



**SOUTHEAST COUNTY LANDFILL
TECHNICAL
WATER QUALITY MONITORING
REPORT
FEBRUARY 2013 THROUGH
AUGUST 2015**

Prepared for:

Public Works Department
Solid Waste Management Division
15960 County Road 672
Lithia, Florida, 33547

Prepared by:

SCS ENGINEERS
4041 Park Oaks Blvd., Suite 100
Tampa, Florida 33610
(813) 621-0080

December 14, 2015
File No. 09215600.01

**SOUTHEAST COUNTY LANDFILL
TECHNICAL
WATER QUALITY MONITORING
REPORT
FEBRUARY 2013 THROUGH AUGUST 2015**

Prepared for:

Public Works Department
Solid Waste Management Division
15960 County Road 672
Lithia, Florida, 33547

Prepared by:

SCS ENGINEERS
4041 Park Oaks Blvd., Suite 100
Tampa, Florida 33610
(813) 621-0080



Joseph E. Mizerany, P.G.
PG License No. 001589

December 14, 2015
File No. 09215600.01

Table of Contents

Section	Page
1 Introduction.....	1
2 Groundwater Flow Evaluation.....	2
3 Groundwater and Surface Water Quality.....	3
Groundwater Quality	3
Metals Exceedances and Trends.....	3
Arsenic.....	3
Iron.....	4
Vanadium	4
Organic Parameters Exceedances and Trends.....	4
Inorganic Parameters Exceedances and Trends	4
Ammonia	5
Chloride	5
pH	5
Total Dissolved Solids.....	5
Surface Water Quality	6
Exceedances	6
Iron.....	6
Fecal Coliform	6
Dissolved Oxygen.....	7
pH	7
Erratic And Poorly Correlated Data	7
4 Adequacy of Monitoring Program	8
Monitoring Site Geographic Location.....	8
Monitoring Frequency	8
Monitoring Parameters	9
Summary of Sinkhole Related Detections.....	9

Appendices

- Appendix A Potentiometric Maps
- Appendix B Tables of Exceedances And Detections
- Appendix C Time Series Plots of Water Quality Trends

1 INTRODUCTION

SCS Engineers (SCS) prepared this technical water quality monitoring report for the Southeast County Landfill (SCLF) on behalf of Hillsborough County Public Works Department Solid Waste Management Division (County). The SCLF is located at 15960 County Road 672, Lithia, Florida 33547.

This report was prepared in general accordance with Florida Department of Environmental Protection (FDEP) Permit/Certification No. 35435-022-SO/01, Water Quality Monitoring Plan (WQMP), and Chapter 62-701.510(8)(b) Florida Administrative Code (FAC). This report includes a summary and evaluation of the groundwater and surface water analytical data from monitoring events performed at the SCLF from February 2013 through the most recent monitoring event, August 2015. Locations of monitoring sites are shown on Figure 1 included in Appendix A.

Field work, sampling methodologies, data evaluation, data Quality Assurance/Quality Control (QA/QC) were conducted in accordance with FAC Chapter 62-160 Standard Operating Procedures (DEP-SOP-001/01), the SCLF WQMP, and the SCLF site permit. Laboratory analyses were performed in accordance with Chapter 62-160, FAC DEP-SOP-002/01, the SCLF WQMP, and the site permits. The laboratories used were certified by the Florida Department of Health Environmental Laboratory Certification Program (DoH ELCP).

2 GROUNDWATER FLOW EVALUATION

Potentiometric maps of the surficial aquifer were prepared by the County from surficial aquifer well data for each of the sampling events (Figures A-2 through A-7, Appendix A). Groundwater flow typically is perpendicular to the water level contours. The potentiometric maps are prepared with a 2 foot contour interval. The general direction of flow are to the northwest and west, which is consistent with the historical data.

3 GROUNDWATER AND SURFACE WATER QUALITY

GROUNDWATER QUALITY

Water quality data for the groundwater parameters monitored during this reporting period were evaluated in accordance with Chapter 62-701.510(8)(b), FAC. Selected data tables and graphs are presented to support the evaluation of the adequacy of the water quality monitoring frequency and sampling locations.

Appendix B includes tables listing water quality detections and exceedances. In accordance with Chapter 62-701, FAC, groundwater results were compared to the Primary Drinking Water Standards (PDWS) and Secondary Drinking Water Standards (SDWS) listed in Chapter 62-550, FAC. For this technical report, Groundwater Cleanup Target Levels (GCTLs) in Rule 62-777, FAC were used for constituents that do not have a PDWS or SDWS as a screening tool for potential anomalies in the concentration data that may require further consideration or review. Exceedances of one or more parameters over the technical report monitoring period were evaluated in accordance with the permit.

Graphs of water quality data and water quality trends for select detected constituents are included in Appendix C. Graphs of trends in concentrations are provided for constituents that frequently exceeded their respective drinking water standard and/or exhibited significant trends (by visual review of the graphs, not statistical analysis) in their concentrations over time. Laboratory analytical data from February 2013 through August 2015 semi-annual events were used in the graphs of water quality data. The following section discusses exceedances and includes related trends, where appropriate.

Metals Exceedances and Trends

Metals with concentrations in excess of applicable PDWS, SDWS, and/or GCTLs for at least one sampling event in the technical report period of record include:

- Arsenic
- Iron
- Vanadium

These exceedances are discussed below and are based on the exceedance tables included in Appendix B. Applicable trends are discussed based on the time series plots in Appendix C.

Arsenic

The FDEP PDWS of 10 micrograms per liter ($\mu\text{g/L}$) for arsenic was exceeded at surficial aquifer monitoring wells TH-58 (February 2013 through August 2015) and TH-65 (August 2013, February 2014, and August 2014). Based on the overall groundwater quality, it appears that the presence of arsenic in the groundwater is related to the dissolution of naturally-occurring arsenic from soil due to oxidation-reduction changes.

The trend chart for arsenic is included in Appendix C. Downward trends of arsenic are apparent in monitoring well TH-58 and TH-65.

Iron

The concentration of iron in the groundwater ranged from an estimated detection of 55 $\mu\text{g/L}$ to 32,000 $\mu\text{g/L}$ in the surficial aquifer and from undetected to 710 $\mu\text{g/L}$ in the Floridan aquifer. The SDWS of 300 $\mu\text{g/L}$ for iron was exceeded at all locations except for Floridan aquifer monitoring wells TH-19, TH-40, and TH-78. Concentration ranges for these wells are consistent with site data for iron. The trend chart (Appendix C) indicates iron concentrations decreasing or staying constant in the surficial aquifer at the SCLF for the technical reporting period.

The iron concentrations along the northwest side of Section 9 have been elevated since the initial sampling of groundwater in the area, which was conducted prior to waste filling in that expansion area of the landfill. As previously discussed, the elevated iron is likely attributable to the imported soils used under and outside the liner during construction of Section 9. The potential sources of the elevated iron concentrations at various locations of the site have been evaluated, and there appears to be several contributing factors. Based on the overall groundwater quality results, the County maintains the position that the source(s) of elevated iron concentrations within the surficial aquifer groundwater at the Southeast County Landfill site are not attributable to the landfill.

Iron was observed above the SDWS in upper Floridan aquifer monitoring well TH-72 at a concentration of 0.71 mg/L and is consistent with historical water quality values. The iron in this well may be naturally occurring in the formation or potentially attributable to the waste in the throat of the repaired sinkhole.

Vanadium

The vanadium FDEP GCTL of 49 $\mu\text{g/L}$ was exceeded in background monitoring well TH-66A during the August 2013 monitoring event, and at detection well MW-61A during the August 2015 monitoring event. These concentrations appear to be outliers and may be related to an elevated turbidity during sample collection at monitoring well TH-61A. Vanadium will be monitored in subsequent monitoring events to confirm this was an outlier data point.

Organic Parameters Exceedances and Trends

Organic parameters were not detected above their respective PDWS, SDWS, and GCTLs. These parameters will continue to be monitored to confirm that concentrations remain below their respective regulatory standards.

Inorganic Parameters Exceedances and Trends

Inorganic parameters with concentrations in excess of applicable PDWS, SDWS, and/or GCTLs for at least one sampling event in the technical report period of record include:

- Ammonia
- Chloride
- pH

- Total Dissolved Solids (TDS)

These parameters are discussed below.

Ammonia

The FDEP GCTL of 2.8 milligrams per liter (mg/L) for ammonia was exceeded at Floridan aquifer monitoring well TH-72 during the August 2015 monitoring event. Per FDEP Memorandum dated December 3, 2012, addressing the subject "Monitoring and Evaluation of Ammonia in Groundwater at Solid Waste Management Facilities SMW-13.10," the ammonia GCTL is no longer enforced where there is no threat to surface water. There were no exceedances for ammonia at the surface water locations. Therefore, the ammonia detection at TH-72 is not considered an exceedance. The source of the elevated ammonia at TH-72 is likely attributable to waste in the throat of the repaired sinkhole.

Chloride

Chloride exceeded the SDWS of 500 mg/L in Floridan aquifer monitoring TH-72 during the August 2015 monitoring event. The source of the elevated chloride at TH-72 is likely attributable to waste in the throat of the repaired sinkhole and the injected grout materials for subsurface stabilization and/or remediation of the large karst feature.

pH

Each of the 16 surficial aquifer detection and background water quality monitoring wells continue to exhibit pH values below the SDWS acceptable range of 6.5 to 8.5 pH units. The pH values range from 3.89 to 6.58 pH units across the site. The pH values in the surficial aquifer have historically been observed below the acceptable range, and the background water quality recorded prior to construction and operation of the landfill established pH below the acceptable range. The recent data remains consistent with the historical data set and background water quality.

Each of the four upper Floridan/Limestone aquifer monitoring wells, exhibited pH values within the acceptable range, which is consistent with the historical data set for the site. No unusual conditions or changes in the pH values within any of the detection or background water quality monitoring wells or surface water sites were observed.

Total Dissolved Solids

Total dissolved solids (TDS) exceeded the SDWS of 500 mg/L in surficial monitoring wells TH-69A (February 2013 and August 2013) and TH-71A (February 2013 through August 2015) and Floridan aquifer monitoring well TH-72 (August 2015). TDS has decreased to below the SDWS in TH-69A during 2014 and 2015 monitoring events.

The source of the elevated TDS at TH-71A may be from the iron bacteria developing in this well, as is observed in TH-70A located approximately 200 feet southwest. The County will

continue to closely evaluate the water quality changes across the site, with a focus on the three detection wells (TH-69A, TH-70A, and TH-71A) down gradient of Section 9.

The source of the elevated TDS at TH-72 is likely attributable to waste in the throat of the repaired sinkhole and the injected grout materials for subsurface stabilization and/or remediation of the large karst feature.

SURFACE WATER QUALITY

Surface water quality data for the groundwater parameters monitored during this reporting period were evaluated in accordance with Chapter 62-701.510(8)(b), FAC. Selected data tables are presented to support the evaluation of the adequacy of the water quality monitoring frequency and sampling locations.

Exceedances

Appendix B includes tables listing water quality detections and exceedances. In accordance with Chapter 62-701, FAC, surface water results were compared to the Criteria for Surface Water Quality (CSWQ), listed in Chapter 62-302.530. Exceedances of one or more parameters over the technical report monitoring period were evaluated in accordance with the permit.

Parameters with concentrations in excess of applicable CSWQ for at least one sampling event in the technical report period of record include:

- Iron
- Fecal Coliform
- pH
- Dissolved Oxygen

These exceedances are discussed below and are based on the exceedance tables included in Appendix B.

Iron

The FDEP CSWQ of 1,000 µg/L for iron was exceeded at surface water monitoring site SW-3B2B (August 2013, August 2014, and February 2015). Iron was below the CSWQ during the subsequent monitoring event. The down gradient monitoring location, identified as SW-3C2, continues to remain in compliance for surface water discharged off site into Long Flat Creek.

Fecal Coliform

The FDEP CSWQ of 800 col/100 ml for fecal coliform was exceeded at surface water monitoring site SW-3B2B (August 2013). Fecal coliform was below the CSWQ during the subsequent monitoring events. The down gradient monitoring location, identified as SW-3C2, continues to remain in compliance for surface water discharged off site into Long Flat Creek.

