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June 3, 2010

Collier County Government
3301 East Tamiami Trail
Naples, Florida 34112

Attn: Mr. Raymond E. Smith, Director
Pollution Control & Prevention Department

Re: **Golden Gate Groundwater Monitoring Report**
Naples, Collier County, Florida
Contract #08-5044R

PSI Project No. 0552188

Dear Mr. Smith:

In accordance with our agreement dated June 10, 2008 and Change Order No. 1 dated October 5, 2009, Professional Service Industries, Inc. (PSI) has completed Tasks 1 - 7 for the above-referenced project. Please find four hard copies and four CDs of the final report (Task 8) enclosed. Entry of all laboratory and field data into the STORET database is ongoing; notification of completion of this task will be provided under separate cover and will complete the project in its entirety.

Thank you for choosing PSI as your consultant for this important project. If you have any questions, please contact the undersigned at (813) 886-1075.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Michael J. Bair
Principal Consultant

for
Jeffrey M. Martineau, CHMM
Vice President – Environmental Services

cc: Michael Rothenburg, P.E. - PSI

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Enclosures

GOLDEN GATE
GROUNDWATER MONITORING REPORT

For

GOLDEN GATE ESTATES
NAPLES, COLLIER COUNTY, FLORIDA

Prepared for

COLLIER COUNTY GOVERNMENT
POLLUTION CONTROL &
PREVENTION DEPARTMENT
3301 EAST TAMIAMI TRAIL
NAPLES, FLORIDA 34112

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PSI PROJECT NO. 0552188

June 3, 2010

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

Between June 2004 and January 2005, while under contract with Collier County Government, Professional Service Industries, Inc. (PSI) collected groundwater samples from 84 residential wells located within Golden Gate Estates to determine baseline groundwater quality data in the area for comparison to future data with the intent of evaluating potential changes and/or tends in the water quality results. A report of the baseline data was issued by PSI to Collier County in January 2005. For comparison of current groundwater quality data to the original baseline data, PSI was again contracted by Collier County to collect groundwater samples from residential wells within Golden Gate Estates. The results of the 2010 sampling events are presented herein along with a comparison of such to the 2004/2005 data.

1.1 AUTHORIZATION

Authorization to perform this project (Contract #08-5044R) is dated June 10, 2008. Additionally, Change Order No. 1, dated October 5, 2009, provides a timeline extension of this project for one year.

1.2 SITE LOCATION / DESCRIPTION

The study area is focused in the northern portion of Golden Gate Estates, which includes approximately 93 square miles. In general, this area is located east of County Road 951 (Collier Boulevard), west of DeSoto Boulevard, north of Interstate 75 (I-75 or Alligator Alley), and south of Immokalee Road. Figure 1, illustrates the general location of the study area.

According to research performed by Collier County, the study area includes approximately 9,464 dwellings with approximately 29,350 residents and is expected to continue to grow into the foreseeable future. A search of the study area completed in October 2007 shows 6,864 residential wells on record, although it is likely that most if not all of these properties rely on private wells as their potable water source. Similarly, it is likely that most of these residential properties are serviced by privately-owned septic systems.

1.3 SCOPE OF WORK

Based on the contract between PSI and Collier County, the following tasks were undertaken as part of this project:

Task 1 – Obtain Access

- Identify original 84 wells from 2004 study,
- Obtain permission to re-sample the original 84 wells,
- Find substitute residences and obtain permission for any unavailable wells of original 84,
- Document any communication with residents, and
- Provide letter report including copies of all Site Access Request Letters sent to residents, copies of Approval Forms received from residents, and copies of Records of Communication with residents.

Task 2 – Well Reconnaissance

- Inspect each well to be sampled to insure a sample port is available upstream of any treatment system,
- Provide 2 photographs of each site showing; (1) the sample port and (2) the well and dominant land use adjacent to the well, and
- Provide letter report including list of wells to be sampled and photographs.

Task 3 – Laboratory Services

- Contract with a laboratory certified by the National Environmental Laboratory Accreditation Conference (NELAC) to perform analytical services, and
- Provide copy of contract with NELAC-certified laboratory, their State Laboratory ID number, a list of certified analytical methods, and corresponding detection limits.

