

**FIFTH FIVE-YEAR REVIEW REPORT FOR
AGRICO CHEMICAL CO. SUPERFUND SITE
ESCAMBIA COUNTY, FLORIDA**



MAY 2020

Prepared by

**U.S. Environmental Protection Agency
Region 4
Atlanta, Georgia**

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LIST OF ABBREVIATIONS AND ACRONYMS

AOC	Administrative Order on Consent
ARAR	Applicable or Relevant and Appropriate Requirement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIC	Community Involvement Coordinator
COC	Contaminant of Concern
EPA	United States Environmental Protection Agency
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FDER	Florida Department of Environmental Regulation
FYR	Five-Year Review
GCTL	Groundwater Cleanup Target Level
HQ	Hazard Quotient
IC	Institutional Control
MCL	Maximum Contaminant Level
MOA	Memorandum of Agreement
µg/dL	Micrograms Per Deciliter
mg/kg	Milligrams Per Kilogram
mg/L	Milligrams Per Liter
MNA	Monitored Natural Attenuation
NCP	National Contingency Plan
NDA	No Drill Area
NPL	National Priorities List
NFWWMD	Northwest Florida Water Management District
O&M	Operation and Maintenance
OU	Operable Unit
pCi/L	Picocuries Per Liter
PRP	Potentially Responsible Party
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
RSL	Regional Screening Level
UU/UE	Unlimited Use and Unrestricted Exposure
UWF	University of West Florida

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency is preparing this FYR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (NCP) (40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii)) and considering the EPA policy.

This is the fifth FYR for the Agrico Chemical Co. Superfund site (the Site). The triggering action for this statutory review is the completion date of the previous FYR. The FYR has been prepared because hazardous substances, pollutants or contaminants remain at the Site above levels that allow for Unlimited Use and Unrestricted Exposure (UU/UE).

The Site consists of two Operable Units (OUs), both of which are addressed in this FYR. OU1 addresses soil contamination. OU2 addresses groundwater contamination.

The EPA Remedial Project Manager (RPM) Jasmin Jefferies led the FYR. Participants included the EPA Community Involvement Coordinator (CIC), L'Tonya Spencer, Billy Hessman from the Florida Department of Environmental Protection (FDEP), and Johnny Zimmerman-Ward and Kelly MacDonald from the EPA FYR support contractor Skeo. The Potentially Responsible Party (PRP) Phillips 66 (successor to ConocoPhillips and Williams Companies, Inc.) was notified of the initiation of the FYR. The review began on September 3, 2019.

Site Background

The 30-acre site is in Pensacola, Florida, northwest of the intersection of Fairfield Drive and Interstate 110 (Figure 1). The Site is bordered by a gravel business to the north, CSX railroad tracks to the west, Fairfield Drive and a storage unit business to the south, and Interstate 110 to the east. Bayou Texar is the nearest surface water feature and is where site groundwater discharges. Land uses surrounding the Site include commercial, industrial and residential areas. The Escambia Wood (Pensacola) Superfund Site is located nearby, northwest of the Site. A former Kaiser fertilizer plant and bulk fertilizer storage site are located southwest of the Site; FDEP is investigating these areas under project number 348, also known as "Site 348."

The Goulding Fertilizer Company began operations at the Site in 1891. A sulfuric acid plant was part of the fertilizer manufacturing operations. Several other companies owned and operated agrichemical businesses at the Site throughout its history. By 1963, the plant was sold to the Continental Oil Company, which operated the plant as the Agrico Chemical Company (Agrico). Plant operations ceased in 1975. Soil and groundwater at the Site were contaminated as a result of sulfuric acid and fertilizer production. Four sludge ponds at the Site received industrial wastewater and sludges.

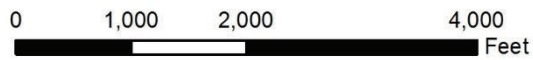
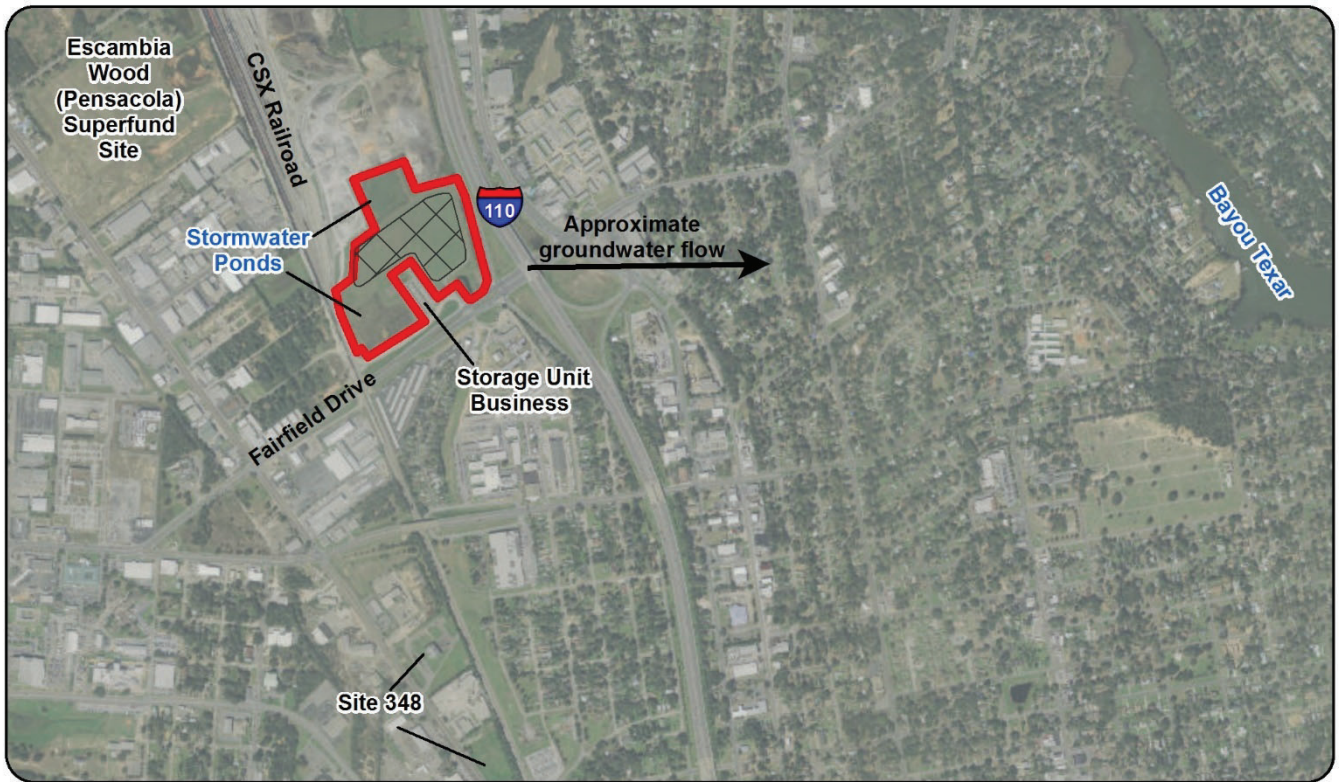
Located beneath the Site is the sand-and-gravel aquifer, which includes three zones: a surficial zone, a low permeability zone and a main producing zone. The surficial zone, generally less than 100 feet thick beneath the Site, consists of unsaturated sediments and the water table. Groundwater in the surficial zones moves downward, through the underlying low permeability zone to recharge the main producing zone, or it moves east to discharge to surface water. The low permeability zone forms a semi-confining layer, restricting vertical flow. The main producing zone, the deepest portion of the aquifer, is recharged by leakage through the low permeability zone. Groundwater flows east toward the Bayou Texar. The surficial zone plume emanating from the Site is diverted to the main producing zone within about 0.4 mile of the Site and limits the areal extent of the surficial zone plume. The main producing zone discharges into Bayou Texar, which is about 1.5 miles east of OU1. The Bayou also receives groundwater from the east, thus preventing groundwater from the Site from flowing east of the bayou. Drinking water is supplied from a municipal water supply.

The Site currently includes a Resource Conservation and Recovery Act (RCRA) cap, two stormwater ponds, a building foundation from plant operations, monitoring wells and several planted pollinator habitat areas. There are currently no plans to reuse the Site. Appendix A provides a list of site-related documents reviewed during this FYR. Appendix B provides current site status information. Appendix C lists the Site's chronology of events.



FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: Agrico Chemical Co.		
EPA ID: FLD980221857		
Region: 4	State: FL	City/County: Pensacola/Escambia
SITE STATUS		
NPL Status: Final		
Multiple OUs? Yes	Has the Site achieved construction completion? Yes	
REVIEW STATUS		
Lead agency: EPA		
Author name: Jasmin Jefferies		
Author affiliation: The EPA with support provided by Skeo		
Review period: 9/3/2019 – 5/11/2020		
Date of site inspection: 11/12/2019		
Type of review: Statutory		
Review number: 5		
Triggering action date: 5/11/2015		
Due date (five years after triggering action date): 5/11/2020		

Figure 1: Vicinity Map



Legend

-  Approximate Site Boundary
-  RCRA Cap Area

Sources: Esri, DeLorme, AND, Tele Atlas, First American, UNEP-WCMC, USGS, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, AeroGRID, IGN, the GIS User Community, the 2010 FYR, the 2015 FYR and the 2018 Annual Report.



Agrico Chemical Co. Superfund Site
City of Pensacola, Escambia County, Florida

Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding the EPA's response actions at the Site.

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

In 1957, City of Pensacola officials shut down a public supply well located downgradient of the Site based on declining pH values and the presence of groundwater contamination.¹ Agrico plant operations ceased in 1975. The EPA conducted a hazardous waste site investigation in October 1983, which indicated that the on-site soils and surface water were contaminated with elevated levels of fluoride and lead. An effort was made to locate any private shallow wells in the area; none were located. The Florida Department of Environmental Regulation (FDER, now FDEP) conducted a groundwater assessment at the Site in January 1987. FDER concluded that site contaminants had polluted area groundwater. The EPA listed the Site on the Superfund program's National Priorities List (NPL) in October 1989.

Conoco Inc. and Freeport McMoran Inc. entered into an Administrative Order on Consent (AOC) in September 1989.² The PRPs agreed to conduct the source and groundwater control Remedial Investigation/Feasibility Study (RI/FS) at the Site, which was conducted from 1990 to 1993.

The 1992 baseline risk assessment found that, for OU1, human health risk exceeded the EPA's acceptable risk levels for direct contact with surficial soils under the then-current use, as well as for future direct contact for resident adults and children, and excavation workers. For ecological risk at OU1, remediation of soils was expected to eliminate any stress to site vegetation. Animals on site were limited to invertebrates, which at most pass through the Site occasionally. Therefore, wildlife exposure to site contaminants was expected to range from low to sporadic.

For OU2, risk exceeded the EPA's acceptable risk levels for potential future intermittent ingestion and swimming exposure from irrigation water used to fill swimming pools (driven primarily by fluoride) as well as future ingestion and inhalation of groundwater from private well usage (driven primarily by arsenic, 2,4-dinitrotoluene, and fluoride).³

Table 1 lists site Contaminants of Concern (COCs) by media.

¹ The OU2 1994 ROD notes that following this, no active potable water supply wells were in the path of the contaminated groundwater plume.

² After 1920, several different companies produced fertilizers on site. By 1963, the plant was sold to Continental Oil Company, which is a legacy company of ConocoPhillips. The Continental Oil Company operated the agrichemical business as the Agrico Chemical Company. The Williams Companies, Inc. acquired Agrico in 1972. Agrico was later sold to Freeport-McMoran Resource Partners in 1987.

³ 2,4-Dinitrotoluene was not included in the list of COCs with cleanup goals in the 1994 OU2 ROD despite being noted as a driver for excess cancer lifetime risks for exposure to groundwater.

Table 1: COCs, by Media

COC	Media
Lead	Soil
Fluoride	Soil and groundwater
Arsenic	
Chloride	Groundwater
Sulfate	
Nitrate/nitrite	
Radium-226	
Radium-228	
<i>Sources:</i> Section 5.5.1 of the 1992 OU1 Record of Decision (ROD) and Section 9 of the 1994 OU2 ROD.	

Response Actions

OU1

The EPA selected the OU1 remedy in the Site’s 1992 OU1 Record of Decision (ROD). The ROD stated that the purpose of the OU1 response action was to prevent current or future exposure to the contaminated soil and sludges on the Site and eliminate further impacts to the groundwater. The OU1 remedy included:

- Excavation and solidification/stabilization of about 32,500 cubic yards of contaminated sludge and soils from site sludge ponds;
- Consolidation of all stabilized sludge and soils into one sludge pond;
- Construction of a RCRA cap over the sludge pond;
- Construction of a slurry wall to eliminate lateral movement of water through the fill area; and
- Implementation of institutional controls to include security fencing, access and deed restrictions.

OU2

The EPA selected the remedy for OU2 in the Site’s 1994 OU2 ROD. It included the following Remedial Action Objectives (RAOs):

- Prevent continued degradation of the groundwater from on-site sources;
- Prevent or minimize degradation of the groundwater resource due to effects associated with the selected remedy such as the spreading of off-site plumes, including the organics plume emanating from the Escambia Wood (Pensacola) Superfund site and saltwater intrusion;
- Prevent or minimize future exposure to contaminated groundwater that would result in unacceptable risk; and
- Prevent or minimize future impacts to surface water due to discharge of contaminated groundwater to Bayou Texar.

The OU2 remedy included:

- Groundwater monitoring of the sand-and-gravel aquifer;
- Surface water monitoring of Bayou Texar.
- Conducting a door-to-door survey of irrigation wells;
- Requesting access from private landowners to plug and abandon impacted irrigation wells;
- Participating in an advisory program conducted by the Northwest Florida Water Management District (NFWMD) for 3-dimensional modeling/contaminant tracking to periodically evaluate the hydrogeologic conditions and quality of the groundwater in the sand-and-gravel aquifer underlying the Site; and

- Utilizing institutional controls to restrict new wells.

The 1994 OU2 ROD stated that the remedy aimed to limit exposure while Monitored Natural Attenuation (MNA) of site groundwater contamination occurred. Natural attenuation was estimated to take 70 years. The 1994 OU2 ROD noted that while the other remedial alternatives such as pumping and treating might reduce the toxicity, mobility and volume of contaminants, other contamination from off-site sources unrelated to the Site (including the Escambia Wood (Pensacola) Superfund Site) would likely spread, further degrade the aquifer, and pose an even greater risk. Therefore, pumping and treating this complex groundwater system was not selected.

The 1994 OU2 ROD also selected a contingency remedy, consisting of on-site deed restrictions, groundwater use restrictions, groundwater monitoring, and public supply wellhead treatment or well replacement. The ROD noted that based on the hydrogeologic conditions, it was unlikely that nearby municipal water supply wells would be impacted by the groundwater plume, but if the plume threatened nearby municipal water supply wells in the future, the contingency remedy would be implemented.

Soil COC excavation performance standards and groundwater COC cleanup goals are included below in Tables 2 and 3, respectively.

Table 2: Soil COC Excavation Performance Standards

Soil COC	Excavation Performance Standards (mg/kg)	Basis
Fluoride	1,463	Site-specific value developed for protection of groundwater.
Lead	500	Site-specific value developed for hypothetical future child residential scenario in order to correspond to 95% of a hypothetical future child residential population having a blood lead concentration less than 10 micrograms per deciliter (µg/dL).
Arsenic	16	Site-specific value based on an industrial scenario at the 10 ⁻⁶ risk level based on ingestion and inhalation pathways.
<i>Source:</i> Sections 7.1 and 9.0 of the 1992 OU1 ROD. mg/kg = milligrams per kilogram		

Table 3: Groundwater COC Cleanup Goals⁴

Groundwater COC	ROD Cleanup Goal
Fluoride	4 mg/L
Arsenic	0.05 mg/L
Chloride	250 mg/L
Sulfate	250 mg/L
Nitrate/nitrite	10 mg/L
Radium-226 and Radium-228 combined	5 pCi/L
<i>Source:</i> Section 9.0 of the 1994 OU2 ROD. mg/L = milligrams per liter pCi/L = picocuries per liter	

⁴ The 1994 OU2 ROD included cleanup goals only for contaminants with unacceptable risks for the current risk scenario. Because of the accessibility of public water supply in this area, it is unlikely that residents will be exposed as envisioned in the future risk scenario. Therefore, the future risk scenario from the baseline risk assessment was not considered in developing these cleanup levels.

Status of Implementation

OU1

The OU1 remedial design finished in September 1994, and remedial action activities began in 1995. The OU1 ROD estimated that 32,500 cubic yards of contaminated soil would be addressed by the remedy, but about 45,000 cubic yards of contaminated soils and sludge materials were collected from on-site sludge ponds and treated by solidification/stabilization using cement. In addition, 100,000 cubic yards of fluoride-impacted soils were collected for inclusion in the on-site consolidation under the cap. Building foundation rubble material was placed at the bottom of the containment area, and treated soil and sludges were placed on top. All treated material was placed in the unsaturated, dry portion of the subsurface.

The RCRA cap is a 4-foot-thick, multi-layered engineered cap placed over the solidified and stabilized soil and sludge to prevent rainfall infiltration from encountering the stabilized materials. The cap consists of seven layers, including an impervious fabric, a high-density polyethylene liner and geotextile materials. To maintain the integrity of the cap, a stormwater runoff system was installed, which includes the north and south stormwater drainage ponds. Because the north stormwater drainage pond is upgradient of the stabilized containment area, a 700-foot-long, 20-foot deep, 2-foot-thick clay slurry wall was constructed between the north stormwater drainage pond and the stabilized containment area to prevent stormwater from contacting the stabilized materials. A security fence around OU1 was also installed to limit access to the capped area at the Site. Remedial activities for OU1 finished in November 1997.

OU2

The OU2 remedial design began in April 1994 and finished in September 1998. Installation of the OU2 groundwater monitoring well network finished in July 1999. Long-term groundwater monitoring has been conducted since 1999.

In addition, a thorough evaluation of the MNA processes for the Site was conducted in 2009 and 2013. The results of these evaluations confirmed that natural attenuation mechanisms were functioning as expected within the area of the plume and that MNA remained an effective remedy for contaminated site groundwater. The projected ranges of cleanup dates remain on the order of decades for most of the plume area. At the discharge boundary for Bayou Texar, it is expected that the timeframes will be longer due to the complex flow/transport mechanisms in this area, but within the 70-year cleanup period calculated in 1992 by groundwater modeling methods.

An irrigation well survey was conducted in July 1999 to identify residences with wells in the area; 57 irrigation wells were identified in the OU2 area. Except for one well used to fill a swimming pool, all wells were used for irrigation only. The irrigation well used to fill a swimming pool was sampled for the site COCs. Results indicated that the well was outside of the Agrico plume. One additional irrigation well was discovered in 2000, totaling to 58 identified irrigation wells in the OU2 area. As of 2000, well owners had not voluntarily requested that their wells be abandoned. In order to continue the attempt to limit this exposure pathway, letters were distributed to the known well owners offering to: 1) abandon their well and hook their irrigation system to the public water system, with all costs being paid by the PRPs; and 2) informing them of the groundwater conditions and the risk involved in using the irrigation well groundwater. Two wells were plugged and abandoned in February 2001. Historically, irrigation well owners generally allow wells to be sampled, but do not want their wells to be abandoned.

Surface water in Bayou Texar is sampled annually for fluoride to determine whether groundwater contamination is impacting the bayou.

Institutional Control (IC) Review

OU1

The 1992 OU1 ROD called for implementation of institutional controls to include security fencing, access and deed restrictions. OU1 institutional controls were implemented via a 1997 Declarations of Covenants, Conditions and Restrictions, which includes the following restrictions:

- Access to the property is restricted to those authorized to enter the property for inspections or maintenance or for public utility maintenance;
- The erection, construction or placement of any road, parking lot, building, sign, billboard or other advertising, utilities (public or commercial), towers, antennas, or any other structure on or above the ground is prohibited;
- Use of the property for temporary or permanent storage of equipment, inventory or materials is prohibited;
- The dumping or placing of soil or other substance or material as landfill or the dumping or placing of trash, waste, or unsightly or offensive materials on the property is prohibited;
- The removal or harvesting for any commercial purpose of trees, shrubs or other vegetation is prohibited;
- The excavation, dredging or removal of loam, peat, gravel, soil, rock or other material substance on or under the property is prohibited, except as may be necessary to maintain the remedial measures;
- Any drilling, mining or other removal of soil, water, minerals, gases or other substances from the surface or subsurface of the property is prohibited, except as required by the ROD; and
- Any other use of the property contrary to the ROD is prohibited even though not specifically enumerated herein.

The restrictions imposed are perpetual restrictions imposed by the lawful owner of the property and will run with the land and be binding on all successor owners.

OU2

The 1994 OU2 ROD called for the use of institutional controls to restrict new wells. NFWFMD is responsible for permitting well construction and consumptive use in the site area. In February 2001, the NFWFMD Board passed a well construction moratorium on drilling new wells (or a No Drill Area (NDA)), including irrigation wells, in the Agrico and Escambia Wood (Pensacola) Superfund Site areas. The moratorium remains in effect and has no termination date. PRP contractor AECOM searches the NFWFMD well permit request database annually to confirm that no permits have been requested or issued and has found only one since implementation of the moratorium, which was a well installed in August 2001 by the Escambia County Parks Department screened in the surficial zone.

There is a 2013 draft Memorandum of Agreement (MOA) between the EPA and the NFWFMD intended to develop a framework for cooperation between the two agencies and to set forth the mutual understanding of the cooperative efforts to minimize the potential effects of contaminated groundwater within the NFWFMD jurisdiction that are impacted by Superfund sites, including procedures for information sharing and assisting in the implementation of institutional controls through regulatory practices in the NFWFMD's jurisdiction. This document has not yet been formally signed, which means that the EPA has no legal mechanism for enforcing the NFWFMD's moratorium on drilling new wells at the Site.

The FDEP has also designated the area that encompasses both the Agrico plume area and the Escambia Wood (Pensacola) Superfund Site plume area as a delineated area of known groundwater contamination under Chapter 62-524 of the Florida Administrative Code (FAC). The regulations require permitting of potable water wells constructed in delineated areas, application of more stringent well construction requirements, mandatory well water testing, and clearance of the well for potable use.

In addition, AECOM distributes an advisory notice annually to irrigation system contractors, well construction contractors and pool construction contractors to inform them of the OU2 conditions and the institutional controls. AECOM also distributes an annual memorandum to local, regional and state agencies to solicit any information that may change institutional controls currently in place at the Site, such as any agency operations that could impact the site conditions.

