



Southeast County Landfill Technical Water Quality Monitoring Report August 2018 through August 2020

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

SCS ENGINEERS

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**TECHNICAL WATER QUALITY MONITORING REPORT
AUGUST 2018 THROUGH AUGUST 2020**

**Southeast County Landfill
Lithia, Florida**

Submitted to:

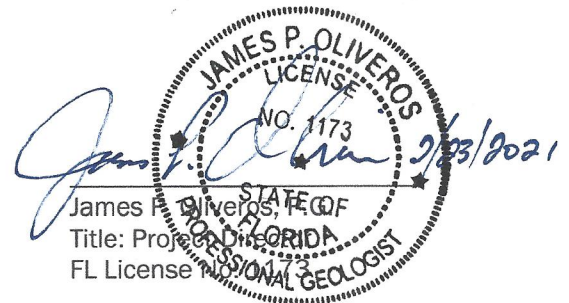
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1 INTRODUCTION

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

This report was prepared in general accordance with the Florida Department of Environmental Protection (FDEP) Permit/Certification No. 35435-028-SO/MM, Water Quality Monitoring Plan (WQMP), and Chapter 62-701.510(8)(b) of the 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 August 2018 through August 2020. Locations of monitoring sites are shown on **Figure 1** included in **Appendix A**.

Field work, sampling methodologies, data evaluation, and 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).

BACKGROUND

During the February 2016 groundwater monitoring event at the SCLF, the County observed that total dissolved solids (TDS), chlorides, and iron concentrations at monitoring well TH-67 exhibited elevated levels in excess of the applicable drinking water standards. TH-67 is a detection well approximately 45 feet east of the Phase II disposal unit and monitors the surficial aquifer at the SCLF. Since that time, the SWMD and its engineering consultant, SCS, have been conducting investigations of potential causes for the elevated readings and have implemented measures to mitigate the possibility of reoccurrence.

These measures were implemented under Consent Agreement No. 17-0058 and included, but was not limited to, the installation and sampling of additional monitoring wells. On December 11, 2020, FDEP issued a letter indicating that it considers the matters outlined in Consent Agreement No. 17-0058 closed. SCS is currently preparing a Contamination Evaluation Report summarizing groundwater conditions in the vicinity of the elevated concentrations of parameters in groundwater. The report will be submitted under separate cover.

2 GROUNDWATER FLOW EVALUATION

Potentiometric maps of the surficial aquifer were prepared by the County from surficial aquifer well data for the following reporting events: August 2018, February and August 2019, February and August 2020 (**Appendix A**). The potentiometric maps are prepared with a 2-foot contour interval, and groundwater flow is typically perpendicular to the potentiometric contours. The maps indicate that the general direction of flow observed at the site is to the northwest and west, depending on specific location within the site's boundaries, which is consistent with the historical data. In some instances, especially during periods of low precipitation, groundwater flow direction near the southeast corner of Phase II flows to the east or southeast. It appears that the water elevation in surface water body Mine Cut 1 influences the flow direction in this area of the site.

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 summary tables of laboratory analytical data, listing water quality detections and exceedances. In accordance with Chapter 62-701, FAC, groundwater results were compared to the Primary Drinking Water Standards maximum contaminant levels (Primary MCLs) and Secondary MCLs listed in Chapter 62-550, FAC. For this technical report, Groundwater Cleanup Target Levels (GCTLs) in Rule 62-777, FAC were used as screening levels for constituents that do not have a Primary or Secondary MCL, as specified in General Condition 3, Appendix 3 of the permit. 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 constituents are included in **Appendix C**. Graphs of concentration trends are provided for constituents which periodically exceeded applicable MCLs and/or exhibited visually identified trends (by visual review of the graphs, not statistical analysis) in concentrations over time. Laboratory analytical data from August 2018 through August 2020 semi-annual and quarterly sampling events were used in the graphs of water quality data. The following section discusses exceedances and includes related trends.

Metals Exceedances and Trends

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

- Arsenic
- Iron
- Sodium
- Vanadium

These exceedances are discussed in the proceeding subsections and are included in **Appendix B**. Applicable trends are discussed based on the time series plots in **Appendix C**.

Arsenic

The Primary MCL of 10 micrograms per liter ($\mu\text{g/L}$) was exceeded at surficial aquifer monitoring wells TH-58 (August 2018 through August 2020) and TH-65 (August 2018; August 2019 through August 2020). The trend chart for arsenic is included in **Appendix C**.

Arsenic concentrations in monitoring well TH-65 appears to be increasing for the technical reporting period. Based on the overall groundwater quality (i.e., field parameter readings and low concentrations of typical leachate indicator parameters in these wells), the presence of arsenic in the groundwater does not appear to be related to a landfill impact and is likely related to natural causes, such as the dissolution of naturally-occurring arsenic from soil due to oxidation-reduction changes. Conversely, the arsenic concentration in TH-58 appears to remain relatively stable through the reporting period.

Iron

The concentration of iron in the groundwater ranged from an estimated 25 µg/L to 60,000 µg/L in the surficial aquifer and from undetected to 560 µg/L in the Floridan aquifer. The Secondary MCL of 300 µg/L was exceeded at all locations except for surficial aquifer monitoring well TH-36A and Floridan aquifer monitoring wells TH-19, TH-40, and TH-78. Site wide values for iron are consistent with historical groundwater data dating to the 1983 Ardaman and Associates Hydrogeological Report. The trend charts (**Appendix C**) indicate iron concentrations are generally decreasing or staying constant in the surficial aquifer at the SCLF for the technical reporting period.

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 discussed in prior documentation, 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 naturally occurring and not attributable to the landfill. This is supported by the elevated iron concentrations at site-designated background well TH-22A.

Iron was detected at a concentration above the MCL in upper Floridan aquifer monitoring well TH-72. The value observed was consistent with historical 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.

Sodium

The sodium Primary MCL of 160 mg/L was exceeded in a single occurrence in monitoring well TH-83 (May 2020). Sodium concentrations were below the MCL for other monitoring events reviewed as part of this report. The trend chart for sodium is included in **Appendix C**. An increasing trend is visually apparent for the technical report period. This trend is due to the migration of constituents associated with a release of leachate that was the subject of a recently closed Consent Agreement No. 17-0058. Detailed analyses of sodium concentration trends (in addition to other leachate indicator parameters) will be addressed in a Contamination Evaluation Report that is forthcoming as part of the requirements of 62-701.510(6)(c) FAC. The analytical results from TH-83 will continue to be closely monitored as part of the sampling and reporting requirements of the Evaluation Monitoring Program.

Vanadium

The vanadium screening level GCTL of 49 µg/L was exceeded in detection well TH-66A during the August 2020 monitoring event, and at detection well MW-61A during the August 2018 and August 2019 monitoring events. Based on low vanadium concentrations during other monitoring events over the period covered by this report, these concentrations appear to be inconsistent with typically observed values. Furthermore, based on the low concentrations of typical leachate indicator parameters in these wells, the presence of vanadium in the groundwater does not appear to be related to a landfill impact and is likely related to natural causes, such as the dissolution of naturally-occurring vanadium from soil.

Organic Parameters Exceedances and Trends

Organic parameters were not detected above applicable MCLs and/or screening level 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 MCLs and/or screening level GCTLs for at least one sampling event in the technical report period of record include:

- Ammonia
- Chloride
- pH
- TDS

These parameters are discussed in the proceeding subsections and are included in **Appendix B**. Applicable trends are discussed based on the time series plots in **Appendix C**.

Ammonia

The screening level GCTL of 2.8 milligrams per liter (mg/L) was exceeded at surficial aquifer monitoring wells TH-28A (February 2020), TH-67 (August 2020), TH-71A (August 2020), TH-79 (August 2020); Floridan aquifer monitoring well TH-72 (August 2018 through August 2020); and evaluation monitoring well TH-83 (November 2018 through August 2020). As previously noted, the GCTL is only used as a screening value. Furthermore, 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 unionized ammonia at the surface water locations. Therefore, the ammonia detections at TH-28A, TH-67, TH-71A, TH-72, TH-79, and TH-83 are not considered exceedances.

The source of the elevated ammonia at TH-72 is attributable to waste in the throat of the repaired sinkhole. Ammonia concentrations in well TH-83 increased over the monitoring period, and they will be closely watched during future monitoring events conducted as part of the Evaluation Monitoring Program.

Chloride

Chloride exceeded the Secondary MCL of 250 mg/L in surficial aquifer monitoring well TH-71A (February 2019 through August 2020) and Floridan aquifer monitoring well TH-72 (February 2019). The MCL was also exceeded in evaluation monitoring well TH-83 (August 2019 and May 2020). The chloride concentrations in TH-71A and TH-83 show an increasing trend for the technical report period while the concentrations in TH-72 appear to be decreasing or stable. As with sodium, the TH-83 fluctuations are related to an apparent historical release of leachate and will be addressed in detail in the forthcoming Contamination Evaluation Report. Chloride trends related to poor drainage and access road fill that contains high chlorides at TH-71A have previously been discussed with FDEP, and measures to improve surface water drainage in the area have been conducted by SWMD. SCS expects that the surface water drainage improvements and alteration of access road drainage will result in improved TH-71A water quality.

The source of the elevated chloride at TH-72 is 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. Analytical results from these wells will be closely monitored in the future during routine groundwater sampling events and as part of the Evaluation Monitoring Program, as applicable. The trend chart for chloride is included in **Appendix C**.

pH

Each of the 16 surficial aquifer detection and background water quality monitoring wells continue to exhibit pH values below the Secondary MCL acceptable range of 6.5 to 8.5 standard pH units, with the lowest pH value measured at 4.26. Surficial aquifer pH has historically been below the acceptable range, which is common in Florida where limestone is not found close to the surface. 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, including the 1983 Ardaman and Associates Hydrogeological Investigation, as well as background water quality.

Each of the four upper Floridan aquifer (limestone) 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

TDS exceeded the Secondary MCL of 500 mg/L in surficial monitoring wells TH-69A (August 2020) and TH-71A (August 2018 through August 2020); Floridan aquifer monitoring well TH-72 (August 2018 through August 2020); and evaluation monitoring well TH-83 (May 2019 through August 2020). TDS concentrations in wells TH-69A, TH-71A, and TH-83 appear to be increasing for the technical report period. TDS concentrations in well TH-72 appear to be decreasing. The trend charts for TDS is included in **Appendix C**. The analytical results from these wells will be closely monitored in the future.

The source of the elevated TDS at TH-71A is believed to be from the iron bacteria developing in this well. Prior to the timeframe of this report, the initial TDS MCL exceedance at TH-71A was in February 2013. At the time, it was believed there was some influence of surface runoff from the egress road to the working face. Stormwater was eventually diverted away from this location and towards the western ditch. Additional grading to promote surface water drainage was conducted in 2019. 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) downstream of Section 9.

The source of the elevated TDS at TH-72 is 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 in the following subsections and are based on the exceedance tables included in **Appendix B**.

Iron

The CSWQ of 1,000 µg/L was exceeded at upstream surface water monitoring site SW-3B2B (August 2019) and discharge location SW-3C2 (August 2019). The detection of iron at SW-3B2B and SW-3C2 during August 2019 appear to be anomalies, as concentrations were below the CSWQ during the previous and subsequent monitoring events. Additionally, both the upstream and downstream monitoring locations exhibited elevated iron concentrations. This suggests that the elevated iron is not related to landfill operations, but will continue to be closely monitored in future sampling events. With the exception of August 2019, the downstream monitoring location (SW-3C2), continues to remain in compliance with criteria for surface water discharged off site into Long Flat Creek.

Fecal Coliform

The CSWQ of 800 colonies/100 ml was exceeded at surface water monitoring sites SW-3B2B (February 2019 through August 2020) and SW-3C2 (August 2020). With the exception of August 2020, the downstream monitoring location (SW-3C2) continues to remain in compliance with criteria for surface water discharged off site into Long Flat Creek.

pH

The CSWQ of 6.5-8.5 SU for pH was exceeded at upstream surface water monitoring location SW-3A (August 2018 through August 2020), and surface water monitoring sites Mine Cut-1D (August 2018 and February 2019), SW-3B2B (February 2019 through August 2020), and SW-3C2 (February 2019). With the exception of February 2019, the downstream monitoring location (SW-3C2), continues to remain in compliance with criteria for surface water discharged off-site into Long Flat Creek. The recent data remains consistent with historical data and background water quality. The recent data also remains consistent with the 1983 Hydrogeological Investigation by Ardaman and Associates, which was conducted prior to landfill construction.

Dissolved Oxygen

The CSWQ of greater than 5.0 mg/L was not met at upstream surface water monitoring locations SW-3A, Mine Cut-1D, and periodically not met at upstream location SW-3B2B and downstream monitoring location SW-3C2. The results at the downstream location were consistently higher (more favorable) than at the upstream location, indicating that the landfill is not impacting surface water quality.

ERRATIC AND POORLY CORRELATED DATA

No other erratic or poorly correlated data were observed in the water quality substantive analyses. Water quality is consistent over the period of record and no evidence of offsite migration of monitored constituents has been observed.

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 upstream groundwater and groundwater that potentially could be affected by the presence of the landfill.

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 upstream end of the flow arrows with compliance wells located at the downstream end within or at the edge of the Zone of Discharge (ZOD). The groundwater on site is monitored by a series of background, detection, and compliance wells.

Currently, there is one surficial aquifer background monitoring well at the SCLF for Phase I-VI (TH-22A). This monitoring well is located hydraulically upstream from Phase I-VI and provides 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 upstream from the Capacity Expansion Area (CEA) and provides sufficient surficial aquifer background data for the SCLF.

Currently, there is one Floridan aquifer background monitoring well at the SCLF site (TH-19). This monitoring well is located hydraulically upstream from the site and provides sufficient Floridan aquifer background data for the SCLF.

Currently, there is one surface water sampling location at SCLF (SW-3A) located upstream from the site. This location provides sufficient surface water data for the SCLF.

The geographic location of the detection wells and surface water sites appear 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 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, which provides 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; therefore, the SCLF will maintain the current groundwater quality monitoring frequency. This determination is supported by the analysis of the monitoring frequency based on calculation of flow velocities across the site, which were determined to be low, included in the Operation Plan Minor Modification Application, dated June 15, 2020, which was approved by the FDEP and incorporated into the current solid waste permit. Monitoring frequency of wells associated with the Evaluation Monitoring Program requirements will be addressed in the forthcoming Contamination Evaluation Report.

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 for wells listed in the WQMP. Wells associated with the Evaluation Monitoring Program will be sampled in accordance with program requirements.

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 modified in November 2015 to add monitoring wells TH-72 and TH-78. TH-72 is located immediately adjacent to the sinkhole, and TH-78 is located downgradient at the edge of the ZOD. Groundwater impacts have not been observed at TH-78. Thus, as long as the sinkhole repair remains stable, we do not anticipate any adverse impacts to groundwater quality.


SUMMARY OF PHASE II RELATED DETECTIONS

Based on review of the groundwater monitoring data and other geophysical surveys, the corrective actions at the site are contributing to the declining trends of the initial exceedances of sodium, chloride, and TDS in most wells adjacent to Phase II. However, the concentrations of the target parameters at well TH-83 continue to exceed background and screening level concentrations as discussed in Evaluation Monitoring Program implementation and planning among SCS, SWMD, and FDEP. As indicated in the November 20, 2020 letter from FDEP to the County, the FDEP considers the Consent Agreement and associated corrective actions closed. Additional monitoring and evaluation of TH-83 will be conducted under the Evaluation Monitoring Program as described in 62-701.510(6)(a) FAC. Details will be provided in the forthcoming Contamination Evaluation Report.

SUMMARY OF OTHER DETECTIONS

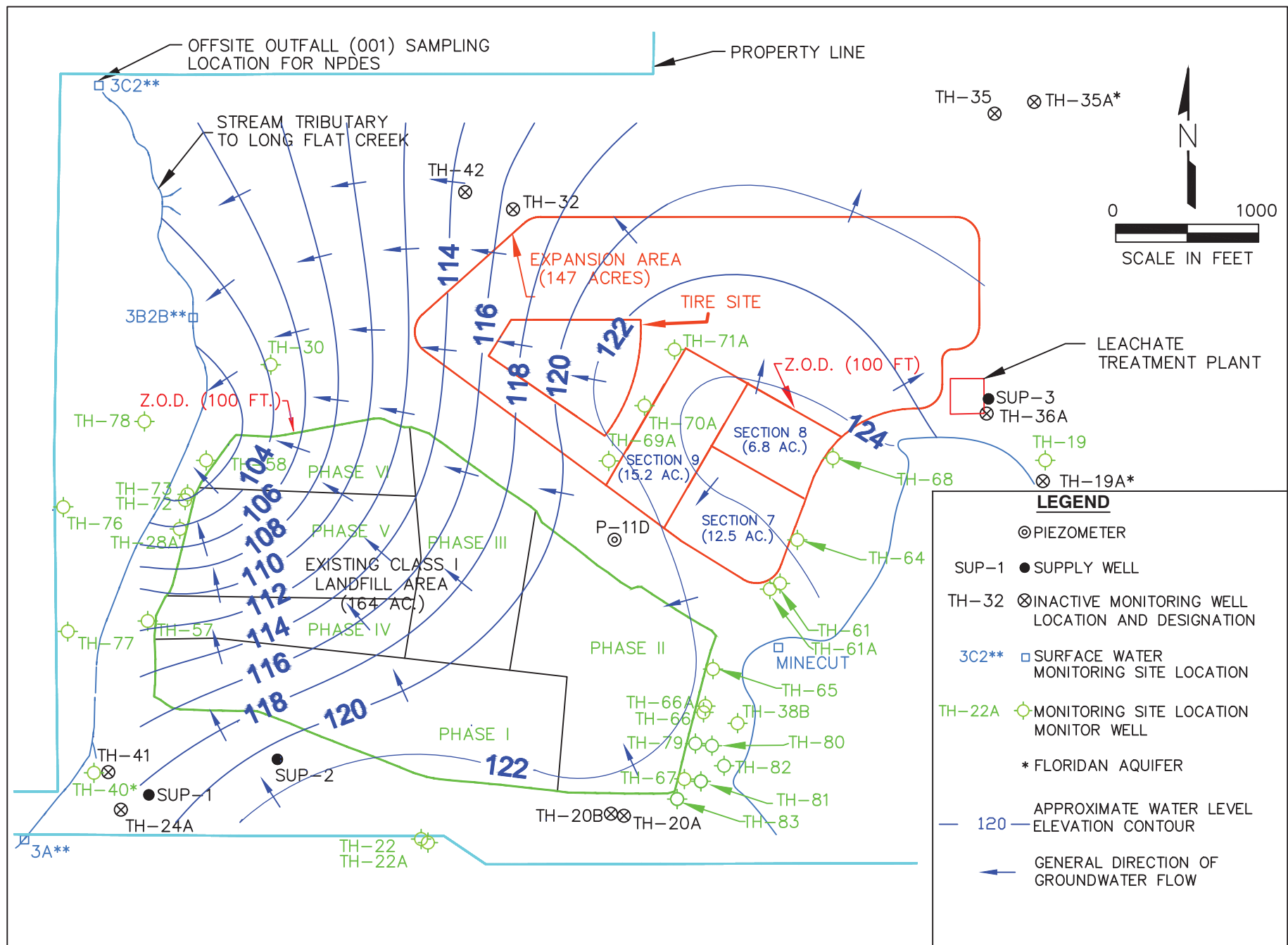
Based on review of the groundwater monitoring data, most data at the site is within regulatory limits and/or are consistent with historical data and background conditions. However, concentrations of sodium, chloride, and TDS in wells TH-69A and TH-71A were noted to be increasing. Recent leachate samples from the CEA are exhibited by high levels of ammonia. Ammonia concentration trends in TH-69A and TH-71A do not appear to be increasing over the subject period, indicating that the elevated parameters are related to surface water and preexisting soil properties, not to landfill leachate. The concentration of increasing parameters in TH-69A and TH-71A will be closely monitored during future sampling events to assess the effectiveness of recent corrective measures.

As discussed in a letter dated August 15, 2019, stormwater ponding in the area of well TH-71A appeared to be impacting water quality in the well. Accumulated sediment in the terrace swale upslope of the well was removed, and the area was regraded to promote stormwater drainage. SCS anticipates that water quality in this well will improve in the near future as a result of these activities.

