezometer PZ-5	03/21/2011	Arsenic ICP	EPA 200.7	0.03	mg/L	0.0038	Field Turbidity	3.12	NTU	0.02
Lena Road Piezometer PZ-5	03/21/2011	Arsenic-Contract Lab ICP	EPA 200.7	<0.010	mg/L	0.01				
Lena Road Piezometer PZ-5	03/21/2011	Arsenic by GFAAS	SM 3113B	0.025	mg/L	0.0003				
Lena Road Piezometer PZ-5	03/21/2011	Arsenic-Contract Lab GFAAS	SM 3113B	0.024	mg/L	0.001				
Lena Road Piezometer PZ-9	03/21/2011	Arsenic ICP	EPA 200.7	0.022	mg/L	0.0038	Field Turbidity	4.89	NTU	0.02
Lena Road Piezometer PZ-9	03/21/2011	Arsenic-Contract Lab ICP	EPA 200.7	<0.010	mg/L	0.01				
Lena Road Piezometer PZ-9	03/21/2011	Arsenic by GFAAS	SM 3113B	0.010	mg/L	0.0003				
Lena Road Piezometer PZ-9	03/21/2011	Arsenic-Contract Lab GFAAS	SM 3113B	0.010	mg/L	0.001				

comparison of arsenic data for Sept. 2010

Pizometer	Turbidity	ARSENIC	
		GFAAS	200.7
1	16.2	0.0032	0.029
2	7.32	0.025	0.024
5	6.59	0.028	0.043
9	11.0	0.022	0.043
11	2.50	0.0023	0.028
12	6.35	0.0083	0.037
14	0.70	0.009	0.037
15	0.74	0.006	0.032

REPORT OF ANALYSIS

MANATEE COUNTY UTILITIES DEPARTMENT
CENTRAL LABORATORY
4751 66th STREET WEST
BRADENTON, FL 34210

Phone: (941) 792-8811 ext. 5235

Fax: (941) 795-3477

FDOHLAB ID: E54560

USEPA LAB CODE: FL00031

Laboratory Contact: Jeff Goodwin

PREPARED FOR: Mr. Mike Gore
MCUD Solid Waste Division
3333 Lena Road
Bradenton, FL 34211

SAMPLE RECEIPT DATE: 09/28/2010

REPORT DATE: 1/26/2011

PROJECT NAME: Lena Road Piezometers

Data Release Authorization:

The Methods of analysis in this report are in accordance with MCUD Central Laboratory's Quality Assurance Manual and meet all NELAC standards except where noted. Results pertain only to items tested and to the samples specified. This report may not be reproduced, except in full, without the written approval of this laboratory.

Jeff Goodwin 2011.01.26 16:41:22 -05'00'

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst

Sample ID: AE34854 **Collection Date / Time:** 09/28/2010 10:26

Sample Point: Lena Road Piezometer PZ-1

Sample Comment:

Analysis Department:	**FIELD**							
Field conductivity	FIELD	**3340**	umhos/cm		09/28/2010	10:26	1	PMITCHELL
Field Dissolved Oxygen	FIELD	**1.92**	mg/L		09/28/2010	10:26	0.01	PMITCHELL
Field pH	FIELD	**6.66**	Std. units		09/28/2010	10:26	0.010	PMITCHELL
Field Temperature	FIELD	**26.6**	Degrees C		09/28/2010	10:26	0.01	PMITCHELL
Field Turbidity	FIELD	**16.2**	NTU		09/28/2010	10:26	0.02	PMITCHELL
Analysis Department:	**METALS**							
Arsenic by GFAAS	SM 3113B	**0.0032**	mg/L		10/07/2010	20:32	0.0002	0.001 KMH
Metals by 200.7								
Antimony	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:00	0.0039	0.005 KMH
Arsenic	EPA 200.7	**0.029**	mg/L		09/30/2010	12:00	0.0038	0.005 KMH
Barium	EPA 200.7	**0.018**	mg/L		09/30/2010	12:00	0.0002	0.005 KMH
Beryllium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:00	0.00004	0.005 KMH
Cadmium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:00	0.0004	0.005 KMH
Chromium	EPA 200.7	**0.0024**	mg/L	I	09/30/2010	12:00	0.0007	0.005 KMH
Cobalt	EPA 200.7	**0.015**	mg/L		09/30/2010	12:00	0.0003	0.005 KMH
Copper	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:00	0.0009	0.005 KMH
Iron	EPA 200.7	**27.1**	mg/L		09/30/2010	12:00	0.046	0.125 KMH
Lead	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:00	0.0017	0.005 KMH
Nickel	EPA 200.7	**0.015**	mg/L		09/30/2010	12:00	0.0002	0.005 KMH
Selenium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:00	0.0046	0.005 KMH
Silver	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:00	0.0007	0.005 KMH
Sodium	EPA 200.7	**365**	mg/L		09/30/2010	12:00	0.016	2.00 KMH
Vanadium	EPA 200.7	**0.0030**	mg/L	I	09/30/2010	12:00	0.0005	0.005 KMH
Zinc	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:00	0.0029	0.005 KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Sample ID: AE34855	**Collection Date / Time:**		**09/29/2010**	**08:59**					
Sample Point:	**Lena Road Piezometer PZ-11**								
Sample Comment:									
Analysis Department:	**FIELD**								
Field conductivity	FIELD	**1190**	umhos/cm		09/29/2010	08:59	1		DWELLS
Field Dissolved Oxygen	FIELD	**0.94**	mg/L		09/29/2010	08:59	0.01		DWELLS
Field pH	FIELD	**6.40**	Std. units		09/29/2010	08:59	0.010		DWELLS
Field Temperature	FIELD	**25.4**	Degrees C		09/29/2010	08:59	0.01		DWELLS
Field Turbidity	FIELD	**2.50**	NTU		09/29/2010	08:59	0.02		DWELLS
Analysis Department:	**METALS**								
Arsenic by GFAAS	SM 3113B	**0.0023**	mg/L		10/07/2010	23:04	0.0002	0.001	KMH
Metals by 200.7									
Antimony	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:18	0.0039	0.005	KMH
Arsenic	EPA 200.7	**0.028**	mg/L		10/01/2010	11:18	0.0038	0.005	KMH
Barium	EPA 200.7	**0.014**	mg/L		10/01/2010	11:18	0.0002	0.005	KMH
Beryllium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:18	0.00004	0.005	KMH
Cadmium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:18	0.0004	0.005	KMH
Chromium	EPA 200.7	**0.0018**	mg/L	I	10/01/2010	11:18	0.0007	0.005	KMH
Cobalt	EPA 200.7	**0.0014**	mg/L	I	10/01/2010	11:18	0.0003	0.005	KMH
Copper	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:18	0.0009	0.005	KMH
Iron	EPA 200.7	**13.0**	mg/L		10/01/2010	11:18	0.046	0.125	KMH
Lead	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:18	0.0017	0.005	KMH
Nickel	EPA 200.7	**0.0012**	mg/L	I	10/01/2010	11:18	0.0002	0.005	KMH
Selenium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:18	0.0046	0.005	KMH
Silver	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:18	0.0007	0.005	KMH
Sodium	EPA 200.7	**78.9**	mg/L		10/01/2010	11:18	0.016	2.00	KMH
Vanadium	EPA 200.7	**0.0012**	mg/L	I	10/01/2010	11:18	0.0005	0.005	KMH
Zinc	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:18	0.0029	0.005	KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Sample ID: AE34856	**Collection Date / Time: 09/29/2010 09:27**							
Sample Point: Lena Road Piezometer PZ-12								
Sample Comment:								
Analysis Department:	**FIELD**							
Field conductivity	FIELD	**3740**	umhos/cm		09/29/2010	09:27	1	DWELLS
Field Dissolved Oxygen	FIELD	**1.16**	mg/L		09/29/2010	09:27	0.01	DWELLS
Field pH	FIELD	**6.60**	Std. units		09/29/2010	09:27	0.010	DWELLS
Field Temperature	FIELD	**26.5**	Degrees C		09/29/2010	09:27	0.01	DWELLS
Field Turbidity	FIELD	**6.35**	NTU		09/29/2010	09:27	0.02	DWELLS
Analysis Department:	**METALS**							
Arsenic by GFAAS	SM 3113B	**0.0083**	mg/L		10/07/2010	22:10	0.0002	0.001 KMH
Metals by 200.7								
Antimony	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:38	0.0039	0.005 KMH
Arsenic	EPA 200.7	**0.037**	mg/L		10/01/2010	11:38	0.0038	0.005 KMH
Barium	EPA 200.7	**0.150**	mg/L		10/01/2010	11:38	0.0002	0.005 KMH
Beryllium	EPA 200.7	**0.00010**	mg/L	I	10/01/2010	11:38	0.00004	0.005 KMH
Cadmium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:38	0.0004	0.005 KMH
Chromium	EPA 200.7	**0.009**	mg/L		10/01/2010	11:38	0.0007	0.005 KMH
Cobalt	EPA 200.7	**0.010**	mg/L		10/01/2010	11:38	0.0003	0.005 KMH
Copper	EPA 200.7	**0.0010**	mg/L	I	10/01/2010	11:38	0.0009	0.005 KMH
Iron	EPA 200.7	**5.22**	mg/L		10/01/2010	11:38	0.046	0.125 KMH
Lead	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:38	0.0017	0.005 KMH
Nickel	EPA 200.7	**0.008**	mg/L		10/01/2010	11:38	0.0002	0.005 KMH
Selenium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:38	0.0046	0.005 KMH
Silver	EPA 200.7	**0.0010**	mg/L	I	10/01/2010	11:38	0.0007	0.005 KMH
Sodium	EPA 200.7	**260**	mg/L		10/01/2010	11:38	0.016	2.00 KMH
Vanadium	EPA 200.7	**0.032**	mg/L		10/01/2010	11:38	0.0005	0.005 KMH
Zinc	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:38	0.0029	0.005 KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Sample ID: AE34877	**Collection Date / Time:**		09/29/2010	09:54					
Sample Point:	Lena Road Piezometer PZ-14								
Sample Comment:									
Analysis Department:	**FIELD**								
Field conductivity	FIELD	**2170**	umhos/cm		09/29/2010	09:54	1		DWELLS
Field Dissolved Oxygen	FIELD	**0.79**	mg/L		09/29/2010	09:54	0.01		DWELLS
Field pH	FIELD	**6.56**	Std. units		09/29/2010	09:54	0.010		DWELLS
Field Temperature	FIELD	**27.3**	Degrees C		09/29/2010	09:54	0.01		DWELLS
Field Turbidity	FIELD	**0.7**	NTU		09/29/2010	09:54	0.02		DWELLS
Analysis Department:	**METALS**								
Arsenic by GFAAS	SM 3113B	**0.009**	mg/L		10/07/2010	23:14	0.0002	0.001	KMH
Metals by 200.7									
Antimony	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:42	0.0039	0.005	KMH
Arsenic	EPA 200.7	**0.037**	mg/L		10/01/2010	11:42	0.0038	0.005	KMH
Barium	EPA 200.7	**0.064**	mg/L		10/01/2010	11:42	0.0002	0.005	KMH
Beryllium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:42	0.00004	0.005	KMH
Cadmium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:42	0.0004	0.005	KMH
Chromium	EPA 200.7	**0.0040**	mg/L	I	10/01/2010	11:42	0.0007	0.005	KMH
Cobalt	EPA 200.7	**0.007**	mg/L		10/01/2010	11:42	0.0003	0.005	KMH
Copper	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:42	0.0009	0.005	KMH
Iron	EPA 200.7	**5.72**	mg/L		10/01/2010	11:42	0.046	0.125	KMH
Lead	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:42	0.0017	0.005	KMH
Nickel	EPA 200.7	**0.012**	mg/L		10/01/2010	11:42	0.0002	0.005	KMH
Selenium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:42	0.0046	0.005	KMH
Silver	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:42	0.0007	0.005	KMH
Sodium	EPA 200.7	**185**	mg/L		10/01/2010	11:42	0.016	2.00	KMH
Vanadium	EPA 200.7	**0.020**	mg/L		10/01/2010	11:42	0.0005	0.005	KMH
Zinc	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:42	0.0029	0.005	KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Sample ID: AE34878	**Collection Date / Time:**		09/29/2010	10:19					
Sample Point: Lena Road Piezometer PZ-15									
Sample Comment:									
Analysis Department:	**FIELD**								
Field conductivity	FIELD	**707**	umhos/cm		09/29/2010	10:19	1		DWELLS
Field Dissolved Oxygen	FIELD	**0.53**	mg/L		09/29/2010	10:19	0.01		DWELLS
Field pH	FIELD	**6.46**	Std. units		09/29/2010	10:19	0.010		DWELLS
Field Temperature	FIELD	**27.1**	Degrees C		09/29/2010	10:19	0.01		DWELLS
Field Turbidity	FIELD	**0.74**	NTU		09/29/2010	10:19	0.02		DWELLS
Analysis Department:	**METALS**								
Arsenic by GFAAS	SM 3113B	**0.006**	mg/L		10/07/2010	23:25	0.0002	0.001	KMH
Metals by 200.7									
Antimony	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:46	0.0039	0.005	KMH
Arsenic	EPA 200.7	**0.032**	mg/L		10/01/2010	11:46	0.0038	0.005	KMH
Barium	EPA 200.7	**0.054**	mg/L		10/01/2010	11:46	0.0002	0.005	KMH
Beryllium	EPA 200.7	**0.00006**	mg/L	I	10/01/2010	11:46	0.00004	0.005	KMH
Cadmium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:46	0.0004	0.005	KMH
Chromium	EPA 200.7	**0.0016**	mg/L	I	10/01/2010	11:46	0.0007	0.005	KMH
Cobalt	EPA 200.7	**0.0007**	mg/L	I	10/01/2010	11:46	0.0003	0.005	KMH
Copper	EPA 200.7	**0.0014**	mg/L	I	10/01/2010	11:46	0.0009	0.005	KMH
Iron	EPA 200.7	**5.09**	mg/L		10/01/2010	11:46	0.046	0.125	KMH
Lead	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:46	0.0017	0.005	KMH
Nickel	EPA 200.7	**0.0016**	mg/L	I	10/01/2010	11:46	0.0002	0.005	KMH
Selenium	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:46	0.0046	0.005	KMH
Silver	EPA 200.7	**<MDL**	mg/L	U	10/01/2010	11:46	0.0007	0.005	KMH
Sodium	EPA 200.7	**11.8**	mg/L		10/01/2010	11:46	0.016	2.00	KMH
Vanadium	EPA 200.7	**0.007**	mg/L		10/01/2010	11:46	0.0005	0.005	KMH
Zinc	EPA 200.7	**0.007**	mg/L		10/01/2010	11:46	0.0029	0.005	KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Sample ID: AE34879	**Collection Date / Time:**		09/28/2010	11:40					
Sample Point: Lena Road Piezometer PZ-2									
Sample Comment:									
Analysis Department:	**FIELD**								
Field conductivity	FIELD	**7140**	umhos/cm		09/28/2010	11:40	1		PMITCHELL
Field Dissolved Oxygen	FIELD	**1.39**	mg/L		09/28/2010	11:40	0.01		PMITCHELL
Field pH	FIELD	**6.78**	Std. units		09/28/2010	11:40	0.010		PMITCHELL
Field Temperature	FIELD	**26.5**	Degrees C		09/28/2010	11:40	0.01		PMITCHELL
Field Turbidity	FIELD	**7.22**	NTU		09/28/2010	11:40	0.02		PMITCHELL
Analysis Department:	**METALS**								
Arsenic by GFAAS	SM 3113B	**0.025**	mg/L		10/07/2010	20:43	0.0002	0.001	KMH
Metals by 200.7									
Antimony	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:25	0.0039	0.005	KMH
Arsenic	EPA 200.7	**0.046**	mg/L		09/30/2010	12:25	0.0038	0.005	KMH
Barium	EPA 200.7	**0.024**	mg/L		09/30/2010	12:25	0.0002	0.005	KMH
Beryllium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:25	0.00004	0.005	KMH
Cadmium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:25	0.0004	0.005	KMH
Chromium	EPA 200.7	**0.010**	mg/L		09/30/2010	12:25	0.0007	0.005	KMH
Cobalt	EPA 200.7	**0.043**	mg/L		09/30/2010	12:25	0.0003	0.005	KMH
Copper	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:25	0.0009	0.005	KMH
Iron	EPA 200.7	**24.1**	mg/L		09/30/2010	12:25	0.046	0.125	KMH
Lead	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:25	0.0017	0.005	KMH
Nickel	EPA 200.7	**0.051**	mg/L		09/30/2010	12:25	0.0002	0.005	KMH
Selenium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:25	0.0046	0.005	KMH
Silver	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:25	0.0007	0.005	KMH
Sodium	EPA 200.7	**759**	mg/L		09/30/2010	12:25	0.016	2.00	KMH
Vanadium	EPA 200.7	**0.025**	mg/L		09/30/2010	12:25	0.0005	0.005	KMH
Zinc	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:25	0.0029	0.005	KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Sample ID: AE34880	**Collection Date / Time: 09/28/2010 12:10**							
Sample Point: Lena Road Piezometer PZ-5								
Sample Comment:								
Analysis Department:	**FIELD**							
Field conductivity	FIELD	**781**	umhos/cm		09/28/2010 12:10	1		PMITCHELL
Field Dissolved Oxygen	FIELD	**4.30**	mg/L		09/28/2010 12:10	0.01		PMITCHELL
Field pH	FIELD	**6.70**	Std. units		09/28/2010 12:10	0.010		PMITCHELL
Field Temperature	FIELD	**27.6**	Degrees C		09/28/2010 12:10	0.01		PMITCHELL
Field Turbidity	FIELD	**6.59**	NTU		09/28/2010 12:10	0.02		PMITCHELL
Analysis Department:	**METALS**							
Arsenic by GFAAS	SM 3113B	**0.028**	mg/L		10/07/2010 20:54	0.0002	0.001	KMH
Metals by 200.7								
Antimony	EPA 200.7	**<MDL**	mg/L	U	09/30/2010 12:28	0.0039	0.005	KMH
Arsenic	EPA 200.7	**0.043**	mg/L		09/30/2010 12:28	0.0038	0.005	KMH
Barium	EPA 200.7	**0.008**	mg/L		09/30/2010 12:28	0.0002	0.005	KMH
Beryllium	EPA 200.7	**0.00004**	mg/L	I	09/30/2010 12:28	0.00004	0.005	KMH
Cadmium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010 12:28	0.0004	0.005	KMH
Chromium	EPA 200.7	**0.0010**	mg/L	I	09/30/2010 12:28	0.0007	0.005	KMH
Cobalt	EPA 200.7	**<MDL**	mg/L	U	09/30/2010 12:28	0.0003	0.005	KMH
Copper	EPA 200.7	**0.0010**	mg/L	I	09/30/2010 12:28	0.0009	0.005	KMH
Iron	EPA 200.7	**4.61**	mg/L		09/30/2010 12:28	0.046	0.125	KMH
Lead	EPA 200.7	**<MDL**	mg/L	U	09/30/2010 12:28	0.0017	0.005	KMH
Nickel	EPA 200.7	**0.0023**	mg/L	I	09/30/2010 12:28	0.0002	0.005	KMH
Selenium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010 12:28	0.0046	0.005	KMH
Silver	EPA 200.7	**<MDL**	mg/L	U	09/30/2010 12:28	0.0007	0.005	KMH
Sodium	EPA 200.7	**38.6**	mg/L		09/30/2010 12:28	0.016	2.00	KMH
Vanadium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010 12:28	0.0005	0.005	KMH
Zinc	EPA 200.7	**0.011**	mg/L		09/30/2010 12:28	0.0029	0.005	KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Sample ID:	**AE34897**	**Collection Date / Time:**		**09/28/2010**	**12:35**				
Sample Point:	**Lena Road Piezometer PZ-9**								
Sample Comment:									
Analysis Department:	**FIELD**								
Field conductivity	FIELD	**1280**	umhos/cm		09/28/2010	12:35	1		PMITCHELL
Field Dissolved Oxygen	FIELD	**5.40**	mg/L		09/28/2010	12:35	0.01		PMITCHELL
Field pH	FIELD	**6.50**	Std. units		09/28/2010	12:35	0.010		PMITCHELL
Field Temperature	FIELD	**27.8**	Degrees C		09/28/2010	12:35	0.01		PMITCHELL
Field Turbidity	FIELD	**11.0**	NTU		09/28/2010	12:35	0.02		PMITCHELL
Analysis Department:	**METALS**								
Arsenic by GFAAS	SM 3113B	**0.022**	mg/L		10/07/2010	19:18	0.0002	0.001	KMH
Metals by 200.7									
Antimony	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:20	0.0039	0.005	KMH
Arsenic	EPA 200.7	**0.043**	mg/L		09/30/2010	12:20	0.0038	0.005	KMH
Barium	EPA 200.7	**0.062**	mg/L		09/30/2010	12:20	0.0002	0.005	KMH
Beryllium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:20	0.00004	0.005	KMH
Cadmium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:20	0.0004	0.005	KMH
Chromium	EPA 200.7	**0.0042**	mg/L	I	09/30/2010	12:20	0.0007	0.005	KMH
Cobalt	EPA 200.7	**0.0009**	mg/L	I	09/30/2010	12:20	0.0003	0.005	KMH
Copper	EPA 200.7	**0.006**	mg/L		09/30/2010	12:20	0.0009	0.005	KMH
Iron	EPA 200.7	**26.6**	mg/L		09/30/2010	12:20	0.046	0.125	KMH
Lead	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:20	0.0017	0.005	KMH
Nickel	EPA 200.7	**0.0040**	mg/L	I	09/30/2010	12:20	0.0002	0.005	KMH
Selenium	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:20	0.0046	0.005	KMH
Silver	EPA 200.7	**<MDL**	mg/L	U	09/30/2010	12:20	0.0007	0.005	KMH
Sodium	EPA 200.7	**9.13**	mg/L		09/30/2010	12:20	0.016	2.00	KMH
Vanadium	EPA 200.7	**0.0038**	mg/L	I	09/30/2010	12:20	0.0005	0.005	KMH
Zinc	EPA 200.7	**0.012**	mg/L		09/30/2010	12:20	0.0029	0.005	KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**	**AE34854**					
Samples	**AE34854 AE34879 AE34880 AE34897**							
Method Blank for Metals by 200.7								
Antimony		<MDL	mg/L	U	09/30/2010	11:42		KMH
Arsenic		<MDL	mg/L	U	09/30/2010	11:42		KMH
Barium		<MDL	mg/L	U	09/30/2010	11:42		KMH
Beryllium		0.00005	mg/L	I	09/30/2010	11:42		KMH
Cadmium		<MDL	mg/L	U	09/30/2010	11:42		KMH
Chromium		<MDL	mg/L	U	09/30/2010	11:42		KMH
Cobalt		<MDL	mg/L	U	09/30/2010	11:42		KMH
Copper		<MDL	mg/L	U	09/30/2010	11:42		KMH
Iron		<MDL	mg/L	U	09/30/2010	11:42		KMH
Lead		<MDL	mg/L	U	09/30/2010	11:42		KMH
Nickel		0.0003	mg/L	I	09/30/2010	11:42		KMH
Selenium		<MDL	mg/L	U	09/30/2010	11:42		KMH
Silver		<MDL	mg/L	U	09/30/2010	11:42		KMH
Sodium		0.023	mg/L	I	09/30/2010	11:42		KMH
Vanadium		<MDL	mg/L	U	09/30/2010	11:42		KMH
Zinc		<MDL	mg/L	U	09/30/2010	11:42		KMH
Int Calb Rec for Metals by 200.7								
Antimony		98.5	%		09/30/2010	10:42		KMH
Arsenic		97.9	%		09/30/2010	10:42		KMH
Barium		99.2	%		09/30/2010	10:42		KMH
Beryllium		99.8	%		09/30/2010	10:42		KMH
Cadmium		97.9	%		09/30/2010	10:42		KMH
Chromium		100	%		09/30/2010	10:42		KMH
Cobalt		101	%		09/30/2010	10:42		KMH
Copper		98.0	%		09/30/2010	10:42		KMH
Iron		98.4	%		09/30/2010	10:42		KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**	**AE34854**					
Samples	**AE34854 AE34879 AE34880 AE34897**							
Int Calb Rec for Metals by 200.7								
Lead		101	%		09/30/2010 10:42			KMH
Nickel		99.6	%		09/30/2010 10:42			KMH
Selenium		104	%		09/30/2010 10:42			KMH
Silver		102	%		09/30/2010 10:42			KMH
Sodium		99.2	%		09/30/2010 10:42			KMH
Vanadium		99.2	%		09/30/2010 10:42			KMH
Zinc		98.6	%		09/30/2010 10:42			KMH
LCS Recovery for Metals by 200.7								
Antimony		102	%		09/30/2010 11:51			KMH
Arsenic		102	%		09/30/2010 11:51			KMH
Barium		101	%		09/30/2010 11:51			KMH
Beryllium		101	%		09/30/2010 11:51			KMH
Cadmium		100	%		09/30/2010 11:51			KMH
Chromium		102	%		09/30/2010 11:51			KMH
Cobalt		103	%		09/30/2010 11:51			KMH
Copper		98.0	%		09/30/2010 11:51			KMH
Iron		101	%		09/30/2010 11:51			KMH
Lead		103	%		09/30/2010 11:51			KMH
Nickel		102	%		09/30/2010 11:51			KMH
Selenium		104	%		09/30/2010 11:51			KMH
Silver		102	%		09/30/2010 11:51			KMH
Sodium		105	%		09/30/2010 11:51			KMH
Vanadium		102	%		09/30/2010 11:51			KMH
Zinc		103	%		09/30/2010 11:51			KMH
MS Result for Metals by 200.7								
Antimony		0.521	mg/L		09/30/2010 12:08			KMH
Arsenic		0.554	mg/L		09/30/2010 12:08			KMH
Barium		0.522	mg/L		09/30/2010 12:08			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**	**AE34854**					
Samples	**AE34854 AE34879 AE34880 AE34897**							
MS Result for Metals by 200.7								
Beryllium		0.502	mg/L		09/30/2010 12:08			KMH
Cadmium		0.512	mg/L		09/30/2010 12:08			KMH
Chromium		0.518	mg/L		09/30/2010 12:08			KMH
Cobalt		0.521	mg/L		09/30/2010 12:08			KMH
Copper		0.512	mg/L		09/30/2010 12:08			KMH
Iron		33.8	mg/L		09/30/2010 12:08			KMH
Lead		0.493	mg/L		09/30/2010 12:08			KMH
Nickel		0.518	mg/L		09/30/2010 12:08			KMH
Selenium		0.464	mg/L		09/30/2010 12:08			KMH
Silver		0.544	mg/L		09/30/2010 12:08			KMH
Sodium		470	mg/L		09/30/2010 12:08			KMH
Vanadium		0.528	mg/L		09/30/2010 12:08			KMH
Zinc		0.502	mg/L		09/30/2010 12:08			KMH
MS Recovery for Metals by 200.7								
Antimony		104	%		09/30/2010 12:00			KMH
Arsenic		105	%		09/30/2010 12:00			KMH
Barium		101	%		09/30/2010 12:00			KMH
Beryllium		100	%		09/30/2010 12:00			KMH
Cadmium		102	%		09/30/2010 12:00			KMH
Chromium		103	%		09/30/2010 12:00			KMH
Cobalt		101	%		09/30/2010 12:00			KMH
Copper		102	%		09/30/2010 12:00			KMH
Iron		99.2	%		09/30/2010 12:00			KMH
Lead		98.6	%		09/30/2010 12:00			KMH
Nickel		101	%		09/30/2010 12:00			KMH
Selenium		92.8	%		09/30/2010 12:00			KMH
Silver		109	%		09/30/2010 12:00			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**		**AE34854**				
Samples	**AE34854 AE34879 AE34880 AE34897**							
MS Recovery for Metals by 200.7								
Sodium		104	%		09/30/2010 12:00			KMH
Vanadium		105	%		09/30/2010 12:00			KMH
Zinc		100	%		09/30/2010 12:00			KMH
MS/MSD Precision for Metals by 200.7								
Antimony		0.964	%		09/30/2010 12:08			KMH
Arsenic		0.907	%		09/30/2010 12:08			KMH
Barium		0.192	%		09/30/2010 12:08			KMH
Beryllium		0.599	%		09/30/2010 12:08			KMH
Cadmium		0.196	%		09/30/2010 12:08			KMH
Chromium		0.387	%		09/30/2010 12:08			KMH
Cobalt		0.385	%		09/30/2010 12:08			KMH
Copper		0.391	%		09/30/2010 12:08			KMH
Iron		0.892	%		09/30/2010 12:08			KMH
Lead		0.815	%		09/30/2010 12:08			KMH
Nickel		0.193	%		09/30/2010 12:08			KMH
Selenium		0.432	%		09/30/2010 12:08			KMH
Silver		0.368	%		09/30/2010 12:08			KMH
Sodium		1.69	%		09/30/2010 12:08			KMH
Vanadium		0.380	%		09/30/2010 12:08			KMH
Zinc		0.00	%		09/30/2010 12:08			KMH
CCV Rec for Metals by 200.7								
Antimony		101	%		09/30/2010 13:49			KMH
Arsenic		102	%		09/30/2010 13:49			KMH
Barium		99.5	%		09/30/2010 13:49			KMH
Beryllium		99.8	%		09/30/2010 13:49			KMH
Cadmium		98.9	%		09/30/2010 13:49			KMH
Chromium		102	%		09/30/2010 13:49			KMH
Cobalt		102	%		09/30/2010 13:49			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**	**AE34854**						
Samples	**AE34854 AE34879 AE34880 AE34897**								
CCV Rec for Metals by 200.7									
Copper		97.3	%		09/30/2010	13:49			KMH
Iron		97.6	%		09/30/2010	13:49			KMH
Lead		101	%		09/30/2010	13:49			KMH
Nickel		101	%		09/30/2010	13:49			KMH
Selenium		103	%		09/30/2010	13:49			KMH
Silver		104	%		09/30/2010	13:49			KMH
Sodium		102	%		09/30/2010	13:49			KMH
Vanadium		102	%		09/30/2010	13:49			KMH
Zinc		102	%		09/30/2010	13:49			KMH
Cont Blank for Metals by 200.7									
Antimony		<MDL	mg/L	U	09/30/2010	12:57			KMH
Arsenic		<MDL	mg/L	U	09/30/2010	12:57			KMH
Barium		<MDL	mg/L	U	09/30/2010	12:57			KMH
Beryllium		0.00006	mg/L	I	09/30/2010	12:57			KMH
Cadmium		<MDL	mg/L	U	09/30/2010	12:57			KMH
Chromium		<MDL	mg/L	U	09/30/2010	12:57			KMH
Cobalt		<MDL	mg/L	U	09/30/2010	12:57			KMH
Copper		<MDL	mg/L	U	09/30/2010	12:57			KMH
Iron		<MDL	mg/L	U	09/30/2010	12:57			KMH
Lead		<MDL	mg/L	U	09/30/2010	12:57			KMH
Nickel		<MDL	mg/L	U	09/30/2010	12:57			KMH
Selenium		<MDL	mg/L	U	09/30/2010	12:57			KMH
Silver		<MDL	mg/L	U	09/30/2010	12:57			KMH
Sodium		0.054	mg/L	I	09/30/2010	12:57			KMH
Vanadium		<MDL	mg/L	U	09/30/2010	12:57			KMH
Zinc		<MDL	mg/L	U	09/30/2010	12:57			KMH
CCV for Metals by 200.7									
Antimony		1.01	mg/L		09/30/2010	13:49			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**	**AE34854**					
Samples	**AE34854 AE34879 AE34880 AE34897**							
CCV for Metals by 200.7								
Arsenic		1.02	mg/L		09/30/2010 13:49			KMH
Barium		0.995	mg/L		09/30/2010 13:49			KMH
Beryllium		0.998	mg/L		09/30/2010 13:49			KMH
Cadmium		0.989	mg/L		09/30/2010 13:49			KMH
Chromium		1.02	mg/L		09/30/2010 13:49			KMH
Cobalt		1.02	mg/L		09/30/2010 13:49			KMH
Copper		0.973	mg/L		09/30/2010 13:49			KMH
Iron		12.2	mg/L		09/30/2010 13:49			KMH
Lead		1.01	mg/L		09/30/2010 13:49			KMH
Nickel		1.01	mg/L		09/30/2010 13:49			KMH
Selenium		1.03	mg/L		09/30/2010 13:49			KMH
Silver		0.518	mg/L		09/30/2010 13:49			KMH
Sodium		205	mg/L		09/30/2010 13:49			KMH
Vanadium		1.02	mg/L		09/30/2010 13:49			KMH
Zinc		1.02	mg/L		09/30/2010 13:49			KMH
Initial Calibration for Metals by 200.7								
Antimony		0.985	mg/L		09/30/2010 10:42			KMH
Arsenic		0.979	mg/L		09/30/2010 10:42			KMH
Barium		0.992	mg/L		09/30/2010 10:42			KMH
Beryllium		0.998	mg/L		09/30/2010 10:42			KMH
Cadmium		0.979	mg/L		09/30/2010 10:42			KMH
Chromium		1.00	mg/L		09/30/2010 10:42			KMH
Cobalt		1.01	mg/L		09/30/2010 10:42			KMH
Copper		0.980	mg/L		09/30/2010 10:42			KMH
Iron		12.3	mg/L		09/30/2010 10:42			KMH
Lead		1.01	mg/L		09/30/2010 10:42			KMH
Nickel		0.996	mg/L		09/30/2010 10:42			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**	**AE34854**					
Samples	**AE34854 AE34879 AE34880 AE34897**							
Initial Calibration for Metals by 200.7								
Selenium		1.04	mg/L		09/30/2010	10:42		KMH
Silver		0.256	mg/L		09/30/2010	10:42		KMH
Sodium		99.2	mg/L		09/30/2010	10:42		KMH
Vanadium		0.992	mg/L		09/30/2010	10:42		KMH
Zinc		0.986	mg/L		09/30/2010	10:42		KMH
Metals by 200.7								
Antimony		<MDL	mg/L	U	09/30/2010	12:00		KMH
Arsenic		0.029	mg/L		09/30/2010	12:00		KMH
Barium		0.018	mg/L		09/30/2010	12:00		KMH
Beryllium		<MDL	mg/L	U	09/30/2010	12:00		KMH
Cadmium		<MDL	mg/L	U	09/30/2010	12:00		KMH
Chromium		0.0024	mg/L	I	09/30/2010	12:00		KMH
Cobalt		0.015	mg/L		09/30/2010	12:00		KMH
Copper		<MDL	mg/L	U	09/30/2010	12:00		KMH
Iron		27.1	mg/L		09/30/2010	12:00		KMH
Lead		<MDL	mg/L	U	09/30/2010	12:00		KMH
Nickel		0.015	mg/L		09/30/2010	12:00		KMH
Selenium		<MDL	mg/L	U	09/30/2010	12:00		KMH
Silver		<MDL	mg/L	U	09/30/2010	12:00		KMH
Sodium		365	mg/L		09/30/2010	12:00		KMH
Vanadium		0.0030	mg/L	I	09/30/2010	12:00		KMH
Zinc		<MDL	mg/L	U	09/30/2010	12:00		KMH
LCS for Metals by 200.7								
Antimony		0.511	mg/L		09/30/2010	11:51		KMH
Arsenic		0.510	mg/L		09/30/2010	11:51		KMH
Barium		0.504	mg/L		09/30/2010	11:51		KMH
Beryllium		0.507	mg/L		09/30/2010	11:51		KMH
Cadmium		0.501	mg/L		09/30/2010	11:51		KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**	**AE34854**					
Samples	**AE34854 AE34879 AE34880 AE34897**							
LCS for Metals by 200.7								
Chromium		0.509	mg/L		09/30/2010 11:51			KMH
Cobalt		0.517	mg/L		09/30/2010 11:51			KMH
Copper		0.490	mg/L		09/30/2010 11:51			KMH
Iron		10.6	mg/L		09/30/2010 11:51			KMH
Lead		0.516	mg/L		09/30/2010 11:51			KMH
Nickel		0.511	mg/L		09/30/2010 11:51			KMH
Selenium		0.520	mg/L		09/30/2010 11:51			KMH
Silver		0.510	mg/L		09/30/2010 11:51			KMH
Sodium		11.0	mg/L		09/30/2010 11:51			KMH
Vanadium		0.509	mg/L		09/30/2010 11:51			KMH
Zinc		0.517	mg/L		09/30/2010 11:51			KMH
MSD Recovery for Metals by 200.7								
Antimony		103	%		09/30/2010 12:00			KMH
Arsenic		104	%		09/30/2010 12:00			KMH
Barium		101	%		09/30/2010 12:00			KMH
Beryllium		99.8	%		09/30/2010 12:00			KMH
Cadmium		102	%		09/30/2010 12:00			KMH
Chromium		103	%		09/30/2010 12:00			KMH
Cobalt		101	%		09/30/2010 12:00			KMH
Copper		102	%		09/30/2010 12:00			KMH
Iron		94.8	%		09/30/2010 12:00			KMH
Lead		97.8	%		09/30/2010 12:00			KMH
Nickel		100	%		09/30/2010 12:00			KMH
Selenium		92.4	%		09/30/2010 12:00			KMH
Silver		108	%		09/30/2010 12:00			KMH
Sodium		112	%		09/30/2010 12:00			KMH
Vanadium		105	%		09/30/2010 12:00			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20118**	**QA Sample ID:**	**AE34854**					
Samples	**AE34854 AE34879 AE34880 AE34897**							
MSD Recovery for Metals by 200.7								
Zinc		100	%		09/30/2010 12:00			KMH
MSD Result for Metals by 200.7								
Antimony		0.516	mg/L		09/30/2010 12:12			KMH
Arsenic		0.549	mg/L		09/30/2010 12:12			KMH
Barium		0.521	mg/L		09/30/2010 12:12			KMH
Beryllium		0.499	mg/L		09/30/2010 12:12			KMH
Cadmium		0.511	mg/L		09/30/2010 12:12			KMH
Chromium		0.516	mg/L		09/30/2010 12:12			KMH
Cobalt		0.519	mg/L		09/30/2010 12:12			KMH
Copper		0.510	mg/L		09/30/2010 12:12			KMH
Iron		33.5	mg/L		09/30/2010 12:12			KMH
Lead		0.489	mg/L		09/30/2010 12:12			KMH
Nickel		0.517	mg/L		09/30/2010 12:12			KMH
Selenium		0.462	mg/L		09/30/2010 12:12			KMH
Silver		0.542	mg/L		09/30/2010 12:12			KMH
Sodium		478	mg/L		09/30/2010 12:12			KMH
Vanadium		0.526	mg/L		09/30/2010 12:12			KMH
Zinc		0.502	mg/L		09/30/2010 12:12			KMH
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**	**AE34855**					
Samples	**AE34855 AE34856 AE34877 AE34878**							
Method Blank for Metals by 200.7								
Antimony		<MDL	mg/L	U	10/01/2010 11:00			KMH
Arsenic		<MDL	mg/L	U	10/01/2010 11:00			KMH
Barium		<MDL	mg/L	U	10/01/2010 11:00			KMH
Beryllium		0.00010	mg/L	I	10/01/2010 11:00			KMH
Cadmium		<MDL	mg/L	U	10/01/2010 11:00			KMH
Chromium		<MDL	mg/L	U	10/01/2010 11:00			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**		**AE34855**				
Samples	**AE34855 AE34856 AE34877 AE34878**							
Method Blank for Metals by 200.7								
Cobalt		<MDL	mg/L	U	10/01/2010	11:00		KMH
Copper		<MDL	mg/L	U	10/01/2010	11:00		KMH
Iron		<MDL	mg/L	U	10/01/2010	11:00		KMH
Lead		<MDL	mg/L	U	10/01/2010	11:00		KMH
Nickel		0.0003	mg/L	I	10/01/2010	11:00		KMH
Selenium		<MDL	mg/L	U	10/01/2010	11:00		KMH
Silver		<MDL	mg/L	U	10/01/2010	11:00		KMH
Sodium		<MDL	mg/L	U	10/01/2010	11:00		KMH
Vanadium		<MDL	mg/L	U	10/01/2010	11:00		KMH
Zinc		<MDL	mg/L	U	10/01/2010	11:00		KMH
Int Calb Rec for Metals by 200.7								
Antimony		100	%		10/01/2010	09:59		KMH
Arsenic		98.8	%		10/01/2010	09:59		KMH
Barium		99.5	%		10/01/2010	09:59		KMH
Beryllium		102	%		10/01/2010	09:59		KMH
Cadmium		98.0	%		10/01/2010	09:59		KMH
Chromium		100	%		10/01/2010	09:59		KMH
Cobalt		101	%		10/01/2010	09:59		KMH
Copper		98.7	%		10/01/2010	09:59		KMH
Iron		98.4	%		10/01/2010	09:59		KMH
Lead		103	%		10/01/2010	09:59		KMH
Nickel		100	%		10/01/2010	09:59		KMH
Selenium		105	%		10/01/2010	09:59		KMH
Silver		97.6	%		10/01/2010	09:59		KMH
Sodium		97.8	%		10/01/2010	09:59		KMH
Vanadium		100	%		10/01/2010	09:59		KMH
Zinc		99.1	%		10/01/2010	09:59		KMH
LCS Recovery for Metals by 200.7								

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**	**AE34855**					
Samples	**AE34855 AE34856 AE34877 AE34878**							
LCS Recovery for Metals by 200.7								
Antimony		105	%		10/01/2010 11:09			KMH
Arsenic		105	%		10/01/2010 11:09			KMH
Barium		103	%		10/01/2010 11:09			KMH
Beryllium		104	%		10/01/2010 11:09			KMH
Cadmium		102	%		10/01/2010 11:09			KMH
Chromium		104	%		10/01/2010 11:09			KMH
Cobalt		106	%		10/01/2010 11:09			KMH
Copper		100	%		10/01/2010 11:09			KMH
Iron		101	%		10/01/2010 11:09			KMH
Lead		105	%		10/01/2010 11:09			KMH
Nickel		104	%		10/01/2010 11:09			KMH
Selenium		105	%		10/01/2010 11:09			KMH
Silver		100	%		10/01/2010 11:09			KMH
Sodium		104	%		10/01/2010 11:09			KMH
Vanadium		104	%		10/01/2010 11:09			KMH
Zinc		105	%		10/01/2010 11:09			KMH
MS Result for Metals by 200.7								
Antimony		0.526	mg/L		10/01/2010 11:26			KMH
Arsenic		0.553	mg/L		10/01/2010 11:26			KMH
Barium		0.515	mg/L		10/01/2010 11:26			KMH
Beryllium		0.516	mg/L		10/01/2010 11:26			KMH
Cadmium		0.502	mg/L		10/01/2010 11:26			KMH
Chromium		0.515	mg/L		10/01/2010 11:26			KMH
Cobalt		0.516	mg/L		10/01/2010 11:26			KMH
Copper		0.499	mg/L		10/01/2010 11:26			KMH
Iron		19.6	mg/L		10/01/2010 11:26			KMH
Lead		0.503	mg/L		10/01/2010 11:26			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**	**AE34855**					
Samples	**AE34855 AE34856 AE34877 AE34878**							
MS Result for Metals by 200.7								
Nickel		0.504	mg/L		10/01/2010 11:26			KMH
Selenium		0.499	mg/L		10/01/2010 11:26			KMH
Silver		0.506	mg/L		10/01/2010 11:26			KMH
Sodium		186	mg/L		10/01/2010 11:26			KMH
Vanadium		0.519	mg/L		10/01/2010 11:26			KMH
Zinc		0.505	mg/L		10/01/2010 11:26			KMH
MS Recovery for Metals by 200.7								
Antimony		105	%		10/01/2010 11:18			KMH
Arsenic		105	%		10/01/2010 11:18			KMH
Barium		100	%		10/01/2010 11:18			KMH
Beryllium		103	%		10/01/2010 11:18			KMH
Cadmium		100	%		10/01/2010 11:18			KMH
Chromium		103	%		10/01/2010 11:18			KMH
Cobalt		103	%		10/01/2010 11:18			KMH
Copper		99.8	%		10/01/2010 11:18			KMH
Iron		97.8	%		10/01/2010 11:18			KMH
Lead		101	%		10/01/2010 11:18			KMH
Nickel		100	%		10/01/2010 11:18			KMH
Selenium		99.8	%		10/01/2010 11:18			KMH
Silver		101	%		10/01/2010 11:18			KMH
Sodium		106	%		10/01/2010 11:18			KMH
Vanadium		104	%		10/01/2010 11:18			KMH
Zinc		101	%		10/01/2010 11:18			KMH
MS/MSD Precision for Metals by 200.7								
Antimony		1.53	%		10/01/2010 11:26			KMH
Arsenic		2.01	%		10/01/2010 11:26			KMH
Barium		0.581	%		10/01/2010 11:26			KMH
Beryllium		1.76	%		10/01/2010 11:26			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**		**AE34855**				
Samples	**AE34855 AE34856 AE34877 AE34878**							
MS/MSD Precision for Metals by 200.7								
Cadmium		0.399	%		10/01/2010	11:26		KMH
Chromium		0.387	%		10/01/2010	11:26		KMH
Cobalt		0.583	%		10/01/2010	11:26		KMH
Copper		0.599	%		10/01/2010	11:26		KMH
Iron		2.58	%		10/01/2010	11:26		KMH
Lead		1.60	%		10/01/2010	11:26		KMH
Nickel		0.398	%		10/01/2010	11:26		KMH
Selenium		0.402	%		10/01/2010	11:26		KMH
Silver		1.18	%		10/01/2010	11:26		KMH
Sodium		1.63	%		10/01/2010	11:26		KMH
Vanadium		0.959	%		10/01/2010	11:26		KMH
Zinc		0.596	%		10/01/2010	11:26		KMH
CCV Rec for Metals by 200.7								
Antimony		104	%		10/01/2010	12:24		KMH
Arsenic		104	%		10/01/2010	12:24		KMH
Barium		102	%		10/01/2010	12:24		KMH
Beryllium		103	%		10/01/2010	12:24		KMH
Cadmium		100	%		10/01/2010	12:24		KMH
Chromium		105	%		10/01/2010	12:24		KMH
Cobalt		106	%		10/01/2010	12:24		KMH
Copper		99.2	%		10/01/2010	12:24		KMH
Iron		97.6	%		10/01/2010	12:24		KMH
Lead		103	%		10/01/2010	12:24		KMH
Nickel		103	%		10/01/2010	12:24		KMH
Selenium		105	%		10/01/2010	12:24		KMH
Silver		101	%		10/01/2010	12:24		KMH
Sodium		104	%		10/01/2010	12:24		KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**SICPWATER-20132**	**QA Sample ID:**	**AE34855**					
Samples	**AE34855 AE34856 AE34877 AE34878**							
CCV Rec for Metals by 200.7								
Vanadium		105	%		10/01/2010	12:24		KMH
Zinc		104	%		10/01/2010	12:24		KMH
Cont Blank for Metals by 200.7								
Antimony		<MDL	mg/L	U	10/01/2010	12:00		KMH
Arsenic		<MDL	mg/L	U	10/01/2010	12:00		KMH
Barium		<MDL	mg/L	U	10/01/2010	12:00		KMH
Beryllium		0.00011	mg/L	I	10/01/2010	12:00		KMH
Cadmium		<MDL	mg/L	U	10/01/2010	12:00		KMH
Chromium		<MDL	mg/L	U	10/01/2010	12:00		KMH
Cobalt		<MDL	mg/L	U	10/01/2010	12:00		KMH
Copper		<MDL	mg/L	U	10/01/2010	12:00		KMH
Iron		<MDL	mg/L	U	10/01/2010	12:00		KMH
Lead		<MDL	mg/L	U	10/01/2010	12:00		KMH
Nickel		0.0003	mg/L	I	10/01/2010	12:00		KMH
Selenium		<MDL	mg/L	U	10/01/2010	12:00		KMH
Silver		<MDL	mg/L	U	10/01/2010	12:00		KMH
Sodium		0.048	mg/L	I	10/01/2010	12:00		KMH
Vanadium		<MDL	mg/L	U	10/01/2010	12:00		KMH
Zinc		<MDL	mg/L	U	10/01/2010	12:00		KMH
CCV for Metals by 200.7								
Antimony		1.04	mg/L		10/01/2010	12:24		KMH
Arsenic		1.04	mg/L		10/01/2010	12:24		KMH
Barium		1.02	mg/L		10/01/2010	12:24		KMH
Beryllium		1.03	mg/L		10/01/2010	12:24		KMH
Cadmium		1.00	mg/L		10/01/2010	12:24		KMH
Chromium		1.05	mg/L		10/01/2010	12:24		KMH
Cobalt		1.06	mg/L		10/01/2010	12:24		KMH
Copper		0.992	mg/L		10/01/2010	12:24		KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed		MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**	**AE34855**						
Samples	**AE34855 AE34856 AE34877 AE34878**								
CCV for Metals by 200.7									
Iron		12.2	mg/L		10/01/2010	12:24			KMH
Lead		1.03	mg/L		10/01/2010	12:24			KMH
Nickel		1.03	mg/L		10/01/2010	12:24			KMH
Selenium		1.05	mg/L		10/01/2010	12:24			KMH
Silver		0.504	mg/L		10/01/2010	12:24			KMH
Sodium		209	mg/L		10/01/2010	12:24			KMH
Vanadium		1.05	mg/L		10/01/2010	12:24			KMH
Zinc		1.04	mg/L		10/01/2010	12:24			KMH
Initial Calibration for Metals by 200.7									
Antimony		1.00	mg/L		10/01/2010	09:59			KMH
Arsenic		0.988	mg/L		10/01/2010	09:59			KMH
Barium		0.995	mg/L		10/01/2010	09:59			KMH
Beryllium		1.02	mg/L		10/01/2010	09:59			KMH
Cadmium		0.980	mg/L		10/01/2010	09:59			KMH
Chromium		1.00	mg/L		10/01/2010	09:59			KMH
Cobalt		1.01	mg/L		10/01/2010	09:59			KMH
Copper		0.987	mg/L		10/01/2010	09:59			KMH
Iron		12.3	mg/L		10/01/2010	09:59			KMH
Lead		1.03	mg/L		10/01/2010	09:59			KMH
Nickel		1.00	mg/L		10/01/2010	09:59			KMH
Selenium		1.05	mg/L		10/01/2010	09:59			KMH
Silver		0.244	mg/L		10/01/2010	09:59			KMH
Sodium		97.8	mg/L		10/01/2010	09:59			KMH
Vanadium		1.00	mg/L		10/01/2010	09:59			KMH
Zinc		0.991	mg/L		10/01/2010	09:59			KMH
Metals by 200.7									
Antimony		<MDL	mg/L	U	10/01/2010	11:18			KMH
Arsenic		0.028	mg/L		10/01/2010	11:18			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**	**AE34855**					
Samples	**AE34855 AE34856 AE34877 AE34878**							
Metals by 200.7								
Barium		0.014	mg/L		10/01/2010	11:18		KMH
Beryllium		<MDL	mg/L	U	10/01/2010	11:18		KMH
Cadmium		<MDL	mg/L	U	10/01/2010	11:18		KMH
Chromium		0.0018	mg/L	I	10/01/2010	11:18		KMH
Cobalt		0.0014	mg/L	I	10/01/2010	11:18		KMH
Copper		<MDL	mg/L	U	10/01/2010	11:18		KMH
Iron		13.0	mg/L		10/01/2010	11:18		KMH
Lead		<MDL	mg/L	U	10/01/2010	11:18		KMH
Nickel		0.0012	mg/L	I	10/01/2010	11:18		KMH
Selenium		<MDL	mg/L	U	10/01/2010	11:18		KMH
Silver		<MDL	mg/L	U	10/01/2010	11:18		KMH
Sodium		78.9	mg/L		10/01/2010	11:18		KMH
Vanadium		0.0012	mg/L	I	10/01/2010	11:18		KMH
Zinc		<MDL	mg/L	U	10/01/2010	11:18		KMH
LCS for Metals by 200.7								
Antimony		0.523	mg/L		10/01/2010	11:09		KMH
Arsenic		0.524	mg/L		10/01/2010	11:09		KMH
Barium		0.514	mg/L		10/01/2010	11:09		KMH
Beryllium		0.521	mg/L		10/01/2010	11:09		KMH
Cadmium		0.508	mg/L		10/01/2010	11:09		KMH
Chromium		0.521	mg/L		10/01/2010	11:09		KMH
Cobalt		0.528	mg/L		10/01/2010	11:09		KMH
Copper		0.500	mg/L		10/01/2010	11:09		KMH
Iron		10.6	mg/L		10/01/2010	11:09		KMH
Lead		0.526	mg/L		10/01/2010	11:09		KMH
Nickel		0.522	mg/L		10/01/2010	11:09		KMH
Selenium		0.527	mg/L		10/01/2010	11:09		KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**	**AE34855**					
Samples	**AE34855 AE34856 AE34877 AE34878**							
LCS for Metals by 200.7								
Silver		0.500	mg/L		10/01/2010 11:09			KMH
Sodium		10.9	mg/L		10/01/2010 11:09			KMH
Vanadium		0.521	mg/L		10/01/2010 11:09			KMH
Zinc		0.526	mg/L		10/01/2010 11:09			KMH
MSD Recovery for Metals by 200.7								
Antimony		104	%		10/01/2010 11:18			KMH
Arsenic		103	%		10/01/2010 11:18			KMH
Barium		101	%		10/01/2010 11:18			KMH
Beryllium		101	%		10/01/2010 11:18			KMH
Cadmium		100	%		10/01/2010 11:18			KMH
Chromium		103	%		10/01/2010 11:18			KMH
Cobalt		102	%		10/01/2010 11:18			KMH
Copper		100	%		10/01/2010 11:18			KMH
Iron		90.4	%		10/01/2010 11:18			KMH
Lead		99.0	%		10/01/2010 11:18			KMH
Nickel		100	%		10/01/2010 11:18			KMH
Selenium		99.4	%		10/01/2010 11:18			KMH
Silver		102	%		10/01/2010 11:18			KMH
Sodium		104	%		10/01/2010 11:18			KMH
Vanadium		104	%		10/01/2010 11:18			KMH
Zinc		100	%		10/01/2010 11:18			KMH
MSD Result for Metals by 200.7								
Antimony		0.518	mg/L		10/01/2010 11:30			KMH
Arsenic		0.542	mg/L		10/01/2010 11:30			KMH
Barium		0.518	mg/L		10/01/2010 11:30			KMH
Beryllium		0.507	mg/L		10/01/2010 11:30			KMH
Cadmium		0.500	mg/L		10/01/2010 11:30			KMH
Chromium		0.517	mg/L		10/01/2010 11:30			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name:	**$ICPWATER-20132**	**QA Sample ID:**	**AE34855**					
Samples	**AE34855 AE34856 AE34877 AE34878**							
MSD Result for Metals by 200.7								
Cobalt		0.513	mg/L		10/01/2010 11:30			KMH
Copper		0.502	mg/L		10/01/2010 11:30			KMH
Iron		19.1	mg/L		10/01/2010 11:30			KMH
Lead		0.495	mg/L		10/01/2010 11:30			KMH
Nickel		0.502	mg/L		10/01/2010 11:30			KMH
Selenium		0.497	mg/L		10/01/2010 11:30			KMH
Silver		0.512	mg/L		10/01/2010 11:30			KMH
Sodium		183	mg/L		10/01/2010 11:30			KMH
Vanadium		0.524	mg/L		10/01/2010 11:30			KMH
Zinc		0.502	mg/L		10/01/2010 11:30			KMH
Batch Name:	**ASAA-20119**	**QA Sample ID:**	**AE34897**					
Samples	**AE34854 AE34879 AE34880 AE34897**							
Arsenic by GFAAS		0.022	mg/L		10/07/2010 19:18			KMH
Method Blank for Arsenic		<MDL	mg/L	U	10/07/2010 18:35			KMH
Continuing Cal. Blank for Arsenic		<MDL	mg/L	U	10/07/2010 21:27			KMH
Continuous Calibration for Arsenic		0.051	mg/L		10/07/2010 21:05			KMH
Cont Calb Rec for Arsenic		102	%		10/07/2010 21:05			KMH
Initial Calibration for Arsenic		0.052	mg/L		10/07/2010 18:46			KMH
Int Calb Rec for Arsenic		104	%		10/07/2010 18:46			KMH
MS Recovery for Arsenic		118	%		10/07/2010 19:18			KMH
MS Result for Arsenic		0.081	mg/L		10/07/2010 20:00			KMH
MSD Result for Arsenic by GFAAS		0.080	mg/L		10/07/2010 20:11			KMH
MS/MSD Precision for Arsenic by GFAAS		1.24	%		10/07/2010 20:00			KMH
Batch Name:	**ASAA-20133**	**QA Sample ID:**	**AE34856**					
Samples	**AE34855 AE34856 AE34877 AE34878**							
Arsenic by GFAAS		0.0083	mg/L		10/07/2010 22:10			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst
Batch Name: ASAA-20133		**QA Sample ID: AE34856**						
Samples AE34855 AE34856 AE34877 AE34878								
Method Blank for Arsenic		<MDL	mg/L	U	10/07/2010 18:35			KMH
Continuing Cal. Blank for Arsenic		<MDL	mg/L	U	10/08/2010 00:29			KMH
Continuous Calibration for Arsenic		0.051	mg/L		10/07/2010 23:36			KMH
Cont Calb Rec for Arsenic		102	%		10/07/2010 23:36			KMH
Initial Calibration for Arsenic		0.052	mg/L		10/07/2010 18:46			KMH
Int Calb Rec for Arsenic		104	%		10/07/2010 18:46			KMH
MS Recovery for Arsenic		115	%		10/07/2010 22:10			KMH
MS Result for Arsenic		0.066	mg/L		10/07/2010 22:32			KMH
MSD Result for Arsenic by GFAAS		0.065	mg/L		10/07/2010 22:42			KMH
MS/MSD Precision for Arsenic by GFAAS		1.53	%		10/07/2010 22:32			KMH

Parameter	Method	Results	Units	Qualifier	Date / Time Analyzed	MDL	PQL	Analyst

DATA QUALIFIER CODES

A	Value reported is the mean (average) of two or more determinations
B	Results based upon colony counts outside the acceptable range. This code applies to microbiological tests, specifically to membrane filter colony counts, and is ysed only if the colony count is generated from a plate in which the total number of coliform colonies exceeds the method indicated ideal ranges.
C	Analysis performed by contract laboratory
E	Indicates that extra samples were taken at composite stations
H	Value based on field kit determination; results may not be accurate
I	The reported value is between the laboratory method detection limit and the laboratory practical quanitation limit.
J	*Estimated value
K	Indicates off scale low and the actual value is known to be less than the value listed. Used if the value is less than the lowest calibration standard when the calibration curve is known to be non-linear. Can also be used if the actual value is known to be less than the reported value based on sample size,dilution.
L	Off scale high and the actual value is known to be greater than the reported value. Used when the sample concentration of the analyte exceeds the linear range or highest calibration standard and the calibration curve is known to exhibit a negative deflection.
M	To be used for chemical analysis: the presence of the analyte is verified but not quantified and the actual value is less than the value reported.
N	Presumptive evidence of presence of compound. To be used when the compound has been determined by TIC (mass spectral library search) or if presence of the compound cannot be confirmed using alternate procedures
O	Indicates analysis was lost or not performed
Q	Analyzed after holding time expired
R	Significant rain in the past 24 hours
T	Reported value is less than the laboratory method detection limit. The value is reported for informational purposes only and is not used in statistical analysis.
U	Indicated that the compound was analyzed for but not detected
V	Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated method blamk and the value of the 10 times the blank value was equal to or greater than the associated sample value. Note: unless specified by the method, the value in the blank shall not be subtracted from associated samples
X	Time of collection not provided
Y	Laboratory analysis was performed on sample, which was unpreserved or improperly preserved, therefore, the data may be inaccurate.
Z	Too many colonies present. (TNTC)
*	Analysis was not performed due to interference
#	No sample received
?	Data are rejected should not be used since some or all quality control data for the analyte fall outside limits and the presence or absence of the analyte cannot be determined from the data
"-"	no data reported
!	Data deviate from historically established concentration ranges

***Note**

a "J" value shall not be used as a substitute for K,L,M,T,V or Y, however, if additional reasons exist for identifying the value as an estimate (e.g.,matrix spiked failed to meet acceptance criteria),the "J" code may be added to a K,L,M, T,V,or Y. Examples of situations in which code "J" must be reported include:

+ where a quality control item associated with the reported value(s) failed to meet the established quality control criteria (the specific failure must be identified)
+ when the sample matrix interferes with the ability to make any accurate determination
+ when data is questionable due to improper or field protocols
+ when the analyte was detected at or above the method detection limits (MDL) in a blank other than the method blank (such as calibration blank or field-generated blanks and the value of 10 times the blank value was equal to or greater than the associated sample valu
+ when the field or laboratory calibrations or calibration verifications did not meet calibration acceptance criteria.

