Draft Contamination Screening Evaluation Report

Florida Department of Transportation

District Four

SR 9/I-95

Limits of Project: FROM SOUTH OF SR 870/COMMERCIAL BOULEVARD TO NORTH OF CYPRESS CREEK ROAD

Broward County, Florida

Financial Management Number: 435808-1-22-02

ETDM Number: 14222

July 31, 2018

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

Executive Summary

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for improvements to SR 9/I-95 from south of SR 870/Commercial Boulevard to north of Cypress Creek Road in Broward County, FL (Mile Post 14.5 to 17.0).

This Contamination Screening Evaluation Report (CSER) presents the findings of an investigation designed to identify, evaluate and provide recommendations for properties or businesses with known or potential contamination issues in accordance with Part 2, Chapter 20, of the FDOT PD&E Manual.

The project corridor was field surveyed at project commencement to identify potential contamination concerns within and adjacent to the project corridor. Subsequent field surveys were also performed. Additionally, a study of historical aerials and Geographic Information Systems (GIS) databases of various Federal, State and local enforcement agencies was performed to identify facilities permitted to handle, store, or generate hazardous substances, petroleum products and/or sites with documented hazardous substance/petroleum discharges within the project corridor. A site history investigation was performed for each facility identified as a potential contamination concern by reviewing the documentation available within the agency files and other sources. The information was evaluated to determine each site's potential degree of risk for contamination involvement with the proposed project.

A total of 54 potential contamination sites were identified within the project area. Fourteen (14) sites were assigned a High (7 sites) or Medium risk (7 sites) rating for potential contamination concerns. Of the 14 High and Medium risk sites, 11 are directly adjacent (9 sites) to or within 500-feet (2 sites) of the recommended improvements. Due to the potential for soil and/or groundwater contamination and proposed right of way acquisition at many of these sites, a Level II Contamination Assessment is recommended to determine the extent of contamination. The remaining three High and Medium risk sites are at substantial distances from the recommended improvements and are unlikely to have direct involvement with the project but should be reevaluated during the Final Design phase. The remaining 40 sites are considered to present a Low risk because they do not hold an active industrial waste or storage tank permit, or the permit file contains no indication of current or prior contamination issues. No further assessment will be necessary for these sites.

Asbestos Containing Materials (ACMs) and Lead-based paint (LBP) surveys were not conducted as part of this PD&E study. ACM and LBP surveys that were previously conducted on bridges within the current study area are included in **Table 5-1 Summary of Asbestos and Lead Based Paint Testing Results**. None of the samples collected and analyzed yielded positive ACM or hazardous concentrations of Lead-based paint; however, Lead was identified at non-hazardous concentrations in paint from bridge #860128 and bridge #860198.

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1 Introduction

The Florida Department of Transportation (FDOT) District Four is conducting a Project Development and Environment (PD&E) Study for improvements to the Commercial Boulevard and Cypress Creek Road interchanges and along I-95 from South of Commercial Boulevard to north of Cypress Creek Road (Mile Posts 14.5 to 17.0), a distance of approximately two and a half miles in Broward County, Florida.

This Contamination Screening Evaluation Report (CSER) contains detailed information used to evaluate each property within the project study area for the presence of potential contamination, within proposed right of way limits and from properties adjacent to the right of way that might have migrated onto or under the existing or proposed right of way.

1.2 Project Background

I-95 is one of the most important surface transportation facilities along the east coast of Florida. As part of the state's Strategic Intermodal System (SIS), it is a critical asset for moving people and goods within the 12 coastal counties, including Miami-Dade, Broward, and Palm Beach Counties.

FDOT is conducting a comprehensive systematic analysis of the I-95 interchanges in Broward and Palm Beach Counties for the first time since the initial construction of the interstate in the 1970s. Per the I-95 Interchange Master Plan, FDOT has developed preliminary design concepts to address traffic spillback onto I-95, improve traffic operations at the interchanges, reduce congestion which has reached unacceptable levels during peak hours, and to enhance overall safety at each interchange, including those at Cypress Creek Road and Commercial Boulevard. These preliminary design concepts were developed in separate Interchange Concept Development Reports (ICDR) for each interchange completed in February 2016 (Commercial Boulevard) and June 2015 (Cypress Creek Road).

The intent of the I-95 PD&E Study from south of Commercial Boulevard to north of Cypress Creek Road is to study in further detail the preliminary design concepts from the I-95 Interchange Master Plan ICDRs in addition to other alternatives. This PD&E Study will also include a No-Action alternative which assumes no proposed improvement and serves as a baseline for comparison against other alternatives.

1.3 Project Description

This project is proposing improvements to the Commercial Boulevard and Cypress Creek Road interchanges and along I-95 from south of Commercial Boulevard to north of Cypress Creek Road, a distance of approximately two and a half miles in Broward County, Florida. A project location map is depicted in **Figure 1-1**.

I-95 is the primary north-south interstate facility that links all major cities along the Atlantic Seaboard and is one of the most important transportation systems in southeast Florida. I-95 is one of the two major expressways, Florida's Turnpike being the other, that connect the major employment centers and residential areas within the South Florida tri-county area. I-95 is part of the state's SIS and the National Highway System (NHS). In addition, I-95 is designated as an evacuation route along the east coast of Florida.

Figure 1-1 Project Location Map

I-95, within the project limits, currently has six general purpose lanes (three in each direction) and two High Occupancy Vehicle (HOV) lanes (one in each direction). This segment of I-95 is functionally classified as a Divided Urban Principal Arterial Interstate and has a posted speed limit of 65 miles per hour. The access management classification for this corridor is Class 1.2, Freeway in an existing urbanized area with limited access. There are two full interchanges within the project limits located at Commercial Boulevard and Cypress Creek Road, as well as entry ramps from N. Andrews Avenue and from Cypress Creek Park and Ride Lot to I-95 southbound.

The proposed improvements will be compatible with the proposed I-95 Express Lanes Phase 3 Project, which will introduce two tolled, express lanes in place of the existing HOV lanes from Broward Boulevard in Broward County to Linton Boulevard in Palm Beach County. Phase 3A, which extends from Broward Boulevard to south of SW 10 Street and includes the limits of the proposed interchange improvements, began construction in early 2016.

1.4 Purpose and Need

The primary need for this project is to increase capacity and improve traffic operations on I-95 and at the Cypress Creek Road/I-95 and Commercial Boulevard (SR 870)/I-95 interchanges. The project is also intended to improve safety within the vicinity, including access to I-95 and the arterial intersections. Secondary considerations for the purpose and need of this project include system linkage, modal interrelationships, transportation demand, social demands and economic development, and evacuation.

I-95 within the project limits currently operates at Level of Service (LOS) F. Additionally, Commercial Boulevard operates at LOS E east of I-95 and LOS F west of I-95, while Cypress Creek Road operates at LOS E on both sides of I-95. Without improvements, the driving conditions will continue to deteriorate well below acceptable LOS standards. The I-95 Express Phase 3 improvements will help maintain or slightly improve the I-95 corridor LOS by adding one travel lane in each direction in the form of an Express Lane. The improvements proposed as part of this project will complement the I-95 Express Lanes improvements.

The existing Cypress Creek Park and Ride southbound on-ramp and Commercial Boulevard southbound on-ramp provide less than 500 feet of weave distance before the acceleration lane drops and merges with the general-purpose traffic. This forces commuters to merge with the general-purpose traffic while accelerating which is an unsafe maneuver.

The proposed modifications will improve the safety of the project corridor. The buses travelling onto I-95 from the Cypress Creek Park and Ride will be provided greater distance prior to merging with I-95 southbound traffic. Additionally, the existing substandard vertical clearance of the North Andrews Avenue bridge over I-95 will be resolved with the bridge replacement.

The project is anticipated to improve emergency evacuation capabilities by enhancing connectivity and accessibility to major arterials designated on the state evacuation route. I-95, Commercial Boulevard, and Cypress Creek Road serve as part of the emergency evacuation route network designated by the Florida Division of Emergency Management and by Broward County. Commercial Boulevard and Cypress Creek Road move traffic from the east to I-95. I-95 is critical in facilitating traffic during emergency evacuation periods as it connects to other major arterials and highways of the state evacuation route network (i.e., I-595 and the Florida's Turnpike).

The Cypress Creek Road Interchange Project is included in the Broward County Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) for Fiscal Years (FY) 2016-

2020, the FDOT Work Program FY 2017- 2021, the FDOT State TIP FY 2016-2020, and the FDOT SIS Five Year Plan FY 2016-2020 for PD&E Phase in FY 2016.

The Broward County MPO 2035 Long Range Transportation Plan (LRTP) included improvements to all I-95 interchanges in Broward County under Illustrative Roadway Projects. Illustrative projects are those that cannot be included in the cost feasible plan due to financial constraints but would be included in a future approved TIP.

1.5 Proposed Improvements

A recommended alternative was selected following the June 29, 2017 Alternative Public Workshop based on results from the alternative analysis process, public, local and state officials input, and coordination with FDOT. Alternative 1A-6 was selected as the recommended Build Alternative. This alternative meets the purpose and need of the project. The proposed improvements under this alternative achieve the objectives of the department to improve traffic operations and enhance overall safety within the project study area while minimizing cost and environmental and socio-economic impacts. A full description of all build alternatives evaluated is included in the Preliminary Engineering Report prepared for this project.

The following are the proposed improvements associated with Alternative 1A-6:

I-95 Mainline Improvements

- Maintain the proposed I-95 Express Lanes Phase 3 project improvements, which will introduce two tolled, express lanes in place of the existing HOV lanes from Broward Boulevard in Broward County to Linton Boulevard in Palm Beach County.
- Provide a Collector-Distributor (CD) road system to carry a large volume of the Cypress Creek Road traffic desiring to go southbound onto I-95. The CD road system starts at the Cypress Creek Park & Ride on-ramp and merges with the existing I-95 southbound on-ramp from North Andrews Avenue. The CD road system continues southbound over Commercial Boulevard and merges with the I-95 mainline just north of Powerline Road.
- Reconstruct the North Andrews Bridge over the I-95 mainline.

Commercial Boulevard Interchange Improvements

I-95 Northbound Off-Ramp:

- Provide two additional eastbound right turn lanes to have a triple right turn movement to Commercial Boulevard east.

I-95 Southbound Off-Ramp:

- Provide one additional westbound right turn lane to have a dual right turn movement to Commercial Boulevard west.

Commercial Boulevard and Powerline Road Intersection:

- Provide one additional Powerline Road southbound left turn lane by removing one of the three thru lanes to have a triple left turn movement to Commercial Boulevard east.
- Provide one additional Commercial Boulevard westbound thru lane by removing one of the two westbound to southbound left turn lanes to have four thru westbound lanes.

- Provide one additional Commercial Boulevard eastbound thru lane east of Powerline Road.

Commercial Boulevard and N. Andrews Avenue Intersection:

- Provide one additional North Andrews Avenue southbound left turn lane to have dual left turn lanes to Commercial Boulevard east.
- Provide one additional Commercial Boulevard eastbound thru lane to have four eastbound thru lanes.
- Reduce existing westbound though lanes from three to two lanes.
- Provide a one lane bridge across North Andrews Avenue to accommodate Commercial Boulevard westbound traffic to the existing I-95 westbound to southbound flyover on-ramp. The proposed one lane bridge merges with the existing I-95 westbound to southbound at-grade ramp which accommodates the North Andrews Avenue southbound and northbound traffic heading to southbound I-95. This reconfigured I-95 westbound to southbound flyover on-ramp will have two lanes at the entrance and will drop to one lane after the third span of the flyover bridge. The first three spans of the flyover bridge will be reconstructed.
- Convert existing two-lane frontage road located at the northeast quadrant of the intersection to a one lane frontage road in the westbound direction. The west end of the proposed one lane frontage road turns northward before approaching North Andrews Avenue and terminates at the intersection of NE 1 Avenue and NE 51 Street.

Cypress Creek Road Interchange Improvements

I-95 Northbound Off-Ramps:

- Replace the existing I-95 northbound to westbound off-ramp loop at the northwest quadrant of the interchange with a bridge parallel to the existing I-95 mainline northbound bridge over Cypress Creek Road. The bridge accommodates the I-95 northbound to Cypress Creek westbound traffic to a stop condition at Cypress Creek Road. This movement will require signalization.
- Widen the northbound to eastbound off-ramp with an additional eastbound right turn lane to have a dual right turn movement to Cypress Creek Road eastbound. This movement will require signalization.

I-95 Northbound On-Ramp:

- Remove the Cypress Creek Road westbound free flow right on-ramp onto I-95 northbound. Provide one additional Cypress Creek Road westbound right turn lane to have a dual right turn lane I-95 on-ramp which will drop to one lane before merging with the I-95 mainline.

I-95 Southbound On-Ramp from N. Andrews Avenue:

- Reconstruct and widen to provide an additional lane; tie in to the proposed CD road system which starts from the Cypress Creek Park and Ride.

Cypress Creek Road and N. Andrews Avenue Intersection:

- Maintain existing number of lanes at the north and south legs of the intersection.
- Remove one Cypress Creek Road eastbound thru lane between NW 6 Way and North Andrews Avenue and provide one additional right turn lane to have dual right turn lanes from Cypress Creek Road eastbound to North Andrews Avenue southbound.

N. Andrews Avenue and N. Andrews Way Intersection:

- Maintain existing number of lanes at all legs of the intersection.

Cypress Creek Road and NE 7 Avenue Intersection:

- Provide one additional left turn lane to have dual left turn lanes from Cypress Creek Road eastbound to NE 7 Avenue northbound.

2 Methodology

A preliminary (Level I) evaluation of the study area was conducted to determine potential contamination issues within the proposed project limits from properties or operations located within the vicinity of the project. From pre-investigation meetings with FDOT District Four Planning and Environmental Management Office (PLEMO) staff, it was agreed that the contamination study area would encompass the right of way and properties within 500 feet of the corridor, solid waste sites within one-quarter mile, and superfund sites within one mile of the project. Sites found to have a history of contamination, or to house hazardous substances, were evaluated for potential contamination involvement with the proposed Build Alternative and a degree of risk was assigned for each site. The evaluation consisted of the following tasks:

1. A review of prior FDOT documents covering the project area, including the following:

    1. CSER for SR 9/I-95 from north of SR 816/Oakland Park Boulevard to south of SR 808/Glades Road in Broward and Palm Beach Counties (June 2013)

    2. Level II Contamination Impact Assessment Report for SR 9/I-95 from south of W Broward Boulevard to Pompano Park Place (December 2014)

    3. Impact to Construction Report/Soil Management Plan for SR 9/I-95 Phase 3A-1 from south of Broward Boulevard to north of SR 870/Commercial Boulevard (February 5, 2015)

    4. Impact to Construction Report for SR 9/I-95 Phase 3A-2 from north of SR 870/Commercial Boulevard to SR 869/SW 10th Street (April 2015)

2. Field surveys were conducted in December 2016 and October 2017 to verify information obtained from the public records and to identify additional potential contamination sites not addressed in the public records. Copies of site photographs are presented in **Appendix B**.

3. Historical aerials obtained from the FDOT, University of Florida and Google databases including the years 1958, 1968, 1973, 1981, 1992, 2002, 2006, and 2015 were studied to evaluate the corridor's progression of development and to identify any potential contamination sites predating or unrecorded in available agency records. Copies of representative aerial photographs reviewed are presented in **Appendix C**.

4. The identification of facilities permitted to handle, store, or generate hazardous substances and sites with documented hazardous substance discharges within 500 feet, solid waste sites within one-quarter mile, and superfund sites within one mile of the project corridor through the review of the Geographic Information Systems (GIS) databases of various Federal, State and local enforcement agencies. The GIS layers reviewed include, but were not limited to: the U.S. Environmental Protection Agency (EPA) Resource Conservation and Recovery Act Regulated (RCRA) Facilities; EPA Superfund Sites; Florida Department of Environmental Protection (FDEP) State Funded Hazardous Waste Cleanup Sites; FDEP Dry Cleaning Program Sites; FDEP Petroleum Contamination Monitoring Sites; FDEP Large Quantity Generators of Hazardous Waste; Brownfield Areas; FDEP Storage Tank Contamination Monitoring (STCM) sites; FDEP Solid Waste Facilities; FDEP Institutional Controls Registry; FDEP Treatment, Storage and Disposal (TSD) facilities of Hazardous Waste; and FDEP Compliance and Enforcement Tracking. Data collection from the GIS databases provided basic facility information including addresses, permit/discharge identification (ID) numbers, cleanup status, distance from right of way, etc.

5. Site history investigations conducted in September and October 2016 and October 2017 for each facility identified as a potential contamination concern were done by reviewing documentation available within Federal, State, and local enforcement agency online databases. The online databases reviewed include the EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS), which includes all sites listed or being considered for listing on the National Priorities List (NPL); the EPA TRIS; Broward County ENVIROS and the FDEP OCULUS and Map Direct data management systems.

6. This report provides the results of a Level I evaluation of the project corridor and defines the potential for contamination impacts. A Level II investigation, which includes soil and groundwater sampling or other means to verify the type and extent of contamination present (that may have the potential to impact the project), will be conducted during the Final Design phase, as necessary.

An evaluation of all data collected for each site was used to determine the site's potential degree of risk (No, Low, Medium, High) for contamination involvement with the proposed project.

Risk ratings were assigned in accordance with Part 2, Chapter 20, Section 2.2.4 (June 14, 2017 revision) of the FDOT PD&E Manual. The contamination rating system is divided into four degrees of risk: No, Low, Medium and High. This system expresses the degree of likelihood for potential contamination problems that may impact project construction:

No. A review of available information on the property and a review of the conceptual or design plans indicates there is no potential contamination impact to the project. It is possible that contaminants had been handled on the property. However, findings from the contamination screening evaluation or sampling and testing results indicate that contamination impacts are not expected.

Low. A review of available information indicates that former or current activities on the property have an ongoing contamination issue, has a hazardous waste generator ID number, or handles hazardous materials in some capacity. However, based on the review of conceptual or design plans and/or findings from the contamination screening evaluation or sampling and testing results, it is not likely that there would be any contamination impacts to the project.

Medium. After a review of conceptual or design plans and findings from a contamination screening evaluation or sampling and testing results, a potential contamination impact to the project has been identified. If there is insufficient information (such as regulatory records or site historical documents) to make a determination as to the potential for contamination impact, and there is reasonable suspicion that contamination may exist, the property should be rated at least as a "Medium". Properties used historically as gasoline stations and which have not been evaluated or assessed by regulatory agencies, sites with abandoned in place underground petroleum storage tanks or currently operating gasoline stations should receive this rating.

High. After a review of all available information, there is appropriate analytical data that shows contamination will substantially impact construction activities, have implications to right of way acquisition or have other potential transfer of contamination related liability to the FDOT.

3 Land Use

The existing land uses within the project area were identified through the interpretation and review of the FDOT District Four Generalized Land Use (2015) GIS layer.

The I-95 corridor and intersecting arterials are designated as transportation land use. The area to the east of I-95 is primarily residential land use with some commercial along the major arterials. The area west of I-95 is dominated by commercial and industrial land uses, with some public/semi-public state-owned lands. Existing land use, including acreage by land use type, is depicted in **Figure 3-1**.

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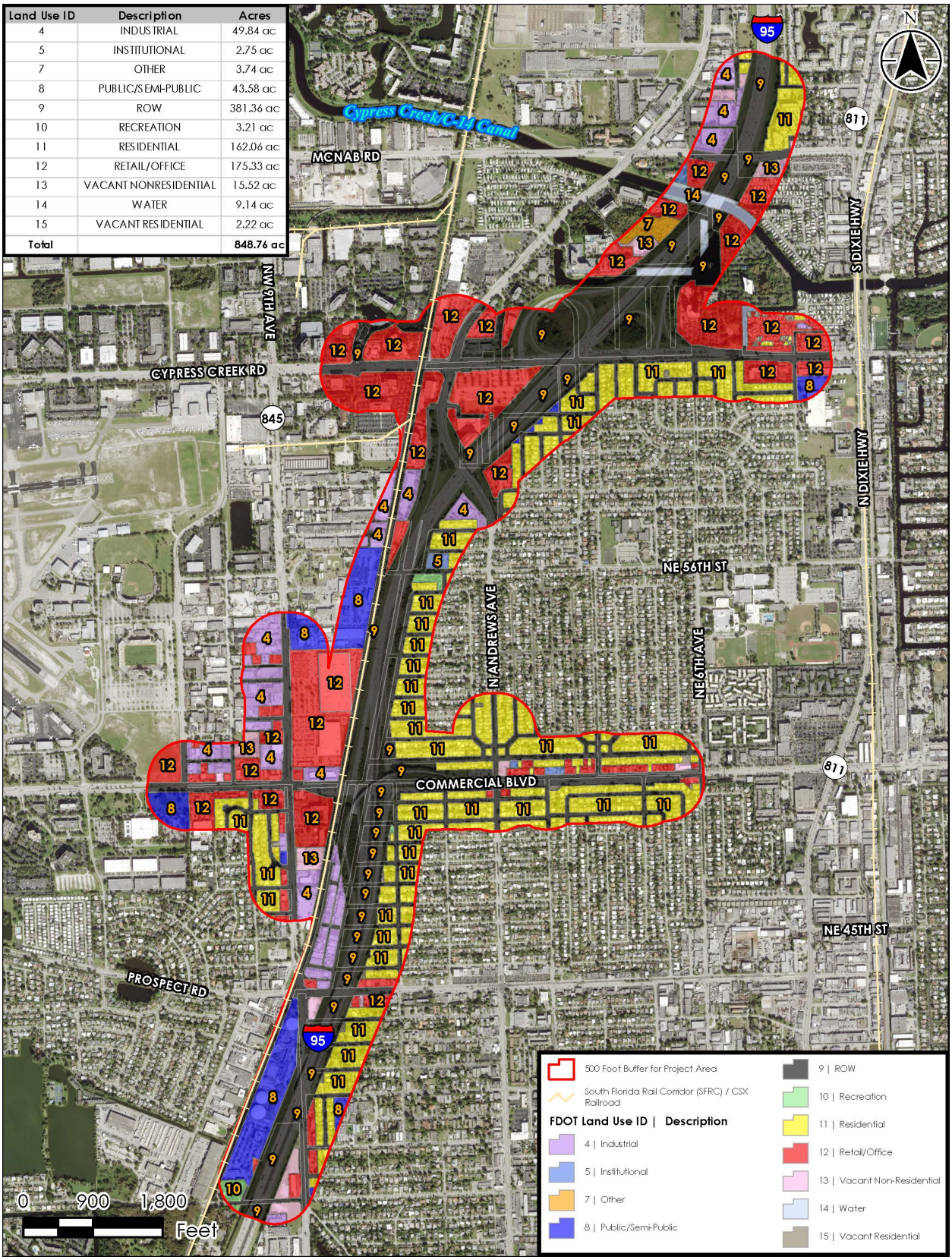

Figure 3-1 Existing Land Use

4 Hydrology

4.1 Regional Geology

In Broward County, the surficial aquifer is composed of sediments from the Pliocene and Pleistocene Epochs. The geological units generally observed from the land surface down include the Pamlico Sands, Miami Oolite, Anastasia Formation, Key Largo Limestone, Fort Thompson Formation, Caloosahatchee Marl, and the Tamiami Formation. The above stratigraphic sequence does, however, vary depending on the area. The geological units are primarily composed of sandstone, limestone, sand, shell, limemud, silt, and clay.

4.2 Regional Hydrogeology

The shallow aquifer system in Broward County is a water table aquifer commonly referred to as the Biscayne Aquifer. The Biscayne Aquifer is a hydrologic system that crosses stratigraphic contacts and is limited by the hydraulic properties of the rock units it contains. The wedge-shaped aquifer is thickest along the coastline where it may exceed 400 feet in some areas. In the project area, the wedge-shaped aquifer is approximately 300 feet thick and thickens towards the east. In this area, the regional groundwater flow is towards the east and the water table generally lies approximately six to ten feet below land surface. The Biscayne Aquifer is classified by the State of Florida as a G-II aquifer, which is groundwater characterized as having potable water source potential.

4.3 Water Supplies

The proximity of the project corridor to public wellfields was investigated. According to the Broward County Existing Wellfield Protection Zone Map (2016) (see **Figure 4-1** Broward County Wellfield Map), the project is located approximately 0.4 mile east of the City of Ft. Lauderdale (Executive) wellfield. Facilities that store, use, handle or produce regulated substances in the wellfield zones are required to obtain a Hazardous Material Wellfield License and are routinely inspected by the County. The license requires recordkeeping, notifications, training, groundwater and raw water monitoring and a spill contingency plan. The handling and use of regulated substances when used for paving road surfaces is exempt from licensing requirements. Additionally, reclaimed water and untreated water cannot drain to the ground or be allowed to flow to within 100 feet from an existing water well.

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Broward County Wellfield Map

Broward County Board of County Commissioners Chapter 27- Article XIII Rule of 6/11/2013

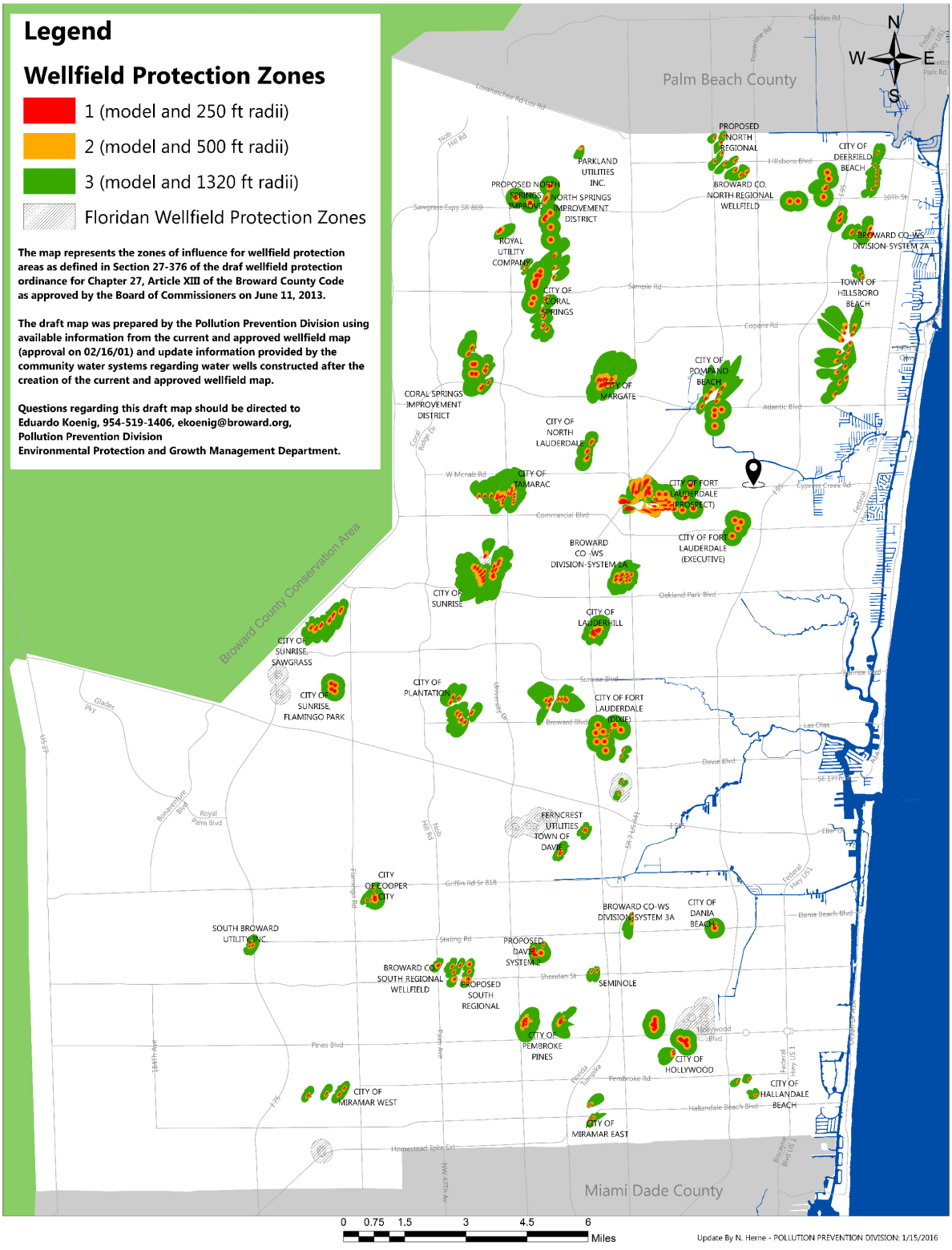


Figure 4-1 Broward County Wellfield Map

5 Project Impacts & Regulatory Status of Sites

The project was reviewed through the FDOT Efficient Transportation Decision Making (ETDM) process where members of the Environmental Technical Advisory Team (ETAT) provide input/comments. The ETDM Screening Summary Report (No. 14222) is on file at the District. The EPA assigned a Substantial degree of effect for contaminated sites, recommending site specific surveys to assess existing contamination plumes at RCRA regulated sites, solid waste facilities, and STCM facilities within one-quarter mile of the site, and identify potential impacts associated with project-related subsurface activities. Consistent with EPA's recommendations, during this evaluation, attention was paid to existing contamination that may have an effect on the proposed project (see section **5.3 Site History**).

