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March 31, 2022

Ms. Jasmin Jefferies
Remedial Project Manager
Superfund Remedial and Technical Services Branch
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Subject: **2021 Annual Report**
OU-1 and OU-2 Agrico Site
Pensacola, Florida
EPA ID: FLD 98022 1857

Dear Ms. Jefferies:

AECOM, on behalf of Phillips 66, successor to ConocoPhillips, and Williams Companies, Inc. representing Agrico Chemical Company, is submitting this 2021 Annual Report for the Agrico site in Pensacola, Florida. This report presents the results of monitoring and maintenance activities conducted during 2021 for the site.

A hard copy of the report will be sent directly to the site document repository, the West Florida Regional Library, Genealogy Branch in Pensacola.

AECOM will be uploading the electronic data for 2021 to the EPA DART system as per the guidance memorandum from EPA Region 4's Superfund Division Director, requiring that environmental sampling data be submitted to EPA in a Region 4 electronic format.

Should you have any questions or require additional information regarding this report, please contact me at (850) 637-5018. You may also contact Mr. Chris McGowan (Phillips 66) at (337) 491.5292 or Mr. Lee Andrews (Agrico Chemical Company Representative) at (918) 573-6912 with any questions you have about the project or site.

Sincerely,

Amy R. Mixon, P.E.
Project Manager

FINAL

2021 ANNUAL REPORT

AGRICO SITE
PENSACOLA, FLORIDA
OPERABLE UNITS ONE (OU-1) AND TWO (OU-2)

EPA ID: FLD 980221857

Submitted to

US Environmental Protection Agency, Region 4
Atlanta, Georgia

Prepared for

Phillips 66
Ponca City, Oklahoma
and
Williams, Inc.
On behalf of
Agrico Chemical Company
Tulsa, Oklahoma

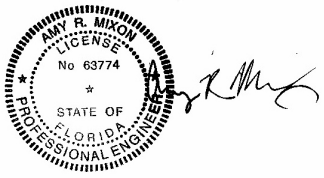
March 31, 2022

AECOM
1625 Summit Lake Drive
Tallahassee, Florida 32317
850-688-9941

Certification By
Florida Registered Professional Engineer

In accordance with Chapter 492, Florida Statutes, the *2021 Annual Report for the Agrico Chemical Site, Operable Unit One (OU-1) and Operable Unit Two (OU-2)* located in Pensacola, Florida has been prepared by or supervised by the undersigned registered Florida Professional Engineer. AECOM Technical Services, Inc., (AECOM) has prepared this Annual Report in a manner consistent with sound engineering practices and the customary level of care and skill exercised by members of the profession currently practicing in the same locality under similar circumstances.

Information developed and presented by others was used by AECOM in good faith as representative of the site conditions. The work performed by AECOM is in conformance with the current standards of practice.



Digitally signed by Amy R. Mixon
Date: 2022.03.31 14:09:55 -04'00'

Amy R. Mixon, PE
Florida Professional Engineer
License No. 63774
Expiration Date 02/28/2023

This report has been electronically signed and sealed by Amy R. Mixon on 03/31/2022. Printed copies of this document are not considered signed and sealed.

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The activities being conducted for the Agrico Site in Pensacola, Florida are under the oversight of the U.S. Environmental Protection Agency (EPA), as outlined by the Consent Decrees (1994 and 1997) and the EPA Records of Decision (RODs) (1992 and 1994). The Site has been divided into two operable units (OUs). The first operable unit (OU-1) addressed the cleanup of on-site source material. The second operable unit (OU-2) addressed groundwater under the Site and downgradient of the Site. In 1995, remedial actions began for OU-1. Impacted soils and all sludge materials were collected and treated by solidification/stabilization. Additional fluoride-impacted soils were excavated. These soils, as well as the treated soils and sludge, were stabilized by placing them into an engineered, excavated, unlined area above the water-table and covering them with a multi-layered cap designed to prevent rainfall infiltration from contacting the materials. By keeping the underlying soil dry, the soils remain stabilized. The OU-1 remedial actions were certified complete by EPA in April 1997. With the source area controlled, EPA addressed OU-2, the groundwater, by selecting a monitored natural attenuation (MNA) remedy. The selected remedy involves actions aimed at limiting exposure while natural attenuation processes remediate the groundwater.

After extensive sampling of many constituents during the assessment phase (1990-1993), a risk evaluation was performed. The EPA selected seven constituents of concern (COCs) for initial long-term groundwater and surface water monitoring. For OU-1, these COCs included lead, arsenic, and fluoride. These were soil COCs and since the soils were stabilized on-site, monitoring of these constituents in the groundwater provided for assessing the integrity of the OU-1 remedy over time. For OU-2, these constituents include arsenic, fluoride, combined radium 226 plus radium 228, chloride, sulfate, and nitrate plus nitrite. The groundwater performance standards established by each of the RODs for OU-1 and OU-2 are as follows:

- Total Lead 0.015 milligrams per liter (mg/L)
- Total Arsenic 0.050 mg/L
- Fluoride 4.0 mg/L
- Radium 226 +228 5.0 pico Curies per liter (pCi/L)
- Chloride 250 mg/L
- Sulfate 250 mg/L
- Nitrate + nitrite 10 mg/L (analysis of nitrite indicates results at all groundwater monitoring locations are less than detection limit and a higher performance standard is appropriate; nitrite analysis discontinued as per EPA approval, January 22, 2007).

In January 2005, FDEP changed their arsenic drinking water standard to 0.010 mg/L. EPA also revised the federal drinking water standard for arsenic to 0.010 mg/L effective January 23, 2006. As a result, the performance standard for arsenic for the Site was also revised in 2005 to 0.010 mg/L to be compliant with the new state and federal standards.

Beginning in November 2005, changes were approved for the long-term monitoring network. In 2005, an upgradient groundwater monitoring well (PIP-D) was added to the network. In 2007, the OU-1 monitoring well network was merged with the OU-2 monitoring network to form the long-term site-wide network. Initially all constituents were monitored in the OU-1 wells. In 2007, nitrite was eliminated as a constituent since it was determined that the nitrogen detected was only nitrate. Also, in 2007, surficial zone monitoring wells AC-5S, AC-24S, AC-26S, NWD-2S, and

NWD-4S were changed from long-term monitoring to periodic monitoring. In 2009, periodic monitoring wells, AC-9D2, AC-24D, and AC-28D were changed to annual sampling locations. In 2010, arsenic and lead were discontinued from the list of analytes for the long-term network including monitoring wells located in OU-1. Per the EPA-approved (February 5, 2010) recommendation from the *Evaluation of Monitored Natural Attenuation in Groundwater Report* (August 19, 2009), arsenic was deleted from the list of analytes for the long-term monitoring well network except at AC-2S and AC-3S. In 2010, the surface water long-term monitoring network changes included the deletion of the upstream monitoring of Carpenter's Creek (ACSW-BL). Other changes for 2010 included three additional monitoring stations in Bayou Texar. These stations included near-bottom surface water sampling for fluoride only.

During 2019, monitoring wells AC- 14D, AC- 26S, AC- 26D, and AC- 36D were recommended for removal from the long-term monitoring well network because they had been destroyed by the City of Pensacola stormwater upgrade projects. EPA agreed with the recommendation to remove all four wells from the monitoring well network, but EPA stipulated that if wells upgradient of these former well locations begin to show significant groundwater COC concentration increases, replacement wells would be required. Replacement of AC- 14D, AC- 26S, AC- 26D, and AC- 36D will be considered pending future groundwater quality data and trends in surrounding monitoring wells.

For 2021, the sampling program was implemented in accordance with the Florida Department of Environmental Protection (FDEP) Memorandum dated March 10, 2015, and approved by EPA on May 29, 2015, that included the following:

1. At a minimum, annual groundwater monitoring will continue for the following wells: ACB-31S, AC-2S, AC-2D, AC-3D, AC-29D, AC-24D, AC-25D, AC-35D, AC-12D, and AC-13D for the existing set of parameters. Groundwater elevations shall continue to be measured in all Agrico monitoring wells prior to initiating sampling.

2. At a minimum, annual surface water monitoring should continue for the following locations: BT-02, BT-107, and BT-127 for fluoride only. A map showing the location of the surface water stations relative to the plume should be included.

3. The full plume network and surface water network should be sampled every 5 years to correspond with the Five-Year Review. The full network with few exceptions was sampled in November 2019. The next comprehensive event is scheduled for November 2024.

4. Trend Plots for each contaminant of concern shall continue to be updated for each sampling event for the wells sampled.

5. Other annual activities should continue as in previous years for the Agency Coordination Memorandum, the Florida Department of Transportation (FDOT) inquiry for intrusive activity, the Advisory Notice to Water Well Contractors/Irrigation System Installers/Pool Contractors, and a check of the Northwest Florida Water Management District (NWFWMD) construction permits for new wells within the Delineated Area.

6. Site and cap integrity inspections shall continue semiannually and after major storm events.

The Site is currently in the long-term Operations and Maintenance (O&M) phase, with MNA as the selected groundwater remedy.

This 2021 Annual Report presents the results of groundwater activities conducted for the annual sampling program. The 2021 maintenance tasks were as follows:

- Annual groundwater sampling for the defined COCs (fluoride, radium 226, radium 228, chloride, sulfate, and nitrate) from 10 groundwater monitoring wells. Data collected during the annual sampling events are used to evaluate the effectiveness of the MNA remedy for groundwater.
- Annual surface water sampling in Bayou Texar from three locations for fluoride. This sampling is to assess the surface water quality for potential effects from the groundwater discharge.
- Distribution of annual advisory notices to water well contractors, irrigation system installers, and pool contractors to inform these contractors of the area where groundwater impacts related to the Agrico plume are located. The annual advisory also informs them of the well construction moratorium in effect by the NWFWMD.
- Review of the NWFWMD well construction permit records to confirm that no wells have been inadvertently installed within the OU-2 moratorium area. Because of the existing well construction moratorium, the expectation is that no new wells will be permitted in this area.
- Activities related to coordination and dissemination of site information to local, regional, and state agencies.
- Site inspection reporting and site maintenance activity. In addition to the routine site upkeep, Site maintenance activities for 2021 included repairs to fencing near the front gate that had apparently been damaged by a vehicle and a hole near the unused gate in the vicinity of Uncle Bob's Self Storage that may have been created by a trespasser, repairs of two areas of erosion adjacent to two of the Site storm water drains, and placement of new information signs at all three gates.

OPERABLE UNIT ONE REMEDY

The OU-1 remedy addressed the cleanup of the source on-site. EPA approved the source remedy in the 1992 OU-1 ROD, and it included excavation, solidification, and stabilization for on-site soils and sludge. Following the ROD issuance, actions by Conoco were initiated to re-acquire ownership of the property so that the OU-1 remedy could be implemented.

In 1995, remedial construction activities began. Lead and arsenic-impacted soils and all sludge materials were collected and treated by solidification/stabilization using cement. Other fluoride-impacted soils were collected for consolidation. These consolidated soils and treated soils and sludge were installed in lifts and compacted in the excavation based on engineering designs and standards. The material was placed approximately 20 feet above the saturated groundwater level within the unsaturated, dry portion of the soils underlying the Site. The source control was certified by EPA to be complete in April 1997.

OPERABLE UNIT TWO REMEDY

The remedy chosen by EPA for the impacted groundwater associated with the Agrico Site is MNA. The 2021 results indicate that the Agrico plume continues to be adequately defined. The 2021 sampling results compare favorably to past sampling results, which indicate that the source area remains controlled. The decreasing and stable trends in the surficial and main producing zones are a result of the OU-1 source control measures which have allowed natural attenuation processes to be effective downgradient. The source area remedy remains an effective measure in eliminating migration of COCs from the OU-1 area to the groundwater.

Monitored Natural Attenuation Results

An evaluation of MNA at the Site was performed by William A. Huber, Ph.D., Quantitative Decisions (Rosemont, Pennsylvania) in 2009. Dr. Huber concluded in his report that the data show that mechanisms for attenuation are in place throughout the OU-2 area. These mechanisms and the OU-1 source remedy are resulting in decreasing concentrations that are propagating downgradient toward Bayou Texar. For the plume area, the highest concentrations for each constituent are declining and downgradient peaks are less than historical highs. Some limited increases are periodically observed in a few wells, but these concentrations are less than the historical highs. Huber's statistical evaluation estimated that much of the groundwater will reach the target concentrations within two to three decades (~ 2030). However, attenuation in the discharge area near Bayou Texar may take longer. The processes at the discharge boundary are more complex and do not follow the upgradient timeline. Additionally, radium declines may lag behind the other constituents and are more dependent on increases in pH as the overall chemical conditions improve upgradient. Initial fate and transport modeling performed for the Site in the early 1990s suggested targets would not be reached for at least 70 years. About 24 years (2021-1997) have passed since the source controls were implemented. Based on Huber's 2009 statistical evaluation, achieving the targets within the approximately 50 years remaining in the originally estimated timeframe (~ 2070) is still reasonable.

The statistical uncertainty for the Agrico data set is low. Data are consistent within each well and show relatively little random variability. This consistency indicates that allowed enough time, attenuation will eventually occur everywhere within the OU-2 area.

Groundwater Sampling Results

Groundwater results for November 2021 continue to compare favorably to past results.

Concentration trends within the surficial shallow zone are mostly stable/decreasing. Impacts to the surficial zone are very limited. This is a direct result of effective source control and local hydrogeologic conditions.

For the deeper main producing zone, the trend in concentrations is generally downward and stable, also indicating continued plume stability.

Slight upward or downward ticks in the concentrations for the COCs are to be expected over time. It is the long-term trend for each COC that is important.

Groundwater Levels

During 2021, water levels in both the shallow and deep aquifers near the Site increased on average approximately 4.5 feet as compared to 2020. Rainfall was higher in 2021 versus 2020 and was above average at 88.42 inches in 2021 versus an average annual of 76.49 inches in 2020 (**Figure 7**).

Results of water level measurements collected in November 2021 indicate that groundwater flow remains toward Bayou Texar for both the surficial zone and main producing zone. In 2021, groundwater flow patterns closely followed historical patterns.

Bayou Texar Sampling Results

The long-term surface water results indicate that groundwater from the Agrico Site is not adversely affecting Bayou Texar. Near-bottom surface water sampling in November 2021 indicated that fluoride concentrations increased slightly from the 2020 value at one location (BT-127); however, concentrations decreased in the other two locations; and all concentrations remain within historical levels and well below the applicable surface water standard (SWS).

The evaluation (URS, September 4, 2009) of the primary discharge area for the Agrico plume in Bayou Texar indicates there is no significant risk from fluoride concentrations to populations of demersal fish or to benthic macroinvertebrate communities that inhabit the reach. Furthermore, results indicate the fluoride solubility in the majority of surface sediments and in all pore waters within the primary discharge area for the Agrico plume is controlled by mineral precipitation reactions. This reaction causes dissolved fluoride concentrations to be buffered in near surface sediment pore water and in surface water in this primary discharge reach of Bayou Texar.

NWFWMD Well Construction Moratorium

For 2021, no additional irrigation wells were identified from the NWFWMD well construction permit records. The well construction moratorium initiated in February 2001 is still in effect and has no termination date. In a public meeting held on March 27, 2017, discussions with NWFWMD representatives indicated that they were not inclined to end the well construction moratorium. Well prohibition for the defined area which includes the Agrico groundwater plume area is part of NWFWMD's Rule 40A-3.

Advisory Notice

The annual advisory notice was distributed to water well contractors, irrigation system installers, and pool contractors to inform them of the groundwater conditions and the existence of a well construction moratorium within the OU-2 area.

Institutional Controls Coordination

A memorandum was distributed on March 15, 2021, to the local, regional, and state agencies listed below, soliciting information for any changes or proposed new regulatory rules or policies that may affect the institutional controls currently in place for the area. No agencies responded with any items that might affect the controls in place. A similar memorandum was also sent out in February 2022, and results from the February 2022 memorandum will be captured in next years' report. The notified agencies included:

FDEP, Tallahassee and Pensacola
Emerald Coast Utilities Authority (ECUA) (formerly Escambia County Utilities Authority)
NWFWMD
City of Pensacola
Escambia County Health Department (ECHD)
Escambia County Neighborhood and Environmental Services Department
FDOT, District Three (Chipley)

FIVE-YEAR REVIEWS

Four Five-Year Reviews have been conducted by EPA for the Agrico Site. The First Five-Year Review occurred in 2000, the Second Five-Year Review occurred in 2004-2005, the Third Five-Year Review occurred in 2010, and the Fourth Five-Year Review occurred in 2015. In 2019, the Fifth Five-Year Review sampling event occurred, and the results were reported in EPA's 2020 Five-Year Review Report. Each of the reports concluded that the remedy at the Site is functioning as intended by the RODs for OU-1 and OU-2 and remains protective of human health and the environment. The O&M activities were to be continued and conducted as approved. The next (sixth) Five-Year sampling event will occur in 2024 and will be reported in EPA's 2025 Review Report.

BUTTERFLY HABITAT

In June 2014, President Obama issued a memorandum establishing a Pollinator Health Task Force, co-chaired by the U.S. Department of Agriculture (USDA) and EPA, to create a National Pollinator Health Strategy that promotes the health of honeybees, butterflies, and other pollinators. Early in 2015, EPA approached AECOM regarding the possibilities of the Agrico Site being used to enhance butterfly habitat. The responsible parties approved participation in this initiative, and in August 2015 a portion of the Site was converted to flowering plant beds. The goal is to establish a plant habitat that will attract butterflies to provide a safe area for feeding and support of the butterfly's life cycle. Maintenance of the habitat was conducted in 2021 and will continue in 2022.

RECOMMENDATIONS

(In accordance with Regulatory Agency Requirements)

- Groundwater and surface water sampling will continue for 2022 as last modified by the March 10, 2015, FDEP Memorandum and updated by EPA concurrence of the recommendations included in the 2019 groundwater monitoring report.
- Operations and maintenance, including mowing related to OU-1, will continue in accordance with the OU-1 O&M Plan as amended November 18, 2009 and approved by EPA on January 25, 2010. This also includes maintenance of the butterfly habitat areas.
- The advisory notice to contractors and the query of the NWFWMD well construction permit database will continue annually.
- The Agency Coordination Memo and the FDOT inquiry for intrusive activity will continue annually.

AECOM Technical Services, Inc. (AECOM) has prepared this 2021 Annual Report on behalf of Phillips 66 Company and Agrico Chemical Company represented by Williams Companies, Inc. (Williams) and in accordance with the following:

- U.S. Environmental Protection Agency (EPA) Consent Decree (CD) dated May 4, 1994 and the March 10, 1997 amended Consent Decree for the Agrico Site (Agrico);
- The Record of Decision (ROD) for Operable Unit One (OU-1) issued on September 29, 1992;
- The Operation and Maintenance (O&M) Plan for OU-1 dated September 1996 including Appendix I – Groundwater Monitoring Plan by Woodward-Clyde Consultants;
- The ROD for Operable Unit Two (OU-2) issued August 25, 1994;
- The Scope of Work (SOW) which outlines the work to be performed as the remedy for OU-2;
- The EPA-approved (April 26, 1999) Remedial Action Work Plan and related plans;
- The O&M Plan dated November 1998;
- The *Evaluation of Long-Term Groundwater Monitoring Network – Section 12 - Recommendations*, Technical Memorandum Report dated November 30, 2006 and subsequent EPA approval of recommendations in EPA comment letter dated January 22, 2007;
- The EPA approval dated September 2, 2008 to discontinue OU-1 semi-annual sampling and to perform annual sampling. The last OU-1 semi-annual sampling event was conducted in May 2008;
- Minor O&M recommendations dated November 18, 2009 approved by the EPA on January 25, 2010;
- Recommendations in the report, *Evaluation of Monitored Natural Attenuation in Groundwater* (August 19, 2009- William Huber) and approved by EPA on February 5, 2010;
- EPA's Third Five-Year Review (June 2010) recommendations related to surface water sampling locations for Bayou Texar;
- Recommendations in the second report, *Evaluation of Monitored Natural Attenuation in Groundwater* (October 23, 2013-William Huber);
- FDEP's recommendations in their memorandum outlining a modified annual sampling program issued on March 10, 2015 and approved by EPA on May 29, 2015; and
- Recommendations included in the *2019 Annual Report, Operable Units One (OU-1) and Two (OU-2), Agrico Site, Pensacola, Florida*.

This is the twenty-third annual report, since the initial one in 1999. The report documents both OU-1 and OU-2 activities performed at the Site for 2021. The comprehensive annual report was preceded by OU-1 semi-annual sampling results reported annually from 1997-1999. These OU-1 annual reports continued through 2005. The annual report for OU-2 was submitted separately from the OU-1 report from 1999 through 2005. One of the recommendations of the evaluation of the long-term monitoring network (URS, November 30, 2006) was to combine these networks. Beginning with the 2007 Annual Report, the groundwater requirements were integrated so that OU-1

(on-site) and OU-2 (off-site) groundwater impacts could be readily evaluated. Per request by EPA, since November 2007, groundwater from the OU-1 monitoring wells has been analyzed for the same constituents of concern (COCs) as the OU-2 monitoring wells.

EPA approved (September 2, 2008) the integration of the groundwater monitoring requirements for OU-1 and OU-2 so that the monitoring satisfies the original OU-2 monitoring objective - monitoring of the surficial zone and main producing zone, on-site and off-site - downgradient of the Site for the purpose of evaluating the monitored natural attenuation (MNA) remedy. The original monitoring objective for OU-1 was only to evaluate the effectiveness of the Resource Conservation and Recovery Act (RCRA) cap remedy. The effectiveness was demonstrated by a statistical evaluation that confirmed the integrity of the containment system with data collected from 1997 to 2001. Data collected since 2001 continue to confirm cap effectiveness.

Summary of Sampling Modifications Initiated in November 2007

- Semi-annual sampling of OU-1 groundwater monitoring wells was discontinued and changed to annual sampling to be conducted in November each year. The OU-1 surficial zone monitoring wells, ACB-31S, ACB-32S, AC-33S, AC-34S, and AC-7SR, were integrated into a site-wide groundwater monitoring network. The analyte list for these wells was changed to include the OU-2 analyte list. In addition to total lead, total arsenic and fluoride (COCs in the OU-1 ROD), the groundwater samples from these wells were analyzed for chloride, sulfate, nitrate, radium 226, and radium 228 (COCs in the OU-2 ROD).
- Nitrite was deleted from the Site's analyte list as modified by implementation of EPA-approved long-term monitoring evaluation recommendations (URS, 2006d).
- Surficial zone monitoring wells AC-5S, AC-24S, AC-26S, NWD-2S, and NWD-4S were changed from long-term to periodic monitoring wells. Additionally, monitoring well NWD-3S was removed from the monitoring network because it was destroyed during off-site construction.
- The groundwater sampling purging procedure was changed from extracting a minimum of three well volumes to a low-flow purge procedure that allows for collecting water quality field parameters after one well volume is purged, and then one-quarter well volume thereafter until three stable water quality parameter readings are collected. This procedure is in accordance with the FDEP standard operating procedure (SOP) for sampling monitoring wells.
- Annual reporting for OU-1 and OU-2 was combined into one annual report. Prior to November 2006, annual reports were prepared separately for OU-1 and OU-2.

Summary of Sampling Modifications Initiated in November 2009

- Additional groundwater sampling was requested by the EPA in their comment letter dated October 15, 2009, regarding the *Evaluation of Monitored Natural Attenuation in Groundwater Report*. The additional wells included periodic monitoring wells AC-9D2, AC-24D, and AC-28D. Constituents to be analyzed from the groundwater at these locations were the same as the long-term network constituents. The status of these wells was changed from periodic to long-term until sufficient sampling results were collected on an annual basis.

Summary of Sampling Modifications Initiated in November 2010

- Analysis of lead and arsenic were discontinued from the long-term network groundwater analyses for monitoring wells based on the EPA approval (February 5, 2010) of recommendations in the August 19, 2009, *Evaluation of Monitored Natural Attenuation in Groundwater.* In that report, the absence of arsenic and lead in groundwater samples collected from the monitoring well network was reported. The exceptions were AC-2S and AC-3S. Total arsenic will continue to be analyzed for these two wells to verify the continued effectiveness of the OU-1 cap.
- Sampling of Carpenter's Creek at the 9th Avenue Bridge (ACSW-BL) was discontinued as per January 25, 2010 approval of the November 18, 2009, *Recommendations to Operations and Maintenance Plans for OU-1 and OU-2* (URS 2009d).
- Three surface water sampling locations in Bayou Texar were added to the sampling program and include BT-02, BT-107 and BT-127. These near-bottom surface water samples are analyzed for fluoride only (EPA recommendation in June 2010, Third Five-Year Review Report).

Summary of Sampling Modifications Initiated in November 2016

Based on FDEP Memorandum dated March 10, 2015 and the subsequent EPA approval dated May 29, 2015:

- Only the following monitoring wells will be sampled annually for the same constituents as have been analyzed historically: AC-31S, AC-2S, AC-2D, AC-3D, AC-29D, AC-24D, AC-25D, AC-35D, AC-12D, and AC-13D.
- Water levels from all Agrico monitoring wells will be measured annually prior to initiating sampling.
- Surface water monitoring will include the following locations: BT-02, BT-107, and BT-127. Only fluoride will be analyzed from each sample collected.
- Trend plots for the above groundwater monitoring wells will be included in each annual report for all constituents.
- The annual Advisory Notice, the Annual Agency Coordination Memo, the Florida Department of Transportation (FDOT) annual inquiry regarding intrusive activity, and the annual checking of the Northwest Florida Water Management District (NWFWMD) records for newly constructed wells within the designated well construction moratorium area will continue as previously documented in the Site O&M plans.
- Site and cap integrity inspections will continue twice a year and after major storm events.
- The full Agrico groundwater monitoring network and surface water network will be sampled every 5 years as part of the EPA's Five-Year Review.

Summary of Sampling Modifications Initiated in November 2019

Based on EPA concurrence (EPA memorandum dated June 2, 2020) with recommendations made in the *2019 Annual Report, Operable Units One and Two (OU 1, OU 2), Agrico Site, Pensacola, Florida*, March 2020. AC- 14D, AC- 26S, AC- 26D, and AC- 36D have been removed from the

monitoring well network. Evaluation of the need to replace one or more of these wells will be made following future sampling events and will be based on COC concentrations and trends in upgradient wells.

1.1 FIVE-YEAR REVIEWS

The EPA has conducted five Five-Year Reviews for the Agrico Site. The results of these reviews were presented in the February 2000, July 2005, June 2010, June 2015, and May 2020 EPA reports. Each of the five reviews concluded that (1) all areas were in compliance and (2) the remedy at the Site is functioning as intended by the RODs for OU-1 and OU-2 and remains protective of human health and the environment. The sixth EPA Five-Year Review report will be prepared in 2025 based on November 2024 data.

2.1 SITE DESCRIPTION

The Agrico Site is located at 118 East Fairfield Drive, at the northwest corner of Fairfield Drive and Interstate I-110 in Pensacola, Escambia County, Florida. The Site consists of 29.84 acres in Township 2 South, Range 30 West of Section 5, and the latitude and longitude at the center of this area is 302709.8914 degrees west and 871318.9648 degrees north, respectively. The Site is bordered by I-110 to the east, Fairfield Drive to the south, CSX railroad to the west, and a construction aggregate business (Vulcan Materials/Conrad Yelvington Distribution) to the north. An approximately 100-foot wide Gulf Power Company easement and overhead electrical lines pass through the Site at the eastern boundary of property. Site access is from the north side of Fairfield Drive, approximately 600 feet west of the I-110 overpass. Uncle Bob's Self Storage operates storage warehouses on an Agrico Site out-parcel in the south-central area. The Site location is shown on **Figure 1**.

2.2 SITE ACCESS AND DEED RESTRICTIONS

Access to the Agrico Site is restricted. The property is secured by a perimeter chain link security fence with locked gates, and the Site is regularly inspected. Restrictive and Site informational signs are posted advising the public of the on-site conditions, and an AECOM contact phone number is also posted for inquiries. Posted signs are present at the entry gates of the fenced OU-1 property. The wording on the signs is as follows:

> Authorized Personnel Only
> Please Do Not Disturb Soil Cover
> Impacted Waste Material May Be Present Below the Ground Surface
> For Information Call 850-637-5018

A Restrictive Covenant (**Appendix C**) for the Site was filed against the property deed with the Escambia County Clerk of the Circuit Court and is dated July 11, 1997. The Restrictive Covenant states, in summary, that construction or related activities that would interfere with maintaining the Site remedial measures are prohibited by the legal deed restrictions. Per the covenant, any use of the property contrary to the ROD is prohibited.

2.3 DOCUMENT REPOSITORY

EPA maintains Site information at the University of West Florida Library. This repository contains project documents, fact sheets, and reference material. EPA encourages the public to review these documents to gain a more thorough understanding of the Site. The address of the library is as follows:

University Archives and West Florida History Center
University of West Florida Libraries
Building 32
11000 University Pkwy
Pensacola, Florida 32514
850-474-2213

EPA has Site information located at the following web site:

https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0400818

A Site website developed for the Agrico Pensacola Site is located at:

http://www.agricopensacola.com/

This website contains general information about the Agrico Site, contains the Site fact sheets, and provides contact information for EPA. A documents' page has been added, and electronic files for several reports have been uploaded to this page. The reports that are now accessible via this website include:

- Evaluation of Monitored Natural Attenuation in Groundwater (URS, 2009)
- The Third Five-Year Review Report (E2 Inc., 2010)
- The 2011 Annual Report (URS, 2012)
- The 2012 Annual Report (URS 2013)
- Evaluation of Monitored Natural Attenuation in Groundwater (Report #2), (URS, October 2013)
- The 2013 Annual Report (URS 2014)
- The 2014 Annual Report (URS 2015)
- The Fourth Five-Year Review Report for Agrico Chemical Company (EPA, June 2015)
- The 2015 Annual Report (AECOM 2016)
- The 2016 Annual Report (AECOM 2017)
- The 2017 Annual Report (AECOM 2018)
- The 2018 Annual Report (AECOM 2019)
- The 2019 Annual Report (AECOM 2020)
- The Fifth Five-Year Review Report for Agrico Chemical Company (EPA, May 2020)
- The 2020 Annual Report (AECOM 2021)

2.4 SITE HISTORY

The former facility at the Agrico Site was a superphosphate process facility not a continuous wet-process phosphoric acid facility that became dominant in the phosphoric fertilizer industry starting in the 1960s and 1970s and continuing during the modern era. According to the U.S. Department of Agriculture and Tennessee Valley Authority document titled *Superphosphate: Its History, Chemistry, and Manufacturing* (December 1964), the Irish firm known as W. & H. M. Goulding, Ltd. of Dublin, Ireland, opened the Goulding Fertilizer Company, Pensacola, Florida, factory in 1891 at the current Agrico Site location. The Goulding Fertilizer Company plant had an annual fertilizer production capacity of 45,000 tons. A sulfuric acid manufacturing plant co-existed on the Site. The source of sulfur was pyrite ore. The phosphate for manufacturing the fertilizer was transported via rail from Central Florida mines. The Pensacola plant started operations by manufacturing normal superphosphate, and then operated as a concentrated superphosphate plant (the second of its kind in the U.S. at the time) from 1898 to 1901. Operations by the Goulding Fertilizer Company continued until 1911, when the factory was sold to an American interest, The American Agricultural Chemical Company (TAACC).

TAACC manufactured normal superphosphate and continued the manufacturing of sulfuric acid using pyrite ore until 1920, when the source of sulfur dioxide was changed to elemental sulfur. TAACC operated the plant through 1963, when Continental Oil Company (Continental) purchased the assets of TAACC (U.S. Department of Agriculture, 1964).

After the acquisition of TAACC, Continental operated the agrichemical business as the Agrico Chemical Company, a wholly owned subsidiary of Continental. From 1963 to 1972, Agrico Chemical Company used the same manufacturing process as was used during the TAACC period (U.S. Department of Agriculture, 1964). From 1967 to 1968, in addition to producing virgin acid from sulfur, the plant purchased and utilized an unknown volume of spent sulfuric acid (Geraghty & Miller, 1993a and 1993b). Continental operated the plant until 1972.

In April 1972, The Williams Companies, Inc. (Williams) (Tulsa, Oklahoma) purchased the assets associated with Agrico Chemical Company from Continental Oil's Agrico Chemical Division. Under Williams, Agrico Chemical Company operated as a newly formed Delaware corporation and subsidiary of Williams. At that time, Agrico Chemical Company was one of the country's largest chemical fertilizer companies. In 1972, the Pensacola plant began manufacturing monoammonium phosphate in addition to superphosphate and continued this manufacturing from 1972 to 1975. Normal superphosphate was combined with ammonia to produce monoammonium phosphate. The ammonification process produced nitrate. The macronutrient potassium was blended into the ammoniated phosphate product in various blends. The potassium source was potash, mostly potassium chloride, stored on-site, inside the plant, on concrete floors. In later years, two micronutrients, zinc and magnesium, were added to the ammoniated phosphate product blends at the plant. According to the plant manager and Agrico corporate purchasing agent, the macronutrient and micronutrient were purchased as pure products and not as by-products. The peak season for production at the Pensacola plant was March through June. Agrico Chemical Company operated the plant continuously until June 1975, when the plant was shut down (Geraghty & Miller 1993a and 1993b).

The former plant property was sold to Margod, a Florida partnership, and F.A. Baird, Jr. in August 1977. The former plant buildings and process equipment were demolished in late 1979. After demolition, only the concrete foundations remained in place. A storage warehouse was constructed on the southern portion of the property adjacent to Fairfield Drive between 1979 and 1981, with additional warehouse construction taking place between 1981 and 1986. The warehouse area is considered an out parcel of the original property. The Agrico Chemical Company assets were sold to Freeport-McMoRan Resources Partners (Freeport McMoRan) in 1987. The Site property (except for the storage warehouse outparcel) was sold to Conoco, Inc. in 1995.

Most of the remaining Site debris and concrete foundations were later consolidated and placed with the waste material under the RCRA cap during the OU-1 Remedial Action (RA) activities beginning in 1995. There are no permanent buildings from the original operations remaining on the Site. One foundation from an original Site building remains in the southwest portion of the property.

EPA conducted a hazardous waste site investigation at the facility in October 1983. The results of the study indicated that the on-site soils and an on-site surface water impoundment were impacted with elevated levels of fluoride and lead. Groundwater was not sampled during that investigation. However, an effort was made to locate private shallow wells in the vicinity of the Site, and none were located.

The Florida Department of Environmental Regulation (FDER) (now FDEP) conducted a groundwater assessment at the Site in January 1987 (Watts, et.al., July 1988) followed by a supplementary assessment in January and February 1989 (Watts, et.al., August 1989). The study concluded that the Site contaminants, primarily fluoride and sulfate, had impacted the area groundwater. While conducting the assessment for the former Agrico Site, FDER discovered contamination from the

former Escambia Treating Company (ETC) Site that had comingled with a portion of the Agrico plume.

EPA listed the Site on the National Priorities List (NPL) on October 4, 1989. Conoco, Inc. and Freeport McMoRan (parents of the Agrico Chemical Company) entered into an Administrative Order on Consent (AOC) on September 29, 1989. According to the terms of the AOC, the companies agreed to conduct source (soils) and groundwater investigations at the Site. The Site was remediated starting in 1995, and remediation of impacted soils and sludge was certified complete by EPA in April 1997.

Currently, Williams (on behalf of Agrico Chemical Company) and Phillips 66 (representing Conoco, Inc.) are responsible for implementing the activities associated with the O&M Plans for OU-1 and OU-2. In mid-2012, ConocoPhillips separated into two standalone companies. The environmental remediation activities conducted at the Agrico Site in the past by ConocoPhillips are now managed by Phillips 66.

2.5 OPERABLE UNIT ONE REMEDY

Figure 2 shows a recent aerial photograph of the Site and the current features associated with OU-1 that represents the on-site source of contamination. A ROD for OU-1 issued by EPA Region 4 on September 29, 1992, selected the stabilization and cap remedy to address contamination of on-site soils and sludge. The selected remedy was based on a Site remedial investigation and feasibility study, including human health and environmental risk assessments, and site soil and groundwater characterization. Following the ROD issuance, Conoco initiated actions to re-acquire ownership of the property so that the remedy could be implemented.

In 1995, remedial construction activities began. Lead and arsenic-impacted soils and all sludge materials were collected and treated by solidification/stabilization using cement. Other fluoride-impacted soils were collected for consolidation. These consolidated soils and treated soils and sludge were installed in lifts and compacted in the excavation based on engineering designs and standards. The material was placed approximately 20 feet above the saturated groundwater level within the unsaturated, dry portion of the sediments underlying the Site. The source control was certified complete by EPA in April 1997.

On the surface, the material was covered with a 4-foot thick multi-layered engineered cap designed to prevent rainfall from contacting the underlying stabilized soils. The cap covers an area of 12 acres. The impervious nature of the cap causes storm water runoff volumes to be significantly greater than the volume generated before the construction of the remedy. For this reason, an elaborate system of piping and runoff collection devices was installed at the Site. The storm water collection system significantly minimizes runoff flowing off the Site. Runoff generated on-site is collected and contained on-site by returning it to one of two storm water management impoundments constructed as part of the OU-1 remedial action. Because the north storm water impoundment is located upgradient from the stabilized soils, EPA required that a slurry wall be constructed between the north storm water impoundment and the stabilized containment area. The purpose of the slurry wall is to prevent infiltrating storm water from contacting the stabilized materials that are contained within the unsaturated subsurface containment area. A continuous limonite lens (a thin iron precipitation concretion) underlies the north storm water pond. This dense lens causes standing water for extended periods of time within this pond. The south drainage pond is not underlain by the limonite layer and

storm water readily infiltrates into the subsurface beneath this pond so that the south pond is dry most of the time.

The following actions were performed as part of the OU-1 remedial action completed in April 1997:

- Excavated and solidified approximately 45,000 cubic yards of arsenic- and lead-impacted soil and contaminated sludge and soils from Site sludge ponds.
- Consolidated approximately 110,000 cubic yards of fluoride-impacted soils.
- Placed rubble from building foundations and consolidated soils in a layered fashion within the excavation area, with the uppermost portion of the excavation filled with solidified/stabilized soils and sludge
- Constructed an engineered 4-feet thick, seven-layer cap, consisting in part of impervious fabric, High Density Polyethylene (HDPE) liner, and geotextile materials, over the stabilized soils within the containment area.
- Constructed a 700-feet long, 2-feet thick slurry wall upgradient of the containment area to prevent infiltrating storm water from contacting consolidated/stabilized soils.
- Installed a drainage collection system so that storm water generated on-site is contained on-site in one of two storm water impoundments, preventing off-site runoff.
- Attached deed restrictions to the property controlling future uses of the property, assuring protection of the containment structure.
- Installed security fencing with locked gates to restrict unauthorized access to the property.
- Constructed five monitoring wells to serve as long-term groundwater sampling locations to evaluate the effectiveness of the implemented OU-1 remedial action. These five monitoring wells were monitored to demonstrate the effectiveness through 2007. After 2007, the wells were integrated and combined with the OU-2 wells to form a site-wide groundwater monitoring network. The purpose of this site-wide network is to demonstrate the effectiveness of the MNA remedy for groundwater.

2.5.1 Operations and Maintenance

Regular activities are conducted for the Site in accordance with the EPA-approved O&M Plan for OU-1 (September 20, 1996).

Elements of the O&M for OU-1 are as follows:

- General facility inspection and regular lawn care service for the Site. The grass is cut on at least a monthly basis between October and April and on at least a biweekly basis between May and September.
- Visual inspections of the drain inlet and outlet system are conducted during mowing and after storm events with maintenance initiated, as required.
- Documented O&M inspections of the Site are conducted at a minimum of twice a year and following major storm events.

The inspection reports for 2021 are presented in **Appendix D**.

2.6 OPERABLE UNIT TWO REMEDY

The ROD for OU-2 was issued by EPA Region 4 on August 25, 1994. The OU-2 ROD presents EPA's selected RA for treatment of groundwater. The following discussion is based on the August 1994 ROD and includes the rationale for the selected OU-2 remedy. The OU-2 area is shown on **Figure 3** and was delineated to correspond to the previously completed irrigation well survey area. This area encompasses a larger area than the defined groundwater impact area. The OU-2 area is roughly bound by Palafox Street to the west, E. Cross Street to the south, Fairfield Drive to the north, and Bayou Texar to the east.

The EPA selected MNA as the remedy, and MNA meets all EPA and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) criteria. The remedy is protective of human health and the environment and complies with federal and state requirements that are legally applicable or relevant and appropriate to the RA. This remedy utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable. The reduction of toxicity, mobility, and volume of the Site groundwater contamination has occurred through source control (OU-1) and MNA (OU-2).

EPA views the MNA remedy at least as protective of human health and the environment as the pump-and-treat technology alternatives that were previously considered for this Site. Additionally, MNA avoids potentially adverse impacts associated with the groundwater extraction and treatment alternatives.

2.7 ANNUAL O&M TASKS FOR OPERABLE UNITS ONE AND TWO

The field activities associated with this 2021 Annual Report included the following O&M tasks:

- Annual groundwater sampling of 10 long-term groundwater monitoring wells (for both OU-1 and OU-2).
- Annual surface water sampling at three surface water sampling locations within the primary groundwater discharge reach of Bayou Texar.
- Annual advisory notices distributed to water well contractors, irrigation system installers, and pool contractors. This list of contractors was compiled from the NWFWMD list of licensed water well contractors, from Escambia County construction permit records, and from the telephone directory.
- Coordination and dissemination of site information to local, regional, and state agencies.
- Annual FDOT inquiry of construction activities scheduled for Fairfield Drive between the CSX overpass and the I-110 interchange.
- Annual review of NWFWMD well construction permit records to identify any potential new well construction downgradient of the Agrico Site.
- Annual inquiry on status of NWFWMD well construction moratorium in the vicinity of the ETC and Agrico sites.
- Regular maintenance of property associated with the former Agrico Chemical Company (OU-1).

2.8 ANNUAL O&M TASKS FOR DEVELOPMENT OF POLLINATOR HABITAT

In June 2014, President Obama issued a memorandum establishing a Pollinator Health Task Force, co-chaired by the U.S. Department of Agriculture (USDA) and EPA, to create a National Pollinator Health Strategy that promotes the health of honeybees, butterflies, and other pollinators. Early in 2015, EPA approached AECOM regarding the possibility using the Agrico Site to enhance butterfly habitat. The responsible parties approved participation in this initiative, and in August 2015 a portion of the site was converted to flowering plant beds. The goal was to establish a plant habitat that will attract butterflies to provide a safe area for feeding and support of the butterfly's life cycle.

O&M activities associated with the pollinator beds includes the following:

- Continued cultivation of plant beds to get established flowering plants
- Continued planting of flowering species to diversify flowering periods and increase the density of plants
- Routine watering and weeding of plant beds to maintain their health.

2.9 OTHER CONTAMINATION SOURCES IN THE VICINITY OF THE AGRICO SITE

Past sampling results conducted by ECUA for supply wells south of the Agrico area have indicated impacts to ECUA supply wells, which initiated an assessment by FDEP in the late 1990s. This assessment identified two areas, collectively referred to as Site 348. Both areas are located less than 0.5 miles south of the Agrico Site. One is the former fertilizer manufacturing operation known as Kaiser Fertilizer plant. The second is known as the former Southern Cotton Oil Company. This site was a fertilizer mixing and storage facility.

Reportedly, the sources which may have contributed to impacted groundwater affecting the ECUA wells (F & Scott Streets Well, the East Plant Well, Well No. 6, Well No. 8, and Well No. 9) are still under investigation by FDEP. Three of these ECUA wells have been shut down and pumping discontinued (East Plant, Well No. 8, and Well No. 9) due to groundwater impacts. The COCs identified by FDEP at Site 348 are similar to the Agrico COCs and include radium 228 and ammonia. The Agrico plume was not implicated as a source or a factor in the impacts to these ECUA wells (Mactec, 2010). Additionally, the former Agrico plant was not associated with the either of the operations identified by FDEP that are related to Site 348.

No pumping effects are occurring within the current Agrico plume boundary that will cause the plume to move outside the natural groundwater flow path. This is verified by the past 23 years of water level measurements and potentiometric surfaces that show the natural groundwater flow direction remains consistently to the east, toward Bayou Texar. Consistency of groundwater flow patterns is also demonstrated by the individual water level trend data. The discontinued municipal pumping in the downtown area due to impacts from non-Agrico sources, also significantly decreases the potential of the Agrico plume to migrate from its current plume boundary. These conditions and other groundwater flow conditions negate the potential for future Agrico plume migration that could affect any public water supply well.

Water level measurements collected annually during the past 23 years indicate that the remaining irrigation pumpage occurring within the OU-2 area is not significantly affecting the direction of groundwater flow. The primary groundwater flow controls are natural, including Bayou Texar, which functions as the eastern discharge boundary for the Agrico plume.

3.1 HYDROGEOLOGIC FRAMEWORK OF THE SAND-AND-GRAVEL AQUIFER

The vertical profile of the Sand-and-Gravel aquifer consists of beds of sand and gravel interbedded with beds of silt, clay, and fine sand sediments (**Figure 4**). The permeability of these beds is variable, both laterally and vertically. However, the subsurface sequence can be divided into three distinct zones. These zones vary greatly in thickness and lithology throughout Escambia County. In addition, individual beds of sand or clay within these zones are highly discontinuous, resulting in considerable heterogeneity within the zones. The major zones are the surficial zone, the low-permeability zone, and the main producing zone (Roaza, et al., 1991).

3.1.1 Surficial Zone

The surficial zone consists of the uppermost layer of sediments. It contains the unsaturated zone and the shallow surficial water table. The surficial zone varies in thickness, but it is generally less than 100 feet thick beneath the OU-2 monitoring area. The surficial zone consists primarily of quartz sand ranging in size from fine sand to gravel. Thin beds of limonite-cemented sandstone also occur. The zone contains thin beds of clay and silt that are highly discontinuous. These low-permeability beds occur both in the unsaturated and the saturated portions of the zone. Groundwater within the surficial zone primarily moves downward through the underlying lower-permeability zone to the main producing zone of the aquifer.

3.1.2 Low-Permeability Zone

The low-permeability zone underlies the surficial zone and is composed of sediments with overall lower permeability characteristics than sediments above or below the zone. This zone forms a semi-confining layer and helps to limit the vertical flow of groundwater between the overlying surficial zone and the underlying main producing zone. The actual lithology of this zone is variable, ranging from poorly sorted sand and silt to sandy clay to clay beds. Locally, well-sorted, water-bearing sands can also occur within this zone. Poor sorting and a higher percentage of clays and silts distinguish this zone from the other zones. The thickness of this zone in the subsurface underlying the facility ranges from about 20 to 50 feet (Roaza, et al., 1993).

The thickness and lithology of this zone is important because of its effect on vertical permeability. The low vertical permeability of this zone maintains the hydraulic head difference between the surficial and main producing zones in certain areas. This head difference imparts the vertical gradient responsible for the transport of dissolved constituents downward from the surficial zone to the main producing zone beneath the OU-1 area of the Site (see **Figures 5** and **6**).

3.1.3 Main Producing Zone

The main producing zone is the most productive portion of the Sand-and-Gravel aquifer and is the zone tapped by most water supply wells. The main producing zone is the deepest portion of the aquifer. The groundwater within this zone exists under semi-confined conditions. The main producing zone consists of moderate to well-sorted sand and gravel, along with minor interbedded layers of sandy clay and clay. Locally and regionally, variations occur in the lithology of the main producing zone. Changes with depth tend to be gradual and include varying grain size distribution and changes in the degree of sorting.

The clay beds interbedded within this zone generally constitute 10 to 40 percent of the thickness. In some areas, the productive intervals can be correlated and appear to be continuous over many miles. The saturated thickness of the main producing zone near the Site is approximately 100 feet.

The main producing zone is recharged by leakage through the overlying low-permeability zone. The actual amount of recharge is determined by the hydraulic head difference between the surficial zone and the main producing zone, the vertical permeability of the low-permeability zone, and the presence of any pumping wells. Groundwater from this zone discharges into Bayou Texar from the east and the west, and the bayou represents a discharge boundary for groundwater in OU-2.

3.2 HYDRAULIC HEAD DIFFERENCES AND GROUNDWATER FLOW BOUNDARIES

Within the former Site boundary (OU-1), the hydraulic head for the surficial zone is slightly higher than the hydraulic head in the main producing zone, which causes the surficial zone to infiltrate and recharge the main producing zone. This causes the plume emanating from the Site to be transported and diverted to the main producing zone within about 0.4 mile of the Site. The surficial zone plume has limited areal extent; and with source control and ongoing source depletion, significant trends toward decreasing concentrations within the plume have occurred in the surficial zone. Near the bayou, the main producing zone hydraulic head is slightly higher than the surficial zone, causing the main producing zone to discharge into the bayou (see **Figures 4, 5,** and **6**). Bayou Texar is a groundwater discharge boundary; therefore, groundwater from the west and east discharge into the bayou. This creates a boundary condition for the groundwater flow and plume transport. The Agrico plume discharges from the west into Bayou Texar along with the westerly groundwater flow component. Groundwater from the east (at least as far away as the Pensacola Airport) also discharges to the bayou. **Figure 4** shows the hydrogeologic conceptual model from the Agrico Site to Bayou Texar.

Within OU-2, groundwater generally flows laterally and vertically (both upward near the discharge boundary and downward in recharge areas) within the Sand-and-Gravel aquifer. The overall direction of groundwater flow is easterly toward Bayou Texar. Head variations between zones are important in controlling the vertical direction of groundwater flow. **Figures 5** and **6** show the potentiometric surfaces in November 2021 for the surficial zone and main producing zone, respectively. These surfaces are consistent with those measured historically.

The flow direction downgradient of the Agrico Site is primarily controlled by the Bayou Texar discharge boundary condition. Near the bayou, vertical head differences between aquifer zones cause groundwater to flow vertically from the main producing zone upwards, and groundwater discharges to the bayou. There is evidence that the bayou is a discharge boundary for both the surficial and main producing zones of the aquifer, and that groundwater does not pass under the bayou as underflow. Water levels within both zones to the north, east, and west of Bayou Texar indicate a groundwater flow direction toward the bayou boundary.

3.3 RAINFALL CONDITIONS

Rainfall records collected at the Pensacola Airport indicate that 2021 was characterized by about 25.67 inches above average normal rainfall (annual average is about 62.75 inches based on the 1900-2021 period of rainfall record), with a total accumulation of 88.42 inches during 2021. The total accumulation of rainfall in 2021 is approximately 11.93 inches more than occurred in 2020 and

represents the third highest annual rainfall measured since 2001. Over the past 21 years, extremes in rainfall have occurred. Hurricanes produced abundant rainfall in 2005 (87.32 inches) followed by a drought in 2006. During 2006, the total rainfall was 45.26 inches, or 17.49 inches below normal. The 2017 rainfall represents a record annual rainfall total for the period starting in 1900 with a total of 91.91 inches, and rainfall in 2018 totaled 90.01 inches.

A significant storm event occurred in the Pensacola area during April 2014. Between April 29 and April 30, 2014, the area received rainfall totals ranging from 16 to 24 inches. Widespread flooding occurred in many parts of the county and within the vicinity of the Site. The rain ended about 6:30 am on April 30, 2014. The Site was inspected at 14:15 pm on April 30, 2014. The south drainage pond had topped the pond banks. Flood water was contained north of the Fairfield Drive railroad overpass and the railroad right-of-way. Flooding extended along the southern annex road to just east of the storage warehouse property where the storm water pond on this out parcel also topped the pond's banks. The north pond was full and topping its bank, but flooding was contained on Site. An inspection of the cap area indicated that the cap was intact, and no damage had occurred.

During 2021, rainfall was significantly above average for the year and higher than rainfall measured in 2020. **Figure 7** presents the annual rainfall data for the period of record from the NOAA Pensacola station. Also included on **Figure 7** is a graph showing the cumulative departure from normal rainfall. This cumulative departure graph generally mimics groundwater level trends.

An annual advisory notice (**Appendix C**) is sent to contractors conducting work in southern Escambia County. The advisory notice is sent to water well contractors, irrigation system installers, and pool contractors informing them of groundwater conditions in the vicinity of the Agrico Site. The contractor listing is updated annually from returned "not deliverable – no forwarding address" notices. For the purposes of the advisory notice, the area identified is approximately bounded on the north by Fairfield Drive, on the west side by Palafox Street, on the south side by Bobe Street, and on the east side by Bayou Texar. The notice states that the construction of wells in this area, including lawn irrigation wells, may be restricted due to the occurrence of impacted groundwater. The contractors are advised to contact the NWFWMD, the Northwest District of FDEP, or the ECHD for further information. The annual advisory notice was distributed in December 2021 to the contractors listed in **Table 6**.

Currently, institutional controls are in place that provide protection to the public drinking water supply. As part of the OU-2 remedy, periodic checking is performed to determine the status of institutional controls established by local, regional, and state agencies. To verify that controls remain in place, annual letters are sent to the various agencies requesting information on any changes or proposed changes. Since these agencies also receive reports regarding groundwater conditions, the purposes of the communication are: 1) to address any questions the agencies have concerning groundwater conditions and 2) to receive a status report from the agencies concerning the existing regulations, planned rule changes, or new regulations which control groundwater use in the Agrico OU-2 area.

Institutional controls include the following:

1. Well construction and consumptive use approval (NWFWMD)

   On February 22, 2001, the NWFWMD Board passed a moratorium on drilling new wells, including irrigation wells, in the Agrico and ETC areas. In a public meeting held on March 27, 2017, discussions with NWFWMD representatives indicated that they were not inclined to end the well construction moratorium. Therefore, the moratorium remained in effect during 2021 and is expected to continue since there is no expiration date for the moratorium.

   The moratorium affects the west side of the bayou only because the Agrico plume does not extend across the bayou due to hydrogeologic boundary flow conditions. The bayou serves as a flow boundary to the Agrico plume and prevents flow farther east.

   This moratorium is governed by the NWFWMD Rule 40A-3 which is incorporated into the rule as 40A-3.055 Prohibitions:

   (1) The construction of certain, specified types of water wells shall be prohibited in the following areas:

   (a) Escambia Treating and Agrico Superfund Sites, South Escambia County – permitting of all water wells other than monitor wells or aquifer restoration wells shall be prohibited with the area inside and bounded on the west by CSX railroad corridor, on the east by Bayou Texar, on the south by East Cross Street projected in a straight line until it intersects Bayou Texar, and on the north by Hyatt Street, North Davis Highway, Wynnehurst Street, Kenneth Street, Boxwood Drive, Ash Drive, Ninth Avenue, and Hillbrook Way projected in a straight line until it intersects Bayou Texar.

2. Irrigation systems approval (ECHD)**:**

   A letter dated February 2, 2005 was received from the Director of the Environmental Health Services, ECHD, indicating that the ECHD no longer approves or disapproves irrigation systems. The coordination with the City of Pensacola Building Inspection office for installation of irrigation systems is ***no longer*** a function performed by ECHD.

   Based on this information, the only regulatory control as it relates to groundwater within the OU-2 area is managed by the NWFWMD in their well construction permit program.

3. The location of the Agrico plume is well defined, and ECUA is on the distribution list for reports related to the Agrico plume. Therefore, a future supply well location in the vicinity of the Site is highly improbable.
4. Existing wells are regularly sampled by ECUA, which reports these data as part of their permit reporting to FDEP. Any potential impacts to the supply wells caused by existing plumes can be assessed. For example, existing impacts from Site 348 are under assessment by FDEP based on analytical results from ECUA wells (F & Scott Well, East Plant Well, Well No. 8, and Well No. 9).
5. The Northwest District of the FDEP has designated the area that encompasses both the Agrico plume area and the ETC plume area as a contaminated area under Chapter 62-524, Florida Administrative Code (FAC). The area is the same as the OU-2 area defined on **Figure 3**. The FDEP designated area also includes a portion to the north of the Agrico OU-2 area that is associated with the ETC plume. Chapter 62-524 FAC is closely tied to the NWFWMD well construction permit program since the designated area requires more stringent processes by the permit applicant before a well construction permit can be issued by the NWFWMD. Since there is a moratorium on the issuance of a well construction permits within the designated area, the moratorium provides more stringent restrictions than Chapter 62-254.
6. On February 9, 2022, the NWFWMD well construction database was queried, and no new wells were found confirming no new well construction for the moratorium area.
7. Deed restrictions on Agrico Property provide for certain future land use and subsurface limitations.

In March 2021, a memorandum was distributed to:

- Alex Webster– FDEP, Northwest District, Pensacola,
- Billy Hessman - FDEP, Tallahassee
- Tim Haag - ECUA
- Tom Brown– NWFWMD
- Derrick Owens - City of Pensacola
- Mark Spitznagel - ECHD
- Glenn Griffith, Escambia County
- Alan Hagans – FDOT, District Three (Chipley)

No responses to the memorandum were received**.** Results from the 2022 memorandum will be reported in next years' report.

5.1 GROUNDWATER SAMPLING

Annual groundwater samples were collected from the modified long-term monitoring network in November 2021. A total of 10 monitoring wells were sampled.

Groundwater samples were collected in accordance with FDEP's SOPs for Field Sampling (Revised January 2017). Sample collection techniques, sample documentation, preservation requirements, sampling equipment decontamination procedures, the types and number of quality assurance/quality control (QA/QC) samples collected, and specifications that allow for the verification of the precision, accuracy, and completeness of data collected are all detailed in the sampling and analysis plan (SAP) included in the November 1998 O&M Plan.

5.1.1 Monitoring Well Network

Monitoring Locations

Locations of monitoring wells installed either in the surficial or main producing zones of the Sand-and-Gravel aquifer are shown on **Figure 1**. **Table 1** lists the wells in the Agrico monitoring network, including long-term monitoring wells which are sampled annually (includes measuring groundwater levels) and periodic monitoring wells where groundwater levels are measured annually and wells that are sampled and gauged during the Five-Year Review. **Table 2** presents the well construction details for all monitoring wells associated with the groundwater monitoring program for the Agrico Site.

Sampling Constituents

Groundwater was sampled in 2021 for the following COCs in both the surficial and deep zones:

- Fluoride
- Arsenic, Total (only from monitoring well AC-2S)
- Chloride
- Sulfate
- Nitrate
- Radium 226 and Radium 228 (naturally occurring); also reported as the sum of combined radium 226 + 228 results

Lead and arsenic are no longer included as analytical parameters for all groundwater samples. Arsenic is only analyzed annually in AC-2S. Lead is not analyzed for any well locations.

5.1.2 Well Purging

Each monitoring well associated with the modified monitoring network and sampled during November 2021 was purged and sampled with an electric, 2-inch, stainless steel, low-flow submersible pump and polyethylene tubing. All wells were purged a minimum of one and a half well volumes before sampling. No wells were purged dry during the November 2021 sampling event. Field parameters, including pH, specific conductivity, turbidity, temperature, dissolved

oxygen, and oxidation reduction potential were collected from all wells during purging. A summary of groundwater field parameters is presented in **Table 3**.

5.1.3 Investigation Derived Waste

Development and purge water pumped from each well was collected in a temporary storage tank installed on a field trailer. When the mobile storage tank was reached capacity, the recovered water was transferred to a larger temporary storage tank located on the Agrico OU-1 Site. In accordance with the FDEP guidelines, the wastewater is managed as industrial waste.

The IDW (non-hazardous groundwater purge water) is transported by Erwin Remediation, Inc. (Erwin) to their Mobile, Alabama facility (EPA ID Number ALO 000 859 421). There it is treated and disposed of in accordance with state and federal regulations. An attempt to remove the purge water, approximately 1,000 gallons, was made on February 15, 2022.

5.1.4 Water Level Measurements

In November 2021, groundwater levels were measured in all Agrico network monitoring wells for OU-1 and OU-2 except AC-10D, which could not be located and appeared to have been buried following construction activities. Further attempts will be made to locate the well prior to the 2022 sampling event.

Water levels measurements were collected on a single day prior to purging of wells scheduled for sampling, and these data and contours are consistent with historical data. Water level measurements are used to evaluate water level fluctuations and groundwater flow direction, and they are used to prepare potentiometric maps for the surficial and main producing zones of the Sand-and-Gravel aquifer.

Static groundwater levels from all identified monitoring wells associated with the Agrico Site (**Figure 1**) were measured to within ± 0.01 ft. Measurements were collected with an electronic water level tape using the top of casing (TOC) as the measuring point. The measurements were subsequently referenced to the TOC elevations and used to calculate groundwater elevations. This information was used to confirm that groundwater flow direction remains similar to that measured during previous years. Groundwater elevations are presented in **Table 4**.

5.2 BAYOU TEXAR SAMPLING

Three surface water sampling locations within the primary groundwater discharge reach of Bayou Texar were sampled as per the March 10, 2015, FDEP Memorandum. These locations are shown on **Figure 1**.

Surface Water Sampling

Three near-bottom surface water samples (BT-02, BT-107, and BT-127) are located within the brackish water locations that are tidally influenced. Saline water from Pensacola Bay is drawn into the bayou during high tide. All surface water samples are collected at low tide.

Surface water sampling is conducted in accordance with the November 1998 SAP. The samples are collected from a boat. A discrete sample is collected at the deepest section of each transect.

Samples are collected using a peristaltic pump and disposable polyethylene tubing attached to poly-vinyl chloride pipe, which is lowered to the appropriate depth. The depth of each sample collected is approximately 6 inches above the floor of the bayou. Field parameters, including pH, specific conductivity, turbidity, and temperature, are collected in conjunction with the surface water samples.

A summary of the 2021 surface water quality field parameters is presented in **Table 5**.

Sampling Constituents

For sampling locations BT-02, BT-107, and BT-127, fluoride was the only constituent analyzed.

5.3 CHEMICAL ANALYSES

Groundwater and surface water quality samples collected during the November 2020 event were submitted to Eurofins/Test America Laboratories, Inc. (Eurofins), Pensacola, Florida. All analyses were performed by the Pensacola laboratory (Certification No. E81010), except radium 226 and radium 228 which was analyzed by Eurofins St. Louis (Certification No. E87689). All analyses were performed pursuant to NELAP requirements. Eurofins is certified by EPA and the State of Florida. All analytical reports were prepared in accordance with Eurofins's Level III report format. The following analytical methods were used to analyze the specific media in accordance with SW-846.

CONSTITUENT	ANALYTICAL METHOD
Fluoride	SM4500 F C
Chloride	300.0 (Ion Chromatography)
Sulfate	300.0 (Ion Chromatography)
Nitrate	353.2 Nitrate by calculation
Arsenic	6010B
Radium 226	903.1 Mod (RL-RA—001)(Alpha Scintillation)
Radium 228	904 Mod (RL-RA—001)(Gas Proportional Counters)

5.4 SAMPLING RESULTS

The November 2021 sampling activities completed the annual sampling requirement for the Agrico Site. A total of 10 annual monitoring network wells were sampled. **Figure 1** shows the required water quality sampling locations for the Agrico Site.

Field parameter details from the November 2021 sampling event are shown in **Table 3** and historical trends are shown on graphs within Section 5.5.

Results of the Bayou Texar sampling are presented in **Table 5** and **Table 9**.

The groundwater sampling results for the identified COCs detected in the surficial and main producing zones for the site-wide required water quality monitoring wells are discussed in this section. Summaries of the results are provided in **Table 8, Figure 8,** and **Figure 9.**

Appendix A contains all laboratory analytical reports from the November 2021 sampling event.

5.5 GROUNDWATER FIELD PARAMETERS

In addition to the Agrico COCs, several field parameters are collected as part of the groundwater sampling program (**Table 3**). These parameters include water temperature, pH, dissolved oxygen, turbidity, specific conductance, and the oxidation-reduction potential. An understanding of these parameters can be important in understanding the relationships between COC concentrations and field parameter ranges in values, in defining and understanding ranges of background concentrations, and in evaluating overall COC concentration trends. A more detailed discussion of selected field parameters, including specific conductance, pH, dissolved oxygen, and the oxidation-reduction potential follows.