Dissolved Oxygen

The FDEP CSWQ of greater than (>) 5.0 mg/L for dissolved oxygen was exceeded at upgradient surface water monitoring location SW-3A (August 2014). Dissolved oxygen was within the acceptable range for the CSWQ during the subsequent monitoring events. The down gradient monitoring location, identified as SW-3C2, continues to remain in compliance for surface water discharged off site into Long Flat Creek. The recent data remains consistent with the historical data set and background water quality.

pH

The FDEP CSWQ of 6.0-8.5 SU for pH was exceeded at upgradient surface water monitoring location SW-3A (August 2013 through August 2015) and surface water monitoring sites Mine Cut 1 (August 2013 through August 2015), SW-3B2B (August 2013 through August 2015), and SW-3C2 (August 2015). With the exception of the August 2015 monitoring event, the down gradient monitoring location, identified as SW-3C2, continues to remain in compliance for surface water discharged off site into Long Flat Creek. The recent data remains consistent with the historical data set and background water quality.

ERRATIC AND POORLY CORRELATED DATA

No other erratic or poorly correlated data were observed in the water quality substantive analyses.

4 ADEQUACY OF MONITORING PROGRAM

This section assesses the adequacy of the monitoring program in observing the potential effects of the SCLF operations on groundwater and surface water quality.

The existing monitoring wells were located based on groundwater flow direction. Locations were selected to monitor hydraulically up-gradient groundwater and groundwater that potentially could be affected by the presence of the landfill.

This section discusses the adequacy of well location for horizontal and vertical monitoring and the adequacy of the semi-annual sampling frequency.

MONITORING SITE GEOGRAPHIC LOCATION

Geographic location is guided by the direction of lateral groundwater flow in the aquifers beneath the SCLF. Typically, background wells would be located at the hydraulically up-gradient end of the flow arrows with compliance wells located at the down-gradient end within or at the edge of the Zone of Discharge (ZOD) detection wells. The following discusses the locations of monitoring wells in each aquifer.

Currently, there is one surficial aquifer background monitoring well at the SCLF for Phase 1-6 (TH-22A). This monitoring well is located hydraulically upgradient from the landfill and appears to provide sufficient surficial aquifer background data for the SCLF.

Currently, there is one surficial aquifer background monitoring well at the SCLF for Sections 7-9 (TH-36A). This monitoring well is located hydraulically up gradient from the landfill and appears to provide sufficient surficial aquifer background data for the SCLF.

Currently, there is one Floridan aquifer background monitoring well at the SCLF (TH-19). This monitoring well is located hydraulically up gradient from the landfill and appears to provide sufficient Floridan aquifer background data for the SCLF.

The geographic location of the detection wells and surface water sites appears to be adequate and effective in monitoring groundwater quality variations and meet the spacing requirements in Chapter 62-701.510, FAC. The screen locations at each of the surficial aquifer and Floridan aquifer locations appear to adequately monitor the surficial aquifer and Floridan aquifer for water quality purposes.

MONITORING FREQUENCY

Groundwater and surface water monitoring frequency for the SCLF is semi-annual and appears to provide sufficient data to evaluate trends in concentrations and plan appropriate evaluation monitoring where necessary. There have been no findings that indicate a need to modify the routine sampling frequency. Consequently, SCLF will maintain the current groundwater quality monitoring frequency.

MONITORING PARAMETERS

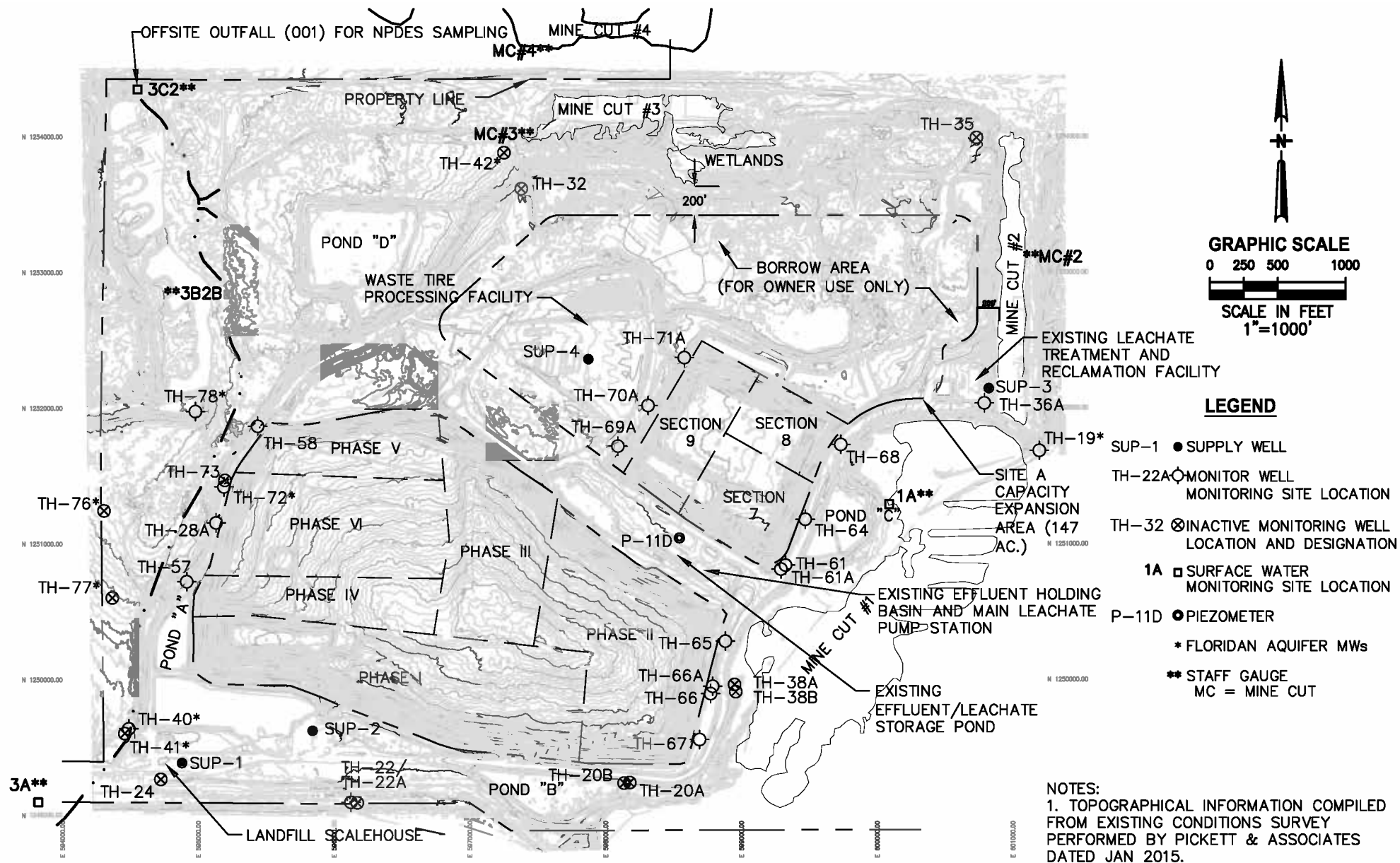
Current routine monitoring parameters include various volatile organic, metals, and inorganic constituents required by Chapter 62-550 and 62-701 and expected waste characteristics. There have been no findings or observations that indicate a need to modify the routine parameter list. Consequently, the SCLF will maintain the current groundwater quality monitoring parameters.

SUMMARY OF SINKHOLE RELATED DETECTIONS

Based on review of the groundwater monitoring data, TH-72 appears to be the only well affected by the sinkhole that occurred in 2010. The monitoring plan was recently modified to add monitoring wells TH-72 and TH-78. TH-72 is located immediately adjacent to the sinkhole and TH-78 is located downgradient. Groundwater impacts have not been observed at TH-78. Thus, as long as the sinkhole repair remains stable, we do not anticipate future impacts at TH-78.

APPENDIX A

FIGURES



**LOCATION OF MONITORING WELLS, PIEZOMETERS, AND
 SURFACE WATER SAMPLING SITES
 SOUTHEAST COUNTY LANDFILL
 HILLSBOROUGH COUNTY, FLORIDA**