The FDEP identified many regulated facilities within 500 feet of the project and FDEP commented that the FDOT's *Special Provisions for Unidentified Areas of Contamination* should be included in the project's construction contract documents in the event any hazardous material or suspected contamination is encountered during construction. These provisions will be provided in the proposed project's construction contract documents (see section **6.0 Recommendations**).

The FDEP further commented that historical land uses of the project area, such as soil waste disposal, should be evaluated, and should include historical land uses of proposed stormwater retention and treatment areas. Consistent with the FDEP's recommendations, during this evaluation, attention was paid to historical land uses that may have an effect on the proposed project (see section **5.2 Historical Aerial review** and **5.3 Site History** below).

The South Florida Water Management District (SFWMD) commented that a general permit is available in rule 40E-2.061(2), FAC. However, if dewatering is necessary and the project does not qualify for the general permit, a water use permit from the SFWMD will be required (see **Section 6.0 Recommendations**).

5.1 Review of Previous FDOT Studies

FDOT District Four conducted Level II Evaluations in association with SR 9/I-95 Phase 3A-1 and Phase 3A-2. The limits of these projects overlap within the project corridor. The results of the Level II Evaluations were documented in Impact to Construction Report/Soil Management Plans, which are on file with the District. A review of the documents identified the following:

The February 5, 2015 Impact to Construction Report/Soil Management Plan for SR 9/I-95 Phase 3A-1 from South of Broward Boulevard to north of SR 870/Commercial Boulevard identified four areas of soil contamination, labeled Soil Management Zones (SMZ) 1 through 4. Review of these SMZs confirmed that they are located outside of the area of this project and therefore do not present a risk to the project. General locations of the SMZs are provided below. For additional details, please refer to the February 5, 2015 Impact to Construction Report/Soil Management Plan for SR 9/I-95 Phase 3A-1 on file with the District.

- SMZ-1 is not located within 500 feet of this project. SMZ-1 is located north of Sistrunk Boulevard in the west I-95 right of way, adjacent to the rail corridor and salvage yard between NW 6 Place and NW 7 Court. SMZ-1 is located approximately 4.25 miles south of Commercial Boulevard.

- SMZ-1 is not located within 500 feet of this project. SMZ-2 is located north of Sistrunk Boulevard in the east I-95 right of way, adjacent to the property at the west end of NW 7 Street. SMZ-2 is located approximately 4.25 miles south of Commercial Boulevard.
- SMZ-3 and -4 are not located within 500 feet of this project. SMZ-3 and -4 are located north of NW 19 Street in the east I-95 right of way, adjacent to an industrial property. SMZ-3 and -4 are located approximately 2.7 miles south of Commercial Boulevard.

The April 2015 Impact to Construction Report Management Plan for I-95 Express Phase 3A-2 from north of SR 870 Commercial Boulevard to SR 869 SW 10th Street identified two areas of soil contamination, labeled SMZ-1 and -2; one area of groundwater contamination, labeled GMZ-3; and two areas of contaminated sediments. Of these areas, only SMZ-1 and the sediment sample locations are within 500 feet of the project and, therefore, are shown in **Figure 5-1**. General locations of the identified areas are provided below. For additional details, please refer to the February 5, 2015 Impact to Construction Report/Soil Management Plan for SR 9/I-95 Phase 3A-1 on file with the District.

- SMZ-1 is located in the west I-95 right of way along North Andrews Way. The southern limit of SMZ-1 is in line with the southern edge of an industrial building between the rail corridor and North Andrews Way, and the northern limit of SMZ-1 is just south of the start of the I-95 ramp from North Andrews Ave (see **Figure 5-1**). Soils in this area have been documented to contain benzo(a) pyrene and equivalents in excess of the FDEP Soil Cleanup Target Levels (SCTLs) for residential land use.
- SMZ-2 is not located within 500 feet of this project. SMZ-2 is located north of West Sample Road in the west I-95 right of way between NW 41 Street and NW 41 Court. SMZ-2 is located approximately 5.75 miles north of Cypress Creek Road.
- GMZ-3 is not located within 500 feet of this project. GMZ-3 is located south of West Copans Road in the west I-95 right of way. SMZ-2 is located approximately 3.5 miles north of Cypress Creek Road.
- Sediment samples collected from the SFWMD C-14 canal (see **Figure 5-1**), which passes beneath I-95 just north of Cypress Creek Road, indicated benzo(a)pyrene and equivalents exceed the FDEP SCTLs for industrial land use.

While asbestos and lead based paint (LBP) surveys were not conducted as part of this PD&E Study, available asbestos containing material (ACM) and LBP surveys that were previously conducted on bridges within the current PD&E Study area are included in **Table 5-1 Summary of Asbestos and Lead Based Paint Testing Results**. None of the samples collected and analyzed yielded positive ACM or hazardous concentrations of lead-based paint; however, lead was identified at non-hazardous concentrations in paint from bridge #860128, I-95 Southbound over NW 9 Avenue/Powerline Road and bridge #860198, I-95 Northbound over NW 9 Avenue/Powerline Road.

Table 5-1
Summary of Asbestos and Lead Based Paint Testing Results

Bridge Location	Bridge #	Direction	ACM Detected	Lead Based Paint Detected
NW 38 Street	860127	SB I-95	No ACM	Concrete
	860197	NB I-95		
NW 9 Avenue	860128	SB I-95	No ACM	Non-Hazardous
	860198	NB I-95		
Prospect Road	860129	SB I-95	No ACM	Concrete
	860199	NB I-95		
SR870/Commercial Boulevard	860130	SB I-95	No ACM	Concrete
	860196	NB I-95		
	860131	WB 870 to SB I-95	No ACM	
Over I-95	860237	NB/SB North Andrews Avenue	No ACM	Concrete
Cypress Creek Road	860239	SB I-95	No ACM	Concrete
	860240	NB I-95		
McNab Road	860241	SB I-95	No ACM	Concrete
	860242	NB I-95		
C-14 Canal	860243	SB I-95	No ACM	Concrete
	860244	NB I-95		

5.2 Historical Aerial Review

Available historical aerial photography from 1968 to the present was reviewed to identify previous and current land uses which may have the potential to adversely impact implementation of the recommended build alternative. **Table 5-2** contains a summary of the historical aerial review and **Appendix C** contains aerial photographs of the project study area.

Table 5-2
Historical Aerial Review

Year	Project Area Land Use Description
1958	I-95 has not been constructed. Residential and commercial developments have been constructed and additional lands have been cleared for further development.
1968	The area east of I-95 is developed with dense residential housing. The area west of the railroad line is moderately developed with commercial property. Additional small undeveloped parcels have been developed into residential housing.
1973	The area in the northeast of I-95 continues to be developed with residential housing. The commercial area to the west of I-95 appears completely developed. The area to the west of the railroad tracks has been developed with commercial properties.
1981	Construction of I-95 appears completed. Commercial properties are developed along the perimeter of SW ingress and egress ramps to Cypress Creek Road. A fly over connection to SR 870/Commercial Boulevard has been constructed.
1992	The areas to the north and west of the Cypress Creek Road interchange have been developed with additional commercial properties.
2002	The area to the west of the Cypress Creek Road has been developed with additional commercial properties and parking lots, otherwise there are no significant changes from the previous aerial photo. The area to the northwest of Cypress Creek Road appears to have additional commercial properties and parking lots.
2006 and 2015	No significant changes from previous aerial photos.

5.3 Site History

The potential contamination sites located within 500 feet of the project are identified in **Figure 5-1** and **Figure 5-2 and summarized in Table 5-3 and Table 5-4**. The Potential Contamination Sites table (**Table 5-4**) provides a summary of the evaluation for each site and the risk rating assignments. Additionally, solid waste facilities within one-quarter mile, and Superfund/Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites within one mile of the project were identified. Three solid waste sites were identified: FDOT Powerline Road Dump/DOT Dump Site 1 (Site #20); Spectrum Properties (Site #36); and FDOT Cypress Creek Staging Area (Site #6). These facilities are rated as Low risk, except for the FDOT Powerline Road Dump (DOT Dump Site 1), which is rated as High risk. Fourteen superfund sites (Sites 41 through 54) were identified within one mile of the project and identified in **Figure 5-3**. Detailed descriptions of these facilities are included below. This evaluation revealed zero **No** risk sites, 40 **Low** risk sites, 7 **Medium** risk sites, and 7 **High** risk sites (discussed below). **Low** risk sites do not hold an active industrial waste or storage tank permit, or the permit file contains no indication of current or prior contamination issues. Please see **Appendix D** for regulatory files for High and Medium risk sites.

Table 5-3
Number of Potentially Contaminated Sites for Recommended Build Alternative

Project Alternative	Contamination Risk			
	No	Low	Medium	High
1A-6	0	40	7	7

Site #1
Radice Center III
1000 Corporate Drive
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9800345

This facility operates as Office Space for Lease. The property is located adjacent to the east I-95 right of way, just south of the C-14/Cypress Creek Canal. The property is approximately 400 feet beyond the northern project limits of I-95 and proposed widening of the NB on-ramp. No right of way acquisition is proposed for this property or any adjacent properties. The facility utilizes one 550-gallon capacity underground storage tank (UST) to fuel an emergency generator. The installation date could not be found in the FDEP files available for review. No discharges are documented. Due to its current status, the assigned risk rating for this site is **LOW**.

Site # 2
Westin Hotel Cypress Creek
400 Corporate Drive
Ft. Lauderdale, Florida 33334
FDEP Facility ID: 9202030

This property is located adjacent to the east right of way of I-95 between Cypress Creek Road and the C-14/Cypress Creek Canal, and the Cypress Creek Road right of way between the I-95 NB on-ramp and Corporate Drive. The property is adjacent to proposed widening of the NB I-95 on-ramp and roadway improvements along Cypress Creek Road, and a strip of right of way is proposed for acquisition at this address. This facility has one 2,500-gallon emergency generator diesel UST in operation. On July 1, 1999, one 2,000-gallon emergency generator diesel UST was removed from this site and a Discharge Reporting Form (DRF) was filed with FDEP, documenting the discharge of petroleum product. On August 9, 1999, a Tank Closure Assessment Report (TCAR) was submitted that documented the removal of petroleum-impacted soil and 57,000 gallons of groundwater. Analysis of groundwater samples from four monitoring wells (MWs) did not detect petroleum constituents of concern in excess of the FDEP Groundwater Cleanup Target Levels (GCTLs). On August 2, 2002, the case was closed and a Site Rehabilitation Completion Order (SRCO) was issued by FDEP based on the May 21, 2002 Site Assessment Report findings. The most recent Storage Tank Facility Annual Compliance Site Inspection report, dated December 2014, shows this facility as in compliance. Based on the current regulatory status of this facility, its risk ranking is **LOW**.

Site # 3
Park Plaza
6400 North Andrews Avenue
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9700341

This facility operates as Office Space for Lease. The property is located adjacent to the west right of way of I-95 and utilizes one 350-gallon capacity UST, installed in 1987, to fuel an emergency generator. No discharges are documented. No right of way acquisition is proposed for this property or any adjacent properties. Due to its current status, the assigned risk rating for this site is **LOW**.

Site # 4
CLW Realty Asset Group / Pinnacle Corporate Park Phase 1
500 West Cypress Creek Road
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9046144 / 9102465

This facility operates as Office Space for Lease. The property is located adjacent to the south side of Cypress Creek Road and the west side of the railroad, approximately 2,000 feet west of I-95. Proposed roadway improvements along Cypress Creek Road are adjacent to this property, and a strip of right of way acquisition is proposed. This facility utilizes one 1,000-gallon capacity underground diesel generator tank, which was installed in 1986. The most recent FDEP Storage Tank Facility Annual Compliance Site Inspection Report, dated October 2016, shows the facility as in compliance. Due to the current regulatory status, the assigned risk rating for this site is **LOW**.

Site # 5
Hess Truck Spill
Railroad Crossing at Cypress Creek Road and Andrews Avenue
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9402004

This site is located within FDOT right of way, and within the limits of construction, at the railroad crossing at Cypress Creek Road and Andrews Avenue. A strip of right of way acquisition is proposed for the property adjacent to the north side of Cypress Creek Road at this location. The site is the location of a 1994 petroleum tanker truck spill. A Monitoring Only Plan was approved for this site and ultimately demonstrated to FDEP that GCTLs were achieved. A Site Rehabilitation Completion Report was approved for this site in October 1997. Based on the current status of this site, the assigned risk rating is **LOW**.

Site # 6
FDOT Cypress Creek Staging Area
Between I-95 and Andrews Avenue
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 8622524

This property is located adjacent to the south side of Cypress Creek Road, between I-95 and Andrews Avenue. Proposed roadway improvements along Cypress Creek Road and North Andrews Avenue are adjacent to this property; however, no right of way acquisition is proposed for this property or any adjacent properties. The property functions as a park and ride facility and

is a proposed disaster debris (hurricane/storm-generated debris and all other types of disaster debris) management site. The site is currently not in use as a debris management site and there is no history of contamination. Due to the nature of its current operation, the assigned risk rating for this site is **LOW**.

Site# 7
Broward Trade Centre
200 West Cypress Creek Road
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9402000

This facility operates as Office Space for Lease. This property is located adjacent to the south side of Cypress Creek Road, between the railroad and North Andrews Avenue. Proposed roadway improvements along Cypress Creek Road are adjacent to this property, and a strip of right of way acquisition is proposed for this site. Per regulatory records, a DRF was filed on June 24, 1996, when petroleum products were detected in the groundwater samples when one 500-gallon diesel UST for the emergency generator was replaced with one 500-gallon aboveground storage tank (AST). The tank pit was over-excavated to remove suspected contaminated soil. Suspected free-product was recovered with absorbent pads. Analysis of groundwater samples collected from three MWs indicated the presence of chloroform and methylene chloride in one well. These compounds were suspected to be from cross contamination during laboratory and/or well installation activities. No petroleum compounds were detected above GCTL. In 2012, the FDEP issued a memorandum stating their concurrence with Broward County that the 1996 discharge was addressed, and No Further Cleanup is Required (NREQ). Based on the information, the risk rating for this site is **LOW**.

Site # 8
Florida Department of Transportation
Carmen Siding
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9200481

This property is located approximately 350 feet west of the North Andrews Avenue southbound on-ramp to I-95 in area of the Tri-Rail Cypress Creek Station. No right of way acquisition is proposed for this property or any adjacent properties. In 1992, this facility reported a diesel spill along the railroad attributed to vandalism. There is no documented resolution to this contamination issue. Therefore, the assigned risk rating for this site is **MEDIUM**.

Site # 9
Trade Centre South #920
100 West Cypress Creek Road
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9402001

This facility operates as Office Space for Lease. The property is located between the railroad and North Andrews Way, adjacent to and south of the Tri-Rail Cypress Creek Station, approximately 200 feet west of I-95. Roadway improvements to North Andrews Avenue and the SB I-95 on-ramp are proposed approximately 200 feet from this property, and no right of way acquisition is proposed for this property or any adjacent properties. This facility utilized one 500-gallon capacity

generator UST, installed in 1983. This tank was removed in 1996 and replaced with an aboveground tank. No evidence of contamination was found in the files for this facility. Based on the current status of this site, the assigned risk rating is **LOW**.

Site # 10
Marathon Cypress Creek #581
850 East Cypress Creek Road
Ft. Lauderdale, Florida 33309
FDEP ID: 8501797

This site is currently occupied by an active retail gas station at the southwest corner of NE 9 Avenue and East Cypress Creek Road. There are roadway improvements proposed along Cypress Creek Road adjacent to this site; however, no right of way acquisition is proposed for this property or any adjacent properties. The site formerly contained one 8,000-gallon and one 6,000-gallon unleaded gasoline UST and two 6,000-gallon leaded gasoline USTS. These tanks were removed in May 1988 and replaced with four 10,000-gallon unleaded gasoline USTs. These USTs were removed in April 2010 and replaced with the current UST system which includes one 12,000-gallon and two 10,000-gallon unleaded gasoline USTs.

A DRF and Early Detection Incentive (EDI) program application (State-funded contamination assistance) were submitted for a discharge discovered in April 1988. The discharge was discovered after free-product was detected in MW-2 during a compliance inspection. The site was deemed eligible for EDI and a Contamination Assessment Report (CAR) was submitted documenting the removal of free product via bailer and the installation and sampling of additional groundwater MWs. According to reports submitted to the County and FDEP, 258 tons of petroleum-impacted soil were disposed, and the CAR was approved in April 1989. A Remedial Action Plan (RAP) was submitted in 1990 for the installation of a pump and treat system, and the RAP was approved in 1991. The remedial system was operated at the site from 1992 to 1995. Groundwater and soil sampling was recently re-initiated at the site and the most recent report on file, dated February 2017, states that soil samples indicate petroleum constituents of concern exceed the FDEP SCTLs for leachability and direct exposure, and petroleum constituents in groundwater samples from MW-14 and 19 (former UST area, northwest corner of site) exceed FDEP GCTLs. This site is awaiting further state-funded remediation but is currently unfunded. Due to the site's current status as contaminated, and the presence of active fuel tanks onsite, the assigned risk rating is **HIGH**.

Site # 11
Jiffy Lube #751
901 East Cypress Creek Road
Ft. Lauderdale, Florida 33309
FDEP ID: 8943812

This site operates as a Jiffy Lube oil change facility in the northeast corner of Cypress Creek Road and NE 9 Avenue. The property is approximately 100 feet beyond the eastern project limits and proposed roadway improvements along Cypress Creek Road. No right of way acquisition is proposed for this property or any adjacent properties. The facility is registered with FDEP and the County to store new and used oil and transmission fluid. The most recent Broward County Hazardous Materials inspection was conducted in July 2017. No violations were listed for the inspection and the Broward County Enviros database has the site ranked as a low risk site. A 1992 Storage Tank Registration Form indicates that nine (9) ASTs were installed in November 1987 within

an enclosed building. The tanks are used to store new oil, waste oil, and antifreeze. Because the tank capacities are 500 gallons or less, the site is no longer registered with FDEP.

No violations are indicated in the available files and the Broward County hazardous materials inspector for the site considers the site low risk. Therefore, this site is assigned a **LOW** risk rating.

Site # 12
Cypress Centre
6600 North Andrews Avenue
Ft. Lauderdale, Florida 33309
FDEP ID: 9400383

This facility, which now operates as the Zimmerman Jaguar dealership, is located adjacent to the northwest quadrant of the I-95 interchange at Cypress Creek Road, and approximately 550 feet west of proposed improvements to the northbound I-95 off-ramp at Cypress Creek Road. No right of way acquisition is proposed for this property or any adjacent properties. A discharge of 25 to 30 gallons of diesel fuel associated with an onsite 500-gallon generator tank was reported in September 1994. The discharge from the AST was determined to be caused by a loose fitting which was replaced. Contamination assessment and source removal activities were conducted at the site. No free product was observed. Approximately 25 pounds of contaminated soil were segregated and disposed.

A second 3,000-gallon diesel generator AST was installed at the site in 2013. This second AST is located inside within concrete containment and no violations were noted in the file. Based on this site's history of petroleum contamination, source removal, and current status as in compliance, the assigned risk rating for this site is **LOW**.

Site # 13
Executive Cleaners / Nu-Look 1 Hour Cleaners #47
900 NE 62 Street
Oakland Park, Florida 33334
FDEP ID: 9501132

This facility currently operates as Executive Cleaners, a dry-cleaning facility, in the southeast corner of the Cypress Creek Road intersection with NE 9 Avenue. The property is approximately 150 feet beyond the eastern project limits and proposed roadway improvements along Cypress Creek Road. No right of way acquisition is proposed for this property or any adjacent properties. The facility had chlorinated solvent contamination based on 1996 soil sampling. In 1997, FDEP found this facility to be eligible for the state-funded Drycleaner Solvent Cleanup Program and was issued a priority score of 29. Broward County lists this site as in compliance and a Hazardous Materials License was renewed on July 10, 2017. No further assessment or remediation information was found in the files. Based on this information, this site is assigned a **MEDIUM** risk rating.

Site # 14
Cypress Creek Cleaners
821 NE 62 Street / 899 NE 62 Street
Oakland Park, Florida 33334
FDEP ID: 9600178
FLD066357377

The facility is in the agency databases under two addresses 821 NE 62 Street and 899 NE 62 Street. Both addresses correspond to storefronts within the building located at 801 NE 62 Street, adjacent to the north side of Cypress Creek Road. There are roadway improvements proposed along Cypress Creek Road adjacent to this site; however, no right of way acquisition is proposed for this property. A strip of right of way acquisition is proposed for the property adjacent to the west. The building currently houses three non-regulated businesses and has a fourth storefront (easternmost) available for lease. According to a site plan from agency files, Cypress Creek Cleaners was located between two of the non-regulated businesses (a package store and a food mart). It appears that the space formerly occupied by Cypress Creek Cleaners has been taken up by one of the adjacent businesses. Cypress Creek Cleaners is no longer in operation.

A 1996 FDEP Site Screening Report Form documented tetrachloroethene within the soils behind the back door of the facility (north side of building) at a concentration of 7.21 ug (four-foot depth). In 1997, FDEP found the facility to be eligible for the state-funded Drycleaner Solvent Cleanup Program and issued a priority score of 30. No further assessment or remediation information was found in the files. Based on this information, this site is assigned a **MEDIUM** risk rating.

Site # 15
Sheraton Suites
555 NW 62 Street
Ft. Lauderdale, Florida 33309
FDEP ID: 9502688

This facility, adjacent to the north side of Cypress Creek Road on the east side of the railroad, operates as a hotel. There are roadway improvements proposed along Cypress Creek Road adjacent to this site, and a strip of right of way acquisition is proposed at this address. Agency files documented two 150-gallon hydraulic fluid ASTs (associated with the indoor elevator) and one 550-gallon diesel generator UST onsite, installed in 1985. A DRF was filed in response to a leak from a hydraulic fluid line beneath the facility elevator in 1995. The impacted soil and water were recovered and properly disposed of according to FDEP and Broward County files. The UST was removed and replaced with a new double walled UST in March 1999. Diesel odor was noted during the tank removal, but no contamination was documented. Based on this facility's current regulatory status, this site is assigned a **LOW** risk rating.

Site # 16
Poopie Doll Florist
899 NE 62 Street
Oakland Park, Florida 33334
FDEP ID: 9803473

This site is adjacent to the north side of Cypress Creek Road at NE 9 Avenue. There are proposed roadway improvements proposed along Cypress Creek Road adjacent this facility. No right of way acquisition is proposed for this property, or any adjacent properties. A 550-gallon underground waste oil tank was housed at this site, but the tank was removed in December 2000 when the site was occupied by a florist. No contamination was noted in the FDEP file. The site is currently occupied by a restaurant and no longer requires contaminant regulation.

Although this site previously housed a waste oil UST, the tank was removed and there was no indication of contamination in the file. The facility no longer handles contaminants of concern.

There are roadway improvements proposed along Cypress Creek Road adjacent to this site; however, no right of way acquisition is proposed for this property or any adjacent properties. Therefore, this site is assigned a **LOW** risk rating.

Site # 17
Cypress Radiology Center
800 East Cypress Creek Road, Suite 100
Ft. Lauderdale, Florida 33334
EPA ID: FLR000024414

This site is located along the south side of Cypress Creek Road, between NE 7 Avenue and NE 9 Avenue. There are roadway improvements proposed along Cypress Creek Road adjacent to this site, and strips of right of way acquisition are proposed at this address and at the property adjacent to the west. The facility operates as an office building, with Advanced Wellness chiropractic office occupying the former office of Cypress Radiology Center since 2003. According to a 1996 EPA Notification of Regulated Waste file, Cypress Radiology Center generated 100 to 1,000 kilograms of hazardous waste silver per month and was registered with the FDEP as a hazardous waste small quantity generator. Waste was hauled offsite for disposal, and no violations were noted. Based on this facility's regulatory status and current non-regulated status of the site, this site is assigned a **LOW** risk rating.

Site # 18
Powertrain Rebuilders, Inc.
897 ½ East Cypress Creek Road, Suite 100
Oakland Park, Florida 33334
EPA ID: FLD98423894

1992 FDEP files show this facility, adjacent to the north side of Cypress Creek Road, operated as an automotive repair shop and registered small quantity generator of hazardous waste (100 to 1,000 kilograms per month). There are roadway improvements proposed along Cypress Creek Road adjacent to this site, and no right of way acquisition is proposed for this property. However, a strip of acquisition is proposed for the property adjacent to the west. Agency files indicated the facility shared a storefront with Cypress Creek Cleaners (Site 14, above). A 2012 Broward County inspection report documented that the facility was no longer in operation and that the address was no longer in use. There were no other files available for the site from agency records. There are no records indicating that this facility had any discharges or violations. However, due to the facility's operation location and sharing of an address with Site 14 above, which had documented contamination, this site is assigned a **MEDIUM** risk rating.

Site # 19
Broward Water Property
300 NW 56 Street
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9300096

This property is adjacent to the east I-95 right of way, west of NW 3 Avenue at the western terminus of NW 56 Street. This site is approximately 250 feet east of proposed roadway improvements along the southbound I-95 on-ramp. The property is currently owned and operated by the City of Oakland Park as North Andrews Gardens Neighborhood Park. No right of way acquisition is

proposed from this property or any adjacent properties. The regulatory files are limited to three versions of the same Storage Tank Registration Form, one of which shows that a 150-gallon tank owned by the Broward County Water Department Office of Environmental Services was installed in December 1968 and removed in September 1993. Based on a review of historical aerials, as of 1958 this property was operating as a facility with ASTs of unknown contents. Given the prior ownership by the Broward County Water Department, the facility may have been utilized for water storage or waste water treatment. The 1981 aerial shows little change at the site, while the 1992 aerial shows significant changes. No tanks are evident, and the structures have been altered or reconstructed. The 1995 historical view from Google Earth, shows the property completely razed with signs of revegetation. A sales deed dated August 30, 2005 from the Broward County Property Appraiser's website shows the property was transferred from Broward County to the City of Oakland Park for exclusive use as a public park. These documents further contain a note that the property was formerly transferred from Broward County Water to Broward County Parks through a letter of understanding. The agency files indicate that the potential contamination source has been removed from this property which currently functions as a neighborhood park and there are no indications of contamination discharges. Therefore, the assigned risk rating is **LOW**.

Site # 20
FDOT Operations Center / DOT Powerline Road Dump (DOT Dump Site 1)
5548 NW 9 Avenue
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 8622445

This property is located between and adjacent to Powerline Road and the railroad, south of NW 56 Street. The property is approximately 125 feet north of the project limits on Powerline Road and approximately 85 feet west of I-95. No right of way acquisition is proposed from this property or any adjacent properties. This property is the former site of a waste disposal facility, which operated prior to 1970. The waste disposal facility has since closed, and no further remedial action is required by the County.

This site later housed the servicing and refueling facilities for public agencies including FDOT. Per regulatory records, in May 1984, 103 drums containing paint wastes from undocumented activities were removed from areas east of the hazardous materials storage building, and east of the crew building. The FDEP prepared a Preliminary Assessment Report for the site in 1985 and a Site Screening Investigation Report in 1988 which determined that one of the on-site gasoline USTs was leaking. The UST was subsequently removed from service by FDOT.