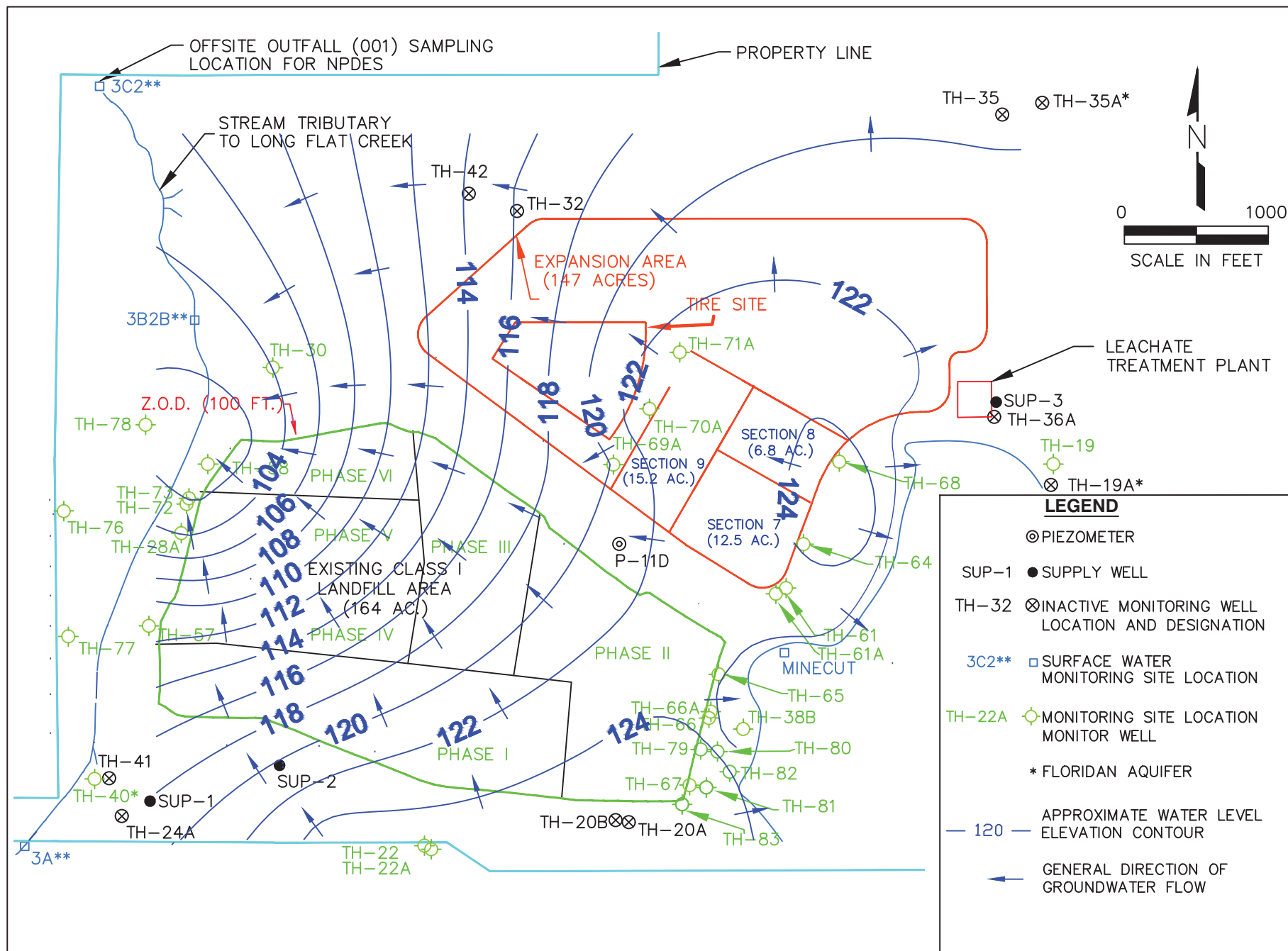


Appendix A

Potentiometric Maps



Southeast County Landfill
 Surficial Aquifer Groundwater Elevation Contour Diagram – August 20, 2018



Southeast County Landfill
Surficial Aquifer Groundwater Elevation Contour Diagram – August 12, 2019

SOUTHEAST COUNTY LANDFILL
SURFICIAL AQUIFER GROUNDWATER
CONTOUR MAP
FEBRUARY 2020

2020 AERIAL PHOTO

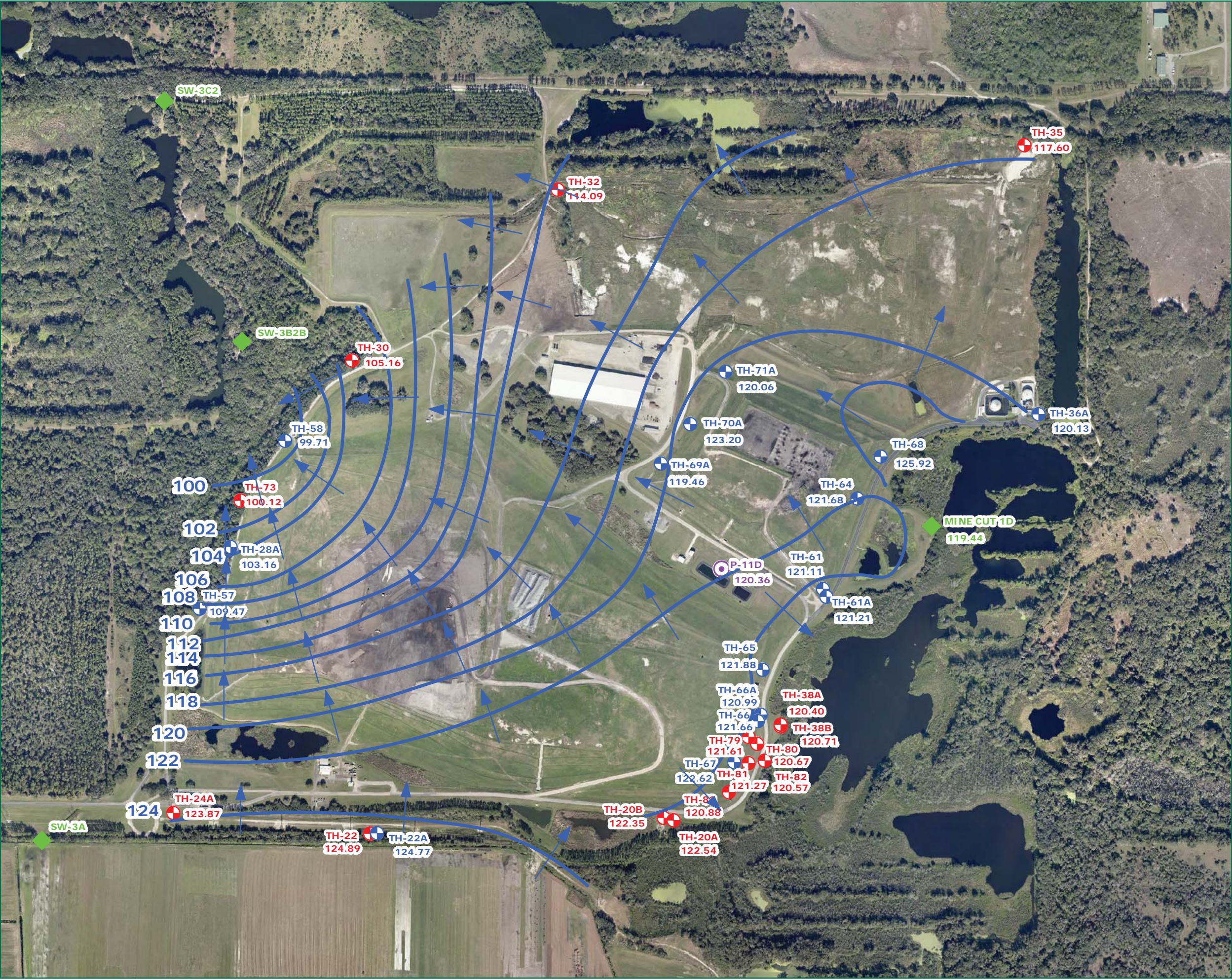


Hillsborough
County Florida

Legend

Well Designation

- ◆ Surface Water Sites
- Piezometer
- ⊕ Active Monitor Wells
- ⊖ Inactive Monitor Wells (Used For Water Levels)



NOTE: Every reasonable effort has been made to assure the accuracy of this map. Hillsborough County does not assume any liability arising from use of this map. THIS MAP IS PROVIDED WITHOUT WARRANTY OF ANY KIND, either expressed or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

SOURCE: This map has been prepared for the inventory of real property found within Hillsborough County and is compiled from recorded deeds, plats, and other public records. It has been based on BEST AVAILABLE data.

Users of this map are hereby notified that the aforementioned public primary information sources should be consulted for verification of the information contained on this map.

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SOUTHEAST COUNTY LANDFILL
SURFICIAL AQUIFER GROUNDWATER
CONTOUR MAP
AUGUST 2020

2020 AERIAL PHOTO



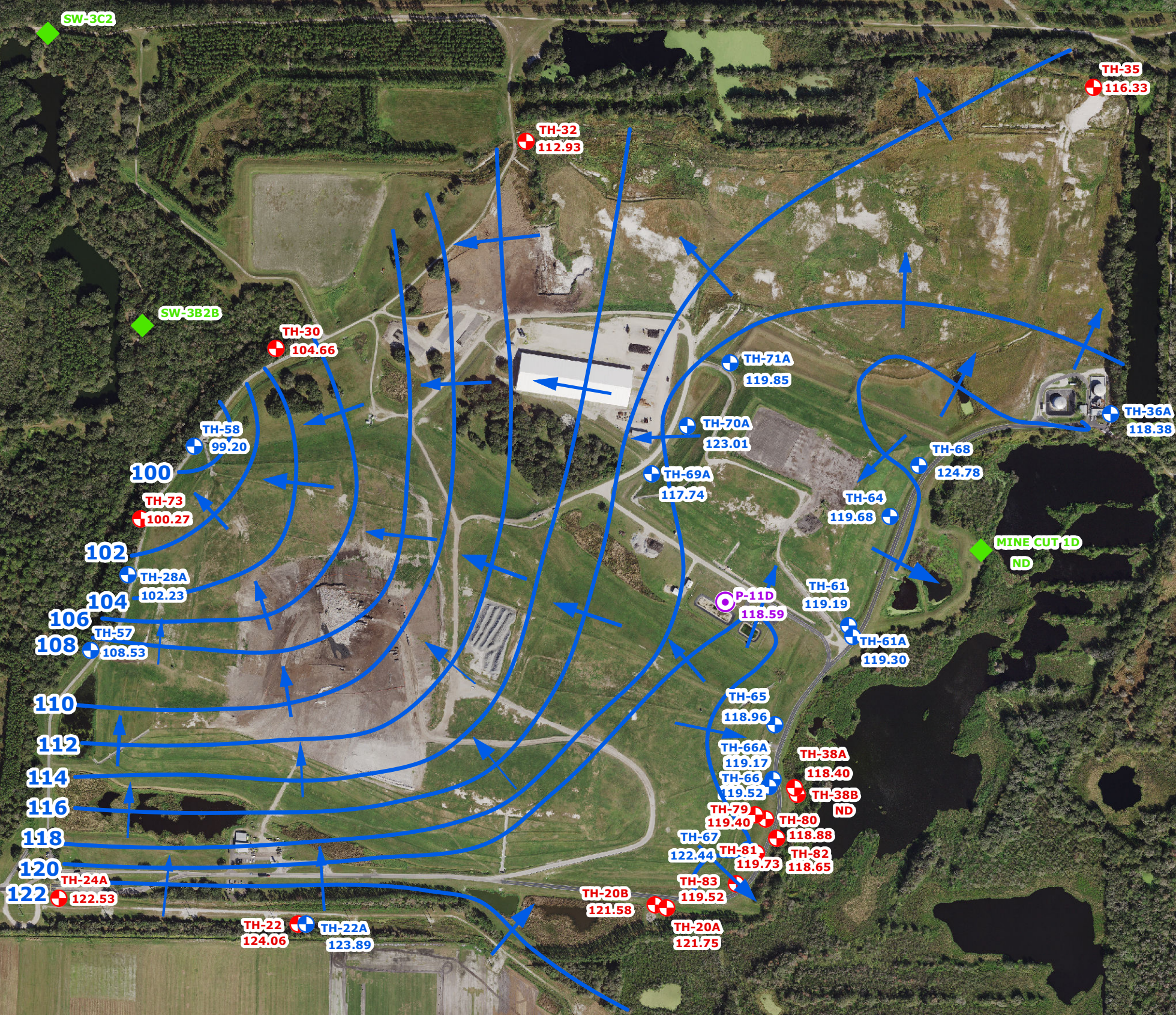
Hillsborough
County Florida

Legend

Well Designation

- ◆ Surface Water Sites
- ⊙ Piezometer
- ⊕ Active Monitor Wells
- ⊕ Inactive Monitor Wells
(Used For Water Levels)

ND = No Data




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Appendix B

Tables of Exceedances and Detections

Groundwater Summary of Detected Parameters, TH-19

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.98	0.11 U	0.12 U	0.11 U	0.11 U
Arsenic	PDWS	10	ug/L	0.14 I	0.077 U	0.077 U	0.077 U	0.077 U
Barium	PDWS	2000	ug/L	5.5	4.4	5.1	5.1	5.2
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Iron	SDWS	300	ug/L	21 U	26 U	26 U	140 U	200 U
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	14	14	13	15	14
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
Zinc	SDWS	5000	ug/L	9.7 I	7.4 U	7.4 U	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.26	0.33	0.24	0.25	0.44
Chloride	SDWS	250	mg/L	7.5	8.3	8.2	8	7.9
Nitrate (N)	PDWS	10	mg/L	0.39	0.18 U	0.079 U	0.079 U	0.24
Residues- Filterable (TDS)	SDWS	500	mg/L	290	310	250	280	310
Field Parameters								
Conductivity	NS	NS	umhos/cm	423.6	419.7	411	404.8	404.7
Dissolved Oxygen	NS	NS	mg/L	0.29	0.17	0.11	0.23	0.17
Oxidation Reduction Potential	NS	NS	mV	-92.5	-55.5	-75.5	-20.9	-32.8
pH	SDWS	6.5-8.5	SU	7.30	7.08	7.40	7.20	7.19
Temperature, Water	NS	NS	Degrees C	23.6	23.4	23.5	23.2	23.6
Turbidity	NS	NS	NTU	1.23	0.37	0.87	0.44	0.22

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-20B

Parameter	Standard	MCL	Unit	Jul-18	Nov-18	Feb-19	May-19
Volatile Organic Compounds							
Acetone	GCTL	6300	ug/L	---	---	---	---
Tetrachloroethene	PDWS	3	ug/L	---	---	---	---
Metals							
Antimony	PDWS	6	ug/L	---	---	---	---
Arsenic	PDWS	10	ug/L	---	---	---	---
Barium	PDWS	2000	ug/L	---	---	---	---
Beryllium	PDWS	4	ug/L	---	---	---	---
Cadmium	PDWS	5	ug/L	---	---	---	---
Chromium	PDWS	100	ug/L	---	---	---	---
Cobalt	GCTL	140	ug/L	---	---	---	---
Copper	SDWS	1000	ug/L	---	---	---	---
Iron	SDWS	300	ug/L	---	---	---	---
Lead	PDWS	15	ug/L	---	---	---	---
Mercury	PDWS	2	ug/L	---	---	---	---
Nickel	PDWS	100	ug/L	---	---	---	---
Selenium	PDWS	50	ug/L	---	---	---	---
Silver	SDWS	100	ug/L	---	---	---	---
Sodium	PDWS	160	mg/L	---	20	---	---
Thallium	PDWS	2	ug/L	---	---	---	---
Vanadium	GCTL	49	ug/L	---	---	---	---
Zinc	SDWS	5000	ug/L	---	---	---	---
General Chemistry							
Ammonia (N)	GCTL	2.8	mg/L	1.8	1.9	2.1	1.6
Chloride	SDWS	250	mg/L	25.7	72	27	65
Nitrate (N)	PDWS	10	mg/L	---	---	---	---
Residues- Filterable (TDS)	SDWS	500	mg/L	206	260	190	250
Field Parameters							
Conductivity	NS	NS	umhos/cm	257	390.5	255.1	350.5
Dissolved Oxygen	NS	NS	mg/L	0.11	0.11	0.13	0.36
Oxidation Reduction Potential	NS	NS	mV	32	30.7	-13.9	13.8
pH	SDWS	6.5-8.5	SU	5.92	5.41	5.67	5.5
Temperature, Water	NS	NS	Degrees C	25.9	26	23	23.5
Turbidity	NS	NS	NTU	19	2.65	1.89	3.77

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-22A

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	2.1 U	1 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.11 U	0.11 U	0.38 I	0.11 U	0.11 U
Arsenic	PDWS	10	ug/L	0.29 I	0.66 I	0.34 I	0.28 I	0.26 I
Barium	PDWS	2000	ug/L	44	26	33	30	30
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	4	1.4 I	1.3 I	0.74 I	0.11 U
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Iron	SDWS	300	ug/L	460	950	370	300	210 I
Lead	PDWS	15	ug/L	0.41 I	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Selenium	PDWS	50	ug/L	0.59 I	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	2.9	3.2	2.8	2.7	2.4 I
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	2.5	1.3 I	1.5 I	1.3 I	1.3 I
Zinc	SDWS	5000	ug/L	10 I	7.4 U	9.2 I	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.23	0.58	0.21	0.22	0.49
Chloride	SDWS	250	mg/L	6.8	9.3	7.3	7.9	15
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	110	170	70	120	220
Field Parameters								
Conductivity	NS	NS	umhos/cm	180.9	177.4	161.6	158.2	166.4
Dissolved Oxygen	NS	NS	mg/L	0.1	0.11	0.12	0.56	0.67
Oxidation Reduction Potential	NS	NS	mV	-2.8	73.2	20.8	132.9	123.9
pH	SDWS	6.5-8.5	SU	4.52	4.47	4.77	4.52	4.44
Temperature, Water	NS	NS	Degrees C	24.4	20.9	25	21.4	25.2
Turbidity	NS	NS	NTU	17.6	8.01	5.9	1.69	0.49

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-28A

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	1 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Arsenic	PDWS	10	ug/L	1.3	1.3	1.2	2.1	1.1
Barium	PDWS	2000	ug/L	1.7	1.7	1.7	3	1.6
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	1.3 I	1.2 I	1.4 I	1.8 I	0.2 I
Cobalt	GCTL	140	ug/L	0.5 I	0.36 I	0.47 I	0.39 I	0.43 I
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	1.3
Iron	SDWS	300	ug/L	3500	4500	4800	5200	3300
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.33 I	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	21	25	24	31	22
Thallium	PDWS	2	ug/L	0.092 I	0.07 I	0.073 I	0.07 I	0.057 U
Vanadium	GCTL	49	ug/L	1.3 I	1.3 I	1.4 I	1.7 I	1.2 I
Zinc	SDWS	5000	ug/L	67	7.4 U	9.3 I	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	2.3	2.7	1.8	3.1	2.5
Chloride	SDWS	250	mg/L	58 J	91 J	71	94	66
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	200	290	390	260	210
Field Parameters								
Conductivity	NS	NS	umhos/cm	311.7	397	301.5	449	285.7
Dissolved Oxygen	NS	NS	mg/L	0.39	0.52	0.33	0.86	0.59
Oxidation Reduction Potential	NS	NS	mV	-89.6	-35.8	-45.6	50.6	36.2
pH	SDWS	6.5-8.5	SU	5.07	5.05	5.24	5.14	4.95
Temperature, Water	NS	NS	Degrees C	28.3	27.9	28.4	27	29.6
Turbidity	NS	NS	NTU	2.68	3.07	2.24	6.43	3.75

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-36A

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-19	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.38 I	0.11 U	0.33 I	0.11 U	0.2 I
Arsenic	PDWS	10	ug/L	0.54 I	0.43 I	0.44 I	0.44 I	0.54 I
Barium	PDWS	2000	ug/L	7.5	5.8	8.3	4.6	6.6
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.79 I	0.54 I	0.6 I	0.68 I	0.45 I
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 I	0.35 U	0.35 U	0.35 U	0.35 U
Iron	SDWS	300	ug/L	170	190	49 I	140 U	200 U
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	4.6	4.1	4.2	4.6	8.8
Thallium	PDWS	2	ug/L	0.062 I	0.057 U	0.057 U	0.066 I	0.088 I
Vanadium	GCTL	49	ug/L	2.4	1.2 I	14	1.7 I	3.8
Zinc	SDWS	5000	ug/L	11	7.4 U	8.2 I	7.4 I	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.44	0.15	0.029 U	0.09 I	0.22
Chloride	SDWS	250	mg/L	6.9	9.4	8.9	5	38
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.096 I	0.079 U	0.14 J
Residues- Filterable (TDS)	SDWS	500	mg/L	120	110	130	140	250
Field Parameters								
Conductivity	NS	NS	umhos/cm	185.2	201.9	210.2	173	267.5
Dissolved Oxygen	NS	NS	mg/L	0.26	1.27	0.51	0.51	0.91
Oxidation Reduction Potential	NS	NS	mV	72.5	53.2	135.5	81.7	106.3
pH	SDWS	6.5-8.5	SU	5.64	5.61	5.74	5.75	5.65
Temperature, Water	NS	NS	Degrees C	25.4	25.3	25.3	25.4	26
Turbidity	NS	NS	NTU	2.99	4.5	4.48	4.08	5.51