Task 4 – Sample Collection

- Collect groundwater samples from 84 wells in accordance with Florida Department of Environmental Protection (FDEP) Standard Operating Procedure (SOP) DEP-SOP-001/01 FS 2200 "Groundwater Sampling,"
- Prepare Chain-of-Custody (COC) documentation,
- Transport samples to laboratory for analytical testing, and
- Provide weekly report of wells that were sampled and copy of the COC.

Task 5 – Laboratory Analysis

- Analyze samples from 84 wells for bacteriological parameters (total and fecal coliform),
- Analyze samples from 28 wells for nutrients (nitrate, nitirite ammonia, TKN, total phosphorous, and ortho-phosphate),
- Analyze samples from 15 wells for Chapter 62-550 Florida Administrative Code (F.A.C.) Primary and Secondary Drinking Water Standards,
- Resample any wells that indicate an exceedance of the Maximum Contaminant Level (MCL) as listed in Bid #08-5044R, and
- Provide weekly report of analytical results.

Task 6 – ADaPT Deliverables

- Submit ADaPT deliverables including Laboratory Receipt Deliverable, Electronic Data Deliverable, Quality Assurance Project Plan Library, and Errorlog.

Task 7 – Draft Report

- Prepare a draft report including an introduction, methodology, and results/discussion sections for review by Collier County.

Task 8 – Final Report

- Prepare a final report that incorporates any Collier County comments and includes tables, figures, and laboratory reports (comments were received by Collier County on May 20, 2010), and
- Enter all field and laboratory data into STORET database.

1.4 PURPOSE AND OBJECTIVES

The purpose of this project is to develop current groundwater analytical data at or near residential wells that were analyzed during the 2004/2005 baseline study. The objective of this study is to compare the data from these 2010 sampling events to that collected as part of the 2004/2005 baseline study to identify any trends or degradation in groundwater quality.

2.0 METHODOLOGY

The methodology followed during this project was that which was outlined in the original bid document #08-5044R. The following sections provide details regarding completion of each task.

2.1 TASK 1 – OBTAIN ACCESS

PSI attempted to obtain permission to sample wells from the original 84 residences by mailing a Site Access Request Letter, an Approval Form, and Questionnaire. Additional correspondence was mailed to the original 84 residences for a second attempt to secure access. For those residents that did not return the forms or denied access, replacements were sought within a 1/8-mile radius. Five alternatives were identified within the selected radius which had similar well construction characteristics (depth) and letters were mailed or delivered to the replacements in order to obtain access. Telephone calls to or from the residents were documented on Records of Communication. PSI received written authorization for all but two of the 84 targeted locations. The two locations, which denied access, were Site 4 and Site 76. Collier County approved removal of these sites from the study. As such, only 82 residences were included on this study. Copies of all Request Letters, Approval Forms, and Records of Communication are included in Appendix A.

2.2 TASK 2 – WELL RECONNAISSANCE

PSI inspected all wells and took digital photographs of the sample port, the well, and its surrounding land use. Some wells did not meet the requirements for the study. Replacements were sought within a 1/8-mile radius with similar well construction details. Additional letters were sent or delivered to the replacements. The letters and additional documentation is included in Appendix A. A final listing of the sampled wells for this study is included as Table 1, and locations are illustrated on Figure 2. Table 1 also includes substantial additional details including location, well characteristics, adjacent land use, laboratory report numbers, and other data needed to understand activities at each sampling location. Digital photographs are included as Appendix B. Please note that access was not obtained for two residences, Site 4 and Site 79. After approval from Collier County, these sites were removed from the study; therefore, samples were collected from a total of 82 residential wells.

2.3 TASK 3 – LABORATORY SERVICES

PSI subcontracted with Xenco Laboratories (Xenco) to perform the laboratory analytical testing. Xenco has been approved by the National Environmental Laboratory Accredited Conference (NELAC), and their identification number is E86240. Included in Appendix C is a copy the fully executed Purchase Order between PSI and Xenco, Xenco's NELAC certification, a listing of their approved analytical methods, and corresponding method detection limits. In addition to Xenco's documentation, a copy of the requested information for each of their sub-contracted laboratories has also been provided.