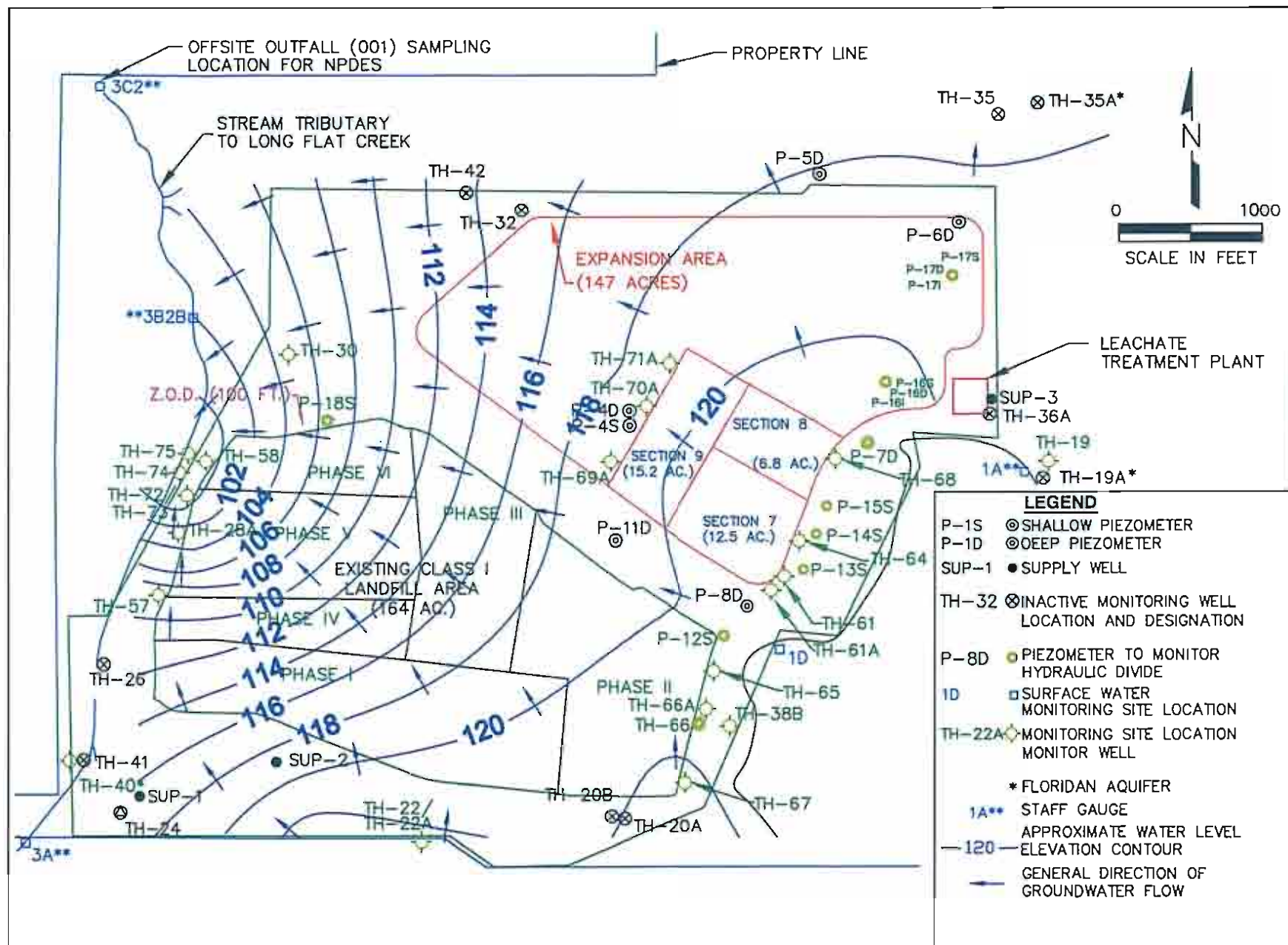
DATE

APRIL 2015

FIGURE

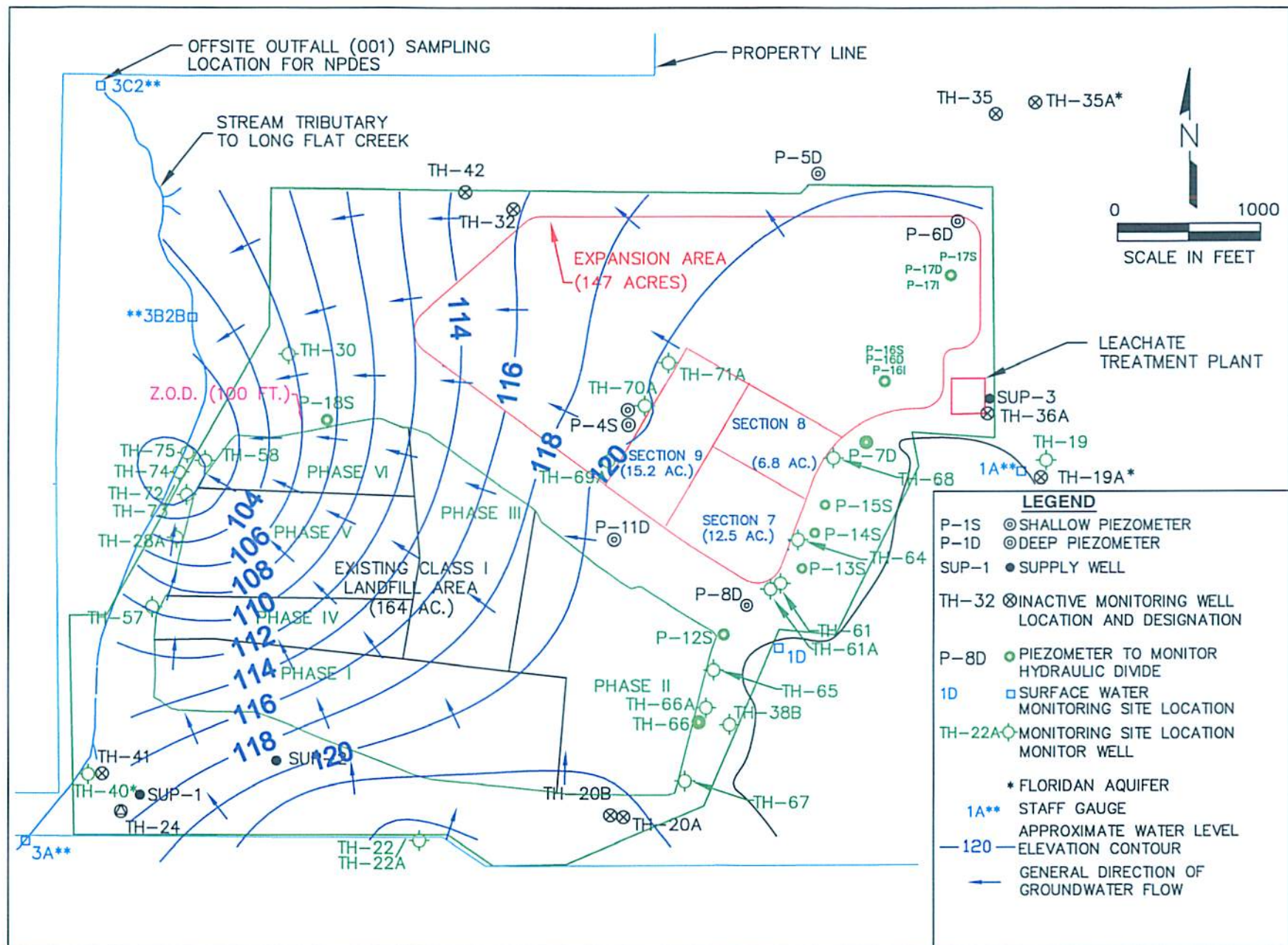
SCS ENGINEERS

FIGURE A-1



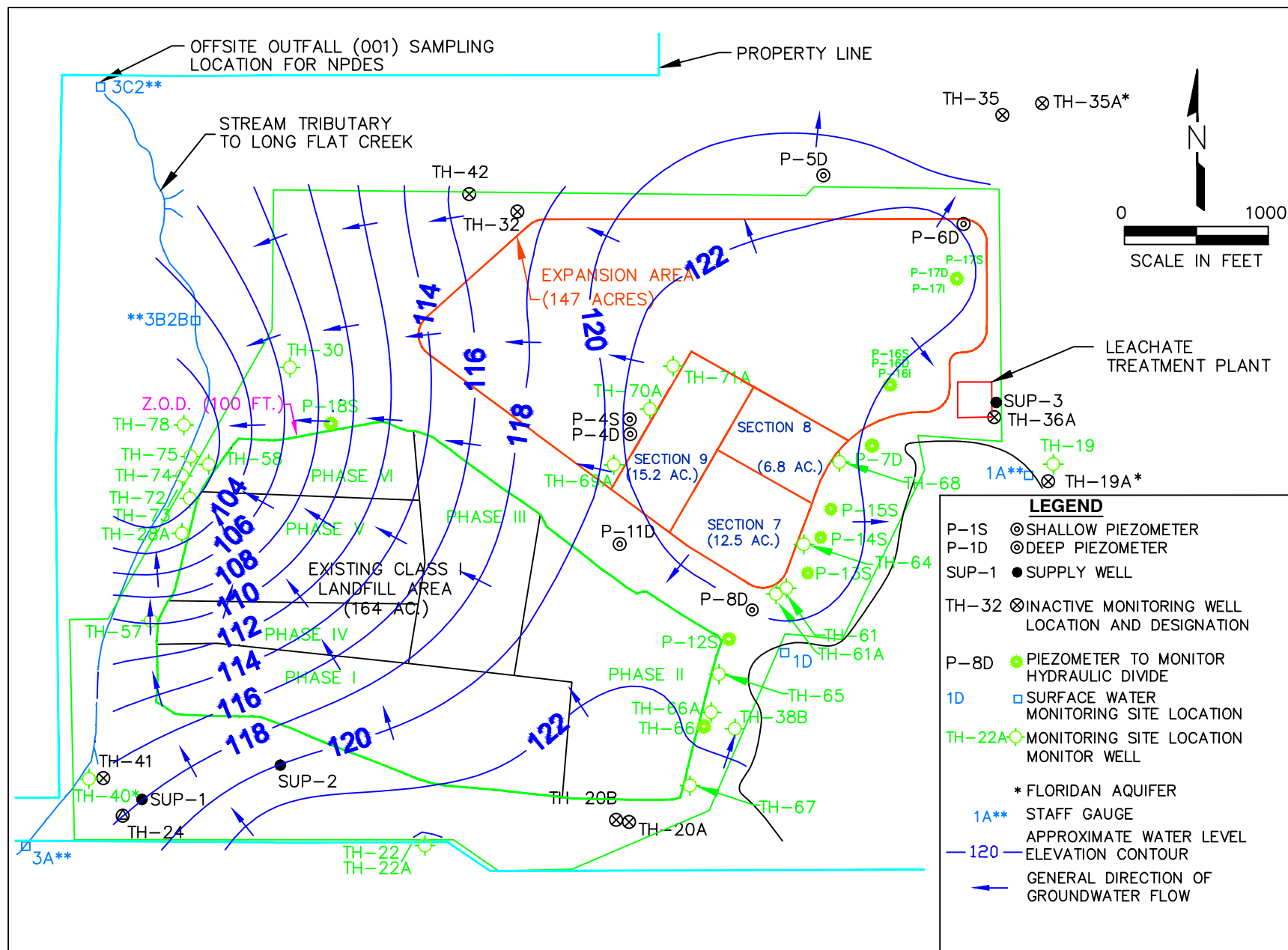
Southeast County Landfill
Groundwater Elevation Contour Diagram – February 18, 2013

Figure A-2.



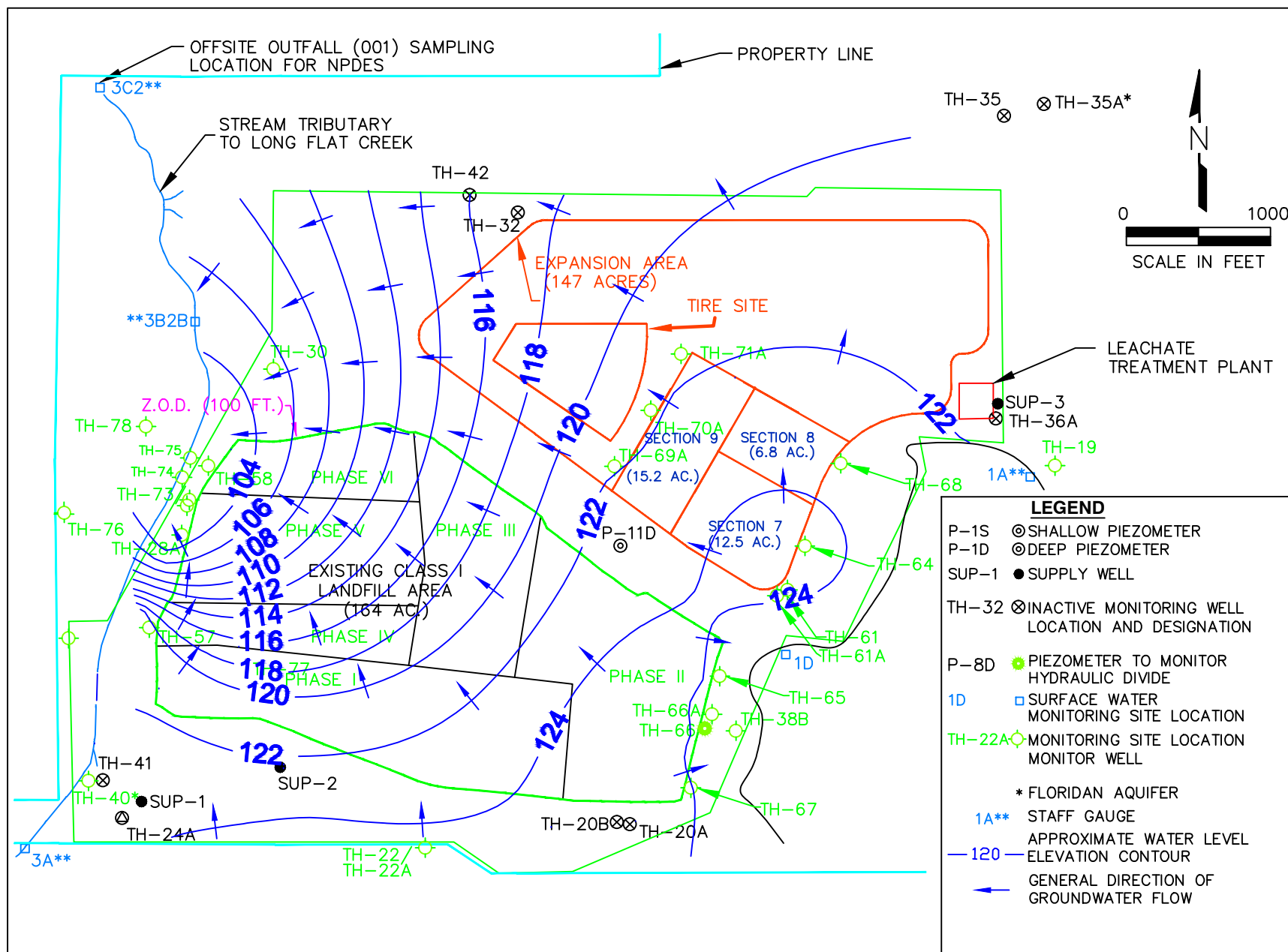
Southeast County Landfill
Groundwater Elevation Contour Diagram – August 19, 2013

Figure A-3.



Southeast County Landfill
Groundwater Elevation Contour Diagram — August 15, 2014

Figure A-5.



Southeast County Landfill
Groundwater Elevation Contour Diagram - August 24, 2015

Figure A-7.