CHAIN OF CUSTODY RECORD

Sampler Signature: David E Wells Print Name: ~~DAVID E WELLS~~ Peter Mitchell

9/24/2010 11:56:16 AM

Manatee County Utilities
Central Laboratory
4751 66th Street West
Bradenton, FL 34210

Phone: 941-792-8811, Ext. 5285
Fax: 941-795-3477
Contact: Jeff Goodwin

Total Number of Containers: 1

Temperature:

Collection Date	Collection Time	Sample ID	Matrix	Description	Pres., Bottle/Sample Type	# Cont	Pres Check	Analysis
9-28-10	1026	AE34854	GW	Lena Road Piezometer PZ-1	HDPE w/HNO3; Grab/Comp.	1		ASAA $ICPWATER

	Signature	Print Name	Company	Date	Time
Relinquished By:	David E Wells	~~DAVID E WELLS~~ Peter Mitchell	Industrial Compliance	9-28-10	1400
Received By:		ECA/DEP	Central Lab	9-28-10	14:00
Relinquished By:					
Received By:					

Comments:

CHAIN OF CUSTODY RECORD

Sampler Signature: David E Wells

Print Name: ~~David E Wells~~ Peter Mitchell

9/24/2010 11:26:17 AM

Manatee County Utilities
Central Laboratory
4751 66th Street West
Bradenton, FL 34210

Phone: 941-792-8811, Ext. 5285
Fax: 941-795-3477
Contact: Jeff Goodwin

Total Number of Containers: 1

Temperature:

Collection Date	Collection Time	Sample ID	Matrix	Description	Pres., Bottle/Sample Type	# Cont	Pres Check	Analysis
9-28-10	1235	AE34897	GW	Lena Road Piezometer PZ-9	HDPE w/HNO3; Grab/Comp.	1		ASAA $ICPWATER

	Signature	Print Name	Company	Date	Time
Relinquished By:	David E Wells	Peter Mitchell / ~~David E Wells~~	Industrial Compliance	9-28-10	1400
Received By:		Ed Conrad	Central Lab	9/28/10	1400
Relinquished By:					
Received By:					

Comments:

CHAIN OF CUSTODY RECORD

Signature: David E Wells

Print Name: ~~David E Wells~~ Peter Mitchell

9/24/2010 11:27:15 AM

County Utilities
.aboratory
h Street West
›n, FL 34210

Phone: 941-792-8811, Ext. 5285
Fax: 941-795-3477
Contact: Jeff Goodwin

Total Number of Containers: 1

Temperature:

Collection Time	Sample ID	Matrix	Description	Pres., Bottle/Sample Type	# Cont	Pres Check	Analysis
10 1210	AE34880	GW	Lena Road Piezometer PZ-5	HDPE w/HNO3; Grab/Comp.	1		ASAA $ICPWATER

Signature	Print Name	Company	Date	Time
D E Wells	Peter Mitchell ~~David E Wells~~	Industrial Compliance	9-28-10	1400
[illegible]	E Camora	Central Lab	9-28-10	1400

CHAIN OF CUSTODY RECORD

Sampler Signature: Paul E Wells

Print Name: ~~Paul E Wells~~ Peter Mitchell

9/24/2010 11:28:11 AM

Manatee County Utilities
Central Laboratory
4751 66th Street West
Bradenton, FL 34210

Phone: 941-792-8811, Ext. 5285
Fax: 941-795-3477
Contact: Jeff Goodwin

Total Number of Containers: 1

Temperature:

Collection Date	Collection Time	Sample ID	Matrix	Description	Pres., Bottle/Sample Type	# Cont	Pres Check	Analysis
9-28-10	1140	AE34879	GW	Lena Road Piezometer PZ-2	HDPE w/HNO3; Grab/Comp.	1		ASAA $ICPWATER

	Signature	Print Name	Company	Date	Time
Relinquished By:	Paul E Wells	Peter Mitchell ~~Paul E Wells~~	INDUSTRIAL Compliance	9-28-10	1400
Received By:		ECA [illegible]	Central Lab	9-28-10	14:07
Relinquished By:					
Received By:					

Comments:

CHAIN OF CUSTODY RECORD

Sampler Signature: David E Wells Print Name: David E Wells

9/24/2010 11:29:08 AM

Manatee County Utilities
Central Laboratory
4751 66th Street West
Bradenton, FL 34210

Phone: 941-792-8811, Ext. 5285
Fax: 941-795-3477
Contact: Jeff Goodwin

Total Number of Containers: 1

Temperature: 1.0

Collection Date	Collection Time	Sample ID	Matrix	Description	Pres., Bottle/Sample Type	# Cont	Pres Check	Analysis
9-29-10	1019	AE34878	GW	Lena Road Piezometer PZ-15	HDPE w/HNO3; Grab/Comp.	2	✓	ASAA $ICPWATER

	Signature	Print Name	Company	Date	Time
Relinquished By:	David E Wells	David E Wells	Industrial Compliance	9-29-10	1235
Received By:	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Relinquished By:					
Received By:					

Comments:

CHAIN OF CUSTODY RECORD

9/24/2010 11:51:30 AM

ler Signature: David E Wells Print Name: DAVID E Wells

:ee County Utilities
al Laboratory
66th Street West
nton, FL 34210

Phone: 941-792-8811, Ext. 5285
Fax: 941-795-3477
Contact: Jeff Goodwin

Total Number of Containers: 1

Temperature: 1.0

on	Collection Time	Sample ID	Matrix	Description	Pres., Bottle/Sample Type	# Cont	Pres Check	Analysis
	1-10 0954	AE34877	GW	Lena Road Piezometer PZ-14	HDPE w/HNO3; Grab/Comp.	2		ASAA $ICPWATER

	Signature	Print Name	Company	Date	Time
By:	d E Wells	DAVID E Wells	INDUSTRIAL Compliance	9-29-10	1235
		Ed Carnes	CHPTRCS	9-29-10	12:15
l By:					
s:					

CHAIN OF CUSTODY RECORD

Sampler Signature: David E Wells Print Name: David E Wells

9/24/2010 11:54:08 AM

Manatee County Utilities
Central Laboratory
4751 66th Street West
Bradenton, FL 34210

Phone: 941-792-8811, Ext. 5285
Fax: 941-795-3477
Contact: Jeff Goodwin

Total Number of Containers: 1

Temperature: 1.0

Collection Date	Collection Time	Sample ID	Matrix	Description	Pres., Bottle/Sample Type	# Cont	Pres Check	Analysis
9-29-10	0927	AE34856	GW	Lena Road Piezometer PZ-12	HDPE w/HNO3; Grab/Comp.	2	✓	ASAA $ICPWATER

	Signature	Print Name	Company	Date	Time
Relinguished By:	David E Wells	David E Wells	Industrial Compliance	9-29-10	1235
Received By:			Certified Labs	9-29-10	12:15
Relinguished By:					
Received By:					

Comments:

CHAIN OF CUSTODY RECORD

er Signature: David E Wells Print Name: DAVID E WELLS

9/24/2010 11:55:21 AM

e County Utilities
Laboratory
6th Street West
ton, FL 34210

Phone: 941-792-8811, Ext. 5285
Fax: 941-795-3477
Contact: Jeff Goodwin

Total Number of Containers: 1

Temperature: 1.0

n Collection Time	Sample ID	Matrix	Description	Pres., Bottle/Sample Type	# Cont	Pres Check	Analysis
10 0859	AE34855	GW	Lena Road Piezometer PZ-11	HDPE w/HNO3; Grab/Comp.	2	✓	ASAA $ICPWATER

	Signature	Print Name	Company	Date	Time
By:	d E Wells	DAVID E WELLS	INDUSTRIAL COMPLIANCE	9-29-10	1235
	[illegible]	ECA [illegible]	Certified Labs	9-29-10	12:59
By:					

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME:		SITE LOCATION: Leva Rd	
WELL NO: Piezometer PZ-5	SAMPLE ID: AE 34880	DATE: 9-28-10	

PURGING DATA

WELL DIAMETER (in): 2	TUBING DIAMETER (in): 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (ft): 19.9	PURGE PUMP TYPE RFPP

WELL VOLUME PURGE: 1 WELL VOLUME= (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = GALLONS

31.2 - 19.9 = 11.3 X .16 = 0.16 GAL/FT = Gallons in well

1.80 + .34 = 2.15 / .28 = 7.68 M+N

Time to pump 1 gallon = Gallons in well x 3 "turns"x Seconds to pump 1 gallon /60 secs. = Minutes to purge=

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. =PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
=.0048 gal + (0.0026 gal / foot X 32 feet) + 0 gal =0.09 gal

INITIAL PUMP OR TUBING DEPTH IN WELL(feet): 21.5	FINAL PUMP OR TUBING DEPTH IN WELL(feet): 21.5	PURGE INITIATED AT: 1156	PURGE ENDED AT: 1204 (1210)	TOTAL VOL. PURGED (gal): 3.83

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH (su)	TEMP. (C)	COND. (uS / cm)	DISSOLVED OXYGEN (mg / L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	orp (mv)
1204	2.15	2.15	.28	19.96	6.65	27.5	788	3.17	2.22	clear	none	-7.40
1207	.84	2.94	.28	20.0	6.67	27.6	>88	4.16	7.00	clear	none	-9.01
1210	.84	3.83	.28	20.7	6.70	27.6	781	4.30	6.59	clear	none	-13.3

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: P.Mitchell/D.Wells	SAMPLER(S) SIGNATURES	SAMPLING INITIATED AT: 1210	SAMPLING ENDED AT: 1212
PUMP OR TUBING DEPTH IN WELL(feet): 21.5	SAMPLE PUMP FLOW RATE (gpm): .28	TUBING MATERIAL CODE: O (TYGON)	
FIELD DECONTAMINATION: YES	FIELD-FILTERED: NO FILTER SIZE:____um Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
**	**	**	**	**	**	**	RFPP

REMARKS:
**Please refer to the plant custody sheet (SAMPLE ID # ABOVE) for the information marked with asterisks.
Additional HNO_3 needed?

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S= Silicon; T= Teflon O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP=After Peristaltic Pump; B=Bailer; BP=Bladder Pump; ESP= Electric Submersible Pump; PP=Peristaltic Pump; RFPP=Reverse Flow Peristaltic Pump; SM=Straw Method(Tubing Gravity Drain); VT=Vacuum Trap; O=Other (Specify)

NOTES: **1.The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF THE LAST THREE CONSECUTIVE READINGS (SEE FS2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2°C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤20% saturation (See Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤20NTU; optionally ± 10% (whichever is greater)

Review Authority Signature : _____

Print Name : Jeff Caldwell

Date : 9/30/10

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: L	SITE LOCATION: LENA Rd
WELL NO: Piezometer P2-9	SAMPLE ID: AF 34897
DATE: 9-28-10	

PURGING DATA

WELL DIAMETER (in): 2	TUBING DIAMETER (in): 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (ft): 20,2	PURGE PUMP TYPE RFPP

WELL VOLUME PURGE: 1 WELL VOLUME= (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = GALLONS

22,3 - 20,2 = 2,1 X 0.16 GAL/FT = ,336 + ,134 Gallons in well

Time to pump 1 gallon = Gallons in well x 3 "turns"x Seconds to pump 1 gallon /60 secs. = Minutes to purge= = 0.68/,08 = 8,45

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. =PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
=.0048 gal + (0.0026 gal / foot X 32 feet) + 0 gal =0.09 gal 1235

INITIAL PUMP OR TUBING DEPTH IN WELL(feet): 21,0	FINAL PUMP OR TUBING DEPTH IN WELL(feet): 22,1	PURGE INITIATED AT: 1220	PURGE ENDED AT: 1229	TOTAL VOL. PURGED (gal): 1,60

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH (su)	TEMP. (C)	COND. (uS / cm)	DISSOLVED OXYGEN (mg / L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	orp (mv)
1229	0,68	0,68	,08	21,0	6,50	22,8	1270	5,50	28,0	Brown	none	-36,5
1232	0,24	0,92	,08	21,5	6,50	22,9	1300	5,40	22,0	TAN	none	-48,1
1235	0,24	1,66	,08	22,1	6,50	22,8	1280	5,40	11,0	clear	none	-42,2

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dwells / PM, Hall	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1235	SAMPLING ENDED AT: 1237
PUMP OR TUBING DEPTH IN WELL(feet): 21.0	SAMPLE PUMP FLOW RATE (gpm): 0.08	TUBING MATERIAL CODE: O (TYGON)	
FIELD DECONTAMINATION: YES	FIELD-FILTERED: NO Filtration Equipment Type:	FILTER SIZE: ____um	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
**	**	**	**	**	**	**	RFPP

REMARKS:
**Please refer to the plant custody sheet (SAMPLE ID # ABOVE) for the information marked with asterisks.

Quick drawdown

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S= Silicon; T= Teflon O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP=After Peristaltic Pump; B=Bailer; BP=Bladder Pump; ESP= Electric Submersible Pump; PP=Peristaltic Pump; RFPP=Reverse Flow Peristaltic Pump; SM=Straw Method(Tubing Gravity Drain); VT=Vacuum Trap; O=Other (Specify)

NOTES: 1.The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF THE LAST THREE CONSECUTIVE READINGS (SEE FS2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2°C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤20% saturation (See Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤20NTU; optionally ± 10% (whichever is greater)

Review Authority Signature : _____

Print Name : Jeff Goodwin

Date : 9/30/10

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME:	SITE LOCATION: LeVA Rd
WELL NO: Piezometer P2-2	SAMPLE ID: AE 34879 DATE: 9,28-10

PURGING DATA

WELL DIAMETER (in): 2	TUBING DIAMETER (in): 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (ft): 13	PURGE PUMP TYPE RFPP

WELL VOLUME PURGE: 1 WELL VOLUME= (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = GALLONS

22.7 − 13 = 9.7 X .16 (0.16 GAL/FT = Gallons in well) = 1.55 + .34 = 1.89 / .32 = 5.9 min

Time to pump 1 gallon = Gallons in well x 3 "turns"x Seconds to pump 1 gallon /60 secs. = Minutes to purge=

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. =PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
=.0048 gal + (0.0026 gal / foot X 32 feet) + 0 gal =0.09 gal

INITIAL PUMP OR TUBING DEPTH IN WELL(feet): 15	FINAL PUMP OR TUBING DEPTH IN WELL(feet): 15	PURGE INITIATED AT: 1128	PURGE ENDED AT: 1134	TOTAL VOL. PURGED (gal): 3.81

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH (su)	TEMP. (C)	COND. (uS / cm)	DISSOLVED OXYGEN (mg / L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	orp (mv)
1134	1.89	1.89	.32	13.0	6.78	26.5	7100	1.38	14.5	BRN	none	-108.0
1137	.96	2.85	.32	13.5	6.78	26.5	7120	1.38	9.26	Brown	none	-109.0
1140	.96	3.81	.32	14.0	6.78	26.5	7140	1.39	7.22	Brown	none	-110.0

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: D.Wells/P.Mitchell	SAMPLER(S) SIGNATURES	SAMPLING INITIATED AT: 1140	SAMPLING ENDED AT: 1142
PUMP OR TUBING DEPTH IN WELL(feet): 15	SAMPLE PUMP FLOW RATE (gpm): .32	TUBING MATERIAL CODE: O (TYGON)	
FIELD DECONTAMINATION: YES	FIELD-FILTERED: NO FILTER SIZE:____um Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
**	**	**	**	**	**	**	RFPP

REMARKS:
**Please refer to the plant custody sheet (SAMPLE ID # ABOVE) for the information marked with asterisks.

Additional HNO3 needed?

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S= Silicon; T= Teflon O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP=After Peristaltic Pump; B=Bailer; BP=Bladder Pump; ESP= Electric Submersible Pump; PP=Peristaltic Pump; RFPP=Reverse Flow Peristaltic Pump; SM=Straw Method(Tubing Gravity Drain); VT=Vacuum Trap; O=Other (Specify)

NOTES: **1.The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF THE LAST THREE CONSECUTIVE READINGS (SEE FS2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2°C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤20% saturation (See Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤20NTU; optionally ± 10% (whichever is greater)

Review Authority Signature : _____

Print Name : Jeff Credeur

Date : 9/30/10

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME:		SITE LOCATION: Lewis Ed	
WELL NO: Piezometer D2-1	SAMPLE ID: AE 34854		DATE: 9-28-10

PURGING DATA

WELL DIAMETER (in): 2	TUBING DIAMETER (in): 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (ft): 12.4	PURGE PUMP TYPE RFPP

WELL VOLUME PURGE: 1 WELL VOLUME= (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = GALLONS

25.4 - 12.4 = 13 X 0.16 GAL/FT = Gallons in well

2.08 + .34 = 2.42 / 1.25 = 9.68 mins

Time to pump 1 gallon = Gallons in well x 3 "turns"x Seconds to pump 1 gallon /60 secs. = Minutes to purge=

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. =PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
=.0048 gal + (0.0026 gal / foot X 32 feet) + 0 gal =0.09 gal

INITIAL PUMP OR TUBING DEPTH IN WELL(feet): 15.4	FINAL PUMP OR TUBING DEPTH IN WELL(feet): 15.4	PURGE INITIATED AT: 1010	PURGE ENDED AT: 1020 1026	TOTAL VOL. PURGED (gal): 3.92

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH (su)	TEMP. (C)	COND. (uS / cm)	DISSOLVED OXYGEN (mg / L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	orp (mv)
1020	2.42	2.42	.25	12.4	6.69	26.3	3150	3.00	22.4	yellow	Garbage Oil-y	-66.1
1023	.75	3.17	.25	12.5	6.66	26.9	3280	2.24	17.3	yellow	Garbage	-78.2
1026	.75	3.92	.25	13.0	6.66	26.6	3340	1.92	16.2	yellow	Garbage	-62.3

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Dwetts/P.Mitchell	SAMPLER(S) SIGNATURES 9-28-10	SAMPLING INITIATED AT: 1026	SAMPLING ENDED AT: 1028
PUMP OR TUBING DEPTH IN WELL(feet): 15.4	SAMPLE PUMP FLOW RATE (gpm): .25	TUBING MATERIAL CODE: O (TYGON)	
FIELD DECONTAMINATION: (YES)	FIELD-FILTERED: NO FILTER SIZE:____um Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
**	**	**	**	**	**	**	RFPP

REMARKS:
**Please refer to the plant custody sheet (SAMPLE ID # ABOVE) for the information marked with asterisks.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S= Silicon; T= Teflon O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP=After Peristaltic Pump; B=Bailer; BP=Bladder Pump; ESP= Electric Submersible Pump; PP=Peristaltic Pump; RFPP=Reverse Flow Peristaltic Pump; SM=Straw Method(Tubing Gravity Drain); VT=Vacuum Trap; O=Other (Specify)

NOTES: **1.The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF THE LAST THREE CONSECUTIVE READINGS (SEE FS2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2°C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤20% saturation (See Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤20NTU; optionally ± 10% (whichever is greater)

Review Authority Signature : _____

Print Name : Jeff Goodwin

Date : 9/30/10

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME:		SITE LOCATION: LENA RD	
WELL NO: PIEZOMETER P2 15	SAMPLE ID: AE 34878		DATE: 9-29-10

PURGING DATA

WELL DIAMETER (in): 2	TUBING DIAMETER (in): 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (ft): 14.5	PURGE PUMP TYPE: RFPP

WELL VOLUME PURGE: 1 WELL VOLUME= (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = GALLONS

20.8 − 14.5 = 6.3 X 0.16 GAL/FT = 1.01 + .34 = 1.35 / 1.20 Gallons in well

Time to pump 1 gallon = Gallons in well x 3 "turns"x Seconds to pump 1 gallon /60 secs. = Minutes to purge= 6.75

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. =PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
=.0048 gal + (0.0026 gal / foot X 32 feet) + 0 gal =0.09 gal

INITIAL PUMP OR TUBING DEPTH IN WELL(feet): 16.5	FINAL PUMP OR TUBING DEPTH IN WELL(feet): 16.5	PURGE INITIATED AT: 1006	PURGE ENDED AT: 1019	TOTAL VOL. PURGED (gal): 2.60

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH (su)	TEMP. (C)	COND. (uS / cm)	DISSOLVED OXYGEN (mg / L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	orp (mv)
1013	1.40	1.40	.20	14.5	6.46	27.0	735	0.59	1.04	clear	none	-120.0
1016	.60	2.00	.20	14.2	6.47	27.0	719	0.56	1.07	clear	none	-119.0
1019	.60	2.60	.20	14.0	6.46	27.1	707	6.53	0.74	clear	none	-118.0

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: P.Wells	SAMPLER(S) SIGNATURES: Paul Ellis	SAMPLING INITIATED AT: 1019	SAMPLING ENDED AT: 1021
PUMP OR TUBING DEPTH IN WELL(feet): 16.5	SAMPLE PUMP FLOW RATE (gpm): .20	TUBING MATERIAL CODE: O (TYGON)	
FIELD DECONTAMINATION: (YES)	FIELD-FILTERED: (NO) FILTER SIZE:____um Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
**	**	**	**	**	**	**	RFPP

REMARKS:
**Please refer to the plant custody sheet (SAMPLE ID # ABOVE) for the information marked with asterisks.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S= Silicon; T= Teflon O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP=After Peristaltic Pump; B=Bailer; BP=Bladder Pump; ESP= Electric Submersible Pump; PP=Peristaltic Pump; RFPP=Reverse Flow Peristaltic Pump; SM=Straw Method(Tubing Gravity Drain); VT=Vacuum Trap; O=Other (Specify)

NOTES: 1.The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF THE LAST THREE CONSECUTIVE READINGS (SEE FS2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2°C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤20% saturation (See Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤20NTU; optionally ± 10% (whichever is greater)

Review Authority Signature : _____

Print Name : J Eff Cockwell

Date : 9/30/10

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME:		SITE LOCATION:	Leda Rd
WELL NO:	Piezometer D2-14	SAMPLE ID:	AE 34577
DATE:	9-29-10		

PURGING DATA

WELL DIAMETER (in):	TUBING DIAMETER (in):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (ft):	PURGE PUMP TYPE
2	1/4"			RFPP

WELL VOLUME PURGE: 1 WELL VOLUME= (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = GALLONS

20.1 - 14.7 = 5.4 X 0.16 GAL/FT = 0.864 = 1,204 ÷ .15 Gallons in well = 8.027

Time to pump 1 gallon = Gallons in well x 3 "turns"x Seconds to pump 1 gallon /60 secs. = Minutes to purge=

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. =PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
=.0048 gal + (0.0026 gal / foot X 32 feet) + 0 gal =0.09 gal

INITIAL PUMP OR TUBING DEPTH IN WELL(feet):	FINAL PUMP OR TUBING DEPTH IN WELL(feet):	PURGE INITIATED AT:	PURGE ENDED AT:	TOTAL VOL. PURGED (gal):
16	16	0940.45	0948	2.10

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH (su)	TEMP. (C)	COND. (uS / cm)	DISSOLVED OXYGEN (mg / L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	orp (mv)
0948	1.20	1.20	.15	14.7	6.57	27.2	2230	0.90	1.04	slight yellow tint	none	-93.6
0951	.45	1.65	.15	15.2	6.56	27.3	2190	0.84	1.68	slight	none	-93.1
0954	.45	2.10	.15	15.4	6.56	27.3	2170	0.79	0.70	slight	none	-91.8

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
D Wells	Daniel E Wells	0954	0955

PUMP OR TUBING DEPTH IN WELL(feet):	SAMPLE PUMP FLOW RATE (gpm):	TUBING MATERIAL CODE: O (TYGON)
16	.15	

FIELD DECONTAMINATION: YES | FIELD-FILTERED: NO | FILTER SIZE:____um | Filtration Equipment Type: | DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
**	**	**	**	**	**	**	RFPP

REMARKS:
**Please refer to the plant custody sheet (SAMPLE ID # ABOVE) for the information marked with asterisks.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S= Silicon; T= Teflon O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP=After Peristaltic Pump; B=Bailer; BP=Bladder Pump; ESP= Electric Submersible Pump; PP=Peristaltic Pump; RFPP=Reverse Flow Peristaltic Pump; SM=Straw Method(Tubing Gravity Drain); VT=Vacuum Trap; O=Other (Specify)

NOTES: **1.The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF THE LAST THREE CONSECUTIVE READINGS (SEE FS2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2°C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤20% saturation (See Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤20NTU; optionally ± 10% (whichever is greater)

Review Authority Signature : _____

Print Name : Jeff Goodwin

Date : 9/30/10

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:		SITE LOCATION: Lena Rd	
WELL NO: Piezometer P2-12	SAMPLE ID: AE 34856		DATE:

PURGING DATA

WELL DIAMETER (in): 2	TUBING DIAMETER (in): 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (ft):	PURGE PUMP TYPE RFPP

WELL VOLUME PURGE: 1 WELL VOLUME= (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = GALLONS

24.9 - 14 = 10.9 x 1.744 7.34 = 2.084 Gallons in well 10.42

Time to pump 1 gallon = Gallons in well x 3 "turns"x Seconds to pump 1 gallon /60 secs. = Minutes to purge=

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. =PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
=.0048 gal + (0.0026 gal / foot X 32 feet) + 0 gal =0.09 gal

INITIAL PUMP OR TUBING DEPTH IN WELL(feet): 14	FINAL PUMP OR TUBING DEPTH IN WELL(feet): 14	PURGE INITIATED AT: 0910	PURGE ENDED AT: 0927	TOTAL VOL. PURGED (gal): 3.48

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH (su)	TEMP. (C)	COND. (uS / cm)	DISSOLVED OXYGEN (mg / L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	orp (mv)
0921	220	2.20	.20	12.1	6.63	26.3	4150	0.97	3.68	Dirty	Yes	-87.1
0924	.60	2.80	.20	12.3	6.61	26.5	3830	0.92	7.21	Dirty	Yes	-86.6
0927	.60	3.40	.20	12.4	6.60	26.5	3740	0.16	6.35	Dirty	Yes	-87.5

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: D Wells	SAMPLER(S) SIGNATURES Daniel E Wells	SAMPLING INITIATED AT: 0927	SAMPLING ENDED AT: 0928
PUMP OR TUBING DEPTH IN WELL(feet): 14	SAMPLE PUMP FLOW RATE (gpm): .20	TUBING MATERIAL CODE: O (TYGON)	
FIELD DECONTAMINATION: YES	FIELD-FILTERED: NO FILTER SIZE:_____um Filtration Equipment Type:	DUPLICATE: Y N	

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
**	**	**	**	**	**	**	RFPP

REMARKS:
**Please refer to the plant custody sheet (SAMPLE ID # ABOVE) for the information marked with asterisks.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S= Silicon; T= Teflon O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP=After Peristaltic Pump; B=Bailer; BP=Bladder Pump; ESP= Electric Submersible Pump; PP=Peristaltic Pump; RFPP=Reverse Flow Peristaltic Pump; SM=Straw Method(Tubing Gravity Drain); VT=Vacuum Trap; O=Other (Specify)

NOTES: **1.The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF THE LAST THREE CONSECUTIVE READINGS (SEE FS2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2°C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤20% saturation (See Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤20NTU; optionally ± 10% (whichever is greater)

Review Authority Signature : _____

Print Name : Jeff Gould

Date : 9/30/10

DEP-SOP-001/01
FS 2200 Groundwater Sampling

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME:		SITE LOCATION: Lena Rd	
WELL NO: Piezometer P2 41	SAMPLE ID: ~~AE~~ 34855		DATE: 8-29-10

PURGING DATA

WELL DIAMETER (in): 2	TUBING DIAMETER (in): 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (ft): 13.2	PURGE PUMP TYPE RFPP

WELL VOLUME PURGE: 1 WELL VOLUME= (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY = GALLONS

31 - 18.2 = 12.8 X .16 .. 2.048 x 1.34 0.16 GAL/FT = 2.388 Gallons in well 8.3 MW

Time to pump 1 gallon = Gallons in well x 3 "turns"x Seconds to pump 1 gallon /60 secs. = Minutes to purge=

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. =PUMP VOLUME + TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
=.0048 gal + (0.0026 gal / foot X 32 feet) + 0 gal =0.09 gal

INITIAL PUMP OR TUBING DEPTH IN WELL(feet): 20	FINAL PUMP OR TUBING DEPTH IN WELL(feet): 21	PURGE INITIATED AT: 0845	PURGE ENDED AT: 0859	TOTAL VOL. PURGED (gal): 4.06

TIME	VOLUME PURGED (gal)	CUMUL. VOLUME PURGED (gal)	PURGE RATE (gpm)	DEPTH TO WATER (ft)	pH (su)	TEMP. (C)	COND. (uS / cm)	DISSOLVED OXYGEN (mg / L)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)	orp (mv)
0853	2.32	2.32	.29	19.1	6.41	25.5	1190	1.05	2.42	Slt Wh	None	-53.0
0856	.87	3.19	.29	19.2	6.41	25.4	1190	0.97	1.37	Slt Wh	None	-54.4
0859	.87	4.06	.29	19.2	6.40	25.4	1190	0.94	2.50	Slt Wh	None	-54.5

WELL CAPACITY (Gallons per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: P Wells/PM	SAMPLER(S) SIGNATURES Paul Ellis	SAMPLING INITIATED AT: 0859	SAMPLING ENDED AT: 0900
PUMP OR TUBING DEPTH IN WELL(feet): 21	SAMPLE PUMP FLOW RATE (gpm): .29	TUBING MATERIAL CODE: O (TYGON)	
FIELD DECONTAMINATION: YES	FIELD-FILTERED: NO Filtration Equipment Type:	FILTER SIZE:_____um	DUPLICATE: Y N

SAMPLE CONTAINER SPECIFICATION			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (mL)	FINAL pH		
**	**	**	**	**	**	**	RFPP

REMARKS:
**Please refer to the plant custody sheet (SAMPLE ID # ABOVE) for the information marked with asterisks.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S= Silicon; T= Teflon O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP=After Peristaltic Pump; B=Bailer; BP=Bladder Pump; ESP= Electric Submersible Pump; PP=Peristaltic Pump; RFPP=Reverse Flow Peristaltic Pump; SM=Straw Method(Tubing Gravity Drain); VT=Vacuum Trap; O=Other (Specify)

NOTES: **1.The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF THE LAST THREE CONSECUTIVE READINGS (SEE FS2212, SECTION 3)

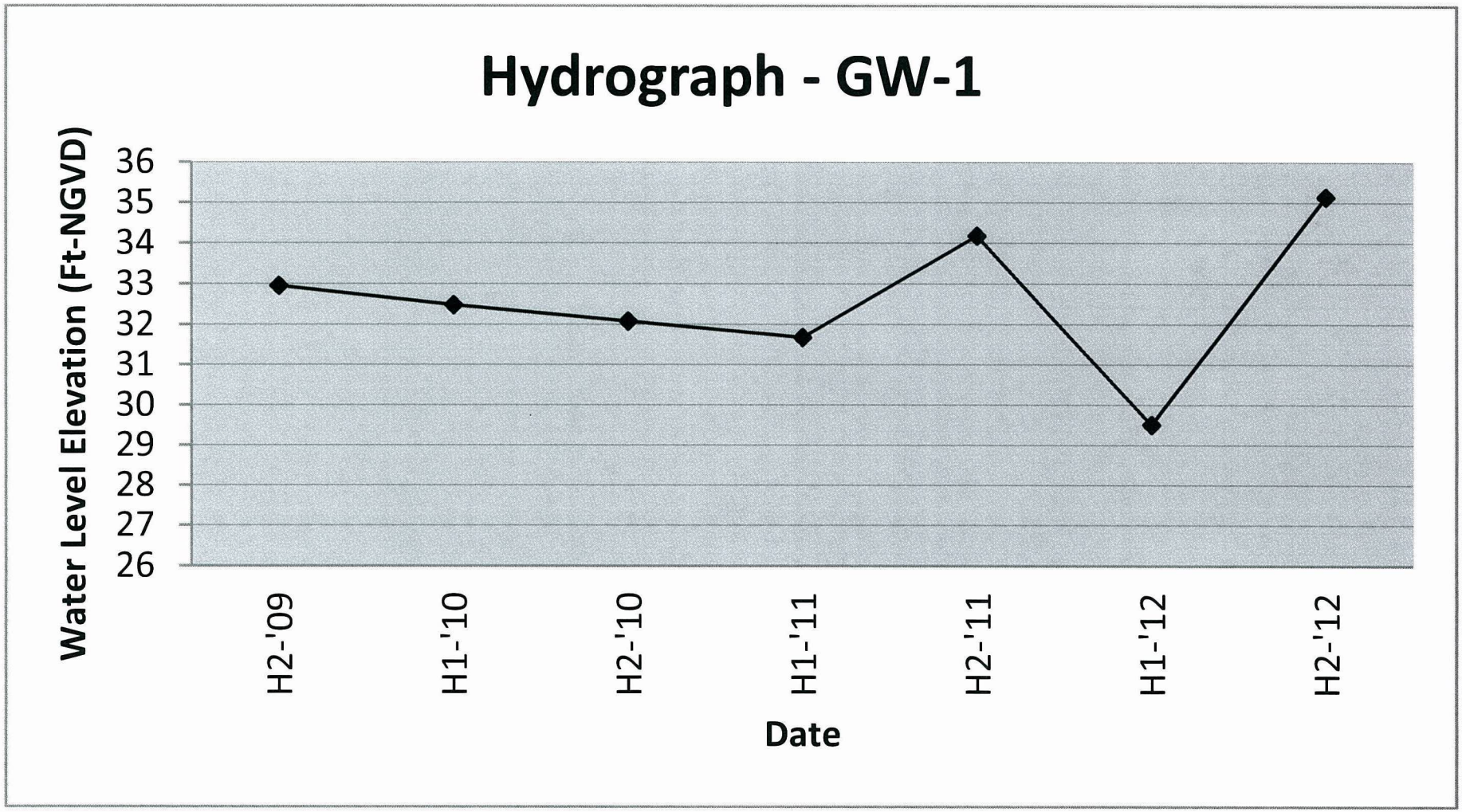
pH: ± 0.2 units **Temperature:** ± 0.2°C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤20% saturation (See Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤20NTU; optionally ± 10% (whichever is greater)

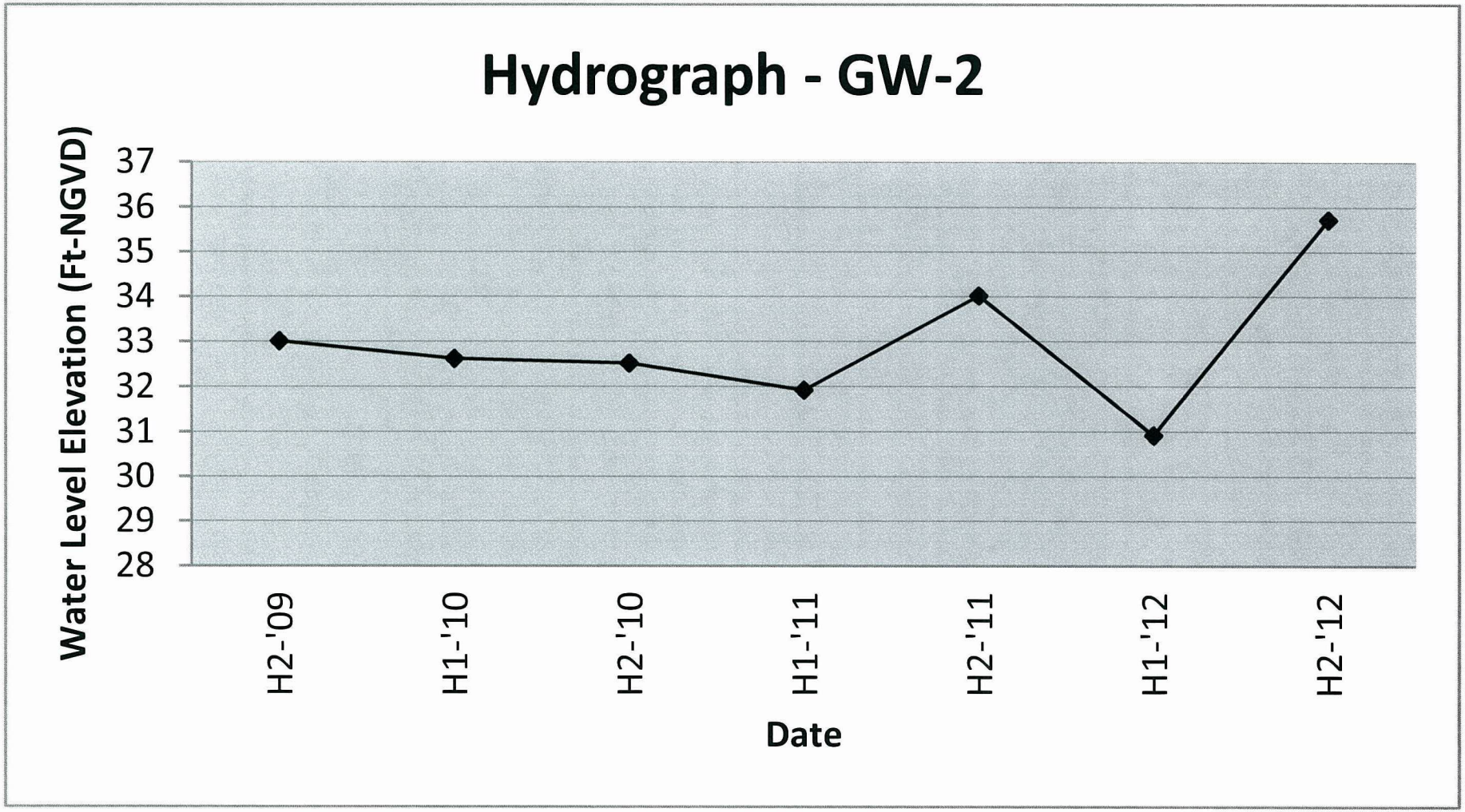
Review Authority Signature : _____

Print Name : Jeff Goodwin

APPENDIX B

Groundwater Elevation Hydrographs


Hydrograph - GW-1
Water Level Elevation (Ft-NGVD)
36
35
34
33
32
31
30
29
28
27
26
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date


Hydrograph - GW-2
Water Level Elevation (Ft-NGVD)
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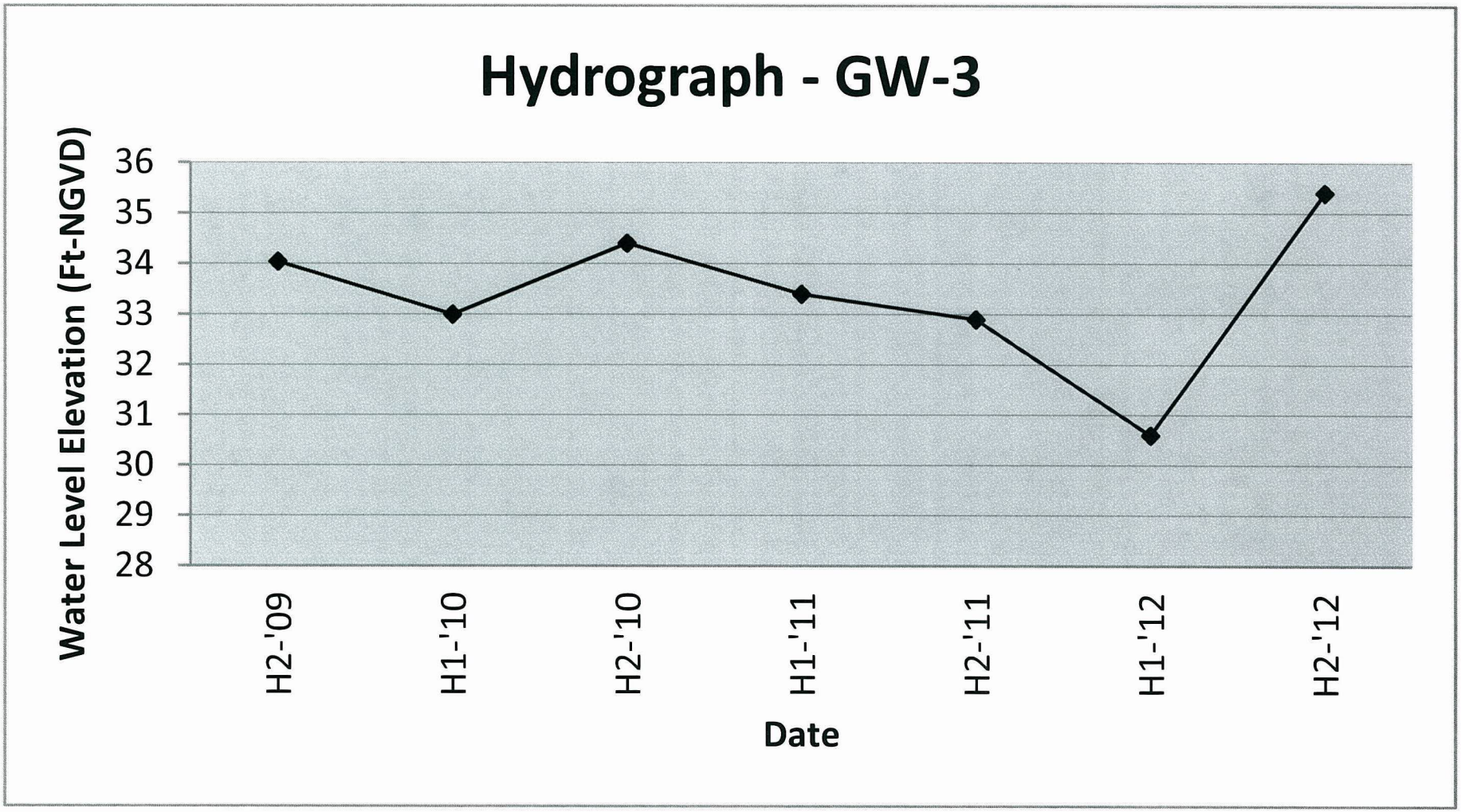
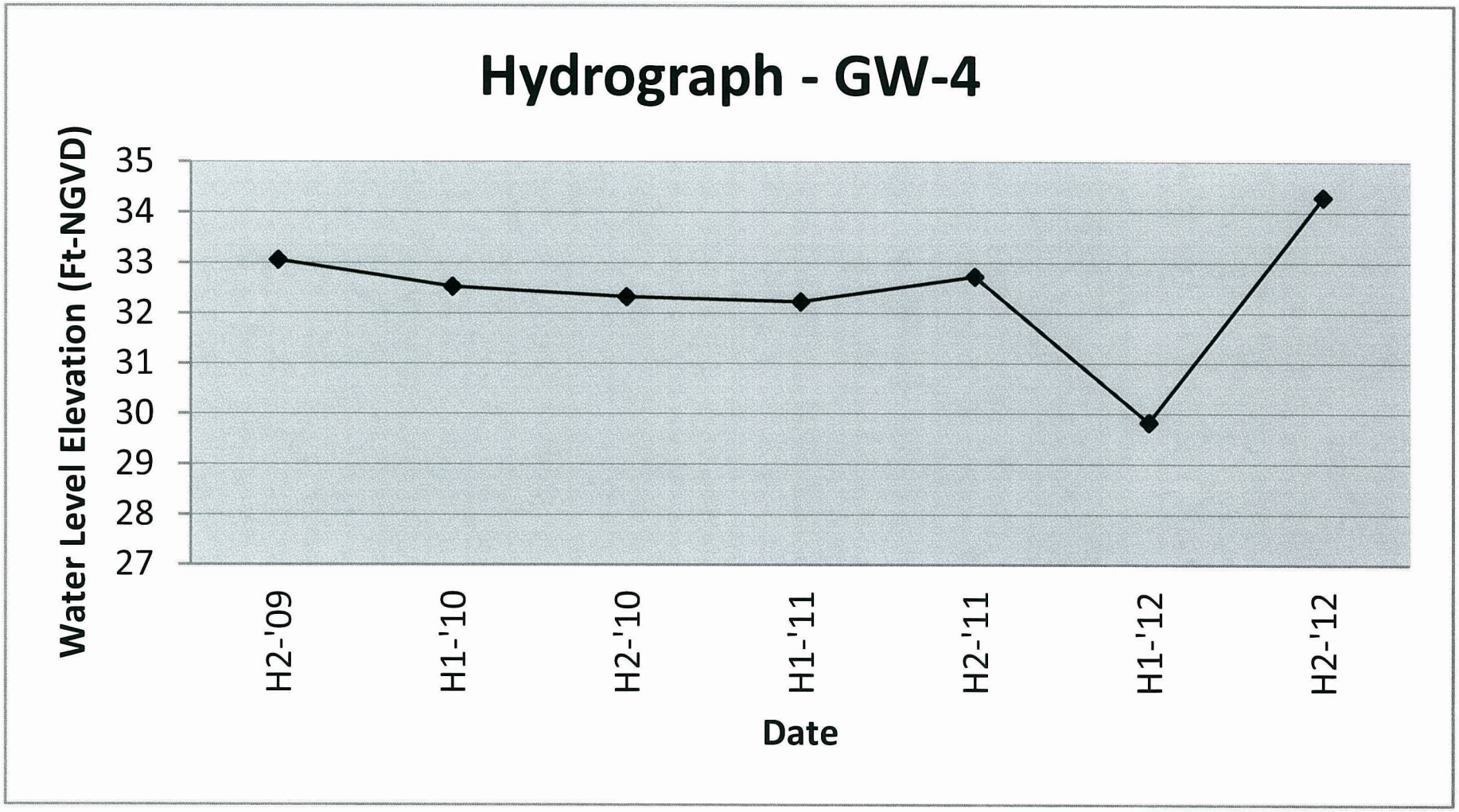
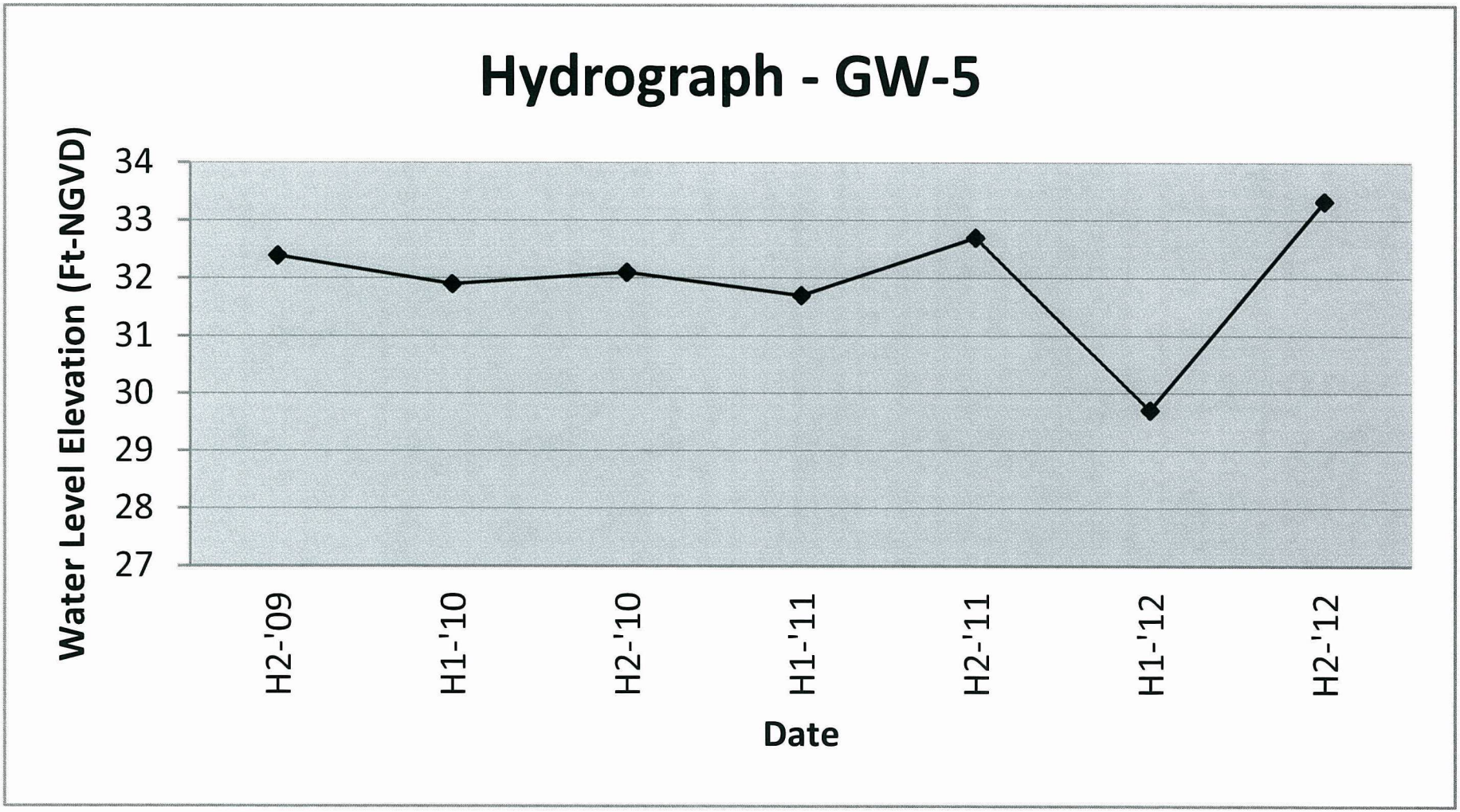
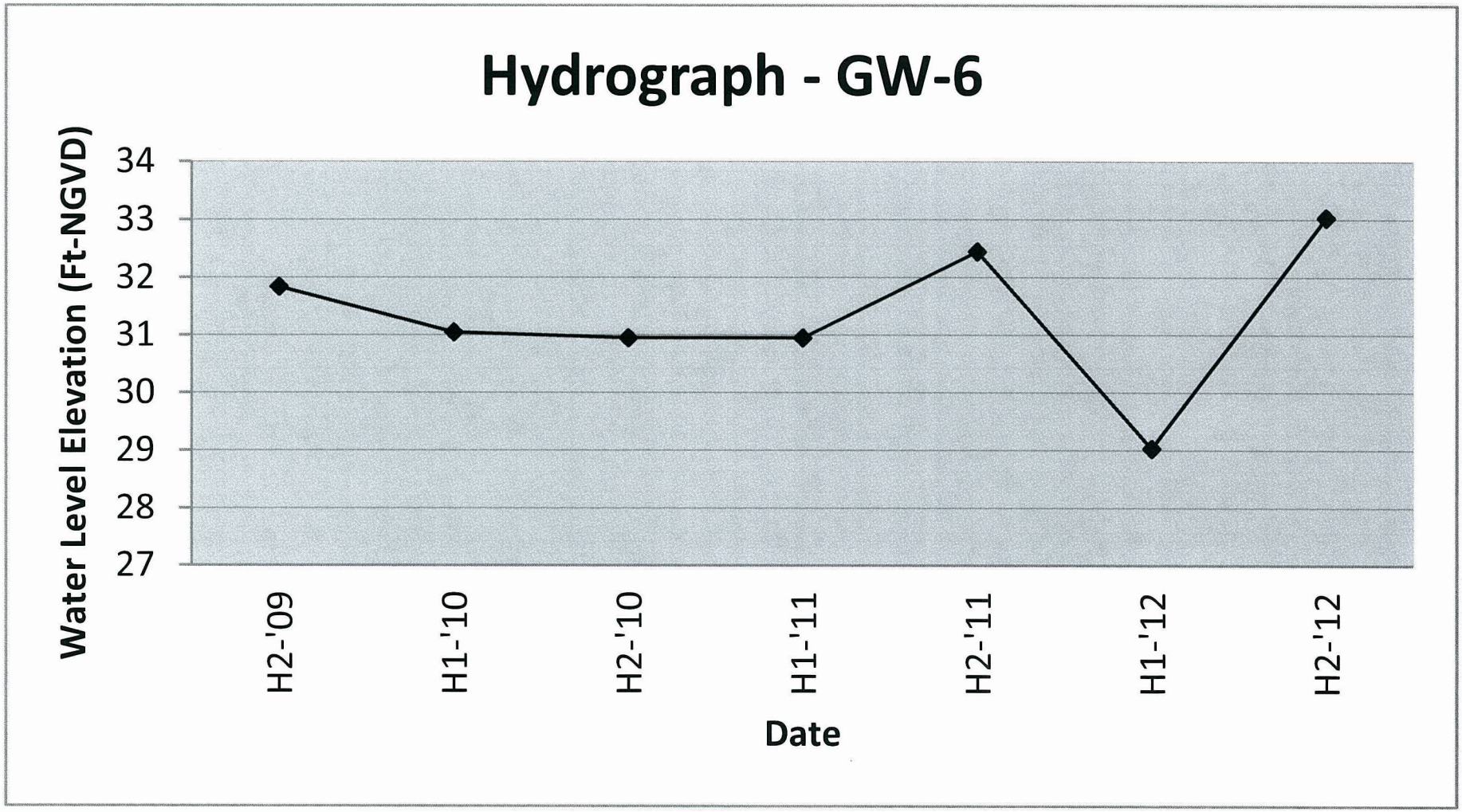
36
35
34
33
32
31
30
29
28
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date


Hydrograph - GW-3
Water Level Elevation (Ft-NGVD)
36
35
34
33
32
31
30
29
28
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date


Hydrograph - GW-4
Water Level Elevation (Ft-NGVD)
35
34
33
32
31
30
29
28
27
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date


Hydrograph - GW-5
Water Level Elevation (Ft-NGVD)
34
33
32
31
30
29
28
27
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date


Hydrograph - GW-6
Water Level Elevation (Ft-NGVD)
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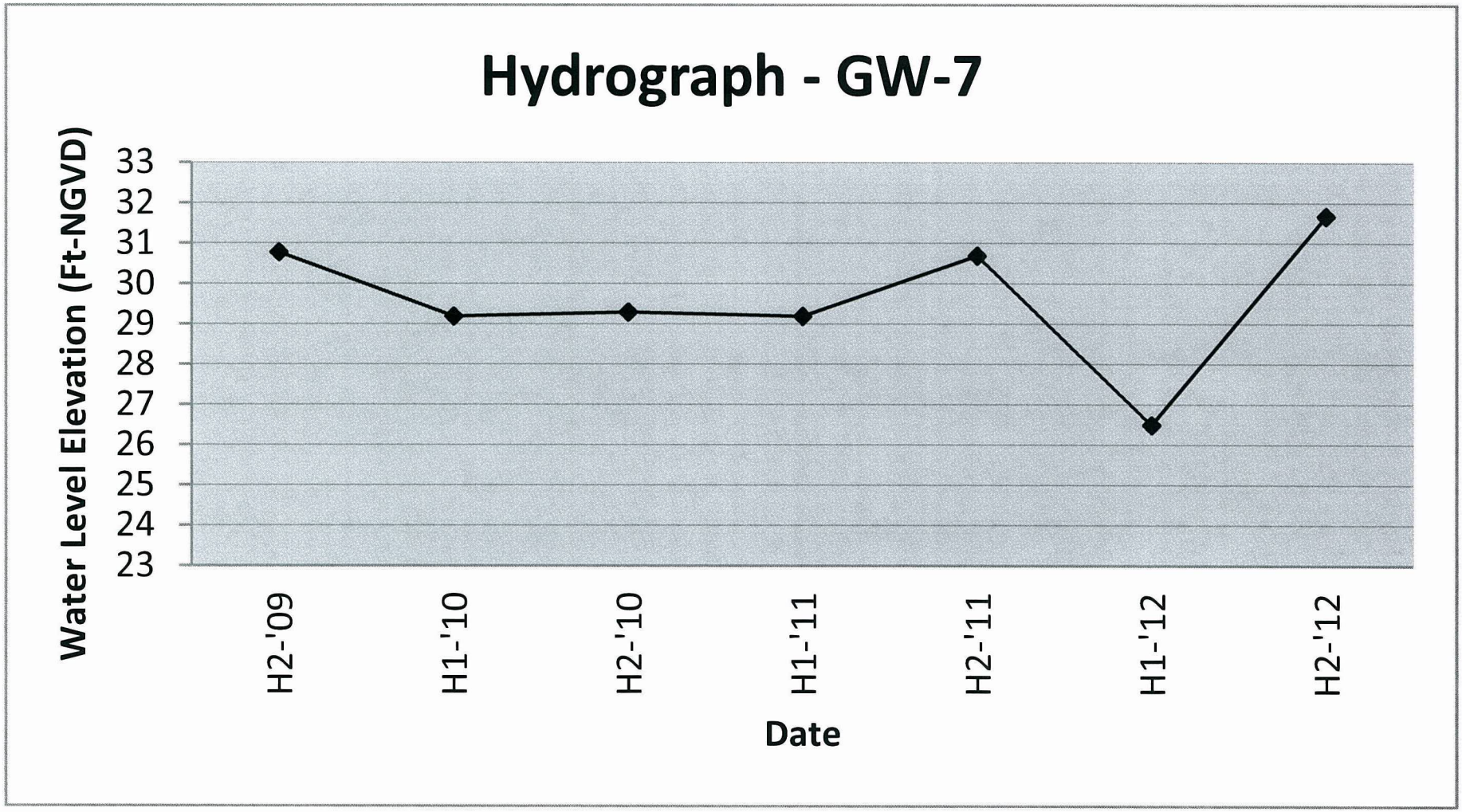
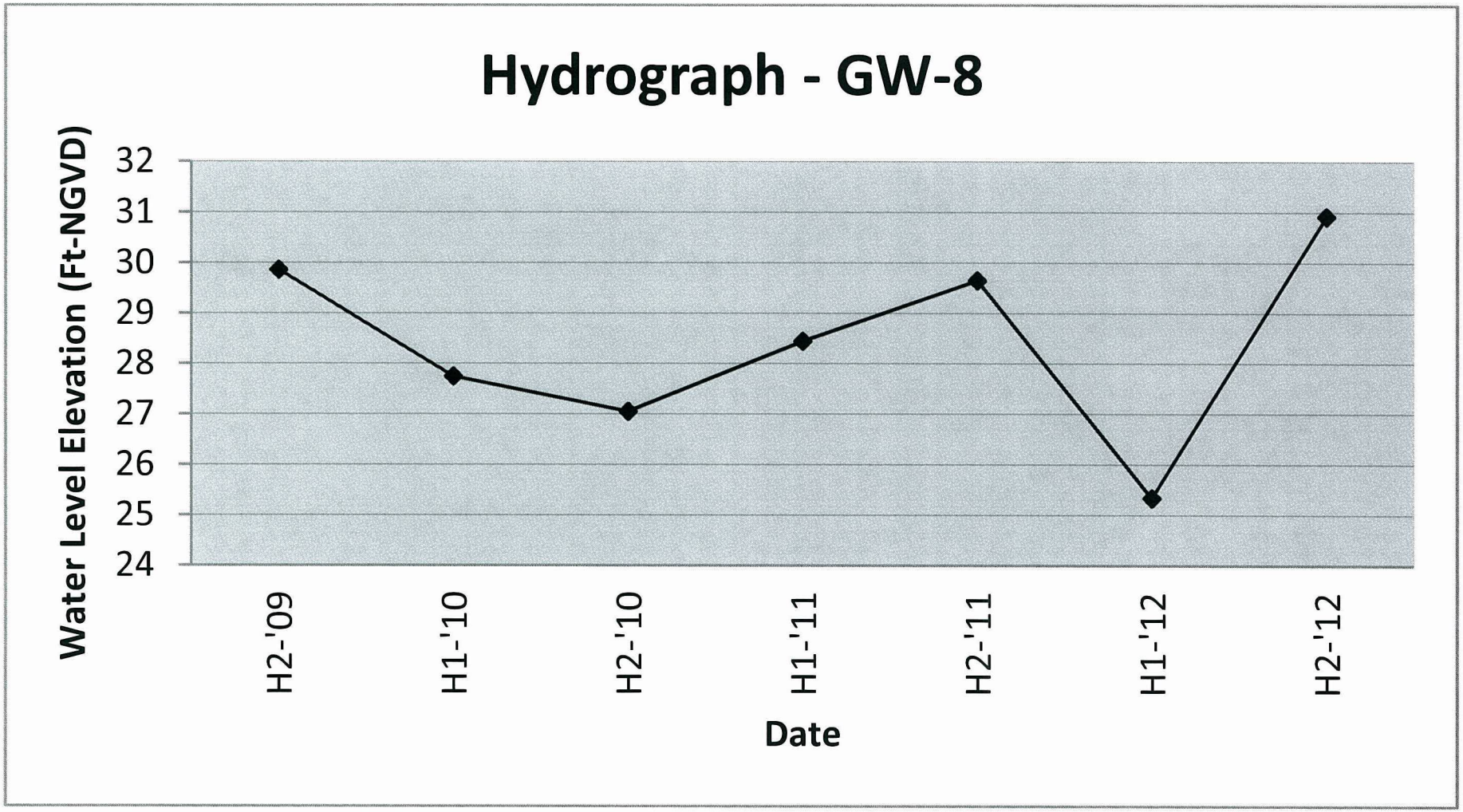
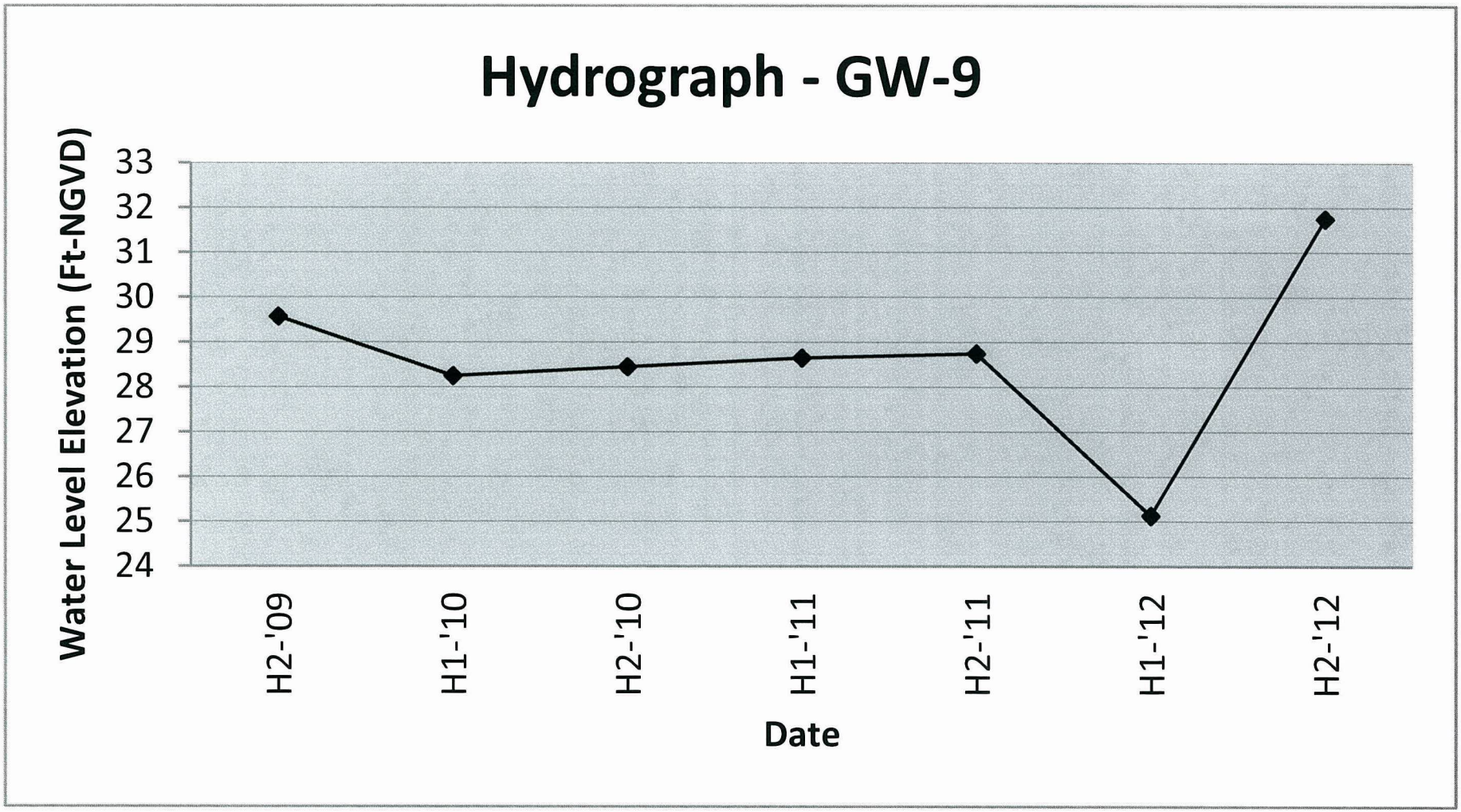
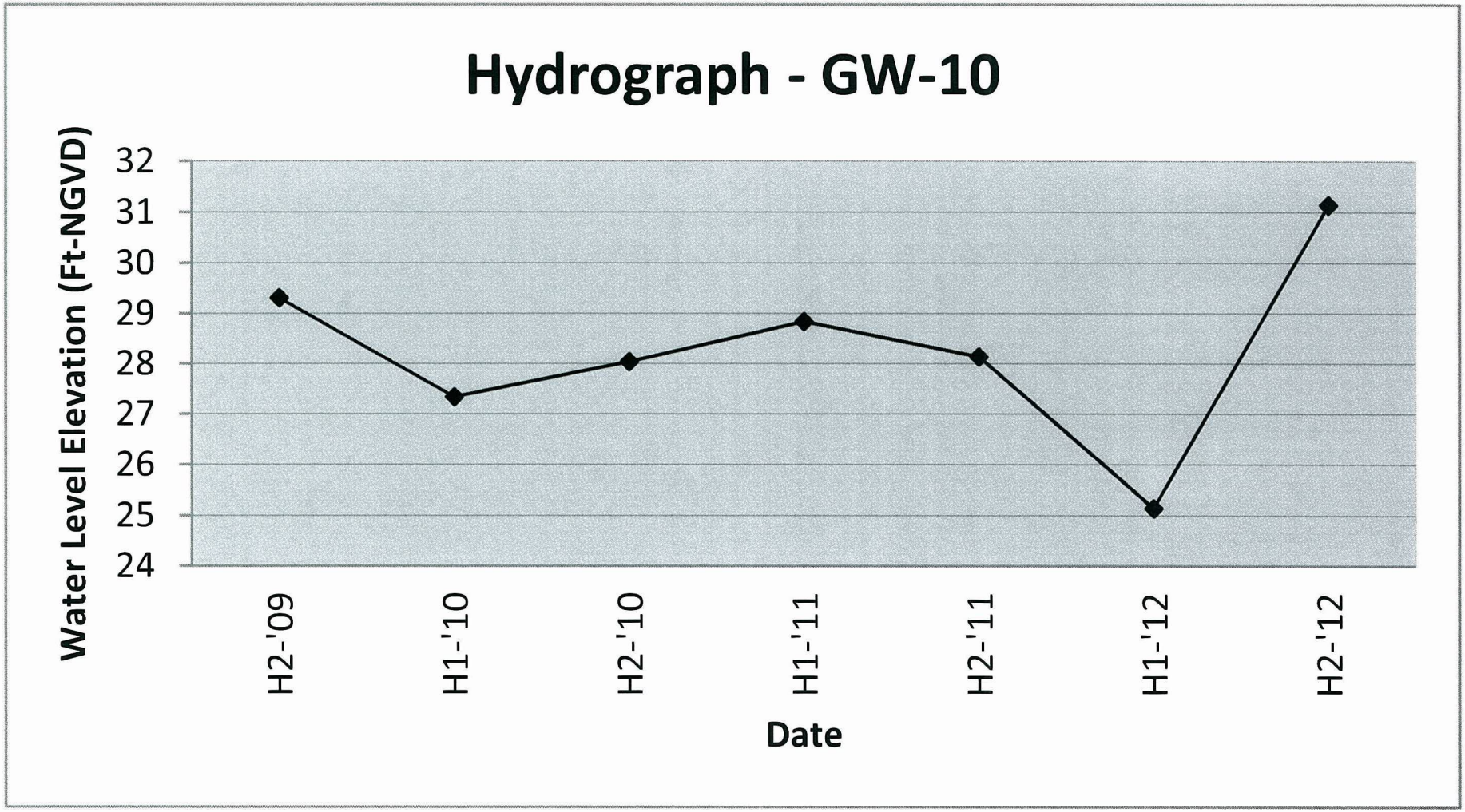
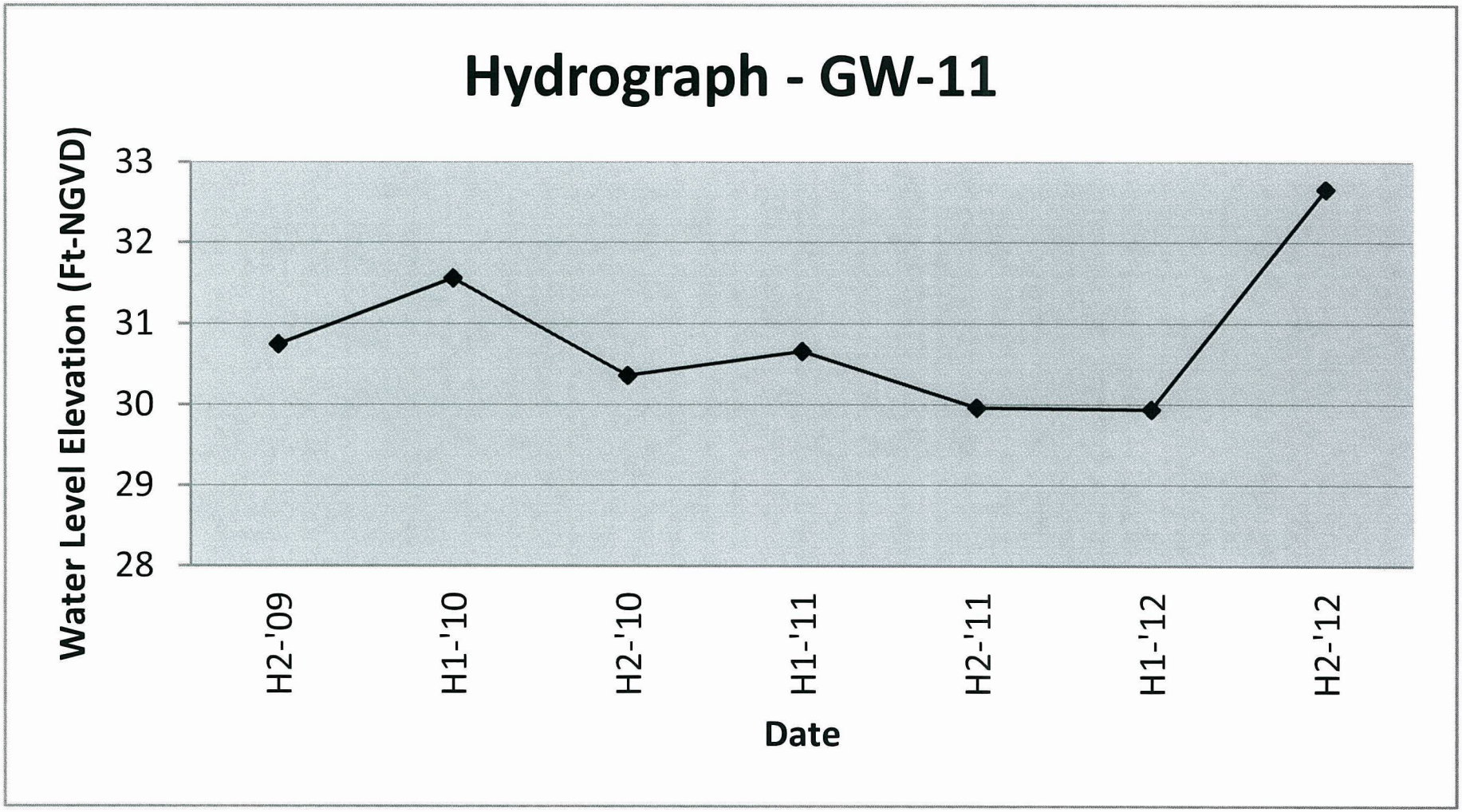
33
32
31
30
29
28
27
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