In 1989, a Contamination Assessment Report (CAR) was submitted, with addenda completed in 1997 and 2001. Elevated levels of trichloroethylene (TCE), chromium, and lead were detected in three on-site MWs centered near the fuel dispensing area. A 1989 RAP proposed a groundwater treatment system (GWTS) and a soil vapor extraction system (SVES) for the treatment of hydrocarbon contaminated groundwater and soil vapor from affected areas of the site. The system was installed, and modifications were implemented after Remedial Action Plan Addenda (RAPA) were approved in 1990 and 1994 addressing higher dynamic influent concentrations detected during system startup. The modified GWTS and SVES installation were completed and commissioned for operation in October of 1994. In 1992, four USTs (two 8,000-gallon unleaded gasoline USTs, one 6,000-gallon diesel UST, and one 600-gallon waste oil UST) were removed from the site.

In October of 2005, the original air stripping tower was removed, dismantled, disposed, and replaced with a similar air stripping tower from the FDOT Treasure Coast Operations Center in January of 2006. Once on-site, the original tower blower, chemical feed system and the groundwater recovery pumps were connected to the replacement tower. The system components were checked, and the groundwater treatment system was restarted. Also, in 2006, one 600-gallon waste oil UST was removed from the site.

To fully delineate the groundwater concentration plume for the original release, five additional MWs were installed in March of 2007. A 2007 RAP Modification-III was prepared for the installation of a trailer-mounted remedial system. In November of 2007, the trailer-mounted remedial system was activated to accelerate the remediation at the site. In November of 2007 the original Air Sparge (AS) compressor and SVE blower were decommissioned and the trailer-mounted system was activated for continuous operation.

In 2009, three 10,000-gallon USTs were installed at this site, which were subsequently removed in 2010. In 2009 a RAPM-IV was submitted to FDEP to replace the AS wells at the site. A System Start-Up Report/RAPM-V was submitted to FDEP in 2011. In November of 2013 two (2) double-walled 10,000-gallon capacity fiberglass USTs used for storage of unleaded gasoline and one (1) double-walled 10,000-gallon capacity fiberglass UST used for storage of diesel fuel were removed from the Site. According to the TCAR, no contamination was reported for the vadose zone soils or groundwater.

Years 1 through 21 Active Remediation Annual Status Reports have been submitted to FDEP documenting the active remediation activities at the site. The objective of these reports is to summarize the O&M activities at the site. The most recent Remedial Action Status Report available for review in FDEP's files is for Year 21 and is dated January 29, 2016. During the December 2015 sampling event, no compounds were detected in the groundwater at the site above the FDEP's Natural Attenuation Default Concentrations (NADCs). A dissolved Volatile Organic Compound (VOC) and Polynuclear Aromatic Hydrocarbon (PAH) contaminant plume is currently centered around the new recovery well RW-4 and MWs WRS-3R and WRS-18R. A second dissolved PAH contaminant plume is located on the west side of the site and is currently centered around MW FLM-1. Due to the documented presence of petroleum contamination in the groundwater at the site, the risk rating for this site is **HIGH**.

Site # 21
AAA Fleet Service
5475 NW 9 Avenue
Ft. Lauderdale, Florida
FDEP Facility ID: 068840521

This facility currently operates as a repossession and towing agency. The property is located adjacent to the west side of Powerline Road, south of NW 56 Street. The property is approximately 425 feet beyond the northern project limits and roadway improvements proposed along Powerline Road. No right of way acquisition is proposed at this property or any adjacent properties. This facility had one 275-gallon capacity UST which was removed in 1991. There are currently no tanks onsite and no documented contamination. Due to the current regulatory status, the assigned risk rating for this site is **LOW**.

Site # 22
Mac's Towing Service
5425 North Powerline Road
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9100475

This facility currently operates as an auto body and paint shop. The property is located adjacent to the west side of Powerline Road, between NW 53 Court and NW 56 Street. The property is approximately 250 feet beyond the northern project limits and roadway improvements proposed along Powerline Road. No right of way acquisition is proposed from this property or any adjacent properties. The facility formerly utilized one 10,000-gallon capacity underground fuel tank that was installed in 1987. An Underground Storage TCAR was prepared in 2001, which documented groundwater contamination at the site. Subsequent groundwater sampling did not reveal exceedances of the FDEP GCTLs. Therefore, the County granted No Further Action (NFA) status to the site in 2001. Due to the current regulatory status, the assigned risk rating for this site is **LOW**.

Site # 23
Broward County Sheriff's Office - Stockade
5400 North Powerline Road
Ft. Lauderdale, Florida
FDEP Facility ID: 069101939

This property is located adjacent to and between Powerline Road and the railroad, north of NW 53 Court. The property is approximately 100 feet beyond the northern project limits and roadway improvements proposed along Powerline Road. No right of way acquisition is proposed at this property, but a minor strip of right of way acquisition is proposed from the property adjacent to the south. This facility previously utilized one 1,000-gallon capacity underground diesel generator tank, which was closed in place in May 2010. A TCAR, documenting no contamination was detected, was approved in July 2010. Due to the current regulatory status, the assigned risk rating for this site is **LOW**.

Site # 24
Xtreme Indoor Karting LLC
5300 North Powerline Road
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9808233

This property is located adjacent to and between Powerline Road and the railroad, at NW 53 Court. There are roadway improvements proposed along Powerline Road adjacent to this site, and a strip of right of way acquisition is proposed from this property. This facility utilizes one 500-gallon capacity AST, installed in 2006, containing gasoline. No discharges are documented. Due to its current status, the assigned risk rating for this site is **LOW**.

Site # 25
Thompson Office Equipment
5301 NW 9 Avenue
Ft. Lauderdale, Florida 33310
FDEP Facility ID: 8838264

This property is located adjacent to the west side of Powerline Road between NW 53 Street and NW 53 Court. There are roadway improvements proposed along Powerline Road adjacent to this site; however, no right of way acquisition is proposed from this property or any adjacent properties. Per regulatory records, a DRF was filed (May 27, 1992) to document the discharge of unknown quantity of gasoline discovered during the removal of one 3,000-gallon unleaded gasoline UST. The 1993 groundwater sampling results for VOCs and PAHs were below detection limits (BDL) and the contamination case was closed by the County at that time but was inadvertently left open in the FDEP files. In August 2005, the FDEP granted the facility eligibility for State-funded assessment and cleanup of the 1992 discharge. Based on a records review, Broward County recommended to FDEP an NFA status for this facility in a letter dated May 7, 2012. In June 2012, the FDEP agreed that onsite contamination had been adequately addressed during the prior Tank Closure and Source Removal, and therefore changed the site's cleanup status to NREQ. Based on the available information the risk rating for this site is **LOW**.

Site # 26
City of Ft. Lauderdale Lockhart Stadium (Debris Site)
5301 NW 12 Avenue
Ft. Lauderdale, Florida 33309
Facility ID: 98976

This facility operates as a sports field and stadium and is a proposed disaster debris (hurricane/storm-generated debris and all other types of disaster debris) management site. A portion of the property is located adjacent to the north side of Commercial Boulevard, approximately 0.25 miles west of Powerline Road, and 100 feet beyond the western project limits along Commercial Boulevard. No right of way acquisition is proposed from this property or any adjacent properties. The site is not currently in use as a debris management site and there is no history of contamination. Due to the nature of its current operation, the assigned risk rating for this site is **LOW**.

Site # 27
Barrieau-Daley Moving
5101 NW 9 Avenue
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9200441

This facility currently operates as a tire shop. The property is located adjacent to the west side of Powerline Road, north of Commercial Boulevard. There are roadway improvements proposed along Powerline Road adjacent to this site, and strips of right of way acquisition are proposed from this property and the property to the north. This facility reported a discharge of 0.5 gallon of diesel during underground tank removal in December 1991. A 55-gallon drum containing impacted soils was removed from the site at that time. This facility is now closed and not regulated. Due to the current regulatory status, the assigned risk rating for this site is **LOW**.

Site # 28
BJ's Wholesale Clubs #181 / Former American Builders & Contractors Supply / Former Port Everglades Steel
5100 NW 9 Avenue
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9809646 / 8627801
EPA Facility ID: FLR000144386

This property is located adjacent to the east side of Powerline Road, north of Commercial Boulevard. There are roadway improvements proposed along Powerline Road adjacent to this site, and a strip of right of way acquisition is proposed at this property. This facility formerly operated as Port Everglades Steel Corporation and later as American Builders & Contractors Supply, utilizing six 1,000-gallon capacity storage tanks: four ASTs containing diesel, installed in 1987, and two USTs containing waste oil, installed in 1992 and 1998. These tanks replaced two 3,000-gallon and one 550-gallon capacity ASTs previously closed. A discharge of diesel was reported in 1996 after groundwater testing was conducted at the site as part of a Phase II Environmental Assessment. The leaking 1,000-gallon steel tank and oily sludge contents were removed from the site in 1997.

One year of Post Active Remediation Monitoring was completed in December of 2007, and the site was issued NFA status. An SRCO was issued for this site in April of 2008.

This facility is an active Conditionally Exempt Small Quantity Generator (CESQG). The March 2015 FDEP inspection noted that the facility was in compliance. Based on the available information, the risk rating for this site is **LOW**.

Site # 29
Circle K #4865
1177 West Commercial Boulevard
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 8622524

This property is located adjacent to the north side of Commercial Boulevard and the east side of NW 12 Avenue. There are roadway improvements proposed along Commercial Boulevard adjacent to this site, and a strip of right of acquisition is proposed from this property. The facility operates as a retail fuel facility with two USTs. The County issued an SRCO in 1995 for a 1988 discharge of petroleum at the site. A tank closure assessment was conducted in 1999 and based on elevated levels of petroleum constituents detected in groundwater, the SRCO was rescinded. A Site Assessment was conducted in 2001 and based on the groundwater sample testing results, a groundwater monitoring plan was approved in 2002. A new SRCO was issued in February 2003. The most recent FDEP Storage Tank Facility Annual Compliance Site Inspection Report, dated October 10, 2014, shows the facility as in compliance. Due to its current operation as a fuel facility and history of contamination, the assigned risk rating for this site is **MEDIUM**.

Site # 30
7-Eleven Food Store #34825
901 West Commercial Boulevard
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 8501585
Broward County ID: 02352

This property is located adjacent to the north side of Commercial Boulevard and the west side of Powerline Road. There are roadway improvements proposed along Commercial Boulevard and Powerline Road adjacent to this property, and strips of right of way acquisition are proposed at this property and the adjacent property to the west. This site is an active fuel facility with the following registered tanks in operation: one 8,000-gallon diesel UST, two 10,000-gallon unleaded gasoline USTs, one 12,000-gallon unleaded gasoline UST, and one 1,000-gallon diesel emergency generator AST. Per regulatory records, two DRFs were filed on February 12, 1987 and May 2, 1997. In 1987, site assessment activities documented free floating product at the site. In 1990, two 12,000-gallon unleaded gasoline USTs, one 8,000-gallon leaded gasoline UST, one 6,000-gallon unleaded gasoline UST, one 1,000 waste oil UST, and one 485-gallon lube oil AST were removed from the site. CARs were submitted between 1991 and 1992. Further site assessment is pending the allocation of state funds based on score ranking priority. In 1999, one 1,000-gallon waste oil UST was removed from the site. In a letter dated July 24, 2009, Broward County requested that a Site Assessment Report be submitted to address the 1997 discharge. This facility is currently in the State-funded EDI program and assigned a priority score of 29. Assessment and remediation is currently ongoing. A September 6, 2016 Limited Site Assessment Report did not reveal petroleum-related analytes above SCTLs in soils sampled. However, groundwater analytical testing identified Total Recoverable Petroleum Hydrocarbons (TRPH) exceeding the FDEP GCTLs in MW-16DR (screened from 24 to 29 feet below land surface), located at the southwest side of the gasoline tank farm. Due to documented groundwater contamination at this facility, the assigned risk rating for this site is **HIGH**.

Site # 31
Union 76 #9270-131
891 West Commercial Boulevard
Ft. Lauderdale, Florida
FDEP Facility ID: 8622563

This property is located adjacent to the east side of Powerline Road and the north side of Commercial Boulevard. There are roadway improvements proposed along Commercial Boulevard and Powerline Road adjacent to this site, and strips of right of way acquisition are proposed from this property and the adjacent property to the east. This facility previously operated as a Union 76 gas station. The facility had two underground 7,500-gallon capacity gasoline tanks installed in 1967, that were removed in 1987. There are currently no tanks onsite and the facility operates as a Miami Subs Restaurant. There is no documentation in the file for this facility to indicate a history of contamination. Due to the current regulatory status, the assigned risk rating for this site is **LOW**.

Site # 32
Oil Can Henry's
1000 West Commercial Boulevard
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9202614

This property is located adjacent to the south side of Commercial Boulevard and west side of SW 10 Avenue. There are roadway improvements proposed along Commercial Boulevard and NW 10 Avenue adjacent to this site, and strips of right of way acquisition are proposed at this property and the adjacent property to the west. This facility currently operates as a Valvoline Instant Oil change. The facility utilizes one 1,000-gallon and two 550-gallon capacity aboveground used oil

tanks, and six 275-gallon capacity new oil aboveground tanks, which were installed in 1992. There is no documentation in the file for this facility to indicate a history of contamination. Due to the current regulatory status, the assigned risk rating for this site is **LOW**.

Site # 33
Adventure Petroleum
(AKA Powerline British Petroleum Amoco)
4999 NW 9 Avenue
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 8501632
Broward County ID: 02253

This property is located in the southwest corner of the Commercial Boulevard and Powerline Road intersection. There are roadway improvements proposed along Commercial Boulevard and Powerline Road adjacent to this site, and strips of right of way acquisition are proposed at this property and the adjacent property to the west. Based on the CSRP dated May 2018 (on file at District 4), a portion of the gas tanks, sign, canopy, backflow preventer, three light poles, and an air compressor with vacuum will be affected by the right of way acquisition. The remainder of the property may be inadequate to continue operation of the gas station. Therefore, the full property may need to be acquired and the business relocated. This facility is an active BP gas station with four 10,000-gallon unleaded gasoline USTs and one 4,000-gallon petroleum additive UST in operation. In 1990, the four 10,000-gallon USTs were upgraded. Per regulatory records, a DRF was filed on December 16, 1988. Subsequently, a CAR and Source Removal Report (SRR) were submitted in 1989 and 1991. In 2015, the site received State funding for assessment through the Petroleum Restoration Program. Assessment is currently ongoing. Due to the documented presence of petroleum contamination in the groundwater at this facility, the assigned risk rating for this site is **HIGH**.

Site # 34
Shell - First Coast Energy #1818
890 NW 50 Street
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 8501625
Broward County ID: 04905

This facility is an active Shell gas station located in the southeast corner of the Commercial Boulevard and Powerline Road intersection. There are roadway improvements proposed along Commercial Boulevard and Powerline Road adjacent to this site, and right of way acquisition is proposed at this property. Based on the Conceptual Stage Relocation Plan (CSRP) dated May 2018 (on file at District 4), a large portion of the site circulation, canopy, sign, driveway, backflow preventer, lighting and parking will be affected by the right of way acquisitions. The remainder of the property may be inadequate to continue operation of the gas station. Therefore, the full property may need to be acquired and the business relocated. Per regulatory records, three DRFs were filed on January 9, 1991, March 12, 1996, and October 26, 2007. A CAR was submitted in 1992. In 2008, a TCAR documented the presence of petroleum contamination at this site. A limited contamination assessment conducted in February 2010 indicated maximum contaminant concentrations of benzene (2,280 ppb), toluene (248 ppb), ethylbenzene (69 ppb), xylenes (222 ppb), and tert-butyl alcohol (9,050 ppb). Additional site assessment is being conducted under a State Petroleum Restoration Program cost share program. The most recent FDEP Storage Tank

Facility Annual Compliance Site Inspection report, dated January 2016, shows the facility as in compliance. Due to the contamination observed in the groundwater of this facility, the assigned risk rating for this site is **HIGH**.

Site # 35
Universal Property & Casualty
1122 West Commercial Boulevard
Ft. Lauderdale, Florida 33309
FDEP Facility ID: 9813077

This facility operates as an insurance company located adjacent to proposed improvements along the south side of Commercial Boulevard, just east of NW 12 Avenue. No right of way acquisition is proposed from this property, but strip acquisitions are proposed at the adjacent properties to the east and west. The property utilizes one 1,315-gallon capacity AST, installed in 2012, containing diesel. No discharges are documented and the most recent FDEP Storage Tank Facility Annual Compliance Site Inspection Report, dated April 10, 2015, shows the facility as in compliance. Due to its current status, the assigned risk rating for this site is **LOW**.

Site # 36
Spectrum Properties Dump
South of Commercial Boulevard & West of Powerline Road
Ft. Lauderdale, Florida 33309
Facility ID: 99396

The exact location of this property is unknown. The FDEP Solid Waste GIS database geolocates this General Disposal/Old Dump facility adjacent to the east side of Powerline Road and the south side of Commercial Boulevard (as shown on **Figure 5-2**). This property is potentially located adjacent to proposed roadway improvements along Powerline Road, and a strip of right of way acquisition is proposed from this location.

However, the FDEP Solid Waste GIS database location description describes the site's location as south of Commercial Boulevard and *west* of Powerline Road. Only one document was available within agency files for the site. The document, dated January 21, 1985, is an abbreviated, county-wide landfill Phase I. The document describes the Spectrum Properties Dump site as bounded by NW 49 Street to the north, a canal to the south, NW 21 Street to the west and the NW 49 Street curve. A potential location for the Spectrum Dump site was defined based on the description from the Phase I and is shown in green on **Figure 5-3**. No right of way acquisition is proposed from this location, which is approximately 650 feet south of Commercial Boulevard and 3055 feet west of Powerline Road and well outside of the project limits.

Based on a review of historical aerials, this property was partly undeveloped and partly disturbed in 1981. According to the Broward County Property Appraiser's website, NW 49 Street is also known as Spectrum Boulevard and there are two properties adjacent to the defined area with "Spectrum" owners. The common reference to Spectrum features surrounding this potential location combined with the described location in the Phase I, lends credibility that the green polygon in **Figure 5-3** is the likely location of the former dump.

Regardless of the site's true location, the dump facility is no longer active and, according to the FDEP Solid Waste GIS database, an NFA was issued for the site. Although the exact location of this

site is unknown, the potential site locations have been developed since the facility was in operation and an NFA has been issued. Therefore, the assigned risk rating for this site is **LOW**.

Site # 37
Sunoco Twin Oil Company
4891 Powerline Road
Oakland Park, Florida 33309
FDEP Facility ID: 8627788
Broward County ID: 02165
This property is located adjacent to the west side of Powerline Road and the south side of NW 49 Street. There are roadway improvements proposed along Commercial Boulevard adjacent to this property, and strips of right of way acquisition are proposed at this address and the property adjacent to the south. This facility is currently an active gas station with three 8,000-gallon gasoline USTs and one 10,000-gallon diesel UST in operation. In 1991, three 4,000-gallon leaded gasoline USTs, one 10,000-gallon diesel UST, three 4,000-gallon gasohol USTs, and one 550-gallon kerosene AST were removed as a part of a tank upgrade. Per regulatory records, four DRFs for petroleum products were filed on September 8, 1998, November 10, 1998, July 19, 2002, and April 18, 2003. Site Assessments were conducted in 2013 and 2014, delineating petroleum impacted soil on the south and east sides of the tank area. Groundwater results indicate dissolved hydrocarbons are present in groundwater and appear to extend offsite to the south. As of August 2016, remedial actions including air sparging and chemical injection/bio-augmentation are being pilot tested at the site. Due to the documented contamination in the groundwater at this facility, the assigned risk rating for this site is **HIGH**.

Site # 38
Cemex – North Fort Lauderdale Ready-Mix
4600 NW 9 Avenue
Oakland Park, Florida 33309
FDEP Facility ID: 8622329

This property is located adjacent to the east side of Powerline Road between NW 47 Street and NW 45 Court. This site is approximately 100 feet beyond the southern project limits along Powerline Road. No right of way acquisition is proposed for this property or any adjacent properties. This facility had one underground 12,000-gallon capacity compartmentalized diesel tank installed in 1986, that was removed in 2008. A suspected discharge was reported in 2000, however groundwater sample testing conducted in 2001 did not detect dissolved petroleum constituents above FDEP GCTLs. There are currently no tanks onsite. The most recent FDEP Storage Tank Facility Annual Site Inspection Report shows this site in compliance. Due to the current regulatory status, the assigned risk rating for this site is **LOW**.

Site # 39
7-Eleven Food Store #19340/Kwik Stop Food Store
4975 NE 6 Avenue
Oakland Park, Florida 33334
FDEP ID: 8501411

This facility, which currently operates as a convenience store is located adjacent to the south side of Commercial Boulevard and the west side of NE 6 Avenue. The property is approximately 450 feet beyond the eastern project limits and proposed roadway improvements along Commercial

Boulevard. No right of way acquisition is proposed for this property or any adjacent properties. The site previously operated as a gas station with two USTs and associated dispensers which were installed in March 1977. A discharge of unleaded gasoline was discovered in March 1987 during UST, dispenser, and piping removal. Groundwater samples from an MW in the excavation showed elevated concentrations that exceeded FDEP GCTLs for benzene, toluene, ethylbenzene, and xylenes (BTEX). Free product was also identified. Soil samples do not appear to have been collected. The discharge was deemed eligible for state funding on August 3, 1990 in the EDI program. There are currently no USTs or dispensers located on the subject property.

In December 2015 and February 2016, 21 soil borings were completed approximately two feet below the water table or six feet below land surface (bls). Organic Vapor Analysis (OVA) soil sampling results indicated elevated OVA detections (>10 parts per million [ppm]) within the smear zone and saturated water table. Six soil samples were collected from the vadose and smear zones for laboratory analysis and results indicated no contaminants of concern exceeding SCTLs in any of the soil samples collected. Groundwater samples collected from the site indicated contaminants of concern including benzene (6 ug/L), xylenes (47.8 ug/L), 1- methylnaphthalene (121 ug/L), and 2-methylnaphthalene (197 ug/L) were in exceedance of GCTLs. Contaminants of concern including TRPH (5100 ug/L) and benzo(a)pyrene (0.33 ug/L) were also detected in exceedance of GCTLs. The groundwater at this site is currently being monitored. However, the site is located outside of the proposed project limits, and the plume map shows contamination concentrated to pump islands on site. Therefore, the assigned risk rating for this site is **LOW**.

Site # 40
Tire Kingdom, LLC #82
610 East Commercial Boulevard
Oakland Park, Florida 33334
EPA ID No. FLR000118422

This site operates as a Tire Kingdom in the southeast corner of Commercial Boulevard and NE 6 Avenue. The property is approximately 600 feet beyond the eastern project limits and proposed roadway improvements along Commercial Boulevard. No right of way acquisition is proposed for this property or any adjacent properties. The facility is registered with the EPA and FDEP as a conditionally exempt small quantity generator of hazardous waste, meaning they generate less than 100 kilograms of hazardous waste per month (ignitable waste such as used oil, lead batteries, and chlorinated solvents used in automotive maintenance). No violations are noted in the files. Based on this information and the facility's current regulatory status as in compliance, this site is assigned a **LOW** risk rating.

Site # 41
Chemform, Inc.
1410 SW 8 Street
Pompano Beach, Florida 33069
EPA ID: FLD080174402

This site is located approximately 2,400 feet west of I-95 and adjacent to Precision Metals Industry. No right of way acquisition is proposed for this property or any adjacent properties. This facility was a Small Quantity Generator of Hazardous Waste from approximately 1967 through the mid-1980s. This site is also a former superfund site. In 1993, a source removal of contaminated soil was conducted at this and the adjacent Precision Metals Industry site, in preparation for redevelopment, and soils were disposed under the oversight of the EPA. Based on the

documented history of contamination and cleanup at this site, as well as the distance from the proposed project corridor, the assigned risk rating for this site is **LOW.**

Site # 42
Precision Metals Industry
1408 SW 8 Street
Pompano Beach, Florida 33069
EPA ID: FLD041184383
This facility, which is located approximately 2,130 feet west of I-95 and adjacent to Chemform, Inc., is a Small Quantity Generator of Hazardous Waste, generating 100 – 1,000 kg of waste per month. No right of way acquisition is proposed for this property or any adjacent properties. This site is also a superfund site which has been utilized for the manufacturing of metal machine parts, tools, and dyes, as well as painting since 1967. Waste products generated at the facility include corrosive and ignitable substances, spent solvents used in degreasing, cyanide slag, chromium, cadmium, and selenium. It formerly operated as Wilson Concepts of Florida, Inc. since approximately 1967. In 1987, this facility was issued a Notice of Violation by Broward County for non-permitted discharge of hazardous waste. In 1993, a source removal of contaminated soil was conducted at this and the adjacent Chemform site, and soils were disposed of under the oversight of the EPA. A 2013 County Hazardous Materials Inspection Report showed this facility to be in compliance. A Site Assessment Report could not be found in the files for this site. Based on the distance from the proposed project corridor, the assigned risk rating for this site is **LOW**.

Site # 43
Logical Devices, Inc./Powell Electronics
1201 NW 65 Place
Ft. Lauderdale, Florida 33309
EPA ID: FLD071140040

This site is listed as a superfund site located approximately 4,995 feet west of I-95. No right of way acquisition is proposed for this property or any adjacent properties. A Site Inspection Report dated December 5, 1991 documented that Powell Electronics previously operated at the site for an unknown length of time and utilized 15 gallons of solvents per month for the assembly of electronic components. At the time of the inspection, the site was operating as Logical Devices. Environmental samples were taken, and the site inspection report concluded that the risks associated with the site were minimal. The site currently operates as Duty Free Caribbean Holdings. Based on the available documentation from regulatory files and the distance from the project, the assigned risk rating for this site is **LOW**.

Site # 44
Borrow Pit #1, Oakland Park Area
NE 15 Avenue
Ft. Lauderdale, Florida 33309
EPA ID: FL0001358035

This site is listed as a superfund site; however, the exact location of this site is unclear. A Site Assessment Report could not be found in the files for this site. Based on the geographic coordinates provided in the March 2016 EPA Superfund GIS Database for this site, a likely location is the current site of the Pinecrest Preparatory School, located on NE 15 Avenue, approximately 4,185 feet east of I-95. No right of way acquisition is proposed for this property or any adjacent

properties. Based on a review of the updated June 2017 EPA Superfund Site database and a verification search on EPA's Superfund Enterprise Management System, this site appears to have been deleted from the superfund database. This site is not listed in any other agency database and is not included on the Broward County Interactive Map of contaminated sites. Due to this site's removal from the superfund database, absence from any other agency database, and significant distance from the project limits, the assigned risk rating for this site is **LOW**.

Site # 45
Hollingsworth Solderless Terminal
700 NW 57 Place
Ft. Lauderdale, Florida 33309
EPA ID: FLD004119681

This property is located approximately 650 feet west of the I-95 corridor and is a superfund site listed on the NPL. No right of way acquisition is proposed for this property or any adjacent properties. Between 1968 and 1982, this site operated as a solderless terminal manufacturing plant, which included the use of molten salt baths, degreasing parts, and electroplating. The process water, which was discharged to on-site drainfields, surface soil, and in a 100-foot-deep injection well located on site, contained high concentrations of tetrachloroethylene and heavy metals. In February 2002, contaminated soil located in the south drainfield area was excavated to a depth of two-feet below the water table and disposed. In addition, the septic tank associated with the western drainfield was removed and its contents were disposed. In 2008, an amended Record of Decision modified the groundwater cleanup approach to include in-situ bioremediation. Vinyl chloride is the only remaining groundwater contaminant detected above the GCTL. The most recent (November 2010) groundwater monitoring results available for review indicated vinyl chloride above the FDEP GCTL in 6 of the 24 wells being monitored. One of the wells with vinyl chloride exceedance is located on NW 57 Court (south of the south drain field). Based on the documented groundwater contamination, the assigned risk rating for this site is **HIGH**.