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-38B

Parameter	Standard	MCL	Unit	Jul-18	Nov-18	Feb-19	May-19
Volatile Organic Compounds							
Acetone	GCTL	6300	ug/L	--	--	--	--
Tetrachloroethene	PDWS	3	ug/L	--	--	--	--
Metals							
Antimony	PDWS	6	ug/L	--	--	--	--
Arsenic	PDWS	10	ug/L	--	--	--	--
Barium	PDWS	2000	ug/L	--	--	--	--
Beryllium	PDWS	4	ug/L	--	--	--	--
Cadmium	PDWS	5	ug/L	--	--	--	--
Chromium	PDWS	100	ug/L	--	--	--	--
Cobalt	GCTL	140	ug/L	--	--	--	--
Copper	SDWS	1000	ug/L	--	--	--	--
Iron	SDWS	300	ug/L	--	--	--	--
Lead	PDWS	15	ug/L	--	--	--	--
Mercury	PDWS	2	ug/L	--	--	--	--
Nickel	PDWS	100	ug/L	--	--	--	--
Selenium	PDWS	50	ug/L	--	--	--	--
Silver	SDWS	100	ug/L	--	--	--	--
Sodium	PDWS	160	mg/L	2.48 I	2.5	2.1	2.9
Thallium	PDWS	2	ug/L	--	--	--	--
Vanadium	GCTL	49	ug/L	--	--	--	--
Zinc	SDWS	5000	ug/L	--	--	--	--
General Chemistry							
Ammonia (N)	GCTL	2.8	mg/L	0.59	0.3	0.025 U	1.3
Chloride	SDWS	250	mg/L	5.7	3.6	2.6 U	4.5 I
Nitrate (N)	PDWS	10	mg/L	--	--	--	--
Residues- Filterable (TDS)	SDWS	500	mg/L	50	--	28	78
Field Parameters							
Conductivity	NS	NS	umhos/cm	51	55.7	46.1	72.4
Dissolved Oxygen	NS	NS	mg/L	0.57	0.22	1.37	0.37
Oxidation Reduction Potential	NS	NS	mV	22.91	88.1	244.3	-16.6
pH	SDWS	6.5-8.5	SU	5.70	4.71	4.73	5.04
Temperature, Water	NS	NS	Degrees C	27.53	26.5	23.2	24
Turbidity	NS	NS	NTU	21.9	3.84	19.2	2.05

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-40

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	2.4	1 U	1 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.36	0.32	0.3	0.3	0.64
Arsenic	PDWS	10	ug/L	0.14 I	0.077 U	0.077 U	0.077 U	0.077 U
Barium	PDWS	2000	ug/L	5.7	4.7	5.7	5.6	5.6
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.16 I	0.11 U	0.12 I	0.11 I	0.11 U
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Iron	SDWS	300	ug/L	25 I	26 U	43 I	140 U	200 U
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	17	17	19	17	18
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	0.71 U	0.71 U	0.71 U	0.71 U	0.71 U
Zinc	SDWS	5000	ug/L	9.7 I	7.4 U	8.6 I	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.36 J	0.32	0.3	0.3	0.64
Chloride	SDWS	250	mg/L	13	15	14	16	57
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.19
Residues- Filterable (TDS)	SDWS	500	mg/L	240	250	240	270	360
Field Parameters								
Conductivity	NS	NS	umhos/cm	399.2	388.2	362.8	384.1	379.9
Dissolved Oxygen	NS	NS	mg/L	0.21	0.26	0.26	0.13	0.76
Oxidation Reduction Potential	NS	NS	mV	-135.3	-70.7	-93.8	-75.5	-67.2
pH	SDWS	6.5-8.5	SU	7.44	7.28	7.61	7.40	7.29
Temperature, Water	NS	NS	Degrees C	23.8	23.5	23.7	23.6	24.3
Turbidity	NS	NS	NTU	0.32	0.29	0.57	0.07	0.23

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-57

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	1 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.23 I	0.11 U	0.28 I	0.11 U	0.11 U
Arsenic	PDWS	10	ug/L	0.3 I	0.16 I	0.4 I	0.12 I	0.12 I
Barium	PDWS	2000	ug/L	11	7.6	10	7.5	6.9
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	1 I	0.66 I	0.76 I	0.8 I	0.11 U
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Iron	SDWS	300	ug/L	480	810	610	700	350 I
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Selenium	PDWS	50	ug/L	1.2 I	0.58 U	1.1 I	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	18	22	23	22	17
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	4.6	1.1 I	3.9	0.78 I	0.71 U
Zinc	SDWS	5000	ug/L	9 I	7.4 U	9.8 I	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	1.5	1.5	1.3	1.5	1.6
Chloride	SDWS	250	mg/L	67	78	80	74	64
Nitrate (N)	PDWS	10	mg/L	0.29	0.18 U	0.33	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	170	270	260	190	230
Field Parameters								
Conductivity	NS	NS	umhos/cm	346.5	360	361.6	301.5	237.2
Dissolved Oxygen	NS	NS	mg/L	0.34	0.24	0.64	0.67	0.1
Oxidation Reduction Potential	NS	NS	mV	-133.7	-109.6	-93.4	17.8	18.1
pH	SDWS	6.5-8.5	SU	5.26	5.25	5.37	5.20	5.07
Temperature, Water	NS	NS	Degrees C	28.5	28.1	28.4	28.1	29
Turbidity	NS	NS	NTU	0.75	0.11	0.88	1.57	0.37

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-58

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	1 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.18 I	0.11 U	0.49 I	0.11 U	0.11 U
Arsenic	PDWS	10	ug/L	15	12	16	15	16
Barium	PDWS	2000	ug/L	23	13	11	16	14
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	1.7 I	1.6 I	1.8 I	1.7 I	1 I
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.44 I
Iron	SDWS	300	ug/L	2500	2500	1500	2900	3600
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Selenium	PDWS	50	ug/L	1.3 I	0.58 U	4.9 I	0.98 I	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	36	18	18	10	9.2
Thallium	PDWS	2	ug/L	0.46	0.22	0.39	0.19 I	0.21
Vanadium	GCTL	49	ug/L	11	5.1	21	6.8	7.6
Zinc	SDWS	5000	ug/L	7.8 I	7.4 U	8.8 I	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.81	1.1	0.95	0.87	1.9
Chloride	SDWS	250	mg/L	68	19	17	19	33
Nitrate (N)	PDWS	10	mg/L	0.33	1.3	1.4	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	310	220	240	270	320
Field Parameters								
Conductivity	NS	NS	umhos/cm	579	379.6	349.4	369.4	362.2
Dissolved Oxygen	NS	NS	mg/L	0.23	0.49	0.56	1.96	1.63
Oxidation Reduction Potential	NS	NS	mV	-31.9	7.2	53.9	37.4	35.5
pH	SDWS	6.5-8.5	SU	5.79	5.76	5.87	5.81	5.65
Temperature, Water	NS	NS	Degrees C	27.3	26.8	26.9	26.8	27.5
Turbidity	NS	NS	NTU	0.81	0.84	1.63	5.27	3.07

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-61

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.2 I	0.11 U	3	0.15 I	2.3
Arsenic	PDWS	10	ug/L	1	0.49 I	1.4	1.1	0.39 I
Barium	PDWS	2000	ug/L	6.2	4.7	7.4	4.8	7.5
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.37 I	0.073 I	0.064 U
Chromium	PDWS	100	ug/L	0.96 I	0.86 I	0.67 I	0.99 I	0.37 I
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.32 I	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.59 I	0.59 I	0.75	0.88	0.69 I
Iron	SDWS	300	ug/L	310	180	36 I	360	460 I
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 I	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	24	0.98 U
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.73 I	0.63 I	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	3.2	3.2	3.9	4.3	5.5
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.14 I	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	2 I	1.8 I	8.8	7.2	4.8
Zinc	SDWS	5000	ug/L	9 I	7.4 U	11	76	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.13	0.08 I	0.04 I	0.16	0.69
Chloride	SDWS	250	mg/L	5 I	5.2	8.4	6.6	17
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	4.3	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	150	130	160	200	180
Field Parameters								
Conductivity	NS	NS	umhos/cm	155.4	160	228.5	214.8	160.6
Dissolved Oxygen	NS	NS	mg/L	0.29	0.43	0.18	0.23	0.13
Oxidation Reduction Potential	NS	NS	mV	-16.8	-30.2	165.6	28.9	-1
pH	SDWS	6.5-8.5	SU	5.63	5.47	5.78	5.64	5.49
Temperature, Water	NS	NS	Degrees C	25.8	26	25.7	26.1	26.3
Turbidity	NS	NS	NTU	1.24	1.72	1.76	1.51	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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-61A

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	2.8	0.42 I	2.7	0.24 I	0.67 I
Arsenic	PDWS	10	ug/L	0.69 I	0.34 I	0.37 I	0.62 I	0.52 I
Barium	PDWS	2000	ug/L	4.7	4.2	4.8	6.9	6.6
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.45 I	0.064 U	0.79	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.9 I	0.88 I	0.65 I	0.97 I	0.35 I
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	2.3	1.8	1.8	1.9	1.8
Iron	SDWS	300	ug/L	36 I	180	36 I	1200	270 I
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 I	0.98 U	1.1 I	0.98 U	2.3
Selenium	PDWS	50	ug/L	1.3 I	0.58 U	2.2 I	0.58 U	0.76 I
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	3.1	3.7	4.6	5.2	4.3
Thallium	PDWS	2	ug/L	0.11 I	0.057 U	0.1 I	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	74	20	130	3.3	9.1
Zinc	SDWS	5000	ug/L	12	7.4 U	33	12	91 I
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.025 U	0.04 I	0.029 U	0.12	0.39
Chloride	SDWS	250	mg/L	4 I	5.6	7.5	12	6.5
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	9.3	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	140	270	180	150	270
Field Parameters								
Conductivity	NS	NS	umhos/cm	180.4	294.5	285.1	312.8	283.2
Dissolved Oxygen	NS	NS	mg/L	0.66	0.3	0.5	0.24	1.75
Oxidation Reduction Potential	NS	NS	mV	68.1	20.9	107.1	22.6	-1.2
pH	SDWS	6.5-8.5	SU	5.84	5.61	5.9	5.72	5.75
Temperature, Water	NS	NS	Degrees C	27.1	25.7	26.7	26.5	28.1
Turbidity	NS	NS	NTU	2.5	1.46	2.23	1.48	3.04

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-64

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	1.9	0.24 I	0.54 I	0.43 I	1.1 I
Arsenic	PDWS	10	ug/L	0.86 I	0.3 I	0.46 I	0.46 I	0.58 I
Barium	PDWS	2000	ug/L	120	36	35	31	46
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	1.2	0.53	0.26 I	0.62	4.8
Chromium	PDWS	100	ug/L	6.2	1.5 I	2.1	1.7 I	0.53 U
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.96 U
Copper	SDWS	1000	ug/L	3.5	0.68 I	0.84	0.9	1.8 U
Iron	SDWS	300	ug/L	340	520	360	1000	830
Lead	PDWS	15	ug/L	5	0.66 I	1	0.43 I	1.2 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	4.9 U
Selenium	PDWS	50	ug/L	3.3 I	1.2 I	0.9 I	2 I	2.9 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.34 U
Sodium	PDWS	160	mg/L	5.9	8.6	5.6	8	8
Thallium	PDWS	2	ug/L	0.082 I	0.057 U	0.057 U	0.057 U	0.068 I
Vanadium	GCTL	49	ug/L	38	6.5	16	12	20
Zinc	SDWS	5000	ug/L	7.4 U	9 I	9.7 I	7.4 U	150 I
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.025 U	0.025 U	0.029 U	0.02 U	0.2
Chloride	SDWS	250	mg/L	7.1	12	7.3	9.4	7.9
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	120	180	120	140	270
Field Parameters								
Conductivity	NS	NS	umhos/cm	173.7	229.3	178.9	203.9	259.6
Dissolved Oxygen	NS	NS	mg/L	0.38	0.86	0.27	0.62	0.6
Oxidation Reduction Potential	NS	NS	mV	78.3	121.5	157.7	171.4	254
pH	SDWS	6.5-8.5	SU	5.25	4.49	5.45	4.79	4.26
Temperature, Water	NS	NS	Degrees C	27.3	26.2	26.9	26.5	28.6
Turbidity	NS	NS	NTU	67.5	10.13	14.6	11.3	17.1

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-65

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.95 I
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.18 I	0.11 U	0.11 U	0.11 U	0.5 I
Arsenic	PDWS	10	ug/L	15	7.9	13	21	21
Barium	PDWS	2000	ug/L	1.2	0.83	0.8	0.88	0.89
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	1.9 I	1.6 I	1.3 I	1.8 I	1.1 I
Cobalt	GCTL	140	ug/L	1	0.62	0.35 I	1.4	0.58
Copper	SDWS	1000	ug/L	0.37 I	0.35 U	0.35 U	0.35 U	0.42 I
Iron	SDWS	300	ug/L	1800	1000	1900	1400	410 I
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	1.2 I	0.98 U	0.98 U	1.3 I	1.5 I
Selenium	PDWS	50	ug/L	1.1 I	0.67 I	1 I	0.78 I	0.99 I
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	11	9.7	9.4	10	10
Thallium	PDWS	2	ug/L	0.24	0.072 I	0.076 I	0.12 I	0.68
Vanadium	GCTL	49	ug/L	2.9	2.4	2.1	3.4	4.1
Zinc	SDWS	5000	ug/L	11	7.4 U	8 I	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.87	0.8	0.73	0.72	1.2
Chloride	SDWS	250	mg/L	12	15	13	14	15
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	140	230	170	140	200
Field Parameters								
Conductivity	NS	NS	umhos/cm	226.7	228.9	239.3	213.9	203.9
Dissolved Oxygen	NS	NS	mg/L	0.33	0.31	0.16	0.24	0.1
Oxidation Reduction Potential	NS	NS	mV	-162.5	-57.2	-14.8	-9.5	-15
pH	SDWS	6.5-8.5	SU	5.56	5.58	5.77	5.41	5.37
Temperature, Water	NS	NS	Degrees C	25.6	23.3	25.5	24.8	25.7
Turbidity	NS	NS	NTU	3.2	1.82	4.11	1.31	1.41

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-66

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.18 I	0.11 U	0.11 I	0.11 U	1.2
Arsenic	PDWS	10	ug/L	3.5	2.2	2.5	3.2	3.4
Barium	PDWS	2000	ug/L	1.6	1	1.2	1.2	2
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.78 I	0.68 I	0.46 I	0.97 I	0.31 I
Cobalt	GCTL	140	ug/L	0.27 I	0.19 U	0.33 I	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	1.4
Iron	SDWS	300	ug/L	2800	2900	2500	2200	2000
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	8.2	6.4	7.6	5.7	5.7
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	1.6 I	1.2 I	1.3 I	1.5 I	2.3
Zinc	SDWS	5000	ug/L	9.6 I	13	7.4 U	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.68	1.1 J	0.71	0.33	0.35
Chloride	SDWS	250	mg/L	14	14	15	10	9.5
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	170	160	170	120	200
Field Parameters								
Conductivity	NS	NS	umhos/cm	320.6	261.3	327.8	209.1	176.7
Dissolved Oxygen	NS	NS	mg/L	0.09	0.11	0.1	0.08	0.1
Oxidation Reduction Potential	NS	NS	mV	-119.1	0.8	-21.6	19	15
pH	SDWS	6.5-8.5	SU	5.92	5.86	6.02	5.74	5.57
Temperature, Water	NS	NS	Degrees C	26.4	23.5	26.1	24.4	26
Turbidity	NS	NS	NTU	0.89	0.63	0.54	0.91	2.43

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-66A

Parameter	Standard	MCL	Unit	Jul-18	Aug-18	Nov-18	Feb-19	Feb-19	May-19	Aug-19	Aug-19	Feb-20	Feb-20	May-20	Aug-20	Aug-20
Volatile Organic Compounds																
Acetone	GCTL	6300	ug/L	--	1 U	--	--	1 U	--	--	2 U	--	1 U	--	--	0.9 U
Tetrachloroethene	PDWS	3	ug/L	--	0.6 U	--	--	0.6 U	--	--	0.48 U	--	0.6 U	--	--	0.45 U
Metals																
Antimony	PDWS	6	ug/L	--	0.71	--	--	0.35 I	--	--	1.2	--	0.58 I	--	--	2.4
Arsenic	PDWS	10	ug/L	--	2.6	--	--	2.8	--	--	1.9	--	1.3	--	--	7.1
Barium	PDWS	2000	ug/L	--	3.3	--	--	2.5	--	--	3	--	3	--	--	3.3
Beryllium	PDWS	4	ug/L	--	0.18 U	--	--	0.29 U	--	--	0.29 U	--	0.29 U	--	--	2 U
Cadmium	PDWS	5	ug/L	--	0.064 U	--	--	0.064 U	--	--	0.064 U	--	0.064 U	--	--	0.064 U
Chromium	PDWS	100	ug/L	--	0.57 I	--	--	0.52 I	--	--	0.39 I	--	0.44 I	--	--	0.11 U
Cobalt	GCTL	140	ug/L	--	1.2	--	--	0.97	--	--	0.5	--	0.41 I	--	--	0.31 I
Copper	SDWS	1000	ug/L	--	0.99	--	--	0.85	--	--	0.97	--	1.2	--	--	4.4
Iron	SDWS	300	ug/L	--	1500	--	--	1600	--	--	310	--	980	--	--	270 I
Lead	PDWS	15	ug/L	--	0.24 U	--	--	0.24 U	--	--	0.24 U	--	0.24 U	--	--	0.24 U
Mercury	PDWS	2	ug/L	--	0.05 U	--	--	0.05 U	--	--	0.05 U	--	0.05 U	--	--	0.028 U
Nickel	PDWS	100	ug/L	--	2.3	--	--	2.1	--	--	2 I	--	2	--	--	4.2
Selenium	PDWS	50	ug/L	--	0.59 I	--	--	0.58 U	--	--	0.58 U	--	0.58 U	--	--	0.84 I
Silver	SDWS	100	ug/L	--	0.068 U	--	--	0.068 U	--	--	0.068 U	--	0.068 U	--	--	0.068 U
Sodium	PDWS	160	mg/L	7.15 I	6.9	9.9	7.3	7.9	6.6	6.1	5.2	6.9	5.1	4.4	3.7	4.3
Thallium	PDWS	2	ug/L	--	0.15 I	--	--	0.057 U	--	--	0.24	--	0.064 I	--	--	0.12 I
Vanadium	GCTL	49	ug/L	--	7	--	--	12	--	--	15	--	17	--	--	62
Zinc	SDWS	5000	ug/L	--	9.1 I	--	--	7.4 U	--	--	9.1 I	--	7.4 U	--	--	50 U
General Chemistry																
Ammonia (N)	GCTL	2.8	mg/L	0.54	0.58	2	0.99	1.6	1.8	0.72	0.19	1.9	1.1	0.85	0.84	1.3
Chloride	SDWS	250	mg/L	12	8.4	20	16 I	17	15	9.5	9.9	13	13	11	9.3	8.9
Nitrate (N)	PDWS	10	mg/L	--	0.18 U	--	--	0.18 U	--	--	0.079 U	--	0.079 U	--	--	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	164	160	240	210	240	200	160	140	270	170	190	210	240
Field Parameters																
Conductivity	NS	NS	umhos/cm	263	279.8	361.7	274.4	278.5	290.9	273.5	272.3	285.1	261.5	248	252.4	252.3
Dissolved Oxygen	NS	NS	mg/L	0.2	0.21	0.56	0.4	0.27	0.34	0.13	0.28	0.34	0.18	0.46	0.38	0.33
Oxidation Reduction Potential	NS	NS	mV	125.4	-184.8	-61.8	-115.4	-44.7	-63	-102.3	3.5	121	-49.6	-75.8	22.6	-25.8
pH	SDWS	6.5-8.5	SU	6.89	6.05	5.94	5.85	5.81	5.78	6.14	6.24	5.95	5.77	5.79	5.72	5.70
Temperature, Water	NS	NS	Degrees C	27.3	28.2	26.8	22.8	21.9	24.4	26.5	26.8	22.4	25.4	26.3	27.8	28.9
Turbidity	NS	NS	NTU	3.05	1.02	1.81	0.7	0.48	0.19	2.89	1.28	1.12	4.08	2.09	2.91	1.56