5.5.1 Specific Conductance

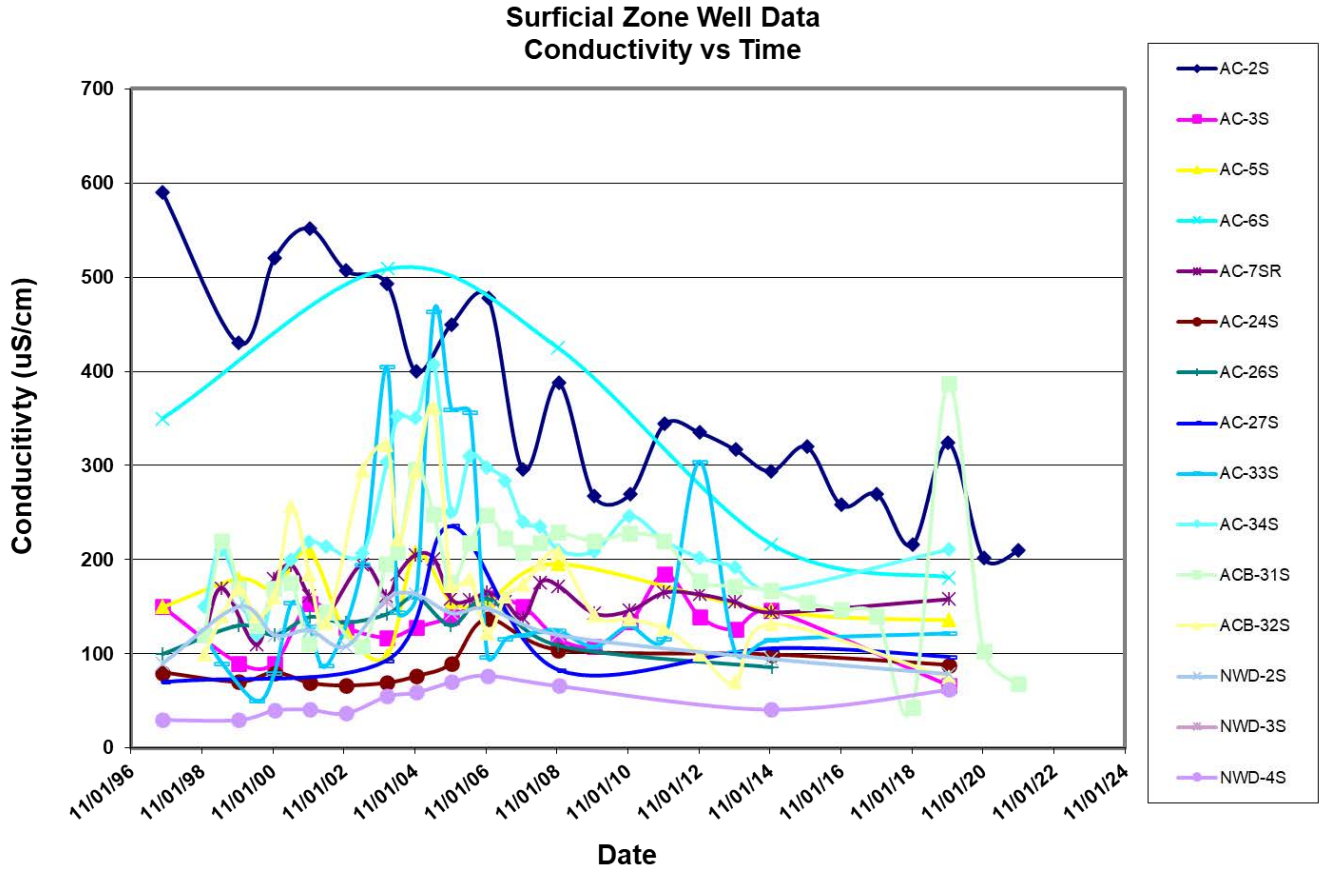
Specific conductance (conductivity) is a measure of how well a water sample conducts an electrical current. It is a straightforward measurement that can be made with reasonable accuracy in the field. It is, therefore, often used as a proxy for the total dissolved solids (TDS) analysis. The conductance values are measured in the field with a hand-held instrument and are recorded in microSiemens per centimeter units (µS/cm).

Within the main producing zone during 2021, the specific conductance values ranged from 86 µS/cm to 1036 µS/cm. Specific conductance increased slightly from the 2020 conductivity values in all main producing zone wells. In the surficial zone, the conductivity in AC-2C was similar to the 2020 value, while the conductivity in ACB-31S was lower than the 2020 conductivity.

As groundwater recharges the Sand-and-Gravel aquifer in Escambia County, it encounters relatively little soluble material, and the water has characteristically low hardness (soft) and is relatively unmineralized. The aquifer is composed of mostly quartz sand, which is not very soluble. The abundant rainfall and the aquifer's high permeability keep the groundwater moving, and the residence time is such that the water does not tend to contain a significant quantity of dissolved mineral matter. Values are generally consistent with those measured in 2020. Measurements will continue to be recorded during future events as trends are indicative of changes in groundwater conditions in the area. As shown below, the levels are generally declining or stable.

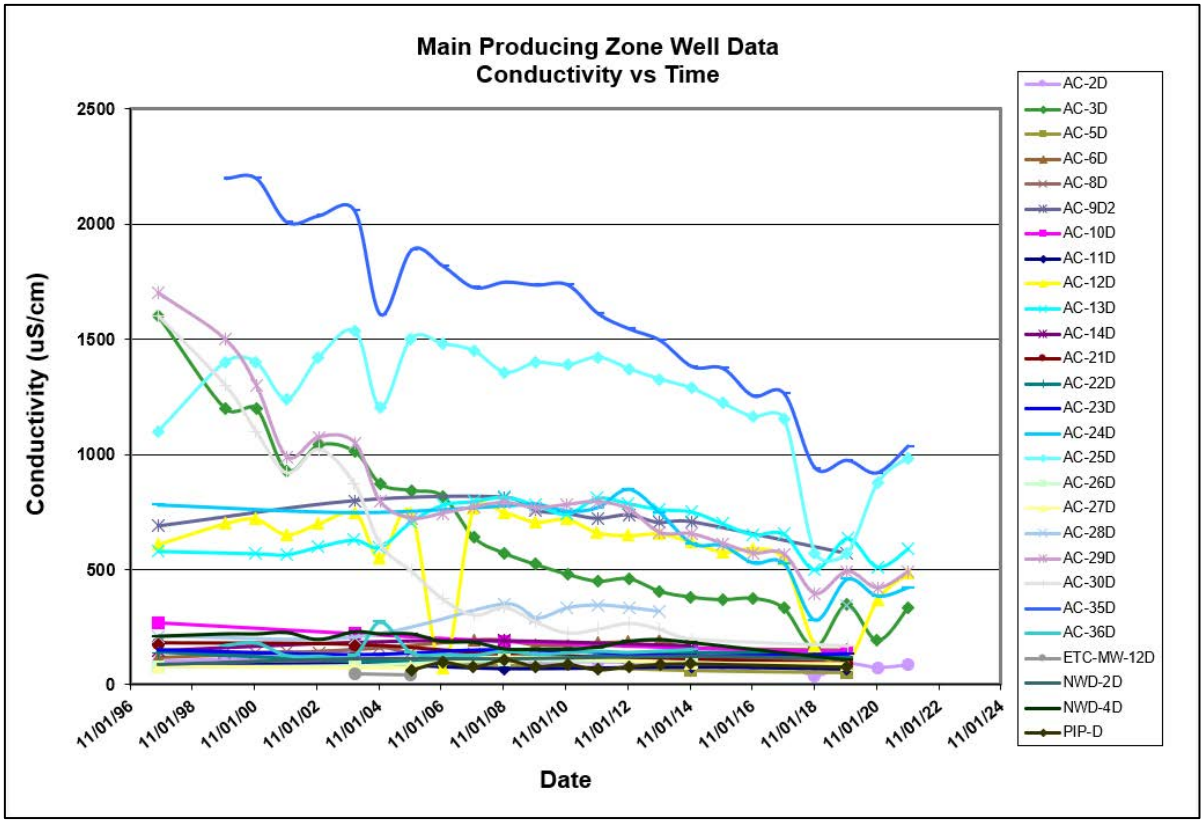
Surficial Zone Groundwater:

The shallow groundwater conductivity vs. time chart is shown below.



Main Producing Zone Groundwater:

The deep groundwater conductivity vs. time chart is shown below.



5.5.2 pH

Groundwater pH within the Sand-and-Gravel aquifer underlying Escambia County reflects generally acidic conditions (less than 7.0 standard units [su]). The reason for the acidic conditions is that rainwater has a pH generally less than 5.5 su in the Escambia County area (Trapp, 1973). This low rainfall pH, coupled with the high recharge from rainfall to the aquifer and the relatively inert nature of the sandy sediments that comprise the aquifer, yields a groundwater pH that is acidic.

Information from the U. S. Geological Survey (USGS) collected in Escambia County was reviewed for groundwater pH data. The period 1968 to 1980 was an extensive data collection time in Escambia County by the USGS. A total of 222 observations of pH (Coffin, 1982) were collected from 69 sites distributed throughout southern Escambia County. The sites were located to characterize general groundwater conditions and were not associated with any assessment of known contamination sites. The range of pH for the 222 observations was 3.4 to 8.9 su. The average pH for the 12-year period was 5.28 su. Background pH conditions are variable and are controlled by local recharge conditions, seasonal rainfall patterns, and whether the groundwater is from a shallow or deep source. Generally, the groundwater occurring at shallow depths (less than 100 feet below land surface) is more acidic than deeper groundwater that tends to approach neutral conditions.

In addition to review of the USGS groundwater pH data, a review was conducted of long-term pH data for a surface water gaging station on the Perdido River at Barrineau Park. The Perdido River

is the westernmost boundary for Escambia County. The station is located about the middle portion of the County and shows that base flow streamflow conditions have pH values generally less than 5 su. Since the base flow of this stream and other streams in the county are derived from groundwater, this is another line of evidence that groundwater pH conditions are acidic.

Geochemically, pH is an important factor in understanding the occurrence of radium in the groundwater beneath Escambia County. Historically, the impacts from radium are well documented within the County and many of these exceedances are not associated with known contaminated sites. As the USGS data indicate, the groundwater can have a naturally occurring background value as low as 3.4 su. Likewise, the data showed that 101 of the 222 observations of pH were less than 5 su indicating that acidic background conditions exist for the groundwater in southern Escambia County.

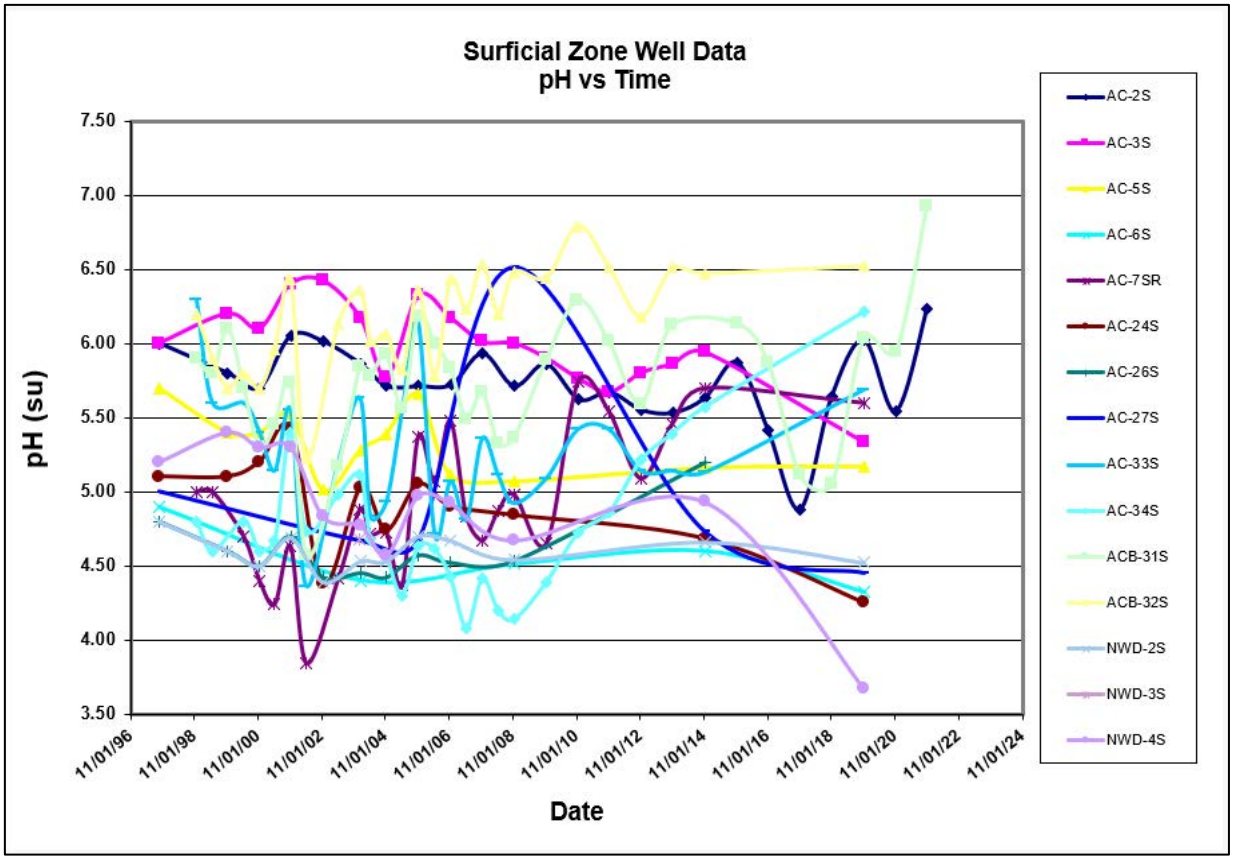
Exceedances of radium in Escambia County are believed to be associated with naturally occurring thorium minerals in the subsurface. USGS research (Zapecza and Szabo, 1988) at sites throughout the eastern United States indicate that when groundwater pH is approaching 4.5 to 5 su or lower and thorium is present, a process known as recoil mobilization is possible. This recoil process allows radium 228 to be released to the groundwater from the minerals containing thorium. For Escambia County as a whole, it is possible to activate this release with what are considered background groundwater conditions.

The acidity reflected by low pH in groundwater within the Agrico plume is most likely the result of former operational processes whereby wastewater was disposed in the former on-site impoundments at the former Agrico facility (Watts, et al, 1988). Since the completion of the OU-1 RA, the pH of shallow groundwater within the plume has improved, and in 2021 the pH values recorded are approaching a neutral condition.

The trends in groundwater pH from the Agrico network monitoring wells are reflected in the following graphs for the surficial and main producing zones of the aquifer. Measurements in 2021 in the main producing zone indicate that pH levels in more than half the wells were lower in 2021 than in 2020; but values were within historical ranges.

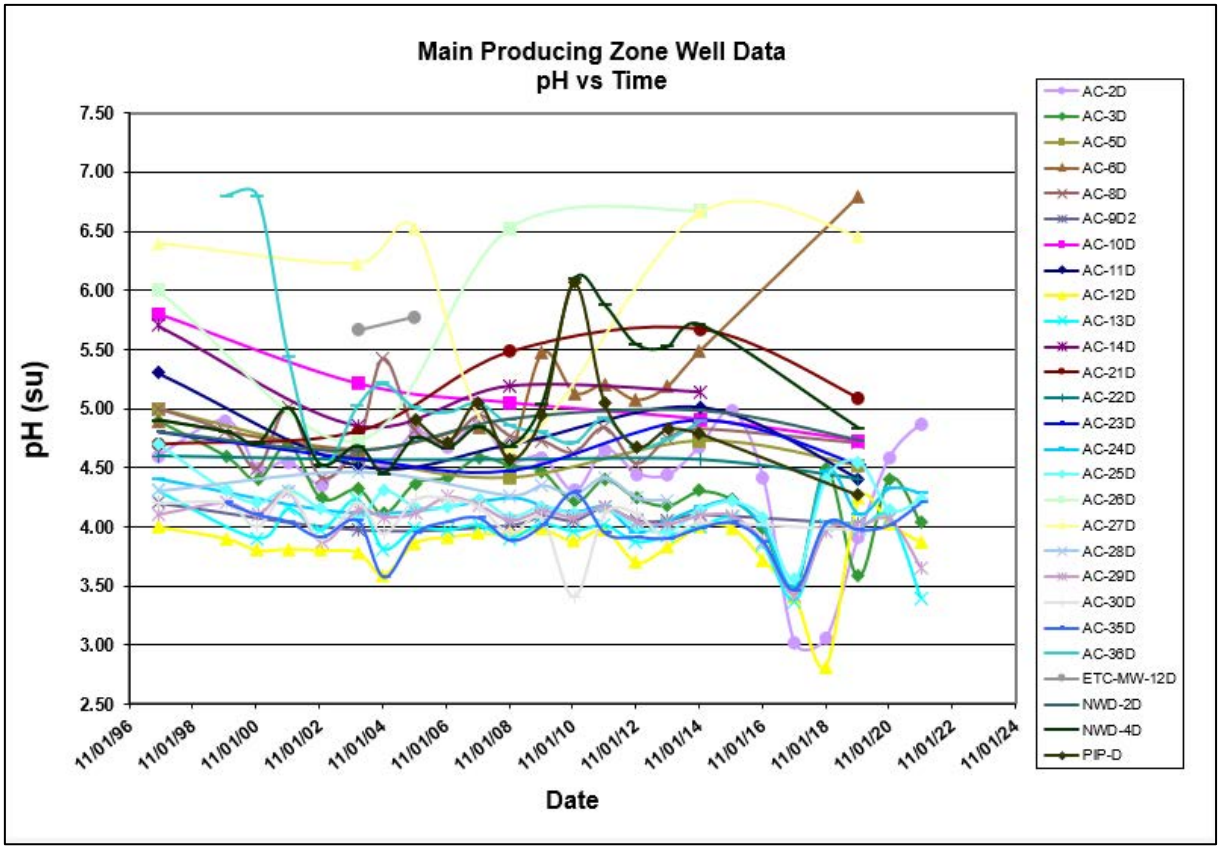
Surficial Zone Groundwater:

The surficial zone groundwater pH vs. time chart is shown below.



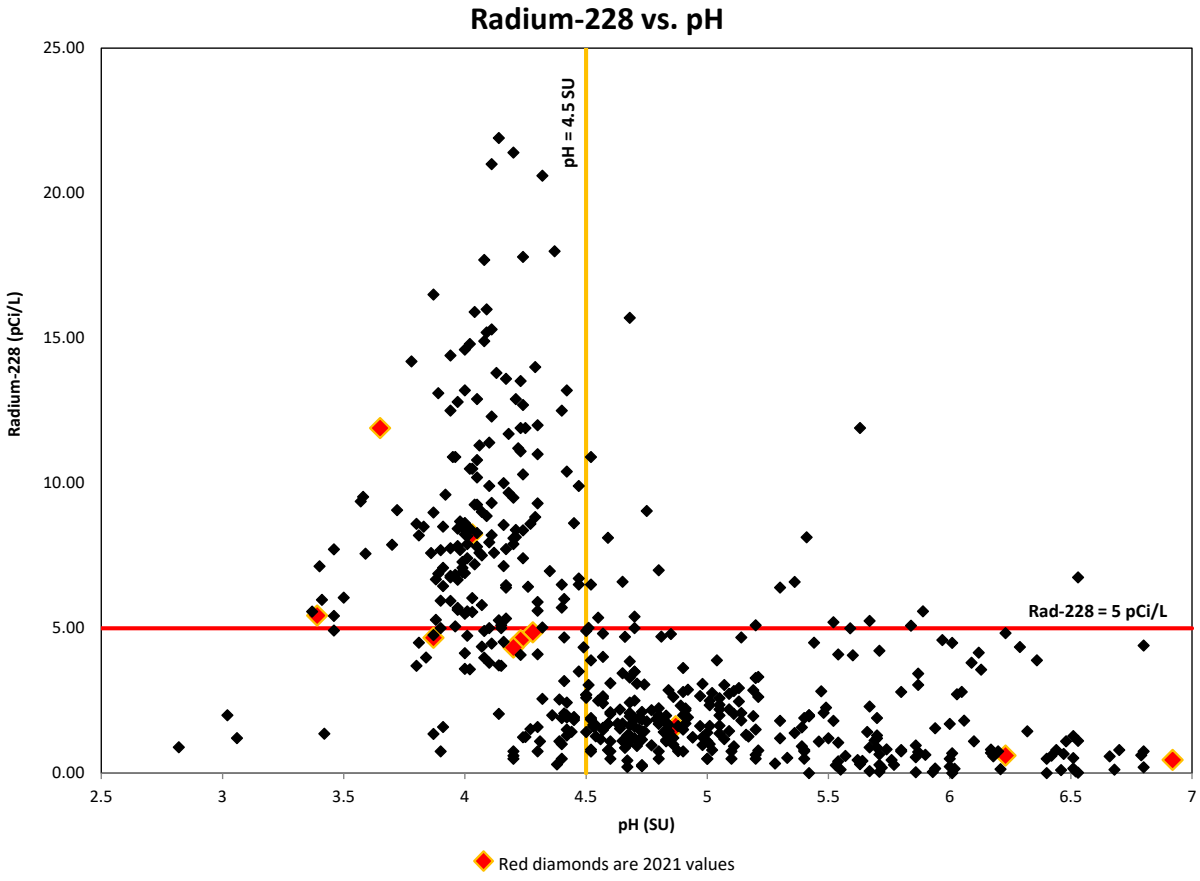
Main Producing Zone Groundwater:

The main producing zone groundwater pH vs. time chart is shown below.



The following graph is updated from the original graph (URS, 2007) to show data from all sampling events conducted for the Agrico Site. The data points marked as red diamonds represent results from the November 2021 sampling event. The graph shows the relationship between pH and radium 228 concentrations and illustrates that where the groundwater pH approaches about 5 to 4.5 su or lower, the radium 228 concentration generally increases and often exceeds the 5 pCi/L drinking water standard for combined radium 226 + radium 228. It should be noted that the use of a pH of 4.5 su to demonstrate this relationship is within the range of pH that the recoil process generally is activated. The recoil activation range is plus or minus a pH of 4.5 su (Zapecza and Szabo, 1988).

Data from the 2021 sampling also follow the trend.



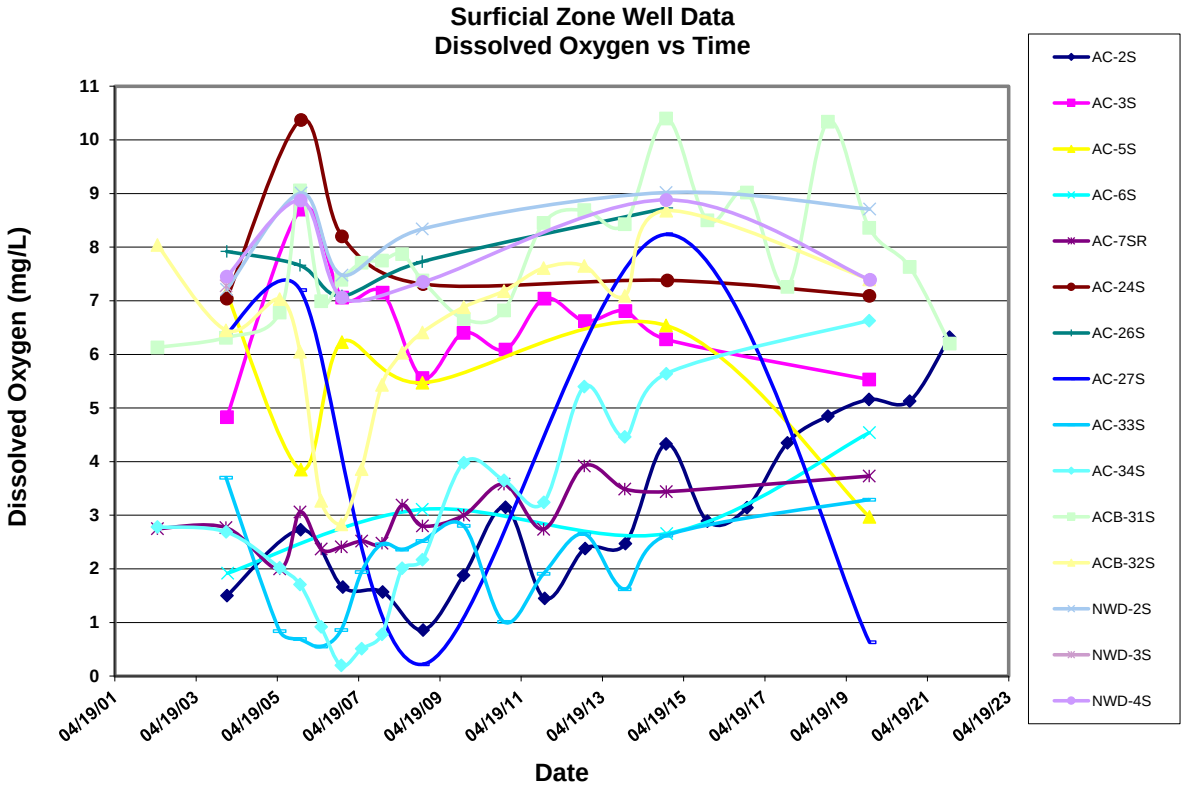
Acidic groundwater conditions are also associated with Site 348. This site is located approximately 3,000 feet south of the Agrico Site. Assessment reports for Site 348 (MACTEC, 2010) present pH and radium 228 data which show that low pH conditions result in exceedances of the radium standard of 5 pCi/L for combined radium 226 and radium 228. Data from Site 348 indicates that radium 228 is the predominant isotope present in the groundwater beneath Site 348. Site 348 is near the former municipal water supply wells. A 2008 sample collected by ECUA from the F & Scott well reported a combined radium 226 + 228 concentration of 5 pCi/L (www.ecua.fl.org – 2010 Water Quality Report).

5.5.3 Dissolved Oxygen

The solubility limit (saturation concentration) of oxygen in water (in equilibrium with air) at the temperatures, pressures, and salinities encountered in shallow groundwater at the Site is on the order of 8.5 mg/L (ppm). Oxygen's solubility limit increases as temperature decreases. Dissolved oxygen (DO) concentrations greater than 1 mg/L (aerobic conditions) are considered to support aerobic microbial metabolism, and conversely, DO concentrations less than 1 mg/L (anaerobic conditions) support anaerobic microbial systems.

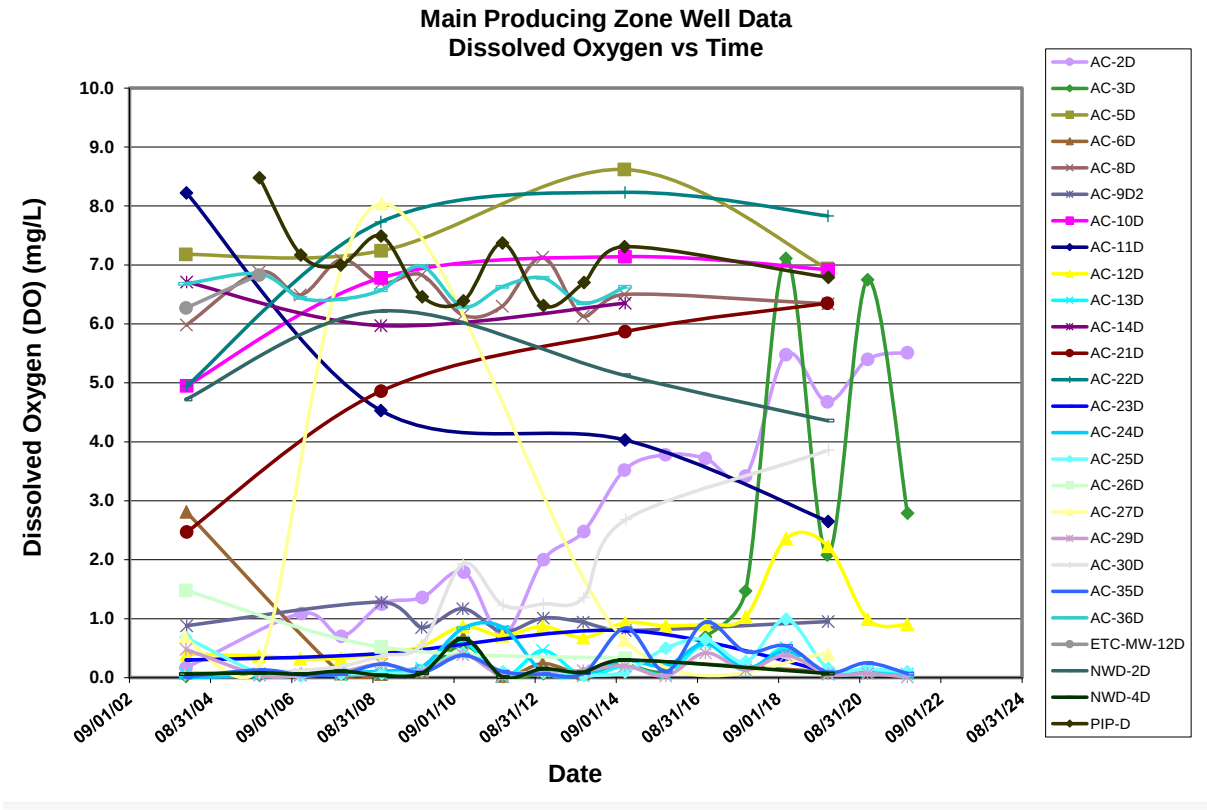
Surficial Zone Groundwater:

The shallow groundwater DO vs. time chart is shown below.



Main Producing Zone Groundwater:

The deep groundwater DO vs. time chart is shown below.



5.5.4 Oxidation-Reduction Potential

Oxidation-reduction potential (ORP) reactions control the behavior of many chemical constituents in groundwater. ORP refers to the electric potential required to transfer electrons from one compound or element (the oxidant) to another compound (the reductant). The process of oxidation involves losing electrons, while reduction involves gaining electrons. ORP is used as a qualitative measure of the state of oxidation in aqueous solutions. ORP (and Eh) are typically given in terms of millivolts (mV).

Although similar to ORP, Eh is reserved for consideration where the redox potential is measured with a relatively fragile standard hydrogen electrode (SHE). Positive Eh values indicate an oxidizing environment, while negative Eh values indicate a reducing environment. For field applications, ORP is typically measured using silver/silver chloride (Ag/AgCl) reference electrodes.

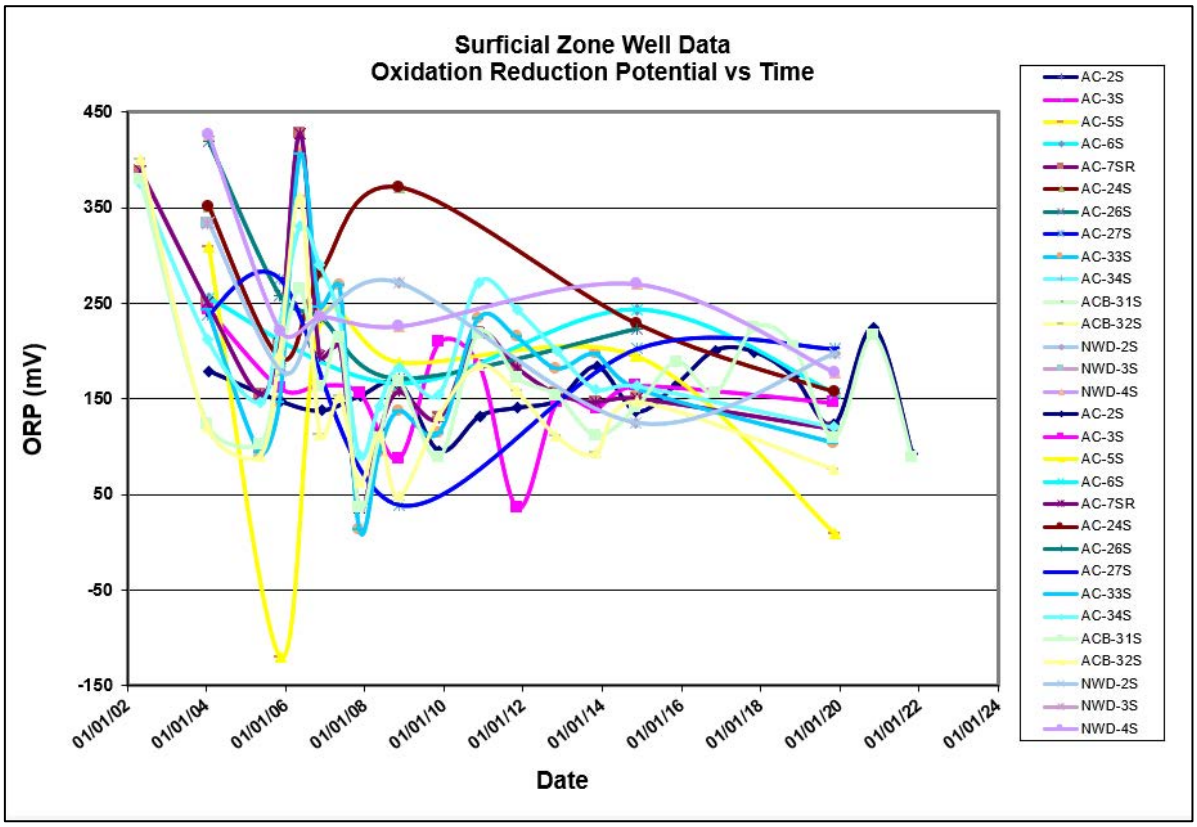
Field ORP readings can be converted to Eh values by adding the offset value provided by the manufacturer of the ORP calibration solution used (or by experimentation). ORP has been measured at the Site with an YSI (brand) instrument equipped with an Ag/AgCl electrode and calibrated against a Zobell 4 molar potassium chloride (KCl) solution where the offset to Eh is 200 mV. To convert the Site's field ORP readings to Eh, the offset value of 200 mV is added to the Site's ORP readings. For example, ORP readings of +150 and -172 mV translate to Eh values of

+350 and +28 mV, respectively. It is common for natural groundwater to present ORP between +300 mV to -400 mV (Eh between +500 mV to -200 mV).

Generally, oxygen-rich water is expected to exhibit positive ORP values (reflecting oxidizing conditions); and, conversely, anaerobic water often presents negative ORP values (reflecting reducing conditions). However, oxidation-reduction reaction couples are numerous and often competitive, so that natural environments affected by anthropogenic constituents can induce ORP behavior atypical of the otherwise classic correlation with DO. ORP is expected to reach equilibrium in groundwater that is at or approaching steady state. Changes in ORP can indicate a system that is out of equilibrium. ORP readings in 2021 are lower than those reported in 2020, but the values remain within the historical ranges.

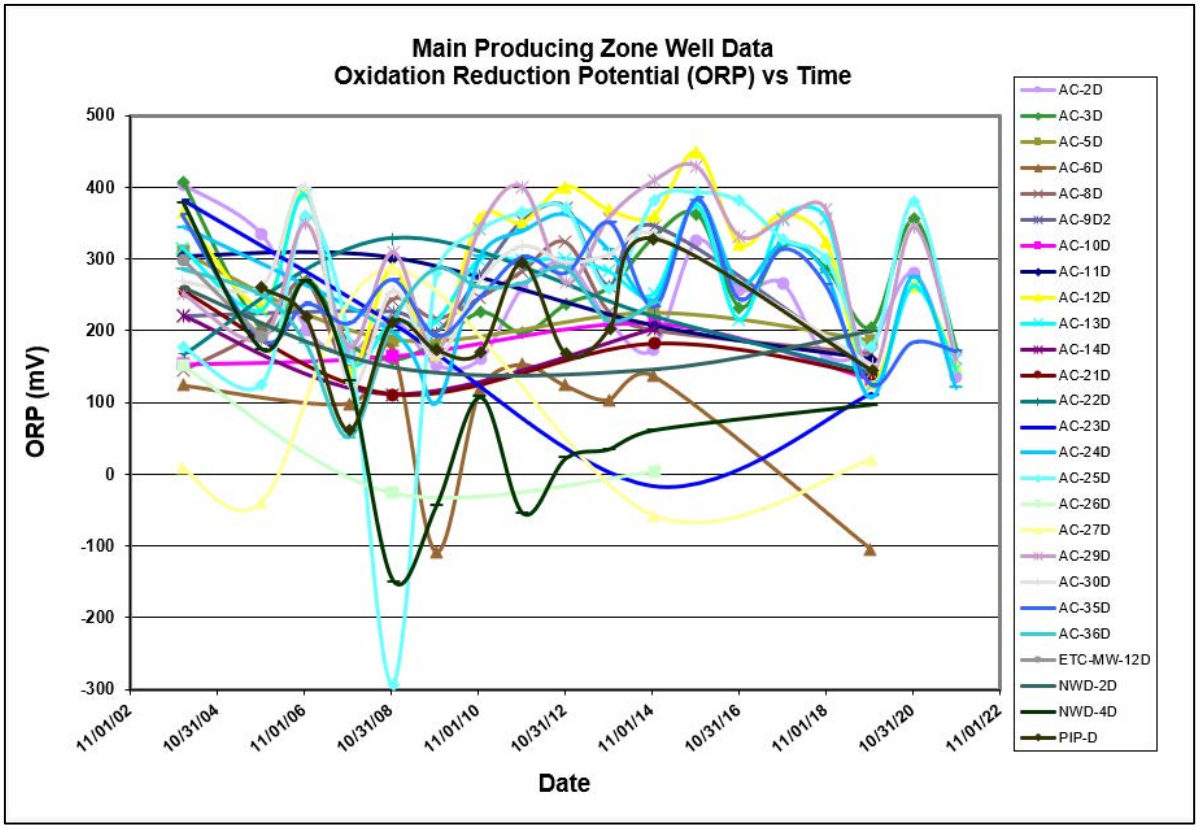
Surficial Zone Groundwater:

The shallow groundwater ORP vs. time chart is shown below.



Main Producing Zone Groundwater:

The deep groundwater ORP vs. time chart is shown below.



5.6 BAYOU TEXAR SAMPLING RESULTS

The modified surface water monitoring network is composed of three sampling locations within Bayou Texar. Freshwater from Carpenter's Creek flows into the saline estuary, Bayou Texar. **Figure 1** shows the locations of the surface water sampling sites. The samples are analyzed for fluoride only. Brackish water occurs at all three locations where samples are collected.

The surface water sampling results for fluoride at the three stations are shown in **Table 5** (field parameters) and **Table 9** (analytical results). The fluoride results did not exceed the surface water criteria of 5 mg/L at the sampling locations. Laboratory analytical reports are contained in **Appendix A**.

5.7 QA/QC REVIEW

Eurofins job numbers for this annual report are 400-210573-1 and 400-210716-1. The following laboratory narratives describe the sample conditions and associated analytical QA/QC issues.

Laboratory Report 400-210573-1**:**

All samples were received in good condition within temperature requirements, properly preserved and on ice. The sample collected from ACB-31S was mislabeled by the lab as ACB-315.

Method 300.0 – Chloride and Sulfate – Several samples were diluted to bring the concentration of target analytes within the calibration range and the elevated reporting limits are provided. Also, the matrix spike (MS)/matrix spike duplicate (MSD) recovery for several sulfate samples was outside control limits, but the associated laboratory control sample (LCS) recovery was within acceptance limits. Data have been reported and qualified in the laboratory report.

Method 903.0 – Radium – The method blank has activity above the minimum detectable concentration and the reporting limit. The associated samples are below the reporting limit for the contaminant; therefore, reanalysis is not required, and the data have been reported. Also, the LCSs/laboratory control sample duplicates (LCSD) recovered at 72% and 69% (below some state required limits). However, the laboratory's statistical limits of 61%-138% per method apply to these samples in Florida, so the LCS passes, and no further action is required.

Metals – No analytical or quality issues were noted.

Method 353.2 – Nitrate-Nitrite – Several samples were diluted to bring the concentration of target analytes within the calibration range and reporting limits are provided. Also, the MS/MSD recoveries were outside advisory control limits, but the associated LCS recovery was within acceptance limits. In addition, the native sample, MS, and MSD associated with an analytical batch was performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the analyte in the MS/MSD was above the instrument calibration range. The data have been reported and qualified in the laboratory report.

Laboratory Report 400-210716-1**:**

All water quality samples were received in good condition, properly preserved and within temperature requirements. No analytical or quality issues were noted.

Fluoride results for samples AC-13D, AC-24D, AC-25D, and AC-35D were well below the expected results based on historical values. In addition, the duplicate (DUP) sample DUP 1 at AC 2D was collected during the November 2021 sampling event. The duplicate sample did not show acceptable agreement with fluoride results. Discussions with the laboratory and subsequent investigation by the laboratory personnel indicated that the instrument stirring mechanism was not functioning properly during the analyses for this batch of samples. The malfunction led to the lower values and the discrepancy in the AC-2D duplicate result. For comparison, the laboratory did report the Method 300.0 ion chromatography (IC) results for these samples, for informational purposes only.

One equipment blank (EQ 1) was collected during the November 2021 sampling event. Target analyte chloride was reported above the laboratory detection limits in the equipment blank sample. Review of the chloride data did not result in qualification of the data based on the detection in the blank.

Results of the QA/QC samples are included with the laboratory reports in **Appendix A**.

5.8 GROUNDWATER SAMPLING RESULTS

The 2021 annual results continue to support that source control actions at the former Agrico Site are effective and that the MNA remedy is functioning as expected with Agrico COCs attenuating in groundwater under the former Site and down-gradient of the Site.

Surficial Zone

Within the surficial zone, historically the overall trend is downward and historically there has been an overall shrinking of the area of impacts for this zone. The downward trend in concentrations has been attributed to effective source control. The surficial zone plume is historically captured by the vertical hydraulic component of the contaminant transport within less than one-half mile downgradient of the former Site. Due to these conditions, the areal extent of impacts in the surficial zone is limited.

Presently, there are only two surficial monitoring wells being sampled annually for the Site, ACB-31S and AC-2S. Only AC-2S exhibits COC concentrations above target clean-up goals in the surficial zone. Historical results show that all Agrico monitoring well locations on the former Agrico property have achieved clean-up goals. Location AC-2S is directly down-gradient of the former Agrico Site and up-gradient of the area where the surficial zone is preferentially hydraulically connected to the deeper main producing zone. For 2021, fluoride (22 mg/L) exceeds the clean-up target level of 4 mg/L at this location. The fluoride concentrations in shallow groundwater are attenuating. The peak concentration of 210 mg/L occurred in 2002 at well AC-2S. Since that time, fluoride concentrations have been on a decreasing trend. For arsenic, the concentration is also decreasing. The highest total arsenic concentration of 0.74 mg/L occurred at well AC-2S in 1990. In 2021, arsenic was not detected above the performance standard.

Main Producing Zone

Within the main producing zone, the overall flattening of the trends is what was predicted in the *Evaluation of Monitored Natural Attenuation* by William Huber, Ph.D., Quantitative Decisions, (URS, 2009) and further confirmed by subsequent data evaluations by Huber in the October 23, 2013, Report #2 (URS, 2013b). This flattening should be expected to continue for some time and eventually evolve into a slowly decreasing trend, accelerating as time goes on. Slight upward or downward ticks in the trend for individual monitoring well results are to be expected. It is the long-term trend for each COC that is important. Radium appears to attenuate more slowly than the other Agrico COCs. Radium exceedances occur as the result of a secondary reaction and are not the direct result of infiltration into the groundwater from the source area. Instead, acidic wastewater infiltrated into the groundwater and contacted naturally occurring mineralogy with radium content. The radium in turn was released from the subsurface sediments to the groundwater as the acidic plume is transported downgradient contacting newly exposed aquifer material with the radium mineralogy. As the acidity approaches background conditions, this will stop the release of radium and attenuation of combined radium should progress on a faster path.

Figure 8 and **Figure 9** show the 2021 results for the current monitoring locations for fluoride and combined radium 226 + 228, respectively. Fluoride values for several of the main producing zone wells (AC-13D, AC-24D, AC-25D, AC-35D) were reported below 1 mg/L, much lower than historical values. An inquiry was sent to the laboratory following receipt of the results, and the laboratory reported that an instrument malfunction led to the discrepancy. Fluoride results reported using an alternative laboratory method (300.0 IC) ranged from 10 mg/L to 130 mg/L and are closer

to expected values based on the historical levels. These results are not directly comparable to the historical results because they were reported by a different analytical method not approved for use at the site. However, these informational results do appear to indicate that no significant shift in groundwater concentrations in the monitored wells has occurred during the monitoring period. The 2021 results for these locations have not been included in **Figure 8** or in the trend charts in **Figure 11**. Additionally, results from AC-29D (located upgradient of AC-24D, AC-25D, and AC-35D) and from AC-12D (located upgradient of AC-13D) are consistent with historical results and are useful for their intended purpose. Fluoride in these two locations was slightly lower in 2021 than values reported in 2020. Review of these data in conjunction with review of the fluoride results from the 2021 surface water samples collected in Bayou Texar appear to confirm that no significant increases in the fluoride concentration in the main producing zone have occurred since 2021. Combined radium 226 + 228 concentrations from the 2021 sampling were slightly higher in most of the monitoring wells than those measured during 2020. However, all results were well below the historical maximums, and overall, the data show decreasing trends for these constituents. **Figure 10** presents the trend graphs for fluoride in the surficial zone annual monitoring wells. Chloride, sulfate, nitrate and combined radium 226+ 228 trends are not included for the surficial zone since these parameters have remained below the performance standards in the surficial zone for over 5 years. **Figure 11** shows the trend graphs for fluoride, chloride, sulfate, nitrate and combined radium 226 + 228 for each of the annual sampling monitoring well locations in the main producing zone. For the locations with questionable fluoride results, the reported values have been left off the charts so as not to skew the trends.

6.1 OU-1 REMEDY

The source area remedy was completed in 1997. Since that time, the property has remained secured; institutional controls have been filed on the property deed and are on record with Escambia County; the integrity of the constructed cap has not been compromised by erosion or settlement; the grass cover on the cap has matured and stabilized the soils; and the storm water controls remain intact, preventing storm water runoff from leaving the Site except through infiltration to groundwater in the North and South Ponds. Results of the water and sediment sampling in the infiltration ponds during January 2004 indicated that soils on-site are not affecting the quality of water infiltrating these ponds. Concentrations of all COCs in groundwater of the surficial zone immediately downgradient of the cap have decreased significantly since the remedial actions were completed. Based on the groundwater sampling results, the source area is controlled, and the remaining COC impacts are from residual impacts caused prior to the remedial action. **Results from the 2021 sampling of monitoring wells downgradient of the cap area indicate that the OU-1 remedy remains effective and that source zone depletion is ongoing.**

6.2 OU-2 REMEDY

Annual groundwater and surface water monitoring has been performed at established long-term monitoring locations since 1999. Comprehensive sampling has been performed in conjunction with each Five-Year Review. The groundwater monitoring continues to be an effective means of evaluating the natural attenuation remedy as well as source zone depletion. The evaluation of the long-term groundwater monitoring network (URS, 2006d), approved by EPA on September 11, 2007, provides further information regarding the defined plume area and downgradient progression. The evaluations of monitored natural attenuation associated with the Agrico plume (URS, August 2009 and October 2013) further supports that the mechanisms for attenuation are in place throughout the area and the effects of the source zone remedy are evident in the surficial zone of the former source area (OU-1) and are also being observed downgradient (OU-2), as expected. **Results from the 2021 sampling of monitoring wells downgradient indicate that effective natural attenuation is proceeding as expected.**

6.2.1 Notifications

As part of the annual scope of work, notifications are provided to select groups. This includes issuing an Advisory Notice to contractors, a memorandum to local and regional agency contracts; and querying of NWFWMD permit records to determine if any new wells have been installed within the well construction moratorium area.

A standard advisory notice was distributed to contractors who might be performing work related to new well installations around OU-2. This notice informs the contractor of the boundaries of the existing moratorium on well construction. It also directs them to the NWFWMD, FDEP, or the Escambia County Health Department for more information.

According to NWFWMD permit records, no new irrigation wells were installed within the monitoring area during 2021.

On February 22, 2001, the NWFWMD Board passed a moratorium on drilling wells, including irrigation wells, in the Agrico OU-2 and the ETC groundwater plume areas. The moratorium remains

in effect and provides the most stringent institutional controls for the area impacted by the plume. The moratorium has no termination date and is part of the Prohibitions in Rule 40A3. In March 2021, a coordination memorandum was distributed to local and regional agencies requesting input on any rule changes that may affect any institutional controls for the moratorium area (**Appendix C**). No responses indicating work that might affect the area were received.

6.2.2 Sampling Results – Groundwater and Surface Water

The natural attenuation remedy is proceeding as anticipated, with 24 of the estimated 70 years elapsed (remediation of OU-1 was certified complete in April 1997). Conclusions from the monitored natural attenuation evaluations (URS, August 2009 and October 2013) indicate that much of the groundwater is expected to reach the target concentrations within two to three decades. Within the area of the Bayou Texar discharge boundary, the time to reach the targets may be longer. Fluoride results continue to exemplify cleanup progress for the Agrico Site. While the fluoride data for several of the wells are questionable given the significant decrease over previous results reported by the laboratory, the results from the other wells analyzed continue to show that overall fluoride concentrations are decreasing with time. Additionally, it appears that the plume discharge area remains well defined and limited in areal extent. Groundwater results, except for the previously discussed fluoride concentrations, for November 2021 closely compare to historical results for both aquifer zones. Although slight increases in concentrations were detected at monitoring well locations for some COCs, the increases are well below the maximums detected and within the range of expected concentration fluctuations for a natural attenuation remedy where source control has been implemented and source-zone depletion is ongoing.

Surficial Zone

The surficial zone plume does not migrate to Bayou Texar. The plume in this zone infiltrates to the main producing zone within less than 0.4 mile downgradient of the Site (**Figure 4**). Monitoring of the groundwater within the surficial zone is limited to the OU-1 area and the vicinity of the vertical diversion area between AC-2S and AC-3S. The only impacts remaining for the surficial zone plume are in proximity of monitoring well AC-2S, and only fluoride was detected above the performance standard in this well during 2021. Historically, within the surficial zone, the overall trend in COC concentrations is downward and the overall area of impacts is shrinking. Due to the existing hydrogeologic/hydraulic conditions, the zone has limited areal impacts. For most of the OU-2 area, background conditions exist for the Agrico COCs within the surficial zone since the potential for downgradient impacts beyond the surficial zone diversion area are absent. Any exceptions to background concentrations in these downgradient surficial zone wells are due to non-Agrico sources.

Main Producing Zone

Within the main producing zone, arsenic and lead plumes are not present. The primary indicator of the Agrico plume continues to be fluoride where concentrations exceed the performance standard of 4 mg/L. Also, elevated chloride and sulfate concentrations coexist with elevated fluoride concentrations at some locations. Radium appears to be attenuating more slowly than the other Agrico COCs. This is because radium (naturally occurring) exceedances occur as the result of a secondary geochemical reaction, not the direct result of infiltration into the groundwater from the source area. Instead, low pH acidic wastewater infiltrated into the groundwater and contacted

naturally occurring minerals with radium content. The naturally occurring radium was released from the subsurface saturated soil to the groundwater with the low pH acidic plume. As the pH approaches background conditions (neutralizes) downgradient, the release of the naturally occurring radium will subside, and both the pH and radium plumes will continue to shrink.

Historically, the main producing zone plume remains well defined, as the detailed evaluations (URS, 2006d, URS, August 2009, and URS, October 2013) confirmed, and exceedances of contaminant-specific performance standards only cover limited areal extents. Within the main producing zone, the stability and flattening of COC concentration trends is what was predicted and what is observed. At some locations, the flattening/COC stability is expected to continue for some time. This trend will eventually evolve into a slowly decreasing trend, accelerating with time as it has already developed in many locations. Except for the fluoride results that were reported to be much lower than historical concentrations, and that are not likely representative of current conditions, sampling results for 2021 showed slightly higher concentrations for some constituents at a few locations within the plume than measured in 2020. These increased concentrations were within the historical ranges, and overall concentrations trends are decreasing.

Slight upward or downward ticks in COC trends for individual monitoring well results are to be expected as site conditions change (e.g., water level fluctuations, aquifer heterogeneity, etc.). It is the long-term trend for each COC in the impacted area that is important.

6.2.3 Bayou Texar

The 1993 Bayou Texar Assessment (Entrix, 1993a, 1993b, and 1993c) presented fluoride data that indicated groundwater originating from the Agrico Site was discharging to the bayou. The data also indicated that the discharge zone appeared to be well defined and limited in areal extent. EPA's review of the data concluded that fluoride would have to be discharging at a concentration of 4,050 mg/L or greater to exceed the surface water standard of 5 mg/L in the bayou. The maximum fluoride concentration in 2020 in the groundwater well closest to the western edge of Bayou Texar, was estimated at 60 J mg/L in monitoring well AC-35D. The fluoride result for this well in 2021 was reported to be much lower. The maximum historical fluoride concentration recorded for the Agrico plume was 180 mg/L in the same well AC-35D in 2010. Furthermore, in the OU-2 ROD, EPA (1994) concluded that it is unlikely that the discharge of the groundwater plume into Bayou Texar would result in impacts to fish or wildlife.

There are more than 60 storm water outfalls into Bayou Texar. Several studies have identified impacts caused by storm water from other locations contributing contaminants to the bayou. Mohrherr, et al. (2005) concluded that Bayou Texar is an urban water body that is impacted by a variety of pollutants and pollution sources. Mohrherr, et al. (2005) further concluded that their results corroborate the studies conducted for the Agrico Site indicating that fluoride levels are highest and increase with depth in the northern portion of the bayou where the Agrico plume discharges to the bayou. Mohrherr, et al. (2005) also concluded, as the long-term monitoring data for the bayou confirm, that the fluoride concentrations in the waters of Bayou Texar are below the Chapter 62-302, Class III Marine standard of 5 mg/L.

Surface Water

Surface water concentrations remain below Chapter 62-302, Class III Marine Surface Water Standards for Agrico COCs, indicating that sufficient precipitation for the case of fluoride

concentrations exists within the bayou. For other Agrico constituents, advection-dispersion is significantly affecting the COCs before and/or after it is discharged to the bayou so that the Agrico plume potential impacts are minimized with no significant risk to the bayou.

Summary of Ecological Impact Evaluation of Bayou Texar Downgradient of Agrico's Groundwater Fluoride Plume

On September 4, 2009, the results of the Phase I and Phase II Bayou Texar sampling for August 2008 and May 2009 were submitted to EPA. The results of the investigations indicated the following:

- Fluoride in the top 10 cm of sediment (the bioactive zone) within the groundwater plume discharge zone ranged from about 32 to 339 micrograms per gram (µg/g).
- Fluoride in the near-bottom surface water (the primary exposure regime for demersal fish) within the groundwater plume discharge zone was consistently less than the Florida Surface Water Quality Criterion for Class III Marine waters for fluoride, 5 mg/L. The concentration of fluoride in most of the surface water samples was less than 1 mg/L.
- Fluoride in the sediment pore water in the bioactive zone (the primary exposure regime for benthic macro-invertebrates) within the groundwater plume discharge zone was less than 3 mg/L in 30 of the 40 stations sampled. Fluoride in pore water exceeded the 5 mg/L standard at only 3 of 40 stations. Spatial analysis determined that the surface area weighted average concentration of fluoride in the bioactive zone pore water was less than the 5 mg/L standard.

The conclusions of this assessment indicated that there is no significant risk to populations of demersal fish or to benthic macro-invertebrate communities that inhibit the reach of Bayou Texar where the Agrico groundwater discharges. Furthermore, the fluoride solubility in most of surface sediments and in all pore waters within the primary groundwater plume discharge reach is controlled by mineral precipitation reactions. These reactions are likely responsible for buffering dissolved concentrations of fluoride in near surface sediment pore water and the surface water in this reach of the bayou.

EPA has approved the ecological impact evaluation that was conducted for Bayou Texar (URS, 2009C). As part of the Third Five-Year review, EPA included four recommendations in the June 2010 Five-Year Report. These recommendations were as follows:

1. Continue annual groundwater monitoring.
2. Continue annual near-bottom Bayou Texar surface water monitoring at multiple stations including the 3 locations with pore water greater than 5 milligrams per liter as reported in the September 4, 2009 "Conceptual Site Model Ecological Impact Evaluation of Bayou Texar Downgradient of Agrico's Groundwater Fluoride Plume" (Phase II results).
3. If the levels of fluoride in near-bottom surface water or in adjacent Bayou Texar groundwater monitoring well, AC-35D increase to levels significantly greater than that measured historically (maximum of 180 mg/L in 2010), submit a work plan to evaluate the increase.
4. Conduct further risk evaluation studies will be conducted if the surface area weighted average for pore water is predicted to be greater than 5 mg/L.

These first two recommendations are continuing tasks of the on-going long-term monitoring program for the Site. As of the November 2010 sampling event, the three locations where pore water results were greater than 5 mg/L were added to the long-term monitoring.

Since the surface water sampling was initiated for Bayou Texar and modified in 2010, no significant concentrations of fluoride have been detected as part of the near-bottom surface water sampling. For 2021, the fluoride concentrations are 0.72 mg/L (BT-107), 0.59 mg/L (BT-02), and 1.1 (BT-127). The value for BT-127 was slightly higher than the value detected during the 2020 sampling event. Results from the other two locations were lower than values reported in 2020. Results from all location continue to be well below the applicable SWS. Historical surface water fluoride concentrations further confirm that the Agrico groundwater discharges to Bayou Texar have no significant risk.

6.3 RECOMMENDATIONS

- Annual groundwater and surface water sampling continue for 2022 as stated in the March 10, 2015, FDEP Memorandum.
- Operations and maintenance including mowing related to OU-1 to continue in accordance with the OU-1 O&M Plan as amended November 18, 2009 and approved by EPA on January 25, 2010.
- The advisory notice to contractors and the query of the NWFWMD well construction permit database will continue annually.
- The Agency Coordination Memo and the FDOT inquiry for intrusive activity will continue annually.
- Continue to work to understand the impacts associated with Site 348 (a FDEP site) and work with EPA on gathering information pertaining to Site 348.

AECOM (formerly URS), 2015. Annual Report for 2014, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida, February 3, 2015.

AECOM, 2016. Annual Report for 2015, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida, March 4, 2016.

AECOM, 2017. Annual Report for 2016, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida, March 31, 2017.

AECOM, 2018. Annual Report for 2017, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida, March 8, 2018.

AECOM, 2019. Annual Report for 2018, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida, March 22, 2019.

AECOM, 2020. Annual Report for 2019, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida, March 23, 2020.

AECOM, 2021. Annual Report for 2020, Operable Units One and Two (OU 1, OU 2), Agrico Site, Pensacola, Florida, March 31, 2021.

AMEC, 2013. Expanded Site Inspection Report – Palafox Street and Texar Dr. Ammonia Site, Pensacola, Escambia County, Florida; prepared for FDEP, Tallahassee, FL; FDEP Comet Site ID # 155367, EPA ID No. FLN000410706; June 2013.

Bortone, Stephen A, 1996. Biophysical Monitoring at Bayou Texar: Bathymetric, Sedimentologic and Macroinvertebrate Evaluation at Twelve Outfalls, University of West Florida.

Carmargo, J.A., 2003. Fluoride Toxicity to Aquatic Organisms: A Review. Chemosphere 50 (2003):251-264.

Cameron-Cole, LLC, 2011. Site Assessment Report, Former Kaiser Agricultural Chemical Company, 2710 North Palafox Street, Pensacola, Florida; prepared for Mr. James W. Bradley and Mr. Donald W. Moore; September 15, 2011.CDM Federal Programs Corp. 1998. Remedial Investigation/Feasibility Study for Source Soils for the Escambia Treating Company Site, Pensacola, Florida. February 9, 1998.

Camp, Dresser & McKee, Inc. (CDM), 1998. Final Remedial Investigation Feasibility Study for Source Soils for the Escambia Treating Company Site, Pensacola, Florida.

CDM, 2004. Data Summary Report for OU1 Additional Soil Investigation Remedial Investigation/Feasibility Study for the Escambia Treating Company Site, Pensacola, Florida.

CDM, 2005a. Final Feasibility Study Report for Source Soils, Operable Unit 1, Escambia Treating Company Site, Pensacola, Florida.

Coffin, John E., 1982. Summary of Ground-Water and Surface-Water Data for City of Pensacola and Escambia County, Florida: U.S. Geological Survey Open-File Report 82-361.

E^2 Inc., 2010. Five-Year Review Report (2005-2009) Third Five-Year Review Report for Agrico Chemical Company, FLD 980221857, Pensacola, Escambia County, Florida, June 2010. Prepared for U.S. Environmental Protection Agency, Region 4, Atlanta, Georgia.

Entrix, Inc., 1993a. Final Bayou Study Work Plan: Phase 1a and 1b Sediment Sampling Program.

Entrix, Inc., 1993b. Bayou Texar Study Phase I Report: Sediment and Pore water Sampling and Analysis. May 6, 1993.

Entrix, Inc., 1993c. Bayou Texar Study Phase I Addendum Report: Bulk Metals Analyses with Additional Interpretation of Pore water Analyses. May 26, 1993.

Florida Institute of Phosphate Research, 2004. Phosphate Primer.

Geraghty & Miller, Inc., 1990. Remedial Investigation and Feasibility Study Work Plan. Pensacola Fertilizer Site. Pensacola, Florida. June 1, 1990.

Geraghty & Miller, Inc., 1991a. Draft Remedial Investigation Additional Work Plan. Agrico Chemical Site. Pensacola, Florida. July 24, 1991.

Geraghty & Miller, Inc., 1991b. Draft Remedial Investigation. Pensacola Fertilizer Site. Pensacola, Florida. March 28, 1991.

Geraghty & Miller, Inc., 1992a. Final Phase I Remedial Investigation, Agrico Chemical Site, Pensacola, Florida. March 12, 1992.

Geraghty & Miller, Inc., 1992b. Phase II Remedial Investigation, Agrico Chemical Site, Pensacola, Florida. September 18, 1992.

Geraghty & Miller, Inc., 1993a. Final Feasibility Study. Agrico Chemical Site. Pensacola, Florida. June 23, 1993.

Geraghty & Miller, Inc., 1993b. Final Phase 2 Remedial Investigation. Agrico Chemical Site. Pensacola, Florida. November 26, 1993.

Gibbons, Robert D., 1994. Statistical Methods for Ground Water Monitoring, John Wiley & Sons, Inc.

Henningson, Durham, and Richardson, 1974. Bayou Texar Restoration Study.

Mactec Engineering & Consulting, 2010. Summary of Phase VIII Groundwater Investigation Findings Report, ECUA Well Field Site, Pensacola, Escambia County, Florida; prepared for FDEP (Site 348); February 2010.

Mohrherr, Dr. Carl J., Dr. Johan Liebens, Dr. J. Eugene Lepo, and Dr. K. Ranga Rao, 2005. Profiles of Selected Pollutants in Bayou Texar, Pensacola, FL; a component of the "Assessment of Environmental Pollution and Community Health in Northwest Florida"; EPA Cooperative Agreement Award X-9745502; University of West Florida. May 10, 2005.

Moshiri, Gerald A. and Salman Elawad, 1990. Physical, Biological, and Environmental Studies of Bayou Texar, Escambia County, Florida: Physical, Chemical and Biological Characteristics of the Water Column and Sediments; The Institute for Coastal and Estuarine Research, University of West Florida; Vol. II.

Northwest Florida Water Management District, 1978. Evaluation of the Sedimentation and Hydraulic Characteristics of Bayou Texar and Carpenter's Creek. Escambia County, Florida: Technical File #78-3.

Northwest Florida Water Management District, 1988. Storm water Evaluation for the Restoration of Bayou Texar. WRSR #88-3.

Northwest Florida Water Management District, 1989. Ambient Ground Water Quality in Northwest Florida: Water Resources Special Report 87-1 (Revised edition).

Northwest Florida Water Management District, 1996. Analysis of Ground Water Availability in the Cordova Park Area, Southeastern Escambia County, Florida. April 1996.

Northwest Florida Water Management District, December 1999. Susceptibility of Public Supply Wells to Ground Water Contamination in Southern Escambia County, Florida.

Northwest Florida Water Management District (Countryman, Baker, Pratt, and Miller), October/November 2000. Potentiometric Surface of the Surficial Zone of the Sand-and-Gravel Aquifer, Escambia County, Florida. Water Resources Map Series 01-1.

Northwest Florida Water Management District (Countryman, Baker, Pratt, and Miller), October/November 2000. Potentiometric Surface of the Main Producing Zone of the Sand-and-Gravel Aquifer, Escambia County, Florida. Water Resources Map Series 01-2.

Roaza, Honesto P., Thomas R. Pratt, Christopher J. Richards, Jay L. Johnson, and Jeffry R. Wagner, 1991. Conceptual Model of the Sand-and-Gravel Aquifer, Escambia County: Northwest Florida Water Management District, Water Resources Special Report 91-6.

Roaza, Honesto P., Thomas R. Pratt, and Christopher J. Richards, 1993. Numerical Modeling of Ground Water Flow and Contaminant Transport in the Sand-and-Gravel Aquifer, Escambia County, Florida: Northwest Florida Water Management District, Water Resources Special Report 93-4.

Richards, Christopher J., Thomas R. Pratt, and Katherine A. Milla, 1997. Wellhead Protection Area Delineation in Southern Escambia County, Florida: Northwest Florida Water Management District, Water Resource Special Report 97-4.

Stone, Gregory W. and James P. Morgan, 1990. Physical, Biological, and Environmental Studies of Bayou Texar, Escambia County, Florida: Sedimentation, Bathymetric Changes and Tidal Variability in Bayou Texar. The Institute for Coastal and Estuarine Research. University of West Florida.

Stone, Gregory W., Morgan, James P., Moshiri, Gerald A., and Elawad Salman, 1990. Physical, Biological, and Environmental Studies of Bayou Texar, Escambia County, Florida: Conclusions and Recommendations for Environmental Quality Improvement in Bayou Texar; The Institute for Coastal and Estuarine Research, University of West Florida. Vol. V.

Trapp, H., Jr., 1975. Hydrology of the Sand-and-Gravel Aquifer in Central and Southern Escambia County, Florida. U.S. Geological Survey Open-File Report FL 74027.

URS, January 2001. Annual Report. Ground Water Sampling Results –May and November 2000. Operable Unit One, Agrico Site, Pensacola, Florida.

URS, March 9, 2001. Annual Report for 2000. Operable Unit Two (OU-2), Agrico Site, Pensacola, Florida.

URS, March 1, 2002. Annual Report for 2001, Operable Unit Two (OU-2), Agrico Site, Pensacola, Florida.

URS, March 1, 2002. Ground Water Sampling Results – May and November 2001. Operable Unit One, Agrico Site, Pensacola, Florida.

URS, April 2, 2003. Annual Report for 2002. Operable Unit Two (OU-2), Agrico Site, Pensacola, Florida.

URS, April 2, 2003. Annual Report for 2002. Operable Unit One (OU-1), Agrico Site, Pensacola, Florida.

URS, April 2, 2004. Annual Report for 2003, Operable Unit One (OU-1), Agrico Site, Pensacola, Florida.

URS, June 25, 2004. Annual Report for 2003, Operable Unit Two (OU-2), Agrico Site, Pensacola, Florida.

URS, 2005a. Annual Report for 2004, Operable Unit One (OU-1), Agrico Site, Pensacola, Florida. February 11, 2005.

URS, 2005b. Annual Report for 2004, Operable Unit Two (OU-2), Agrico Site, Pensacola, Florida. February 11, 2005.

URS, 2006a. Annual Report for 2005, Operable Unit One (OU-1), Agrico Site, Pensacola, Florida. February 20, 2006.