APPENDIX B

TABLES OF EXCEEDANCES AND DETECTIONS

2015 Technical Report, Southeast County Landfill, Hillsborough County
Floridan Aquifer - Background Monitoring Well TH-19 Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/20/2013	2/12/2014	8/19/2014	2/17/2015	8/26/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.37	0.28 J	0.32	0.39	0.27	0.3
Chloride	SDWS	250	mg/L	7.6	8.9	8.4	8.4	6.2	5.4
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	240	220	240	240	240	240
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.15 I
Arsenic	PDWS	10	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	1.6 U	0.15 U
Barium	PDWS	2000	ug/L	5	5.9	5.8	5.2	4.3	4.8
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.3 U	0.21 U
Cobalt	GCTL	140	ug/L	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	2.1 I	1.1 U	4.2 I	0.22 U
Iron	SDWS	300	ug/L	33 U	33 U	33 U	33 U	21 U	30 U
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.12 I
Sodium	PDWS	160	mg/L	12	16	16	13	15	15
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	3.8 U	3.8 U	3.8 U	3.8 U	0.21 U	1.4 U
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	11	11
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.79	0.26	0.46	0.24	0.19	0.4
pH	SDWS	6.5-8.5	SU	7.18	7.39	7.67	7.16	7.36	7.4
Specific Conductance	NS	NS	umhos/cm	360	351	431	442	482	415
Temperature, Water	NS	NS	deg C	23.3	23.6	23.51	23.62	23.44	23.53
Turbidity	NS	NS	NTU	0.26	0.28	0.43	0.99	2.01	0.89

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Floridan Aquifer - Compliance Monitoring Well TH-40 Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/21/2013	2/11/2014	8/20/2014	2/17/2015	8/26/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.3	0.4	0.38	0.44	0.34	0.36
Chloride	SDWS	250	mg/L	7.5	8.8	8.3	9	7.9	6.8
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	220	200	210	190	220	220
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.091 U
Arsenic	PDWS	10	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	1.6 U	0.15 U
Barium	PDWS	2000	ug/L	5.3	8.3	6	5.6	6.2	6.5
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.31 I	0.21 U
Cobalt	GCTL	140	ug/L	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.9 I	1.1 U	4.4 I	0.22 U
Iron	SDWS	300	ug/L	49 I	33 U	35 I	43 I	42 I	33 I
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	15	18	19	17	19	18
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	3.8 U	3.8 U	3.8 U	3.8 U	0.25 I	1.4 U
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	13	9.3 I
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.55	0.4	0.48	0.24	0.24	0.47
pH	SDWS	6.5-8.5	SU	7.16	7.39	7.91	7.16	7.54	7.91
Specific Conductance	NS	NS	umhos/cm	326	271	373	442	434	399
Temperature, Water	NS	NS	deg C	23.5	23.7	23.59	23.62	23.56	23.7
Turbidity	NS	NS	NTU	0.33	0.03	0.31	0.79	1.22	0.19

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Floridan Aquifer - Detection Monitoring Well TH-72 Data Summary

Parameter	Standard	MCL	Units	8/25/2015
General Chemistry				
Ammonia (N)	GCTL	2.8	mg/L	17
Chloride	SDWS	250	mg/L	360
Nitrate (N)	PDWS	10	mg/L	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	1200
Metals				
Antimony	PDWS	6	ug/L	0.13 I
Arsenic	PDWS	10	ug/L	0.32 I
Barium	PDWS	2000	ug/L	46
Beryllium	PDWS	4	ug/L	0.13 U
Cadmium	PDWS	5	ug/L	0.056 U
Chromium	PDWS	100	ug/L	0.42 I
Cobalt	GCTL	140	ug/L	0.38 U
Copper	SDWS	1000	ug/L	0.22 U
Iron	SDWS	300	ug/L	710
Lead	PDWS	15	ug/L	0.48 U
Mercury	PDWS	2	ug/L	0.084 U
Nickel	PDWS	100	ug/L	1 I
Selenium	PDWS	50	ug/L	9.2 I
Silver	SDWS	100	ug/L	0.054 U
Sodium	PDWS	160	mg/L	150
Thallium	PDWS	2	ug/L	0.11 U
Vanadium	GCTL	49	ug/L	1.4 U
Zinc	SDWS	5000	ug/L	11
Field Parameters				
Dissolved Oxygen	NS	NS	mg/L	1.46
pH	SDWS	6.5-8.5	SU	6.94
Specific Conductance	NS	NS	umhos/cm	2386
Temperature, Water	NS	NS	deg C	23.97
Turbidity	NS	NS	NTU	2.81

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Floridan Aquifer - Compliance Monitoring Well TH-78 Data Summary

Parameter	Standard	MCL	Units	8/25/2015
General Chemistry				
Ammonia (N)	GCTL	2.8	mg/L	0.34
Chloride	SDWS	250	mg/L	31
Nitrate (N)	PDWS	10	mg/L	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	300
Metals				
Antimony	PDWS	6	ug/L	0.1 I
Arsenic	PDWS	10	ug/L	0.25 I
Barium	PDWS	2000	ug/L	95
Beryllium	PDWS	4	ug/L	0.26 U
Cadmium	PDWS	5	ug/L	0.056 U
Chromium	PDWS	100	ug/L	0.21 U
Cobalt	GCTL	140	ug/L	0.38 U
Copper	SDWS	1000	ug/L	0.22 U
Iron	SDWS	300	ug/L	220 I
Lead	PDWS	15	ug/L	0.48 U
Mercury	PDWS	2	ug/L	0.084 U
Nickel	PDWS	100	ug/L	0.22 U
Selenium	PDWS	50	ug/L	1.2 U
Silver	SDWS	100	ug/L	0.054 U
Sodium	PDWS	160	mg/L	31
Thallium	PDWS	2	ug/L	0.11 U
Vanadium	GCTL	49	ug/L	1.4 U
Zinc	SDWS	5000	ug/L	11 I
Field Parameters				
Dissolved Oxygen	NS	NS	mg/L	1.66
pH	SDWS	6.5-8.5	SU	8.08
Specific Conductance	NS	NS	umhos/cm	560
Temperature, Water	NS	NS	deg C	23.4
Turbidity	NS	NS	NTU	0.57

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Background Monitoring Well TH-22A Data Summary

Parameter	Standard	MCL	Units	2/20/2013	8/21/2013	2/11/2014	8/19/2014	2/18/2015	8/26/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.57	0.38	0.38	0.48	0.3	0.33
Chloride	SDWS	250	mg/L	13	11	10	8.9	6.1	5.5
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	170	120	120	130	160	120
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.091 U
Arsenic	PDWS	10	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	1.6 U	0.37 I
Barium	PDWS	2000	ug/L	61	49	58	57	45	56
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	4.3 I	2.5 U	4 I	3.8 I	2.8	3.4 I
Cobalt	GCTL	140	ug/L	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 I	1.1 U	1.3 I	1.1 U	8.8	0.22 U
Iron	SDWS	300	ug/L	430	290	370	340	410	360
Lead	PDWS	15	ug/L	1.1 I	0.2 I	0.88 I	1.2 I	3.2 U	0.83 I
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	4.1	4.1	4.2	3.1	3.9	3.6
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	3.8 U	3.8 U	3.8 U	3.8 U	2.3	2.2 I
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	13	12
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.44	0.38	0.39	0.49	0.44	0.64
pH	SDWS	6.5-8.5	SU	4.32	4.62	4.6	4.22	3.89	4.43
Specific Conductance	NS	NS	umhos/cm	239	159	222	233	240	218
Temperature, Water	NS	NS	deg C	21.4	24.6	21.53	24.44	20.55	24.41
Turbidity	NS	NS	NTU	16.7	4.9	19	9.56	18.2	9.82

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-28A Data Summary

Parameter	Standard	MCL	Units	2/20/2013	8/21/2013	2/11/2014	8/19/2014	2/17/2015	8/26/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	2.8	0.92 J	1.9	2	1.9	1.8
Chloride	SDWS	250	mg/L	67	46	54	50	57	68
Nitrate (N)	PDWS	10	mg/L	0.1 JJU	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	180	120	130	160	170	180
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.52 I
Arsenic	PDWS	10	ug/L	2.3 I	1.3 I	1.7 I	1.6 I	1.6 U	1.7 I
Barium	PDWS	2000	ug/L	1.8 I	1.5 I	1.9 I	1.6 I	1.7 I	1.5
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.26 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.14 I
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.69 I	1.1 I
Cobalt	GCTL	140	ug/L	0.34 I	0.3 I	0.47 I	0.48 I	0.53 I	0.69 I
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.1 U	1.1 U	1.7 I	0.27 U
Iron	SDWS	300	ug/L	3900	3300	3400	3300	3800	3600
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.2 U	0.6 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.27 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.4 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.067 U
Sodium	PDWS	160	mg/L	25	19	24	19	25	23
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.27 I
Vanadium	GCTL	49	ug/L	3.8 U	3.8 U	3.8 U	3.8 U	1.2	1.8 U
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	10 I	11 I
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.71	1.33	0.74	0.85	0.28	0.63
pH	SDWS	6.5-8.5	SU	5.01	5.27	5.29	4.88	4.57	4.9
Specific Conductance	NS	NS	umhos/cm	334	164	258	292	320	307
Temperature, Water	NS	NS	deg C	26.4	27.8	26.42	27.9	26.78	27.22
Turbidity	NS	NS	NTU	1.46	3.47	4.33	3.98	2.21	0.46

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Background Monitoring Well TH-36A Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/20/2013	2/12/2014	8/19/2014	2/17/2015	8/26/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.28	0.046 I	0.2	0.19	0.11	0.04 I
Chloride	SDWS	250	mg/L	2.8 I	7	2.9	5	2.3 I	1.4 I
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.19 I
Residues- Filterable (TDS)	SDWS	500	mg/L	120	110	90	120	110	130
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.29 I
Arsenic	PDWS	10	ug/L	1.7 I	1.5 I	1.3 U	1.3 U	1.6 U	0.65 I
Barium	PDWS	2000	ug/L	6.6	5.5	5.3	7.4	6.4	8.5
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.64 I	0.89 I
Cobalt	GCTL	140	ug/L	0.15 U	0.15 U	0.15 U	0.18 I	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.8 I	1.1 U	2.4 I	0.22 U
Iron	SDWS	300	ug/L	180	310	240	340	290	140 I
Lead	PDWS	15	ug/L	0.48 I	0.2 U	0.25 I	0.35 I	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 I	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	3.6	4.2	3.3	2.7	2.9	3.1
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	8.1 I	14	3.8 U	3.8 U	2.2	5.6
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	12	14
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.59	0.96	0.32	0.34	0.34	0.65
pH	SDWS	6.5-8.5	SU	5.58	5.77	5.89	5.33	5.21	5.51
Specific Conductance	NS	NS	umhos/cm	147	162	171	208	200	175
Temperature, Water	NS	NS	deg C	25	25.5	25.25	25.47	24.91	25.27
Turbidity	NS	NS	NTU	6.85	13.9	5.47	4.2	5.5	3.15

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-57 Data Summary

Parameter	Standard	MCL	Units	2/20/2013	8/21/2013	2/11/2014	8/19/2014	2/17/2015	8/27/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	1.1	0.65	0.89	1.2 J	1.2	1
Chloride	SDWS	250	mg/L	29	26	33	38	50	42
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	90	80	100	120	130	150
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.29 I
Arsenic	PDWS	10	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	1.6 U	0.66 I
Barium	PDWS	2000	ug/L	6.2	7.5	8.4	9.3	8.7	20
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.071 I
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.63 I	0.73 I
Cobalt	GCTL	140	ug/L	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.1 I	1.1 U	2.2 I	0.22 U
Iron	SDWS	300	ug/L	370	300	400	380	480	560
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	11	12	14	11	12	14
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	3.8 U	3.8 U	3.8 U	3.8 U	1.1	4.8
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	10	14
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.14	0.65	0.32	0.62	0.2	0.57
pH	SDWS	6.5-8.5	SU	4.99	5.06	5.26	4.84	4.59	4.97
Specific Conductance	NS	NS	umhos/cm	186	108	179	242	284	258
Temperature, Water	NS	NS	deg C	26.4	27.4	26.97	27.96	26.86	27.59
Turbidity	NS	NS	NTU	0.67	1.13	0.52	1.3	1.96	1.91

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-58 Data Summary

Parameter	Standard	MCL	Units	2/20/2013	8/21/2013	2/12/2014	8/19/2014	2/17/2015	8/26/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	1.1	0.84	0.97 J	0.73	0.97	0.16
Chloride	SDWS	250	mg/L	28	31	15	49	15	13
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.29 I	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	180	190	200	260	200	250
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.68 I
Arsenic	PDWS	10	ug/L	28	24	26	20	13	20
Barium	PDWS	2000	ug/L	19	20	19	24	14	14
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.062 I
Chromium	PDWS	100	ug/L	4.5 I	2.5 U	2.5 U	2.5 U	0.84 I	1.8 I
Cobalt	GCTL	140	ug/L	0.24 I	0.15 U	0.18 I	0.22 I	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.1 U	1.1 U	1.6 I	0.22 U
Iron	SDWS	300	ug/L	3800	3200	4100	3300	3200	2600
Lead	PDWS	15	ug/L	0.2 I	0.2 U	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1.4 I	1 U	1 U	1.5 I	4.1 U	2.6 I
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	1.2
Sodium	PDWS	160	mg/L	20	22	14	12	12	14
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.53 I	0.22 I	0.41
Vanadium	GCTL	49	ug/L	6.5 I	5.3 I	4.4 I	7 I	3.7	22
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	7.7 I	11
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	7.28	1.07	0.59	0.53	0.29	0.69
pH	SDWS	6.5-8.5	SU	6.16	5.82	5.98	5.56	5.44	5.67
Specific Conductance	NS	NS	umhos/cm	494	301	383	506	455	338
Temperature, Water	NS	NS	deg C	25.8	26.7	25.5	27.49	26.2	27.05
Turbidity	NS	NS	NTU	5.81	1.62	1.74	2.28	1.22	6.03