Site # 46
Aero Design, Inc.
5601 NW 15 Avenue
Ft. Lauderdale, Florida 33309
EPA ID: FLD085029213

This property is a superfund site located approximately 3,870 feet west of I-95. No right of way acquisition is proposed for this property or any adjacent properties. The site has operated as an aircraft stripping and painting facility since approximately 1977. In 1985, the analytical results of groundwater samples collected by FDEP indicated elevated levels of chromium and other metals, phenolic compounds, and oil and grease. Violation notices were issued in 1987, followed by a consent order requiring remedial actions. A Preliminary Contamination Assessment Plan was subsequently submitted. A second consent order was issued in 1988 in response to additional violations. The site was referred to EPA in 2002. In 2005, FDEP conducted a hazardous waste compliance evaluation inspection at the facility which revealed releases of paint stripper waste containing methylene chloride to an oil/water separator connected to a sanitary sewer. The septic tank was subsequently pumped out. Other violations related to lack of training, inspecting, and reporting, as well as unlabeled containers of hazardous waste were noted at the facility. Enforcement actions were ongoing through 2006. A Preliminary Contamination Assessment Plan

was submitted in 2005 and a report was submitted in 2006 revealing soil contamination near the oil/water separator. In May 2006, the FDEP issued a response to the Preliminary Contamination Assessment Plan indicating that evidence of discharges to onsite floor drains was observed. A third consent order was issued and in 2009, additional enforcement action was taken regarding mishandling of hazardous wastes. No site assessment information is available for this site. However, in 2012, the FDEP decided not to pursue further enforcement as the hazardous waste generator had been evicted from the facility property. Therefore, in combination with the distance from the proposed project corridor, the assigned risk rating for this site is **LOW**.

Site # 47
M & M Excavating
5511 NW 22 Avenue
Ft. Lauderdale, Florida 33309
EPA ID: FLD032677569

This site was listed in the 2016 EPA Superfund Database and is located approximately one mile west of I-95. No right of way acquisition is proposed for this property or any adjacent properties. Based on a review of the updated June 2017 EPA Superfund Site Database and a verification search on EPA's Superfund Enterprise Management System, this site appears to have been deleted from the superfund database. This site is not listed in any other agency database and is not included on the Broward County Interactive Map of contaminated sites. Due to this site's removal from the superfund database, absence from any other agency database, and significant distance from the project limits, the assigned risk rating for this site is **LOW**.

Site # 48
Graphic Products, Inc.
1140 NW 55 Street
Ft. Lauderdale, Florida 33309
EPA ID: FLD046779856

This property is a superfund site located approximately 2,220 feet west of I-95 which has operated since at least 1974, at which time this facility was found to be in violation of waste water disposal regulations. No right of way acquisition is proposed for this property or any adjacent properties. In 1984, FDEP installed groundwater MWs adjacent to this site and the analytical results of groundwater samples collected indicated VOCS and metals in excess of FDEP Standards. A Consent Order was issued in 1987 for assessment and corrective actions at this property, and a cleanup responsibility agreement was finalized stipulating that this facility and an adjacent facility (D&B Paint and Graphics Products) are responsible for contaminant plume cleanup. Site Assessment is not up to date. Although this contamination was documented in 1984, there is no documentation of clean up in the agency files, and no plume map is available. Given the distance from the proposed project corridor and lack of information regarding clean up status of this site, the assigned risk rating is **MEDIUM.**

Site # 49
D & B Paint Manufacturing Company
1100 NW 55 Street
Ft. Lauderdale, Florida 33309
EPA ID: FLD065677189

This property is a superfund site located approximately 2,100 feet west of I-95, which has operated as a latex and enamel paint manufacturing facility since at least 1972. No right of way acquisition is proposed for this property or any adjacent properties. In 1982, the State determined that no waste was being generated at this facility, therefore an EPA facility number was no longer required. However, in 1983, it was determined that this facility was in violation of state laws as waste rinse-water had been discharged to the ground surface at the rear of their property. In 1984, FDEP installed groundwater MWs onsite and the analytical results of groundwater samples collected indicated VOCs and metals in excess of FDEP Standards. A Consent Order was issued in 1985 for assessment and corrective actions at this property, and it was also determined by the regulatory agencies that a west adjacent site, Graphic Products, may be responsible for contamination at this site. In 2000, drums containing paint related waste were found near the Everglades National Park and traced to the D&B Paint facility, therefore enforcement actions were taken and after several years, a cleanup responsibility agreement was finalized stipulating that both facilities (D&B Paint and Graphics Products) are responsible for contaminant plume cleanup. All Insurance Collision Repair, Inc. began operating at the site in 2009. Site Assessment is not up to date. Given the distance from the proposed project corridor and lack of information regarding clean up status of this site, the assigned risk rating is **MEDIUM.**

Site # 50
Allied Decal of Florida
5190 NW 10 Terrace
Ft. Lauderdale, Florida 33309
EPA ID: FLD118622000

This property is a superfund site located approximately 1,535 feet west of I-95, which has operated as a screen printing/decal fabrication facility since at least 1985, but possibly as early as 1978. No right of way acquisition is proposed for this property or any adjacent properties. In 1986, FDEP installed groundwater MWs onsite as part of a study of the Ft. Lauderdale Executive Airport Wellfield. The analytical results of groundwater samples collected indicated printing wastes (containing lead, chromium, solvents, and sodium hypochlorite) had been discharged to the onsite septic tank. The results of samples taken from onsite shallow wells indicated that shallow groundwater was not contaminated. However, groundwater samples taken from an abandoned onsite irrigation well (83-foot depth) contained cadmium, lead, manganese, iron, zinc, and di-n-butylphthalate in excess of FDEP Standards. No other violations were noted at the facility. Inspections of the facility noted improvements in housekeeping practices and an NFA was required. As of 2012, this facility is operating as a canvas awning distributer and installer. A Site Assessment Report had not been completed for this site and this case has been designated by the State as inactive since 1988. Based on the distance from the proposed project corridor, as well as an issued NFA for this site, the assigned risk rating is **LOW.**

Site # 51
Omni Printing and Graphics Center
1121 NW 51 Court
Ft. Lauderdale, Florida 33309
EPA ID: FLD051317006

This property is a superfund site located approximately 2,000 feet west of I-95. No right of way acquisition is proposed for this property or any adjacent properties. The site has operated as a print shop since at least 1985 which stored, handled, and disposed of ink and solvents until

approximately 1991. In 1991, the EPA collected and tested samples from the site and determined that groundwater underlying the site had elevated levels of arsenic, cyanide, barium, iron, 1,2-dichloroethene and vinyl chloride. The site was reassessed under the EPA in 2002, but a contaminant source could not be determined and was suspected to be offsite. No recommendation for future actions was provided since contaminants could not be linked to the site. This fact, in combination with the distance from the proposed project corridor, the assigned risk rating for this site is **LOW**.

Site # 52
Goldline Laboratories
1800 W Commercial Boulevard
Ft. Lauderdale, Florida 33309
EPA ID: FLD980600829

This site was listed in the 2016 EPA Superfund Database and is located approximately one mile west of I-95. No right of way acquisition is proposed for this property or any adjacent properties. Based on a review of the updated June 2017 EPA Superfund Site Database and a verification search on EPA's Superfund Enterprise Management System, this site appears to have been deleted from the superfund database. This site address is listed within the Broward County ENVIROS database as an Environmental Assessment and Remediation facility called American V Mueller, which was closed on May 7, 2005. No documents or further information is available. The site is not included on the Broward County Interactive Map of contaminated sites. Due to this site's removal from the superfund database, closed status with Broward County, and significant distance from the project limits, the assigned risk rating for this site is **LOW**.

Site # 53
Leon Industries, Inc.
4987 NW 23 Avenue
Ft. Lauderdale, Florida 33309
EPA ID: FLD089119713

This property is a superfund site, located approximately one mile west of I-95, which has operated since at least 1986 under the name, Technimed Corporation. No right of way acquisition is proposed for this property or any adjacent properties. In 1993, the facility was issued a Notice of Violation by Broward County for improper storage of chemicals onsite, and the EPA subsequently determined that this site qualifies for corrective actions. A Partial Consent Decree was issued in 1999. Site Assessment and remediation files could not be located for review. However, given the significant distance from the proposed project corrider, the assigned risk rating for this site is **LOW**.

Site # 54
KSM Electronics
6630 NW 16 Terrace
EPA ID: FLD079872560

This site is located approximately 4,500 feet northwest of the western Cypress Creek Road project limits and currently operates as Andler Packaging Group. No right of way acquisition is proposed for this property or any adjacent properties. The site was formerly occupied by KSM Electronics, a manufacturer and distributer of electrical cable assemblies. Cleaning solvents, including trichloroethane, methyl/ethyl freon and xylene were used in the production process. A 1983

complaint that spent solvents were being improperly disposed led to a 1991 investigation by the EPA, which did not find any signs of contamination. Florida Department of Environmental Regulations (currently FDEP) and Broward County also investigated the site in 1983 and 1985, respectively. A 1997 FDEP Hazardous Waste inspection report documents that the site was registered as a CESQG. The inspection report documented that KSM was in violation for improper management of hazardous waste, specifically not containerizing Methyl-Ethyl-Ketone-soiled rags, and failure to maintain disposal manifests. The violations were subsequently addressed and KSM was assessed a fine for the violations. The Broward County Hazardous Material License issued for KSM expired in 2010 and was not renewed. However, a Hazardous Material license was issued to Andler Packaging Corporation, at the same address, in April 2010.

Broward County records indicate the Andler facility utilizes a 186-gallon aboveground diesel emergency generator tank. The Hazardous Material license was last issued in September 2016 and expires in 2018. There are no indications of contamination or violations associated with the Andler facility in the records and Broward County ranks the site as low risk for contamination. No further information was available from agency files regarding this site.

Based on this facility's previous investigations which found no contamination on site, continued regular inspections with no reports of discharge, and significant distance from the project area, this site is assigned a **LOW** risk rating.

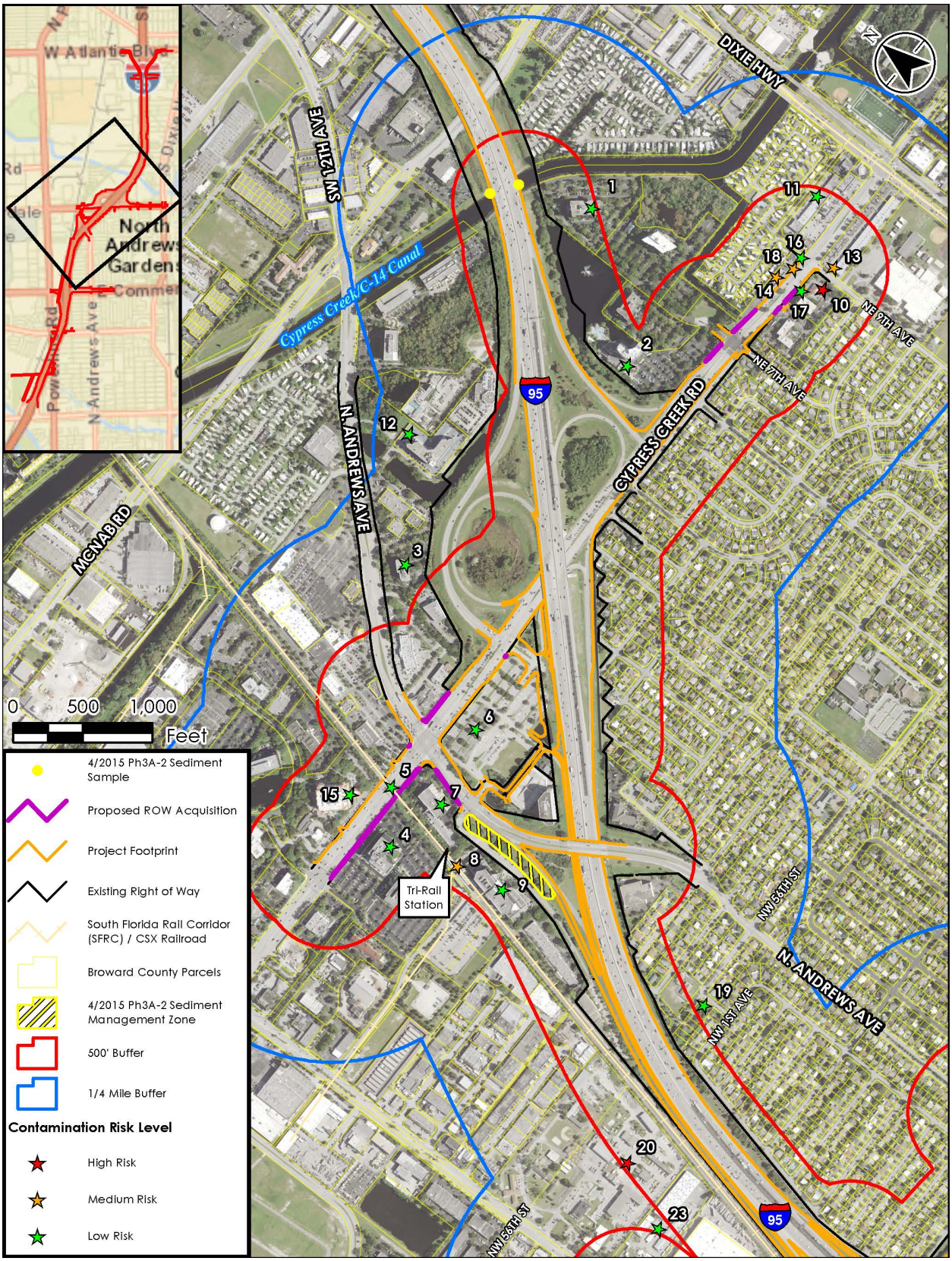


Figure 5-1 Potential Contamination Sites: I-95 at Cypress Creek Road Interchange

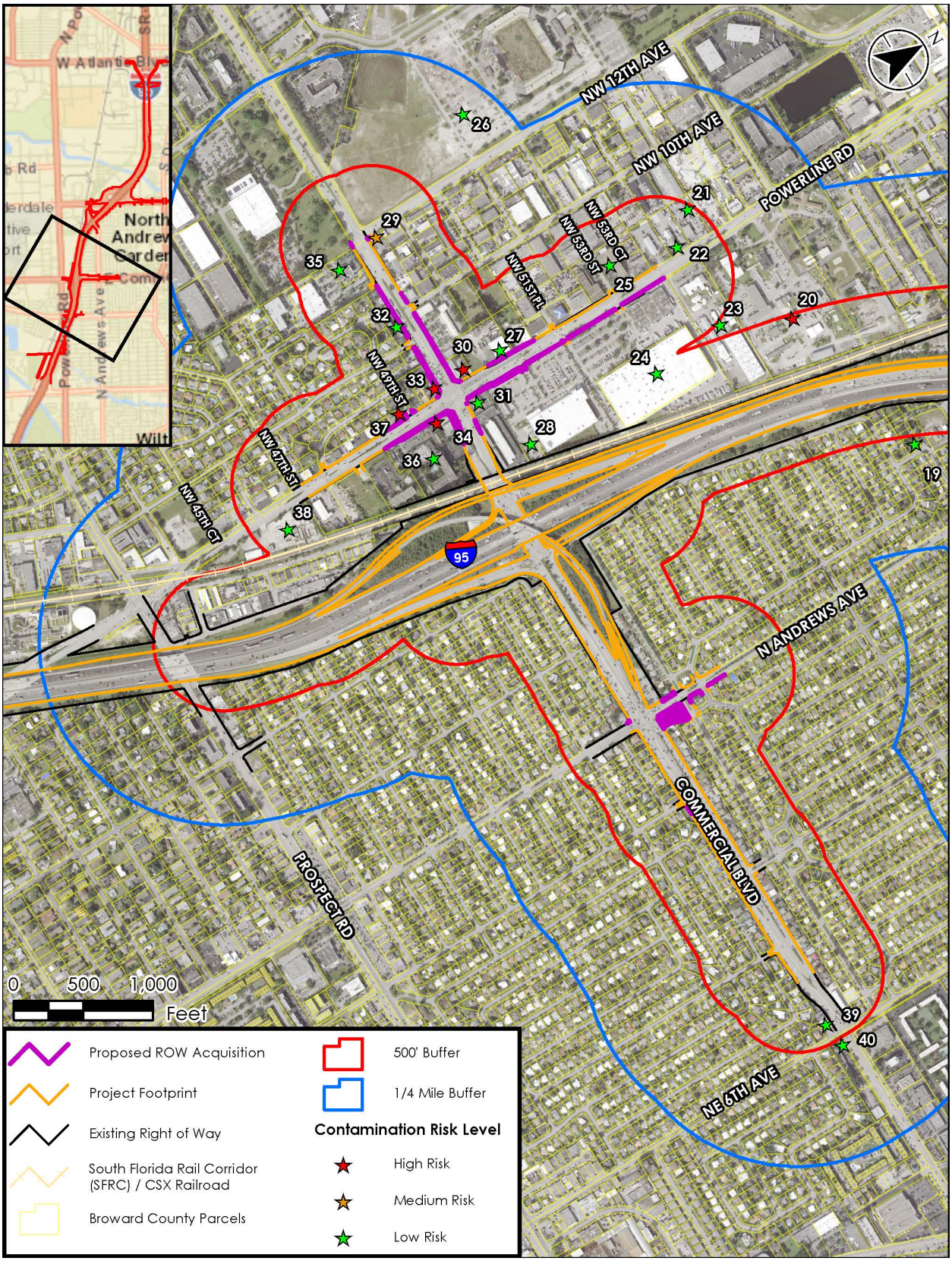


Figure 5-2 Potential Contamination Sites: I-95 at Commercial Boulevard Interchange

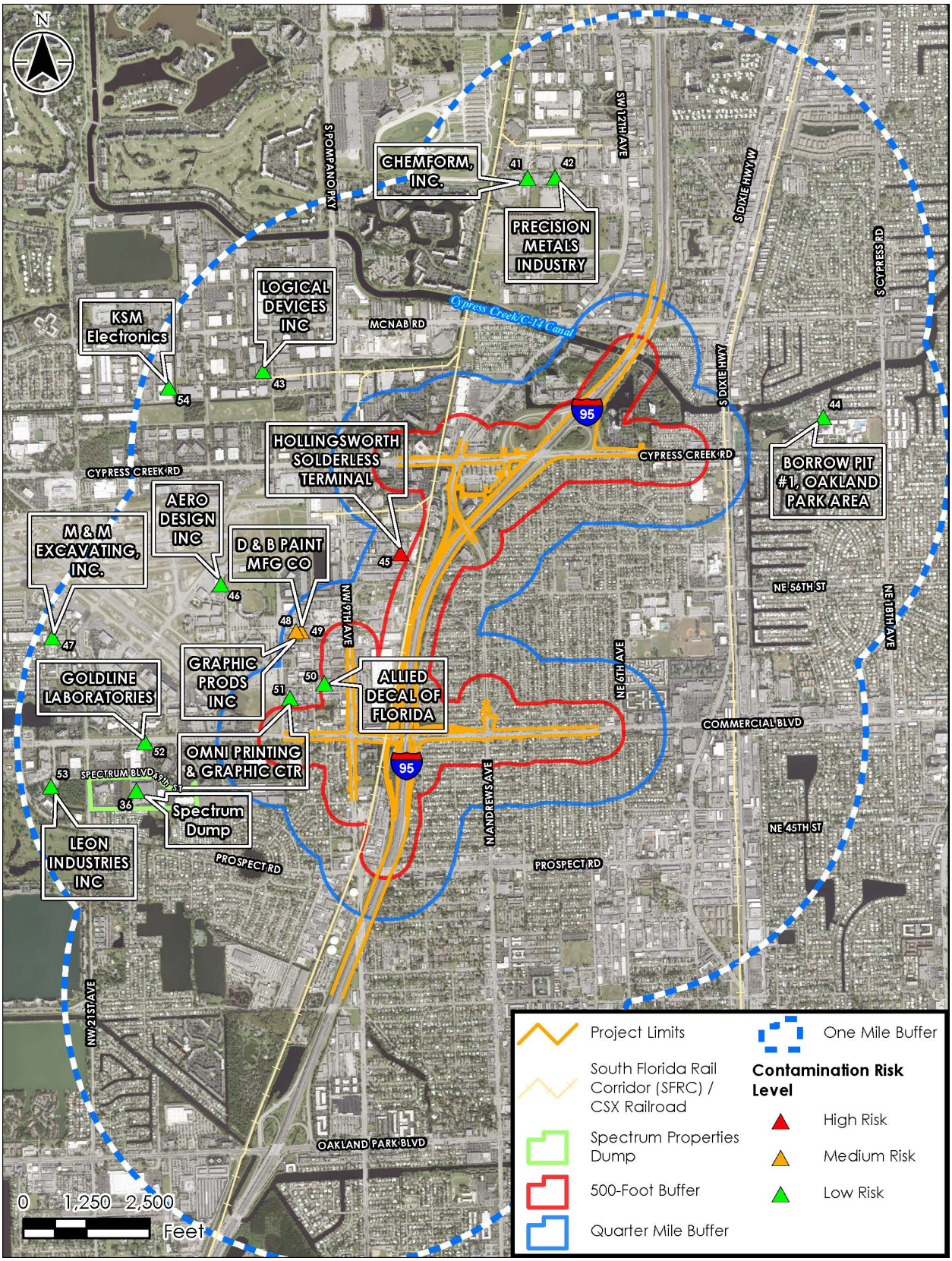


Figure 5-3 Superfund Sites

Table 5-4
Potential Contamination Sites

MAP ID	Name	Address	Facility ID	Risk Rating	Soil/Groundwater	Distance from Proposed Improvements	Contamination Type
1	Radice Center III	1000 Corporate Drive	9800345	Low	N/A	400 feet beyond northern project limits on I-95	Petroleum
2	Westin Hotel Cypress Creek	400 Corporate Drive	9202030	Low	Both	Adjacent	Petroleum
3	Park Plaza	6400 North Andrews Avenue	9700341	Low	N/A	Adjacent to west I-95 right of way	Petroleum
4	Pinnacle Corp Park	500 West Cypress Creek Road	9046144	Low	N/A	Adjacent	Petroleum
5	Hess Truck Spill	RR Crossing at Cypress Creek & Andrews Avenue	9402004	Low	Both	Within	Petroleum
6	FDOT Cypress Creek Staging Area	Between I-95 & Andrews Avenue	98975	Low	N/A	Adjacent	N/A
7	Broward Trade Centre	200 West Cypress Creek Road	9402000	Low	Both	Adjacent	Petroleum
8	FL Dept. of Transportation	Carmen Siding	9200481	Medium	Both	350 feet west of I-95 SB on-ramp at North Andrews Avenue	Petroleum
9	Trade Centre South #920	100 West Cypress Creek Road	9402001	Low	N/A	200 feet west of I-95 SB on-ramp and North Andrews Avenue	Petroleum
10	Marathon-Cypress Creek #581	850 East Cypress Creek Road	8501797	High	Both	Adjacent	Petroleum
11	Jiffy Lube #751	901 East Cypress Creek Road	8943812	Low	N/A	100 feet beyond the eastern project limits on Cypress Creek Road	Oil
12	Cypress Centre	6600 North Andrews Avenue	9400383	Low	Soil	550 feet west of I-95 NB off-ramp at Cypress Creek Road	Petroleum
13	Executive Cleaners / Nu - Look 1 Hour Cleaners #47	900 NE 62 Street	9501132	Medium	Soil	150 feet beyond the eastern project limits on Cypress Creek Road	Solvents
14	Cypress Creek Cleaners	821 NE 62 Street	9600178	Medium	Soil	Adjacent	Solvents
15	Sheraton Suites	555 NW 62 Street	9502688	Low	Both	Adjacent	Petroleum
16	Poopie Doll Florist	899 NE 62 Street	9803473	Low	N/A	Adjacent	Oil
17	Cypress Radiology Center	800 East Cypress Creek Road Suite 100	FLR000024414	Low	N/A	Adjacent	Waste Silver
18	Powertrain Rebuilders, Inc.	897 1/2 East Cypress Creek Road	FLD984238394	Medium	Soil	Adjacent	Solvents/Solid Waste
19	Broward Water Property	300 NW 56 Street	9300096	Low	N/A	250 feet east of SB I-95 on-ramp	Petroleum
20	DOT Powerline Road Dump (DOT Dump Site 1)	5548 NW 9 Avenue	99392	High	Both	125 feet beyond the northern project limits on Powerline Road	Petroleum/Metals/VOC
21	AAA Fleet	5475 NW 9 Avenue	68840521	Low	N/A	425 feet beyond the northern project limits on Powerline Road	Petroleum
22	Macs Towing Service	5425 North Powerline Road	9100475	Low	Groundwater	250 feet beyond the northern project limits on Powerline Road	Petroleum

MAP ID	Name	Address	Facility ID	Risk Rating	Soil/Groundwater	Distance from ROW	Contamination Type
23	Broward Sheriff Stockade	5400 North Powerline Road	69101939	Low	N/A	100 feet beyond the northern project limits on Powerline Road	Petroleum
24	Xtreme Indoor Karting, LLC	5300 North Powerline Road	9808233	Low	N/A	Adjacent	Petroleum
25	Thompson Office Equipment Co	5301 NW 9 Avenue	8838264	Low	Groundwater	Adjacent	Petroleum
26	City of Ft. Lauderdale Lockhart Stadium	5301 NW 12 Avenue	98976	Low	Both	100 feet beyond the western project limits on Commercial Boulevard	Petroleum
27	Barrieau-Daley Moving	5101 NW 9 Avenue	9200441	Low	Soil	Adjacent	Petroleum
28	American Builders & Contractors Supply	5100 North Powerline Road	8627801	Low	Groundwater	Adjacent	Petroleum
29	Circle K #4865	1177 West Commercial Boulevard	8622524	Medium	Groundwater	Adjacent	Petroleum
30	7-Eleven Food Store #34825	901 West Commercial Boulevard	8501585	High	Both	Adjacent	Petroleum
31	Union 76 #9270-131	891 West Commercial Boulevard	8622563	Low	N/A	Adjacent	Petroleum
32	Oil Can Henry's	1000 West Commercial Boulevard	9202614	Low	N/A	Adjacent	Oil
33	Adventure Petroleum	4999 NW 9 Avenue	8501632	High	Groundwater	Adjacent	Petroleum
34	Shell-First Coast Energy #1818	890 NW 50 Street	8501625	High	Groundwater	Adjacent	Petroleum
35	Universal Property & Casualty	1122 West Commercial Boulevard	9813077	Low	N/A	Adjacent	Petroleum
36	Spectrum Properties Dump	South of Commercial Boulevard & west of Powerline Road	99396	Low	N/A	Potentially Adjacent	Solid Waste
37	Sunoco-Twin Oil Co	4891 Powerline Road	8627788	High	Both	Adjacent	Petroleum
38	Cemex - North Fort Lauderdale Ready-Mix	4600 NW 9 Avenue	8622329	Low	Groundwater	100 feet beyond the southern project limits on Powerline Road	Petroleum
39	7-Eleven Food Store #19340	4975 NE 6 Avenue	8501411	Low	Both	450 feet beyond the eastern project limits on Commercial Boulevard	Petroleum
40	Tire Kingdom LLC #82	610 East Commercial Boulevard	FLR000118422	Low	N/A	600 feet beyond the eastern project limits on Commercial Boulevard	Solid Waste
41	Chemform, Inc.	1410 SW 8 Street	FLD080174402	Low	Soil	2400 feet west of I-95	Metals/Solid Waste
42	Precision Metals Industry	1408 SW 8 Street	FLD041184383	Low	Soil	2130 feet west of I-95	Metals/Solvents/Solid Waste
43	Logical Devices, Inc.	1201 NW 65 Place	FLD071140040	Low	N/A	4995 feet west of I-95	Solvents
44	Borrow Pit #1, Oakland Park Area	NE 15 Avenue	FL0001358035	Low	N/A	4185 feet east of I-95	Unknown
45	Hollingsworth Solderless Terminal	700 NW 57 Place	FLD004119681	High	Both	650 feet west of I-95	Metals/Solvents/Solid Waste
46	Aero Design, Inc.	5601 NW 15 Avenue	FLD085029213	Low	Both	3870 feet west of I-95	Metals/Solid Waste
47	M & M Excavating	5511 NW 22 Avenue	FLD032677569	Low	N/A	1 mile west of I-95	Unknown

MAP ID	Name	Address	Facility ID	Risk Rating	Soil/Groundwater	Distance from ROW	Contamination Type
48	Graphic Prods, Inc.	1140 NW 55 Street	FLD046779856	Medium	Groundwater	2220 feet west of I-95	Metals/VOCs
49	D & B Paint Mfg. Co	1100 NW 55 Street	FLD065677189	Medium	Groundwater	2100 feet west of I-95	Metals/VOCs
50	Allied Decal of Florida	5190 NW 10 Terrace	FLD118622000	Low	Groundwater	1535 feet west of I-95	Metals/Solvents
51	Omni Printing & Graphics Ctr.	1121 NW 51 Court	FLD051317006	Low	Groundwater	2000 feet west of I-95	Solvents/Metals
52	Goldline Laboratories	1800 West Commercial Boulevard	FLD980600829	Low	N/A	1 mile west of I-95	Unknown
53	Leon Industries, Inc.	4987 NW 23 Avenue	FLD089119713	Low	N/A	1 mile west of I-95	Unknown
54	KSM Electronics	6630 NW 16 Terrace	FLD079872560	Low	N/A	4500 feet northwest of the western project limits on Cypress Creek Road	Solvents/Solid Waste/Petroleum

6 Recommendations

Potential contamination sites within the project study area were identified and evaluated for soil and groundwater contamination. Fourteen of the sites were determined to have a High or Medium risk of potential contamination involvement with the recommended build alternative. The potential contamination types at the facilities reviewed include petroleum hydrocarbons, solvents, metals, and solid waste.