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-67

Parameter	Standard	MCL	Unit	Jul-18	Aug-18	Nov-18	Feb-19	Feb-19	May-19	Aug-19	Aug-19	Feb-20	Feb-20	May-20	Aug-20	Aug-20
Volatile Organic Compounds																
Acetone	GCTL	6300	ug/L	--	1 U	--	--	1 U	--	--	1 U	--	1 U	--	--	0.9 U
Tetrachloroethene	PDWS	3	ug/L	--	0.6 U	--	--	0.6 U	--	--	0.48 U	--	0.6 U	--	--	0.45 U
Metals																
Antimony	PDWS	6	ug/L	--	0.7 I	--	--	1.7	--	--	2.6	--	2.9	--	--	1.3
Arsenic	PDWS	10	ug/L	--	5.5	--	--	0.5 I	--	--	3.1	--	0.46 I	--	--	1.1
Barium	PDWS	2000	ug/L	--	3.6	--	--	3.7	--	--	5.6	--	3.9	--	--	5.6
Beryllium	PDWS	4	ug/L	--	0.18 U	--	--	0.29 U	--	--	0.29 U	--	0.29 U	--	--	2 U
Cadmium	PDWS	5	ug/L	--	0.13 I	--	--	0.37 I	--	--	0.25 I	--	0.47 I	--	--	0.17 I
Chromium	PDWS	100	ug/L	--	0.75 I	--	--	0.52 I	--	--	0.61 I	--	0.38 I	--	--	0.11 U
Cobalt	GCTL	140	ug/L	--	4.1	--	--	1	--	--	2.1	--	0.99	--	--	1.1
Copper	SDWS	1000	ug/L	--	1.1	--	--	3.6	--	--	3.8	--	1.9	--	--	6.3
Iron	SDWS	300	ug/L	--	3500	--	--	130	--	--	910	--	1200	--	--	4500
Lead	PDWS	15	ug/L	--	0.24 U	--	--	0.24 U	--	--	0.26 I	--	0.24 U	--	--	0.4 I
Mercury	PDWS	2	ug/L	--	0.05 U	--	--	0.05 U	--	--	0.05 U	--	0.05 U	--	--	0.028 U
Nickel	PDWS	100	ug/L	--	6.6	--	--	2.6	--	--	5.2	--	3.5	--	--	5.1
Selenium	PDWS	50	ug/L	--	0.58 U	--	--	0.79 I	--	--	0.58 U	--	0.58 U	--	--	0.58 U
Silver	SDWS	100	ug/L	--	0.068 U	--	--	0.068 U	--	--	0.068 U	--	0.068 U	--	--	0.068 U
Sodium	PDWS	160	mg/L	1.94 I	2.4	35	4.4	7.5	40	1.8	2	24	28	36	45	47
Thallium	PDWS	2	ug/L	--	0.39	--	--	0.27	--	--	0.39	--	0.29	--	--	0.18 I
Vanadium	GCTL	49	ug/L	--	5.7	--	--	23	--	--	7.2	--	28	--	--	8.4
Zinc	SDWS	5000	ug/L	--	23	--	--	78	--	--	41	--	34	--	--	50 U
General Chemistry																
Ammonia (N)	GCTL	2.8	mg/L	0.28	0.31	1.5	0.08 I	0.23	2.4	0.08 I	0.18	2	1.3	1.4 J	4.4	1.9
Chloride	SDWS	250	mg/L	7.6	5.3	92	9.4	13	96	5.1	6.5	56	59 J	94	97	93 J
Nitrate (N)	PDWS	10	mg/L	--	0.18 U	--	--	0.18 U	--	--	0.079 U	--	0.079 U	--	--	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	128	110	400	120	140	490	110	90	330	310	360	380	450
Field Parameters																
Conductivity	NS	NS	umhos/cm	180	174.5	706	209.6	243.8	697	172.9	187.4	482.6	500	691	698	645
Dissolved Oxygen	NS	NS	mg/L	0.08	0.15	0.14	2.11	0.66	0.56	0.15	0.26	0.22	0.29	1.46	0.2	0.2
Oxidation Reduction Potential	NS	NS	mV	2.4	-88.4	-50.1	151.8	118.9	-40.1	92.5	8.6	12.9	38.7	-37.5	-37.2	-19.2
pH	SDWS	6.5-8.5	SU	6.44	6.48	6.09	5.98	6.08	6.10	6.27	6.41	6.22	6.18	6.24	6.14	6.14
Temperature, Water	NS	NS	Degrees C	27.94	28.1	26.7	21.7	21.7	24.4	27.9	26.4	24.1	22.6	26.5	28.5	26.9
Turbidity	NS	NS	NTU	10.4	3.22	8.41	3.79	2.75	0.89	5.21	3.02	5.68	3.33	3.18	1.25	5.47

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-68

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	3.5
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.69 I	0.12 I	0.11 U	0.12 I	0.55 U
Arsenic	PDWS	10	ug/L	2	1.1	1.4	1.3	2.2 I
Barium	PDWS	2000	ug/L	14	6	5.7	13	17
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.23 I	0.076 I	0.064 U	0.064 U	0.32 U
Chromium	PDWS	100	ug/L	5.4	3.1	2.9	7	7 I
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.96 U
Copper	SDWS	1000	ug/L	5	0.79	0.36 I	2.3	5
Iron	SDWS	300	ug/L	490	330	350	360	580 I
Lead	PDWS	15	ug/L	1.1	0.43 I	0.26 I	0.61 I	1.2 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.14	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	4.9 U
Selenium	PDWS	50	ug/L	2.7 I	0.7 I	0.58 U	1.2 I	2.9 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.34 U
Sodium	PDWS	160	mg/L	7.1	6.3	6.9	6.2	15
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	4.2	2.4	2.3	4.2	11
Zinc	SDWS	5000	ug/L	9.6 I	7.4 U	7.7 I	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.37 U	0.04 I	0.17	0.02 U	0.24
Chloride	SDWS	250	mg/L	11	9.7	8.5	13	14
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 I	0.079 U	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	190	170	250	230	330
Field Parameters								
Conductivity	NS	NS	umhos/cm	205.8	198	194.9	189.1	212.3
Dissolved Oxygen	NS	NS	mg/L	1.57	1.53	0.65	0.9	2.41
Oxidation Reduction Potential	NS	NS	mV	-82.5	1.4	-24.4	33.1	173.3
pH	SDWS	6.5-8.5	SU	5.49	5.44	5.63	5.55	5.48
Temperature, Water	NS	NS	Degrees C	28.4	27.1	28.4	26.6	31.5
Turbidity	NS	NS	NTU	36.2	18.7	19.7	16.4	61.7

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-69A

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Arsenic	PDWS	10	ug/L	0.5 I	0.18 I	0.15 I	0.2 I	0.27 I
Barium	PDWS	2000	ug/L	4.6	4.7	3.5	5.7	5.9
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.7 I	0.45 I	0.39 I	0.58 I	0.15 I
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.47 I	0.35 U	0.35 U	0.35 U	0.42 I
Iron	SDWS	300	ug/L	4800	4900	3000	3100	3000
Lead	PDWS	15	ug/L	0.27 I	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.057 I	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	1.3 I
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	14	14	28	20	63
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	0.81 I	0.71 U	0.71 U	0.71 U	0.71 U
Zinc	SDWS	5000	ug/L	8.7 I	7.4 U	7.4 U	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.37	0.36	0.38	0.31	1.1
Chloride	SDWS	250	mg/L	33	40	130 J	63	200
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	320	300	540	350	700
Field Parameters								
Conductivity	NS	NS	umhos/cm	532	499.4	729	574	883
Dissolved Oxygen	NS	NS	mg/L	0.11	0.21	0.27	0.18	0.91
Oxidation Reduction Potential	NS	NS	mV	-28.1	-9.5	8.7	-5.3	15.4
pH	SDWS	6.5-8.5	SU	6.14	6.03	6.10	6.09	5.88
Temperature, Water	NS	NS	Degrees C	26	26	26.1	26.1	26.6
Turbidity	NS	NS	NTU	6.23	7.2	3.18	3.97	1.88

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
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8. NTU = nephelometric turbidity units
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10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-70A

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	2.1	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	1	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	0.12 I
Arsenic	PDWS	10	ug/L	6	4.2	5.9	2	4
Barium	PDWS	2000	ug/L	15	12	22	7.6	7.3
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.99 I	0.62 I	0.65 I	0.31 I	0.11 U
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Iron	SDWS	300	ug/L	48000	43000	62000	16000	28000
Lead	PDWS	15	ug/L	0.49 I	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	2.7
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	9.6	9.9	11	12	11
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	5.2	3.9	4	2.3	2.3
Zinc	SDWS	5000	ug/L	9.3 I	7.4 U	29	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	1.5	1.5	1.5	0.88	2
Chloride	SDWS	250	mg/L	36	39	40	33	30
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.079 U	0.22	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	310	370	410	380	400
Field Parameters								
Conductivity	NS	NS	umhos/cm	637	645	688	543	567
Dissolved Oxygen	NS	NS	mg/L	0.13	0.09	0.08	0.53	0.62
Oxidation Reduction Potential	NS	NS	mV	-95.4	-76.5	-73.6	46.9	-37.5
pH	SDWS	6.5-8.5	SU	6.37	6.24	6.26	6.23	6.23
Temperature, Water	NS	NS	Degrees C	25.8	25.2	25.8	26.2	26.5
Turbidity	NS	NS	NTU	74.3	89.1	154.8	53.2	72.9

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-71A

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	1.5	0.15 I	0.6 I	0.48 I	0.11 I
Arsenic	PDWS	10	ug/L	6.9	1.4	3.7	2.9	3
Barium	PDWS	2000	ug/L	23	9.8	18	19	20
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	1.3 I	0.36 I	0.81 I	0.72 I	0.11 U
Cobalt	GCTL	140	ug/L	0.32 I	0.19 I	0.25 I	0.31 I	0.2 I
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Iron	SDWS	300	ug/L	60000	22000	40000	40000	44000
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 I	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	1.5 I	1.2 I	0.98 U	1.7 I	7.4
Selenium	PDWS	50	ug/L	0.59 I	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	43	46	52	70	91
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	23	3.1	9.6	14	2.8
Zinc	SDWS	5000	ug/L	9.4 I	7.4 U	7.4 U	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	1.7	1.7	1.7	2.1	3.1
Chloride	SDWS	250	mg/L	180	260	310	440 J	450
Nitrate (N)	PDWS	10	mg/L	0.3	0.18 U	0.11	0.13	0.095 I
Residues- Filterable (TDS)	SDWS	500	mg/L	810	1100	920	1100	1300
Field Parameters								
Conductivity	NS	NS	umhos/cm	1267	1408	1476	1791	1925
Dissolved Oxygen	NS	NS	mg/L	0.06	0.15	0.13	0.14	0.12
Oxidation Reduction Potential	NS	NS	mV	-75.6	-20.6	-40.4	-48	-36.1
pH	SDWS	6.5-8.5	SU	6.16	6.03	6.16	6.07	5.94
Temperature, Water	NS	NS	Degrees C	25.1	24.7	24.9	24.7	25.2
Turbidity	NS	NS	NTU	37.7	4.67	6.51	9.32	15.3

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-72

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	3	1 U	1 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Arsenic	PDWS	10	ug/L	0.16 I	0.12 I	0.12 I	0.13 I	0.12 I
Barium	PDWS	2000	ug/L	32	25	28	28	26
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.62 I	0.28 I	0.46 I	0.37 I	0.33 I
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.35 U
Iron	SDWS	300	ug/L	560	410	540	470	410 I
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	1.3 I	1 I	0.98 U	1.1 I	2.9
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	100	100	110	100	100
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	0.71 U	0.71 U	0.78 I	0.71 U	0.71 U
Zinc	SDWS	5000	ug/L	7.4 U	7.4 U	7.4 U	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	12	9.9	11	9.9	10
Chloride	SDWS	250	mg/L	250	260 J	240 J	220	230 J
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.23	0.079 U	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	1000	1100	1000	880	950
Field Parameters								
Conductivity	NS	NS	umhos/cm	1651	1544	1547	1506	1392
Dissolved Oxygen	NS	NS	mg/L	0.09	0.58	0.14	0.15	1.37
Oxidation Reduction Potential	NS	NS	mV	-164.3	-78.6	-75.9	-51.5	-60.5
pH	SDWS	6.5-8.5	SU	6.65	6.57	6.67	6.60	6.57
Temperature, Water	NS	NS	Degrees C	24.2	23.7	24.2	23.9	24.9
Turbidity	NS	NS	NTU	0.25	0.14	0.82	0.2	0.64

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-78

Parameter	Standard	MCL	Unit	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds								
Acetone	GCTL	6300	ug/L	1 U	1 U	2 U	1 U	0.9 U
Tetrachloroethene	PDWS	3	ug/L	0.6 U	0.6 U	0.48 U	0.6 U	0.45 U
Metals								
Antimony	PDWS	6	ug/L	0.11 U	0.11 U	0.11 U	0.11 U	1.5
Arsenic	PDWS	10	ug/L	0.12 I	0.077 U	0.11 I	0.1 I	0.13 I
Barium	PDWS	2000	ug/L	42	31	38	31	28
Beryllium	PDWS	4	ug/L	0.18 U	0.29 U	0.29 U	0.29 U	2 U
Cadmium	PDWS	5	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Chromium	PDWS	100	ug/L	0.19 I	0.11 U	0.11 U	0.17 I	0.11 U
Cobalt	GCTL	140	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Copper	SDWS	1000	ug/L	0.35 U	0.35 U	0.35 U	0.35 U	0.39 I
Iron	SDWS	300	ug/L	260	230	200	250	200 U
Lead	PDWS	15	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Mercury	PDWS	2	ug/L	0.05 U	0.05 U	0.05 U	0.05 U	0.028 U
Nickel	PDWS	100	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	2.2
Selenium	PDWS	50	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	SDWS	100	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Sodium	PDWS	160	mg/L	31	30	30	32	33
Thallium	PDWS	2	ug/L	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U
Vanadium	GCTL	49	ug/L	0.71 U	0.71 U	0.71 U	0.71 U	0.75 I
Zinc	SDWS	5000	ug/L	7.4 U	7.4 U	7.4 U	7.4 U	50 U
General Chemistry								
Ammonia (N)	GCTL	2.8	mg/L	0.31	0.35	0.25	0.25	0.33
Chloride	SDWS	250	mg/L	28	32	32	31	31
Nitrate (N)	PDWS	10	mg/L	0.18 U	0.18 U	0.086 I	0.079 U	0.092 U
Residues- Filterable (TDS)	SDWS	500	mg/L	330	310	320	340	440
Field Parameters								
Conductivity	NS	NS	umhos/cm	544	529	522	519	508
Dissolved Oxygen	NS	NS	mg/L	0.09	0.34	0.09	0.11	0.09
Oxidation Reduction Potential	NS	NS	mV	-234.8	-207.3	-222.3	-194.6	-202.6
pH	SDWS	6.5-8.5	SU	7.88	7.82	8.24	7.99	8.03
Temperature, Water	NS	NS	Degrees C	23.5	22.8	23.4	23.3	23.5
Turbidity	NS	NS	NTU	0.44	0.61	2.28	1.54	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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-79

Parameter	Standard	MCL	Unit	Jul-18	Nov-18	Feb-19	May-19	Aug-19	Feb-20	May-20	Aug-20
Volatile Organic Compounds											
Acetone	GCTL	6300	ug/L	--	--	--	--	--	--	--	--
Tetrachloroethene	PDWS	3	ug/L	--	--	--	--	--	--	--	--
Metals											
Antimony	PDWS	6	ug/L	--	--	--	--	--	--	--	--
Arsenic	PDWS	10	ug/L	--	--	--	--	--	--	--	--
Barium	PDWS	2000	ug/L	--	--	--	--	--	--	--	--
Beryllium	PDWS	4	ug/L	--	--	--	--	--	--	--	--
Cadmium	PDWS	5	ug/L	--	--	--	--	--	--	--	--
Chromium	PDWS	100	ug/L	--	--	--	--	--	--	--	--
Cobalt	GCTL	140	ug/L	--	--	--	--	--	--	--	--
Copper	SDWS	1000	ug/L	--	--	--	--	--	--	--	--
Iron	SDWS	300	ug/L	--	--	--	--	--	--	--	--
Lead	PDWS	15	ug/L	--	--	--	--	--	--	--	--
Mercury	PDWS	2	ug/L	--	--	--	--	--	--	--	--
Nickel	PDWS	100	ug/L	--	--	--	--	--	--	--	--
Selenium	PDWS	50	ug/L	--	--	--	--	--	--	--	--
Silver	SDWS	100	ug/L	--	--	--	--	--	--	--	--
Sodium	PDWS	160	mg/L	14.4	16	9.8	18	8.7	12	14	22
Thallium	PDWS	2	ug/L	--	--	--	--	--	--	--	--
Vanadium	GCTL	49	ug/L	--	--	--	--	--	--	--	--
Zinc	SDWS	5000	ug/L	--	--	--	--	--	--	--	--
General Chemistry											
Ammonia (N)	GCTL	2.8	mg/L	1.3	1.7	1.2	2.1	0.84	1.5	1.9	3.2
Chloride	SDWS	250	mg/L	15.4	24	13	30	8.8	16	29	43
Nitrate (N)	PDWS	10	mg/L	--	--	--	--	--	--	--	--
Residues- Filterable (TDS)	SDWS	500	mg/L	238	250	160	310	170	210	170	290
Field Parameters											
Conductivity	NS	NS	umhos/cm	397	488.9	284.8	468.3	297.1	343.9	417.3	494.1
Dissolved Oxygen	NS	NS	mg/L	0.15	1.6	0.95	1.24	0.85	0.21	1.43	1.05
Oxidation Reduction Potential	NS	NS	mV	54	27.1	22.4	-35.7	13.9	27.4	-0.5	27.5
pH	SDWS	6.5-8.5	SU	6.04	5.56	5.65	5.50	5.88	5.75	5.62	5.51
Temperature, Water	NS	NS	Degrees C	29.4	26.2	21.5	24.4	27.4	23.8	26.8	27.9
Turbidity	NS	NS	NTU	3.2	15.6	16.7	16.6	16.6	18	11.84	4.93

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-80

Parameter	Standard	MCL	Unit	Jul-18	Nov-18	Feb-19	May-19
Volatile Organic Compounds							
Acetone	GCTL	6300	ug/L	--	--	--	--
Tetrachloroethene	PDWS	3	ug/L	--	--	--	--
Metals							
Antimony	PDWS	6	ug/L	--	--	--	--
Arsenic	PDWS	10	ug/L	--	--	--	--
Barium	PDWS	2000	ug/L	--	--	--	--
Beryllium	PDWS	4	ug/L	--	--	--	--
Cadmium	PDWS	5	ug/L	--	--	--	--
Chromium	PDWS	100	ug/L	--	--	--	--
Cobalt	GCTL	140	ug/L	--	--	--	--
Copper	SDWS	1000	ug/L	--	--	--	--
Iron	SDWS	300	ug/L	--	--	--	--
Lead	PDWS	15	ug/L	--	--	--	--
Mercury	PDWS	2	ug/L	--	--	--	--
Nickel	PDWS	100	ug/L	--	--	--	--
Selenium	PDWS	50	ug/L	--	--	--	--
Silver	SDWS	100	ug/L	--	--	--	--
Sodium	PDWS	160	mg/L	38	30	28	28
Thallium	PDWS	2	ug/L	--	--	--	--
Vanadium	GCTL	49	ug/L	--	--	--	--
Zinc	SDWS	5000	ug/L	--	--	--	--
General Chemistry							
Ammonia (N)	GCTL	2.8	mg/L	0.65	0.38	0.6	0.53
Chloride	SDWS	250	mg/L	53.9	50	41	46
Nitrate (N)	PDWS	10	mg/L	--	--	--	--
Residues- Filterable (TDS)	SDWS	500	mg/L	276	280	250	410
Field Parameters							
Conductivity	NS	NS	umhos/cm	482	575	477.6	562
Dissolved Oxygen	NS	NS	mg/L	0.5	0.1	0.28	1.34
Oxidation Reduction Potential	NS	NS	mV	2.3	28.5	2.2	-13.3
pH	SDWS	6.5-8.5	SU	6.63	5.55	5.95	5.58
Temperature, Water	NS	NS	Degrees C	26.68	26.4	24.6	24.5
Turbidity	NS	NS	NTU	0.49	1.74	15.7	0.72

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-81

Parameter	Standard	MCL	Unit	Jul-18	Nov-18	Feb-19	May-19
Volatile Organic Compounds							
Acetone	GCTL	6300	ug/L	--	--	--	--
Tetrachloroethene	PDWS	3	ug/L	--	--	--	--
Metals							
Antimony	PDWS	6	ug/L	--	--	--	--
Arsenic	PDWS	10	ug/L	--	--	--	--
Barium	PDWS	2000	ug/L	--	--	--	--
Beryllium	PDWS	4	ug/L	--	--	--	--
Cadmium	PDWS	5	ug/L	--	--	--	--
Chromium	PDWS	100	ug/L	--	--	--	--
Cobalt	GCTL	140	ug/L	--	--	--	--
Copper	SDWS	1000	ug/L	--	--	--	--
Iron	SDWS	300	ug/L	--	--	--	--
Lead	PDWS	15	ug/L	--	--	--	--
Mercury	PDWS	2	ug/L	--	--	--	--
Nickel	PDWS	100	ug/L	--	--	--	--
Selenium	PDWS	50	ug/L	--	--	--	--
Silver	SDWS	100	ug/L	--	--	--	--
Sodium	PDWS	160	mg/L	--	6.3	4.7	12
Thallium	PDWS	2	ug/L	--	--	--	--
Vanadium	GCTL	49	ug/L	--	--	--	--
Zinc	SDWS	5000	ug/L	--	--	--	--
General Chemistry							
Ammonia (N)	GCTL	2.8	mg/L	--	0.13	0.16	0.55
Chloride	SDWS	250	mg/L	--	13	9.4	24
Nitrate (N)	PDWS	10	mg/L	--	--	--	--
Residues- Filterable (TDS)	SDWS	500	mg/L	--	140	94	190
Field Parameters							
Conductivity	NS	NS	umhos/cm	275	226.6	137.8	256.6
Dissolved Oxygen	NS	NS	mg/L	1.33	0.45	1.48	0.45
Oxidation Reduction Potential	NS	NS	mV	149.9	81.1	136	-2.8
pH	SDWS	6.5-8.5	SU	5.88	5.62	5.66	6.02
Temperature, Water	NS	NS	Degrees C	28.89	27.3	21.9	24.3
Turbidity	NS	NS	NTU	6.09	5.54	15.1	13.6