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-61 Data Summary

Parameter	Standard	MCL	Units	8/21/2014	2/18/2015	8/27/2015
General Chemistry						
Ammonia (N)	GCTL	2.8	mg/L	0.18	0.06 I	0.2
Chloride	SDWS	250	mg/L	9.2	5.9	2.9 I
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	70	120	80
Metals						
Antimony	PDWS	6	ug/L	2.3 U	8.6 U	0.091 U
Arsenic	PDWS	10	ug/L	1.7 I	1.6 U	0.66 I
Barium	PDWS	2000	ug/L	12	5.6	7.1
Beryllium	PDWS	4	ug/L	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.15 I	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	2.5 U	0.99 I	1.2 I
Cobalt	GCTL	140	ug/L	0.15 U	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.9 I	9.1	0.22 U
Iron	SDWS	300	ug/L	290	350	350
Lead	PDWS	15	ug/L	0.87 I	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	4.8	5.1	4.4
Thallium	PDWS	2	ug/L	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	4.1 I	2.8	1.7 I
Zinc	SDWS	5000	ug/L	8.3 U	17	10
Field Parameters						
Dissolved Oxygen	NS	NS	mg/L	0.48	0.28	0.34
pH	SDWS	6.5-8.5	SU	5.5	5.18	5.01
Specific Conductance	NS	NS	umhos/cm	209	210	149
Temperature, Water	NS	NS	deg C	25.82	24.55	25.35
Turbidity	NS	NS	NTU	6.24	3.47	1.76

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-61A Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/20/2013	2/13/2014	8/21/2014	2/18/2015	8/27/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.28	0.35	0.37	0.46	0.54	0.02 U
Chloride	SDWS	250	mg/L	6.8	9.6	8.6	10	9.1	2.4 I
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	160	150	140	130	330	120
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	3.2
Arsenic	PDWS	10	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	1.6 U	0.83 I
Barium	PDWS	2000	ug/L	4.1 I	5.5	4.7 I	6.2	6.4	17
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.22 I	0.24 U	0.46 I
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.68 I	1.5 I
Cobalt	GCTL	140	ug/L	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.1 U	2.9 I	4.6 I	1.6
Iron	SDWS	300	ug/L	360	610	250	890	1500	55 I
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.2 U	0.66 I
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1.8 I	1 U	1 U	4.1 U	1.8 I
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	3.4	4.4	4.1	3.9	4.5	4
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	15	32	9.1 I	15	4.7	93
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	17 I	12	16
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.92	0.8	1.22	1	0.43	0.72
pH	SDWS	6.5-8.5	SU	5.61	5.77	5.88	5.77	5.46	5.44
Specific Conductance	NS	NS	umhos/cm	191	219	252	370	555	232
Temperature, Water	NS	NS	deg C	24.8	26.5	23.1	27.09	23.67	26.1
Turbidity	NS	NS	NTU	2.1	2.76	4.66	2.26	3.33	12.8

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-64 Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/20/2013	2/13/2014	8/20/2014	2/18/2015	8/27/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.25	0.15	0.11	0.15	0.1 I	0.13
Chloride	SDWS	250	mg/L	18	21	19	20	18	14
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	220	220	220	160	210	160
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.43 I
Arsenic	PDWS	10	ug/L	1.5 I	1.3 I	1.3 U	1.3 U	1.6 U	0.69 I
Barium	PDWS	2000	ug/L	67	53	110	74	37	53
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.26 I	0.31 I	1.2	0.66	0.24 U	0.94 I
Chromium	PDWS	100	ug/L	3.5 I	2.5 U	6.1	3.7 I	1.6 I	2.5 I
Cobalt	GCTL	140	ug/L	0.15 I	0.15 U	0.19 I	0.23 I	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.7 I	1.1 U	2.8 I	0.34 I
Iron	SDWS	300	ug/L	680	1400	570	1100	1200	470
Lead	PDWS	15	ug/L	1.9	0.67 I	3.9	1.9	3.2 U	1.3 I
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2.1 I	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1.7 I	1 U	2.9	2 I	4.1 U	1.4 I
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	8.4	10	9.3	9.2	11	11
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	8.4 I	8.7 I	17	9.5 I	9.5	15
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	14	9.3 I
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.25	0.58	1.17	0.66	0.29	0.4
pH	SDWS	6.5-8.5	SU	4.9	4.73	4.66	5.34	4.32	4.74
Specific Conductance	NS	NS	umhos/cm	266	268	300	353	324	282
Temperature, Water	NS	NS	deg C	25.6	27.4	23.8	27.68	24.5	26.57
Turbidity	NS	NS	NTU	12.9	14.2	86.4	9.78	12.1	13.2

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-65 Data Summary

Parameter	Standard	MCL	Units	2/20/2013	8/21/2013	2/13/2014	8/21/2014	2/18/2015	8/28/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	1.4	1.2	0.79	1.7	1.8	1.8
Chloride	SDWS	250	mg/L	16	16	13	15	17	15
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.034 U
Residues- Filterable (TDS)	SDWS	500	mg/L	200	160	160	84	170	150
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.091 U
Arsenic	PDWS	10	ug/L	7.2	16	27	12	4.8 I	5.8
Barium	PDWS	2000	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	0.88 I	0.97 I
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	2.6 I	2.5 U	2.5 U	2.5 U	2.3	2 I
Cobalt	GCTL	140	ug/L	0.84	1.5	2.4	0.79	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.3 I	1.1 U	1.1 U	1.1 U	2.6 I	0.22 U
Iron	SDWS	300	ug/L	2200	3000	3400	2100	470	940
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	3.1 I	2.7 I	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1.5 I	2.3 I	1 U	1 I	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	14	16	13	11	14	13
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	5.9 I	5.4 I	5.2 I	4.1 I	3.7	3.2 I
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	11	9.2 I
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.34	0.37	1.23	0.38	0.21	0.4
pH	SDWS	6.5-8.5	SU	5.09	5.5	5.49	5.54	5.21	5.68
Specific Conductance	NS	NS	umhos/cm	281	187	274	282	298	276
Temperature, Water	NS	NS	deg C	23.8	25.5	21.53	25.83	23.82	24.78
Turbidity	NS	NS	NTU	3.64	9	5.87	3.88	2.02	2.09

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-66 Data Summary

Parameter	Standard	MCL	Units	8/21/2014	2/18/2015	8/27/2015
General Chemistry						
Ammonia (N)	GCTL	2.8	mg/L	1	0.71	0.54
Chloride	SDWS	250	mg/L	11	8.2	5 I
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	130	150	130
Metals						
Antimony	PDWS	6	ug/L	2.3 U	8.6 U	0.2 I
Arsenic	PDWS	10	ug/L	3.4	2.3 I	2.9
Barium	PDWS	2000	ug/L	1.4 I	1.3 I	1.9
Beryllium	PDWS	4	ug/L	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	2.5 U	0.87 I	0.91 I
Cobalt	GCTL	140	ug/L	0.41 I	0.25 U	0.51 I
Copper	SDWS	1000	ug/L	1.1 U	3.3 I	0.22 U
Iron	SDWS	300	ug/L	2700	3300	1700
Lead	PDWS	15	ug/L	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	5.4	6	6.7
Thallium	PDWS	2	ug/L	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	3.8 U	1.8	1.8 I
Zinc	SDWS	5000	ug/L	8.3 U	11	8.3 I
Field Parameters						
Dissolved Oxygen	NS	NS	mg/L	0.54	0.23	0.41
pH	SDWS	6.5-8.5	SU	6	5.67	5.79
Specific Conductance	NS	NS	umhos/cm	384	280	275
Temperature, Water	NS	NS	deg C	28.28	22.79	26.06
Turbidity	NS	NS	NTU	2.69	2.02	1.64

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-66A Data Summary

Parameter	Standard	MCL	Units	2/20/2013	8/21/2013	2/13/2014	8/21/2014	2/18/2015	8/27/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.29	0.32	0.38	0.91	0.13	0.22
Chloride	SDWS	250	mg/L	24	20	22	16	14	4.9 I
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	220	160	190	130	180	180
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.9 I	2.3 U	2.3 U	8.6 U	3.8
Arsenic	PDWS	10	ug/L	3.9	8.2	3.5	7.6	3.1 I	5.8
Barium	PDWS	2000	ug/L	1.9 I	2.4 I	3.3 I	3.2 I	2.8	3.7
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.18 I	0.095 U	0.095 U	0.24 U	0.22 I
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.62 I	0.89 I
Cobalt	GCTL	140	ug/L	1.2	1.1	1	1.7	0.58 I	1.3
Copper	SDWS	1000	ug/L	1.1 U	1.7 I	1.1 U	1.1 U	4 I	2.4
Iron	SDWS	300	ug/L	1400	2400	2800	2700	690	370
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2.6 I	2 I	2.2 I	1.2 U	2.9
Selenium	PDWS	50	ug/L	1.8 I	4.5	1.5 I	1.1 I	4.1 U	1.3 I
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	8.9	11	11	8.1	8.2	5.7
Thallium	PDWS	2	ug/L	0.5 U	0.54 I	0.5 U	0.5 U	0.11 U	0.44
Vanadium	GCTL	49	ug/L	27	63	25	21	33	32
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	11	14
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.71	1.05	0.87	0.54	0.36	0.38
pH	SDWS	6.5-8.5	SU	5.8	6.08	6.06	6.00	5.75	6.00
Specific Conductance	NS	NS	umhos/cm	360	222	375	384	340	295
Temperature, Water	NS	NS	deg C	22.4	27.8	21.14	28.28	20.59	27.01
Turbidity	NS	NS	NTU	1.91	2.65	3.01	2.69	2.86	3.17

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-67 Data Summary

Parameter	Standard	MCL	Units	2/20/2013	8/21/2013	2/13/2014	8/21/2014	2/18/2015	8/26/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	1.4	0.91	1.8	0.33	0.05 I	0.12
Chloride	SDWS	250	mg/L	41	25	34	9.1	31	29
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.36	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	350	190	310	170	250	220
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	1.9
Arsenic	PDWS	10	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	1.6 U	1 I
Barium	PDWS	2000	ug/L	4.9 I	3.8 I	3.8 I	7.3	5.8	9.2
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.11 I	0.095 U	0.095 U	0.23 I	0.46 I	0.5 I
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.43 I	0.29 I
Cobalt	GCTL	140	ug/L	0.38 I	0.31 I	0.39 I	0.64	0.25 I	0.39 I
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.1 U	5.4	5.8 I	1.9
Iron	SDWS	300	ug/L	9400	4700	7900	1200	540	300
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2.3 I	2.5 I	2.7 I	5.6	1.2 U	2.2
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	27	19	27	5.7	8.7	8.7
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.26 I	0.43
Vanadium	GCTL	49	ug/L	5.9 I	5.4 I	4.7 I	8.6 I	12	17
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	28	14	12
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.81	0.5	1.43	0.69	1.42	0.55
pH	SDWS	6.5-8.5	SU	6.25	6.36	6.37	6.21	6.09	6.41
Specific Conductance	NS	NS	umhos/cm	684	285	634	390	428	429
Temperature, Water	NS	NS	deg C	22.9	27.9	20.19	28.38	19.52	28.32
Turbidity	NS	NS	NTU	13.9	3.84	8.01	6.16	8.28	1.13

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-68 Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/20/2013	2/13/2014	8/20/2014	2/18/2015	8/27/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.12	0.22	0.21	0.3	0.16	0.2
Chloride	SDWS	250	mg/L	23	42	34	37	25	33
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 JU	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	230	230	230	490	250	200
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.37 I
Arsenic	PDWS	10	ug/L	3.3	2.4 I	2 I	4.5	1.6 U	4.3
Barium	PDWS	2000	ug/L	10	6	5.7	83	8.3	8.7
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.41 I	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.14 I	0.095 U	0.095 U	0.66	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	2.7 I	2.5 U	2.5 U	20	2.9	2.7 I
Cobalt	GCTL	140	ug/L	0.15 U	0.15 U	0.15 U	0.15 I	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.9 I	1.1 U	1.4 I	23	3.8 I	0.46 I
Iron	SDWS	300	ug/L	410	400	810	2900	480	1800
Lead	PDWS	15	ug/L	0.53 I	0.2 U	0.2 U	8.6	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.19 I	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1.1 I	1 U	1.2 I	26	4.1 U	1.3 I
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	8.4	12	12	9.8	12	11
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	4.1 I	3.9 I	3.8 U	22	3.3	18
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	11	12
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.57	0.7	1.05	0.39	0.34	0.87
pH	SDWS	6.5-8.5	SU	5.43	5.6	5.5	5.34	5.18	5.29
Specific Conductance	NS	NS	umhos/cm	235	265	312	414	357	336
Temperature, Water	NS	NS	deg C	25.7	28.3	23.65	29	24.59	27.86
Turbidity	NS	NS	NTU	17.1	8.79	8.38	34.6	12.2	11.9