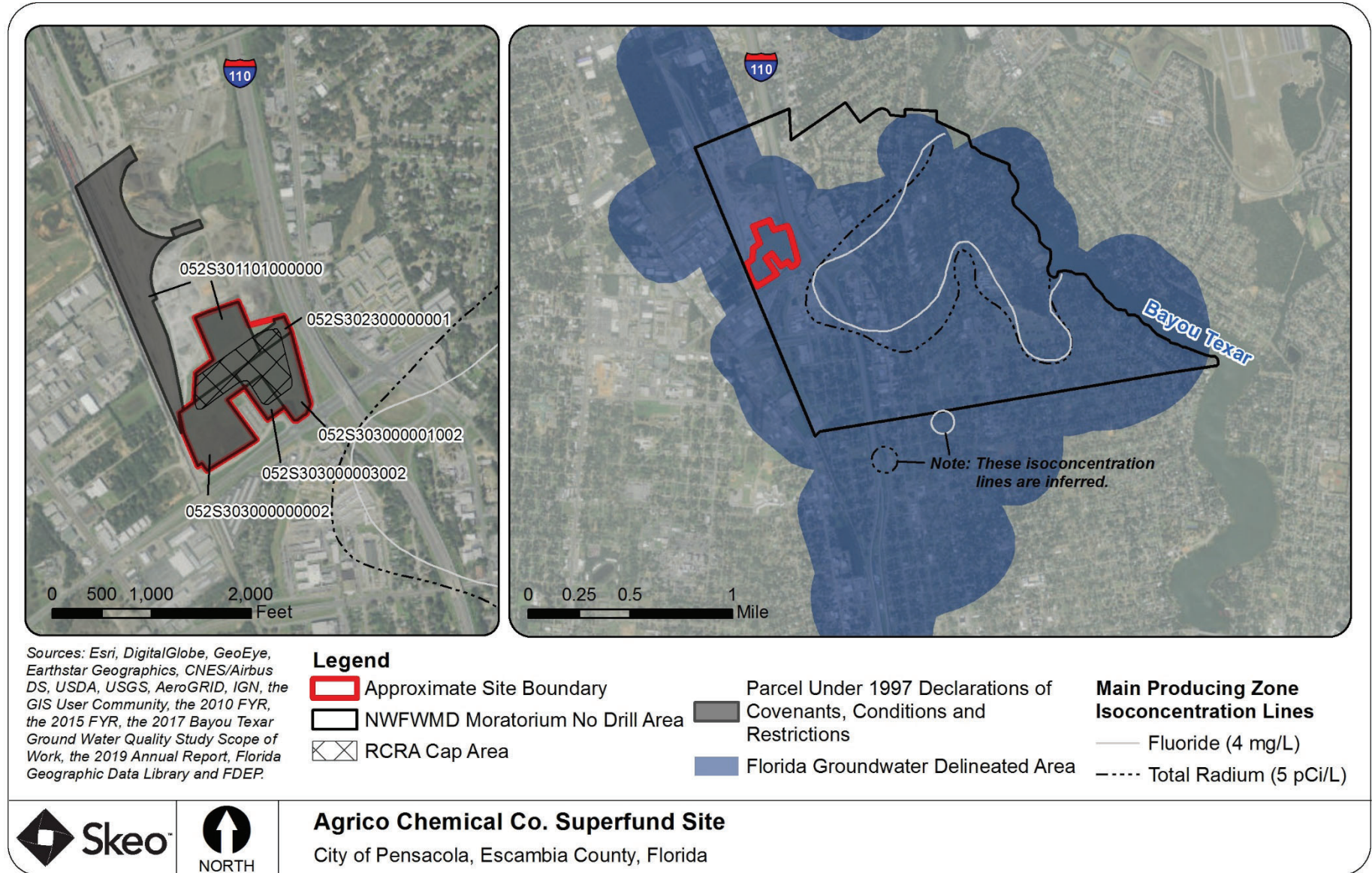
The FDEP completed a Bayou Texar Ground Water Quality Study in March 2019, which included sampling groundwater from irrigation wells within the NDA. Contaminants were found exceeding their respective Groundwater Cleanup Target Levels (GCTLs), and the FDEP sent a letter to all irrigation well owners whose wells were sampled, providing them with their analytical results and reminding them to avoid using irrigation water for potable use.

The locations of institutional controls are included in Figure 2.

Table 4: Summary of Planned and/or Implemented Institutional Controls (ICs)

Media, Engineered Controls, and Areas That Do Not Support UU/UE Based on Current Conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
Soil	Yes	Yes	052S301101000000 052S303000000002 052S303000003002 052S302300000001 052S303000001002	Restrict access and use of the Site to prevent damage to the capped area	1997 Declarations of Covenants, Conditions and Restrictions
Groundwater	Yes	Yes	See Figure 2	Prevent exposure to contaminated groundwater	NFWFMD well construction moratorium
Groundwater	Yes	Yes	See Figure 2	Prevent exposure to contaminated groundwater	FDEP Groundwater Delineated Area ^a
Groundwater	Yes	Yes	N/A	Prevent exposure to contaminated groundwater	2013 Draft MOA (planned, not yet signed)
<i>Notes:</i>					
a. Chapter 62-524, Florida Administrative Code (F.A.C.). Florida’s groundwater delineation information is available online at: https://floridadep.gov/water/source-drinking-water/content/delineated-areas .					

Figure 2: Institutional Control Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding the EPA's response actions at the Site.

Systems Operations/Operation and Maintenance (O&M)

AECOM conducts the following O&M activities in accordance with the 1996 OU1 O&M Plan and the 1998 OU2 O&M Plan:⁵

- Annual groundwater sampling of 10 long-term groundwater monitoring wells;
- Annual surface water sampling at three surface water sampling locations within the primary groundwater discharge reach of Bayou Texar;
- Sampling of the full groundwater monitoring network and surface water network every five years as part of the FYR; and
- 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 after storm events with maintenance initiated, as required; and
 - Inspections of the Site are conducted at a minimum of twice a year and following major storm events.

In addition, the PRPs use the Site to enhance pollinator habitat. In August 2015, a portion of the Site was converted to flowering plant beds. AECOM conducts 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, and routine watering and weeding of plant beds to maintain their health.

III. PROGRESS SINCE THE PREVIOUS REVIEW

This section includes the protectiveness determinations and statements from the previous FYR as well as the recommendations from the previous FYR and the status of those recommendations.

Table 5: Protectiveness Determinations/Statements from the 2015 FYR Report

OU #	Protectiveness Determination	Protectiveness Statement
1	Protective	The remedy for OU-1 is protective since the integrity of the cap remains in very good condition. The solidified and stabilized soil and sludge place in the unsaturated zone beneath the site remain protected by the cap and the stormwater controls that were implemented for the site. On-Site storm drains and stormwater ponds are in good condition and function as designed. Site maintenance prevents erosion to the cap area. Access to OU-1 is limited by a locked fence and signs are posted with information about Site conditions and contact information. Any future land use is limited by a restrictive covenant to prevent any uses that would interfere with any of the remedial components required for OU-1.
2	Protective	The remedy for OU-2 is protective because the source was solidified/stabilized and effectively has prohibited continued impacts to the groundwater and groundwater sampling results indicate that the concentrations have significantly decreased in the area of the former operations (OU-1) and the higher concentrations remaining are now downgradient of the site. The groundwater has been regularly monitored for 15 years and the area of groundwater impacts is well defined and not expanding. Groundwater flow remains constant to the east indicating that there are no pumping effects influencing the Agrico plume. All requirements noted in the OU-2 ROD in addition to groundwater and surface water monitoring have been completed: (1) an irrigation well and swimming pool survey was completed in 1999; (2) institutional controls have been maximized

⁵ O&M plans were modified in 2006, 2007, 2008, 2010 and 2015.

OU #	Protectiveness Determination	Protectiveness Statement
		<p>with the NFWMD well construction moratorium which remains effective; (3) an advisory notice is annually distributed to all contractors (well drilling, irrigation, and swimming pool).</p> <p>While the Site's selected remedy continues to function properly, an ongoing FDEP study at nearby Site 348, which is an FDEP Site that includes the former Kaiser fertilizer plant and fertilizer storage Site, indicates that Site 348 has some of the same contaminants as the Agrico site. For the Agrico's OU-2 remedy to remain protective in the future, the study conducted at Site 348 should be followed up to ensure that the Site 348 plume does not impact the area of the Agrico plume.</p>
Sitewide	Protective	Because the remedial actions selected for OU-1 and OU-2 at the Site are operating as planned and are protective, the Site's remedy is protective of human health and the environment.

There were no issues and recommendations in the 2015 FYR Report.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Community Involvement and Site Interviews

A public notice was made available by posting in the *Pensacola News Journal* (pnj.com) on December 7, 2019. (Appendix D). It stated that the FYR was underway and invited the public to submit any comments to the EPA. The results of the review and the report will be made available at the Site's information repository, the West Florida Regional Library Genealogy Branch, located at 5740 North 9th Avenue in Pensacola, Florida.

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date. The interviews are summarized below and included in full in Appendix E.

Billy Hessman of the FDEP stated that the remedy performance and maintenance has been satisfactory. He shared that from 2017 to 2018, the FDEP conducted a Bayou Texar groundwater quality study to collect and analyze representative groundwater samples from within the sand-and-gravel aquifer to determine the current condition of the NDA. He noted that the FDEP recommends including AC-14D and AC-26D in the annual groundwater sampling plan to monitor groundwater conditions downgradient of AC-13D.

Terry Vandell of PRP Phillips 66 said that the MNA remedy continues to demonstrate plume stability and plume shrinkage. She suggested reducing the number of monitoring wells to evaluate groundwater conditions annually, and she noted that potentially only another 20 to 30 years of MNA are needed to document plume depletion given current conditions. Ms. Vandell said there have been minimal effects from the Site on the surrounding community and that she was unaware of any complaints from residents.

Amy Mixon of PRP contractor AECOM stated that OU1 contamination is contained. She noted that groundwater contaminant concentrations continue to decline, the plume is shrinking, and the contaminants are not reaching Bayou Texar. Based on the long history of monitoring data available, Ms. Mixon said reduction in the number of wells in the overall monitoring program should be considered. She also explained that the cap is inspected twice a year and after rain events, and that the landscape contractor mows at least once per month. The landscape team also inspects the fence during their on-site visits to ensure fence integrity. Ms. Mixon noted that on several occasions, monitoring wells located within City right-of-way have been damaged or destroyed without notification by City contractors.

Data Review

The PRP contractor samples surface water (three locations) and groundwater (10 wells) annually (Figure 3). Sampling is conducted in order to evaluate MNA and source control, monitor the location of groundwater contamination, and confirm surface water is not impacted by groundwater contamination. Sampling of the full groundwater monitoring network and surface water network takes place every five years as part of the FYR and occurred for this FYR period in November 2019. Sampling results from PRP contractor annual reports during this FYR period are described below by media and sampling event. Historical groundwater data results are included in Attachment H-1 of Appendix H, and groundwater data trend charts are included in Attachment H-2 of Appendix H.

Groundwater

Annual Sampling

Groundwater is sampled annually for wells installed in the surficial zone (ACB-31S and AC-2S) and the main producing zone (AC-2D, AC-3D, AC-12D, AC-13D, AC-24D, AC-25D, AC-29D and AC-35D) for COCs fluoride, chloride, sulfate, nitrate, radium-226 and radium-228 (Figure 3). Analysis of lead and arsenic were discontinued from the long-term groundwater monitoring wells with the EPA approval in 2010 (except for arsenic at AC-2S and AC-3S).⁶ The COC nitrite is no longer sampled per the EPA approval in 2007, due to results below detection at all groundwater monitoring locations.

Surficial Zone

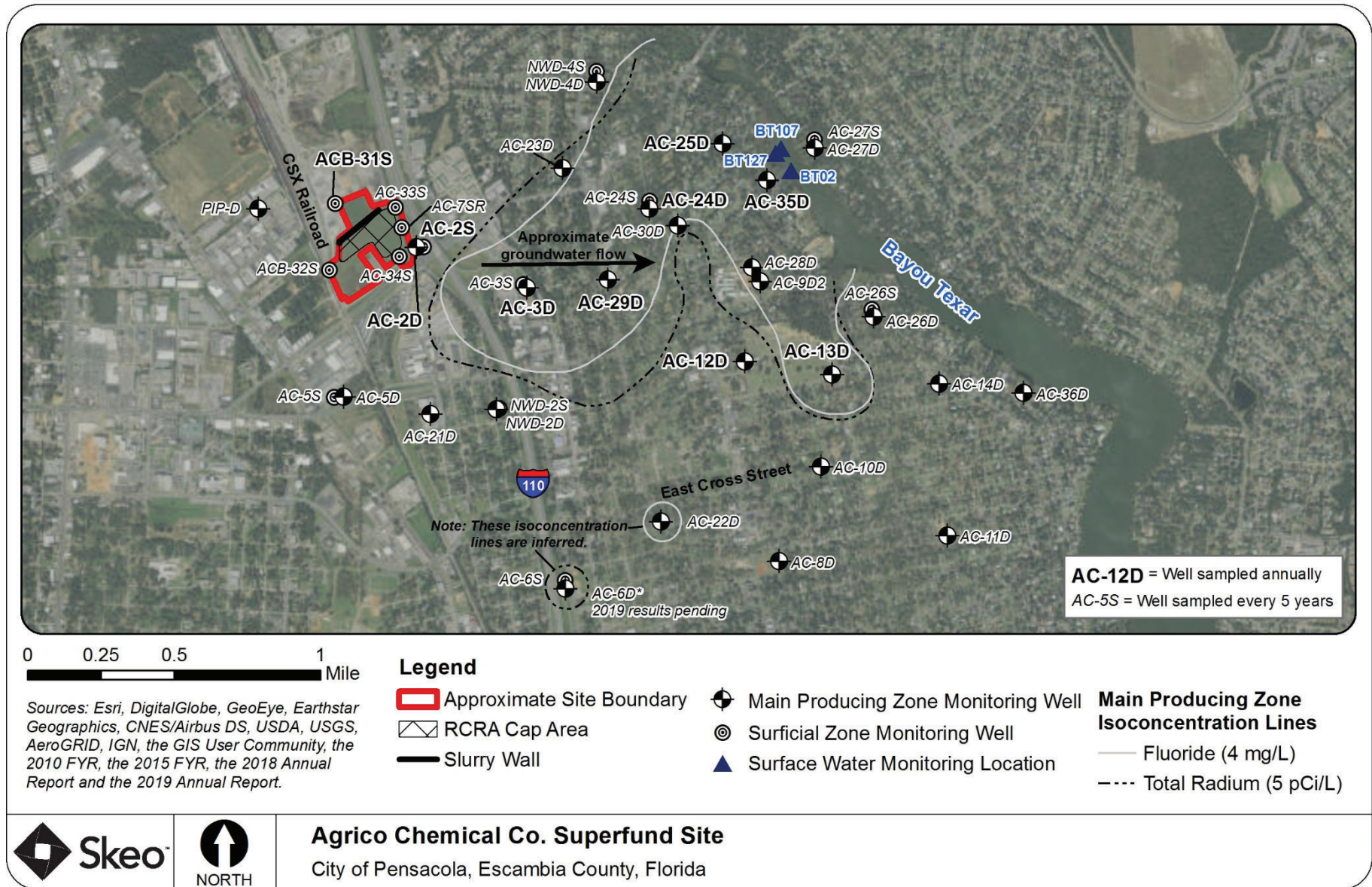
Contamination in this zone infiltrates to the main producing zone within less than 0.4 mile downgradient of the Site. Two surficial monitoring wells are sampled annually (ACB-31S and AC-2S). All contaminants were below their cleanup goals in ACB-31S. The only impacts remaining for the surficial zone contamination are near monitoring well AC-2S. Well AC-2S is directly downgradient of the Site and upgradient of the area where the surficial zone is preferentially hydraulically connected to the deeper main producing zone. In this FYR period, AC-2S concentrations exceeded standards only for fluoride and arsenic. Fluoride concentrations have decreased at AC-2S since remedy implementation (Attachment H-2 in Appendix H). A slight increase in the fluoride concentration was observed between 2016 and 2019 (Table 6). For 2019, fluoride (29 mg/L) exceeded the cleanup target level of 4 mg/L; however, that concentration is well below the peak concentration of 210 mg/L that occurred in 2002, demonstrating that fluoride concentrations are attenuating. Arsenic concentrations in AC-2S have decreased from the historical high (0.74 mg/L in 1990) but have fluctuated in the range of 0.013 mg/L to 0.029 mg/L since 2005. These concentrations are below the ROD cleanup goal of 0.05 mg/L but above the current maximum contaminant level (MCL) of 0.01 mg/L. Historically, within the surficial zone, the overall trend in COC concentrations is downward and the overall area of impacts is shrinking.

Main Producing Zone

Within the main producing zone, arsenic and lead plumes are not present. The primary indicator of the remaining contamination continues to be fluoride, with concentrations above the performance standard of 4 mg/L. The only main producing zone well sampled during this FYR period where all contaminant concentrations are below cleanup goals was AC-2D. The exceedances for the seven remaining wells are included below in Table 6. As seen in Table 6, the contaminants that exceed cleanup goals most widely across the Site are fluoride and radium-226+228 combined.

⁶ AC-2S is sampled annually, while AC-3S is sampled every 5 years.

Figure 3: Detailed Site Map



Disclaimer: This map and any boundary lines within the map are approximate and subject to change. The map is not a survey. The map is for informational purposes only regarding the EPA's response actions at the Site.

Table 6: Groundwater COC Exceedances During FYR Period

Exceedances During FYR Period (2015 to 2019)								
COC:		Year	Fluoride	Radium-226+228 Combined	Arsenic	Sulfate	Nitrate	Chloride
Cleanup Goal:			4 mg/L	5 pCi/L	0.01 mg/L = MCL 0.05 mg/L = ROD cleanup goal	250 mg/L	10 mg/L	250 mg/L
Surficial Monitoring Well	AC-2S	2015	33	NE	0.027	NE	NE	NE
		2016	19		0.016			
		2017	20		0.013			
		2018	23		0.014			
		2019	29	NE	0.020	NE	NE	NE
Main Producing Zone Monitoring Well	AC-3D	2015	13	13.52	NA	NE	NE	NE
		2016	11	8.57				
		2017	9.3	8.79				
		2018	7.6	5.6				
		2019	9.8	10.87				
	AC-12D	2015	12	8.5	NA	NE	NE	NE
		2016	8.1	10.35				
		2017	7.8	7.23				
		2018	NE	NE				
		2019	NE	NE				
	AC-13D	2015	9.3	9.01	NA	NE	<i>10</i>	NE
		2016	6.8	NE		270	11	
		2017	7.5	7.06		NE	11	
		2018	6	7.08		250	<i>10</i>	
		2019	6.8	8.21		NA	NE	
	AC-24D	2015	47	8.39	NA	NE	NE	NE
		2016	33	5.02				
		2017	45	7.66				
		2018	24	8.27				
		2019	30	8.52				
	AC-25D	2015	91	8.14	NA	NE	NE	360
		2016	68	5.91				380
		2017	93	6.85				300
		2018	68	6.29				NE
		2019	40	6.00				NA
	AC-29D	2015	30	15.99	NA	NE	NE	NE
		2016	22	14.81				
		2017	25	14.99				
		2018	20	12.5				
		2019	18	14.85				
AC-35D	2015	110	10.5	NA	NE	NE	340	
	2016	76	6.4				310	
	2017	120	7.34				280	
	2018	75	7.53				270	
	2019	40	8.25				NA	NE

Notes:
 Source: Data from Table 8 of the 2019 Annual Report.
 NE = No exceedance of cleanup goal.
 NA = Not analyzed.
Italicized = concentration is equivalent to cleanup goal.

mg/L = milligrams per liter pCi/L = picocuries per liter

Fluoride exceedances in this FYR period ranged from 6 mg/L to 120 mg/L, compared to the cleanup goal of 4 mg/L (Table 6). Fluoride exceedances are highest in wells AC-24D, AC-25D, and AC-35D. AC-25D and AC-35D are close to Bayou Texar (Figure 3). Fluoride concentrations in AC-25D were lower in the late 1990s and early 2000s, reached historical highs in early 2010s, and have since been stable or declining. In wells AC-24D, AC-35D, AC-3D, AC-12D and AC-13D, fluoride concentrations have generally declined from historical levels.

Radium-226+228 combined exceedances in this FYR period ranged from 5.02 pCi/L to 15.99 pCi/L compared to the cleanup goal of 5 pCi/L (Table 6). Radium-226+228 combined exceedances were highest in well AC-29D; these exceedances have oscillated in the range of about 12 to 17 pCi/L since 2006. AC-29D is midway between the OU1 area and Bayou Texar. In wells AC-3D and AC-24D, combined radium concentrations have declined from historical levels. In well AC-12D, combined radium concentrations fluctuated but in the 2018 and 2019 sampling events dropped below the cleanup goal. In well AC-13D, AC-25D and AC-35D, concentrations have fluctuated over time.

Exceedances of sulfate, nitrate and chloride also occurred in the main producing zone, but exceedances for these COCs are not as widespread as radium and fluoride. Chloride exceedances in AC-25D and AC-35D exhibit a downward trend from historical levels, and concentrations did not exceed the cleanup goal in the most recent sampling event. Sulfate exceedances in AC-13D have oscillated around the cleanup goal, but the most recent concentration in 2019 was below. Nitrate exceedances have generally remained consistent with historical concentrations and remain just above the cleanup goal, typically ranging from 10 to 12 mg/L. During the most recent sampling event, nitrate dropped below the cleanup goal in AC-13D for the first time since 1992.

Currently, contamination in the main producing zone appears to cover limited areal extents. Overall, historical contaminant trends in the main producing zone contamination appear to be stable or show a slight decrease over time. Although sampling results for 2018 showed slightly higher concentrations for some constituents at a few locations, the increases may be due to excessive rainfall during 2018, when annual rainfall was nearly 25 inches above normal (Table 6). Ongoing monitoring will confirm this conclusion.

Five-Year Sampling

Sampling of the full groundwater monitoring network occurs every five years as part of the FYR, which for this FYR occurred in November 2019. An additional 30 wells were sampled that are not sampled during annual sampling. Full groundwater data is available in Attachment H-1 of Appendix H.

A summary of groundwater monitoring results and exceedances for the 2019 event are included below in Tables 7 and 8. Most wells sampled had no exceedances. Five wells had exceedances, which were either for fluoride or radium-226+228 combined (Table 8).

Exceedances in well AC-22D confirm the presence of fluoride south of the main fluoride plume (Figure 3), but the extent appears limited, as downgradient wells AC-8D, AC-10D and AC-11D do not have fluoride exceedances. Exceedances in the remaining wells in Table 8 confirm the location of the plumes shown in Figure 3.

Table 7: Groundwater Results in Wells Sampled Every 5 Years during 2019 Sampling Event

Monitoring wells with no exceedances in 2019 sampling event^a	AC-7SR, ACB-32S, AC-33S, AC-34S, AC-3S, AC-5S, AC-6S, AC-24S, AC-27S, NWD-2S, NWD-4S, AC-5D, AC-8D, AC-10D, AC-11D, AC-21D, AC-27D, NWD-2D, NWD-4D and PIP-D
Monitoring well with at least one exceedance in 2019 sampling event	AC-9D2, AC-22D, AC-23D, AC-28D and AC-30D
Damaged and repaired – results pending	AC-6D
Monitoring well unable to be located	AC-26S, AC-14D, AC-26D and AC-36D
<i>Notes:</i> Source: Data from Table 8 of the 2019 Annual Report. a. Arsenic was not analyzed, except for AC-3S, the concentration of which did not exceed the cleanup goal.	