URS, 2006b. Annual Report for 2005, Operable Unit Two (OU-2), Agrico Site, Pensacola, Florida. April 6, 2006.

URS, 2007. Annual Report for 2006, Operable Units One (OU-1) and Two (OU-2), Agrico Site, Pensacola, Florida. March 30, 2007.

URS, 2006c. Technical Memorandum – Evaluation of Studies on Benthic Community Analysis and Sediment Toxicity Testing Conducted for Bayou Texar, Agrico Site, Pensacola, Florida. November 7, 2006.

URS, 2006d. Technical Memorandum Report – Evaluation of Long-Term Groundwater Monitoring Network. Agrico Site, OU-1 and OU-2, Pensacola, Florida. November 30, 2006.

URS, 2008. Annual Report for 2007, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida. March 28, 2008.

URS, 2009a. Annual Report for 2008, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida. March 31, 2009.

URS, 2009b. Evaluation of Monitored Natural Attenuation in Groundwater, Agrico Site, Pensacola, Florida. Prepared by William A. Huber, Ph.D. (Quantitative Decisions), August 19, 2009.

URS, 2009c. Conceptual Site Model Ecological Impact Evaluation of Bayou Texar Downgradient of Agrico's Groundwater Fluoride Plume. In cooperation with Anchor-QEA; September 4, 2009.

URS, 2009d. Recommendations to Operations and Maintenance Plans Operable Unit One (OU-1) and Operable Unit Two (OU-2) Agrico Site, Pensacola, Florida, November 18, 2009.

URS, 2010a. Annual Report for 2009, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida. March 15, 2010.

URS, 2011. Annual Report for 2010, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida March 31, 2011.

URS, 2012. Annual Report for 2011, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida. March 31, 2012.

URS, 2013a. Annual Report for 2012, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida. March 29, 2013.

URS, 2013b. Evaluation of Monitored Natural Attenuation in Groundwater, Report #2, October 23, 2013, Agrico Site, Pensacola, Florida, by Quantitative Decisions, William A. Huber, Ph.D., October 31, 2013.

URS, 2014. Annual Report for 2013, Operable Units One and Two (OU-1, OU-2), Agrico Site, Pensacola, Florida, March 7, 2014.

URS Greiner Woodward Clyde, January 1999. Annual Report. Ground Water Sampling Results – May and November 1998. Operable Unit One, Agrico Site, Pensacola, Florida.

URS Greiner Woodward Clyde, December 1999. Annual Report. Ground Water Sampling Results – May and November 1999. Operable Unit One, Agrico Site, Pensacola, Florida.

URS Greiner Woodward Clyde, 2000a. Remedial Action Implementation and First Annual Report (1999), OU-2, Agrico Site, Pensacola, Florida. February 2000.

URS Greiner Woodward Clyde, 2000b. Five-Year Review, Agrico Site, Pensacola, Florida. February 2000.

U.S. Army Corps of Engineers, Mobile District, 2005. Second Five-Year Review Report for Agrico Chemical Company, Operable Units 1 and 2, Pensacola, Escambia County, Florida, EPA ID: FLD980221857. Prepared for U.S. Environmental Protection Agency, Region 4. July 2005.

U.S. Department of Agriculture and Tennessee Valley Authority, 1964. Superphosphate: Its History, Chemistry, and Manufacturing. December 1964.

U.S. Environmental Protection Agency, 1992. Agrico Chemical Superfund Site, Record of Decision Operable Unit One. October 7, 1992.

U.S. Environmental Protection Agency, 1994. Record of Decision for Operable Unit Two, Agrico Chemical Superfund Site, Pensacola, Escambia County, Florida. August 25, 1994.

U. S. Environmental Protection Agency, 1994. Symposium on Natural Attenuation of Ground Water. 600/R-94/162.

U.S. Environmental Protection Agency, 2006. Record of Decision. Summary of Remedial Alternative Selection. Escambia Wood Treating Company Superfund Site. Operable Unit 01 (Soil). Pensacola, Escambia County, Florida. February 2006.

U.S. Environmental Protection Agency, 2008. Record of Decision. Summary of Remedial Alternative Selection. Escambia Wood Treating Company Superfund Site. Operable Unit 2 (Groundwater). Pensacola, Escambia County, Florida, September 2008.

Wagner, J.R., T.W. Allen, L.A. Clemens, and J.B. Dalton, 1984. Ambient Ground Water Monitoring Program - Phase I: NWFWMD, DER Contract No. WM65.

Watts, G., J.M. Wilson, K. Busen, and W.H. Colona, III, 1988. Agrico Chemical, Inc., Escambia County: FDER Groundwater Investigation Report No. 88-08.

Watts, Geoffrey B., and George E. Wiegand, 1989. Supplementary Contamination Report. Agrico Chemical Company - Escambia County: FDER, Site Investigation Section.

Wilkins, K.T., Wagner, J.R., and T.W. Allen, 1985. Hydrogeologic Data for the Sand-and-Gravel Aquifer in Southern Escambia County, Florida: Northwest Florida Water Management District Technical File Report 85-2.

Woodward-Clyde Consultants, 1993. Off-Site Monitoring Well Installation and Ground Water Sampling. Agrico Chemical Site. Pensacola, Florida: Technical Memorandum; Volumes 1 and 2.

Woodward-Clyde Consultants, 1998. Annual Report. Ground Water Sampling Results – May and November 1997. Operable Unit One, Agrico Site, Pensacola, Florida.

Woodward-Clyde Consultants, 1997. Work Plan - OU-2 Remedial Design. Agrico Chemical Site. Pensacola, Florida.

Woodward-Clyde Consultants, 1997. Preliminary Design Analysis, Operable Unit Two Agrico Site. Pensacola, Florida.

Woodward-Clyde International-Americas, 1998. Intermediate Design Analysis, Operable Unit Two Agrico Site. Pensacola, Florida.

Woodward-Clyde International-Americas, 1998. Pre-Final Design Analysis, Operable Unit Two Agrico Site. Pensacola, Florida.

Woodward-Clyde International-Americas, 1998. Remedial Action Work Plan and Related Plans (including Management Plan, Sampling and Analysis Plan, Health and Safety Plan and Operation and Maintenance Plan). Operable Unit Two, Agrico Site, Pensacola, Florida.

Zapecza, O.S. and Szabo, Zoltan, 1988. Natural radioactivity in groundwater – A Review in Moody, D.W., Chase, E.B., and Paulson, R.W., comp., National Summary 1986 – Ground-water quality: Hydrologic conditions and events: U.S. Geological Survey Water Supply Paper 2325.

TABLES

FIGURES

TABLE 1
GROUNDWATER MONITORING WELL NETWORK
LONG-TERM AND PERIODIC MONITORING WELLS

Agrico Site
Pensacola, Florida

Well I.D.	Network Component	Description	Aquifer Zone
AC-2D	OU-2 LTGWMW	Downgradient Site, Below PS Concentration	MPZ
AC-2S	OU-2 LTGWMW	Elevated Concentration Area Well	SZ
AC-3S	OU-2 LTGWMW	Flow Path Well, Below PS Concentration	SZ
AC-3D	OU-2 LTGWMW	Elevated Concentrations, Flow Path Well	MPZ
AC-5D	PERIODIC	Outside of Plume	MPZ
AC-5S	PERIODIC	Outside of Plume, Background	SZ
AC-6D	OU-2 LTGWMW	Outside of Plume; Potentially Impacted by Site 348 (Kaiser)	MPZ
AC-6S	PERIODIC	Outside of Plume; Potentially Impacted by Site 348 (Kaiser)	SZ
AC-7SR	OU-1 LTGWMW	In Residual Plume Area	SZ
AC-8D	OU-2 LTGWMW	Outside Plume, Sentry Well	MPZ
AC-9D2 [(1)]	OU-2 LTGWMW	In Plume	MPZ
AC-10D	PERIODIC	Outside of Plume, Effects by Site 348 (Kaiser) Possible	MPZ
AC-11D	PERIODIC	Outside of Plume	MPZ
AC-12D	OU-2 LTGWMW	Flow Path Well Inside Plume	MPZ
AC-13D	OU-2 LTGWMW	Leading Edge of Plume	MPZ
AC-21D	PERIODIC	Outside of Plume, Potential Effects by Site 348 (Kaiser)	MPZ
AC-22D	PERIODIC	Outside of Plume, Effects by Site 348 (Kaiser) Possible	MPZ
AC-23D	PERIODIC	Sidegradient Fringe of Plume	MPZ
AC-24D	OU-2 LTGWMW	Flow Path Well Inside Plume	MPZ
AC-24S	PERIODIC	Outside of Plume, Downgradient of Diversion Area	SZ
AC-25D	OU-2 LTGWMW	Flow Path Well Inside Plume	MPZ
AC-27D	PERIODIC	Located on East Side of Groundwater Divide	MPZ
AC-27S	PERIODIC	Located on East Side of Groundwater Divide	SZ
AC-28D	OU-2 LTGWMW	Flow Path Well Inside Plume	MPZ
AC-29D	OU-2 LTGWMW	Elevated Concentrations, Flow Path	MPZ
AC-30D	OU-2 LTGWMW	Flow Path, Inside Plume	MPZ
ACB-31S	OU-1 LTGWMW	Upgradient but not necessarily Background	SZ
ACB-32S	OU-1 LTGWMW	Upgradient but not necessarily Background	SZ
AC-33S	OU-1 LTGWMW	Downgradient Cap Area	SZ
AC-34S	OU-1 LTGWMW	Downgradient Cap Area	SZ
AC-35D	OU-2 LTGWMW	Elevated Concentration, Flow Path	MPZ
NWD-2D	PERIODIC	Outside of Plume, Effects by Site 348 (Kaiser) Possible	MPZ
NWD-2S	PERIODIC	Downgradient of Diversion Area, Outside of Plume	SZ
NWD-4D	OU-2 LTGWMW	Outside of Plume, Sentry Location	MPZ
NWD-4S	PERIODIC	Outside of Plume, Sentry Location	SZ
PIP-D	OU-2 LTGWMW	Upgradient but not necessarily Background	MPZ

NOTES:

MPZ = Main Producing Zone

SZ = Surficial Zone

PS = Performance Standard

The following wells associated with the site were not located as of September 1997: AC-3D2, AC-21S, AC-23S, AC-25S, NWD-D, NWD-I. Evaluation determined that the remaining wells were adequate for an accurate understanding of conditions at the Site.

Wells plugged with cement and abandoned according to NWFWMD regulations include AC-1S, AC-1D, AC-4S, AC-4D, AC-7S, AC-7D, AC-9D.

Former Periodic Well NWD-3S destroyed between November 2005 and November 2006. New construction location covers the former monitoring well location. Evaluation determined that the remaining wells were adequate for an accurate understanding of conditions at the Site.

Former monitoring wells AC-14D, AC-26S, AC-26D, and AC-36D were destroyed by the City of Pensacola stormwater project construction. These wells were removed from the network prior to the 2020 sampling event.

LTGWMW = Long-Term Groundwater Monitoring Well

Periodic = Annual water levels and sampling during Five-Year Reviews.

Annual = Beginning Nov. 2009; sampling will be conducted annually to assist in MNA evaluation; once MNA determinations made, these wells will revert to periodic.

(1) AC-9D2 is replacement well for AC-9D. AC-9D was plugged and abandoned on October 21, 1993.

TABLE 2
MONITORING WELL CONSTRUCTION DETAILS

Agrico Site
Pensacola, Florida

Well I.D.	Elevation Measuring Point (ft NGVD)[5]	Well Depth (ft bls)[6]	Screen Interval (ft bls) [2]	Diameter (inches)[2]	Aquifer Zone
AC-2D[(4)]	92.74	149	147.2-149	4	MPZ
AC-2S	88.65	70	50 - 70	4	SZ
AC-3S	88.06	79	59 - 79	4	SZ
AC-3D	88.07	170	150 - 170	4	MPZ
AC-5D	82.4	171	151 - 171	4	MPZ
AC-5S	82.34	69	49 - 69	4	SZ
AC-6D	69.19	170	150 - 170	4	MPZ
AC-6S	69.32	70	50 - 70	4	SZ
AC-7SR	90.59	70	50 - 70	2	SZ
AC-8D	76.44	220	190 - 222	4	MPZ
AC-9D2 [(1)]	64.13	198	179 - 198	4	MPZ
AC-10D	79.48	224	190 - 224	4	MPZ
AC-11D	73.17	200	200 - 220	4	MPZ
AC-12D	79.23	211	191 - 211	4	MPZ
AC-13D	74.65	223	203 - 223	4	MPZ
AC-14D [(8)]	49.79	199	179 - 199	4	MPZ
AC-21D [(7)]	75.47	170	160 - 169.5	4	MPZ
AC-22D	76.58	170	160 - 169.5	4	MPZ
AC-23D	79.51	170	160 - 169.5	4	MPZ
AC-24D	79.60	215	205 - 215	4	MPZ
AC-24S	79.50	80	70 - 80	4	SZ
AC-25D	39.75	180	170 - 180	4	MPZ
AC-26D[(9)]	26.70	165	155 - 165	4	MPZ
AC-26S[(9)]	26.75	35	25 - 35	4	SZ
AC-27D	18.55	150	140 - 150	4	MPZ
AC-27S	18.50	35	25 - 35	4	SZ
AC-28D	74.89	201	181 - 201	4	MPZ
AC-29D	82.26	211	191 - 211	4	MPZ
AC-30D	85.73	211	191 - 211	4	MPZ
ACB-31S	91.92	70	50 - 70	2	SZ
ACB-32S	88.16	69.5	49.5 - 69.5	2	SZ
AC-33S	89.18	69.5	49.5 - 69.5	2	SZ
AC-34S	89.09	70	50 - 70	2	SZ
AC-35D	10.49	145	125 - 145	4	MPZ
AC-36D[(9)]	5.26	152	132 - 152	4	MPZ
NWD-2D[(3)]	76.80	180	160 - 180	4	MPZ
NWD-2S[(3)]	77.53	75	55 - 75	4	SZ
NWD-3S[(7)]	80.40	75	55 - 75	4	SZ
NWD-4D	34.70	120	100 - 120	4	MPZ
NWD-4S	34.70	45	35 - 45	4	SZ
PIP-D	39.10	180	160 - 180	4	MPZ

NOTES:

ROW = Road Right-of-Way

MPZ = Main Producing Zone

SZ = Surficial Zone

ft bls = feet below land surface

(1) AC-9D2 is replacement well for AC-9D. AC-9D plugged and abandoned on October 21, 1993.

(2) All wells are constructed of PVC casing and screen materials.

(3) Elevations for NWD-2D and NWD-2S were corrected in this Annual Report based on information from the NWFWMD database.

(4) Downhole Video Survey conducted in March 2004. Results indicate well filled in and only about 1 ft of screen remains.

(5) ft NGVD = feet above National Geodetic Vertical Datum of 1988.

(6) ft = feet

(7) NWD-3S destroyed as of 2006; AC-21D damaged as of 2007 (measured depth 163 ft bls; only 3 ft of screen remains). Evaluation determined that the remaining wells are adequate for an accurate understanding of conditions at the Site.

(8) AC-14D destroyed in 2018 during City of Pensacola stormwater system construction project.

(9) AC-26S, AC-26D, and AC-36D were not located during the 2019 sampling event, and based on recent City of Pensacola stormwater system construction, they appear to have been destroyed. EPA approved the 2019 report recommendation to remove these wells from the monitoring well network. However, should future groundwater data indicate the need, replacement can be implemented.

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity **(µS/cm)**	**Temperature** (°C)	Dissolved Oxygen **(mg/L)**	Oxidation Reduction Potential **(mV)**	**Turbidity** (NTU)
ACB-31S	11/23/98	5.90	120	23.00	NM	NM	6.00
	05/25/99	5.80	220	26.00	NM	NM	2.00
	11/16/99	6.10	170	21.00	NM	NM	8.00
	05/16/00	5.70	130	24.00	NM	NM	7.00
	11/14/00	5.30	170	20.00	NM	NM	3.00
	05/08/01	5.45	176	22.50	NM	NM	999*
	11/06/01	5.73	111	22.10	NM	NM	4.6
	05/06/02	4.57	144	22.60	6.13	379	15.4
	05/07/03	5.17	108	22.83	NM	NM	7.2
	01/13/04	5.84	196	23.86	6.31	123	0.8
	05/10/04	5.78	208	24.76	NM	NM	10.2
	11/09/04	5.92	296	23.70	NM	NM	9.3
	05/10/05	5.56	248	23.12	6.78	103	5.1
	11/08/05	6.18	176	23.71	9.06	187	5.0
	05/17/06	6.00	218	23.19	6.99	265	2.0
	11/14/06	5.83	247	23.25	7.39	162	2.1
	05/16/07	5.49	223	23.14	7.71	213	2.4
	11/15/07	5.67	208	22.50	7.75	37	0.6
	05/15/08	5.32	218	23.19	7.87	109	0.9
	11/13/08	5.36	229	23.43	7.38	168	1.2
	11/19/09	5.89	220	23.38	6.66	88	2.1
	11/16/10	6.29	228	22.59	6.82	218	0.9
	11/08/11	6.01	220	23.61	8.45	172	3.5
	11/06/12	5.59	178	23.73	8.69	154	0.4
	11/05/13	6.12	172	23.83	8.43	112	1.2
	11/12/14	5.97	167	20.84	10.40	140.6	0.24
	11/18/15	6.13	154	21.73	8.50	188.8	0.40
	11/08/16	5.87	147	23.45	9.02	156.1	0.78
	11/07/17	5.11	140	23.69	7.26	224.4	2.13
	11/06/18	5.05	43	24.01	10.34	204.8	1.20
	11/12/19	6.03	387	23.49	8.36	109.5	1.46
	11/10/20	5.94	103	23.77	7.63	215.8	0.48
	11/04/21	6.92	68	23.83	6.20	88.4	0.62

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity **(µS/cm)**	**Temperature** (°C)	Dissolved Oxygen **(mg/L)**	Oxidation Reduction Potential **(mV)**	**Turbidity** (NTU)
AC-2S	09/27/97	6.00	590	24.00	9.10	NM	2.00
	11/16/99	5.80	430	22.00	NM	NM	1.00
	11/21/00	5.70	520	21.00	NM	NM	1.00
	11/15/01	6.05	552	20.00	NM	NM	39.50
	11/26/02	6.01	507	25.90	NM	NM	4.90
	01/23/04	5.86	493	24.75	1.50	179.2	2.50
	11/17/04	5.71	400	23.66	NM	NM	3.31
	11/15/05	5.71	450	23.49	2.73	147.6	9.31
	11/28/06	5.72	478	24.04	1.66	137.8	0.81
	11/21/07	5.93	296	24.39	1.57	153.3	0.00
	11/19/08	5.71	388	24.41	0.86	166.2	1.01
	11/18/09	5.86	268	24.34	1.88	95.8	1.18
	11/29/10	5.62	270	24.48	3.15	132.1	0.07
	11/16/11	5.67	344	24.77	1.45	140.9	3.96
	11/14/12	5.55	335	23.71	2.38	148.6	0.56
	11/12/13	5.53	317	23.99	2.47	183.8	1.07
	11/12/14	5.63	294	21.51	4.33	137.1	0.41
	11/18/15	5.87	320	22.21	2.89	165.3	0.59
	11/09/16	5.41	258	23.87	3.14	200.8	1.45
	11/07/17	4.88	270	23.92	4.35	199.1	2.01
	11/06/18	5.64	216	23.79	4.85	172.8	3.31
	11/12/19	6.02	324	23.19	5.16	123.1	0.61
	11/10/20	5.54	202	23.99	5.13	224.4	1.53
	11/02/21	6.23	210	23.86	6.32	92.8	0.82
AC-2D	09/30/97	4.60	100	24.00	9.70	NM	0.00
	11/16/99	4.90	110	22.00	NM	NM	0.00
	11/21/00	4.50	110	21.00	NM	NM	0.00
	11/15/01	4.55	102	21.20	NM	NM	0.00
	11/26/02	4.36	102	23.70	NM	NM	0.36
	01/23/04	4.64	105	23.07	0.17	403.9	2.60
	11/17/04	4.50	105	22.40	NM	NM	1.10
	11/14/05	4.80	91	23.32	2.41	334.2	3.34
	11/28/06	4.68	90	23.30	1.09	200.8	1.70
	11/21/07	4.86	91	22.86	0.70	170.0	0.00
	11/19/08	4.56	109	23.65	1.25	214.9	1.87
	11/18/09	4.59	97	23.37	1.36	151.8	1.18
	11/29/10	4.30	99	22.90	1.79	161.0	0.65
	11/16/11	4.65	99	23.61	0.72	260.9	3.14
	11/14/12	4.45	96	23.59	2.00	293.8	2.15
	11/12/13	4.44	95	23.70	2.48	212.1	2.71
	11/12/14	4.68	94	21.28	3.52	173.6	1.31
	11/18/15	4.98	94	22.02	3.78	325.1	2.11
	11/09/16	4.42	88	24.02	3.72	257.9	2.08
	11/07/17	3.02	99	24.05	3.42	265.9	6.36
	11/06/18	3.06	40	24.42	5.48	165.3	6.94
	11/13/19	3.91	90	23.75	4.68	178.6	3.45
	11/11/20	4.59	75	24.05	5.40	280.5	6.45
	11/02/21	4.87	86	24.05	5.51	135.1	4.00

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity **(µS/cm)**	**Temperature** (°C)	Dissolved Oxygen **(mg/L)**	Oxidation Reduction Potential **(mV)**	**Turbidity** (NTU)
AC-3D	09/27/97	4.90	1600	24.00	9.50	NM	0.00
	11/19/99	4.60	1200	23.00	NM	NM	0.00
	11/21/00	4.40	1200	21.00	NM	NM	0.00
	11/14/01	4.70	930	22.80	NM	NM	0.00
	11/26/02	4.24	1041	23.80	NM	NM	0.37
	01/22/04	4.32	1013	23.24	0.02	407.2	2.60
	11/17/04	4.11	872	22.81	NM	NM	3.24
	11/15/05	4.37	844	23.35	0.04	202.3	2.96
	11/22/06	4.42	819	23.48	0.06	270.9	1.30
	11/21/07	4.59	640	22.94	0.09	181.3	0.00
	11/13/08	4.52	572	23.77	0.07	158.7	2.20
	11/18/09	4.47	523	23.61	0.10	183.2	0.81
	11/29/10	4.21	480	22.83	0.55	225.2	1.43
	11/15/11	4.40	451	23.53	0.02	196.5	2.04
	11/13/12	4.24	462	23.63	0.07	237.2	0.79
	11/12/13	4.18	407	23.69	0.06	260.9	1.25
	11/11/14	4.30	382	20.74	0.21	329.5	0.16
	11/19/15	4.23	371	21.84	0.11	362.0	0.65
	11/11/16	3.99	377	24.00	0.69	232.5	0.71
	11/08/17	3.46	333	24.00	1.47	321.0	1.71
	11/06/18	4.49	163	24.40	7.11	285.8	1.11
	11/13/19	3.58	348	24.23	2.08	204.2	0.54
	11/10/20	4.41	194	23.97	6.75	355.1	0.72
	11/04/21	4.03	336	23.96	2.79	170.2	0.86
AC-12D	09/27/97	4.00	610	24.00	9.00	NM	NM
	11/18/99	3.90	700	23.00	NM	NM	0.00
	11/15/00	3.80	720	23.00	NM	NM	0.00
	11/08/01	3.81	653	21.30	NM	NM	0.00
	11/22/02	3.80	700	24.00	NM	NM	0.54
	01/28/04	3.78	745	23.36	0.40	365.6	1.68
	11/11/04	3.59	551	22.93	NM	NM	0.00
	11/10/05	3.86	749	23.85	0.37	233.6	3.00
	11/16/06	3.91	72	23.67	0.32	392.2	0.11
	11/16/07	3.94	766	22.92	0.33	143.5	0.00
	11/13/08	3.94	749	23.83	0.41	287.4	2.20
	11/12/09	3.98	708	23.77	0.53	166.4	0.52
	11/18/10	3.88	719	23.02	0.87	357.5	0.94
	11/09/11	3.97	661	24.04	0.71	349.9	1.81
	11/08/12	3.70	649	23.77	0.87	401.0	0.32
	11/06/13	3.83	656	23.85	0.68	368.5	1.18
	11/20/14	4.00	621	21.08	0.93	360.0	0.39
	11/19/15	3.99	577	21.92	0.88	449.2	0.63
	11/10/16	3.72	592	23.93	0.91	320.4	0.83
	11/08/17	3.41	543	23.84	1.03	362.8	1.96
	11/07/18	2.82	169	24.38	2.36	323.4	0.71
	11/18/19	4.24	100	23.97	2.23	126.8	0.46
	11/11/20	4.02	370	23.63	0.99	262.8	1.16
	11/03/21	3.87	483	23.82	0.90	151.5	0.79

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity **(µS/cm)**	**Temperature** (°C)	Dissolved Oxygen **(mg/L)**	Oxidation Reduction Potential **(mV)**	**Turbidity** (NTU)
AC-13D	09/27/97	4.30	580	24.00	9.50	NM	NM
	11/15/00	3.90	570	21.00	NM	NM	0.00
	11/08/01	4.15	565	23.10	NM	NM	0.00
	11/21/02	3.97	599	23.80	NM	NM	0.00
	01/16/04	4.23	629	23.29	0.08	316.2	0.55
	11/11/04	3.81	598	22.68	NM	NM	0.00
	11/10/05	3.98	706	23.81	0.07	228.9	0.17
	11/16/06	3.97	780	23.56	0.04	390.3	0.02
	11/19/07	4.01	796	22.82	0.05	159.7	0.00
	11/11/08	3.90	815	23.49	0.08	211.1	0.13
	11/12/09	4.02	781	23.66	0.16	213.1	0.22
	11/18/10	3.96	741	22.87	0.61	299.5	0.53
	11/09/11	4.01	810	23.97	0.01	297.3	0.54
	11/07/12	3.87	787	23.45	0.46	300.7	0.15
	11/06/13	3.92	761	23.66	0.03	283.4	0.56
	11/19/14	4.00	751	21.06	0.20	251.3	0.10
	11/20/15	4.07	700	21.81	0.06	374.7	0.43
	11/10/16	3.84	652	23.86	0.57	215.3	0.37
	11/08/17	3.37	654	23.62	0.12	357.5	1.50
	11/07/18	4.01	500	23.88	0.51	356.5	0.67
	11/25/19	3.99	636	23.41	0.06	124.5	0.15
	11/12/20	4.08	512	23.42	0.11	262.9	0.31
	11/03/21	3.39	590	23.58	0.06	146.5	0.15
AC-24D	09/26/97	4.40	780	23.00	9.50	NM	0.00
	01/21/04	4.11	747	23.09	0.00	344.9	2.40
	11/18/08	4.24	776	22.77	0.11	198.5	0.32
	11/16/09	4.17	784	23.58	0.19	99.8	0.19
	11/23/10	4.12	753	22.80	0.84	303.8	0.30
	11/14/11	4.16	769	23.76	0.85	339.0	0.44
	11/09/12	3.95	848	22.53	0.10	362.1	1.17
	11/07/13	4.05	748	23.56	0.05	312.5	2.00
	11/24/14	4.16	613	23.58	0.29	243.0	1.03
	11/19/15	4.21	604	21.61	0.20	381.4	0.61
	11/10/16	4.00	529	23.69	0.58	265.6	0.42
	11/08/17	3.50	527	23.63	0.16	321.3	2.61
	11/07/18	4.47	281	23.81	0.45	280.6	0.79
	11/21/19	4.10	458	23.53	0.08	107.4	0.10
	11/12/20	4.32	385	23.33	0.08	276.1	0.33
	11/03/21	4.28	422	23.69	0.02	120.6	0.35

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity **(µS/cm)**	**Temperature** (°C)	Dissolved Oxygen **(mg/L)**	Oxidation Reduction Potential **(mV)**	**Turbidity** (NTU)
AC-25D	09/24/97	4.70	1100	24.00	10.40	NM	0.00
	11/19/99	4.30	1400	23.00	NM	NM	0.00
	11/15/00	4.20	1400	22.00	NM	NM	1.00
	11/08/01	4.31	1240	21.00	NM	NM	9.30
	11/21/02	4.15	1420	22.90	NM	NM	0.05
	01/22/04	4.06	1534	22.61	0.68	177.3	4.19
	11/15/04	4.30	1204	22.69	NM	NM	4.49
	11/10/05	4.17	1502	23.28	0.08	125.4	1.10
	11/20/06	4.16	1481	22.79	0.03	360.9	1.50
	11/20/07	4.23	1449	22.26	0.07	181.9	0.25
	11/18/08	4.08	1356	22.23	0.07	-292.3	0.82
	11/17/09	4.17	1398	22.74	0.12	279.6	0.29
	11/23/10	4.11	1388	22.31	0.42	341.2	2.31
	11/15/11	4.15	1422	23.11	0.10	364.9	0.47
	11/14/12	4.00	1371	23.07	0.09	369.8	0.40
	11/12/13	3.96	1326	23.10	0.04	258.7	0.78
	11/20/14	4.14	1287	20.74	0.10	381.4	0.77
	11/20/15	4.21	1222	20.89	0.50	393.3	0.54
	11/09/16	4.07	1163	23.11	0.65	381.0	0.55
	11/09/17	3.56	1152	23.00	0.27	328.5	1.36
	11/07/18	4.41	573	23.20	0.99	300.4	0.70
	11/20/19	4.55	573	22.79	0.16	177.5	0.12
	11/12/20	4.14	877	22.86	0.15	379.8	0.31
	11/02/21	4.23	984	22.93	0.10	165.4	0.22
AC-29D	09/27/97	4.10	1700	23.00	9.10	NM	NM
	11/18/99	4.20	1500	22.00	NM	NM	0.00
	11/20/00	4.10	1300	22.00	NM	NM	1.00
	11/13/01	4.29	990	22.20	NM	NM	0.00
	11/25/02	3.87	1075	24.00	NM	NM	0.00
	01/23/04	4.14	1050	23.34	0.48	251.7	0.00
	11/12/04	4.08	797	22.61	NM	NM	2.74
	11/16/05	4.11	723	23.71	0.04	188.7	2.57
	11/17/06	4.25	744	23.68	0.05	348.8	0.00
	11/20/07	4.18	772	22.96	0.10	178.0	0.45
	11/18/08	4.05	790	23.55	0.23	309.6	0.11
	11/17/09	4.13	768	23.58	0.11	171.9	0.18
	11/19/10	4.08	782	23.02	0.39	343.5	0.62
	11/11/11	4.17	794	23.91	0.03	399.9	0.78
	11/13/12	4.04	762	23.74	0.11	267.0	0.30
	11/07/13	4.02	661	23.83	0.12	357.3	0.56
	11/17/14	4.09	655	21.13	0.20	408.3	0.81
	11/19/15	4.09	613	21.80	0.03	427.9	0.45
	11/11/16	3.87	572	23.95	0.42	331.7	0.45
	11/08/17	3.42	567	23.85	0.13	354.2	0.90
	11/07/18	3.96	396	24.16	0.38	369.0	0.73
	11/19/19	4.00	492	24.00	0.06	142.4	0.27
	11/11/20	4.06	420	23.61	0.07	344.5	0.29
	11/03/21	3.65	490	23.93	0.01	161.7	0.34

TABLE 3
GROUNDWATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Well I.D.	Date	pH (su)	Conductivity **(µS/cm)**	**Temperature** (°C)	Dissolved Oxygen **(mg/L)**	Oxidation Reduction Potential **(mV)**	**Turbidity** (NTU)
AC-35D	11/18/99	4.20	2200	22.00	NM	NM	8.00
	11/15/00	4.10	2200	22.00	NM	NM	0.00
	11/08/01	4.04	2010	21.40	NM	NM	3.80
	11/21/02	3.91	2037	22.80	NM	NM	2.80
	01/15/04	4.05	2060	22.36	0.01	362.0	0.80
	11/15/04	3.57	1607	21.95	NM	NM	3.89
	11/16/05	3.94	1889	22.87	0.13	187.8	9.20
	11/20/06	4.04	1818	22.89	0.05	237.7	2.20
	11/20/07	4.07	1725	22.25	0.06	210.8	0.00
	11/19/08	3.88	1749	22.75	0.23	271.6	0.91
	11/19/09	4.01	1736	22.97	0.09	193.1	1.43
	11/23/10	4.29	1737	22.36	0.38	247.7	8.99
	11/16/11	3.94	1611	22.98	0.10	303.7	0.24
	11/15/12	3.91	1545	22.93	0.06	281.4	0.28
	11/13/13	3.90	1495	23.00	0.08	351.5	0.59
	11/24/14	3.99	1381	23.16	0.84	233.6	0.65
	11/20/15	4.03	1374	20.76	0.10	384.1	0.65
	11/08/16	3.87	1254	23.07	0.94	244.5	0.54
	11/09/17	3.46	1264	23.02	0.44	314.5	1.20
	11/07/18	4.03	940	23.14	0.54	263.4	0.72
	11/18/19	3.97	974	23.10	0.09	126.0	0.38
	11/02/20	4.01	919	22.98	0.25	184.1	0.31
	11/02/21	4.20	1035	23.09	0.07	171.9	0.16

NOTES:

su = standard units
µS/cm=microSiemens per centimeter
^{0}C = Degrees Celsius
mg/L = milligrams per Liter
mV = milliVolt
NTU = Nephelometric Turbidity Units
NM = Not Measured

* = turbidity reading above instrument capabilities
Wells purged with a bailer during the May 2001 sampling event
** = Well purged with a bailer

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-2S	May-97	88.65	NM	NM
	Sep-97		51.40	37.25
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		49.81	38.84
	May-00		NM	NM
	Nov-00		58.68	29.97
	May-01		59.37	29.28
	Nov-01		59.94	28.71
	May-02		61.29	27.36
	Nov-02		60.22	28.43
	May-03		NM	NM
	Jan-04		53.90	34.75
	May-04		54.44	34.21
	Nov-04		52.71	35.94
	May-05		46.87	41.78
	Nov-05		44.76	43.89
	May-06		NM	NM
	Nov-06		50.61	38.04
	May-07		52.94	35.71
	Nov-07		53.89	34.76
	May-08		53.02	35.63
	Nov-08		53.57	35.08
	Nov-09		55.93	32.72
	Nov-10		46.73	41.92
	Nov-11		46.73	41.92
	Nov-12		48.74	39.91
	Nov-13		49.19	39.46
	Nov-14		44.74	43.91
	Nov-15		48.39	40.26
	Nov-16		47.49	41.16
	Nov-17		44.45	44.20
	Nov-18		46.64	42.01
	Nov-19		48.91	39.74
	Nov-20		47.46	41.19
	Nov-21		42.03	46.62
AC-3S	May-97	88.06	54.49	33.57
	Sep-97		55.44	32.62
	Nov-97		NM	NM
	May-98		50.19	37.87
	Nov-98		50.21	37.85
	May-99		56.37	31.69
	Nov-99		57.31	30.75
	May-00		NM	NM
	Nov-00		61.93	26.13
	May-01		NM	NM
	Nov-01		62.97	25.09
	May-02		NM	NM
	Nov-02		63.37	24.69
	May-03		NM	NM
	Jan-04		56.37	31.69
	May-04		57.53	30.53
	Nov-04		56.10	31.96
	May-05		41.03	47.03
	Nov-05		47.79	40.27
	May-06		50.15	37.91
	Nov-06		53.68	34.38
	May-07		56.20	31.86
	Nov-07		57.44	30.62
	May-08		61.65	26.41
	Nov-08		56.90	31.16
	Nov-09		55.84	32.22
	Nov-10		49.74	38.32
	Nov-11		49.74	38.32
	Nov-12		52.24	35.82
	Nov-13		52.24	35.82
	Nov-14		47.85	40.21
	Nov-15		51.75	36.31
	Nov-16		50.27	37.79
	Nov-17		47.35	40.71
	Nov-18		49.77	38.29
	Nov-19		51.95	36.11
	Nov-20		50.60	37.46
	Nov-21		44.90	43.16

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-5S	May-97	82.34	43.86	38.48
	Sep-97		43.87	38.47
	Nov-97		NM	NM
	May-98		42.60	39.74
	Nov-98		42.32	40.02
	May-99		45.66	36.68
	Nov-99		46.65	35.69
	May-00		49.45	32.89
	Nov-00		50.98	31.36
	May-01		51.58	30.76
	Nov-01		52.09	30.25
	May-02		53.45	28.89
	Nov-02		51.73	30.61
	May-03		NM	NM
	Jan-04		46.17	36.17
	May-04		46.71	35.63
	Nov-04		44.94	37.40
	May-05		38.01	44.33
	Nov-05		36.86	45.48
	May-06		39.01	43.33
	Nov-06		42.38	39.96
	May-07		44.83	37.51
	Nov-07		45.34	37.00
	May-08		44.86	37.48
	Nov-08		45.49	36.85
	Nov-09		44.35	37.99
	Nov-10		38.33	44.01
	Nov-11		42.20	40.14
	Nov-12		40.62	41.72
	Nov-13		41.05	41.29
	Nov-14		36.75	45.59
	Nov-15		39.77	42.57
	Nov-16		39.15	43.19
	Nov-17		35.78	46.56
	Nov-18		38.54	43.80
	Nov-19		40.57	41.77
	Nov-20		38.86	43.48
	Nov-21		33.07	49.27
AC-6S	May-97	69.32	NM	NM
	Sep-97		43.97	25.35
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		44.75	24.57
	May-00		NM	NM
	Nov-00		47.75	21.57
	May-01		NM	NM
	Nov-01		48.10	21.22
	May-02		NM	NM
	Nov-02		48.25	21.07
	May-03		NM	NM
	Jan-04		41.81	27.51
	May-04		NM	NM
	Nov-04		41.10	28.22
	May-05		NM	NM
	Nov-05		34.63	34.69
	May-06		NM	NM
	Nov-06		39.56	29.76
	May-07		NM	NM
	Nov-07		42.32	27.00
	May-08		NM	NM
	Nov-08		41.17	28.15
	Nov-09		40.47	28.85
	Nov-10		35.84	33.48
	Nov-11		39.58	29.74
	Nov-12		38.10	31.22
	Nov-13		37.59	31.73
	Nov-14		34.78	34.54
	Nov-15		37.31	32.01
	Nov-16		36.08	33.24
	Nov-17		33.75	35.57
	Nov-18		36.01	33.31
	Nov-19		37.62	31.70
	Nov-20		35.58	33.74
	Nov-21		30.70	38.62

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-7SR	May-97	90.59	52.58	38.01
	Sep-97		NM	NM
	Nov-97		53.29	37.30
	May-98		51.04	39.55
	Nov-98		51.05	39.54
	May-99		54.11	36.48
	Nov-99		54.76	35.83
	May-00		57.93	32.66
	Nov-00		59.70	30.89
	May-01		60.38	30.21
	Nov-01		60.90	29.69
	May-02		62.35	28.24
	Nov-02		61.09	29.50
	May-03		59.64	30.95
	Jan-04		54.99	35.60
	May-04		55.55	35.04
	Nov-04		53.70	36.89
	May-05		47.23	43.36
	Nov-05		45.68	44.91
	May-06		48.27	42.32
	Nov-06		51.46	39.13
	May-07		54.04	36.55
	Nov-07		55.04	35.55
	May-08		54.09	36.50
	Nov-08		54.75	35.84
	Nov-09		53.81	36.78
	Nov-10		47.79	42.80
	Nov-11		47.79	42.80
	Nov-12		49.71	40.88
	Nov-13		50.23	40.36
	Nov-14		45.79	44.80
	Nov-15		49.55	41.04
	Nov-16		48.61	41.98
	Nov-17		45.49	45.10
	Nov-18		47.56	43.03
	Nov-19		50.00	40.59
	Nov-20		48.33	42.26
	Nov-21		42.90	47.69
AC-24S	May-97	79.50	NM	NM
	Sep-97		57.32	22.18
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		59.29	20.21
	May-00		NM	NM
	Nov-00		62.81	16.69
	May-01		NM	NM
	Nov-01		63.35	16.15
	May-02		NM	NM
	Nov-02		63.86	15.64
	May-03		NM	NM
	Jan-04		57.97	21.53
	May-04		NM	NM
	Nov-04		NM	NM
	May-05		NM	NM
	Nov-05		51.10	28.40
	May-06		NM	NM
	Nov-06		56.82	22.68
	May-07		NM	NM
	Nov-07		59.45	20.05
	May-08		NM	NM
	Nov-08		59.19	20.31
	Nov-09		57.75	21.75
	Nov-10		57.86	21.64
	Nov-11		57.08	22.42
	Nov-12		54.74	24.76
	Nov-13		54.86	24.64
	Nov-14		51.68	27.82
	Nov-15		55.72	23.78
	Nov-16		CNL*	CNL*
	Nov-17		CNL*	CNL*
	Nov-18		51.59	27.91
	Nov-19		55.45	24.05
	Nov-20		52.97	26.53
	Nov-21		47.79	31.71

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-26S	May-97	26.75	NM	NM
	Sep-97		19.62	7.13
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		20.36	6.39
	May-00		NM	NM
	Nov-00		20.74	6.01
	May-01		NM	NM
	Nov-01		20.88	5.87
	May-02		NM	NM
	Nov-02		20.58	6.17
	May-03		NM	NM
	Jan-04		20.04	6.71
	May-04		NM	NM
	Nov-04		19.36	7.39
	May-05		NM	NM
	Nov-05		18.29	8.46
	May-06		NM	NM
	Nov-06		19.60	7.15
	May-07		NM	NM
	Nov-07		19.54	7.21
	May-08		NM	NM
	Nov-08		19.61	7.14
	Nov-09		17.99	8.76
	Nov-10		18.26	8.49
	Nov-11		19.80	6.95
	Nov-12		19.12	7.63
	Nov-13		18.82	7.93
	Nov-14		18.52	8.23
	Nov-15		17.95	8.80
	Nov-16		18.23	8.52
	Nov-17		17.35	9.40
	Nov-18		17.21	9.54
	Nov-19		Well Destroyed**	
	Nov-20		Well Destroyed**	
	Nov-21		Well Destroyed**	
AC-27S	May-97	18.50	NM	NM
	Sep-97		13.94	4.56
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		14.52	3.98
	May-00		NM	NM
	Nov-00		15.24	3.26
	May-01		NM	NM
	Nov-01		15.53	2.97
	May-02		NM	NM
	Nov-02		15.24	3.26
	May-03		NM	NM
	Jan-04		14.55	3.95
	May-04		NM	NM
	Nov-04		13.75	4.75
	May-05		NM	NM
	Nov-05		12.63	5.87
	May-06		NM	NM
	Nov-06		14.19	4.31
	May-07		NM	NM
	Nov-07		13.98	4.52
	May-08		NM	NM
	Nov-08		13.98	4.52
	Nov-09		11.78	6.72
	Nov-10		12.77	5.73
	Nov-11		14.09	4.41
	Nov-12		13.43	5.07
	Nov-13		13.63	4.87
	Nov-14		12.89	5.61
	Nov-15		12.32	6.18
	Nov-16		12.09	6.41
	Nov-17		11.42	7.08
	Nov-18		11.36	7.14
	Nov-19		12.42	6.08
	Nov-20		10.84	7.66
	Nov-21		9.50	9.00

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
AC-33S	May-97	89.18	50.54	38.64
	Sep-97		NM	NM
	Nov-97		51.25	37.93
	May-98		48.93	40.25
	Nov-98		48.86	40.32
	May-99		52.12	37.06
	Nov-99		52.80	36.38
	May-00		55.96	33.22
	Nov-00		57.66	31.52
	May-01		58.32	30.86
	Nov-01		58.90	30.28
	May-02		60.43	28.75
	Nov-02		58.71	30.47
	May-03		57.60	31.58
	Jan-04		52.97	36.21
	May-04		53.56	35.62
	Nov-04		51.60	37.58
	May-05		45.37	43.81
	Nov-05		43.65	45.53
	May-06		46.42	42.76
	Nov-06		49.59	39.59
	May-07		52.17	37.01
	Nov-07		52.89	36.29
	May-08		52.12	37.06
	Nov-08		52.80	36.38
	Nov-09		51.79	37.39
	Nov-10		45.88	43.30
	Nov-11		45.88	43.30
	Nov-12		47.70	41.48
	Nov-13		48.30	40.88
	Nov-14		43.95	45.23
	Nov-15		47.62	41.56
	Nov-16		46.83	42.35
	Nov-17		43.56	45.62
	Nov-18		45.55	43.63
	Nov-19		48.25	40.93
	Nov-20		49.25	39.93
	Nov-21		40.74	48.44
AC-34S	May-97	89.09	51.35	37.74
	Sep-97		NM	NM
	Nov-97		52.09	37.00
	May-98		49.89	39.20
	Nov-98		49.93	39.16
	May-99		52.91	36.18
	Nov-99		53.62	35.47
	May-00		56.63	32.46
	Nov-00		58.46	30.63
	May-01		59.20	29.89
	Nov-01		59.73	29.36
	May-02		61.13	27.96
	Nov-02		60.01	29.08
	May-03		58.45	30.64
	Jan-04		53.74	35.35
	May-04		54.27	34.82
	Nov-04		52.48	36.61
	May-05		46.18	42.91
	Nov-05		44.42	44.67
	May-06		46.90	42.19
	Nov-06		50.14	38.95
	May-07		52.69	36.40
	Nov-07		53.47	35.62
	May-08		52.77	36.32
	Nov-08		53.34	35.75
	Nov-09		52.41	36.68
	Nov-10		46.39	42.70
	Nov-11		46.39	42.70
	Nov-12		48.44	40.65
	Nov-13		48.92	40.17
	Nov-14		44.44	44.65
	Nov-15		48.06	41.03
	Nov-16		47.21	41.88
	Nov-17		44.06	45.03
	Nov-18		46.24	42.85
	Nov-19		48.58	40.51
	Nov-20		47.01	42.08
	Nov-21		41.47	47.62

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
NWD-2S	May-97	77.53	NM	NM
	Sep-97		39.75	37.78
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		41.72	35.81
	May-00		NM	NM
	Nov-00		45.82	31.71
	May-01		NM	NM
	Nov-01		46.77	30.76
	May-02		NM	NM
	Nov-02		47.15	30.38
	May-03		NM	NM
	Jan-04		45.67	31.86
	May-04		NM	NM
	Nov-04		44.49	33.04
	May-05		NM	NM
	Nov-05		37.09	40.44
	May-06		NM	NM
	Nov-06		42.60	34.93
	May-07		NM	NM
	Nov-07		46.25	31.28
	May-08		NM	NM
	Nov-08		45.55	31.98
	Nov-09		44.70	32.83
	Nov-10		38.84	38.69
	Nov-11		42.82	34.71
	Nov-12		NM	NM
	Nov-13		41.32	36.21
	Nov-14		37.36	40.17
	Nov-15		41.01	36.52
	Nov-16		39.45	38.08
	Nov-17		36.72	40.81
	Nov-18		45.05	32.48
	Nov-19		41.15	36.38
	Nov-20		39.41	38.12
	Nov-21		33.83	43.70
NWD-4S	May-97	34.70	NM	NM
	Sep-97		19.33	15.37
	Nov-97		NM	NM
	May-98		NM	NM
	Nov-98		NM	NM
	May-99		NM	NM
	Nov-99		20.68	14.02
	May-00		NM	NM
	Nov-00		22.21	12.49
	May-01		NM	NM
	Nov-01		22.58	12.12
	May-02		NM	NM
	Nov-02		21.89	12.81
	May-03		NM	NM
	Jan-04		20.16	14.54
	May-04		NM	NM
	Nov-04		NM	NM
	May-05		NM	NM
	Nov-05		16.59	18.11
	May-06		NM	NM
	Nov-06		19.92	14.78
	May-07		NM	NM
	Nov-07		20.22	14.48
	May-08		NM	NM
	Nov-08		16.59	18.11
	Nov-09		18.59	16.11
	Nov-10		17.17	17.53
	Nov-11		19.48	15.22
	Nov-12		17.96	16.74
	Nov-13		17.93	16.77
	Nov-14		16.61	18.09
	Nov-15		17.37	17.33
	Nov-16		17.76	16.94
	Nov-17		15.54	19.16
	Nov-18		16.82	17.88
	Nov-19		18.43	16.27
	Nov-20		16.51	18.19
	Nov-21		13.83	20.87

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
SURFICIAL ZONE				
ACB-31S	May-97	91.92	50.26	41.66
	Sep-97		NM	NM
	Nov-97		51.22	40.70
	May-98		48.78	43.14
	Nov-98		48.50	43.42
	May-99		51.84	40.08
	Nov-99		52.74	39.18
	May-00		55.84	36.08
	Nov-00		57.22	34.70
	May-01		57.94	33.98
	Nov-01		58.53	33.39
	May-02		60.31	31.61
	Nov-02		57.38	34.54
	May-03		57.36	34.56
	Jan-04		53.11	38.81
	May-04		53.62	38.30
	Nov-04		51.34	40.58
	May-05		43.27	48.65
	Nov-05		43.34	48.58
	May-06		46.50	45.42
	Nov-06		49.48	42.44
	May-07		52.25	39.67
	Nov-07		50.98	40.94
	May-08		52.11	39.81
	Nov-08		52.37	39.55
	Nov-09		51.14	40.78
	Nov-10		45.76	46.16
	Nov-11		45.76	46.16
	Nov-12		47.70	44.22
	Nov-13		48.28	43.64
	Nov-14		44.00	47.92
	Nov-15		46.38	45.54
	Nov-16		47.14	44.78
	Nov-17		43.18	48.74
	Nov-18		45.31	46.61
	Nov-19		48.36	43.56
	Nov-20		45.83	46.09
	Nov-21		39.73	52.19
ACB-32S	May-97	88.16	48.11	40.05
	Sep-97		NM	NM
	Nov-97		48.92	39.24
	May-98		46.60	41.56
	Nov-98		46.52	41.64
	May-99		49.84	38.32
	Nov-99		50.62	37.54
	May-00		53.71	34.45
	Nov-00		55.41	32.75
	May-01		56.18	31.98
	Nov-01		56.77	31.39
	May-02		58.30	29.86
	Nov-02		56.65	31.51
	May-03		55.49	32.67
	Jan-04		50.81	37.35
	May-04		51.26	36.90
	Nov-04		49.25	38.91
	May-05		41.13	47.03
	Nov-05		40.99	47.17
	May-06		43.50	44.66
	Nov-06		46.77	41.39
	May-07		49.56	38.60
	Nov-07		49.32	38.84
	May-08		49.64	38.52
	Nov-08		49.95	38.21
	Nov-09		48.83	39.33
	Nov-10		42.83	45.33
	Nov-11		42.83	45.33
	Nov-12		45.18	42.98
	Nov-13		45.67	42.49
	Nov-14		41.20	46.96
	Nov-15		43.93	44.23
	Nov-16		44.11	44.05
	Nov-17		40.27	47.89
	Nov-18		42.67	45.49
	Nov-19		45.22	42.94
	Nov-20		43.42	44.74
	Nov-21		37.17	50.99

NOTES:
ft NGVD = feet above National Geodetic Vertical Datum of 1988.
ft btoc = feet below top of casing.
NM = Not measured
CNL = could not locate
* AC-24S was not located during the November 2016 and 2017 sampling due to pavement blocking the area.
** AC-26S has been lost to City of Pensacola stormwater project construction efforts, and it has been removed from the monitoring well network.

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
AC-2D	Sep-97	92.74	57.74	35.00
	Nov-99		61.09	31.65
	Nov-00		NM	NM
	Nov-01		63.02	29.72
	Nov-02		62.53	30.21
	Jan-04		57.36	35.38
	Nov-04		56.39	36.35
	Nov-05		49.02	43.72
	Nov-06		54.55	38.19
	Nov-07		57.49	35.25
	Nov-08		57.20	35.54
	Nov-09		52.65	40.09
	Nov-10		50.83	41.91
	Nov-11		49.11	43.63
	Nov-12		53.03	39.71
	Nov-13		53.03	39.71
	Nov-14		49.20	43.54
	Nov-15		52.26	40.48
	Nov-16		51.76	40.98
	Nov-17		48.57	44.17
	Nov-18		50.83	41.91
	Nov-19		53.05	39.69
	Nov-20		51.21	41.53
	Nov-21		45.74	47.00
AC-3D	Sep-97	88.07	61.91	26.16
	Nov-99		63.15	24.92
	Nov-00		66.42	21.65
	Nov-01		67.42	20.65
	Nov-02		67.09	20.98
	Jan-04		62.17	25.90
	Nov-04		61.35	26.72
	Nov-05		55.02	33.05
	Nov-06		59.95	28.12
	Nov-07		62.71	25.36
	Nov-08		62.17	25.90
	Nov-09		60.78	27.29
	Nov-10		56.32	31.75
	Nov-11		60.06	28.01
	Nov-12		58.33	29.74
	Nov-13		58.41	29.66
	Nov-14		54.90	33.17
	Nov-15		57.96	30.11
	Nov-16		57.03	31.04
	Nov-17		54.60	33.47
	Nov-18		56.18	31.89
	Nov-19		58.11	29.96
	Nov-20		56.60	31.47
	Nov-21		51.56	36.51
AC-5D	Sep-97	82.40	50.16	32.24
	Nov-99		53.21	29.19
	Nov-00		54.83	27.57
	Nov-01		57.58	24.82
	Nov-02		55.47	26.93
	Jan-04		50.67	31.73
	Nov-04		49.60	32.80
	Nov-05		44.83	37.57
	Nov-06		47.18	35.22
	Nov-07		51.22	31.18
	Nov-08		49.67	32.73
	Nov-09		48.40	34.00
	Nov-10		43.27	39.13
	Nov-11		47.48	34.92
	Nov-12		47.24	35.16
	Nov-13		46.90	35.50
	Nov-14		41.88	40.52
	Nov-15		45.43	36.97
	Nov-16		44.11	38.29
	Nov-17		41.32	41.08
	Nov-18		43.08	39.32
	Nov-19		45.22	37.18
	Nov-20		44.44	37.96
	Nov-21		37.90	44.50

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
AC-6D	Sep-97	69.19	55.72	13.47
	Nov-99		50.20	18.99
	Nov-00		52.26	16.93
	Nov-01		53.43	15.76
	Nov-02		51.26	17.93
	Jan-04		47.22	21.97
	Nov-04		42.26	26.93
	Nov-05		40.98	28.21
	Nov-06		45.13	24.06
	Nov-07		47.60	21.59
	Nov-08		46.76	22.43
	Nov-09		44.71	24.48
	Nov-10		40.76	28.43
	Nov-11		45.21	23.98
	Nov-12		43.92	25.27
	Nov-13		43.74	25.45
	Nov-14		41.25	27.94
	Nov-15		42.80	26.39
	Nov-16		42.37	26.82
	Nov-17		40.00	29.19
	Nov-18		NM - Damaged	
	Nov-19		43.18	26.01
	Nov-20		41.21	27.98
	Nov-21		37.52	31.67
AC-8D	Sep-97	76.44	66.97	9.47
	Nov-99		63.81	12.63
	Nov-00		65.67	10.77
	Nov-01		65.88	10.56
	Nov-02		65.29	11.15
	Jan-04		61.30	15.14
	Nov-04		59.91	16.53
	Nov-05		56.35	20.09
	Nov-06		60.20	16.24
	Nov-07		61.93	14.51
	Nov-08		61.33	15.11
	Nov-09		59.89	16.55
	Nov-10		57.41	19.03
	Nov-11		60.63	15.81
	Nov-12		59.26	17.18
	Nov-13		58.71	17.73
	Nov-14		57.05	19.39
	Nov-15		58.91	17.53
	Nov-16		57.62	18.82
	Nov-17		55.71	20.73
	Nov-18		57.22	19.22
	Nov-19		58.62	17.82
	Nov-20		56.93	19.51
	Nov-21		53.16	23.28
AC-9D2	Sep-97	64.13	55.27	8.86
	Nov-99		55.39	8.74
	Nov-00		56.68	7.45
	Nov-01		57.01	7.12
	Nov-02		56.87	7.26
	Jan-04		54.56	9.57
	Nov-04		54.02	10.11
	Nov-05		51.37	12.76
	Nov-06		53.83	10.30
	Nov-07		54.73	9.40
	Nov-08		54.36	9.77
	Nov-09		52.58	11.55
	Nov-10		51.46	12.67
	Nov-11		53.87	10.26
	Nov-12		52.88	11.25
	Nov-13		52.68	11.45
	Nov-14		51.47	12.66
	Nov-15		52.37	11.76
	Nov-16		51.75	12.38
	Nov-17		50.45	13.68
	Nov-18		51.31	12.82
	Nov-19		52.31	11.82
	Nov-20		51.00	13.13
	Nov-21		48.85	15.28

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
AC-10D	Sep-97	79.48	70.39	9.09
	Nov-99		69.04	10.44
	Nov-00		70.67	8.81
	Nov-01		70.86	8.62
	Nov-02		70.53	8.95
	Jan-04		67.28	12.20
	Nov-04		66.79	12.69
	Nov-05		63.20	16.28
	Nov-06		66.47	13.01
	Nov-07		67.72	11.76
	Nov-08		67.24	12.24
	Nov-09		65.67	13.81
	Nov-10		63.93	15.55
	Nov-11		66.79	12.69
	Nov-12		65.55	13.93
	Nov-13		65.13	14.35
	Nov-14		63.66	15.82
	Nov-15		65.17	14.31
	Nov-16		64.12	15.36
	Nov-17		62.37	17.11
	Nov-18		63.68	15.80
	Nov-19		64.94	14.54
	Nov-20		63.24	16.24
	Nov-21		CNL*	CNL*
AC-11D	Sep-97	73.17	67.10	6.07
	Nov-99		66.69	6.48
	Nov-00		67.69	5.48
	Nov-01		67.72	5.45
	Nov-02		67.45	5.72
	Jan-04		65.01	8.16
	Nov-04		64.58	8.59
	Nov-05		62.06	11.11
	Nov-06		64.73	8.44
	Nov-07		65.32	7.85
	Nov-08		65.03	8.14
	Nov-09		63.38	9.79
	Nov-10		62.65	10.52
	Nov-11		65.06	8.11
	Nov-12		64.01	9.16
	Nov-13		63.43	9.74
	Nov-14		62.44	10.73
	Nov-15		63.45	9.72
	Nov-16		62.48	10.69
	Nov-17		61.00	12.17
	Nov-18		62.24	10.93
	Nov-19		63.28	9.89
	Nov-20		61.50	11.67
	Nov-21		58.95	14.22
AC-12D	Sep-97	79.23	67.46	11.77
	Nov-99		66.41	12.82
	Nov-00		68.29	10.94
	Nov-01		68.64	10.59
	Nov-02		68.38	10.85
	Jan-04		65.23	14.00
	Nov-04		64.78	14.45
	Nov-05		60.25	18.98
	Nov-06		63.79	15.44
	Nov-07		65.29	13.94
	Nov-08		64.78	14.45
	Nov-09		63.13	16.10
	Nov-10		60.87	18.36
	Nov-11		63.93	15.30
	Nov-12		62.62	16.61
	Nov-13		62.35	16.88
	Nov-14		60.48	18.75
	Nov-15		62.35	16.88
	Nov-16		61.25	17.98
	Nov-17		59.20	20.03
	Nov-18		60.75	18.48
	Nov-19		62.09	17.14
	Nov-20		60.39	18.84
	Nov-21		57.22	22.01

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
AC-13D	Sep-97	74.65	67.25	7.40
	Nov-99		66.97	7.68
	Nov-00		68.21	6.44
	Nov-01		68.43	6.22
	Nov-02		68.23	6.42
	Jan-04		65.99	8.66
	Nov-04		65.44	9.21
	Nov-05		63.01	11.64
	Nov-06		65.37	9.28
	Nov-07		66.16	8.49
	Nov-08		65.78	8.87
	Nov-09		63.87	10.78
	Nov-10		63.11	11.54
	Nov-11		65.55	9.10
	Nov-12		64.57	10.08
	Nov-13		64.29	10.36
	Nov-14		63.24	11.41
	Nov-15		64.01	10.64
	Nov-16		63.35	11.30
	Nov-17		61.98	12.67
	Nov-18		62.91	11.74
	Nov-19		63.88	10.77
	Nov-20		62.44	12.21
	Nov-21		60.22	14.43
AC-14D	Sep-97	49.79	45.49	4.30
	Nov-99		45.56	4.23
	Nov-00		46.05	3.74
	Nov-01		46.37	3.42
	Nov-02		46.13	3.66
	Jan-04		44.91	4.88
	Nov-04		44.30	5.49
	Nov-05		42.88	6.91
	Nov-06		44.52	5.27
	Nov-07		44.59	5.20
	Nov-08		44.45	5.34
	Nov-09		42.57	7.22
	Nov-10		42.73	7.06
	Nov-11		44.63	5.16
	Nov-12		43.93	5.86
	Nov-13		43.57	6.22
	Nov-14		43.16	6.63
	Nov-15		43.03	6.76
	Nov-16		42.76	7.03
	Nov-17		41.81	7.98
	Nov-18		Well Destroyed**	
	Nov-19		Well Destroyed**	
	Nov-20		Well Destroyed**	
	Nov-21		Well Destroyed**	
AC-21D	Sep-97	75.47	48.23	27.24
	Nov-99		49.66	25.81
	Nov-00		51.21	24.26
	Nov-01		53.63	21.84
	Nov-02		51.62	23.85
	Jan-04		46.83	28.64
	Nov-04		45.82	29.65
	Nov-05		40.22	35.25
	Nov-06		43.75	31.72
	Nov-07		60.11	15.36
	Nov-08		NM	NM
	Nov-09		44.64	30.83
	Nov-10		39.86	35.61
	Nov-11		44.03	31.44
	Nov-12		43.52	31.95
	Nov-13		43.20	32.27
	Nov-14		38.50	36.97
	Nov-15		41.63	33.84
	Nov-16		40.49	34.98
	Nov-17		37.89	37.58
	Nov-18		39.49	35.98
	Nov-19		41.59	33.88
	Nov-20		40.45	35.02
	Nov-21		34.31	41.16

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
AC-22D	Sep-97	76.58	63.27	13.31
	Nov-99		NM	NM
	Nov-00		NM	NM
	Nov-01		NM	NM
	Nov-02		61.81	14.77
	Jan-04		57.22	19.36
	Nov-04		56.59	19.99
	Nov-05		51.17	25.41
	Nov-06		55.56	21.02
	Nov-07		57.86	18.72
	Nov-08		57.04	19.54
	Nov-09		55.70	20.88
	Nov-10		52.15	24.43
	Nov-11		55.81	20.77
	Nov-12		54.33	22.25
	Nov-13		54.11	22.47
	Nov-14		51.68	24.90
	Nov-15		53.84	22.74
	Nov-16		52.79	23.79
	Nov-17		50.51	26.07
	Nov-18		52.09	24.49
	Nov-19		53.83	22.75
	Nov-20		51.98	24.60
	Nov-21		47.69	28.89
AC-23D	Sep-97	79.51	58.46	21.05
	Nov-99		60.16	19.35
	Nov-00		62.83	16.68
	Nov-01		63.42	16.09
	Nov-02		63.18	16.33
	Jan-04		59.35	20.16
	Nov-04		58.73	20.78
	Nov-05		53.34	26.17
	Nov-06		58.17	21.34
	Nov-07		60.00	19.51
	Nov-08		59.72	19.79
	Nov-09		58.05	21.46
	Nov-10		54.68	24.83
	Nov-11		58.01	21.50
	Nov-12		56.11	23.40
	Nov-13		56.23	23.28
	Nov-14		53.64	25.87
	Nov-15		56.02	23.49
	Nov-16		55.43	24.08
	Nov-17		52.86	26.65
	Nov-18		54.50	25.01
	Nov-19		56.51	23.00
	Nov-21		50.68	28.83
AC-24D	Sep-97	79.60	65.14	14.46
	Nov-99		66.17	13.43
	Nov-00		68.29	11.31
	Nov-01		68.78	10.82
	Nov-02		68.55	11.05
	Jan-04		65.33	14.27
	Nov-04		64.78	14.82
	Nov-05		60.70	18.90
	Nov-06		64.35	15.25
	Nov-07		69.78	9.82
	Nov-08		65.50	14.10
	Nov-09		63.84	15.76
	Nov-10		61.46	18.14
	Nov-11		64.41	15.19
	Nov-12		62.86	16.74
	Nov-13		62.77	16.83
	Nov-14		60.85	18.75
	Nov-15		62.64	16.96
	Nov-16		61.93	17.67
	Nov-17		59.88	19.72
	Nov-18		61.27	18.33
	Nov-19		62.80	16.80
	Nov-20		61.05	18.55
	Nov-21		57.92	21.68

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
AC-25D	Sep-97	39.75	33.71	6.04
	Nov-99		34.28	5.47
	Nov-00		35.44	4.31
	Nov-01		35.76	3.99
	Nov-02		35.48	4.27
	Jan-04		33.99	5.76
	Nov-04		33.22	6.53
	Nov-05		31.30	8.45
	Nov-06		33.42	6.33
	Nov-07		33.83	5.92
	Nov-08		33.69	6.06
	Nov-09		32.07	7.68
	Nov-10		31.33	8.42
	Nov-11		33.27	6.48
	Nov-12		32.42	7.33
	Nov-13		32.17	7.58
	Nov-14		31.51	8.24
	Nov-15		31.85	7.90
	Nov-16		31.64	8.11
	Nov-17		30.35	9.40
	Nov-18		31.11	8.64
	Nov-19		32.08	7.67
	Nov-20		30.88	8.87
	Nov-21		28.85	10.90
AC-26D	Sep-97	26.70	20.11	6.59
	Nov-99		19.08	7.62
	Nov-00		20.47	6.23
	Nov-01		20.61	6.09
	Nov-02		20.40	6.30
	Jan-04		19.65	7.05
	Nov-04		19.02	7.68
	Nov-05		18.17	8.53
	Nov-06		18.98	7.72
	Nov-07		19.30	7.40
	Nov-08		19.08	7.62
	Nov-09		17.23	9.47
	Nov-10		17.27	9.43
	Nov-11		18.96	7.74
	Nov-12		18.53	8.17
	Nov-13		18.55	8.15
	Nov-14		17.94	8.76
	Nov-15		17.88	8.82
	Nov-16		17.70	9.00
	Nov-17		16.65	10.05
	Nov-18		17.09	9.61
	Nov-19		Well Destroyed**	
	Nov-20		Well Destroyed**	
	Nov-21		Well Destroyed**	
AC-27D	Sep-97	18.55	13.57	4.98
	Nov-99		13.46	5.09
	Nov-00		14.97	3.58
	Nov-01		15.05	3.50
	Nov-02		14.90	3.65
	Jan-04		14.13	4.42
	Nov-04		13.66	4.89
	Nov-05		12.42	6.13
	Nov-06		14.13	4.42
	Nov-07		13.91	4.64
	Nov-08		13.46	5.09
	Nov-09		11.22	7.33
	Nov-10		12.51	6.04
	Nov-11		13.91	4.64
	Nov-12		13.63	4.92
	Nov-13		13.43	5.12
	Nov-14		13.25	5.30
	Nov-15		12.21	6.34
	Nov-16		12.05	6.50
	Nov-17		10.78	7.77
	Nov-18		10.86	7.69
	Nov-19		11.34	7.21
	Nov-20		10.67	7.88
	Nov-21		9.75	8.80

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
AC-28D	Sep-97	74.89	65.34	9.55
	Nov-99		65.70	9.19
	Nov-00		67.07	7.82
	Nov-01		67.43	7.46
	Nov-02		67.29	7.60
	Jan-04		64.96	9.93
	Nov-04		NM	NM
	Nov-05		61.72	13.17
	Nov-06		64.19	10.70
	Nov-07		65.12	9.77
	Nov-08		64.78	10.11
	Nov-09		63.02	11.87
	Nov-10		61.83	13.06
	Nov-11		64.21	10.68
	Nov-12		63.20	11.69
	Nov-13		63.02	11.87
	Nov-14		NM	NM
	Nov-15		NM	NM
	Nov-16		62.13	12.76
	Nov-17		60.76	14.13
	Nov-18		61.69	13.20
	Nov-19		62.69	12.20
	Nov-20		61.35	13.54
	Nov-21		59.16	15.73
AC-29D	Sep-97	82.26	62.17	20.09
	Nov-99		62.86	19.40
	Nov-00		65.62	16.64
	Nov-01		66.29	15.97
	Nov-02		66.18	16.08
	Jan-04		61.62	20.64
	Nov-04		61.06	21.20
	Nov-05		55.47	26.79
	Nov-06		59.95	22.31
	Nov-07		62.30	19.96
	Nov-08		61.75	20.51
	Nov-09		60.21	22.05
	Nov-10		56.50	25.76
	Nov-11		60.12	22.14
	Nov-12		58.44	23.82
	Nov-13		58.37	23.89
	Nov-14		55.54	26.72
	Nov-15		58.32	23.94
	Nov-16		57.08	25.18
	Nov-17		54.66	27.60
	Nov-18		56.47	25.79
	Nov-19		58.22	24.04
	Nov-20		56.49	25.77
	Nov-21		52.36	29.90
AC-30D	Sep-97	85.73	71.39	14.34
	Nov-99		72.13	13.60
	Nov-00		74.17	11.56
	Nov-01		74.64	11.09
	Nov-02		74.48	11.25
	Jan-04		71.28	14.45
	Nov-04		70.75	14.98
	Nov-05		66.83	18.90
	Nov-06		70.27	15.46
	Nov-07		71.66	14.07
	Nov-08		71.35	14.38
	Nov-09		69.72	16.01
	Nov-10		67.34	18.39
	Nov-11		70.33	15.40
	Nov-12		68.92	16.81
	Nov-13		68.81	16.92
	Nov-14		66.94	18.79
	Nov-15		68.68	17.05
	Nov-16		67.88	17.85
	Nov-17		65.98	19.75
	Nov-18		67.29	18.44
	Nov-19		68.71	17.02
	Nov-20		67.03	18.70
	Nov-21		64.05	21.68

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
AC-35D	Sep-97	10.49	NM	NM
	Nov-99		5.22	5.27
	Nov-00		6.15	4.34
	Nov-01		6.36	4.13
	Nov-02		6.27	4.22
	Jan-04		5.11	5.38
	Nov-04		4.68	5.81
	Nov-05		3.50	6.99
	Nov-06		4.68	5.81
	Nov-07		5.07	5.42
	Nov-08		4.67	5.82
	Nov-09		3.06	7.43
	Nov-10		2.88	7.61
	Nov-11		4.30	6.19
	Nov-12		4.13	6.36
	Nov-13		4.06	6.43
	Nov-14		3.33	7.16
	Nov-15		3.29	7.20
	Nov-16		3.25	7.24
	Nov-17		2.50	7.99
	Nov-18		2.78	7.71
	Nov-19		3.47	7.02
	Nov-20		2.51	7.98
	Nov-21		1.30	9.19
AC-36D	Sep-97	5.26	NM	NM
	Nov-99		2.32	2.94
	Nov-00		2.90	2.36
	Nov-01		3.13	2.13
	Nov-02		2.90	2.36
	Jan-04		2.24	3.02
	Nov-04		1.66	3.60
	Nov-05		1.01	4.25
	Nov-06		1.98	3.28
	Nov-07		1.84	3.42
	Nov-08		1.72	3.54
	Nov-09		0.00	5.26
	Nov-10		0.50	4.76
	Nov-11		1.93	3.33
	Nov-12		1.55	3.71
	Nov-13		1.23	4.03
	Nov-14		1.21	4.05
	Nov-15		0.45	4.81
	Nov-16		0.37	4.89
	Nov-17		0.00	5.26
	Nov-18		0.08	5.18
	Nov-19		Well Destroyed**	
	Nov-20		Well Destroyed**	
	Nov-21		Well Destroyed**	
NWD-2D	Sep-97	76.80	51.69	25.11
	Nov-99		51.58	25.22
	Nov-00		53.63	23.17
	Nov-01		55.32	21.48
	Nov-02		53.89	22.91
	Jan-04		51.37	25.43
	Nov-04		50.51	26.29
	Nov-05		44.75	32.05
	Nov-06		48.84	27.96
	Nov-07		52.14	24.66
	Nov-08		50.87	25.93
	Nov-09		49.51	27.29
	Nov-10		45.09	31.71
	Nov-11		49.11	27.69
	Nov-12		48.02	28.78
	Nov-13		47.73	29.07
	Nov-14		44.15	32.65
	Nov-15		46.92	29.88
	Nov-16		45.94	30.86
	Nov-17		43.30	33.50
	Nov-18		39.36	37.44
	Nov-19		47.03	29.77
	Nov-20		45.61	31.19
	Nov-21		40.27	36.53

TABLE 4
GROUNDWATER ELEVATIONS

Agrico Site
Pensacola, Florida

Well I.D.	Date	Elevation TOC (ft NGVD)	Water Level (ft btoc)	Water Level Elevation (ft NGVD)
MAIN PRODUCING ZONE				
NWD-4D	Sep-97	34.70	19.52	15.18
	Nov-99		20.92	13.78
	Nov-00		22.36	12.34
	Nov-01		22.74	11.96
	Nov-02		22.12	12.58
	Jan-04		20.32	14.38
	Nov-04		NM	NM
	Nov-05		16.92	17.78
	Nov-06		20.11	14.59
	Nov-07		20.55	14.15
	Nov-08		16.92	17.78
	Nov-09		18.81	15.89
	Nov-10		17.32	17.38
	Nov-11		19.68	15.02
	Nov-12		18.21	16.49
	Nov-13		18.19	16.51
	Nov-14		16.91	17.79
	Nov-15		17.68	17.02
	Nov-16		18.02	16.68
	Nov-17		15.99	18.71
	Nov-18		17.08	17.62
	Nov-19		18.63	16.07
	Nov-20		17.85	16.85
	Nov-21		14.30	20.40
PIP-D	Sep-97	86.05	NM	NM
	Nov-99		NM	NM
	Nov-00		NM	NM
	Nov-01		NM	NM
	Nov-02		NM	NM
	Jan-04		NM	NM
	Nov-04		NM	NM
	Nov-05		NM	NM
	Nov-06		NM	NM
	Nov-07		NM	NM
	Nov-08		47.63	38.42
	Nov-09		46.74	39.31
	Nov-10		41.05	45.00
	Nov-11		45.23	40.82
	Nov-12		43.24	42.81
	Nov-13		43.53	42.52
	Nov-14		39.15	46.90
	Nov-15		42.49	43.56
	Nov-16		42.25	43.80
	Nov-17		38.49	47.56
	Nov-18		40.74	45.31
	Nov-19		43.23	42.82
	Nov-20		41.59	44.46
	Nov-21		35.24	50.81

NOTES:

ft NGVD = feet above National Geodetic Vertical Datum of 1988.

ft btoc = feet below top of casing.