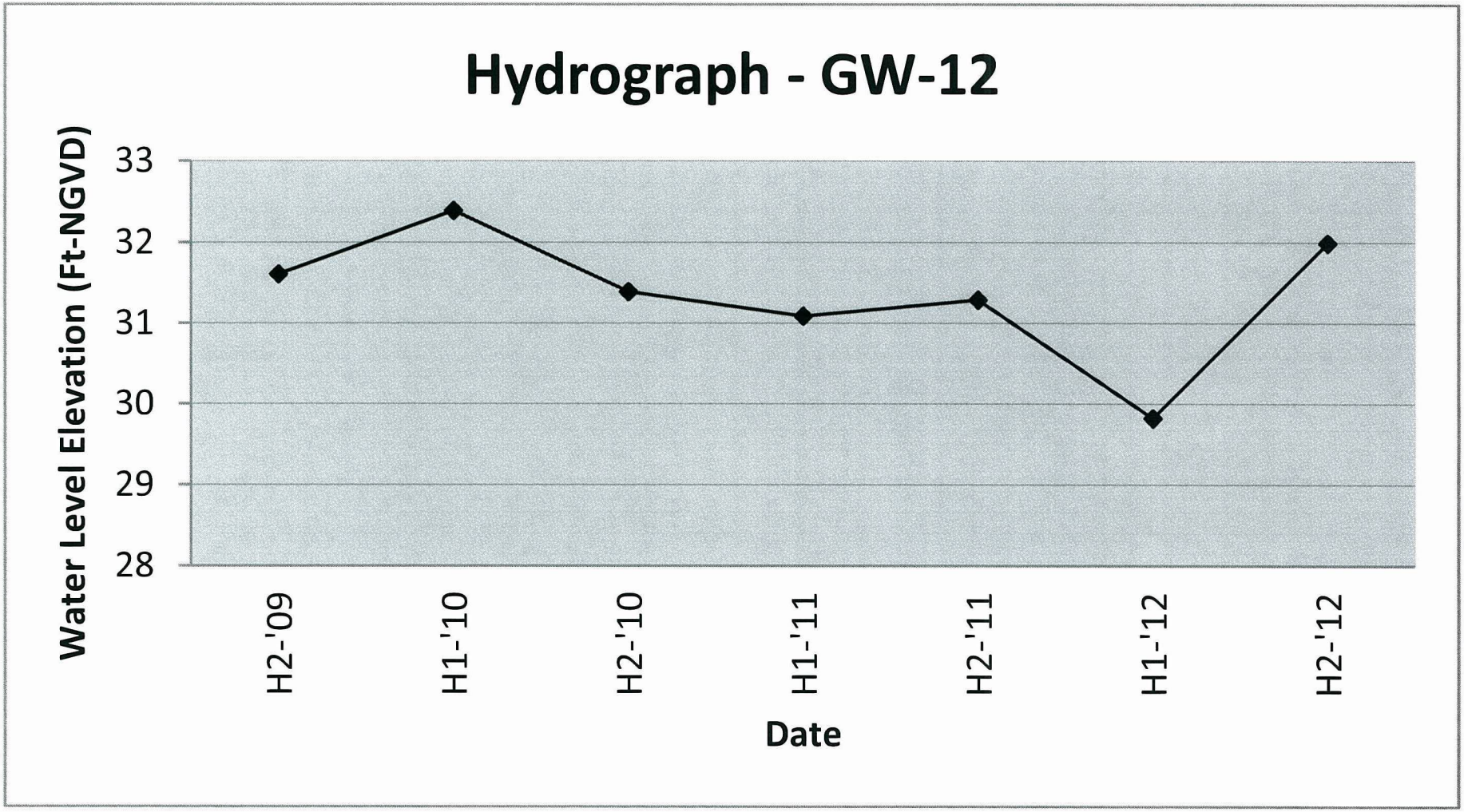

Hydrograph - GW-7
Water Level Elevation (Ft-NGVD)
33
32
31
30
29
28
27
26
25
24
23
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

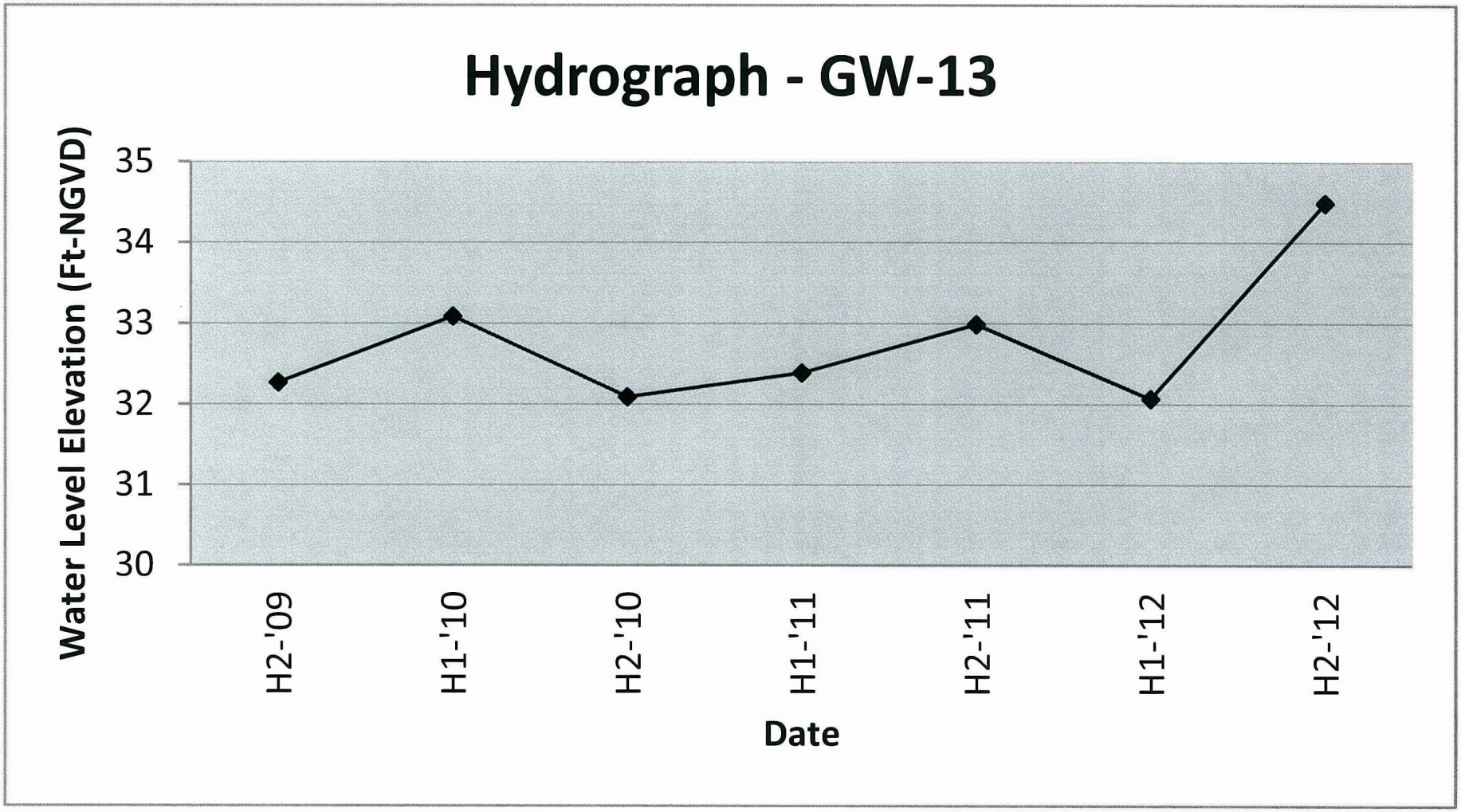

Hydrograph - GW-8
Water Level Elevation (Ft-NGVD)
32
31
30
29
28
27
26
25
24
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

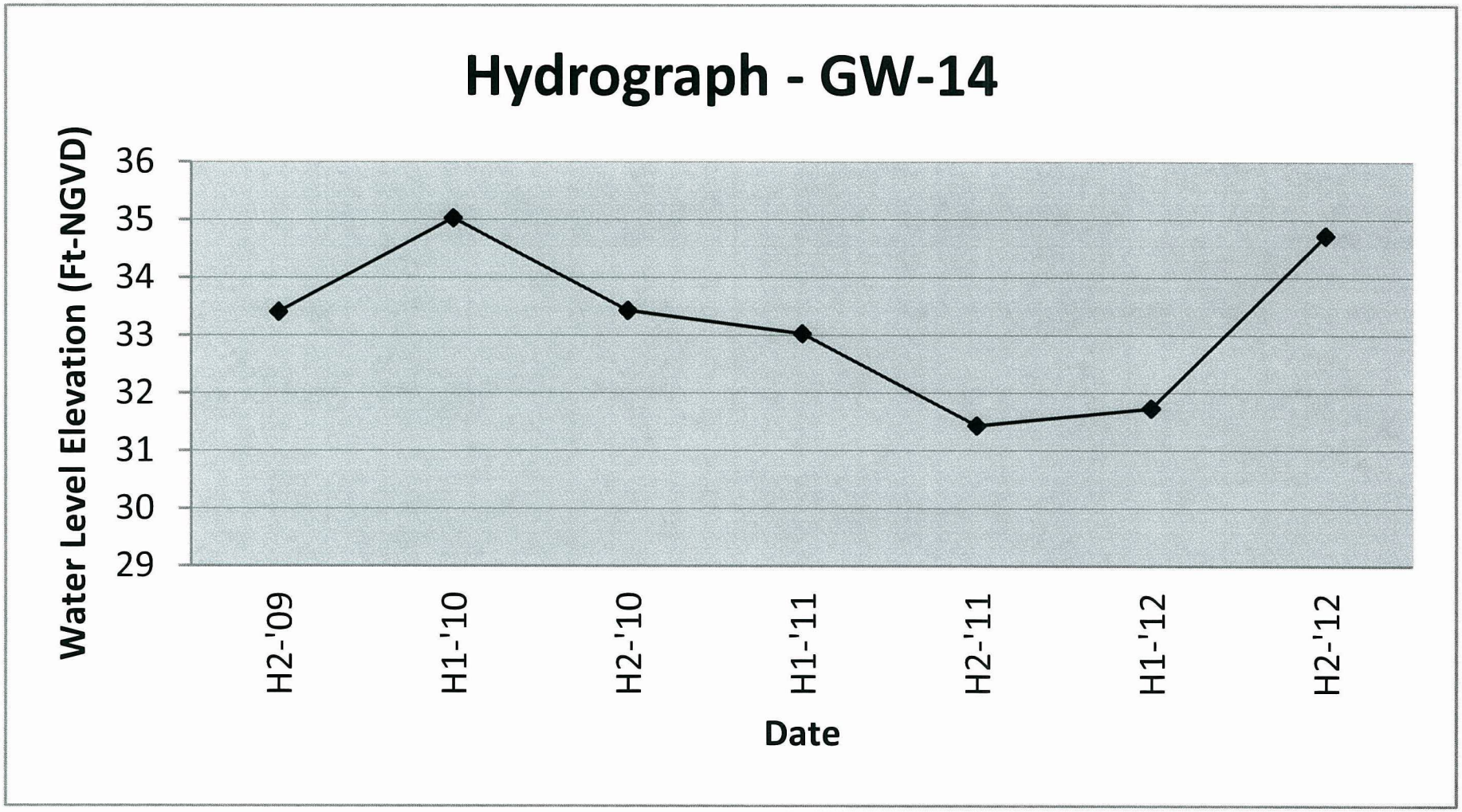

Hydrograph - GW-9
Water Level Elevation (Ft-NGVD)
33
32
31
30
29
28
27
26
25
24
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

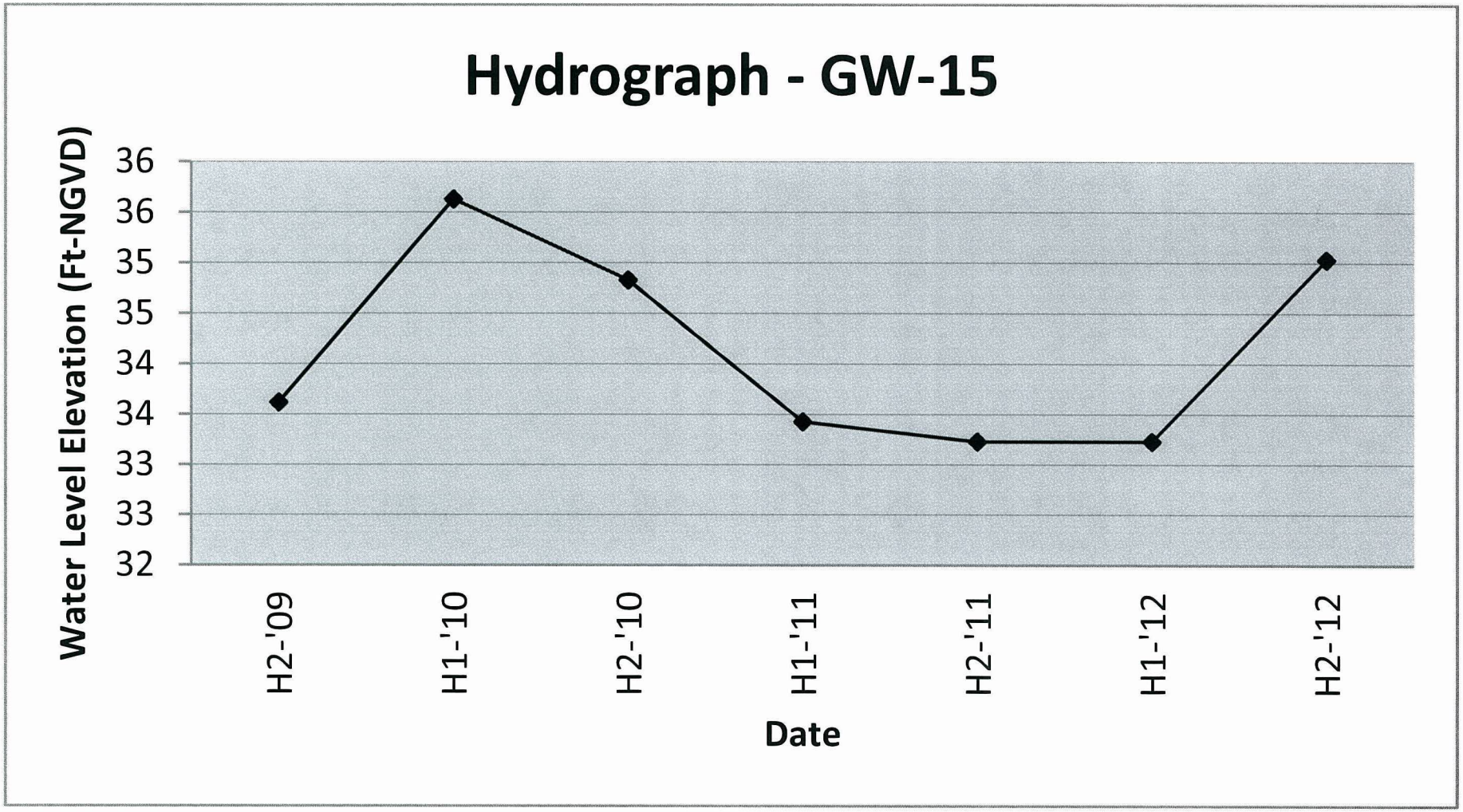

Hydrograph - GW-10
Water Level Elevation (Ft-NGVD)
32
31
30
29
28
27
26
25
24
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

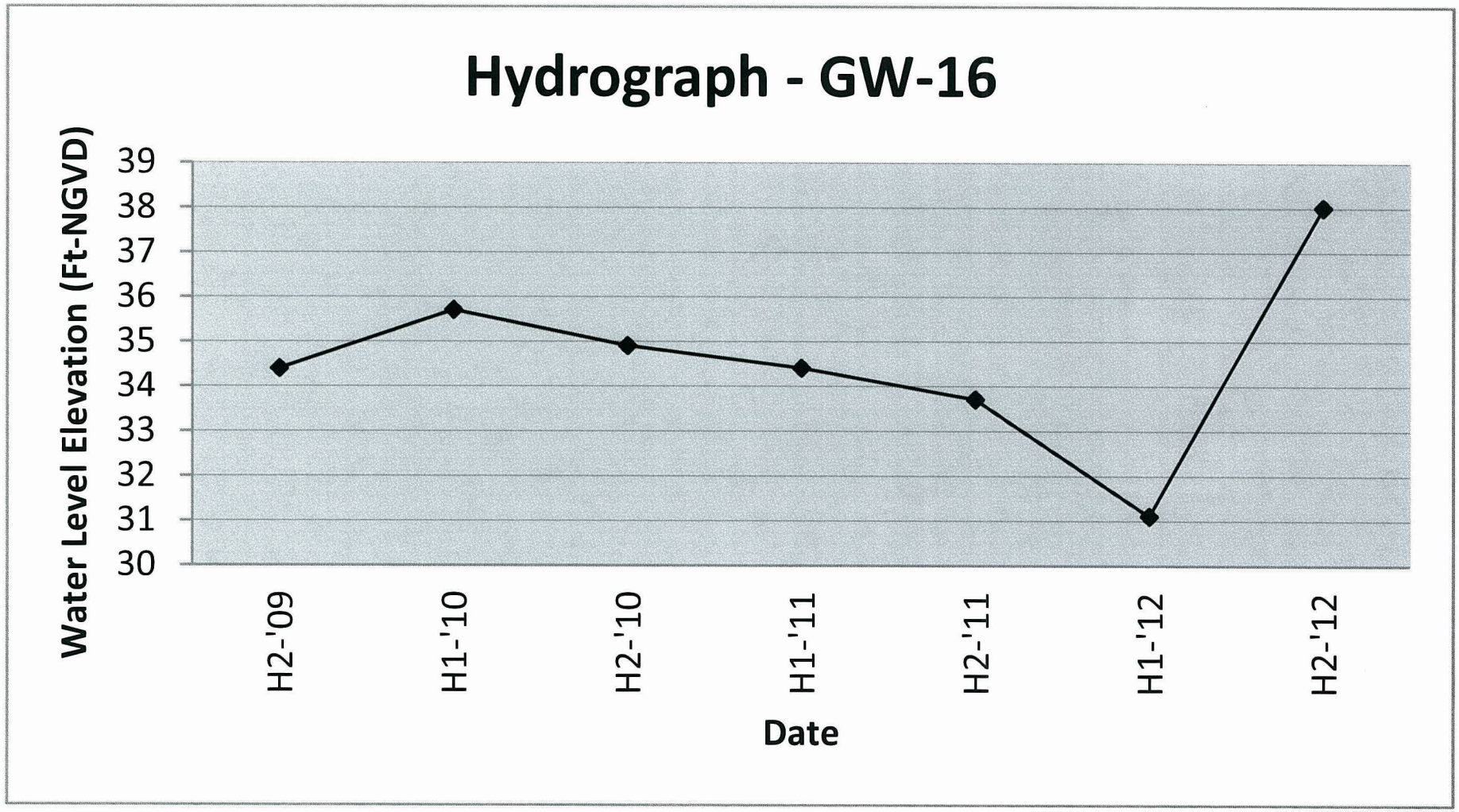

Hydrograph - GW-11
Water Level Elevation (Ft-NGVD)
33
32
31
30
29
28
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

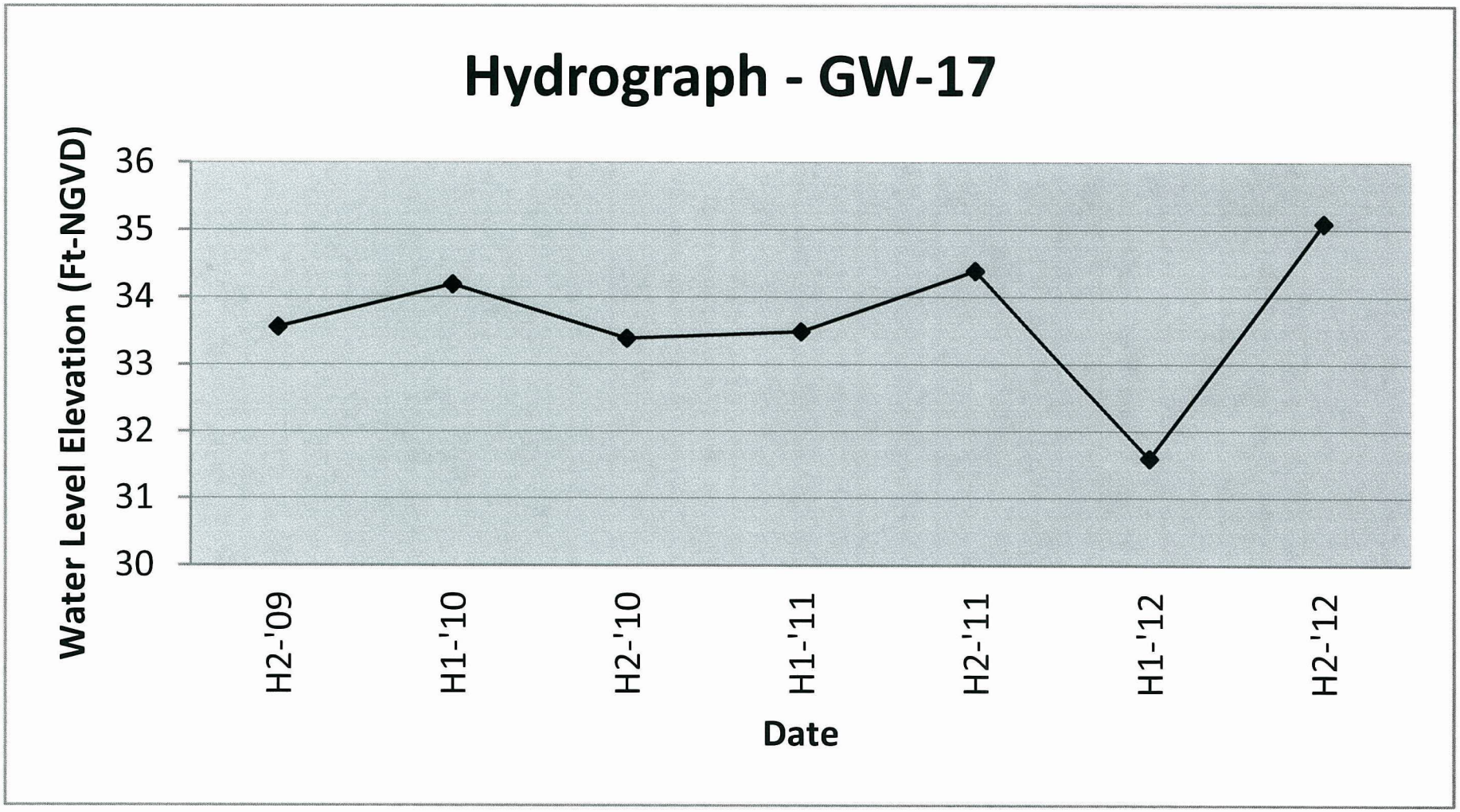

Hydrograph - GW-12
Water Level Elevation (Ft-NGVD)
33
32
31
30
29
28
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

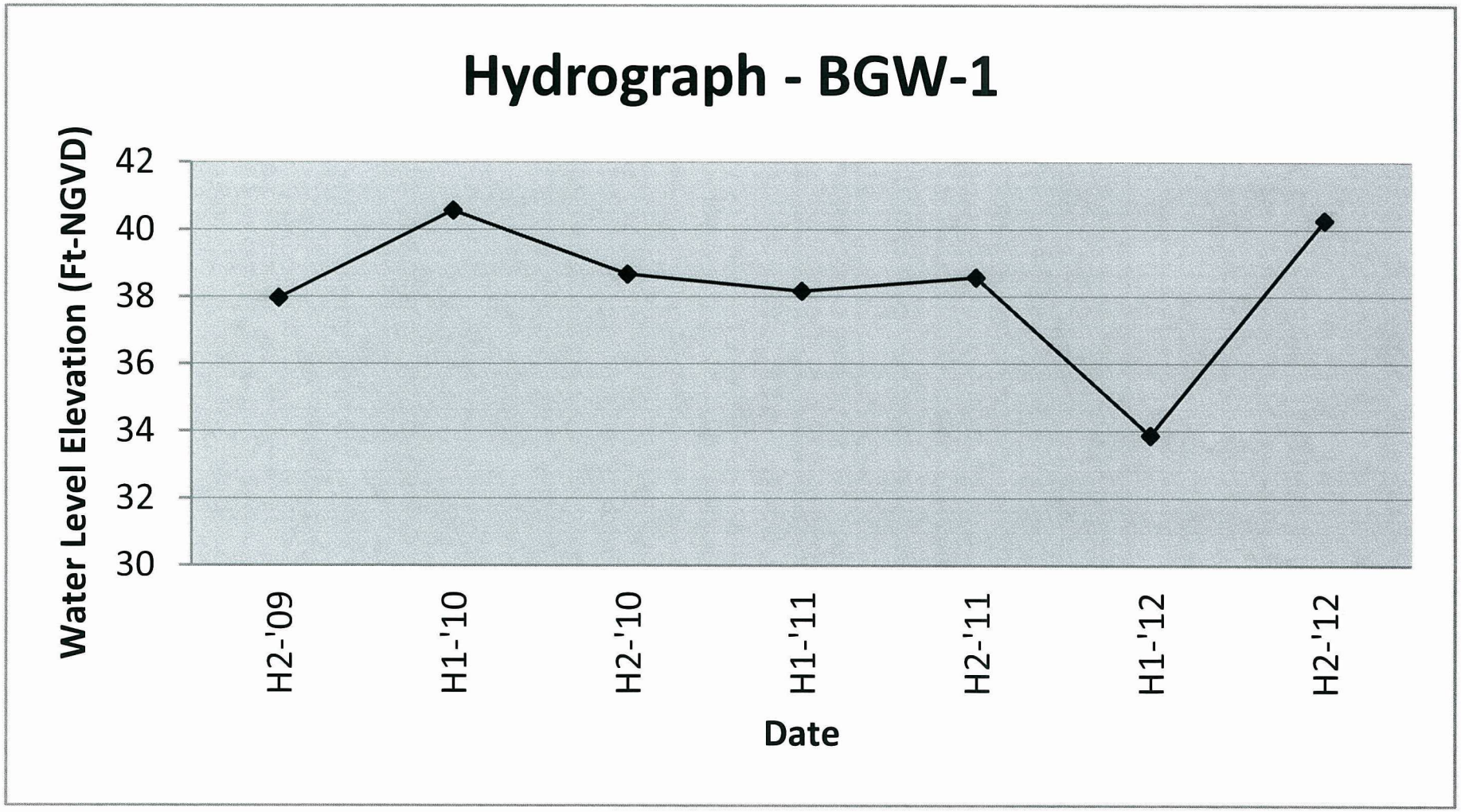

Hydrograph - GW-13
Water Level Elevation (Ft-NGVD)
35
34
33
32
31
30
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date


Hydrograph - GW-14
Water Level Elevation (Ft-NGVD)
36
35
34
33
32
31
30
29
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date


Hydrograph - GW-15
Water Level Elevation (Ft-NGVD)
36
36
35
35
34
34
33
33
32
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

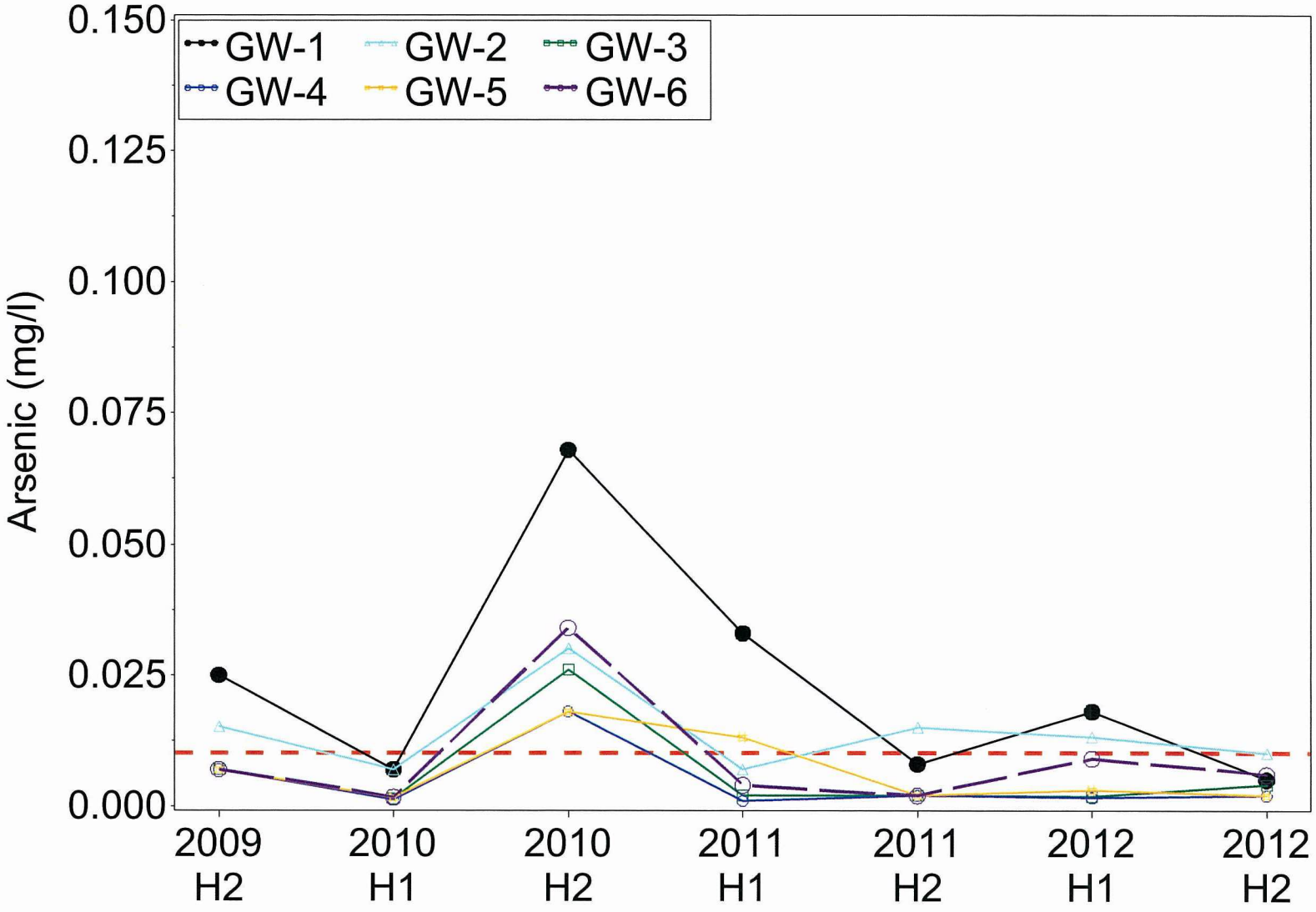

Hydrograph - GW-16
Water Level Elevation (Ft-NGVD)
39
38
37
36
35
34
33
32
31
30
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date


Hydrograph - GW-17
Water Level Elevation (Ft-NGVD)
36
35
34
33
32
31
30
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

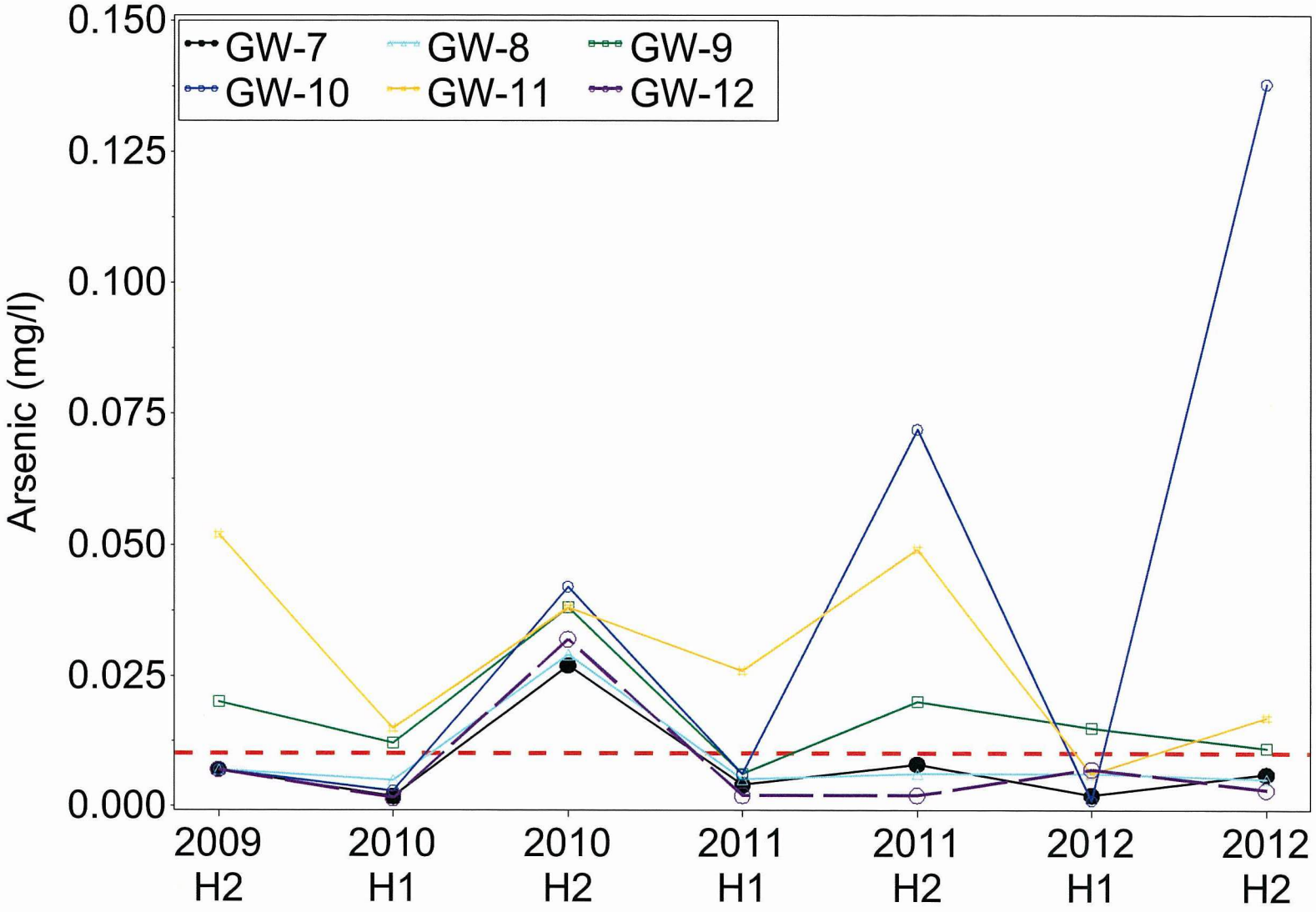

Hydrograph - BGW-1
Water Level Elevation (Ft-NGVD)
42
40
38
36
34
32
30
H2-'09
H1-'10
H2-'10
H1-'11
H2-'11
H1-'12
H2-'12
Date

APPENDIX C

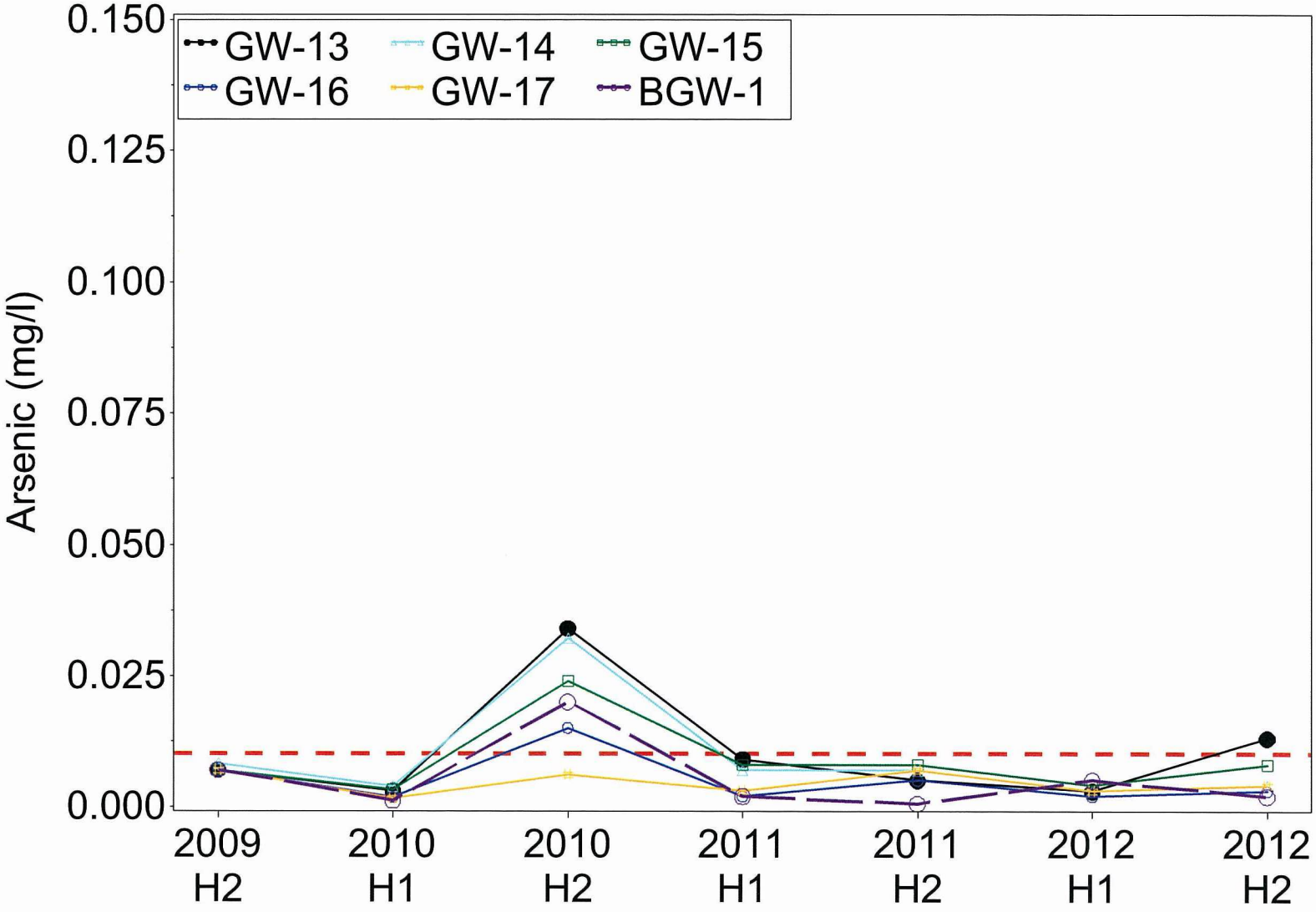
Parameter Concentration Graphs



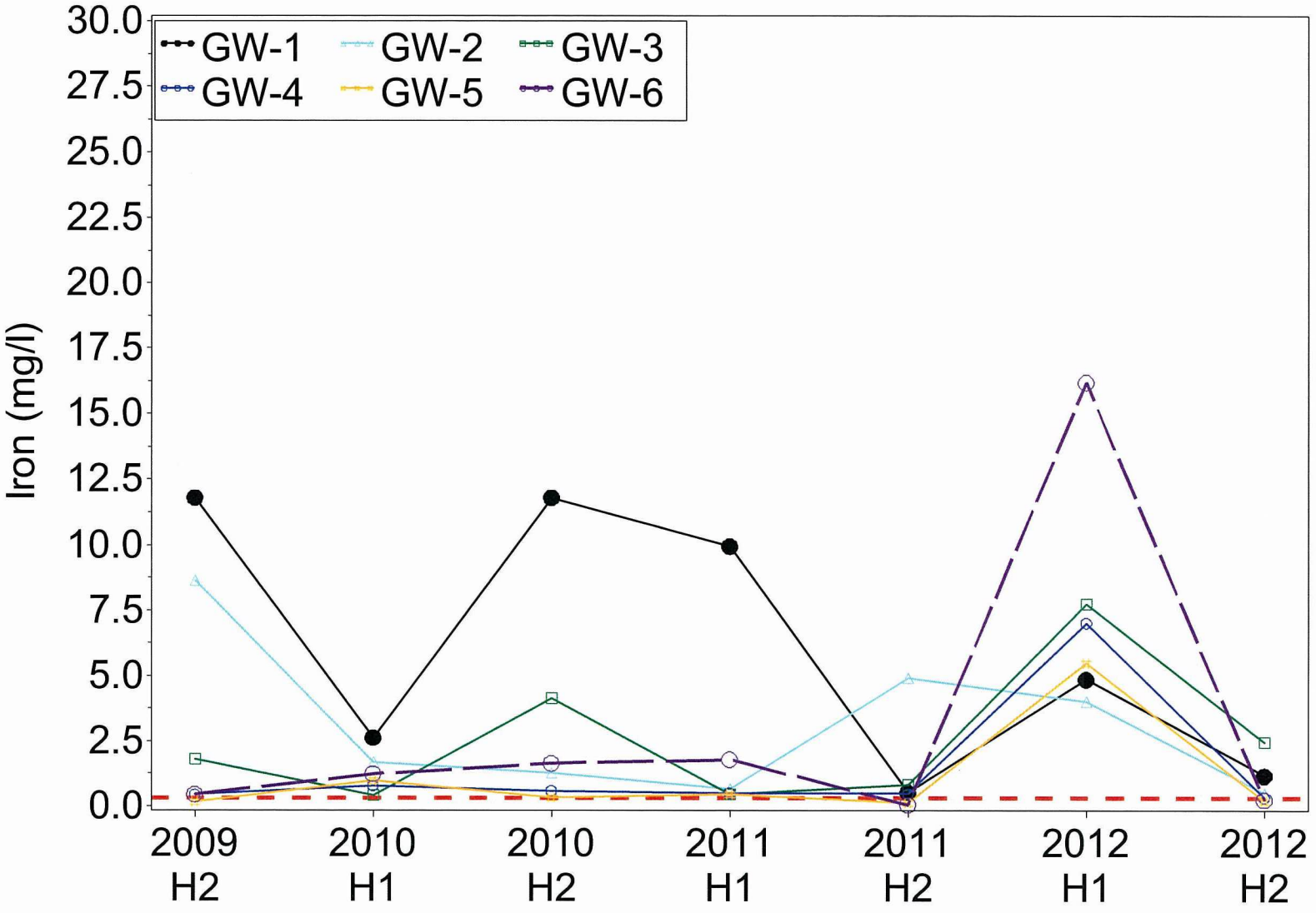
Arsenic concentration in various monitoring wells at the Lena Road Landfill



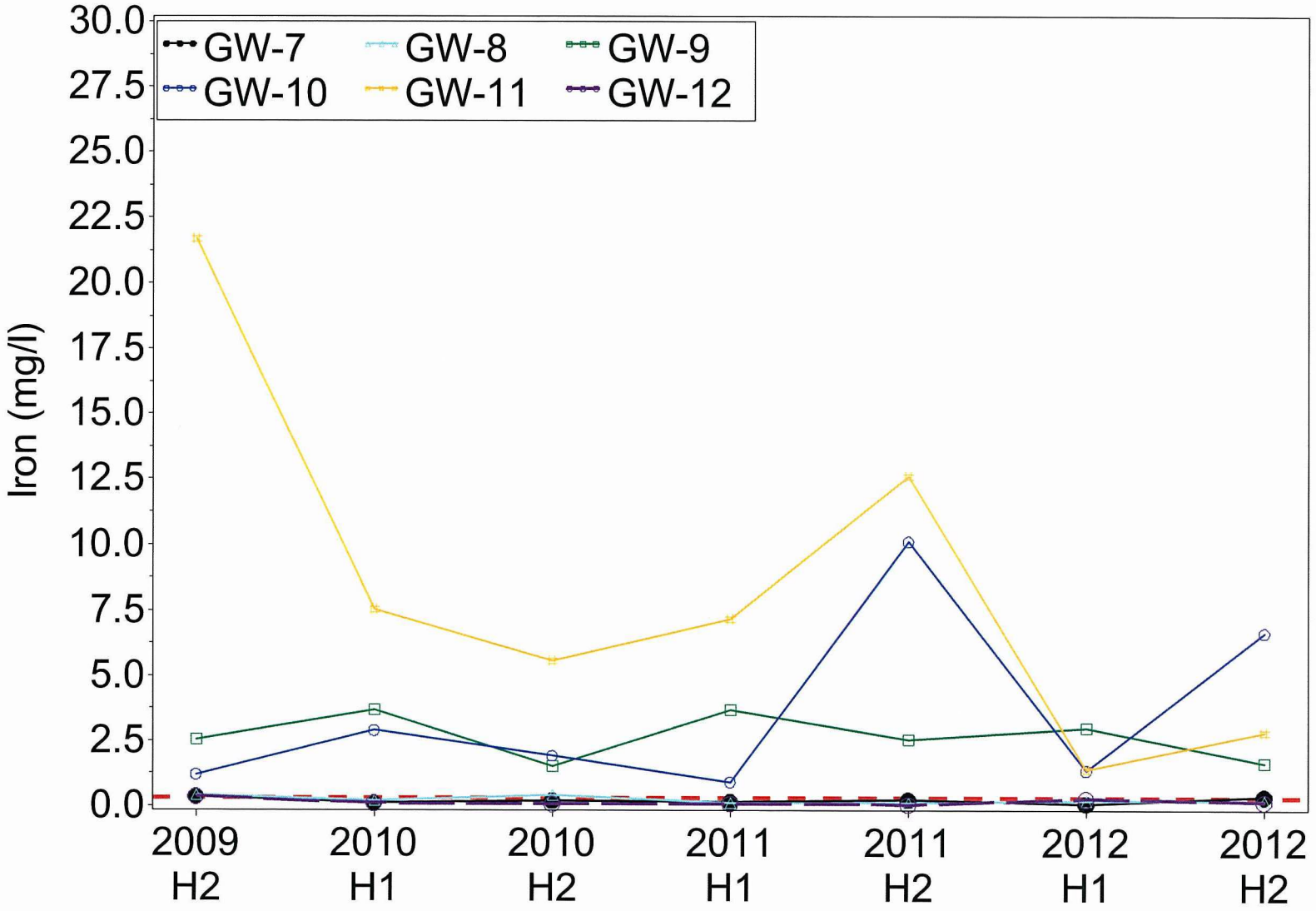
Arsenic concentration in various monitoring wells at the Lena Road Landfill



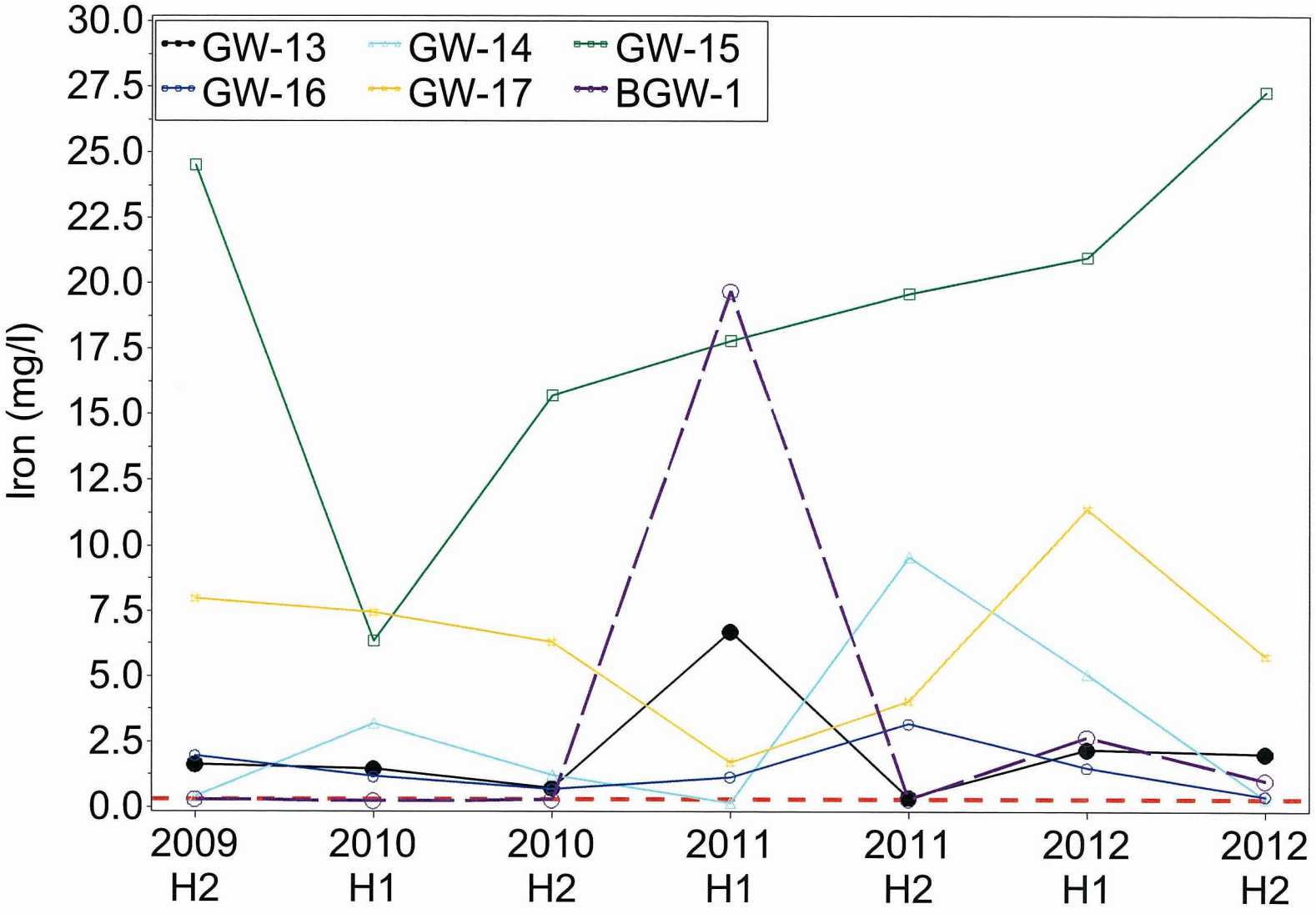
Arsenic concentration in various monitoring wells at the Lena Road Landfill



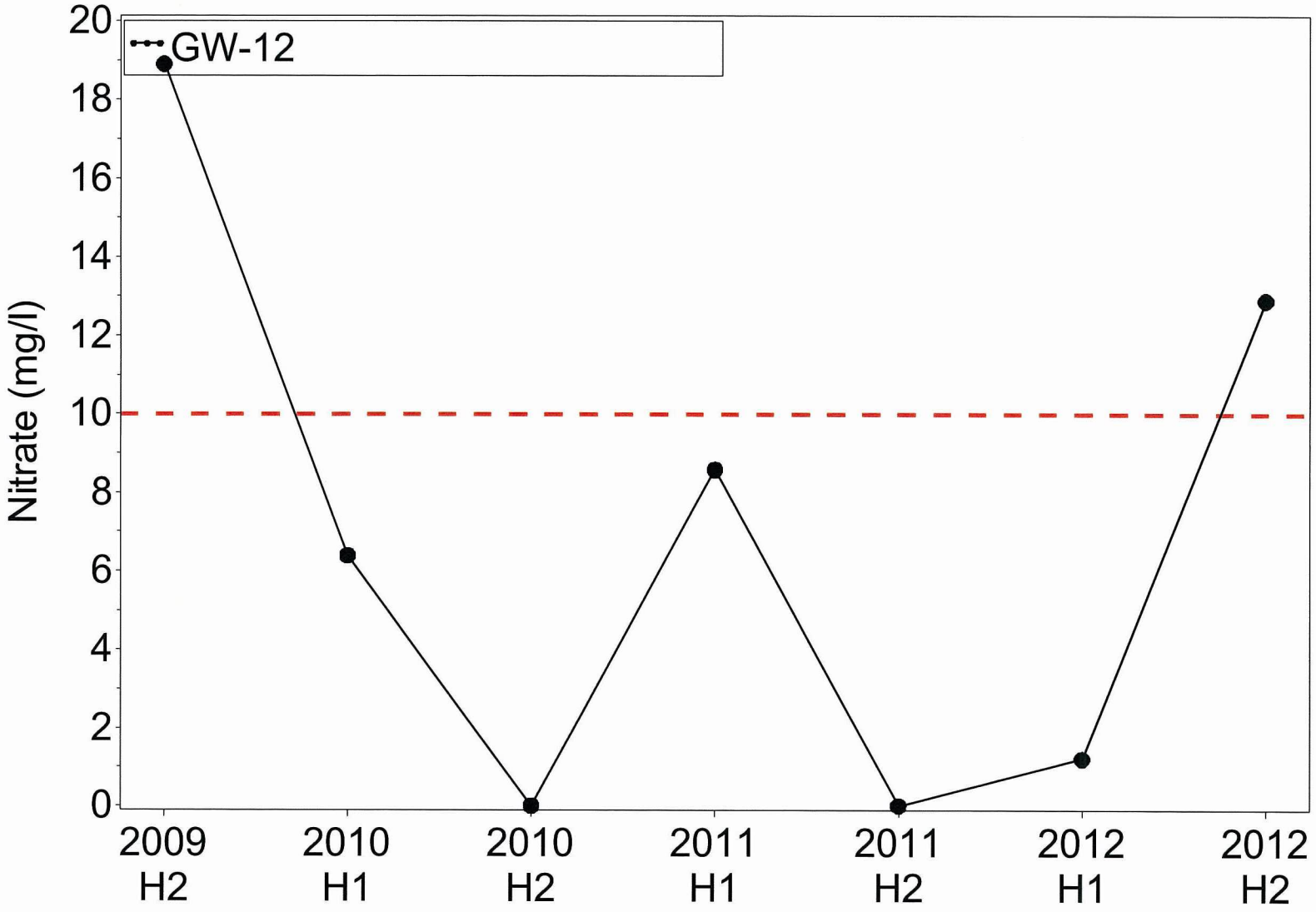
Iron concentration in various monitoring wells at the Lena Road Landfill