Table 8: Exceedances in Wells Sampled Every 5 Years during 2019 Sampling Event

COC:		Fluoride	Radium-226+228 Combined
Cleanup Goal:		4 mg/L	5 pCi/L
Well	AC-9D2	19	10
	AC-22D	4.6	NE
	AC-23D	NE	6.08
	AC-28D	9.2	11.4
	AC-30D	<i>4</i>	7.16
<i>Notes:</i> Source: Data from Table 8 of the 2019 Annual Report. NE = No exceedance of cleanup goal. <i>Italicized</i> = concentration is equivalent to cleanup goal. mg/L = milligrams per liter pCi/L = picocuries per liter			

FDEP Sampling

FDEP completed a groundwater study in March 2019 to determine the current condition of the NDA with respect to COCs. FDEP collected samples from private irrigation wells and from monitoring wells associated with the Agrico Chemical Co. and Escambia Wood (Pensacola) Superfund sites, the former Kaiser facility (Site 348) and the former Vick’s Cleaners site. Groundwater samples were collected from the sand-and-gravel aquifer between April 2017 and September 2018.

The study had several findings related to Agrico COCs:

- Fluoride and radium-226+228 combined exceeded GCTLs in monitoring wells and irrigation wells within the NDA, primarily in the main producing zone;
- Radium-226+228 combined exceeded GCTLs outside the NDA’s southern boundary in monitoring and irrigation wells. The study noted that these exceedances appear related to a release from the former Kaiser facility (or Site 348); and
- Radium-226+228 combined exceeded GCTLs in irrigation wells outside the NDA, on the northeast side of Bayou Texar. The study noted that the source of these exceedances is undetermined. The data indicate that the hydrogeologic conceptual site model for the Agrico site (i.e., that the Agrico groundwater does not flow east of the Bayou) is correct.

FDEP sent a letter to all irrigation well owners whose wells were sampled, providing them with their analytical results and reminding them to avoid using irrigation water for potable use. In the study, FDEP noted that with respect to the original question about the suitability of the NDA, FDEP finds that the NDA serves an important purpose by limiting exposure to significant groundwater contamination. This study also shows that significant areas of groundwater contamination fall outside the NDA.

Surface Water

Surface water is sampled within the primary groundwater discharge reach of Bayou Texar at sampling locations BT-02, BT-107 and BT-127 (Figure 3). Surface water is sampled only for fluoride. In 2014, the PRPs recommended discontinuing surface water monitoring because there was no significant risk caused by the groundwater contamination discharge to the surface water. In 2015, the EPA and FDEP approved reducing surface water sampling to include only fluoride.

As seen below in Table 9, all fluoride concentrations in surface water were below the Florida standard for Class III marine surface water, indicating that groundwater contamination is not leading to fluoride concentrations above the relevant standard in surface water.

Table 9: Surface Water Sampling Results for FYR Period

Sample Location	Date	Fluoride Concentration (mg/L)
		<i>FAC 62-302, Class III Marine Surface Water Standard = 5 mg/L</i>
BT-02	11/2015	1.50
	11/2016	0.52
	11/2017	0.68
	11/2018	1.40
	11/2019	0.63
BT-107	11/2015	1.30
	11/2016	0.52
	11/2017	0.55
	11/2018	2.50
	11/2019	0.57
BT-127	11/2015	0.46
	11/2016	0.49
	11/2017	0.93
	11/2018	2.30
	11/2019	0.73
<i>Notes:</i> Source: Table 9 of the 2018 Annual Report. mg/L = milligrams per liter		

Pore Water

Pore water was last sampled in 2009. Since then, near-bottom Bayou Texar surface water monitoring has occurred at the 3 locations with pore water fluoride concentrations greater than 5 mg/L as reported in the 2009 sampling event; see results in previous section.

Site Inspection

The site inspection took place on 11/12/2019. Participants included the EPA RPM Jasmin Jefferies, the EPA CIC L'Tonya Spencer, the EPA CIC Heidi LeSane, Billy Hessman from FDEP, Amy Mixon from PRP contractor AECOM, and Johnny Zimmerman-Ward and Kelly MacDonald from the EPA FYR support contractor Skeo. The purpose of the inspection was to assess the protectiveness of the remedy. The site inspection checklist and site inspection photographs are included in Appendices F and G, respectively.

The site area was surrounded by a fence, which was in excellent condition. The site entry gate had a sign stating that waste material may be present below ground surface and to not disturb the soil cover. AECOM noted that there have not been any issues with trespassing on the site property. The landfill cap was elevated and vegetated with grass, and no evidence of burrowing, ponding, woody vegetation or erosion was noted. The cap appeared recently mowed.

The perimeter of the landfill had stormwater drains that were in good condition. These drain stormwater to one of two stormwater retention ponds north and south of the landfill. The north pond had standing water in it; the south pond was dry. Northwest of the south retention pond is a concrete pad, which is the only remaining original feature from the Site's industrial operations. AECOM planted pollinator habitat areas on non-capped parts of the fenced site area.

Following the tour of the landfill, site inspection participants drove past Site 348. Next, the group toured the residential areas east and southeast of the Site where the plume, monitoring wells and institutional controls restricting well installation are in place. The group then drove by Bayou Texar.

Skeo visited the site's information repository, the West Florida Regional Library Genealogy Branch, which did not have any site-related documents available. Library staff shared that they send the documents received to the Special Collections Library at the University of West Florida (UWF) but recommended changing the official site repository to the Pensacola Library. Library staff from UWF noted that they have a collection of site documents and have received site documents as recently as 2019.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Question A Summary:

The remedy is functioning as intended by the decision documents. For OU1, contaminated soil and sludge were excavated, solidified and capped. The cap remains in excellent condition; O&M procedures appear effective. A slurry wall was installed to prevent stormwater from the north stormwater pond from contacting the stabilized materials. Institutional controls are in place on the cap that prevent any uses of the Site that contradict the selected remedy.

For OU2, the remedy of MNA has been implemented, and monitoring is ongoing. Overall, concentrations of contaminants appear stable or decreasing. Monitoring began in 1999 and the 1994 OU2 ROD estimated natural attenuation would take 70 years. Fifty years remain in this estimate and the remedy appears to be progressing as intended. As more information becomes available about Site 348 and Escambia Wood (Pensacola) Superfund Site groundwater contamination, site teams and agencies should coordinate to ensure cleanups are efficient and protective. Surface water data indicate that

groundwater contamination does not appear to be impacting Bayou Texar. Institutional controls are in place to restrict well installation in areas of groundwater contamination. The Site is located within a FDEP Groundwater Delineated Area. The 2013 draft MOA between the EPA and the NFWFMD has not yet been signed and should be formalized to ensure interagency coordination.

The OU2 remedy also included an irrigation well survey. As of 2000, well owners had not voluntarily requested that their wells be abandoned, so the EPA distributed letters offering to abandon wells and notifying residents of groundwater conditions. Two wells were plugged and abandoned in February 2001. A 2001 NFWFMD well construction moratorium is in place that has since prevented installation of new wells, including irrigations wells. However, to ensure long-term protectiveness, wells and their uses should be identified from the most recent well survey, and a notification program to ensure any remaining irrigation well owners within the plume are aware of groundwater conditions and risks.

A formal statistical MNA evaluation was conducted in 2009 and 2013. No evaluations have been conducted since. Conducting this type of evaluation at a specified frequency could be considered to periodically evaluate the progress of MNA.

Since pore water sampling was last conducted in 2009, additional pore water samples are needed to confirm fluoride groundwater contamination is not impacting the bayou.

Lastly, local construction along Bayou Texar appears to have destroyed several site wells (AC-26S, AC-14D, AC-26D and AC-36D). Installation of replacement wells is needed to preserve the long-term monitoring well network.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels and RAOs used at the time of the remedy selection still valid?

Question B Summary:

The exposure assumptions, toxicity data, and RAOs all remain valid. Two cleanup levels for groundwater have had changes in standards since remedy selection, described in detail below.

An Applicable or Relevant and Appropriate Requirement (ARAR) evaluation was conducted to determine whether any groundwater standards have changed since the ROD (Appendix I). Except for arsenic and nitrite, no standards changed. While the arsenic MCL has become more stringent, arsenic is only currently sampled in one well annually, and the PRP contractor compares results to the current MCL. In addition, while the nitrite standard has become more stringent, nitrite is no longer sampled. Nitrite concentrations were historically below detection, and in 2007 the EPA approved eliminating nitrite as a sampled constituent, because it was determined that the nitrogen detected was only nitrate. Therefore, the more stringent standards do not impact current protectiveness, but the cleanup goals should be updated to reflect the current standards to ensure long-term protectiveness.

To evaluate whether the soil excavation performance standards selected remain valid, a screening-level risk evaluation was conducted, the results of which are in Appendix J. The risk evaluation indicates that, for a composite worker, excavation performance standards correspond to risk below or within the EPA's acceptable risk range and therefore remain valid.

No new exposure pathways are present. In addition, the OU1 RAOs of preventing exposure to soil and sludge on site and limiting further impacts to groundwater remain valid because the soil remedy

solidified/stabilized and consolidated the contaminated soil and sludge and capped these materials. In addition, institutional controls are in place to protect the remedy. The groundwater remedy is demonstrating that groundwater contamination is showing a stable or declining trend, and institutional controls are in place, supporting that the OU2 RAOs of preventing exposure to contaminated groundwater, preventing continued degradation or groundwater from site sources, and preventing impacts to Bayou Texar remain valid.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

No other information has come to light that could call into question the protectiveness of the remedy.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations	
OU(s) without Issues/Recommendations Identified in the FYR:	
<i>OU1</i>	

Issues and Recommendations Identified in the FYR:

OU(s): 2	Issue Category: Monitoring			
	Issue: Local construction along Bayou Texar appears to have destroyed several site wells.			
	Recommendation: Install replacements for destroyed wells to preserve the long-term monitoring network.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA/State	5/11/2022

OU(s): 2	Issue Category: Monitoring			
	Issue: Promulgated groundwater standards for nitrite and arsenic have become more stringent than the ROD cleanup goals.			
	Recommendation: Update the groundwater cleanup goals for nitrite and arsenic to reflect current standards.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	EPA	EPA/State	5/11/2022

OU(s): 2	Issue Category: Monitoring			
	Issue: Private well uses were last confirmed in 2001. Remaining irrigation well owners within the plume may not be aware of groundwater conditions and risks.			
	Recommendation: Identify wells and their uses from the most recent well survey. Implement a notification program to ensure any remaining irrigation well owners within the plume are aware of groundwater conditions and risks.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA/State	5/11/2022

OU(s): 2	Issue Category: Monitoring			
	Issue: Pore water sampling was last conducted in 2009.			
	Recommendation: Conduct pore water sampling to confirm fluoride groundwater contamination is not impacting the bayou.			
Affect Current Protectiveness	Affect Future Protectiveness	Party Responsible	Oversight Party	Milestone Date
No	Yes	PRP	EPA/State	5/11/2022

OTHER FINDINGS

Several additional recommendations were identified during the FYR. These recommendations do not affect current and/or future protectiveness:

- Update the site repository to be the Pensacola Library;
- The 2013 draft MOA between the EPA and the NFWFMD has not yet been signed and should be formalized to ensure interagency coordination; and
- A formal statistical MNA evaluation was conducted in 2009 and 2013. No evaluations have been conducted since then. Determine whether a formal statistical MNA evaluation should be conducted at a specified frequency to periodically evaluate the progress of MNA.

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement	
<i>Operable Unit: 1</i>	<i>Protectiveness Determination:</i> Protective
<i>Protectiveness Statement:</i> The remedy at OU1 is protective of human health and the environment. Contaminated soil and sludge were excavated, solidified and capped. The cap remains in excellent condition and O&M procedures appear effective. Institutional controls are in place on the cap that prevent any uses of the Site that are not compatible with the selected remedy.	

Protectiveness Statement	
<i>Operable Unit: 2</i>	<i>Protectiveness Determination:</i> Short-term Protective
<i>Protectiveness Statement:</i> The remedy at OU2 currently protects human health and the environment because MNA and monitoring are ongoing, institutional controls are in place to prevent exposure to contaminated groundwater, and surface water data indicate that groundwater contamination is not impacting Bayou Texar. For the remedy to be protective over the long term, the following actions need to be taken to ensure protectiveness: <ul style="list-style-type: none">• Install replacements for destroyed wells to preserve the long-term monitoring network;• Update the groundwater cleanup goals for nitrite and arsenic to reflect current standards;• Identify wells and their uses from the most recent well survey. Implement a notification program to ensure any remaining irrigation well owners within the plume are aware of groundwater conditions and risks; and• Conduct pore water sampling to confirm fluoride groundwater contamination is not impacting the bayou.	

Sitewide Protectiveness Statement	
<i>Protectiveness Determination:</i> Short-term Protective	
<i>Protectiveness Statement:</i> The remedy at the Site currently protects currently protects human health and the environment. For the remedy to be protective over the long term, the following actions need to be taken to ensure protectiveness: <ul style="list-style-type: none">• Install replacements for destroyed wells to preserve the long-term monitoring network;• Update the groundwater cleanup goals for nitrite and arsenic to reflect current standards;• Identify wells and their uses from the most recent well survey. Implement a notification program to ensure any remaining irrigation well owners within the plume are aware of groundwater conditions and risks; and• Conduct pore water sampling to confirm fluoride groundwater contamination is not impacting the bayou.	

VIII. NEXT REVIEW

The next FYR Report for the Agrico Chemical Co. Superfund site is required five years from the completion date of this review.

APPENDIX A – REFERENCE LIST

- 2018 Annual Report, Agrico Chemical Co. Superfund Site, Pensacola, Florida. AECOM. March 2019.
- Bayou Texar Ground Water Quality Study Scope of Work, Pensacola, Florida. FDEP. March 2017.
- Bayou Texar Ground Water Quality Study, Pensacola, Florida. FDEP. March 2019.
- Declaration of Covenants, Conditions and Restrictions, Agrico Chemical Co. Superfund Site, Pensacola, Florida. July 1997.
- Fourth FYR, Agrico Chemical Co. Superfund Site, Pensacola, Florida. EPA Region 4. May 2015.
- O&M Plan, OU1, Agrico Chemical Co. Superfund Site, Pensacola, Florida. Conoco, Inc. September 1996.
- O&M Plan, OU2, Agrico Chemical Co. Superfund Site, Pensacola, Florida. Conoco, Inc. November 1998.
- OU1 Record of Decision, Agrico Chemical Co. Superfund Site, Pensacola, Florida. EPA Region 4. September 1992.
- OU2 Record of Decision, Agrico Chemical Co. Superfund Site, Pensacola, Florida. EPA Region 4. August 1994.
- 2019 Annual Report, Agrico Chemical Co. Superfund Site, Pensacola, Florida. AECOM. 2020.
- Third FYR, Agrico Chemical Co. Superfund Site, Pensacola, Florida. EPA Region 4. June 2010.

APPENDIX B – CURRENT SITE STATUS

Environmental Indicators

- *Current human exposures at the Site are under control.*
- *Current groundwater migration is under control.*

Are Necessary Institutional Controls in Place?

All Some None

Has EPA Designated the Site as Sitewide Ready for Anticipated Use?

Yes No

Has the Site Been Put into Reuse?

Yes No

The Site is in use as pollinator habitat.

APPENDIX C – SITE CHRONOLOGY

Table C-1: Site Chronology

Event	Date
Goulding Fertilizer Company initiated operations at Site	1891
Initial discovery of contamination first reported	1957
Agrico Chemical Company ceased operations at Pensacola Plant	June 1975
The EPA conducted initial response	October 1983
FDER conducted preliminary assessment	January – December 1987
The EPA proposed Site to NPL	June 24, 1988
RI/FS negotiations and Consent Agreement (Administrative) and AOC requiring the PRPs to conduct soil and groundwater investigations	September 29, 1989
The EPA finalized the Site on the NPL	October 4, 1989
AOC modified to require the PRPs to conduct the remedial design for OU1	January 31, 1992
Ecological risk assessment for OU1 and risk/health assessment for OU1	March 12, 1992
Removal assessment conducted	September 1, 1992
PRP RI/FS for OU1 and ROD for OU1	September 29, 1992
Remedial design/remedial action negotiations and remedial design for OU1 began	February 16, 1993
Sitewide remedial design/remedial action negotiations completed (for soils)	July 20, 1993
Consent Decree signed requiring the PRPs to complete the remedial action	May 3, 1994
PRP RI/FS for OU2 and ROD for OU2 issued	August 1994
Remedial design for OU1 completed and remedial action for OU1 started	September 23, 1994
OU1 remedial construction initiated	1995
Sitewide remedial design/remedial action negotiations completed (for groundwater)	March 28, 1995
Consent Decree amended to include remedial design/remedial action and O&M activities for OU2	May 30, 1995
O&M Plan for OU1 finalized	September 1996
OU1 deemed construction complete	April 1997
Remedial design for OU2 began	April 3, 1997
Restrictive Covenant for the Site filed against property deed with Escambia County Clerk of the Circuit Court	July 11, 1997
Remedial action for OU1 completed	November 6, 1997
Remedial design for OU2 completed	September 11, 1998
Irrigation well and swimming pool survey completed	July 1999
Construction Completion documented via Preliminary Close-Out Report	September 23, 1999
Regular annual groundwater/surface water monitoring initiated	November 1999
First FYR Report issued by the EPA	June 28, 2000
NWFWMD initiated well construction moratorium for OU2 area	February 22, 2001
Second FYR Report issued by the EPA	July 11, 2005
The EPA approved evaluation of Site's long-term monitoring program	January 22, 2007
The EPA approved discontinuing OU1 biannual sampling	September 2, 2008
Conceptual Site Model and Ecological Evaluation provided to the EPA for Bayou Texar	September 4, 2009
Third FYR Report issued by the EPA	June 30, 2010
MOA drafted between the EPA and NWFWMD	2013
Fourth FYR Report issued by the EPA	May 11, 2015

APPENDIX D – PRESS NOTICE

**The U.S. Environmental Protection Agency, Region 4
Announces the Fifth Five-Year Review for
the Agrico Chemical Co. Superfund Site,
Pensacola, Escambia County, Florida**

Purpose/Objective: The EPA is conducting a Five-Year Review of the remedy for the Agrico Chemical Co. Superfund site (the Site) in Pensacola, Florida. The purpose of the Five-Year Review is to make sure the selected cleanup actions effectively protect human health and the environment.

Site Background: The 35-acre Site is located on the northwest corner of Fairfield Drive and Interstate 110. It includes an area where agrichemical production operations took place from 1889 to 1975. The Escambia Wood Treating Company borders the Site to the north. A mini-storage company borders the Site to the south. Interstate 110 borders the Site to the east. A CSX railroad switching yard borders the Site to the west. Surrounding land uses include commercial and industrial land uses.

The Site includes the area where chemical production operations began in 1889. Several companies made fertilizers at the Site between 1920 and 1975. Conoco purchased the facility in 1963 and operated the fertilizer plant until 1972. Agrico Chemical Company purchased the facility in 1972 and operated the plant until 1975. There are no buildings remaining on site that are related to past site operations. Operations discharged wastewater into four unlined ponds on site. Bayou Texar, about 1.5 miles west of the Site, is a discharge area for groundwater migrating from the Site. The EPA placed the Site on the Superfund program's National Priorities List (NPL) in 1989 because of contaminated groundwater, sludge and soil resulting from facility operations.

Cleanup Actions: The EPA designated two operable units (OUs) to address the Site's sludge, soil (OU1) and groundwater (OU2) contamination. The EPA selected the remedy to treat soil and sludge contamination in the Site's 1992 Record of Decision (ROD). It included digging up, solidifying and stabilizing contaminated sludge and soil from on-site ponds, consolidating stabilized material in one pond, capping the pond, constructing a below-ground barrier wall uphill from the cap, monitoring groundwater, and institutional controls. The 1994 OU2 ROD included using monitored natural attenuation to address groundwater contamination, monitoring groundwater in the sand-and-gravel aquifer, monitoring surface water in Bayou Texar, placing institutional controls on the site property to restrict groundwater use, and establishing an advisory program to inform contractors of groundwater conditions at the Site.

The Site's potentially responsible parties (PRPs) completed OU1 soil cleanup activities by 1997. The PRPs removed soil and sludge, solidified and stabilized the material, and placed it under a cap on site. The PRPs started an advisory program in July 1999 to inform contractors of groundwater conditions near the Site. PRPs send a notice annually to water well contractors, irrigation system installers and pool contractors conducting work in southern Escambia County. The EPA placed institutional controls on the site property to limit groundwater and land use at the Site.

Five-Year Review Schedule: The National Contingency Plan requires review of remedial actions that result in any hazardous substances, pollutants or contaminants remaining at the Site above levels that allow for unlimited use and unrestricted exposure every five years to ensure the protection of human health and the environment. The fifth of the Five-Year Reviews for the Site will be completed by May 2020.

The EPA Invites Community Participation in the Five-Year Review Process: The EPA is conducting this Five-Year Review to evaluate the effectiveness of the Site's remedy and to ensure that the remedy remains protective of human health and the environment. As part of the Five-Year Review process, EPA staff is available to answer any questions about the Site. Community members who have questions about the Site or the Five-Year Review process, or who would like to participate in a community interview, are asked to contact:

Jasmin Jefferies, EPA Remedial Project Manager
Phone: (404) 562-8443
Email: jefferies.jasmin@epa.gov

L'Tonya Spencer, EPA Community Involvement Coordinator
Phone: (404) 562-8463
Email: spencer.latonya@epa.gov

Mailing Address: U.S. EPA Region 4, 61 Forsyth Street, S.W., 11th Floor, Atlanta, GA 30303

Additional information is available at the Site's local document repository, Westside Branch Library, located at 1301 West Gregory Street in Pensacola, Florida 32502, and online at www.epa.gov/superfund/agrico-chemical-company.

Publication Date: December 7, 2019

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APPENDIX E – INTERVIEW FORMS

AGRICO CHEMICAL COMPANY SUPERFUND SITE FIVE-YEAR REVIEW INTERVIEW FORM					
Site Name: Agrico Chemical Company					
EPA ID: FLD980221857					
Subject name: Billy Hessman			Subject affiliation: FDEP		
Subject contact information:					
Interview date: 11/15/19			Interview time: N/A		
Interview location: N/A					
Interview format (circle one): In Person Phone Mail Email Other:					
Interview category: State					

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)?
Satisfactory.

2. What is your assessment of the current performance of the remedy in place at the Site?
Satisfactory.

3. Are you aware of any complaints or inquiries regarding site-related environmental issues or remedial activities from residents in the past five years?
I have not received any inquiries or complaints regarding the site, but I have heard of one instance where a resident inquired as to why they could not install a well within the limits of the NDA.

3. Has your office conducted any site-related activities or communications in the past five years? If so, please describe the purpose and results of these activities.

 Yes, in 2017 and 2018 the DEP Site Investigation Section conducted a Bayou Texar Ground Water Quality Study. The goal of the study was to collect and analyze representative groundwater samples from within the Sand and Gravel aquifer to determine the current condition of the NDA.

 In the Spring of 2017, the DEP conducted a Public Workshop to provide public outreach regarding the Agrico Chemical site.

4. Are you aware of any changes to state laws that might affect the protectiveness of the Site’s remedy?
No.

5. Are you comfortable with the status of the institutional controls at the Site? If not, what are the associated outstanding issues?
Yes.

6. Are you aware of any changes in projected land use(s) at the Site?
No.

7. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy?
The DEP recommends including AC-14D and AC-26D to the annual groundwater sampling plan to monitor the groundwater conditions downgradient of AC-13D.
8. Do you consent to have your name included along with your responses to this questionnaire in the FYR report?
Yes.