2.4 TASK 4 – SAMPLE COLLECTION

During February and March 2010, groundwater samples were collected from 82 residential wells. Samples were collected by PSI employed field staff, all of who had previously received training in Florida Department of Environmental Protection (FDEP) Standard Operating Procedures (SOPs) for Field Activities. The groundwater samples were collected in general

accordance with PSI's Field Quality Manual and DEP-SOP-001/01. More specifically, the site access and general sampling procedure is listed below:

- Arrive at site, knock on front door, politely introduce yourself, explain reason for visit, and present letter; if nobody is home, leave letter in door;
- Locate hose bibb at well head. If none available, search downstream of the well head. If none available before treatment system, no samples were collected and an alternate well (residence) was selected;
- Take 2 pictures (well/general area and sampling port);
- Record GPS coordinates of well;
- Enter site information on Groundwater Sampling Log;
- Open hose bibb fully and allow the water to purge for 5 minutes; record start/stop times on Log;
- Reduce flow to 500 mL/minute;
- Put on clean pair of latex gloves;
- Attach brass adaptor to hose bibb and route polyethylene tubing to flow-through-cell and field meters;
- Allow water to purge for 3 minutes;
- Collect pH, temperature, conductivity, dissolved oxygen, and turbidity measurements every 3 minutes until stabilization criteria has been met (stabilization criteria on Log);
- Record measurements on Log;
- If stabilization criteria is not met after 15 minutes or 5 sets of readings, collect samples;
- Disconnect flow-thru-cell and attach lab-supplied filter to brass adaptor;
- Collect Ortho-phosphate sample (250-mL plastic);
- Reduce flow rate to $\leq$100 mL/minute;
- Collect volatile samples (all 40 mL vials – 3 sets);
- Return flow rate to 500 mL/minute and collect the remainder of the samples in the following order:
    - All glass and plastic amber bottles (various Primary and Secondary analytes),
    - 500-mL plastic with preservative (metals),
    - 250-mL plastic (cyanide),
    - 1 liter plastics (nutrients),
    - 250-mL plastics (MBAS and TDS/color),
    - small specimen jars (fecal/total coliform),
- Label bottles, place in sealable plastic bags, and place on ice within 15 minutes of collection.

The following documentation is provided in the noted appendices:

- Appendix D – Field Instrument Calibration Records and Groundwater Sampling Logs
- Appendix E – Field Notes

2.5 TASK 5 – LABORATORY ANALYSIS

Laboratory analyses were performed by Xenco. Upon receipt of the laboratory analytical reports, PSI forwarded each directly to Collier County. Laboratory reports for each well re-sampled as a result of an exceedance were similarly forwarded. Complete copies of all laboratory reports and Chain-of-Custody documentation (initial and resample) are included in Appendix F.

2.6 TASK 6 – ADAPT DELIVERABLES

The laboratory data generated as part of this project was produced in conjunction with the Automatic Data Processing Tool (ADaPT). ADaPT is a Microsoft-based ACCESS program that facilitates data processing (review, correction of errors, and validation), assures compliance with analytical methods, and produces the results in an Electronic Data Deliverable (EDD) and Laboratory Receipt Deliverable (LRD). Electronic copies of the ADaPT deliverables are included on a CD in Appendix G.

2.7 TASK 7 AND TASK 8 – DRAFT AND FINAL REPORTS

This report has been formatted in accordance with the bid documents for this project. After a peer review of the draft report through PSI's internal program of quality assurance/quality control, the draft report was issued on May 7, 2010. Along with entry of all laboratory and field data into the STORET database, this final report represents completion of Task 8. Notification will be provided to Collier County under separate cover when the data entry into STORET has been completed.

2.8 PROBLEMS ENCOUNTERED

PSI provides the following comments in an effort to improve implementation of this project in the future:

Task 1 – Obtain Access

- The time between initial contact with a resident and collection of any samples should be minimized; it was noted that some residents forgot about or changed their minds about granting access; and
- To minimize the lag time, the County may consider selecting another random set of wells instead of returning to the same wells, except in the few instances where analytes were confirmed or regional trends were identified; this could provide additional data from a wider variety of wells and from more locations within the community.

Task 2 – Well Reconnaissance

- Minimize time between initial contact and sample collection; and
- Allot additional time and budget to perform a more thorough reconnaissance of surround land use to better understand potential sources of contamination.

Task 3 – Laboratory Services

- Analytes with short hold times (coliforms, ortho-phosphate, etc.) may be accommodated more readily with the use of the County's internal laboratory;
- All analytical testing could be submitted to the County's internal laboratory for logistical purposes; and
- If analytes are confirmed in a resident's well water, the County may consider funding follow-up testing and consulting; some residents expressed regret that they granted access and as a result were presented with a potential groundwater problem that could cost time and money; they were not experienced in how to interpret a laboratory report and were concerned for their health because they may be ingesting contaminated water.