NM = Not Measured

CNL = Could not locate

*AC-10D could not be located during the November 2021 sampling event. Further attempts to locate the well will be made prior to the next sampling event.

** AC-14D, AC-26D, and AC-36D were not located during 2019. They were determined to have been destroyed by City of Pensacola stormwater project construction efforts and have been removed from the monitoring well network.

TABLE 5
SURFACE WATER FIELD PARAMETER RESULTS

Agrico Site
Pensacola, Florida

Surface Water Location	Date	pH (su)	Conductivity (µS/cm)	Temperature (^{0}C)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Turbidity (NTU)	Salinity (ppth)
BT-02 Bayou Texar (Brackish Water)	11/17/2010	7.44	28,836	21.43	6.07	180.4	7.98	17.74
	11/17/2011	7.63	33,288	21.92	8.15	-9.5	11.30	20.84
	11/8/2012	7.58	36,769	22.35	7.39	70.8	12.10	23.24
	11/11/2013	7.08	27,605	22.12	7.39	84.0	30.50	NM
	11/21/2014	7.23	33,886	17.31	102.3	122.0	5.67	21.49
	11/16/2015	7.53	9,987	18.35	83.3	191.0	12.6	5.66
	11/7/2016	7.07	22,000	23.64	6.2	150.0	6.6	13.24
	11/6/2017	6.87	10,662	25.41	5.59	123.2	3.64	5.54
	11/8/2018	6.46	18,764	6.26	23.96	171.6	25.8	NM
	11/13/2019	9.64	6,210	11.73	90.4	213.9	6.73	3.46
	11/10/2020	7.24	21,779	23.06	5.79	304.1	10.9	NM
	11/4/2021	7.30	13,609	21.63	5.77	86.9	10.4	8.78
BT-107 Bayou Texar (Brackish Water)	11/17/2010	7.39	29,165	21.45	6.14	193.5	5.30	18.05
	11/17/2011	7.51	32,523	21.61	7.96	9.9	9.80	20.48
	11/8/2012	7.23	36,230	22.27	7.01	73.6	10.80	22.94
	11/11/2013	6.89	28,619	22.69	6.37	81.2	7.85	NM
	11/21/2014	7.85	35,026	17.39	92.9	119.7	5.75	22.04
	11/16/2015	7.09	7,907	18.15	77.1	185.3	9.45	4.41
	11/7/2016	6.99	18,967	23.87	6.4	163.1	6.61	11.26
	11/6/2017	6.82	10,606	25.46	4.77	135.0	3.53	5.99
	11/8/2018	6.40	18,045	23.95	5.93	179.6	9.13	NM
	11/13/2019	7.80	11,199	13.13	8.22	192.1	6.54	6.26
	10/10/2020	7.21	21,559	22.87	5.92	230.3	7.57	NM
	11/4/2021	7.19	14,759	22.54	5.71	56.5	9.61	11.87
BT-127 Bayou Texar (Brackish Water)	11/17/2010	7.33	28,735	21.31	5.87	240.7	6.21	17.64
	11/17/2011	7.69	35,000	21.73	7.94	-1.8	10.40	22.07
	11/8/2012	7.37	36,564	22.60	7.44	67.5	10.30	22.95
	11/11/2013	6.87	28,952	22.86	6.53	84.9	5.86	NM
	11/21/2014	6.96	34,062	17.53	7.73	117.6	9.27	21.43
	11/16/2015	5.38	18,851	20.21	63.1	203.8	4.03	9.39
	11/7/2016	6.92	18,618	24.48	8.7	185.0	8.81	11.03
	11/6/2017	6.70	11,683	25.79	5.25	147.1	4.46	6.54
	11/8/2018	6.23	16,252	23.79	6.56	187.7	12.3	NM
	11/13/2019	7.89	9,226	13.71	8.29	199.5	7.66	5.28
	11/10/2020	7.21	21,288	22.98	5.61	250.2	11.9	NM
	11/4/2021	7.19	14,759	22.54	5.71	56.5	9.61	11.87

NOTES:
SU = Standard Units
µs/cm= microSiemens per centimeter
^{0}C = Degrees Celsius
mg/L = milligram per Liter
mV = milliVolt
NTU = Nephelometric Turbidity Units
ppth=parts per thousand
NM = not measured

TABLE 6

ADVISORY NOTICE DISTRIBUTION LIST
WATER WELL, IRRIGATION/PLUMBING, AND POOL CONTRACTORS

OU-2 AGRICO SITE
PENSACOLA, FLORIDA

NAME	COMPANY NAME	ADDRESS	CITY	STATE	POSTAL CODE
	FLORIDA IRRIGATION SUPPLY INC	2810 COPTER ROAD	PENSACOLA	FL	32514
	WALLACE SPRINKLER INC	3607 ANDREW AVE	PENSACOLA	FL	32505-4108
	ALL SEASONS POOL SERVICE	29 ADKINSON DR	PENSACOLA	FL	32506
	ALL SERVICES POOL SPA`	5585 WINDHAM RD	MILTON	FL	32507
	AVALON POOLS	4230 TANFIELD RD	MILTON	FL	32583
	PACE POOL & SPA SERVICES, INC.	4873 WEST SPENCER FIELD RD.	PACE	FL	32571-1232
	DOLPHIN POOLS	3210 GULF BREEZE PKWY	GULF BREEZE	FL	32563-2730
	FAMILY POOL AND SPA & BILLIARD CENT	3920 N. DAVIS HIGHWAY	PENSACOLA	FL	32503
	JOHNSON POOLS, INC	401 MASSACHUSETTS AVE	PENSACOLA	FL	32505-4207
	PARKER POOLS	PO BOX 11769	PENSACOLA	FL	32524-1769
	PENSACOLA POOLS INC	4412 HIGHWAY 90	PACE	FL	32571
	PENSACOLA POOLS INC	3480 GULF BREEZE PKWY	GULF BREEZE	FL	32563-3406
	PINCH A PENNY POOL PATIO SPA	3307 GULF BREEZE PKWY	GULF BREEZE	FL	32563
	SUNSET POOLS SPAS & WHIRLPOOL BAT	4382 HIGHWAY 90	PACE	FL	32571
	BEDROCK WELLS - AAA SPRINKLERS & L	6201 N. BLUE ANGEL PKWY	PENSACOLA	FL	32526-8006
	MCGOWAN WATER WORKS INC	3041 E. KINGSFIELD RD.	PENSACOLA	FL	32514-9753
	COFFEY S G WELL SVCE	331 BURNT PINE RD	BREWTON	AL	36426-5817
	COFFEY'S GEORGE WELL SERVICE	680 TRAVIS RD	BREWTON	AL	36426-5120
	RUSSELLS WELL AND PUMP SERVICES	4053 KENTWOOD ST.	MILTON	FL	32571-2432
	WINDHAM & SON PUMPING SUPPLY	5800 MULDOON RD.	PENSACOLA	FL	32526-1699
ALAN ARD	ARD'S CLOSED LOOP	1931 TILLIMAN LN	PENSACOLA	FL	32506
GLENN ASHLEY	ASHLEY WELL DRILLING	8056 WAKULLA SPGS RD	TALLAHASSEE	FL	32305
GREG BAILEY	GREG'S IRRIGATION	4264 BARLOW RD	CRESTVIEW	FL	32536
RONNIE BARLOW		4575 J BARLOW ROAD	JAY	FL	32565
BOBBY BARLOW	BARLOW WATER SERVICES	P O BOX 539	WEWAHITCHKA	FL	32465
FREDERICK BASFORD	BASFORD WELL DRILLING	4513 LAFAYETTE ST	MARIANNA	FL	32446
CHARLES BASFORD	BASFORD WELL DRILLING	4513 LAFAYETTE ST	MARIANNA	FL	32446
LESTER BASFORD	BASFORD WELL DRILLING	4513 LAFAYETTE ST	MARIANNA	FL	32446
MACK H BEASLEY	MACK H BEASLEY WATER WELL SERVICE	4940 BECK AVE	JAY	FL	32565
TERRY BERRY	BERRY'S WELL SERVICE	225 SPENCER DR	FT WALTON BEACH	FL	32547
PAUL BRANSON	COFFEY'S WELL SERVICE	P O BOX 564	JAY	FL	32565
TERRY BRANTON	BRANTON BROTHERS WELL DRILLING	755 MALVERN RD	DOTHAN	AL	36301
MORGAN BROWN		28 MOONEY ROAD NE	FT WALTON BEACH	FL	32547
DOCK L BRYANT JR	B & B WELL DRILLING	108 FETTING AVE	FT WALTON BEACH	FL	32547
BYRON BUTLER		P O BOX 2820	HAINES CITY	FL	33845
TROY E BYRD		P O BOX 371	ATMORE	AL	36504
HERBERT CHRISTIAN	CHRISTIAN TESTING LABS INC	P O BOX 3218	MONTGOMERY	AL	36109
JL CLANTON	CLANTON'S WELL DRILLING	6512 LOIS ST	PANAMA CITY	FL	32404
MARK COBB	C & S WELL SERVICE	2712 TWILIGHT AVE	PANAMA CITY	FL	32405
SANDRA COFFEY	S G COFFEY WELL SERVICE	409 BURNT PINE RD	BREWTON	AL	35425-5859
JIMMY H COFIELD	JIM'S WELL DRILLING	P O BOX 93	FLOMATON	AL	36441
TE COLLEY		5558 ORIOLE ST	MILTON	FL	32570
ARTHUR COLLINGSWORTH		6806 KEITHLEY RD	PANAMA CITY	FL	32404
JAMES R CONNER	JAMIE CONNER WELL DRILLING SERVICE	1278 LEAVINS RD	WESTVILLE	FL	32464
JOHN COOKE	COOKE'S WELL DRILLING SERVICE	4924 SATIN DR	BASCOM	FL	32423
VERNON CREAMER	COASTAL WELL DRILLING	11939 RACOON RD	SOUTHPORT	FL	32409
WILLIAM DAVIS	BILL DAVIS DRILLING SERVICES	342 FOREST ROAD 13	SOPCHOPPY	FL	32355
ROBERT DE VALCOURT	PERDIDO HEATING & AIR	5555 BAUER RD	PENSACOLA	FL	32507
ROBIN DEAN	ROBIN DEAN WELL DRILLING	1904 WAX MYRTLE RD	TALLAHASSEE	FL	32310
WESLEY DEAN	DEAN'S WELL DRILLING	PO BOX 1469	WOODVILLE	FL	32362-1469
WESLEY DONALDSON	DONALDSON WELL DRILLING	1321 BLUE ANGEL PKY	PENSACOLA	FL	32506
ROBERT M DORRIETY		5251 COY BURGESS RD	DEFUNIAK SPRINGS	FL	32435
CURT DOYLE	GEOTECHNICAL SERVICES INC	904 BUTLER DR	MOBILE	AL	36693
BOB ECHOLD	NORTHWEST FLORIDA WATER MANGEME	5453 DAVISSON RD	MILTON	FL	32583-5329
MATT GARCIA		1426 LOLA DR	TALLAHASSEE	FL	32301
DONALD GELDBAUGH	SOUTHERN COMPANY SERVICES INC	ONE ENERGY PLACE	PENSACOLA	FL	32520
ALPHA GIPSON	ALPHA GIPSON	6131 AGELINA RD	PENSACOLA	FL	32504
TOMMIE GLASS		5970 COLTER ROAD	MILTON	FL	32583-2834
WENDELL HALL		6620 CHIPEWA ST	PANAMA CITY	FL	32404
JOSEPH HARRELL JR	GEO ENERGY DRILLING INC	P O BOX 1454	CRAWFORDVILLE	FL	32326
HOWARD HAYES		20181 SE CL CAPPS RD	BLOUNTSTOWN	FL	32424
STEVE HOLT	HOLT WELL SERVICE	8331 HWY 189 N	BAKER	FL	32531
EDGAR HUGHES		6302 CR 636	CHANCELLOR	AL	36316

TABLE 6

ADVISORY NOTICE DISTRIBUTION LIST
WATER WELL, IRRIGATION/PLUMBING, AND POOL CONTRACTORS

OU-2 AGRICO SITE
PENSACOLA, FLORIDA

NAME	COMPANY NAME	ADDRESS	CITY	STATE	POSTAL CODE
S & S PLUMBING AND MECHANICAL INC		7845 PINE FOREST RD	PENSACOLA	FL	32526
SANTA ROSA PLUMBING		5510 TOM SAWYER RD	MILTON	FL	32583
SPIVEY & SON PLUMBING INC		9820 VONNA JO DR	PENSACOLA	FL	32506
VAN PLUMBING		3248 CLEMSON RD	GULF BREEZE	FL	32561
WARRINGTON PLUMBING INC		910 W MAIN	PENSACOLA	FL	32501
BRAUN'S SPRINKLER SERVICE		10852 BERRYHILL RD	PENSACOLA	FL	32506
GORMAN CO INC		4149 WAREHOUSE LANE	PENSACOLA	FL	32505
PHOENIX LANDSCAPE & IRRIGATION INC		P O BOX 924	GULF BREEZE	FL	32562
RAINFALL LANDSCAPE & SPRINKLER		9850 NORTH LOOP RD	PENSACOLA	FL	32507
TIECO GULF COAST INC		540 W MICHIGAN AVE	PENSACOLA	FL	32505
TRIM A LAWN LAWN & GARDEN CENTER		1405 GULF BEACH HIGHWAY	PENSACOLA	FL	32507
MCGOWAN IRRIGATION		3041 E KINGSFIELD RD	PENSACOLA	FL	32526
GARVEY IRRIGATION		PO BOX 250	MOLINO	FL	32577-0250
KEN GRIFFIN LANDSCAPE CONTRACTORS INC		3004 WESTFIELD RD	GULF BREEZE	FL	32563
WATER WORKS SPRINKLER SYSTEMS & PONDS		4669 ANNA SIMPSON RD	MILTON	FL	32583
C & H PLUMBING		5239 OLD BERRYHILL RD	MILTON	FL	32570
DEALE PLUMBING		7019 WOODLEY DR	PENSACOLA	FL	32503
DOWNS PLUMBING & GAS	LARRY DOWNS	5840 MULDOON RD	PENSACOLA	FL	32526
FLORIDA AIR CONDITIONING & PLUMBING		9310 BRIDLEWOOD RD	PENSACOLA	FL	32526
HIGH TECH PLUMBING & HEATING		8375 RALEIGH CIRCLE	PENSACOLA	FL	32534
HOMEOWNERS' ASSURANCE INC		4382 HIGHWAY 90	PACE	FL	32571
PACE PLUMBING		4274 BELL LANE	PACE	FL	32571
TERRY SMITH PLUMBING INC		22 W NINE & ONE HALF MILE RD	PENSACOLA	FL	32534
ENSLEY SEPTIC TANK SERVICE		10491 BETMARK RD	PENSACOLA	FL	32534
ALTERNATE RAIN SYSTEMS		5353 N BLUE ANGEL PARKWAY	PENSACOLA	FL	32526
AMORE SPRINKLER CO		3652 GARDENVIEW RD	PACE	FL	32571
IRRIGATION ENGINEERING		920 E LLOYD ST	PENSACOLA	FL	32503
KILLER WELLS, INC.		2600 W. MICHIGAN AVE, LOT 35E	PENSACOLA	FL	32525-2282
PERDIDO IRRIGATION SYSTEMS		5555 BAUER ROAD	PENSACOLA	FL	32507
RIKER IRRIGATION		1144 W NINE MILE RD	PENSACOLA	FL	32534
M7N VENDING SERVICE		440 W. HANNAH STREET	PENSACOLA	FL	32534
GULF COAST POOL & SPA INC		2461 LANGLEY AVE	PENSACOLA	FL	32504
MANNING BROS POOL INC		9465 PENSACOLA BLVD	PENSACOLA	FL	32534
PANAMA POOLS OF NORTHWEST FLORIDA		291 POWELL ADAMS RD	PENSACOLA	FL	32413
PENSACOLA POOLS INC		8514 PENSACOLA BLVD	PENSACOLA	FL	32534
VAUGHN'S INC OF PENSACOLA		1290 NINE MILE ROAD	PENSACOLA	FL	32534
ALLPOOLS		8062 BRIOR OAK DRIVE	PENSACOLA	FL	32514
AVALON POOLS		4230 TANFIELD ROAD	MILTON	FL	32583
COX POOLS		22656 F CANAL ROAD	ORANGE BEACH	AL	36561
D K POOLS INC		4111 LILLIAN HWY	PENSACOLA	FL	32505-2202
L W POOLS		11600 MOBILE HIGHWAY	PENSACOLA	FL	32526
PINCH A PENNY POOL PATIO SPA		8090 N 9th AVE	PENSACOLA	FL	32514
SUNSET POOLS SPAS & WHIRLPOOL BATHS		4382 HIGHWAY 90	PACE	FL	32571
SOUTH CENTRAL POOL SUPPLY		8808 Grow Dr	PENSACOLA	FL	32514
JOHNSON POOLS INC.		401 Massachusetts Ave	PENSACOLA	FL	32505
FAGANS CUSTOM POOLS INC.		13440 Serenity Cir	PENSACOLA	FL	32506
ATLANTIS POOL & SPA		2075 Elaine Cir	PENSACOLA	FL	32504
SUPERIOR POOLS PRODUCTS		3338 Mclemore Dr	PENSACOLA	FL	32514
AFFORDABLE TREE LAWN & POOL		2011 W. Garden Street	PENSACOLA	FL	32502
EMERALD COAST IRRIGATION LLC		3041 Kingsfield Road	PENSACOLA	FL	32514
JERRY PATE TURF & IRRIGATION INC.		301 Schubert Drive	PENSACOLA	FL	32504
GULFSIDE LANDSCAPING INC		8221 Kipling Street	PENSACOLA	FL	32514
GONZALEZ PLUMBING & SPRINKLER		1801 Government Street	PENSACOLA	FL	32502
AIR DESIGN SYSTEMS INC.		400 Lurton St	PENSACOLA	FL	32505
ALL PRO PLUMBING & DRAIN		1765 E Nine Mile Rd Ste 1	PENSACOLA	FL	32514
ARTO'S SEWER & DRAIN SERVICE INC		2923 Rhythm St	PENSACOLA	FL	32505
CERTIFIED PLUMBING SEWER & GAS		7075 N Blue Angel Pkwy	PENSACOLA	FL	32526
PRICHARDS PLUMBING		40 Olive Rd	PENSACOLA	FL	32514
AGGRESSIVE PLUMBING		1220 Maura St	PENSACOLA	FL	32503
Terry Lambert Plumbing & Gas Service Inc		8145 Whitmire Dr	PENSACOLA	FL	32514

TABLE 6

ADVISORY NOTICE DISTRIBUTION LIST
WATER WELL, IRRIGATION/PLUMBING, AND POOL CONTRACTORS

OU-2 AGRICO SITE
PENSACOLA, FLORIDA

NAME	COMPANY NAME	ADDRESS	CITY	STATE	POSTAL CODE
KIMMON PLUMBING INC.		2560 Gulf Breeze Ave	PENSACOLA	FL	32507
GMC PLUMBING CONTRACTOR		664 Whitney Dr	PENSACOLA	FL	32503
CASEY HYMAN PLUMBING INC		5650 Dixie Dr	PENSACOLA	FL	32503
BALDWIN PLUMBING WORKS INC		3521 Bauer Rd	PENSACOLA	FL	32506
PLUMBERSMITH		9312 Bridlewood Rd	PENSACOLA	FL	32526
VIP POOLS		3303 N. Davis Hwy.	PENSACOLA	FL	32503
POOL CARE		600 Careondelay Drive	PENSACOLA	FL	32506
KENNY SMITHS POOL CARE		7134 Inniswold Drive	PENSACOLA	FL	32526
LORING IRRIGATION		2406 Escambia Avenue	PENSACOLA	FL	32503
THE FINISH LINE COMPANIES		3370 Pursell Lane	PENSACOLA	FL	32526
GULF STREAM LANDSCAPING & IRRIGATION		8449 Old Palafox Street	PENSACOLA	FL	32504
KEN GRIFFIN LANDSCAPE CONTRACTORS		3004 Westfield Road	GULF BREEZE	FL	32563
LAYNE CHRISTENSEN CO		3720 N. Palafox Street	PENSACOLA	FL	32505
K C W WATER WELL SERVICE		4765 Shelfer Road	TALLAHASSEE	FL	32305
DRILLING SOLUTIONS IINC.		5624 Pasture Lane	JAY	FL	32565
AQUA POOL & PATIO		5904 N. Palafox St	PENSACOLA	FL	32503
SURFSIDE POOLS		6677 Old Bagdad Hwy.	MILTON	FL	32583

TABLE 7
IRRIGATION WELL INFORMATION

Agrico Site
Pensacola, Florida

ID	PERMIT	NAME	STREET	DIAMETER (INCHES)	DEPTH FT. BLS	CASING FT. BLS	AQUIFER	ABANDONMENT OFFER LETTER SENT	IRRIGATION WELL SAMPLED	DATE SAMPLED	WELL ABANDONED	REMARKS
1		C.E. Anderson	905 TEXAR DRIVE	2	85	75	SZ	NO	NO			Outside of area of expected impacts for SZ
2	41(HC-1)	Holy Cross Cemetary Diocese of Pensacola	1300 E. HAYES	4	160	140	MPZ	YES	YES	11/28/2000		Two wells exist for cemetary, for sampling purposes labeled HC-1 and HC-2
	41(HC-2)	Holy Cross Cemetary Diocese of Pensacola	1300 E. HAYES	4	160	140	MPZ	YES	YES	11/28/2000		Two wells exist for cemetary, for sampling purposes labeled HC-1 and HC-2
3	81	C. Hass	349 SILVER ROAD	4	82	82	SZ	NO	NO			Outside of area of expected impacts for SZ
4	82	W.S. VanMetre	1221 TEXAR	4	95	95	SZ	NO	NO			Outside of area of expected impacts for SZ
5	97	O. English	3803 N. 10TH AVE.	4	71	130	120	yes	YES	3/13/2001		
6	103	Dr. D. McGraw	1680 TEXAR	4	71	61	SZ	NO	NO			Outside of area of expected impacts for SZ
7	109	K. Wolfersterger	2700 MAGNOLIA AVE.	4	115	100	MPZ	YES	NO			
8	110	F & Kathleen Edsel, Jr	2721 BLACKSHEAR	4	UNK	UNK	UNK	RETURNED	NO			
9	111	J. Colley	1750 E. TEXAR DR.	2	85	80	SZ	NO	NO			Outside of area of expected impacts for SZ
10		Curry	2701 N. 16TH AVE.	4	158	143	MPZ	YES	YES	3/15/2001		
11	123	D. Lavin	3632 MENENDEZ DR.	4	73	63	SZ	NO	NO			Outside of area of expected impacts for SZ
12	124	Dr. B. Beidleman	2909 BLACKSHEAR	4	87	77	SZ	NO	NO			Outside of area of expected impacts for SZ
13	127	F. McCallister	2706 BLACKSHEAR	4	85	75	SZ	NO	NO			Outside of area of expected impacts for SZ
14	135	J. Klocke	2914 BLACKSHEAR	2	50	45	SZ	NO	NO			Outside of area of expected impacts for SZ
15	139	R. Moulton	3970 MENENDEZ DR.	4	110	100	MPZ	YES	NO			Well capped under land surface. Not Used
16	140	M. Johnson	1650 E. HAYES ST.	4	120	110	MPZ	YES	YES	11/28/2000		
17	142	L. Fishman	3003 MAGNOLIA AVE	NA	NA	NA	NA	YES	NA	NA		**No well found at location**
18	143	F. Clayborn	1640 E. HAYES ST.	4	125	110	MPZ	YES	NO		2/27/2001	Well exists. Irrigation System Not Used.
19	144	Dr. Willis (Family Practice)	915 E. FAIRFIELD DR	4	120	110	MPZ	YES	YES	5/10/2001		
20	160	B. Hodnelle, Jr.	3966 MENENDEZ	4	117	107	MPZ	YES	NO			
21		E. Davis	4130 MENENDEZ	2	45	40	SZ	NO	NO			Outside of area of expected impacts for SZ
22	194	D. Conkle	3080 BLACKSHEAR AVE	2	68	63	SZ	NO	NO			Outside of area of expected impacts for SZ
23	P9407748	Henry Langhorn	1725 EAST MAURA ST	4	140	120	MPZ	YES	NO			
24	P9503948	Floral Tree Gardens	3601 NORTH DAVIS HWY.	4	115	100	MPZ	YES	NO			
25	T8301727	Fred Levin	3600 MENENDEZ	2	35	30	SZ	NO	NO			Outside of area of expected impacts for SZ
26	T8402575	W.L. Glaze	2675 N. 17TH AVENUE	4	140	120	MPZ	RETURNED	NO			
27	T8403811	Mrs. Dorothy Bearman	1501 GAMARA ROAD	4	110	100	MPZ	YES	NO			
28	T8707396	Richard and Sarah Sanchez	1221 DURNFORD PLACE	4	140	130	MPZ	YES	YES	3/1/2001		
29	T8800778	William C. Baker	1250 DRIFTWOOD DRIVE	4	110	90	MPZ	YES	NO			

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Agrico Site
Pensacola, Florida

ID	PERMIT	NAME	STREET	DIAMETER (INCHES)	DEPTH FT. BLS	CASING FT. BLS	AQUIFER	ABANDONMENT OFFER LETTER SENT	IRRIGATION WELL SAMPLED	DATE SAMPLED	WELL ABANDONED	REMARKS
30	T8905178	Leroy Gamlin	1005 TUNIS STREET	4	116	106	MPZ	YES	NO			
31	T9005951	Joseph Bores	4100 MENENDEZ DRIVE	4	130	120	MPZ	YES	YES	11/28/2000		
32	T9103343	Charles R. Earnest	1900 EAST LEONARD ST.	4	151	121	MPZ	YES	YES	11/28/2000		Well Resampled 5-10-01 to confirm PCE detection
33	T9104961	Dr. Peter C. Delevett	1660 TEXAR DRIVE	2	84	74	SZ	NO	NO			
34	T9104962	Paul Williams	800 E. BAARS ST	4	120	60	MPZ	YES	NO			808 E. Baars sharing well at 800 E. Baars
35	T9206908	John C. Sowers	3090 BLACKSHEAR AVE	2	90	80	SZ	NO	NO			Outside of area of expected impacts for SZ
36	T9304906	J.E. Boatwright Jr.	2575 PARADISE POINT DR	4	120	100	MPZ	YES	YES	3/1/2001		
37	T9701332	Elisabeth Holmes	1781 E. LEONARD ST.	2	UNK	UNK	UNK	YES	NO			
38	T9800088	James T. Baer	1775 EAST TEXAR DR	4	UNK	UNK	UNK	YES	YES	11/29/2000		
39	P9405922	Randy Head	2015 E. Maura St	NA			NA	YES	NA			**No well found at location**
40	158	N. Kinder	1227 BARCIA DR.	UNK	UNK	UNK	UNK	YES	NO			
41	162	W. Veasie	1271 DRIFTWOOD DR.	4	96	73	SZ	NO	no			Outside of area of expected impacts for SZ
42	171	D. Tringas	2621 PARADISE POINT	UNK	UNK	UNK	UNK	YES	YES	3/1/2001		
43	172	B. Samples	1009 EAST TUNIS	UNK	UNK	UNK	UNK	YES	YES	11/28/2000		
44	178	C. Davis	1555 EAST CROSS ST.	2	UNK	UNK	UNK	YES	NO			
45		Moss & Bessie Wilson	3510 N. 9TH AVE	NA	NA	NA	NA	NO	NA			**No well found at location**
46		John & Priscilla Snyder	2912 BLACKSHEAR AVE	UNK	UNK	UNK	UNK	YES	NO			
47		David & Jean Mayo	3030 BLACKSHEAR AVE	UNK	UNK	UNK	UNK	YES	YES	3/1/2001		
48		Neroy & Lois Anderson	1301 E FISHER ST	UNK	UNK	UNK	UNK	YES	NO			
49		Jude & Nancy White	1710 E CROSS ST	4	140		UNK	YES	YES	8/25/1999		Results in the First annual report OU-2 (2/2000)
50		Mr. Glen McDonald	2860 BLACKSHEAR AVE	UNK	UNK	UNK	UNK	RETURNED	NO			
51		John & Sue Woodward	2710 BLACKSHEAR AVE	4	100	90	MPZ	YES	YES	3/1/2001		
52	159	Amos & Clementine Prevatt	2712 BLACKSHEAR AVE	2	55	45	SZ	NO	NO			Outside of area of expected impacts for SZ
53	80	Howard & Joyce Rein	2101 E CROSS ST	4	130	120	MPZ	YES	YES	11/28/2001		
54		Diocese of Pensacola	1231 DURNFORD PL	UNK	UNK	UNK	UNK	YES	YES	11/28/2001		Bishop's Residence
55		Larry & Catherine Parks	1210 DURNFORD PL	4	145	130	MPZ	YES	NO		2/27/2001	

TABLE 7
IRRIGATION WELL INFORMATION

Agrico Site
Pensacola, Florida

ID	PERMIT	NAME	STREET	DIAMETER (INCHES)	DEPTH FT. BLS	CASING FT. BLS	AQUIFER	ABANDONMENT OFFER LETTER SENT	IRRIGATION WELL SAMPLED	DATE SAMPLED	WELL ABANDONED	REMARKS
56		Dennis & Betty Peters	3990 MENENDEZ DR	4	78	65	SZ	NO	NO			Outside of area of expected impacts for SZ
57		Jack & Carolyn Fleming	4010 MENENDEZ DR	UNK	UNK	UNK	UNK	YES	YES	11/28/2000		
58		Richard & Page Ciordia	4020 MENENDEZ DR	4	92	82	SZ	NO	NO			Outside of area of expected impacts for SZ
59		Garrett & Joyce Boyd	1261 STOW AVE	UNK	UNK	UNK	UNK	YES	NO			
60		Gene Schmidt	4141 MENENDEZ DR	4	115	100	MPZ	YES	YES	11/29/2000		
62		C.E. Davis	808 BAARS ST.	UNK	UNK	UNK	UNK	YES	YES	3/13/2001		
63	P200104-707	Escambia County Park Service	CARRIE MILLER PARK	4	90	70	SZ	NO	NO			Downgradient of FDEP Kaiser Site; drilled after moratory initiated.

Notes:
Permit = Northwest Florida Water Management District Permit Number
Aquifer = SZ = Surficial zone of Sand-and-Gravel Aquifer; MPZ = Main producing zone of Sand-and-Gravel Aquifer;
Unknown = No well construction inform ; UNK= Data Unknown
NA = Not Applicable
ft. bls = feet below land surface
Data from the NWFWMD onlin mapping application : http://webapub.sjrwmd.com/agws10/nwwmdpermit/
No new wells found during the 2020 data query

SUMMARY	TOTAL
NUMBER OF NOTIFICATIONS OF VOLUNTARY ABANDONMENT OFFER	41
NUMBER OF LOCATIONS WHERE SURFICIAL ZONE IRRIGATION WELLS EXIST BUT NO POTENTIAL FOR IMPACTS BY AGRICO-RELATED CONSTITUENTS	8
WRONG INFORMATION - NO WELL PRESENT AT LOCATION	1
NUMBER OF ADDITIONAL IRRIGATION WELLS IDENTIFIED (1 additional well identified at Holy Cross Cemetery)	1
TOTAL NUMBER OF IRRIGATION WELLS IDENTIFIED	60
TOTAL NUMBER OF WELLS ABANDONED THROUGH FEBRUARY 2001.	0
NUMBER OF WELLS SAMPLED THROUGH FEBRUARY 2001.	12

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Surficial Zone										
ACB-31S	**5/9/1997**	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/10/1997	<0.2	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	5/4/1998	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/23/1998	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/25/1999	<0.2	<0.01	<0,005	NA	NA	NA	NA	NA	NA
	11/17/1999	<0.2	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	5/15/2000	<0.2	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	11/14/2000	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/9/2001	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/15/2001	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/15/2002	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/19/2002	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/7/2003	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	1/13/2004	< 0.2 U	< 0.01 U	< 0.005 U	4.9	50	3.4 J	0.67 J+/- 0.21	5.08 +/- 0.92	**5.8**
	5/11/2004	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/9/2004	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/10/2005	0.2	0.01	0.005	NA	NA	NA	NA	NA	NA
	11/8/2005	< 0.2 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/15/2006	<0.2 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/14/2006	< 0.2 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/16/2007	< 0.1 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/15/2007	< 0.2 U	< 0.01 U	< 0.005 U	7.9	50	4.8	0.829 +/- 0.16	5.25 +/- 0.61	**6.08**
	5/15/2008	< 0.2 U	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/13/2008	< 0.2 U	< 0.01 U	< 0.005 U	5.1	51	6.5	0.68 +/- 0.16	6.59 +/- 0.63	**7.27**
	11/19/2009	< 0.1 U	< 0.01 U	NA	5.3	44	4.9	0.708 +/- 0.18	5.58 +/- 0.55	**6.29**
	11/16/2010	<0.10	NA	NA	3.2	43	6.8	0.611 +/- 0.21	4.35 +/- 0.71	4.96
	11/8/2011	<0.10	NA	NA	5.5	52	3.4	0.498 +/- 0.18	4.49 +/- 0.93	4.99
	11/6/2012	<0.10	NA	NA	3.5	39	1.9	0.474 +/- 0.19	4.99 +/- 0.81	**5.46**
	11/5/2013	<0.10	NA	NA	3.1	36	2.4	0.184 +/- 0.17	4.15 +/- 0.74	4.33
	11/12/2014	<0.10	NA	NA	2.1	37	2.4	0.43 +/- 0.17	4.59 +/- 0.79	**5.02**
	11/18/2015	<0.032	NA	NA	2.6	38	1.4	<0.292 +/- 0.20	3.28 +/- 0.68	3.57
	11/8/2016	<0.10	NA	NA	1.9	35	1.9	0.464 +/- 0.25	3.04 +/- 0.57	3.5
	11/7/2017	<0.10	NA	NA	2.1	29	1.7	0.228 +/- 0.17	2.83 +/- 0.58	3.06
	11/6/2018	<0.10	NA	NA	2.6	21	1.2	0.252 +/- 0.109	2.58 +/- 0.468	2.83
	11/12/2019	0.11	NA	NA	4.8	120	3.9	0.521 +/- 0.147	2.72 +/- 0.564	3.24
	11/10/2020	<0.10	NA	NA	4.4 J	17 J	1.1	< 0.197 +/- 0.179	1.55 +/- 0.372	1.75
	11/4/2021	0.19	NA	NA	1.4	2.4	0.20	< - 0.00405 +/- 0.0531	0.459 +/- 0.241	0.45

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Surficial Zone										
AC-2S	4/15/1987	16	0.010	NA	7.4	143	NA	NA	NA	NA
	10/1/1990	63	0.74	<0.005	18	260	12	NA	NA	NA
	2/4/1992	94	0.164	< 0.005	20	290	15	0.4 +/- 0.10	1.2 +/- 1	1.6
	9/28/1997	130	0.058	NA	10	150	9	< 0.6 +/- 0.03	1.7 +/- 0.48	2.3
	11/17/1999	98	0.029	NA	7	57	5	< 1. +/- 0.94	< 1.5 +/- 0.90	2.5
	11/21/2000	150	0.048	NA	6.8	48	5.6	0.5 +/- 0.20	1.9 +/- 1.50	2.4
	11/15/2001	190	0.036	NA	6	23	3.8	0.1 +/- 0.07	2.8 +/- 1	2.9
	11/26/2002	210	0.042	NA	5.7	22	3.6	0.1 +/- 0.07	0. +/- 0.60	0.1
	1/23/2004	170	0.046	< 0.005 U	5.7	15	3.5	< 0.25 U+/- 0.17	< 1.1 U+/- 0.66	0.79
	11/17/2004	100	0.027	NA	7.1	< 5.	3	0.134 +/- 0.08	0.286 +/- 0.31	0.420
	11/15/2005	73	0.021	NA	8.8	59	3.9	0.103 J+/- 0.0690	0.649 J+/- 0.34	0.752
	11/28/2006	85	0.029	NA	9.1	69	4	0.032 +/- 0.0750	-0.382 +/- 0.19	-0.35
	11/21/2007	50	0.016	NA	5.3	< 5. U	1.9	0.041 +/- 0.0790	0.0402 +/- 0.13	0.081
	11/19/2008	54	0.02	< 0.005 U	7.6	< 5. U	3.2	0.0442 +/- 0.0860	-0.0882 +/- 0.21	-0.0440
	11/18/2009	44	0.017	NA	4.9	31	2.7	0.191 +/- 0.11	0.0314 +/- 0.19	0.222
	11/29/2010	48	0.024	NA	6.1	44	3.4	0.0772 +/- 0.082	0.449 +/- 0.26	0.526
	11/16/2011	68	0.024	NA	7.5	54	6.2	0.168 +/- 0.13	0.0656 +/- 0.27	0.234
	11/14/2012	43	0.016	NA	4.3	62	4.6	0.0957 +/- 0.16	0.118 +/- 0.24	0.214
	11/12/2013	36	0.016	NA	3.8	59	3.3	0.0439 +/- 0.13	0.273 +/- 0.27	0.317
	11/12/2014	34	0.02	NA	4.2	73	3.1	0.0951 +/- 0.10	0.309 +/- 0.40	0.404
	11/18/2015	33	0.027	NA	5.1	100	3.2	0.311 J+/- 0.17	<0.472 U+/- 0.30	0.731
	11/9/2016	19	0.016	NA	3.6	61	3.2	0.0622 +/- 0.19	0.813 +/- 0.30	0.875
	11/7/2017	20	0.013	NA	4.2	75	3.4	0.205 +/- 0.19	0.757 +/- 0.32	0.962
	11/6/2018	23	0.014	NA	4.1	73	2.8	0.193 +/- 0.102	0.424 +/- 0.238	0.617
	11/12/2019	29	0.020	NA	3.8	80	2.6	< 0.104 +/- 0.0786	< 0.301 +/- 0.334	0.405
	11/10/2020	29 J	0.012	NA	3.5 J	68 J	1.7	< 0.123 +/- 0.178	0.406 +/- 0.213	0.529
	11/2/2021	22	< 0.010	NA	2.6	47	1.4	< 0.124 +/- 0.107	0.611 +/- 0.272	0.735

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Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-2D	4/15/1987	**5.1**	<0.004	NA	14.7	22	3.37	NA	NA	NA
	10/1/1990	**5.1**	<0.01	<0.005	15	10	3.5	NA	NA	NA
	2/4/1992	**5.2**	< 0.01	0.0057	16	7.4	3.5	2.8 +/- 0.30	7. +/- 1.30	**9.8**
	9/30/1997	2.9	< 0.01	NA	12	26	5.6	0.6	< 1. +/- 0.45	1.6
	11/17/1999	3.5	< 0.01	NA	11	15	3.6	< 1. +/- 0.49	< 1.5 +/- 0.83	2.5
	11/21/2000	3	< 0.01	NA	9.8	19	4.4	1. +/- 0.20	2.7 +/- 0.90	3.7
	11/15/2001	3	< 0.01	NA	9.4	17	3.5	1. +/- 0.20	2.5 +/- 1	3.5
	11/26/2002	3.2	< 0.01	NA	9.1	18	2.5	1.1 +/- 0.20	2. +/- 0.80	3.1
	1/23/2004	2.9	< 0.01 U	< 0.005 U	9	13	2.5	1.05 +/- 0.25	1.54 +/- 0.71	2.59
	11/17/2004	2.7	< 0.01	NA	9.1	14	2.6	1.09 +/- 0.17	1.42 +/- 0.37	2.51
	11/14/2005	2.3	< 0.01 U	NA	9.2	16	2.8	0.983 J+/- 0.27	1.85 +/- 0.51	2.83
	11/28/2006	2.2	< 0.01 U	NA	8.2	15	2.5	0.896 +/- 0.14	1.16 +/- 0.28	2.06
	11/21/2007	2.5	< 0.01 U	NA	7.8	16	3.3	0.843 +/- 0.17	1.22 +/- 0.28	2.06
	11/19/2008	2	< 0.01 U	< 0.005 U	8.8	13	2.5	0.994 +/- 0.16	1.17 +/- 0.31	2.16
	11/18/2009	2	< 0.01 U	NA	8.4	15	2.3	1.2 +/- 0.18	1.7 +/- 0.34	2.9
	11/29/2010	2.3	NA	NA	8.3	16	2.6	1.31 +/- 0.39	1.59 +/- 0.39	2.90
	11/16/2011	2.3	NA	NA	7.6	17	2	1.06 +/- 0.22	1.71 +/- 0.42	2.77
	11/14/2012	2.2	NA	NA	6.9	17	2.1	0.744 +/- 0.27	1.94 +/- 0.54	2.68
	11/12/2013	2.3	NA	NA	7.0	17	5.3	0.887 +/- 0.27	1.43 +/- 0.41	2.32
	11/12/2014	2.2	NA	NA	6.8	16	2	0.911 +/- 0.25	1.31 +/- 0.45	2.22
	11/18/2015	2.1	NA	NA	6.4	18	1.8	1.24 +/- 0.42	1.84 +/- 0.48	3.08
	11/9/2016	1.5	NA	NA	6.5	17	1.7	0.661 +/- 0.31	1.92 +/- 0.44	2.58
	11/7/2017	1.8	NA	NA	5.3	18	1.7	1.05 +/- 0.32	2.00 +/- 0.45	3.05
	11/6/2018	2.3	NA	NA	4.6	20	1.6	0.813 +/- 0.210	1.21 +/- 0.307	2.02
	11/13/2019	2.0	NA	NA	5.0	19	1.4	1.30 +/- 0.230	1.59 +/- 0.421	2.89
	11/11/2020	2.5 J	NA	NA	4.8 J	21 J	1.1	1.22 +/- 0.357	0.793 +/- 0.267	2.01
	11/2/2021	2.1	NA	NA	4.9	21	1.1	1.05 +/- 0.259	1.62 +/- 0.432	2.67

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-3D	4/15/1987	105	0.041	NA	376	686	52.2	NA	NA	NA
	10/1/1990	75	<0.01	<0.005	150	680	47	NA	NA	NA
	2/5/1992	80	< 0.01	0.0059	270	500	42	8.4 +/- 0.40	12	20.4
	9/28/1997	46	< 0.01	NA	110	460	27	0.81 +/- 0.07	NA	0.81
	11/19/1999	14	< 0.01	NA	19	< 5.	12	< 1. +/- 0.54	2.1	3.1
	11/21/2000	18	< 0.01	NA	32	240	15	1. +/- 0.20	6.5 +/- 1.20	7.5
	11/14/2001	13	< 0.01	NA	22	250	12	0.4 +/- 0.10	5.4 +/- 1.10	5.8
	11/26/2002	46	< 0.01	NA	64	380	16	1.3 +/- 0.20	17.8 +/- 2	19.1
	1/22/2004	34	< 0.01 U	< 0.005 U	48	300	13. J	5.04 +/- 0.77	20.6 +/- 2.50	25.6
	11/17/2004	36	< 0.01	NA	48	310	14	0.934 +/- 0.16	12.3 +/- 1.10	13.2
	11/15/2005	23	< 0.01 U	NA	36	300	12	0.994 J+/- 0.28	18. +/- 2.30	19.0
	11/22/2006	27	< 0.01 U	NA	39	330	12	0.939 +/- 0.27	13.2 +/- 0.89	14.1
	11/21/2007	22	< 0.01 U	NA	24	220	7.8	1.06 +/- 0.22	8.12 +/- 0.56	9.18
	11/13/2008	18	< 0.01 U	< 0.005 U	25	180	8.5	1.22 +/- 0.19	10.9 +/- 0.79	12.1
	11/18/2009	15	< 0.01 U	NA	20	160	6.9	0.951 +/- 0.18	9.9 +/- 0.69	10.1
	11/29/2010	16	NA	NA	22	160	7.8	1.74 +/- 0.44	12.9 +/- 1.8	14.6
	11/15/2011	17	NA	NA	20	130	7.8	1.59 +/- 0.26	12.5 +/- 0.90	14.1
	11/13/2012	16	NA	NA	20	140	7.2	1.38 +/- 0.39	12.7 +/- 1.7	14.1
	11/12/2013	15	NA	NA	16	130	6.1	1.14 +/- 0.36	9.67 +/- 1.3	10.8
	11/11/2014	14	NA	NA	16	230	5.9	0.902 +/- 0.26	11.0 +/- 1.5	11.9
	11/19/2015	13	NA	NA	14	120	4.7	1.42 +/- 0.40	12.1 +/- 1.60	13.52
	11/11/2016	11	NA	NA	15	120	5.4	0.772 +/- 0.29	7.80 +/- 1.2	8.57
	11/8/2017	9.3	NA	NA	9.2	100	4.9	1.07 +/- 0.34	7.72 +/- 1.1	8.79
	11/6/2018	7.6	NA	NA	5.0	81	3.1	1.26 +/- 0.259	4.34 +/- 0.628	5.60
	11/13/2019	9.8	NA	NA	9.8	110	4.5	1.34 +/- 0.242	9.53 +/- 1.16	10.87
	11/10/2020	8.2 J	NA	NA	4.6 J	100 J	3.0	1.36 +/- 0.346	6.01 +/- 0.747	7.37
	11/4/2021	9.5	NA	NA	8.3	150	3.8	0.980 +/- 0.194	8.24 +/- 0.990	9.22

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-12D	**10/1/1990**	**24**	<0.01	<0.005	28	**290**	**13**	NA	NA	NA
	4/9/1992	2.6	< 0.01	< 0.005	8.2	39	2.8	NA	NA	NA
	9/27/1997	**8.8**	0.012	NA	20	**320**	**11**	1.5 +/- 0.09	6.9 +/- 0.58	**8.4**
	11/19/1999	0.52	< 0.01	NA	6.4	7.8	2.4	< 1. +/- 0.09	< 1.5 +/- 0.68	2.5
	11/17/2000	**6.7**	< 0.01	NA	15	130	6.8	0.5 +/- 0.10	3.7 +/- 1	4.2
	11/8/2001	1.7	< 0.01	NA	7.3	30	3.7	0.4 +/- 0.20	4.5 +/- 1.10	4.9
	11/22/2002	**11**	0.011	NA	22	**310**	**10**	1.9 +/- 0.30	8.6 +/- 1	**10.5**
	1/28/2004	**10**	0.015	0.0052	20	**280**	**11**	4.13 +/- 0.61	14.2 +/- 1.80	**18.3**
	11/11/2004	**11**	< 0.01	NA	20	**310**	**12**	1.84 +/- 0.22	7.57 +/- 0.59	**9.41**
	11/10/2005	**15**	< 0.01 U	NA	23	**290**	**12**	1.65 +/- 0.40	7.59 +/- 1.10	**9.24**
	11/16/2006	**13**	< 0.01 U	NA	21	**310**	**12**	1.26 +/- 0.18	7.08 +/- 0.65	**8.34**
	11/16/2007	**20**	< 0.01 U	NA	22	**300**	**12**	1.62 +/- 0.21	7.76 +/- 0.60	**9.38**
	11/13/2008	**17**	< 0.01 U	< 0.005 U	23	**310**	**12**	1.73 +/- 0.21	6.75 +/- 0.59	**8.48**
	11/12/2009	**15**	< 0.01 U	NA	22	**280**	**12**	1.57 +/- 0.25	7.7 +/- 0.68	**9.3**
	11/18/2010	**14**	NA	NA	22	**280**	**11**	1.34 +/- 0.38	6.68 +/- 1.3	**8.0**
	11/9/2011	**14**	NA	NA	18	240	**10**	4.80 +/- 0.69	8.43 +/- 0.75	**13.2**
	11/8/2012	**15**	NA	NA	18	**250**	9.6	1.43 +/- 0.39	7.88 +/- 1.1	**9.31**
	11/6/2013	**14**	NA	NA	19	**260**	9.0	1.27 +/- 0.40	8.50 +/- 1.2	**9.77**
	11/20/2014	**10**	NA	NA	16	230	8.6	2.23 +/- 0.55	8.63 +/- 1.2	**10.86**
	11/19/2015	**12**	NA	NA	18	230	8.4	1.3 +/- 0.41	7.2 +/- 1.10	**8.5**
	11/10/2016	**8.1**	NA	NA	19	230	8.5	1.28 +/- 0.43	9.07 +/- 1.3	**10.35**
	11/8/2017	**7.8**	NA	NA	15	180	9.6	1.25 +/- 0.35	5.98 +/- 0.93	**7.23**
	11/7/2018	0.80	NA	NA	11	15	6.9	0.942 +/- 0.219	0.892 +/- 0.280	1.83
	11/18/2019	< 0.10	NA	NA	11	1.5	7.1	0.594 +/- 0.147	1.24 +/- 0.341	1.83
	11/11/2020	**9.1 J**	NA	NA	14 J	150 J	7.9	1.49 +/- 0.361	3.58 +/- 0.522	**5.07**
	11/3/2021	**7.4**	NA	NA	13	150 F1	7.6	1.53 +/- 0.257	4.67 +/- 0.682	**6.20**

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-13D	**10/1/1990**	**8.6**	<0.01	<0.005	16	220	8.3	NA	NA	NA
	2/3/1992	**5.3**	< 0.01	< 0.005	16	150	8.9	4.7 +/- 0.30	3.6 +/- 1.10	**8.3**
	9/27/1997	**4.9**	< 0.01	NA	20	**260**	**12**	1.3 +/- 0.09	4.1 +/- 0.59	**5.4**
	11/16/2000	**4.6**	< 0.01	NA	19	220	**11**	2.8 +/- 0.30	5	**7.8**
	11/8/2001	**4.7**	< 0.01	NA	17	210	**10**	1.9 +/- 0.20	3.7 +/- 1.10	**5.6**
	11/21/2002	**6.7**	< 0.01	NA	20	**250**	**11**	1.3 +/- 0.20	5.7 +/- 0.80	**7**
	1/16/2004	**6.3**	< 0.01 U	< 0.005 U	22	230	**12**	1.67 +/- 0.36	11.1 +/- 1.70	**12.77**
	11/11/2004	**7.8**	< 0.01	NA	23	**260**	**12**	1.55 +/- 0.19	8.2 +/- 0.64	**9.75**
	11/10/2005	**11**	< 0.01 U	NA	25	**260**	**12**	2.18 +/- 0.53	8.68 +/- 1.20	**10.86**
	11/16/2006	**14**	< 0.01 U	NA	28	**290**	**14**	1.55 +/- 0.22	7.83 +/- 0.78	**9.38**
	11/19/2007	**17**	< 0.01 U	NA	27	**300**	**18**	1.64 +/- 0.23	7.41 +/- 0.67	**9.05**
	11/11/2008	**15**	< 0.01 U	< 0.005 U	28	**360**	**13**	1.32 +/- 0.21	5.95 +/- 0.59	**7.27**
	11/12/2009	**15**	0.011	NA	28	**300**	**14**	2.28 +/- 0.31	10.5 +/- 0.95	**12.78**
	11/18/2010	**14**	NA	NA	23	**290**	**12**	1.45 +/- 0.39	6.84 +/- 1.0	**8.29**
	11/9/2011	**14**	NA	NA	26	**300**	**13**	1.64 +/- 0.25	8.18 +/- 0.69	**9.82**
	11/7/2012	**15**	NA	NA	24	**290**	**12**	2.05 +/- 0.54	8.99 +/- 1.3	**11.0**
	11/6/2013	**14**	NA	NA	24	**310**	**11**	1.98 +/- 0.50	9.60 +/- 1.4	**11.6**
	11/19/2014	**12**	NA	NA	21	**250**	**11**	1.23 +/- 0.39	8.24 +/- 1.3	**9.47**
	11/20/2015	**9.3**	NA	NA	11	160	**10**	1.51 +/- 0.39	7.5 +/- 1.10	**9.01**
	11/10/2016	**6.8**	NA	NA	22	**270**	**11**	0.53 +/- 0.24	3.99 + /- 0.68	4.52
	11/8/2017	**7.5**	NA	NA	19	230	**11**	1.49 +/- 0.50	5.57 +/- 0.92	**7.06**
	11/7/2018	**6.0**	NA	NA	19	**250**	10	1.50 +/- 0.283	5.58 +/- 0.730	**7.08**
	11/25/2019	**6.8**	NA	NA	19	220	8.4	1.27 +/- 0.217	6.94* +/- 0.836	**8.21**
	11/12/2020	**8 J**	NA	NA	17 J	**280 J**	9.6	1.57 +/- 0.381	4.90 +/- 0.665	**6.47**
	11/3/2021	< 0.10 *	NA	NA	19	220	8.6	1.38 +/- 0.234	5.44 +/- 0.731	**6.82**

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-24D	2/19/1992	36	< 0.01	0.005	200	50	1.9	NA	NA	NA
	9/27/1997	8.5	< 0.01	NA	31	8.8	1.3	0.63 +/- 0.06	< 1. +/- 0.42	1.63
	1/21/2004	57	< 0.01 U	< 0.005 U	180	37	3.7	2.32 +/- 0.47	15.3 +/- 2.20	**17.6**
	11/18/2008	56	< 0.01 U	< 0.005 U	200	65	6.8	2.98 +/- 0.28	7.41 +/- 0.62	**10.4**
	11/16/2009	59	< 0.01 U	NA	190	79	5.8	2.44 +/- 0.25	6.4 +/- 0.60	**8.8**
	11/23/2010	77	NA	NA	190	84	6.4	2.09 +/- 0.50	7.60 +/- 1.1	**9.7**
	11/14/2011	65	NA	NA	160	76	6.8	2.96 +/- 0.35	10.0 +/- 0.86	**13.0**
	11/9/2012	67	NA	NA	190	78	5.5	1.48 +/- 0.42	10.9 +/- 1.5	**12.4**
	11/7/2013	68	NA	NA	170	86	4.5	2.02 +/- 0.53	10.2 +/- 1.4	**12.2**
	11/24/2014	51	NA	NA	130	75	4.2	2.12 +/- 0.64	7.14 +/- 1.0	**9.26**
	11/19/2015	47	NA	NA	140	77	4.4	1.17 +/- 0.37	7.22 +/- 1	**8.39**
	11/10/2016	33	NA	NA	120	70	4.7	0.881 +/- 0.31	4.14 +/- 0.70	**5.02**
	11/8/2017	45	NA	NA	96	74	5.0	1.61 +/- 0.47	6.05 +/- 0.90	**7.66**
	11/7/2018	24	NA	NA	48	73	4.6	1.56 +/- 0.295	6.71 +/- 0.858	**8.27**
	11/21/2019	30	NA	NA	86	59	4.6	1.71 +/- 0.278	6.81 +/- 0.893	**8.52**
	11/12/2020	45 J	NA	NA	89 J	71 J	4.6	1.88 +/- 0.381	5.02 +/- 0.673	**6.90**
	11/3/2021	0.47 *	NA	NA	79	77	3.5	1.29 +/- 0.229	4.86 +/- 0.685	**6.15**

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
AC-25D	2/15/1992	19	NA	<0.0050	120	7.1	11	NA	NA	7.9
	9/24/1997	20	< 0.01	NA	270	44	2.1	2. +/- 0.10	3.5 +/- 0.52	5.5
	11/19/1999	2.6	< 0.01	NA	45	< 5.	1.9	< 1. +/- 0.62	< 1.5 +/- 0.75	2.5
	11/17/2000	3.3	< 0.01	NA	46	13	5.5	0.6 +/- 0.10	0.6 +/- 0.80	1.2
	11/13/2001	2.9	< 0.01	NA	32	9.4	2.3	0.4 +/- 0.10	1.1 +/- 0.80	1.5
	11/21/2002	48	< 0.01	NA	410	80	2	2.9 +/- 0.30	5.1 +/- 0.80	8.0
	1/22/2004	52	< 0.01 U	< 0.005 U	410	65	2.3 J	4.48 +/- 0.72	7.6 +/- 1.20	12
	11/15/2004	57	< 0.01	NA	440	83	2.2	2.46 +/- 0.23	5.6 +/- 0.54	8.1
	11/10/2005	59	< 0.01 U	NA	390	81	3.1	2.31 +/- 0.52	7.73 +/- 1.20	10.0
	11/20/2006	77	< 0.01 U	NA	430	80	3.1	2.5 +/- 0.35	4.53 +/- 0.55	7.03
	11/20/2007	90	< 0.01 U	NA	390	80	3.7	1.85 +/- 0.29	4.08 +/- 0.49	5.93
	11/18/2008	71	< 0.01 U	< 0.005 U	480	77	3.7	2.2 +/- 0.25	3.98 +/- 0.51	6.18
	11/17/2009	77	< 0.01 U	NA	420	88	3.5	1.84 +/- 0.24	5.33 +/- 0.55	7.17
	11/23/2010	110	NA	NA	440	89	4.3	2.29 +/- 0.62	4.47 +/- 0.73	6.76
	11/15/2011	100	NA	NA	390	78	4.7	2.31 +/- 0.29	5.0 +/- 0.56	7.3
	11/14/2012	100	NA	NA	370	94	4.2	2.38 +/- 0.55	5.50 +/- 0.85	7.88
	11/12/2013	96	NA	NA	370	80	4.4	2.64 +/- 0.75	5.06 +/- 0.83	7.70
	11/20/2014	76	NA	NA	320	91	3.7	1.7 +/- 0.52	5.27 +/- 0.88	6.97
	11/20/2015	91	NA	NA	360	120	4.5	2.09 +/- 0.54	6.05 +/- 0.97	8.14
	11/9/2016	68	NA	NA	380	87	4.4	1.55 +/- 0.46	4.36 +/- 0.77	5.91
	11/9/2017	93	NA	NA	300	95	5.1	1.93 +/- 0.50	4.92 +/- 0.77	6.85
	11/7/2018	68	NA	NA	230	100	5.0	1.64 +/- 0.301	4.65 +/- 0.663	6.29
	11/20/2019	40	NA	NA	220	81	5.3	1.64 +/- 0.259	5.36 +/- 0.737	7.00
	11/12/2020	99 J	NA	NA	280 J	110 J	4.7	1.70 +/- 0.403	3.72 +/- 0.559	5.42
	11/2/2021	0.45 *	NA	NA	260	120	3.7	1.71 +/- 0.293	4.59 +/- 0.655	6.30

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-29D	9/27/1997	65	< 0.01	NA	180	340	20	0.66 +/- 0.05	9.9 +/- 0.65	10.56
	11/19/1999	65	< 0.01	NA	110	< 5.	14	2.3	8.1	10.4
	11/21/2000	45	< 0.01	NA	300	260	14	1.3 +/- 0.10	11.4 +/- 1.10	12.7
	11/13/2001	48	< 0.01	NA	100	280	13	1.4 +/- 0.20	14. +/- 1.60	15
	11/25/2002	59	< 0.01	NA	100	340	16	1.7 +/- 0.20	16.5 +/- 1.70	18
	1/23/2004	52	< 0.01 U	< 0.005 U	93	310	16	3.42 +/- 0.55	21.9 +/- 2.50	25.3
	11/12/2004	45	< 0.01 U	NA	84	290	14	1.52 +/- 0.19	17.7 +/- 0.96	19.2
	11/16/2005	30	< 0.01 U	NA	58	220	9.8	1.53 +/- 0.37	21. +/- 2.70	22.5
	11/17/2006	34	< 0.01 U	NA	67	200	12	1.48 +/- 0.18	11.9 +/- 0.90	13.4
	11/20/2007	42	< 0.01 U	NA	63	220	12	1.45 +/- 0.26	11.7 +/- 0.77	13.2
	11/18/2008	31	< 0.01 U	< 0.005 U	65	200	11	1.54 +/- 0.20	10.8 +/- 0.76	12.3
	11/17/2009	30	< 0.01 U	NA	61	220	9.5	1.54 +/- 0.21	13.8 +/- 0.83	15.3
	11/19/2010	39	NA	NA	62	240	11	1.64 +/- 0.37	14.9 +/- 1.9	16.5
	11/11/2011	41	NA	NA	54	220	12	1.76 +/- 0.27	13.6 +/- 0.81	15.4
	11/13/2012	35	NA	NA	52	230	10	1.08 +/- 0.30	15.9 +/- 2/1	17.0
	11/7/2013	36	NA	NA	45	220	8.1	0.836 +/- 0.27	14.8 +/- 2.0	15.6
	11/17/2014	30	NA	NA	39	74	8.3	1.53 +/- 0.47	15.2 +/- 2.0	16.7
	11/19/2015	30	NA	NA	42	200	7.5	1.49 +/- 0.44	14.5 +/- 1.90	15.99
	11/11/2016	22	NA	NA	39	170	8.2	1.31 +/- 0.48	13.5 +/- 1.7	14.81
	11/8/2017	25	NA	NA	32	170	8.2	1.39 +/- 0.35	13.6 +/- 1.8	14.99
	11/7/2018	20	NA	NA	30	170	6.3	1.60 +/- 0.304	10.9 +/- 1.22	12.50
	11/19/2019	18	NA	NA	27	150	6.6	1.65 +/- 0.263	13.2 +/- 1.47	14.85
	11/11/2020	29 J	NA	NA	25 J	170 J	6.8	1.84 +/- 0.410	11.3 +/- 1.25	13.14
	11/3/2021	18	NA	NA	27	190	5.9	1.17 +/- 0.213	11.9 +/- 1.34	13.07

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Well ID	Date	Fluoride (mg/L)	Arsenic (mg/L)	Lead (mg/L)	Chloride (mg/L)	Sulfate (mg/L)	Nitrate-N (mg/L)	Radium 226 (pCi/L)	Radium 228 (pCi/L)	Combined Radium 226 + 228 (pCi/L)
PERFORMANCE STANDARD		4	0.01*	0.015	250	250	10	--	--	5
Main Producing Zone										
AC-35D	11/19/1999	23	< 0.01	NA	160	130	3.1	< 1. +/- 0.53	< 1.5 +/- 0.95	2.5
	11/16/2000	150	< 0.01	NA	120	220	12	1.5 +/- 0.20	5. +/- 1.20	6.5
	11/8/2001	160	0.012	NA	520	220	13	1.9 +/- 0.20	7.2 +/- 1.40	9.1
	11/21/2002	170	< 0.01	NA	550	230	11	2. +/- 0.30	8.5 +/- 1	10.5
	1/15/2004	160	0.015	< 0.005 U	530	210	13	4.58 +/- 0.69	12.9 +/- 1.60	17.5
	11/15/2004	170	< 0.01	NA	520	260	14	2.22 +/- 0.21	9.37 +/- 0.69	11.6
	11/16/2005	150	< 0.01 U	NA	430	260	12	2.01 +/- 0.50	14.4 +/- 1.90	16.4
	11/20/2006	160	< 0.01 U	NA	460	270	12	1.83 +/- 0.31	9.26 +/- 0.77	11.1
	11/20/2007	150	< 0.01 U	NA	420	190	12	2.01 +/- 0.29	5.8 +/- 0.53	7.81
	11/19/2008	120	0.01	< 0.005 U	460	190	11	1.78 +/- 0.20	5.29 +/- 0.57	7.07
	11/19/2009	120	< 0.01 U	NA	430	200	9.3	2.33 +/- 0.28	8.44 +/- 0.68	10.8
	11/23/2010	180	NA	NA	580	240	13	2.52 +/- 0.64	8.83 +/- 1.2	11.4
	11/16/2011	130	NA	NA	370	170	11	1.71 +/- 0.28	5.94 +/- 0.61	7.65
	11/15/2012	130	NA	NA	350	200	9.6	1.91 +/- 0.51	6.45 +/- 0.98	8.36
	11/13/2013	120	NA	NA	360	190	9.5	2.01 +/- 0.54	7.69 +/- 1.1	9.70
	11/24/2014	110	NA	NA	300	190	9.6	2.59 +/- 0.64	7.28 +/- 1.1	9.87
	11/20/2015	110	NA	NA	340	140	9.1	1.8 +/- 0.49	8.7 +/- 1.30	10.5
	11/9/2016	76	NA	NA	310	160	8.8	1.6 +/- 0.53	4.76 +/- 0.85	6.4
	11/9/2017	120	NA	NA	280	170	8.8	1.92 +/- 0.54	5.42 +/- 0.84	7.34
	11/7/2018	75	NA	NA	270	170	7.6	1.97 +/- 0.337	5.56 +/- 0.734	7.53
	11/18/2019	40	NA	NA	240	150	8.2	1.58 +/- 0.261	6.67 +/- 0.860	8.25
	11/12/2020	60 J	NA	NA	230 J	190 J	8.2	2.04 +/- 0.426	4.74 +/- 0.631	6.78
	11/2/2021	0.59 *	NA	NA	220	210	7.0	1.61 +/- 0.283	4.33 +/- 0.703	5.94

TABLE 8
COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING LOCATIONS FOR SURFICIAL ZONE AND MAIN PRODUCING ZONE

Agrico Site
Pensacola, Florida

Notes:

* Fluoride results reported by SM4500 (approved Site method) are questionable due to laboratory equipment malfunction. Given that reported values are suspected to be abnormally low, these values are not highlighted as below performance standard.