AGRICO CHEMICAL COMPANY SUPERFUND SITE FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: Agrico Chemical Company	
EPA ID: FLD980221857	
Interviewer name: Johnny Zimmerman-Ward	Interviewer affiliation: SKEO
Subject name: Ms. Terry Vandell	Subject affiliation: Phillips 66 PRP
Subject contact information: 5807676561 Terry.D.Vandell@P66.com	
Interview date: 11/18/19	Interview time: 12:00 pm
Interview location: Ponca City, OK	
Interview format (circle one): In Person Phone Mail Email Other:	
Interview category: Potentially Responsible Party (PRP)	

1. What is your overall impression of the remedial activities at the Site? *Remedial actions of the source zone (i.e. of Operating Unit 1, OU-1) were completed and approved in April 1997. The site is in the monitored natural attenuation (MNA) phase for OU-2 since 1997, which continues to demonstrate plume stability and plume shrinkage.*
2. What have been the effects of this Site on the surrounding community, if any? *Minimal*
3. What is your assessment of the current performance of the remedy in place at the Site? *The site is in the monitored natural attenuation (MNA) phase which continues to demonstrate plume stability and plume shrinkage.*
4. Are you aware of any complaints or inquiries regarding environmental issues or the remedial action from residents since implementation of the cleanup? *No*
5. Do you feel well-informed regarding the Site's activities and remedial progress? *Yes. If not, how might EPA convey site-related information in the future?*
6. Do you have any comments, suggestions or recommendations regarding the management or operation of the Site's remedy? *Potentially fewer monitoring wells are needed to evaluate groundwater conditions annually, and potentially only another ~ 20-30 yrs of MNA are required for documenting plume depletion, given the stability and ongoing shrinkage of the groundwater plume.*
7. Do you consent to have your name included along with your responses to this questionnaire in the FYR report? *Yes.*

AGRICO CHEMICAL COMPANY SUPERFUND SITE FIVE-YEAR REVIEW INTERVIEW FORM	
Site Name: Agrico Chemical Company	
EPA ID: FLD980221857	
Interviewer name:	Interviewer affiliation:
Subject name: <i>Amy R. Mixon</i>	Subject affiliation: <i>AECOM</i>
Subject contact information: <i>amy.mixon@aecom.com</i>	
Interview date: <i>12/05/2019</i>	Interview time:
Interview location:	
Interview format (circle one): In Person Phone Mail <u>Email</u> Other:	
Interview category: O&M Contractor	

1. What is your overall impression of the project, including cleanup, maintenance and reuse activities (as appropriate)? *Contamination on the site is contained (OU-1 source remedy implemented in 1997). Monitored Natural Attenuation (MNA) was the remedy selected for groundwater (OU-2). Although some elevated concentrations of constituents exist in groundwater downgradient from the site, concentrations continue to decrease with time as documented via MNA. The Site is well maintained. In addition, the flower beds planted in 2015 as well as existing vegetation around the stormwater ponds attract pollinators.*
2. What is your assessment of the current performance of the remedy in place at the Site? *Remedy is performing as designed with no potential exposure to contaminants. Contaminant concentrations in groundwater are decreasing over time.*
3. What are the findings from the monitoring data? What are the key trends in contaminant levels that are being documented over time at the Site? *Monitoring shows that the groundwater plume is stable and shrinking and that contaminants are not reaching Bayou Texar.*
4. Is there a continuous on-site O&M presence? If so, please describe staff responsibilities and activities. Alternatively, please describe staff responsibilities and the frequency of site inspections and activities if there is not a continuous on-site O&M presence. *Cap inspections are completed twice per year and after significant rain events, and groundwater sampling is conducted annually. In addition, the landscape contractor is onsite for mowing at least once per month (up to four times a month during the summer season) and for watering the pollinator beds at least once per week. The landscape team also performs fence integrity inspections during their visits and alerts the project team to any issues observed.*
5. Have there been any significant changes in site O&M requirements, maintenance schedules or sampling routines since start-up or in the last five years? If so, do they affect the protectiveness or effectiveness of the remedy? Please describe changes and impacts. *No*

significant changes. Based on the data collected, surface water sampling was reduced In 2015 to three locations, sampled annually.

6. Have there been unexpected O&M difficulties or costs at the Site since start-up or in the last five years? If so, please provide details. *On several occasions, offsite monitoring wells located within City right-of-way (ROW) have been damaged or destroyed without notification by City contractors.*
7. Have there been opportunities to optimize O&M activities or sampling efforts? Please describe changes and any resulting or desired cost savings or improved efficiencies. *Overtime, based on consistent non-detect results, some monitoring wells have been removed from annual sampling, and some of the parameters previously analyzed have been dropped.*
8. Do you have any comments, suggestions or recommendations regarding O&M activities and schedules at the Site? *The PRP group has always been willing to take any action necessary to see that the Site and the remedy are well maintained. Based on the long history of monitoring data available, reduction in the number of wells in the overall monitoring program should be considered.*
9. Do you consent to have your name included along with your responses to this questionnaire in the FYR report? *Yes*

APPENDIX F – SITE INSPECTION CHECKLIST

FIVE-YEAR REVIEW SITE INSPECTION CHECKLIST															
I. SITE INFORMATION															
Site Name: Agrico Chemical Co.	Date of Inspection: 11/12/19														
Location and Region: Pensacola, Florida, 4	EPA ID: FLD980221857														
Agency, Office or Company Leading the Five-Year Review: EPA	Weather/Temperature: Windy, low 40s														
Remedy Includes: (check all that apply) <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; padding: 2px;"><input checked="" type="checkbox"/> Landfill cover/containment</td> <td style="width: 50%; padding: 2px;"><input checked="" type="checkbox"/> Monitored natural attenuation</td> </tr> <tr> <td style="padding: 2px;"><input checked="" type="checkbox"/> Access controls</td> <td style="padding: 2px;"><input type="checkbox"/> Groundwater containment</td> </tr> <tr> <td style="padding: 2px;"><input checked="" type="checkbox"/> Institutional controls</td> <td style="padding: 2px;"><input checked="" type="checkbox"/> Vertical barrier walls</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Groundwater pump and treatment</td> <td></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Surface water collection and treatment</td> <td></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/> Other: _____</td> <td></td> </tr> </table>				<input checked="" type="checkbox"/> Landfill cover/containment	<input checked="" type="checkbox"/> Monitored natural attenuation	<input checked="" type="checkbox"/> Access controls	<input type="checkbox"/> Groundwater containment	<input checked="" type="checkbox"/> Institutional controls	<input checked="" type="checkbox"/> Vertical barrier walls	<input type="checkbox"/> Groundwater pump and treatment		<input type="checkbox"/> Surface water collection and treatment		<input type="checkbox"/> Other: _____	
<input checked="" type="checkbox"/> Landfill cover/containment	<input checked="" type="checkbox"/> Monitored natural attenuation														
<input checked="" type="checkbox"/> Access controls	<input type="checkbox"/> Groundwater containment														
<input checked="" type="checkbox"/> Institutional controls	<input checked="" type="checkbox"/> Vertical barrier walls														
<input type="checkbox"/> Groundwater pump and treatment															
<input type="checkbox"/> Surface water collection and treatment															
<input type="checkbox"/> Other: _____															
Attachments: <input type="checkbox"/> Inspection team roster attached <input type="checkbox"/> Site map attached															
II. INTERVIEWS (check all that apply)															
1. O&M Site Manager	<u>Amy Mixon</u> Name	<u>Senior Project Engineer, AECOM</u> Title	<u>12/9/2019</u> Date												
Interviewed <input type="checkbox"/> at site <input type="checkbox"/> at office <input type="checkbox"/> by phone Phone: _____ Problems, suggestions <input type="checkbox"/> Report attached: _____															
2. O&M Staff	_____ Name	_____ Title	_____ Date												
Interviewed <input type="checkbox"/> at site <input type="checkbox"/> at office <input type="checkbox"/> by phone Phone: _____ Problems/suggestions <input type="checkbox"/> Report attached: _____															
3. Local Regulatory Authorities and Response Agencies (i.e., state and tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices). Fill in all that apply.															
Agency <u>FDEP</u>															
Contact	<u>Billy Hessman</u> Name	<u>Environmental Specialist</u> Title	<u>11/15/2019</u> Date _____ Phone No.												
Problems/suggestions <input type="checkbox"/> Report attached: _____															
Agency <u>Philipps 66</u>															
Contact	<u>Terry Vandell</u> Name	<u>Remediation Program Manager</u> Title	<u>12/2/2019</u> Date _____ Phone No.												
Problems/suggestions <input type="checkbox"/> Report attached: _____															
III. ON-SITE DOCUMENTS AND RECORDS VERIFIED (check all that apply)															
1. O&M Documents															
<input checked="" type="checkbox"/> O&M manual	<input checked="" type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input type="checkbox"/> N/A												
<input type="checkbox"/> As-built drawings	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A												
<input type="checkbox"/> Maintenance logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A												
Remarks: _____															

2.	Site-Specific Health and Safety Plan	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Contingency plan/emergency response plan	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
3.	O&M and OSHA Training Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
4.	Permits and Service Agreements			
	<input type="checkbox"/> Air discharge permit	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Effluent discharge	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Waste disposal, POTW	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Other permits: _____	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
5.	Gas Generation Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
6.	Settlement Monument Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
7.	Groundwater Monitoring Records	<input checked="" type="checkbox"/> Readily available	<input checked="" type="checkbox"/> Up to date	<input type="checkbox"/> N/A
Remarks: _____				
8.	Leachate Extraction Records	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
9.	Discharge Compliance Records			
	<input type="checkbox"/> Air	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Water (effluent)	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
10.	Daily Access/Security Logs	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date	<input checked="" type="checkbox"/> N/A
Remarks: _____				
IV. O&M COSTS				
1.	O&M Organization			
	<input type="checkbox"/> State in-house	<input type="checkbox"/> Contractor for state		
	<input type="checkbox"/> PRP in-house	<input checked="" type="checkbox"/> Contractor for PRP		
	<input type="checkbox"/> Federal facility in-house	<input type="checkbox"/> Contractor for Federal facility		
	<input type="checkbox"/> _____			
2.	O&M Cost Records			
	<input type="checkbox"/> Readily available	<input type="checkbox"/> Up to date		
	<input type="checkbox"/> Funding mechanism/agreement in place	<input checked="" type="checkbox"/> Unavailable		
3.	Unanticipated or Unusually High O&M Costs during Review Period			
	Describe costs and reasons: _____			

V. ACCESS AND INSTITUTIONAL CONTROLS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
A. Fencing			
1.	Fencing Damaged	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Gates secured <input type="checkbox"/> N/A
Remarks: <u>Fencing was in good condition.</u>			
B. Other Access Restrictions			
1.	Signs and Other Security Measures	<input type="checkbox"/> Location shown on site map	<input type="checkbox"/> N/A
Remarks: _____			
C. Institutional Controls (ICs)			
1.	Implementation and Enforcement		
	Site conditions imply ICs not properly implemented	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Site conditions imply ICs not being fully enforced	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Type of monitoring (e.g., self-reporting, drive by): <u>AECOM reviews NFWMD well permit applications to confirm no one is applying for permits. They also send reminders to local well installers and pool builders to remind them of the moratorium.</u>		
	Frequency: <u>annually</u>		
	Responsible party/agency: <u>AECOM</u>		
	Contact _____	_____	_____
	Name	Title	Date Phone no.
	Reporting is up to date	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
	Reports are verified by the lead agency	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
	Specific requirements in deed or decision documents have been met	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A
	Violations have been reported	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
	Other problems or suggestions: <input type="checkbox"/> Report attached		
2.	Adequacy	<input checked="" type="checkbox"/> ICs are adequate	<input type="checkbox"/> ICs are inadequate <input type="checkbox"/> N/A
Remarks: <u>For OUI, institutional controls are in place on the cap that prevent any uses of the Site that contradict the selected remedy. For OU2, institutional controls are in place to restrict well installation in areas of groundwater contamination. The 2013 draft MOA between the EPA and NFWMD has not yet been signed and should be formalized to ensure interagency coordination.</u>			
D. General			
1.	Vandalism/Trespassing	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> No vandalism evident
Remarks: _____			
2.	Land Use Changes On Site	<input checked="" type="checkbox"/> N/A	
Remarks: _____			
3.	Land Use Changes Off Site	<input type="checkbox"/> N/A	
Remarks: <u>Local construction along Bayou Texar appears to have destroyed several site wells. Installation of replacement wells is needed to preserve the long-term monitoring well network.</u>			
VI. GENERAL SITE CONDITIONS			
A. Roads <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A			
1.	Roads Damaged	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Roads adequate <input type="checkbox"/> N/A

Remarks: _____		
B. Other Site Conditions		
Remarks: _____		
VII. LANDFILL COVERS <input checked="" type="checkbox"/> Applicable <input type="checkbox"/> N/A		
A. Landfill Surface		
1.	Settlement (low spots) <input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Settlement not evident Depth: _____
	Area extent: _____	
	Remarks: _____	
2.	Cracks <input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Cracking not evident Depths: _____
	Lengths: _____ Widths: _____	
	Remarks: _____	
3.	Erosion <input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Erosion not evident Depth: _____
	Area extent: _____	
	Remarks: _____	
4.	Holes <input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Holes not evident Depth: _____
	Area extent: _____	
	Remarks: _____	
5.	Vegetative Cover <input checked="" type="checkbox"/> Grass <input checked="" type="checkbox"/> Cover properly established	
	<input checked="" type="checkbox"/> No signs of stress <input type="checkbox"/> Trees/shrubs (indicate size and locations on a diagram)	
	Remarks: _____	
6.	Alternative Cover (e.g., armored rock, concrete)	<input checked="" type="checkbox"/> N/A
	Remarks: _____	
7.	Bulges <input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Bulges not evident Height: _____
	Area extent: _____	
	Remarks: _____	
8.	Wet Areas/Water Damage <input checked="" type="checkbox"/> Wet areas/water damage not evident	
	<input type="checkbox"/> Wet areas <input type="checkbox"/> Location shown on site map	Area extent: _____
	<input type="checkbox"/> Ponding <input type="checkbox"/> Location shown on site map	Area extent: _____
	<input type="checkbox"/> Seeps <input type="checkbox"/> Location shown on site map	Area extent: _____
	<input type="checkbox"/> Soft subgrade <input type="checkbox"/> Location shown on site map	Area extent: _____
	Remarks: _____	
9.	Slope Instability <input type="checkbox"/> Slides <input type="checkbox"/> Location shown on site map	
	<input checked="" type="checkbox"/> No evidence of slope instability	
	Area extent: _____	
	Remarks: _____	
B. Benches <input type="checkbox"/> Applicable <input checked="" type="checkbox"/> N/A		

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)			
C. Letdown Channels		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
(Channel lined with erosion control mats, riprap, grout bags or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)			
D. Cover Penetrations		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
E. Gas Collection and Treatment		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
F. Cover Drainage Layer		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
G. Detention/Sedimentation Ponds		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
1.	Siltation	Area extent: _____	Depth: _____ <input checked="" type="checkbox"/> N/A
	<input type="checkbox"/> Siltation not evident		
	Remarks: _____		
2.	Erosion	Area extent: _____	Depth: _____
	<input checked="" type="checkbox"/> Erosion not evident		
	Remarks: _____		
3.	Outlet Works	<input checked="" type="checkbox"/> Functioning	<input type="checkbox"/> N/A
	Remarks: _____		
4.	Dam	<input type="checkbox"/> Functioning	<input checked="" type="checkbox"/> N/A
	Remarks: _____		
H. Retaining Walls		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
I. Perimeter Ditches/Off-Site Discharge		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
VIII. VERTICAL BARRIER WALLS		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
1.	Settlement	<input type="checkbox"/> Location shown on site map	<input checked="" type="checkbox"/> Settlement not evident
	Area extent: _____		Depth: _____
	Remarks: _____		
2.	Performance Monitoring	Type of monitoring: _____	
	<input checked="" type="checkbox"/> Performance not monitored		
	Frequency: _____		<input type="checkbox"/> Evidence of breaching
	Head differential: _____		
	Remarks: _____		
IX. GROUNDWATER/SURFACE WATER REMEDIES		<input checked="" type="checkbox"/> Applicable	<input type="checkbox"/> N/A
A. Groundwater Extraction Wells, Pumps and Pipelines		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
B. Surface Water Collection Structures, Pumps and Pipelines		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
C. Treatment System		<input type="checkbox"/> Applicable	<input checked="" type="checkbox"/> N/A
D. Monitoring Data			
1.	Monitoring Data		

<input checked="" type="checkbox"/> Is routinely submitted on time	<input checked="" type="checkbox"/> Is of acceptable quality
2. Monitoring Data Suggests:	
<input checked="" type="checkbox"/> Groundwater plume is effectively contained	<input checked="" type="checkbox"/> Contaminant concentrations are declining
E. Monitored Natural Attenuation	
1. Monitoring Wells (natural attenuation remedy)	
<input checked="" type="checkbox"/> Properly secured/locked	<input checked="" type="checkbox"/> Functioning
<input checked="" type="checkbox"/> Routinely sampled	<input checked="" type="checkbox"/> Good condition
<input type="checkbox"/> All required wells located	<input type="checkbox"/> Needs maintenance
	<input type="checkbox"/> N/A
Remarks: <u>Several wells were destroyed during local stormwater improvement projects along Bayou Texar and may require replacement.</u>	
X. OTHER REMEDIES	
If there are remedies applied at the site and not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.	
XI. OVERALL OBSERVATIONS	
A. Implementation of the Remedy	
Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is designed to accomplish (e.g., to contain contaminant plume, minimize infiltration and gas emissions). <u>The remedy appears to be functioning as intended and has isolated source material in the landfill. Natural attenuation is ongoing and remediating groundwater contamination. Institutional controls are in place for both OUs.</u>	
B. Adequacy of O&M	
Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy. <u>O&M appears adequate. The cap surface was in good condition and is regularly mowed. The fence and monitoring wells were also in good condition.</u>	
C. Early Indicators of Potential Remedy Problems	
Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs that suggest that the protectiveness of the remedy may be compromised in the future. <u>No early indicators of potential remedy problems have been identified.</u>	
D. Opportunities for Optimization	
Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy. <u>No opportunities for optimization have been identified.</u>	

APPENDIX G – SITE INSPECTION PHOTOS



Site entrance gate on Fairfield Drive



Slope on southern side of cap



Signage inside gate entrance



Top of cap, looking north



Eastern slope of cap, looking south



Concrete slab on site with off-site storage units in background



Pollinator garden on east side of Site



Pollinator garden on north side of Site



North Pond



South Pond



Bayou Texar in monitoring well 35D area

APPENDIX H – GROUNDWATER DATA AND TREND CHARTS

Attachment H-1: Historical Groundwater Data Results from Table 8 of the 2019 Annual Report

**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	

**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	

**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-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	

**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	

**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	

**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	

**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	

**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	6.00	

**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	

**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	

**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-32S	5/9/1997	< 0.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/10/1997	< 0.2	< 0.01	< 0.005	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
	5/15/1999	< 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
	11/1/2001	< 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	0.011	< 0.005 U	7.2	55	8.3 J	0.62 J+/- 0.21	3.89 +/- 0.88	4.5
	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	3.7	16	1.7	0.195 +/- 0.0690	1.11 +/- 0.34	1.31
	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	3.1	18	2.2	0.104 +/- 0.0870	1.1 +/- 0.30	1.2
	11/19/2009	< 0.1 U	< 0.01 U	NA	2	10	1.3	0.164 +/- 0.12	0.796 +/- 0.37	0.960
	11/16/2010	0.11	NA	NA	1.6	14	0.78	0.199 +/- 0.12	0.619 +/- 0.48	0.818
11/8/2011	0.1	NA	NA	1.5	8.3	0.85	-0.0461 +/- 0.11	1.28 +/- 0.39	1.23	
11/6/2012	0.11	NA	NA	1	4.5	0.93	0.206 +/- 0.13	0.580 +/- 0.40	0.786	
11/5/2013	< 0.10	NA	NA	1.2	2.8	0.34	0.290 +/- 0.16	0.517 +/- 0.43	0.807	
11/13/2014	0.12	NA	NA	1.4	13	0.55	0.194 +/- 0.11	0.663 +/- 0.32	0.857	
11/12/2019	0.12	NA	NA	1.4	2.2	0.23	< 0.0216 +/- 0.0540	< 0.129 +/- 0.295	0.151	

**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-7SR	5/9/1997	19	0.014	0.012	NA	NA	NA	NA	NA	NA
	11/10/1997	9.1	0.012	0.011	NA	NA	NA	NA	NA	NA
	5/4/1998	10	0.017	0.028	NA	NA	NA	NA	NA	NA
	11/23/1998	6.7	< 0.01	0.011	NA	NA	NA	NA	NA	NA
	5/15/1999	7.4	0.02	0.022	NA	NA	NA	NA	NA	NA
	11/17/1999	6.4	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	5/16/2000	5.6	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/14/2000	5.1	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/9/2001	5.8	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/15/2001	5.6	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/15/2002	6.5	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/19/2002	4.8	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/7/2003	6.1	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	1/14/2004	6.4	< 0.01 U	< 0.005 U	6.4	38	2.8	0.58 J+/- 0.21	1.62 +/- 0.52	2.2
	5/11/2004	9.4	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/9/2004	9.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/10/2005	5.4	0.01	0.005	NA	NA	NA	NA	NA	NA
	11/8/2005	5.3	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/15/2006	4.4	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/14/2006	5.7	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/16/2007	4.1	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/15/2007	3.6	< 0.01 U	< 0.005 U	6.9	35	2.3	0.339 +/- 0.12	0.974 +/- 0.34	1.31
	5/15/2008	6	< 0.01 U	0.0056	NA	NA	NA	NA	NA	NA
	11/14/2008	3.3	< 0.01 U	< 0.005 U	6.8	46	2.1	0.188 +/- 0.10	1.24 +/- 0.39	1.43
	11/19/2009	3.1	< 0.01 U	NA	7	32	2.1	0.239 +/- 0.10	1.11 +/- 0.31	1.35
	11/17/2010	3.7	NA	NA	5.1	27	1.7	0.240 +/- 0.11	0.820 +/- 0.30	1.06
11/8/2011	2.9	NA	NA	3.8	30	1.8	0.322 +/- 0.14	1.05 +/- 0.30	1.37	
11/6/2012	0.94	NA	NA	5.8	34	1.9	0.272 +/- 0.16	1.45 +/- 0.44	1.72	
11/5/2013	2.4	NA	NA	5.0	28	1.4	0.172 +/- 0.16	1.09 +/- 0.36	1.26	
11/13/2014	1.8	NA	NA	3.3	28	1.2	0.324 +/- 0.12	0.877 +/- 0.30	1.20	
11/12/2019	1.4	NA	NA	3.1	27	1.5	0.147 +/- 0.0938	< 0.119 +/- 0.305	0.27	