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-82

Parameter	Standard	MCL	Unit	Jul-18	Nov-18	Feb-19	May-19
Volatile Organic Compounds							
Acetone	GCTL	6300	ug/L	--	--	--	--
Tetrachloroethene	PDWS	3	ug/L	--	--	--	--
Metals							
Antimony	PDWS	6	ug/L	--	--	--	--
Arsenic	PDWS	10	ug/L	--	--	--	--
Barium	PDWS	2000	ug/L	--	--	--	--
Beryllium	PDWS	4	ug/L	--	--	--	--
Cadmium	PDWS	5	ug/L	--	--	--	--
Chromium	PDWS	100	ug/L	--	--	--	--
Cobalt	GCTL	140	ug/L	--	--	--	--
Copper	SDWS	1000	ug/L	--	--	--	--
Iron	SDWS	300	ug/L	--	--	--	--
Lead	PDWS	15	ug/L	--	--	--	--
Mercury	PDWS	2	ug/L	--	--	--	--
Nickel	PDWS	100	ug/L	--	--	--	--
Selenium	PDWS	50	ug/L	--	--	--	--
Silver	SDWS	100	ug/L	--	--	--	--
Sodium	PDWS	160	mg/L	2.08 I	6.2	4.6	10
Thallium	PDWS	2	ug/L	--	--	--	--
Vanadium	GCTL	49	ug/L	--	--	--	--
Zinc	SDWS	5000	ug/L	--	--	--	--
General Chemistry							
Ammonia (N)	GCTL	2.8	mg/L	0.039 I	1.7	1.1	1.7
Chloride	SDWS	250	mg/L	6.5	18	13	31
Nitrate (N)	PDWS	10	mg/L	--	--	--	--
Residues- Filterable (TDS)	SDWS	500	mg/L	80	84	64	170
Field Parameters							
Conductivity	NS	NS	umhos/cm	63	134.6	96.9	200.4
Dissolved Oxygen	NS	NS	mg/L	2.84	0.34	0.91	0.28
Oxidation Reduction Potential	NS	NS	mV	30.3	32	140.1	-61.4
pH	SDWS	6.5-8.5	SU	5.58	4.97	4.94	5.50
Temperature, Water	NS	NS	Degrees C	27.95	26.9	23.3	24.6
Turbidity	NS	NS	NTU	0.99	4.18	5.35	10.41

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Groundwater Summary of Detected Parameters, TH-83

Parameter	Standard	MCL	Unit	Jul-18	Nov-18	Feb-19	May-19	Aug-19	Feb-20	May-20	Aug-20
Volatile Organic Compounds											
Acetone	GCTL	6300	ug/L	--	--	--		--		--	--
Tetrachloroethene	PDWS	3	ug/L	--	--	--		--		--	--
Metals											
Antimony	PDWS	6	ug/L	--	--	--		--		--	--
Arsenic	PDWS	10	ug/L	--	--	--		--		--	--
Barium	PDWS	2000	ug/L	--	--	--		--		--	--
Beryllium	PDWS	4	ug/L	--	--	--		--		--	--
Cadmium	PDWS	5	ug/L	--	--	--		--		--	--
Chromium	PDWS	100	ug/L	--	--	--		--		--	--
Cobalt	GCTL	140	ug/L	--	--	--		--		--	--
Copper	SDWS	1000	ug/L	--	--	--		--		--	--
Iron	SDWS	300	ug/L	--	--	--		--		--	--
Lead	PDWS	15	ug/L	--	--	--		--		--	--
Mercury	PDWS	2	ug/L	--	--	--		--		--	--
Nickel	PDWS	100	ug/L	--	--	--		--		--	--
Selenium	PDWS	50	ug/L	--	--	--		--		--	--
Silver	SDWS	100	ug/L	--	--	--		--		--	--
Sodium	PDWS	160	mg/L	87.7	110	63	92	120	130	180	160
Thallium	PDWS	2	ug/L	--	--	--		--		--	--
Vanadium	GCTL	49	ug/L	--	--	--		--		--	--
Zinc	SDWS	5000	ug/L	--	--	--		--		--	--
General Chemistry											
Ammonia (N)	GCTL	2.8	mg/L	1.1	13	9.3	18	17	19	23	11
Chloride	SDWS	250	mg/L	94.9	130	97 J	130	280	200 J	280	210
Nitrate (N)	PDWS	10	mg/L	--	--	--		--		--	--
Residues- Filterable (TDS)	SDWS	500	mg/L	352	470	410	570	650	570	800	730
Field Parameters											
Conductivity	NS	NS	umhos/cm	498	968	580	976	1204	1131	1666	1808
Dissolved Oxygen	NS	NS	mg/L	2.19	0.63	0.41	0.27	0.71	0.22	0.41	1.63
Oxidation Reduction Potential	NS	NS	mV	140.7	61.3	121.6	49.1	126.5	10	-32.9	-19.4
pH	SDWS	6.5-8.5	SU	6.44	6.28	6.14	6.36	6.39	6.46	6.49	6.56
Temperature, Water	NS	NS	Degrees C	26.48	27.2	22.6	24.3	28.5	23.7	26.1	32.4
Turbidity	NS	NS	NTU	3.56	1.1	1.21	0.23	3.13	0.49	1.75	7.47

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. NS = No numeric standard has been set for this analyte.
5. --- = Parameter not analyzed.
6. mg/L = milligrams per liter
7. ug/L = micrograms per liter
8. NTU = nephelometric turbidity units
9. umhos/cm = micromhos per centimeter
10. mV = millivolts
11. Yellow shaded values indicate parameter concentrations exceed primary, secondary drinking water standards, or groundwater cleanup target levels.
12. Degrees C = degrees Celsius
13. U = Analyte concentration was below the laboratory detection limit (value shown).
14. I = Analyte concentration was between the laboratory detection limit and laboratory practical quantitation limit.
15. V = Analyte was detected in the sample and associated method blank.
16. J = The reported result is a laboratory estimate.

Surface Water Summary of Detected Parameters, Mine Cut-1D

Parameter	MCL	Units	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds							
1,1,2-Trichloroethane	16	ug/L	0.46 U	0.46 U	0.46 U	0.46 U	0.4 U
Acetone	1700	ug/L	340	1 U	1 U	1 U	0.9 U
Carbon tetrachloride	4.42	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.41 U
trans-1,3-Dichloropropene	NS	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.26 U
Toluene	480	ug/L	0.45 U	0.45 U	0.45 U	0.45 U	0.66 U
Metals							
Antimony	4300	ug/L	0.45 I	0.13 I	0.33 I	0.11 U	0.25 I
Arsenic	50	ug/L	0.9 I	0.21 I	0.55 I	0.26 I	0.38 I
Barium	NS	ug/L	5.5	1.9	3.7	1.4	2
Cadmium	See below	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Calculated Cadmium MCL	Calculated	ug/L	0.33	0.33	0.29	0.26	0.27
Chromium	See below	ug/L	0.63 I	0.34 I	0.41 I	0.33 I	0.11 U
Calculated Chromium MCL	Calculated	ug/L	106.84	106.84	93.18	83.35	86.18
Cobalt	NS	ug/L	0.29 I	0.19 U	0.19 U	0.19 U	0.19 U
Copper	See below	ug/L	0.58 I	0.35 U	0.38 I	0.35 U	0.35 U
Calculated Copper MCL	Calculated	ug/L	11.67	11.67	10.12	9.01	9.33
Iron	1000	ug/L	760	380	340	180	200 U
Lead	See below	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Calculated Lead MCL	Calculated	ug/L	4.44	4.44	3.59	3.02	3.18
Nickel	See below	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Calculated Nickel MCL	Calculated	ug/L	65.13	65.13	56.54	50.39	52.16
Selenium	5	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	0.07	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Vanadium	NS	ug/L	2	0.71 U	0.98 I	0.71 U	1.7 I
Zinc	See below	ug/L	8.7 I	8.3 I	8.3 I	5.2 U	50 U
Calculated Zinc MCL	Calculated	ug/L	149.64	149.64	129.89	115.74	119.82
General Chemistry							
Ammonia- Un-ionized (NH3)	0.02	mg/L	0.000017 U	0.00047	0.00022 I	0.000061 I	0.0011 I
BOD	NS	mg/L	2 U	4.2	3.6	3.2	4.6
COD	NS	mg/L	77	33 I	45 I	34 I	47 I
Chlorophyll a	NS	ug/L	43	16	34	60	11
Coliform Fecal	800	#/100 mL	50 B	60 B	60 B	29	20 B
Hardness	NS	mg/L	130	130	110	96	100
Nitrate (N)	NS	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.092 U
Nitrogen- Total	NS	mg/L	0.18 U	0.18 U	1.9	1.4	1.8
Phosphorus- Total	NS	mg/L	0.68 U	1.4	2.1	3.1	2.1
Residues- Filterable (TDS)	NS	mg/L	300	260	310	230	360
Carbon- Total Organic	NS	mg/L	20	17	15	14	21
Residues- Nonfilterable (TSS)	NS	mg/L	5.6	2.8	8.4	1.2 U	13
Field Parameters							
Conductivity	1275	umhos/cm	437.8	314.5	491.9	281.9	387.2
Dissolved Oxygen	>5	mg/L	0.37	1.38	0.76	1.35	2.83
Oxidation Reduction Potential	NS	mV	77.1	61.8	52.2	185.1	70.5
pH	6.5-8.5	SU	5.91	6.43	6.83	6.55	6.82
Temperature, Water	NS	deg C	27.9	17.7	28.4	18.6	31.4
Turbidity	<29	NTU	3.69	0.71	3.72	0.42	4.27

Notes:

- Parameter MCL is a Surface Water Criterion (Chapter 62-302 F.A.C.).
- Parameter MCL is calculated by the following formula: $CrIII < e^{(0.819 \cdot [\ln \text{Hardness}] + 0.6848)}$.
- Parameter MCL is calculated by the following formula: $Cu < e^{(0.8545 \cdot [\ln \text{Hardness}] - 1.702)}$.
- Parameter MCL is calculated by the following formula: $Ni < e^{(0.846 \cdot [\ln \text{Hardness}] + 0.0584)}$.
- Parameter MCL is calculated by the following formula: $Zn < e^{(0.8473 \cdot [\ln \text{Hardness}] + 0.884)}$.
- Turbidity MCL is 29 NTUs over background levels
- MCL = Maximum Contamination Level.
- Shaded = Sample result above the MCL.
- mg/L = milligrams per liter.
- ug/L = micrograms per liter.
- umhos/cm = micromhos/centimeter
- NTU = nephelometric turbidity units.
- NS = No numeric standard has been set for this analyte.
- mV = millivolts
- I = Analyte detected below quantitation limits.
- U = Analyte concentration was below the laboratory detection limit (value shown).
- V = Analyte was detected in the sample and associated method blank.
- B = Results based upon colony counts outside the acceptable range.
- J = The reported result is a laboratory estimate.

Surface Water Summary of Detected Parameters, Stream-3A

Parameter	MCL	Units	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds							
1,1,2-Trichloroethane	16	ug/L	0.46 U	0.46 U	0.46 U	0.46 U	0.4 U
Acetone	1700	ug/L	110	1.6 I	1 U	1 U	1.2 I
Carbon tetrachloride	4.42	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.41 U
trans-1,3-Dichloropropene	NS	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.26 U
Toluene	480	ug/L	0.45 U	0.45 U	0.45 U	0.45 U	0.66 U
Metals							
Antimony	4300	ug/L	0.29 I	0.11 U	0.11 U	0.11 U	0.28 I
Arsenic	50	ug/L	0.27 I	0.25 I	0.32 I	0.17 I	0.3 I
Barium	NS	ug/L	18	16	20	19	19
Cadmium	See below	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Calculated Cadmium MCL	Calculated	ug/L	0.27	0.21	0.26	0.20	0.29
Chromium	See below	ug/L	1 I	0.65 I	0.81 I	0.56 I	0.11 U
Calculated Chromium MCL	Calculated	ug/L	86.18	65.85	83.35	62.84	93.18
Cobalt	NS	ug/L	0.19 U	0.25 I	0.19 U	0.19 U	0.19 U
Copper	See below	ug/L	0.37 I	0.35 U	0.61 I	0.43 I	0.39 I
Calculated Copper MCL	Calculated	ug/L	9.33	7.05	9.01	6.71	10.12
Iron	1000	ug/L	420	900	520	140 U	200 U
Lead	See below	ug/L	0.24 U	0.24 U	0.24 U	0.24 U	0.24 U
Calculated Lead MCL	Calculated	ug/L	3.18	2.09	3.02	1.95	3.59
Nickel	See below	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Calculated Nickel MCL	Calculated	ug/L	52.16	39.51	50.39	37.64	56.54
Selenium	5	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	0.07	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Vanadium	NS	ug/L	1.3 I	0.96 I	0.88 I	1.1 I	0.71 U
Zinc	See below	ug/L	9.1 I	10	43	10	50 U
Calculated Zinc MCL	Calculated	ug/L	119.82	90.71	115.74	86.42	129.89
General Chemistry							
Ammonia- Un-ionized (NH3)	0.02	mg/L	0.000064 I	0.00036	0.00068 I	0.0000023 U	0.00042 I
BOD	NS	mg/L	2 U	2 U	2.5	3.2	3.1
COD	NS	mg/L	38 I	24 U	24 U	24 U	20 U
Chlorophyll a	NS	ug/L	5.3	2.5 U	7.2	2.5 U	4.8 I
Coliform Fecal	800	#/100 mL	10 U	50 B	40 B	20	1 U
Hardness	NS	mg/L	100	72	96	68	110
Nitrate (N)	NS	mg/L	0.18 U	0.18 U	0.079 U	0.079 U	0.12
Nitrogen- Total	NS	mg/L	0.55	0.18 U	2.4	0.44	0.84
Phosphorus- Total	NS	mg/L	1	0.046 U	0.23 U	0.27	0.15 U
Residues- Filterable (TDS)	NS	mg/L	170	100	180	190	230
Carbon- Total Organic	NS	mg/L	10	8.3	10	5.9	12
Residues- Nonfilterable (TSS)	NS	mg/L	4	2.5 U	3.2	1.2 U	2.7
Field Parameters							
Conductivity	1275	umhos/cm	281.4	195.3	276.2	195.9	308.7
Dissolved Oxygen	>5	mg/L	0.33	0.63	0.07	1.31	0.11
Oxidation Reduction Potential	NS	mV	-99	165.9	-58.4	---	-180.2
pH	6.5-8.5	SU	6.09	5.46	6.39	5.48	6.42
Temperature, Water	NS	deg C	25.6	18.2	27.2	17	24.9
Turbidity	<29	NTU	3.98	1.09	2.5	0.41	2.37

Notes:

- Parameter MCL is a Surface Water Criterion (Chapter 62-302 F.A.C.).
- Parameter MCL is calculated by the following formula: $CrIII < e^{(0.819 \cdot [\ln \text{Hardness}] + 0.6848)}$.
- Parameter MCL is calculated by the following formula: $Cu < e^{(0.8545 \cdot [\ln \text{Hardness}] - 1.702)}$.
- Parameter MCL is calculated by the following formula: $Ni < e^{(0.846 \cdot [\ln \text{Hardness}] + 0.0584)}$.
- Parameter MCL is calculated by the following formula: $Zn < e^{(0.8473 \cdot [\ln \text{Hardness}] + 0.884)}$.
- Turbidity MCL is 29 NTUs over background levels
- MCL = Maximum Contamination Level.
- Shaded = Sample result above the MCL.
- mg/L = milligrams per liter.
- ug/L = micrograms per liter.
- umhos/cm = micromhos/centimeter
- NTU = nephelometric turbidity units.
- NS = No numeric standard has been set for this analyte.
- mV = millivolts
- I** = Analyte detected below quantitation limits.
- U** = Analyte concentration was below the laboratory detection limit (value shown).
- V** = Analyte was detected in the sample and associated method blank.
- B** = Results based upon colony counts outside the acceptable range.
- J** = The reported result is a laboratory estimate.

Surface Water Summary of Detected Parameters, Stream-3B2B

Parameter	MCL	Units	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds							
1,1,2-Trichloroethane	16	ug/L	0.46 U	0.46 U	0.46 U	0.46 U	0.4 U
Acetone	1700	ug/L	29	1 U	1 U	1 U	1 I
Carbon tetrachloride	4.42	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.41 U
trans-1,3-Dichloropropene	NS	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.26 U
Toluene	480	ug/L	0.45 U	0.45 U	0.45 U	0.45 U	0.66 U
Metals							
Antimony	4300	ug/L	0.13 I	0.11 U	0.13 I	0.11 U	0.11 U
Arsenic	50	ug/L	0.56 I	0.26 I	0.89 I	0.24 I	0.26 I
Barium	NS	ug/L	8.5	8.6	13	12	12
Cadmium	See below	ug/L	0.064 U	0.064 U	0.064 U	0.064 U	0.064 U
Calculated Cadmium MCL	Calculated	ug/L	0.26	0.18	0.20	0.20	0.23
Chromium	See below	ug/L	1.1 I	0.69 I	1.5 I	0.66 I	0.11 U
Calculated Chromium MCL	Calculated	ug/L	83.35	53.60	62.84	62.84	71.79
Cobalt	NS	ug/L	0.2 I	0.19 U	0.28 I	0.19 U	0.19 U
Copper	See below	ug/L	0.53 I	0.55 I	0.7	0.35 U	0.51 I
Calculated Copper MCL	Calculated	ug/L	9.01	5.68	6.71	6.71	7.71
Iron	1000	ug/L	730	330	1400	230	230 I
Lead	See below	ug/L	0.24 U	0.24 U	0.33 I	0.24 U	0.24 U
Calculated Lead MCL	Calculated	ug/L	3.02	1.52	1.95	1.95	2.39
Nickel	See below	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Calculated Nickel MCL	Calculated	ug/L	50.39	31.94	37.64	37.64	43.19
Selenium	5	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	0.07	ug/L	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
Vanadium	NS	ug/L	1.6 I	0.75 I	2.2	1 I	0.89 I
Zinc	See below	ug/L	13	11	12	8.1 I	50 U
Calculated Zinc MCL	Calculated	ug/L	115.74	73.31	86.42	86.42	99.18
General Chemistry							
Ammonia- Un-ionized (NH3)	0.02	mg/L	0.000015 U	0.000014	0.000053 U	0.000017 U	0.00007 I
BOD	NS	mg/L	2 U	2 U	2	2 U	2 U
COD	NS	mg/L	45 I	24 U	55	24 U	20 U
Chlorophyll a	NS	ug/L	1.3 I	2.5 U	2.5 U	2.5 U	2.5 U
Coliform Fecal	800	#/100 mL	70 B	1200 B	800 B	49	1100 B
Hardness	NS	mg/L	96	56	68	68	80
Nitrate (N)	NS	mg/L	0.18 U	0.18 U	0.18	0.12	0.12
Nitrogen- Total	NS	mg/L	0.28 I	0.18 U	1.4	0.53	0.47
Phosphorus- Total	NS	mg/L	0.36	0.1	1	0.4	0.43
Residues- Filterable (TDS)	NS	mg/L	220	210	160	230	360
Carbon- Total Organic	NS	mg/L	12 J	10	18	8.1	9.6
Residues- Nonfilterable (TSS)	NS	mg/L	220	210	160	230	360
Field Parameters							
Conductivity	1275	umhos/cm	239.3	249	231	237.8	412
Dissolved Oxygen	>5	mg/L	3.17	6.15	3.28	5.2	0.26
Oxidation Reduction Potential	NS	mV	104.6	176.5	82.2	155.6	-94.6
pH	6.5-8.5	SU	5.95	5.45	6.39	6.26	6.26
Temperature, Water	NS	deg C	24.5	17.5	26.1	19.7	25.7
Turbidity	<29	NTU	3.41	1.1	6.76	0.64	1.56

Notes:


- Parameter MCL is a Surface Water Criterion (Chapter 62-302 F.A.C.).
- Parameter MCL is calculated by the following formula: $CrIII < e^{(0.819 \cdot [\ln \text{Hardness}] + 0.6848)}$.
- Parameter MCL is calculated by the following formula: $Cu < e^{(0.8545 \cdot [\ln \text{Hardness}] - 1.702)}$.
- Parameter MCL is calculated by the following formula: $Ni < e^{(0.846 \cdot [\ln \text{Hardness}] + 0.0584)}$.
- Parameter MCL is calculated by the following formula: $Zn < e^{(0.8473 \cdot [\ln \text{Hardness}] + 0.884)}$.
- Turbidity MCL is 29 NTUs over background levels
- MCL = Maximum Contamination Level.
- Shaded = Sample result above the MCL.
- mg/L = milligrams per liter.
- ug/L = micrograms per liter.
- umhos/cm = micromhos/centimeter
- NTU = nephelometric turbidity units.
- NS = No numeric standard has been set for this analyte.
- mV = millivolts
- I = Analyte detected below quantitation limits.
- U = Analyte concentration was below the laboratory detection limit (value shown).
- V = Analyte was detected in the sample and associated method blank.
- B = Results based upon colony counts outside the acceptable range.
- J = The reported result is a laboratory estimate.