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-69A Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/20/2013	2/12/2014	8/20/2014	2/19/2015	8/27/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	0.77	0.52	0.56	0.65	0.46	0.47
Chloride	SDWS	250	mg/L	190	170	99	98 J	60	82
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	800	590	360	420	370	330
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.091 U
Arsenic	PDWS	10	ug/L	1.3 U	1.3 U	1.3 U	1.3 I	1.6 U	0.9 I
Barium	PDWS	2000	ug/L	9.2	10	6.5	5.7	4.4	4.9
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	0.24 U	0.056 U
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.65 I	0.84 I
Cobalt	GCTL	140	ug/L	0.15 U	0.15 U	0.15 U	0.15 U	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.1 U	1.1 U	4 I	0.22 U
Iron	SDWS	300	ug/L	9100	9300	5900	6300	4200	4200
Lead	PDWS	15	ug/L	0.24 I	0.26 I	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	25	33	23	27	20	18
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	3.8 U	3.8 U	3.8 U	3.8 U	0.5 I	1.4 U
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	13	8.8 I
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.38	0.37	0.19	0.32	0.7	0.39
pH	SDWS	6.5-8.5	SU	5.8	6.02	6.29	6.15	5.96	5.97
Specific Conductance	NS	NS	umhos/cm	892	837	739	821	686	623
Temperature, Water	NS	NS	deg C	24.9	25.5	25.14	25.75	23.96	25.04
Turbidity	NS	NS	NTU	2.43	3.97	1.51	1.78	3.94	1.91

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-70A Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/20/2013	2/12/2014	8/20/2014	2/19/2015	8/27/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	1.1	0.85	1.1	1.7	1.3	1.4
Chloride	SDWS	250	mg/L	29	36	42	49	55	51
Nitrate (N)	PDWS	10	mg/L	0.21 I	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	280	260	240	350	340	300
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.098 I
Arsenic	PDWS	10	ug/L	2.7	3.4	1.5 I	3.3	2.2 I	3.2
Barium	PDWS	2000	ug/L	5	5.2	5.5	5.6	8.2	8.9
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.095 U	0.095 U	0.095 U	0.095 U	1.1	0.056 U
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.91 I	0.71 I
Cobalt	GCTL	140	ug/L	0.18 I	0.15 U	0.15 U	0.19 I	0.25 U	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.1 U	1.1 U	5.1 I	0.22 U
Iron	SDWS	300	ug/L	13000	25000	6000	26000	28000	25000
Lead	PDWS	15	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	3.3 I	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	2 U	2 U	2 U	2 U	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	7.5	8.8	10	9.4	9.9	10
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	3.8 U	3.8 U	3.8 U	3.8 U	2.3	1.4 U
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	12	2 U
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	1.06	0.26	0.87	0.31	0.38	0.37
pH	SDWS	6.5-8.5	SU	6.17	6.42	6.58	6.29	6.32	6.34
Specific Conductance	NS	NS	umhos/cm	416	462	534	645	690	641
Temperature, Water	NS	NS	deg C	25.3	25.2	25.48	25.25	24.82	25.06
Turbidity	NS	NS	NTU	22.2	11.1	28.5	14.5	38.1	10.07

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surficial Aquifer - Detection Monitoring Well TH-71A Data Summary

Parameter	Standard	MCL	Units	2/19/2013	8/20/2013	2/12/2014	8/20/2014	2/19/2015	8/27/2015
General Chemistry									
Ammonia (N)	GCTL	2.8	mg/L	2.3	1.2	1.3	2.2	1.8	1.8
Chloride	SDWS	250	mg/L	100	140	170	170	130	130
Nitrate (N)	PDWS	10	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Residues- Filterable (TDS)	SDWS	500	mg/L	530	530	590	800	760	610
Metals									
Antimony	PDWS	6	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.2 I
Arsenic	PDWS	10	ug/L	3.4	3.4	2.3 I	2.6	1.6 U	3.5
Barium	PDWS	2000	ug/L	23	16	14	13	12	12
Beryllium	PDWS	4	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.11 U	0.13 U
Cadmium	PDWS	5	ug/L	0.21 I	0.1 I	0.095 U	0.095 U	1.1	0.056 U
Chromium	PDWS	100	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.38 I	0.59 I
Cobalt	GCTL	140	ug/L	1.4	0.37 I	0.69	0.34 I	0.45 I	0.38 U
Copper	SDWS	1000	ug/L	1.1 U	1.1 U	1.1 U	1.1 U	5.9 I	0.22 U
Iron	SDWS	300	ug/L	23000	32000	29000	32000	27000	24000
Lead	PDWS	15	ug/L	2	0.24 I	0.2 U	0.2 U	3.2 U	0.48 U
Mercury	PDWS	2	ug/L	0.091 U	0.091 U	0.091 U	0.091 U	0.064 U	0.084 U
Nickel	PDWS	100	ug/L	4.5 I	3.7 I	3.6 I	2.4 I	1.2 U	0.22 U
Selenium	PDWS	50	ug/L	1 U	1 U	1 U	1 U	4.1 U	1.2 U
Silver	SDWS	100	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Sodium	PDWS	160	mg/L	7.9	13	16	20	26	27
Thallium	PDWS	2	ug/L	0.5 U	0.5 U	0.5 U	0.5 U	0.11 U	0.11 U
Vanadium	GCTL	49	ug/L	5.3 I	7.6 I	3.8 U	3.8 U	3.4	2.1 I
Zinc	SDWS	5000	ug/L	8.3 U	8.3 U	8.3 U	8.3 U	11	2 U
Field Parameters									
Dissolved Oxygen	NS	NS	mg/L	0.22	0.19	0.52	0.21	0.59	0.43
pH	SDWS	6.5-8.5	SU	6.09	6.2	6.4	6.14	6.19	6.23
Specific Conductance	NS	NS	umhos/cm	815	880	1167	1351	1423	1191
Temperature, Water	NS	NS	deg C	24.5	24.8	24.42	24.65	23.11	24.55
Turbidity	NS	NS	NTU	7.9	5.3	3.29	3.36	2.6	6.6

Notes:

1. PDWS = Primary Drinking Water Standard (62-550 F.A.C.)
2. SDWS = Secondary Drinking Water Standard (62-550 F.A.C.)
3. GCTL = Groundwater Clean-Up Target Level (62-777 F.A.C.)
4. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
5. NS = No numeric standard has been set for this analyte.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. SU = Standard Units
9. NTU = nephelometric turbidity units
10. umhos/cm = micromhos per centimeter
11. Degrees C = degrees Celsius
12. U = Analyte concentration was below the laboratory detection limit (value shown).
13. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
14. V = Analyte was detected in the sample and associated method blank.
15. Q = Sample held beyond the accepted holding time.
16. --- = Parameter not analyzed.

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surface Water Mine Cut 1 Data Summary

Parameter	MCL	Units	2/18/2013	8/19/2013	2/11/2014	8/18/2014	2/16/2015	8/24/2015
General Chemistry								
Ammonia- Un-ionized (NH3)	0.02	mg/L	0.00	0.00	0.00013	0.00024	0.0001 I	0.000055 I
BOD	NS	mg/L	7.6	3.2	7.7	2.1	5.6	4.2
Carbon- Total Organic	NS	mg/L	22	18	20	18	17	20
Chlorophyll a	NS	ug/L	72	37	66	38	32	35
COD	NS	mg/L	61	82	110	54	66	74
Coliform Fecal	800	#/100 mL	20	220	260	60	54	250
Hardness	NS	mg/L	140	150	180	130	100	110
Nitrate (N)	NS	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Nitrate-Nitrite (N)	NS	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	---	---
Nitrogen- Total	NS	mg/L	3.4	2	2.4	1.6	1.2	2.8
Phosphorus- Total	NS	mg/L	2.6	2.6	2.6	3	2.3	1.6
Residues- Filterable (TDS)	NS	mg/L	350	300	240	310	340	360
Residues- Nonfilterable (TSS)	NS	mg/L	28	15	64	9.6	3.4	2.6
Metals								
Antimony	4300	ug/L	2.3 U	2.3 U	2.3 U	2.3 U	8.6 U	0.68 I
Arsenic	50	ug/L	1.3 U	1.3 U	1.3 U	1.3 U	1.6 U	0.73 I
Barium	NS	ug/L	3.2 I	3.5 I	8.1	3.1 I	2.4	3.4
Cadmium	See Below	ug/L	0.095 U	0.095 U	0.16 I	0.095 U	0.24 U	0.056 U
Calculated Cadmium MCL	Calculated	ug/L	0.35	0.37	0.42	0.33	1.13	1.22
Chromium	See Below	ug/L	2.5 U	2.5 U	2.5 U	2.5 U	0.33 I	0.21 U
Calculated Chromium MCL	Calculated	ug/L	113.52	120.12	139.47	106.84	86.18	93.18
Cobalt	NS	ug/L	0.15 U	0.15 U	0.18 I	0.15 U	0.44 I	0.38 U
Copper	See Below	ug/L	1.1 U	1.1 U	2.4 I	1.1 U	2.4 I	0.22 U
Calculated Copper MCL	Calculated	ug/L	12.44	13.19	15.42	11.67	9.33	10.12
Iron	1000	ug/L	87 I	110	860	73 I	130	170 I
Lead	See Below	ug/L	0.2 U	0.2 U	0.64 I	0.2 U	3.2 U	0.48 U
Calculated Lead MCL	Calculated	ug/L	4.88	5.33	6.72	4.44	3.18	3.59
Nickel	See Below	ug/L	2 U	2 U	2 U	2 U	8.4 I	0.22 U
Calculated Nickel MCL	Calculated	ug/L	69.34	73.51	85.77	65.13	52.16	56.54
Selenium	5	ug/L	1 U	1 U	1 U	1 U	4.1 U	2.1 I
Silver	0.07	ug/L	0.25 U	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Vanadium	NS	ug/L	3.8 U	3.8 U	3.8 U	3.8 U	0.53 I	1.4 U
Zinc	See Below	ug/L	8.3 U	8.3 U	16 I	8.3 U	13	15
Calculated Zinc MCL	Calculated	ug/L	159.34	168.93	197.16	149.64	119.82	129.89
Field Parameters								
Dissolved Oxygen	>= 5.0	mg/L	7.95	1.26	0.43	0.78	2.61	3.39
pH	6.0-8.5	SU	6.98	6.55	6.81	6.5	6.72	6.33
Specific Conductance	1275	umhos/cm	488	461	498	559	452	487
Temperature, Water	NS	deg C	15.7	29.8	17.87	28.44	18.23	30.72
Turbidity	29	NTU	12.3	10.4	10.07	4.57	5.06	2.63

Notes:

1. Parameter MCL is a Surface Water Criterion (Chapter 62-302 F.A.C.).
2. Parameter MCL is calculated by the following formula: $CrIII < e^{(0.819 \cdot [\ln \text{Hardness}] + 0.6848)}$.
3. Parameter MCL is calculated by the following formula: $Cu < e^{(0.8545 \cdot [\ln \text{Hardness}] - 1.702)}$.
4. Parameter MCL is calculated by the following formula: $Ni < e^{(0.846 \cdot [\ln \text{Hardness}] + 0.0584)}$.
5. Parameter MCL is calculated by the following formula: $Zn < e^{(0.8473 \cdot [\ln \text{Hardness}] + 0.884)}$.
6. Parameter MCL is calculated by the following formula: Cd
7. Parameter MCL is calculated by the following formula:
8. Turbidity MCL is 29 NTUs over background levels
9. MCL = Maximum Contamination Level.
10. Shaded = Sample result above the MCL.
11. mg/L = milligrams per liter.
12. ug/L = micrograms per liter.
13. umhos/cm = micromhos/centimeter
14. NTU = nephelometric turbidity units.
15. NS = No numeric standard has been set for this analyte.
16. I = Analyte detected below quantitation limits.
17. U = Analyte concentration was below the laboratory detection limit (value shown).