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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-33S	5/9/1997	0.81	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/10/1997	0.82	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/4/1998	1.7	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/23/1998	0.47	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/15/1999	0.29	0.017	0.0063	NA	NA	NA	NA	NA	NA
	11/17/1999	0.26	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	5/16/2000	0.25	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/14/2000	0.22	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/9/2001	0.32	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/15/2001	0.4	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/15/2002	0.33	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/19/2002	0.5	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/7/2003	0.63	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	1/14/2004	0.71	< 0.01 U	< 0.005 U	26	94	1.7	3.27 +/- 0.54	11.9 +/- 1.50	15.2
	5/11/2004	1.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/9/2004	2.7	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/10/2005	0.6	0.01	0.005	NA	NA	NA	NA	NA	NA
	11/8/2005	0.75	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/15/2006	0.27	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/14/2006	1.4	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/16/2007	1.4	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/15/2007	0.64	< 0.01 U	< 0.005 U	7.5	26	1.5	0.437 +/- 0.14	1.38 +/- 0.34	1.82
	5/15/2008	0.94	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/14/2008	0.94	< 0.01 U	< 0.005 U	7.7	27	1.6	0.673 +/- 0.15	1.92 +/- 0.39	2.59
	11/19/2009	1.6	< 0.01 U	NA	6.5	23	1	0.475 +/- 0.13	2.73 +/- 0.41	3.21
	11/16/2010	0.77	NA	NA	8.5	25	0.59	0.522 +/- 0.19	1.99 +/- 0.50	2.51
11/8/2011	0.61	NA	NA	1.9	20	0.45	0.391 +/- 0.15	2.00 +/- 0.44	2.39	
11/6/2012	0.67	NA	NA	6.6	90	0.36	0.930 +/- 0.28	4.68 +/- 0.78	5.61	
11/5/2013	0.78	NA	NA	5.7	20	0.24	0.410 +/- 0.20	2.07 +/- 0.47	2.48	
11/13/2014	0.63	NA	NA	3.4	28	0.18	0.435 +/- 0.15	2.47 +/- 0.50	2.91	
11/12/2019	0.46	NA	NA	2.9	20	0.27	0.221 +/- 0.0977	1.13 +/- 0.385	1.35	

**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-34S	5/9/1997	16	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/10/1997	9.5	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/4/1998	6.3	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/23/1998	3.8	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/15/1999	3.5	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/17/1999	2.5	<0.010	<0.0050	NA	NA	NA	NA	NA	NA
	5/16/2000	2.6	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/14/2000	1.6	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/9/2001	1.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/15/2001	1.6	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/15/2002	1.4	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/19/2002	1.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/7/2003	1.9	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	1/14/2004	2	< 0.01 U	< 0.005 U	9.3	80	6.5	0.38 J+/- 0.18	2.04 +/- 0.58	2.42
	5/11/2004	9.7	0.011	< 0.005	NA	NA	NA	NA	NA	NA
	11/9/2004	9.2	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	5/10/2005	8	<0.01	<0.005	NA	NA	NA	NA	NA	NA
	11/8/2005	7.3	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/15/2006	6.4	< 0.01	< 0.005	NA	NA	NA	NA	NA	NA
	11/14/2006	5.6	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	5/16/2007	4.6	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/15/2007	4.2	< 0.01 U	< 0.005 U	8.6	74	2.4	0.261 +/- 0.12	2.06 +/- 0.43	2.32
	5/15/2008	3.1	< 0.01 U	< 0.005 U	NA	NA	NA	NA	NA	NA
	11/14/2008	2.4	< 0.01 U	< 0.005 U	7.2	68	2.8	0.159 +/- 0.0990	2.04 +/- 0.38	2.20
	11/19/2009	1.6	< 0.01 U	NA	5.9	60	2.3	0.152 +/- 0.12	2.54 +/- 0.42	2.69
	11/17/2010	1.9	NA	NA	5.1	68	6.6	0.149 +/- 0.085	1.14 +/- 0.34	1.29
11/9/2011	1	NA	NA	3.3	67	2.9	0.296 +/- 0.15	0.984 +/- 0.31	1.28	
11/7/2012	0.97	NA	NA	2.1	37	2.8	0.152 +/- 0.12	0.785 +/- 0.29	0.937	
11/5/2013	0.77	NA	NA	4.1	52	2.1	0.218 +/- 0.14	0.927 +/- 0.36	1.15	
11/13/2014	1.2	NA	NA	3.2	39	2.6	0.0455 +/- 0.084	0.593 +/- 0.28	0.64	
11/12/2019	2.0	NA	NA	2.6	52	1.8	< -0.0857 +/- 0.0531	0.138 +/- 0.263	0.22	

**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
Surficial Zone										
AC-3S	4/15/1987	0.65	<0.004	NA	4.1	59	1.9	NA	NA	NA
	10/1/1990	0.21	<0.01	<0.005	15	22	4	NA	NA	NA
	2/5/1992	< 0.2	< 0.01	0.0081	5.5	27	2.9	1.4 +/- 0.10	0.8 +/- 0.90	2.2
	9/28/1997	1.4	< 0.01	NA	3.8	24	0.92	< 0.6 +/- 0.05	< 1. +/- 0.46	1.6
	11/17/1999	< 0.2	< 0.01	NA	5.7	14	1.1	< 1. +/- 0.79	< 1.5 +/- 0.60	2.5
	11/21/2000	< 0.2	< 0.01	NA	11	16	2.7	0.3 +/- 0.10	1.1 +/- 1.20	1.4
	11/14/2001	< 0.2	< 0.01	NA	7.7	17	2.3	0.1 +/- 0.09	0. +/- 0.70	0.1
	11/26/2002	< 0.2	< 0.01	NA	3.4	13	1.1	0.4 +/- 0.07	0.6 +/- 0.70	1
	1/22/2004	< 0.2 U	< 0.01 U	< 0.005 U	2.9	7.9	1. J	< 0.34 U +/- 0.18	< 1.4 U +/- 0.86	1.22
	11/17/2004	< 0.2	< 0.01	NA	4.2	13	2.1	0.25 +/- 0.0820	0.285 +/- 0.30	0.54
	11/15/2005	< 0.2 U	< 0.01 U	NA	12	15	2.8	0.0862 U +/- 0.10	1.44 +/- 0.40	1.53
	11/22/2006	< 0.2 U	< 0.01 U	NA	8.9	16	2.8	0.243 +/- 0.15	0.81 +/- 0.29	1.1
	11/21/2007	< 0.2 U	< 0.01 U	NA	5.5	20	2	0.191 +/- 0.11	0.687 +/- 0.25	0.878
	11/13/2008	< 0.2 U	< 0.01 U	< 0.005 U	3.6	11	1.1	0.204 +/- 0.10	0.226 +/- 0.27	0.430
	11/18/2009	< 0.1 U	< 0.01 U	NA	3.7	11	1.8	0.14 +/- 0.0790	0.634 +/- 0.38	0.77
	11/29/2010	< 0.1	< 0.01	NA	6.7	17	7.3	0.248 +/- 0.10	0.453 +/- 0.26	0.701
	11/15/2011	< 0.1	< 0.01	NA	3.8	30	3.9	0.147 +/- 0.11	0.888 +/- 0.35	1.04
	11/13/2012	< 0.1	< 0.010	NA	2.9	21	1.7	0.266 +/- 0.18	0.798 +/- 0.37	1.06
11/12/2013	< 0.1	< 0.010	NA	2.4	17	1.5	0.229 +/- 0.16	0.955 +/- 0.41	1.18	
11/11/2014	< 0.1	< 0.0050	NA	2.5	15	2	0.030 +/- 0.082	0.159 +/- 0.38	0.19	
11/13/2019	< 0.10	< 0.010	NA	1.6	8.1	1.3	< 0.0615 +/- 0.0767	0.524 +/- 0.295	0.59	

**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-5S	4/15/1987	0.26	NA	NA	7	90	NA	NA	NA	NA
	10/1/1990	<0.2	<0.01	<0.005	12	25	12	NA	NA	NA
	1/31/1992	< 0.2	< 0.01	< 0.005	9.3	27	6.4	NA	NA	NA
	9/26/1997	< 0.2	< 0.01	NA	8.6	27	4.3	< 0.6 +/- 0.05	1.3 +/- 0.44	1.9
	11/17/1999	< 0.2	< 0.01	NA	19	29	5.9	< 1. +/- 0.66	1.9	2.9
	11/21/2000	< 0.2	< 0.01	NA	24	30	4.9	0.5 +/- 0.20	0.8 +/- 1	1.3
	11/13/2001	< 0.2	< 0.01	NA	35	31	1.5	0.7 +/- 0.10	1.8 +/- 0.90	2.5
	11/20/2002	< 0.2	< 0.01	NA	17	21	2.1	0.5 +/- 0.10	1. +/- 0.80	1.5
	1/20/2004	< 0.2 U	< 0.01 U	< 0.005 U	14	10	0.9	< 0.26 U +/- 0.18	< 0.66 U +/- 0.40	0.59
	11/10/2004	< 0.2	< 0.01	NA	46	13	1.2	0.481 +/- 0.11	1.58 +/- 0.30	2.06
	11/16/2005	< 0.2 U	< 0.01 U	NA	27	12	1.5	0.352 J +/- 0.13	1.42 +/- 0.43	1.77
	11/21/2006	< 0.2 U	< 0.01 U	NA	18	24	4.5	0.461 +/- 0.17	0.928 +/- 0.30	1.39
	11/13/2008	< 0.2 U	< 0.01 U	< 0.005 U	12	19	6.8	0.539 +/- 0.13	1.17 +/- 0.33	1.71
11/12/2014	<0.10	NA	NA	9	24	4.5	0.596 +/- 0.21	1.32 +/- 0.48	1.92	
11/14/2019	<0.10	NA	NA	7.0	24	3.0	0.452 +/- 0.133	1.26 +/- 0.402	1.71	
Surficial Zone										
AC-6S	4/15/1987	1.04	NA	NA	24.3	74	21.9	NA	NA	NA
	10/1/1990	1.9	<0.01	0.0072	24	32	24	NA	NA	NA
	2/2/1992	0.6	< 0.01	< 0.005	15	28	6.7	NA	NA	NA
	9/25/1997	0.75	< 0.01	NA	12	47	5.3	0.88 +/- 0.07	1.6 +/- 0.48	2.48
	1/27/2004	0.85	< 0.01 U	< 0.005 U	30	130	14	2.22 +/- 0.45	5.71 +/- 0.91	7.93
	11/12/2008	0.71	< 0.01 U	< 0.005 U	31	110	11	1.3 +/- 0.20	5.01 +/- 0.54	6.31
	11/17/2014	0.48	NA	NA	11	38	5.7	0.937 +/- 0.32	2.04 +/- 0.58	2.98
	11/14/2019	0.35 B	NA	NA	7.6	45	3.5	1.15 +/- 0.206	2.56 +/- 0.493	3.71

**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-24S	2/19/1992	< 0.2	< 0.01	< 0.005	8	7.4	1.6	NA	NA	NA
	9/27/1997	< 0.2	< 0.01	NA	8.4	9.7	1.4	< 0.6 +/- 0.03	< 1. +/- 0.45	1.6
	11/17/1999	< 0.2	< 0.01	NA	8	8.8	1.1	< 1. +/- 0.82	< 1.5 +/- 0.68	2.5
	11/21/2000	< 0.2	< 0.01	NA	8	6.7	1.7	0.4 +/- 0.10	5.1 +/- 1.10	5.5
	11/14/2001	< 0.2	< 0.01	NA	8.1	5.9	1.9	0.2 +/- 0.09	0. +/- 0.70	0.2
	11/20/2002	< 0.2	< 0.01	NA	9.2	4.3 J	1.8	0.3 +/- 0.10	0.3	0.6
	1/21/2004	< 0.2 U	< 0.01 U	< 0.005 U	9.9	< 5. U	1.8	< 0.29 U +/- 0.19	< 1.6 U +/- 0.9980	1.6
	11/16/2004	< 0.2	< 0.01	NA	8.9	< 5.	2.5	0.207 +/- 0.0850	1.44 +/- 0.32	1.65
	11/17/2005	< 0.2 U	< 0.01 U	NA	11	7.2	3.6	0.596 J +/- 0.18	2.36 +/- 0.53	2.96
	11/21/2006	< 0.2 U	< 0.01 U	NA	17	5.2	6.8	0.595 +/- 0.18	2. +/- 0.40	2.60
	11/18/2008	< 0.2 U	< 0.01 U	< 0.005 U	20	11	1.9	0.33 +/- 0.0990	1.42 +/- 0.33	1.8
	11/24/2014	< 0.10	NA	NA	7.6	12	3.6	0.263 +/- 0.20	1.96 +/- 0.48	2.22
11/14/2019	< 0.10	NA	NA	7.1	12	2.7	0.298 +/- 0.113	1.25 +/- 0.378	1.55	
Surficial Zone										
AC-26S	2/11/1992	< 0.2	< 0.01	< 0.005	10	13	0.95	NA	NA	NA
	9/24/1997	< 0.2	< 0.01	NA	12	21	2.9	< 0.6 +/- 0.06	< 1. +/- 0.47	1.6
	11/17/1999	< 0.2	< 0.01	NA	20	17	2.1	1.8	3.1 +/- 0.76	4.9
	11/21/2000	< 0.2	< 0.01	NA	25	15	1.6	0.6 +/- 0.10	4.9 +/- 1.20	5.5
	11/14/2001	< 0.2	< 0.01	NA	23	23	2.3	0.6 +/- 0.10	2.5 +/- 0.90	3.1
	11/21/2002	< 0.2	< 0.01	NA	19	22	1.7	0.7 +/- 0.20	1.5 +/- 1	2.2
	1/20/2004	< 0.2 U	< 0.01 U	< 0.005 U	20	21	1.2	0.82 J +/- 0.25	1.83 +/- 0.42	2.7
	11/10/2004	< 0.2	< 0.01	NA	22	20	2.6	0.722 +/- 0.14	2.43 +/- 0.36	3.15
	11/9/2005	< 0.2 U	< 0.01 U	NA	18	20	1.7	0.444 J +/- 0.14	1.56 +/- 0.35	2.00
	11/20/2006	< 0.2 U	< 0.01 U	NA	26	19	2.9	0.512 +/- 0.19	1.85 +/- 0.39	2.36
	11/12/2008	< 0.2 U	< 0.01 U	< 0.005 U	11	19	0.74	0.424 +/- 0.12	1.62 +/- 0.43	2.04
	11/19/2014	< 0.10	NA	NA	7.3	13	1	0.0821 +/- 0.11	0.634 +/- 0.33	0.72
	11/11/2019	Could Not Locate								

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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
Surficial Zone										
AC-27S	4/8/1992	< 0.2	< 0.01	< 0.005	18	< 5	1.9	NA	NA	NA
	9/24/1997	< 0.2	< 0.01	NA	14	4.3	1.5	< 0.6 +/- 0.05	1.1 +/- 0.45	1.7
	1/13/2004	< 0.2 U	< 0.01 U	< 0.005 U	4.5	< 5 U	0.19	0.18 J +/- 0.12	< 0.88 U +/- 0.55	0.88
	11/11/2005	< 0.2 U	< 0.01 U	NA	47	< 5 U	8.4	1.71 +/- 0.38	0.418U +/- 0.29	2.13
	11/17/2008	< 0.2 U	< 0.01 U	< 0.005 U	4.7	8.6	0.089	0.167 +/- 0.09	0.157 +/- 0.23	0.324
	11/13/2014	<0.10	NA	NA	19	4.5	1.5	0.785 +/- 0.25	2.11 +/- 0.48	2.9
11/15/2019	<0.10	NA	NA	20	3.4	1.4	0.603 +/- 0.151	1.90 +/- 0.414	2.50	
Surficial Zone										
NWD-2S	10/1/1990	0.78	<0.01	<0.005	8.6	25	5.7	NA	NA	NA
	2/3/1992	4.2	< 0.01	< 0.005	8.2	19	4.6	NA	NA	NA
	9/25/1997	5.2	< 0.01	NA	4	25	3	< 0.6 +/- 0.07	1.2 +/- 0.42	1.8
	11/17/1999	4.5	< 0.01	NA	7.1	30	3.5	1.1 +/- 0.59	< 1.5 +/- 0.06	2.6
	11/21/2000	4.2	< 0.01	NA	4.3	32	3.4	1.56 +/- 0.30	2.6 +/- 0.90	4.2
	11/14/2001	3.7	< 0.01	NA	5.1	28	3.6	0.8 +/- 0.20	1.2 +/- 0.80	2
	11/20/2002	3.1	< 0.01	NA	4.4	28	2.8	0.7 +/- 0.10	1.1	1.8
	1/19/2004	3.2	< 0.01 U	< 0.005 U	12	26	5	0.66 J +/- 0.19	1.61 +/- 0.60	2.3
	11/10/2004	2.7	< 0.01	NA	14	28	5.1	0.628 +/- 0.15	1.67 +/- 0.32	2.30
	11/17/2005	2.2	< 0.01 U	NA	11	35	4	0.237 J +/- 0.11	1.86 +/- 0.46	2.10
	11/21/2006	2.1	< 0.01 U	NA	15	27	5.3	0.48 +/- 0.22	1.3 +/- 0.34	1.8
	11/12/2008	2	< 0.01 U	< 0.005 U	12	19	3.4	0.616 +/- 0.14	1.27 +/- 0.35	1.89
	11/11/2014	1.6	NA	NA	8.3	13	2.1	0.339 +/- 0.16	0.875 +/- 0.33	1.21
11/15/2019	1.6 B	NA	NA	5.8	13	1.9	0.338 +/- 0.113	0.743 +/- 0.313	1.08	

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COMPARISON OF COC RESULTS AT GROUNDWATER MONITORING
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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
Surficial Zone										
NWD-4S	2/7/1992	< 0.2	< 0.01	0.0054	6.1	< 5.	1.3	0.7 +/- 0.20	1.5 +/- 0.80	2.2
	9/26/1997	< 0.2	< 0.01	NA	4.7	< 5.	0.41	< 0.6 +/- 0.04	< 1. +/- 0.40	1.6
	11/17/1999	< 0.2	< 0.01	NA	7.2	< 5.	0.31	1.4	< 1.5 +/- 0.81	2.9
	11/21/2000	< 0.2	< 0.01	NA	5.5	< 5.	0.4	0.5 +/- 0.10	6.4 +/- 1.20	6.9
	11/13/2001	< 0.2	< 0.01	NA	5	< 5.	0.44	0.5 +/- 0.10	1.8 +/- 0.80	2.3
	11/22/2002	< 0.2	< 0.01	NA	5.5	< 5.	0.35	0.6 +/- 0.20	1.1 +/- 0.80	1.7
	1/21/2004	< 0.2 U	< 0.01 U	< 0.005 U	9.6	< 5. U	1.2	0.5 J+/- 0.22	2.17 +/- 0.95	2.7
	11/16/2004	< 0.2	< 0.01	NA	9.8	< 5.	0.61	0.583 +/- 0.15	1.49 +/- 0.33	2.07
	11/15/2005	< 0.2 U	< 0.01 U	NA	15	< 5. U	0.28	0.741 J+/- 0.23	1.62 +/- 0.46	2.36
	11/21/2006	< 0.2 U	< 0.01 U	NA	17	< 5. U	1.2	0.79 +/- 0.19	0.973 +/- 0.34	1.8
	11/19/2008	< 0.2 U	< 0.01 U	< 0.005 U	9.4	< 5. U	2.6	0.951 +/- 0.15	1.08 +/- 0.31	2.03
11/14/2014	<0.10	NA	NA	4.3	4.8	0.41	0.515 +/- 0.22	1.17 +/- 0.37	1.69	
11/19/2019	<0.10	NA	NA	6.7	3.1	2.8	0.757 +/- 0.164	1.32 +/- 0.362	2.08	
Main Producing Zone										
AC-5D	10/1/1990	<0.2	<0.01	<0.005	10	<5	5.4	NA	NA	NA
	1/31/1992	< 0.2	< 0.01	< 0.005	13	6.4	5.1	NA	NA	NA
	9/26/1997	3.6	< 0.01	NA	9.7	< 5.	3.8	< 0.6 +/- 0.04	1.4 +/- 0.44	2.0
	1/20/2004	< 0.2 U	< 0.01 U	< 0.005 U	10	< 5. U	4.5	1.15 +/- 0.28	1.7 +/- 0.46	2.9
	11/13/2008	< 0.2 U	< 0.01 U	< 0.005 U	7.9	< 5. U	3.6	0.922 +/- 0.17	1.3 +/- 0.38	2.2
	11/12/2014	<0.10	NA	NA	7	1.4	2.8	0.660 +/- 0.19	1.44 +/- 0.5	2.1
	11/14/2019	<0.10 F2	NA	NA	6.5	1.1	2.6	0.841 +/- 0.173	0.809 +/- 0.350	1.7

**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-6D	10/1/1990	<0.2	<0.01	<0.005	13	75	8.6	NA	NA	NA
	2/2/1992	< 0.2	< 0.01	< 0.005	12	51	6.4	NA	NA	NA
	9/25/1997	< 0.2	< 0.01	NA	9.1	18	4.6	2.7 +/- 0.12	2.8 +/- 0.54	5.5
	1/27/2004	< 0.2 U	< 0.01 U	< 0.005 U	11	16	7.7	4.58 +/- 0.69	6.6 +/- 1.30	11.18
	11/19/2007	< 0.2 U	< 0.01 U	NA	12	36	6.6	3.07 +/- 0.34	1.67 +/- 0.39	4.74
	11/12/2008	< 0.2 U	< 0.01 U	< 0.005 U	13	42	5.9	3.79 +/- 0.32	3.45 +/- 0.48	7.24
	11/17/2009	< 0.1 U	< 0.01 U	NA	12	31	4	3.64 +/- 0.35	2.82 +/- 0.53	6.46
	11/22/2010	< 0.1 U	NA	NA	12	32	5	4.59 +/- 0.92	2.94 +/- 0.60	7.53
	11/10/2011	< 0.1 U	NA	NA	10	29	5	5.14 +/- 0.45	3.28 +/- 0.54	8.42
	11/7/2012	< 0.1 U	NA	NA	11	37	5.1	4.10 +/- 0.93	3.04 +/- 0.58	7.14
	11/7/2013	< 0.1 U	NA	NA	12	37	5.0	3.65 +/- 0.83	2.86 +/- 0.60	6.51
	11/14/2014	<0.1	NA	NA	7	43	4.7	3.41 +/- 0.95	2.26 +/- 0.54	5.67
11/11/2019	Damaged and Repaired - Results Pending									