Surface Water Summary of Detected Parameters, Stream-3C2

Parameter	MCL	Units	Aug-18	Feb-19	Aug-19	Feb-20	Aug-20
Volatile Organic Compounds							
1,1,2-Trichloroethane	16	ug/L	0.46 U	0.46 U	0.46 U	0.46 U	0.4 U
Acetone	1700	ug/L	28	1 U	1 U	6.3	0.9 U
Carbon tetrachloride	4.42	ug/L	0.6 U	0.6 U	0.6 U	0.6 U	0.41 U
trans-1,3-Dichloropropene	NS	ug/L	0.2 U	0.2 U	0.2 U	0.2 U	0.26 U
Toluene	480	ug/L	0.45 U	0.45 U	0.45 U	0.45 U	0.66 U
Metals							
Antimony	4300	ug/L	0.93	0.15 I	0.49 I	0.23 I	0.23 I
Arsenic	50	ug/L	1.2	0.4 I	1.3	0.35 I	0.35 I
Barium	NS	ug/L	6.2	4.6	6.8	7.8	4.7
Cadmium	See below	ug/L	0.22 I	0.064 U	0.064 U	0.064 U	0.064 U
Calculated Cadmium MCL	Calculated	ug/L	0.23	0.22	0.23	0.25	0.23
Chromium	See below	ug/L	1.1 I	0.67 I	1.4 I	0.74 I	0.11 U
Calculated Chromium MCL	Calculated	ug/L	71.79	68.83	71.79	77.61	71.79
Cobalt	NS	ug/L	0.38 I	0.19 U	0.42 I	0.19 U	0.19 U
Copper	See below	ug/L	0.96	0.35 U	0.41 I	0.41 I	0.5 I
Calculated Copper MCL	Calculated	ug/L	7.71	7.38	7.71	8.36	7.71
Iron	1000	ug/L	520	220	1200	150 I	200 U
Lead	See below	ug/L	0.37 I	0.24 U	0.27 I	0.24 U	0.24 U
Calculated Lead MCL	Calculated	ug/L	2.39	2.24	2.39	2.70	2.39
Nickel	See below	ug/L	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Calculated Nickel MCL	Calculated	ug/L	43.19	41.36	43.19	46.82	43.19
Selenium	5	ug/L	0.58 U	0.58 U	0.58 U	0.58 U	0.58 U
Silver	0.07	ug/L	0.19 I	0.068 U	0.068 U	0.068 U	0.068 U
Vanadium	NS	ug/L	2.9	1.1 I	2.1	2 I	1.2 I
Zinc	See below	ug/L	9 I	9.9 I	9.9 I	8.7 I	50 U
Calculated Zinc MCL	Calculated	ug/L	99.18	94.96	99.18	107.52	99.18
General Chemistry							
Ammonia- Un-ionized (NH3)	0.02	mg/L	0.000072 U	0.0058	0.000091 U	0.000046 U	0.00024 I
BOD	NS	mg/L	2 U	2 U	2.1	3.1	2.1
COD	NS	mg/L	34 I	24 U	44 I	24 U	20 U
Chlorophyll a	NS	ug/L	5.3	2.5 U	3.2 I	2.5 U	2.5 U
Coliform Fecal	800	#/100 mL	10 U	290	320	42	2400
Hardness	NS	mg/L	80	76	80	88	80
Nitrate (N)	NS	mg/L	0.18 U	0.18 U	0.079 U	0.32	0.092 U
Nitrogen- Total	NS	mg/L	0.18 U	0.18 U	1.4	0.84	0.25
Phosphorus- Total	NS	mg/L	0.38	0.3	0.92	0.26	0.57
Residues- Filterable (TDS)	NS	mg/L	240	160	160	290	300
Carbon- Total Organic	NS	mg/L	15	13	16	9.8	12
Residues- Nonfilterable (TSS)	NS	mg/L	5.4	3.2	9.4	2	3.6
Field Parameters							
Conductivity	1275	umhos/cm	341.7	228.6	285.6	275.2	364.5
Dissolved Oxygen	>5	mg/L	3.94	7.54	2.67	7.75	3.98
Oxidation Reduction Potential	NS	mV	94.1	155.6	69	160.2	70.3
pH	6.5-8.5	SU	6.58	6.00	6.58	6.72	6.6
Temperature, Water	NS	deg C	26.4	18	27.7	18.9	25.7
Turbidity	<29	NTU	2.72	1.21	5.15	0.8	1.16

Notes:

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- Parameter MCL is calculated by the following formula: $CrIII < e^{(0.819 * [ln Hardness] + 0.6848)}$.
- Parameter MCL is calculated by the following formula: $Cu < e^{(0.8545 * [ln Hardness] - 1.702)}$.
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- J = The reported result is a laboratory estimate.