The majority of potential contamination sites within 500 feet of the project are considered to present low risk based on their current and historical permits, site use, and regulatory status. This includes those sites which have no records of industrial or storage tank permits, no documented contamination events, or have an agency approved SRCO or determination of NFA as the result of successful remedial actions. Sites are also assigned a Low rating based on their proximity to the project corridor if they held or currently hold a EPA Hazardous Waste Generator permit, even if contamination concerns were not discovered in the records review.

Right of way acquisition will be required from sites rated as High and Medium risk. The Conceptual Stage Relocation plan is under development by FDOT District Four. Depending on the outcome of the CSRP, entire properties may require acquisition in some cases. It is recommended that Level II Contamination testing be conducted at any sites rated High or Medium risk prior to right of way acquisition.

Furthermore, it is recommended that the project be reevaluated during design to determine if any new contamination-related risks are present and to evaluate potential dewatering concerns. Level II Contamination Assessment investigations are recommended for any areas that have proposed dewatering or subsurface work activities (e.g. pole foundations, drainage features) occurring adjacent to or at any of these sites.

The April 2015 I-95 Express Phase 3 A-2 Impact to Construction Report Management Plan documented contamination at SMZ-1, adjacent to North Andrews Way, and at sediments samples collected from the east and west side of the I-95 bridge over the C-14 Canal, north of Cypress Creek Road. All soils excavated above the water table within SMZ-1, and all sediments dredged from the SFWMD C-14 Canal, must be staged or contained (for instance stockpiled on and covered within plastic sheeting or placed in lined and covered roll off dumpsters) until the soils can be sampled by a Districtwide Contamination, Assessment, and Remediation (CAR) Contractor.

If the laboratory analytical results indicate that there are no contamination impacts above FDEP standards, the soils or sediments can be reused on the project without restriction. If the laboratory analytical results indicate that there are contamination impacts between the FDEP residential and commercial/industrial SCTLs, the soils or sediments can be reused within the project under paved surfaces or embankments. If the laboratory analytical results indicate that there are contamination impacts above the FDEP commercial/industrial SCTLs, the soils or sediments must be disposed of by a licensed disposal contractor at a regulated waste facility. Any soils or sediments identified for removal from the project must be coordinated with the FDOT District Four Contamination Impact Coordinator (DCIC) and Districtwide CAR Contractor.

If dewatering will be necessary during construction, a SFWMD Water Use Permit will be required. The contractor will be held responsible for ensuring compliance with any necessary dewatering permits. Any dewatering operations in the vicinity of potentially contaminated areas shall be limited to low-flow and short-term. A dewatering plan may be necessary to avoid potential

contamination plume exacerbation. All permits will be obtained in accordance with Federal, State, and local laws and regulations.

Additionally, Section 120 Excavation and Embankment – Subarticle 120-1.2 *Unidentified Areas of Contamination* of the *Standard Specifications for Road and Bridge Construction* will be provided in the proposed project's construction contract documents. This specification requires that in the event that any material or suspected contamination is encountered during construction, or if any spills caused by construction-related activities should occur, the contractor shall be instructed to stop work immediately and notify the FDOT PLEMO as well as the appropriate regulatory agencies for assistance.

Appendix A

Alternative Concept Plans

CONSTRUCTION CONTRACT NO.

COMPONENTS OF CONTRACT PLANS SET

CONCEPT PLANS

A DETAILED INDEX APPEARS ON THE KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2-25	SIGNING CONCEPTUAL PLANS

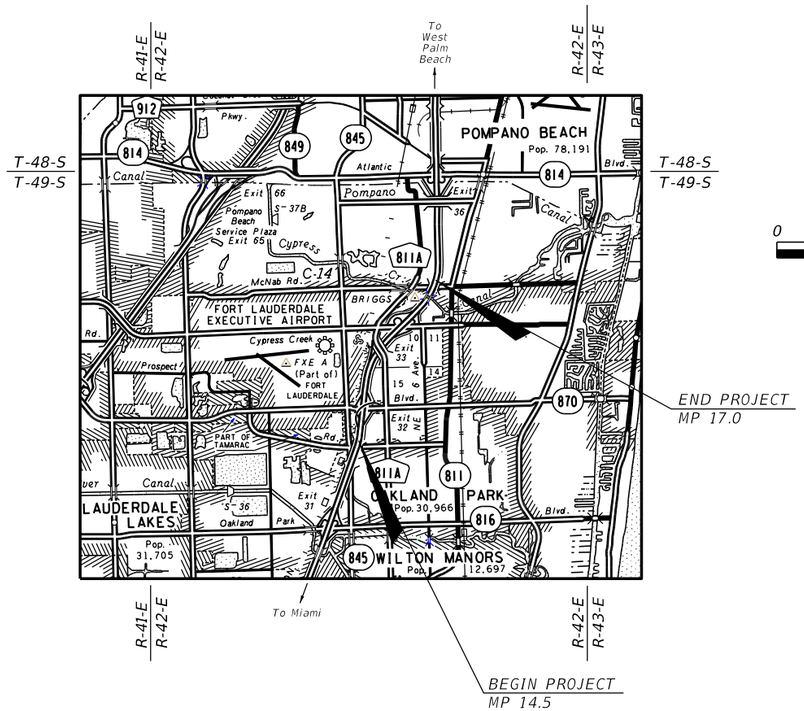
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

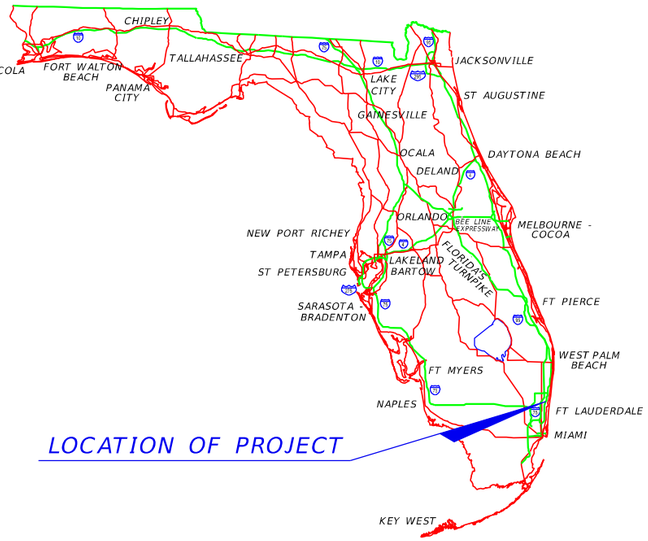
PRELIMINARY CONCEPT PLANS

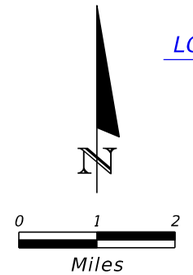
FINANCIAL PROJECT ID 435808-1

BROWARD COUNTY (86070)
STATE ROAD No. 9

FROM SOUTH OF SR 870/COMMERCIAL BOULEVARD
TO NORTH OF CYPRESS CREEK ROAD







ROADWAY SHOP DRAWINGS
TO BE SUBMITTED TO:

PLANS PREPARED BY:
STANTEC CONSULTING SERVICES, INC.
901 PONCE DE LEON BLVD., SUITE 900
CORAL GABLES, FLORIDA 33134
MIAMI (305)-445-2900 FLORIDA (800)-448-0227
CERTIFICATION OF AUTHORIZATION NO. 00027013
VENDOR ID NO. 650039493001
CONSULTANT CONTRACT NO. C-8F17

GOVERNING STANDARDS AND SPECIFICATIONS:

Florida Department of Transportation, Design Standards and revised Index Drawings as appended herein, and Standard Specifications for Road and Bridge Construction, as amended by Contract Documents.

For Design Standards click on the "Design Standards" link at the following web site:
http://www.dot.state.fl.us/rddesign/

For the Standard Specifications for Road and Bridge Construction click on the "Specifications" link at the following web site:
http://www.dot.state.fl.us/specificationsoffice/

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

PROJECT LENGTH IS BASED ON ℄ OF CONSTRUCTION

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY		
BRIDGES		
NET LENGTH OF PROJECT		
EXCEPTIONS		
GROSS LENGTH OF PROJECT		

FDOT PROJECT MANAGER: NADIR RODRIGUES, P.E.

ROADWAY PLANS
ENGINEER OF RECORD: SILVIA BELTRE, P.E.

P.E. NO.: 51295

FISCAL YEAR	SHEET NO.
	1

SCALE 1:100

POWERLINE ROAD

865

875

INTERSTATE 95

BEGIN PROJECT
STA. 871+00.00

MATCH LINE STA. 876+00.00

NW 8TH TER

NW 41ST ST

NW 42ND ST

NW 43RD ST

LEGEND:

- Limited Access Right of Way
- Existing Right of Way
- Proposed Barrier Wall
- Shoulder Line
- Proposed Bridge Widening / Reconstruction
- Existing Roadway to Remain
- Existing Bridge to Remain
- Proposed New Bridge Structure
- Proposed Roadway Improvements

RECOMMENDED ALTERNATIVE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

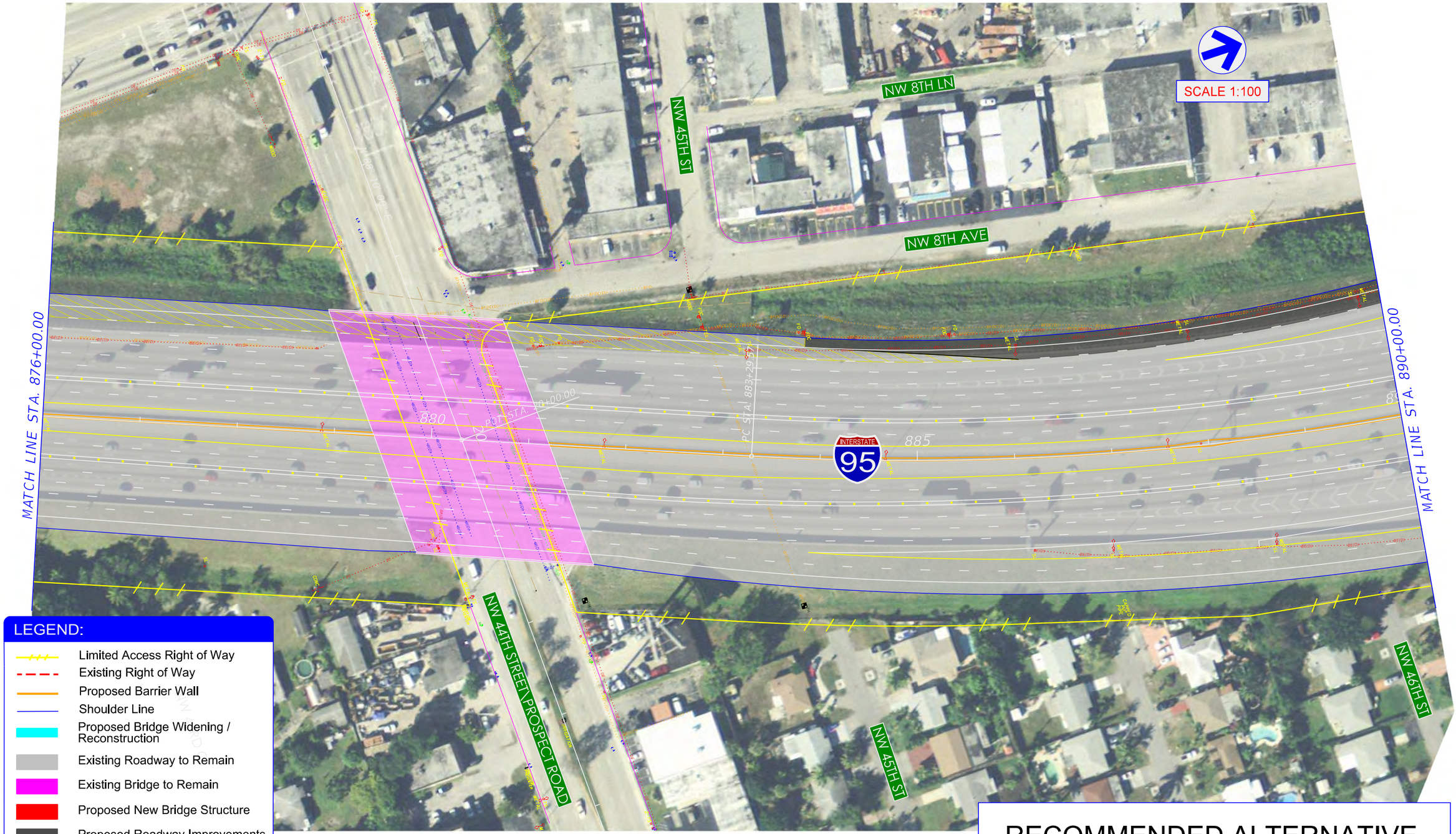
SILVIA M. BELTRE, P.E.
P.E. LICENSE NUMBER 51295
STANTEC CONSULTING SERVICES, INC.
901 PONCE DE LEON BLVD. SUITE 900
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION 00027013

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	435808-1

PRELIMINARY
CONCEPT PLANS

SHEET NO. 2



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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SR 9	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 3

LEGEND:

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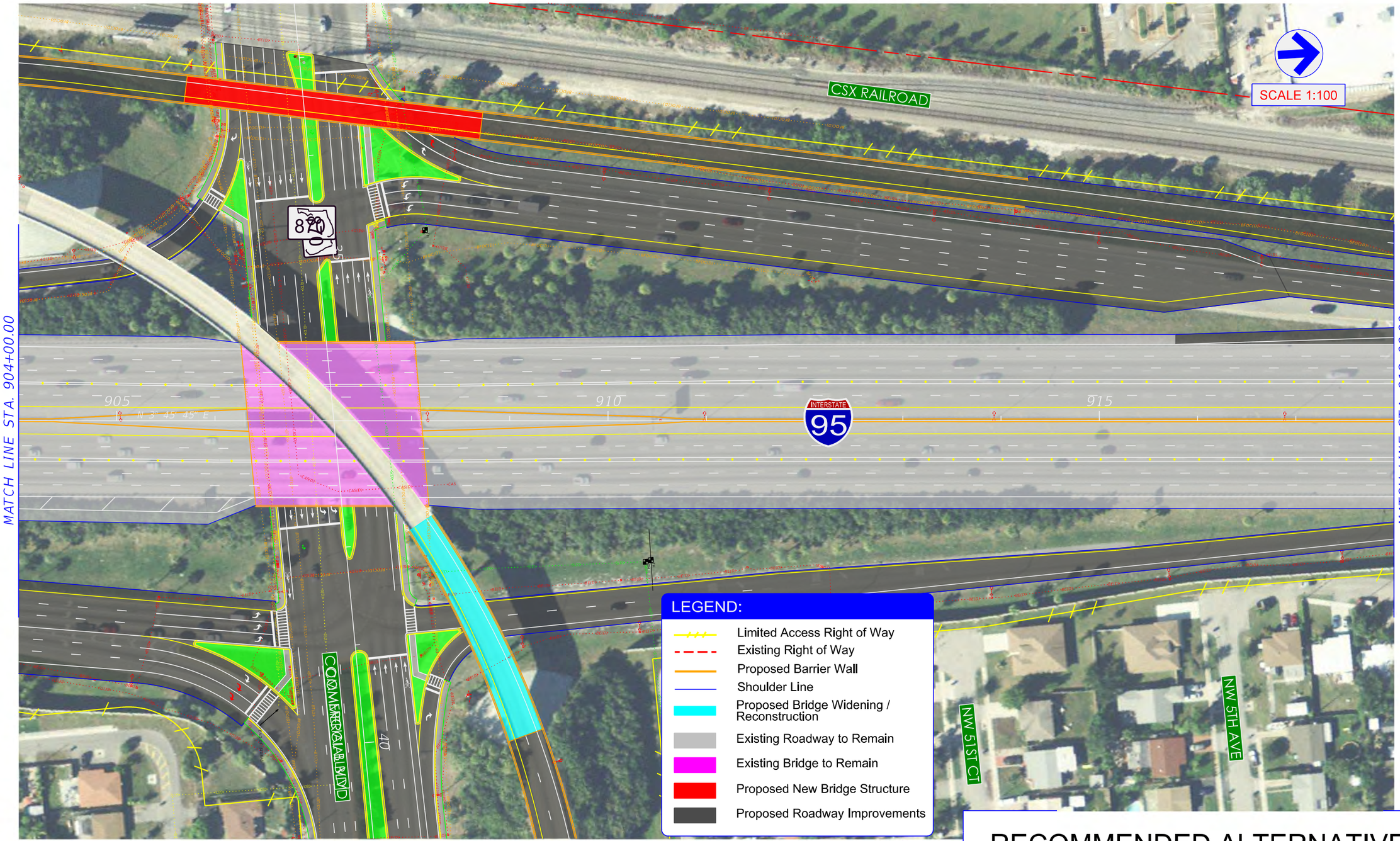
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 4



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 5

LEGEND:

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 6

LEGEND:

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	435808-1

PRELIMINARY
CONCEPT PLANS

SHEET NO. 7

MATCH LINE STA. 25+64.50

MATCH LINE STA. 946+00.00

MATCH LINE STA. 960+00.00

SCALE 1:100

RESERVED FDOT PROPERTY FOR POTENTIAL 95 EXPRESS BUS SERVICE

PC STA. 23+90.44

PT STA. 24+59.66

PT STA. 25+89.46

PT STA. 18+00.13

INTERSTATE 95

N. ANDREWS AVE

N. ANDREWS AVE

NW 59TH CT

950

955

20

25

LEGEND:

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STATE OF FLORIDA
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SR 9	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 8

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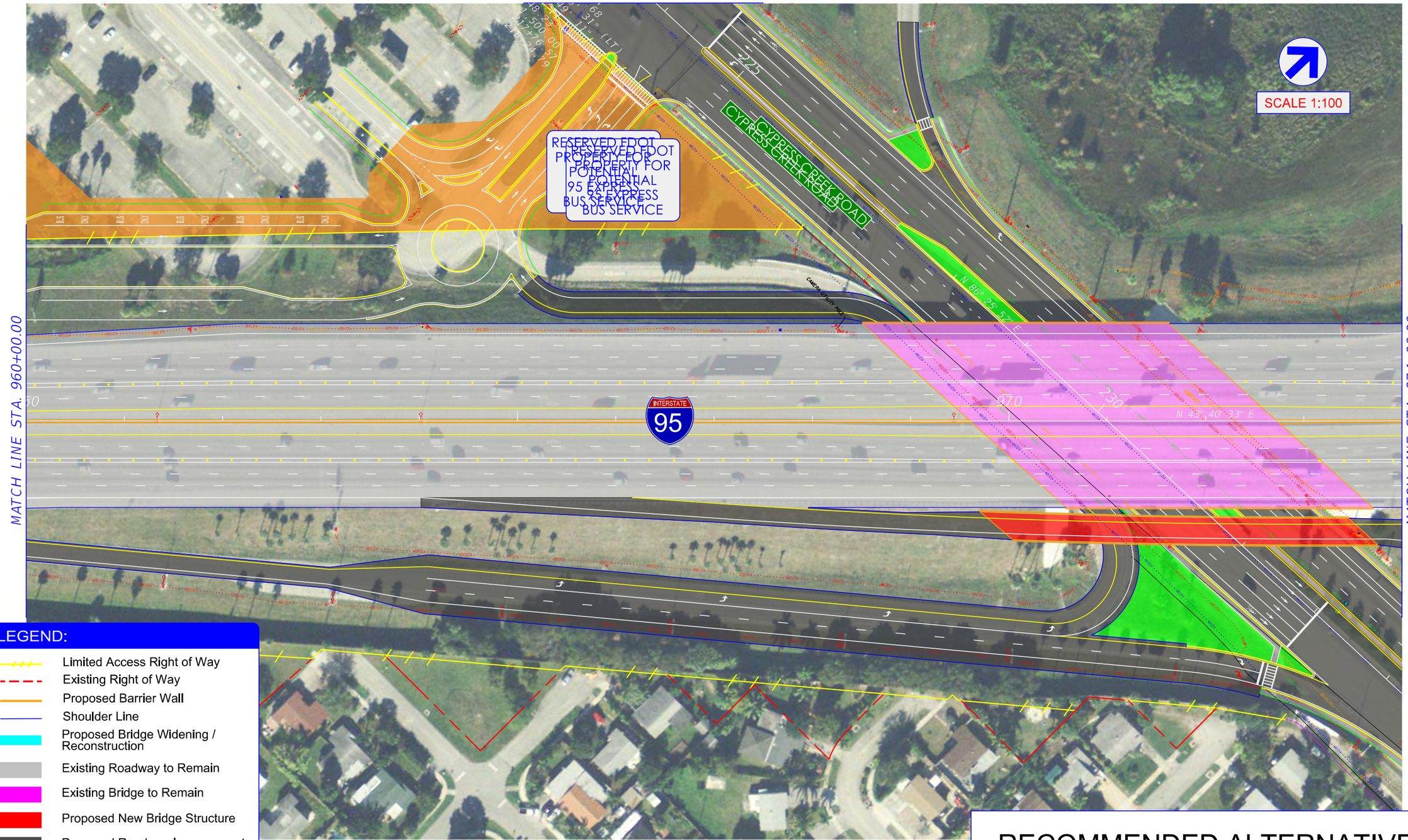

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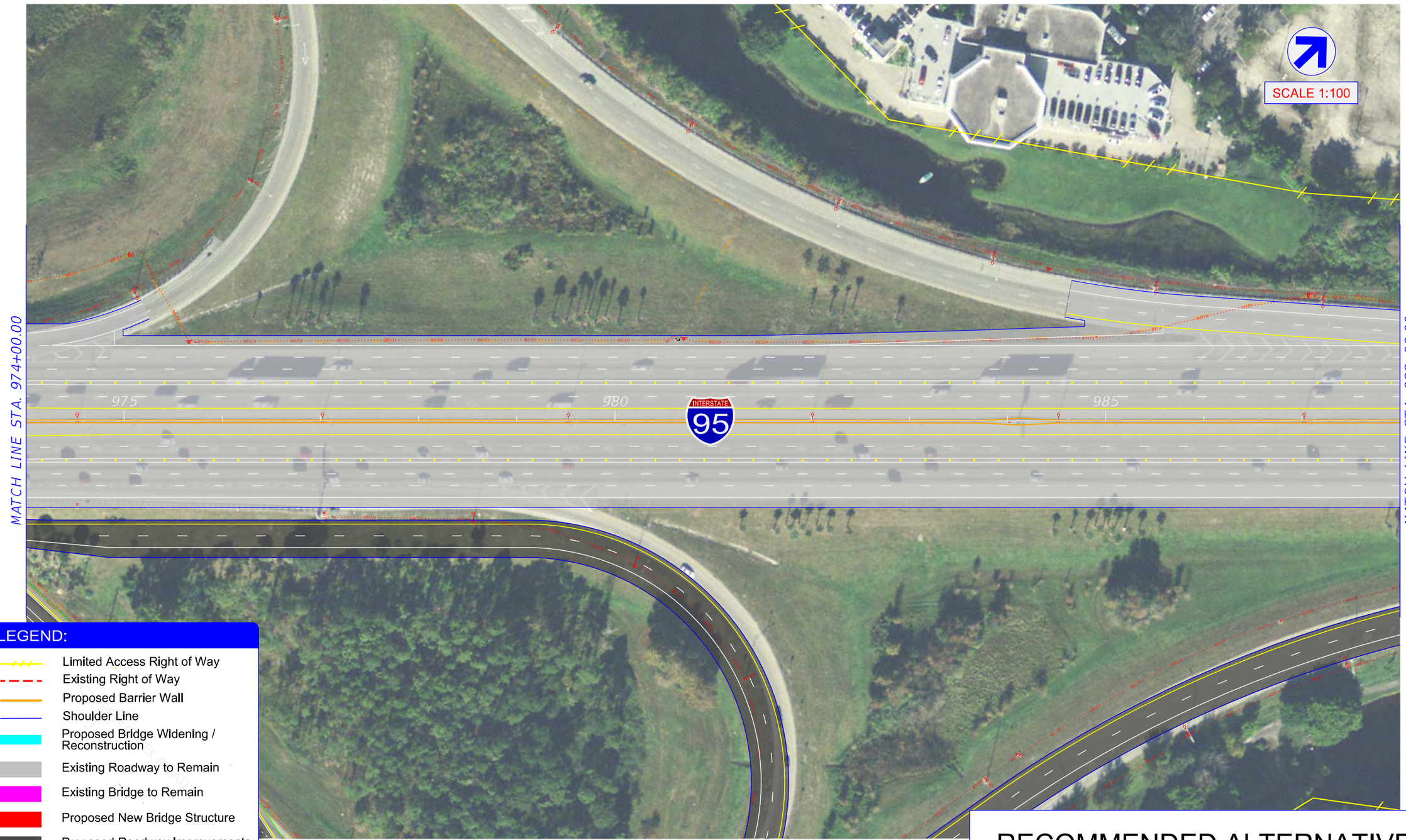
PRELIMINARY CONCEPT PLANS

SHEET NO. 9



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STATE OF FLORIDA
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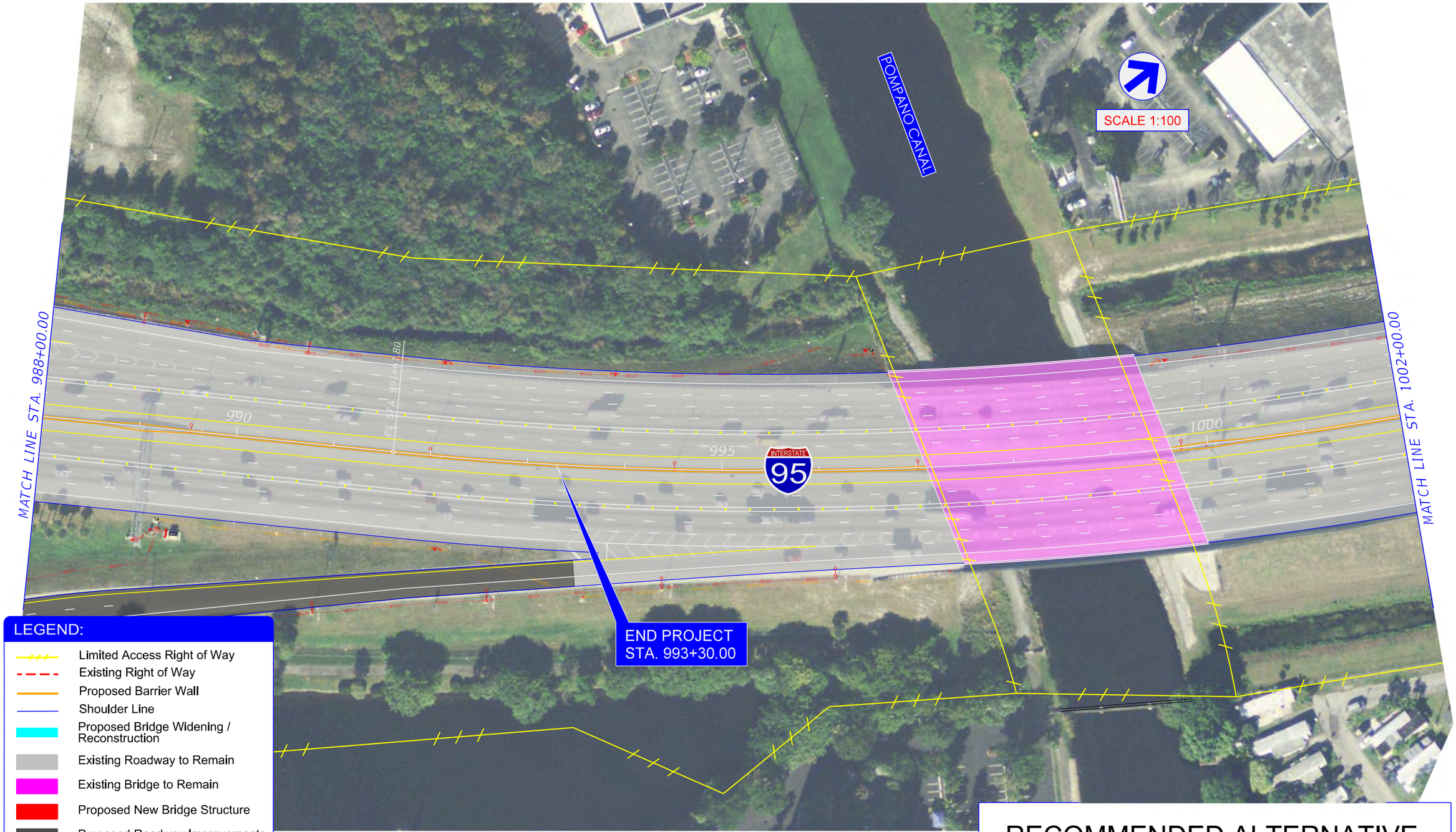
SR 9	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 10