**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-8D	4/15/1987	0.21	<0.002	NA	14	40	NA	NA	NA	NA
	10/1/1990	<0.2	<0.01	<0.005	4.9	4	<0.05	NA	NA	NA
	4/10/1992	<0.2	<0.01	<0.005	14	5.7	7.1	NA	NA	NA
	9/25/1997	<0.2	<0.01	NA	14	<5.	6.7	<0.6 +/- 0.07	<1. +/- 0.44	1.6
	11/18/1999	<0.2	<0.01	NA	17	<5.	8.1	1.7	1.9	3.6
	11/17/2000	<0.2	<0.01	NA	16	<5.	9.1	0.9 +/- 0.20	2.7 +/- 0.90	3.6
	11/13/2001	<0.2	<0.01	NA	16	<5.	8.9	1. +/- 0.20	2.5 +/- 1	3.5
	11/25/2002	<0.2	<0.01	NA	17	<5.	9.1	1.5 +/- 0.20	2. +/- 0.90	3.5
	1/27/2004	<0.2 U	<0.01 U	<0.005 U	18	<5. U	9.3	1.28 +/- 0.28	1.94 +/- 0.54	3.22
	11/10/2004	<0.2	<0.01	NA	18	<5.	9.4	1.04 +/- 0.15	1.96 +/- 0.35	3.00
	11/9/2005	<0.2 U	<0.01 U	NA	16	<5. U	8.1	0.837 J +/- 0.23	1.42 +/- 0.35	2.26
	11/16/2006	<0.2 U	<0.01 U	NA	15	<5. U	8.9	0.805 +/- 0.15	1.5 +/- 0.40	2.3
	11/19/2007	<0.2 U	<0.01 U	NA	15	<5. U	7.8	0.74 +/- 0.19	1.23 +/- 0.39	2.0
	11/11/2008	<0.2 U	<0.01 U	<0.005 U	16	<5. U	7.0	0.776 +/- 0.19	0.96 +/- 0.34	1.7
	11/11/2009	<0.1 U	<0.01 U	NA	15	3.3	7.4	0.933 +/- 0.17	1.16 +/- 0.40	2.09
	11/18/2010	<0.1 U	NA	NA	14	3.5	6.1	0.668 +/- 0.18	1.71 +/- 0.44	2.38
	11/9/2011	<0.1 U	NA	NA	13	3.7	6.5	0.863 +/- 0.22	1.45 +/- 0.36	2.31
	11/7/2012	<0.1	NA	NA	12	4.2	6.3	0.918 +/- 0.28	1.65 +/- 0.43	2.57
	11/6/2013	<0.1	NA	NA	13	4.5	5.3	0.941 +/- 0.37	1.79 +/- 0.45	2.73
11/13/2014	<0.1	NA	NA	13	4.8	5.3	0.207 +/- 0.11	1.14 +/- 0.35	1.35	
11/20/2019	0.63	NA	NA	12	6.1	5.3	0.714 +/- 0.163	0.940 +/- 0.306	1.65	

**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-9D2	9/27/1997	1	< 0.01	NA	5.3	5.6	0.45	< 0.6 +/- 0.04	< 1. +/- 0.44	1.6
	1/28/2004	37	< 0.01 U	< 0.005 U	56	230	13	3.06 +/- 0.49	12.8 +/- 1.60	15.9
	11/17/2008	33	< 0.01 U	< 0.005 U	47	220	13	1.51 +/- 0.24	7.9 +/- 0.67	9.4
	11/12/2009	36	< 0.01 U	NA	50	250	14	2.03 +/- 0.27	8.87 +/- 0.70	10.9
	11/19/2010	40	NA	NA	47	250	13	2.06 +/- 0.47	7.81 +/- 1.1	9.87
	11/10/2011	42	NA	NA	44	230	13	1.52 +/- 0.26	8.56 +/- 0.67	10.1
	11/12/2012	36	NA	NA	43	260	13	1.34 +/- 0.097	8.28 +/- 1.1	9.90
	11/7/2013	41	NA	NA	39	270	10	1.59 +/- 0.40	9.26 +/- 1.3	10.9
	11/20/2014	29	NA	NA	36	240	11	1.86 +/- 0.54	7.96 +/- 1.1	9.8
11/21/2019	19	NA	NA	29	200	9.7	1.56 +/- 0.254	8.43 +/- 1.05	10.0	
Main Producing Zone										
AC-10D	10/1/1990	<0.2	<0.01	0.013	9.7	140	5.2	NA	NA	NA
	4/9/1992	< 0.2	< 0.01	< 0.005	10	65	3.6	NA	NA	NA
	9/27/1997	< 0.2	< 0.01	NA	12	97	6.6	0.93 +/- 0.07	2.8 +/- 5.20	3.7
	1/28/2004	< 0.2 U	< 0.01 U	< 0.005 U	14	42	7.7	1.91 +/- 0.36	3.32 +/- 0.81	5.23
	11/12/2008	< 0.2 U	< 0.01 U	< 0.005 U	8	29	6.1	1.13 +/- 0.18	2.2 +/- 0.40	3.32
	11/18/2014	<0.10	NA	NA	11	22	5	1.02 +/- 0.29	2.17 +/- 0.51	3.19
	11/21/2019	<0.10	NA	NA	14	18	5.7	1.22 +/- 0.218	0.240 +/- 0.441	1.46
Main Producing Zone										
AC-11D	10/1/1990	<0.2	<0.01	0.0058	10	<5	4.3	NA	NA	NA
	4/9/1992	< 0.2	< 0.01	< 0.005	9.5	< 5.	3.5	NA	NA	NA
	9/24/1997	< 0.2	< 0.01	NA	11	< 5.	3.8	0.66 +/- 0.06	1.2 +/- 0.45	1.9
	1/27/2004	< 0.2 U	< 0.01 U	< 0.005 U	11	< 5. U	4.9	1.28 +/- 0.29	3.04 +/- 0.75	4.32
	11/11/2008	< 0.2 U	< 0.01 U	< 0.005 U	10	< 5. U	3	0.828 +/- 0.19	1.93 +/- 0.41	2.76
	11/18/2014	<0.10	NA	NA	8.9	1.4	2.3	0.851 +/- 0.25	1.63 +/- 0.46	2.48
	11/20/2019	<0.10	NA	NA	10	3.4	1.5	0.788 +/- 0.173	1.90 +/- 0.416	2.69

**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-14D	10/1/1990	0.028	<0.01	<0.005	9	34	4.2	NA	NA	NA
	4/8/1992	< 0.2	< 0.01	0.0219	9.4	33	3.5	NA	NA	NA
	9/24/1997	< 0.2	< 0.01	NA	10	18	4.2	< 0.6 +/- 0.07	1.2 +/- 0.44	1.8
	1/28/2004	< 0.2 U	< 0.01 U	< 0.005 U	11	39	5.8	2.05 +/- 0.37	4.8 +/- 1	6.9
	11/11/2008	< 0.2 U	< 0.01 U	< 0.005 U	12	32	5.5	1.89 +/- 0.30	1.97 +/- 0.40	3.86
	11/19/2014	<0.10	NA	NA	11	26	5.3	1.41 +/- 0.39	1.82 +/- 0.47	3.23
11/11/2019	Could Not Locate									
Main Producing Zone										
AC-21D	10/1/1990	<0.2	<0.01	0.0053	15	9.8	6	NA	NA	NA
	2/2/1992	< 0.2	< 0.01	< 0.005	13	11	5.5	NA	NA	NA
	9/26/1997	< 0.2	< 0.01	NA	21	11	5.9	2.3 +/- 0.12	3.5 +/- 0.50	5.8
	1/29/2004	< 0.2 U	< 0.01 U	< 0.005 U	19	16	8.1	3.72 +/- 0.57	4.71 +/- 0.79	8.43
	11/12/2008	< 0.2 U	< 0.01 U	< 0.005 U	10	24	4	2.03 +/- 0.23	2.08 +/- 0.38	4.11
	11/17/2014	< 0.10	NA	NA	7.5	9.8	3.1	1.69 +/- 0.39	2.30 +/- 0.52	3.99
11/14/2019	< 0.10	NA	NA	8.2	8.5	3.5	1.88 +/- 0.285	2.20 +/- 0.472	4.08	
Main Producing Zone										
AC-22D	10/1/1990	2.2	<0.01	<0.005	15	17	8.6	NA	NA	NA
	9/25/1997	0.81	< 0.01	NA	14	6	7.7	0.65 +/- 0.06	1.1 +/- 0.47	1.8
	1/29/2004	1.2	< 0.01 U	< 0.005 U	8.9	10	5	1.55 +/- 0.33	4.01 +/- 0.68	5.56
	11/11/2008	3.1	< 0.01 U	< 0.005 U	9.4	15	3.9	1.34 +/- 0.23	2.65 +/- 0.42	3.99
	11/18/2014	5	NA	NA	12	13	4.4	1.11 +/- 0.30	2.59 +/- 0.56	3.7
11/18/2019	4.6	NA	NA	13	21	3.5	1.20 +/- 0.216	3.18 +/- 0.529	4.38	
Main Producing Zone										
AC-23D	10/1/1990	<0.2	<0.01	<0.005	24	28	4.5	NA	NA	NA
	2/6/1992	< 0.2	< 0.01	< 0.005	26	17	5.8	NA	NA	NA
	9/26/1997	< 0.2	< 0.01	NA	12	9.5	3.1	1. +/- 0.08	1.7 +/- 0.43	2.7
	1/22/2004	< 0.2 U	< 0.01 U	< 0.005 U	8.9	15	5.2J	3.74 +/- 0.63	4.81 +/- 0.9950	8.55
	11/18/2008	< 0.2 U	< 0.01 U	< 0.005 U	10	20	4.6	2.96 +/- 0.26	3.51 +/- 0.44	6.47
	11/11/2014	<0.10	NA	NA	9.1	20	2.5	2.51 +/- 0.62	3.63 +/- 0.66	6.14
11/25/2019	<0.10	NA	NA	7.3	23	3.8	2.19 +/- 0.314	3.89 +/- 0.527	6.08	

**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-26D	2/11/1992	< 0.2	< 0.01	< 0.005	6.2	6.9	1.1	NA	NA	NA
	9/24/1997	< 0.2	< 0.01	NA	3.3	10	0.18	< 0.6 +/- 0.04	< 1. +/- 0.43	1.6
	1/20/2004	< 0.2 U	< 0.01 U	< 0.005 U	4.9	< 5. U	1.4	< 0.21 U +/- 0.15	< 0.55 U +/- 0.32	0.21
	11/12/2008	< 0.2 U	< 0.01 U	< 0.005 U	3.8	9.8	0.07	0.161 +/- 0.0760	0.0167 +/- 0.14	0.178
	11/19/2014	<0.10	NA	NA	2.8	7.5	<0.050	0.0322 +/- 0.11	0.122 +/- 0.24	0.154
	11/11/2019	Could Not Locate								
Main Producing Zone										
AC-27D	4/8/1992	< 0.2	< 0.01	0.0272	6.7	11	0.3	NA	NA	NA
	9/24/1997	< 0.2	< 0.01	NA	4.7	14	<0.05	< 0.6 +/- 0.06	< 1. +/- 0.41	1.6
	1/13/2004	< 0.2 U	< 0.01 U	< 0.005 U	16	5	3	1.09 +/- 0.26	4.83 +/- 0.92	5.92
	11/11/2005	< 0.2 U	< 0.01 U	NA	4.6	9.6	0.12	0.266 J +/- 0.11	6.75 +/- 1	7.02
	11/18/2008	< 0.2 U	< 0.01 U	< 0.005 U	29	< 5. U	2	1.12 +/- 0.18	2.43 +/- 0.40	3.55
	11/13/2014	0.1	NA	NA	4	10	0.095	0.136 +/- 0.096	0.582 +/- 0.36	0.72
	11/19/2019	<0.10 F2	NA	NA	4.4 F1	9.9	<0.050	0.154 +/- 0.0890	< 0.208 +/- 0.284	0.36
Main Producing Zone										
AC-28D	10/14/1993	3.1	NA	NA	NA	13	NA	NA	NA	NA
	9/27/1997	0.42	< 0.01	NA	14	< 5.	6.1	1. +/- 0.08	5.9 +/- 0.59	6.9
	1/21/2004	5.9	< 0.01 U	< 0.005 U	26	24	6	1.93 +/- 0.43	6.5 +/- 1.30	8.4
	11/17/2008	7.6	< 0.01 U	< 0.005 U	31	49	6.8	2.07 +/- 0.24	6.43 +/- 0.59	8.5
	11/12/2009	8.1	< 0.01 U	NA	31	55	6.7	2.29 +/- 0.26	6.97 +/- 0.64	9.26
	11/19/2010	9.5	NA	NA	30	67	6.7	2.70 +/- 0.56	8.60 +/- 0.56	11.3
	11/10/2011	9.3	NA	NA	23	56	6.8	3.27 +/- 0.35	10.4 +/- 0.81	13.7
	11/12/2012	9.5	NA	NA	30	74	6.4	3.48 +/- 0.99	10.3 +/- 1.4	13.8
	11/6/2013	9.6	NA	NA	28	69	5.5	3.57 +/- 1.0	11.2 +/- 1.6	14.8
	11/20/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA
11/21/2019	9.2	NA	NA	23	92	6.3	3.04 +/- 0.394	8.34 +/- 0.991	11.4	

**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-30D	9/26/1997	15	< 0.01	NA	60	100	11	3. +/- 0.12	7.9 +/- 0.61	10.9
	11/22/1999	18	< 0.01	NA	70	130	12	2.5	9.5	12
	11/17/2000	11	< 0.01	NA	50	100	11	2.6 +/- 0.30	14.6 +/- 1.70	17.2
	11/13/2001	11	< 0.01	NA	44	92	9.8	3.4 +/- 0.30	9.3 +/- 1.40	12.7
	11/25/2002	61	< 0.01	NA	120	250	16	2.8 +/- 0.30	13.1 +/- 1.50	15.9
	1/15/2004	46	0.017	< 0.005 U	94	190	15	6.96 +/- 0.97	21.4 +/- 2.40	28.4
	11/16/2004	34	< 0.01	NA	56	180	15	1.98 +/- 0.21	12.5 +/- 0.78	14.5
	11/17/2005	16	< 0.01 U	NA	44	120	9.2	1.48 +/- 0.34	11.9 +/- 1.60	13.4
	11/17/2006	11	< 0.01 U	NA	29	91	7.9	1.27 +/- 0.17	8.37 +/- 0.73	9.64
	11/20/2007	12	< 0.01 U	NA	25	64	7.2	1.62 +/- 0.25	6.48 +/- 0.57	8.10
	11/18/2008	8	< 0.01 U	< 0.005 U	25	60	6	1.69 +/- 0.22	6.8 +/- 0.63	8.49
	11/17/2009	6.7	< 0.01 U	NA	20	55	5.1	1.71 +/- 0.25	7.51 +/- 0.66	9.22
	11/22/2010	7.2	NA	NA	19	51	4.7	1.81 +/- 0.41	7.13 +/- 1.1	8.94
	11/14/2011	7	NA	NA	11	27	5.7	2.05 +/- 0.34	9.32 +/- 0.93	11.4
	11/14/2012	8	NA	NA	18	64	5.5	2.00 +/- 0.55	8.21 +/- 1.2	10.2
11/12/2013	7.1	NA	NA	17	48	5.2	1.80 +/- 0.46	6.88 +/- 1.0	8.68	
11/25/2014	5	NA	NA	13	40	3.8	1.62 +/- 0.47	6.04 +/- 0.92	7.66	
11/25/2019	4.0	NA	NA	9.6	33	3.2	1.53 +/- 0.251	5.63* +/- 0.714	7.16	

**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-36D	11/18/1999	0.79	< 0.01	NA	28	120	3.1	< 1. +/- 0.53	< 1.5 +/- 0.55	2.5
	11/16/2000	< 0.2	< 0.01	NA	10	14	4.6	0.6 +/- 0.09	4.4 +/- 0.70	5
	11/8/2001	< 0.2	< 0.01	NA	10	15	5.1	0.6 +/- 0.20	4.5 +/- 1.10	5.1
	11/15/2002	<0.20	<0.010	NA	11	17	5.9	1.0 +/- 0.1	1.9 +/- 0.6	2.9
	1/14/2004	< 0.2 U	< 0.01 U	< 0.005 U	11	12	5.9	1.46 +/- 0.30	2.76 +/- 0.58	4.22
	11/11/2004	< 0.2	< 0.01	NA	14	15	5.2	1.02 +/- 0.17	2.63 +/- 0.38	3.65
	11/9/2005	< 0.2 U	< 0.01 U	NA	11	19	5.9	1.07 +/- 0.27	2.34 +/- 0.52	3.41
	11/16/2006	< 0.2 U	< 0.01 U	NA	11	18	5.9	1.21 +/- 0.20	2.66 +/- 0.49	3.87
	11/16/2007	< 0.2 U	< 0.01 U	NA	11	15	5.7	1.08 +/- 0.21	1.99 +/- 0.35	3.07
	11/11/2008	< 0.2 U	< 0.01 U	< 0.005 U	12	19	5.2	1.19 +/- 0.22	2.63 +/- 0.41	3.82
	11/11/2009	< 0.1 U	< 0.01 U	NA	12	16	5.6	1.05 +/- 0.18	2.24 +/- 0.46	3.29
	11/18/2010	< 0.1 U	NA	NA	12	16	5.3	1.52 +/- 0.45	3.09 +/- 0.59	4.61
	11/9/2011	< 0.1 U	NA	NA	12	17	5.7	1.45 +/- 0.26	2.88 +/- 0.43	4.33
	11/6/2012	<0.10	NA	NA	11	16	5.2	1.28 +/- 0.37	3.30 +/- 0.65	4.58
11/6/2013	<0.10	NA	NA	12	20	4.9	1.73 +/- 0.53	3.06 +/- 0.59	4.79	
11/18/2014	<0.10	NA	NA	10	21	5	1.48 +/- 0.47	2.33 +/- 0.60	3.81	
11/11/2019	Could Not Locate									
Main Producing Zone										
NWD-2D	10/1/1990	<0.2	<0.01	<0.005	11	5.8	4.9	NA	NA	NA
	2/3/1992	0.2	< 0.01	< 0.005	9.5	< 5.	4.4	NA	NA	NA
	9/25/1997	< 0.2	< 0.01	NA	8.8	< 5.	3.9	< 0.6 +/- 0.06	2. +/- 0.44	2.6
	1/19/2004	< 0.2 U	< 0.01 U	< 0.005 U	10	7.5	5.6	0.79 J +/- 0.21	2.19 +/- 0.60	3.0
	11/13/2008	< 0.2 U	< 0.01 U	< 0.005 U	11	13	5.2	0.901 +/- 0.17	1.71 +/- 0.44	2.61
	11/11/2014	<0.10	NA	NA	12	7.6	6	0.813 +/- 0.25	0.966 +/- 0.32	1.78
	11/15/2019	<0.10	NA	NA	11	7.4	5.9	0.693 +/- 0.160	1.85 +/- 0.425	2.54

**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										
NWD-4D	2/7/1992	< 0.2	< 0.01	< 0.005	13	14	7.6	4.5 +/- 0.30	5. +/- 0.70	9.5
	9/26/1997	< 0.2	< 0.01	NA	4	11	1.8	0.9 +/- 0.08	1.5 +/- 0.46	2.4
	11/18/1999	< 0.2	< 0.01	NA	6.2	< 5.	0.27	< 1. +/- 0.52	< 1.5 +/- 0.32	2.5
	11/21/2000	< 0.2	< 0.01	NA	4.9	< 5.	0.35	0.8 +/- 0.40	1.9 +/- 3	2.7
	11/13/2001	< 0.2	< 0.01	NA	8.3	< 5.	0.53	0.9 +/- 0.20	0.5 +/- 0.70	1.4
	11/22/2002	< 0.2	< 0.01	NA	13	29	9.7	3.7 +/- 0.40	6.5 +/- 0.80	10.2
	1/21/2004	< 0.2 U	< 0.01 U	< 0.005 U	12	30	11	4.35 +/- 0.71	15.7 +/- 2.20	20.1
	11/16/2004	< 0.2	< 0.01	NA	7	32	10	3.78 +/- 0.28	8.62 +/- 0.62	12.4
	11/15/2005	< 0.2 U	< 0.01 U	NA	9.8	41	8.3	2.93 +/- 0.62	9.04 +/- 1.30	12.0
	11/21/2006	< 0.2 U	< 0.01 U	NA	8.2	52	5.8	1.75 +/- 0.28	4.7 +/- 0.52	6.45
	11/19/2007	< 0.2 U	< 0.01 U	NA	7.7	42	7	1.86 +/- 0.28	2.86 +/- 0.47	4.72
	11/19/2008	< 0.2 U	< 0.01 U	< 0.005 U	8.6	39	1.5	1.91 +/- 0.19	3.85 +/- 0.50	5.76
	11/18/2009	< 0.1 U	< 0.01 U	NA	8.6	39	0.96	1.85 +/- 0.24	3.89 +/- 0.51	5.74
	11/23/2010	< 0.1 U	NA	NA	8.1	40	0.21	1.96 +/- 0.49	3.81 +/- 0.69	5.77
	11/15/2011	< 0.1	NA	NA	7.9	35	0.13	1.45 +/- 0.23	3.43 +/- 0.47	4.88
11/8/2012	<0.1	NA	NA	8	47	<0.010	1.91 +/- 0.44	4.09 +/- 0.07	6.00	
11/8/2013	<0.1	NA	NA	8.2	53	<0.010	2.05 +/- 0.60	5.20 +/- 0.86	7.25	
11/14/2014	<0.1	NA	NA	10	28	<0.050	1.85 +/- 0.57	4.22 +/- 0.69	6.07	
11/19/2019	0.28	NA	NA	7.5	23	<0.050	0.762 +/- 0.163	1.75 +/- 0.406	2.51	
Main Producing Zone										
PIP-D	11/14/2005	< 0.2 U	< 0.01 U	NA	7.8	< 5. U	3.4	0.835 +/- 0.336	2.23 +/- 0.57	2.83
	11/22/2006	< 0.2 U	< 0.01 U	NA	12	< 5. U	5.3	1.19 +/- 0.22	1.89 +/- 0.35	3.08
	11/16/2007	< 0.2 U	< 0.01 U	NA	7.6	5.3	3.8	0.85 +/- 0.20	1.64 +/- 0.32	2.5
	11/13/2008	< 0.2 U	< 0.01 U	< 0.005 U	10	8.2	4.1	1.32 +/- 0.21	2.41 +/- 0.45	3.73
	11/18/2009	< 0.1 U	< 0.01 U	NA	8.9	5	3.5	0.994 +/- 0.18	1.24 +/- 0.33	2.23
	11/24/2010	< 0.1 U	NA	NA	9.8	4.9	3.7	1.28 +/- 0.37	1.81 +/- 0.47	3.09
	11/11/2011	< 0.1 U	NA	NA	3.3	2.1	2.9	1.01 +/- 0.20	1.37 +/- 0.39	2.38
	11/13/2012	<0.10	NA	NA	9.1	4.4	3.5	0.957 +/- 0.31	2.07 +/- 0.48	3.03
	11/13/2013	<0.10	NA	NA	9.3	5.4	4.1	1.11 +/- 0.30	1.98 +/- 0.44	3.09
	11/14/2014	<0.10	NA	NA	9	5.6	3.7	1.39 +/- 0.42	1.86 +/- 0.41	3.25
	11/22/2019	<0.10	NA	NA	9.4	2.0	3.6	0.937 +/- 0.183	1.52 +/- 0.382	2.46

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

**Agrico Site
Pensacola, Florida**

Notes:

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 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 January 2004 event were determined by STL to be biased high results

Nitrite determined not be part of Agrico plume constituents; Analysis change 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 2019 - TA St. Louis

Attachment H-2: Trend Charts of Groundwater Data Results from Figures 10 and 11 of the 2018 Annual Report

Figure 10
Concentration Trends Agricco Site Annual Network Wells
Agricco Site
Pensacola, Florida