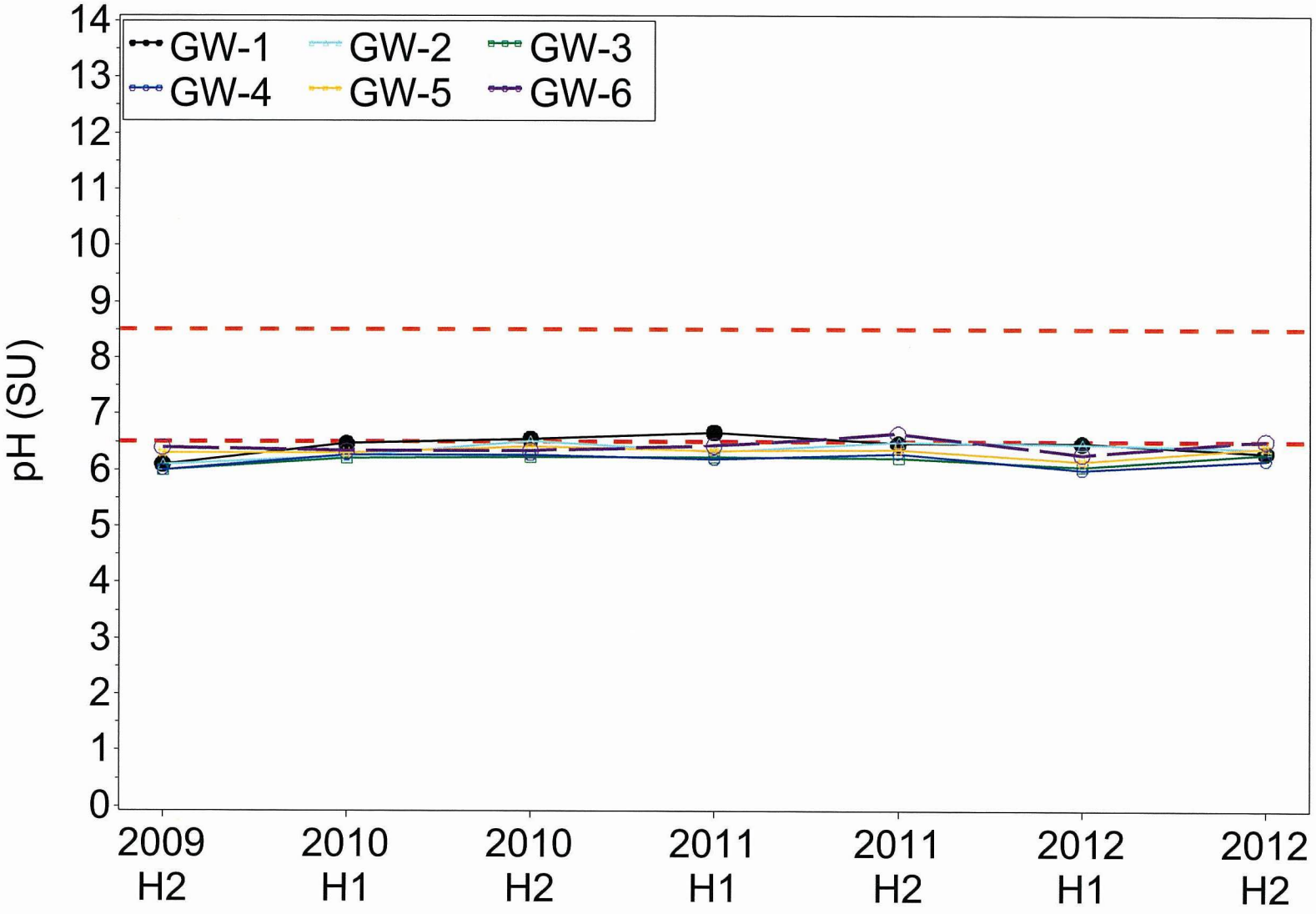
Iron concentration in various monitoring wells at the Lena Road Landfill



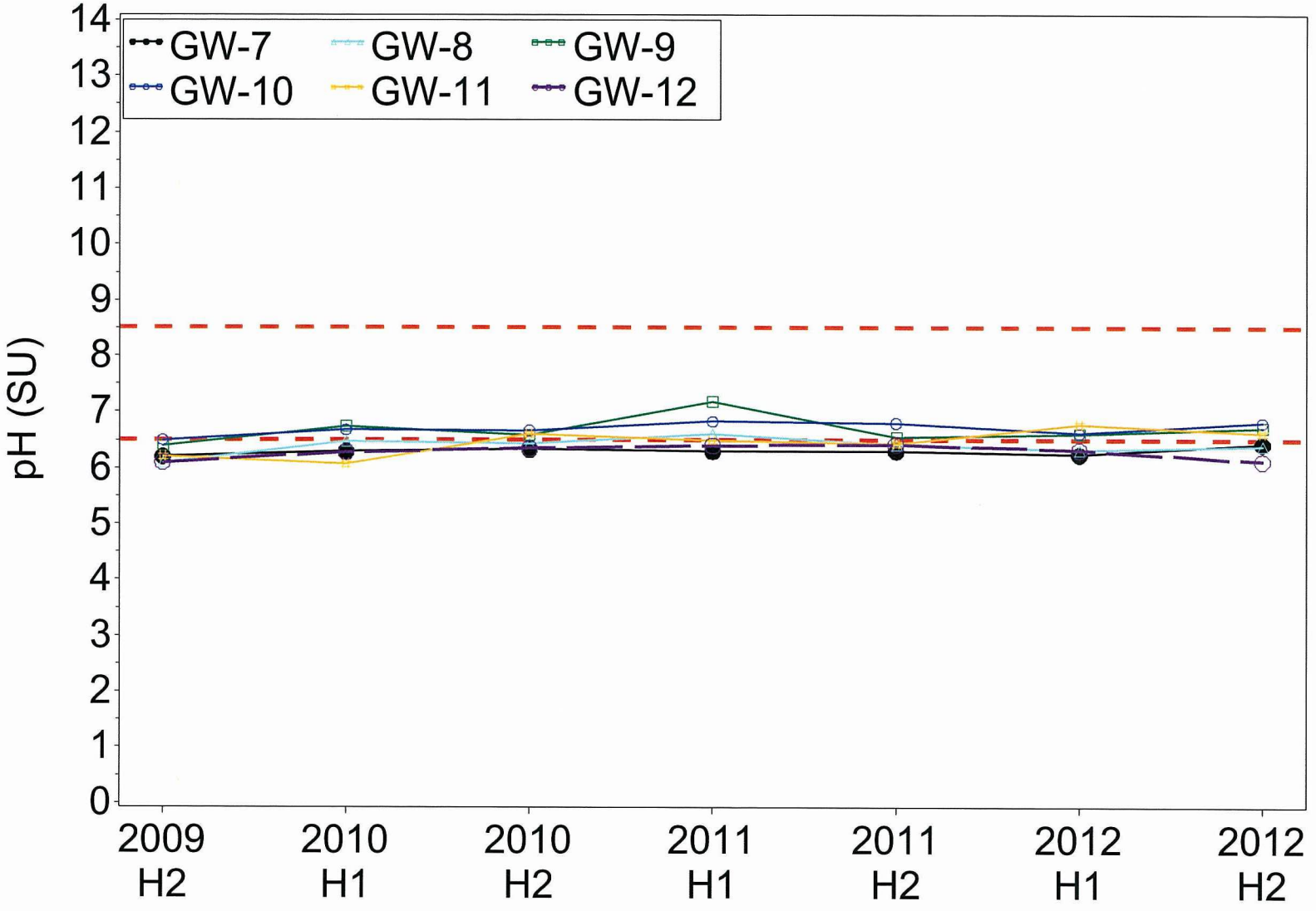
Iron concentration in various monitoring wells at the Lena Road Landfill



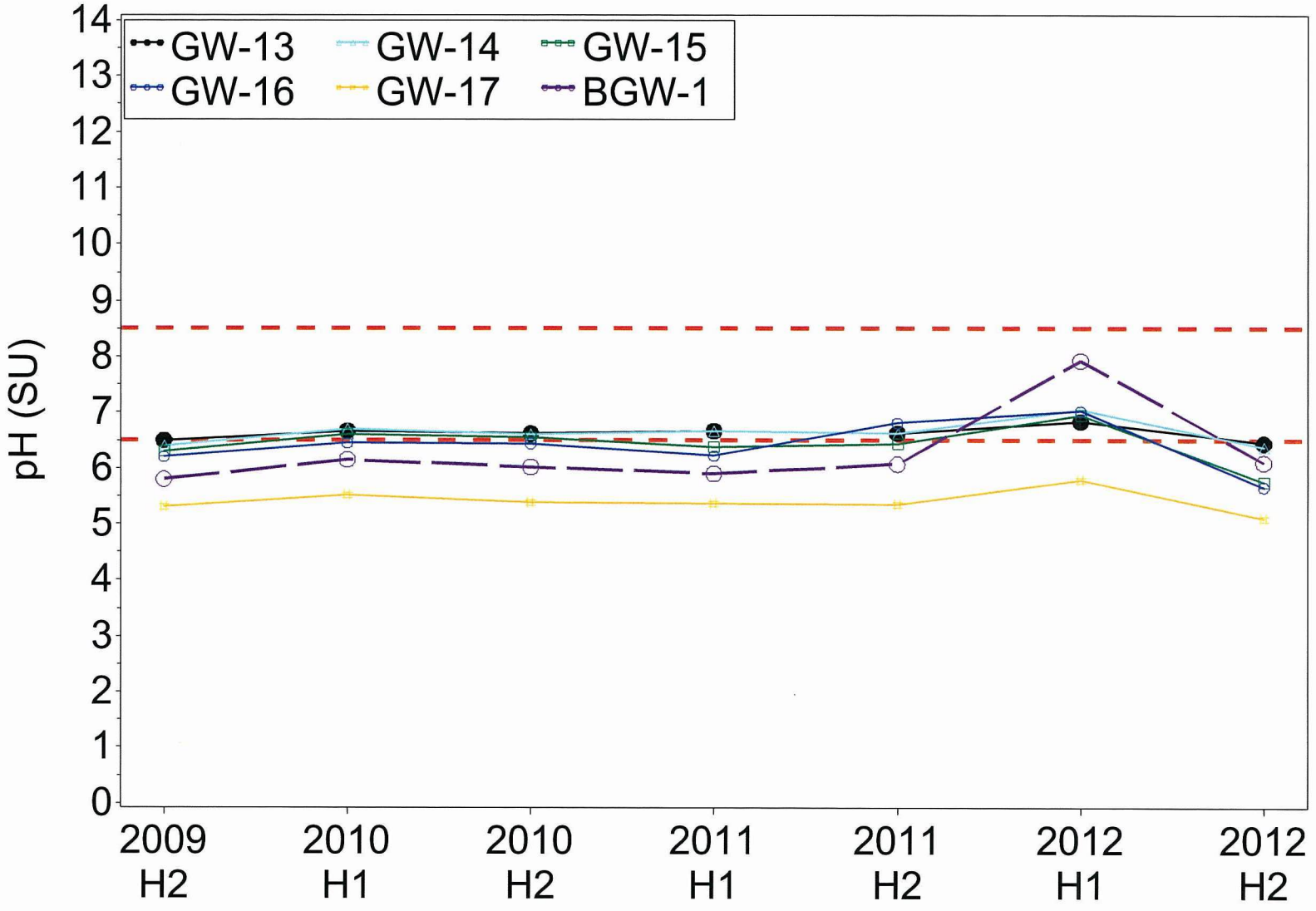
Nitrate concentration in monitoring well GW-12 at the Lena Road Landfill



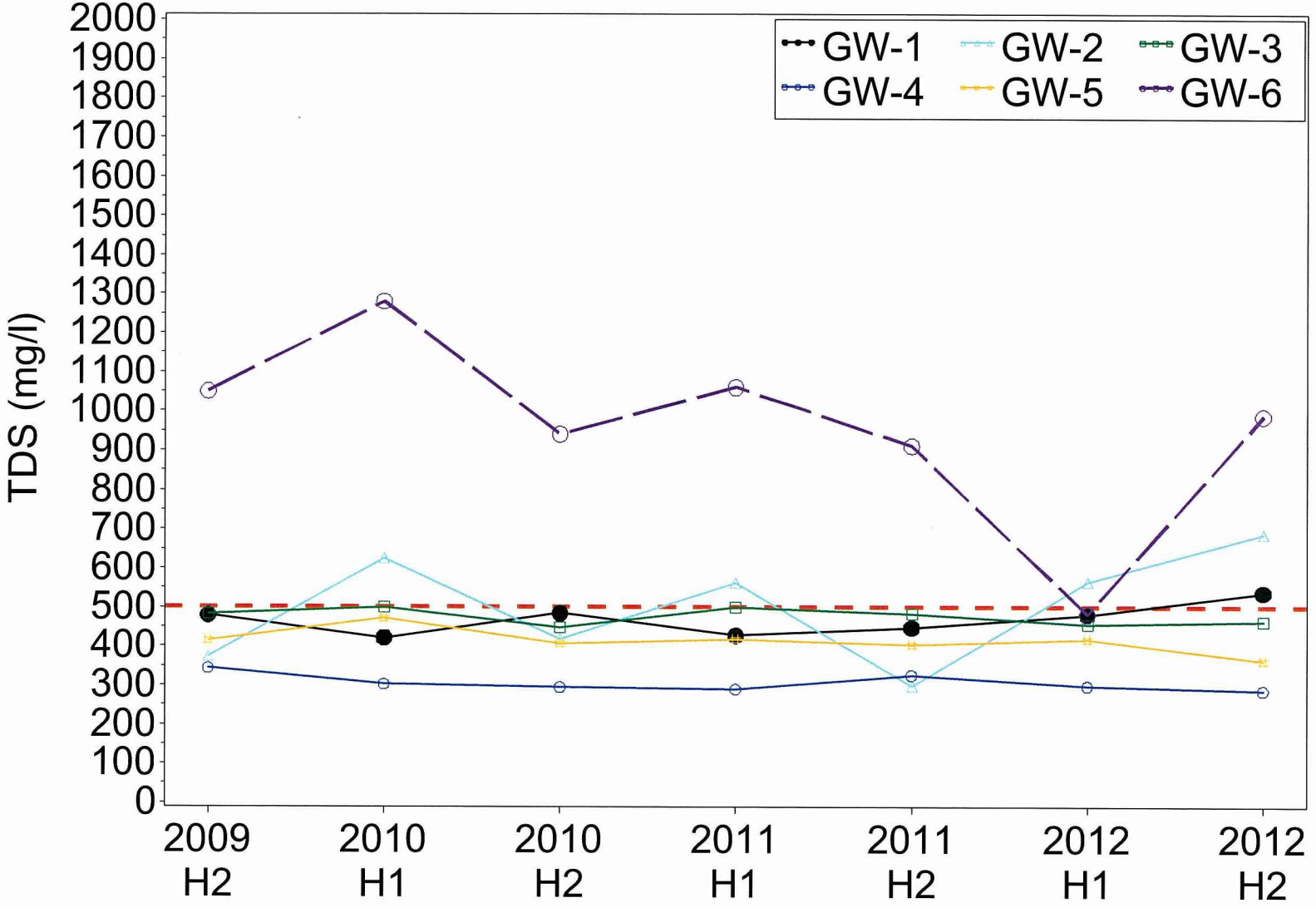
pH concentration in various monitoring wells at the Lena Road Landfill



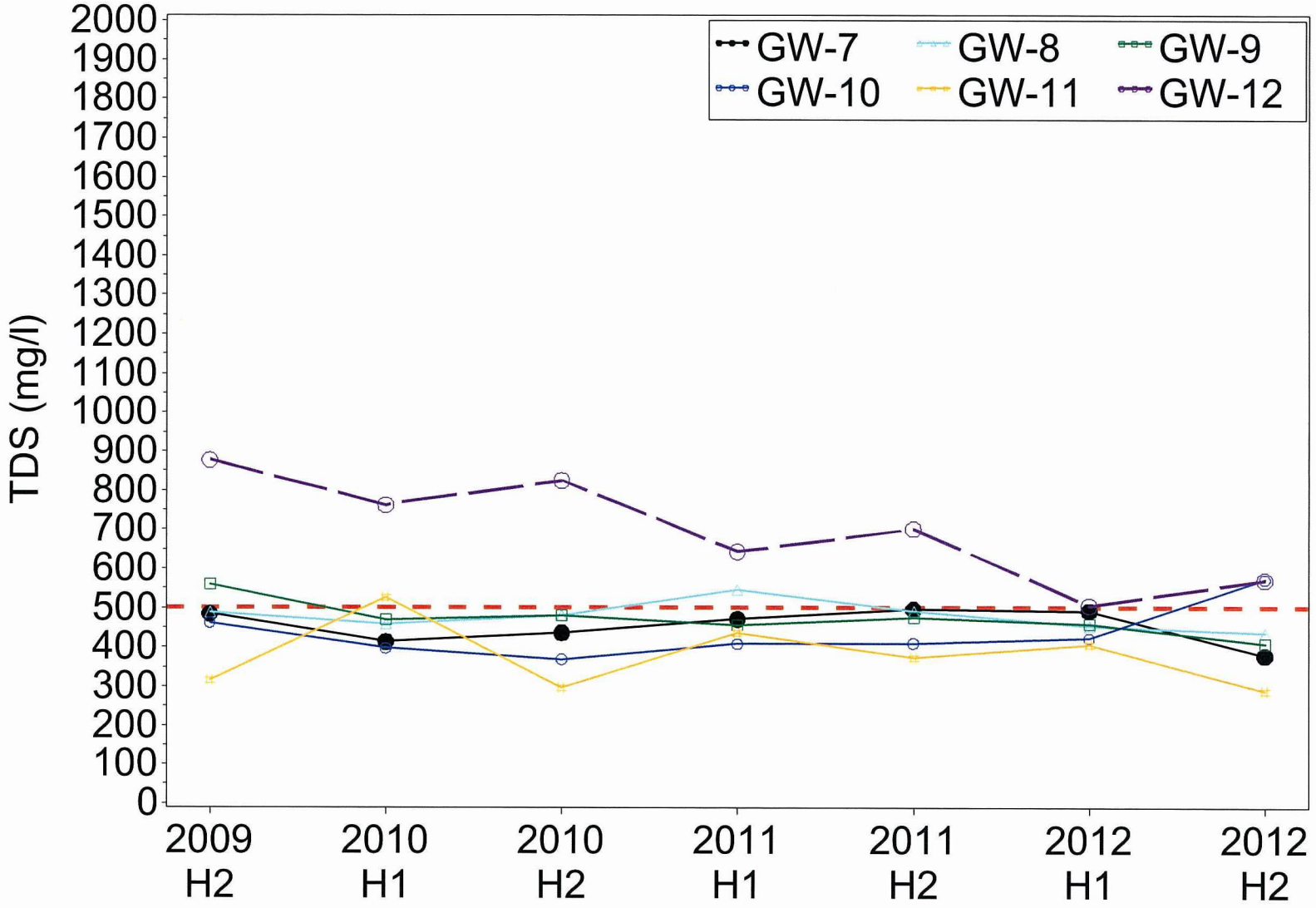
pH concentration in various monitoring wells at the Lena Road Landfill



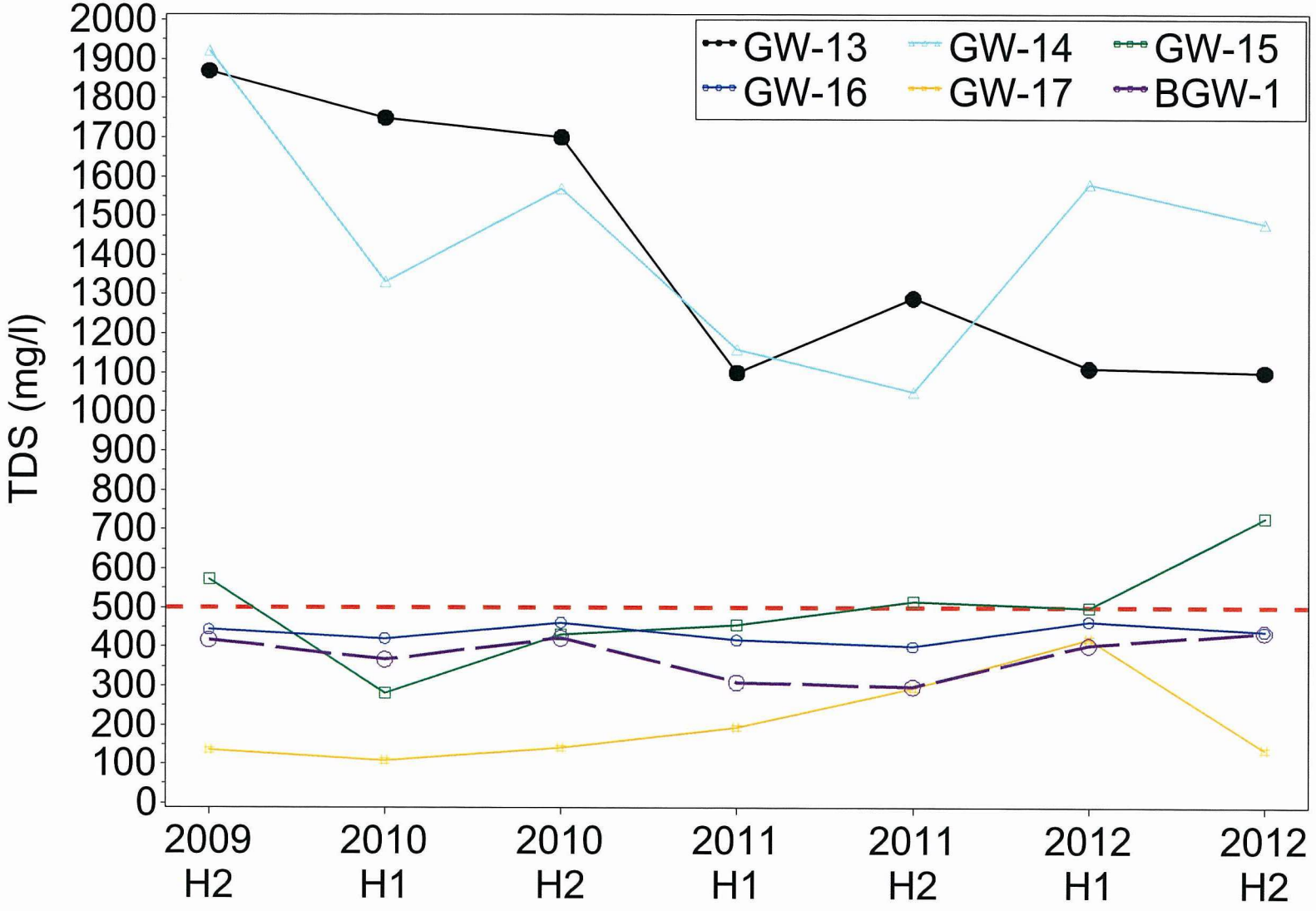
pH concentration in various monitoring wells at the Lena Road Landfill



TDS concentration in various monitoring wells at the Lena Road Landfill



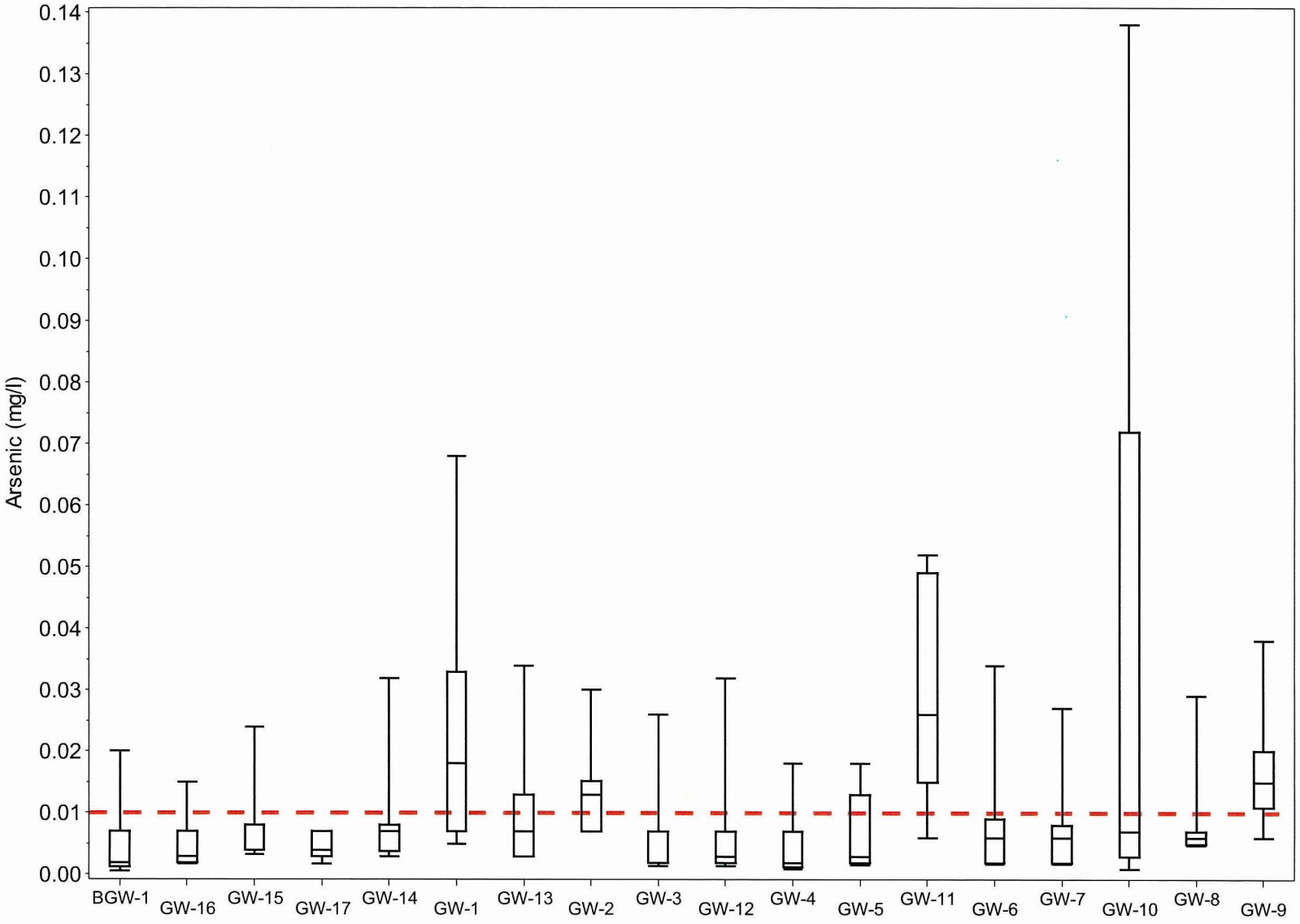
TDS concentration in various monitoring wells at the Lena Road Landfill



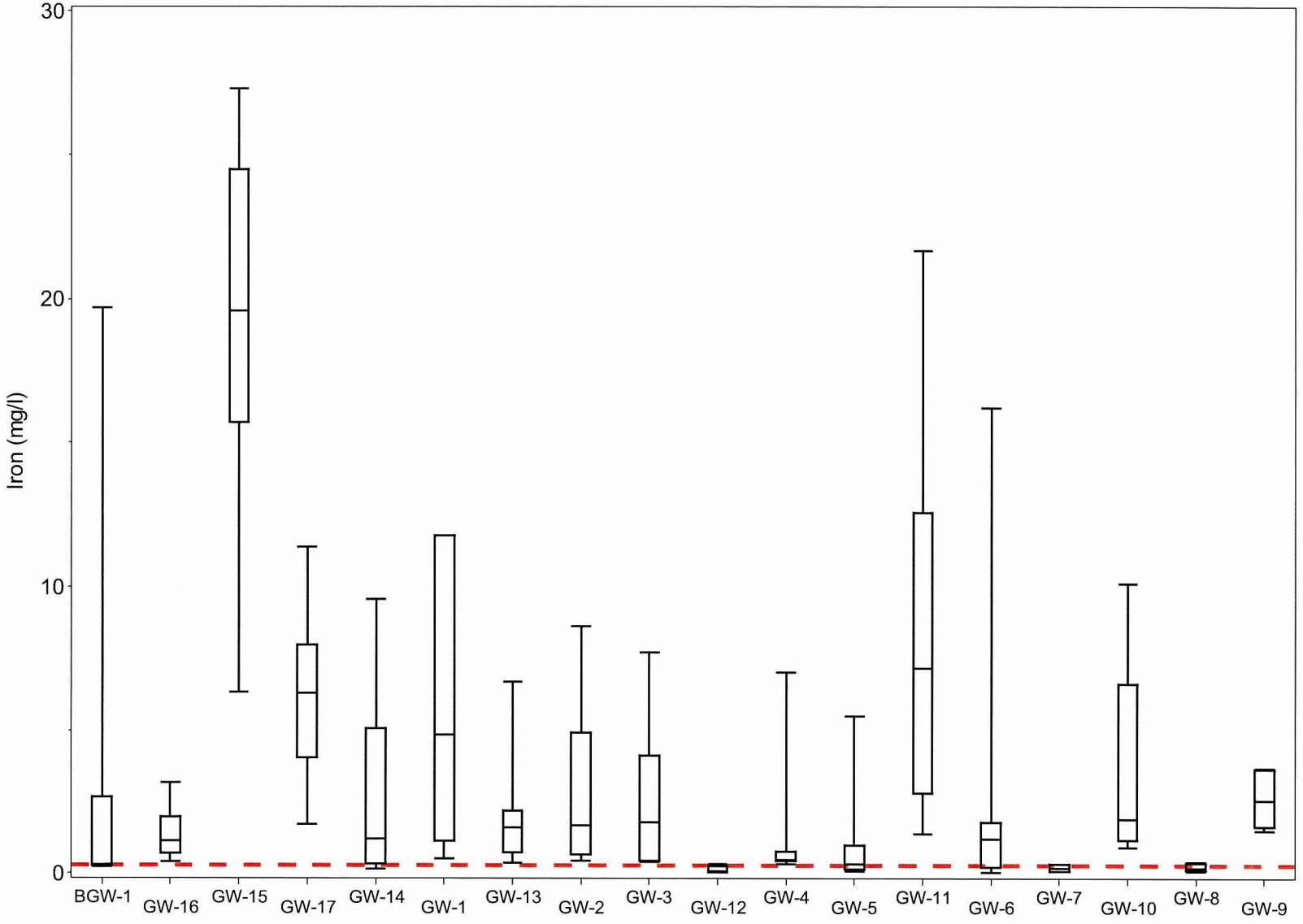
TDS concentration in various monitoring wells at the Lena Road Landfill

APPENDIX D

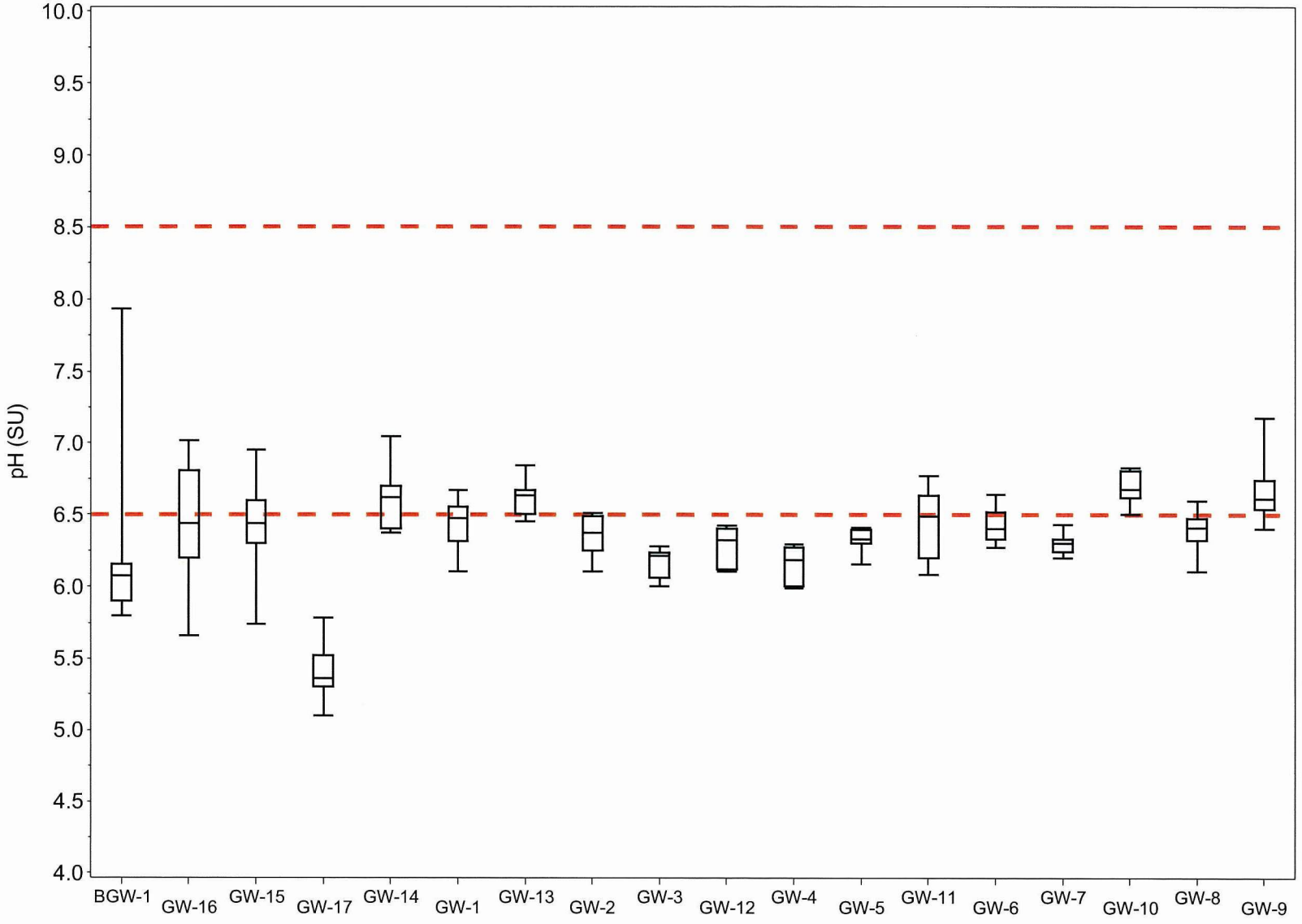
Cross-Gradient Graphs



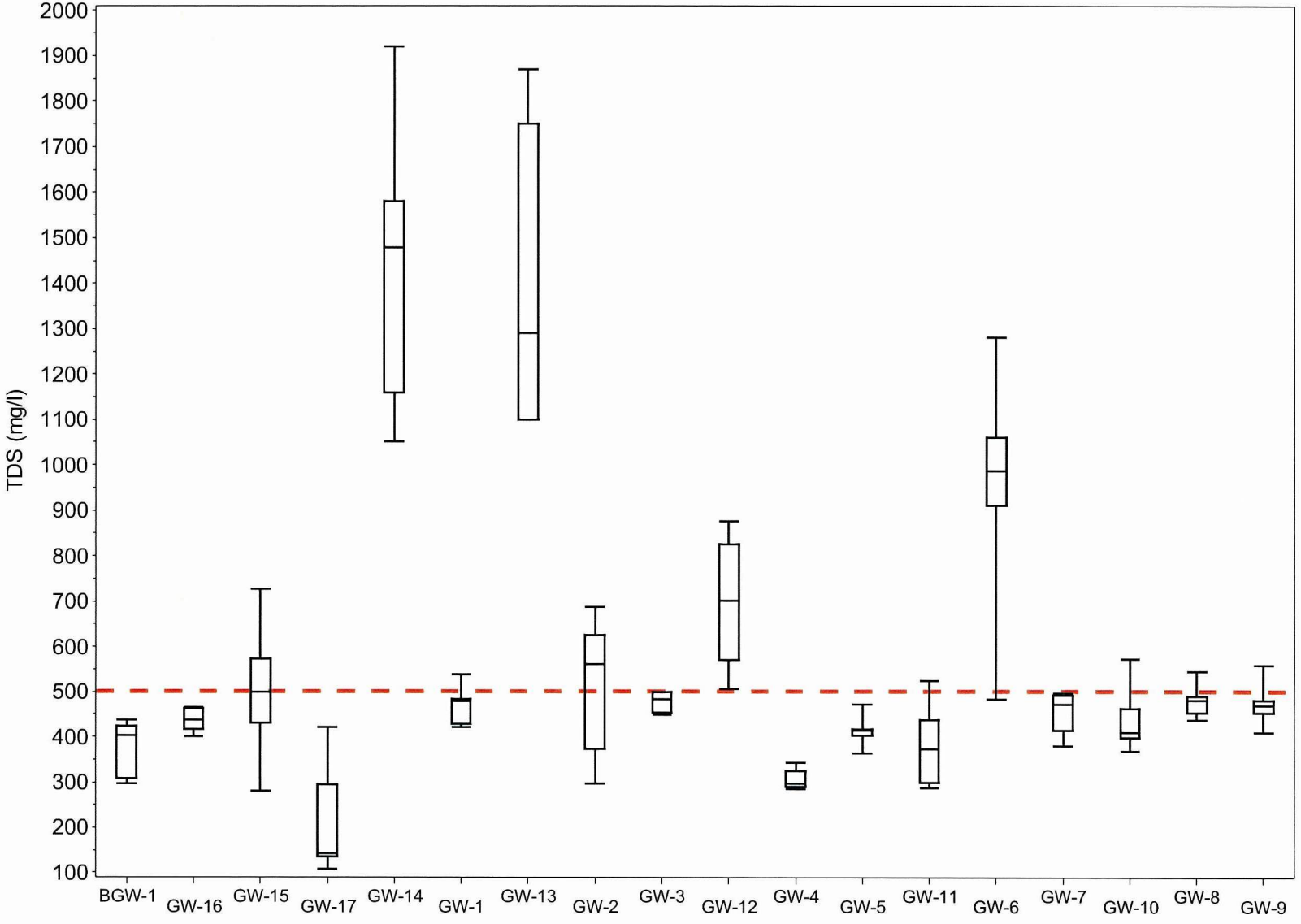
Arsenic concentration from upgradient (BGW-1) to downgradient (GW-9) at the Lena Road Landfill



Iron concentration from upgradient (BGW-1) to downgradient (GW-9) at the Lena Road Landfill



pH concentration from upgradient (BGW-1) to downgradient (GW-9) at the Lena Road Landfill

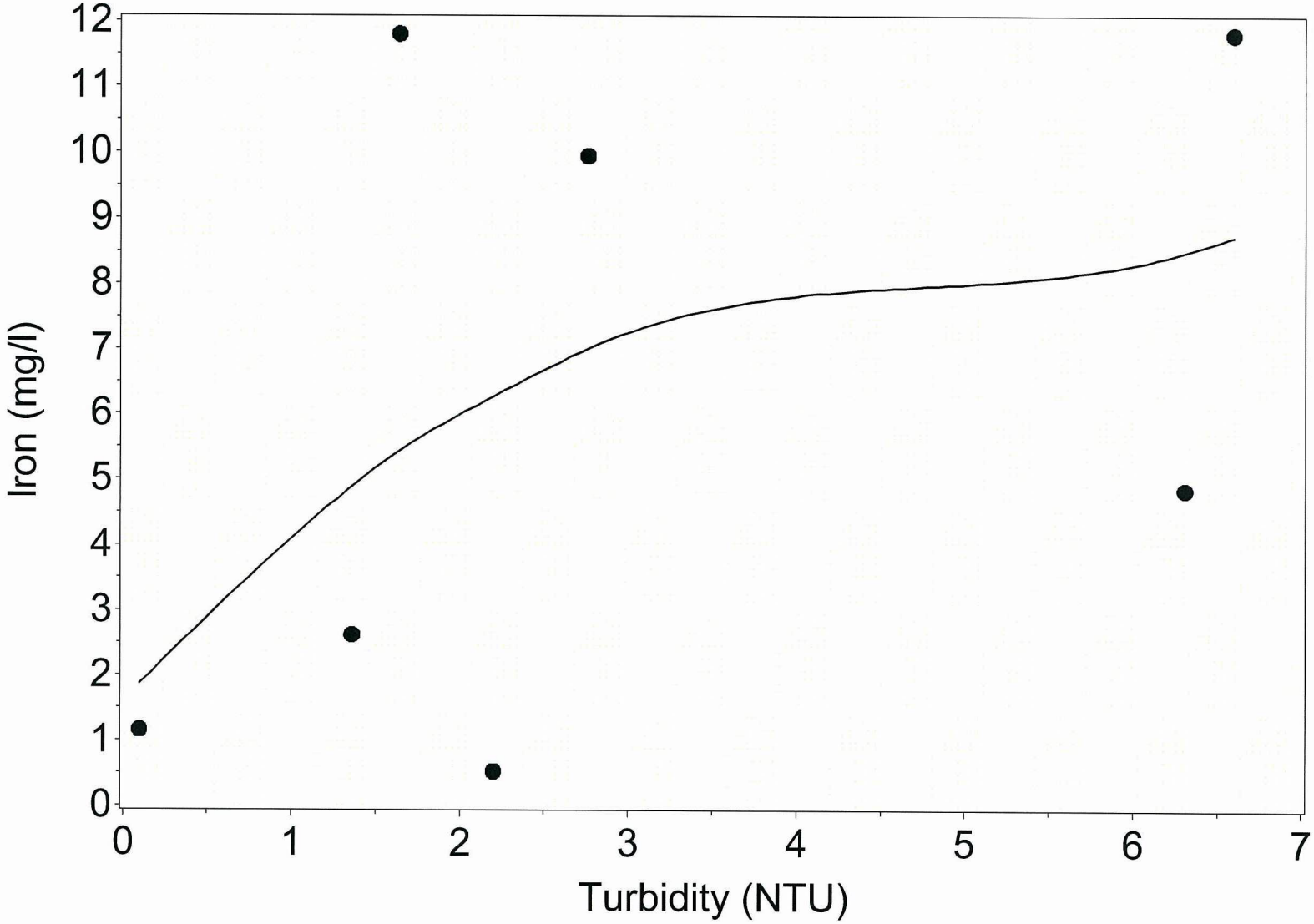


TDS concentration from upgradient (BGW-1) to downgradient (GW-9) at the Lena Road Landfill

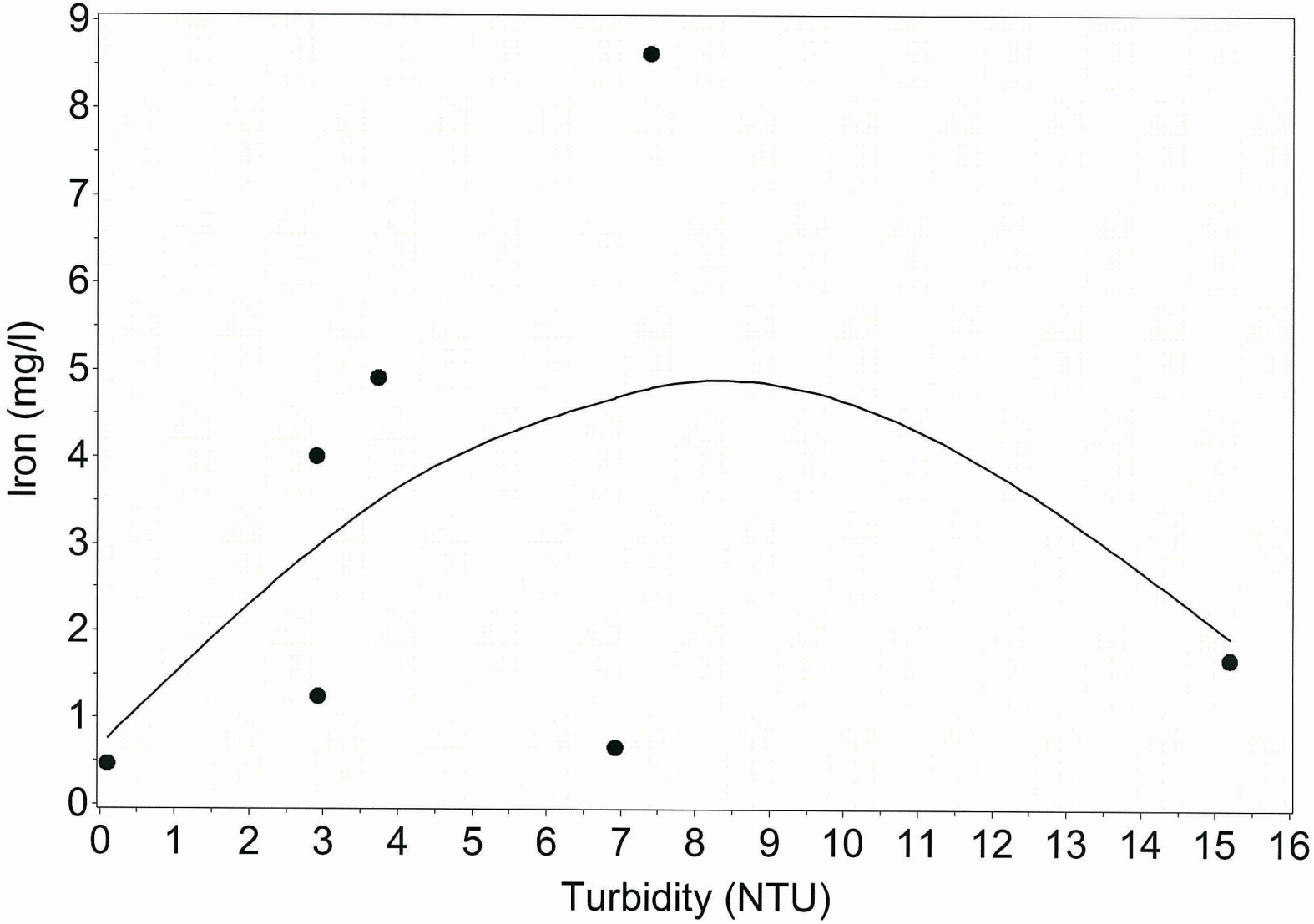
APPENDIX E

Related Parameter Correlation Graphs

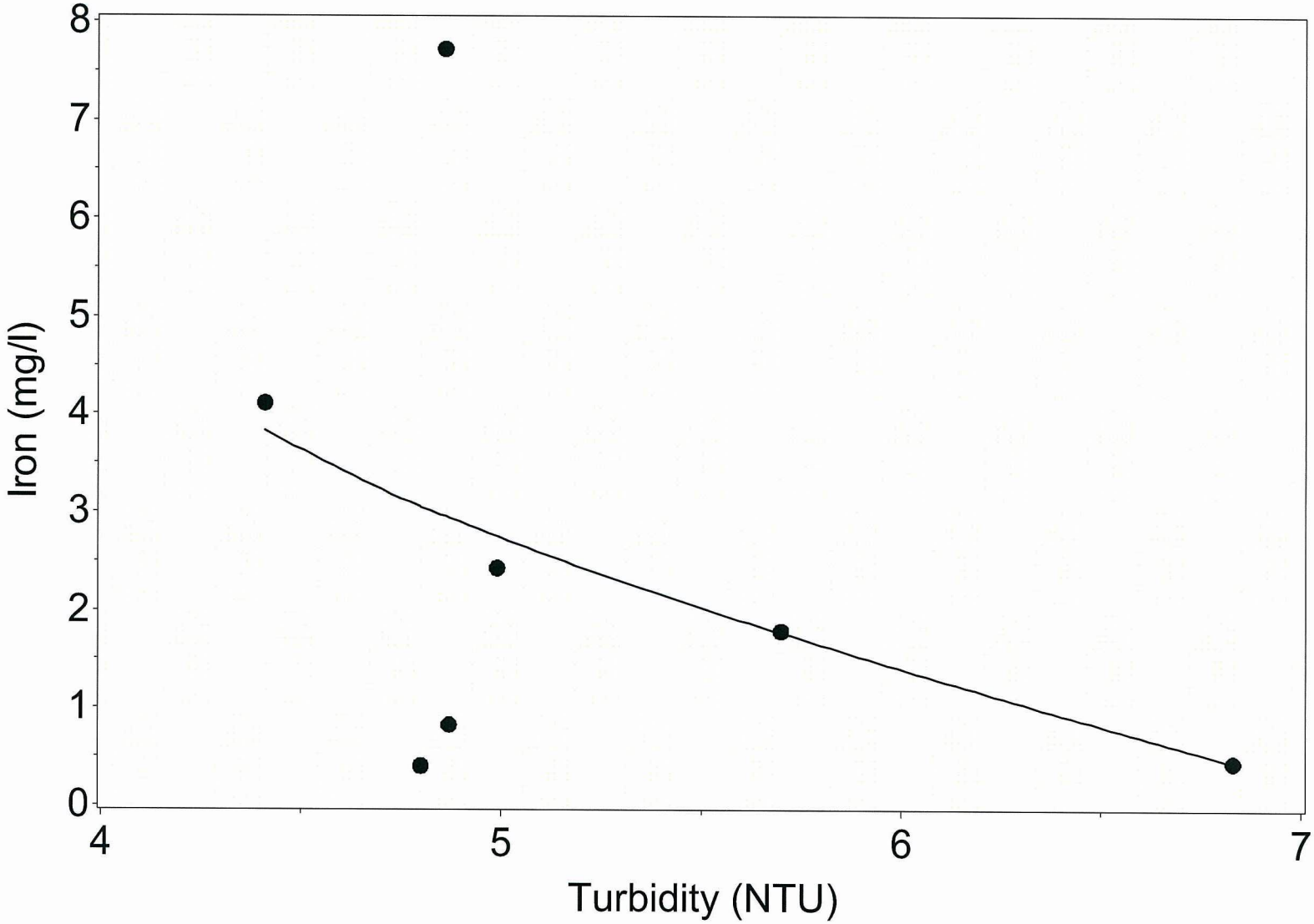
E-1 – Turbidity versus Iron



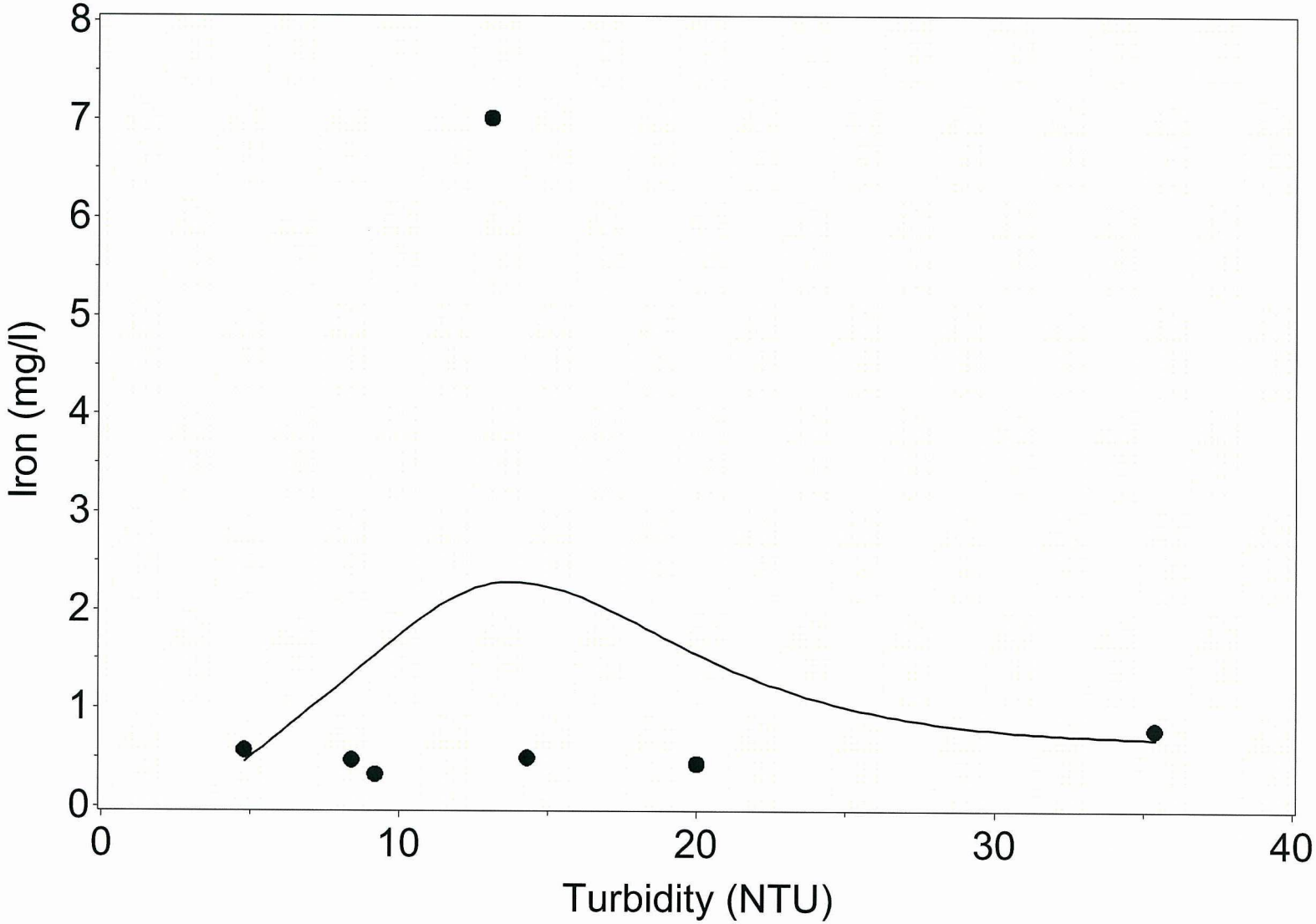
Iron concentration vs.Turbidity concentration in the GW-1 monitoring well at the Lena Road Landfill



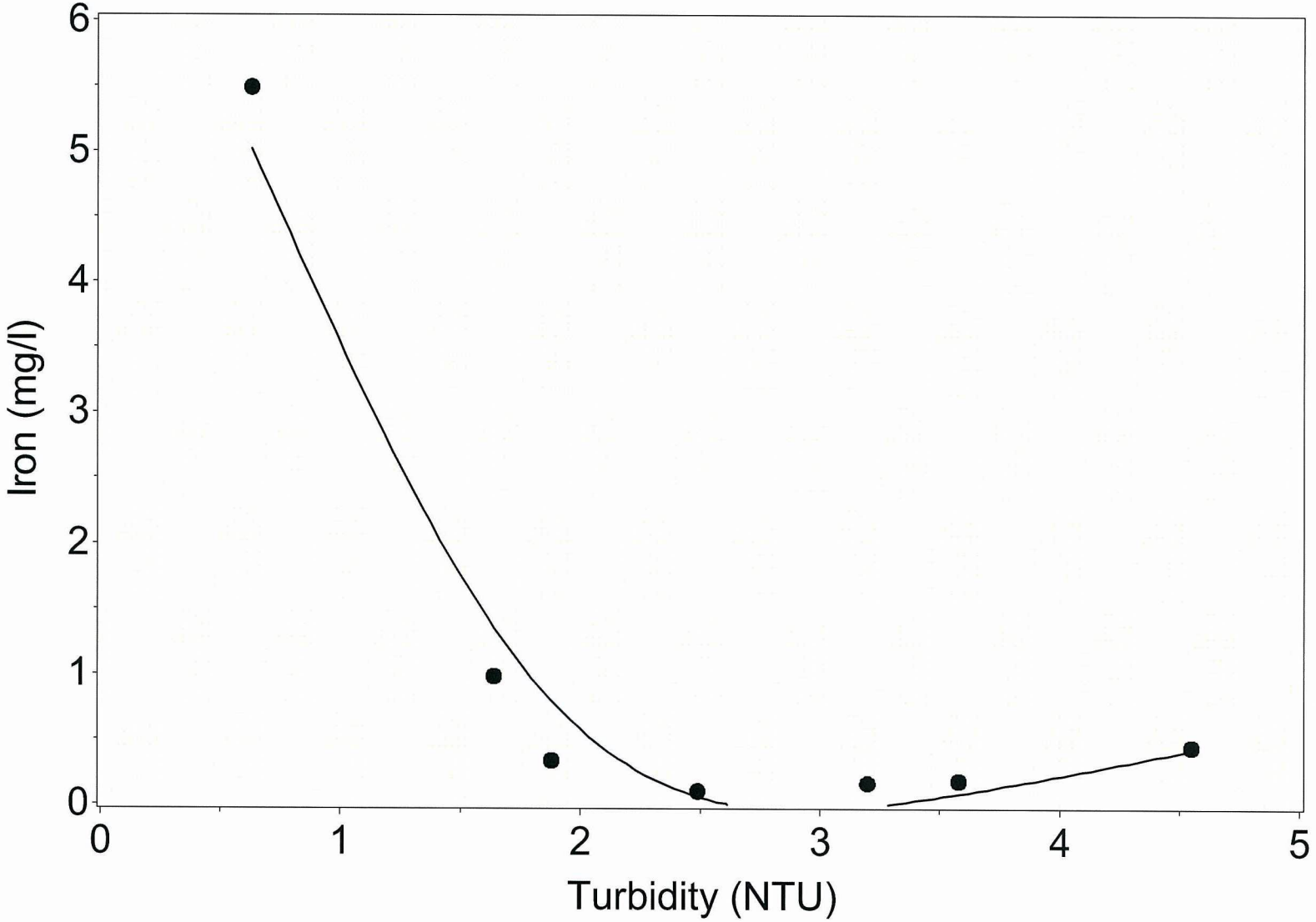
Iron concentration vs.Turbidity concentration in the GW-2 monitoring well at the Lena Road Landfill



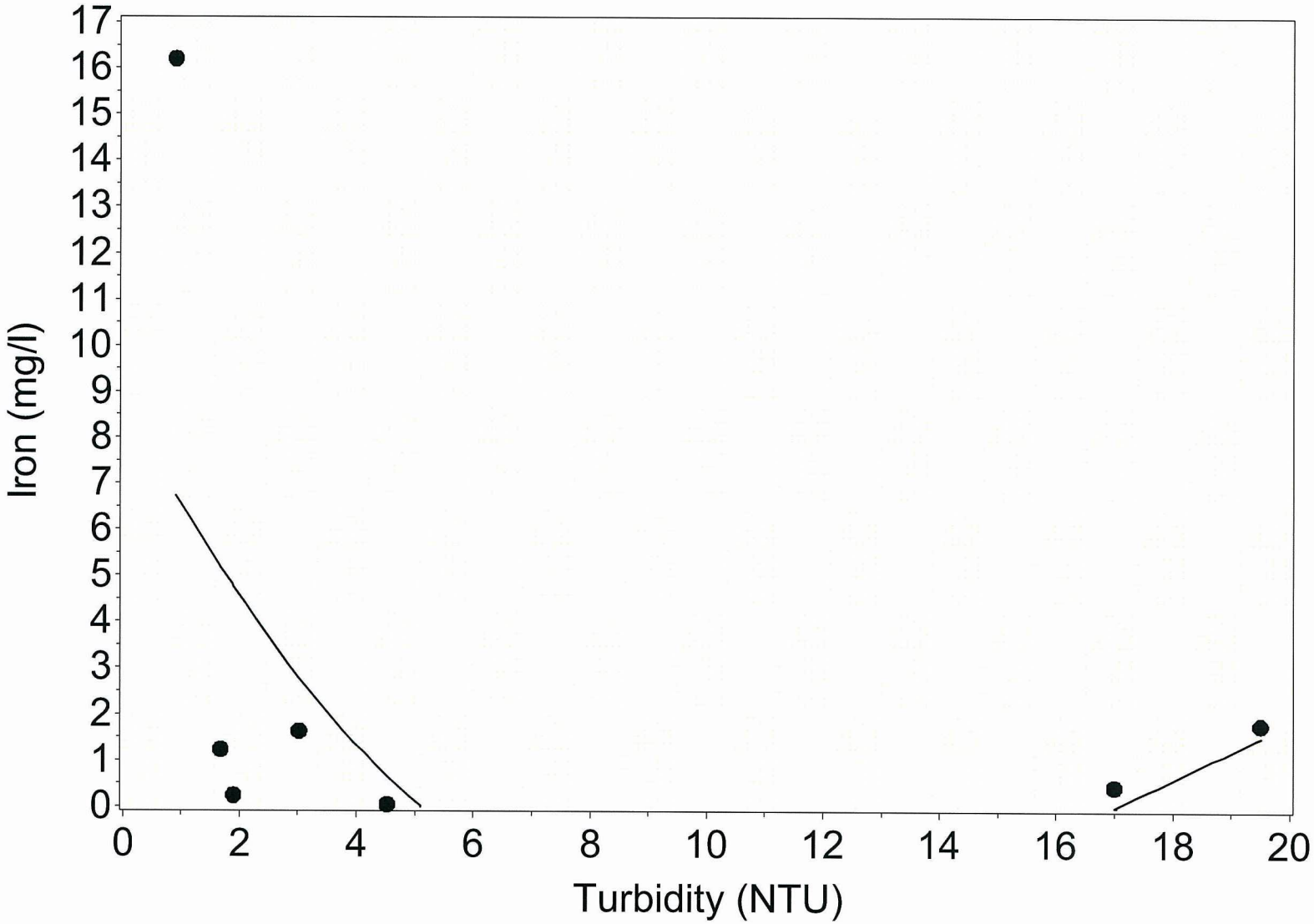
Iron concentration vs.Turbidity concentration in the GW-3 monitoring well at the Lena Road Landfill



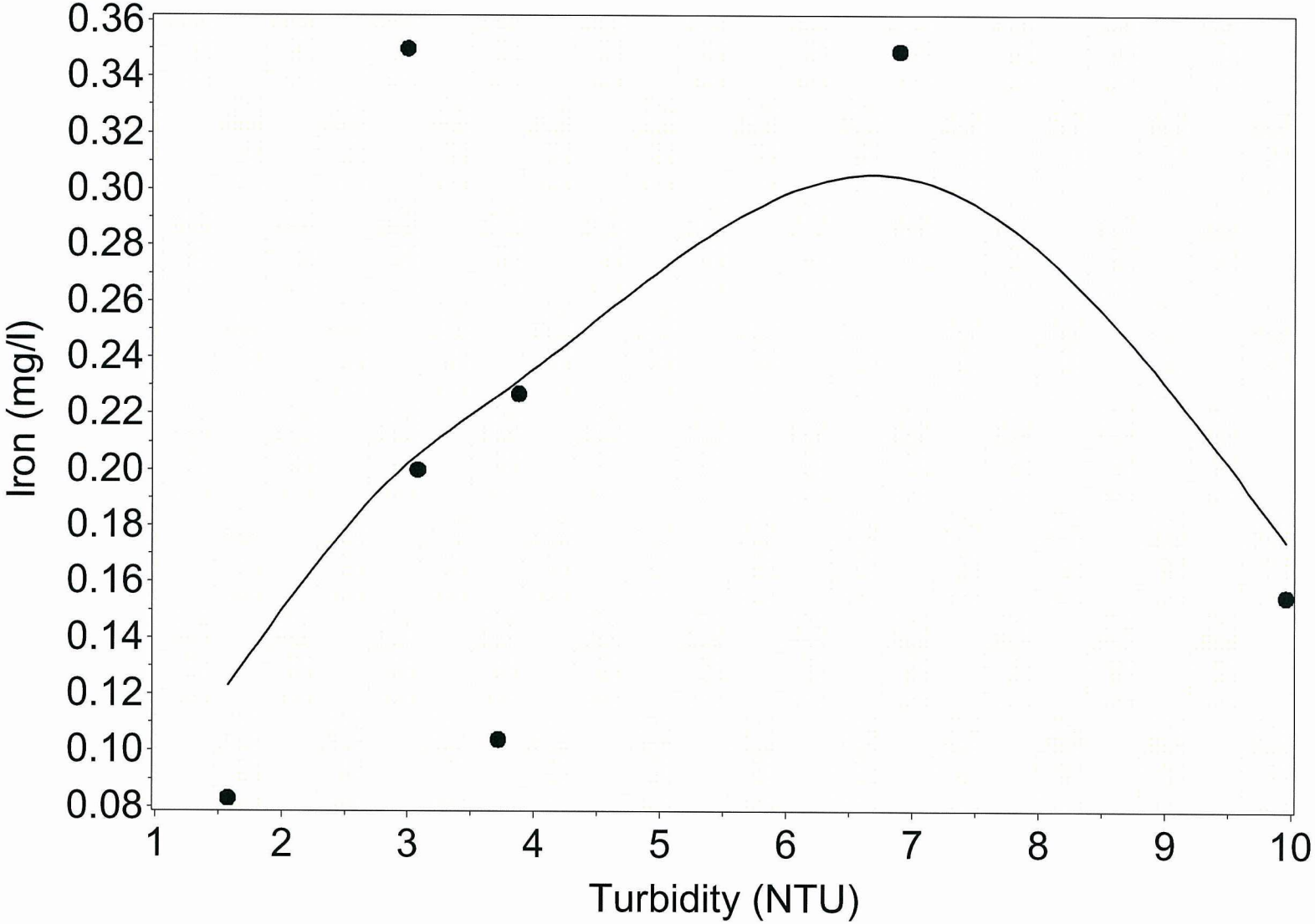
Iron concentration vs.Turbidity concentration in the GW-4 monitoring well at the Lena Road Landfill