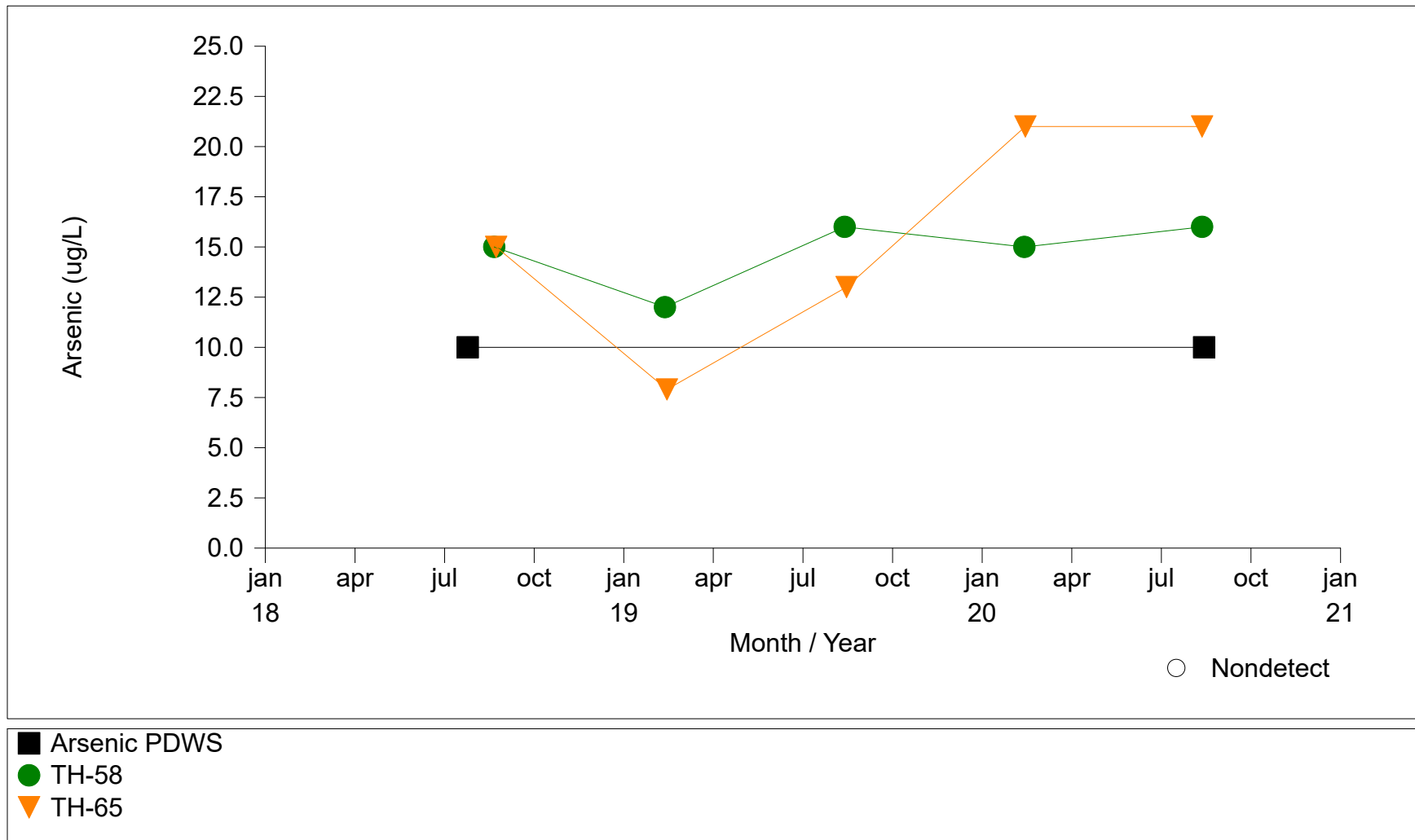


Appendix C

Time Series Plots of Water Quality Trends

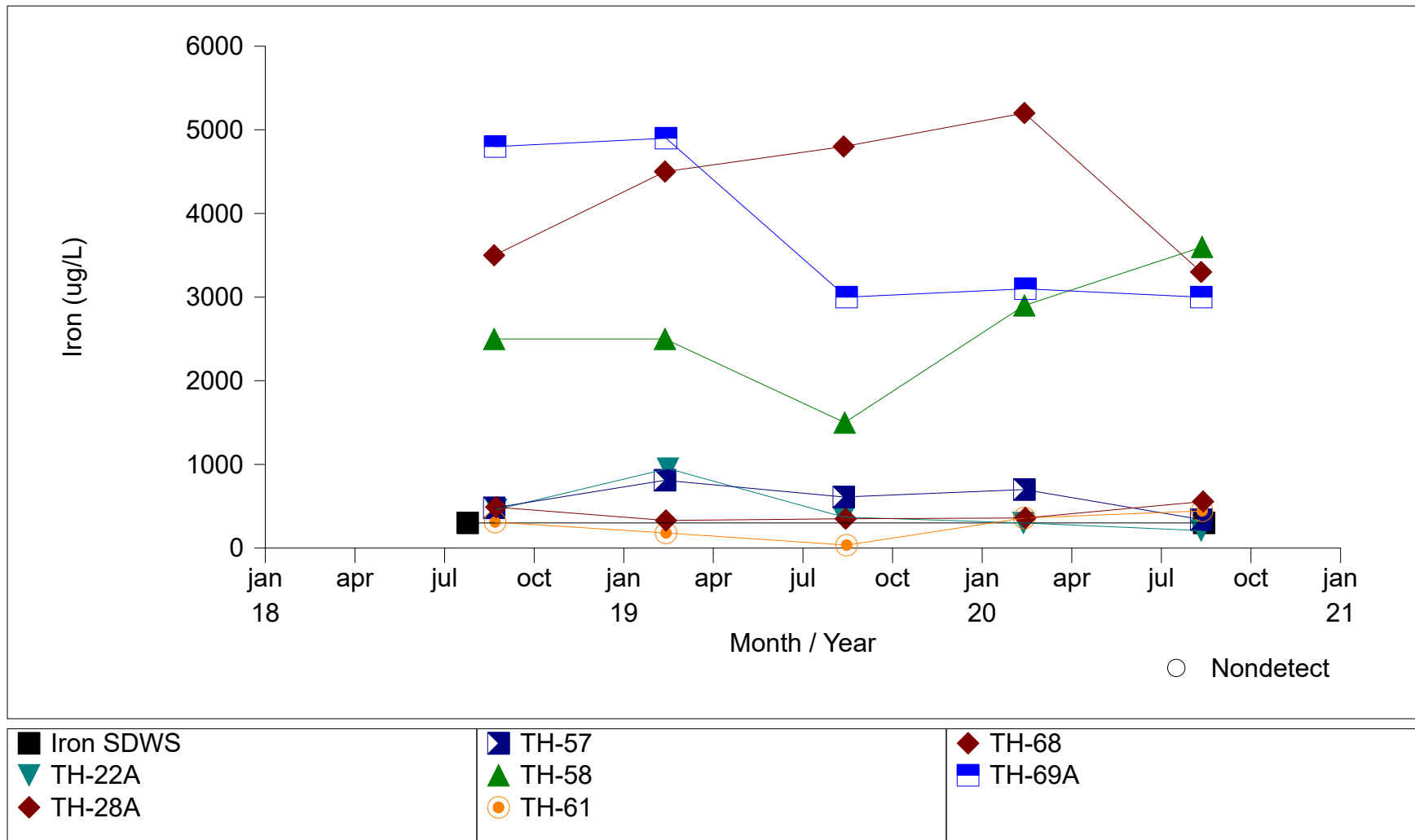
Southeast County Landfill

Arsenic Exceedances at Surficial Wells



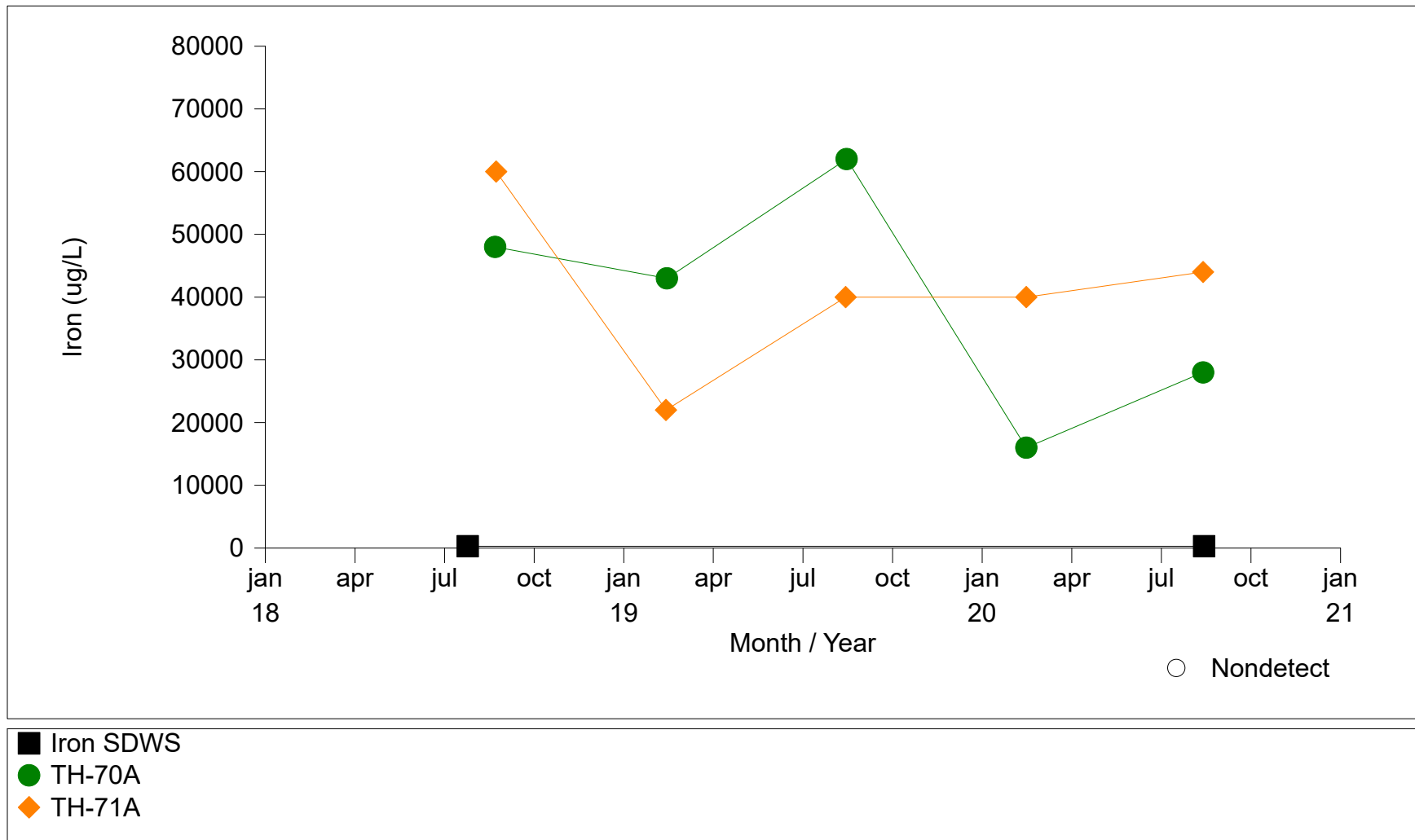
Southeast County Landfill

Iron Exceedances at Surficial Wells



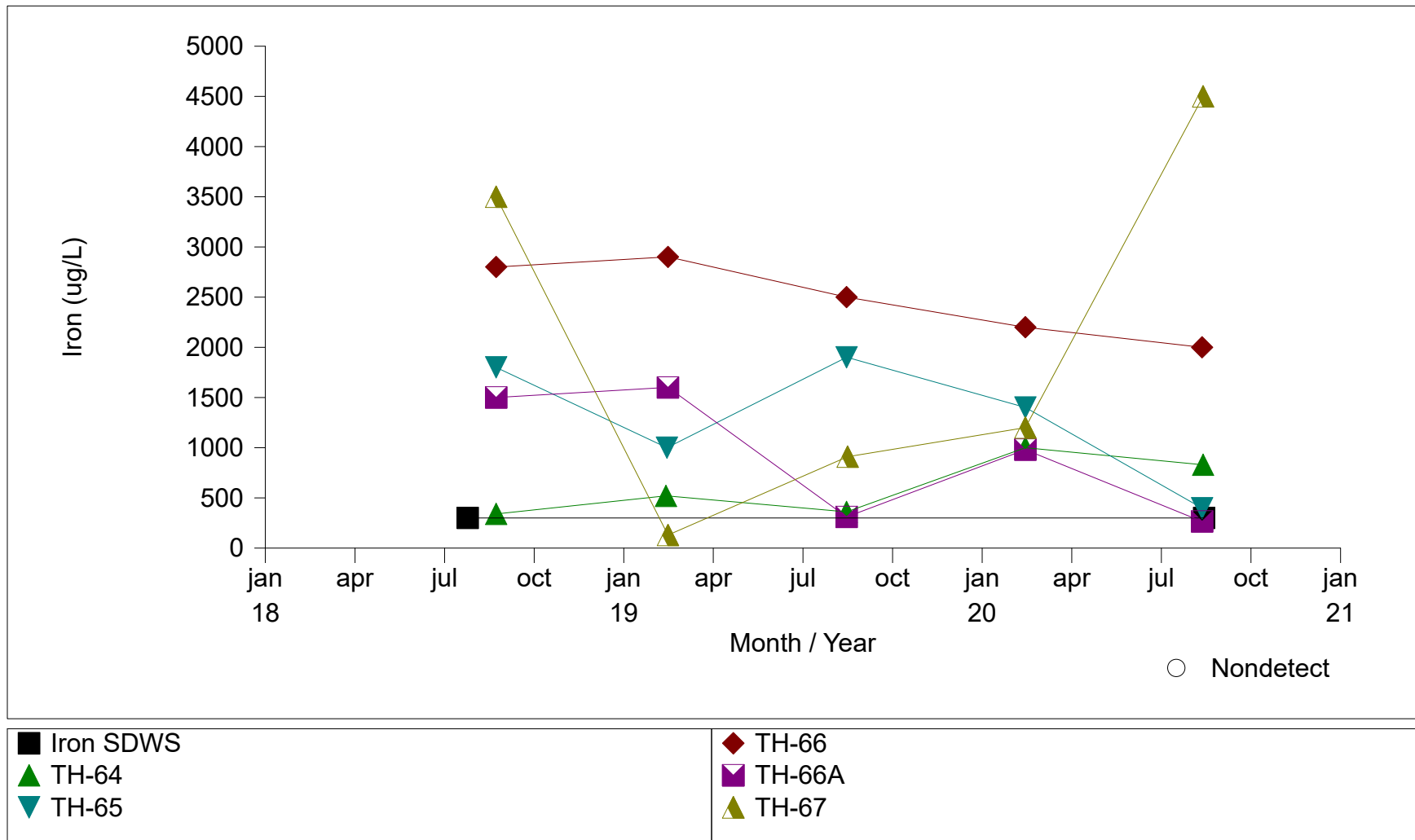
Southeast County Landfill

Iron Exceedances at Surficial Wells



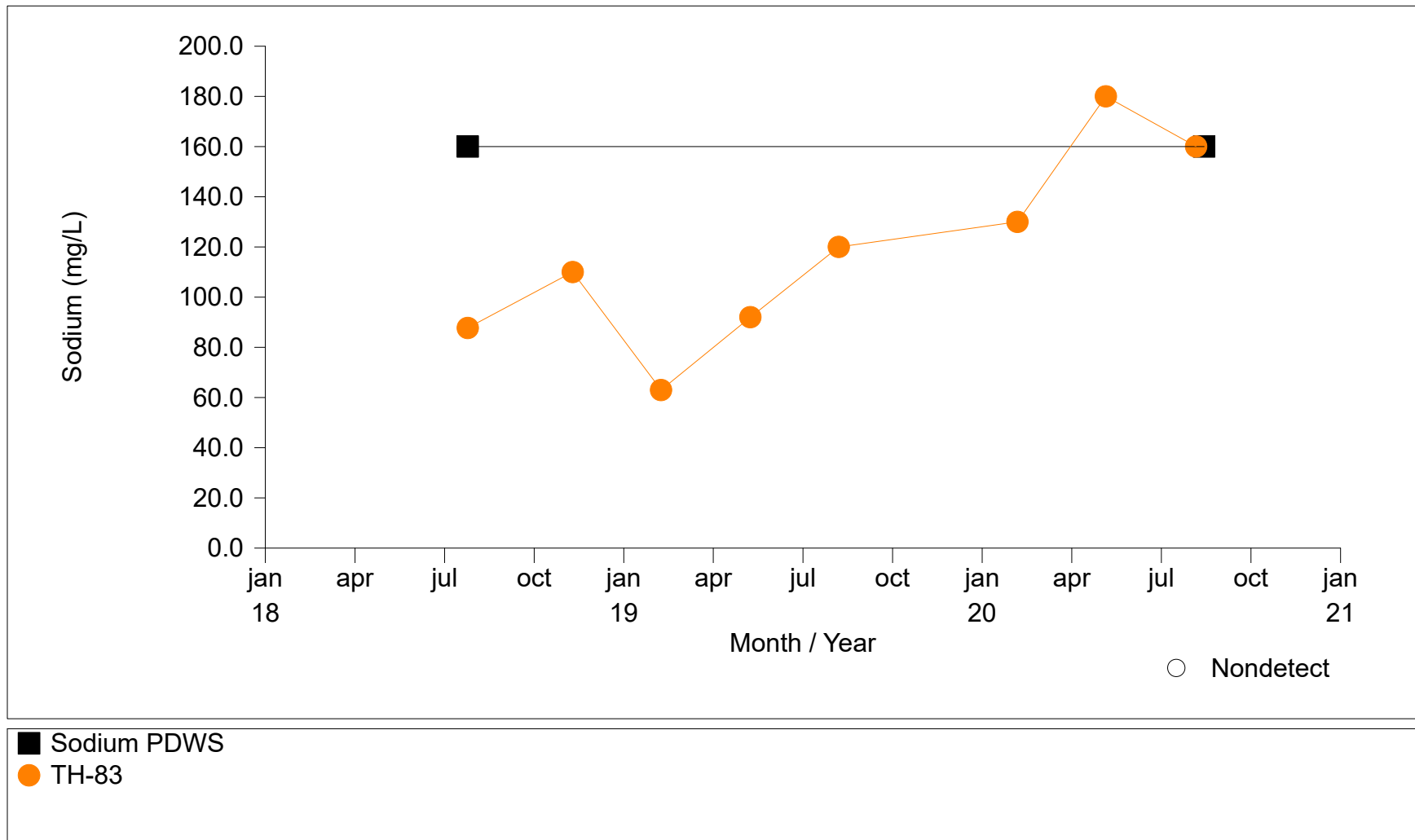
Southeast County Landfill

Iron Exceedances at Surficial Wells



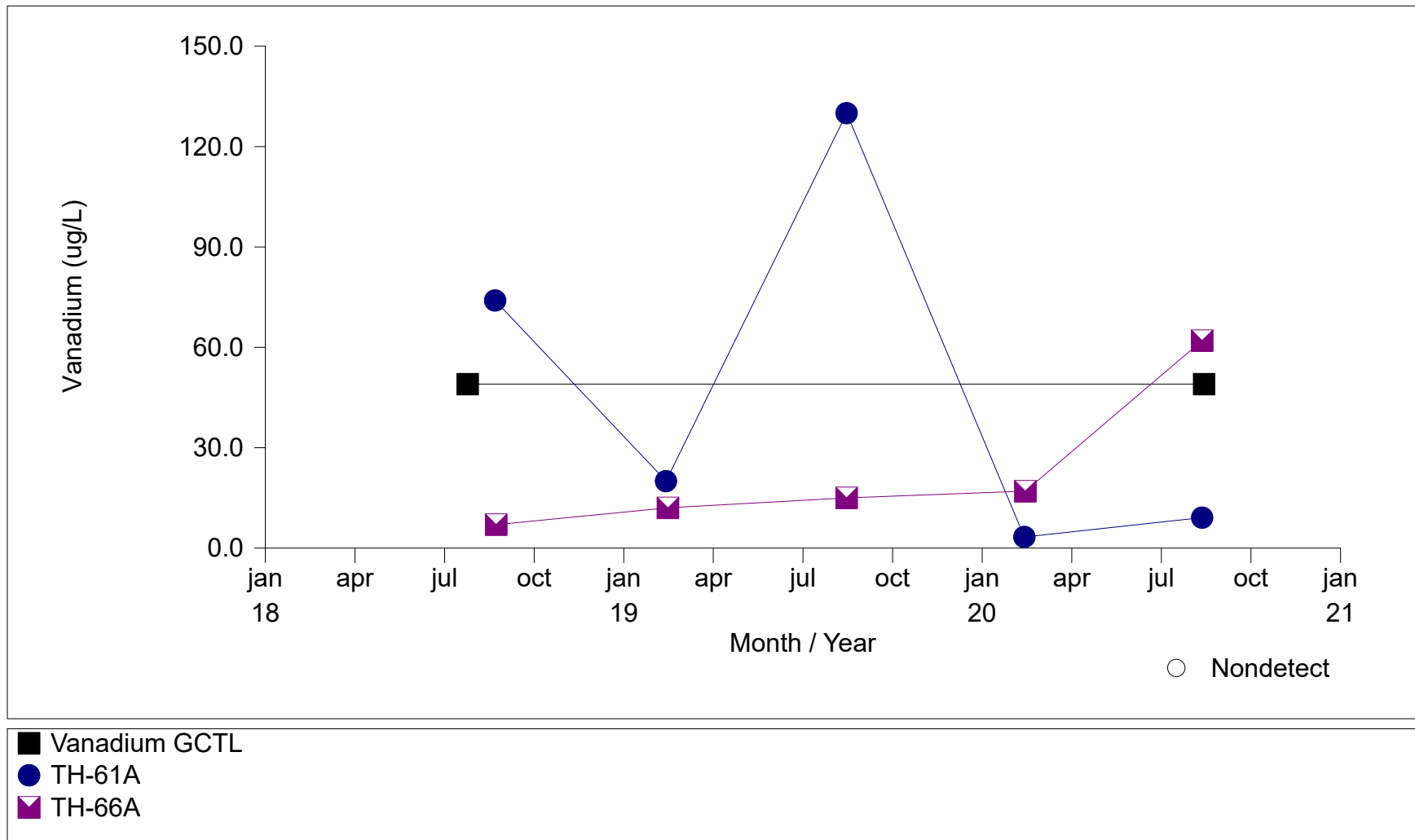
Southeast County Landfill

Sodium Exceedance at Surficial Well TH-83



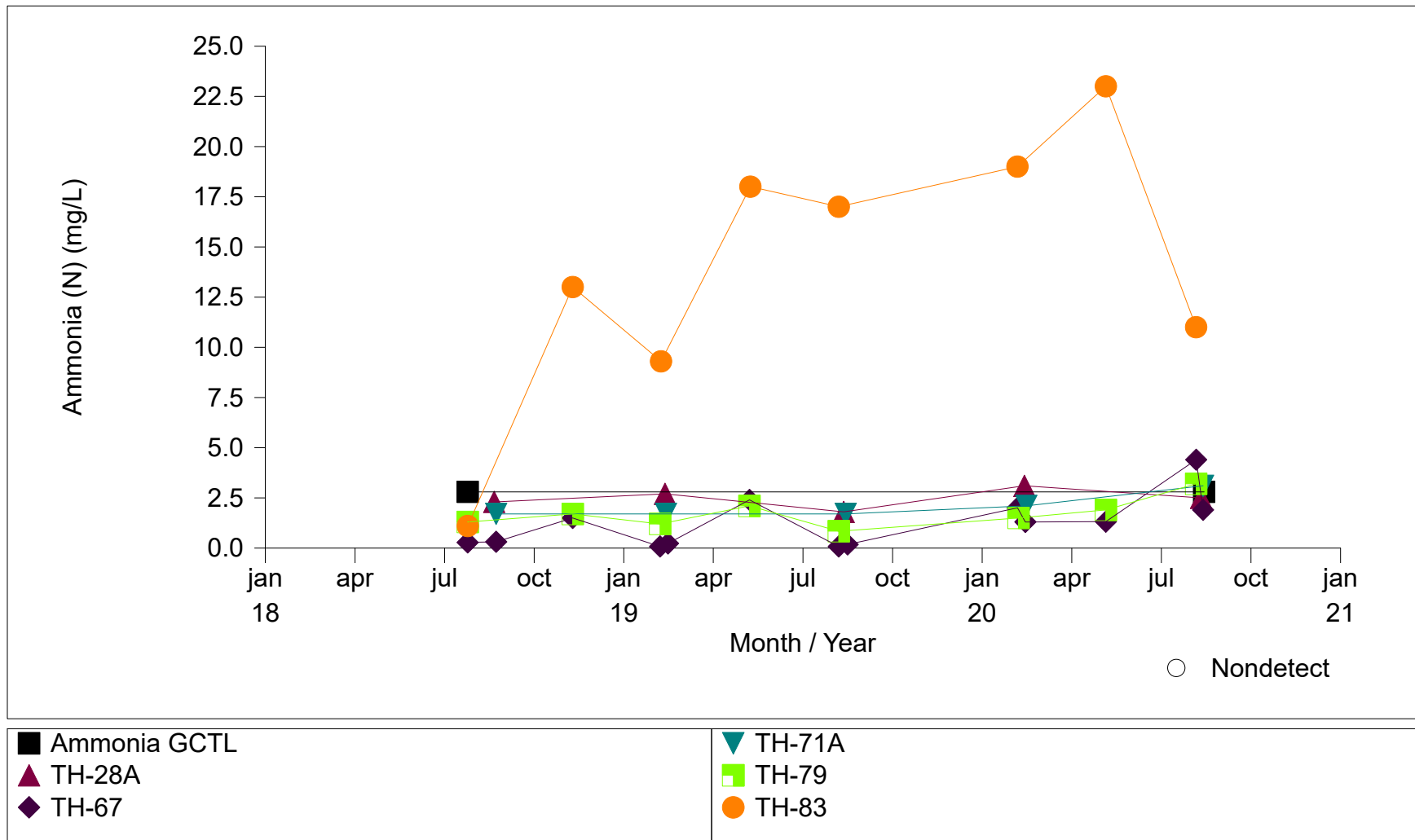
Southeast County Landfill

Vanadium Exceedances at Surficial Wells



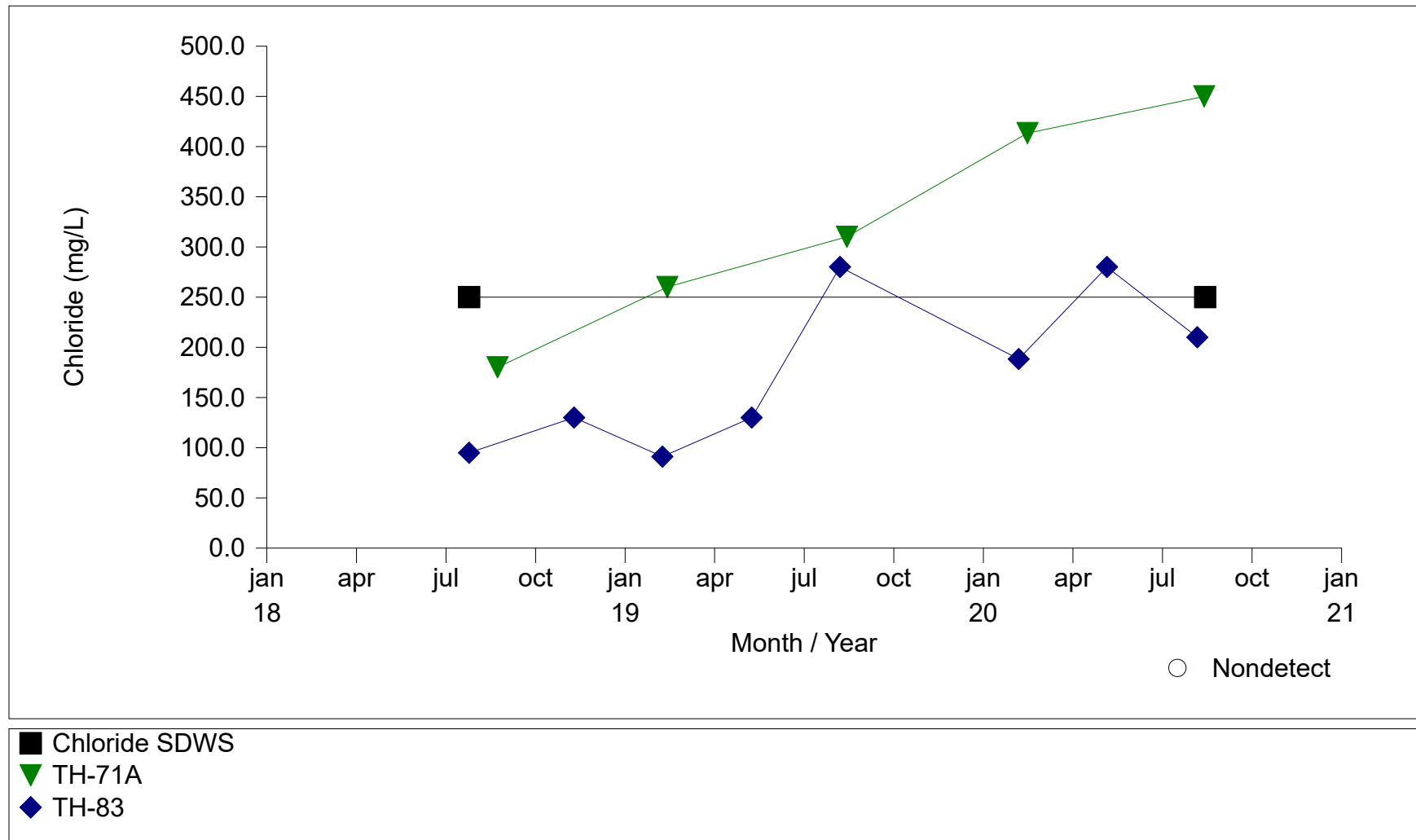
Southeast County Landfill

Ammonia (N) Exceedances at Surficial Wells



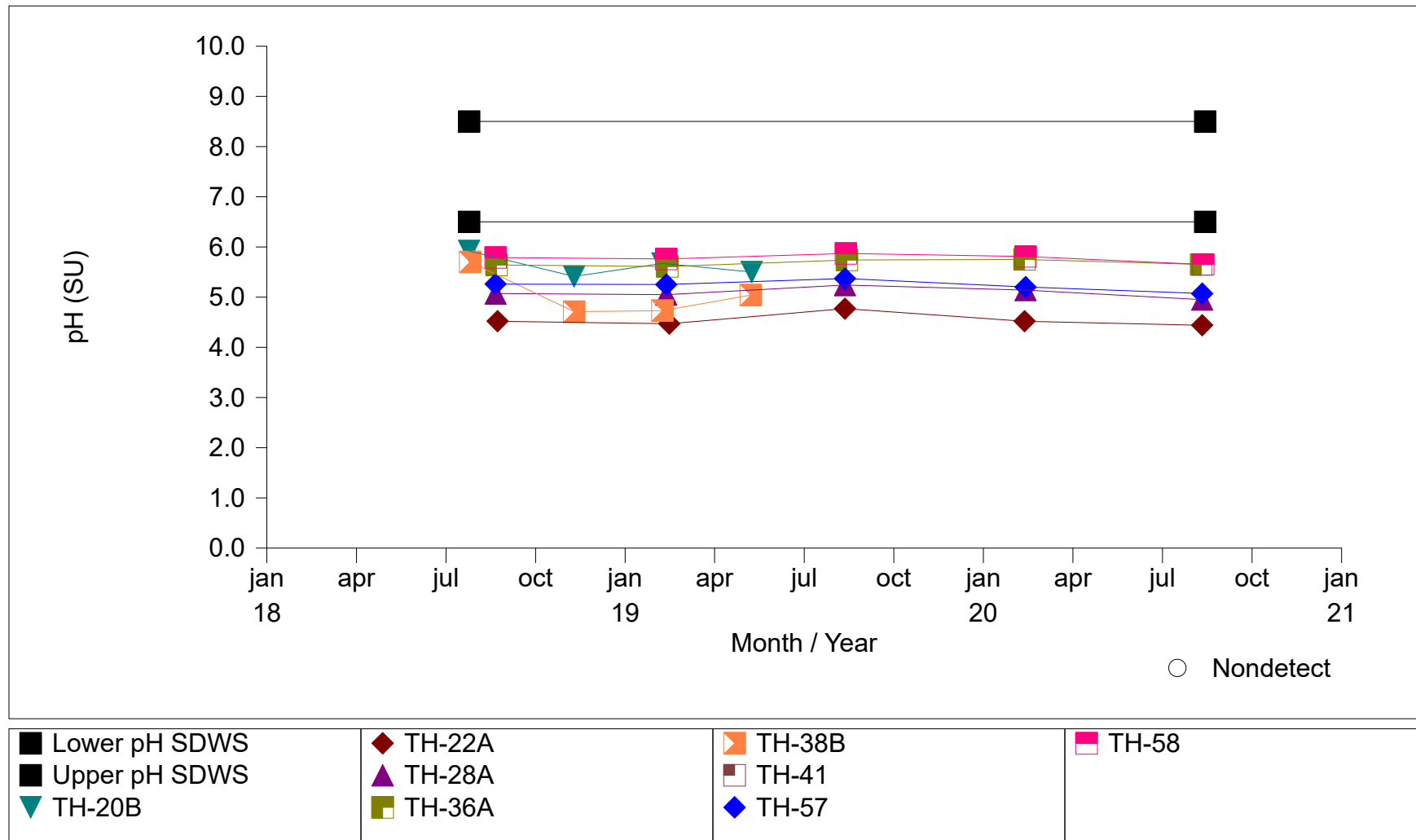