Task 4 – Sample Collection

- The sample collection procedure should be more clearly defined since the sampling technique was somewhat of a hybrid between sampling from monitoring wells and sampling from potable drinking water sources.

Task 5 – Laboratory Analysis

- Since contamination by bacteria does not appear to be a concern, it may be advantageous from a scientific standpoint to collect data from suspect areas of the Golden Gate community such as near gasoline stations, golf courses, agricultural areas, etc. along with a targeted analyte list instead of in a random fashion; this could be combined in some manner with the random sampling similar to the previous surveys to provide additional information;
- The County may consider adding radionucleotides to future sampling events

Task 6 - ADaPT

- By completing the laboratory services internally, the County also has more control over the ADaPT deliverable and procedures.

Task 7 and 8 – Draft and Final Reports

- No recommendations

2.9 QUALITY ASSURANCE / QUALITY CONTROL

Several quality assurance/quality control (QA/QC) measures were implemented for this project. Field activities were performed in accordance with the QA/QC procedures outlined in DEP-SOP-001/01 and PSI's Field Quality Manual. These documents cover general sampling procedures including the use of latex gloves, sample collection techniques, decontamination procedures, and other activities. While in the field, blanks and sample duplicates were collected to evaluate sample collection procedures. Standard QA/QC procedures were followed by the laboratory in accordance with DEP-SOP-002 and generally include laboratory control samples, laboratory control duplicates, matrix spikes, matrix spike duplicates, surrogates, sample duplicates, and blanks. The laboratory QA/QC data is included with each laboratory analytical report. Additionally, the laboratory analytical data has been processed using ADaPT, which is discussed in Section 2.6.

3.0 DATA ANALYSIS & INTERPRETATION

3.1 LABORATORY ANALYTICAL RESULTS

The laboratory analytical results are presented on Table 2. The testing results were compared to Maximum Contaminant Levels (MCLs) of Chapter 62-550, F.A.C. and the Groundwater Cleanup Target Levels (GCTLs) of Chapter 62-777, F.A.C. Where both MCL and GCTL are listed for an analyte, the most conservative is used to evaluate an exceedance.

3.1.1 BACTERIA

Of the 82 samples collected for bacteriological testing, 6 samples initially tested positive for Total Coliform. Retesting confirmed the initial results at the following 3 wells:

- Site 18 – Harvey, 2331 2nd Avenue SE;
- Site 21 – Rubianes, 2590 39th Street SW; and
- Site 64 – Aulisi, 471 14th Avenue NE.

The wells at Site 18 and Site 64 are considered deep wells with a total depth of 120 feet and 100 feet, respectively. Site 21 utilizes a shallow well, which extends to a depth of approximately 55 feet.

None of the wells tested positive for Fecal Coliform.

Current and baseline wells are illustrated on Figure 3.

3.1.2 NUTRIENTS

In total, 41 samples were tested for nutrient parameters. No nutrient parameters (nitrate, nitrite, ammonia, phosphorus, etc.) were detected above the MCLs or GCTLs for any of the samples collected as part of this study.

3.1.3 PRIMARY DRINKING WATER STANDARDS

Of the 15 wells sampled and analyzed for the Primary Drinking Water Standards, sodium was the only analyte that was detected above its MCL.

SODIUM

The following 2 wells had sodium concentrations above the MCL of 160 milligrams per liter (mg/L):

- Site 22 – Patton, 2565 Brantley Boulevard and
- Site 45 – Loyd, 3575 19th Avenue SW.

Retesting at Site 45 confirmed the initial results (initial: 162 mg/L; retesting: 174 mg/L). After the initial sample collection efforts, the homeowner at Site 22 requested to be removed from the study. As such, no confirmation sample was collected at Site 22 for sodium.

The wells at Site 22 and Site 45 are considered shallow wells.

Positive detections for sodium are illustrated on Figure 4.

3.1.4 SECONDARY DRINKING WATER STANDARDS

A total of 15 wells were tested for the Secondary Drinking Water Standards. Several analytes were detected above their MCLs including chloride, iron, pH, color and total dissolved solids.

CHLORIDE

Chloride was detected above its MCL of 250 mg/L at 2 wells:

- Site 22 – Patton, 2565 Brantley Boulevard and
- Site 45 – Loyd, 3575 19th Avenue SW.