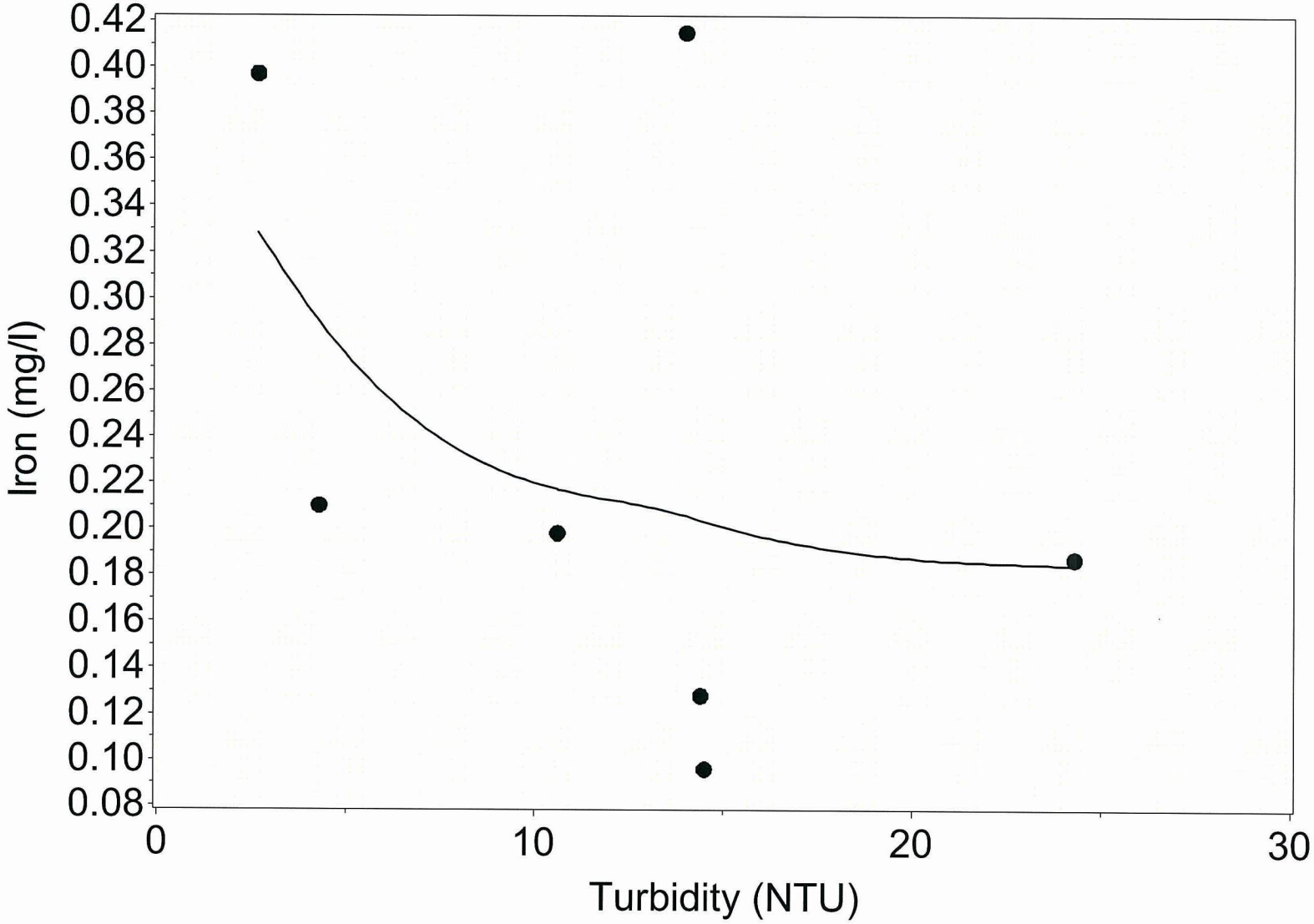
Iron concentration vs.Turbidity concentration in the GW-5 monitoring well at the Lena Road Landfill



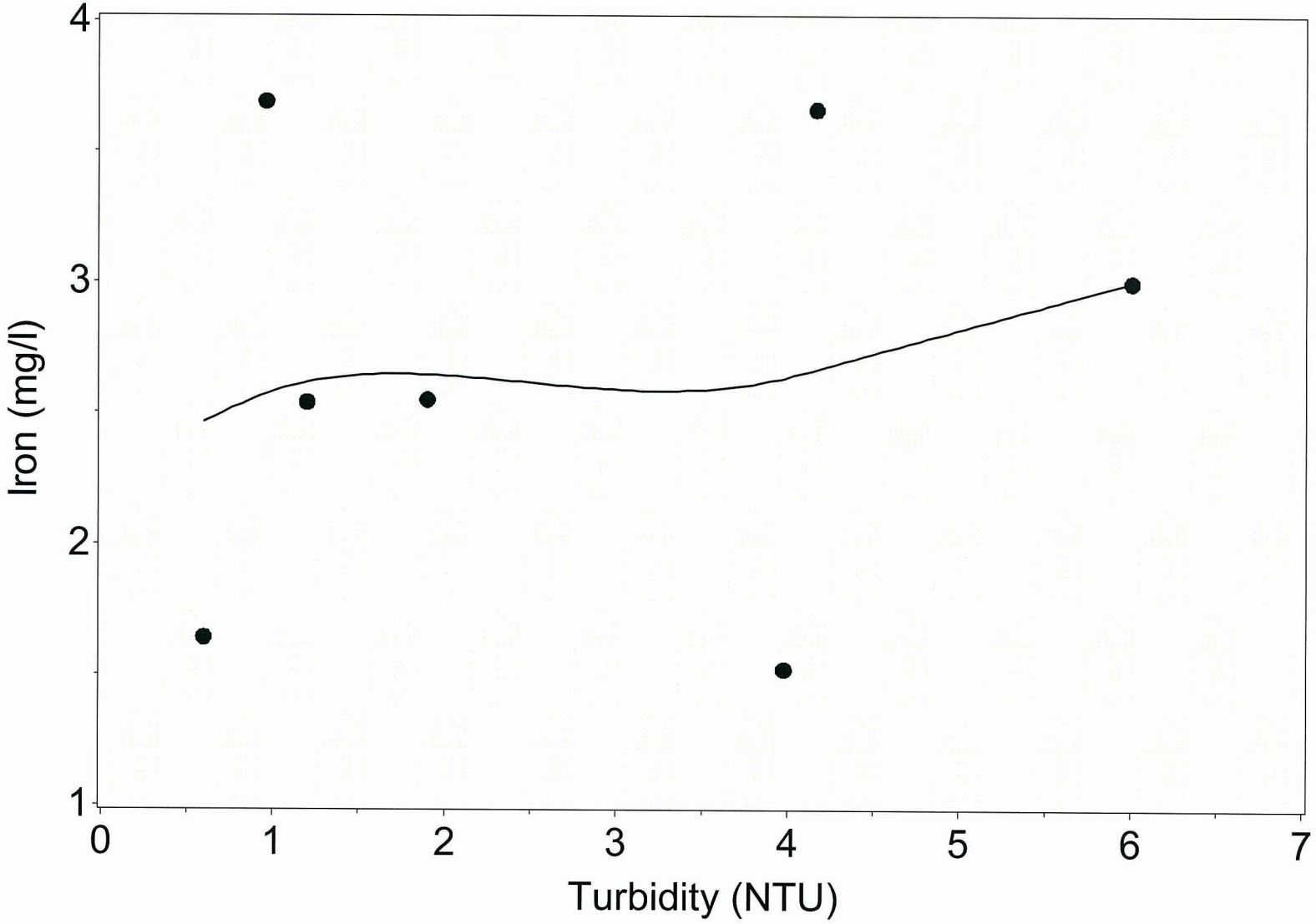
Iron concentration vs.Turbidity concentration in the GW-6 monitoring well at the Lena Road Landfill



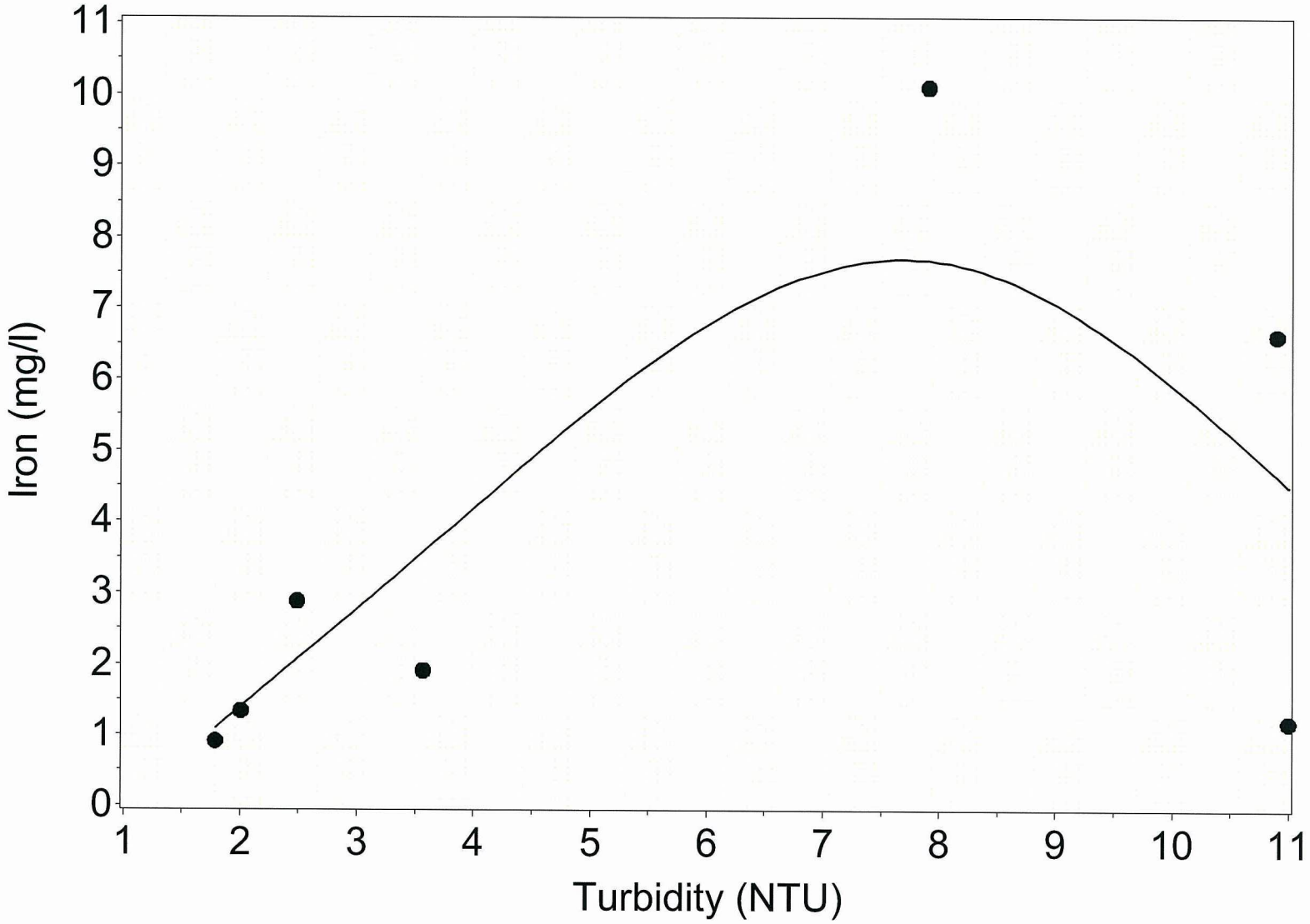
Iron concentration vs.Turbidity concentration in the GW-7 monitoring well at the Lena Road Landfill



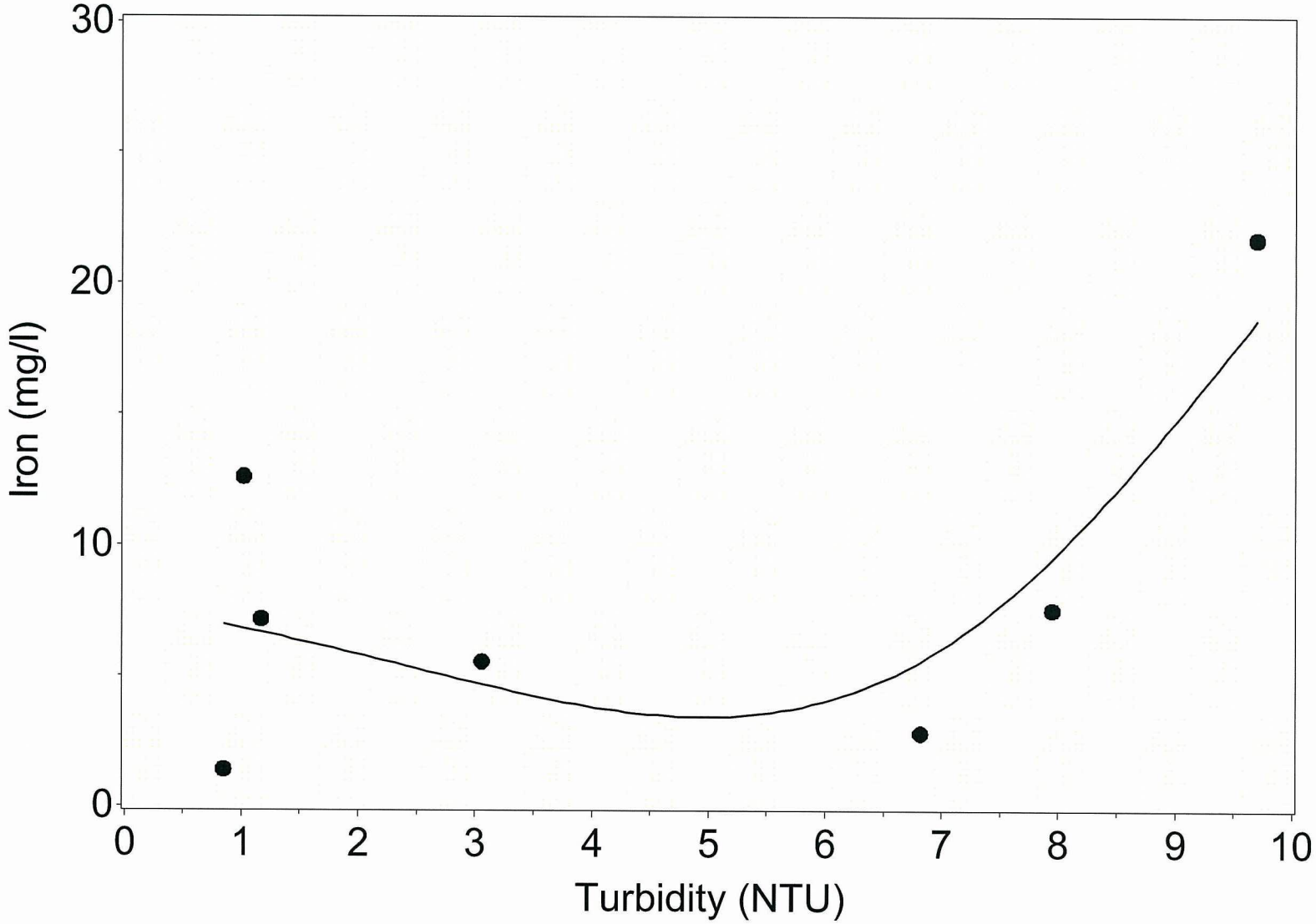
Iron concentration vs.Turbidity concentration in the GW-8 monitoring well at the Lena Road Landfill



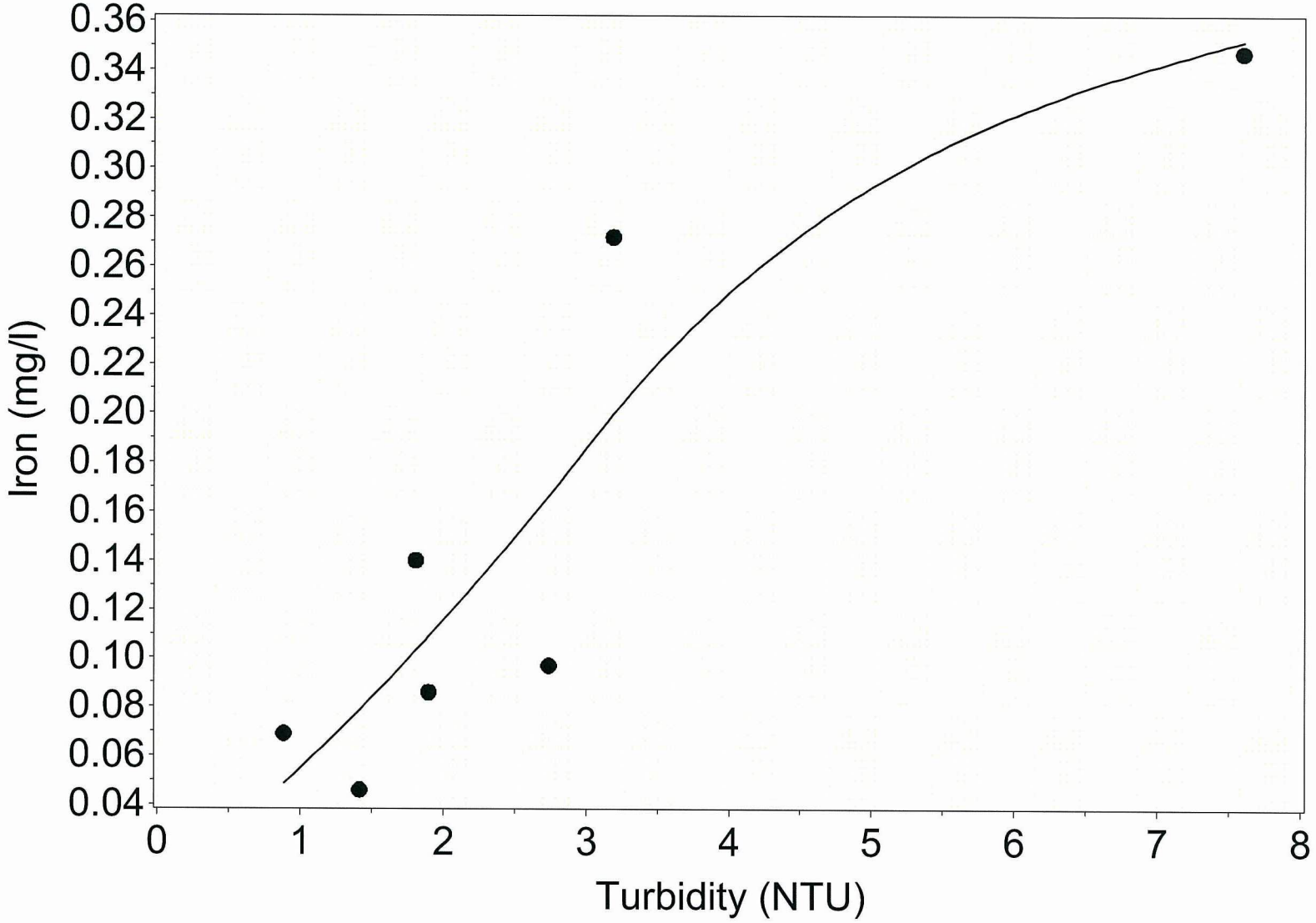
Iron concentration vs.Turbidity concentration in the GW-9 monitoring well at the Lena Road Landfill



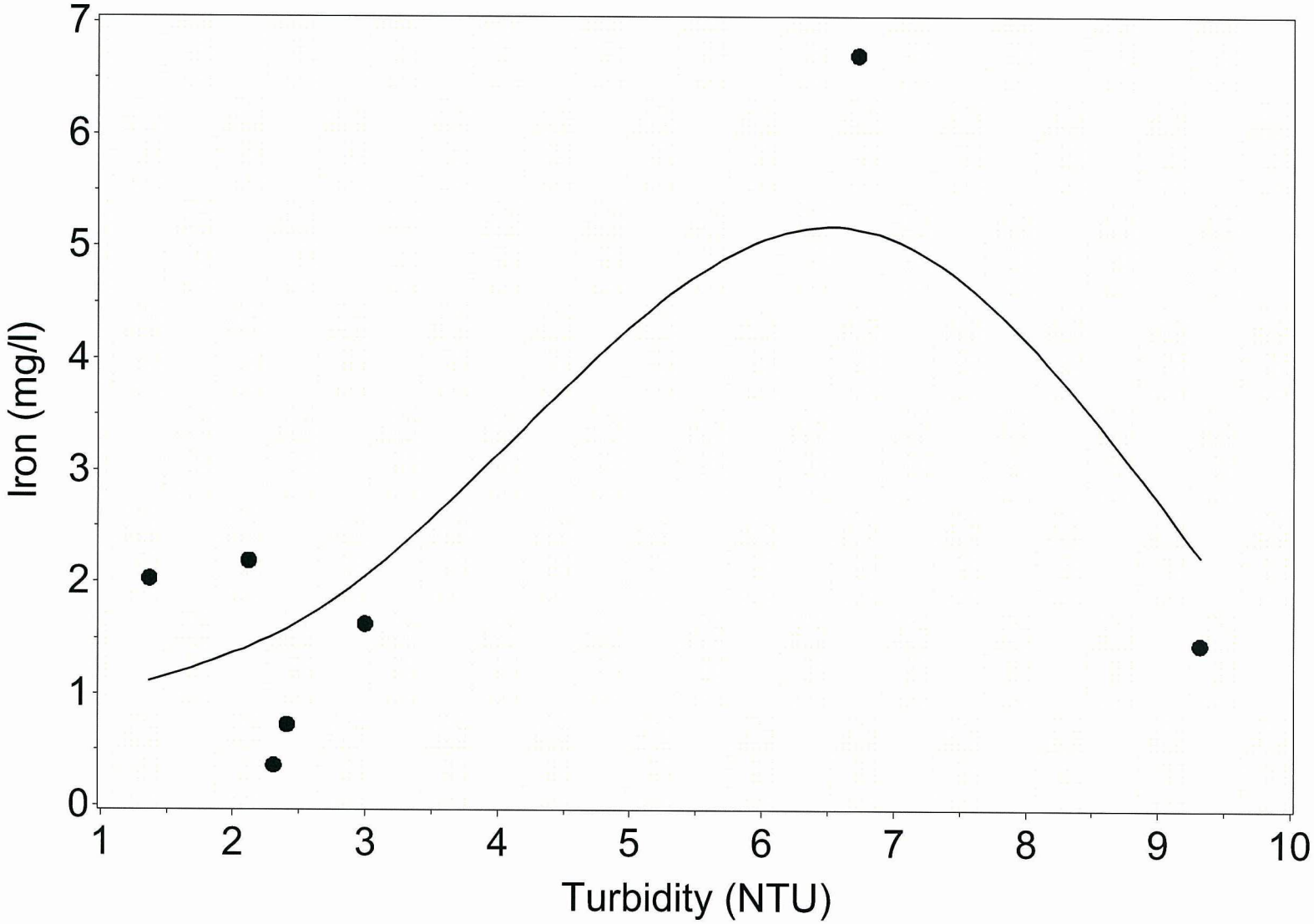
Iron concentration vs.Turbidity concentration in the GW-10 monitoring well at the Lena Road Landfill



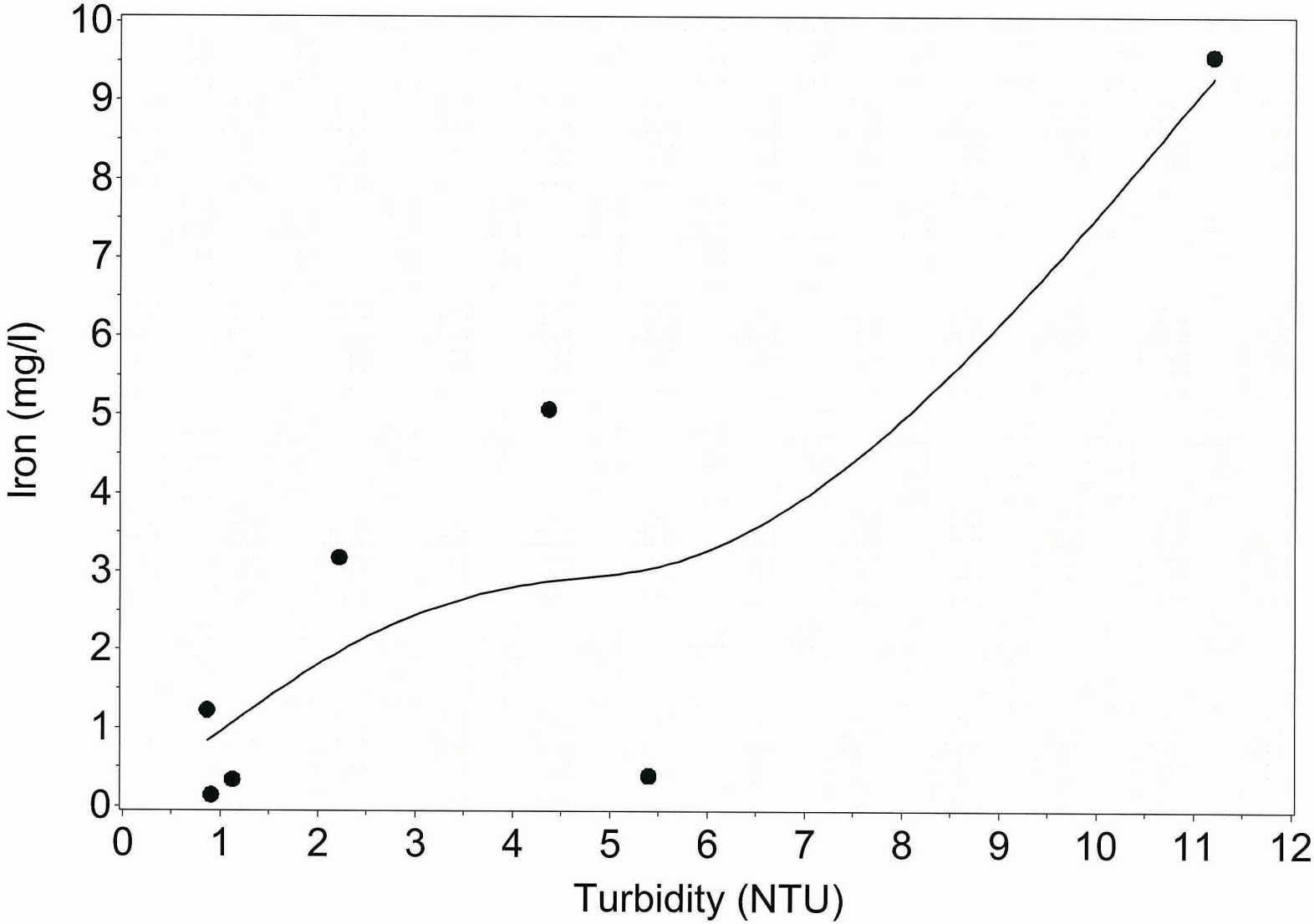
Iron concentration vs.Turbidity concentration in the GW-11 monitoring well at the Lena Road Landfill



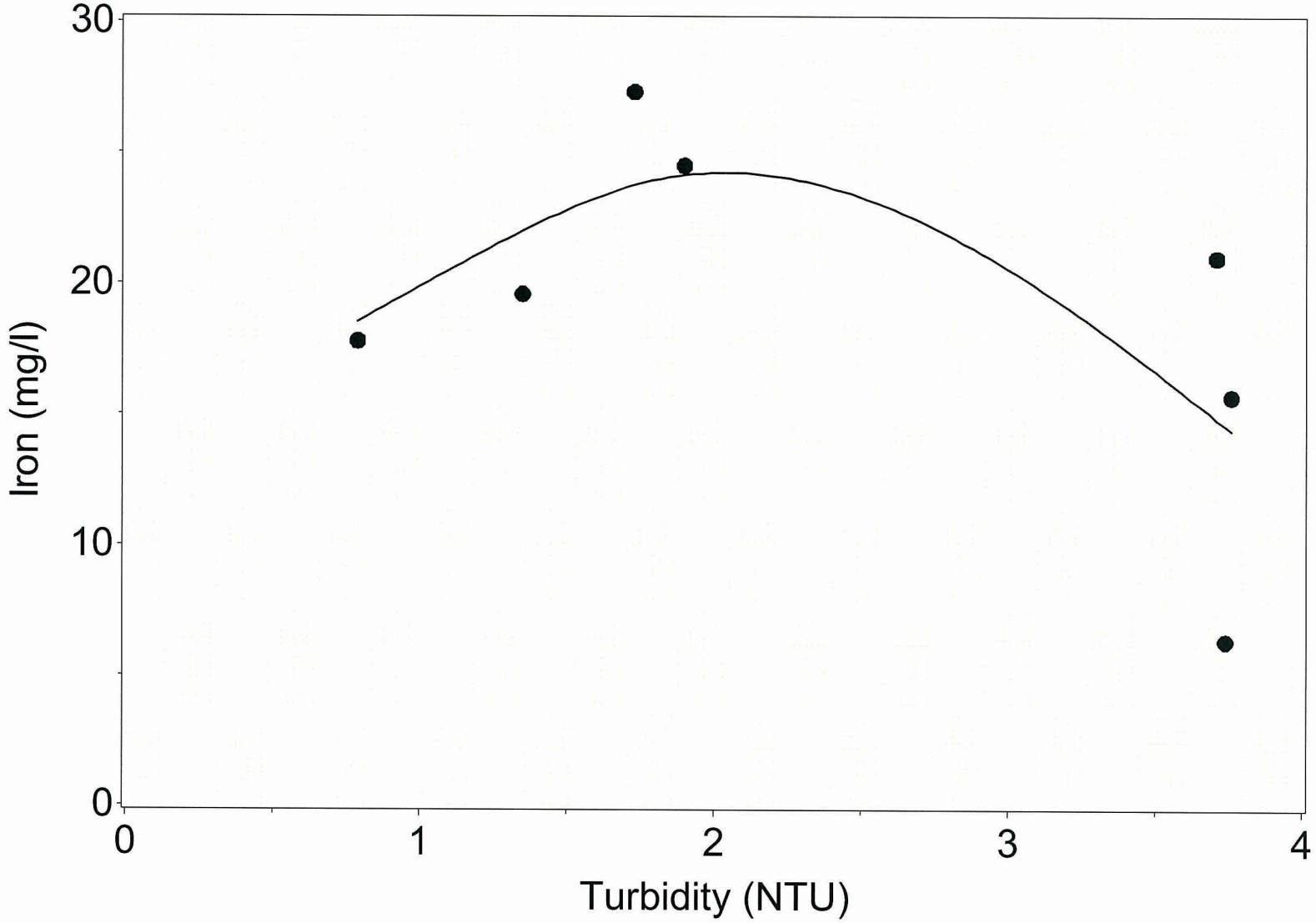
Iron concentration vs.Turbidity concentration in the GW-12 monitoring well at the Lena Road Landfill



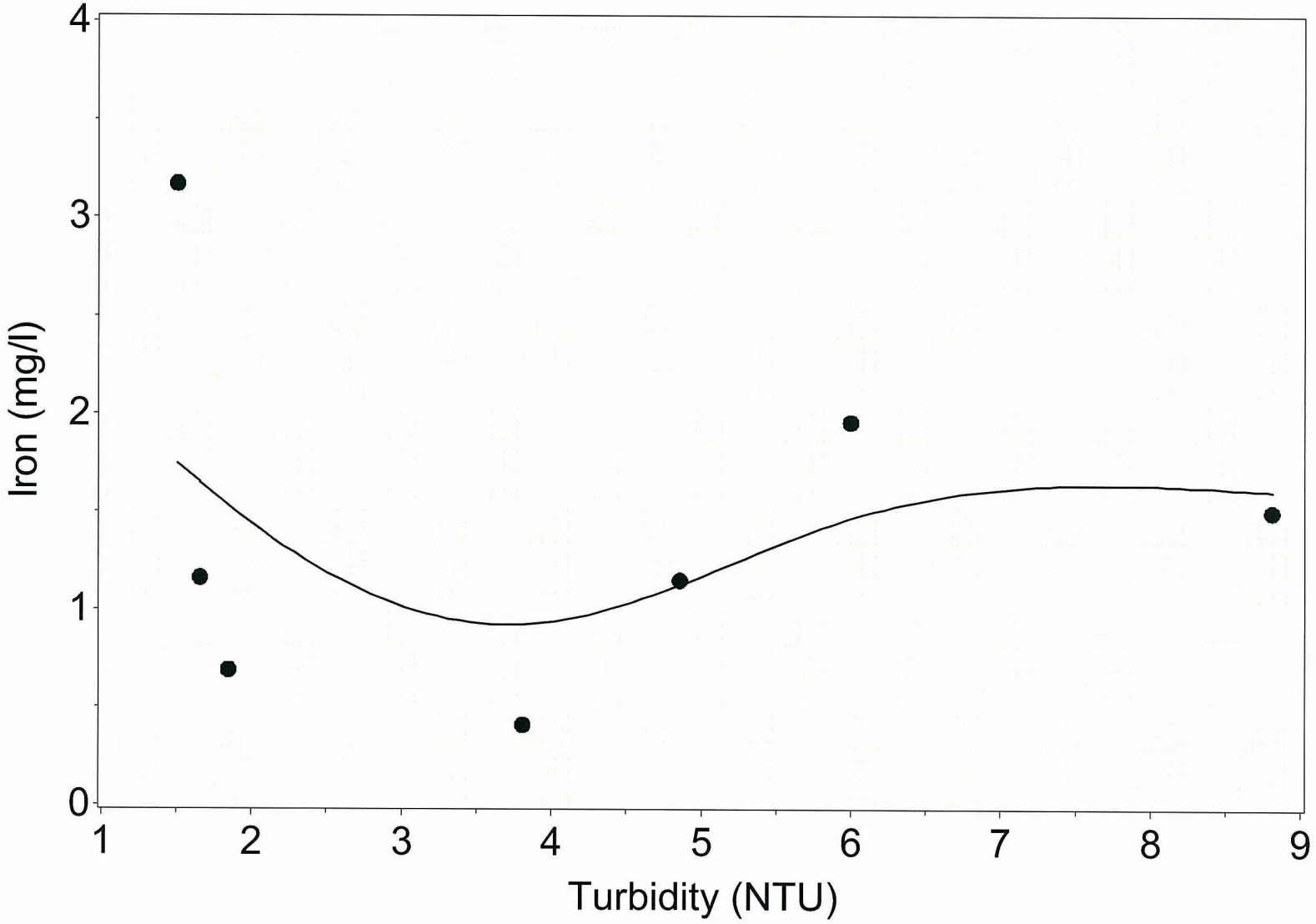
Iron concentration vs.Turbidity concentration in the GW-13 monitoring well at the Lena Road Landfill



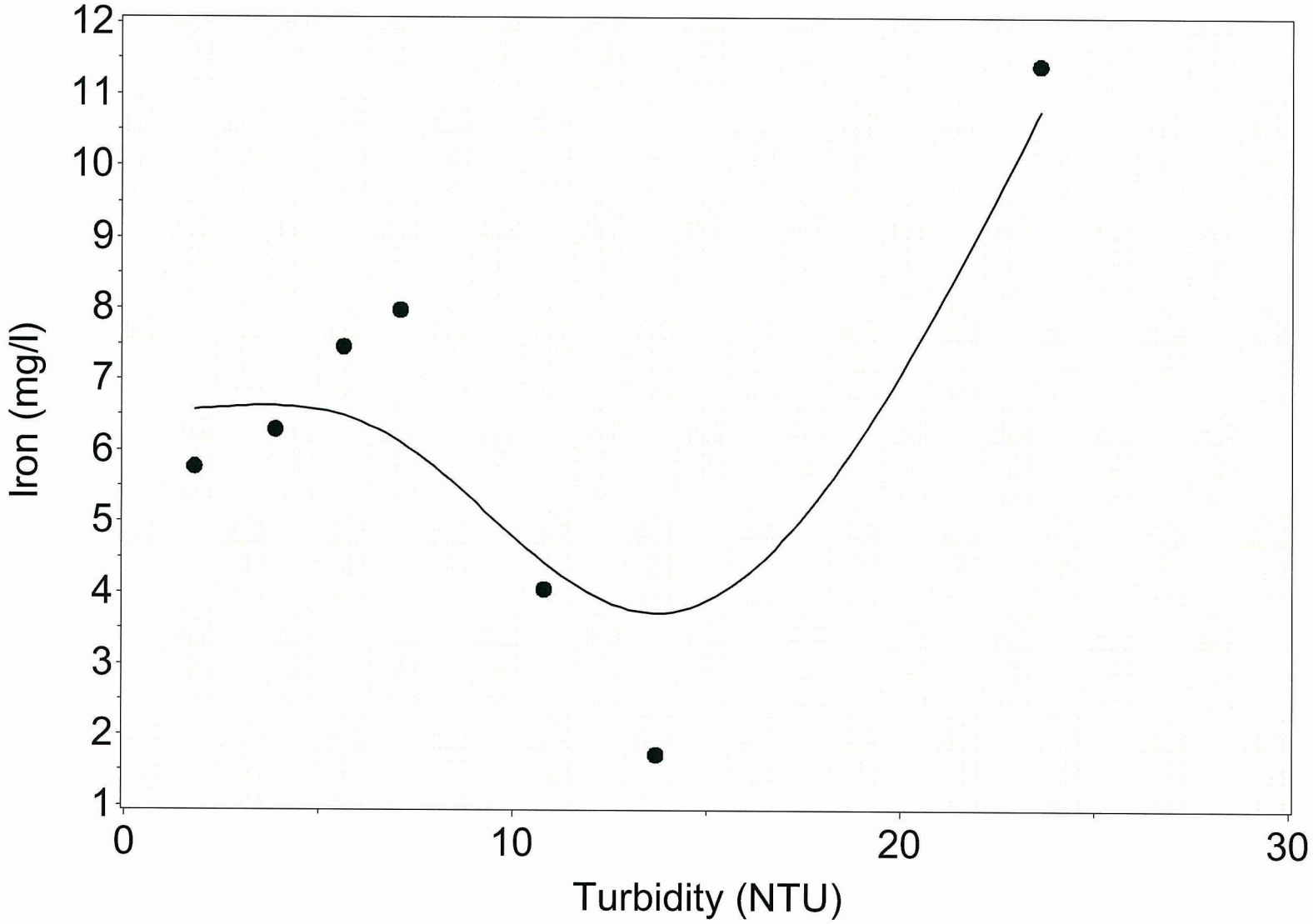
Iron concentration vs.Turbidity concentration in the GW-14 monitoring well at the Lena Road Landfill



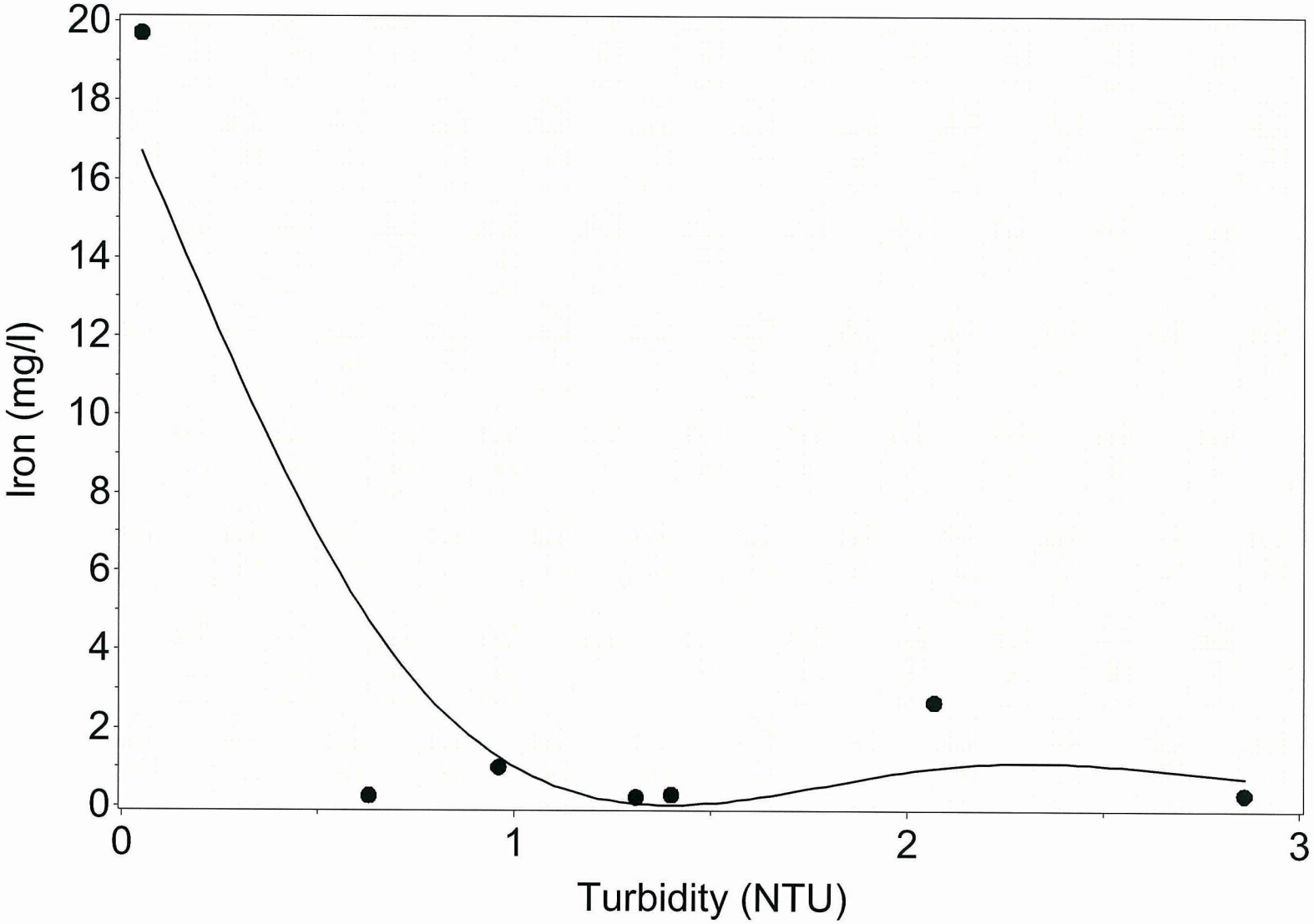
Iron concentration vs.Turbidity concentration in the GW-15 monitoring well at the Lena Road Landfill



Iron concentration vs.Turbidity concentration in the GW-16 monitoring well at the Lena Road Landfill

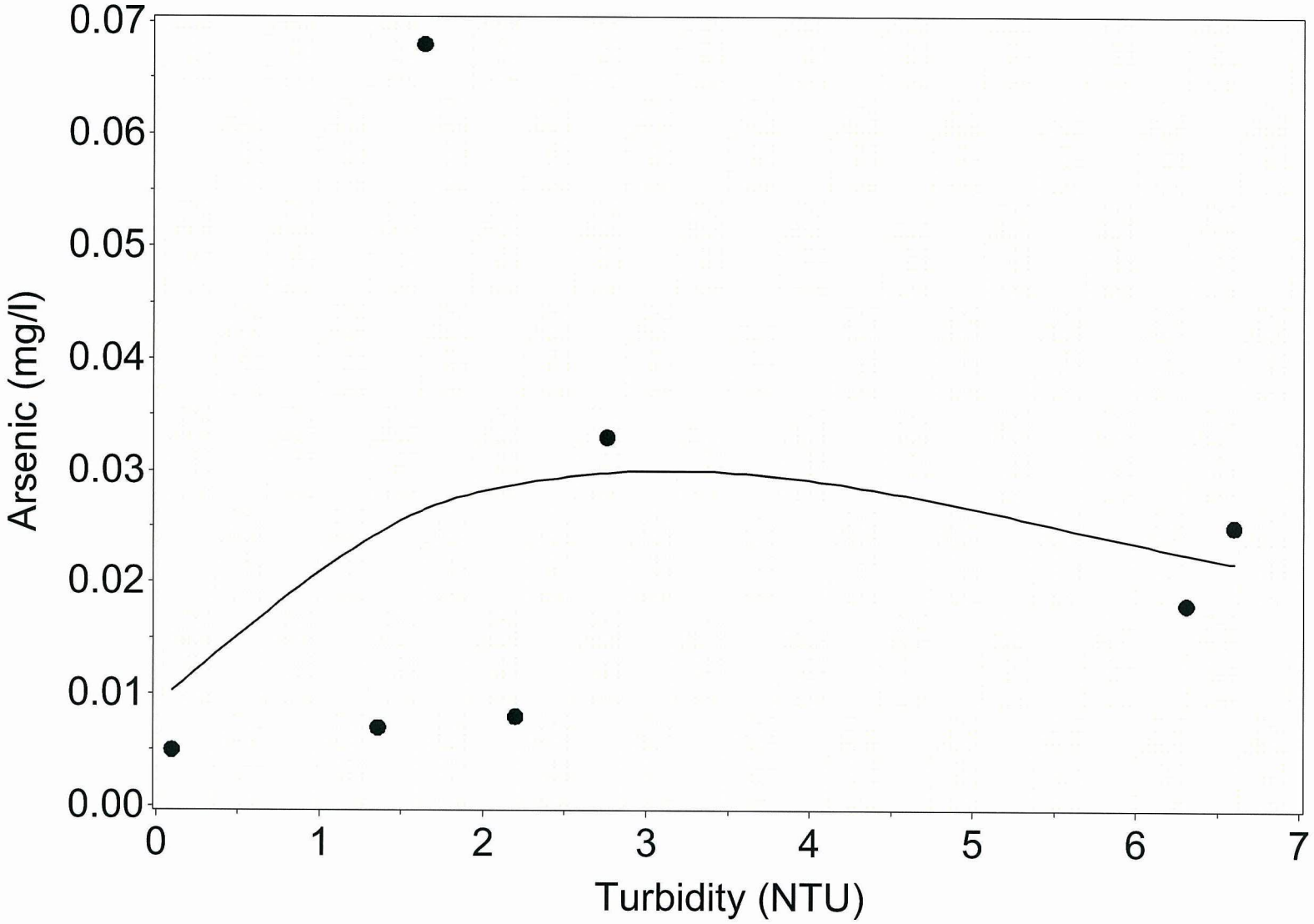


Iron concentration vs.Turbidity concentration in the GW-17 monitoring well at the Lena Road Landfill

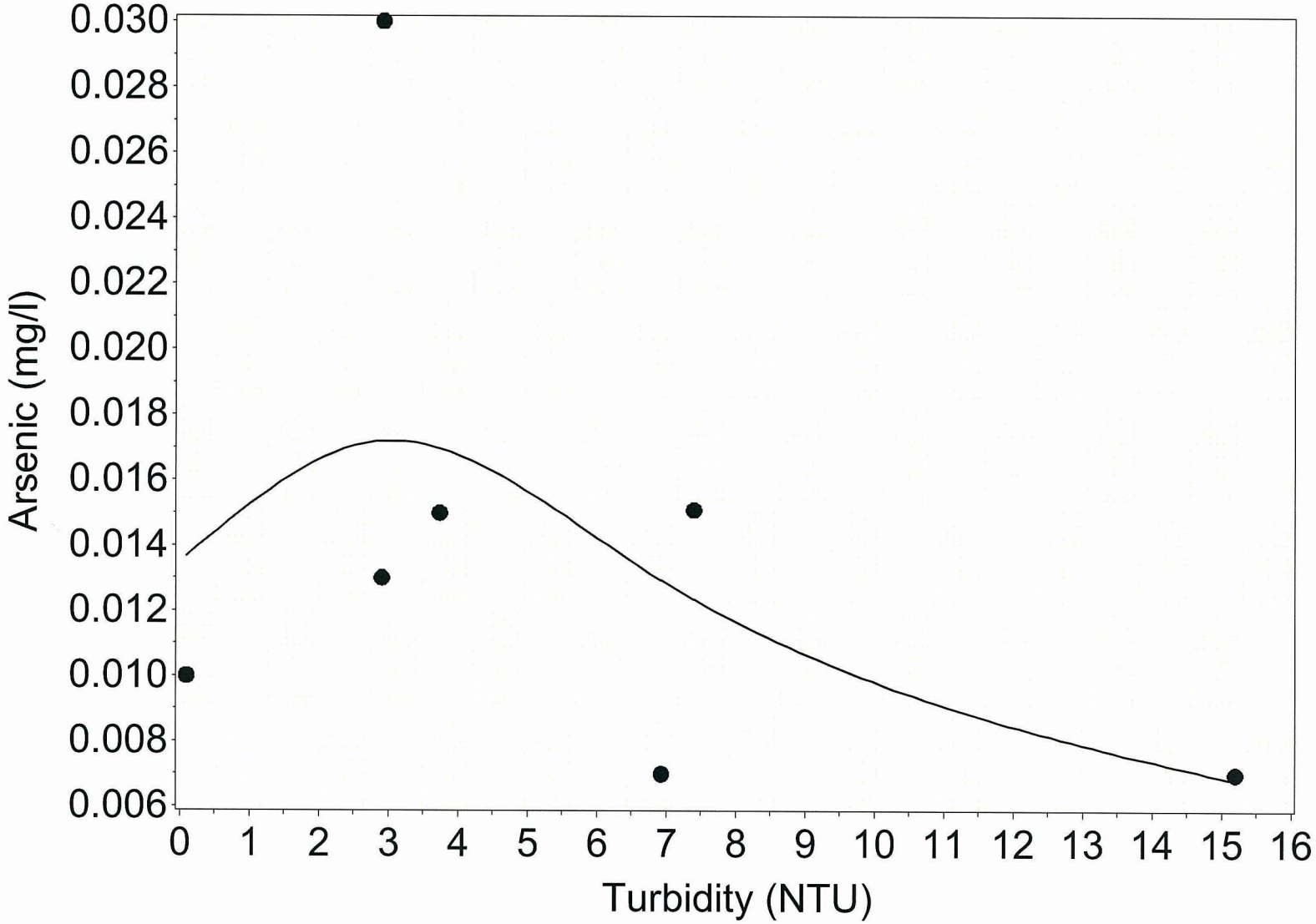


Iron concentration vs.Turbidity concentration in the BGW-1 monitoring well at the Lena Road Landfill

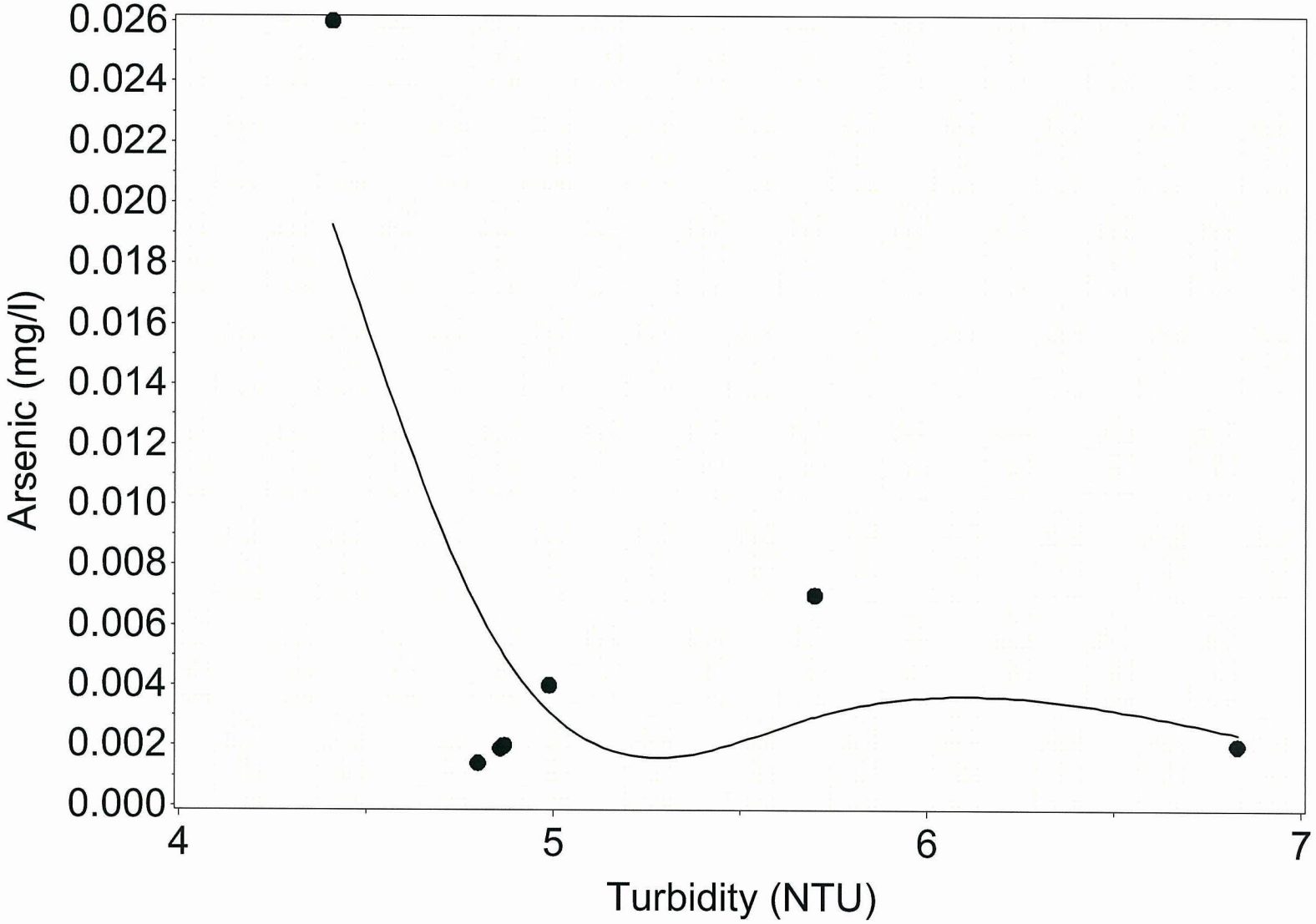
E-2 – Turbidity versus Arsenic



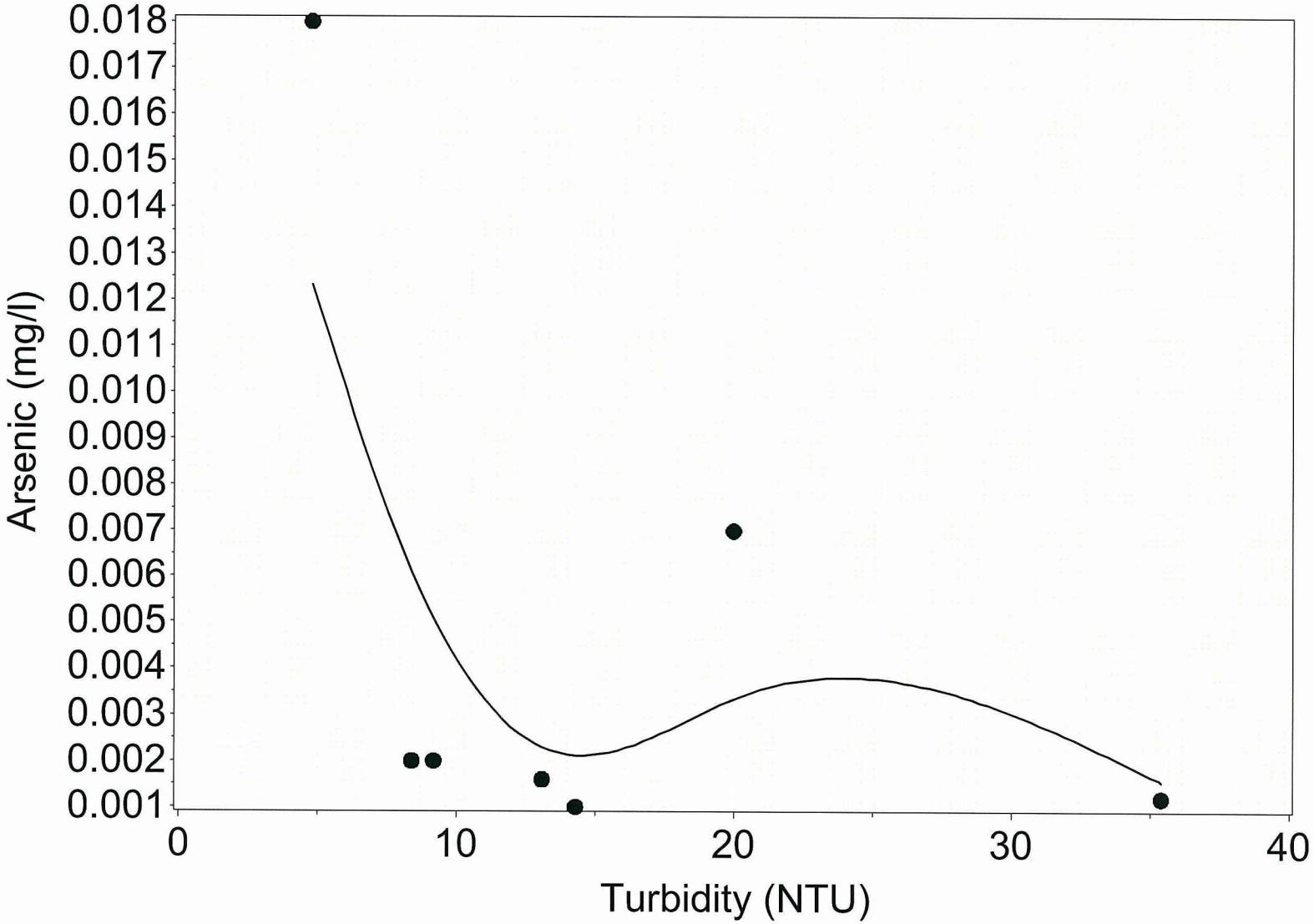
Arsenic concentration vs.Turbidity concentration in the GW-1 monitoring well at the Lena Road Landfill



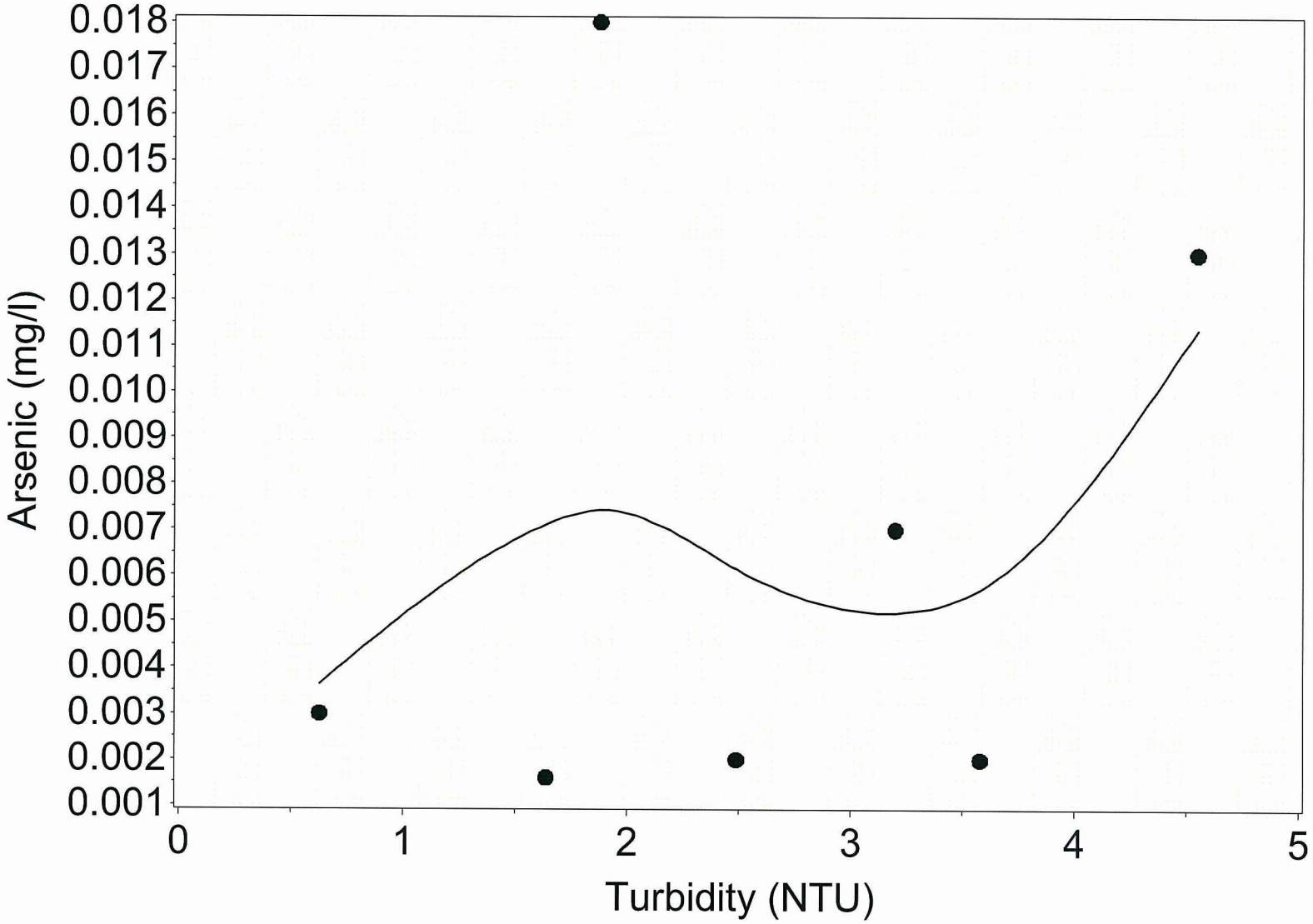
Arsenic concentration vs.Turbidity concentration in the GW-2 monitoring well at the Lena Road Landfill