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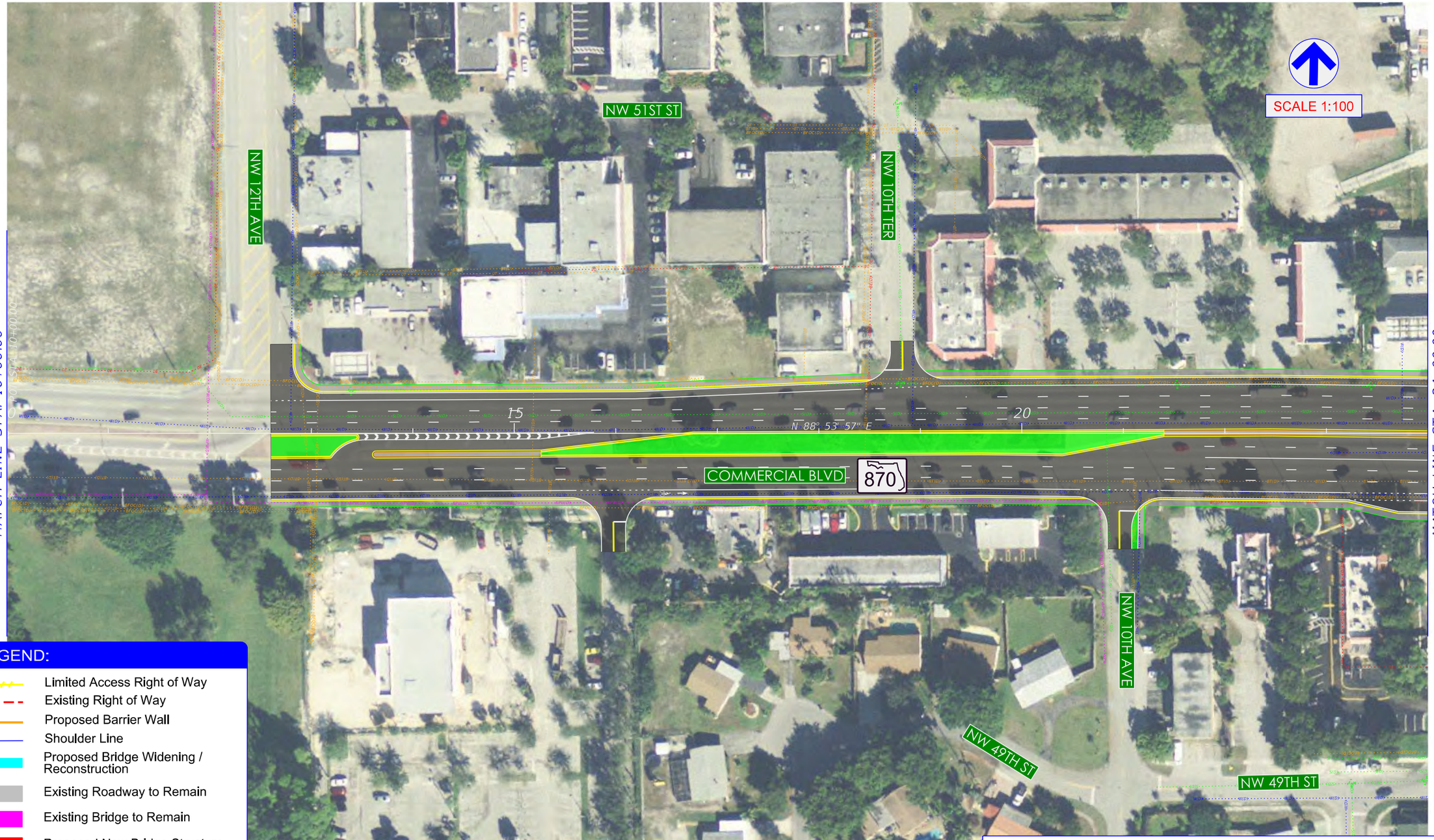
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 9	BROWARD	435808-1

PRELIMINARY
CONCEPT PLANS

SHEET NO. 11



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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 870	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 12

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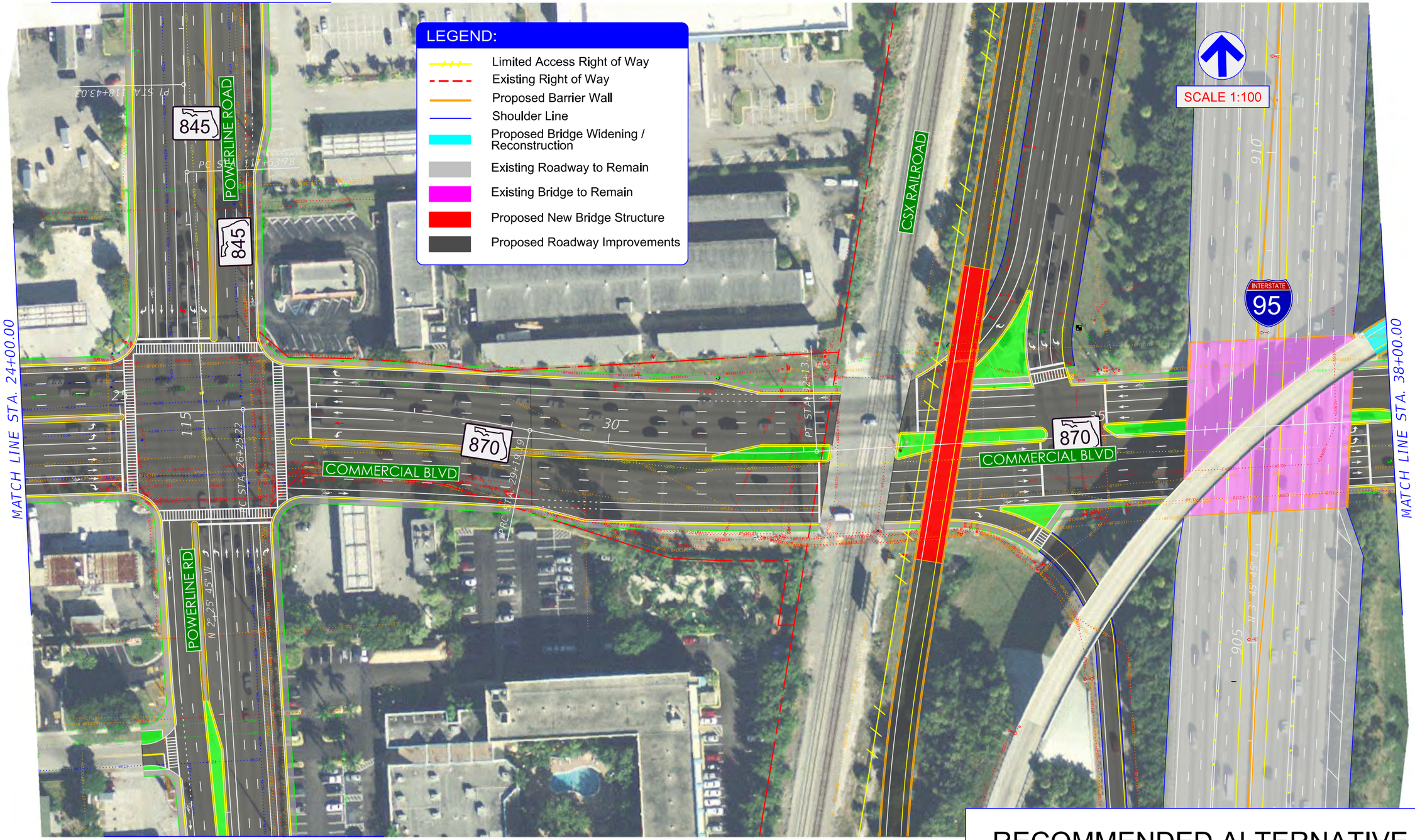

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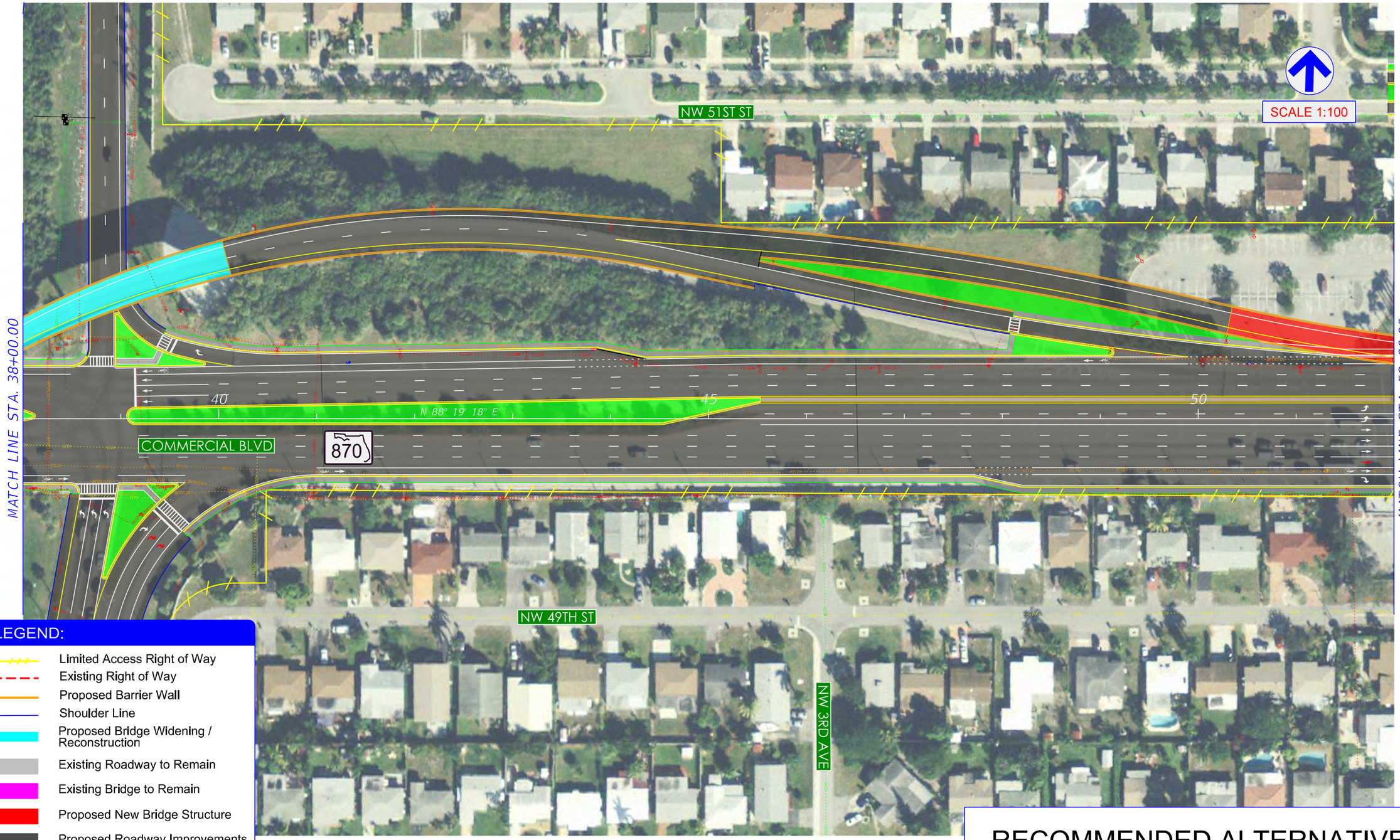
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 870	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 13



RECOMMENDED ALTERNATIVE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

SILVIA M. BELTRE, P.E.
P.E. LICENSE NUMBER 51295
STANTEC CONSULTING SERVICES, INC.
901 PONCE DE LEON BLVD. SUITE 900
CORAL GABLES, FLORIDA 33134
CERTIFICATE OF AUTHORIZATION 00027013

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 870	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 14

RECOMMENDED ALTERNATIVE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

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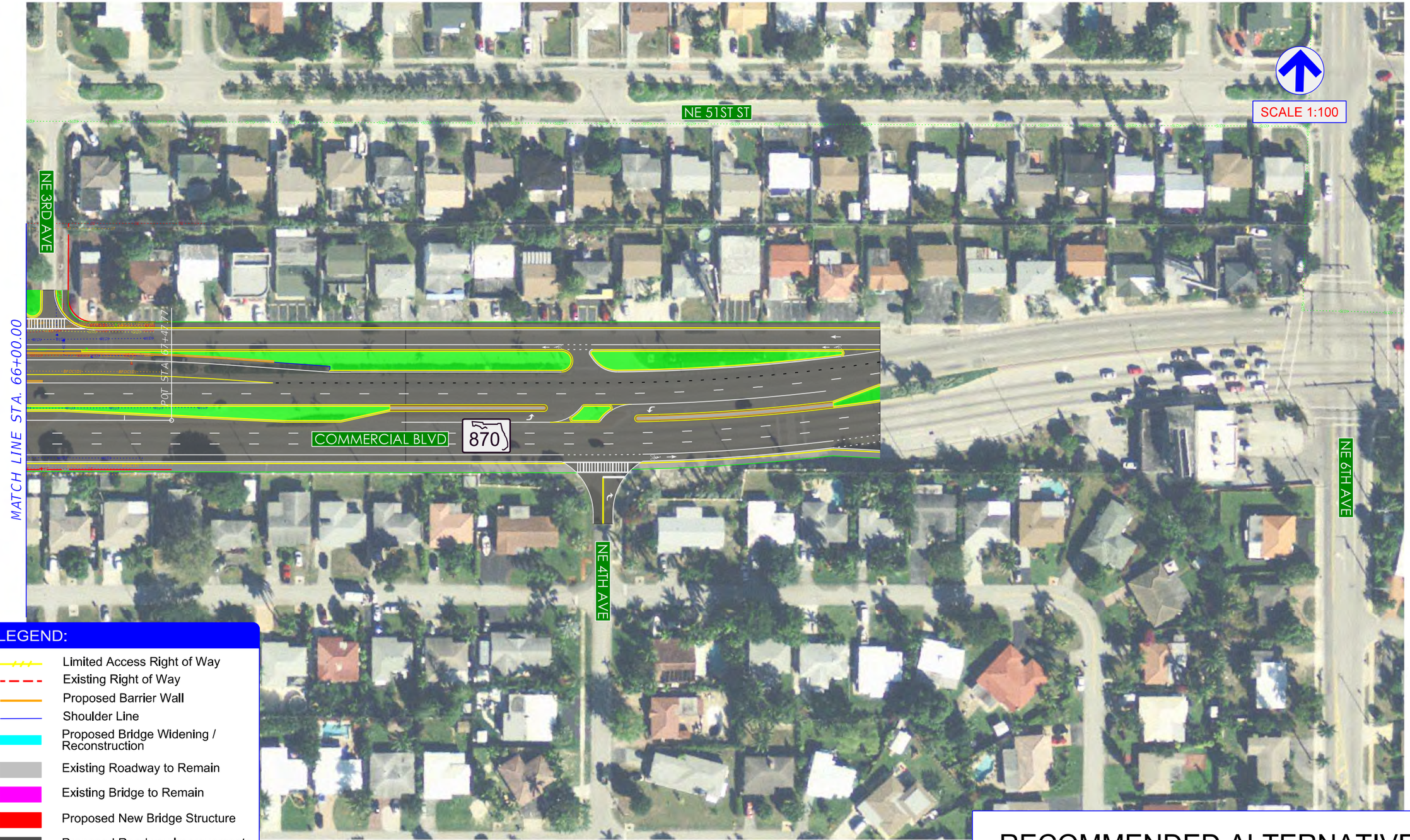
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 870	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 15



LEGEND:

- Limited Access Right of Way
- Existing Right of Way
- Proposed Barrier Wall
- Shoulder Line
- Proposed Bridge Widening / Reconstruction
- Existing Roadway to Remain
- Existing Bridge to Remain
- Proposed New Bridge Structure
- Proposed Roadway Improvements

RECOMMENDED ALTERNATIVE

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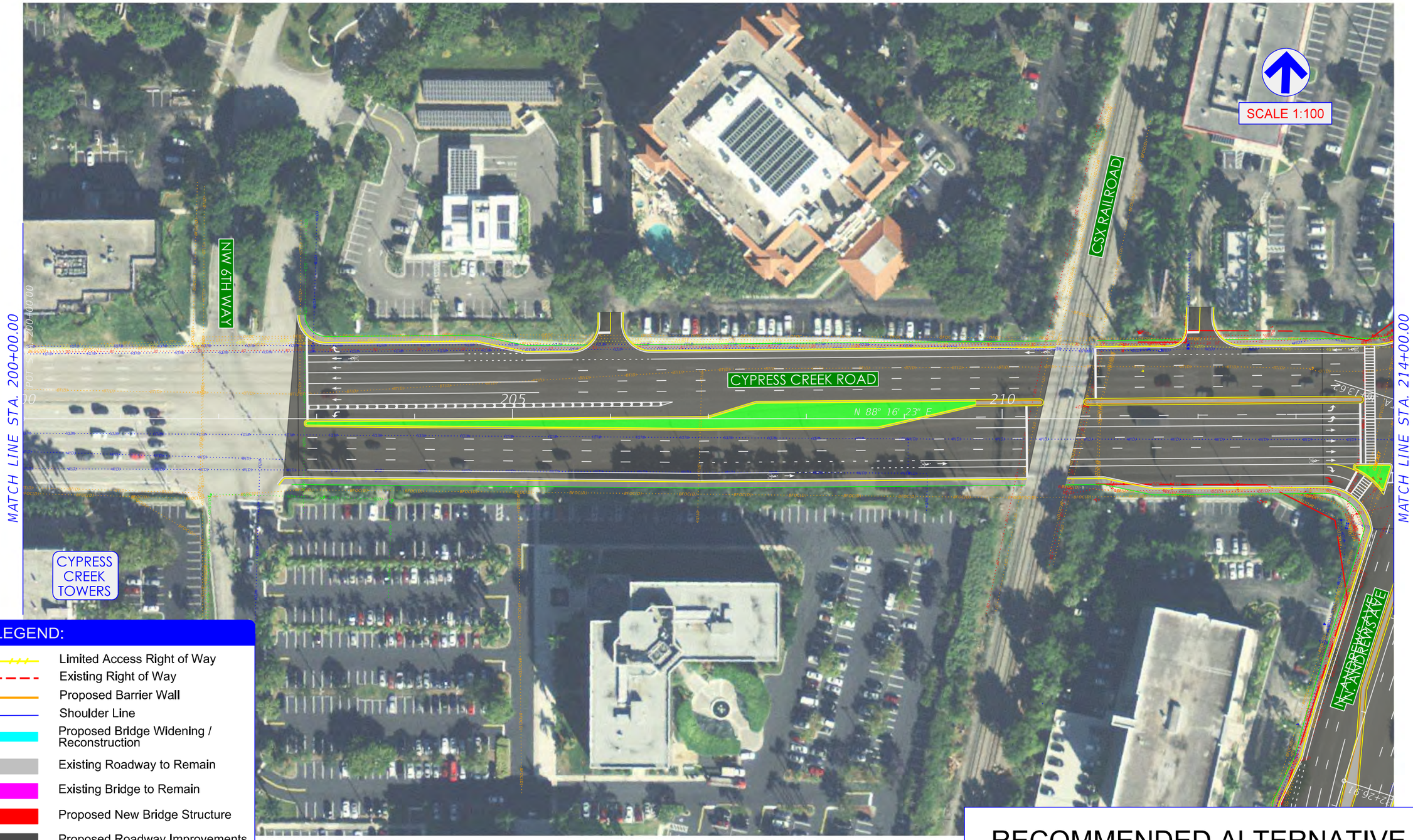
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 870	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 16



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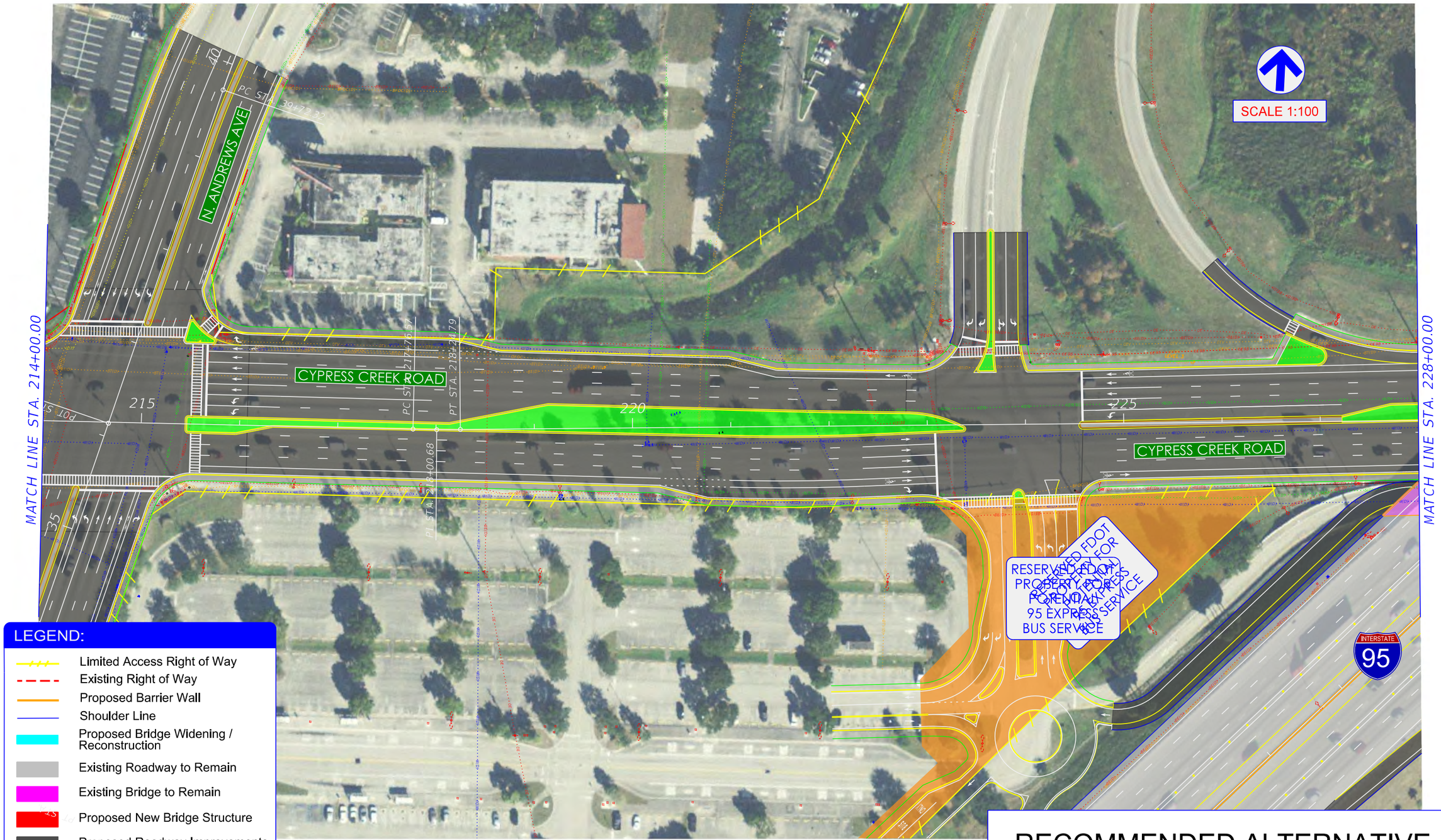
	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 17



LEGEND:

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	BROWARD	435808-1

PRELIMINARY
CONCEPT PLANS

SHEET NO. 18

MATCH LINE STA. 977+18.88

MATCH LINE STA. 228+00.00

MATCH LINE STA. 242+00.00

SCALE 1:100

INTERSTATE 95

CYPRESS CREEK ROAD

NE 61ST CT

NE 61ST ST

NE 3RD TERR

NE 4RD AVE

N 86° 25' 52" E

N 13° 10' 31" W

975

230

235

240

210

PC STA 238+19.31

LEGEND:

- Limited Access Right of Way
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

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	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

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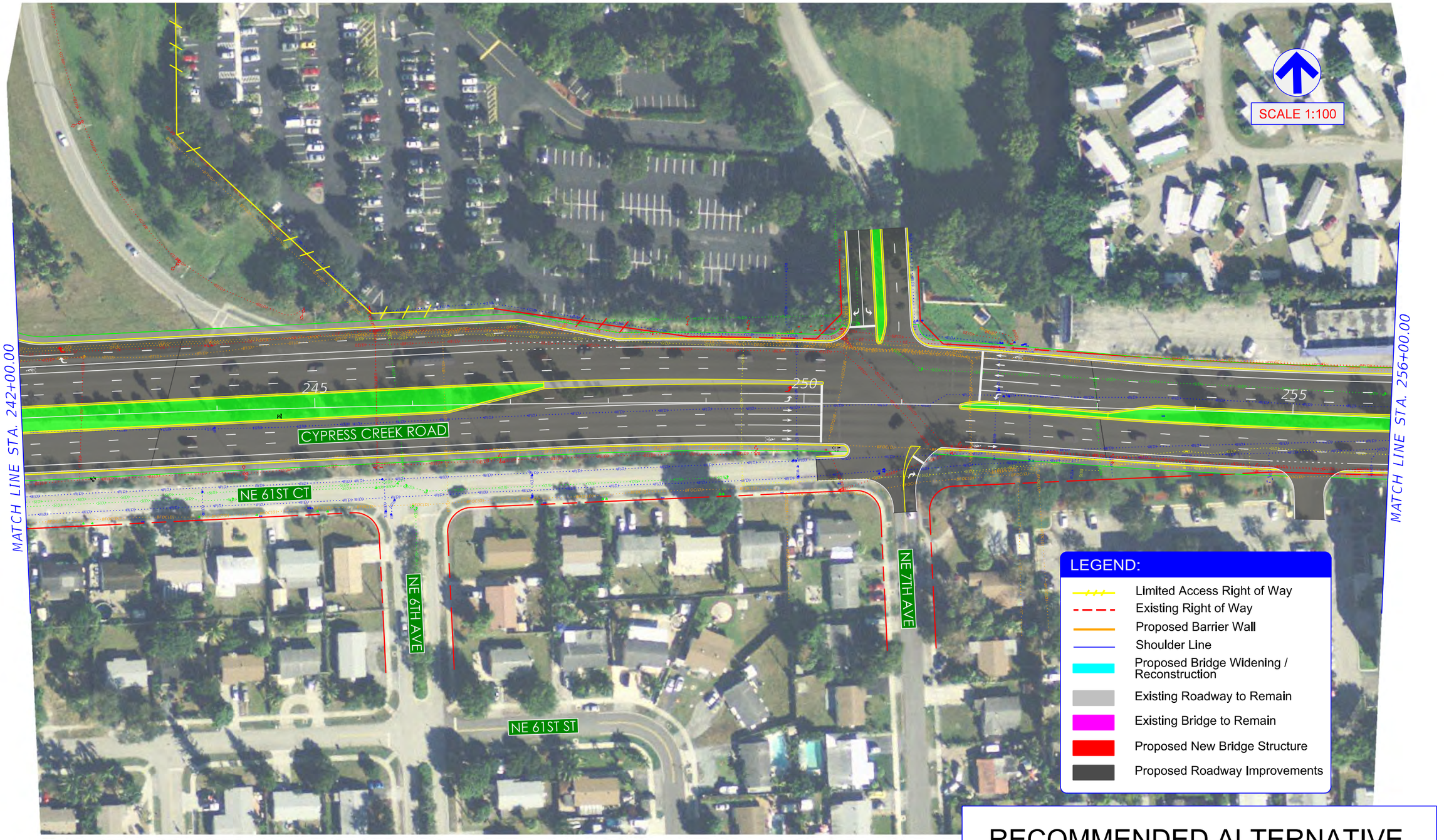