Retesting at Site 45 confirmed the initial results (initial: 293 mg/L; retesting: 289 mg/L). After the initial sample collection efforts, the homeowner at Site 22 requested to be removed from the study. As such, no confirmation sample was collected at Site 22 for chloride.

The wells at Site 22 and Site 45 are considered shallow wells.

Positive detections for chloride are illustrated on Figure 4.

IRON

Iron was detected above its MCL of 0.3 mg/L at 1 well:

- Site 76 – Morris, 611 20th Street SE.

Retesting at Site 76 confirmed the initial results (initial: 1.15 mg/L; retesting: 0.908 mg/L).

The well at Site 76 is shallow at 50 feet.

Positive detections for iron are illustrated on Figure 4.

PH

The pH range from Chapter 62-550, F.A.C. is 6.5 to 8.5. The pH of the samples was measured in the field and 8 wells tested below the 6.5 threshold. None tested above the 8.5 threshold. No retesting was performed for the pH standard. The following wells were in the 6.3 to 6.5 pH range:

- Site 7 – Gonzalez, 121 27th Street SW,
- Site 29 – Nolan, 281 5th Street NW,
- Site 42 – Amey, 3440 29th Avenue NE,
- Site 73 – McDermott, 530 17th Street NW, and
- Site 77 – Marks, 615 17th Street NW.

All of the above referenced wells are considered shallow wells.

The following wells were in the 6.0 to 6.3 pH range:

- Site 6 – Smith, 1121 23rd Street SW, and
- Site 48 – Davidson, 3730 27th Avenue NE.

All of the above referenced wells are considered shallow wells.

Only 1 well had a pH that was less than 6.0. The measured pH at Site 60 was 5.67.

- Site 60 – Dollard, 4265 Randall Boulevard.

Positive detections for pH are illustrated on Figure 5.

COLOR

The Chapter 62-550, F.A.C. standard for color is 15. The following 8 wells had color measurements in the 15 to 30 range:

- Site 21 – Rubianes, 2590 39th Street SW,
- Site 22 – Patton, 2565 Brantley Boulevard,
- Site 34 – Rivera, 3225 10th Avenue SE,
- Site 45 – Loyd, 3575 19th Avenue SW,
- Site 49 – Heintz, 3735 7th Avenue SW,
- Site 50 – Myers, 3781 13th Avenue SW,
- Site 56 – Blank, 4205 27th Avenue NE, and
- Site 59 – Marlowe, 4235 2nd Avenue NE.

The following 3 wells had color measurements at 40 or greater:

- Site 37 – Huff, 3261 12th Avenue NE,
- Site 76 – Morris, 611 20th Street SE, and
- Site 78 – Buesing, 640 13th Street NW.

All of the above-referenced wells are shallow except Site 34, Site 56, and Site 59.

Positive detections for color are illustrated on Figure 5.

TDS

The Total Dissolved Solids (TDS) standard from Chapter 62-550, F.A.C. is 500 mg/L. The following 5 wells had TDS measurements in the 500 and 600 mg/L ranges:

- Site 21 – Rubianes, 2590 39th Street SW,
- Site 50 – Myers, 3781 13th Avenue SW,
- Site 72 – Haler, 530 15th Street SW,
- Site 78 – Buesing, 640 13th Street NW, and
- Site 84 – Burke, 960 11th Street SW.

The TDS concentration for the following 2 wells above 750 mg/L:

- Site 22 – Patton, 2565 Brantley Boulevard and
- Site 45 – Loyd, 3575 19th Avenue SW.

All of the above wells are shallow except Site 72.

Positive detections for TDS are illustrated on Figure 5.

3.2 STATISTICAL EVALUATION

The mean, variance, and standard deviation have been evaluated for the laboratory and field data and are presented in Table 2 and Table 3, respectively. For purposes of this study, the mean is the "arithmetic mean" and is used to define an average concentration. After calculating the mean, it can then be compared to the Maximum Contaminant Levels and provide general information about the quality of the aquifer. Additionally, individual concentrations can be compared to the mean to provide information about outliers.

The standard deviation is a statistical measurement that tells how tightly all the various sample results are clustered around the mean of a set of data. When the sample results are tightly bunched together, the standard deviation is small. When the data is spread apart, then there exists a relatively large standard deviation. Another useful fact to give meaning to the standard deviation is that 68% of the values in the data set will fall within 1 standard deviation of the mean; similarly, 95% of the values in the data set will fall within 2 standard deviations of the mean.