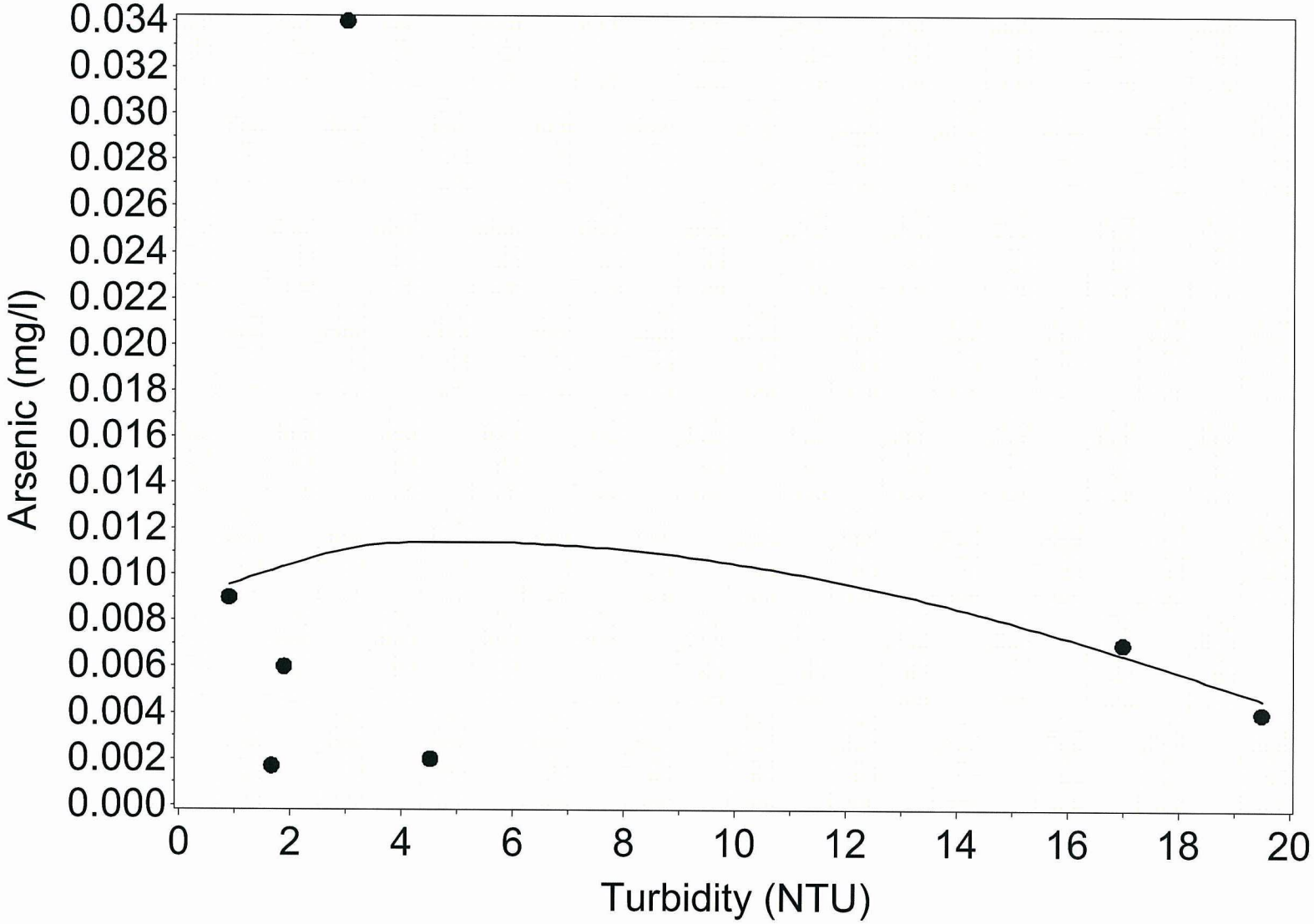
Arsenic concentration vs.Turbidity concentration in the GW-3 monitoring well at the Lena Road Landfill



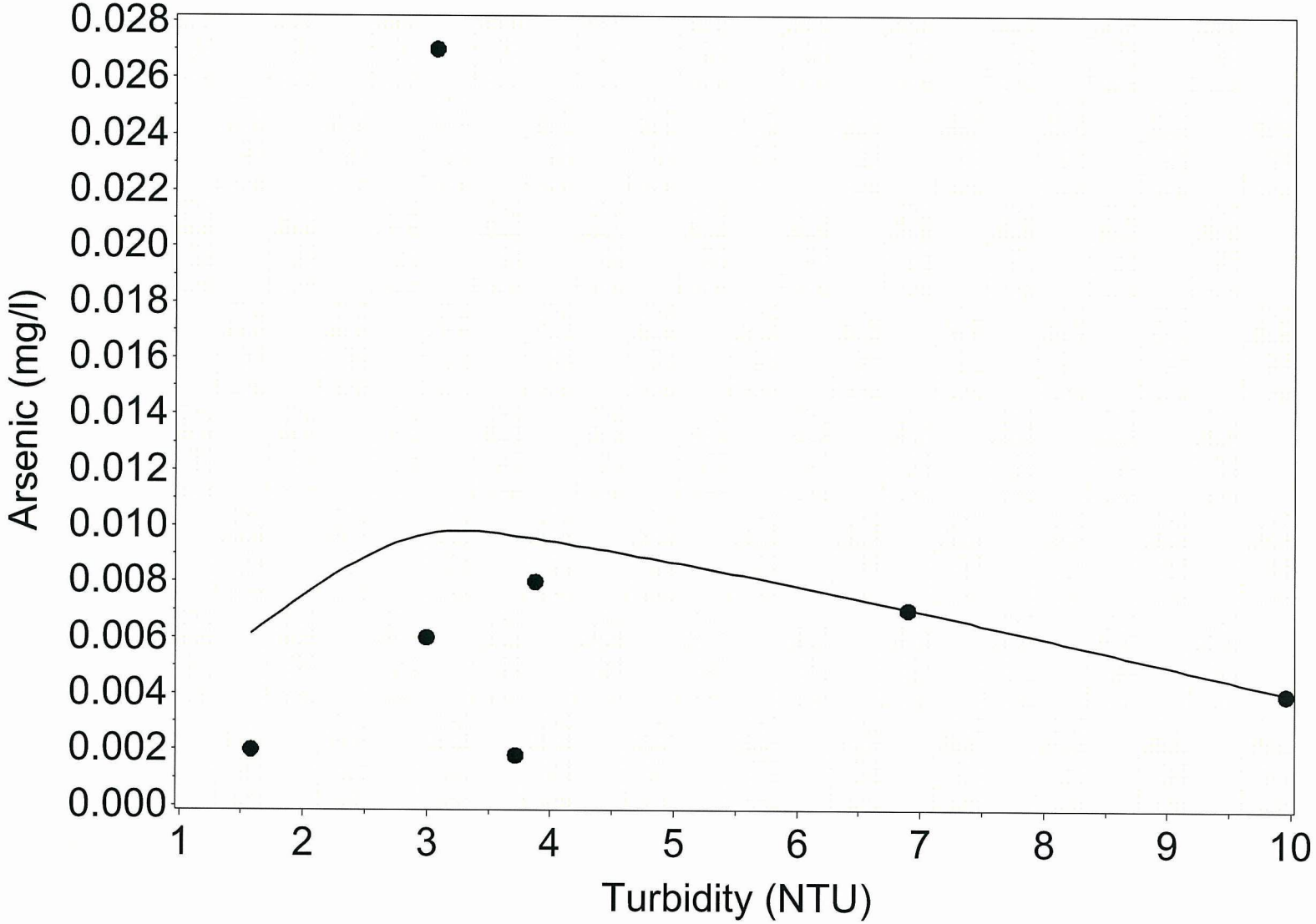
Arsenic concentration vs.Turbidity concentration in the GW-4 monitoring well at the Lena Road Landfill



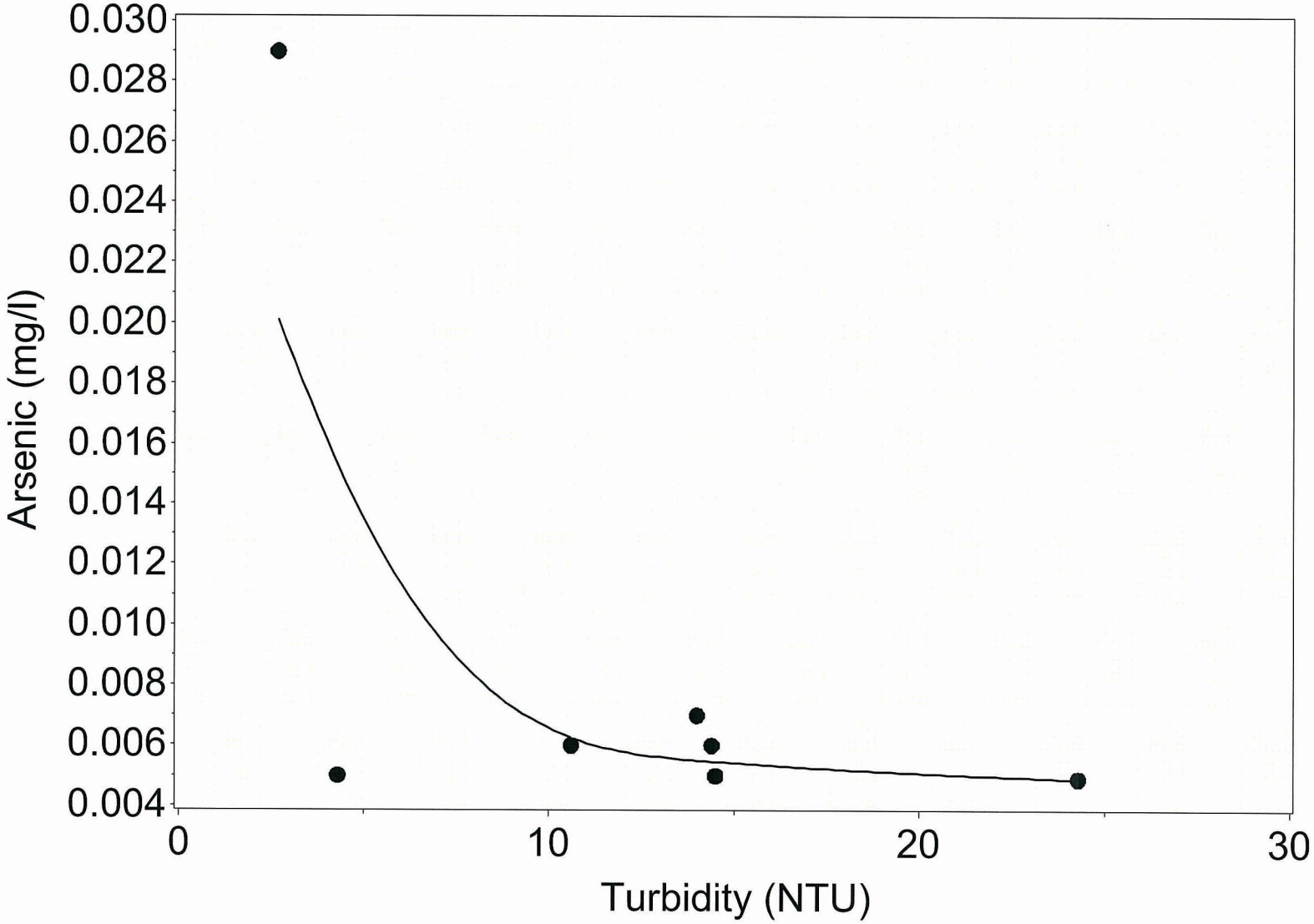
Arsenic concentration vs.Turbidity concentration in the GW-5 monitoring well at the Lena Road Landfill



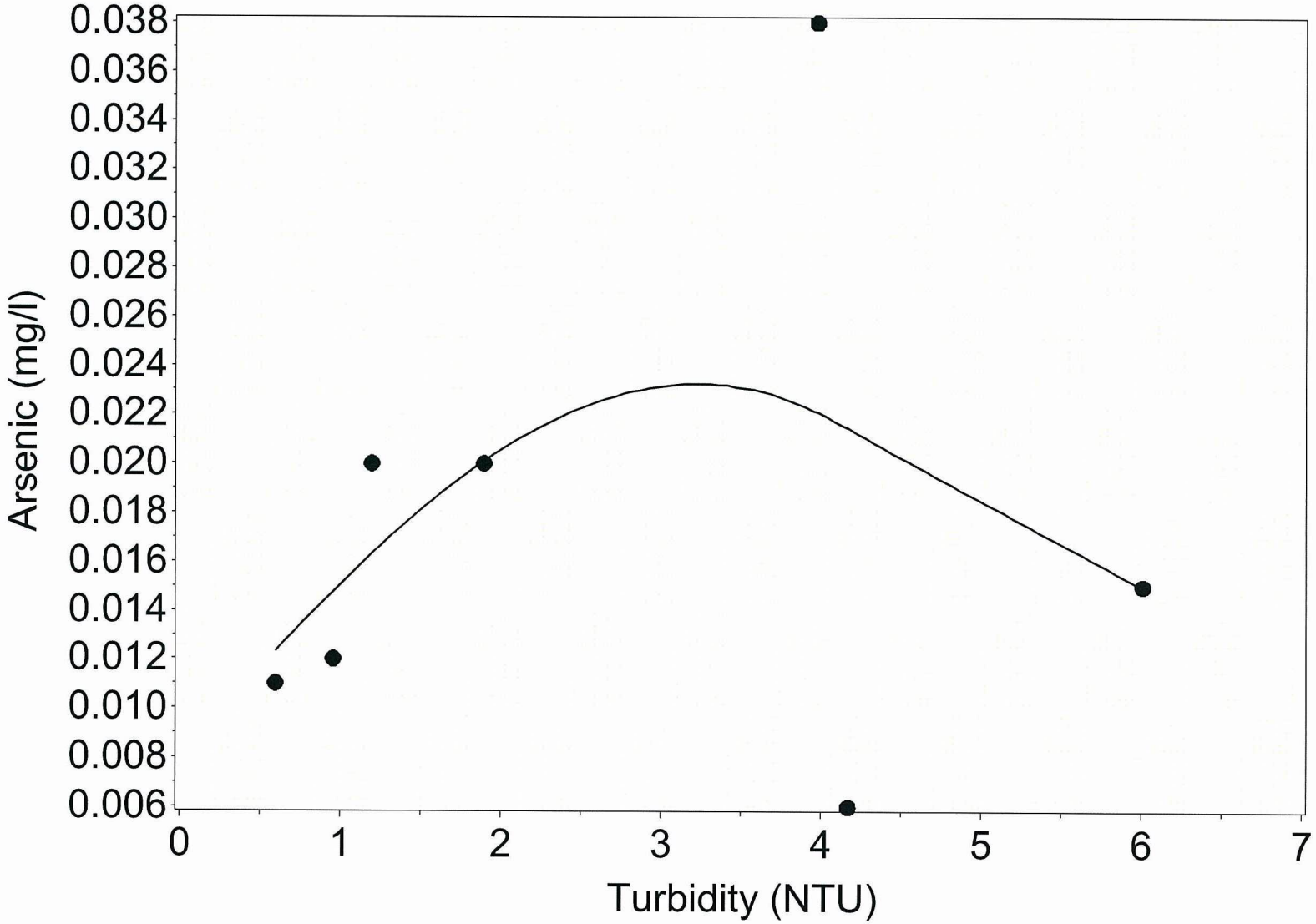
Arsenic concentration vs.Turbidity concentration in the GW-6 monitoring well at the Lena Road Landfill



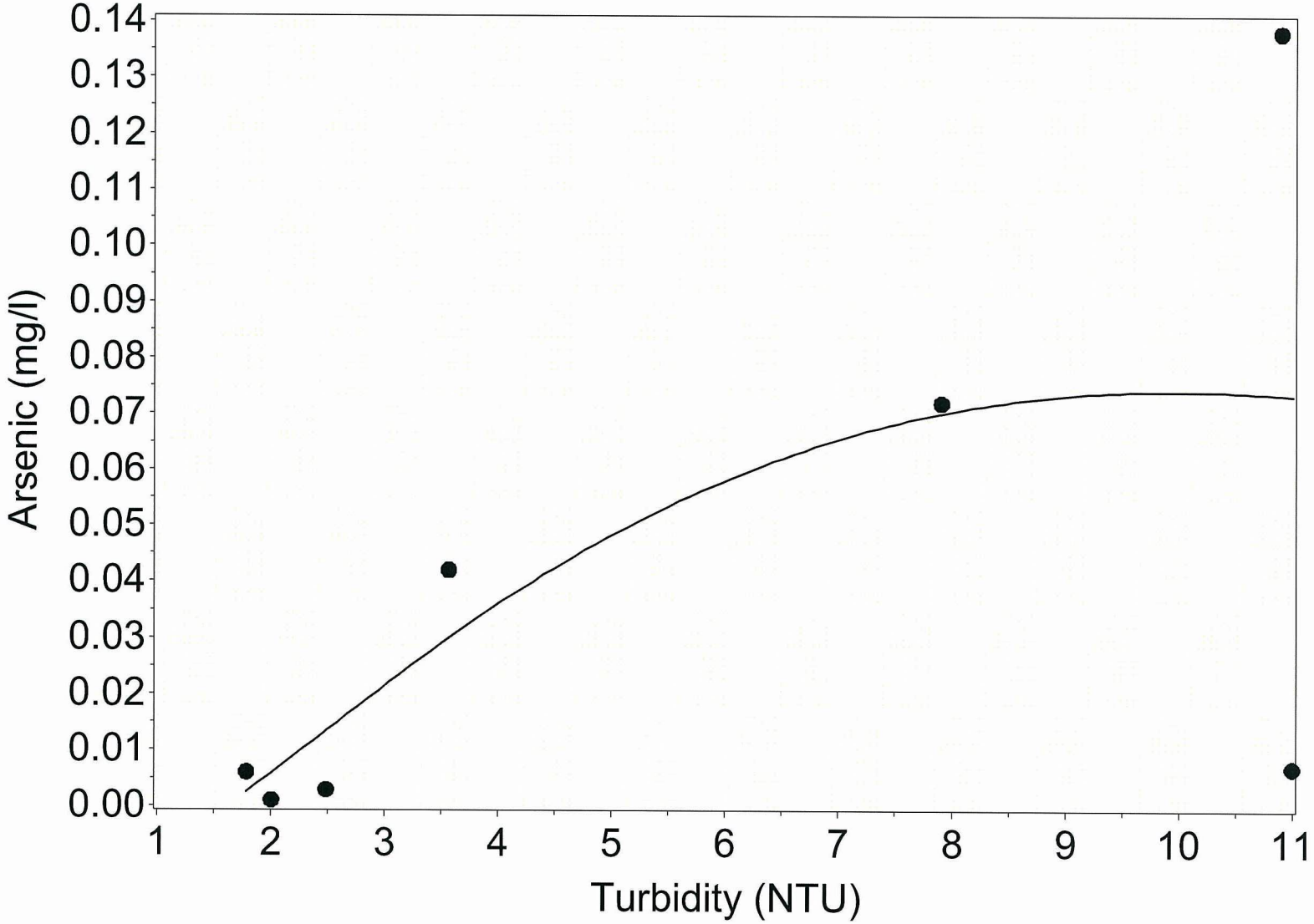
Arsenic concentration vs.Turbidity concentration in the GW-7 monitoring well at the Lena Road Landfill



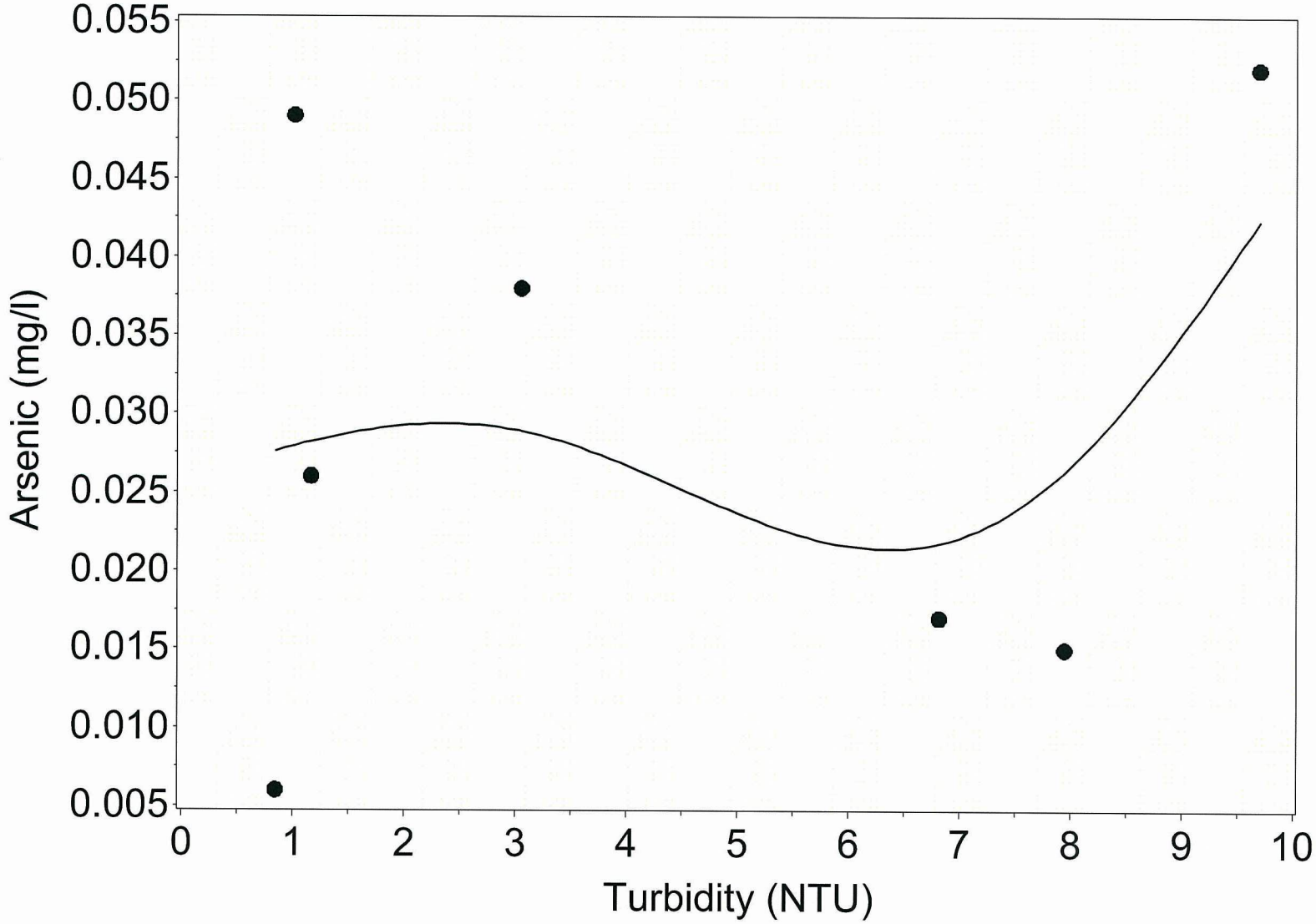
Arsenic concentration vs.Turbidity concentration in the GW-8 monitoring well at the Lena Road Landfill



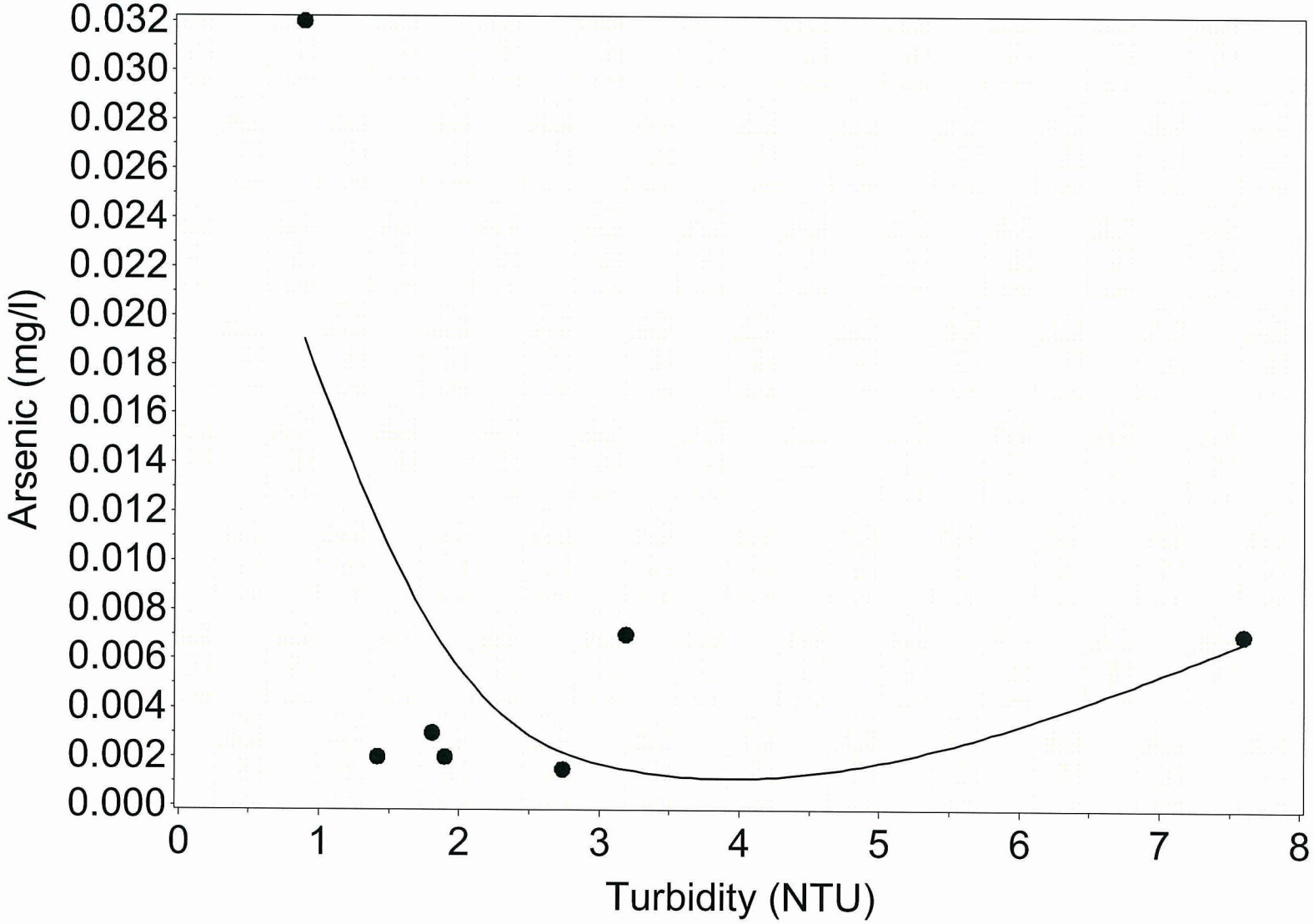
Arsenic concentration vs.Turbidity concentration in the GW-9 monitoring well at the Lena Road Landfill



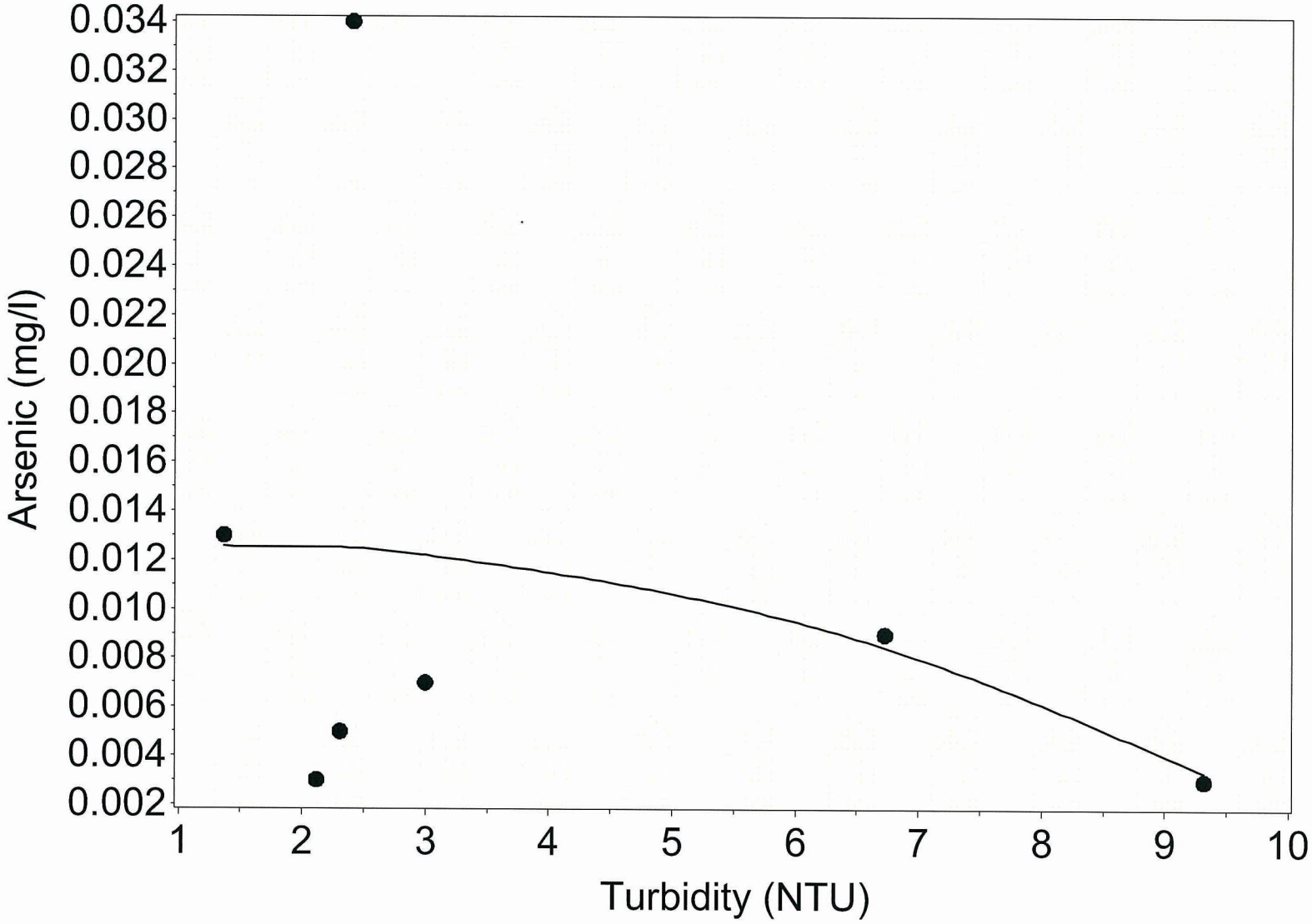
Arsenic concentration vs.Turbidity concentration in the GW-10 monitoring well at the Lena Road Landfill



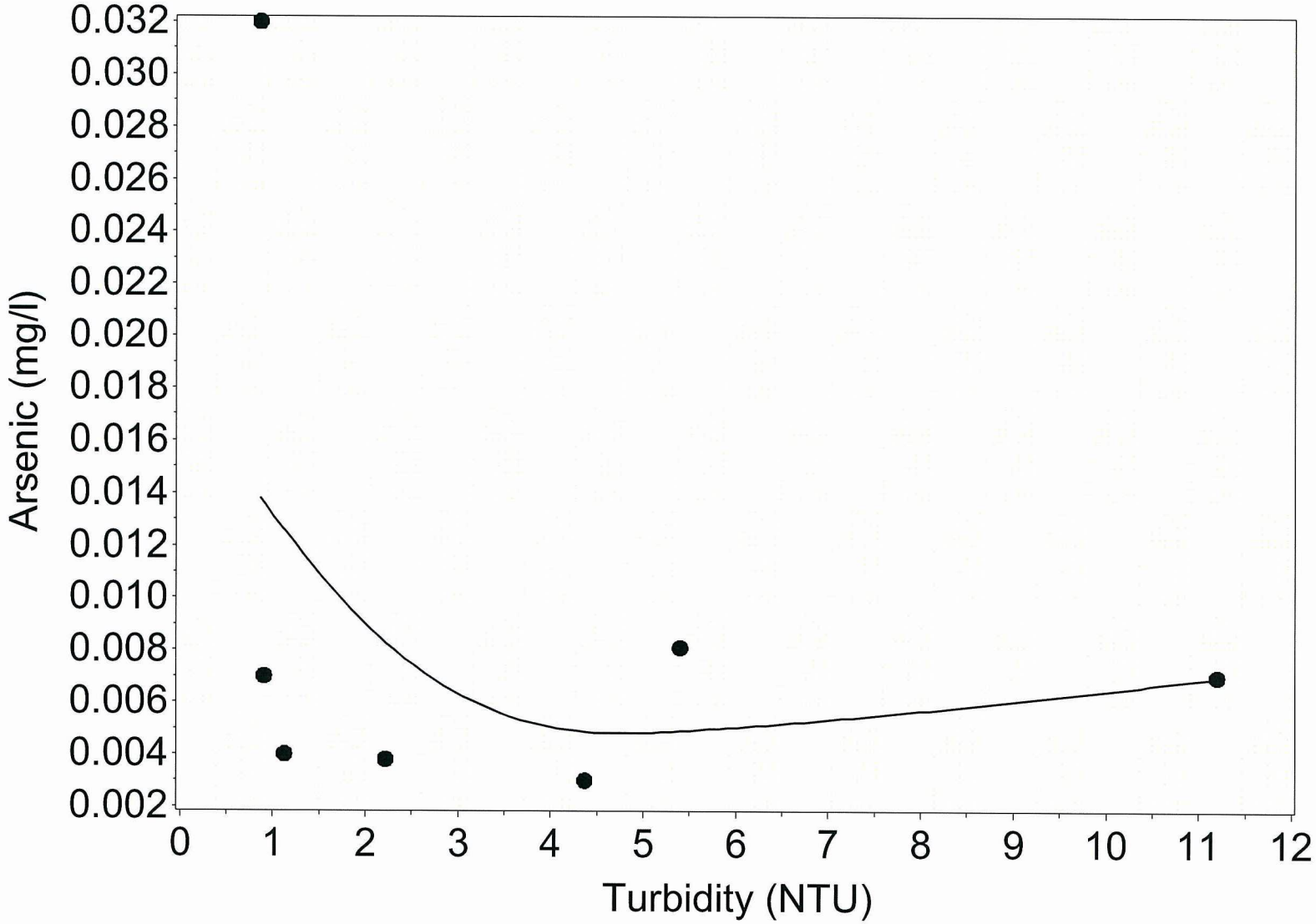
Arsenic concentration vs.Turbidity concentration in the GW-11 monitoring well at the Lena Road Landfill



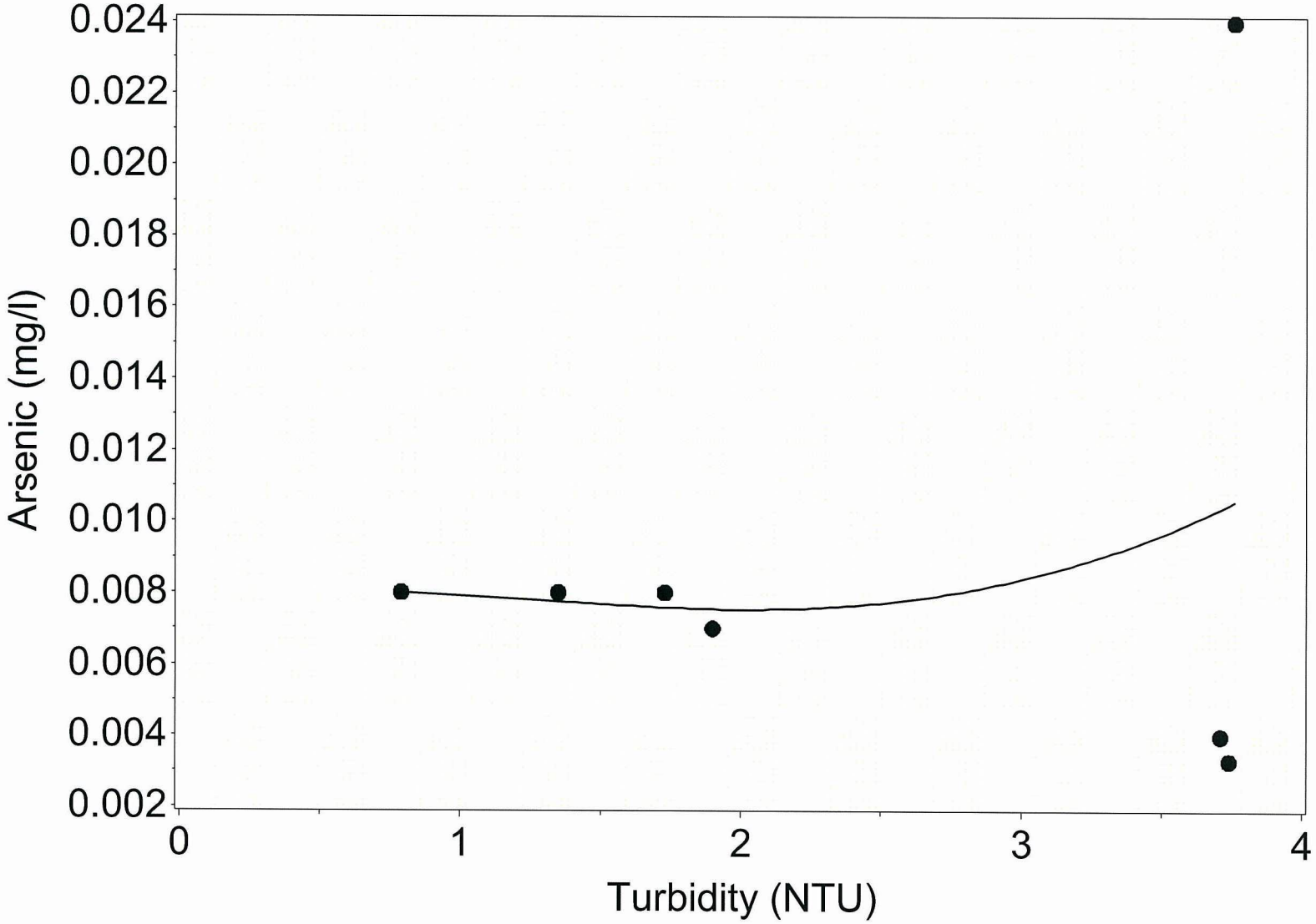
Arsenic concentration vs.Turbidity concentration in the GW-12 monitoring well at the Lena Road Landfill



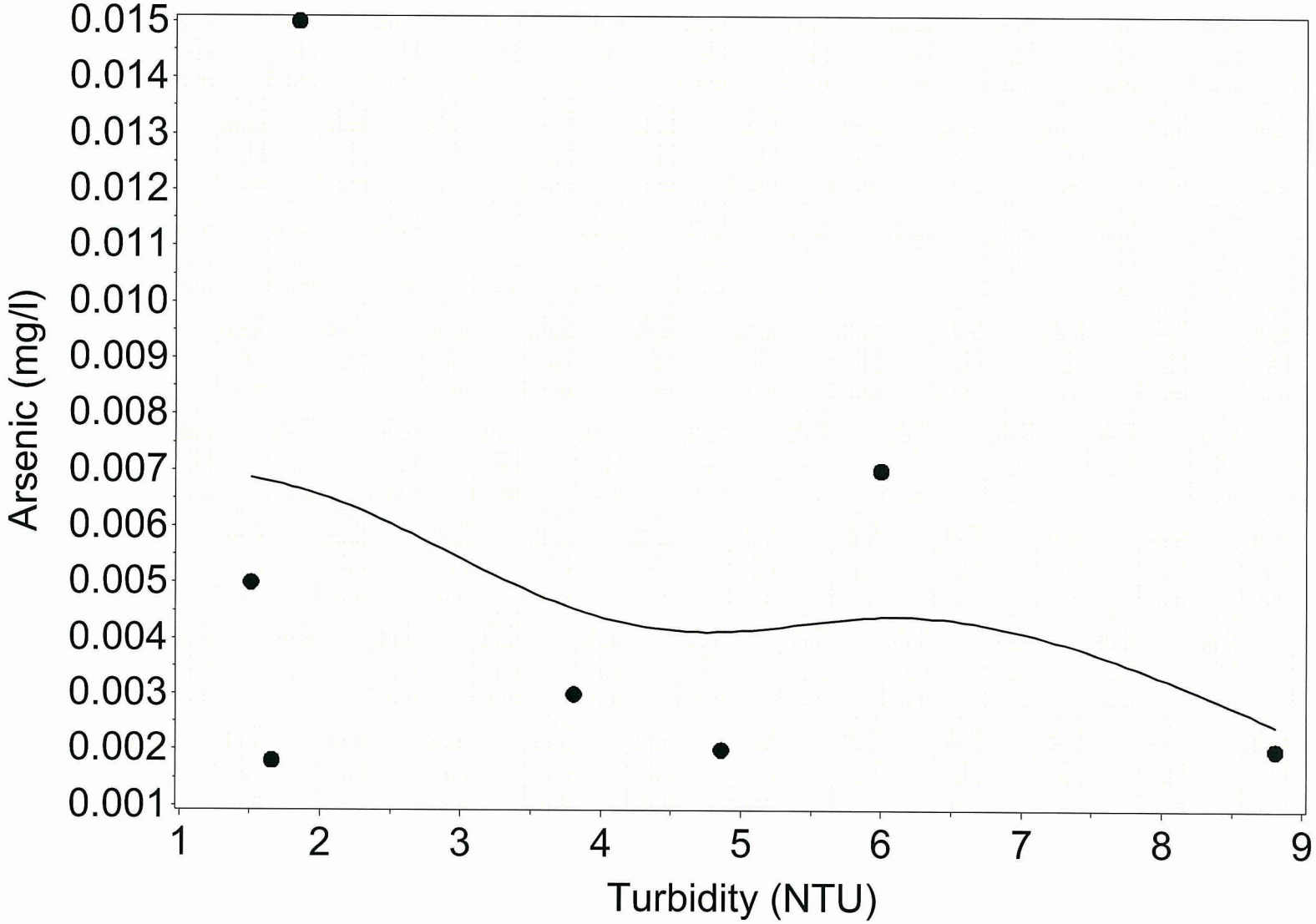
Arsenic concentration vs.Turbidity concentration in the GW-13 monitoring well at the Lena Road Landfill



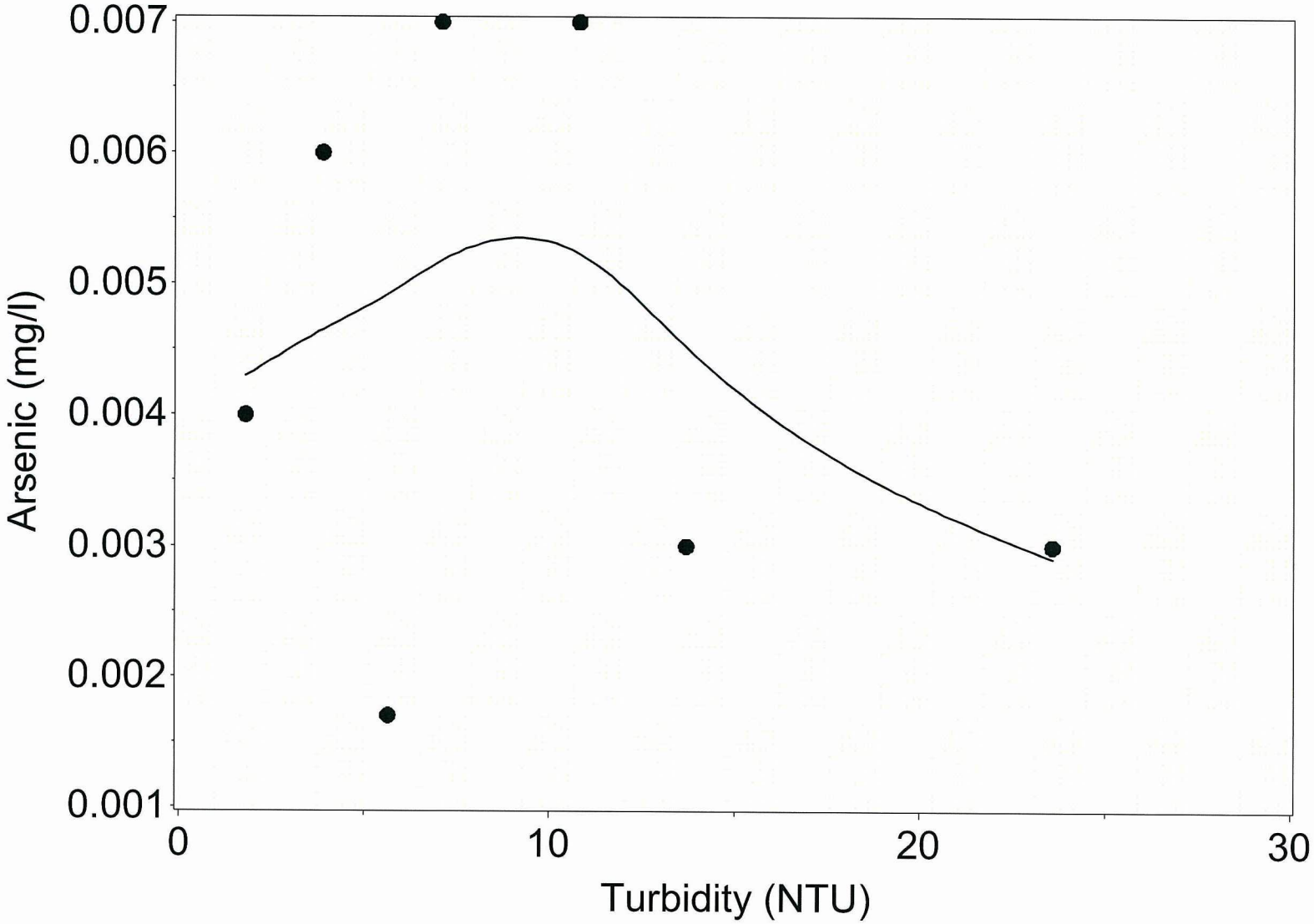
Arsenic concentration vs.Turbidity concentration in the GW-14 monitoring well at the Lena Road Landfill



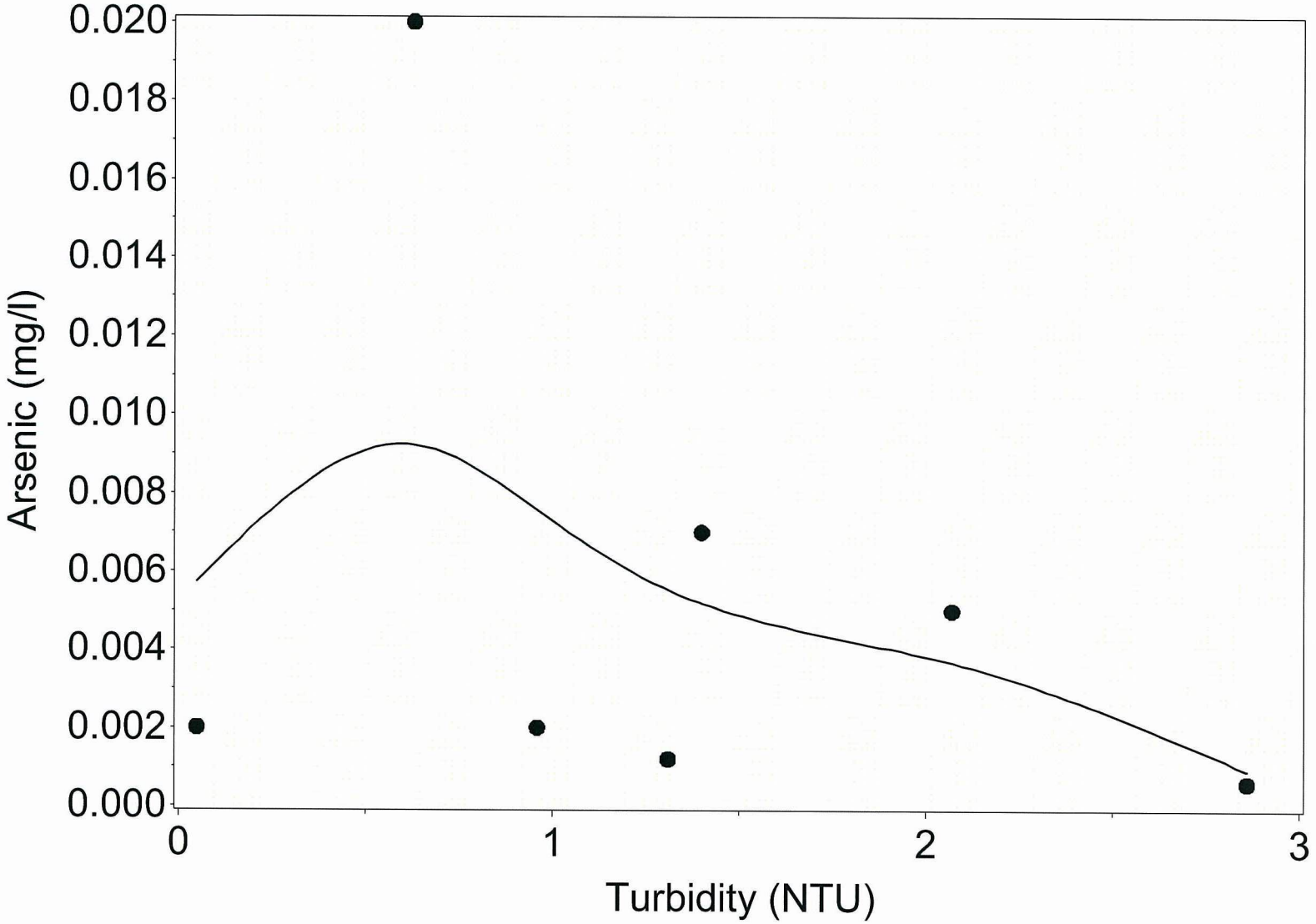
Arsenic concentration vs.Turbidity concentration in the GW-15 monitoring well at the Lena Road Landfill



Arsenic concentration vs.Turbidity concentration in the GW-16 monitoring well at the Lena Road Landfill

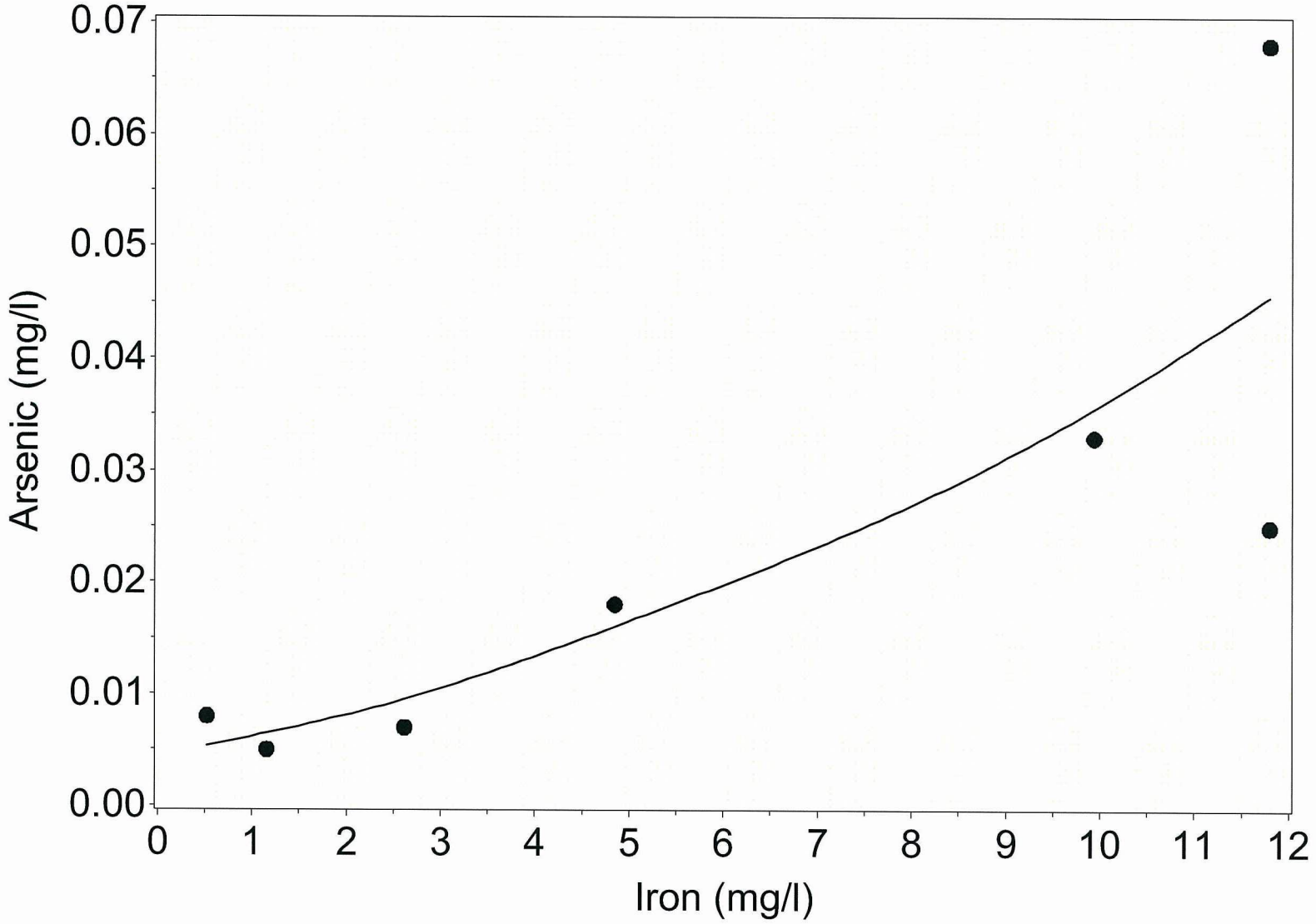


Arsenic concentration vs.Turbidity concentration in the GW-17 monitoring well at the Lena Road Landfill

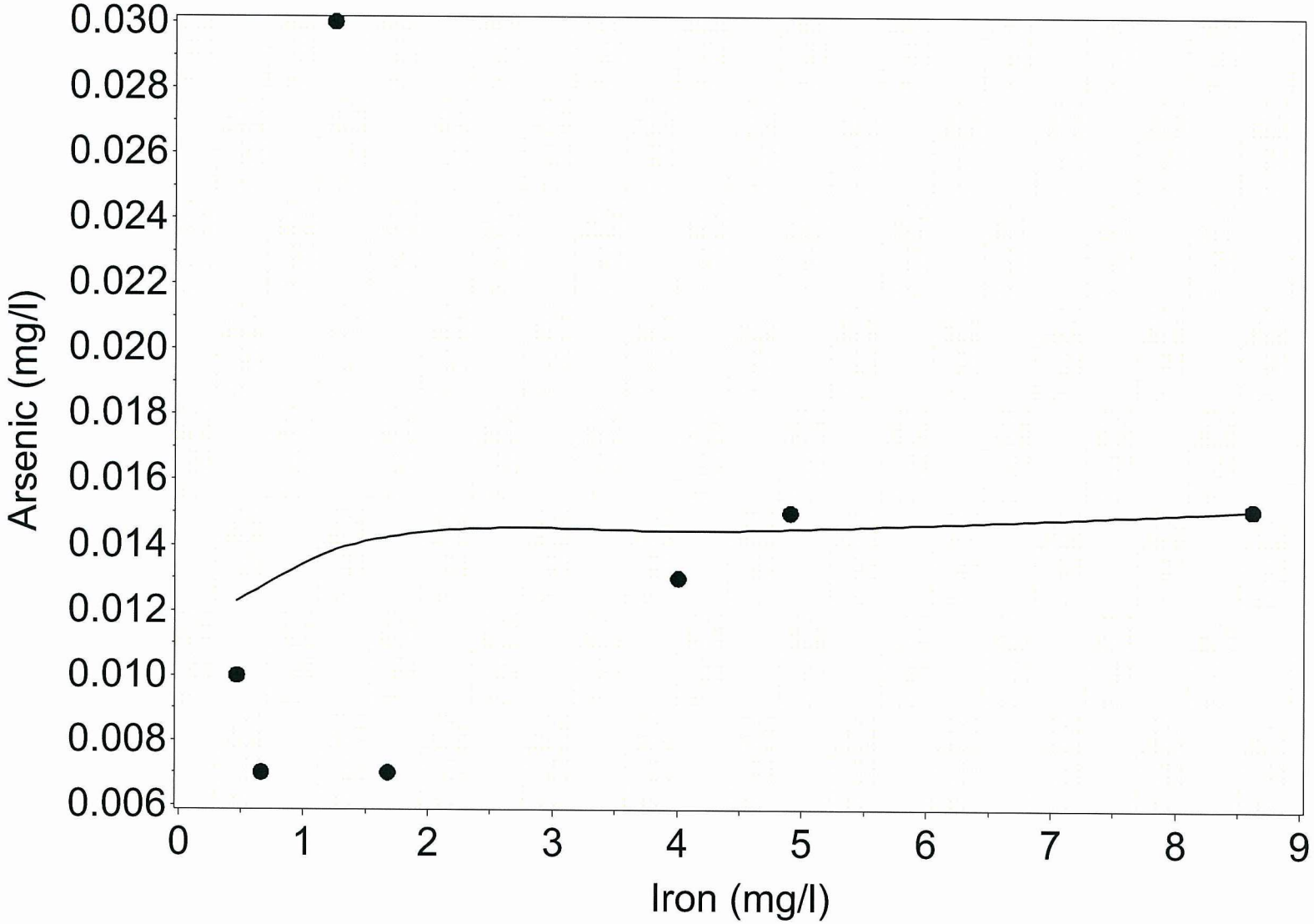


Arsenic concentration vs.Turbidity concentration in the BGW-1 monitoring well at the Lena Road Landfill

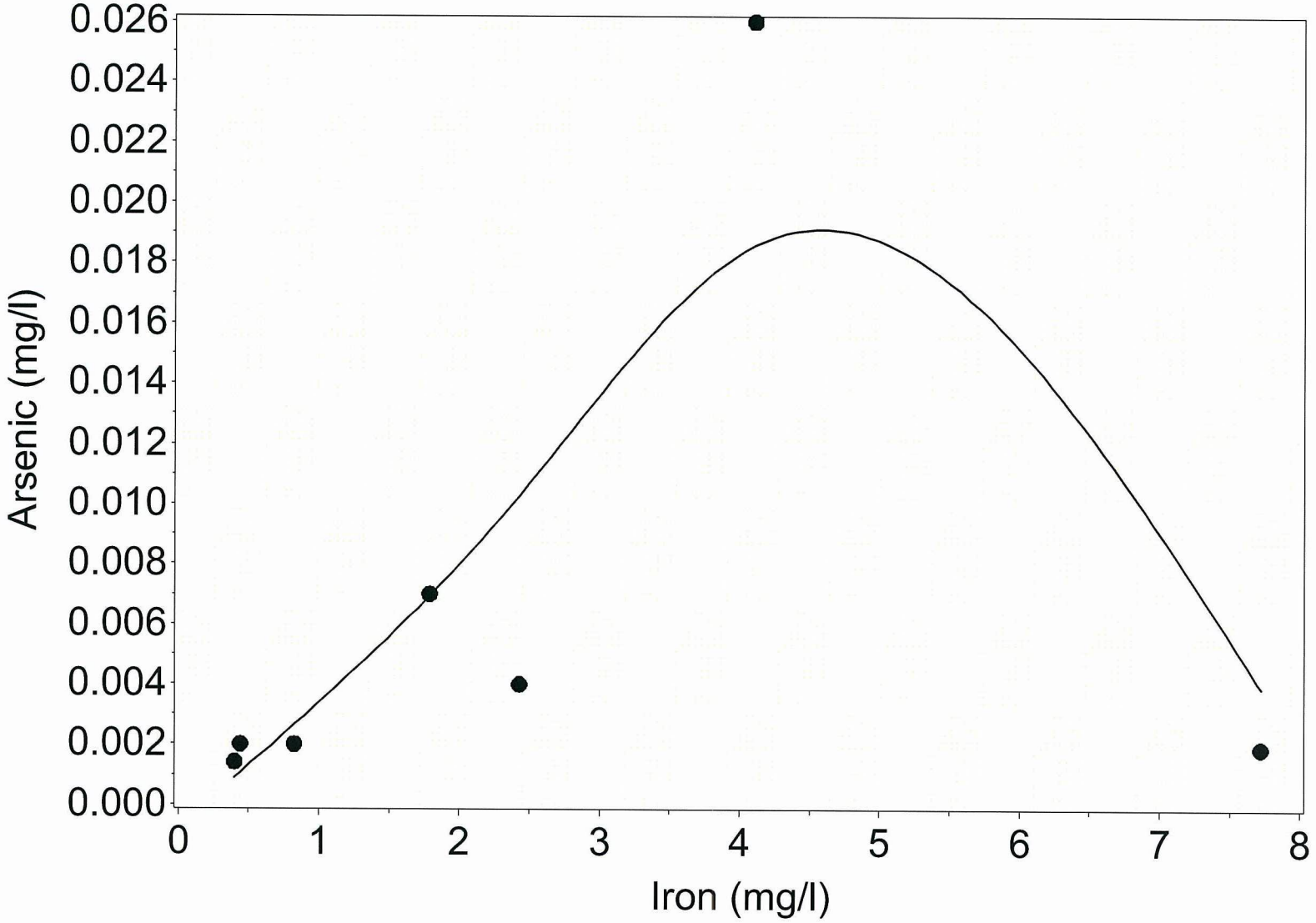
E-3 – Arsenic verses Iron



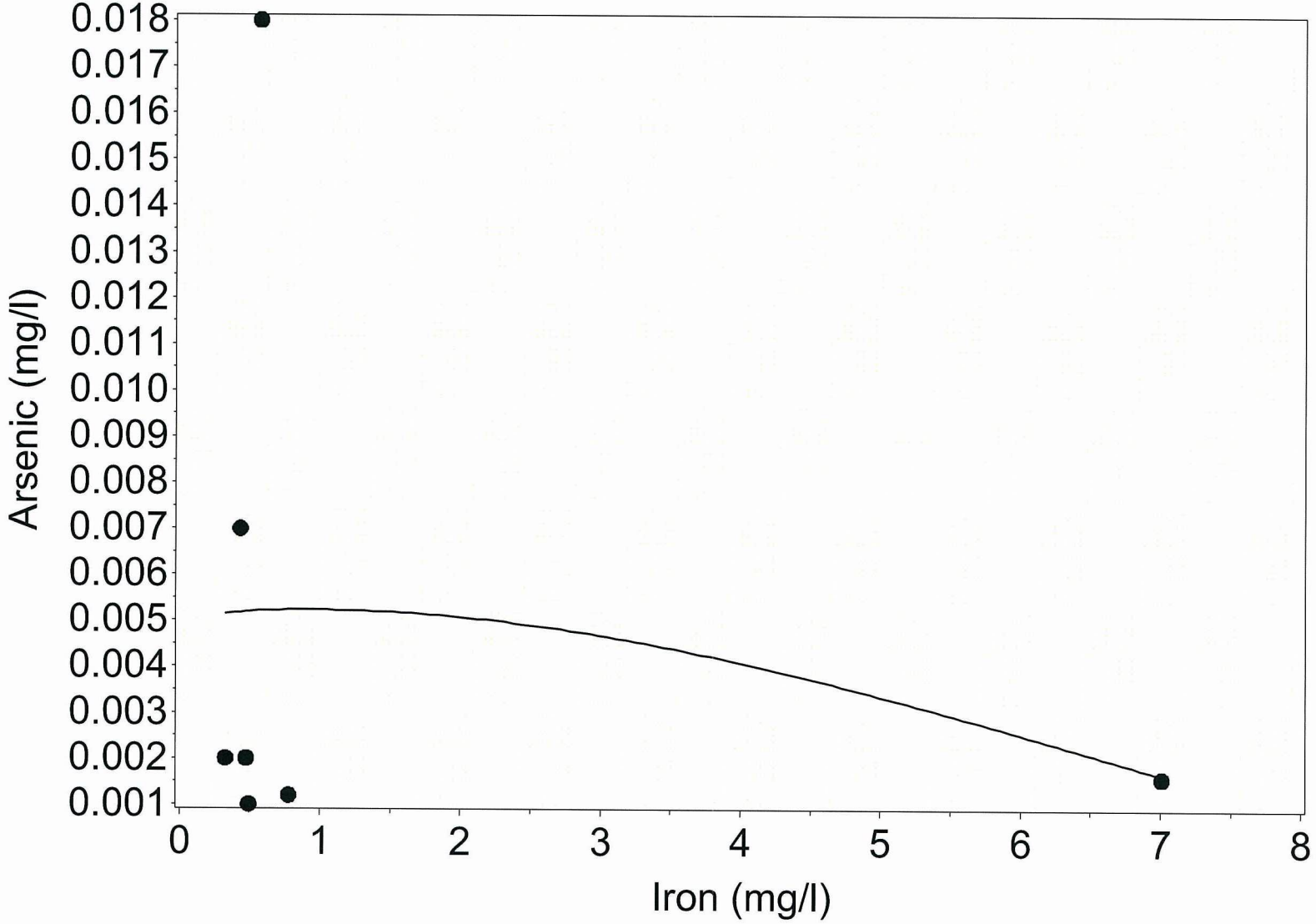
Arsenic concentration vs.Iron concentration in the GW-1 monitoring well at the Lena Road Landfill