RECOMMENDED ALTERNATIVE

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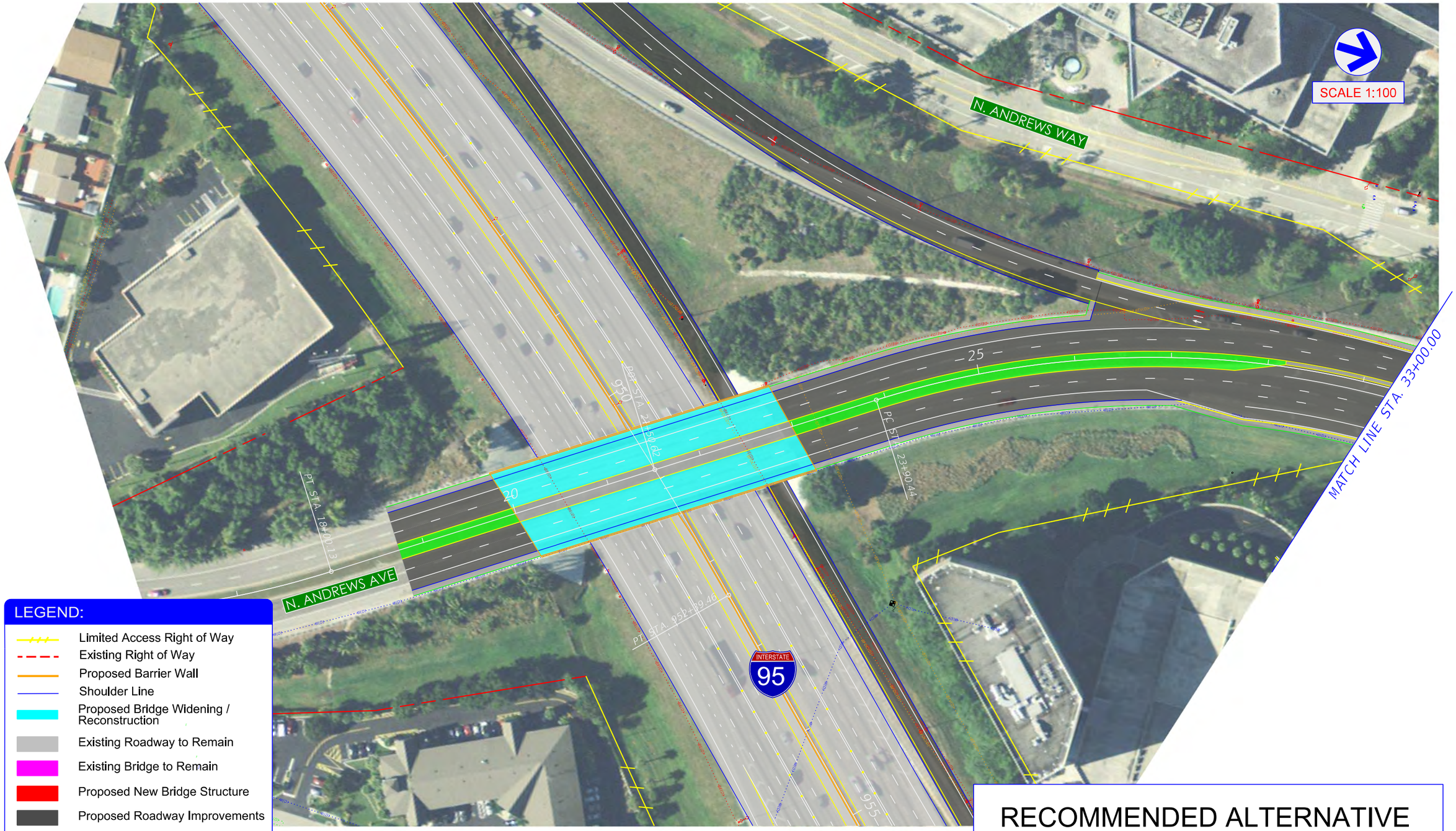
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 20



LEGEND:

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- Shoulder Line
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- Existing Roadway to Remain
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	BROWARD	435808-1

PRELIMINARY
CONCEPT PLANS

SHEET NO.
21

MATCH LINE STA. 212+10.50

MATCH LINE STA. 33+00.00

N. ANDREWS WAY

N. ANDREWS AVE

N. ANDREWS AVE

CYPRESS CREEK ROAD

CYPRESS CREEK ROAD

SCALE 1:100

LEGEND:

- Limited Access Right of Way
- Existing Right of Way
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- Existing Bridge to Remain
- Proposed New Bridge Structure
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RECOMMENDED ALTERNATIVE

REVISIONS			
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CERTIFICATE OF AUTHORIZATION 00027013

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 22

RECOMMENDED ALTERNATIVE

REVISIONS			
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SILVIA M. BELTRE, P.E.
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CERTIFICATE OF AUTHORIZATION 00027013

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 845	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 23

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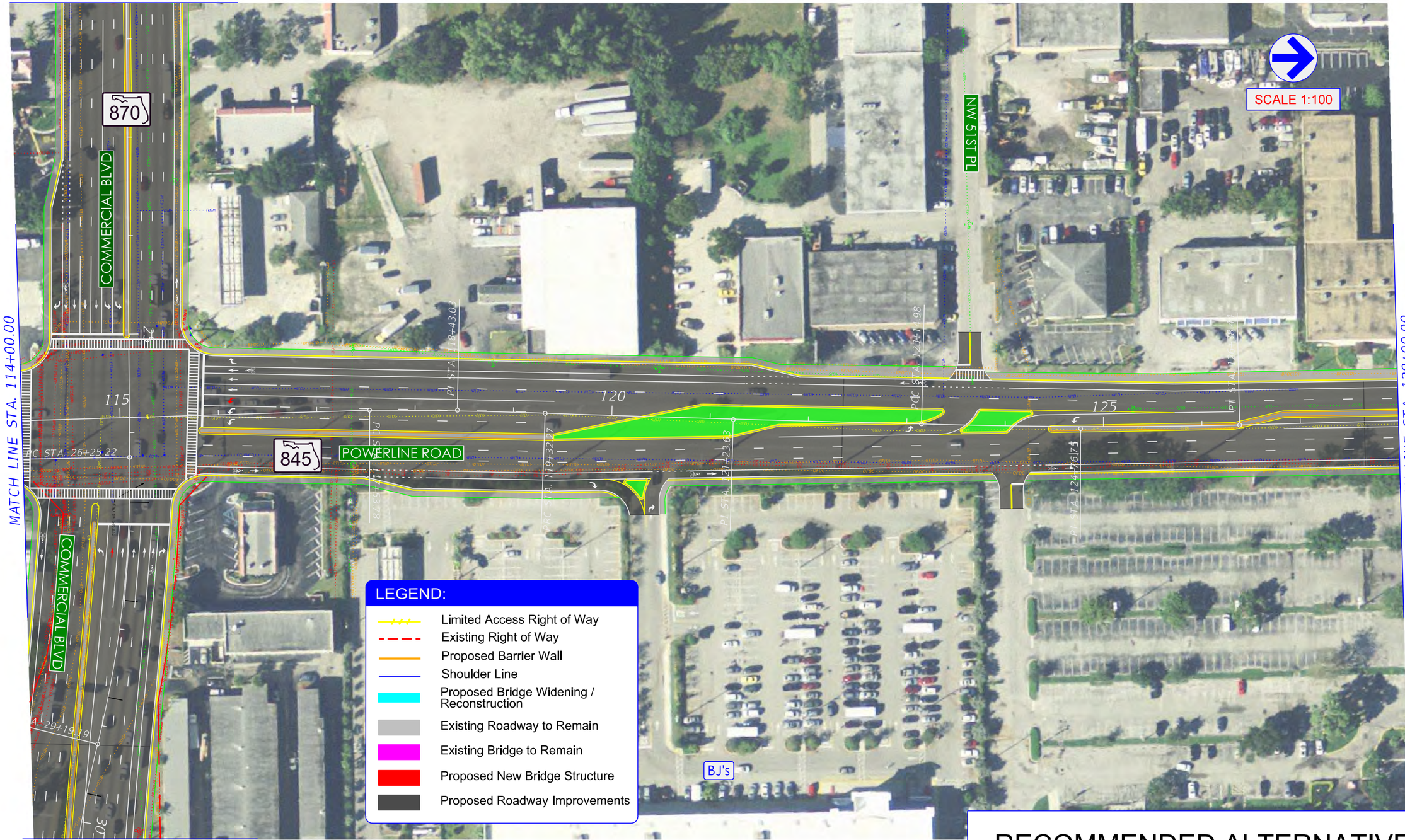

MATCH LINE STA. 114+00.00

MATCH LINE STA. 128+00.00

MATCH LINE STA. 30+17.48

RECOMMENDED ALTERNATIVE

REVISIONS			
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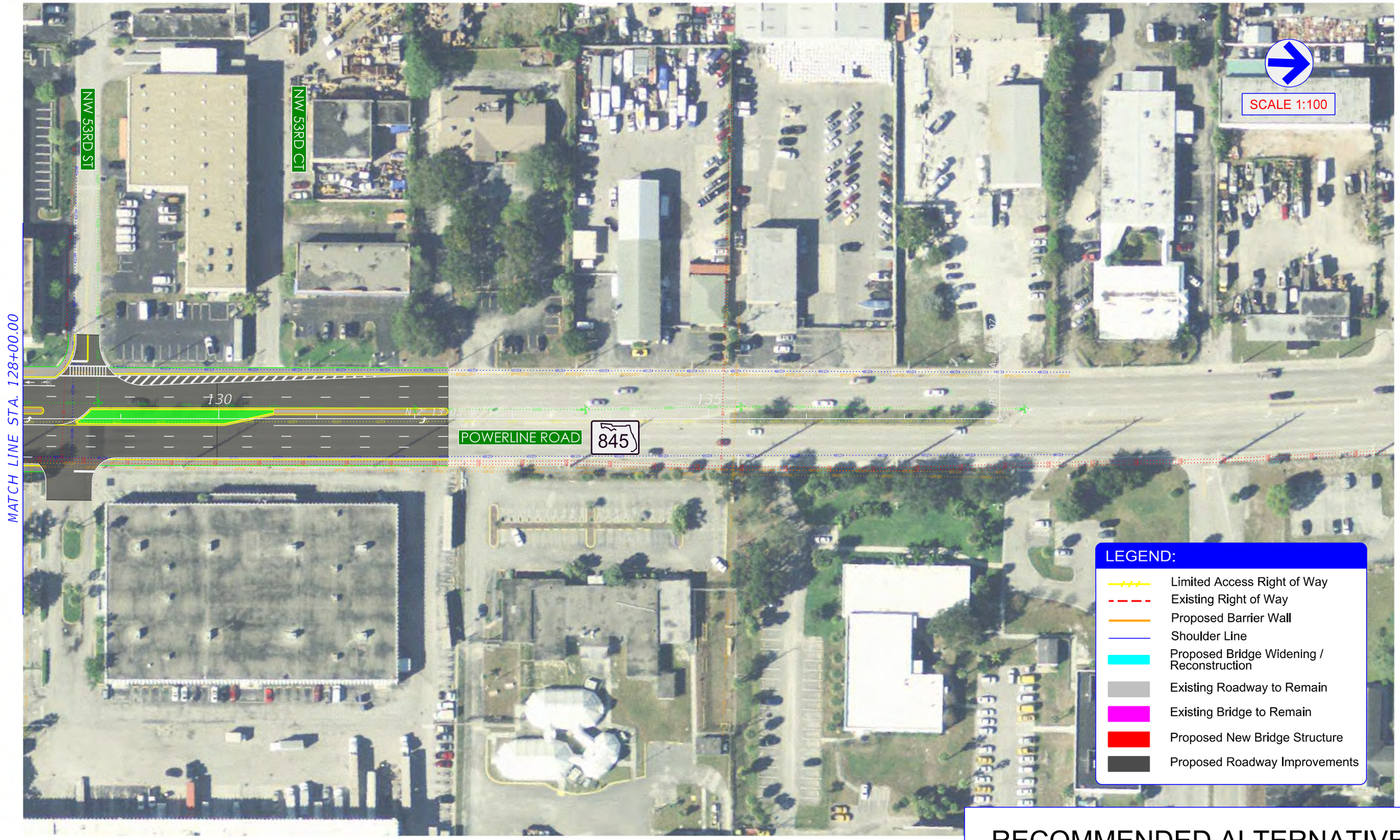
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 845	BROWARD	435808-1

PRELIMINARY CONCEPT PLANS

SHEET NO. 24



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PRELIMINARY CONCEPT PLANS

SHEET NO. 25

Appendix B

Site Photographs

Site #1 Radice Center – 1000 Corporate Drive

Site #2 Westin Hotel Cypress Creek – 400 Corporate Drive

Site # 3 Park Plaza – 6400 N Andrews Ave

Site # 4 CLW Realty Asset Group / Pinnacle Corporate Park Phase I – 500 W Cypress Creek Road

Site # 5 Hess Truck Spill – RR Crossing at Cypress Creek and Andrews Avenue

Site # 6 FDOT Cypress Creek Staging Area – Between I-95 and Andrews Avenue

Site # 7 Broward Trade Centre – 200 W Cypress Creek Road

Site # 8 Florida Department of Transportation – Carmen Siding

Site # 9 Trade Centre South #920 – 100 W Cypress Creek Road

Site # 10 Marathon Cypress Creek #581 – 850 E Cypress Creek Road

Site # 11 Jiffy Lube #751 – 901 E Cypress Creek Road

Site # 12 Cypress Centre – 6600 N Andrews Avenue

Site # 13 Executive Cleaners / Nu Look 1 Hour Cleaners #47 – 900 NE 62 Street

Site # 14 Cypress Creek Cleaners – 821 NE 62 Street

Site # 15 Sheraton Suites – 555 NW 62 Street

Site # 16 Poopie Doll Florist – 899 NE 62 St

Site # 17 Cypress Radiology Center – 800 E Cypress Creek Road

Site # 18 Powertrain Rebuilders, Inc. – 897 ½ E Cypress Creek Road

Site # 19 Broward Water Property – 300 NW 56 Street

Site # 20 FDOT Operations Center / DOT Powerline Road Dump (DOT Dump Site 1) – 5548 NW 9 Avenue

Site # 21 AAA Fleet Service – 5475 NW 9 Avenue

Site # 22 Mac's Towing Service – 5425 N Powerline Road

Site # 23 Broward County Sheriff's Office – Stockade – 5400 N Powerline Road

Site # 24 Xtreme Indoor Karting LLC – 5300 N Powerline Road

Site # 25 Thompson Office Equipment – 5301 NW 9 Avenue

Site # 26 City of Ft. Lauderdale Lockhart Stadium (Debris Site) – 5301 NW 12 Avenue

Site # 27 Barrieau-Daley Moving – 5101 NW 9 Avenue

Site # 28 BJ's Wholesale Clubs #181 / Former American Builders & Contractors Supply / Former Port Everglades Steel – 5100 N Powerline Road

Site # 29 Circle K #4865 – 1177 W Commercial Boulevard

Site # 30, 7-Eleven Food Store #34825 – 901 W Commercial Boulevard

Site # 31, Union 76 #9270-131 – 891 W Commercial Boulevard

Site # 32 Oil Can Henry's – 1000 W Commercial Boulevard

Site # 33 Adventure Petroleum (AKA Powerline British Petroleum Amoco) – 4999 NW 9 Avenue

Site # 34 Shell - First Coast Energy #1818 - 890 NW 50 Street

Site # 35 Universal Property & Casualty – 1122 W Commercial Boulevard

Site # 36 Spectrum Properties Dump – Potential site location: South of Commercial Boulevard and west of Powerline Road

Site # 37 Sunoco Twin Oil Company – 4891 Powerline Road

Site # 38 Cemex – North Fort Lauderdale Ready-Mix – 4600 NW 9 Avenue

Site # 39, 7-Eleven Food Store #19340/Kwik Stop Food Store – 4975 NE 6 Avenue

Site # 40 Tire Kingdom, LLC – 610 E Commercial Boulevard

Site # 41 Chemform, Inc. – 1410 SW 8 Street

Site # 42 Precision Metals Industry – 1408 SW 8 Street

Site # 43 Logical Devices, Inc. – 1201 NW 65 Place

Site # 44 Borrow Pit #1 – Oakland Park Area, NE 15 Avenue

Site # 45 Hollingsworth Solderless Terminal – 700 NW 57 Place

Site # 46 Aero Design, Inc. – 5601 NW 15 Avenue

Site # 47 M & M Excavating – 5511 NW 22 Avenue

Site # 48 Graphic Products, Inc. – 1140 NW 55 Street

Site # 49 D & B Paint Manufacturing Co. – 1100 NW 55 Street

Site # 50 Allied Decal of Florida – 5190 NW 10 Terrace

Site # 51 Omni Printing and Graphics Center – 1121 NW 51 Court

Site # 52 Goldline Laboratories – 1800 W Commercial Boulevard

Site # 53 Leon Industries, Inc. – 4987 NW 23 Avenue

Site # 54 KSM Electronics – 6630 NW 16 Terrace

Appendix C

Aerial Photographs

2015 – I-95 from NE 62 Street to north end of project

2015 – I-95 from south of N Andrews Avenue to south of NE 62 Street

2015 – I-95 from SR 870/W Commercial Boulevard to south of N Andrews Avenue

2015-W Prospect Road to south of SR 870/W Commercial Boulevard

2006

2002

1992

1981

1973 – North

1973 – South

1968

1958

Appendix D

Regulatory Files

Site No. 8

No Applicable Regulatory Files in Agency Database

Site No. 10

Marathon-Cypress Creek #581
850 East Cypress Creek Road

THE FGS GROUP

UST Management/Hazardous Waste Management/Fence Installation
Environmental Assessments/Hydrogeology/Industrial Hygiene/Engineering
Environmental Construction/Environmental Remediation

March 10, 2017

Rec'd 3/10/17

Ms. Joy Myers
Florida Department of Environmental Protection
Petroleum Restoration Program – Team 5
2600 Blair Stone Road
Tallahassee, Florida 32399

Re: LSSI Report
Marathon Cypress Creek #581
850 E. Cypress Creek Road
Ft. Lauderdale, Broward County, Florida
Facility ID # 06/8501797
FDEP WO# 2017-95-W9640A

Dear Ms. Myers:

The FGS Group (FGS) has completed soil and groundwater sampling activities as outlined in Low Scored Site Initiative (LSSI) Work Order 2017-95-W9640A, at the Marathon Cypress Creek #581 facility. The facility is located at 850 E. Cypress Creek Road, Ft. Lauderdale, Broward County, Florida. A site map depicting pertinent site features is included as **Figure 1**.

Site History

The Marathon Cypress Creek #581 facility is an active retail gas station located at the southwest corner of NE 9th Avenue and E. Cypress Creek Road in Fort Lauderdale, Florida. The site formerly contained one 8,000-gallon and one 6,000-gallon unleaded gasoline underground storage tanks (USTs) and two 6,000-gallon leaded gasoline UST. These tanks were removed from the site in May 1988 and replaced with four 10,000-gallon unleaded gasoline USTs. The second generation of USTs was removed from the site in April 2010 and replaced with the current UST system. The current UST system includes one 12,000-gallon and two 10,000-gallon unleaded gasoline USTs.

A Discharge Notification Form (DRF) and Early Detection Incentive (EDI) program application was submitted for this facility with a discharge date of April 4, 1988. The DNF was filed after the discovery of 1.39 feet of free product in MW-2 during a compliance inspection. The April 4, 1988 discharge was determined to be eligible for state funded rehabilitation assistance under the EDI program in a correspondence dated July 19, 1989.

A Contamination Assessment Report (CAR) was submitted for this facility by PIECO Miami, Inc. in March 1989. The CAR documented removal of free product from MW-2 via bailer on a routine basis, the installation of groundwater monitoring wells and results of groundwater

sampling activities. Additionally, 258 tons of petroleum impacted soil was excavated and removed from the site for thermal treatment during facility upgrade activities. PIECO concluded that the petroleum impacted soil and groundwater were sufficiently defined and recommended the development of a Remedial Action Plan (RAP). The CAR was approved in a correspondence dated April 20, 1989.

A RAP was submitted for this facility on August 27, 1990. The RAP recommended the use of a pump and treat remedial strategy to address the dissolved phase hydrocarbon impacts documented onsite. The RAP was approved in a correspondence dated February 26, 1991 and the remedial system began operation on March 2, 1992. Active remediation continued until the system was shut down on March 29, 1995 due to the enactment of Senate Bill 1290.

The most recent potable well survey conducted by the Florida Department of Health in 2008 did not identify any large public supply wells within 0.5 miles or small potable wells within 0.25 miles of the site. A copy of the most recent potable well survey is included in **Appendix A.**

According to the 1989 Contamination Assessment Report and recent assessment activities, site lithology consists of medium to fine grained quartz sand from land surface to 30 feet bls. Lenses of marine shell were encountered throughout the site. The sands ranged in color from brown to grey which could be attributed to the presence or absence of organic material.

No additional assessment or remedial activities have been conducted at this facility.

Groundwater Sampling

On September 21, 2016, FGS personnel mobilized to the site to collect groundwater samples from existing onsite monitoring wells MW-5, MW-7, MW-9, MW-11, MW-14, MW-15, MW-16 and DMW-12. Upon arrival onsite, FGS personnel conducted a site walk to verify the integrity of all monitoring wells onsite. Please note, monitoring wells MW-9 and DMW-12 were unable to be located and are assumed to be missing/destroyed. Monitoring wells MW-1, MW-4 and MW-6 were located and are viable. Prior to sampling, FGS personnel gauged and recorded depth-to-water in each onsite monitoring well. All sampling procedures were performed in accordance with the Department of Environmental Protection's Standard Operating Procedures for Groundwater Sampling (DEP-SOP-001/01, FS, 2200). All groundwater samples were collected using a peristaltic pump into laboratory supplied containers, placed on ice in a cooler, and transported to Pace Analytical Services, Inc. (Pace) for laboratory analysis. Each of the groundwater samples were analyzed by EPA Methods 8260 (BTEX/MTBE and EDB), 8270 (PAHs), 6010 (lead) and the FL-PRO Method (TRPH). A copy of the groundwater sampling logs and equipment calibration logs are included in **Appendix B**.

Groundwater Analytical Results

Laboratory analytical results from the September 21, 2016 groundwater sampling event indicated that MW-14 contained benzene (2.5 µg/L), naphthalene (47 µg/L), 1-methylnaphthalene (40 µg/L) and 2-methylnaphthalene (71 µg/L) above Groundwater Cleanup Target Levels (GCTLs). All other constituents sampled for were below GCTLs and/or the Method Detection Limit

(MDL) of the laboratory. Analytical results from the September 21, 2016 groundwater sampling event are summarized on **Table 1** and **Table 1A**. Laboratory analytical results are illustrated on **Figure 2**. A copy of the laboratory analytical report and chain of custody are included in **Appendix C**.

Water Table Measurement and Groundwater Flow

Water table measurements were collected prior to sampling during the groundwater sampling event. The water level was measured to the nearest 0.01 foot using an electronic water level indicator. The depth-to-water measurements and groundwater elevation calculations from each well are summarized in **Table 2**. Groundwater flow direction was generally to the east on September 21, 2016 and to the northwest on January 4, 2017. Groundwater contour maps are included as **Figure 3A** and **3B**.

Soil Boring and Soil Sampling

On December 28 and December 29, 2016, FGS personnel mobilized to the subject site to oversee the advancement of 18 soil borings (SB-1 through SB-18) via hand auger and direct-push technology (DPT) drill rig. The soil borings were advanced two feet into the surficial aquifer based on observed moisture content in encountered lithology or until refusal was encountered. Please note, soil borings SB-8 and SB-15 were unable to be advanced due to refusal after multiple attempts. All sampling procedures were performed in accordance with Department of Environmental Protection's Standard Operating Procedures for Soil Sampling (DEP-SOP-001/01, FS, 3000). Soil samples from each boring were collected at one foot depth intervals and placed in 16 oz. glass (half-filled) mason jars and covered with aluminum foil. After allowing time for the organic vapors to accumulate in the headspace of each container, the samples were screened to determine the concentration of petroleum hydrocarbons with a MiniRae 3000 Organic Vapor Analyzer equipped with a Photo-Ionization Detector (OVA/PID). OVA responses from each soil boring location ranged from below the instrument detection limit (0.0 ppm) to 124 ppm. A summary of the organic vapor concentrations is presented in **Table 3**. The location of the soil borings and the OVA results from each boring are depicted on **Figure 4**. Soil boring logs are included as **Appendix D**.

A total of four soil samples were collected during the soil assessment activities. Soil samples were collected from SB-11 @ 1'-2', SB-13 @ 1', SB-16 @ 1' and SB-18 @ 1'. Soil samples were collected in laboratory supplied containers, placed on ice and submitted for laboratory analysis according to Table C of Chapter 62-780 F.A.C. Additionally, contingent Synthetic Precipitation Leaching Procedure (SPLP) and Total Recoverable Petroleum Hydrocarbon (TRPH) speciation samples were collected from each sample location and held at the laboratory pending the results of the initial analysis.

Soil Analytical Results

Laboratory analytical results from the soil sample collected from SB-11 @ 1'-2' and SB-13 @ 1' indicated that benzo(a)pyrene and benzo(a)pyrene equivalents were detected at a concentration exceeding Soil Cleanup Target Levels (SCTLs) for direct exposure. The laboratory analytical results from SB-16 @ 1' indicated that benzo(a)anthracene (1.3 mg/kg) and benzo(a)pyrene (1.2 mg/kg) were detected above SCTLs. All other samples and constituents sampled for during soil

assessment activities indicated that the concentrations of petroleum constituents of concern sampled for were below SCTLs and/or the method detection limit (MDL) of the laboratory.

Upon receipt of the initial laboratory analytical results, FGS presented the data to the FDEP and a decision was made to conduct SPLP analysis on the soil sample collected from SB-16 @ 1'. Analysis of the leachate indicated that petroleum constituents were leaching into the groundwater at concentrations exceeding GCTLs. Complete analytical results are summarized on **Table 4** and are illustrated on **Figure 5**. The benzo(a)pyrene conversions are included as an attachment to **Table 4**. A copy of the laboratory analytical report and chain of custody is included in **Appendix C**.

Monitoring Well Installation and Groundwater Sampling

FGS personnel oversaw the installation of four shallow groundwater monitoring wells (MW-18, MW-19, MW-20 and MW-21) on December 29, 2016. The monitoring wells were installed at the locations shown on **Figure 1**. The monitoring wells were installed using a Direct Push drill rig to a total depth of 13 feet bls. The wells were constructed with three feet of 1-inch diameter schedule 40 PVC well riser flush threaded to 10 feet of schedule 40 PVC pre-packed well screen. Following installation, the wells were purged onto an impervious surface until free of visible fines and completed flush to grade with traffic rated manhole and a concrete well pad. Well Construction and Development Logs are included in **Appendix D**.