Monitoring wells ACB-31S, ACB-32S, AC-33S, AC-34S, and AC-7SR sampled semiannually from May 1997 through May 2008 and samples analyzed for fluoride, arsenic, and lead only (OU-1 COCs); Beginning in November 2007, these wells were incorporated into OU-2 network and samples analyzed for fluoride, arsenic, lead, chloride, sulfate, nitrate, radium 226, and radium 228.

Radium samples analyzed by STL St Louis for the January 2004 event were determined by STL to be baised high results

Nitrite determined not to be part of Agrico plume constituents; Analysis changed to nitrate only as per 1/07 EPA approval

COC = constituent of concern

mg/L = milligrams per Liter

pCi/L = picocuries per Liter

BOLD = exceeds constituent performance standard

Highlight = Below performance standard.

NA = Not Analyzed

NS = Not Sampled

I = The reported value is between the laboratory method detection limit and the practical quantitation limit.

J = Estimated Value

Q = Sample was analyzed outside recommended analytical holdtime criteria.

V = The analyte was detected in both the sample and the associated method blank.

<, U = Analyzed for but not detected above limiting criteria of 0.256

1 = First date for arsenic is 1990 data results

F1 = The MS and/or MSD recovery is outside acceptance limits.

*Rad Qualifier = LCS or LCSD outside acceptance limits and RPD of the LCS or LCSD exceeds the control limits

B = Compound was found in the blank and sample

Radium 226 + 228 Analytical Laboratories:

1987 State of Florida Department of Environmental Regulation Laboratory

1992 Savannah Laboratories - Contract Lab Unknown

1997 Savannah Laboratories - Contract Lab Unknown

1999 General Engineering Laboratory - Charleston, SC

2000 through 2002 KNL, Tampa, FL

1/2004 STL - St. Louis

11/2004 through 2017 - STL/TA Richland

2018 and 2021 - Eurofins/TA St. Louis

TABLE 9
COMPARISON OF COC RESULTS AT LONG-TERM MONITORING LOCATIONS FOR SURFACE WATER

Agrico Site
Pensacola, Florida

Sample Location ID	Date	Fluoride (mg/L) Class III Marine SWS = 5 mg/L*
BT-02[(3)] Bayou Texar (Brackish Water)	08/2008	0.56
	11/2010	0.83
	11/2011	0.77
	11/2012	0.89
	11/2013	0.94
	11/2014	1.30
	11/2015	1.50
	11/2016	0.52
	11/2017	0.68
	11/2018*	1.40
	11/2019	0.63
	11/2020	0.72
	11/2021	0.59
BT-107[(3)] Bayou Texar (Brackish Water)	05/2009	0.58
	11/2010	0.89
	11/2011	0.81
	11/2012	1.30
	11/2013	0.99
	11/2014	1.30
	11/2015	1.30
	11/2016	0.52
	11/2017	0.55
	11/2018	2.50
	11/2019	0.57
	11/2020	1.3
	11/2021	0.72
BT-127[(3)] Bayou Texar (Brackish Water)	05/2009	0.60
	11/2010	1.00
	11/2011	0.81
	11/2012	1.20
	11/2013	1.20
	11/2014	1.30
	11/2015	0.46
	11/2016	0.49
	11/2017	0.93
	11/2018	2.30
	11/2019	0.73
	11/2020	0.90
	11/2021	1.10

TABLE 9
COMPARISON OF COC RESULTS AT LONG-TERM MONITORING LOCATIONS FOR SURFACE WATER

Agrico Site
Pensacola, Florida

Notes:

* Chapter 62-302, Class III Marine Surface Water Standard for Fluoride is 5 mg/L

(1) Bayou Texar naturally occurring brackish water from Pensacola Bay

(2) Station Discontinued after 2009.

(3) Stations added in 2010; analysis is for fluoride only.

COC = constituent of concern

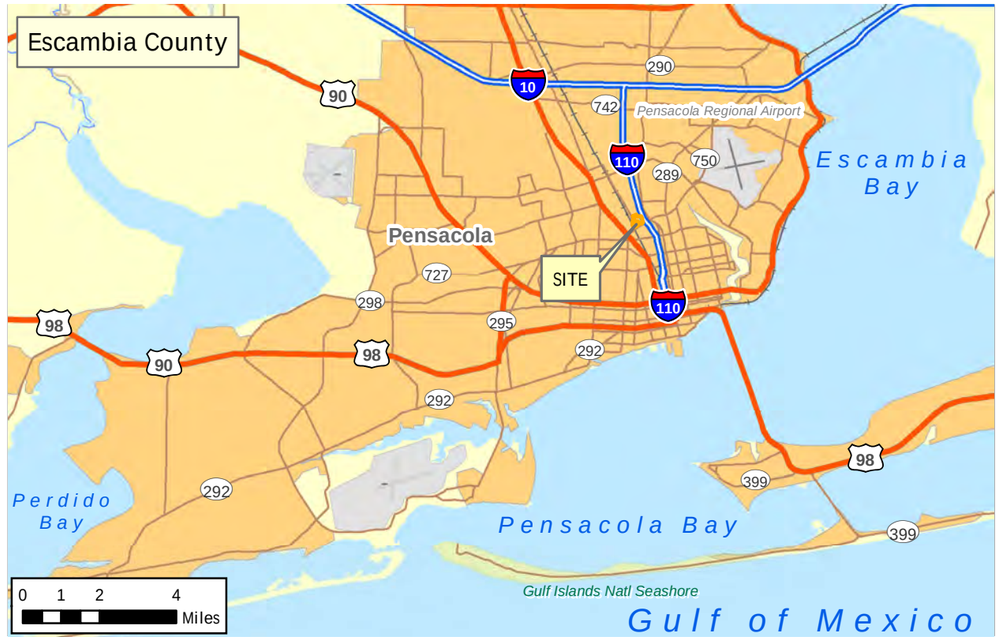
mg/L = milligrams per Liter

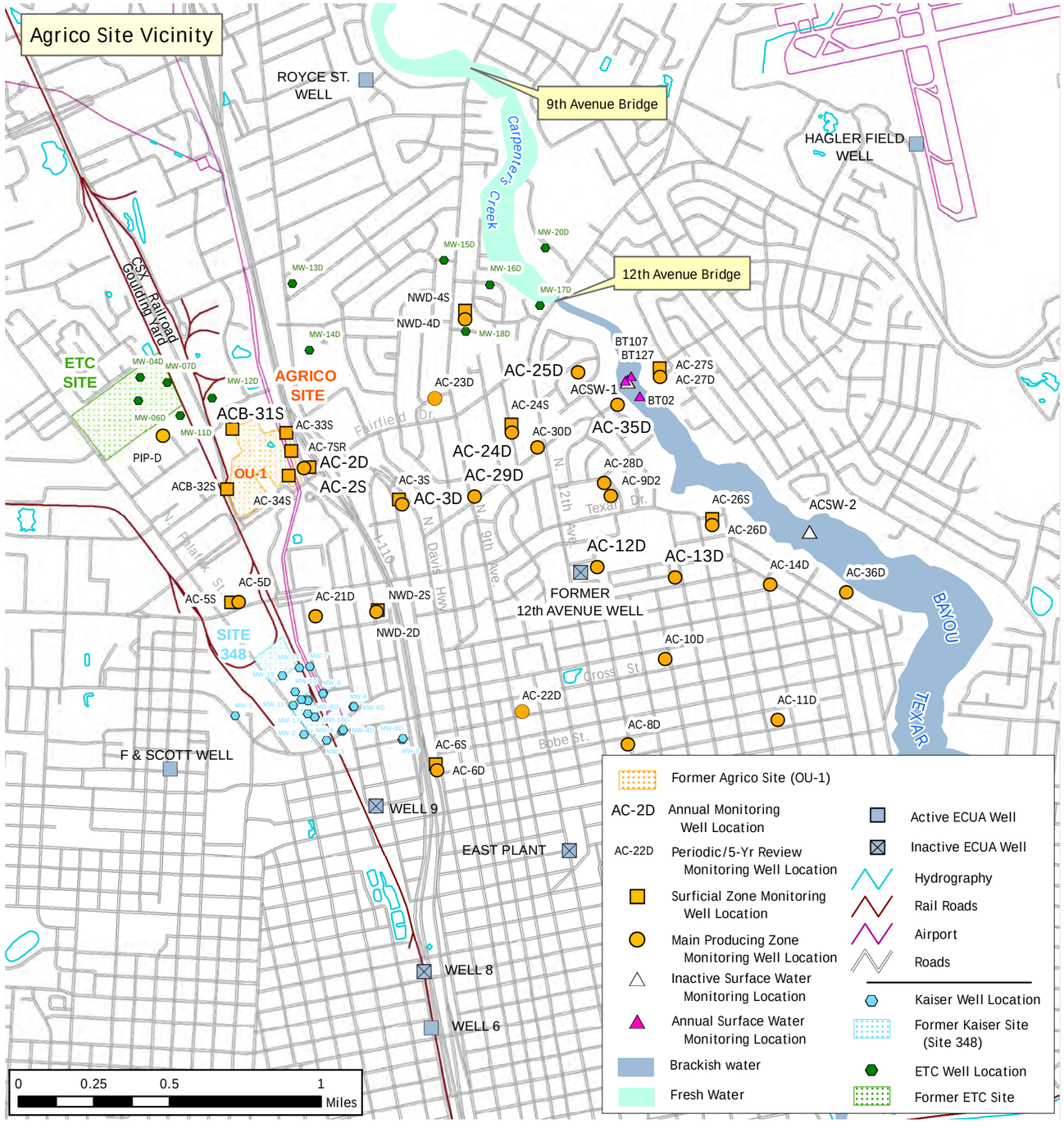
pCi/L = picoCuries per Liter

NA = Not Analyzed

*Listed as BT-102 on lab report and chain-of-custudy

FIGURES





OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District
Aerial Source: ESRI

SITE LOCATION AND SITE-WIDE MONITORING LOCATIONS OU-1 AND OU-2

FIGURE 1

Candace_Beauvais - Tallahassee - 3/4/2016

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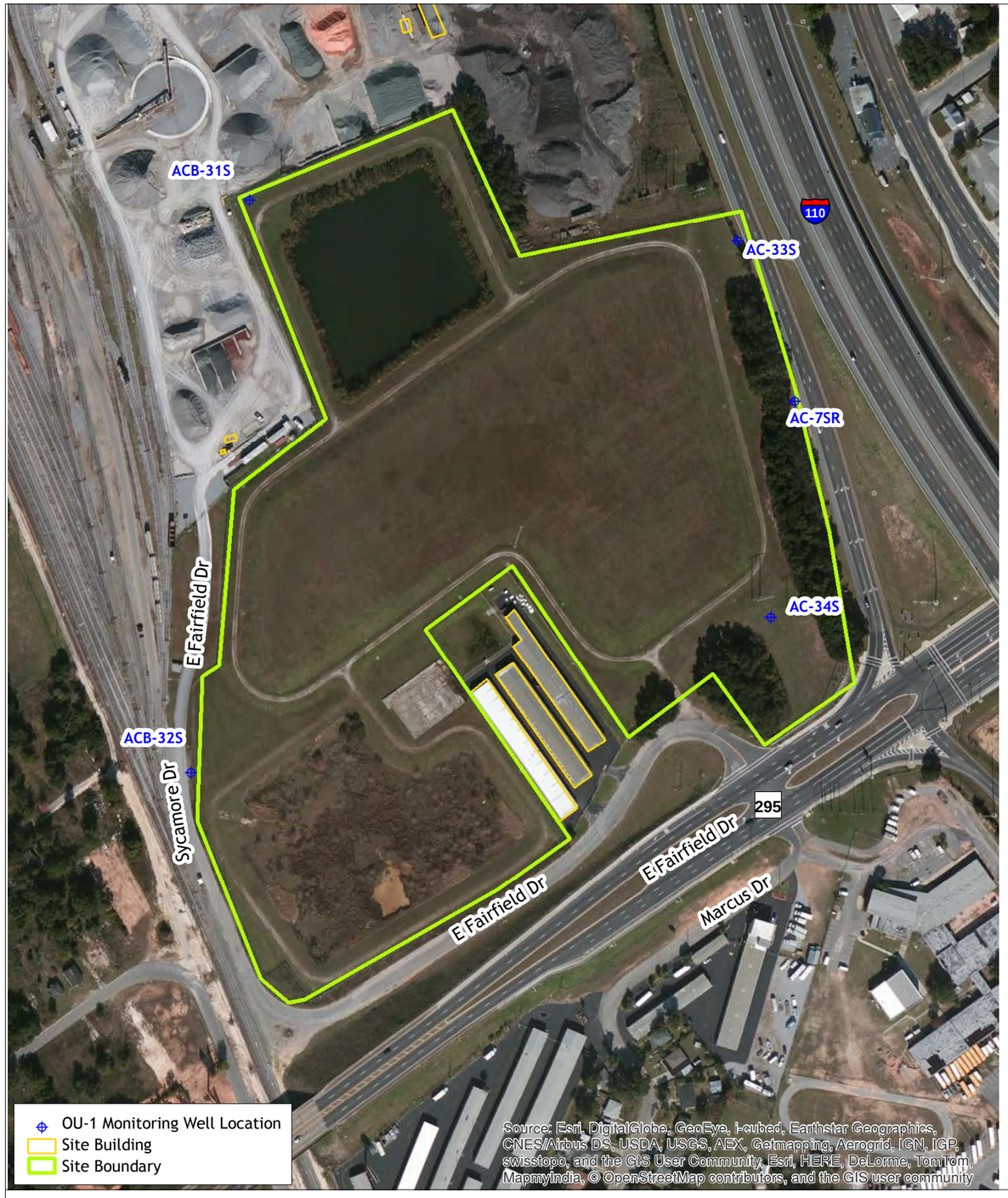

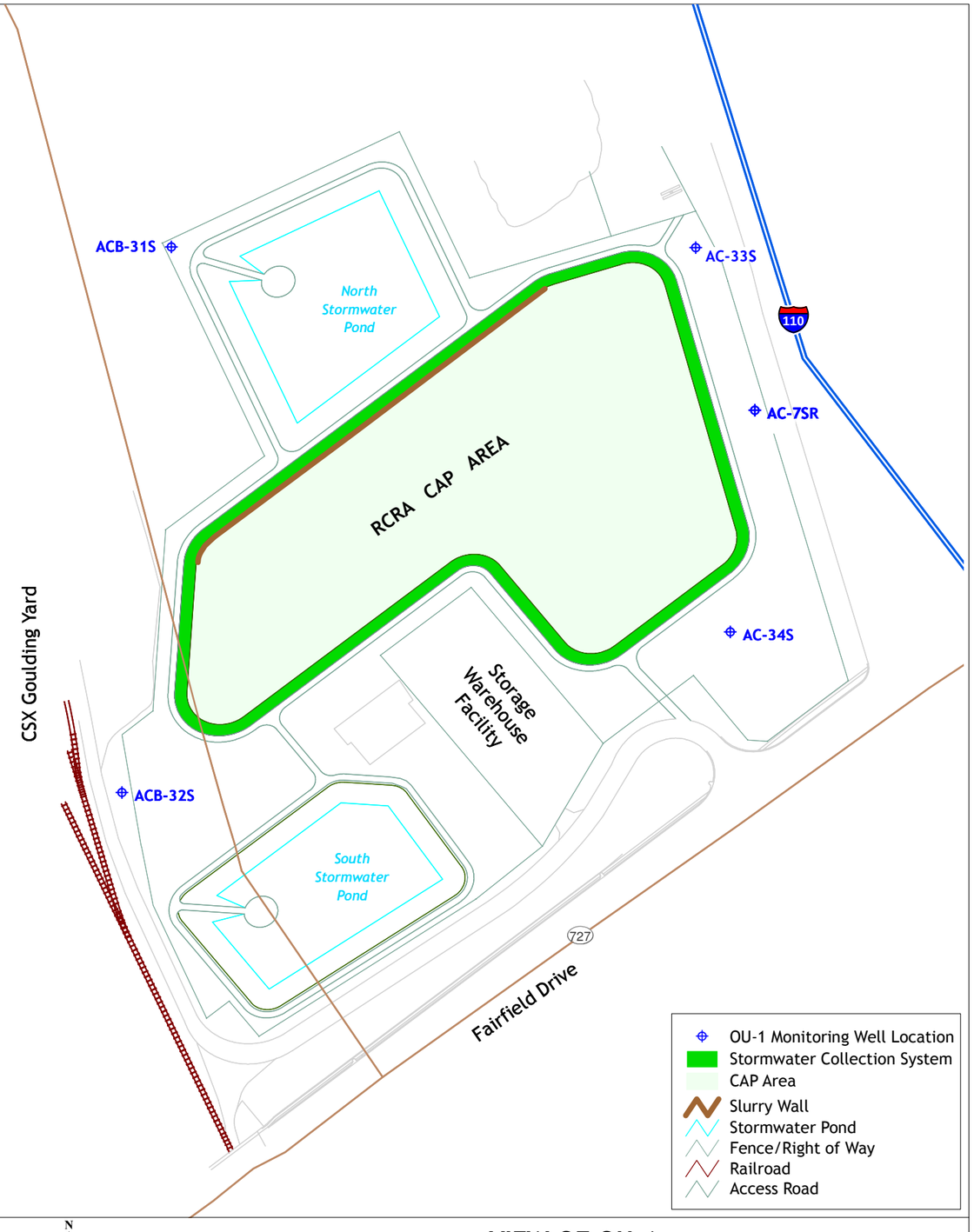

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District
Aerial Source: ESRI

N W E S

250 125 0 250 500 Feet

VIEW OF OU-1
(Former Facility Area)
With Current Features

FIGURE
2

megan_clarisse - Tallahassee - 1/29/2016

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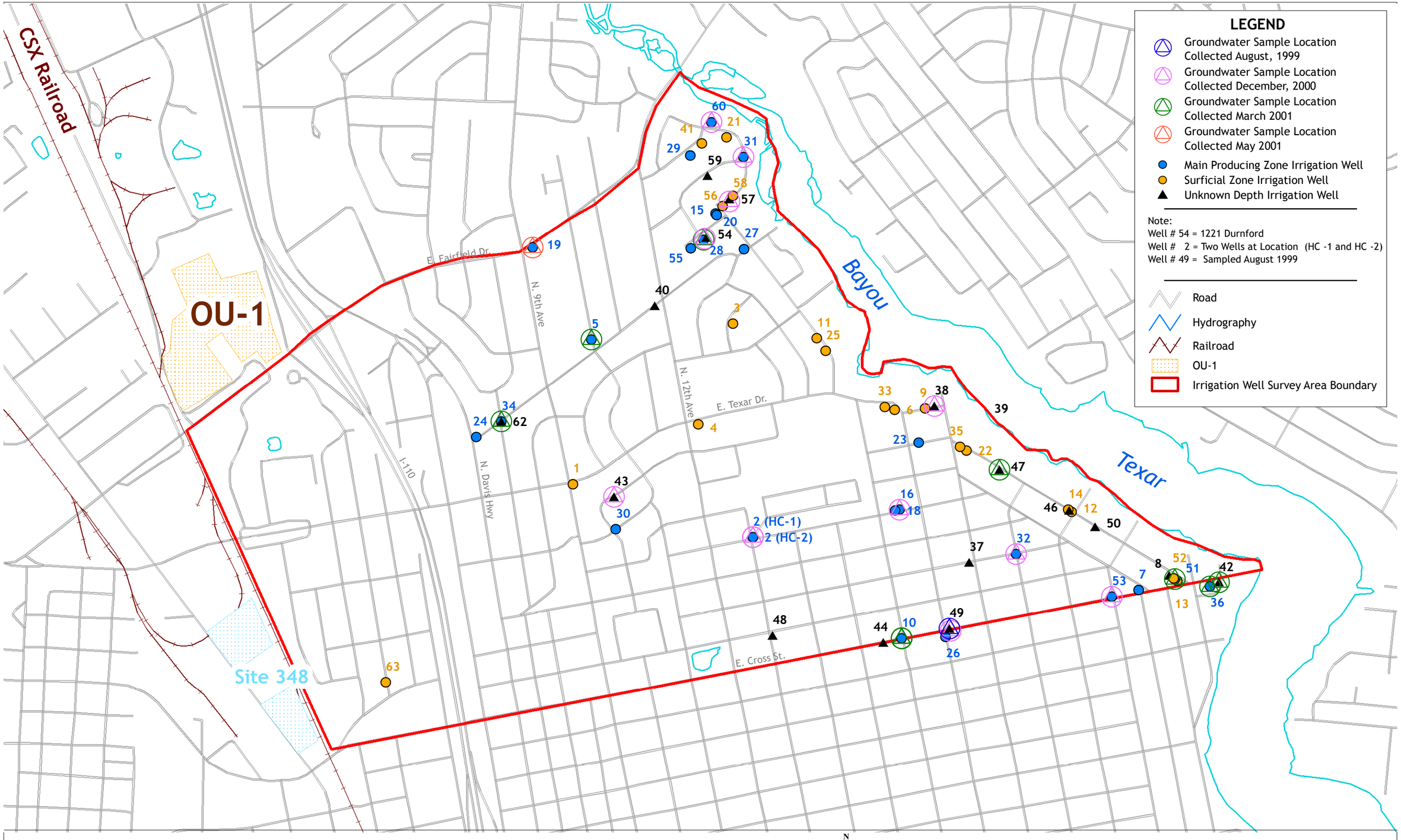

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.25 0.125 0 0.25 0.5 Miles

Projection: UTM, Zone 16, NAD27, Meters

IRRIGATION WELL LOCATIONS

FIGURE 3

megan_clarisse - Tallahassee - 1/29/2016

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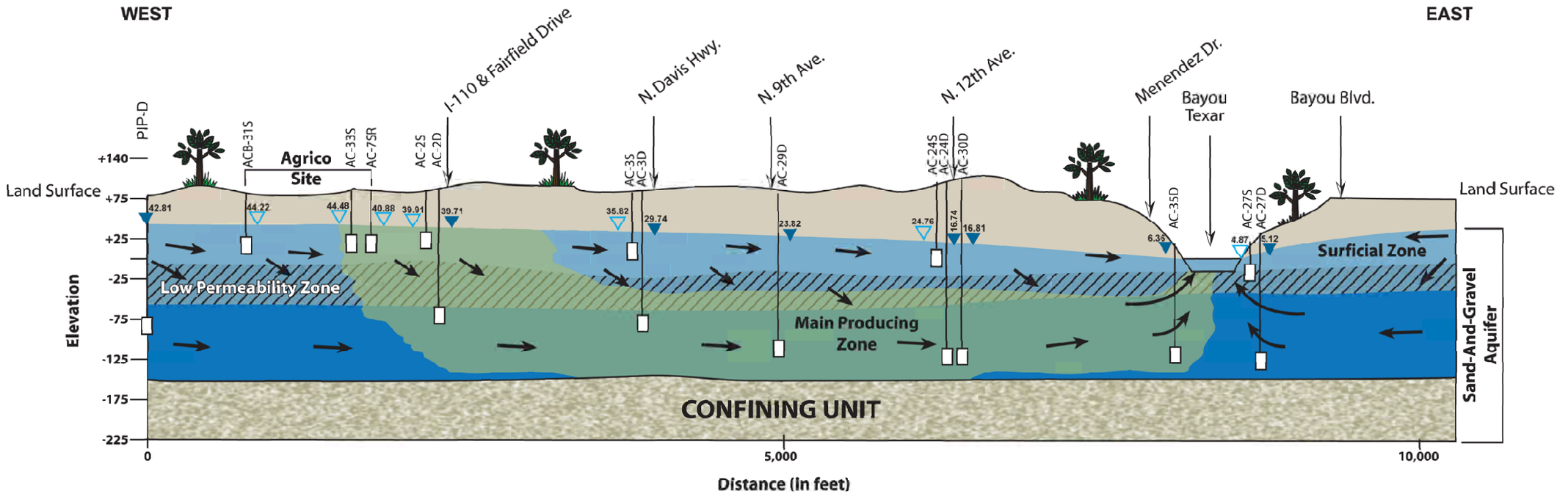

Legend

- Groundwater Flow
- Monitoring Well
- Screen Interval
- 35.59 Main Producing Zone Eleveations
- 34.56 Surficial Zone Well Elevations
- Area of Affected Groundwater

Note: Water Elevations (November 2012)

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

HYDROGEOLOGIC CONCEPTUAL MODEL
FROM AGRICO SITE TO BAYOU TEXAR

FIGURE
4

megan_clarisse - Tallahassee - 1/29/2016

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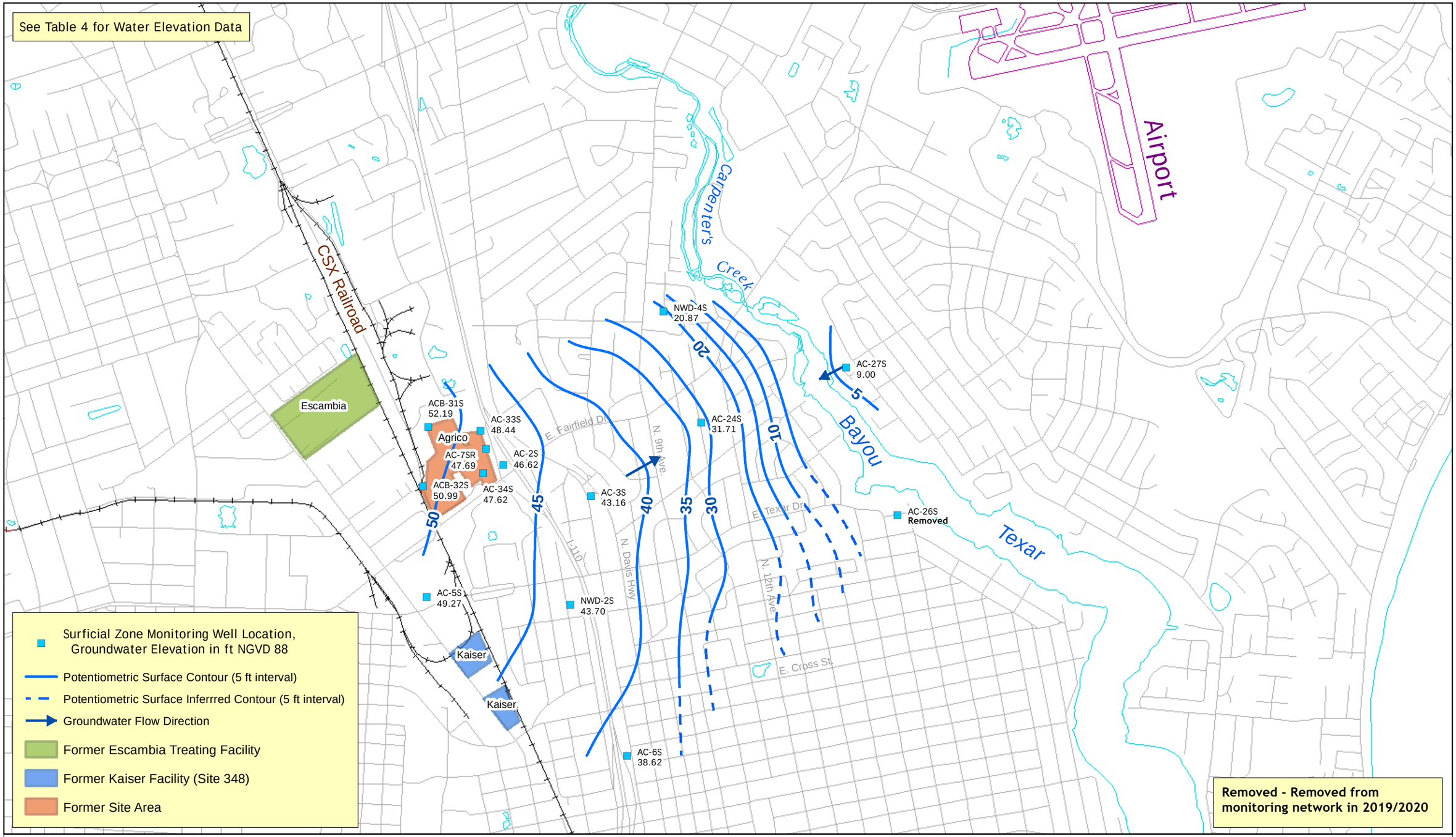
See Table 4 for Water Elevation Data



OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.5 0.25 0 0.5 Miles

Coordinate System: UTM, Zone 16, NAD27

POTENTIOMETRIC SURFACE
SURFICIAL ZONE
November 2021

FIGURE
5

D. Hilton - Tallahassee - 2/8/2022

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See Table 4 for Water Elevation Data

Airport

Carpenter's Creek

CSX Railroad

Escambia

Agrico

Kaiser

Kaiser

E. Fairfield Dr.

N. 9th Ave.

N. Davis Hwy

I-110

E. Texar Dr.

N. 12th Ave.

E. Cross St.

Bayou

Texar

PIP-D
50.81

AC-2D
47.00

AC-3D
36.51

AC-5D
44.50

AC-21D
41.16

NWD-2D
36.53

AC-6D
31.67

AC-22D
28.89

AC-8D
23.28

AC-29D
29.90

NWD-4D
20.40

AC-23D
28.83

AC-24D
21.68

AC-30D
21.68

AC-28D
15.73

AC-9D2
15.28

AC-25D
10.90

AC-35D
9.19

AC-27D
8.80

AC-12D
22.01

AC-13D
14.43

AC-10D
CNL

AC-26D
Removed

AC-14D
Removed

AC-36D
Removed

AC-11D
14.22

50 45 40 35 30 25 20 15 10

Main Producing Zone Monitoring Well Location, Groundwater Elevation in ft NGVD 88

Potentiometric Surface Contour (5 ft interval)

Potentiometric Surface Inferrred Contour (5 ft interval)

Groundwater Flow Direction

Former Escambia Treating Facility

Former Kaiser Facility (Site 348)

Former Site Area

CNL - Could not locate well during the sampling event

Removed - Removed from monitoring network in 2019/2020

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.5 0.25 0 0.5 Miles

Coordinate System: UTM, Zone 16, NAD27

POTENTIOMETRIC SURFACE
MAIN PRODUCING ZONE
November 2021

FIGURE
6

D. Hilton - Tallahassee - 2/9/2022

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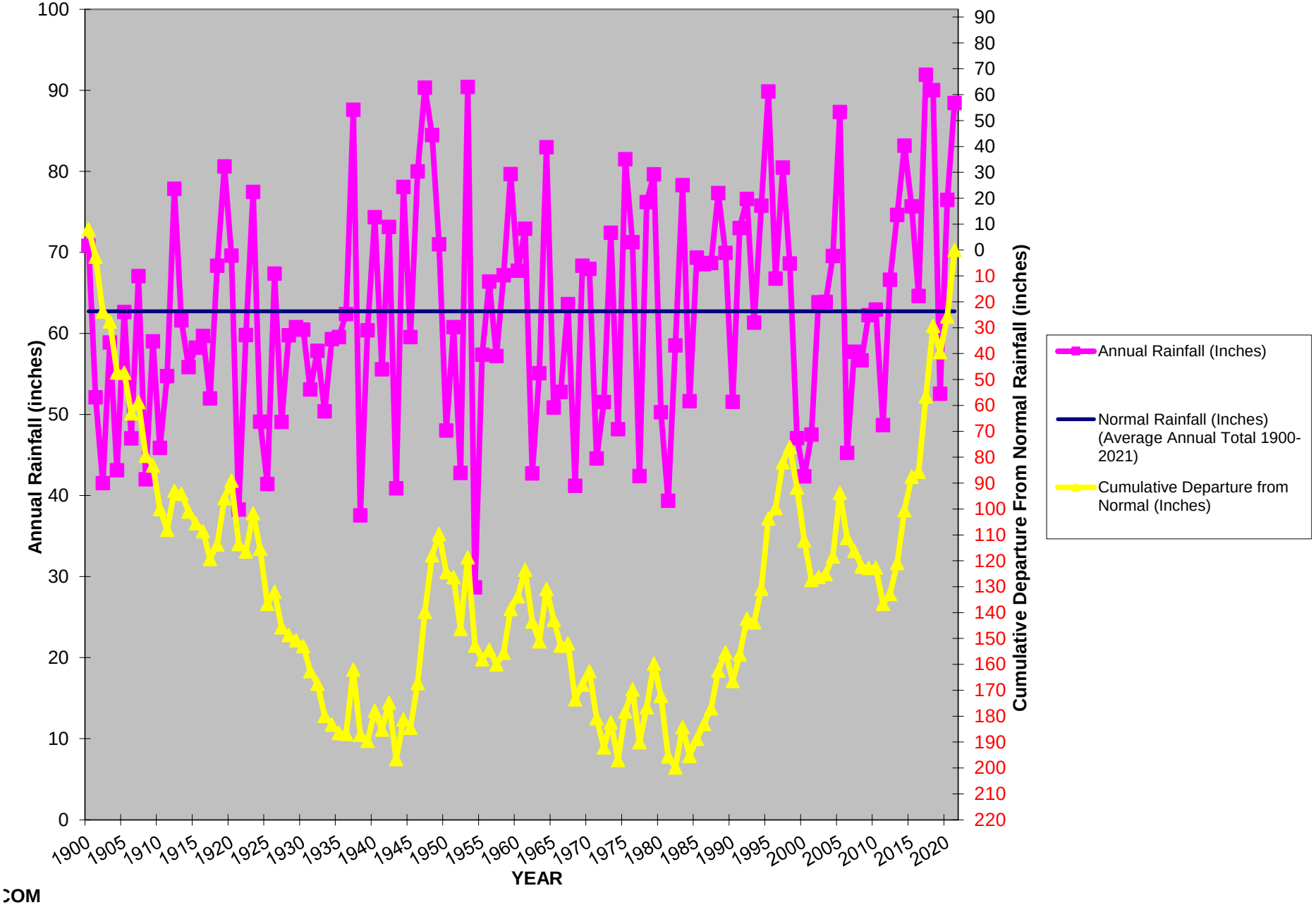
Figure 7
Annual Rainfall and Cumulative Departure from Normal
NOAA Rainfall Station
Pensacola, Florida



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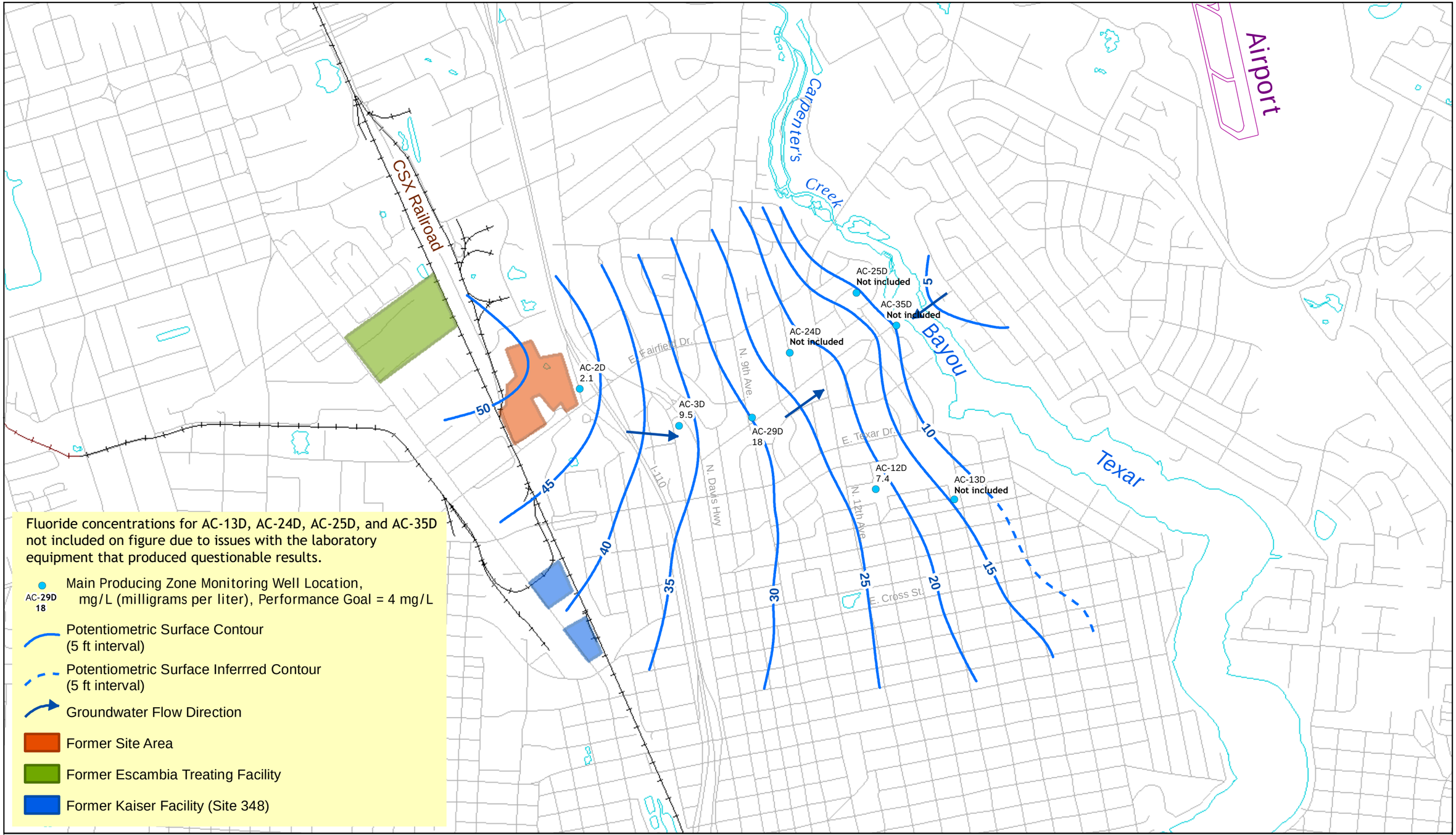

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.5 0.25 0 0.5 Miles

Coordinate System: UTM, Zone 16, NAD27

FLUORIDE CONCENTRATION

November 2021

FIGURE
8

D. Hilton - Tallahassee - 2/8/2022

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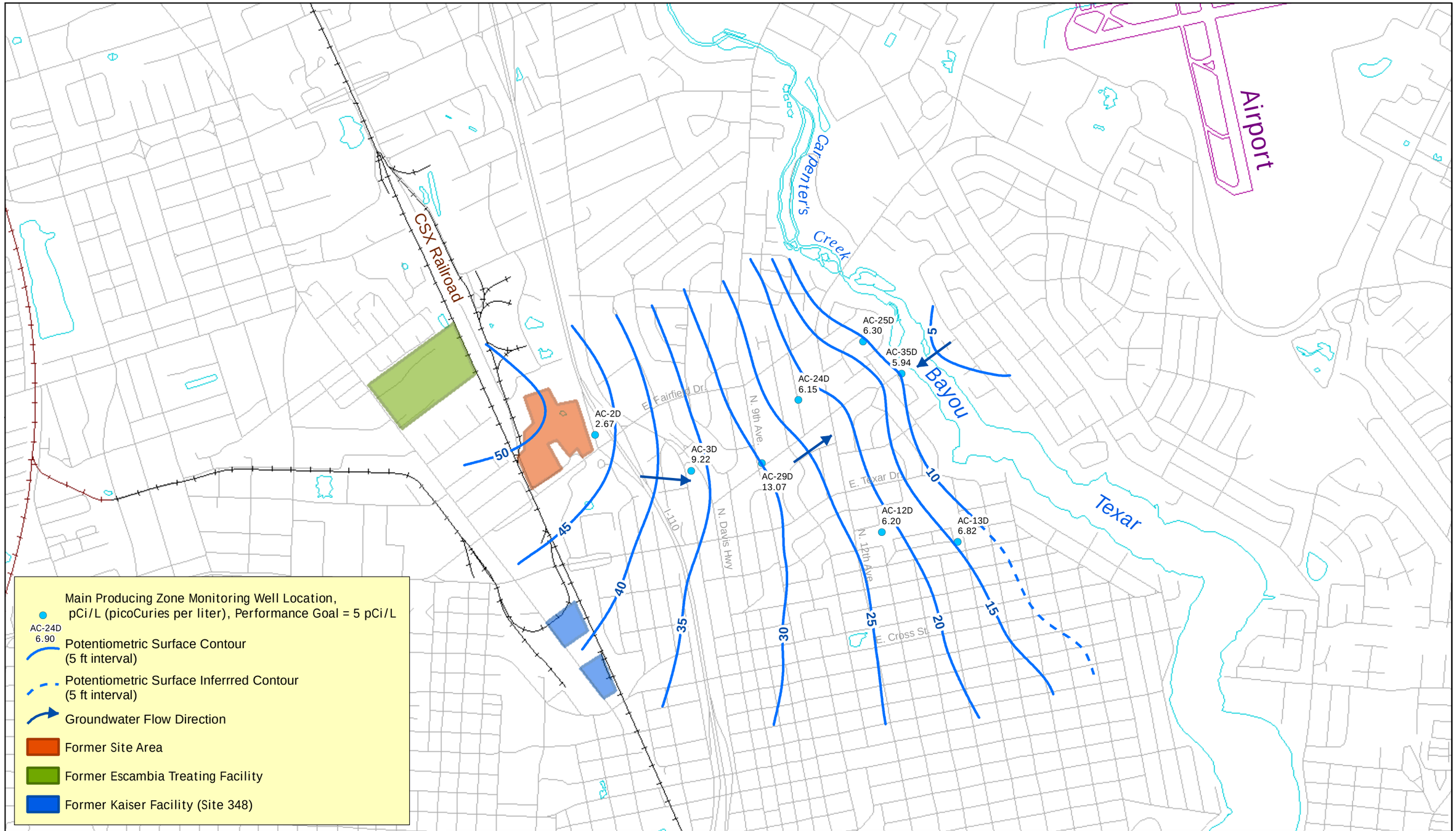

OU-1 and OU-2
AGRICO SITE
PENSACOLA, FLORIDA

AECOM

Base Map Data Provided By:
Florida Department of Environmental Protection
and Northwest Florida Water Management District

N
W E
S

0.5 0.25 0 0.5 Miles

Coordinate System: UTM, Zone 16, NAD27

COMBINED RADIUM 226+228
CONCENTRATION
November 2021

FIGURE
9

D. Hilton - Tallahassee - 2/24/2022

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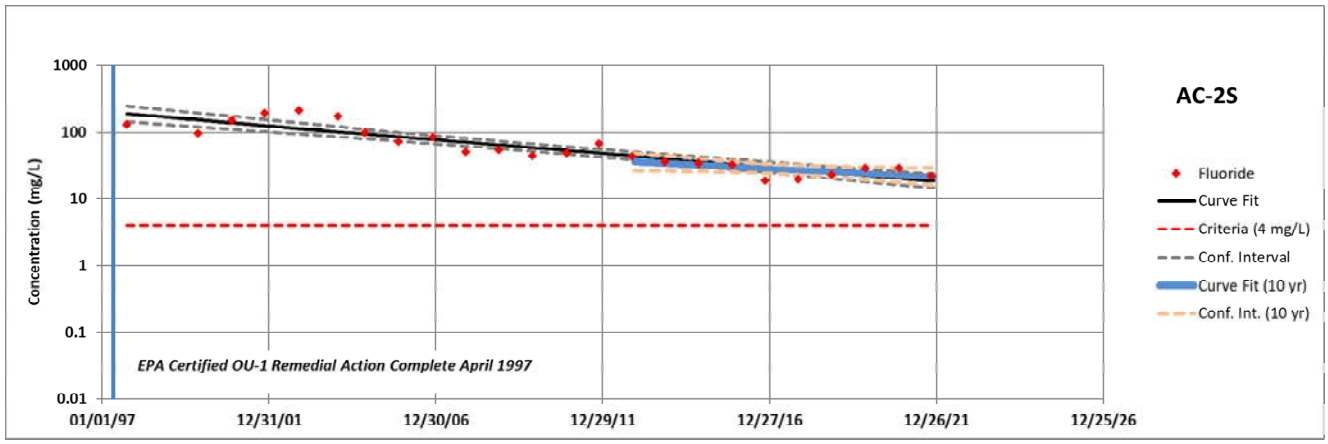
Figure 10

Concentration Trends
Surficial Zone
Annual Network Wells

Agrico Site
Pensacola, Florida



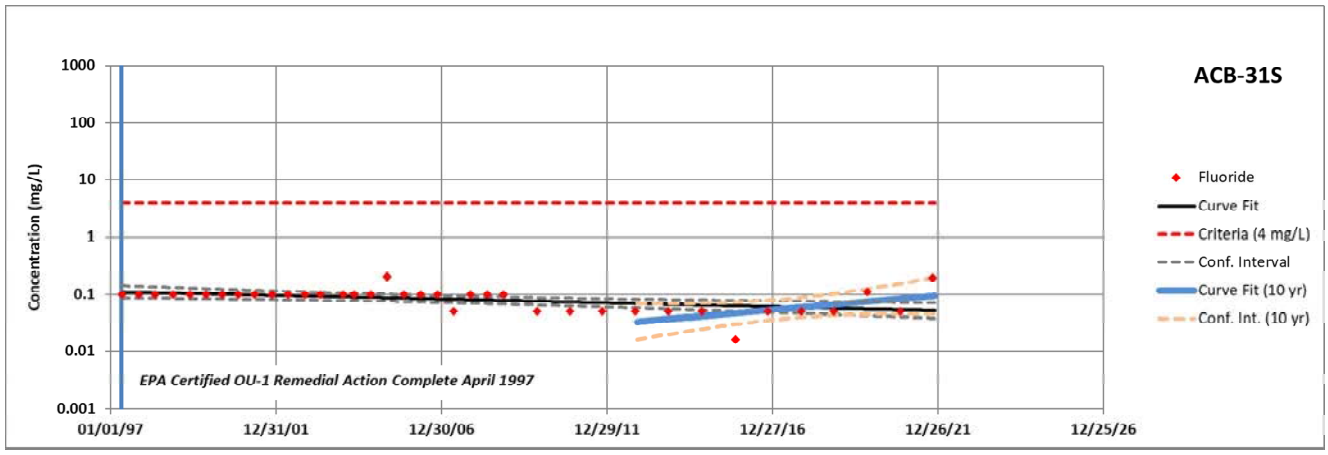
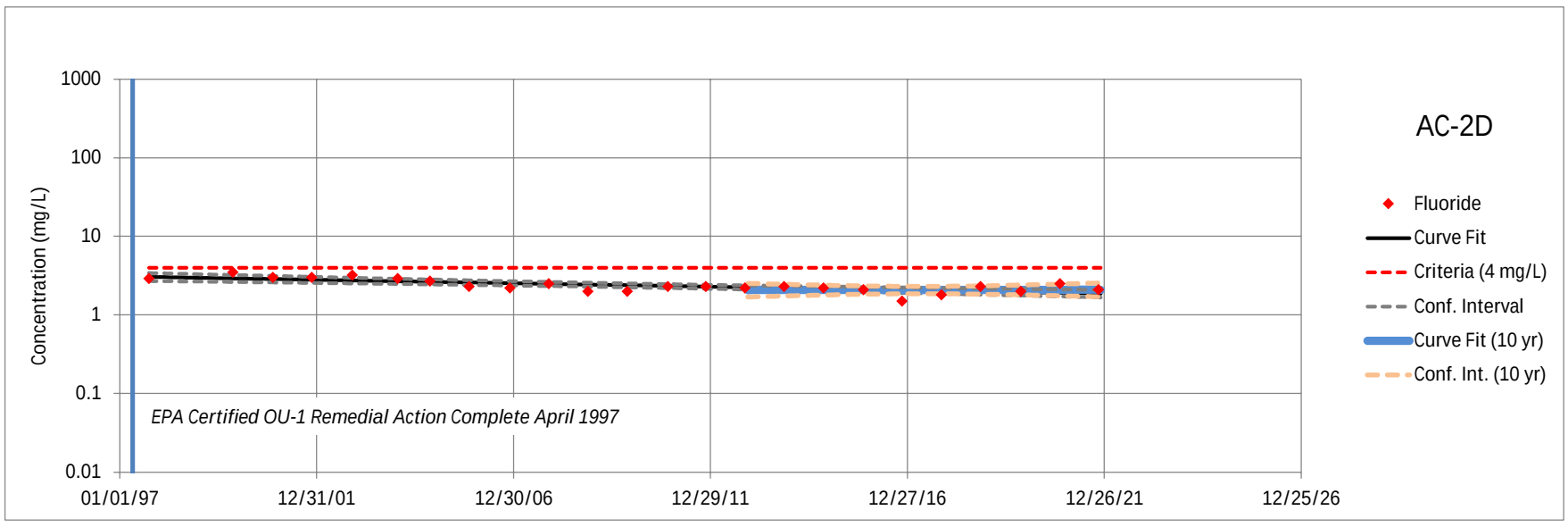
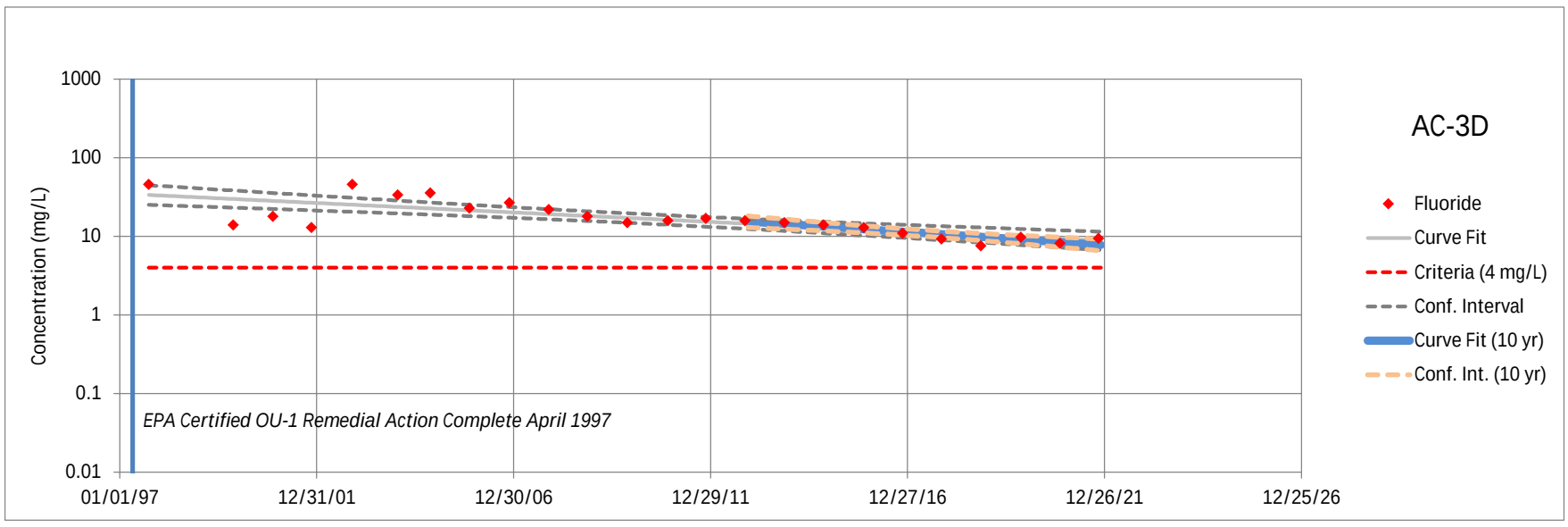


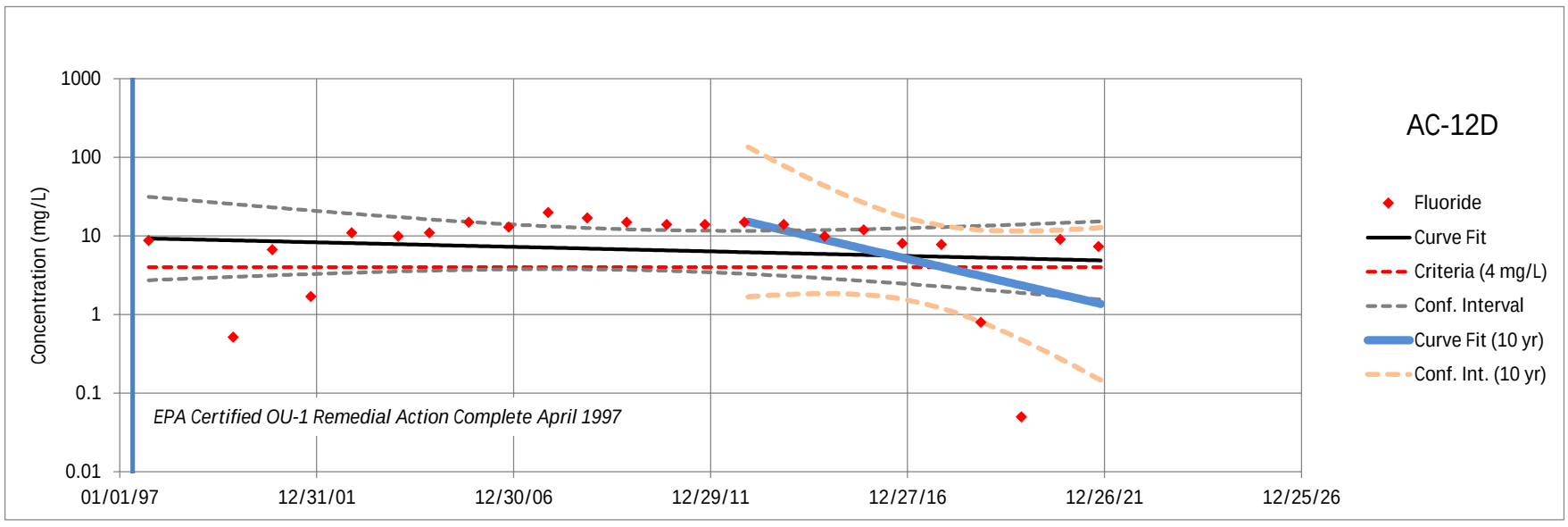
Figure 11

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







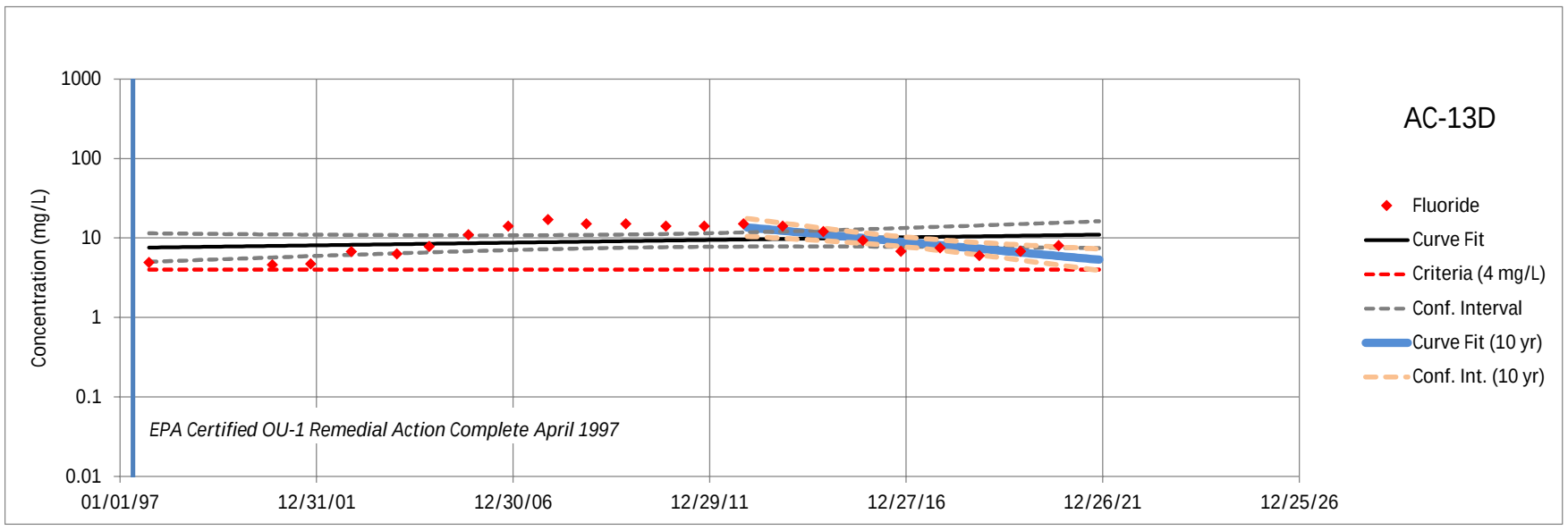
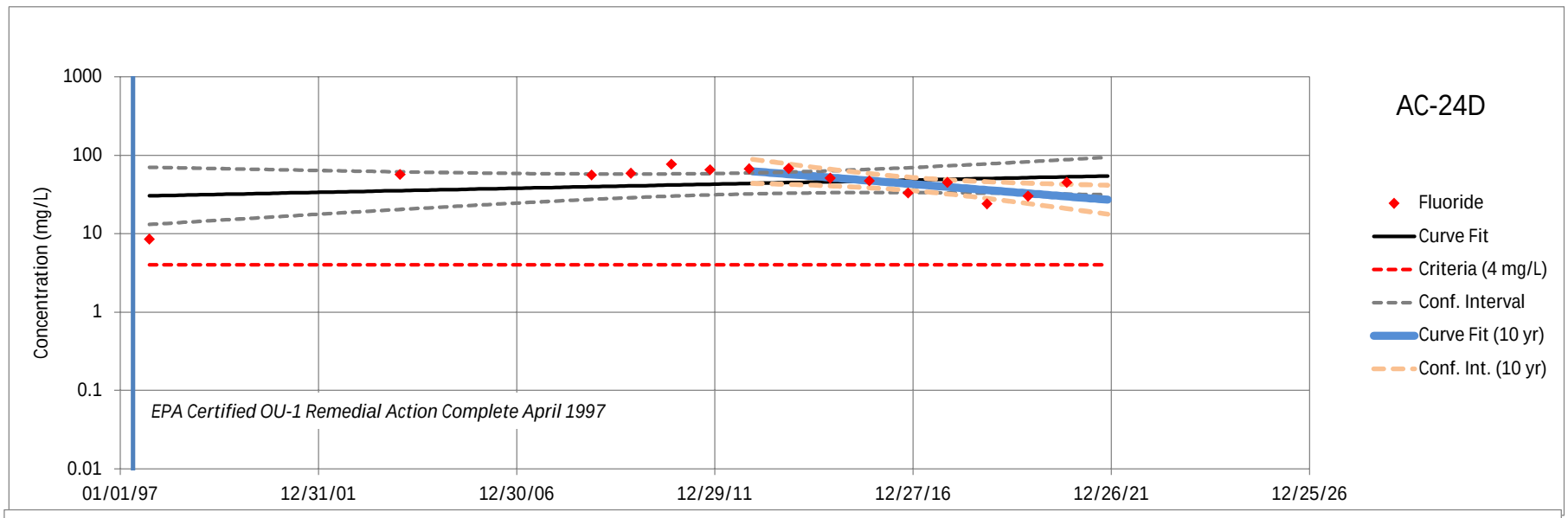
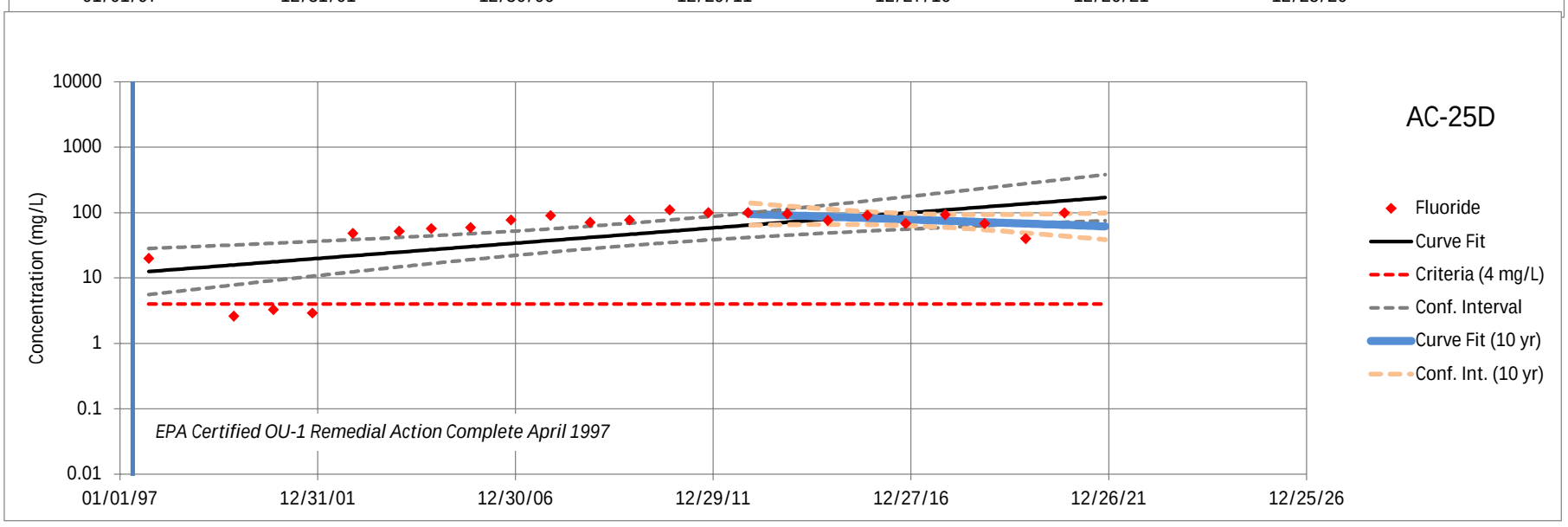