Southeast County Landfill

Chloride Exceedances at Surficial Wells



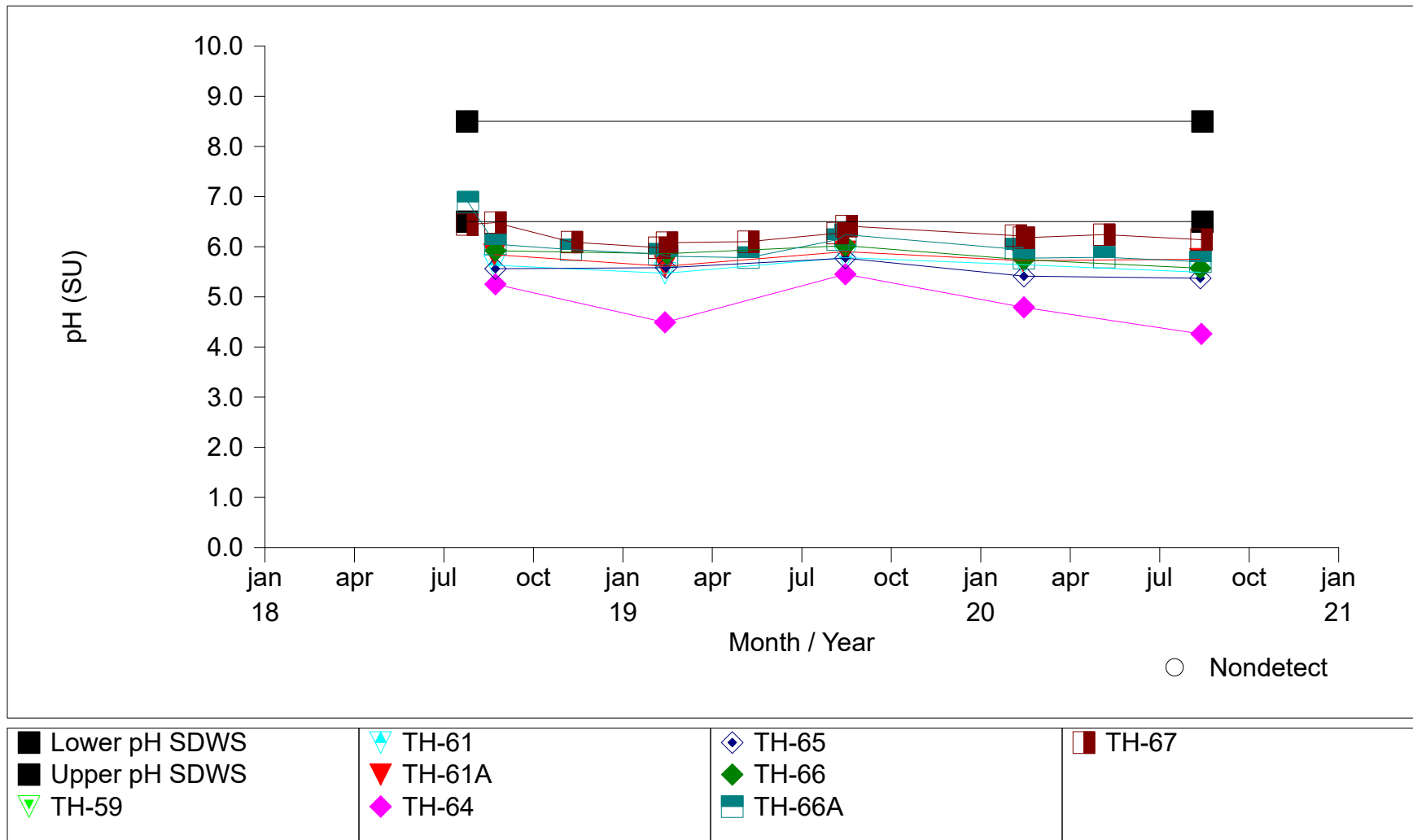
Southeast County Landfill

pH Exceedances at Surficial Wells



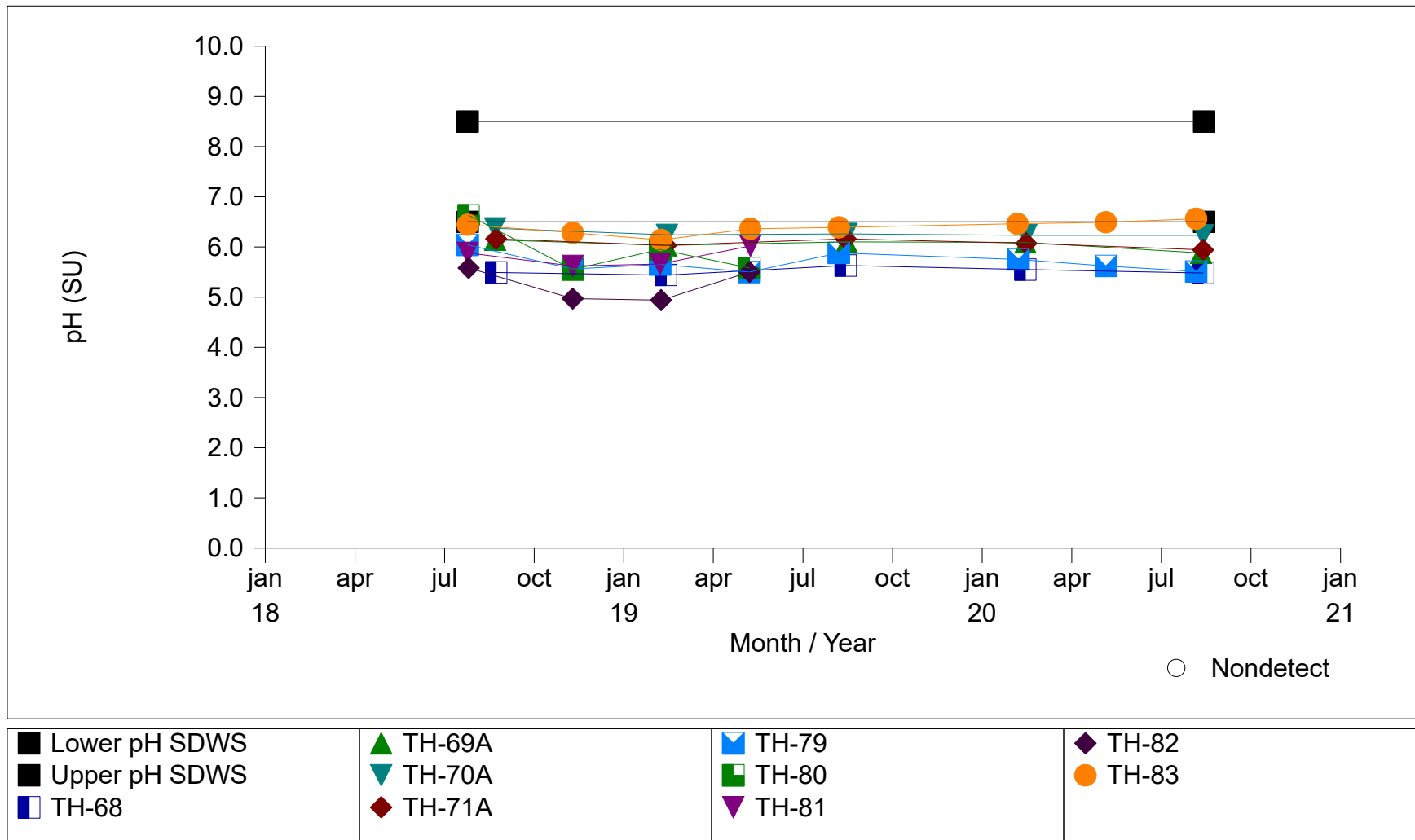
Southeast County Landfill

pH Exceedances at Surficial Wells



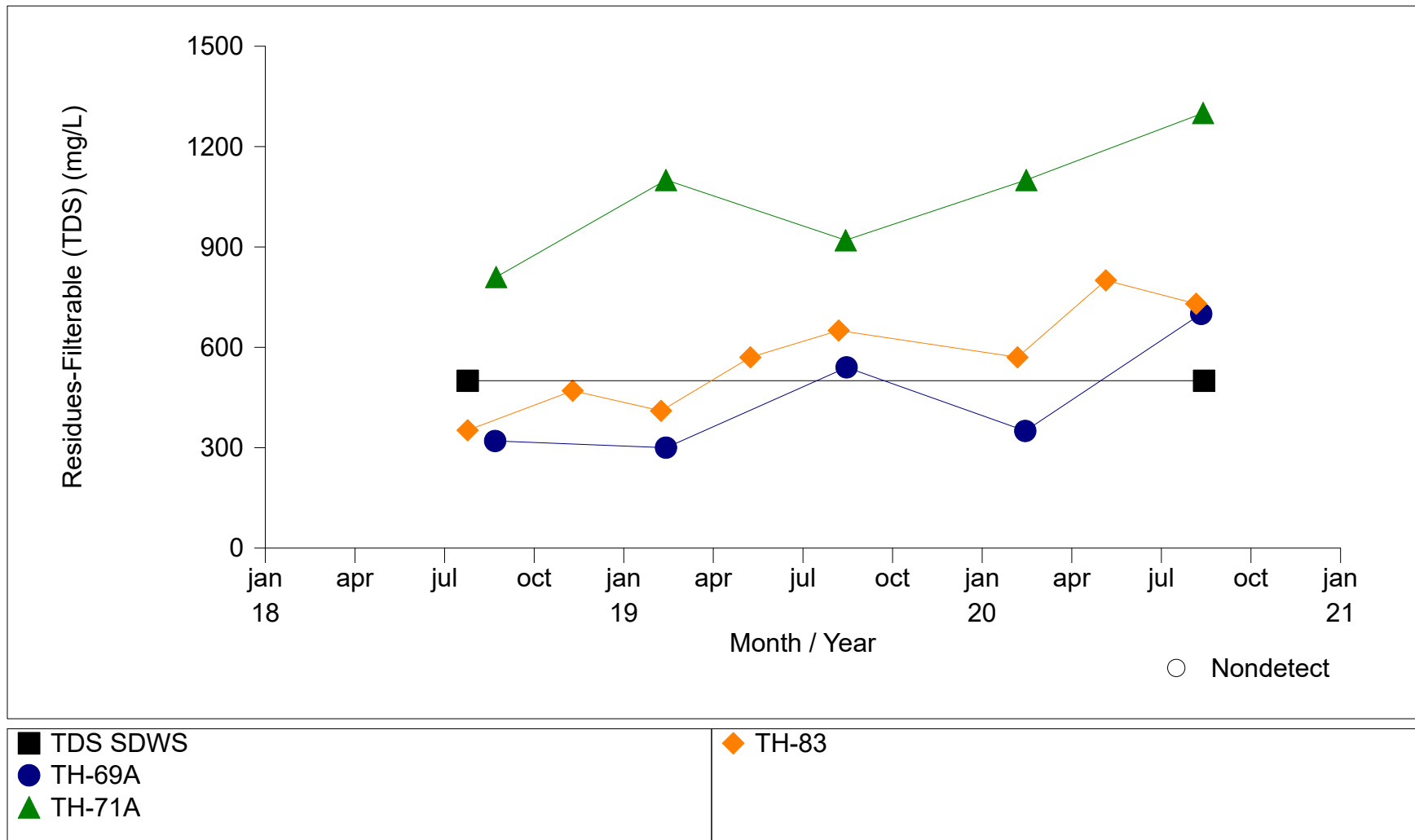
Southeast County Landfill

pH Exceedances at Surficial Wells



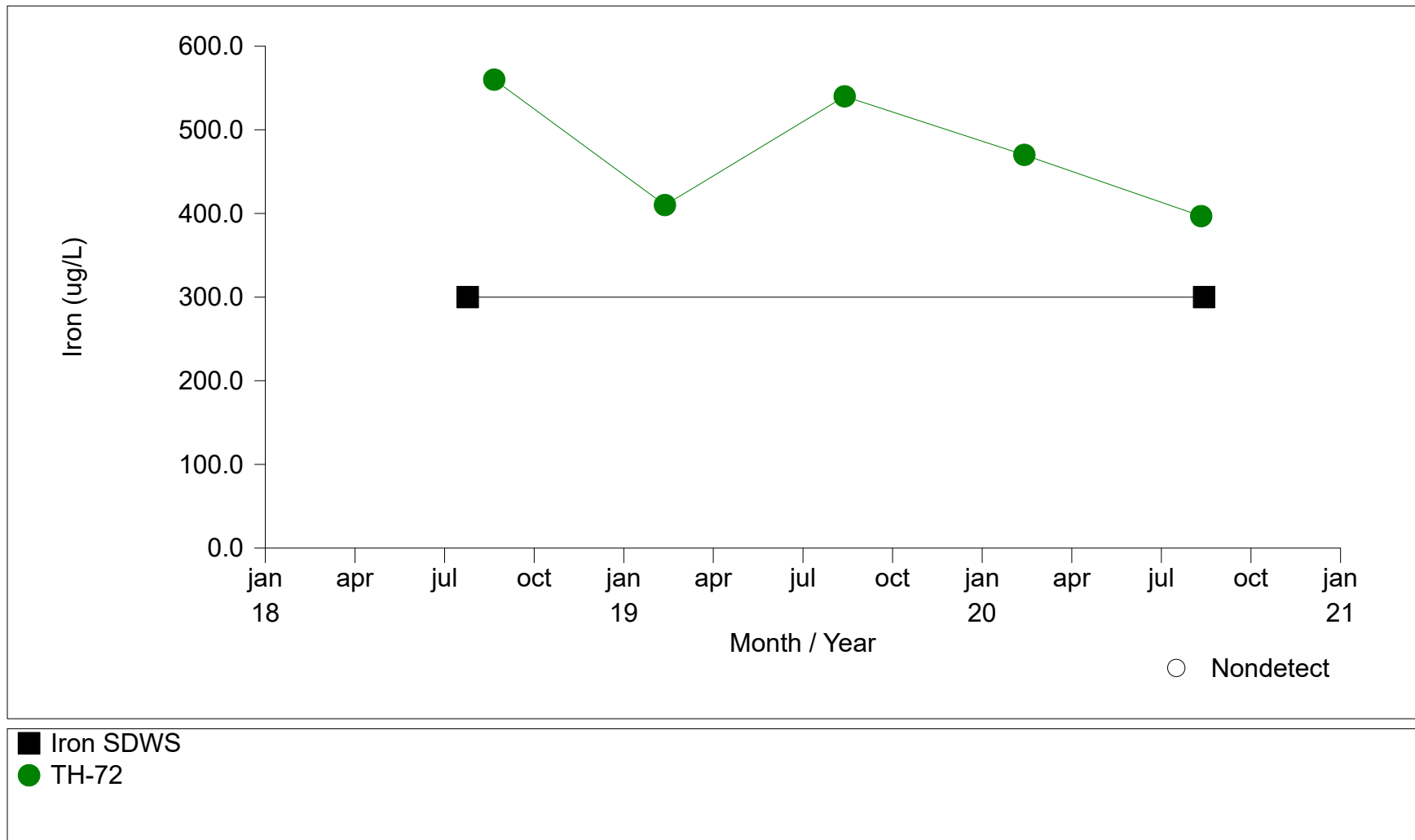
Southeast County Landfill

Total Dissolved Solids Exceedances at Surficial Wells



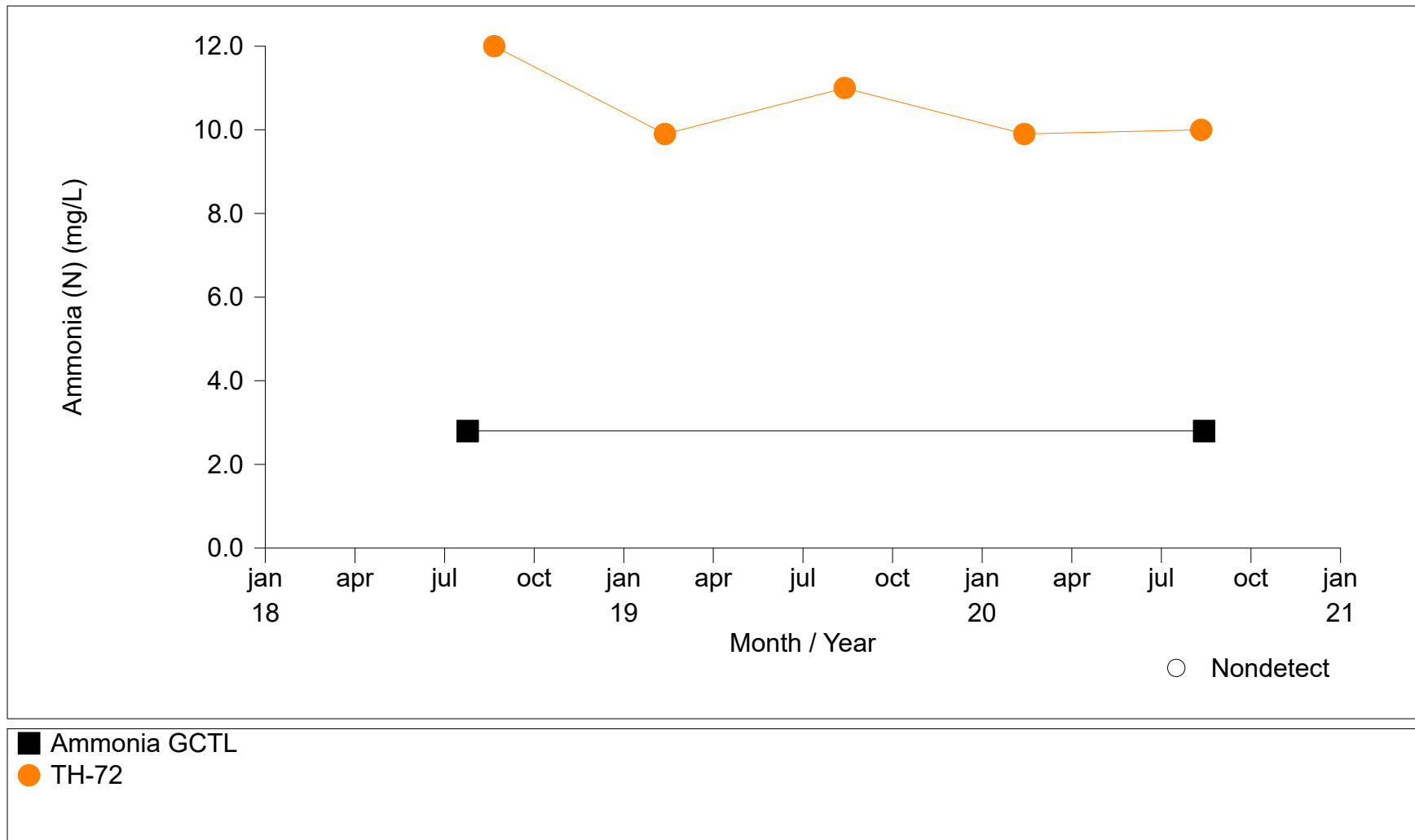
Southeast County Landfill

Iron Exceedances at Floridan Well TH-72



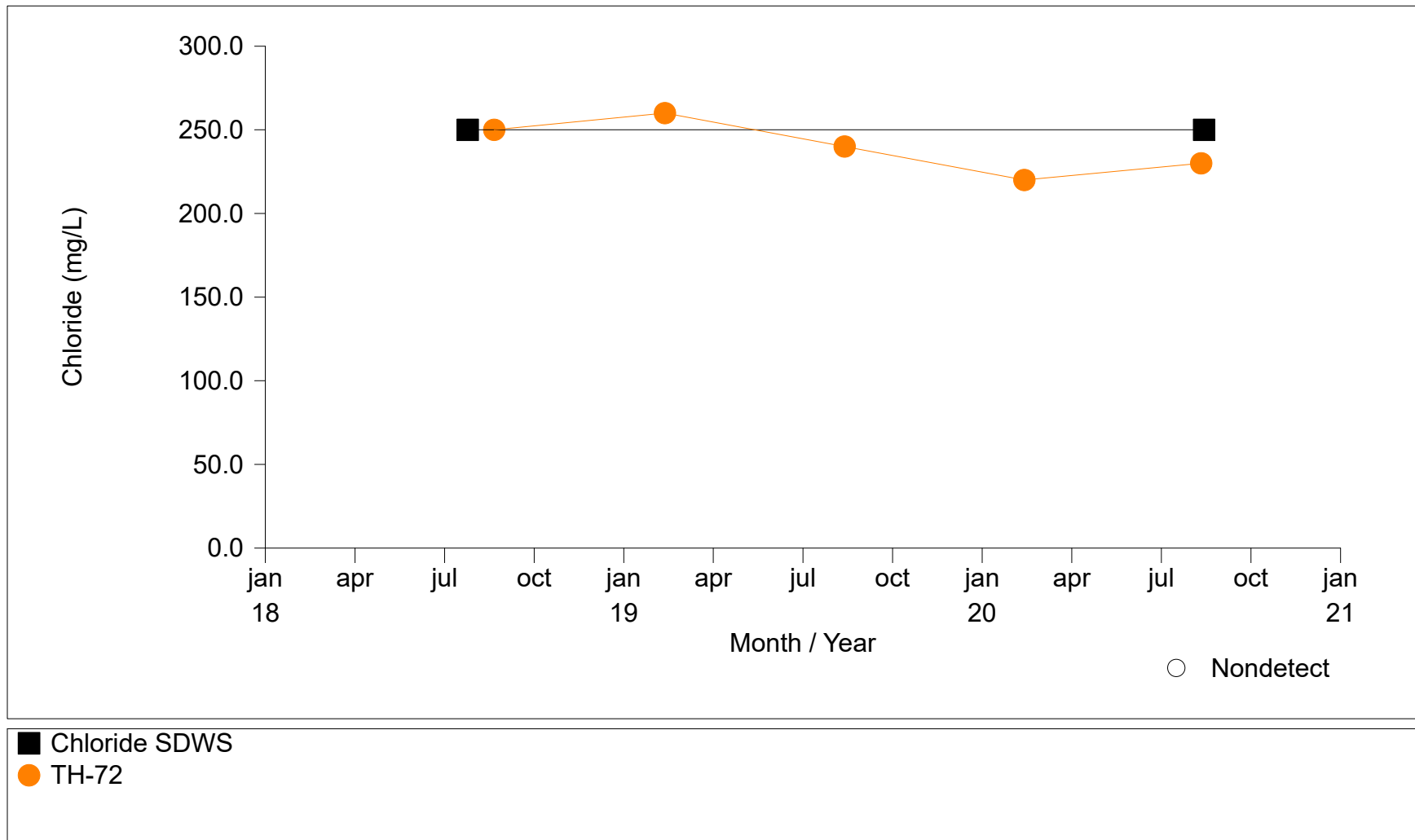
Southeast County Landfill

Ammonia (N) Exceedances at Floridan Well TH-72



Southeast County Landfill

Chloride Exceedances at Floridan Well TH-72



Southeast County Landfill

Total Dissolved Solids Exceedances at Floridan Well TH-72