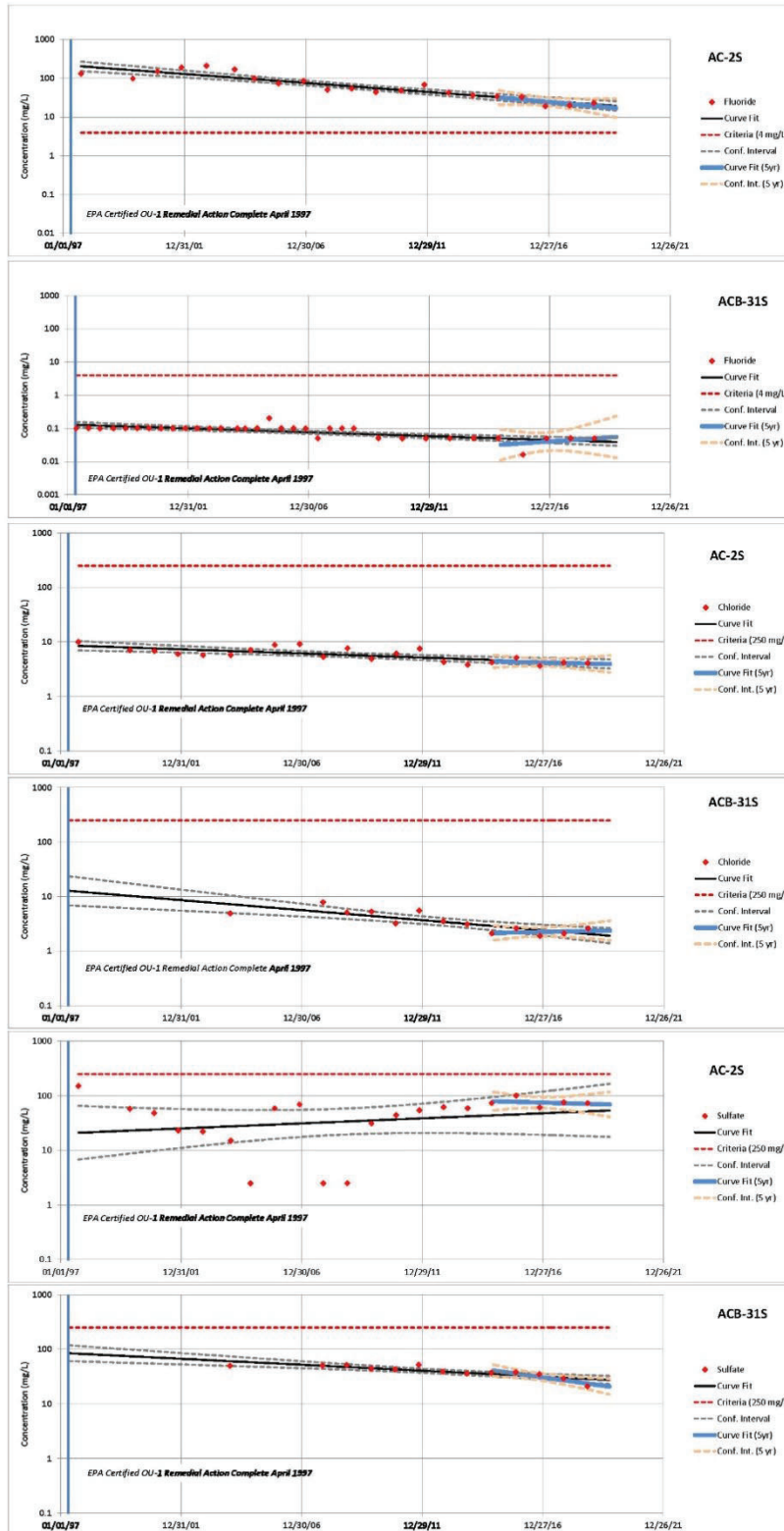


Figure 10 (Continued)
 Concentration Trends Agricor Site Annual Network Wells
 Agricor Site
 Pensacola, Florida

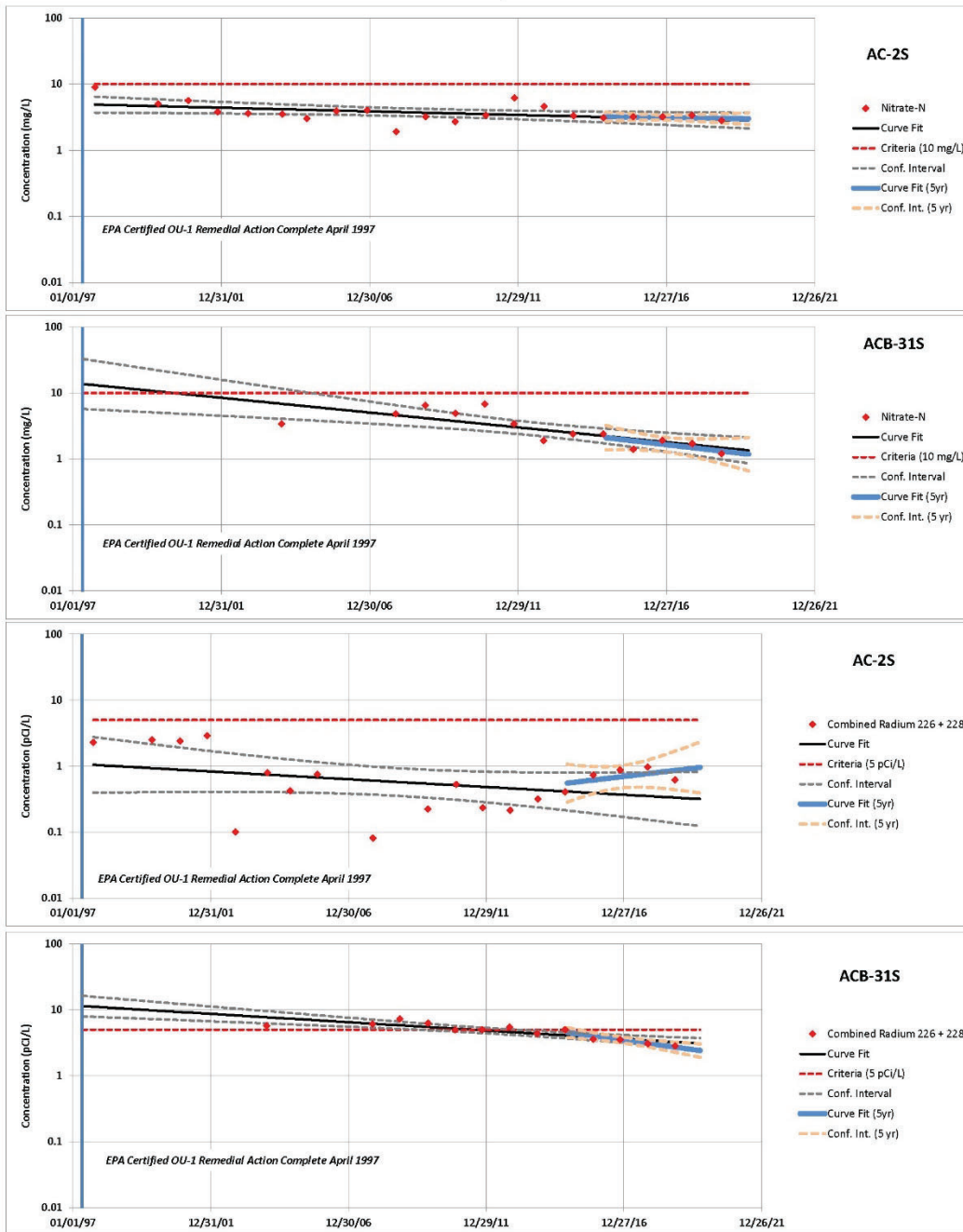


Figure 11
 Concentration Trends Agricola Site Annual Network Wells
 Agricola Site
 Pensacola, Florida

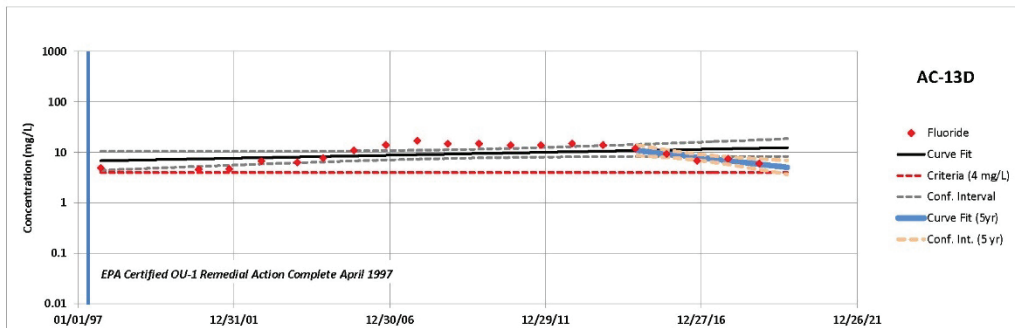
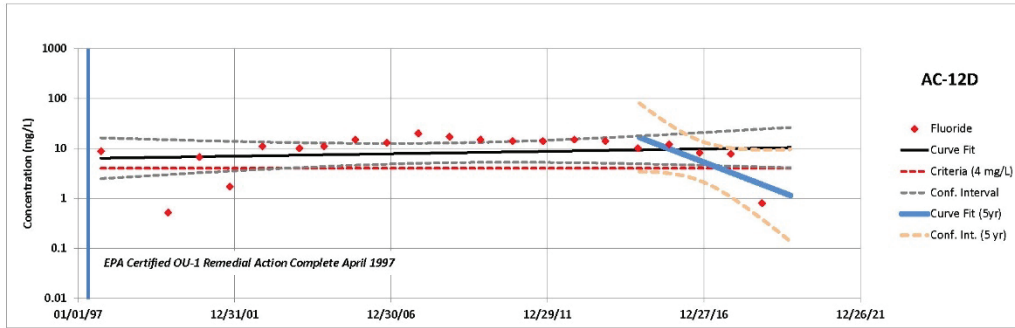
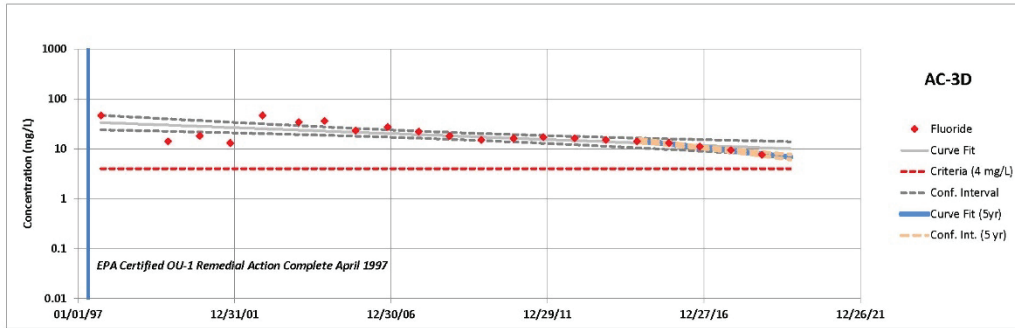
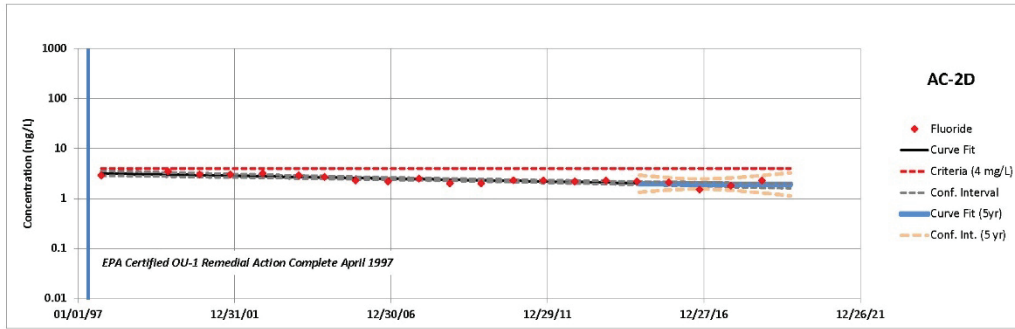


Figure 11 (Continued)

Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida

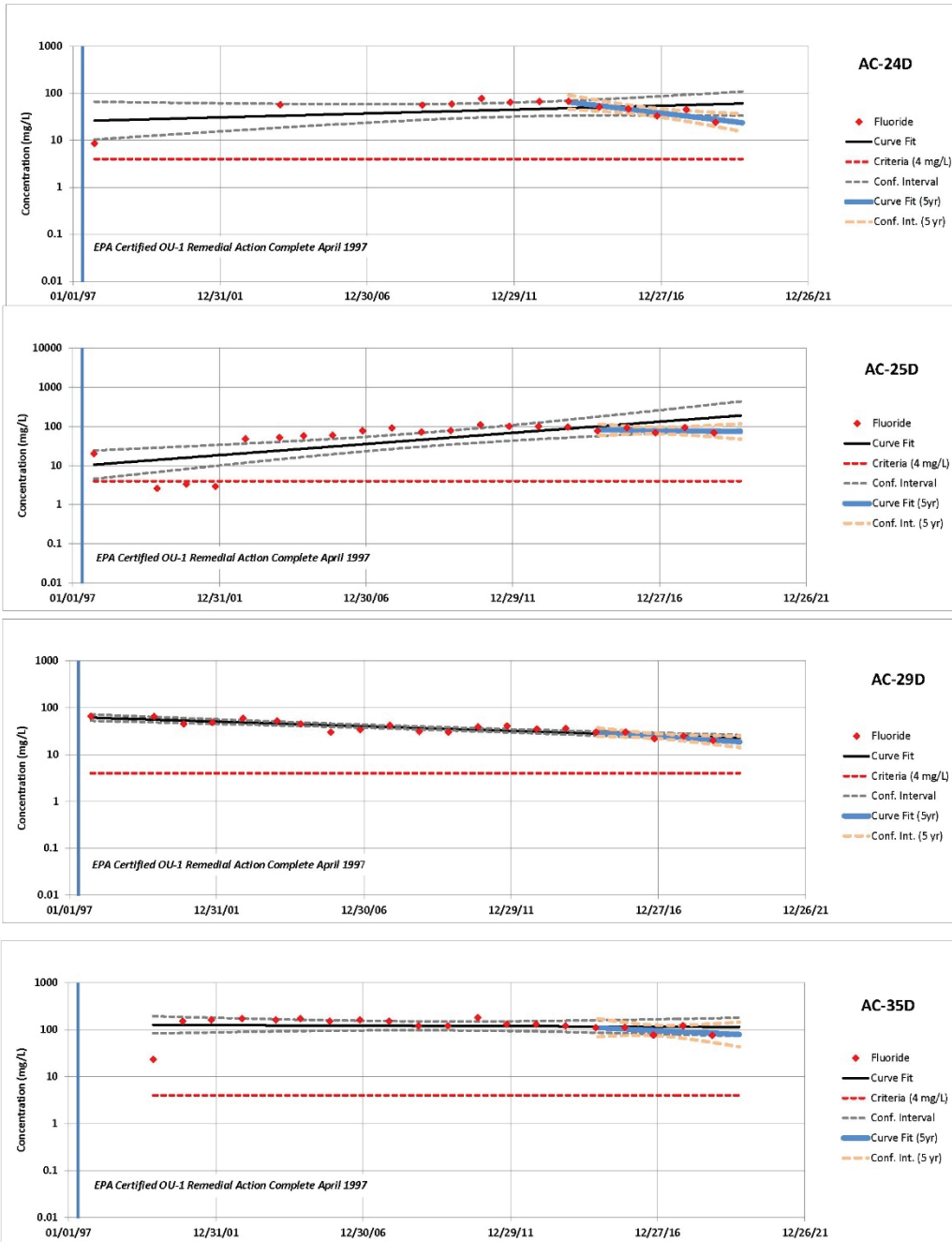


Figure 11 (Continued)

Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida

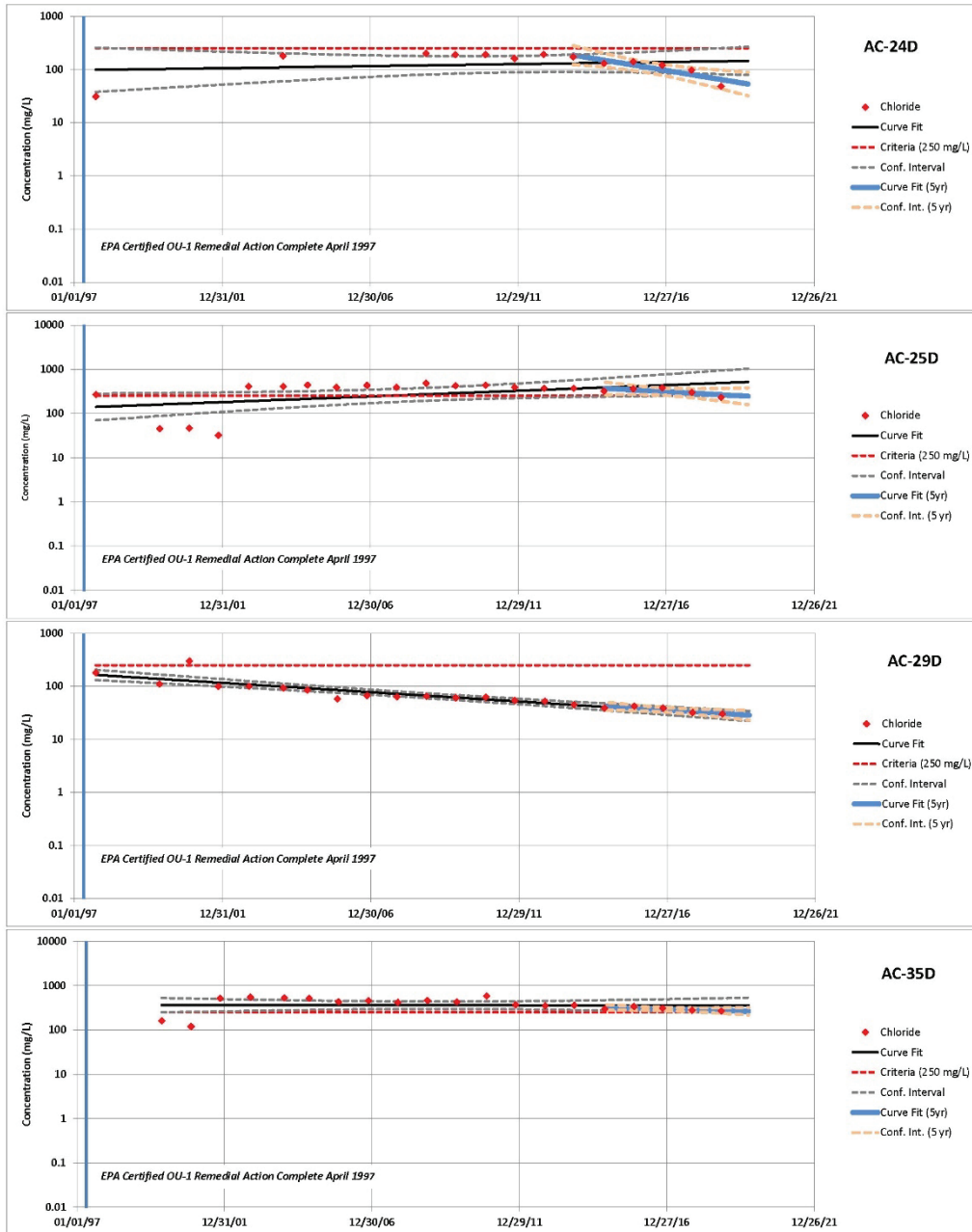


Figure 11 (Continued)