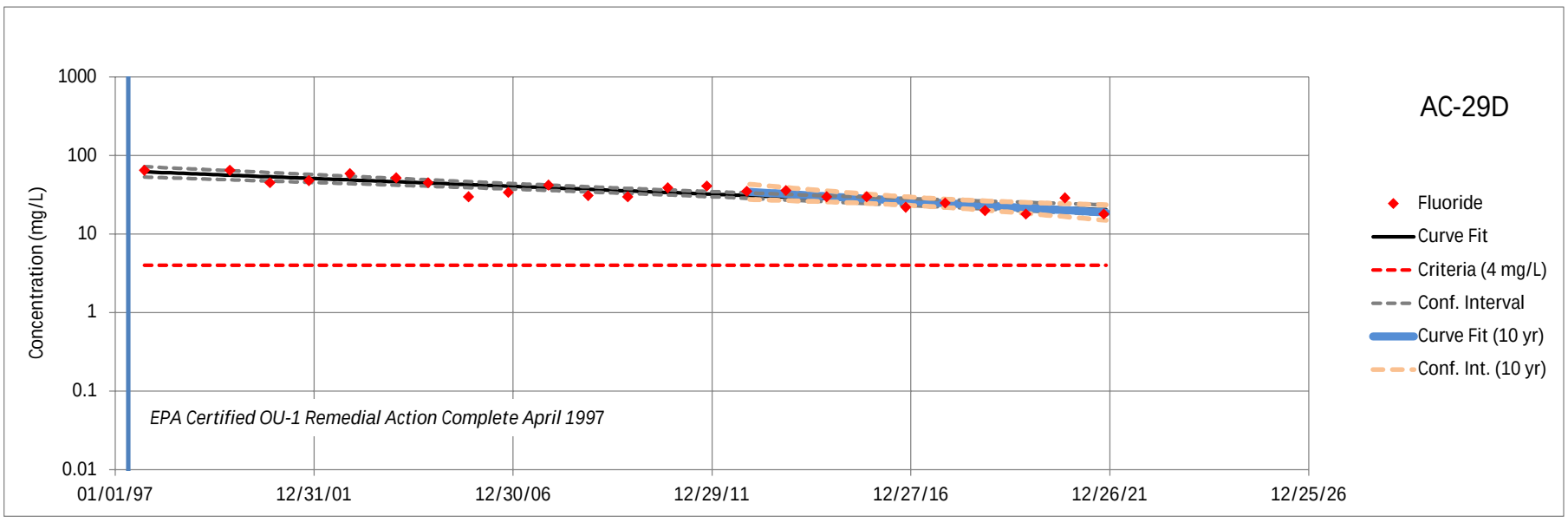
Figure 11 (Continued)

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







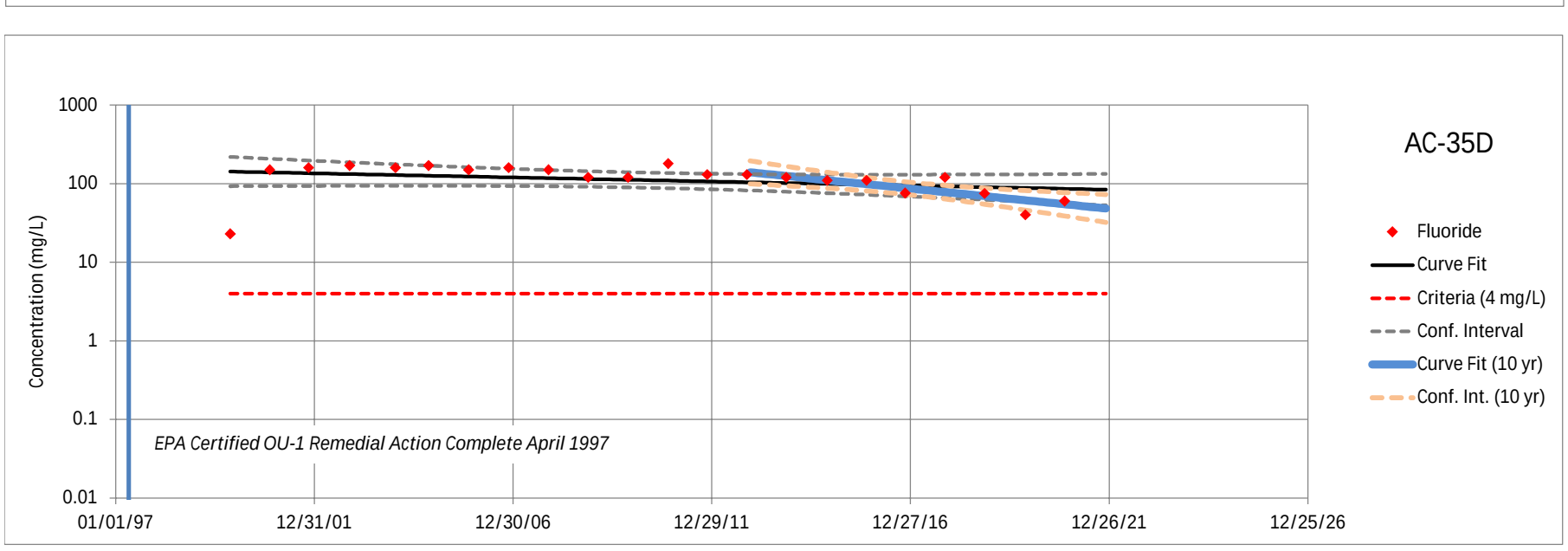
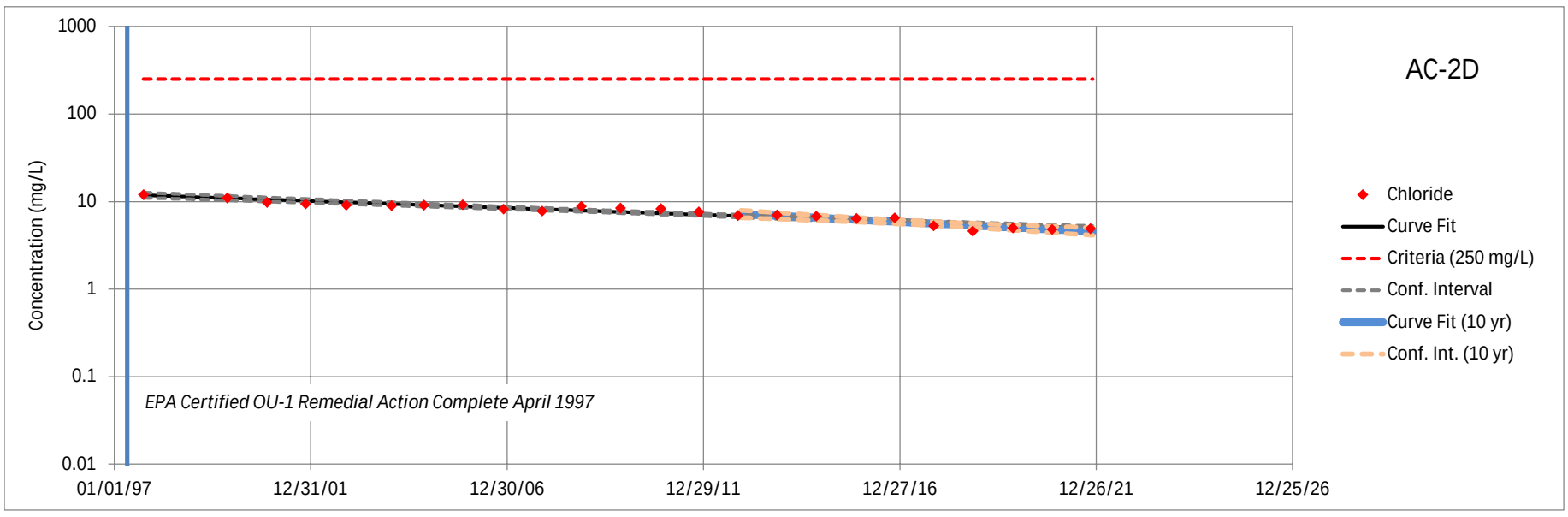
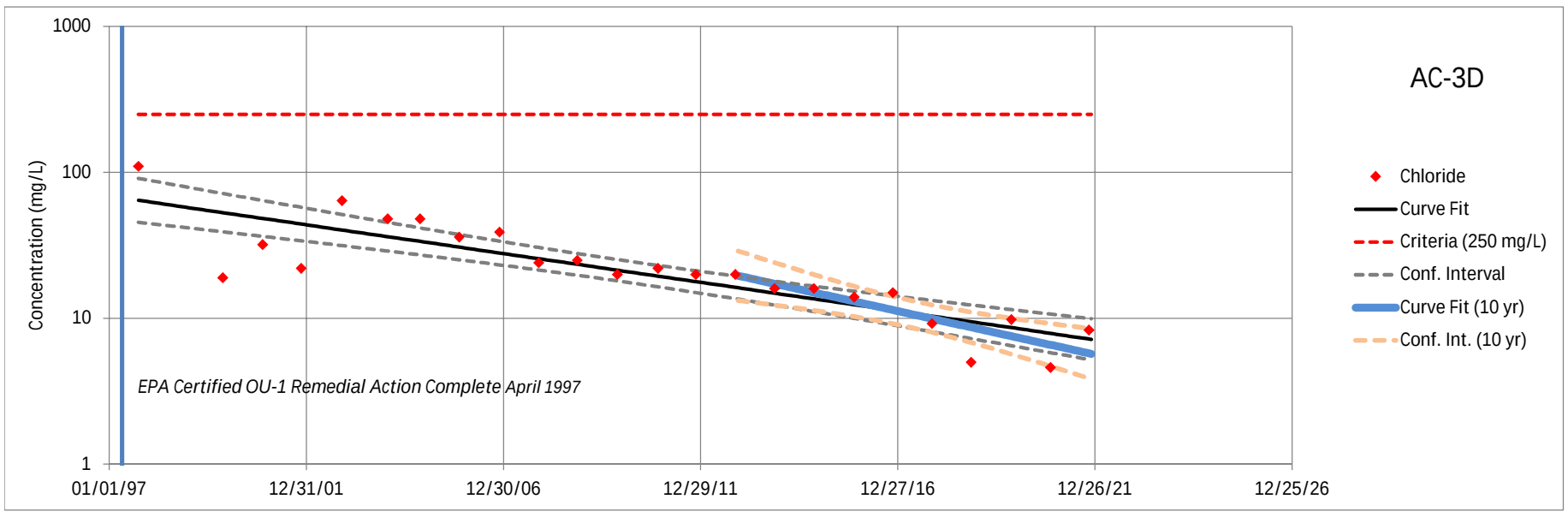


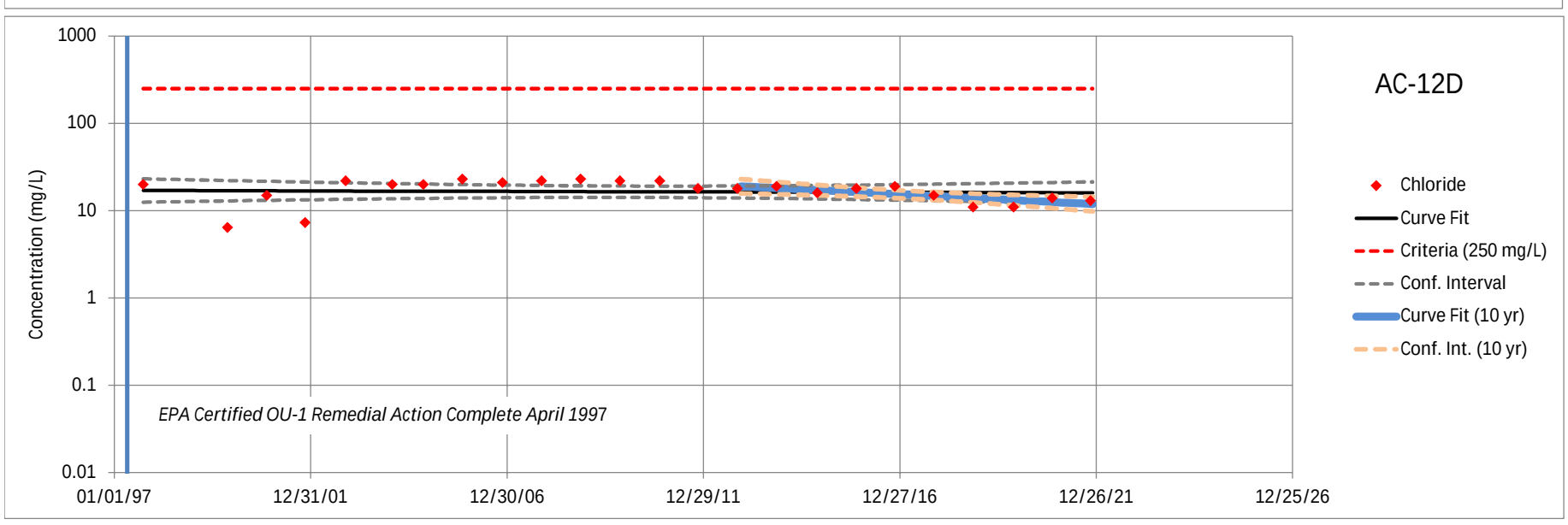
Figure 11 (Continued)

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







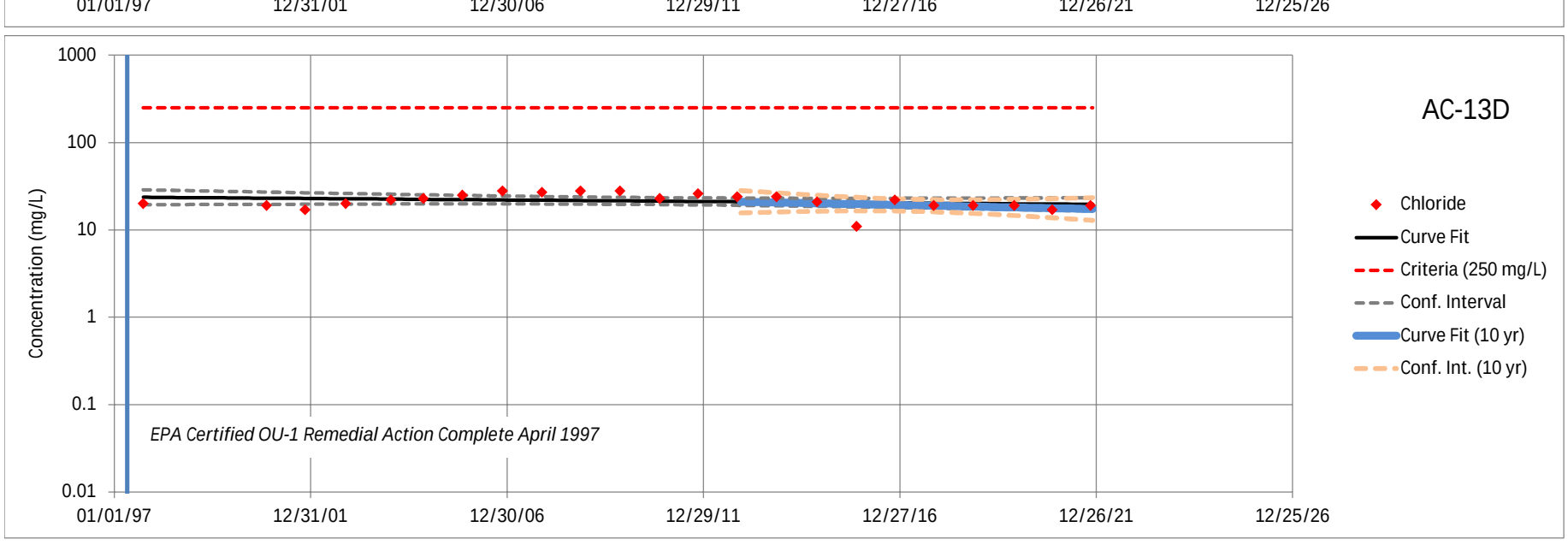
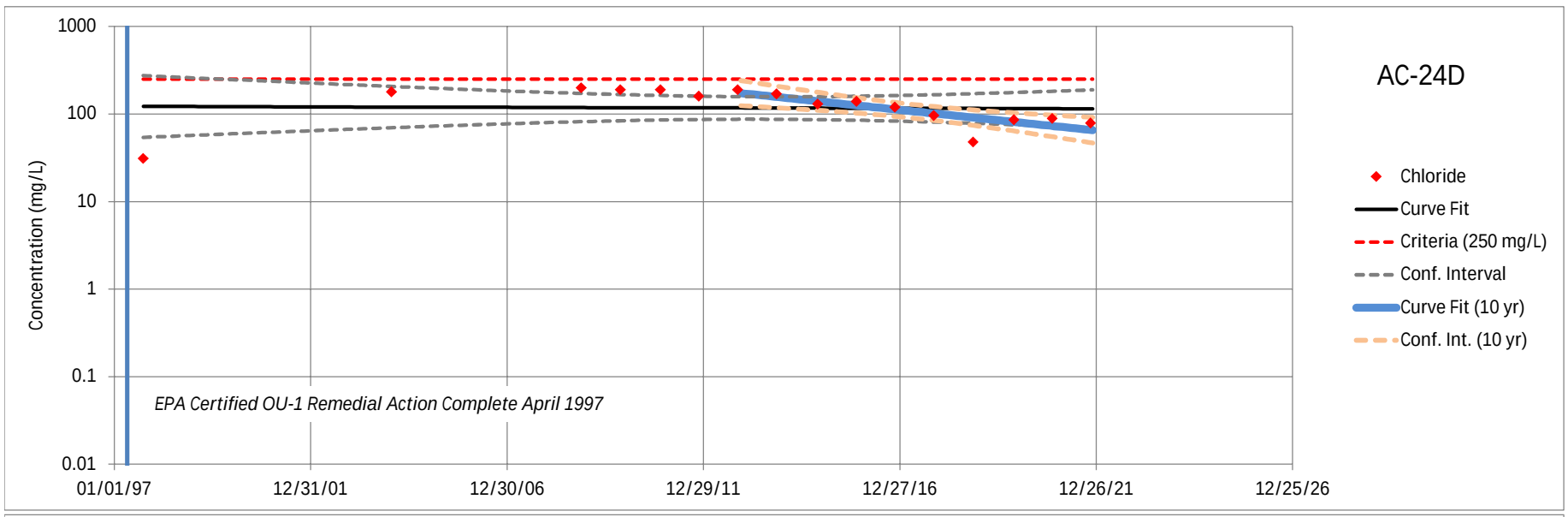
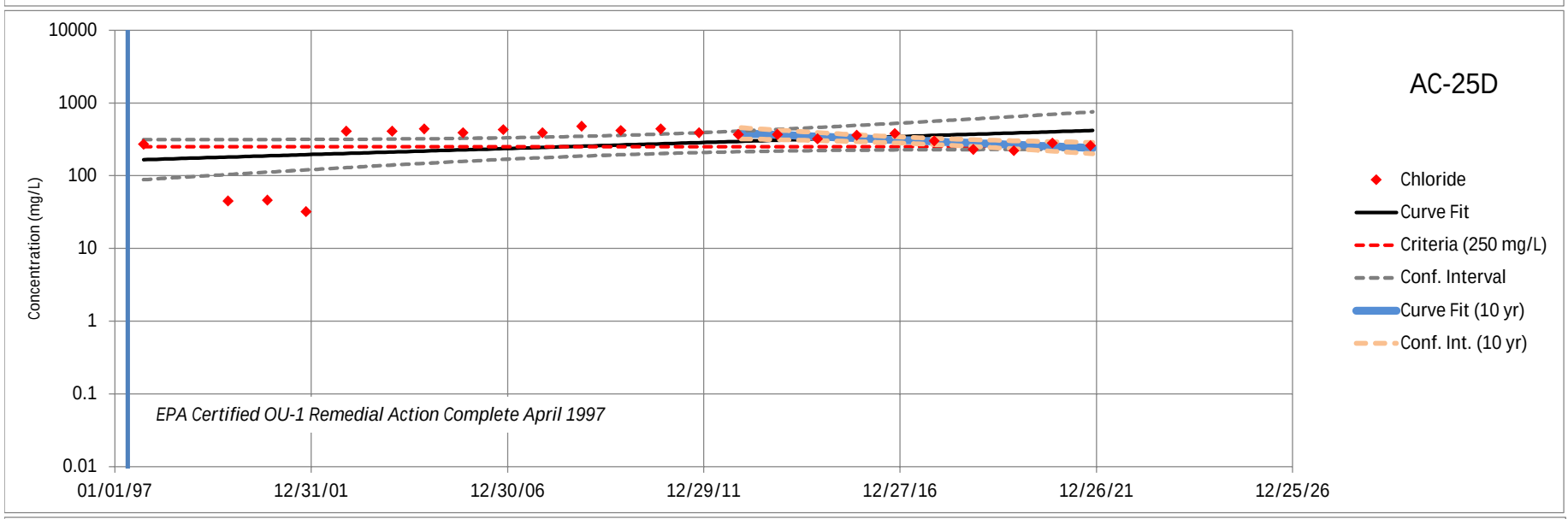


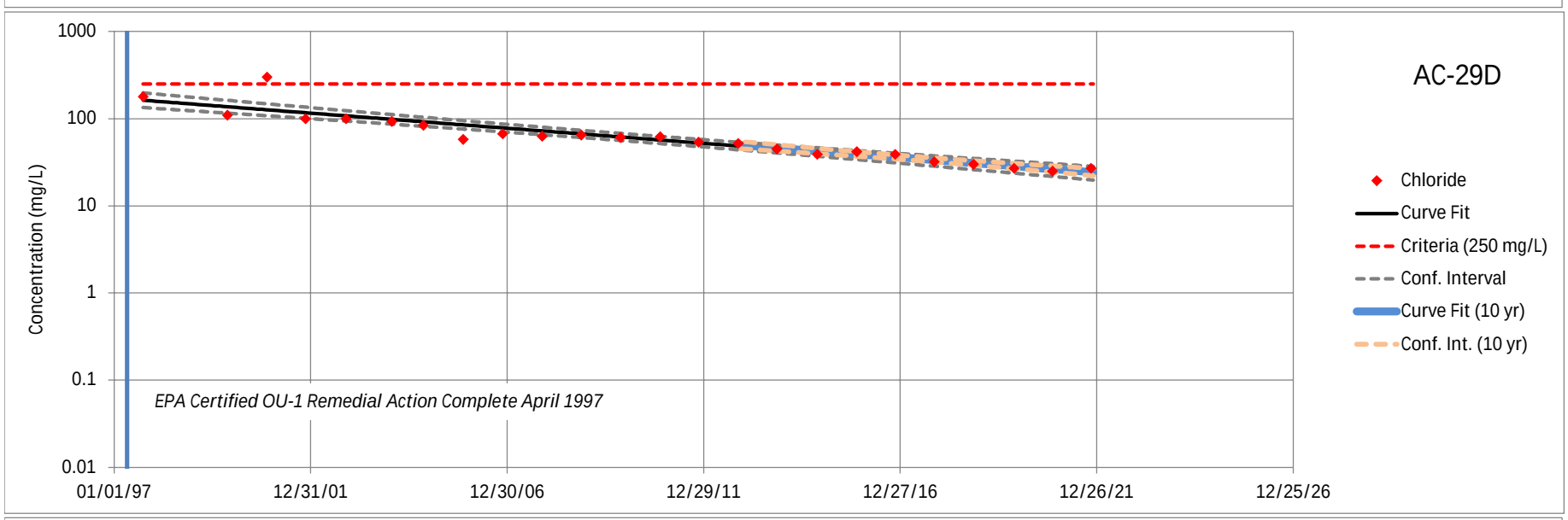
Figure 11 (Continued)

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







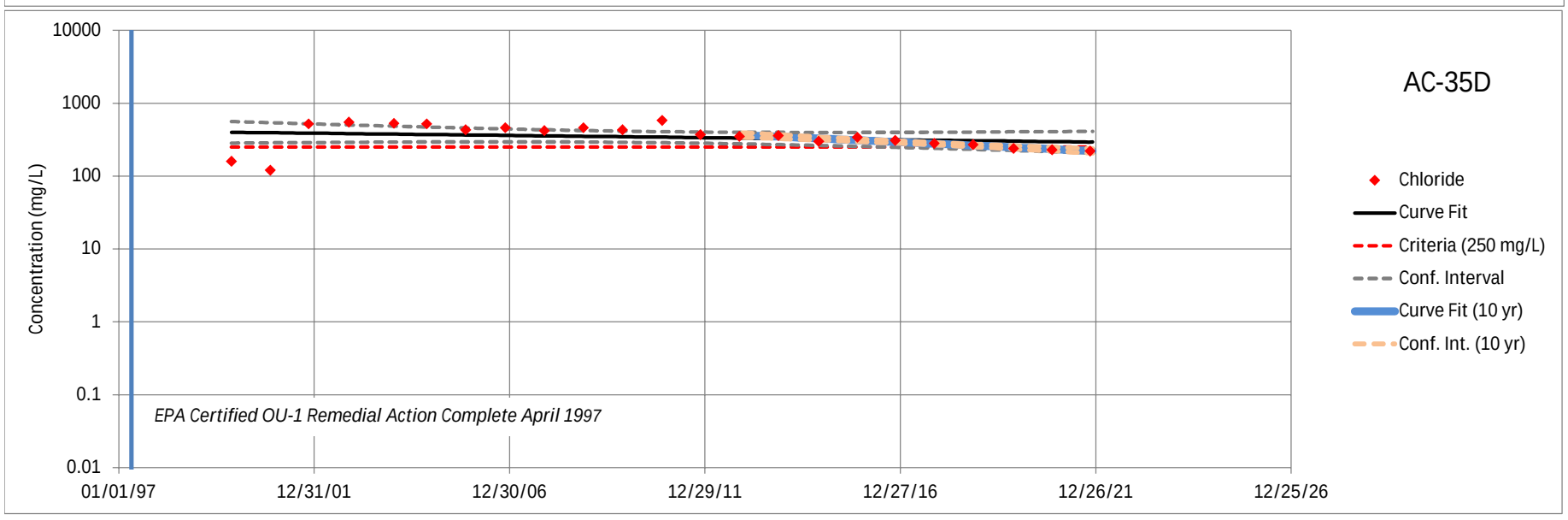
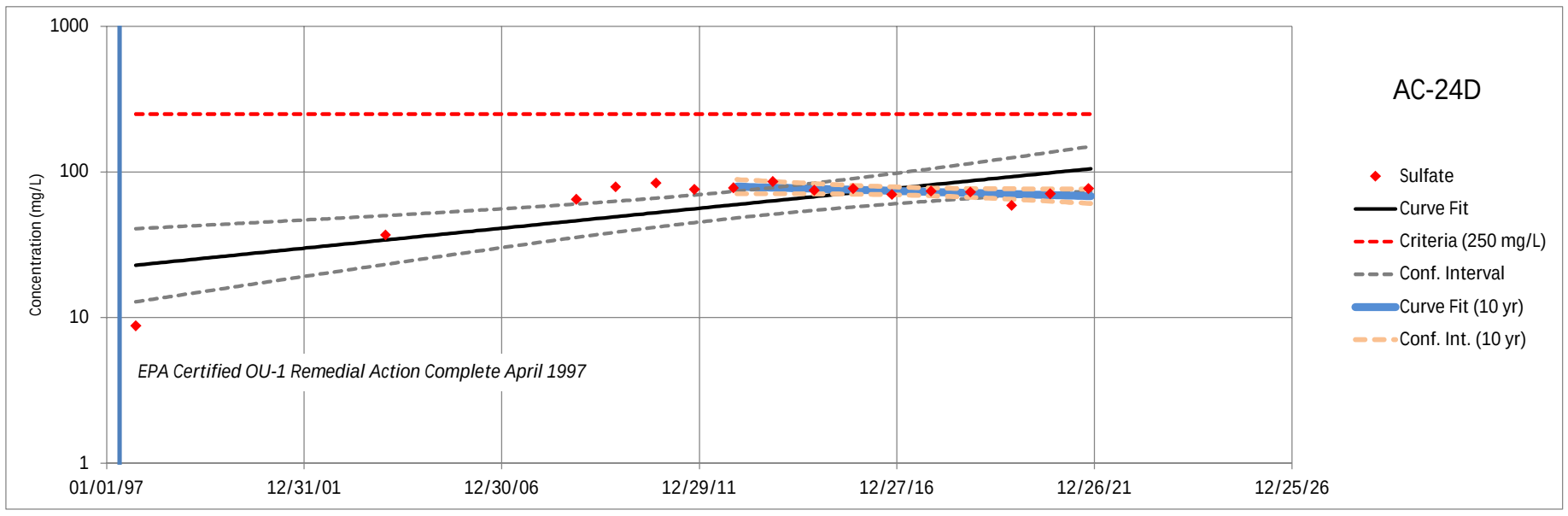
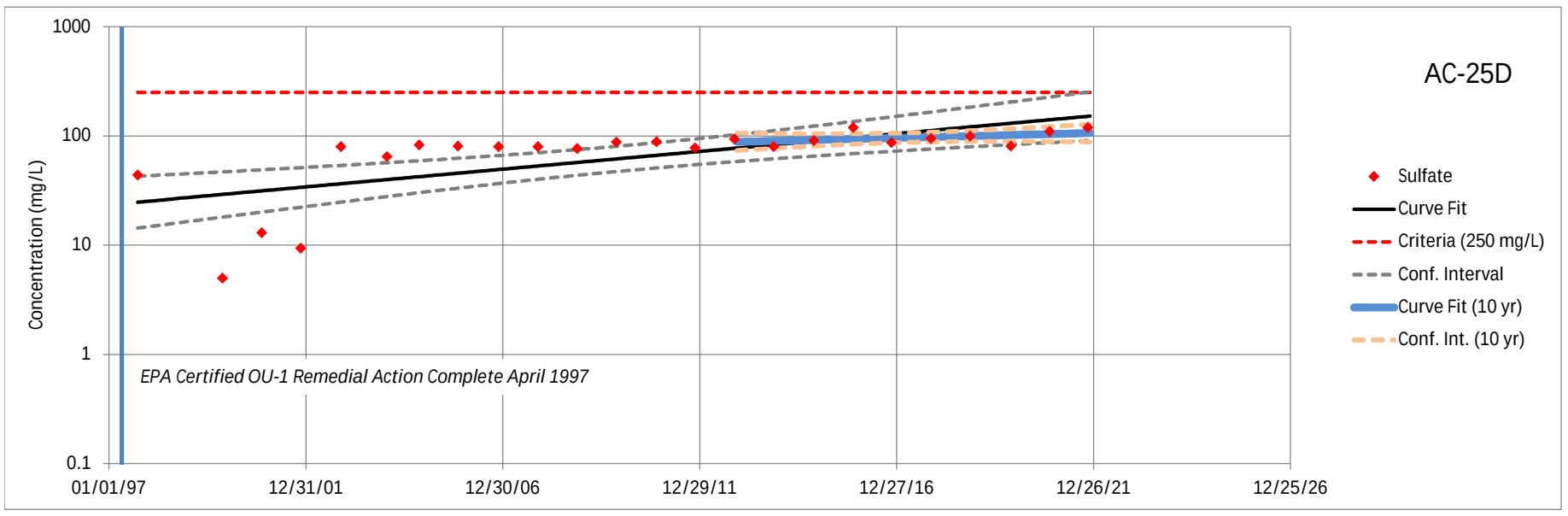


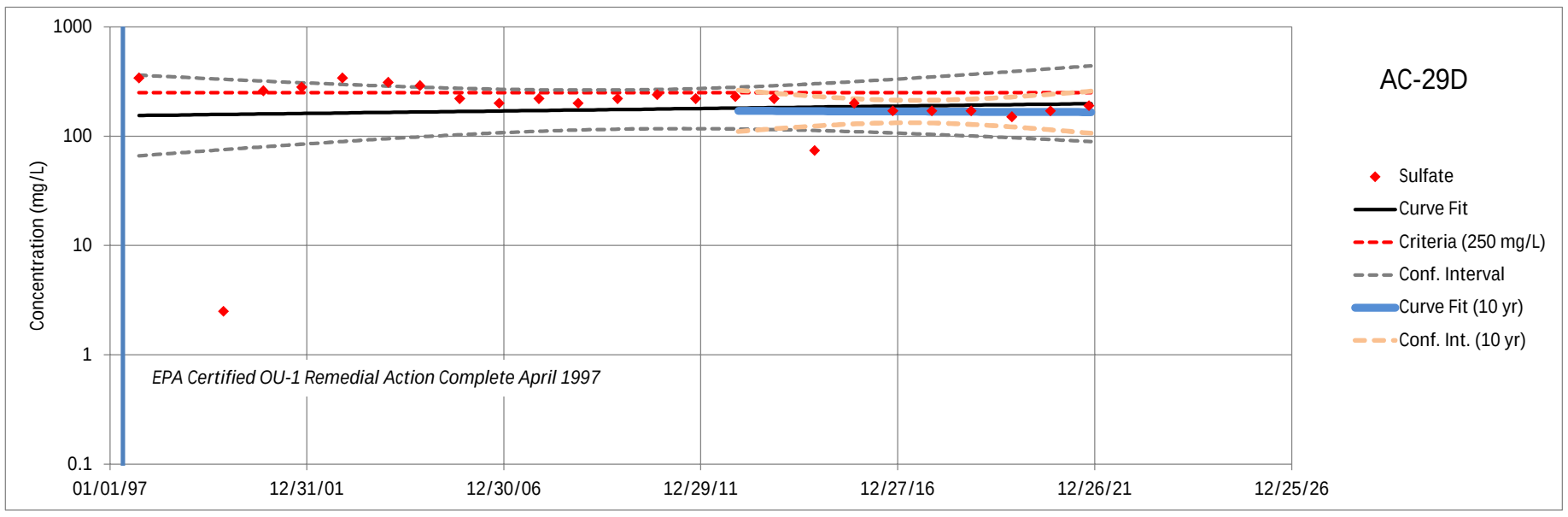
Figure 11 (Continued)

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







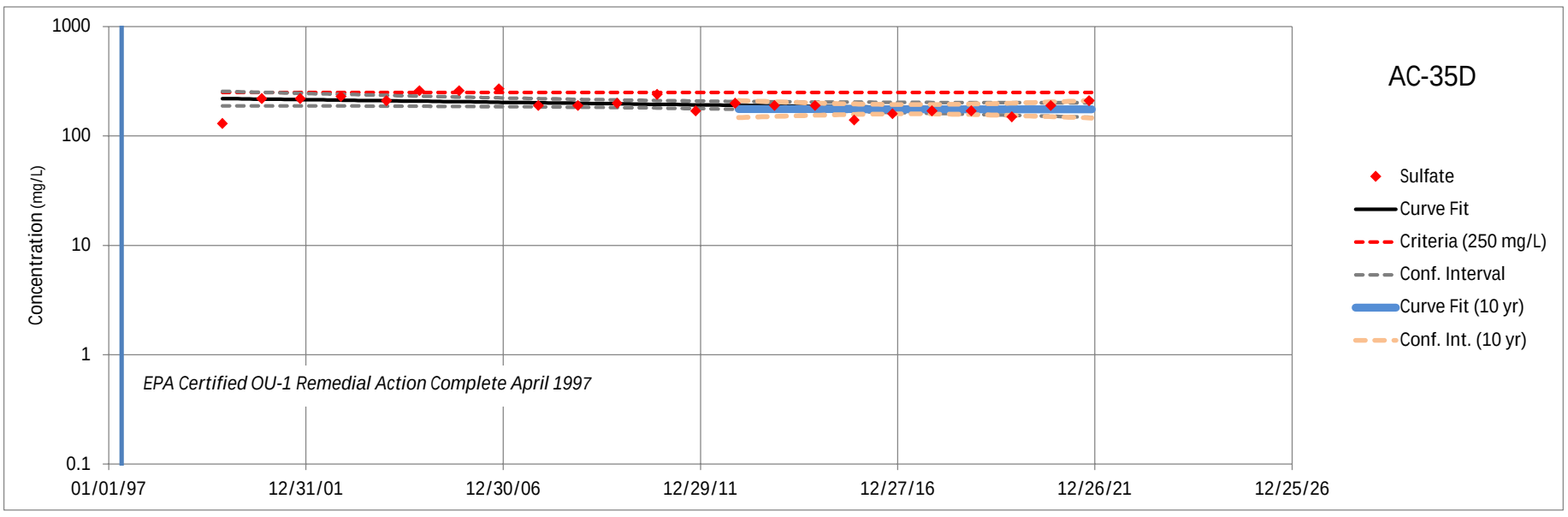
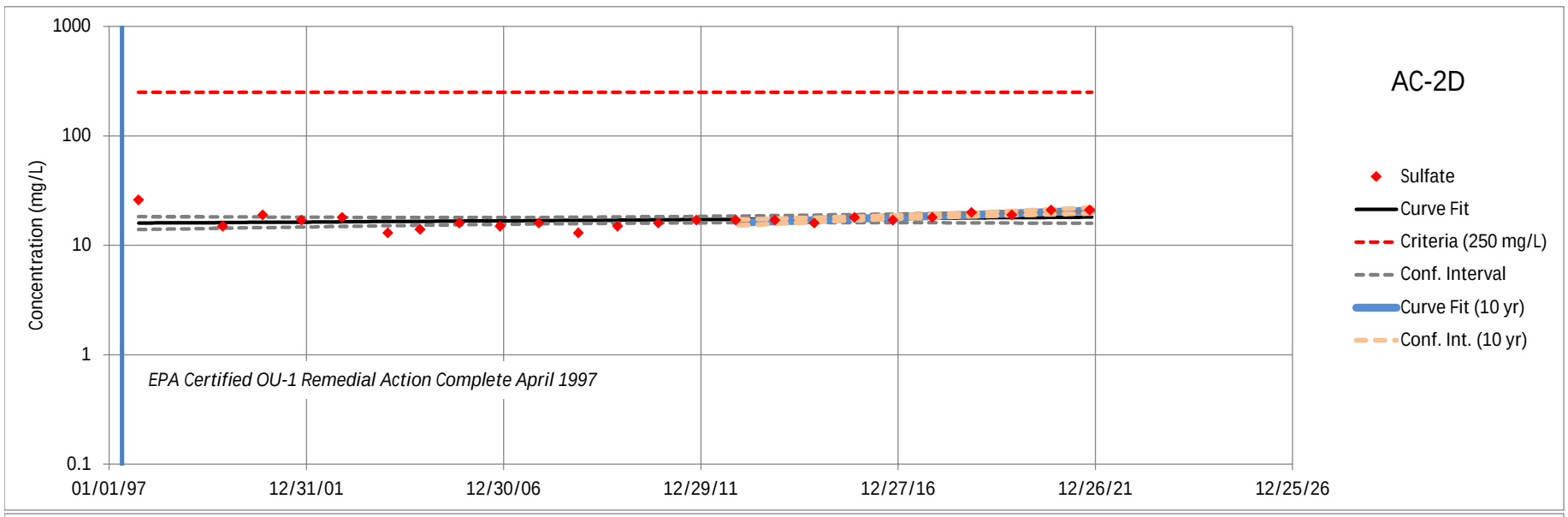
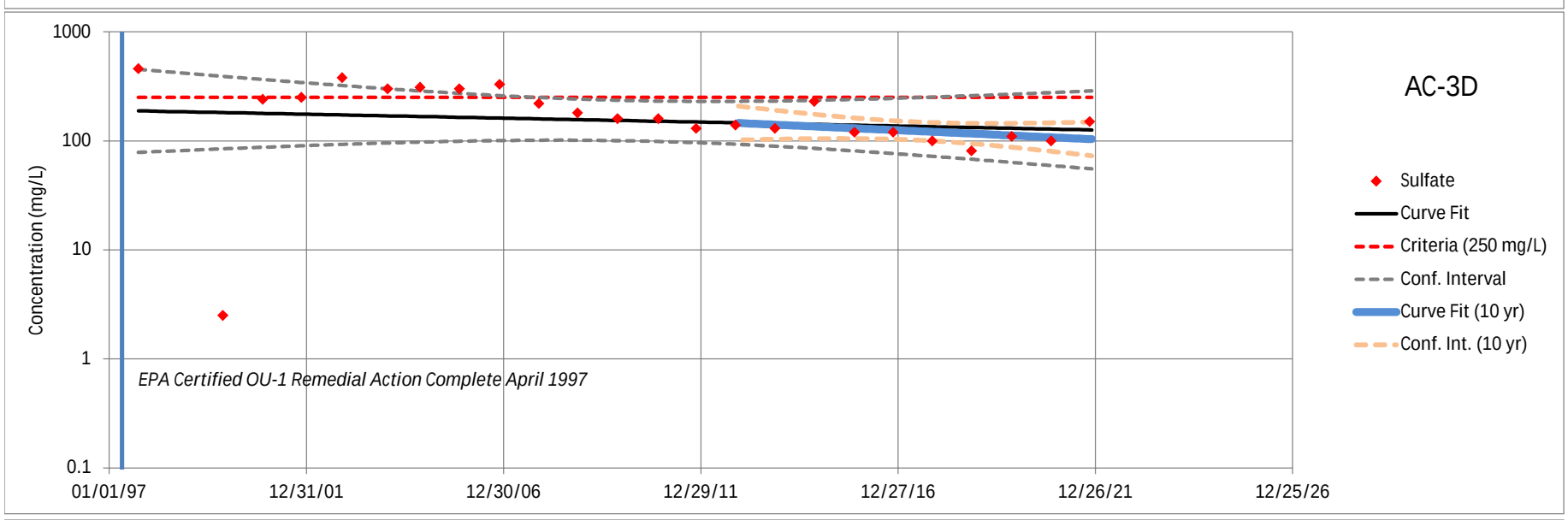


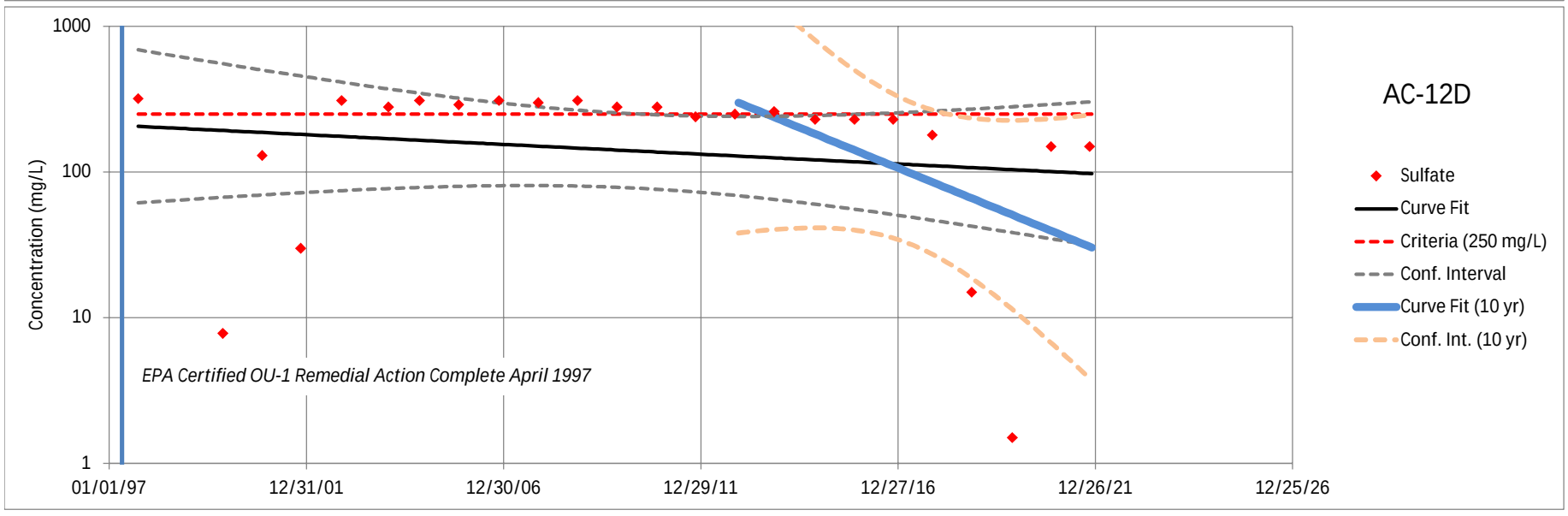
Figure 11 (Continued)

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







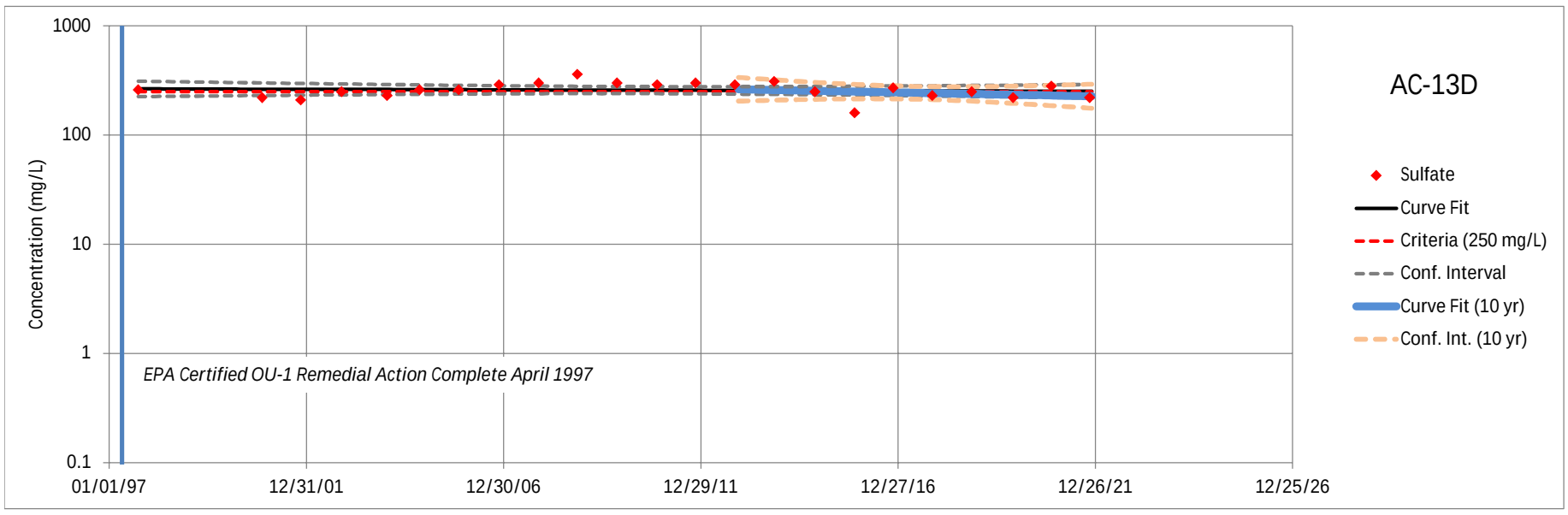
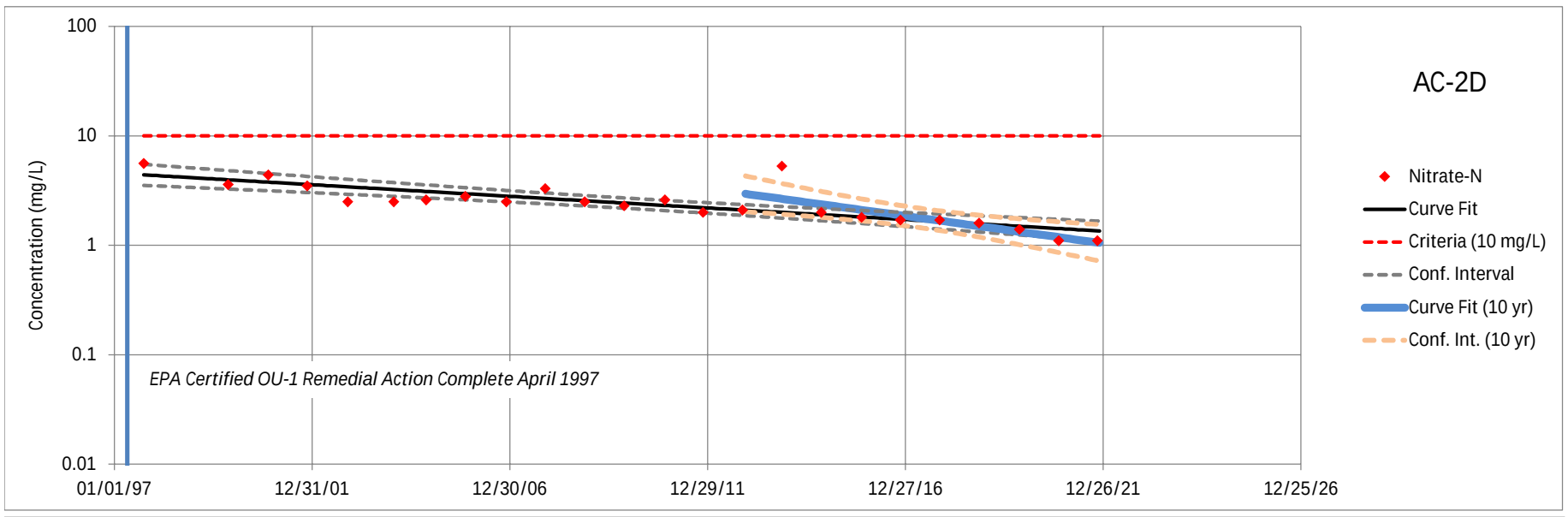
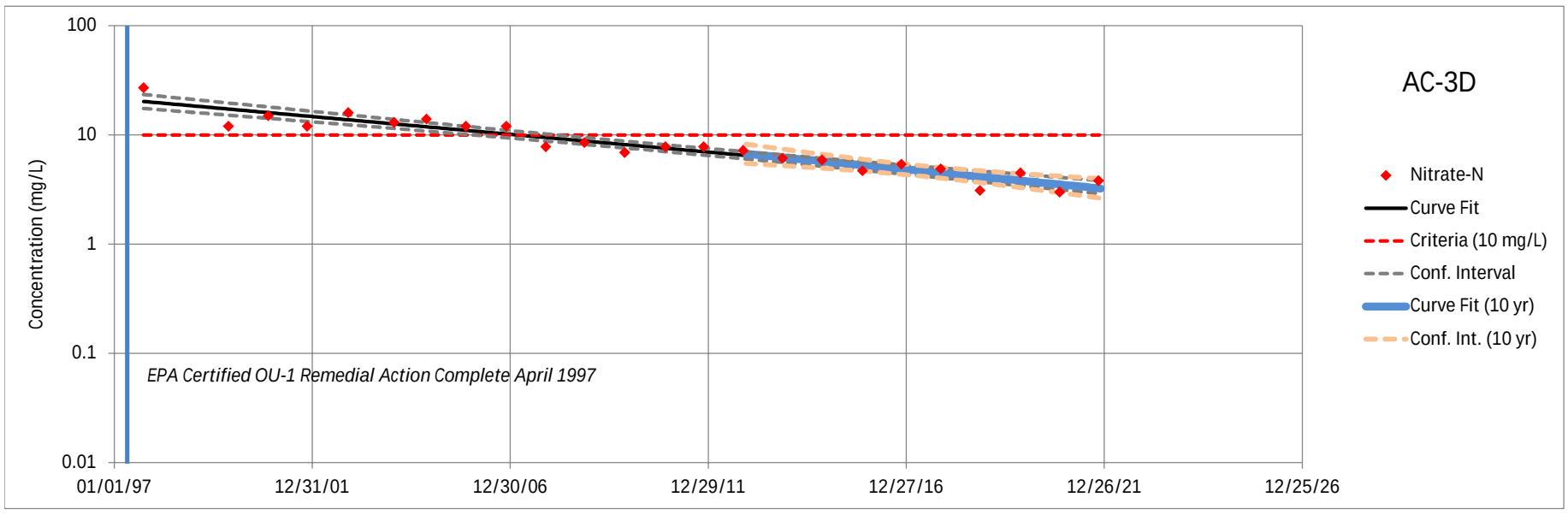


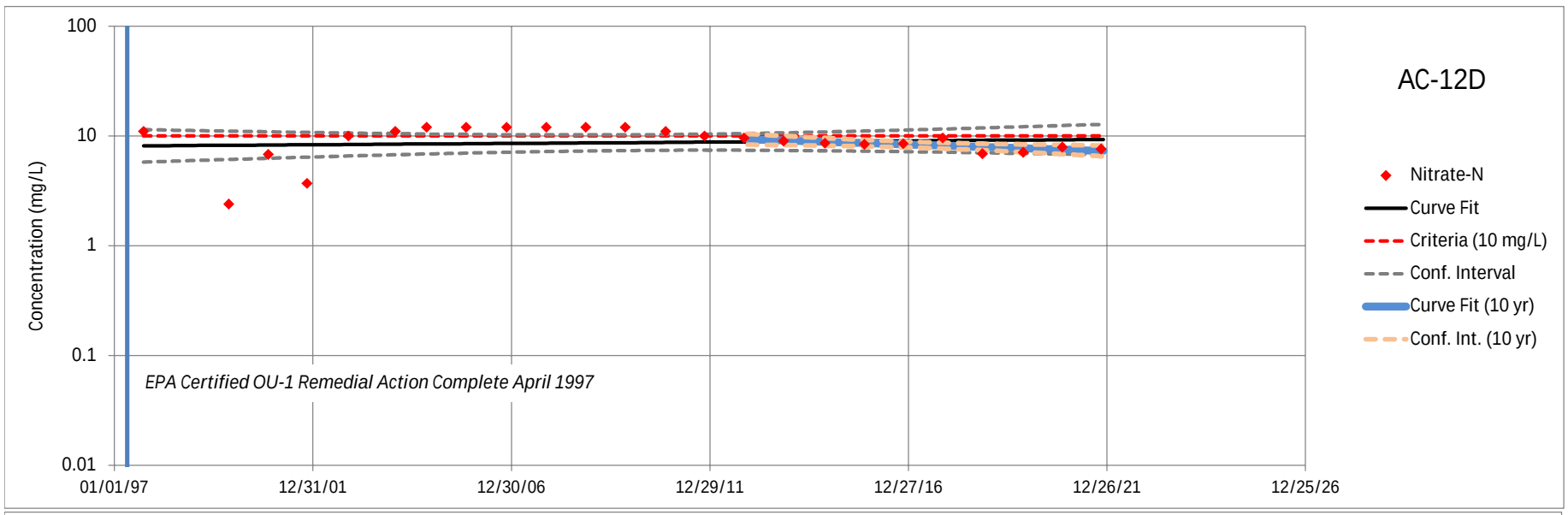
Figure 11 (Continued)

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







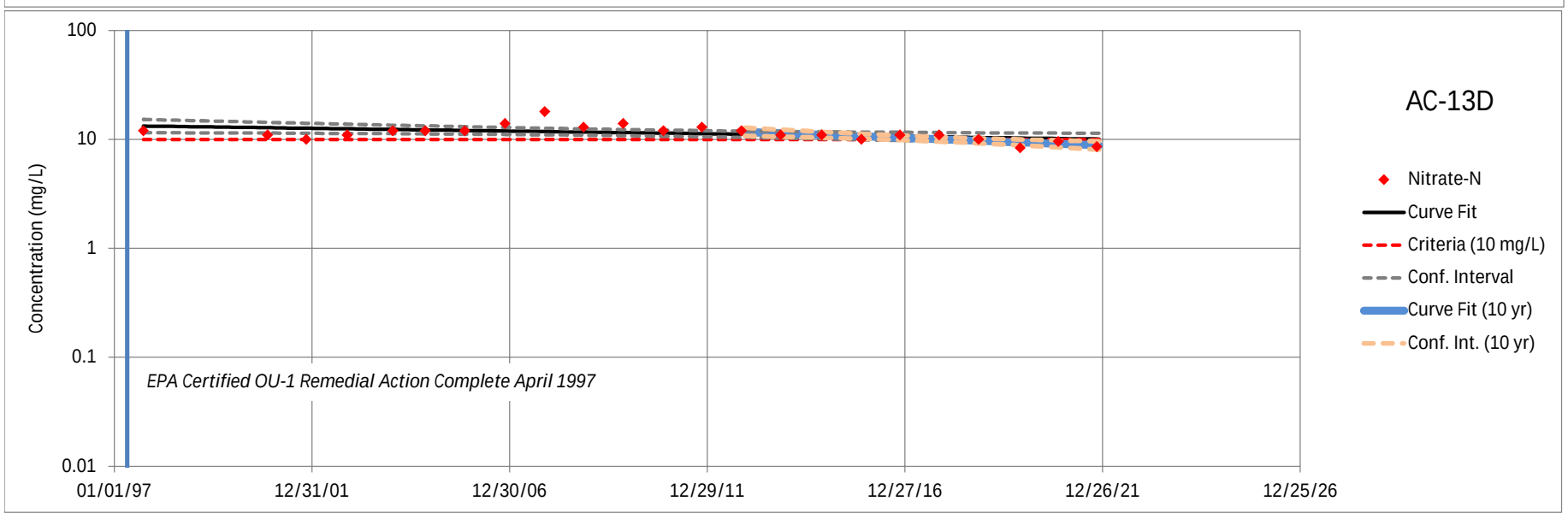
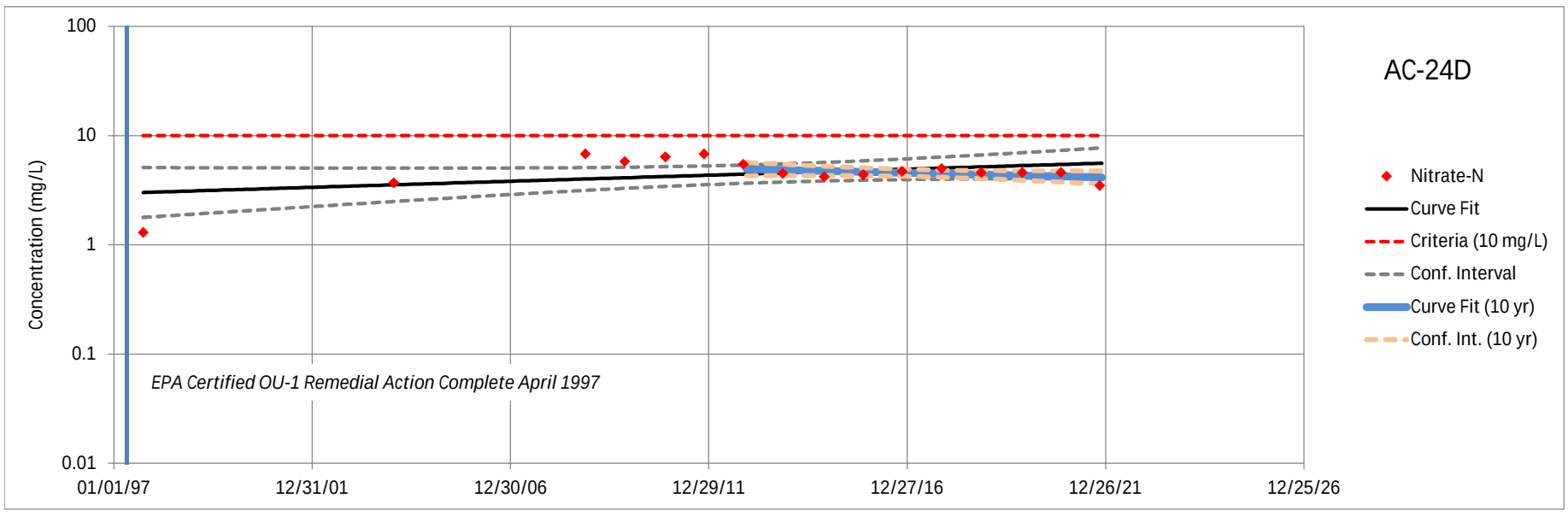
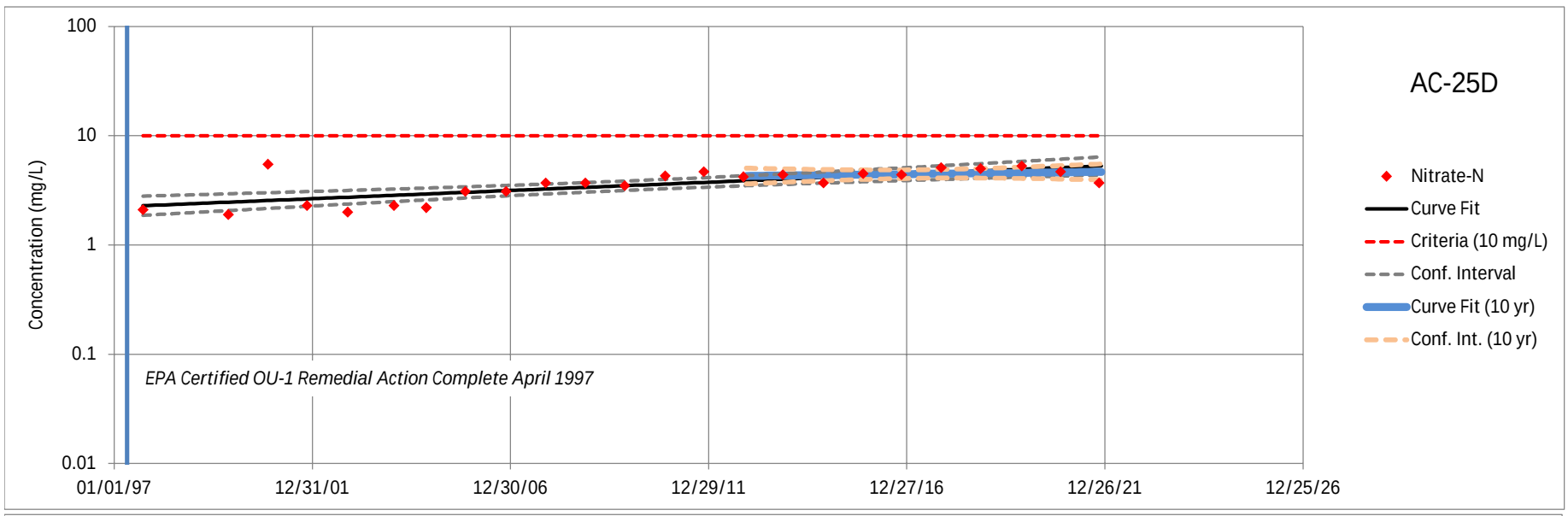