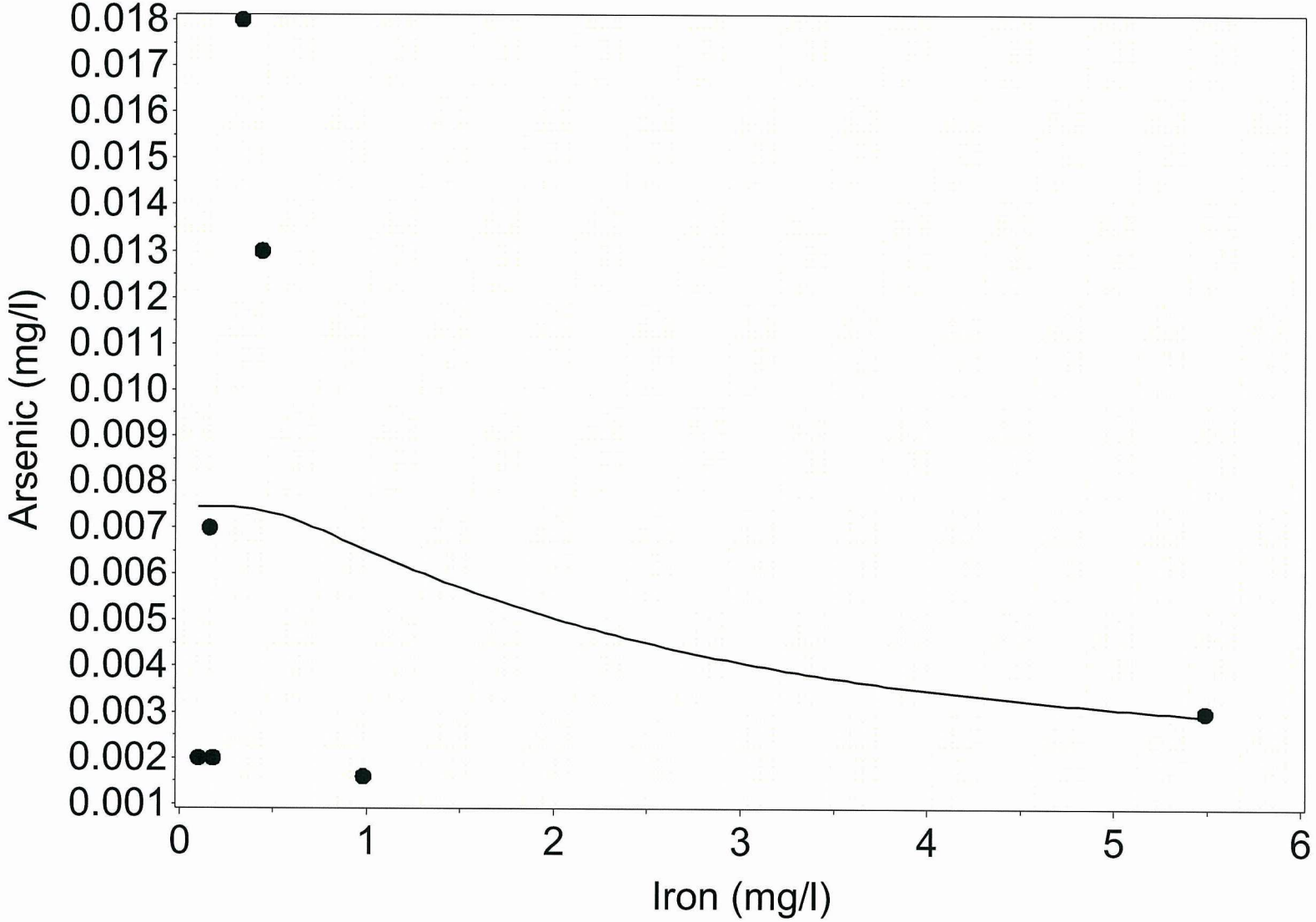
Arsenic concentration vs.Iron concentration in the GW-2 monitoring well at the Lena Road Landfill



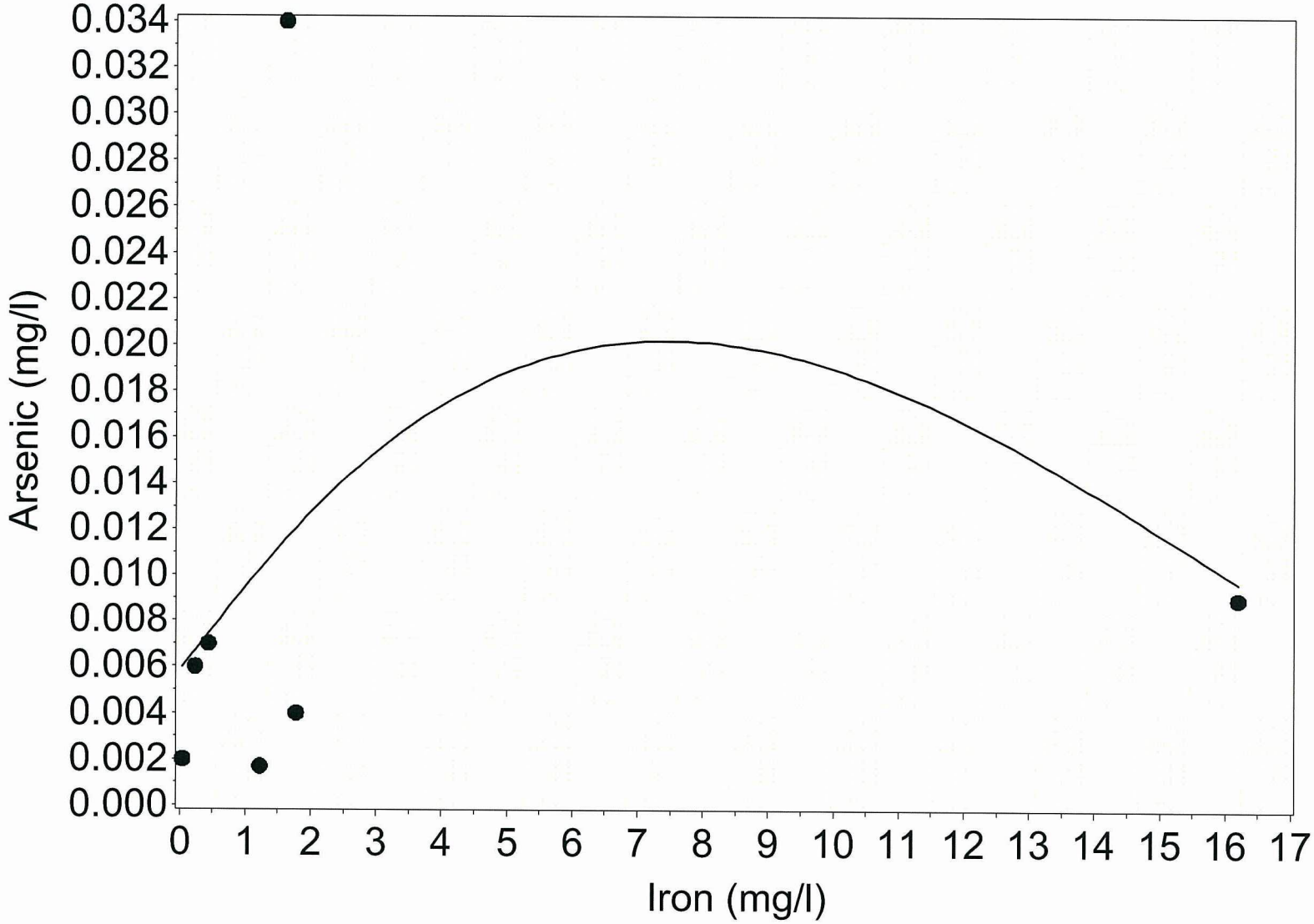
Arsenic concentration vs.Iron concentration in the GW-3 monitoring well at the Lena Road Landfill



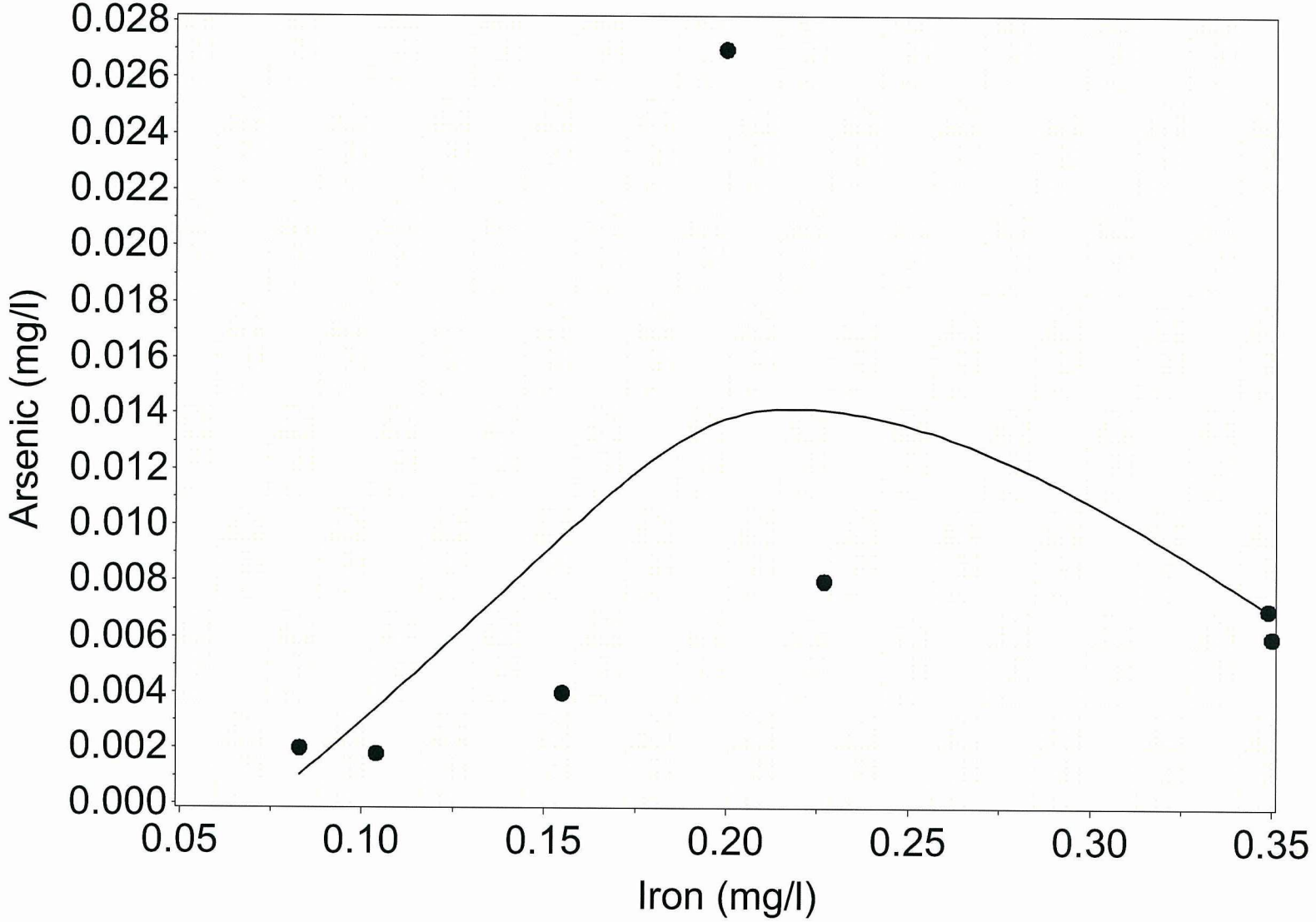
Arsenic concentration vs.Iron concentration in the GW-4 monitoring well at the Lena Road Landfill



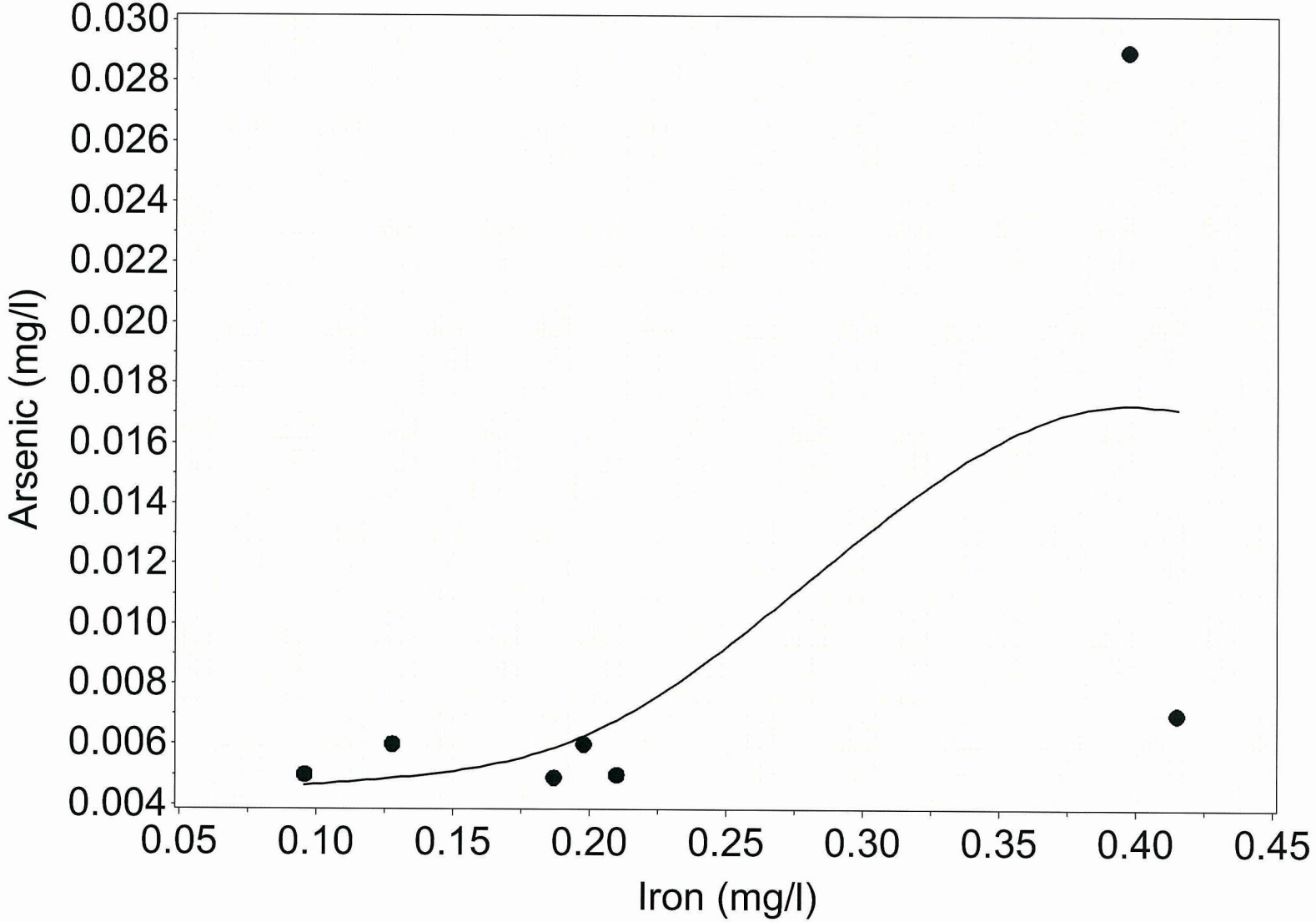
Arsenic concentration vs.Iron concentration in the GW-5 monitoring well at the Lena Road Landfill



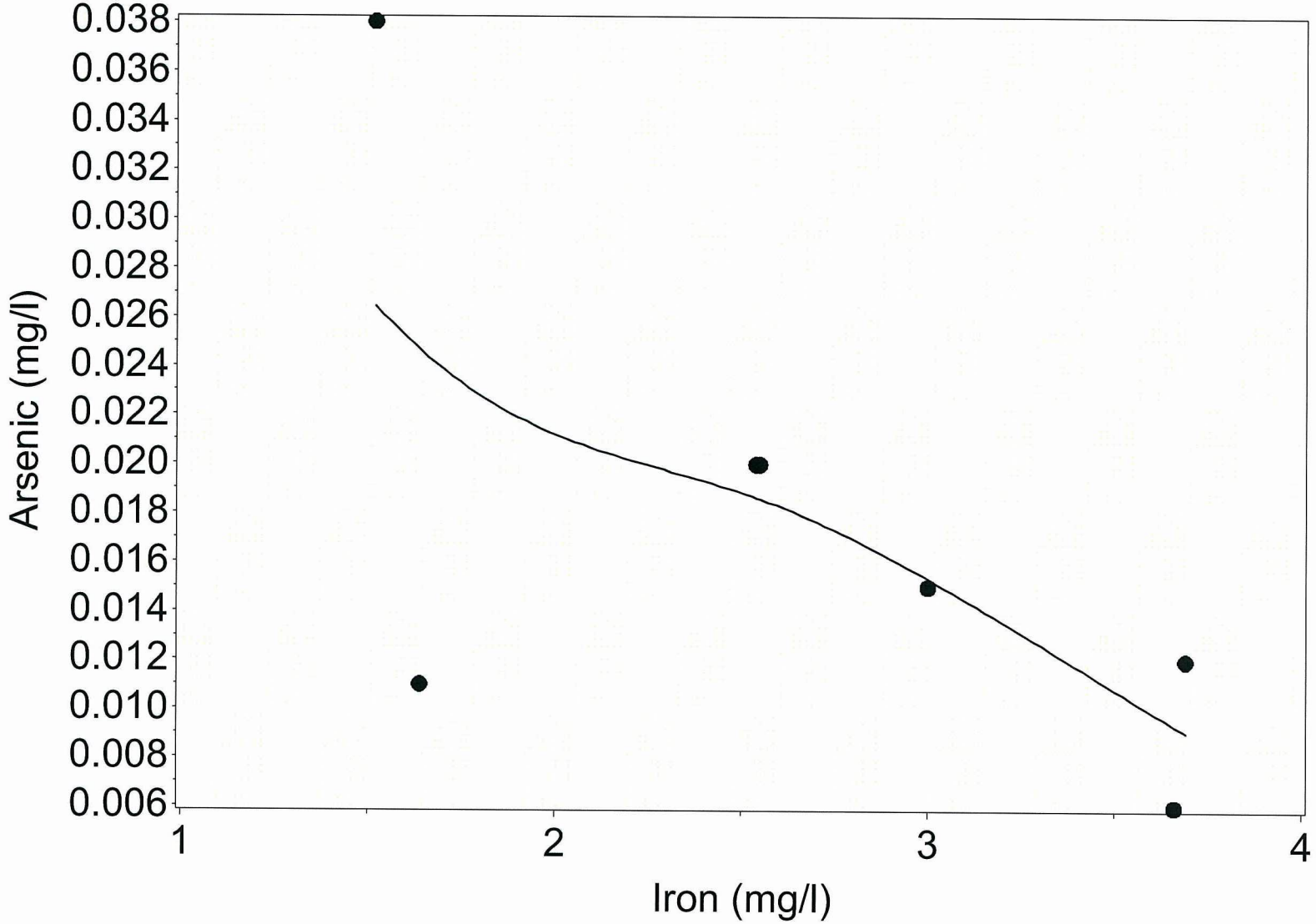
Arsenic concentration vs.Iron concentration in the GW-6 monitoring well at the Lena Road Landfill



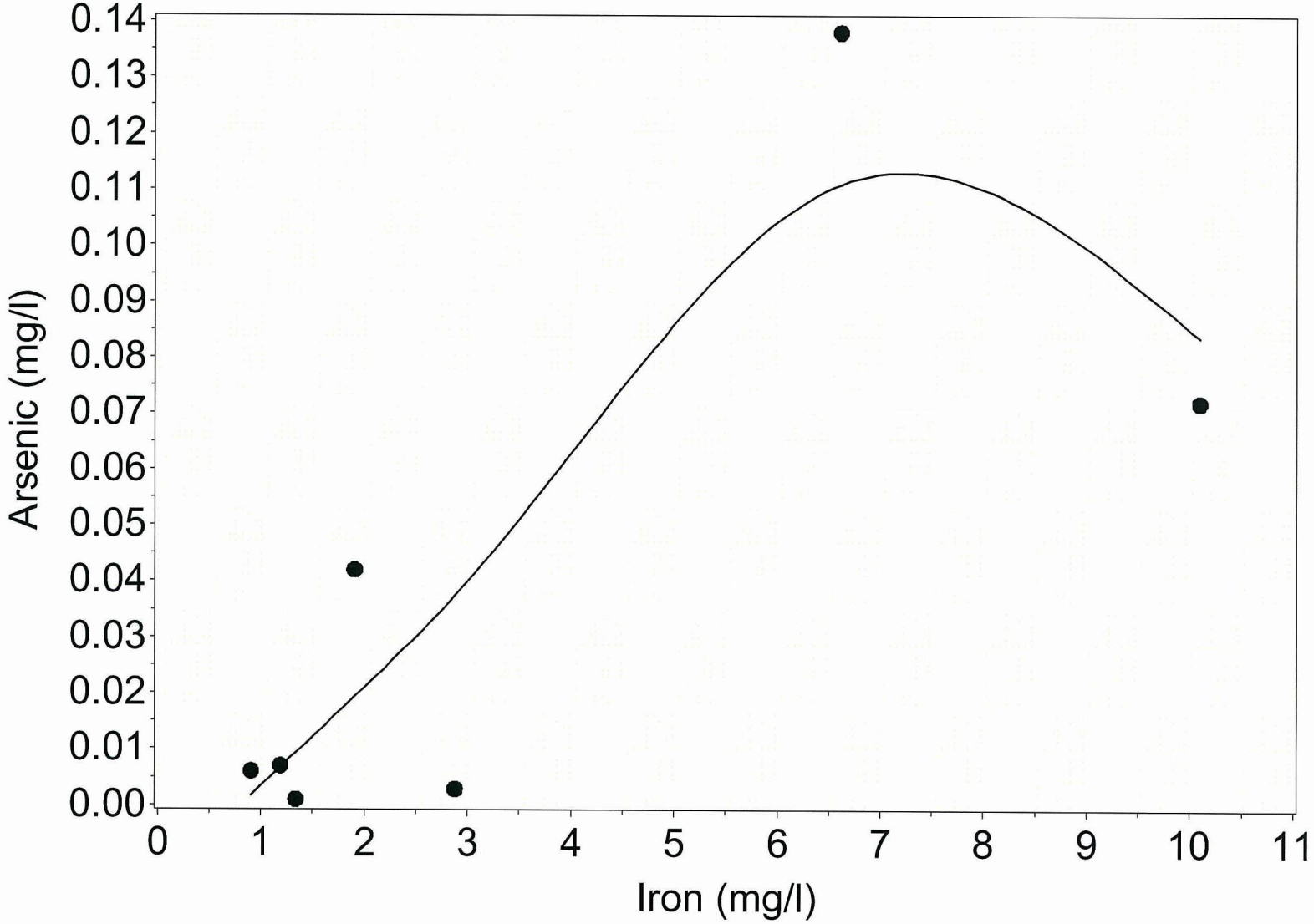
Arsenic concentration vs.Iron concentration in the GW-7 monitoring well at the Lena Road Landfill



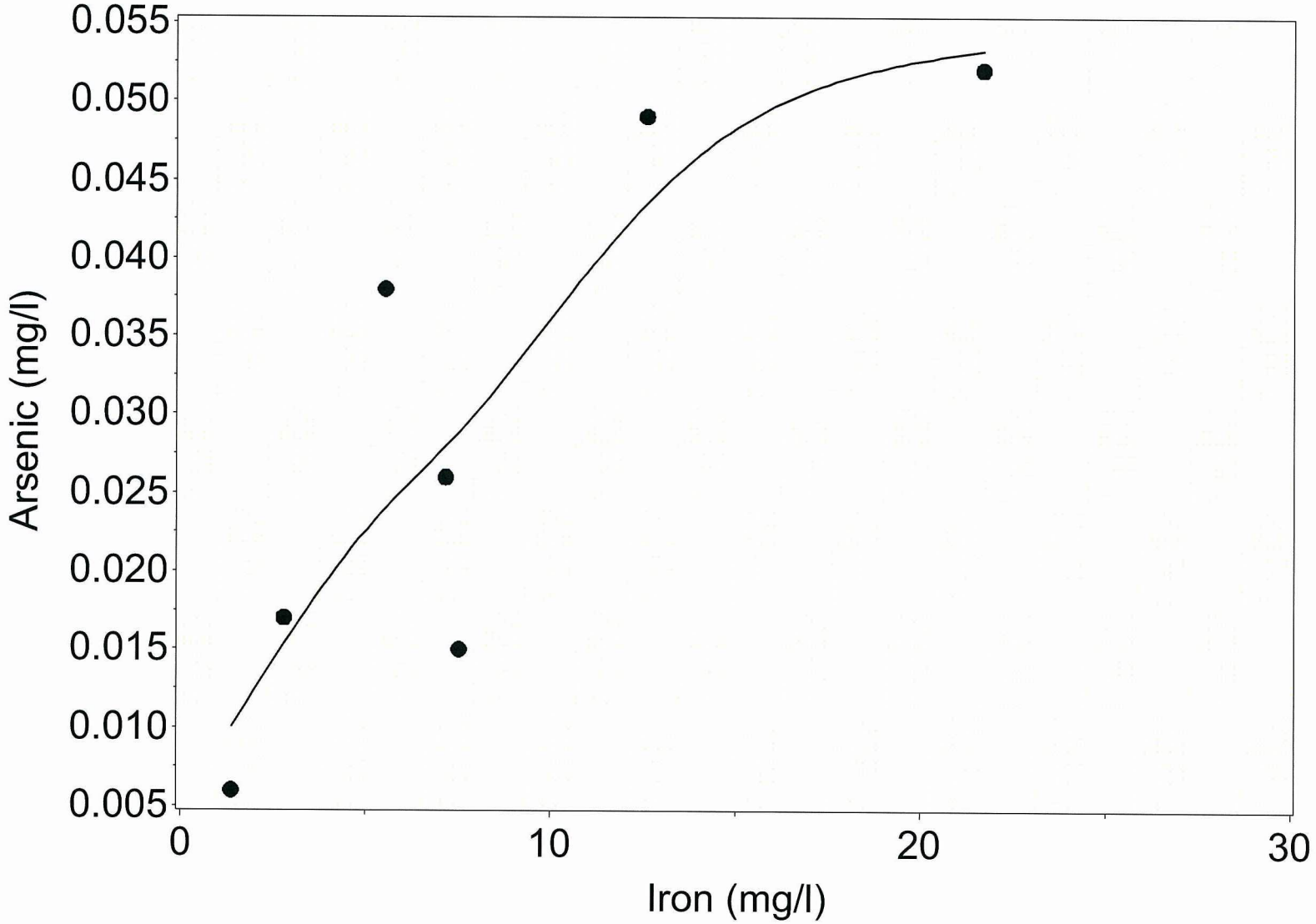
Arsenic concentration vs.Iron concentration in the GW-8 monitoring well at the Lena Road Landfill



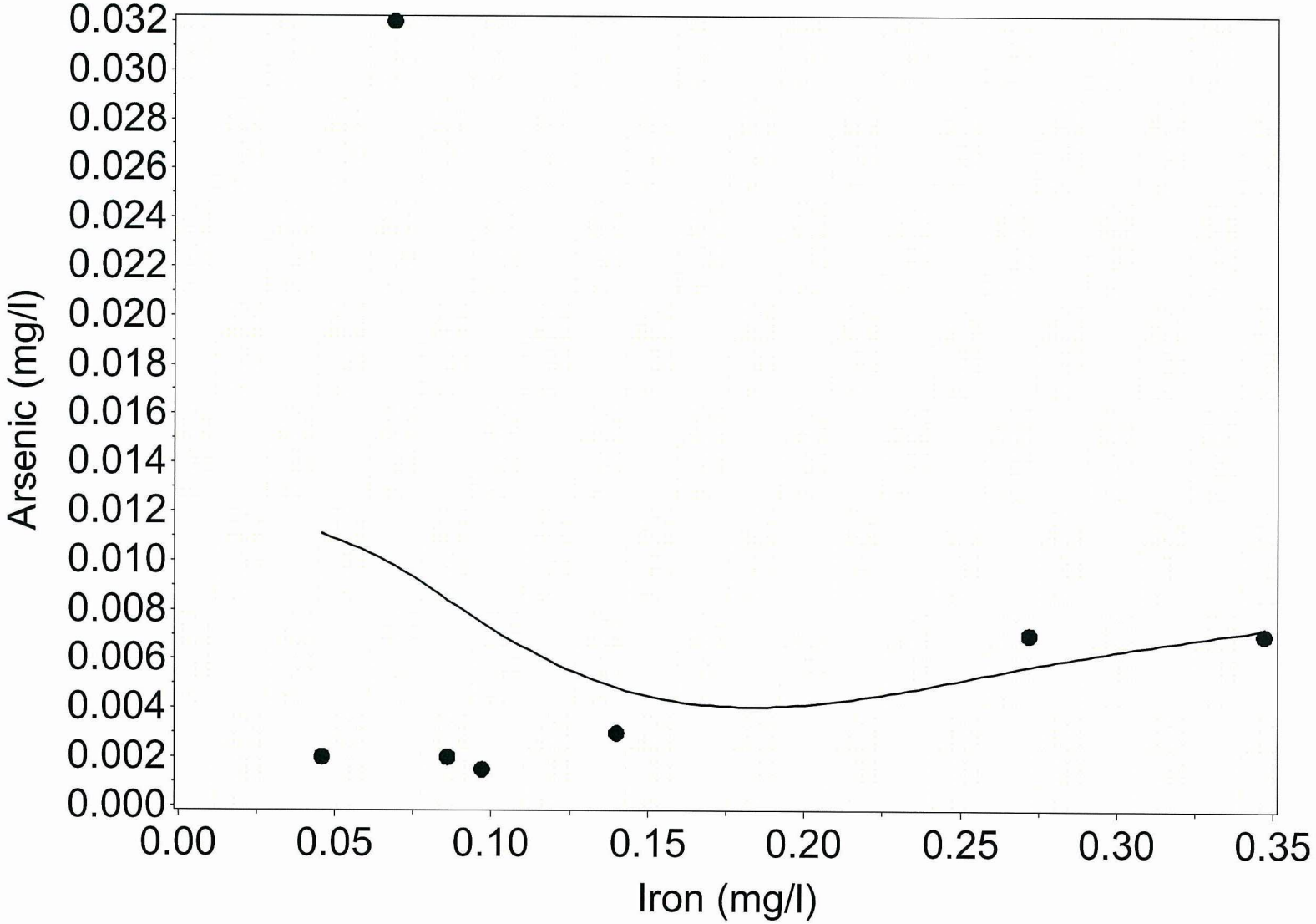
Arsenic concentration vs.Iron concentration in the GW-9 monitoring well at the Lena Road Landfill



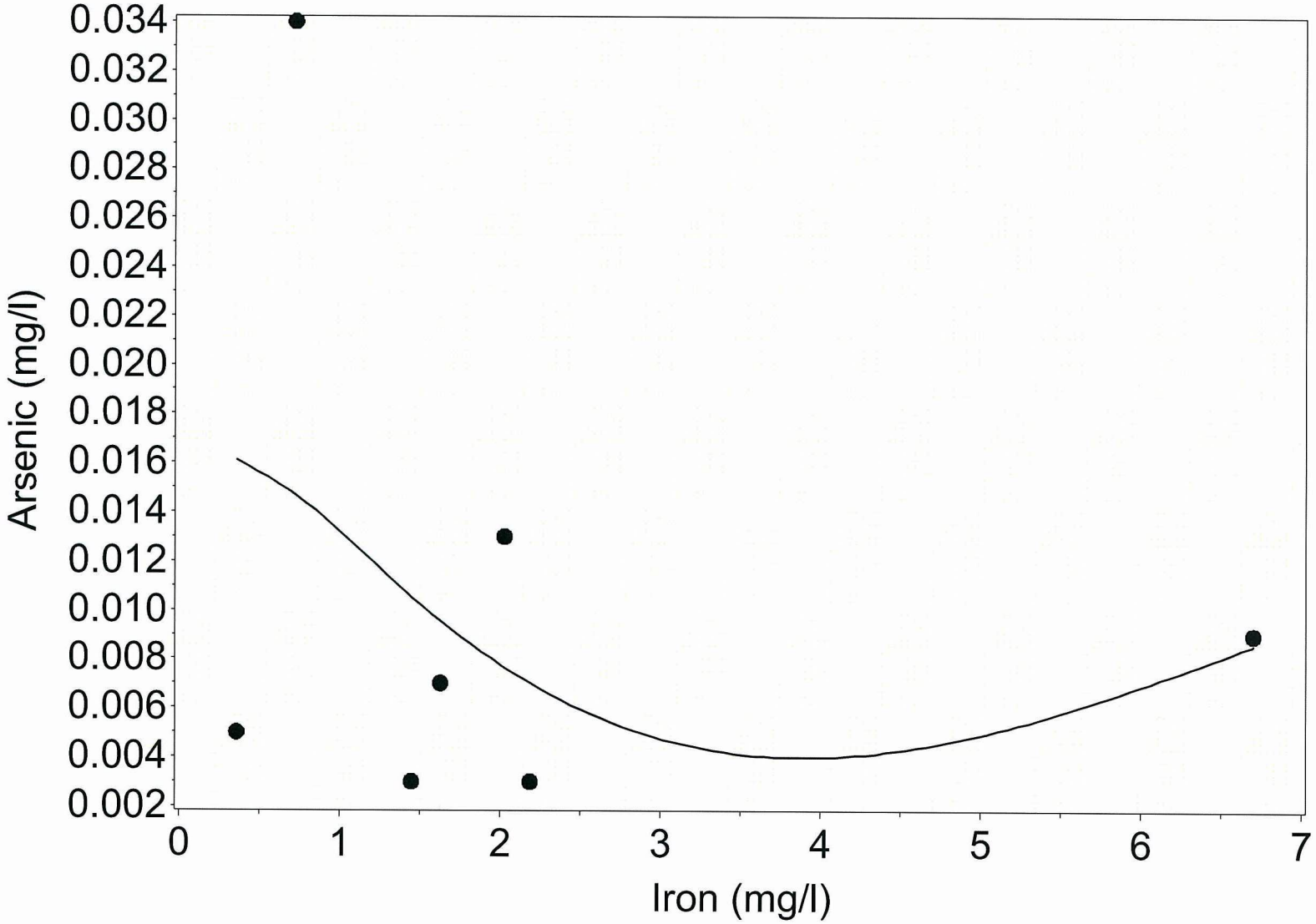
Arsenic concentration vs.Iron concentration in the GW-10 monitoring well at the Lena Road Landfill



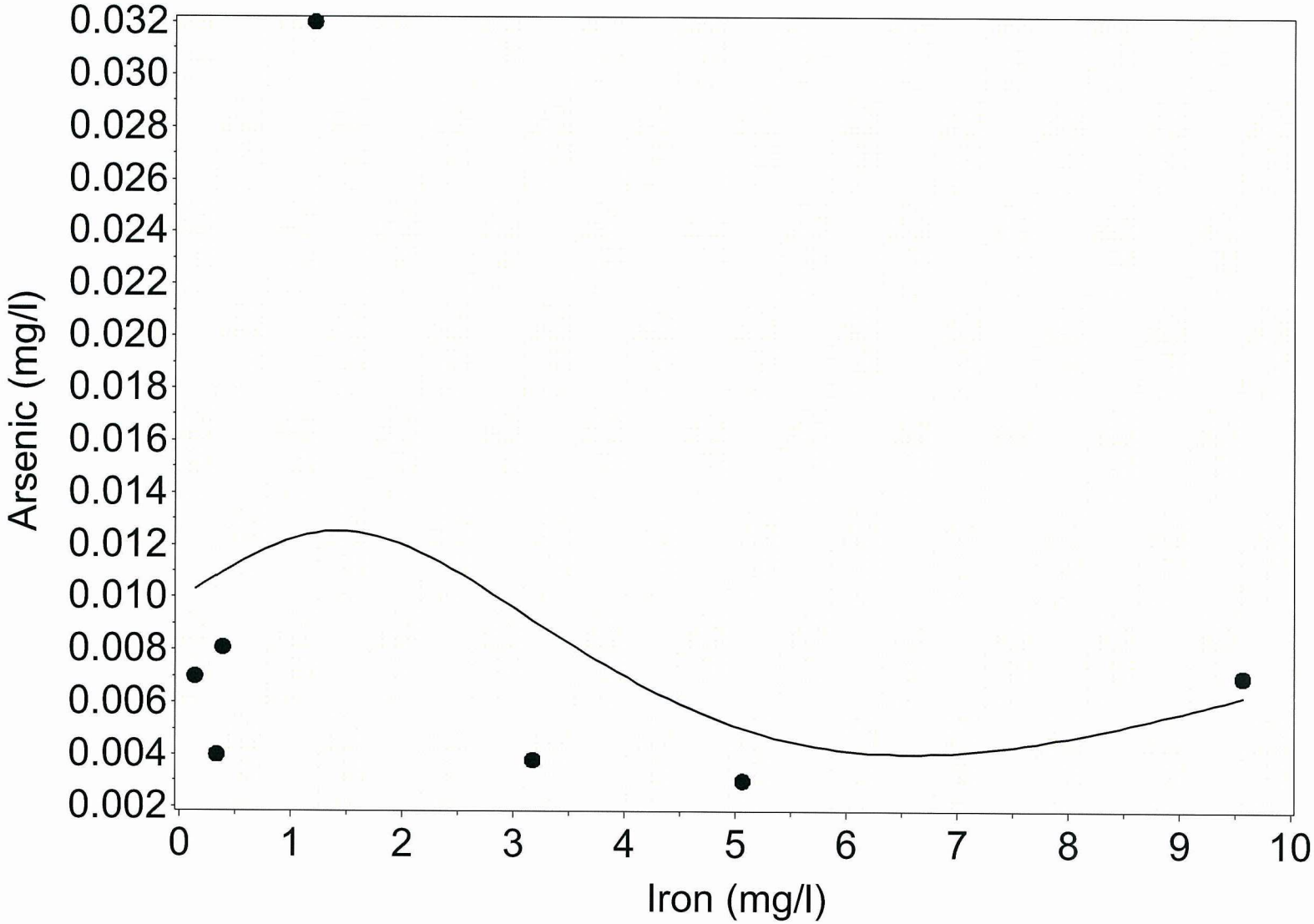
Arsenic concentration vs.Iron concentration in the GW-11 monitoring well at the Lena Road Landfill



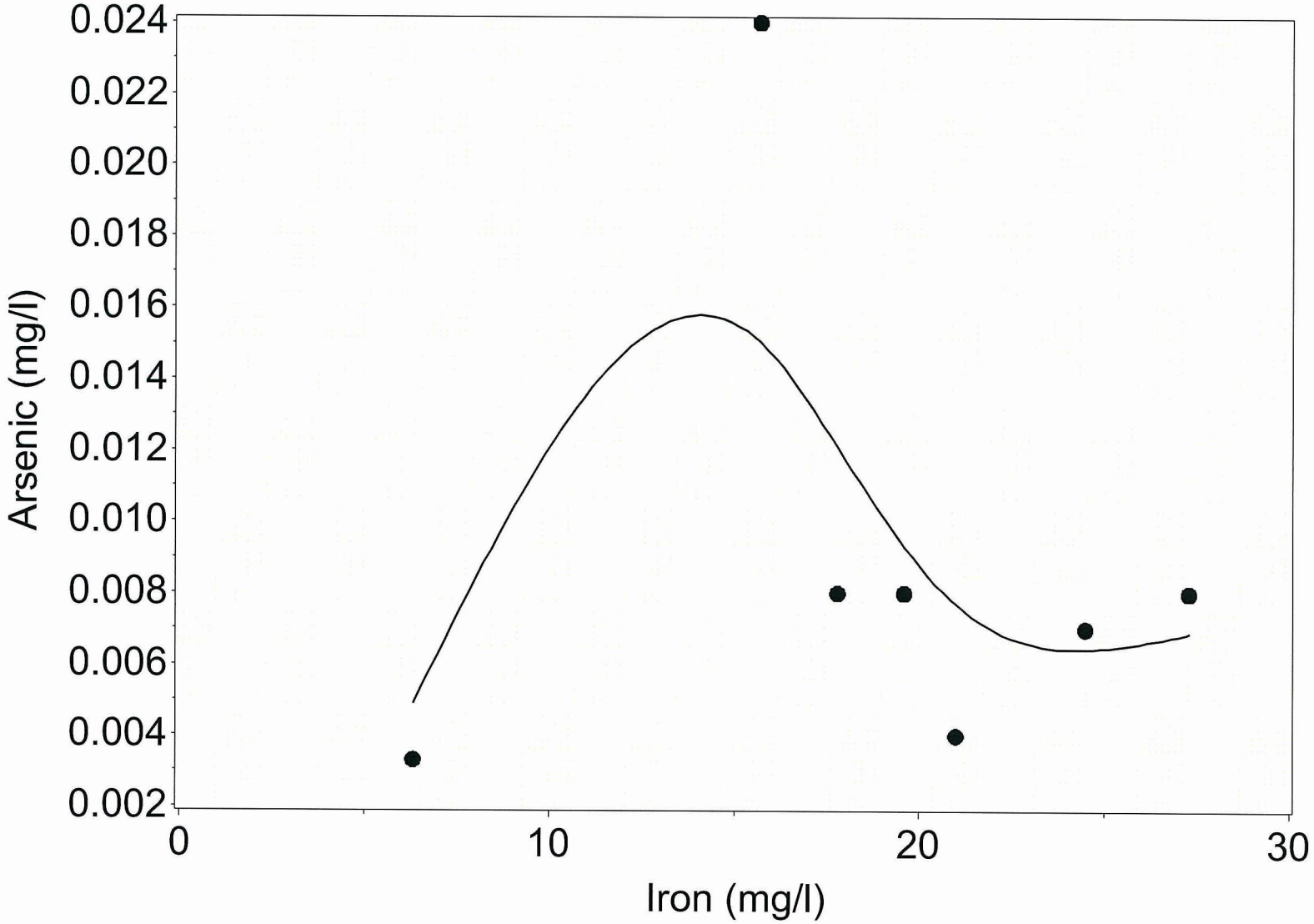
Arsenic concentration vs.Iron concentration in the GW-12 monitoring well at the Lena Road Landfill



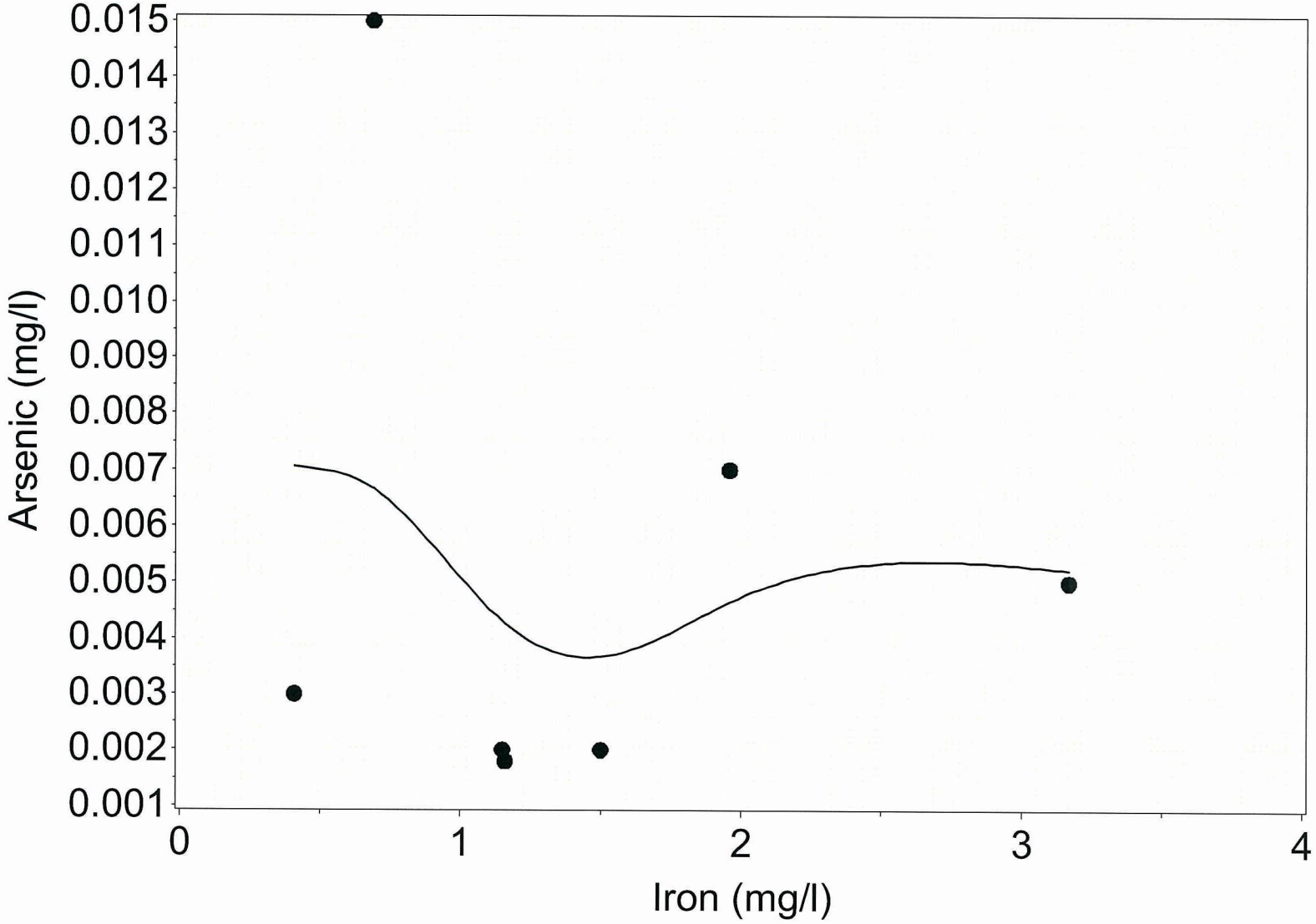
Arsenic concentration vs.Iron concentration in the GW-13 monitoring well at the Lena Road Landfill



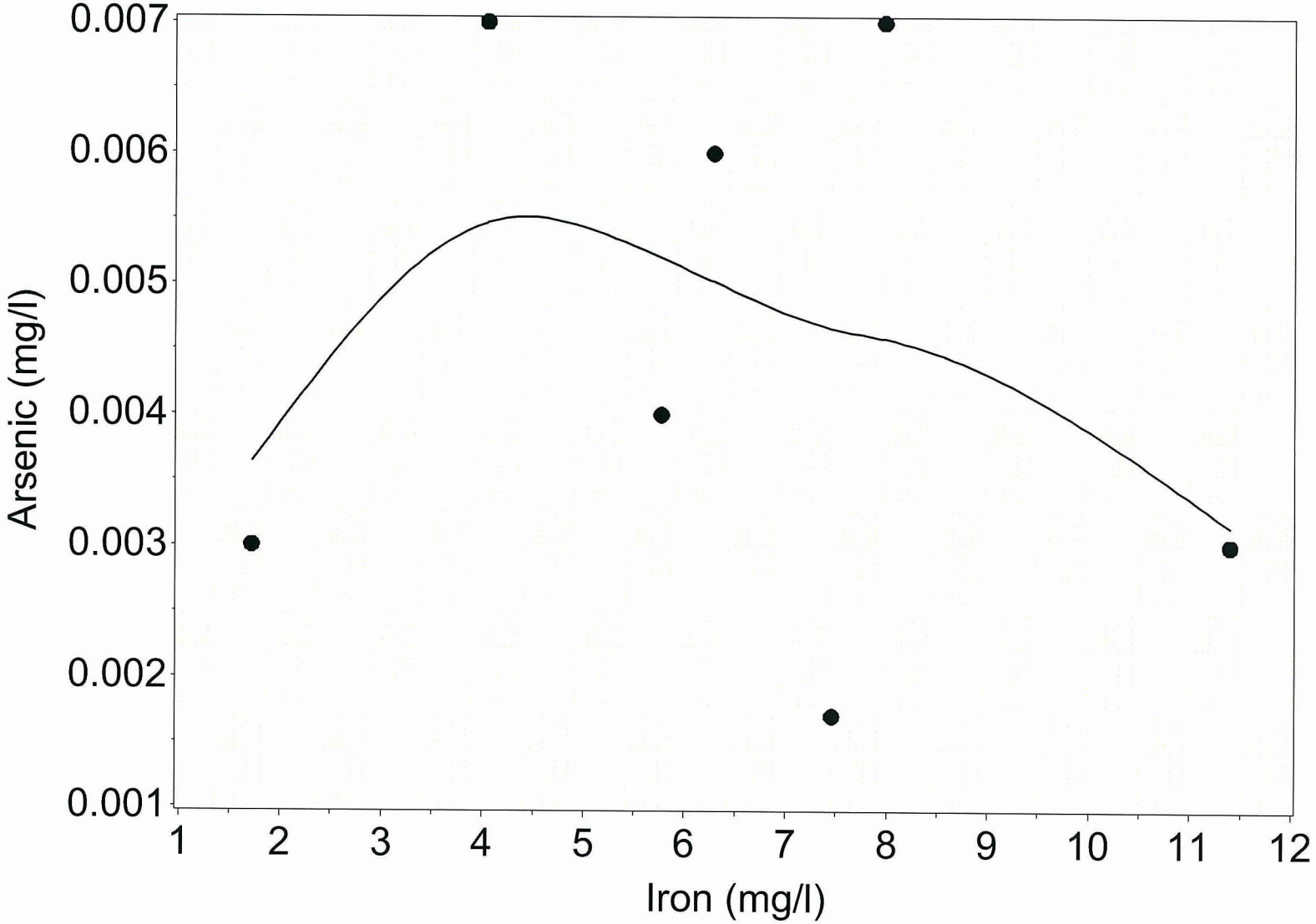
Arsenic concentration vs.Iron concentration in the GW-14 monitoring well at the Lena Road Landfill



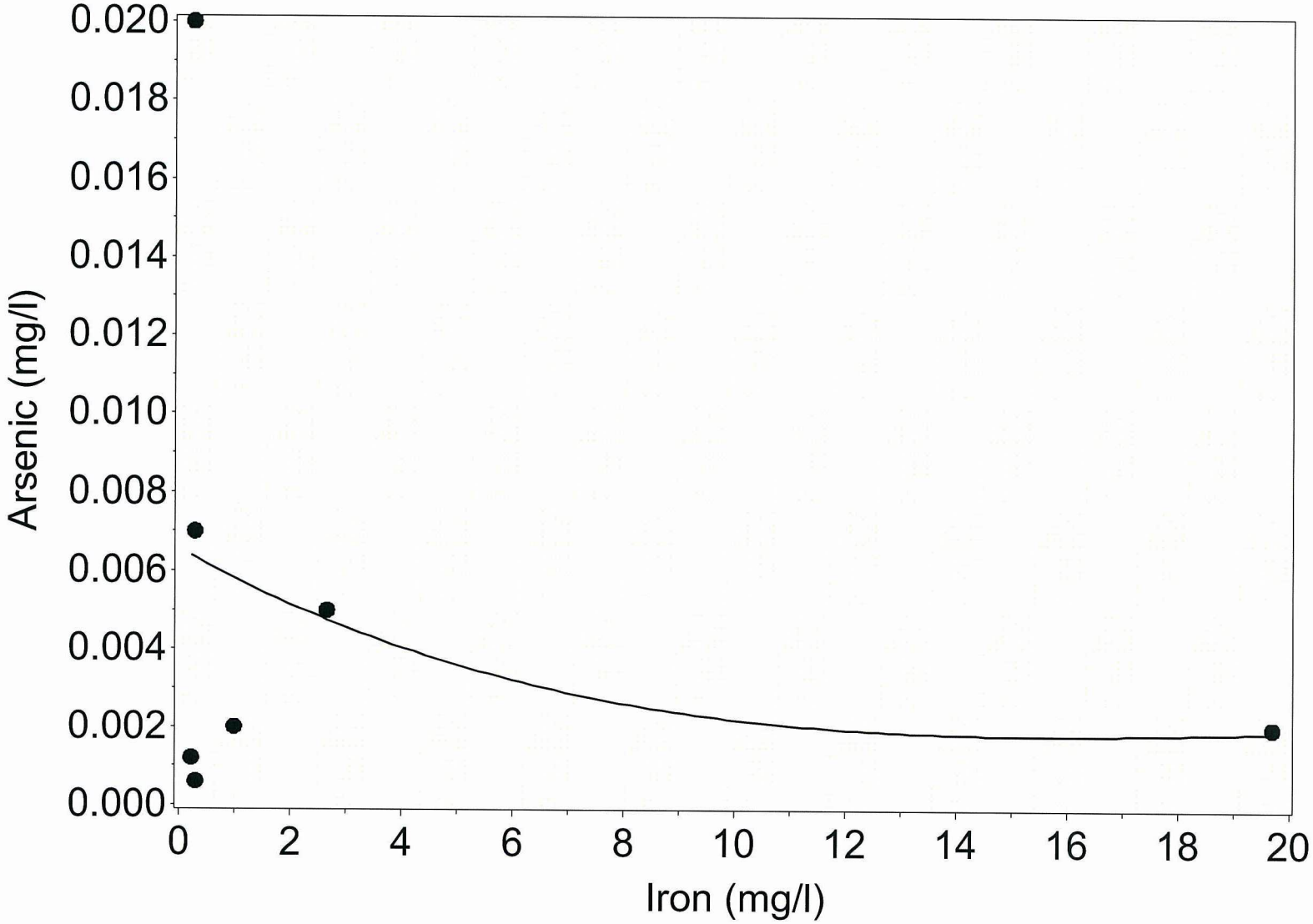
Arsenic concentration vs.Iron concentration in the GW-15 monitoring well at the Lena Road Landfill



Arsenic concentration vs.Iron concentration in the GW-16 monitoring well at the Lena Road Landfill

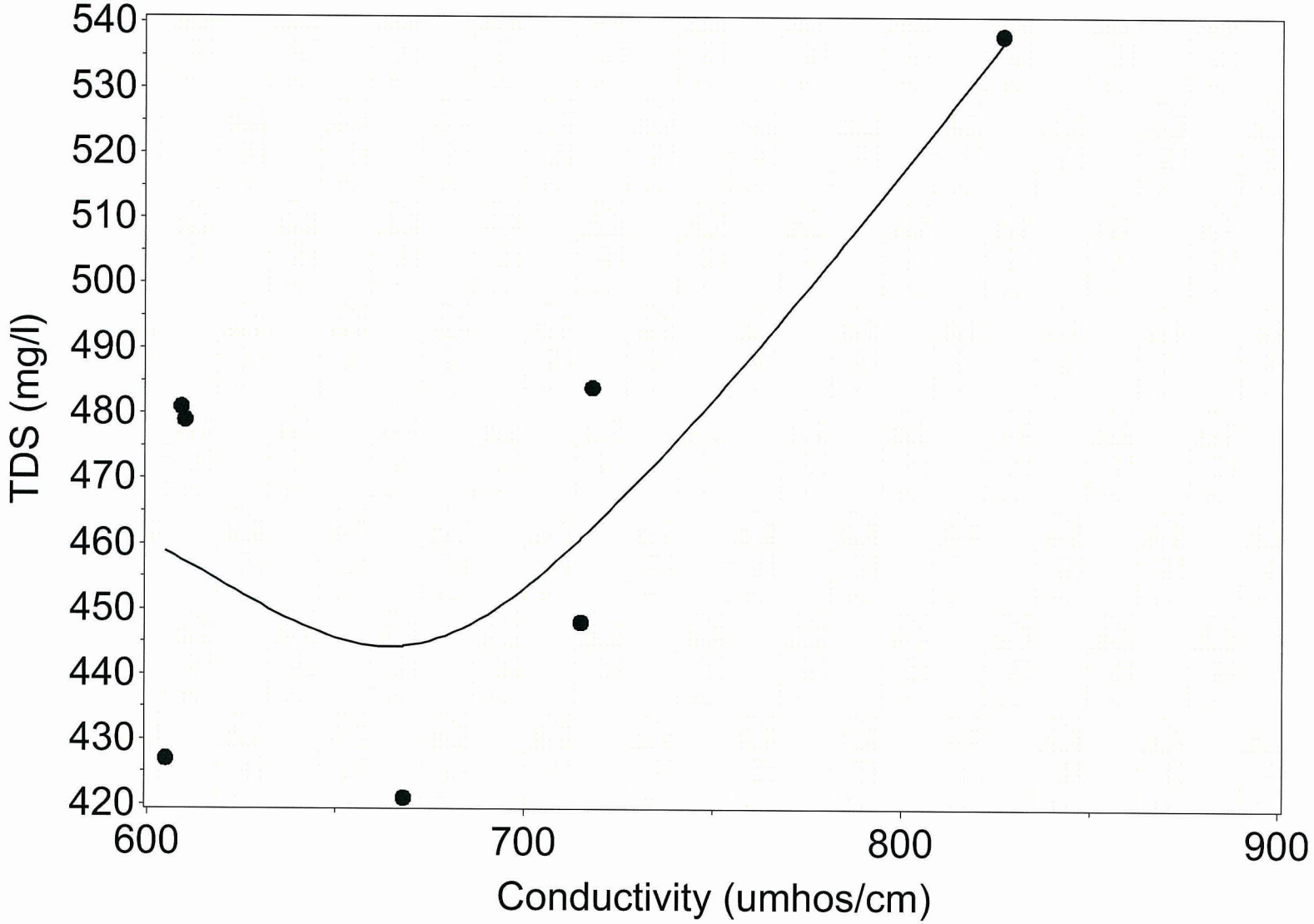


Arsenic concentration vs.Iron concentration in the GW-17 monitoring well at the Lena Road Landfill

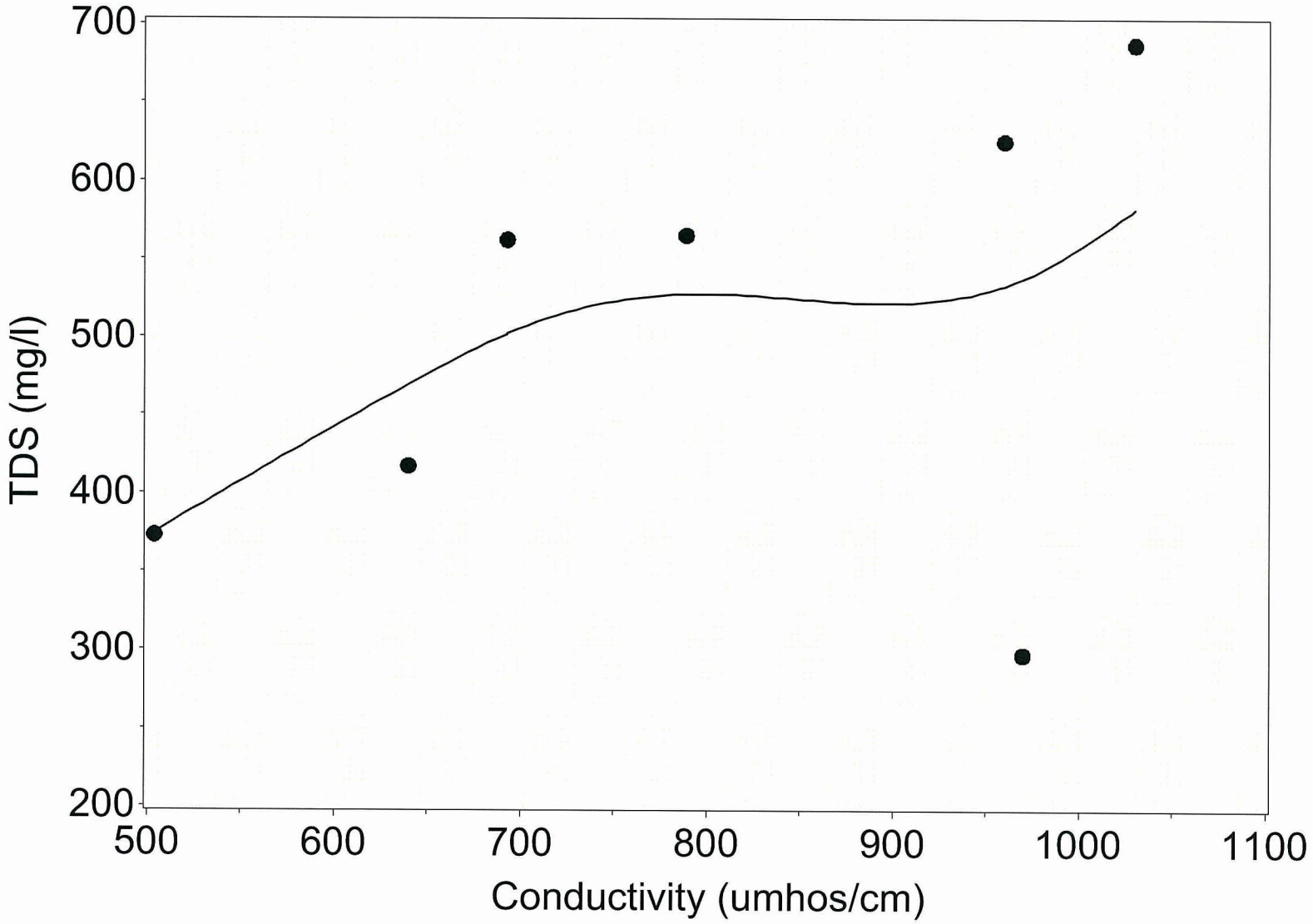


Arsenic concentration vs.Iron concentration in the BGW-1 monitoring well at the Lena Road Landfill