The variance is another statistical measurement and also serves to illustrate how spread out the data is and uses the mean as a reference point. It's a measure of variability and dispersion. A low variance indicates that the data tends to be close to the mean, whereas a high variance indicates that the data are spread out over a large range.

3.2.1 LABORATORY DATA

An evaluation of the mean, variance, and standard deviation for the laboratory analytical data only appears relevant for those analytes detected above the MCL. For the laboratory analytical data, this includes bacteria, sodium, chloride, iron, pH, color, and TDS. A discussion regarding bacteria does not seem appropriate since the results are non-quantitative. The mean and variance values for the remainder of the analytes are presented in the following table:

ANALYTE	MCL (mg/L)	MEAN (mg/L)	STANDARD DEVIATION	VARIANCE
sodium	160	70	70	4875
chloride	250	118	137	18,768
iron	0.3	0.8	0.45	0.2
color	15 color units	27	23	535
TDS	500	532	254	64,331

As noted, the mean is less than the associated MCL for sodium and chloride. The mean is above the associated MCL for iron, color, and TDS. In all cases except for iron, the variance is large which indicates that the concentrations varied widely.

3.2.2 FIELD DATA

The mean, variance, and standard deviation were also calculated for the field data. The following table illustrates these statistics for the field data.

ANALYTE	MCL	MEAN	STANDARD DEVIATION	VARIANCE
pH	6.5 to 8.5	7.11	0.44	0.19
temperature	n/a	23	2.2	5
conductivity	n/a	1007	384	147,276
DO*	n/a	9.9%; 1.4 mg/L	0.92; 1.2	85.4%; 1.5
turbidity	n/a	1.4	3.6	12.6

*Note: the dissolved oxygen (DO) measurement were recorded using two different units

The only field parameter with an MCL is pH. The mean pH measured for this study is within the MCL range. The variance for the pH is low which indicates that the pH values did not vary significantly. The remainder of the field parameters do not have MCLs. The mean and variance for temperature appear normal. The mean for conductivity, DO, and turbidity appear normal also. However, the variance for conductivity, DO, and turbidity are high which indicates significant variation among samples.

3.3 LAND USE / OTHER FACTORS

For the majority of the wells, the surrounding land use consisted of light residential development or virgin land. It does not appear likely that the surrounding land use contributed to the positive coliform results or the MCL exceedances for sodium, chloride, iron, pH, color, or TDS.

It is likely that all of the residential properties are serviced by private septic tank systems. However, it does not appear likely that the septic tanks contributed to the positive coliform results since the results were for total coliform, not fecal coliform. A more likely contributing factor for the positive coliform results is bacterial growth within the well casing or plumbing. These components are located upstream of any water treatment system.

Other factors that contributed to the exceedances of the MCLs for sodium, chloride, iron, pH, color, and TDS were not identified.

3.4 COMPARISON TO BASELINE RESULTS

The initial baseline results provided for in the 2004/2005 Baseline Study were compared to those generated as part of this study. The following trends were observed:

- A trend is not apparent for bacteria results for the baseline versus current data with respect to geographic areas;
- A trend is not apparent for bacteria with respect to shallow versus deep well data;
- The elevated iron concentration was detected at the same residence for the baseline and the current study (611 20th Street SE); it is likely that the iron concentration represents natural aquifer quality; and
- Sodium was detected above the MCL at 2595 Garland Road during the baseline study and at 2565 Brantley Boulevard as part of the current study; these residences are approximately 800 feet apart; chloride was also detected above its MCL at 2565 Brantley Boulevard during the current study; pockets of saline water are common in the aquifer in this area.

Note that most exceedances involved color, TDS, and pH. These characteristics were not analyzed for in the 2004/2005 report and as such, no conclusions can be drawn with regards to a trend analysis over time. It should be noted though that no specific factors were identified which contributed to these limited exceedances.

3.5 QUALITY ASSURANCE / QUALITY CONTROL

For QA/QC purposes, 9 field blanks and 10 trip blanks were tested as part of this study. This number of QA/QC samples is consistent with SOP recommendations. No analyte concentrations were detected above the MCLs in any of the QA/QC samples. Additional information regarding internal laboratory QA/QC samples can be found in the lab reports.