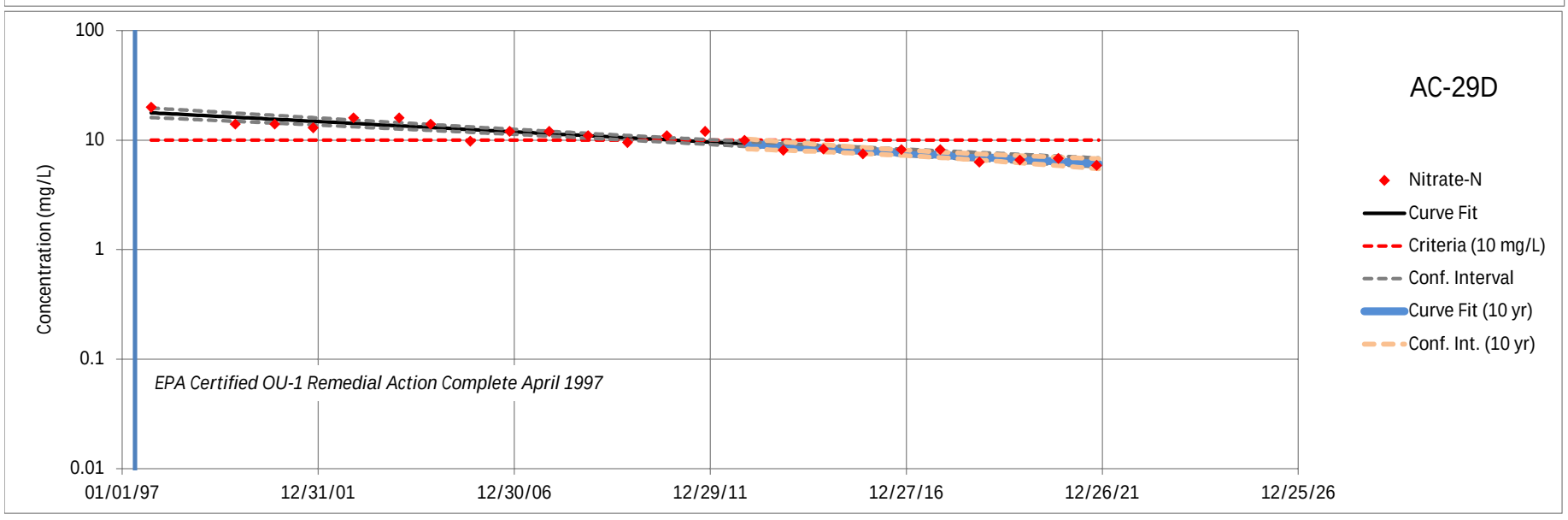
Figure 11 (Continued)

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







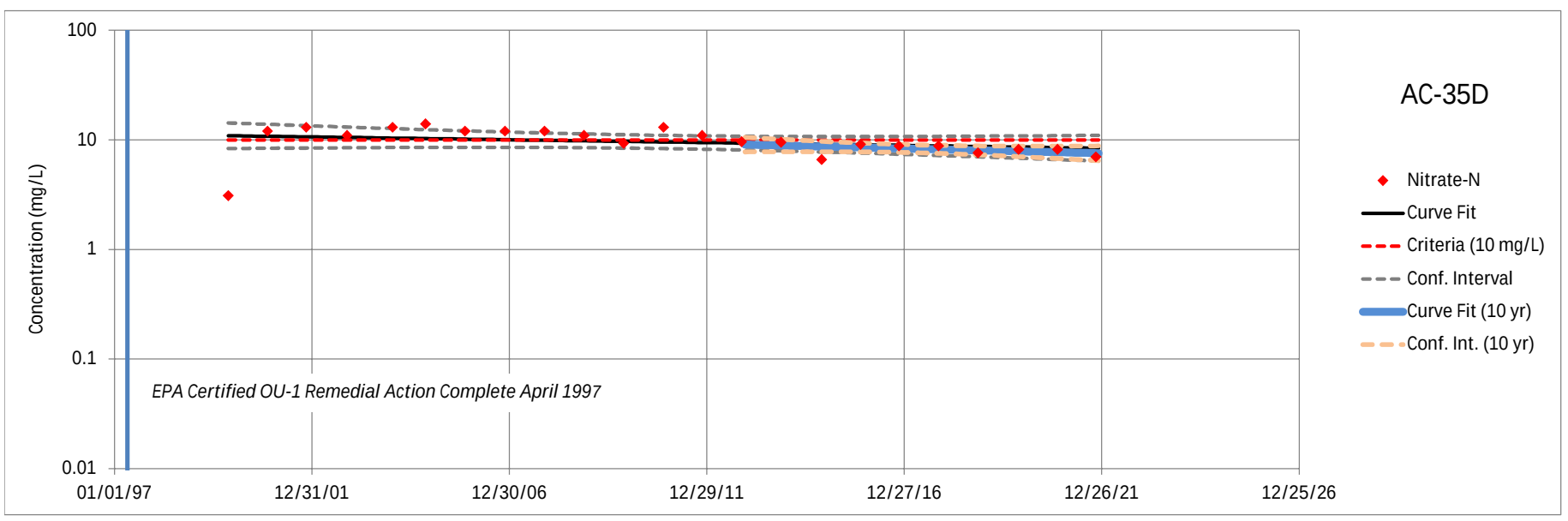
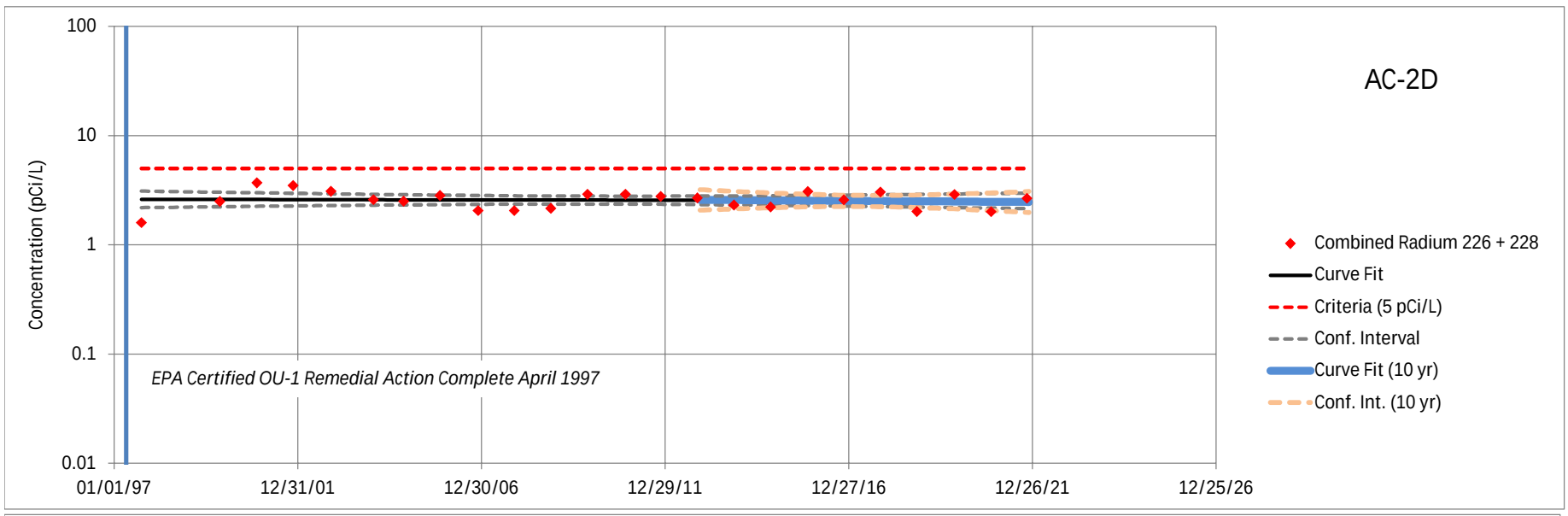
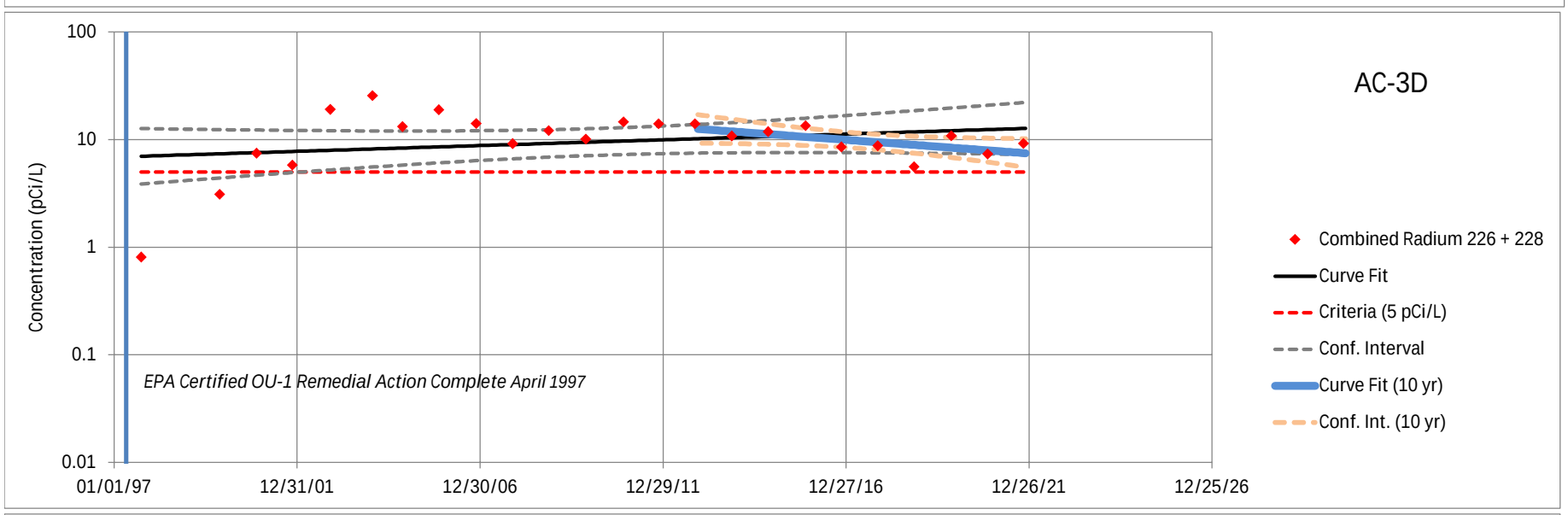


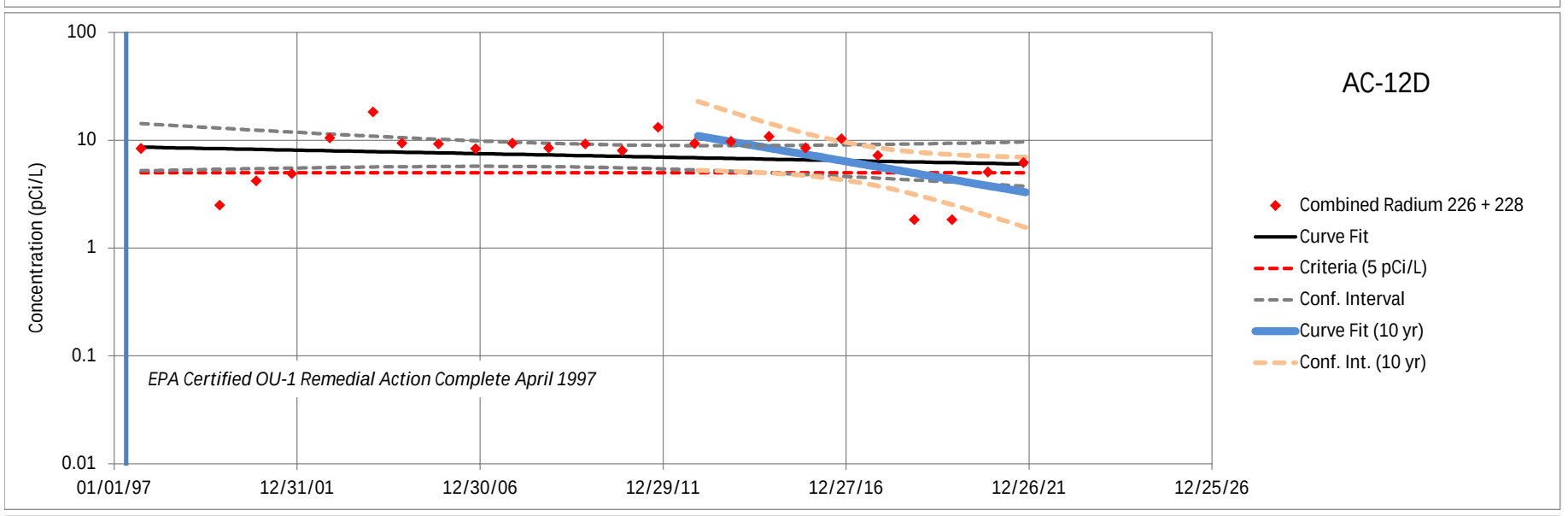
Figure 11 (Continued)

Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida







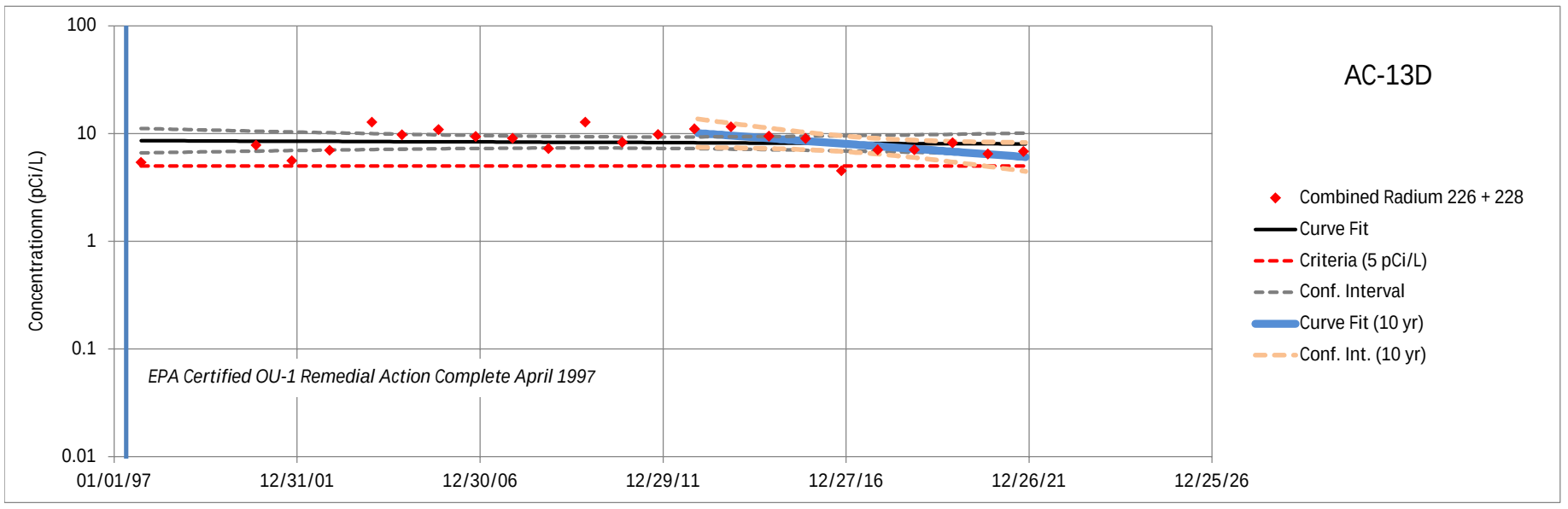
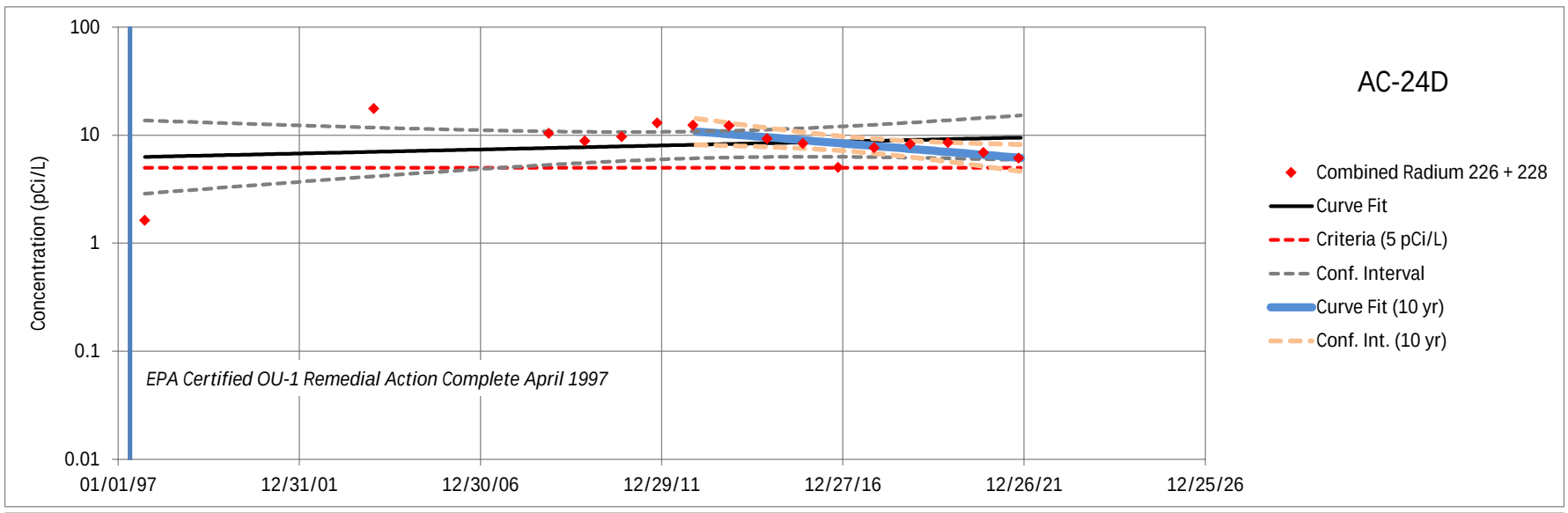
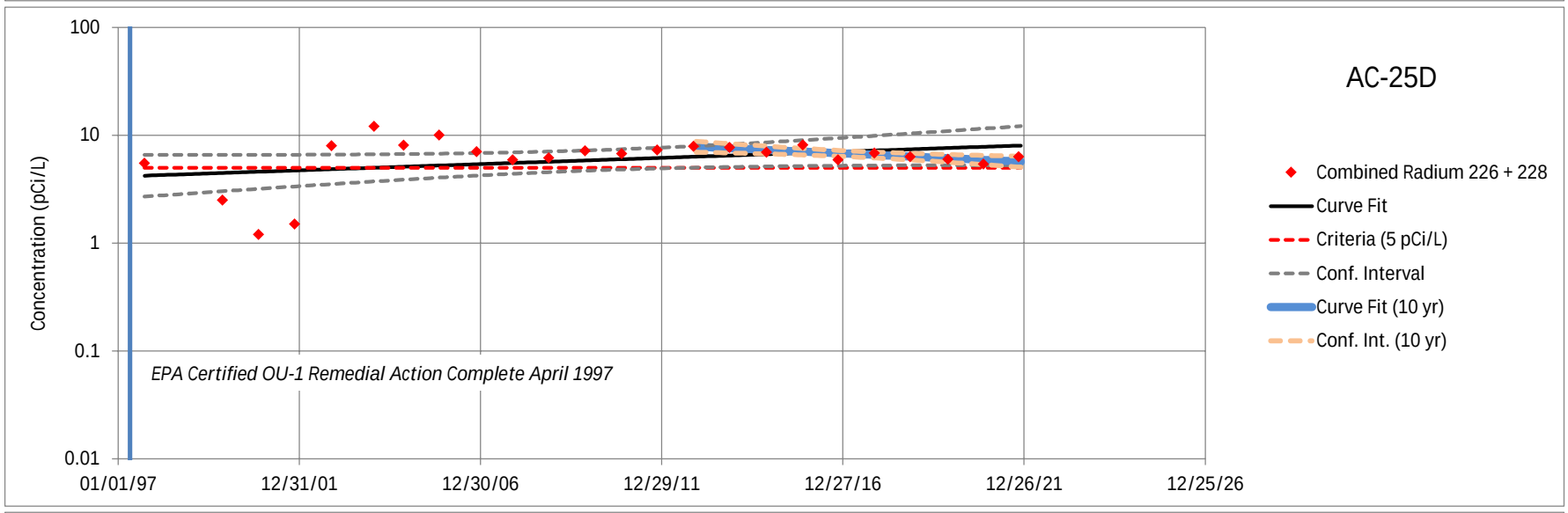


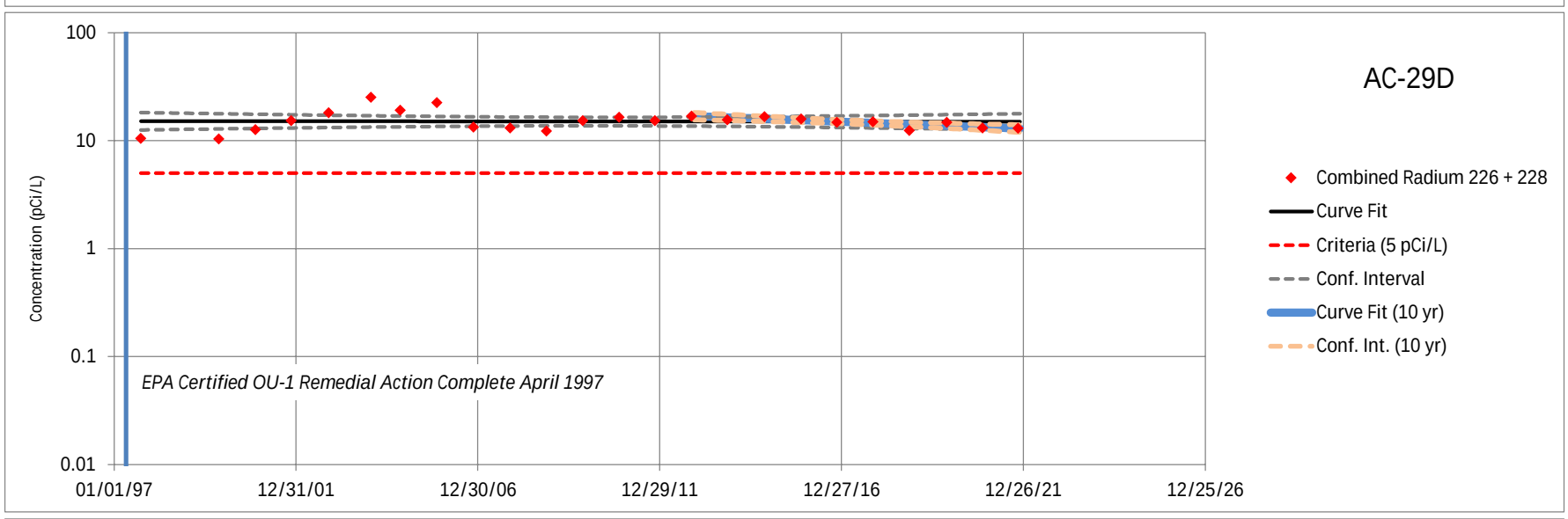
Figure 11 (Continued)

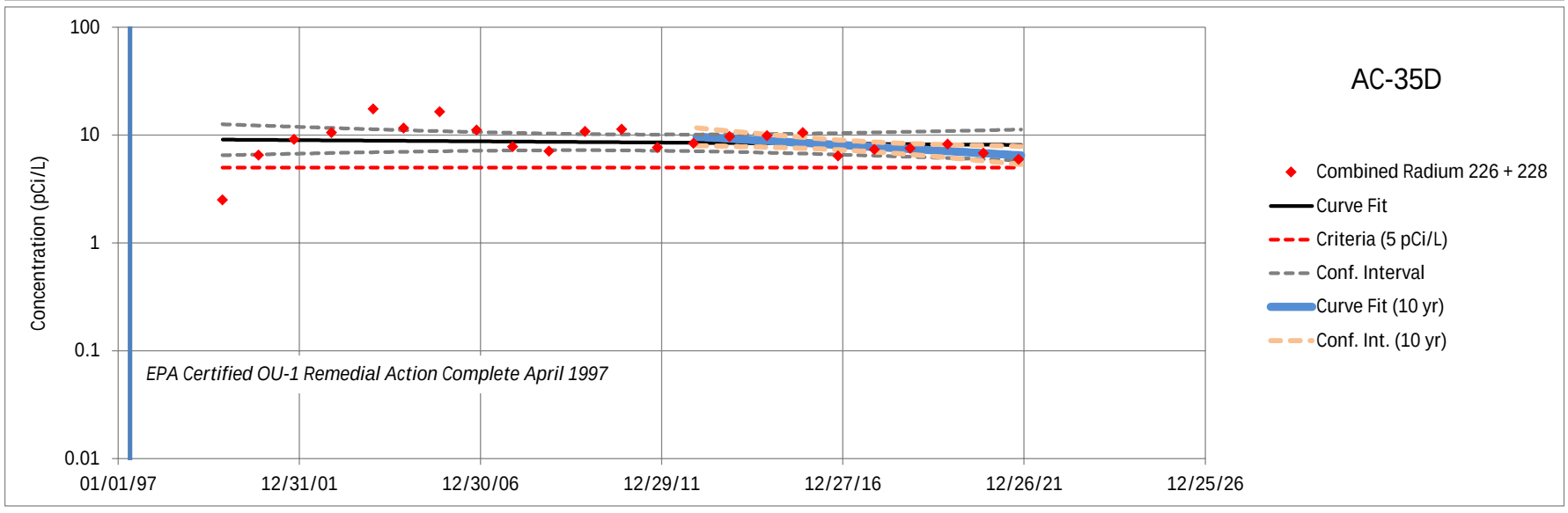
Concentration Trends
Main Producing Zone
Annual Network Wells

Agrico Site
Pensacola, Florida









APPENDIX A

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-210573-1
Client Project/Site: Agrico Pensacola - Annual

For:
AECOM
1625 Summit Lake Drive
Suite 200
Tallahassee, Florida 32317

Attn: Ms. Amy Mixon

Noël Savoie

Authorized for release by:
12/21/2021 3:49:15 PM

Noel Savoie, Project Manager I
(850)254-0107
Noel.Savoie@Eurofinset.com

Table of Contents

Job ID: 400-210573-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-210573-1

Comments
No additional comments.

Receipt
The samples were received on 11/2/2021 4:43 PM, 11/3/2021 4:45 PM and 11/4/2021 5:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.0º C, 4.2º C, 5.5º C and 11.5º C.

HPLC/IC
Method 300.0: The following samples were diluted to bring the concentration of target analytes within the calibration range: AC-25D (400-210573-1), AC-35D (400-210573-2), AC-12D (400-210662-1), AC-12D (400-210662-1[MS]), AC-12D (400-210662-1[MSD]), AC-13D (400-210662-2), AC-24D (400-210662-3), AC-29D (400-210662-4) and AC-3D (400-210714-1). Elevated reporting limits (RLs) are provided.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-555020 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

RAD
Method 903.0: Radium 226 batch 535218
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AC-25D (400-210573-1), AC-35D (400-210573-2), AC-2D (400-210573-3), AC-2S (400-210573-4), DUP-1 (400-210573-5), (LCS 160-535218/1-A), (LCSD 160-535218/2-A) and (MB 160-535218/23-A)

Method 903.0: Radium 226 batch 535638
The method blank (MB) has activity above the MDC and RL. The following associated samples are below the reporting limit for the contaminant, therefore, re-analysis is not required. The data have been reported. (MB 160-535638/23-A)

Method 903.0: Radium 226 batch 535638
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AC-3D (400-210714-1), ACB-315 (400-210714-2), EQ-1 (400-210714-3), (LCS 160-535638/1-A), (LCSD 160-535638/2-A) and (MB 160-535638/23-A)

Method 903.0: Radium 226 batch 538437
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AC-12D (400-210662-1), AC-12D (400-210662-1[MS]), AC-12D (400-210662-1[MSD]), AC-13D (400-210662-2), AC-24D (400-210662-3), AC-29D (400-210662-4), (LCS 160-538437/1-A) and (MB 160-538437/23-A)

Method 904.0: Radium 228 batch 535642
The LCS/LCSD recovered at (72% & 69%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCS are not from this agency and are therefore held to our in-house statistical limits of (61-138) per method requirements. The LCS passes, no further action is required. (LCS 160-535642/1-A) and (LCSD 160-535642/2-A)

Method 904.0: Radium 228 batch 535642
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time

Job ID: 400-210573-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

applied as the Activity Reference Date. AC-3D (400-210714-1), ACB-315 (400-210714-2), EQ-1 (400-210714-3), (LCS 160-535642/1-A), (LCSD 160-535642/2-A) and (MB 160-535642/23-A)

Method 904.0: Radium 228 batch 539795
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AC-25D (400-210573-1), AC-35D (400-210573-2), AC-2D (400-210573-3), AC-2S (400-210573-4), DUP-1 (400-210573-5), (LCS 160-539795/1-A), (LCSD 160-539795/2-A) and (MB 160-539795/23-A)

Method 904.0: Radium 228 batch 538441
Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. AC-12D (400-210662-1), AC-12D (400-210662-1[MS]), AC-12D (400-210662-1[MSD]), AC-13D (400-210662-2), AC-24D (400-210662-3), AC-29D (400-210662-4), (LCS 160-538441/1-A) and (MB 160-538441/23-A)

Method PrecSep_0: Radium-228 Prep Batch 160-535234
The following samples were prepared at a reduced aliquot due to Matrix: AC-25D (400-210573-1), AC-35D (400-210573-2) and AC-2S (400-210573-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep_0: Radium-228 Prep Batch 160-539795
The following samples were prepared at a reduced aliquot due to Matrix: AC-35D (400-210573-2) and AC-2D (400-210573-3). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-535218
The following samples were prepared at a reduced aliquot due to Matrix: AC-2D (400-210573-3) and DUP-1 (400-210573-5). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead of a sample duplicate (DUP) to demonstrate batch precision.

Method PrecSep-21: Radium-226 Prep Batch 160-535218
Insufficient sample volume was available to perform a sample duplicate for the following samples: AC-25D (400-210573-1), AC-35D (400-210573-2) and AC-2S (400-210573-4). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method 353.2: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-554556 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 353.2: The following samples were diluted to bring the concentration of target analytes within the calibration range: AC-25D (400-210573-1), AC-35D (400-210573-2), AC-12D (400-210662-1), AC-13D (400-210662-2), AC-24D (400-210662-3) and AC-29D (400-210662-4). Elevated reporting limits (RLs) are provided.

Methods 353.2, SM 4500 NO3 F: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-554573 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 353.2: The following sample was diluted to bring the concentration of target analytes within the calibration range: AC-12D (400-210662-1). Elevated reporting limits (RLs) are provided.

Job ID: 400-210573-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method 353.2: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 400-554556 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Nitrate Nitrite as N in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Methods 353.2, SM 4500 NO3 F: The following sample was diluted to bring the concentration of target analytes within the calibration range: AC-3D (400-210714-1). Elevated reporting limits (RLs) are provided.

Methods 353.2, SM 4500 NO3 F: The matrix spike (MS) recoveries for analytical batch 400-555476 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Client Sample ID: AC-25D — Lab Sample ID: 400-210573-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	260		10		mg/L	10		300.0	Total/NA
Sulfate	120		10		mg/L	10		300.0	Total/NA
Nitrate Nitrite as N	3.7	F1	0.10		mg/L	2		353.2	Total/NA
Nitrate as N	3.7		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	0.45		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: AC-35D — Lab Sample ID: 400-210573-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	220		10		mg/L	10		300.0	Total/NA
Sulfate	210		10		mg/L	10		300.0	Total/NA
Nitrate Nitrite as N	7.0		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	7.0		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	0.59		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: AC-2D — Lab Sample ID: 400-210573-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9		1.0		mg/L	1		300.0	Total/NA
Sulfate	21		1.0		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	1.1		0.050		mg/L	1		353.2	Total/NA
Nitrate as N	1.1		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	2.1		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: AC-2S — Lab Sample ID: 400-210573-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.6		1.0		mg/L	1		300.0	Total/NA
Sulfate	47		1.0		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	1.4		0.050		mg/L	1		353.2	Total/NA
Nitrate as N	1.4		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	22		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: DUP-1 — Lab Sample ID: 400-210573-5

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.9		1.0		mg/L	1		300.0	Total/NA
Sulfate	22		1.0		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	1.1		0.050		mg/L	1		353.2	Total/NA
Nitrate as N	1.1		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	0.54		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: AC-12D — Lab Sample ID: 400-210662-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	13		10		mg/L	10		300.0	Total/NA
Sulfate	150	F1	10		mg/L	10		300.0	Total/NA
Nitrate Nitrite as N	7.6	F1	0.25		mg/L	5		353.2	Total/NA
Nitrate as N	7.6		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	7.4		0.10		mg/L	1		SM 4500 F C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Client Sample ID: AC-13D — Lab Sample ID: 400-210662-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19		1.0		mg/L	1		300.0	Total/NA
Sulfate - DL	220		10		mg/L	10		300.0	Total/NA
Nitrate Nitrite as N	8.6		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	8.6		0.050		mg/L	1		Nitrate by calc	Total/NA

Client Sample ID: AC-24D — Lab Sample ID: 400-210662-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	79		5.0		mg/L	5		300.0	Total/NA
Sulfate	77		5.0		mg/L	5		300.0	Total/NA
Nitrate Nitrite as N	3.5		0.10		mg/L	2		353.2	Total/NA
Nitrate as N	3.5		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	0.47		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: AC-29D — Lab Sample ID: 400-210662-4

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	27		1.0		mg/L	1		300.0	Total/NA
Sulfate - DL	190		10		mg/L	10		300.0	Total/NA
Nitrate Nitrite as N	5.9		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	5.9		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	18		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: AC-3D — Lab Sample ID: 400-210714-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.3		1.0		mg/L	1		300.0	Total/NA
Sulfate - DL	150		5.0		mg/L	5		300.0	Total/NA
Nitrate Nitrite as N	3.8		0.25		mg/L	5		353.2	Total/NA
Nitrate as N	3.8		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	9.5		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: ACB-315 — Lab Sample ID: 400-210714-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.4		1.0		mg/L	1		300.0	Total/NA
Sulfate	2.4		1.0		mg/L	1		300.0	Total/NA
Nitrate Nitrite as N	0.20		0.050		mg/L	1		353.2	Total/NA
Nitrate as N	0.20		0.050		mg/L	1		Nitrate by calc	Total/NA
Fluoride	0.19		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: EQ-1 — Lab Sample ID: 400-210714-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	1.3		1.0		mg/L	1		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-210573-1	AC-25D	Water	11/02/21 09:55	11/02/21 16:43
400-210573-2	AC-35D	Water	11/02/21 11:09	11/02/21 16:43
400-210573-3	AC-2D	Water	11/02/21 15:15	11/02/21 16:43
400-210573-4	AC-2S	Water	11/02/21 15:55	11/02/21 16:43
400-210573-5	DUP-1	Water	11/02/21 00:00	11/02/21 16:43
400-210662-1	AC-12D	Water	11/03/21 10:58	11/03/21 16:45
400-210662-2	AC-13D	Water	11/03/21 09:33	11/03/21 16:45
400-210662-3	AC-24D	Water	11/03/21 14:58	11/03/21 16:45
400-210662-4	AC-29D	Water	11/03/21 13:39	11/03/21 16:45
400-210714-1	AC-3D	Water	11/04/21 11:01	11/04/21 17:00
400-210714-2	ACB-315	Water	11/04/21 13:08	11/04/21 17:00
400-210714-3	EQ-1	Water	11/04/21 13:38	11/04/21 17:00

Client Sample ID: AC-25D
Lab Sample ID: 400-210573-1

Date Collected: 11/02/21 09:55
Matrix: Water
Date Received: 11/02/21 16:43

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	260		10		mg/L			11/08/21 19:22	10
Sulfate	120		10		mg/L			11/08/21 19:22	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	3.7	F1	0.10		mg/L			11/04/21 13:32	2
Nitrate as N	3.7		0.050		mg/L			11/03/21 21:29	1
Fluoride	0.45		0.10		mg/L			11/08/21 13:41	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 21:29	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.71E+0		2.50E-1	2.93E-1	1.00E+0	1.47E-1	pCi/L	11/05/21 10:57	11/29/21 09:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.93E+1*		*40 - 110*	*11/05/21 10:57*	*11/29/21 09:12*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.59E+0		5.01E-1	6.55E-1	1.00E+0	3.86E-1	pCi/L	12/02/21 08:56	12/07/21 13:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.10E+1*		*40 - 110*	*12/02/21 08:56*	*12/07/21 13:47*	*1*
Y Carrier	*8.22E+1*		*40 - 110*	*12/02/21 08:56*	*12/07/21 13:47*	*1*

Client Sample ID: AC-35D
Lab Sample ID: 400-210573-2

Date Collected: 11/02/21 11:09
Matrix: Water
Date Received: 11/02/21 16:43

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	220		10		mg/L			11/08/21 19:47	10
Sulfate	210		10		mg/L			11/08/21 19:47	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	7.0		0.25		mg/L			11/04/21 13:35	5
Nitrate as N	7.0		0.050		mg/L			11/03/21 21:29	1
Fluoride	0.59		0.10		mg/L			11/08/21 13:30	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 21:29	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.61E+0		2.43E-1	2.83E-1	1.00E+0	1.50E-1	pCi/L	11/05/21 10:57	11/29/21 09:12	1

Client Sample ID: AC-35D
Lab Sample ID: 400-210573-2

Date Collected: 11/02/21 11:09
Matrix: Water
Date Received: 11/02/21 16:43

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	9.83E+1		40 - 110	11/05/21 10:57	11/29/21 09:12	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.33E+0		5.79E-1	7.03E-1	1.00E+0	4.83E-1	pCi/L	12/02/21 08:56	12/07/21 13:47	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	9.13E+1		40 - 110	12/02/21 08:56	12/07/21 13:47	1
Y Carrier	8.11E+1		40 - 110	12/02/21 08:56	12/07/21 13:47	1

Client Sample ID: AC-2D
Lab Sample ID: 400-210573-3

Date Collected: 11/02/21 15:15
Matrix: Water
Date Received: 11/02/21 16:43

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.9		1.0		mg/L			11/06/21 16:04	1
Sulfate	21		1.0		mg/L			11/06/21 16:04	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	1.1		0.050		mg/L			11/04/21 13:12	1
Nitrate as N	1.1		0.050		mg/L			11/03/21 21:30	1
Fluoride	2.1		0.10		mg/L			11/08/21 12:14	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 21:30	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.05E+0		2.42E-1	2.59E-1	1.00E+0	2.14E-1	pCi/L	11/05/21 10:57	11/29/21 09:13	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	9.68E+1		40 - 110	11/05/21 10:57	11/29/21 09:13	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.62E+0		4.05E-1	4.32E-1	1.00E+0	4.80E-1	pCi/L	12/02/21 08:56	12/07/21 13:47	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	9.68E+1		40 - 110	12/02/21 08:56	12/07/21 13:47	1
Y Carrier	8.15E+1		40 - 110	12/02/21 08:56	12/07/21 13:47	1

Client Sample ID: AC-2S
Lab Sample ID: 400-210573-4

Date Collected: 11/02/21 15:55
Matrix: Water
Date Received: 11/02/21 16:43

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2.6**		1.0		mg/L			11/06/21 16:29	1
Sulfate	**47**		1.0		mg/L			11/06/21 16:29	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010		mg/L		11/10/21 18:19	11/16/21 15:59	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	**1.4**		0.050		mg/L			11/04/21 13:12	1
Nitrate as N	**1.4**		0.050		mg/L			11/03/21 21:30	1
Fluoride	**22**		0.10		mg/L			11/08/21 13:38	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 21:30	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.24E-1	U	1.06E-1	1.07E-1	1.00E+0	1.64E-1	pCi/L	11/05/21 10:57	11/29/21 09:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.53E+1*		*40 - 110*	*11/05/21 10:57*	*11/29/21 09:13*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**6.11E-1**		2.66E-1	2.72E-1	1.00E+0	3.82E-1	pCi/L	12/02/21 08:56	12/07/21 13:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*1.00E+2*		*40 - 110*	*12/02/21 08:56*	*12/07/21 13:48*	*1*
Y Carrier	*8.04E+1*		*40 - 110*	*12/02/21 08:56*	*12/07/21 13:48*	*1*

Client Sample ID: DUP-1
Lab Sample ID: 400-210573-5

Date Collected: 11/02/21 00:00
Matrix: Water
Date Received: 11/02/21 16:43

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**4.9**		1.0		mg/L			11/06/21 16:54	1
Sulfate	**22**		1.0		mg/L			11/06/21 16:54	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	**1.1**		0.050		mg/L			11/04/21 13:13	1
Nitrate as N	**1.1**		0.050		mg/L			11/03/21 21:30	1
Fluoride	**0.54**		0.10		mg/L			11/08/21 13:33	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 21:30	1

Client Sample ID: DUP-1
Lab Sample ID: 400-210573-5

Date Collected: 11/02/21 00:00
Matrix: Water
Date Received: 11/02/21 16:43

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.20E+0		2.60E-1	2.82E-1	1.00E+0	1.97E-1	pCi/L	11/05/21 10:57	11/29/21 09:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*8.63E+1*		*40 - 110*	*11/05/21 10:57*	*11/29/21 09:13*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.37E+0		4.22E-1	4.40E-1	1.00E+0	5.52E-1	pCi/L	12/02/21 08:56	12/07/21 13:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.33E+1*		*40 - 110*	*12/02/21 08:56*	*12/07/21 13:48*	*1*
Y Carrier	*8.07E+1*		*40 - 110*	*12/02/21 08:56*	*12/07/21 13:48*	*1*

Client Sample ID: AC-12D
Lab Sample ID: 400-210662-1

Date Collected: 11/03/21 10:58
Matrix: Water
Date Received: 11/03/21 16:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		10		mg/L			11/08/21 17:43	10
Sulfate	150	F1	10		mg/L			11/08/21 17:43	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	7.6	F1	0.25		mg/L			11/04/21 14:59	5
Nitrate as N	7.6		0.050		mg/L			11/03/21 20:57	1
Fluoride	7.4		0.10		mg/L			11/08/21 11:41	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 20:57	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.53E+0		2.17E-1	2.57E-1	1.00E+0	1.25E-1	pCi/L	11/24/21 09:32	12/17/21 11:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*8.63E+1*		*40 - 110*	*11/24/21 09:32*	*12/17/21 11:25*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.67E+0		5.30E-1	6.82E-1	1.00E+0	3.70E-1	pCi/L	11/24/21 10:09	12/02/21 12:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*8.63E+1*		*40 - 110*	*11/24/21 10:09*	*12/02/21 12:58*	*1*
Y Carrier	*8.11E+1*		*40 - 110*	*11/24/21 10:09*	*12/02/21 12:58*	*1*

Client Sample ID: AC-13D
Lab Sample ID: 400-210662-2

Date Collected: 11/03/21 09:33
Matrix: Water
Date Received: 11/03/21 16:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19**		1.0		mg/L			11/05/21 17:15	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**220**		10		mg/L			11/08/21 18:08	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	**8.6**		0.25		mg/L			11/04/21 13:39	5
Nitrate as N	**8.6**		0.050		mg/L			11/03/21 20:57	1
Fluoride	<0.10		0.10		mg/L			11/08/21 13:22	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 20:57	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.38E+0**		1.98E-1	2.34E-1	1.00E+0	1.11E-1	pCi/L	11/24/21 09:32	12/17/21 12:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.35E+1*		*40 - 110*	*11/24/21 09:32*	*12/17/21 12:08*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**5.44E+0**		5.33E-1	7.31E-1	1.00E+0	3.47E-1	pCi/L	11/24/21 10:09	12/02/21 12:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.35E+1*		*40 - 110*	*11/24/21 10:09*	*12/02/21 12:51*	*1*
Y Carrier	*8.45E+1*		*40 - 110*	*11/24/21 10:09*	*12/02/21 12:51*	*1*

Client Sample ID: AC-24D
Lab Sample ID: 400-210662-3

Date Collected: 11/03/21 14:58
Matrix: Water
Date Received: 11/03/21 16:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**79**		5.0		mg/L			11/08/21 18:33	5
Sulfate	**77**		5.0		mg/L			11/08/21 18:33	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	**3.5**		0.10		mg/L			11/04/21 13:40	2
Nitrate as N	**3.5**		0.050		mg/L			11/03/21 20:57	1
Fluoride	**0.47**		0.10		mg/L			11/08/21 13:26	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 20:57	1

Client Sample ID: AC-24D
Lab Sample ID: 400-210662-3

Date Collected: 11/03/21 14:58
Matrix: Water
Date Received: 11/03/21 16:45

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.29E+0		1.97E-1	2.29E-1	1.00E+0	1.25E-1	pCi/L	11/24/21 09:32	12/17/21 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.00E+1*		*40 - 110*	*11/24/21 09:32*	*12/17/21 12:09*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	4.86E+0		5.19E-1	6.85E-1	1.00E+0	3.87E-1	pCi/L	11/24/21 10:09	12/02/21 12:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.00E+1*		*40 - 110*	*11/24/21 10:09*	*12/02/21 12:51*	*1*
Y Carrier	*8.64E+1*		*40 - 110*	*11/24/21 10:09*	*12/02/21 12:51*	*1*

Client Sample ID: AC-29D
Lab Sample ID: 400-210662-4

Date Collected: 11/03/21 13:39
Matrix: Water
Date Received: 11/03/21 16:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		1.0		mg/L			11/05/21 18:05	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	190		10		mg/L			11/08/21 18:58	10

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	5.9		0.25		mg/L			11/04/21 13:41	5
Nitrate as N	5.9		0.050		mg/L			11/03/21 21:29	1
Fluoride	18		0.10		mg/L			11/08/21 12:18	1
Nitrite as N	<0.10		0.10		mg/L			11/03/21 21:29	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.17E+0		1.85E-1	2.13E-1	1.00E+0	1.12E-1	pCi/L	11/24/21 09:32	12/17/21 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.03E+1*		*40 - 110*	*11/24/21 09:32*	*12/17/21 12:09*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.19E+1		7.68E-1	1.34E+0	1.00E+0	3.56E-1	pCi/L	11/24/21 10:09	12/02/21 12:51	1

Client Sample ID: AC-29D
Lab Sample ID: 400-210662-4

Date Collected: 11/03/21 13:39
Matrix: Water
Date Received: 11/03/21 16:45

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	9.03E+1		40 - 110	11/24/21 10:09	12/02/21 12:51	1
Y Carrier	8.67E+1		40 - 110	11/24/21 10:09	12/02/21 12:51	1

Client Sample ID: AC-3D
Lab Sample ID: 400-210714-1

Date Collected: 11/04/21 11:01
Matrix: Water
Date Received: 11/04/21 17:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.3		1.0		mg/L			11/06/21 17:19	1

Method: 300.0 - Anions, Ion Chromatography - DL

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	150		5.0		mg/L			11/08/21 20:12	5

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	3.8		0.25		mg/L			11/11/21 11:21	5
Nitrate as N	3.8		0.050		mg/L			11/04/21 18:41	1
Fluoride	9.5		0.10		mg/L			11/08/21 12:10	1
Nitrite as N	<0.10		0.10		mg/L			11/04/21 18:41	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	9.80E-1		1.73E-1	1.94E-1	1.00E+0	1.10E-1	pCi/L	11/09/21 10:24	12/02/21 19:53	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	1.02E+2		40 - 110	11/09/21 10:24	12/02/21 19:53	1

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	8.24E+0		6.36E-1	9.90E-1	1.00E+0	3.94E-1	pCi/L	11/09/21 11:17	11/24/21 13:22	1

Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	1.02E+2		40 - 110	11/09/21 11:17	11/24/21 13:22	1
Y Carrier	8.71E+1		40 - 110	11/09/21 11:17	11/24/21 13:22	1

Client Sample ID: ACB-315
Lab Sample ID: 400-210714-2

Date Collected: 11/04/21 13:08
Matrix: Water
Date Received: 11/04/21 17:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1.4		1.0		mg/L			11/06/21 17:44	1
Sulfate	2.4		1.0		mg/L			11/06/21 17:44	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	0.20		0.050		mg/L			11/11/21 11:19	1

Client Sample ID: ACB-315
Lab Sample ID: 400-210714-2

Date Collected: 11/04/21 13:08
Matrix: Water
Date Received: 11/04/21 17:00

General Chemistry (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.20**		0.050		mg/L			11/04/21 18:41	1
Fluoride	**0.19**		0.10		mg/L			11/08/21 11:51	1
Nitrite as N	<0.10		0.10		mg/L			11/04/21 18:41	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-4.05E-3	U	5.31E-2	5.31E-2	1.00E+0	1.09E-1	pCi/L	11/09/21 10:24	12/02/21 19:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*1.03E+2*		*40 - 110*	*11/09/21 10:24*	*12/02/21 19:53*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**4.59E-1**		2.41E-1	2.45E-1	1.00E+0	3.56E-1	pCi/L	11/09/21 11:17	11/24/21 13:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*1.03E+2*		*40 - 110*	*11/09/21 11:17*	*11/24/21 13:22*	*1*
Y Carrier	*8.90E+1*		*40 - 110*	*11/09/21 11:17*	*11/24/21 13:22*	*1*

Client Sample ID: EQ-1
Lab Sample ID: 400-210714-3

Date Collected: 11/04/21 13:38
Matrix: Water
Date Received: 11/04/21 17:00

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**1.3**		1.0		mg/L			11/06/21 18:09	1
Sulfate	<1.0		1.0		mg/L			11/06/21 18:09	1

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<0.050		0.050		mg/L			11/11/21 11:04	1
Nitrate as N	<0.050		0.050		mg/L			11/04/21 19:13	1
Fluoride	<0.10		0.10		mg/L			11/08/21 11:54	1
Nitrite as N	<0.10		0.10		mg/L			11/04/21 19:13	1

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-1.14E-2	U	5.60E-2	5.60E-2	1.00E+0	1.18E-1	pCi/L	11/09/21 10:24	12/02/21 19:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.85E+1*		*40 - 110*	*11/09/21 10:24*	*12/02/21 19:53*	*1*

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Client Sample ID: EQ-1
Lab Sample ID: 400-210714-3
Date Collected: 11/04/21 13:38
Matrix: Water
Date Received: 11/04/21 17:00

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-1.24E-1	U	2.21E-1	2.21E-1	1.00E+0	4.19E-1	pCi/L	11/09/21 11:17	11/24/21 13:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.85E+1*		*40 - 110*	*11/09/21 11:17*	*11/24/21 13:23*	*1*
Y Carrier	*8.30E+1*		*40 - 110*	*11/09/21 11:17*	*11/24/21 13:23*	*1*

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

HPLC/IC

Analysis Batch: 554758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-3	AC-2D	Total/NA	Water	300.0	
400-210573-4	AC-2S	Total/NA	Water	300.0	
400-210573-5	DUP-1	Total/NA	Water	300.0	
400-210662-2	AC-13D	Total/NA	Water	300.0	
400-210662-4	AC-29D	Total/NA	Water	300.0	
400-210714-1	AC-3D	Total/NA	Water	300.0	
400-210714-2	ACB-315	Total/NA	Water	300.0	
400-210714-3	EQ-1	Total/NA	Water	300.0	
MB 400-554758/24	Method Blank	Total/NA	Water	300.0	
MB 400-554758/85	Method Blank	Total/NA	Water	300.0	
LCS 400-554758/22	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-554758/83	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-554758/23	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 400-554758/84	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 400-554758/25	Lab Control Sample	Total/NA	Water	300.0	
MRL 400-554758/86	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 555020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-1	AC-25D	Total/NA	Water	300.0	
400-210573-2	AC-35D	Total/NA	Water	300.0	
400-210662-1	AC-12D	Total/NA	Water	300.0	
400-210662-2 - DL	AC-13D	Total/NA	Water	300.0	
400-210662-3	AC-24D	Total/NA	Water	300.0	
400-210662-4 - DL	AC-29D	Total/NA	Water	300.0	
400-210714-1 - DL	AC-3D	Total/NA	Water	300.0	
MB 400-555020/46	Method Blank	Total/NA	Water	300.0	
MB 400-555020/7	Method Blank	Total/NA	Water	300.0	
LCS 400-555020/44	Lab Control Sample	Total/NA	Water	300.0	
LCS 400-555020/5	Lab Control Sample	Total/NA	Water	300.0	
LCSD 400-555020/45	Lab Control Sample Dup	Total/NA	Water	300.0	
LCSD 400-555020/6	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 400-555020/47	Lab Control Sample	Total/NA	Water	300.0	
MRL 400-555020/8	Lab Control Sample	Total/NA	Water	300.0	
400-210662-1 MS	AC-12D	Total/NA	Water	300.0	
400-210662-1 MSD	AC-12D	Total/NA	Water	300.0	

Metals

Prep Batch: 555398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-4	AC-2S	Total Recoverable	Water	3005A	
MB 400-555398/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 400-555398/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 556211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-4	AC-2S	Total Recoverable	Water	6010C	555398
MB 400-555398/1-A	Method Blank	Total Recoverable	Water	6010C	555398
LCS 400-555398/2-A	Lab Control Sample	Total Recoverable	Water	6010C	555398

General Chemistry

Analysis Batch: 554452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-1	AC-25D	Total/NA	Water	SM 4500 NO2 B	
400-210573-2	AC-35D	Total/NA	Water	SM 4500 NO2 B	
400-210573-3	AC-2D	Total/NA	Water	SM 4500 NO2 B	
400-210573-4	AC-2S	Total/NA	Water	SM 4500 NO2 B	
400-210573-5	DUP-1	Total/NA	Water	SM 4500 NO2 B	
400-210662-1	AC-12D	Total/NA	Water	SM 4500 NO2 B	
400-210662-2	AC-13D	Total/NA	Water	SM 4500 NO2 B	
400-210662-3	AC-24D	Total/NA	Water	SM 4500 NO2 B	
400-210662-4	AC-29D	Total/NA	Water	SM 4500 NO2 B	
MB 400-554452/6	Method Blank	Total/NA	Water	SM 4500 NO2 B	
LCS 400-554452/48	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MRL 400-554452/3	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
400-210662-1 MS	AC-12D	Total/NA	Water	SM 4500 NO2 B	
400-210662-1 MSD	AC-12D	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 554556

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-1	AC-25D	Total/NA	Water	353.2	
400-210573-2	AC-35D	Total/NA	Water	353.2	
400-210573-3	AC-2D	Total/NA	Water	353.2	
400-210573-4	AC-2S	Total/NA	Water	353.2	
400-210573-5	DUP-1	Total/NA	Water	353.2	
400-210662-2	AC-13D	Total/NA	Water	353.2	
400-210662-3	AC-24D	Total/NA	Water	353.2	
400-210662-4	AC-29D	Total/NA	Water	353.2	
MB 400-554556/1	Method Blank	Total/NA	Water	353.2	
LCS 400-554556/2	Lab Control Sample	Total/NA	Water	353.2	
400-210573-1 MS	AC-25D	Total/NA	Water	353.2	
400-210573-1 MSD	AC-25D	Total/NA	Water	353.2	

Analysis Batch: 554573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210662-1	AC-12D	Total/NA	Water	353.2	
MB 400-554573/1	Method Blank	Total/NA	Water	353.2	
LCS 400-554573/2	Lab Control Sample	Total/NA	Water	353.2	
400-210662-1 MS	AC-12D	Total/NA	Water	353.2	
400-210662-1 MSD	AC-12D	Total/NA	Water	353.2	

Analysis Batch: 554628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210714-1	AC-3D	Total/NA	Water	SM 4500 NO2 B	
400-210714-2	ACB-315	Total/NA	Water	SM 4500 NO2 B	
400-210714-3	EQ-1	Total/NA	Water	SM 4500 NO2 B	
MB 400-554628/9	Method Blank	Total/NA	Water	SM 4500 NO2 B	
LCS 400-554628/36	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	
MRL 400-554628/6	Lab Control Sample	Total/NA	Water	SM 4500 NO2 B	

Analysis Batch: 555001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-1	AC-25D	Total/NA	Water	SM 4500 F C	
400-210573-2	AC-35D	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 555001 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-3	AC-2D	Total/NA	Water	SM 4500 F C	
400-210573-4	AC-2S	Total/NA	Water	SM 4500 F C	
400-210573-5	DUP-1	Total/NA	Water	SM 4500 F C	
400-210662-1	AC-12D	Total/NA	Water	SM 4500 F C	
400-210662-2	AC-13D	Total/NA	Water	SM 4500 F C	
400-210662-3	AC-24D	Total/NA	Water	SM 4500 F C	
400-210662-4	AC-29D	Total/NA	Water	SM 4500 F C	
400-210714-1	AC-3D	Total/NA	Water	SM 4500 F C	
400-210714-2	ACB-315	Total/NA	Water	SM 4500 F C	
400-210714-3	EQ-1	Total/NA	Water	SM 4500 F C	
MB 400-555001/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-555001/6	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-210662-1 MS	AC-12D	Total/NA	Water	SM 4500 F C	
400-210662-1 MSD	AC-12D	Total/NA	Water	SM 4500 F C	

Analysis Batch: 555097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210714-1	AC-3D	Total/NA	Water	Nitrate by calc	
400-210714-2	ACB-315	Total/NA	Water	Nitrate by calc	
400-210714-3	EQ-1	Total/NA	Water	Nitrate by calc	

Analysis Batch: 555270

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-1	AC-25D	Total/NA	Water	Nitrate by calc	
400-210573-2	AC-35D	Total/NA	Water	Nitrate by calc	
400-210573-3	AC-2D	Total/NA	Water	Nitrate by calc	
400-210573-4	AC-2S	Total/NA	Water	Nitrate by calc	
400-210573-5	DUP-1	Total/NA	Water	Nitrate by calc	
400-210662-1	AC-12D	Total/NA	Water	Nitrate by calc	
400-210662-2	AC-13D	Total/NA	Water	Nitrate by calc	
400-210662-3	AC-24D	Total/NA	Water	Nitrate by calc	
400-210662-4	AC-29D	Total/NA	Water	Nitrate by calc	
400-210662-1 MS	AC-12D	Total/NA	Water	Nitrate by calc	
400-210662-1 MSD	AC-12D	Total/NA	Water	Nitrate by calc	

Analysis Batch: 555476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210714-1	AC-3D	Total/NA	Water	353.2	
400-210714-2	ACB-315	Total/NA	Water	353.2	
400-210714-3	EQ-1	Total/NA	Water	353.2	
MB 400-555476/84	Method Blank	Total/NA	Water	353.2	
LCS 400-555476/85	Lab Control Sample	Total/NA	Water	353.2	
MRL 400-555476/13	Lab Control Sample	Total/NA	Water	353.2	

Rad

Prep Batch: 535218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-1	AC-25D	Total/NA	Water	PrecSep-21	
400-210573-2	AC-35D	Total/NA	Water	PrecSep-21	
400-210573-3	AC-2D	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 535218 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-4	AC-2S	Total/NA	Water	PrecSep-21	
400-210573-5	DUP-1	Total/NA	Water	PrecSep-21	
MB 160-535218/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-535218/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-535218/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 535638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210714-1	AC-3D	Total/NA	Water	PrecSep-21	
400-210714-2	ACB-315	Total/NA	Water	PrecSep-21	
400-210714-3	EQ-1	Total/NA	Water	PrecSep-21	
MB 160-535638/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-535638/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-535638/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 535642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210714-1	AC-3D	Total/NA	Water	PrecSep_0	
400-210714-2	ACB-315	Total/NA	Water	PrecSep_0	
400-210714-3	EQ-1	Total/NA	Water	PrecSep_0	
MB 160-535642/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-535642/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-535642/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 538437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210662-1	AC-12D	Total/NA	Water	PrecSep-21	
400-210662-2	AC-13D	Total/NA	Water	PrecSep-21	
400-210662-3	AC-24D	Total/NA	Water	PrecSep-21	
400-210662-4	AC-29D	Total/NA	Water	PrecSep-21	
MB 160-538437/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-538437/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-210662-1 MS	AC-12D	Total/NA	Water	PrecSep-21	
400-210662-1 MSD	AC-12D	Total/NA	Water	PrecSep-21	

Prep Batch: 538441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210662-1	AC-12D	Total/NA	Water	PrecSep_0	
400-210662-2	AC-13D	Total/NA	Water	PrecSep_0	
400-210662-3	AC-24D	Total/NA	Water	PrecSep_0	
400-210662-4	AC-29D	Total/NA	Water	PrecSep_0	
MB 160-538441/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-538441/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-210662-1 MS	AC-12D	Total/NA	Water	PrecSep_0	
400-210662-1 MSD	AC-12D	Total/NA	Water	PrecSep_0	

Prep Batch: 539795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-1	AC-25D	Total/NA	Water	PrecSep_0	
400-210573-2	AC-35D	Total/NA	Water	PrecSep_0	
400-210573-3	AC-2D	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 539795 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210573-4	AC-2S	Total/NA	Water	PrecSep_0	
400-210573-5	DUP-1	Total/NA	Water	PrecSep_0	
MB 160-539795/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-539795/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-539795/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 400-554758/24
Matrix: Water
Analysis Batch: 554758

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			11/05/21 15:10	1
Sulfate	<1.0		1.0		mg/L			11/05/21 15:10	1

Lab Sample ID: MB 400-554758/85
Matrix: Water
Analysis Batch: 554758

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			11/06/21 06:31	1
Sulfate	<1.0		1.0		mg/L			11/06/21 06:31	1

Lab Sample ID: LCS 400-554758/22
Matrix: Water
Analysis Batch: 554758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.72		mg/L		97	90 - 110
Sulfate	10.0	9.21		mg/L		92	90 - 110

Lab Sample ID: LCS 400-554758/83
Matrix: Water
Analysis Batch: 554758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.82		mg/L		98	90 - 110
Sulfate	10.0	9.78		mg/L		98	90 - 110

Lab Sample ID: LCSD 400-554758/23
Matrix: Water
Analysis Batch: 554758

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.81		mg/L		98	90 - 110	1	15
Sulfate	10.0	9.34		mg/L		93	90 - 110	1	15

Lab Sample ID: LCSD 400-554758/84
Matrix: Water
Analysis Batch: 554758

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.80		mg/L		98	90 - 110	0	15
Sulfate	10.0	9.89		mg/L		99	90 - 110	1	15

Lab Sample ID: MRL 400-554758/25
Matrix: Water
Analysis Batch: 554758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.00	<1.0		mg/L		80	50 - 150
Sulfate	1.00	<1.0		mg/L		72	50 - 150

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 400-554758/86
Matrix: Water
Analysis Batch: 554758

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	1.00	<1.0		mg/L		83	50 - 150
Sulfate	1.00	<1.0		mg/L		83	50 - 150

Lab Sample ID: MB 400-555020/46
Matrix: Water
Analysis Batch: 555020

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			11/09/21 06:58	1
Sulfate	<1.0		1.0		mg/L			11/09/21 06:58	1

Lab Sample ID: MB 400-555020/7
Matrix: Water
Analysis Batch: 555020

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0		mg/L			11/08/21 14:49	1
Sulfate	<1.0		1.0		mg/L			11/08/21 14:49	1

Lab Sample ID: LCS 400-555020/44
Matrix: Water
Analysis Batch: 555020

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.78		mg/L		98	90 - 110
Sulfate	10.0	9.84		mg/L		98	90 - 110

Lab Sample ID: LCS 400-555020/5
Matrix: Water
Analysis Batch: 555020

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	10.0	9.67		mg/L		97	90 - 110
Sulfate	10.0	9.77		mg/L		98	90 - 110

Lab Sample ID: LCSD 400-555020/45
Matrix: Water
Analysis Batch: 555020

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.77		mg/L		98	90 - 110	0	15
Sulfate	10.0	9.89		mg/L		99	90 - 110	0	15

Lab Sample ID: LCSD 400-555020/6
Matrix: Water
Analysis Batch: 555020

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	10.0	9.67		mg/L		97	90 - 110	0	15
Sulfate	10.0	9.83		mg/L		98	90 - 110	1	15

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MRL 400-555020/47
Matrix: Water
Analysis Batch: 555020

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			1.00	<1.0		mg/L		81	50 - 150		
Sulfate			1.00	<1.0		mg/L		79	50 - 150		

Lab Sample ID: MRL 400-555020/8
Matrix: Water
Analysis Batch: 555020

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			1.00	<1.0		mg/L		80	50 - 150		
Sulfate			1.00	<1.0		mg/L		78	50 - 150		

Lab Sample ID: 400-210662-1 MS
Matrix: Water
Analysis Batch: 555020

Client Sample ID: AC-12D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	13		100	133		mg/L		120	80 - 120		
Sulfate	150	F1	100	464	F1	mg/L		311	80 - 120		

Lab Sample ID: 400-210662-1 MSD
Matrix: Water
Analysis Batch: 555020

Client Sample ID: AC-12D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	13		100	131		mg/L		119	80 - 120	1	20
Sulfate	150	F1	100	458	F1	mg/L		305	80 - 120	1	20

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 400-555398/1-A
Matrix: Water
Analysis Batch: 556211

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 555398

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010		mg/L		11/10/21 18:19	11/16/21 15:49	1

Lab Sample ID: LCS 400-555398/2-A
Matrix: Water
Analysis Batch: 556211

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 555398

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			1.00	1.01		mg/L		101	80 - 120		