Concentration Trends Agrico Site Annual Network Wells

Agrico Site
Pensacola, Florida

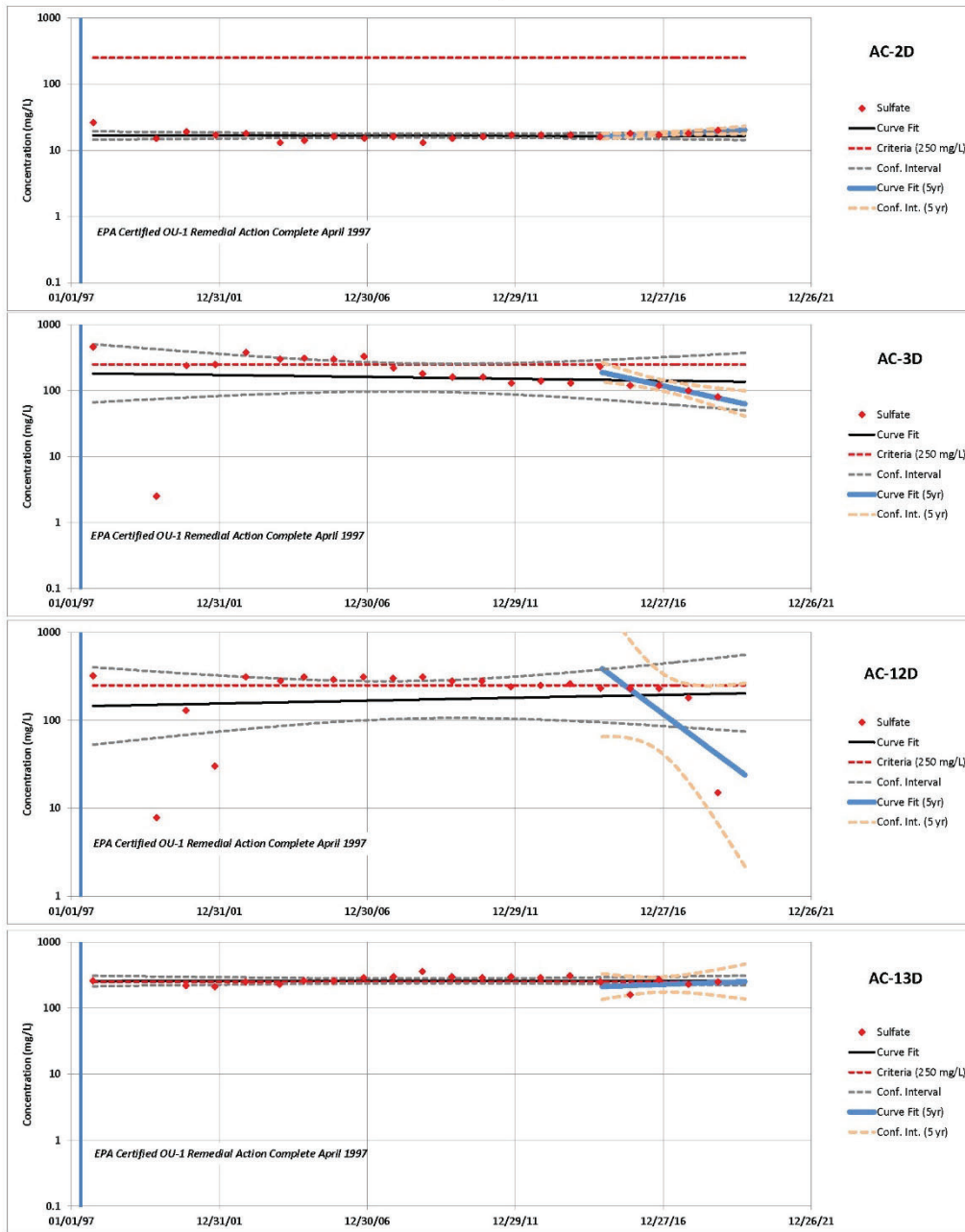


Figure 11 (Continued)
 Concentration Trends Agrico Site Annual Network Wells

Agrico Site
 Pensacola, Florida

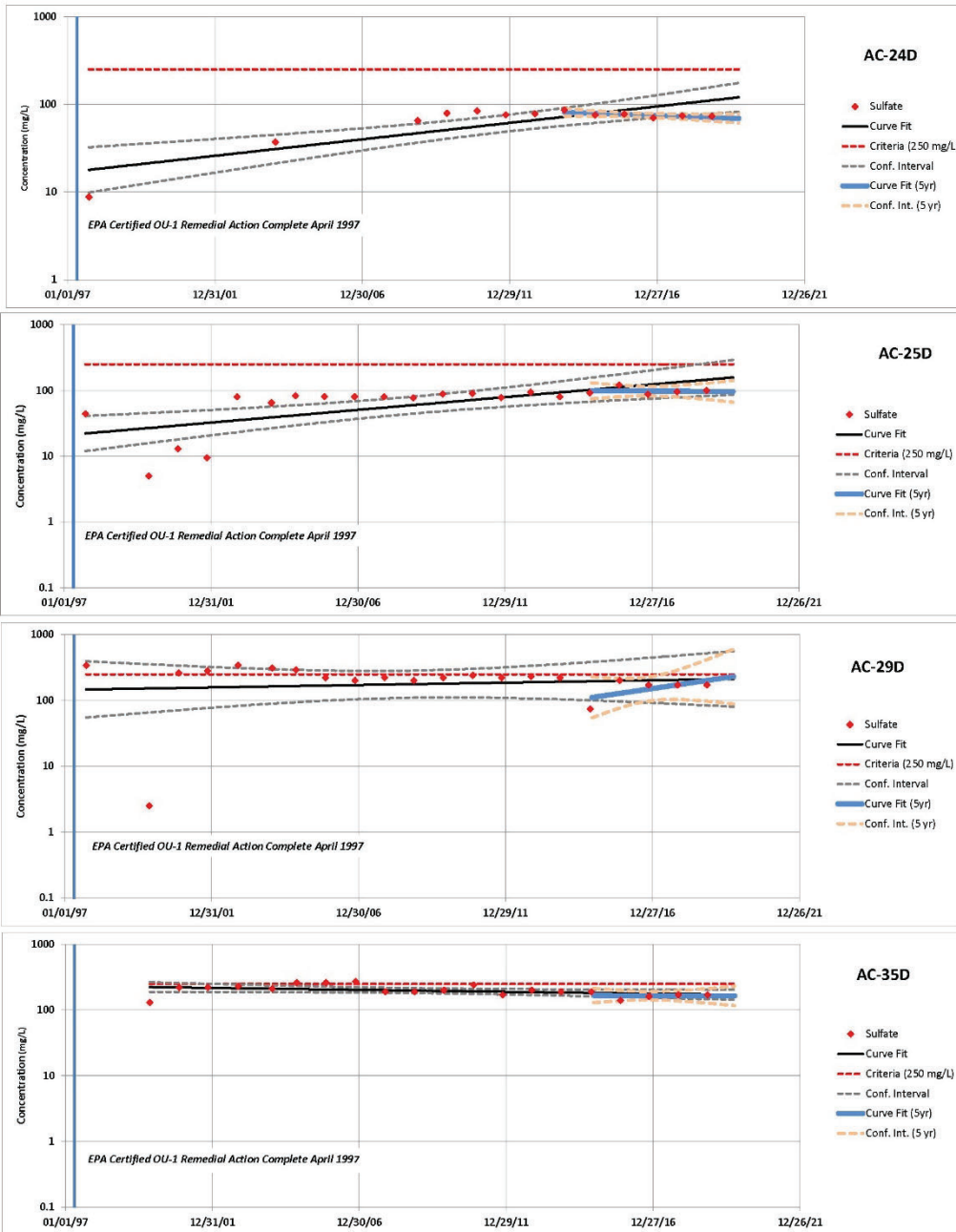


Figure 11 (Continued)
 Concentration Trends Agricor Site Annual Network Wells

Agrico Site
 Pensacola, Florida

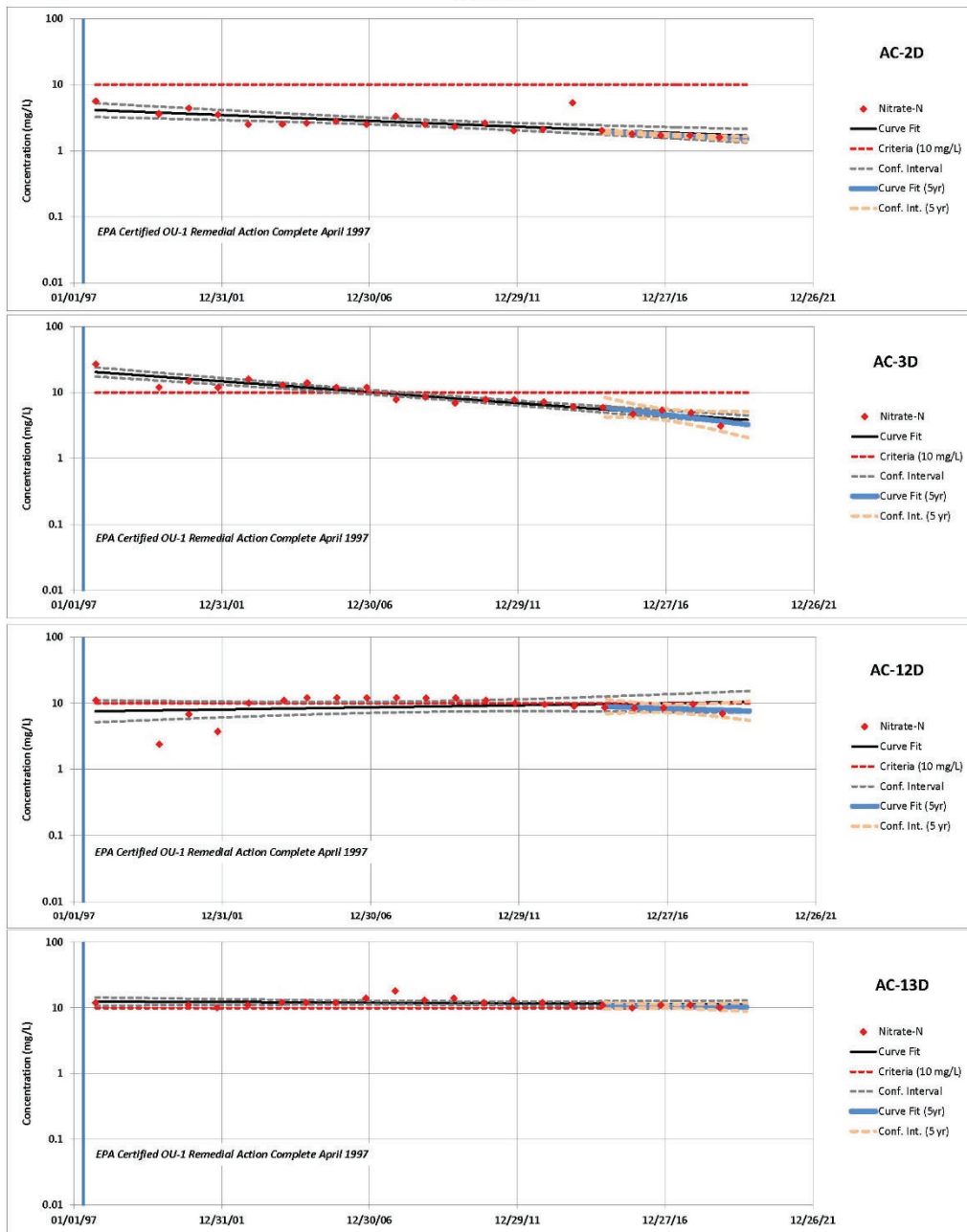


Figure 11 (Continued)
 Concentration Trends Agrico Site Annual Network Wells

Agrico Site
 Pensacola, Florida

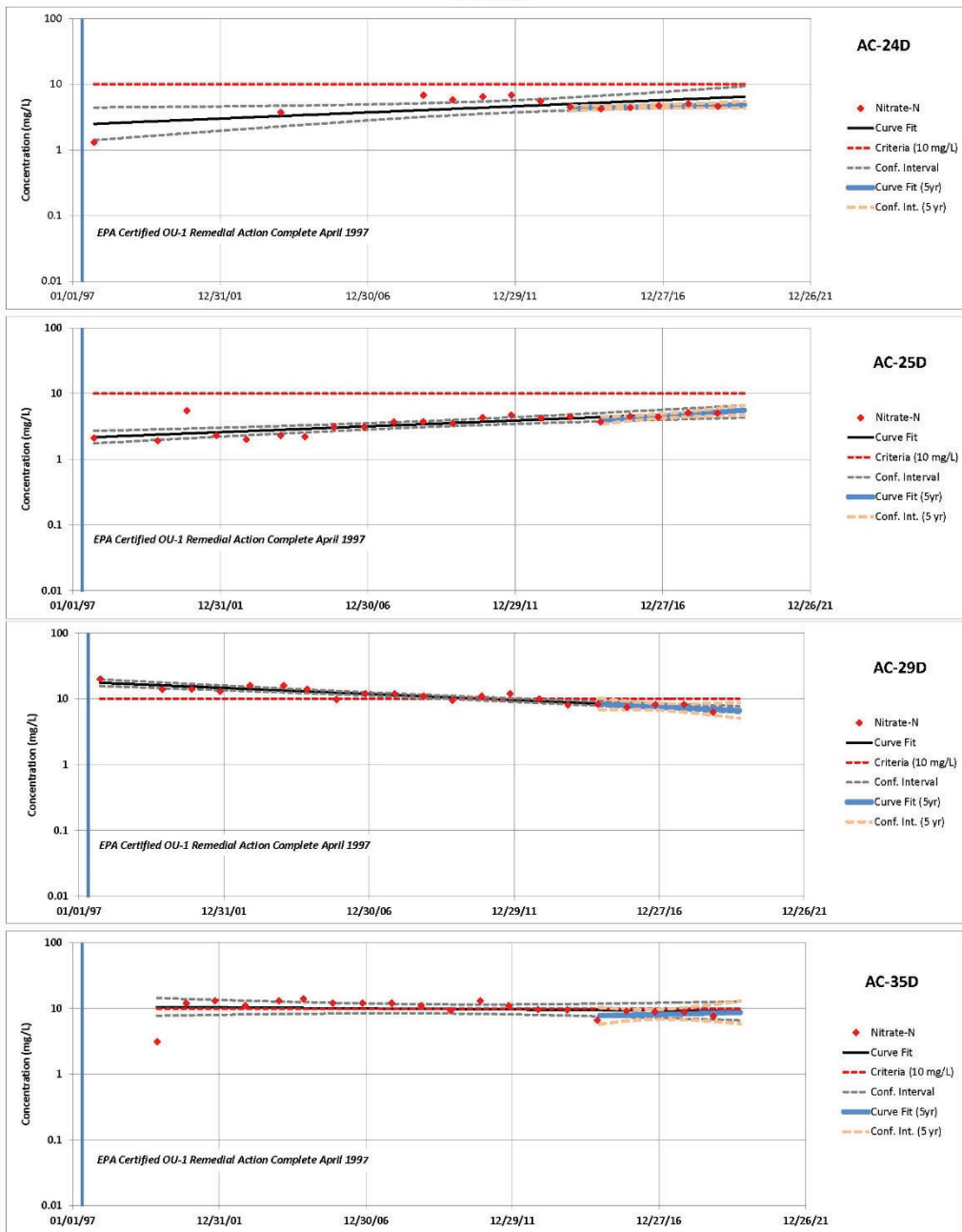


Figure 11 (Continued)
 Concentration Trends Agrico Site Annual Network Wells
 Agrico Site
 Pensacola, Florida

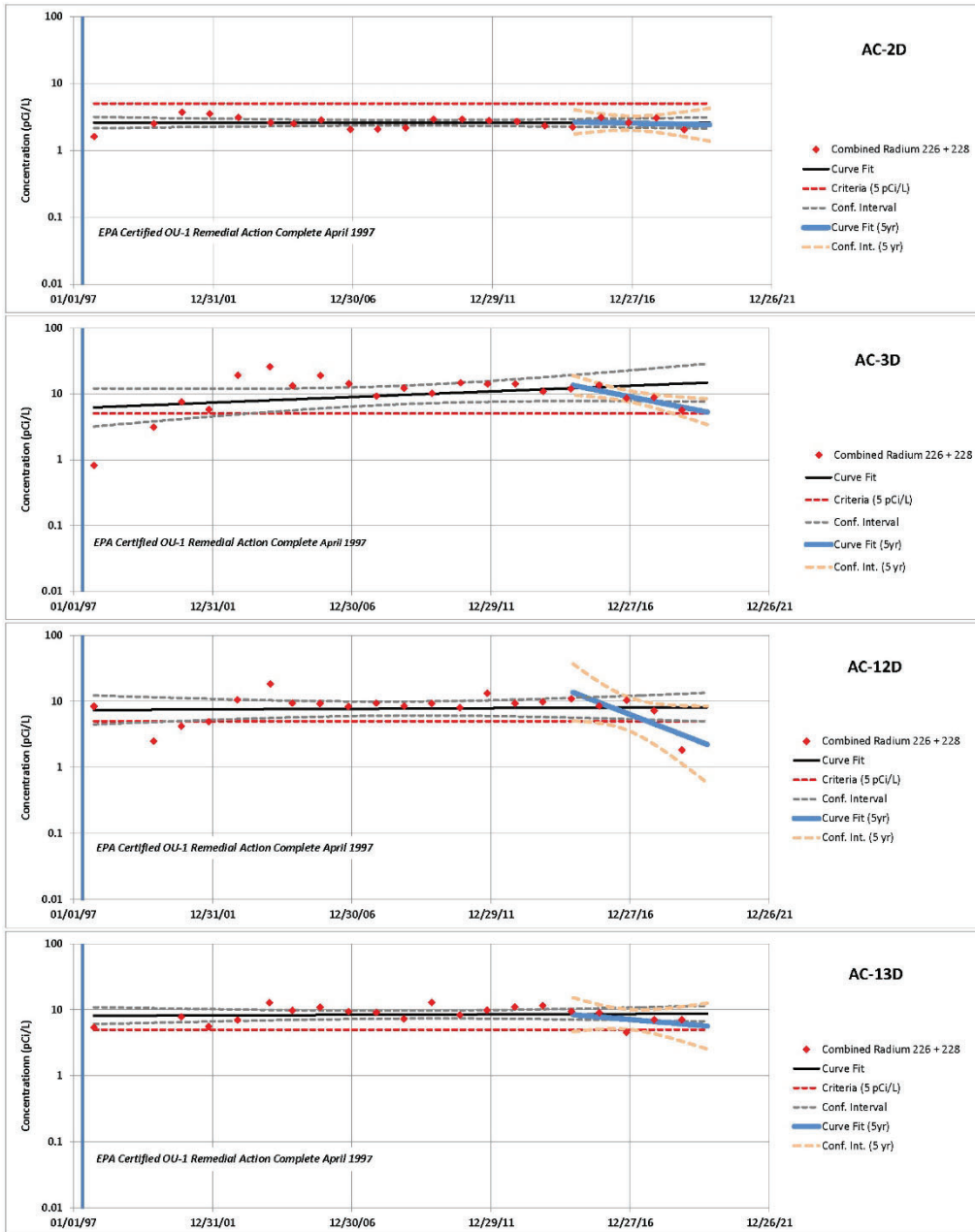
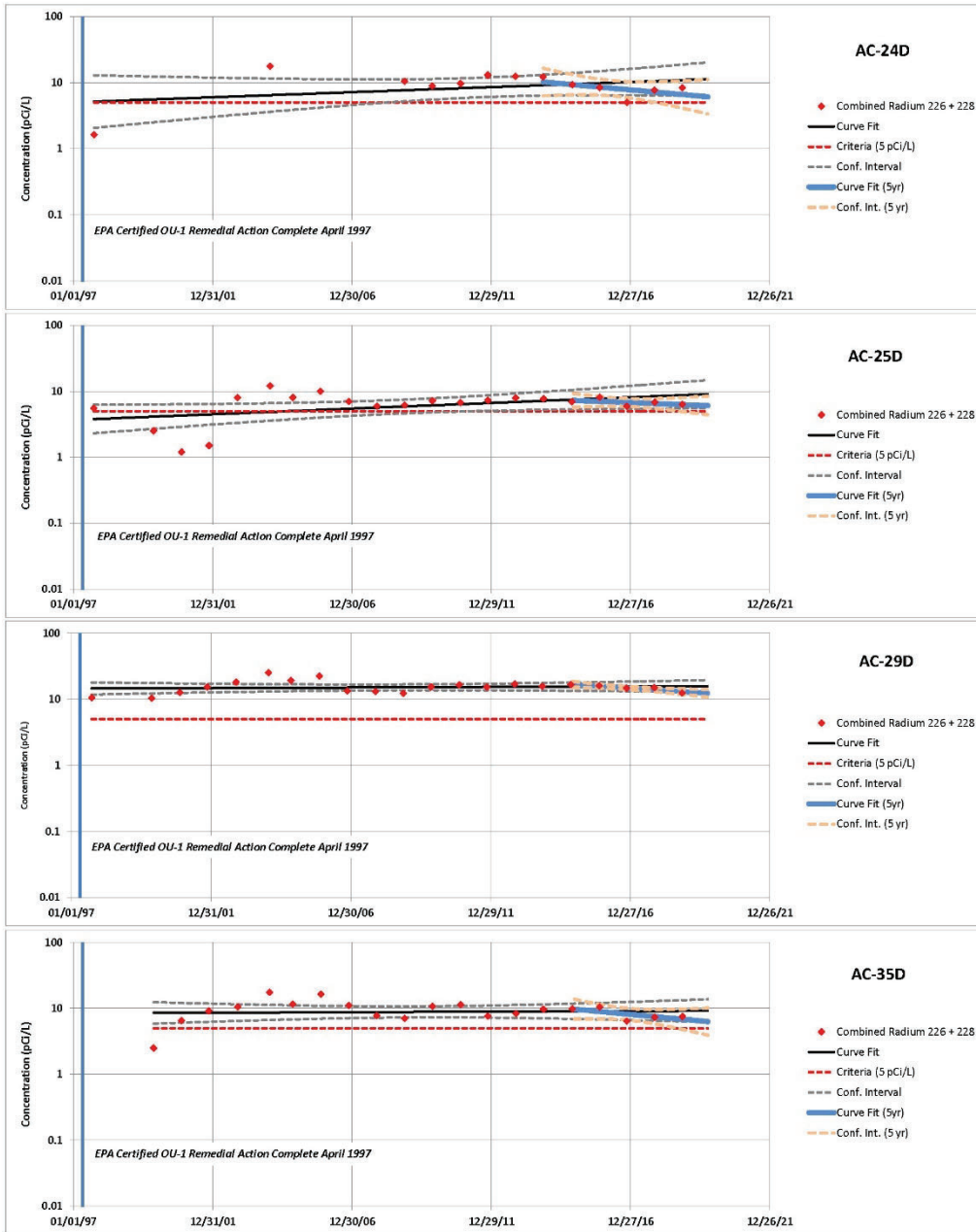


Figure 11 (Continued)
 Concentration Trends Agrico Site Annual Network Wells
 Agrico Site
 Pensacola, Florida



APPENDIX I – DETAILED ARARS REVIEW

Groundwater cleanup goals were selected based on federal and state drinking water standards. An ARARs review was conducted below in Table I-1 to compare groundwater cleanup goals to current federal MCLs and FDEP primary and secondary drinking water standards. Except for arsenic and nitrite, no standards have changed. While the arsenic standard has become more stringent, arsenic is only currently sampled in one well, and the PRP contractor compares results to the current MCL. In addition, while the nitrite standard has become more stringent, nitrite is no longer sampled because it was below detection. The EPA approved this change in 2007. Therefore, the standards that have become more stringent do not impact current protectiveness, but the cleanup goals should be updated to reflect the current standards to ensure long-term protectiveness.

Table I-1: Groundwater COC Cleanup Goals ARARs Review

Groundwater COC	ROD Cleanup Goal	Federal MCL ^a	FDEP Primary Drinking Water Standards (FAC 62-550.310) ^b	FDEP Secondary Drinking Water Standards (FAC 62-550.320)	ARAR Change
Fluoride	4 mg/L	4 mg/L	4 mg/L	2 mg/L	None ^c
Arsenic	0.05 mg/L	0.010 mg/L	0.010 mg/L	None	More stringent
Chloride	250 mg/L	None	None	250	None
Sulfate	250 mg/L	None	None	250	None
Nitrate ^d	10 mg/L	10 mg/L	10 mg/L	None	None
Nitrite ^d	10 mg/L	1 mg/L	1 mg/L	None	More stringent
Radium-226 and Radium-228 combined	5 pCi/L	5 pCi/L	5 pCi/L	None	None

Notes:

- Accessed 11/27/2019 at <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>.
- Accessed 11/27/2019 at <https://www.flrules.org/gateway/readFile.asp?sid=0&tid=0&cno=62-550&caid=1076038&type=4&file=62-550.doc>.
- While the cleanup goal is above the FDEP secondary standard, the 1994 OU2 ROD specified that the fluoride cleanup goal was based on the MCL. In addition, secondary standards are based on aesthetics rather than risk, so no additional risk is present based on the secondary standard.
- The 1994 OU2 ROD had a combined cleanup goal for nitrate and nitrite of 10 mg/L. Since then, a total nitrate and nitrite level as well as separate standards have been established for nitrate and nitrite. This review compared the combined standard to the current standards for each contaminant individually.

mg/L = milligrams per liter

APPENDIX J – SCREENING-LEVEL RISK REVIEW

The 1992 OU1 ROD selected site-specific excavation standards for soil. To evaluate whether the standards selected remain valid, the standards were compared to the EPA’s current regional screening level (RSL) for composite worker soil. RSLs incorporate current toxicity values and standard default exposure factors. Composite worker soil RSLs were selected for this evaluation rather than residential RSLs, because the Site is not currently in use (besides pollinator habitat) and residential use of the Site is not anticipated. As shown in Table J-1, the excavation performance standards correspond to risk below or within the EPA’s acceptable risk range and therefore remain valid. The EPA has not established RSLs for lead because there is not a consensus on carcinogenic or noncarcinogenic toxicity values for inorganic lead. Therefore, the EPA evaluates lead exposure using blood-lead modeling and established a default industrial level of 800 mg/kg. This industrial level of 800 mg/kg is greater than the 500 mg/kg excavation performance standard from the ROD, indicating that the performance standard remains protective for industrial use.

Table J-1: Human Health Screening-Level Soil Risk Evaluation

Soil COC	Excavation Performance Standards (mg/kg)	Composite Worker Soil RSL (mg/kg) ^a		Cancer Risk ^b	Noncancer Hazard Quotient (HQ) ^c
		1 x 10 ⁻⁶ Risk	HQ = 1.0		
Fluoride	1,463	-	47,000	-	0.03
Lead	500	800		*	
Arsenic	16	3.0	480	5.3 x 10 ⁻⁶	0.03

Notes:

a. November 2019 EPA RSLs were used for this screening and are available at <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables> (accessed 11/27/2019).

b. The cancer risk was calculated using the following equation, based on the fact that RSLs are derived based on 1 x 10⁻⁶ risk: cancer risk = (performance standard ÷ cancer-based RSL) × 10⁻⁶.

c. The HQs were calculated using the following equation: HQ = performance standard ÷ noncancer-based RSL.

- = The EPA has not yet established toxicity values.

* = The EPA has not established RSLs for lead because there is not a consensus on carcinogenic or noncarcinogenic toxicity values for inorganic lead. Therefore, the EPA evaluates lead exposure by using blood-lead modeling and established a default industrial level of 800 mg/kg.

mg/kg = milligrams per kilogram