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surface Water SW-3A Data Summary

Parameter	MCL	Units	8/19/2013	2/11/2014	8/18/2014	2/16/2015	8/24/2015
General Chemistry							
Ammonia- Un-ionized (NH3)	0.02	mg/L	0.000024	0.000023	0.000019	0.000023 U	0.000052 U
BOD	NS	mg/L	2 U	2 U	3 U	5	4.5
Carbon- Total Organic	NS	mg/L	11	7.1	9.8	7.6	10
Chlorophyll a	NS	ug/L	3.6	2.1	1.1	4.6	84
COD	NS	mg/L	38	13	27 J	33 I	60
Coliform Fecal	800	#/100 mL	480	72	300	250	220
Hardness	NS	mg/L	70	95	64	60	80
Nitrate (N)	NS	mg/L	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Nitrate-Nitrite (N)	NS	mg/L	0.1 U	0.1 U	0.1 U	---	---
Nitrogen- Total	NS	mg/L	0.22 U	0.46 I	0.47 I	0.42	1.3
Phosphorus- Total	NS	mg/L	0.094 I	0.078 I	0.041 U	0.046 U	0.11
Residues- Filterable (TDS)	NS	mg/L	130	130	150	150	160
Residues- Nonfilterable (TSS)	NS	mg/L	8.8	3.2	5 U	4	6.4
Metals							
Antimony	4300	ug/L	2.3 U	2.3 U	2.3 U	8.6 U	0.76 I
Arsenic	50	ug/L	1.3 U	1.3 U	1.3 U	1.6 U	0.56 I
Barium	NS	ug/L	22	28	23	19	19
Cadmium	See Below	ug/L	0.095 U	0.095 U	0.095 U	0.24 U	0.056 U
Calculated Cadmium MCL	Calculated	ug/L	0.21	0.26	0.19	0.18	0.95
Chromium	See Below	ug/L	2.5 U	2.5 U	2.5 U	0.83 I	1.1 I
Calculated Chromium MCL	Calculated	ug/L	64.35	82.63	59.79	56.72	71.78
Cobalt	NS	ug/L	0.15 U	0.15 U	0.15 U	0.57 I	0.38 U
Copper	See Below	ug/L	1.2 I	1.5 I	1.1 U	3.6 I	1.1 I
Calculated Copper MCL	Calculated	ug/L	6.88	8.93	6.37	6.03	7.71
Iron	1000	ug/L	440	160	250	250	300
Lead	See Below	ug/L	0.29 I	0.2 U	0.22 I	3.2 U	0.48 U
Calculated Lead MCL	Calculated	ug/L	2.02	2.98	1.8	1.66	2.39
Nickel	See Below	ug/L	2 U	2 U	2 U	9.6	0.22 U
Calculated Nickel MCL	Calculated	ug/L	38.57	49.95	35.76	33.86	43.19
Selenium	5	ug/L	1 U	1 U	1 U	4.1 U	1.2 U
Silver	0.07	ug/L	0.25 U	0.25 U	0.25 U	0.63 U	0.067 I
Vanadium	NS	ug/L	3.8 U	3.8 U	3.8 U	0.89 I	2.5 I
Zinc	See Below	ug/L	10 I	11 I	12 I	20	13
Calculated Zinc MCL	Calculated	ug/L	88.56	114.72	82.09	77.72	99.17
Field Parameters							
Dissolved Oxygen	>= 5.0	mg/L	2.9	4.03	1.54	3.74	3.95
pH	6.0-8.5	SU	6	6.03	5.45	6.34	6.24
Specific Conductance	1275	umhos/cm	167	241	238	214	226
Temperature, Water	NS	deg C	26	20.61	25.7	18.35	33.12
Turbidity	29	NTU	6.17	9.7	2.09	6.02	6.51

Notes:

1. Parameter MCL is a Surface Water Criterion (Chapter 62-302 F.A.C.).
2. Parameter MCL is calculated by the following formula: $CrIII < e^{(0.819 * [ln Hardness] + 0.6848)}$.
3. Parameter MCL is calculated by the following formula: $Cu < e^{(0.8545 * [ln Hardness] - 1.702)}$.
4. Parameter MCL is calculated by the following formula: $Ni < e^{(0.846 * [ln Hardness] + 0.0584)}$.
5. Parameter MCL is calculated by the following formula: $Zn < e^{(0.8473 * [ln Hardness] + 0.884)}$.
6. Parameter MCL is calculated by the following formula: Cd
7. Parameter MCL is calculated by the following formula:
8. Turbidity MCL is 29 NTUs over background levels
9. MCL = Maximum Contamination Level.
10. Shaded = Sample result above the MCL.
11. mg/L = milligrams per liter.
12. ug/L = micrograms per liter.
13. umhos/cm = micromhos/centimeter
14. NTU = nephelometric turbidity units.
15. NS = No numeric standard has been set for this analyte.
16. I = Analyte detected below quantitation limits.
17. U = Analyte concentration was below the laboratory detection limit (value shown).

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surface Water SW-3B2B Data Summary

Parameter	MCL	Units	8/19/2013	8/18/2014	2/16/2015	8/24/2015
General Chemistry						
Ammonia- Un-ionized (NH3)	0.02	mg/L	0.000017 U	0.00042	0.000025 U	0.000075 U
BOD	NS	mg/L	2 U	4.8	3.8	2 U
Carbon- Total Organic	NS	mg/L	13	14	8.8	12
Chlorophyll a	NS	ug/L	1.1	23	44	6.1
COD	NS	mg/L	47	90	24 U	39 I
Coliform Fecal	800	#/100 mL	1100	200	640	135
Hardness	NS	mg/L	74	75	64	72
Nitrate (N)	NS	mg/L	0.1 U	0.1 U	0.18 U	0.2 I
Nitrate-Nitrite (N)	NS	mg/L	0.1 U	0.11 I	---	---
Nitrogen- Total	NS	mg/L	0.93	2.1	0.7	0.89
Phosphorus- Total	NS	mg/L	0.72	2.9	0.72	0.19
Residues- Filterable (TDS)	NS	mg/L	130	160	230	160
Residues- Nonfilterable (TSS)	NS	mg/L	17	130	1.6	1 U
Metals						
Antimony	4300	ug/L	2.3 U	2.3 U	8.6 U	0.23 I
Arsenic	50	ug/L	1.3 U	1.3 U	1.6 U	0.59 I
Barium	NS	ug/L	23	52	32	14
Cadmium	See Below	ug/L	0.095 U	0.21 I	0.24 U	0.056 U
Calculated Cadmium MCL	Calculated	ug/L	0.22	0.22	0.19	0.21
Chromium	See Below	ug/L	2.5 U	4 I	1.2 I	0.93 I
Calculated Chromium MCL	Calculated	ug/L	67.34	68.09	59.79	65.85
Cobalt	NS	ug/L	0.19 I	0.62	0.69 I	0.38 U
Copper	See Below	ug/L	1.3 I	2.4 I	3.4 I	0.49 I
Calculated Copper MCL	Calculated	ug/L	7.21	7.29	6.37	7.04
Iron	1000	ug/L	1600	5700	2800	440
Lead	See Below	ug/L	0.47 I	2.2	3.2 U	0.48 U
Calculated Lead MCL	Calculated	ug/L	2.17	2.2	1.8	2.09
Nickel	See Below	ug/L	2 U	2 U	8.3 I	0.22 U
Calculated Nickel MCL	Calculated	ug/L	40.43	40.89	35.76	39.51
Selenium	5	ug/L	1 U	1 U	4.1 U	1.2 U
Silver	0.07	ug/L	0.25 U	0.25 U	0.63 U	0.054 U
Vanadium	NS	ug/L	3.8 U	4.5 I	2	2.5 I
Zinc	See Below	ug/L	12 I	19 I	23	13
Calculated Zinc MCL	Calculated	ug/L	92.84	93.90	82.09	90.70
Field Parameters						
Dissolved Oxygen	>= 5.0	mg/L	4.54	0.33	0.74	4.36
pH	6.0-8.5	SU	7	6.98	6.5	6.57
Specific Conductance	1275	umhos/cm	182	378	249	203
Temperature, Water	NS	deg C	25.5	25.82	14.2	27.42
Turbidity	29	NTU	3.97	9.23	3.63	2.45

Notes:

1. Parameter MCL is a Surface Water Criterion (Chapter 62-302 F.A.C.).
2. Parameter MCL is calculated by the following formula: $CrIII < e^{(0.819 \cdot [\ln \text{Hardness}] + 0.6848)}$.
3. Parameter MCL is calculated by the following formula: $Cu < e^{(0.8545 \cdot [\ln \text{Hardness}] - 1.702)}$.
4. Parameter MCL is calculated by the following formula: $Ni < e^{(0.846 \cdot [\ln \text{Hardness}] + 0.0584)}$.
5. Parameter MCL is calculated by the following formula: $Zn < e^{(0.8473 \cdot [\ln \text{Hardness}] + 0.884)}$.
6. Parameter MCL is calculated by the following formula: Cd
7. Parameter MCL is calculated by the following formula:
8. Turbidity MCL is 29 NTUs over background levels
9. MCL = Maximum Contamination Level.
10. Shaded = Sample result above the MCL.
11. mg/L = milligrams per liter.
12. ug/L = micrograms per liter.
13. umhos/cm = micromhos/centimeter
14. NTU = nephelometric turbidity units.
15. NS = No numeric standard has been set for this analyte.
16. I = Analyte detected below quantitation limits.
17. U = Analyte concentration was below the laboratory detection limit (value shown).

2015 Technical Report, Southeast County Landfill, Hillsborough County
Surface Water SW-3C2 Data Summary

Parameter	MCL	Units	2/18/2013	8/19/2013	2/11/2014	2/16/2015	8/24/2015
General Chemistry							
Ammonia- Un-ionized (NH3)	0.02	mg/L	0.00026	0.000017 U	0.00021	0.000035 U	0.00012 I
BOD	NS	mg/L	2 U	2 U	2 U	4.5	2 U
Carbon- Total Organic	NS	mg/L	12	13	11	9.3	14
Chlorophyll a	NS	ug/L	0.53	1.6	0.53	2.7	6.1
COD	NS	mg/L	26	45	15	36 I	49 I
Coliform Fecal	800	#/100 mL	350	300	190	220	90
Hardness	NS	mg/L	82	90	93	72	76
Nitrate (N)	NS	mg/L	0.1 U	0.1 U	0.1 U	0.18 U	0.18 U
Nitrate-Nitrite (N)	NS	mg/L	0.1 U	0.1 U	0.1 U	---	---
Nitrogen- Total	NS	mg/L	0.37 I	0.44 I	0.53 I	0.26	0.77
Phosphorus- Total	NS	mg/L	0.39	0.59	0.34	0.33	0.7
Residues- Filterable (TDS)	NS	mg/L	180	170	170	230	160
Residues- Nonfilterable (TSS)	NS	mg/L	1.2	7.2	4.8	1 U	2.6
Metals							
Antimony	4300	ug/L	2.3 U	2.3 U	2.3 U	8.6 U	0.47 I
Arsenic	50	ug/L	1.3 U	1.3 U	1.3 U	1.6 U	0.86 I
Barium	NS	ug/L	5.5	12	10	10	8.2
Cadmium	See Below	ug/L	0.095 U	0.095 U	0.095 U	0.24 U	0.056 U
Calculated Cadmium MCL	Calculated	ug/L	0.23	0.25	0.26	0.21	0.91
Chromium	See Below	ug/L	2.5 U	2.5 U	2.5 U	0.66 I	0.85 I
Calculated Chromium MCL	Calculated	ug/L	73.25	79.06	81.21	65.85	68.83
Cobalt	NS	ug/L	0.15 U	0.15 U	0.15 U	0.48 I	0.38 U
Copper	See Below	ug/L	1.1 U	1.1 U	1.1 U	2.2 I	0.22 U
Calculated Copper MCL	Calculated	ug/L	7.87	8.53	8.77	7.05	7.38
Iron	1000	ug/L	120	590	160	230	510
Lead	See Below	ug/L	0.2 U	0.2 U	0.2 U	3.2 U	0.48 U
Calculated Lead MCL	Calculated	ug/L	2.47	2.78	2.90	2.09	2.24
Nickel	See Below	ug/L	2 U	2 U	2 U	8.7 I	0.22 U
Calculated Nickel MCL	Calculated	ug/L	44.10	47.71	49.06	39.51	41.36
Selenium	5	ug/L	1 U	1.5 I	1 U	4.1 U	1.2 U
Silver	0.07	ug/L	0.25 U	0.25 U	0.25 U	0.63 U	0.054 U
Vanadium	NS	ug/L	3.8 U	3.8 U	3.8 U	2.4	2.4 I
Zinc	See Below	ug/L	8.3 U	8.3 U	8.3 U	15	11
Calculated Zinc MCL	Calculated	ug/L	101.27	109.58	112.67	90.71	94.96
Field Parameters							
Dissolved Oxygen	>= 5.0	mg/L	10.5	5.3	8.3	5.98	4.77
pH	6.0-8.5	SU	7.19	6.8	7.04	6.59	6.52
Specific Conductance	1275	umhos/cm	254	237	288	294	217
Temperature, Water	NS	deg C	11.7	25.1	18.17	16.09	28.63
Turbidity	29	NTU	1.06	2.31	1.29	2.28	2.47

Notes:

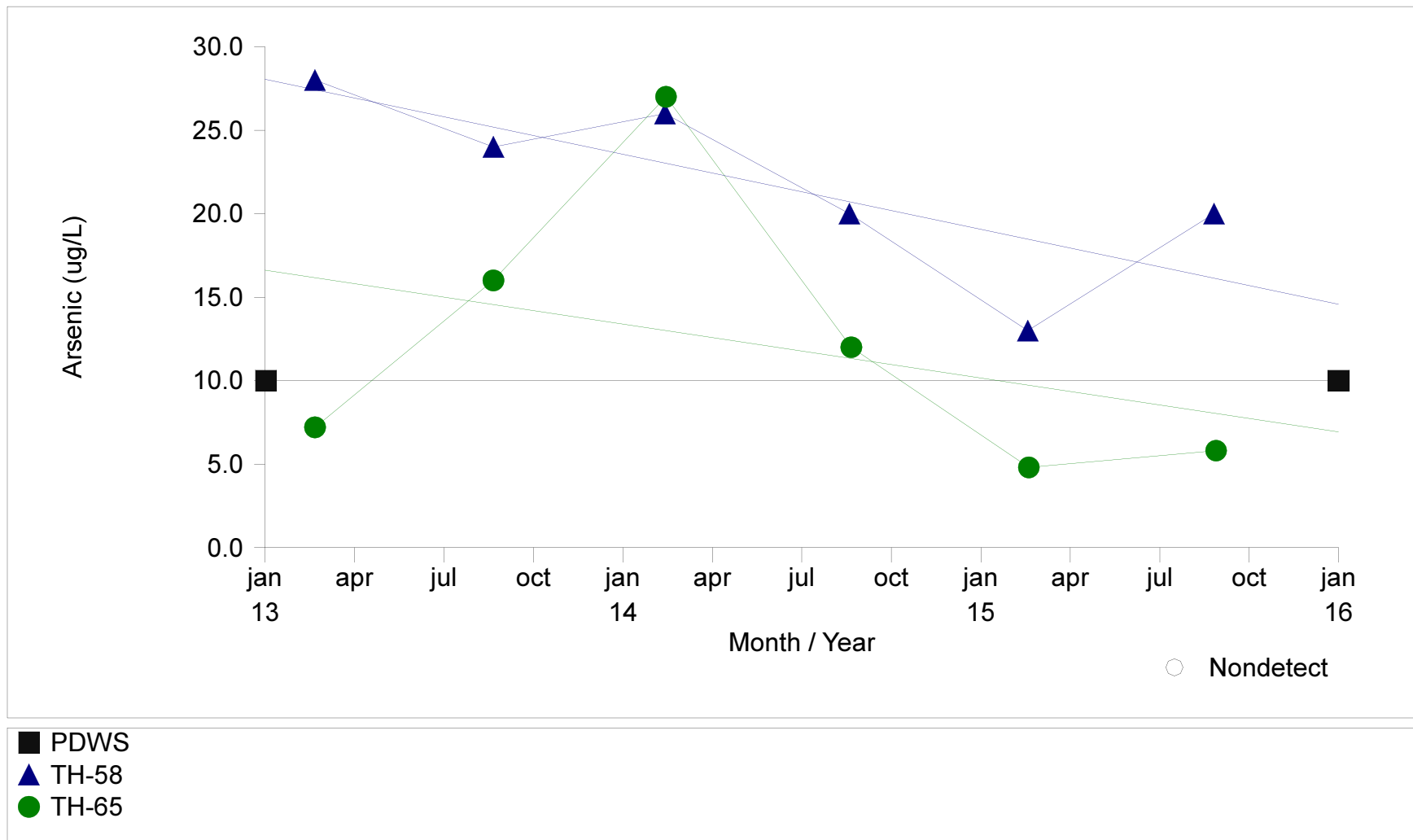
1. Parameter MCL is a Surface Water Criterion (Chapter 62-302 F.A.C.).
2. Parameter MCL is calculated by the following formula: $CrIII < e^{(0.819 * [ln Hardness] + 0.6848)}$.
3. Parameter MCL is calculated by the following formula: $Cu < e^{(0.8545 * [ln Hardness] - 1.702)}$.
4. Parameter MCL is calculated by the following formula: $Ni < e^{(0.846 * [ln Hardness] + 0.0584)}$.
5. Parameter MCL is calculated by the following formula: $Zn < e^{(0.8473 * [ln Hardness] + 0.884)}$.
6. Parameter MCL is calculated by the following formula: Cd
7. Parameter MCL is calculated by the following formula: Pb:
8. Turbidity MCL is 29 NTUs over background levels
9. MCL = Maximum Contamination Level.
10. Shaded = Sample result above the MCL.
11. mg/L = milligrams per liter.
12. ug/L = micrograms per liter.
13. umhos/cm = micromhos/centimeter
14. NTU = nephelometric turbidity units.
15. NS = No numeric standard has been set for this analyte.
16. I = Analyte detected below quantitation limits.
17. U = Analyte concentration was below the laboratory detection limit (value shown).

APPENDIX C

TIME SERIES PLOTS OF WATER QUALITY TRENDS

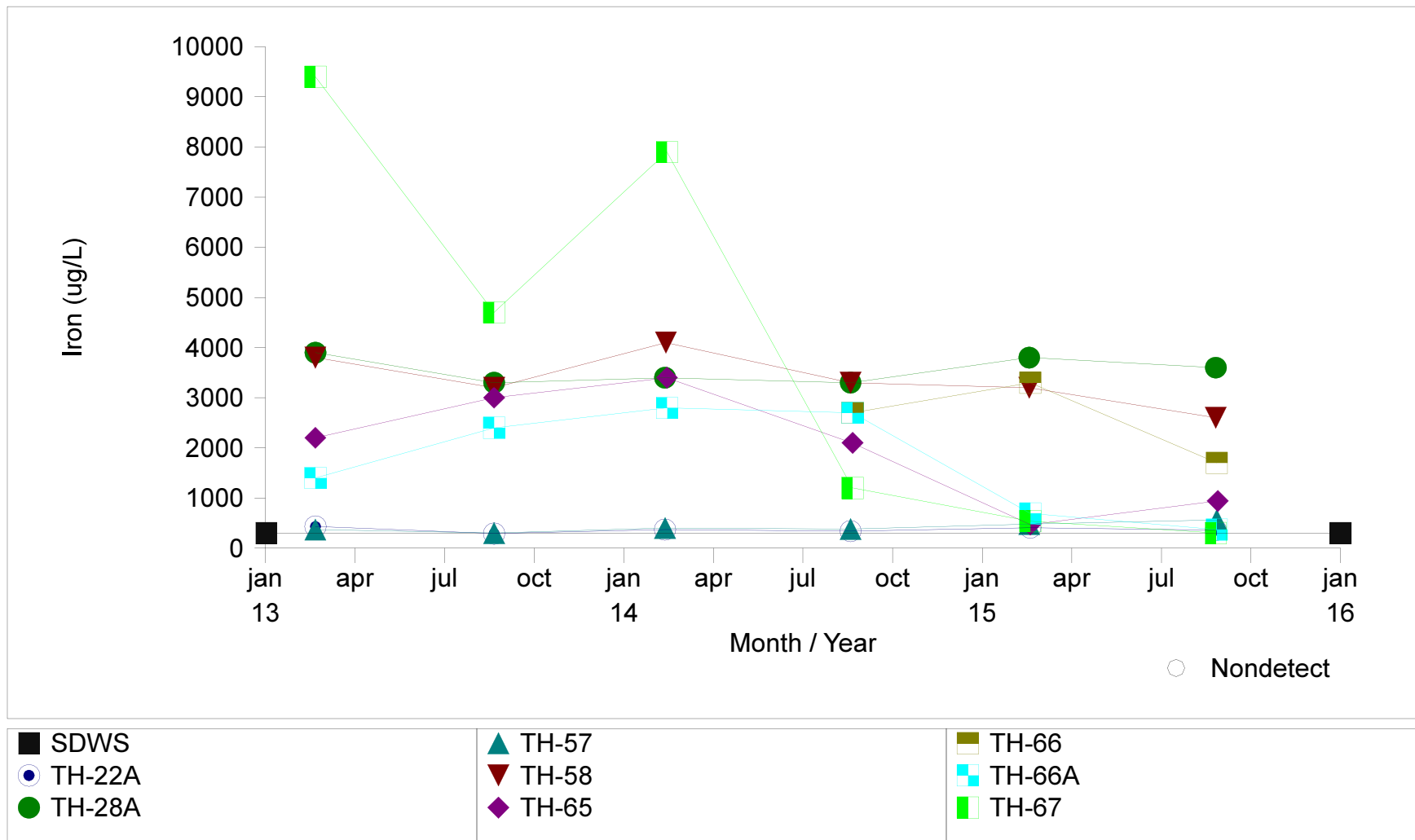
Southeast County Landfill

Time Series Plot for Arsenic



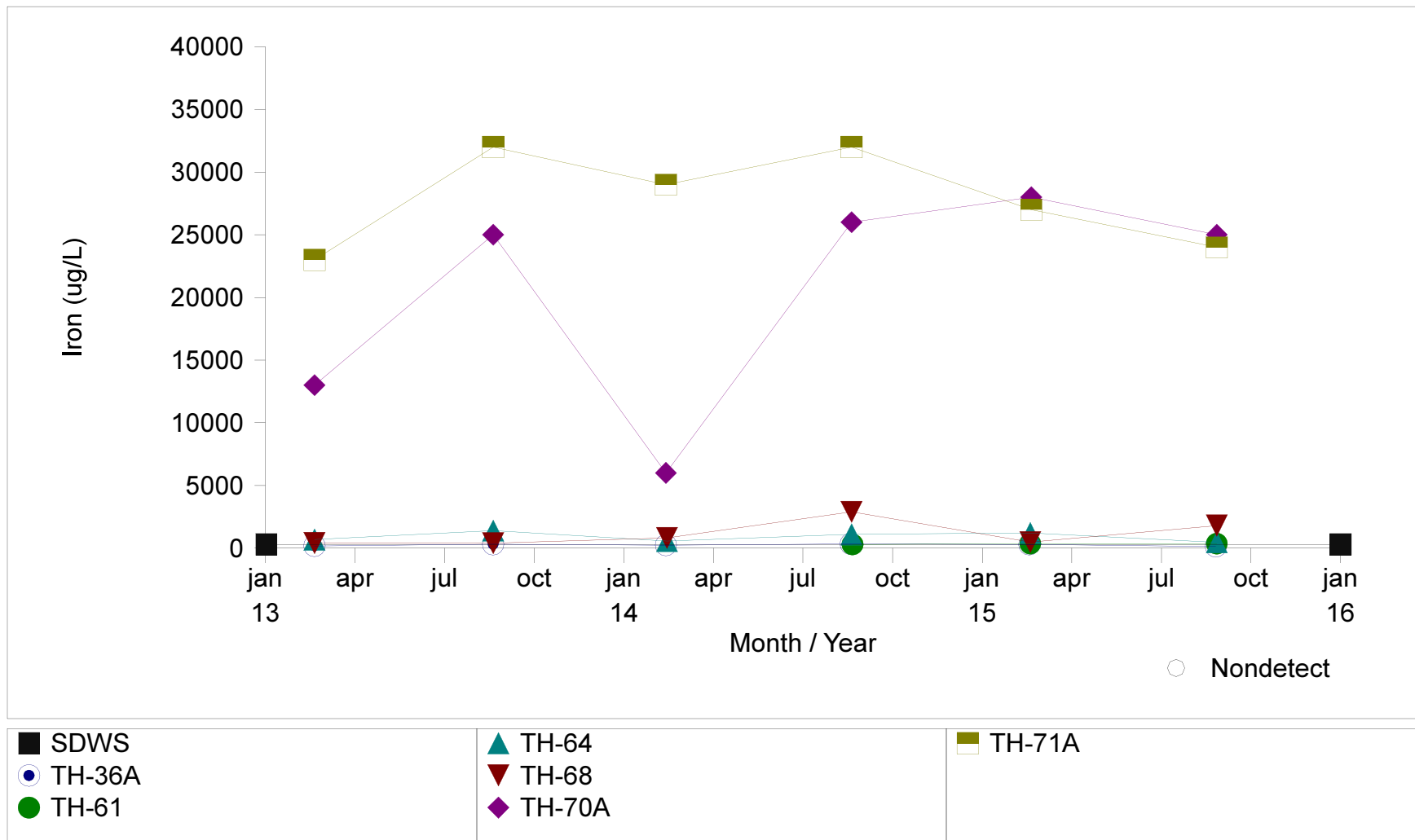
Southeast County Landfill

Time Series Plot for Iron



Southeast County Landfill

Time Series Plot for Iron



Southeast County Landfill

Time Series Plot for Residues- Filterable (TDS)