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 400-554556/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 554556

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<0.050		0.050		mg/L			11/04/21 13:05	1

Lab Sample ID: LCS 400-554556/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 554556

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N			0.500	0.514		mg/L		103	90 - 110		

Lab Sample ID: 400-210573-1 MS
Client Sample ID: AC-25D
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 554556

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N	3.7	F1	2.00	4.37	F1	mg/L		35	90 - 110		

Lab Sample ID: 400-210573-1 MSD
Client Sample ID: AC-25D
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 554556

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	3.7	F1	2.00	4.28	F1	mg/L		30	90 - 110	2	4

Lab Sample ID: MB 400-554573/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 554573

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<0.050		0.050		mg/L			11/04/21 14:35	1

Lab Sample ID: LCS 400-554573/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 554573

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N			0.500	0.513		mg/L		103	90 - 110		

Lab Sample ID: 400-210662-1 MS
Client Sample ID: AC-12D
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 554573

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate Nitrite as N	7.6	F1	5.00	8.14	F1	mg/L		11	90 - 110		

Lab Sample ID: 400-210662-1 MSD
Client Sample ID: AC-12D
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 554573

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate Nitrite as N	7.6	F1	5.00	8.15	F1	mg/L		11	90 - 110	0	4

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 400-555476/84
Matrix: Water
Analysis Batch: 555476

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate Nitrite as N	<0.050		0.050		mg/L			11/11/21 10:54	1

Lab Sample ID: LCS 400-555476/85
Matrix: Water
Analysis Batch: 555476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.500	0.497		mg/L		99	90 - 110

Lab Sample ID: MRL 400-555476/13
Matrix: Water
Analysis Batch: 555476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate Nitrite as N	0.0500	0.0510		mg/L		102	50 - 150

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-555001/3
Matrix: Water
Analysis Batch: 555001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/08/21 11:27	1

Lab Sample ID: LCS 400-555001/6
Matrix: Water
Analysis Batch: 555001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	5.00	5.39		mg/L		108	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite

Lab Sample ID: MB 400-554452/6
Matrix: Water
Analysis Batch: 554452

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.10		0.10		mg/L			11/03/21 20:57	1

Lab Sample ID: LCS 400-554452/48
Matrix: Water
Analysis Batch: 554452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrite as N	0.300	0.294		mg/L		98	90 - 110

Method: SM 4500 NO2 B - Nitrogen, Nitrite (Continued)

Lab Sample ID: MRL 400-554452/3
Matrix: Water
Analysis Batch: 554452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			0.100	0.137		mg/L		137	50 - 150		

Lab Sample ID: 400-210662-1 MS
Matrix: Water
Analysis Batch: 554452

Client Sample ID: AC-12D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N	<0.10		0.200	0.204		mg/L		92	80 - 118		

Lab Sample ID: 400-210662-1 MSD
Matrix: Water
Analysis Batch: 554452

Client Sample ID: AC-12D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrite as N	<0.10		0.200	0.204		mg/L		92	80 - 118	0	9

Lab Sample ID: MB 400-554628/9
Matrix: Water
Analysis Batch: 554628

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	<0.10		0.10		mg/L			11/04/21 13:08	1

Lab Sample ID: LCS 400-554628/36
Matrix: Water
Analysis Batch: 554628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			0.300	0.299		mg/L		100	90 - 110		

Lab Sample ID: MRL 400-554628/6
Matrix: Water
Analysis Batch: 554628

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrite as N			0.100	0.103		mg/L		103	50 - 150		

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-535218/23-A
Matrix: Water
Analysis Batch: 539049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 535218

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	4.799E-2	U	9.95E-2	9.96E-2	1.00E+0	1.77E-1	pCi/L	11/05/21 10:57	11/29/21 09:18	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*1.01E+2*		*40 - 110*	*11/05/21 10:57*	*11/29/21 09:18*	*1*

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-535218/1-A
Matrix: Water
Analysis Batch: 539046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 535218

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			1.51E+1	1.327E+1		1.43E+0	1.00E+0	2.06E-1	pCi/L	88	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*8.95E+1*		*40 - 110*

Lab Sample ID: LCSD 160-535218/2-A
Matrix: Water
Analysis Batch: 539046

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 535218

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	DER	DER Limit
Radium-226			1.51E+1	1.319E+1		1.41E+0	1.00E+0	2.05E-1	pCi/L	87	75 - 125	8.12 E-2	3

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*9.83E+1*		*40 - 110*

Lab Sample ID: MB 160-535638/23-A
Matrix: Water
Analysis Batch: 539993

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 535638

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.309E+0		2.44E-1	2.71E-1	1.00E+0	1.82E-1	pCi/L	11/09/21 10:24	12/02/21 20:41	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.77E+1*		*40 - 110*	*11/09/21 10:24*	*12/02/21 20:41*	*1*

Lab Sample ID: LCS 160-535638/1-A
Matrix: Water
Analysis Batch: 539784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 535638

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			1.51E+1	1.259E+1		1.33E+0	1.00E+0	1.73E-1	pCi/L	83	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*1.07E+2*		*40 - 110*

Lab Sample ID: LCSD 160-535638/2-A
Matrix: Water
Analysis Batch: 539784

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 535638

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	DER	DER Limit
Radium-226			1.51E+1	1.251E+1		1.33E+0	1.00E+0	1.94E-1	pCi/L	83	75 - 125	8.52 E-2	3

Method: 903.0 - Radium-226 (GFPC) (Continued)

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	9.97E+1		40 - 110

Lab Sample ID: MB 160-538437/23-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 542558 — **Prep Batch: 538437**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	6.878E-2	U	5.66E-2	5.70E-2	1.00E+0	8.01E-2	pCi/L	11/24/21 09:32	12/17/21 12:11	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	8.66E+1		40 - 110	11/24/21 09:32	12/17/21 12:11	1

Lab Sample ID: LCS 160-538437/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 542557 — **Prep Batch: 538437**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			1.13E+1	1.061E+1		1.10E+0	1.00E+0	1.02E-1	pCi/L	94	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	8.96E+1		40 - 110

Lab Sample ID: 400-210662-1 MS — **Client Sample ID: AC-12D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 542558 — **Prep Batch: 538437**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	1.53E+0		1.13E+1	1.205E+1		1.23E+0	1.00E+0	9.80E-2	pCi/L	93	60 - 140		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	8.91E+1		40 - 110

Lab Sample ID: 400-210662-1 MSD — **Client Sample ID: AC-12D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 542558 — **Prep Batch: 538437**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	DER	DER Limit
Radium-226	1.53E+0		1.13E+1	1.150E+1		1.17E+0	1.00E+0	9.37E-2	pCi/L	88	60 - 140	0.65	3

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	9.43E+1		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-535642/23-A
Matrix: Water
Analysis Batch: 538450

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 535642

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	6.999E-1		3.47E-1	3.53E-1	1.00E+0	5.09E-1	pCi/L	11/09/21 11:17	11/24/21 13:18	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.77E+1*		*40 - 110*	*11/09/21 11:17*	*11/24/21 13:18*	*1*
Y Carrier	*8.75E+1*		*40 - 110*	*11/09/21 11:17*	*11/24/21 13:18*	*1*

Lab Sample ID: LCS 160-535642/1-A
Matrix: Water
Analysis Batch: 538449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 535642

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			1.22E+1	8.813E+0		1.13E+0	1.00E+0	5.61E-1	pCi/L	72	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*1.07E+2*		*40 - 110*
Y Carrier	*7.89E+1*		*40 - 110*

Lab Sample ID: LCSD 160-535642/2-A
Matrix: Water
Analysis Batch: 538449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 535642

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	DER	DER Limit
Radium-228			1.22E+1	8.414E+0		1.10E+0	1.00E+0	5.12E-1	pCi/L	69	75 - 125	5.07 E-1	3

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*9.97E+1*		*40 - 110*
Y Carrier	*8.22E+1*		*40 - 110*

Lab Sample ID: MB 160-538441/23-A
Matrix: Water
Analysis Batch: 539995

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 538441

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-4.977E-3	U	2.44E-1	2.44E-1	1.00E+0	4.39E-1	pCi/L	11/24/21 10:09	12/02/21 12:54	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*8.66E+1*		*40 - 110*	*11/24/21 10:09*	*12/02/21 12:54*	*1*
Y Carrier	*8.41E+1*		*40 - 110*	*11/24/21 10:09*	*12/02/21 12:54*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-538441/1-A
Matrix: Water
Analysis Batch: 539994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 538441

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.09E+0	7.682E+0		9.71E-1	1.00E+0	4.53E-1	pCi/L	84	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*8.96E+1*		*40 - 110*
Y Carrier	*8.11E+1*		*40 - 110*

Lab Sample ID: 400-210662-1 MS
Matrix: Water
Analysis Batch: 539994

Client Sample ID: AC-12D
Prep Type: Total/NA
Prep Batch: 538441

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	4.67E+0		9.09E+0	1.309E+1		1.46E+0	1.00E+0	3.79E-1	pCi/L	93	60 - 140		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*8.91E+1*		*40 - 110*
Y Carrier	*8.26E+1*		*40 - 110*

Lab Sample ID: 400-210662-1 MSD
Matrix: Water
Analysis Batch: 539995

Client Sample ID: AC-12D
Prep Type: Total/NA
Prep Batch: 538441

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	DER	DER Limit
Radium-228	4.67E+0		9.10E+0	1.402E+1		1.53E+0	1.00E+0	3.89E-1	pCi/L	103	60 - 140	0.88	3

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*9.43E+1*		*40 - 110*
Y Carrier	*8.22E+1*		*40 - 110*

Lab Sample ID: MB 160-539795/23-A
Matrix: Water
Analysis Batch: 540650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 539795

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.639E-1	U	2.08E-1	2.09E-1	1.00E+0	3.45E-1	pCi/L	12/02/21 08:56	12/07/21 13:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*9.38E+1*		*40 - 110*	*12/02/21 08:56*	*12/07/21 13:48*	*1*
Y Carrier	*8.37E+1*		*40 - 110*	*12/02/21 08:56*	*12/07/21 13:48*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-539795/1-A
Matrix: Water
Analysis Batch: 540651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 539795

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			9.08E+0	9.877E+0		1.15E+0	1.00E+0	3.75E-1	pCi/L	109	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*9.25E+1*		*40 - 110*
Y Carrier	*8.15E+1*		*40 - 110*

Lab Sample ID: LCSD 160-539795/2-A
Matrix: Water
Analysis Batch: 540651

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 539795

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	DER	DER Limit
Radium-228			9.08E+0	1.107E+1		1.27E+0	1.00E+0	3.76E-1	pCi/L	122	75 - 125	1.40 E+0	3

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*9.03E+1*		*40 - 110*
Y Carrier	*7.89E+1*		*40 - 110*

Lab Chronicle

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Client Sample ID: AC-25D
Lab Sample ID: 400-210573-1
Date Collected: 11/02/21 09:55
Matrix: Water
Date Received: 11/02/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			555020	11/08/21 19:22	KIS	TAL PEN
Total/NA	Analysis	353.2		2	10 mL	10 mL	554556	11/04/21 13:32	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 21:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 13:41	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 21:29	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			1000.59 mL	1.0 g	535218	11/05/21 10:57	BMP	TAL SL
Total/NA	Analysis	903.0		1			539046	11/29/21 09:12	MLK	TAL SL
Total/NA	Prep	PrecSep_0			1000.29 mL	1.0 g	539795	12/02/21 08:56	LPS	TAL SL
Total/NA	Analysis	904.0		1			540650	12/07/21 13:47	FLC	TAL SL

Client Sample ID: AC-35D
Lab Sample ID: 400-210573-2
Date Collected: 11/02/21 11:09
Matrix: Water
Date Received: 11/02/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			555020	11/08/21 19:47	KIS	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	554556	11/04/21 13:35	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 21:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 13:30	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 21:29	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			1000.59 mL	1.0 g	535218	11/05/21 10:57	BMP	TAL SL
Total/NA	Analysis	903.0		1			539046	11/29/21 09:12	MLK	TAL SL
Total/NA	Prep	PrecSep_0			750.76 mL	1.0 g	539795	12/02/21 08:56	LPS	TAL SL
Total/NA	Analysis	904.0		1			540650	12/07/21 13:47	FLC	TAL SL

Client Sample ID: AC-2D
Lab Sample ID: 400-210573-3
Date Collected: 11/02/21 15:15
Matrix: Water
Date Received: 11/02/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 16:04	KIS	TAL PEN
Total/NA	Analysis	353.2		1	10 mL	10 mL	554556	11/04/21 13:12	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 21:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 12:14	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 21:30	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			750.78 mL	1.0 g	535218	11/05/21 10:57	BMP	TAL SL
Total/NA	Analysis	903.0		1			539046	11/29/21 09:13	MLK	TAL SL
Total/NA	Prep	PrecSep_0			750.71 mL	1.0 g	539795	12/02/21 08:56	LPS	TAL SL
Total/NA	Analysis	904.0		1			540650	12/07/21 13:47	FLC	TAL SL

Client Sample ID: AC-2S
Lab Sample ID: 400-210573-4

Date Collected: 11/02/21 15:55
Matrix: Water
Date Received: 11/02/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 16:29	KIS	TAL PEN
Total Recoverable	Prep	3005A			50 mL	50 mL	555398	11/10/21 18:19	KWN	TAL PEN
Total Recoverable	Analysis	6010C		1			556211	11/16/21 15:59	LDC	TAL PEN
Total/NA	Analysis	353.2		1	10 mL	10 mL	554556	11/04/21 13:12	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 21:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 13:38	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 21:30	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			1000.88 mL	1.0 g	535218	11/05/21 10:57	BMP	TAL SL
Total/NA	Analysis	903.0		1			539046	11/29/21 09:13	MLK	TAL SL
Total/NA	Prep	PrecSep_0			1000.11 mL	1.0 g	539795	12/02/21 08:56	LPS	TAL SL
Total/NA	Analysis	904.0		1			540650	12/07/21 13:48	FLC	TAL SL

Client Sample ID: DUP-1
Lab Sample ID: 400-210573-5

Date Collected: 11/02/21 00:00
Matrix: Water
Date Received: 11/02/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 16:54	KIS	TAL PEN
Total/NA	Analysis	353.2		1	10 mL	10 mL	554556	11/04/21 13:13	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 21:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 13:33	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 21:30	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			750.59 mL	1.0 g	535218	11/05/21 10:57	BMP	TAL SL
Total/NA	Analysis	903.0		1			539046	11/29/21 09:13	MLK	TAL SL
Total/NA	Prep	PrecSep_0			750.22 mL	1.0 g	539795	12/02/21 08:56	LPS	TAL SL
Total/NA	Analysis	904.0		1			540650	12/07/21 13:48	FLC	TAL SL

Client Sample ID: AC-12D
Lab Sample ID: 400-210662-1

Date Collected: 11/03/21 10:58
Matrix: Water
Date Received: 11/03/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10			555020	11/08/21 17:43	KIS	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	554573	11/04/21 14:59	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 20:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 11:41	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 20:57	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			999.22 mL	1.0 g	538437	11/24/21 09:32	LPS	TAL SL
Total/NA	Analysis	903.0		1			542556	12/17/21 11:25	FLC	TAL SL
Total/NA	Prep	PrecSep_0			999.22 mL	1.0 g	538441	11/24/21 10:09	LPS	TAL SL
Total/NA	Analysis	904.0		1			539994	12/02/21 12:58	FLC	TAL SL

Client Sample ID: AC-13D
Lab Sample ID: 400-210662-2

Date Collected: 11/03/21 09:33
Matrix: Water
Date Received: 11/03/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/05/21 17:15	KIS	TAL PEN
Total/NA	Analysis	300.0	DL	10			555020	11/08/21 18:08	KIS	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	554556	11/04/21 13:39	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 20:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 13:22	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 20:57	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			999.64 mL	1.0 g	538437	11/24/21 09:32	LPS	TAL SL
Total/NA	Analysis	903.0		1			542558	12/17/21 12:08	FLC	TAL SL
Total/NA	Prep	PrecSep_0			999.64 mL	1.0 g	538441	11/24/21 10:09	LPS	TAL SL
Total/NA	Analysis	904.0		1			539995	12/02/21 12:51	FLC	TAL SL

Client Sample ID: AC-24D
Lab Sample ID: 400-210662-3

Date Collected: 11/03/21 14:58
Matrix: Water
Date Received: 11/03/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		5			555020	11/08/21 18:33	KIS	TAL PEN
Total/NA	Analysis	353.2		2	10 mL	10 mL	554556	11/04/21 13:40	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 20:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 13:26	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 20:57	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			1000.26 mL	1.0 g	538437	11/24/21 09:32	LPS	TAL SL
Total/NA	Analysis	903.0		1			542558	12/17/21 12:09	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.26 mL	1.0 g	538441	11/24/21 10:09	LPS	TAL SL
Total/NA	Analysis	904.0		1			539995	12/02/21 12:51	FLC	TAL SL

Client Sample ID: AC-29D
Lab Sample ID: 400-210662-4

Date Collected: 11/03/21 13:39
Matrix: Water
Date Received: 11/03/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/05/21 18:05	KIS	TAL PEN
Total/NA	Analysis	300.0	DL	10			555020	11/08/21 18:58	KIS	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	554556	11/04/21 13:41	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 21:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 12:18	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 21:29	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			1000.91 mL	1.0 g	538437	11/24/21 09:32	LPS	TAL SL
Total/NA	Analysis	903.0		1			542558	12/17/21 12:09	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.91 mL	1.0 g	538441	11/24/21 10:09	LPS	TAL SL
Total/NA	Analysis	904.0		1			539995	12/02/21 12:51	FLC	TAL SL

Client Sample ID: AC-3D
Lab Sample ID: 400-210714-1

Date Collected: 11/04/21 11:01
Matrix: Water
Date Received: 11/04/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 17:19	KIS	TAL PEN
Total/NA	Analysis	300.0	DL	5	10 mL	1.0 mL	555020	11/08/21 20:12	KIS	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	555476	11/11/21 11:21	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555097	11/04/21 18:41	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 12:10	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554628	11/04/21 18:41	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			1000.00 mL	1.0 g	535638	11/09/21 10:24	LPS	TAL SL
Total/NA	Analysis	903.0		1			539990	12/02/21 19:53	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.00 mL	1.0 g	535642	11/09/21 11:17	LPS	TAL SL
Total/NA	Analysis	904.0		1			538451	11/24/21 13:22	FLC	TAL SL

Client Sample ID: ACB-315
Lab Sample ID: 400-210714-2

Date Collected: 11/04/21 13:08
Matrix: Water
Date Received: 11/04/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 17:44	KIS	TAL PEN
Total/NA	Analysis	353.2		1	10 mL	10 mL	555476	11/11/21 11:19	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555097	11/04/21 18:41	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 11:51	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554628	11/04/21 18:41	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			1000.28 mL	1.0 g	535638	11/09/21 10:24	LPS	TAL SL
Total/NA	Analysis	903.0		1			539990	12/02/21 19:53	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.28 mL	1.0 g	535642	11/09/21 11:17	LPS	TAL SL
Total/NA	Analysis	904.0		1			538451	11/24/21 13:22	FLC	TAL SL

Client Sample ID: EQ-1
Lab Sample ID: 400-210714-3

Date Collected: 11/04/21 13:38
Matrix: Water
Date Received: 11/04/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 18:09	KIS	TAL PEN
Total/NA	Analysis	353.2		1	10 mL	10 mL	555476	11/11/21 11:04	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555097	11/04/21 19:13	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 11:54	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554628	11/04/21 19:13	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			999.92 mL	1.0 g	535638	11/09/21 10:24	LPS	TAL SL
Total/NA	Analysis	903.0		1			539990	12/02/21 19:53	FLC	TAL SL
Total/NA	Prep	PrecSep_0			999.92 mL	1.0 g	535642	11/09/21 11:17	LPS	TAL SL
Total/NA	Analysis	904.0		1			538451	11/24/21 13:23	FLC	TAL SL

Client Sample ID: Method Blank — **Lab Sample ID: MB 160-535218/23-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750 mL	1.0 g	535218	11/05/21 10:57	BMP	TAL SL
Total/NA	Analysis	903.0		1			539049	11/29/21 09:18	FLC	TAL SL

Client Sample ID: Method Blank — **Lab Sample ID: MB 160-535638/23-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750 mL	1.0 g	535638	11/09/21 10:24	LPS	TAL SL
Total/NA	Analysis	903.0		1			539993	12/02/21 20:41	FLC	TAL SL

Client Sample ID: Method Blank — **Lab Sample ID: MB 160-535642/23-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			750 mL	1.0 g	535642	11/09/21 11:17	LPS	TAL SL
Total/NA	Analysis	904.0		1			538450	11/24/21 13:18	FLC	TAL SL

Client Sample ID: Method Blank — **Lab Sample ID: MB 160-538437/23-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000 mL	1.0 g	538437	11/24/21 09:32	LPS	TAL SL
Total/NA	Analysis	903.0		1			542558	12/17/21 12:11	FLC	TAL SL

Client Sample ID: Method Blank — **Lab Sample ID: MB 160-538441/23-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000 mL	1.0 g	538441	11/24/21 10:09	LPS	TAL SL
Total/NA	Analysis	904.0		1			539995	12/02/21 12:54	FLC	TAL SL

Client Sample ID: Method Blank — **Lab Sample ID: MB 160-539795/23-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000 mL	1.0 g	539795	12/02/21 08:56	LPS	TAL SL
Total/NA	Analysis	904.0		1			540650	12/07/21 13:48	FLC	TAL SL

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-554452/6**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 20:57	DEK	TAL PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-554556/1**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	554556	11/04/21 13:05	KJR	TAL PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-554573/1**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	554573	11/04/21 14:35	KJR	TAL PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-554628/9**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554628	11/04/21 13:08	DEK	TAL PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-554758/24**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/05/21 15:10	KIS	TAL PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-554758/85**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 06:31	KIS	TAL PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-555001/3**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 11:27	KAK	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-555020/46
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			555020	11/09/21 06:58	KIS	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-555020/7
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			555020	11/08/21 14:49	KIS	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-555398/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	555398	11/10/21 18:19	KWN	TAL PEN
Total Recoverable	Analysis	6010C		1			556211	11/16/21 15:49	LDC	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-555476/84
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	555476	11/11/21 10:54	KJR	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 160-535218/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750 mL	1.0 g	535218	11/05/21 10:57	BMP	TAL SL
Total/NA	Analysis	903.0		1			539046	11/29/21 09:12	MLK	TAL SL

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 160-535638/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750 mL	1.0 g	535638	11/09/21 10:24	LPS	TAL SL
Total/NA	Analysis	903.0		1			539784	12/01/21 21:55	FLC	TAL SL

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 160-535642/1-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			750 mL	1.0 g	535642	11/09/21 11:17	LPS	TAL SL
Total/NA	Analysis	904.0		1			538449	11/24/21 13:16	FLC	TAL SL

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 160-538437/1-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			1000 mL	1.0 g	538437	11/24/21 09:32	LPS	TAL SL
Total/NA	Analysis	903.0		1			542557	12/17/21 11:21	FLC	TAL SL

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 160-538441/1-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000 mL	1.0 g	538441	11/24/21 10:09	LPS	TAL SL
Total/NA	Analysis	904.0		1			539994	12/02/21 12:56	FLC	TAL SL

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 160-539795/1-A**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000 mL	1.0 g	539795	12/02/21 08:56	LPS	TAL SL
Total/NA	Analysis	904.0		1			540651	12/07/21 13:44	FLC	TAL SL

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-554452/48**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 21:31	DEK	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-554556/2**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	554556	11/04/21 13:06	KJR	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-554573/2**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	554573	11/04/21 14:36	KJR	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-554628/36**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554628	11/04/21 18:41	DEK	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-554758/22**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/05/21 14:20	KIS	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-554758/83**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 05:41	KIS	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-555001/6**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	100 mL	100 mL	555001	11/08/21 11:37	KAK	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-555020/44**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			555020	11/09/21 06:08	KIS	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-555020/5**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			555020	11/08/21 13:59	KIS	TAL PEN

Lab Chronicle

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-555398/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	555398	11/10/21 18:19	KWN	TAL PEN
Total Recoverable	Analysis	6010C		1			556211	11/16/21 15:54	LDC	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-555476/85
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	555476	11/11/21 10:55	KJR	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 160-535218/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750 mL	1.0 g	535218	11/05/21 10:57	BMP	TAL SL
Total/NA	Analysis	903.0		1			539046	11/29/21 09:12	MLK	TAL SL

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 160-535638/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			750 mL	1.0 g	535638	11/09/21 10:24	LPS	TAL SL
Total/NA	Analysis	903.0		1			539784	12/01/21 21:55	FLC	TAL SL

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 160-535642/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			750 mL	1.0 g	535642	11/09/21 11:17	LPS	TAL SL
Total/NA	Analysis	904.0		1			538449	11/24/21 13:16	FLC	TAL SL

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 160-539795/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep_0			1000 mL	1.0 g	539795	12/02/21 08:56	LPS	TAL SL
Total/NA	Analysis	904.0		1			540651	12/07/21 13:44	FLC	TAL SL

Client Sample ID: Lab Control Sample Dup — **Lab Sample ID: LCSD 400-554758/23**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/05/21 14:45	KIS	TAL PEN

Client Sample ID: Lab Control Sample Dup — **Lab Sample ID: LCSD 400-554758/84**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 06:06	KIS	TAL PEN

Client Sample ID: Lab Control Sample Dup — **Lab Sample ID: LCSD 400-555020/45**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			555020	11/09/21 06:33	KIS	TAL PEN

Client Sample ID: Lab Control Sample Dup — **Lab Sample ID: LCSD 400-555020/6**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			555020	11/08/21 14:24	KIS	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: MRL 400-554452/3**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 20:57	DEK	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: MRL 400-554628/6**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554628	11/04/21 13:08	DEK	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: MRL 400-554758/25**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/05/21 15:35	KIS	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: MRL 400-554758/86**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			554758	11/06/21 06:56	KIS	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: MRL 400-555020/47**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			555020	11/09/21 07:22	KIS	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: MRL 400-555020/8**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			555020	11/08/21 15:14	KIS	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: MRL 400-555476/13**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		1	10 mL	10 mL	555476	11/11/21 09:52	KJR	TAL PEN

Client Sample ID: AC-25D — **Lab Sample ID: 400-210573-1 MS**
Date Collected: 11/02/21 09:55 — **Matrix: Water**
Date Received: 11/02/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		2	10 mL	10 mL	554556	11/04/21 13:33	KJR	TAL PEN

Client Sample ID: AC-25D — **Lab Sample ID: 400-210573-1 MSD**
Date Collected: 11/02/21 09:55 — **Matrix: Water**
Date Received: 11/02/21 16:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	353.2		2	10 mL	10 mL	554556	11/04/21 13:34	KJR	TAL PEN

Client Sample ID: AC-12D — **Lab Sample ID: 400-210662-1 MS**
Date Collected: 11/03/21 10:58 — **Matrix: Water**
Date Received: 11/03/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	10 mL	1.0 mL	555020	11/09/21 17:22	KIS	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	554573	11/04/21 15:00	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 20:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 11:45	KAK	TAL PEN

Lab Chronicle

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Client Sample ID: AC-12D
Lab Sample ID: 400-210662-1 MS

Date Collected: 11/03/21 10:58
Matrix: Water
Date Received: 11/03/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 20:57	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			1000.13 mL	1.0 g	538437	11/24/21 09:32	LPS	TAL SL
Total/NA	Analysis	903.0		1			542558	12/17/21 12:08	FLC	TAL SL
Total/NA	Prep	PrecSep_0			1000.13 mL	1.0 g	538441	11/24/21 10:09	LPS	TAL SL
Total/NA	Analysis	904.0		1			539994	12/02/21 12:58	FLC	TAL SL

Client Sample ID: AC-12D
Lab Sample ID: 400-210662-1 MSD

Date Collected: 11/03/21 10:58
Matrix: Water
Date Received: 11/03/21 16:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		10	10 mL	1.0 mL	555020	11/09/21 18:36	KIS	TAL PEN
Total/NA	Analysis	353.2		5	10 mL	10 mL	554573	11/04/21 15:01	KJR	TAL PEN
Total/NA	Analysis	Nitrate by calc		1			555270	11/03/21 20:57	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 11:49	KAK	TAL PEN
Total/NA	Analysis	SM 4500 NO2 B		1	10 mL	10 mL	554452	11/03/21 20:57	DEK	TAL PEN
Total/NA	Prep	PrecSep-21			999.50 mL	1.0 g	538437	11/24/21 09:32	LPS	TAL SL
Total/NA	Analysis	903.0		1			542558	12/17/21 12:08	FLC	TAL SL
Total/NA	Prep	PrecSep_0			999.50 mL	1.0 g	538441	11/24/21 10:09	LPS	TAL SL
Total/NA	Analysis	904.0		1			539995	12/02/21 12:50	FLC	TAL SL

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Method Summary

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL PEN
6010C	Metals (ICP)	SW846	TAL PEN
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL PEN
Nitrate by calc	Nitrogen, Nitrate	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 NO2 B	Nitrogen, Nitrite	SM	TAL PEN
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL PEN
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: AECOM
Job ID: 400-210573-1
Project/Site: Agrico Pensacola - Annual

Laboratory: Eurofins TestAmerica, Pensacola

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E81010	06-30-22

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-22
California	Los Angeles County Sanitation Districts	10259	06-30-22
California	State	2886	06-30-21 *
Connecticut	State	PH-0241	03-31-23
Florida	NELAP	E87689	06-30-22
HI - RadChem Recognition	State	n/a	06-30-22
Illinois	NELAP	200023	11-30-22
Iowa	State	373	12-01-22
Kansas	NELAP	E-10236	10-31-22
Kentucky (DW)	State	KY90125	01-01-22
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-21
Louisiana	NELAP	04080	06-30-22
Louisiana (DW)	State	LA011	12-31-21
Maryland	State	310	09-30-22
MI - RadChem Recognition	State	9005	06-30-22
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-22
New Jersey	NELAP	MO002	06-30-22
New York	NELAP	11616	04-01-22
North Dakota	State	R-207	06-30-22
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-22
Oregon	NELAP	4157	09-01-22
Pennsylvania	NELAP	68-00540	03-01-22
South Carolina	State	85002001	06-30-22
Texas	NELAP	T104704193	07-31-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542021-14	08-01-22
Virginia	NELAP	10310	06-14-22
Washington	State	C592	08-30-22
West Virginia DEP	State	381	10-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: DHilton	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 680-130232-32401.2
Client Contact: Ms. Amy Mixon	Phone: 850-528-8995	E-Mail: Noel.Savoie@Eurofinset.com	State of Origin:	Page: Page 2 of 2
Company: AECOM	PWSID:			Job #:
Address: 1625 Summit Lake Drive Suite 200	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32317	Compliance Project: Δ Yes Δ No			
Phone: 850-465-3886(Tel)	PO #: Purchase Order Requested			
Email: amy.mixon@aecom.com	WO #: 60618051.1			
Project Name: Agrico Pensacola	Project #: 68017183			
Site: Agrico	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	SM4500_NO2_B - Nitrite as N	300_ORGFM_28D - Chloride and Sulfate	SUBCONTRACT - Radium 228 by EPA Method 904.0	SUBCONTRACT - Radium 226 by EPA Method 903.1	6010C - Arsenic	353.2_Pres - Nitrate Nitrite as N	4500_F_C - Fluoride	353.2_Pres - Nitrogen, Nitrate-Nitrite	SM4500_NO2_B - Local Method
AC-25D	11.02.21	0955	G	W	X	X	X	X		X	X	X	X
AC-35D	11.02.21	1109	G	W	X	X	X	X		X	X	X	X
AC-2D	11.02.21	1515	G	W	X	X	X	X		X	X	X	X
AC-2S	11.02.21	1555	G	W	X	X	X	X	X	X	X	X	X
DUP-1	11.02.21		G	W	X	X	X	X		X	X	X	X

Special Instructions/Note:

400-210573 COC

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	DHilton	11.02.21 1643		Kathy R Avery	11-2-21 1643	ETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 16.5°C IR7.

Ver: 06/08/2021

12/21/2021

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

400-210662 COC

Client Information	Sampler: D Hilton	Lab PM: Savoie, Noel	Carrier:	COC No: 680-130232-32401.2
Client Contact: Ms. Amy Mixon	Phone: 850-528-8495	E-Mail: Noel.Savoie@Eurofinset.com	State:	Page: Page 2 of 2
Company: AECOM	PWSID:			Job #:
Address: 1625 Summit Lake Drive Suite 200	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32317	Compliance Project: Δ Yes Δ No			
Phone: 850-465-3886(Tel)	PO #: Purchase Order Requested			
Email: amy.mixon@aecom.com	WO #: 60618051.1			
Project Name: Agrico Pensacola	Project #: 68017183			
Site: Agrico, Pensacola, FL	SSOW#:			

Analysis Reques

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	SM4500_NO2_B - Nitrite as N	300_ORGFM_28D - Chloride and Sulfate	SUBCONTRACT - Radium 228 by EPA Method 904.0	SUBCONTRACT - Radium 226 by EPA Method 903.1	6010C - Arsenic	353.2_Pres - Nitrate Nitrite as N	4500_F_C - Fluoride	353.2_Pres - Nitrogen, Nitrate-Nitrite	SM4500_NO2_B - Local Method	Special Instructions/Note:
AC-12D	11.03.21	1058	G	W	X	X	X	X		X	X	X		MS/MSD
AC-13D	11.03.21	0933	G	W	X	X	X	X		X	X	X		
AC-24D	11.03.21	1458	G	W	X	X	X	X		X	X	X		
AC-29D	11.03.21	1339	G	W	X	X	X	X		X	X	X		

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	D Hilton	11.03.21 1645	AECOM	Kathy R Avery	11-3-21 1645	EPA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.2°C 5.5°C IR7

Ver: 06/08/2021

3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

400-210714 COC

Client Information

Client Contact: Ms. Amy Mixon	Sampler: Hilton	Lab PM: Savoie, Noel	COC No: 680-130232-32401.2
Company: AECOM	Phone: 850-528-8995	E-Mail: Noel.Savoie@Eurofinset.com	Page: Page 2 of 2
Address: 1625 Summit Lake Drive Suite 200	PWSID:	Due Date Requested:	Job #:
City: Tallahassee		TAT Requested (days):	
State, Zip: FL, 32317		Compliance Project: Δ Yes Δ No	
Phone: 850-465-3886(Tel)		PO #: Purchase Order Requested	
Email: amy.mixon@aecom.com		WO #: 60618051.1	
Project Name: Agrico Pensacola		Project #: 68017183	
Site: Agrico, Pensacola, FL		SSOW#:	

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	SM4500_NO2_B - Nitrite as N	300_ORGFM_28D - Chloride and Sulfate	SUBCONTRACT - Radium 228 by EPA Method 904.0	SUBCONTRACT - Radium 226 by EPA Method 903.1	6010C - Arsenic	353.2_Pres - Nitrate Nitrite as N	4500_F_C - Fluoride	353.2_Pres - Nitrogen, Nitrate-Nitrite	SM4500_NO3_B - Local Method				Special Instructions/Note:
AC-3D	11.04.21	1101	G	W	X	X	X	X		X	X	X	X				
ACB-3IS	11.04.21	1308	G	W	X	X	X	X		X	X	X	X				
EQ-1	11.04.21	1338	G	W	X	X	X	X		X	X	X	X				

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☑ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:	Method of Shipment:
Relinquished by: Hilton	Date/Time: 11.04.21 1700	Company: AECOM	Received by: Kathy Ravey	Date/Time: 11.4.21 1700	Company: ETA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.0°C IR9		

Ver: 06/08/2021

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 400-280435.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Noel.Savoie@Eurofinset.com	State of Origin: Florida	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Florida		Job #: 400-210573-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/30/2021			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Agrico Pensacola - Annual	Project #: 68017183			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium 226	904.0/PrecSep_0 Radium 228	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
AC-25D (400-210573-1)	11/2/21	09:55 Eastern		Water			X	X	2	
AC-35D (400-210573-2)	11/2/21	11:09 Eastern		Water			X	X	2	
AC-2D (400-210573-3)	11/2/21	15:15 Eastern		Water			X	X	2	
AC-2S (400-210573-4)	11/2/21	15:55 Eastern		Water			X	X	2	
DUP-1 (400-210573-5)	11/2/21	Eastern		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For ______ Months*

Deliverable Requested: I, II, III, IV, Other (specify) | Primary Deliverable Rank: 2 | Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Kathy R. [signature]	11-3-21 1500	ETA	UPS		
UPS			Autumn [signature]	NOV 04 2021 0850	ETA STL
			Autumn R. Johnson		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 400-280534.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Noel.Savoie@Eurofinset.com	State of Origin: Florida	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Florida		Job #: 400-210662-1
Address: 13715 Rider Trail North,	Due Date Requested: 12/1/2021			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Agrico Pensacola - Annual	Project #: 68017183			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium 226	904.0/PrecSep_0 Radium 228	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
AC-12D (400-210662-1)	11/3/21	10:58 Eastern		Water			X	X	2	
AC-12D (400-210662-1MS)	11/3/21	10:58 Eastern	MS	Water			X	X	2	
AC-12D (400-210662-1MSD)	11/3/21	10:58 Eastern	MSD	Water			X	X	2	
AC-13D (400-210662-2)	11/3/21	09:33 Eastern		Water			X	X	2	
AC-24D (400-210662-3)	11/3/21	14:58 Eastern		Water			X	X	2	
AC-29D (400-210662-4)	11/3/21	13:39 Eastern		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ______ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) | Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Kathy R Aue	11-4-21 1455	ETA	11/5/21 [illegible] UPS		
UPS			[illegible]	11/5/21 0846	ETA STL

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Savoie, Noel	Carrier Tracking No(s):	COC No: 400-280614.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Noel.Savoie@Eurofinset.com	State of Origin: Florida	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Florida		Job #: 400-210573-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/3/2021			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Agrico Pensacola - Annual	Project #: 68017183			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Radium 226	904.0/PrecSep_0 Radium 228	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
AC-3D (400-210714-1)	11/4/21	11:01 Eastern		Water			X	X	2	
ACB-315 (400-210714-2)	11/4/21	13:08 Eastern		Water			X	X	2	
EQ-1 (400-210714-3)	11/4/21	13:38 Eastern		Water			X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Kathy R Ames	11-5-21 1445	FETA	FED EX		
2	FED EX			Micha Korinhizer	NOV 08 2021 09:05	FETA STL
3				Micha Korinhizer		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

ICOC No:
400-280614

Containers

Count	Container Type	Preservative
6	Plastic 1 liter - Nitric Acid	Nitric Acid

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-210716-1
Client Project/Site: Agrico Pensacola - Annual SW

For:
AECOM
1625 Summit Lake Drive
Suite 200
Tallahassee, Florida 32317

Attn: Ms. Amy Mixon

Noël Savoie

Authorized for release by:
11/9/2021 2:15:04 PM

Noel Savoie, Project Manager I
(850)254-0107
Noel.Savoie@Eurofinset.com

Table of Contents

Case Narrative

Client: AECOM
Project/Site: Agrico Pensacola - Annual SW

Job ID: 400-210716-1

Job ID: 400-210716-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-210716-1

Comments
No additional comments.

Receipt
The samples were received on 11/4/2021 5:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0º C.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Client Sample ID: BT-02 — Lab Sample ID: 400-210716-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.59		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: BT-107 — Lab Sample ID: 400-210716-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.72		0.10		mg/L	1		SM 4500 F C	Total/NA

Client Sample ID: BT-127 — Lab Sample ID: 400-210716-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	1.1		0.10		mg/L	1		SM 4500 F C	Total/NA

This Detection Summary does not include radiochemical test results.

Sample Summary

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-210716-1	BT-02	Water	11/04/21 08:04	11/04/21 17:00
400-210716-2	BT-107	Water	11/04/21 08:26	11/04/21 17:00
400-210716-3	BT-127	Water	11/04/21 08:17	11/04/21 17:00

Client Sample Results

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Client Sample ID: BT-02
Lab Sample ID: 400-210716-1
Date Collected: 11/04/21 08:04
Matrix: Water
Date Received: 11/04/21 17:00

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.59		0.10		mg/L			11/08/21 12:28	1

Client Sample ID: BT-107
Lab Sample ID: 400-210716-2
Date Collected: 11/04/21 08:26
Matrix: Water
Date Received: 11/04/21 17:00

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.72		0.10		mg/L			11/08/21 12:00	1

Client Sample ID: BT-127
Lab Sample ID: 400-210716-3
Date Collected: 11/04/21 08:17
Matrix: Water
Date Received: 11/04/21 17:00

General Chemistry

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.1		0.10		mg/L			11/08/21 11:56	1

Definitions/Glossary

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

General Chemistry

Analysis Batch: 555001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-210716-1	BT-02	Total/NA	Water	SM 4500 F C	
400-210716-2	BT-107	Total/NA	Water	SM 4500 F C	
400-210716-3	BT-127	Total/NA	Water	SM 4500 F C	
MB 400-555001/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-555001/6	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-210716-1 MS	BT-02	Total/NA	Water	SM 4500 F C	
400-210716-1 MS	BT-02	Total/NA	Water	SM 4500 F C	
400-210716-1 MSD	BT-02	Total/NA	Water	SM 4500 F C	
400-210716-1 MSD	BT-02	Total/NA	Water	SM 4500 F C	

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 400-555001/3
Matrix: Water
Analysis Batch: 555001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/08/21 11:27	1

Lab Sample ID: LCS 400-555001/6
Matrix: Water
Analysis Batch: 555001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			5.00	5.39		mg/L		108	90 - 110		

Lab Chronicle

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Client Sample ID: BT-02
Lab Sample ID: 400-210716-1
Date Collected: 11/04/21 08:04
Matrix: Water
Date Received: 11/04/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 12:28	KAK	TAL PEN

Client Sample ID: BT-107
Lab Sample ID: 400-210716-2
Date Collected: 11/04/21 08:26
Matrix: Water
Date Received: 11/04/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 12:00	KAK	TAL PEN

Client Sample ID: BT-127
Lab Sample ID: 400-210716-3
Date Collected: 11/04/21 08:17
Matrix: Water
Date Received: 11/04/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 11:56	KAK	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-555001/3
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 11:27	KAK	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-555001/6
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	100 mL	100 mL	555001	11/08/21 11:37	KAK	TAL PEN

Client Sample ID: BT-02
Lab Sample ID: 400-210716-1 MS
Date Collected: 11/04/21 08:04
Matrix: Water
Date Received: 11/04/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 12:32	KAK	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 13:14	KAK	TAL PEN

Client Sample ID: BT-02
Lab Sample ID: 400-210716-1 MSD
Date Collected: 11/04/21 08:04
Matrix: Water
Date Received: 11/04/21 17:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 12:34	KAK	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	10 mL	10 mL	555001	11/08/21 13:18	KAK	TAL PEN

Lab Chronicle

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Method Summary

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Method	Method Description	Protocol	Laboratory
SM 4500 F C	Fluoride	SM	TAL PEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Accreditation/Certification Summary

Client: AECOM
Job ID: 400-210716-1
Project/Site: Agrico Pensacola - Annual SW

Laboratory: Eurofins TestAmerica, Pensacola

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E81010	06-30-22

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001 Fax: 850-478-2671

Chain of Custody Record

eurofins | Environment Testing America

400-210716 COC

Client Information	Sampler:	Lab PM: Savoie, Noel		COC No: 680-130233-32403.1
Client Contact: Ms. Amy Mixon	Phone: 850-528-8995	E-Mail: Noel.Savoie@Eurofinset.com		Page: Page 1 of 1
Company: AECOM	PWSID:			Job #:
Address: 1625 Summit Lake Drive Suite 200	Due Date Requested:			
City: Tallahassee	TAT Requested (days):			
State, Zip: FL, 32317	Compliance Project: Δ Yes Δ No			
Phone: 850-465-3886(Tel)	PO #: Purchase Order Requested			
Email: amy.mixon@aecom.com	WO #: 60618051.1			
Project Name: Agrico Brackish Surface Water	Project #: 68017183			
Site: Agrico Pensacola, FL	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	4500_F_C - Fluoride	Total Number of containers	Special Instructions/Note:
			Preservation Code:				X		
BT-02	11.04.21	0804	G	W			X		
BT-107	11.04.21	0826	G	W			X		
BT-127	11.04.21	0817	G	W			X		

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by: Dan Shelton	Date/Time: 11.04.21 1700	Company: AECOM	Received by: Kathy L Avery	Date/Time: 11-4-21 1700	Company: EDA	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

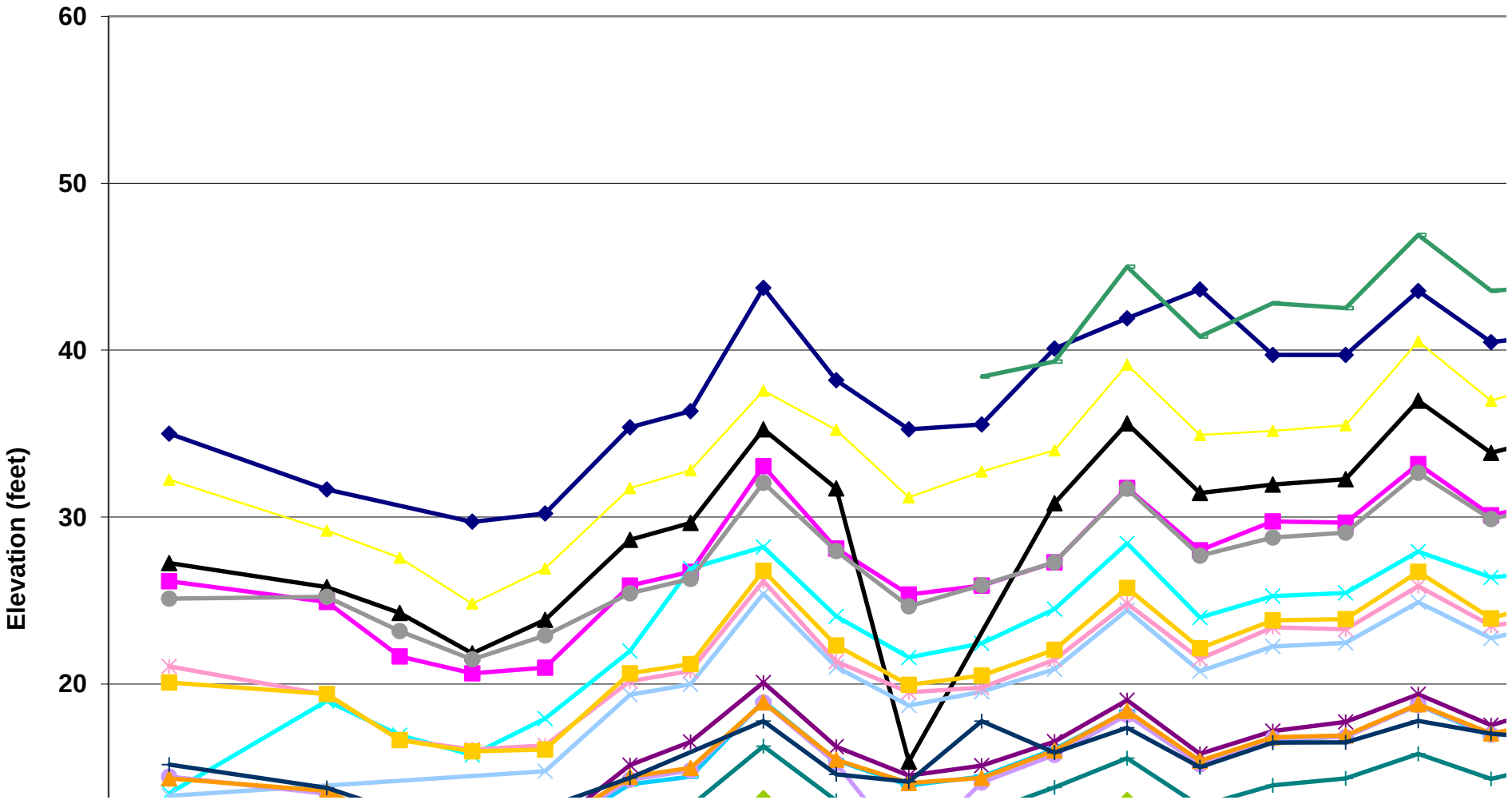
Cooler Temperature(s) °C and Other Remarks: 2.0°C IR9

Ver: 06/08/2021

APPENDIX B

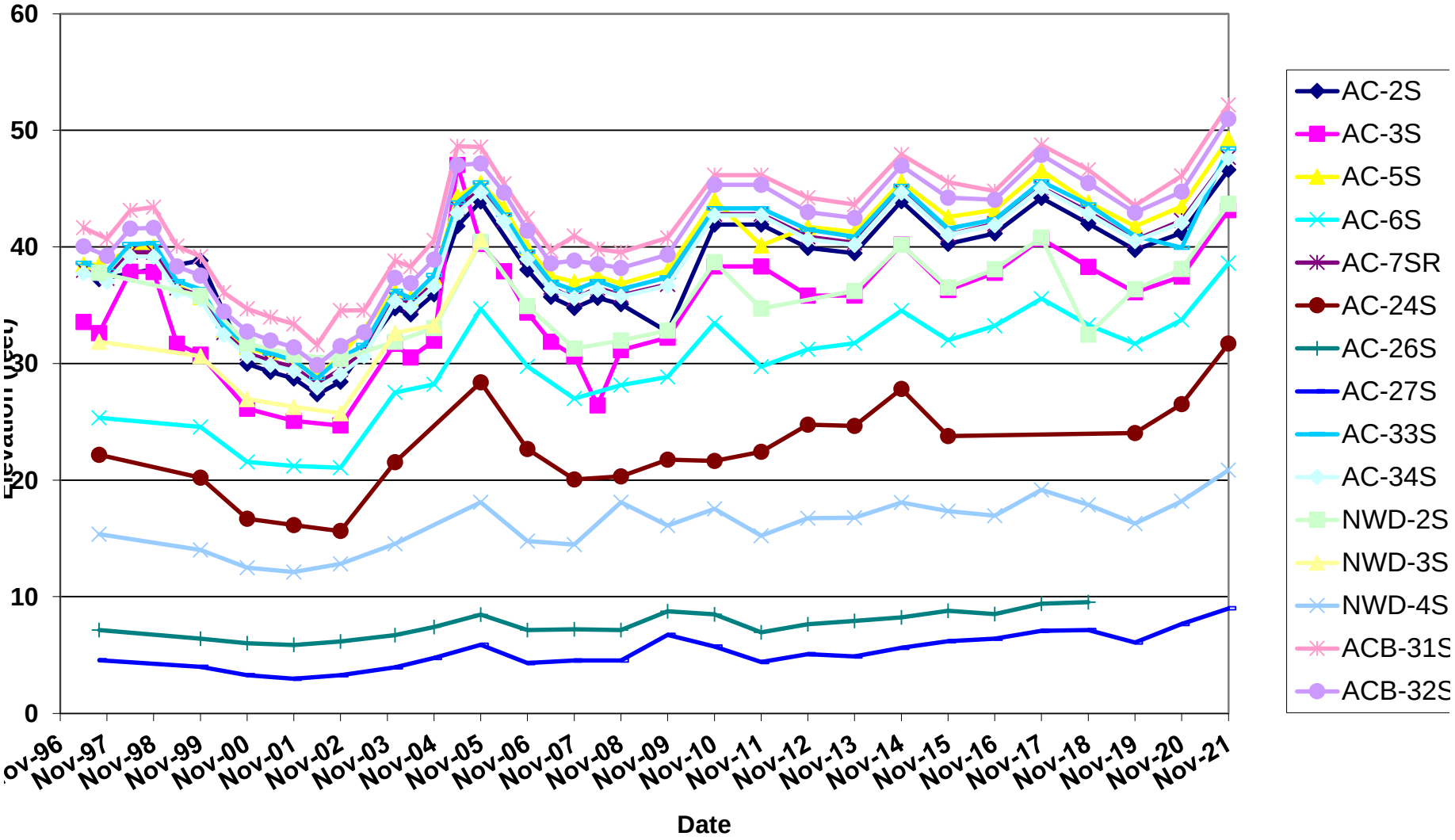
Groundwater Elevation Trend in Main Producing Zone

Agrico Site
Pensacola, FL



Groundwater Elevation Trend in Surficial Zone

Agrico Site
Pensacola, FL



APPENDIX C

AECOM

MEMORANDUM

To:	Alex Webster (FDEP NW District) Billy Hessman (FDEP, Tallahassee) Tim Haag (ECUA) Tom Brown (NWFWMD) L. Derrik Owens (City of Pensacola) Mark Spitznagel (ECHD) Glenn Griffith (Escambia County) Alan Hagans (FDOT Chipley)	From: CC: Date:	Amy Mixon, P.E. AECOM Tallahassee Jasmin Jefferies (EPA Region 4) March 15, 2021

Subject: Institutional Controls Coordination
Agrico Site, Pensacola, Florida

As part of the U.S. Environmental Protection Agency (EPA) approved Remedial Action Work Plan for Operating Unit Two (OU-2) (November 1998), periodic communications are planned with the agencies to verify that existing institutional controls remain in place. The purpose of this Memorandum is to solicit, in writing, information on any changes in existing or any proposed new regulatory requirements that may affect the existing institutional controls pertaining to the Agrico Site.

SITE SUMMARY

Monitored Natural Attenuation Results

Statistical monitored natural attenuation (MNA) evaluations were prepared in 2009 and 2013. Additionally, annual trend plots are prepared for all constituents analyzed for each sampling location. The reports and trend plots in each annual report that are submitted to EPA and the Florida Department of Environmental Protection (FDEP) continue to show that mechanisms for attenuation are in place throughout the OU-2 area. These mechanisms, and the OU-1 source remedy, are propagating downgradient toward Bayou Texar, as expected. For the plume area, the highest concentrations for each constituent are declining and downgradient peaks are less than historical highs. It is estimated from statistical evaluation following EPA MNA guidance that much of the groundwater will reach the target concentrations within two to three decades. However, the discharge area near Bayou Texar may take longer. The processes at this discharge boundary are more complex and do not follow the upgradient time line. Additionally, radium declines may lag behind the other constituents. Radium concentrations are more dependent on increases in pH as the overall chemical conditions improve upgradient. Initial fate and transport modeling performed for the site in the early 1990s suggested targets would not be reached for at least 70 years. Twenty-two years has passed since the source controls were implemented. The approximately 50 years remaining is still reasonable and well within the targets estimated with the statistical evaluation.

Groundwater Sampling Results

Groundwater sampling at the site has been conducted since 1999. The groundwater sampling network has been modified beginning in November 2015 to a select set of sampling locations for the Agrico site per discussions with the FDEP and approval by EPA on March 10, 2015.

Annual groundwater (the 22st year of sampling) monitoring was conducted in November 2020.

Groundwater results for November 2020 continue to compare favorably to past results. Overall concentration trends within the surficial zone are downward and the impact extent is shrinking. Impacts are limited for this zone. This is a direct result of effective source remediation and the local hydrogeologic conditions.

For the deeper main producing zone, the trend in concentrations is generally downward and stable, also indicating continued plume stability.

Slight upward or downward ticks in the trends for the constituents of concern (COCs) are to be expected over time. It is the long-term trend for each of the COCs that is important.

Groundwater Levels

Results of water level measurements collected in November 2020 indicate that groundwater flow remains toward Bayou Texar for both the surficial zone and main producing zone. In 2019, groundwater flow patterns closely followed historical patterns.

Bayou Texar Sampling Results

An assessment of potential impacts downgradient of the Agrico groundwater plume was presented to the EPA and the FDEP on September 4, 2009 in the report, "*Conceptual Site Model, Ecological Impact Evaluation of Bayou Texar Downgradient of Agrico's Groundwater Fluoride Plume, September 14, 2009."* The report concluded that there is no completed exposure pathway between populations of demersal fish and benthic receptors in the Bayou downgradient of the Site and concentrations of fluoride in pore water and near-bottom surface water that potentially would cause adverse effects to the populations of dermersal fish and benthic receptors. The report also concluded that the fluoride solubility in the surface sediments and in pore waters within the groundwater plume discharge area is controlled by mineral precipitation reactions that are responsible for buffering dissolved concentrations of fluoride. This report was approved by EPA on September 20, 2010. The approval modified the report recommendations to include three surface water sampling locations as part of the annual sampling for the site.

Surface water sampling was conducted in November 2020. Sampling continues to show concentrations in the bayou at levels well below the surface water standard (5 mg/L) for fluoride.

INSTITUTIONAL CONTROLS

Several rules, regulations and policies already exist which control the use of groundwater within the OU-2 area. These serve as institutional controls, and include:

1. Approval of well construction and consumptive use is a function of the Northwest Florida Water Management District (NWFWMD). On February 22, 2001 the NWFWMD Governing Board passed a well construction moratorium for the area bounded to the north by Hyatt Street, Wynnehurst Street, Kenneth Street, Boxwood Drive and Brookside Place; to the west by the CSX Railroad; to the south by East Cross Street; and to the east by Bayou Texar. This moratorium applies to all new well construction within the designated area except monitoring wells and encompasses both the Agrico and Escambia Treating Company areas. The moratorium remains in effect during 2019 and 2020. Checking of NWFWMD drilling permits indicates that no well construction permits were issued within the Agrico OU-2 area during 2019.

2. Access is restricted on the Agrico site. The property is secured by a perimeter chain link security fence and locked gates. Restrictive and site information signs are posted advising the public of the on-site conditions, and a contact phone number is also posted for inquiries. The site is routinely inspected by authorized personnel and inspection reports on the site conditions are completed twice a year. Additionally, the site is inspected after each major storm event. Any damages found are repaired. Construction or related activities which would interfere with maintaining the site remedial measures are prohibited by the legal deed restrictions. Any use of the property contrary to the Record of Decision is prohibited, as per covenants filed for the property.

3. The location of the Agrico plume is well characterized and documented. Because this information is submitted to the Emerald Coast Utilities Authority (ECUA) and other agencies in an annual report, and because of the NWFWMD well moratorium, it is highly improbable that future municipal wells will be located in the vicinity of the site. It should also be noted that non-Agrico groundwater impacts are present outside of the Agrico plume. To the north of the Agrico site, groundwater impacts have been caused by the Escambia Treating Company (ETC) site. This plume intrudes into the Agrico area to the south. Also, south of the Agrico plume, the FDEP is assessing a site referred to as Site 348. This site has reportedly contributed to groundwater

impacts to the south of the Agrico plume. The Site 348 plume has the potential to intrude into the Agrico area, and Site 348 has similar COCs to those of Agrico. This site is being assessed for possible impacts to ECUA wells, including F& Scott Streets well, No. 9 well, and East Plant well. Groundwater from Site 348 moves easterly and may discharge into Bayou Texar, if not affected by pumping from F & Scott Streets Well. Additionally, other sources of groundwater impacts exist within and in the near proximity of the Agrico plume and include releases from petroleum and dry-cleaning related sites as documented by the FDEP.

4. The ECUA regularly samples and analyzes water being pumped from public supply wells. ECUA controls the pumpage from these wells. The cause of current impacts to ECUA wells, as noted above, is the subject of an ongoing assessment by the FDEP. Pumping of both East Plant and well No.9 has been discontinued. The F& Scott Street well is still active and within a distance from Site 348 impacts that pumping influences could potentially draw the Site 348 plume toward this active well.

5. In 1997, the NWFWMD established 7-year and 20-year capture zones around each ECUA water supply well. These captures zones constitute the wellhead protection area for each well (Richards, Pratt, and Milla, December 1997, Wellhead Protection Area Delineation in Southern Escambia County, Florida; Water Resources Special Report 97-4, NWFWMD). The Agrico plume remains outside of the 20-year capture zone for all supply wells. Site 348 lies within the 20- year capture zone for inactive ECUA Well No. 9, and Site 348 lies near the designated capture zone for active ECUA Well F & Scott.

6. The Designated Area has been established by the FDEP and regulated by Florida Administrative Code, Chapter 62-524, FDEP rules. New potable well permitting requirements must be met to install a new potable water well. This designated area is the same as the area defined in item number 1. At this time, the NWFWMD moratorium is a more stringent restriction than that related to the Chapter 62-524 designation.

The 2010 Annual Report is currently in preparation and will be distributed to you following approval by EPA. It is anticipated this will occur in the June 2021 timeframe.

Four Five-Year Reviews of the Agrico Site have been completed by EPA, and the fifth is currently underway. Each Review has concluded that the remedy at the Agrico Site is functioning as intended by the Records of Decision for OU-1 and OU-2 and remains protective of human health and the environment.

Site information is available at the local EPA repository located at:

University Archives and West Florida History Center
University of West Florida Libraries
Building 32
11000 University Pkwy
Pensacola, Florida 32514
850-474-2213

Information stored at the repository includes various project documents. Additionally, a site-specific internet web site has been established at: http://www.agricopensacola.com. The web site contains general information and includes all Fact Sheets for the site as well as pertinent documents for the site.

Please respond in writing concerning any contemplated changes in existing or any proposed new regulatory requirements that may affect the existing institutional controls pertaining to the Agrico Site to Amy Mixon, AECOM, 1625 Summit Lake Drive, Suite 300, Tallahassee, Florida 32317, or send an e-mail to amy.mixon@aecom.com. Your assistance in this cooperative effort is greatly appreciated.

If you have any questions, please contact me at (850) 465-3886.

Sincerely,

Amy R. Mixon, P.E.
Project Manager

ARM:lc

AECOM
1625 Summit Lake Drive
Suite 300 Tallahassee,
FL 32317
www.aecom.com

850 668 9941 tel

March 15, 2021 **alan.hagans@dot.state.fl.us**

Mr. Alan Hagans
Florida Department of Transportation District 3
1074 Highway 90
Chipley, Florida 32428

Subject: **Annual Inquiry Regarding Construction Activities**
Fairfield Drive (SR 727) at I-110 (SR 8-A) Roadway ID 48004000
Mile Marker 9.009 at Palafox to Mile Marker 9.490 at I-110 West Ramp
Pensacola, Florida

Dear Mr. Hagans:

Per U.S. Environmental Protection Agency requirements set forth in the Agrico Chemical Site Operation and Maintenance Plans, this annual inquiry is submitted to determine if intrusive work into the subsurface soils in the above-referred location is planned by the Florida Department of Transportation (FDOT) for the year 2021. Additionally, this inquiry seeks to determine if there are work activities included in FDOT's five-year plan that will involve intrusive work at Fairfield Drive from Palafox to the I-110 ramp.

If there is additional information that we or the U.S. Environmental Protection Agency (USEPA) should be aware of, please let me know.

Please respond in writing regarding receipt of this correspondence. If you have any questions concerning this request, please e-mail me at amy.mixon@aecom.com.

Sincerely,

Amy R. Mixon, P.E.
Project Manager

ARM:lc

cc: Jasmin Jefferies (USEPA)

APPENDIX D

OU-1 Bi-Annual Inspection Report

Agrico Chemical Site
Pensacola, Florida

ROUTINE FACILITY INSPECTION CHECKLIST AGRICO CHEMICAL SITE, PENSACOLA FLORIDA	SATISFACTORY	UNSATISFACTORY	DATE CORRECTED	INITIALED	REMARKS
GENERAL FACILITY AREA					
Gates and Locks Secured		✓	5/25/2021	ARM	Lock missing - replaced w/ new lock + new code P66W
Perimeter Fencing	✓				
Signage	✓				Will replace during sampling event
Roadway Conditions	✓				
COVER SYSTEM					
Surface Water Runoff Controlled	✓				
No Ponding Water On Cover	✓				
No Sideslope or Top Erosion or Gullying	✓				
Topsoil and Vegetation Intact	✓				
Settlement/Cracking Inspection	✓				
SURFACE WATER COLLECTION SYSTEM					
No Obstructions of Culverts or Inlets	✓				
Inlet Sediment Controls Intact	✓				
No Erosion of Drainage Ditches or Berms	✓				
Detention Ponds Draining Adequately	✓				
Side Slope Erosion of Detention Ponds	✓				
Leaks, Structural Damage to Inlets, Culverts, or Pipes	✓				

INSPECTED BY: Amy R. Mixon

SIGNATURE: Amy R. Mixon

DATE INSPECTED: 5/25/2021

FOLLOW-UP NOTES:

Trouble w/ locks continues - replacement by First Choice (and gate repairs) on 4/22/2021. Missing again during May inspection - A. Mixon to check weekly + solution will be ~~implemented~~ designed if needed.

6/3/2021 - New code on lock appears to be working to prevent access.

OU-1 Bi-Annual Inspection Report

Agrico Chemical Site
Pensacola, Florida

ROUTINE FACILITY INSPECTION CHECKLIST AGRICO CHEMICAL SITE, PENSACOLA FLORIDA	SATISFACTORY	UNSATISFACTORY	DATE CORRECTED	INITIALED	REMARKS
GENERAL FACILITY AREA					
Gates and Locks Secured	X				new gate code Pleiew
Perimeter Fencing		X			Front area & area near side gate needs repair
Signage	X				
Roadway Conditions	X				
COVER SYSTEM					
Surface Water Runoff Controlled	X				
No Ponding Water On Cover	X				
No Sideslope or Top Erosion or Gullying	X				
Topsoil and Vegetation Intact	X				
Settlement/Cracking Inspection	X				
SURFACE WATER COLLECTION SYSTEM					
No Obstructions of Culverts or Inlets		X			Erosion around 2 culverts
Inlet Sediment Controls Intact	X				
No Erosion of Drainage Ditches or Berms	X				
Detention Ponds Draining Adequately	X				
Side Slope Erosion of Detention Ponds	X				
Leaks. Structural Damage to Inlets, Culverts, or Pipes	X				

INSPECTED BY: DCHatton

SIGNATURE: DCHatton

DATE INSPECTED: 11.04.21

FOLLOW-UP NOTES:

Talked with Ken for erosion repair & fence repair