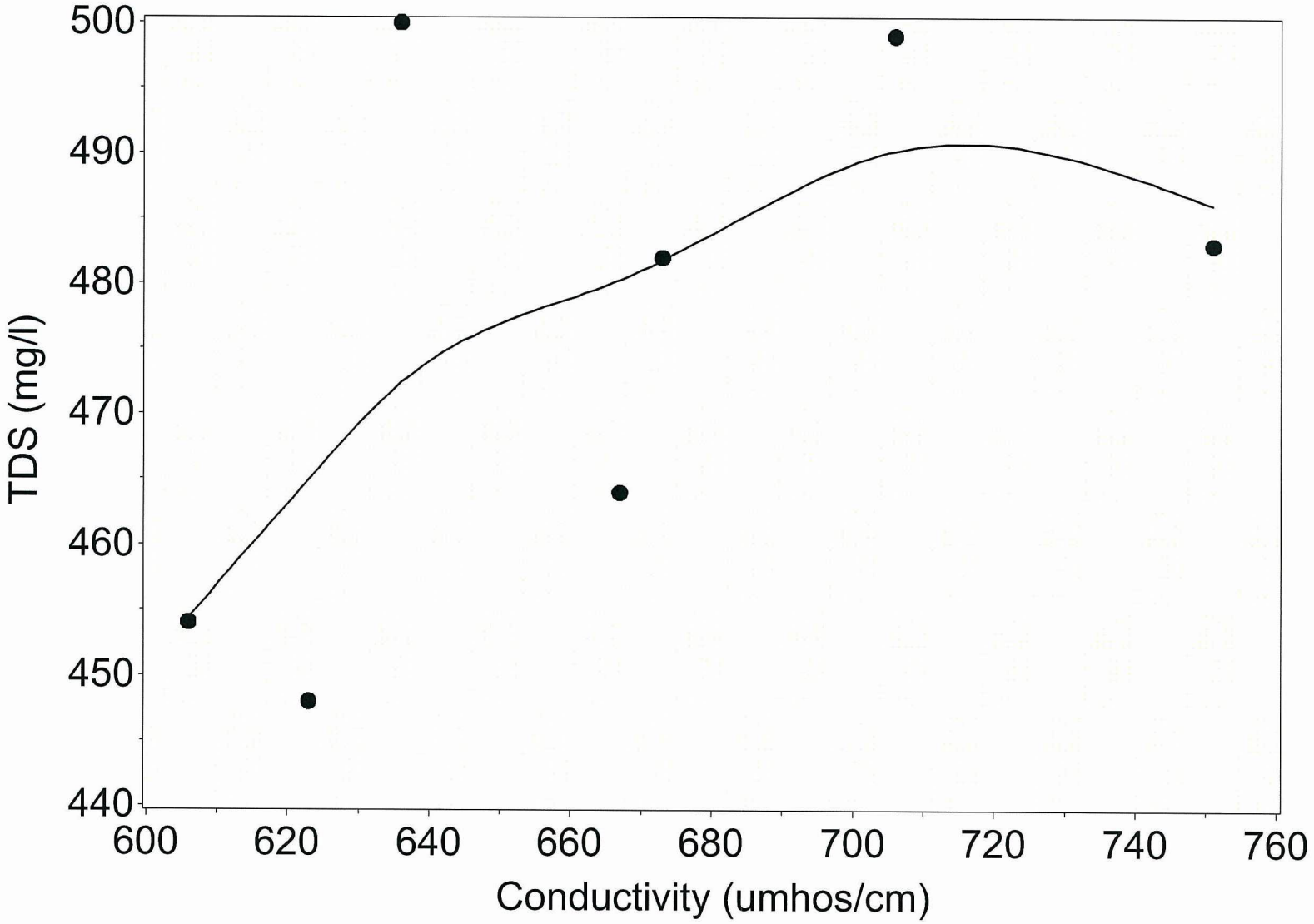
E-4 – Conductivity versus TDS



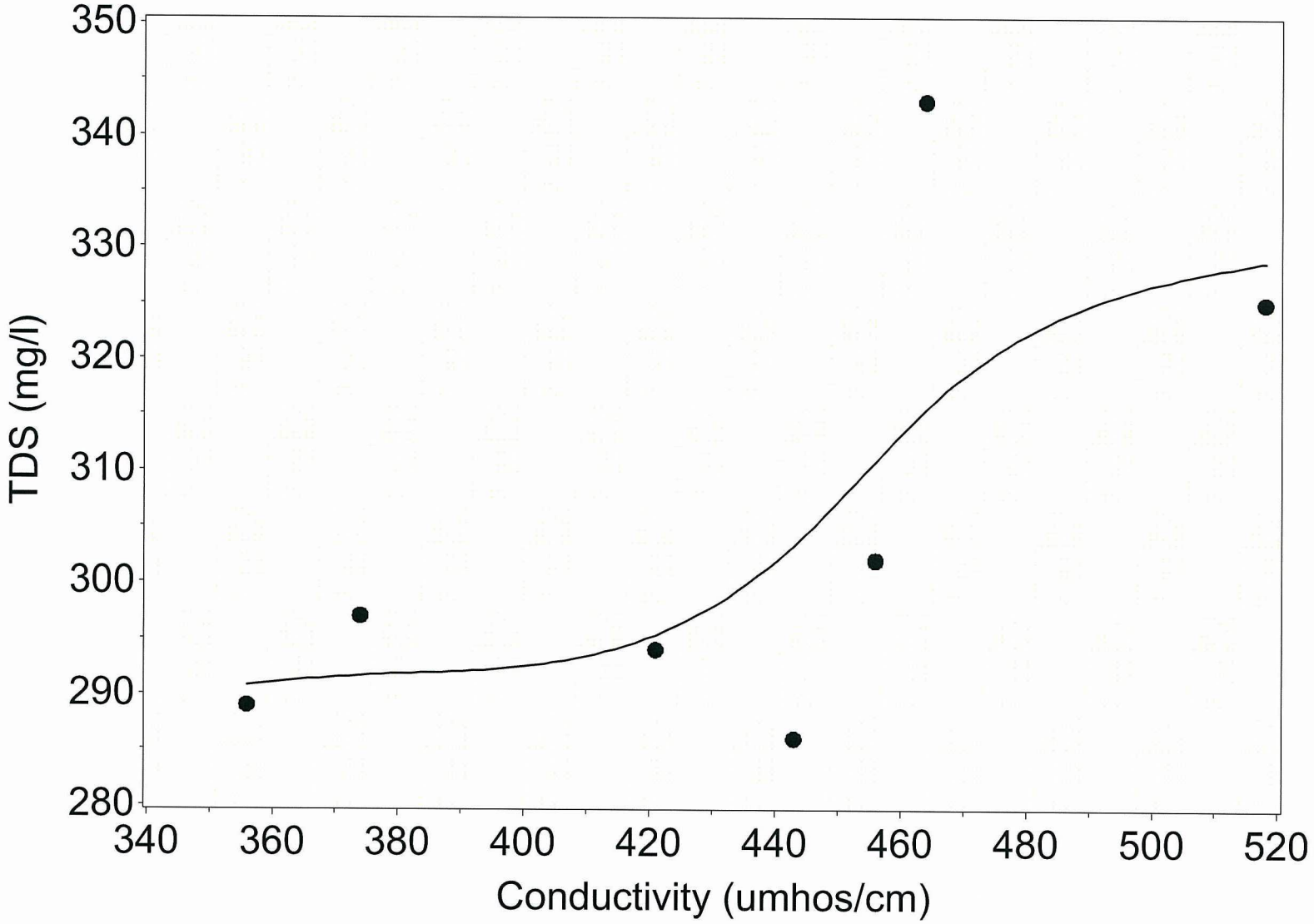
TDS concentration vs.Conductivity concentration in the GW-1 monitoring well at the Lena Road Landfill



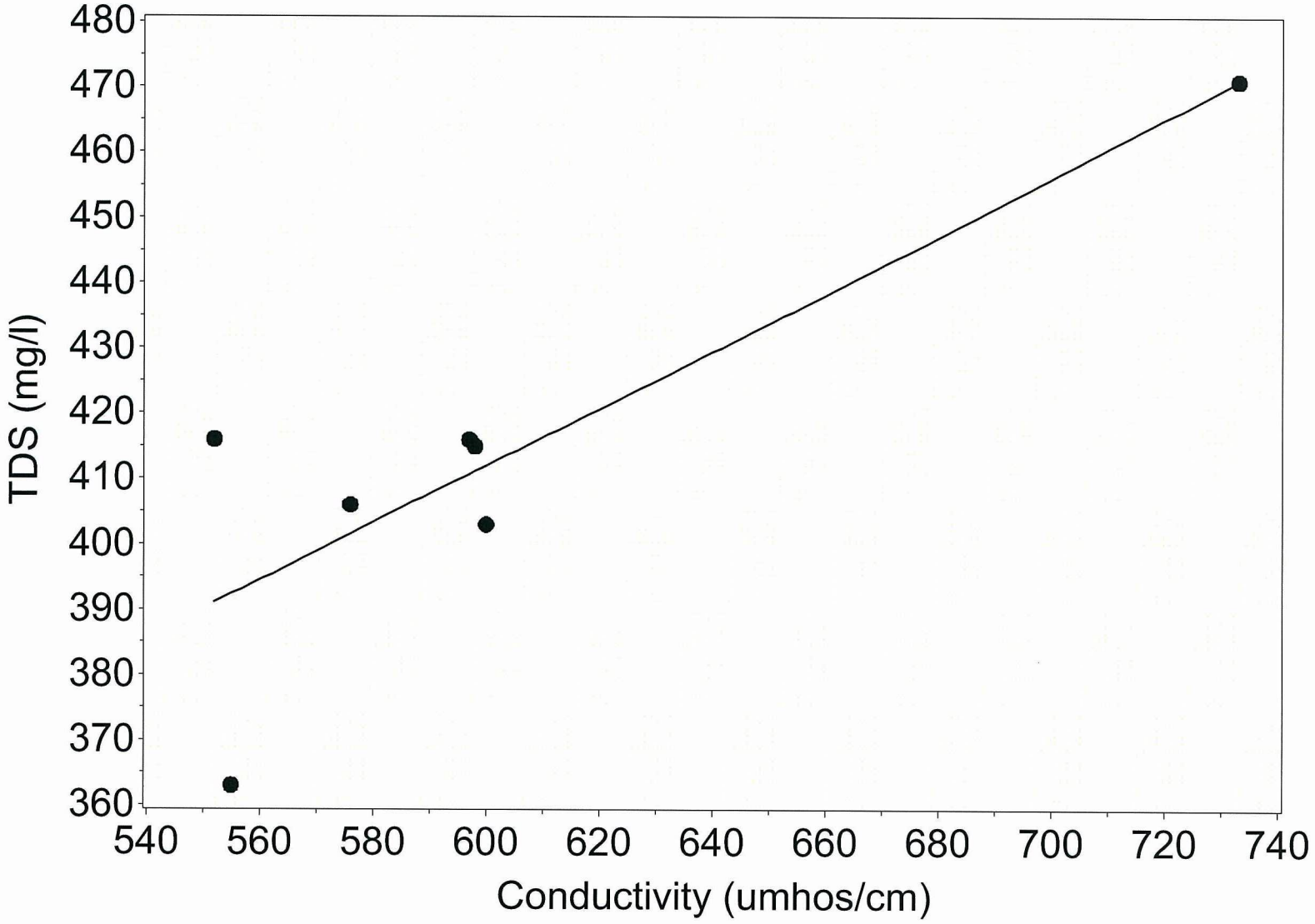
TDS concentration vs.Conductivity concentration in the GW-2 monitoring well at the Lena Road Landfill



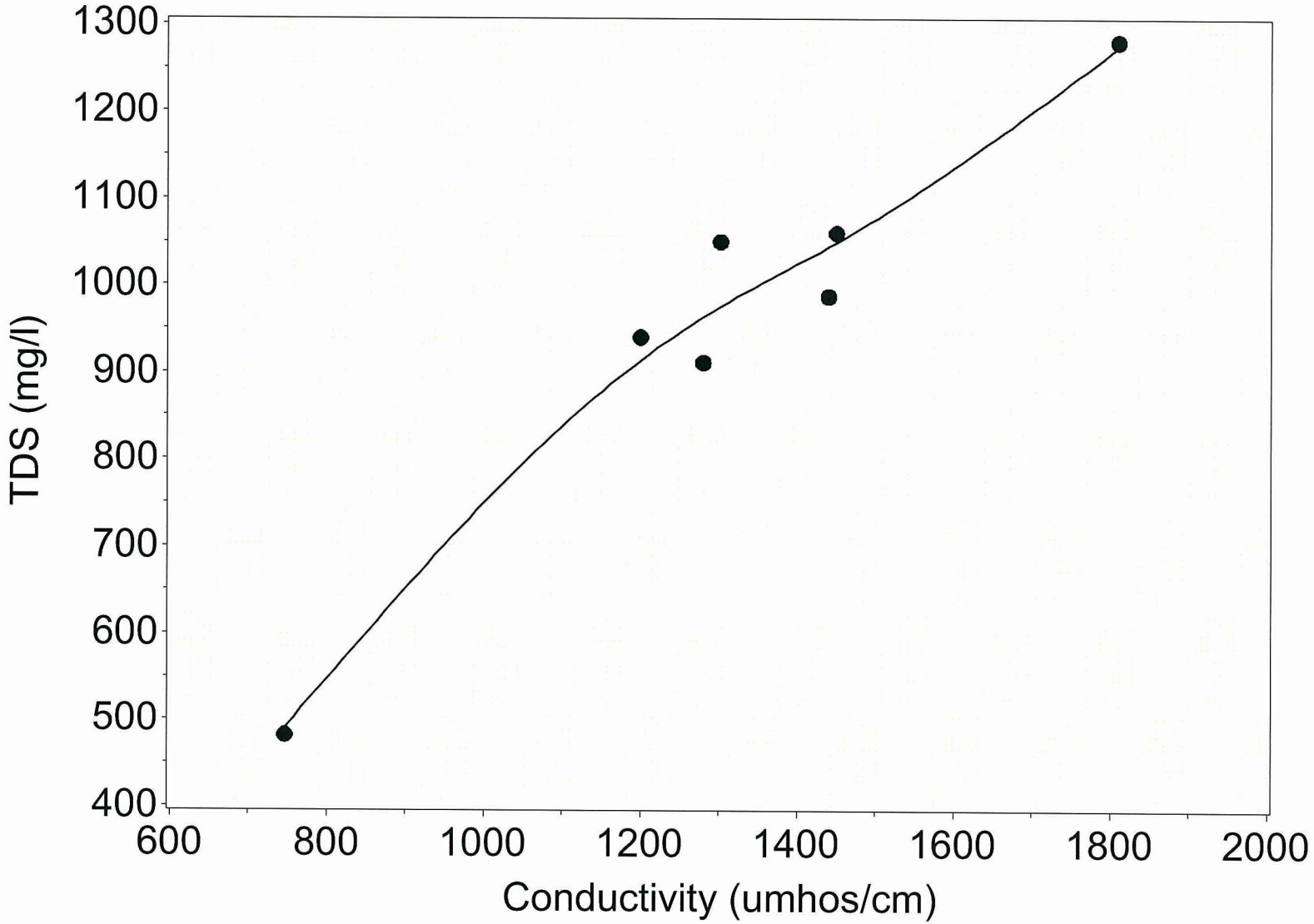
TDS concentration vs.Conductivity concentration in the GW-3 monitoring well at the Lena Road Landfill



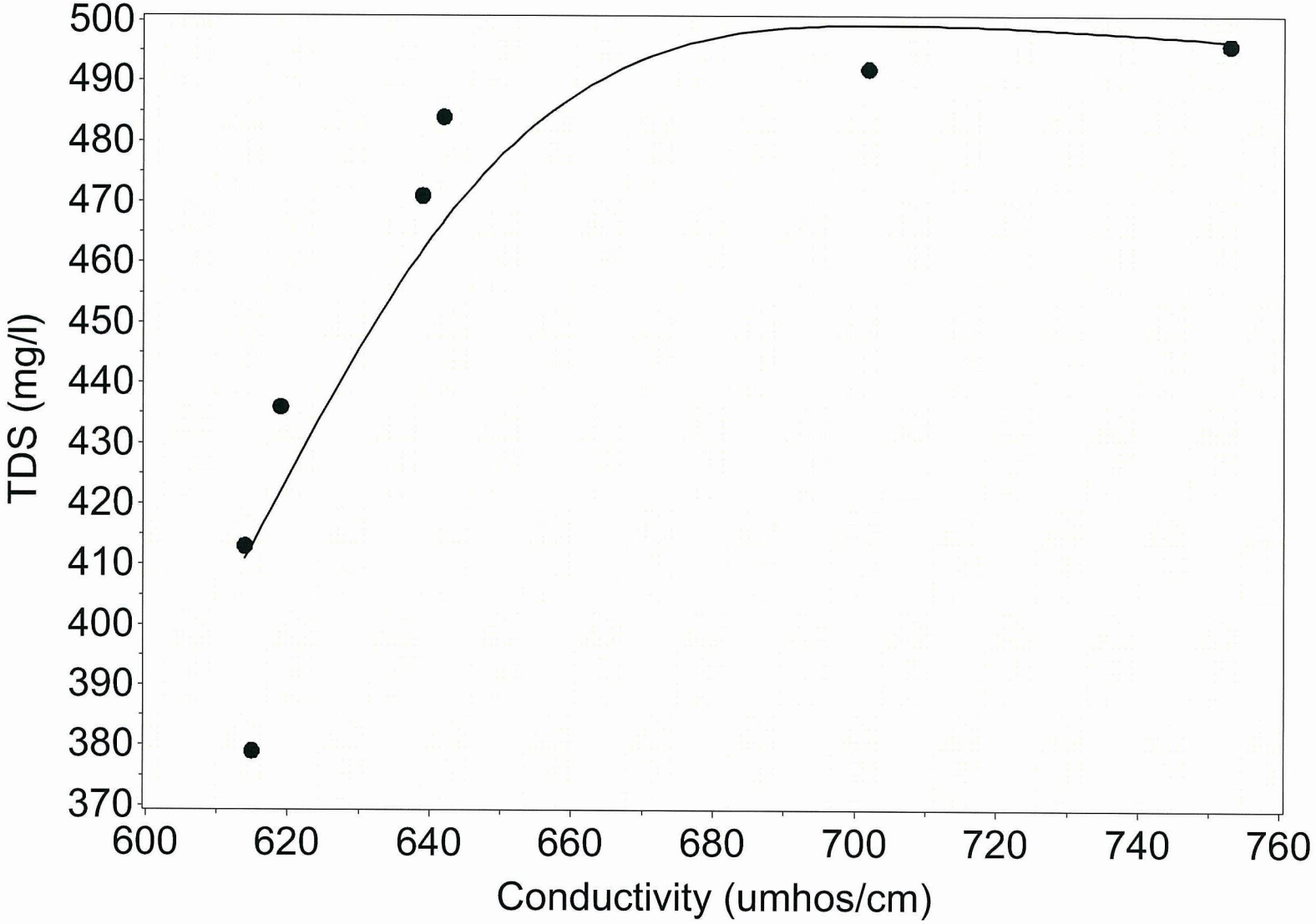
TDS concentration vs.Conductivity concentration in the GW-4 monitoring well at the Lena Road Landfill



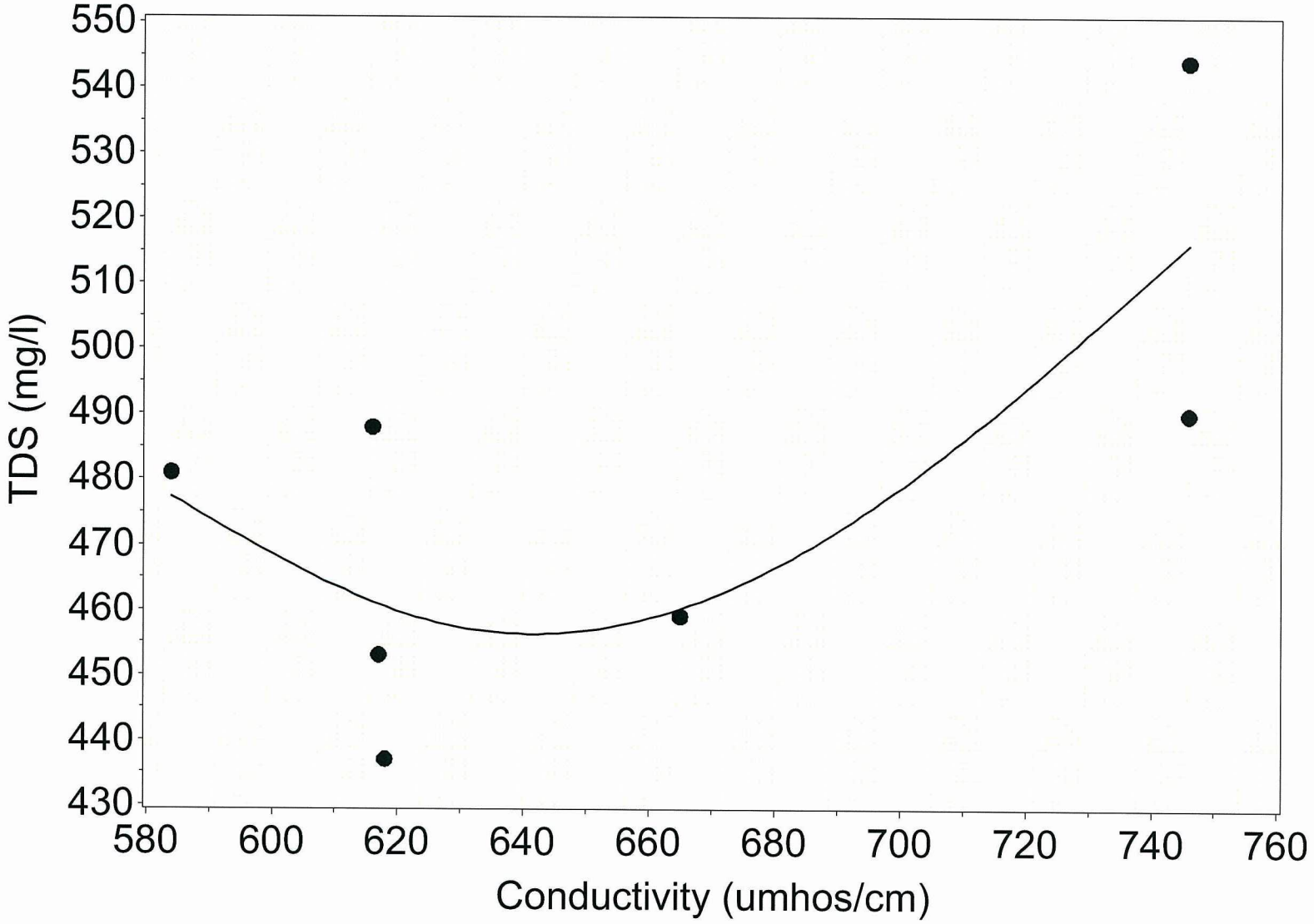
TDS concentration vs.Conductivity concentration in the GW-5 monitoring well at the Lena Road Landfill



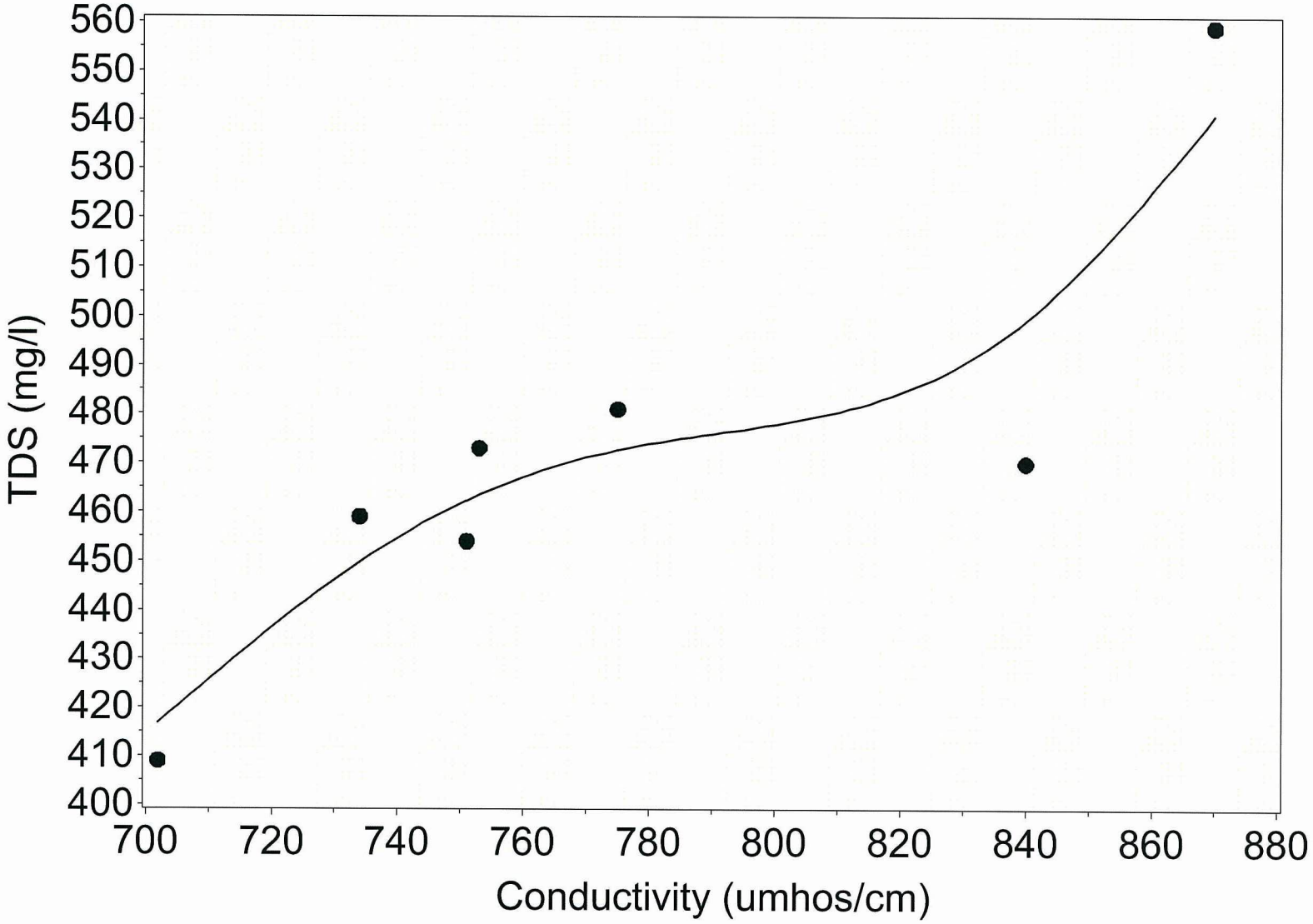
TDS concentration vs.Conductivity concentration in the GW-6 monitoring well at the Lena Road Landfill



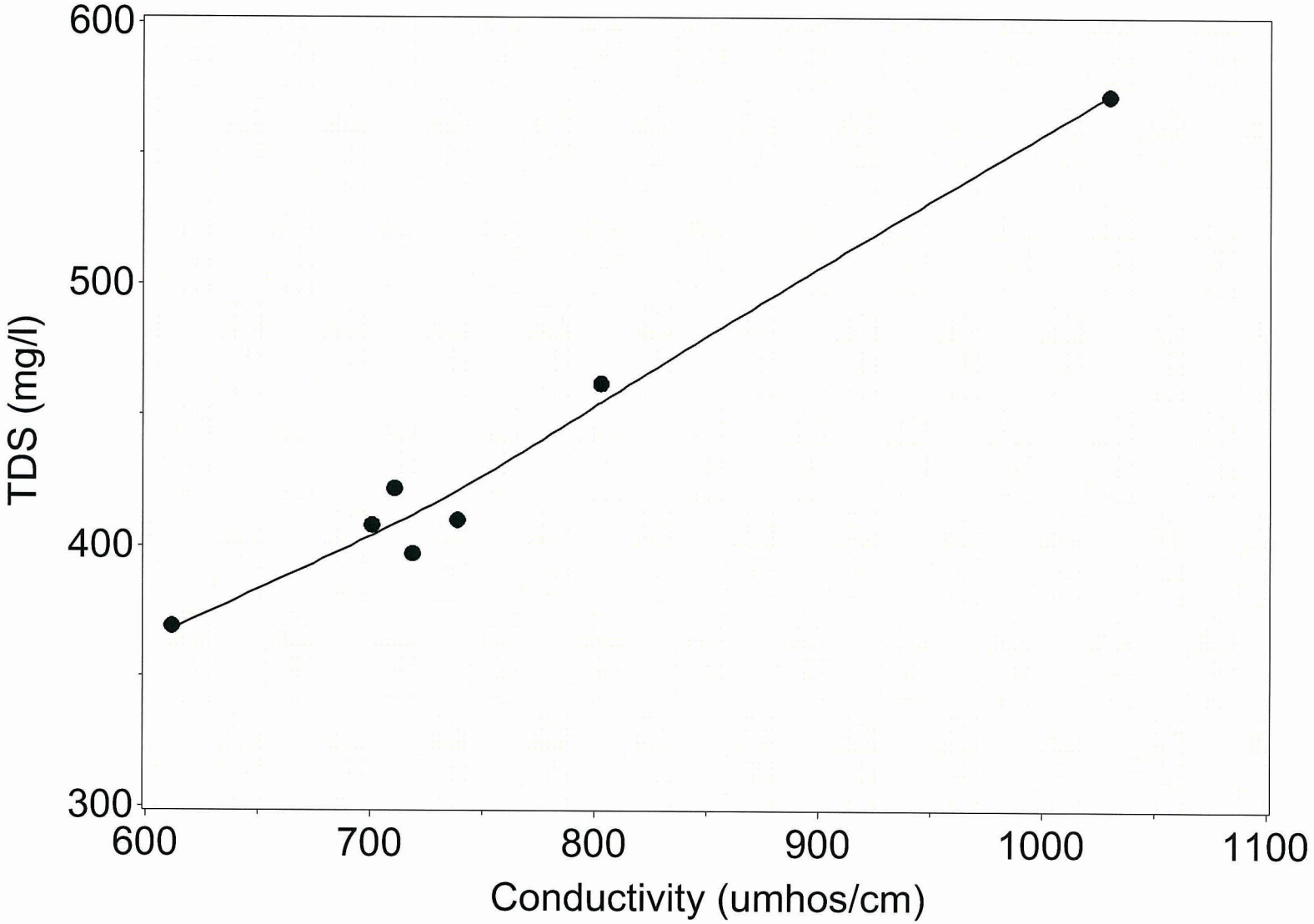
TDS concentration vs.Conductivity concentration in the GW-7 monitoring well at the Lena Road Landfill



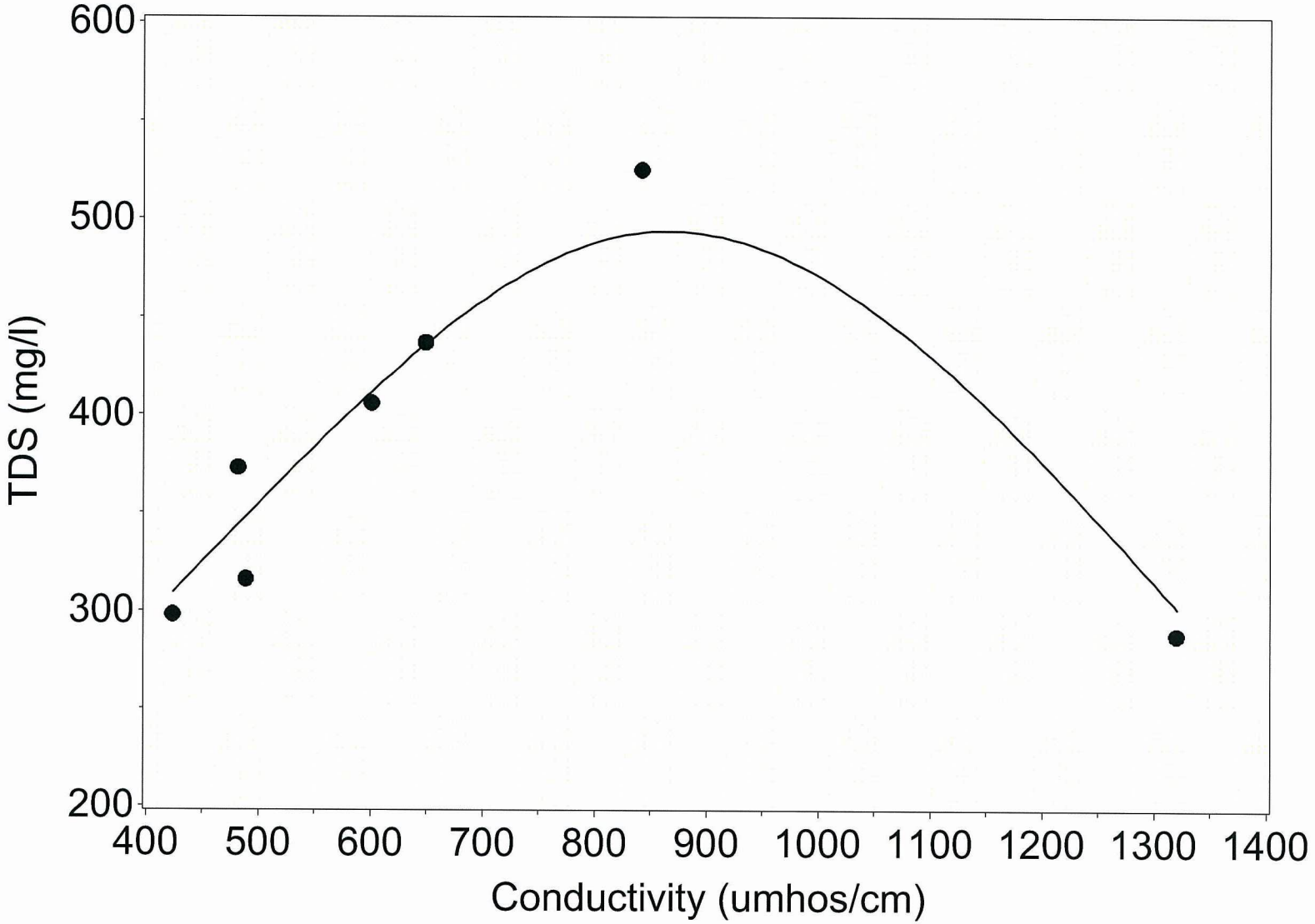
TDS concentration vs.Conductivity concentration in the GW-8 monitoring well at the Lena Road Landfill



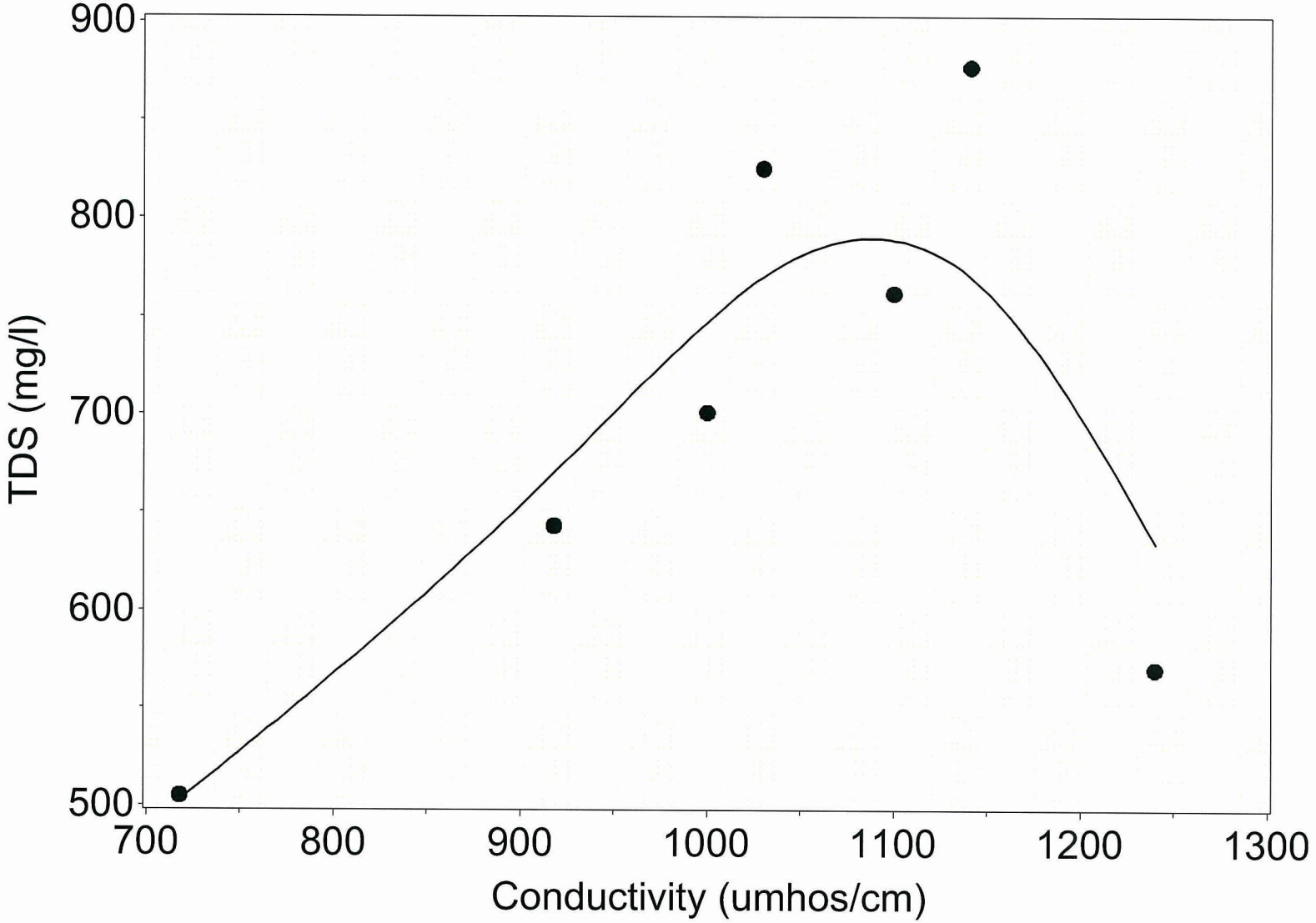
TDS concentration vs.Conductivity concentration in the GW-9 monitoring well at the Lena Road Landfill



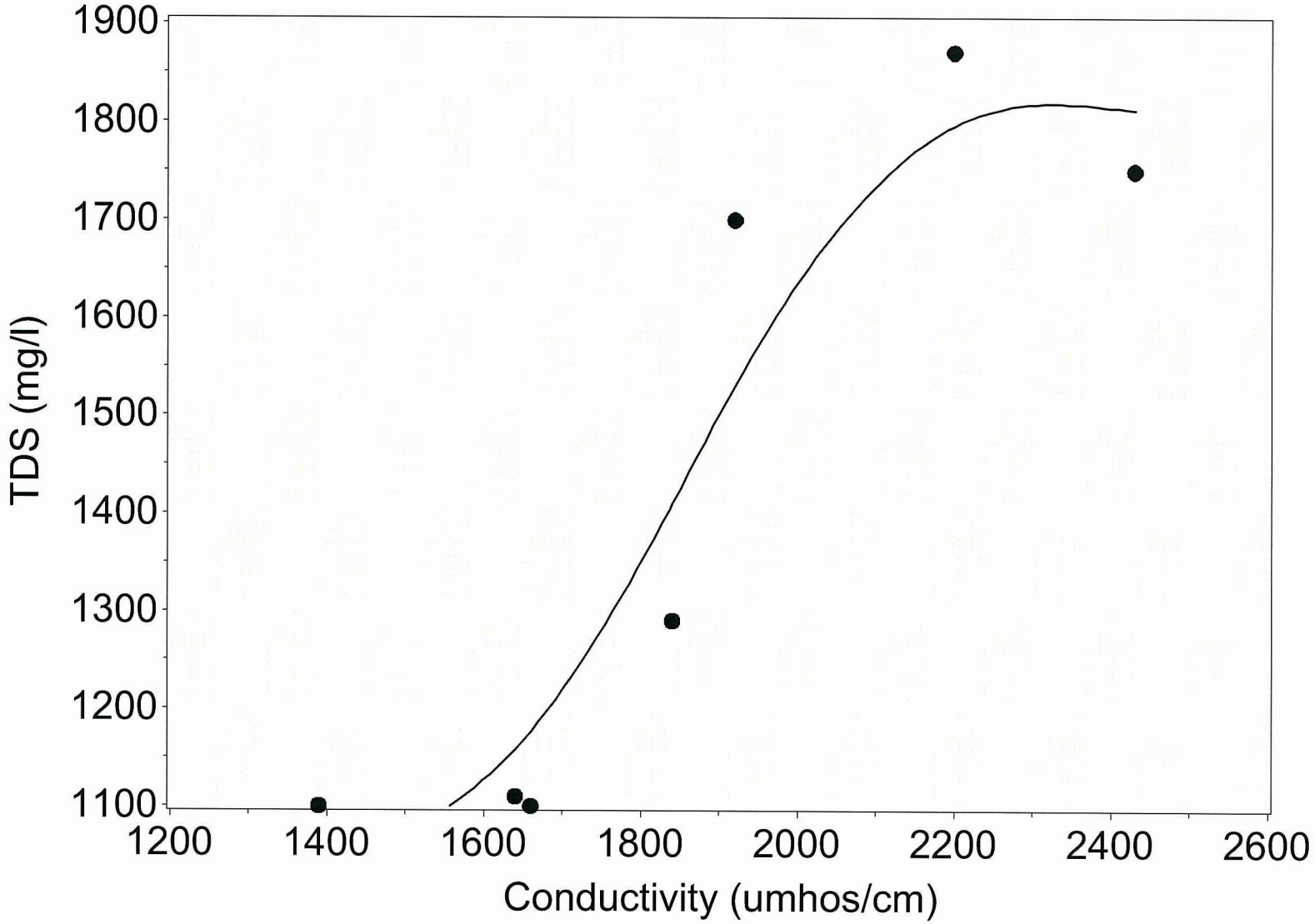
TDS concentration vs.Conductivity concentration in the GW-10 monitoring well at the Lena Road Landfill



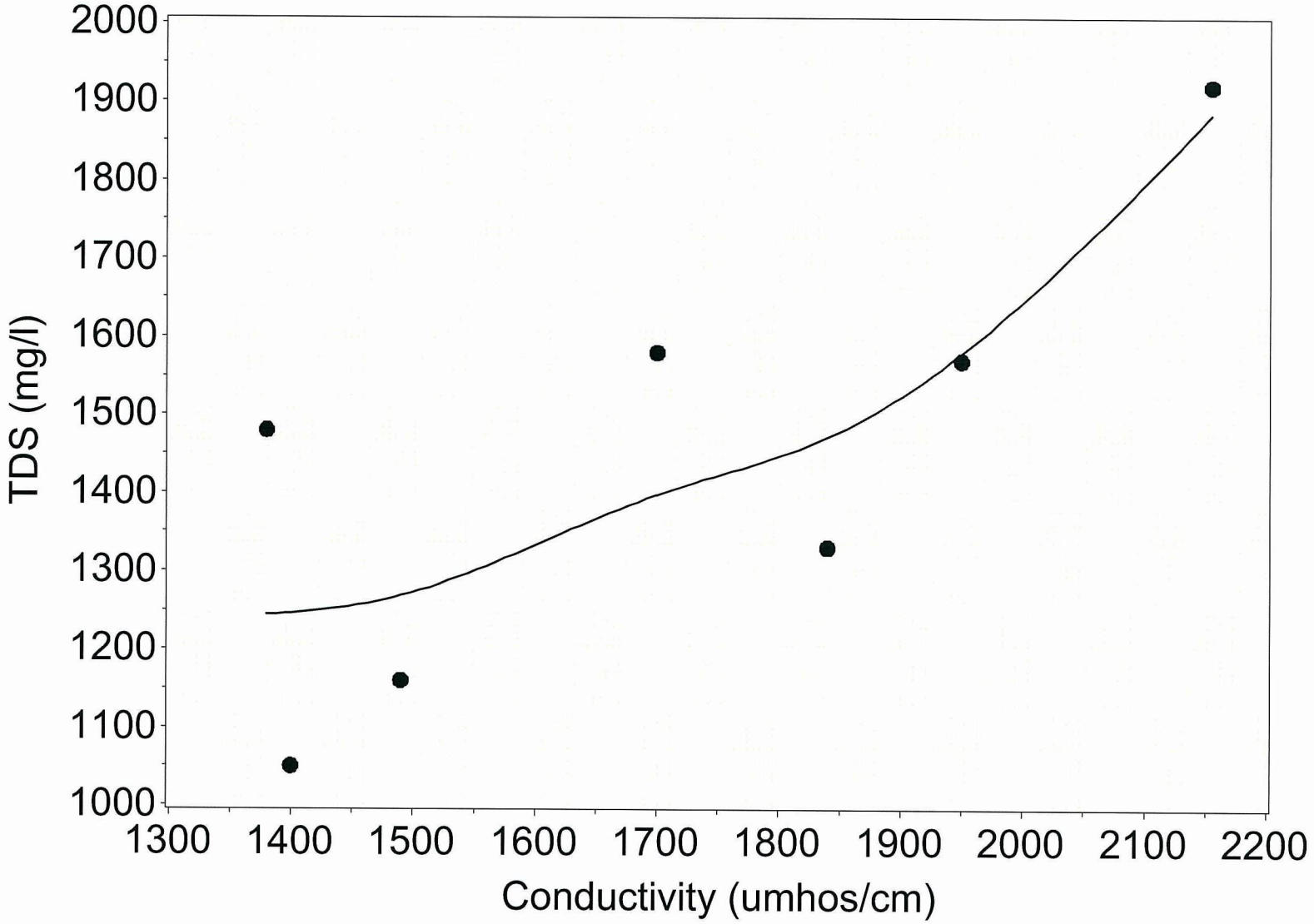
TDS concentration vs.Conductivity concentration in the GW-11 monitoring well at the Lena Road Landfill



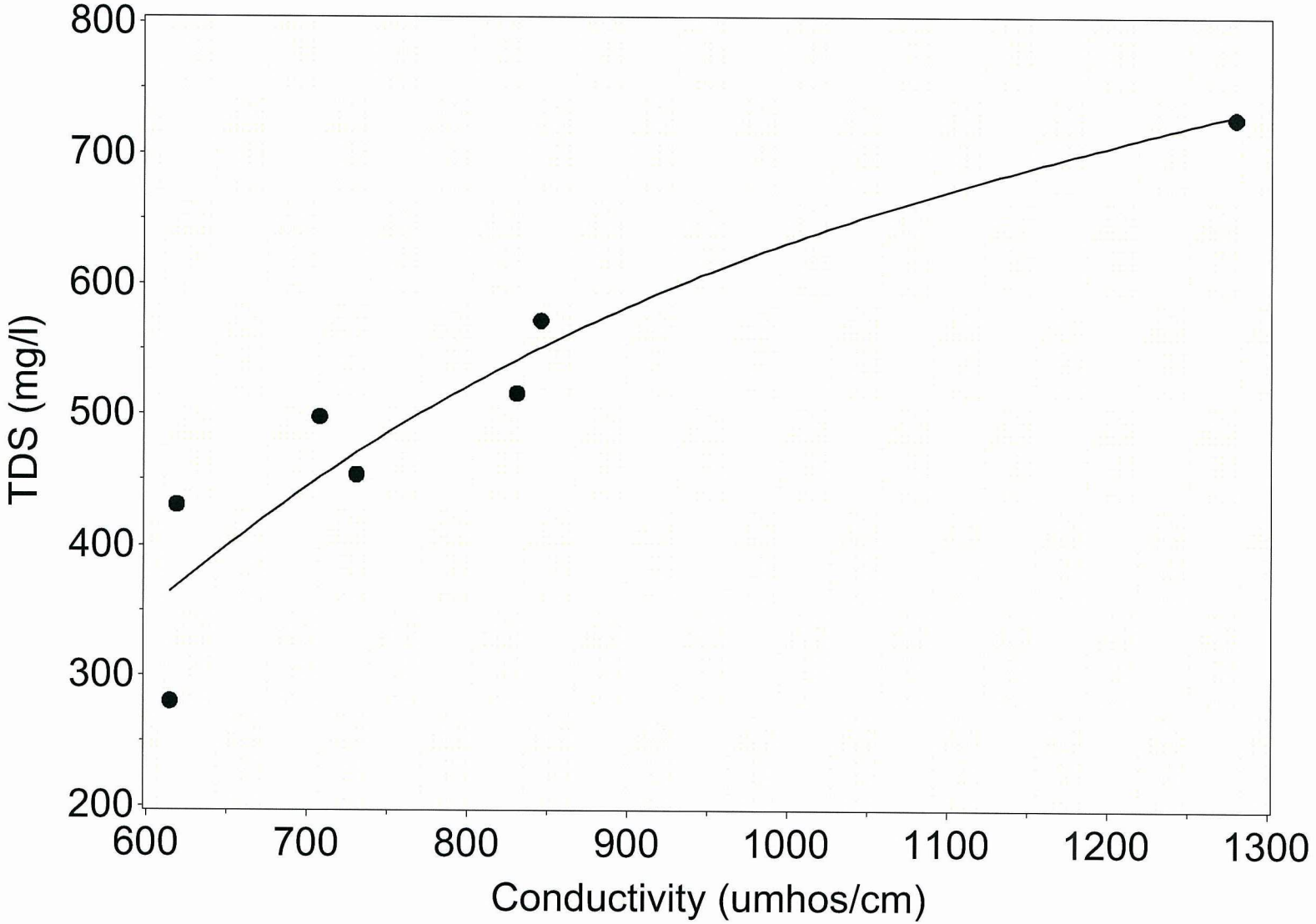
TDS concentration vs.Conductivity concentration in the GW-12 monitoring well at the Lena Road Landfill



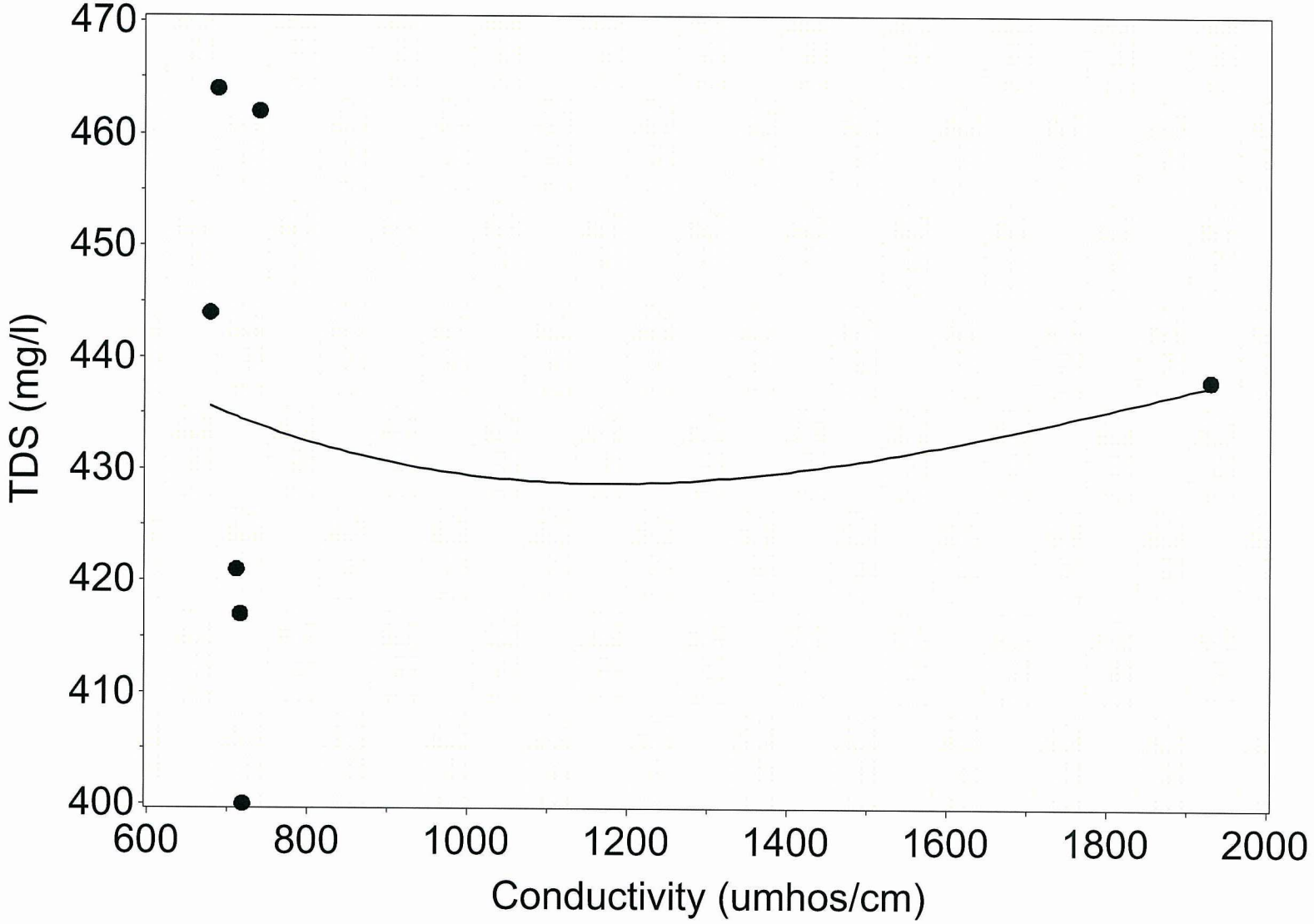
TDS concentration vs.Conductivity concentration in the GW-13 monitoring well at the Lena Road Landfill



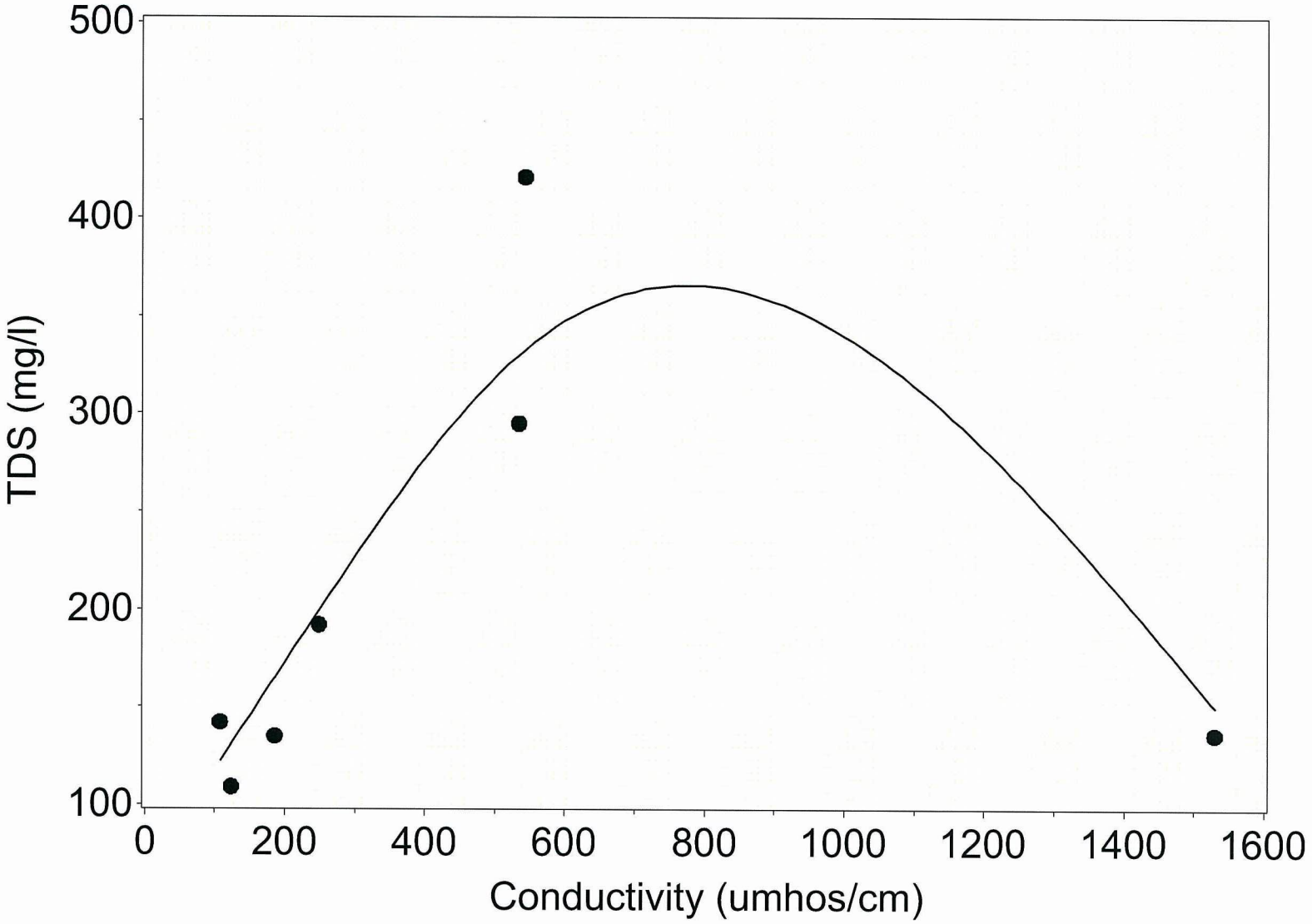
TDS concentration vs.Conductivity concentration in the GW-14 monitoring well at the Lena Road Landfill



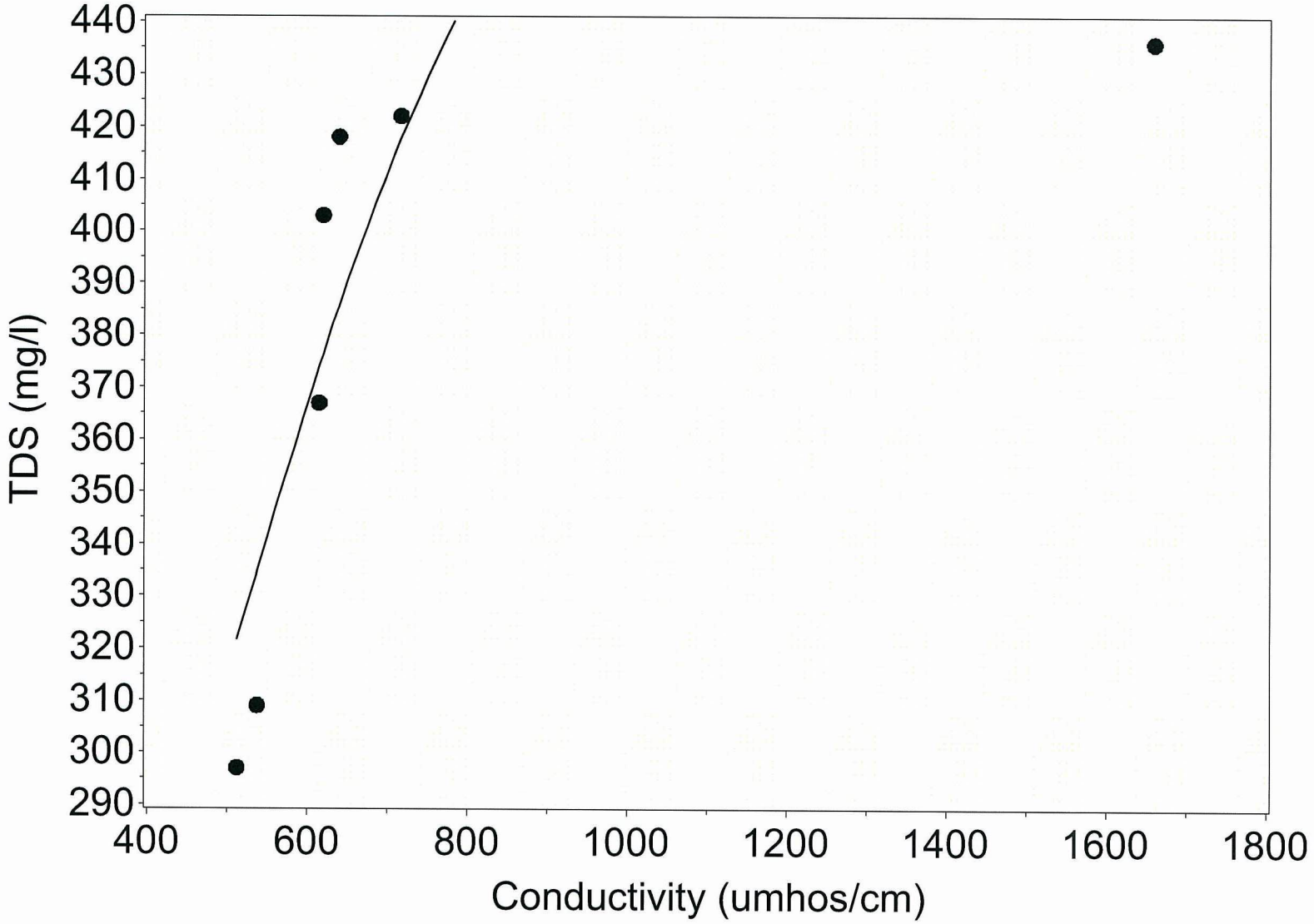
TDS concentration vs.Conductivity concentration in the GW-15 monitoring well at the Lena Road Landfill



TDS concentration vs.Conductivity concentration in the GW-16 monitoring well at the Lena Road Landfill



TDS concentration vs.Conductivity concentration in the GW-17 monitoring well at the Lena Road Landfill



TDS concentration vs.Conductivity concentration in the BGW-1 monitoring well at the Lena Road Landfill