On January 4, 2017, FGS personnel mobilized to the site to collect groundwater samples from the newly installed monitoring wells MW-18, MW-19, MW-20 and MW-21. All sampling procedures were performed in accordance with the Department of Environmental Protection's Standard Operating Procedures for Groundwater Sampling (DEP-SOP-001/01, FS, 2200). The groundwater samples were collected using a peristaltic pump, placed on ice in a storage cooler, and transported to a certified lab for analysis. The groundwater samples were laboratory analyzed in accordance with EPA Method 8260 for BTEX/MTBE and EDB, 8270 for PAHs, 6010 for lead and the FL-PRO Method for TRPH. Groundwater sampling logs and equipment calibration logs are included in **Appendix B**.

Groundwater Analytical Results

Groundwater laboratory analytical results from the samples collected on January 4, 2017 indicated that MW-19 contained ethylbenzene (61 µg/L), total xylenes (73 µg/L), naphthalene (120 µg/L), 1-methylnaphthalene (99 µg/L) and 2-methylnaphthalene (190 µg/L) above GCTLs. Analytical results from all other wells sampled on January 4, 2017 were below GCTLs and/or the method detection limits of the laboratory. Analytical results are summarized on **Tables 1** and **1A** and are illustrated graphically on **Figure 2**. A copy of the laboratory analytical report and chain of custody are included in **Appendix C**.

Conclusions and Recommendations

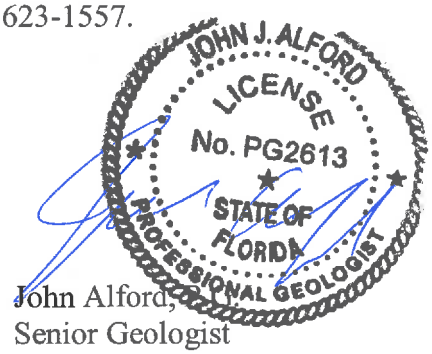
Based on the soil and groundwater analytical results obtained from the recent field activities, the following conclusions can be made regarding this site at this time:

- The soil samples collected and analyzed as part of the LSSI activities described above indicated concentrations of petroleum constituents of concern were detected above SCTLs for leachability and direct exposure within the top two feet.
- SPLP analysis of the soil sample collected from SB-16 @ 1' indicated petroleum constituents were leaching into the groundwater beneath the site at concentrations exceeding GCTLs.
- The groundwater samples collected and analyzed as part of the LSSI activities described above indicated concentrations of petroleum constituents of concern were above GCTLs in MW-14 and MW-19.
- Monitoring well MW-19 is located near the northwest property boundary. The dissolved phase impacts identified in MW-19 and the most recent groundwater contour indicate that there is a potential for offsite petroleum impacts.
- FGS recommends discontinuing assessment activities under the LSSI program as the site will not qualify for a closure endpoint at this time.

If you have any questions, please contact the undersigned at (813) 623-1557.

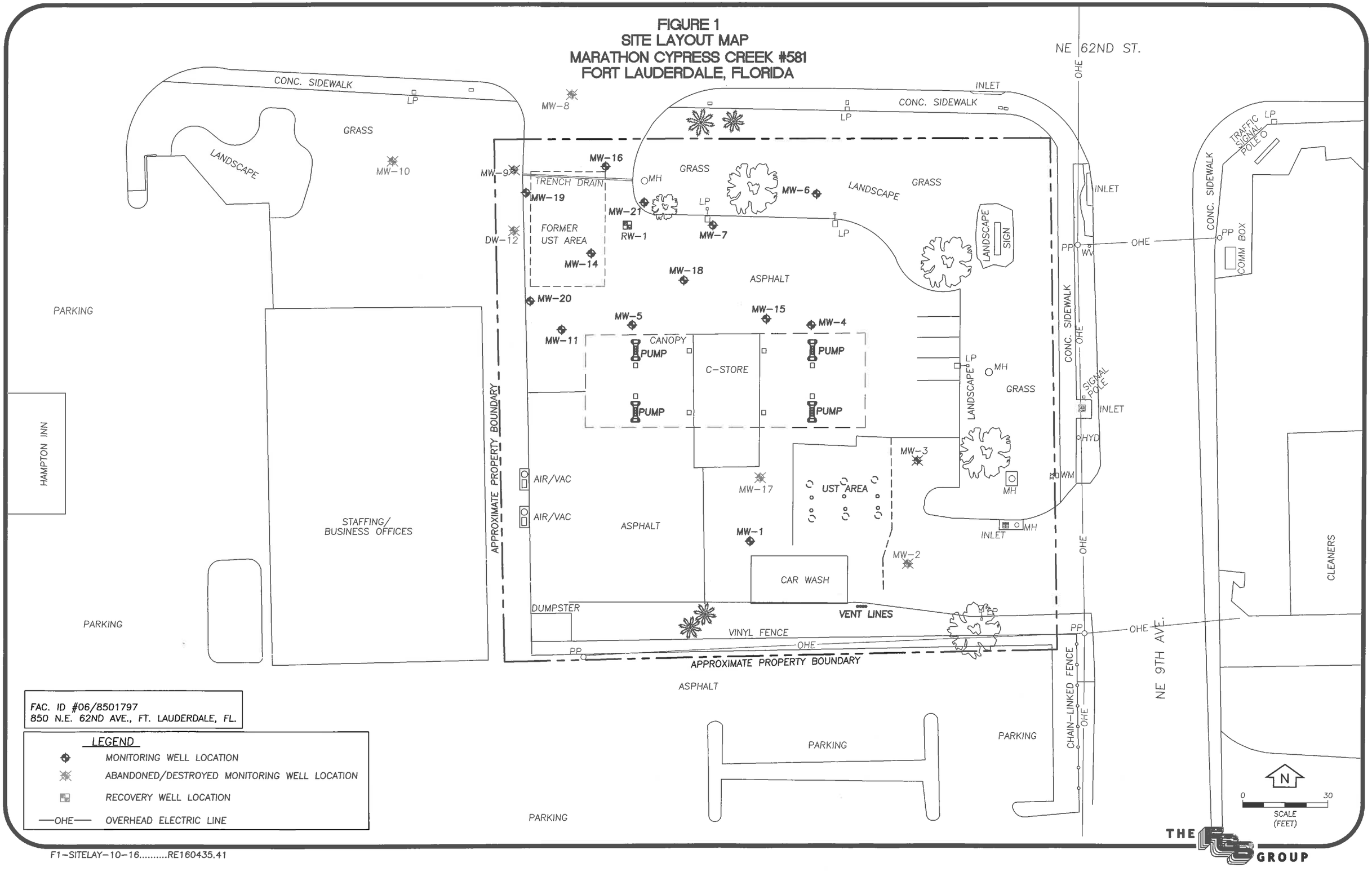
Sincerely,
The FGS Group

Andrew Kucek
Environmental Scientist



John Alford,
Senior Geologist
License No. 2613
Date: 3/10/17

FIGURE 1
SITE LAYOUT MAP
MARATHON CYPRESS CREEK #581
FORT LAUDERDALE, FLORIDA



FAC. ID #06/8501797
850 N.E. 62ND AVE., FT. LAUDERDALE, FL.

LEGEND

- MONITORING WELL LOCATION
- ABANDONED/DESTROYED MONITORING WELL LOCATION
- RECOVERY WELL LOCATION
- —OHE— OVERHEAD ELECTRIC LINE

F1-SITELAY-10-16.....RE160435.41

THE FES GROUP

FIGURE 2
GROUNDWATER ANALYTICAL SUMMARY MAP
MARATHON CYPRESS CREEK #581
FORT LAUDERDALE, FLORIDA

NE 62ND ST.

CONC. SIDEWALK

GRASS

LANDSCAPE

MW-16
0.18U
0.38U
4.2
0.49U
1.1U
600U
0.52
3.1
5.1
9-21-16

MW-8

MW-10

MW-9

MW-19
0.18U
61
0.24U
0.55(I)
73
120
99
190
3.4
1-4-17

GCTLs

FORMER UST AREA

DW-12

MW-14
2.5
0.38U
0.24U
1.2
2.1
1600
47
40
71
9-21-16

PARKING

MW-20
0.18U
0.38U
0.24U
0.49U
1.1U
0.18U
17
10
0.56U
1-4-17

MW-11
0.18U
0.38U
4.2
0.49U
1.1U
600U
0.42
0.20U
0.20U
9-21-16

MW-5
0.18U
0.38U
0.24U
0.49U
1.1U
630U
0.20U
0.21U
0.20U
9-21-16

STAFFING/
BUSINESS OFFICES

HAMPTON INN

MW-21
0.18U
0.38U
0.24U
0.49U
1.1U
0.18U
0.18U
0.18U
5.2
1-4-17

MW-7
0.18U
0.38U
0.24U
0.49U
1.1U
600U
0.20U
0.21U
0.21U
9-21-16

MW-6

MW-21

RW-1

MW-7

LANDSCAPE

GRASS

ASPHALT

LANDSCAPE SIGN

MW-18
0.18U
0.38U
0.24U
0.49U
1.1U
0.18U
0.18U
0.18U
1.4
1-4-17

MW-18

MW-20

MW-5

MW-11

MW-15

MW-4

CANOPY

PUMP

PUMP

PUMP

PUMP

C-STORE

MW-15
0.18U
0.38U
0.24U
0.49U
1.1U
600U
0.19U
0.20U
0.20U
9-21-16

LANDSCAPE

GRASS

CONC. SIDEWALK

MW-3

MW-17

UST AREA

AIR/VAC

AIR/VAC

ASPHALT

MW-1

MW-2

CAR WASH

DUMPSTER

VENT LINES

VINYL FENCE

APPROXIMATE PROPERTY BOUNDARY

APPROXIMATE PROPERTY BOUNDARY

CONC. SIDEWALK

CLEANERS

ASPHALT

PARKING

PARKING

CHAIN-LINKED FENCE

NE 9TH AVE.

FAC. ID #06/8501797
850 N.E. 62ND AVE., FT. LAUDERDALE, FL.

LEGEND

- MONITORING WELL LOCATION
- ABANDONED/DESTROYED MONITORING WELL LOCATION
- RECOVERY WELL LOCATION
- GCTLs — GROUNDWATER CLEANUP TARGET LEVELS DASHED WHERE INFERRED

BENZENE (ug/L)	0.18U
ETHYLBENZENE (ug/L)	0.38U
MTBE (ug/L)	0.24U
TOLUENE (ug/L)	0.49U
TOTAL XYLENES (ug/L)	1.1U
NAPHTHALENE (ug/L)	0.18U
1-METHYLNAPHTHALENE (ug/L)	0.18U
2-METHYLNAPHTHALENE (ug/L)	0.18U
TRPH (ug/L)	5.2

(I) = ANALYTE DETECTED BELOW QUANTITATION LIMITS
U = ANALYTE NOT DETECTED ABOVE METHOD DETECTION LIMITS

N

0 30
SCALE (FEET)

THE GROUP

F2-GW-QUAL(9-21-16&1-4-17)-10-16.....RE160435.41

FIGURE 5
SOIL ANAYTICALSUMMARY MAP (12-29-16)
MARATHON CYPRESS CREEK #581
FORT LAUDERDALE, FLORIDA

NE 62ND ST.

CONC. SIDEWALK

GRASS

LANDSCAPE

MW-8

MW-10

MW-9

SB-7 SB-6 MW-16 SB-5

MW-19 SB-8 SB-9 SB-4 MW-21

FORMER UST AREA

RW-1

DW-12 SB-14 SB-13 SB-3 SB-2

MW-14 SB-12 SB-11

SB-15 SB-16 MW-18

MW-20 SB-18 SB-17

SCTLs

MW-11 MW-5 MW-15 MW-4

CANOPY

PUMP PUMP PUMP PUMP

C-STORE

MW-6 MW-7 SB-1 SB-10

ASPHALT

LANDSCAPE SIGN

LANDSCAPE

GRASS

CONC. SIDEWALK

CONC. SIDEWALK

1'
0.00039U
0.00057(I)
0.00042U
0.00043(I)
0.0037(I)
0.0075(I)
0.0047(I)
0.0057(I)
37
0.34
0.56
0.30
0.5
(15.1 ppm)

1'
0.0016(I)
0.016
0.00042U
0.031
0.092
2.3
1.0
2.0
88
0.0047(I)
0.0061
0.0066(I)
0.0
(124 ppm)

1'
0.0016(I)
0.0066
0.00039U
0.012
0.051
0.023
0.014
0.025
33
0.060
0.10
0.053
0.1
(124 ppm)

1-2'
0.00033U
0.00025U
0.00036U
0.00031U
0.00033U
0.0053U
0.0030U
0.0030U
120
0.67(I)
0.38
51
7.6
(0.2 ppm)

PARKING

HAMPTON INN

STAFFING/ BUSINESS OFFICES

PARKING

AIR/VAC

AIR/VAC

MW-17

UST AREA

MW-3

MW-1

MW-2

ASPHALT

CAR WASH

DUMPSTER

VENT LINES

VINYL FENCE

APPROXIMATE PROPERTY BOUNDARY

ASPHALT

PARKING

PARKING

LANDSCAPE

GRASS

APPROXIMATE PROPERTY BOUNDARY

CHAIN-LINKED FENCE

NE 9TH AVE.

CONC. SIDEWALK

CLEANERS

FAC. ID #06/8501797
850 N.E. 62ND AVE., FT. LAUDERDALE, FL.

LEGEND

- MONITORING WELL LOCATION
- ABANDONED/DESTROYED MONITORING WELL LOCATION
- RECOVERY WELL LOCATION
- SOIL BORING LOCATION
- SCTLs — SOIL CLEANUP TARGET LEVELS DASHED WHERE INFERRED

	DEPTH
BENZENE (mg/kg)	0.00033U
ETHYLBENZENE (mg/kg)	0.00025U
MTBE (mg/kg)	0.00036U
TOLUENE (mg/kg)	0.00031U
TOTAL XYLENES (mg/kg)	0.00033U
NAPHTHALENE (mg/kg)	0.0053U
1-METHYLNAPHTHALENE (mg/kg)	0.0030U
2-METHYLNAPHTHALENE (mg/kg)	0.0030U
TRPH (mg/kg)	120
BENZO(a)PYRENE (mg/kg)	0.67(I)
BENZO(b)FLOURANTHENE (mg/kg)	0.38
INDENO(1,2,3,-cd)PYRENE (mg/kg)	51
BENZO(a)PYRENE EQUIVALENCY (mg/kg)	7.6
	OVA (ppm)

N

0 30

SCALE (FEET)

THE F5 GROUP

F5-SOIL-QUAL(12-29-16)-10-16.....RE160435.41

TABLE 1: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY

Facility Name: Marathon Cypress Creek #581
Facility ID#: 06/8501797

Sample Location	Date	Benzene	Ethylbenzene	MTBE	Toluene	Total Xylenes	FL-PRO TRPH	Lead	EDB	Isopropylbenzene
GCTLs		1	30	20	40	20	5,000	15	0.2	0.8
NADCs		100	300	200	400	200	50,000	150	2	8
MW-5	9/21/2016	0.18 U	0.38 U	0.24 U	0.49 U	1.1 U	630 U	1.3 U	0.013 U	NA
MW-7	9/21/2016	0.18 U	0.38 U	0.24 U	0.49 U	1.1 U	640 U	1.3 U	0.013 U	NA
MW-11	9/21/2016	0.18 U	0.38 U	4.2	0.49 U	1.1 U	600 U	1.3 U	0.013 U	NA
MW-14	9/21/2016	2.5	0.38 U	0.24 U	1.2	2.1	1,600	1.3 U	0.013 U	NA
MW-15	9/21/2016	0.18 U	0.38 U	0.24 U	0.49 U	1.1 U	600 U	1.3 U	0.013 U	NA
MW-16	9/21/2016	0.18 U	0.38 U	0.24 U	0.49 U	1.1 U	600 U	1.3 U	0.013 U	NA
MW-18	1/4/2017	0.18 U	0.38 U	0.24 U	0.49 U	1.1 U	1.4	1.1 U	0.13 U	NA
MW-19	1/4/2017	0.18 U	61	0.24 U	0.55 I	73	3.4	1.1 U	0.013 U	NA
MW-20	1/4/2017	0.18 U	0.38 U	0.24 U	0.49 U	1.1 U	0.56 U	1.1 U	0.013 U	NA
MW-21	1/4/2017	0.18 U	0.38 U	0.24 U	0.49 U	1.1 U	5.2	1.1 U	0.013 U	NA

Analytical Results = ug/L
NA = Not Analyzed
I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U = Compound was analyzed but not detected

TABLE 1A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY

Facility Name: Marathon Cypress Creek #581
Facility ID#: 06/8501797

Sample Location	Date	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene
GCTLs		**14**	**28**	**28**	**20**	**210**	**2100**	**0.05**	**0.2**	**0.05**	**210**	**0.5**	**4.8**	**0.005**	**280**	**280**	**0.05**	**210**	**210**
NADCs		**140**	**280**	**280**	**200**	**2100**	**21000**	**5**	**20**	**5**	**2100**	**50**	**480**	**0.5**	**2800**	**2800**	**5**	**2100**	**2100**
MW-5	9/21/2016	0.20 U	0.21 U	0.20 U	0.17 U	0.18 U	0.15 U	0.051 U	0.15 U	0.052 U	0.20 U	0.20 U	0.14 U	0.099 U	0.15 U	0.16 U	0.047 U	0.17 U	0.15 U
MW-7	9/21/2016	0.20 U	0.21 U	0.21 U	0.17 U	0.18 U	0.15 U	0.052 U	0.16 U	0.053 U	0.20 U	0.20 U	0.14 U	0.10 U	0.16 U	0.16 U	0.048 U	0.17 U	0.15 U
MW-11	9/21/2016	0.42	0.20 U	0.20 U	0.16 U	0.17 U	0.14 U	0.049 U	0.15 U	0.050 U	0.19 U	0.19 U	0.13 U	0.095 U	0.15 U	0.15 U	0.045 U	0.16 U	0.14 U
MW-14	9/21/2016	**47**	**40**	**71**	0.16 U	0.17 U	0.14 U	0.056 I	0.15 U	0.050 U	0.19 U	0.19 U	0.13 U	0.095 U	0.15 U	0.27	0.045 U	0.20 I	0.14 U
MW-15	9/21/2016	0.19 U	0.20 U	0.20 U	0.16 U	0.17 U	0.14 U	0.049 U	0.15 U	0.050 U	0.19 U	0.19 U	0.13 U	0.095 U	0.15 U	0.15 U	0.045 U	0.16 U	0.14 U
MW-16	9/21/2016	0.52	3.1	5.1	0.16 U	0.17 U	0.14 U	0.049 U	0.15 U	0.050 U	0.19 U	0.19 U	0.13 U	0.095 U	0.15 U	0.15 U	0.045 U	0.16 U	0.14 U
MW-18	1/4/2017	0.18 U	0.18 U	0.18 U	0.15 U	0.16 U	0.13 U	0.046 U	0.14 U	0.046 U	0.18 U	0.18 U	0.12 U	0.088 U	0.14 U	0.14 U	0.041 U	0.15 U	0.13 U
MW-19	1/4/2017	**120**	**99**	**190**	0.15 U	0.16 U	0.13 U	0.046 U	0.14 U	0.046 U	0.18 U	0.18 U	0.12 U	0.088 U	0.14 U	0.45	0.041 U	0.48	0.13 U
MW-20	1/4/2017	0.18 U	17	10	0.15 U	0.16 U	0.13 U	0.046 U	0.14 U	0.046 U	0.18 U	0.18 U	0.12 U	0.088 U	0.14 U	0.14 U	0.041 U	0.54	0.13 U
MW-21	1/4/2017	0.18 U	0.18 U	0.18 U	0.15 U	0.16 U	0.13 U	0.046 U	0.14 U	0.046 U	0.18 U	0.18 U	0.12 U	0.088 U	0.14 U	0.14 U	0.041 U	0.15 U	0.13 U
SB-16 @ 1' (SPLP)	12/29/2016	4.9	1.8	3.2	2.0	0.17 U	1.3	**2.7**	**2.7**	**4.8**	1.8	**1.7**	**5.3**	0.095 U	12	1.8	**2.1**	13	10

Analytical Results = ug/L
NA = Not Analyzed
I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
U = Compound was analyzed but not detected

TABLE 4: SOIL SAMPLE ANALYTICAL SUMMARY

Facility Name: Marathon Cypress Creek #581
Facility ID#: 06/8501797

Analytical Results = mg/kg
The compound was analyzed for but not detected = U
The reported value is between the laboratory method detection limit and the laboratory practical quantitiation limit = I
No Results = NR
Not Analyzed = NA

Sample ID	Depth (ft)	OVA (ppm)	Date	Benzene	Ethylbenzene	MTBE	Toluene	Total xylenes	TRPH	1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)flouranthene	Benzo(ghi)perylene	Benzo(k)flouranthene	Chrysene	Dibenzo(a,h)anthracene	Flouranthene	Flourene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Benzo(a)pyrene Equivalency
Soil Cleanup Target Levels (Direct Exp. Residential)				**1.2**	**1,500**	**4,400**	**7,500**	**130**	**460**	**200**	**210**	**2,400**	**1,800**	**21,000**	**#**	**0.1**	**#**	**2,500**	**#**	**#**	**#**	**3,200**	**2,600**	**#**	**55**	**2,200**	**2,400**	**0.15**
Soil Cleanup Target Levels (Leachability)				**0.007**	**0.6**	**0.09**	**0.5**	**0.2**	**340**	**3.1**	**8.5**	**2.1**	**27**	**2,500**	**0.8**	**8**	**2.4**	**32,000**	**24**	**77**	**0.7**	**1,200**	**160**	**6.6**	**1.2**	**250**	**880**	**NA**
SB-11 @ 1-2'	1-2'	0.2	12/29/2016	0.00033 U	0.00025 U	0.00036 U	0.00031 U	0.00033 U	120	0.0030 U	0.0030 U	0.024	0.0024 U	0.044	0.17	**0.16**	0.33	0.11	0.11	0.38	0.031	0.68	0.022	0.15	0.0053 U	0.37	0.58	**0.3**
SB-13 @ 1'	1'	15.1	12/29/2016	0.00039 U	0.00057 I	0.00042 U	0.00043 I	0.0037 I	37	0.0047 I	0.0057 I	0.040	0.0024 U	0.038	0.33	**0.34**	0.56	0.24	0.19	0.59	0.067	1.1	0.051	0.30	0.0075 I	0.86	0.86	**0.5**
SB-16 @ 1'	1'	124	12/29/2016	0.0016 I	0.016	0.00042 U	0.031	0.092	88	1.0	2.0	0.0055 I	0.0084	0.0042 I	0.0022 U	0.0047 I	0.0061	0.0088	0.0020 U	0.0022 U	0.0064 U	0.0023 I	0.0040 I	0.0066 I	**2.3**	0.0033 I	0.0063 I	0.0
SB-18 @ 1'	1'	67	12/29/2016	0.0016 I	0.0066	0.00039 U	0.012	0.051	33	0.014	0.025	0.015	0.0024 U	0.012	0.056	0.060	0.10	0.042	0.033	0.10	0.012	0.17	0.016	0.053	0.023	0.13	0.16	0.1

 # = Concentration converted to benzo(a)pyrene equivalent column

Site No. 13

Executive Cleaners/Nu-Look 1 Hour Cleaners #47
900 NE 62 Street

Site Screening Report Form

Please Print or Type (See Site Screening Guidance Manual for instructions)
COMPLETE ENTIRE FORM

DEP Form: 62-781.900(3)
Form Title: Site Screening Report Form
Effective Date:
DEP Application No.:
(FDEP Use Only)

Instructions and definitions that are necessary for completing this form can be obtained from the Site Screening Report Guidance Manual. Information provided on this form shall be in accordance with the directions and provisions of the Site Screening Guidance Manual.

Bureau of Waste Cleanup
NOV 27 1996
Hazardous Waste Cleanup Section

1. Facility Identification

a. Facility Name: Nu-Look One Hour Cleaners

b. Facility Address: 90 N.E. 62nd Street

Oakland Park, FL 33334

c. Facility Identification Number (if assigned): 069501132

2. Fire or Explosion Hazard:

If a fire or explosion hazard existed at the site, then provide the date that the hazard was reported to the State Warning Point and the local fire department:

N/A

NOTE: DO NOT USE THIS SITE SCREENING REPORT FORM TO REPORT A FIRE OR EXPLOSION HAZARD TO THE DEPARTMENT. If the fire or explosion hazard has not been reported to the State Warning Point at 1-904-413-9911 and the local fire department, then immediately notify these authorities.

3. Documentation of Contamination:

Initials
Date

a. Laboratory used to analyze sample:

Progress Environmental Laboratories CompQAP No. 900306G

b. Methodology used: EPA Method 8010

c. Sample Media: ☑ Soil ☐ Groundwater

d. Sample Analysis Results (report highest concentration only):

Sample location	Depth of sample (feet below land surface)	Drycleaning Solvent or breakdown product detected	Concentration (units):
NLC-001	0.5	PCE	148 µg/kg

4. Site Location:

Indicate the latitude and longitude coordinates of the site (accurate to 0.005 minutes):

26 - 12 . 112 N

80 - 09 . 227 W

Method used for determination: ☑ Quad Map ☐ Differential GPS

5. Well Survey Information:

Provide the following information concerning a drinking water well located within 1 mile of the site, as specified in the site screening guidance manual:

If no drinking water wells exist within 1 mile of the site, check here: ☑

a. Name, address, permit number and lat/long of the drinking water well:

_____

_____

Permit Number: _____

_____ - _____ . _____ N

_____ - _____ . _____ W

b. Indicate if the well is contaminated:

☐ YES ☐ NO

c. Indicate the proximity of the well to the site. (select only one):

☐ Within 500 feet ☐ Within 1/2 mile

☐ Within 1/4 mile ☐ Within 1 mile

d. Indicate the type of drinking water well (select only one):

☐ Private Drinking Water Well

If Private Drinking Water Well, then indicate the date the well was constructed, if known: ___ / ___ / ___

☐ Public Water Supply Well

e. Indicate the permitted capacity of the well (select only one):

- ☐ Less than 100,000 gallons per day
- ☐ More than 100,000 gallons per day but less than 1 million gallons per day
- ☐ More than 1 million gallons per day

f. Indicate the completed interval of the well, if available:

_____

g. Indicate the aquifer in which the well is completed:

- ☐ Biscayne
- ☐ Floridan
- ☐ Other _____
- ☐ Intermediate (non-Floridan)
- ☐ Sand and gravel
- ☐ Surficial

6. Contaminant Characteristics

Based on analytical data meeting the requirements in Section 3 of the Site Screening Report Guidance Manual:

a. Has contamination from chlorinated drycleaning solvents been detected at the site during this screening or previous assessment activities?

- ☑ YES
- ☐ NO

b. If YES, indicate the sample matrix and the highest concentration of chlorinated solvents detected (attach supporting documentation).

Matrix	Concentration	
☑Soil	0.148 (PCE)	milligrams/kilogram
☐Groundwater		micrograms/liter

7. Environmental Setting

Indicate if the following features are located within the given proximity of the site.

a. A surface water body, used as a public water supply system, is located within 1/2 mile of the site?

- ☐ YES
- ☑ NO

If YES, then indicate the name and location of the surface water body supply system:

_____

b. Is there a surface water body that has been designated as an Outstanding Florida Water Body located within 1/2 mile of the site?

☐ YES ☑ NO

If YES, then indicate the name and location of the water body:

_____

_____

c. Is an area of Critical State Concern located within 1/2 mile of the site?

☐ YES ☑ NO

If YES, then indicate the area of Critical State Concern:

☐ Big Cypress Swamp ☐ Green Swamp

☐ Florida Keys

d. Is a surface water body located within 1/4 mile of the site?

☐ YES ☑ NO

If YES, then indicate the name and location of the closest water body within 1/4 mile of the site:

_____

_____

8. **Probable Source of Contamination:**

Check all that apply:

a. Leak or spill from:

☐ Solvent or waste solvent storage container

☑ Machines or stills

b. Discharge or spill to:

☐ Septic tank

☐ Sewage line

☐ Dry well

☐ Directly to ground

☑ Directly to other surface that has not been rendered impervious to drycleaning solvents

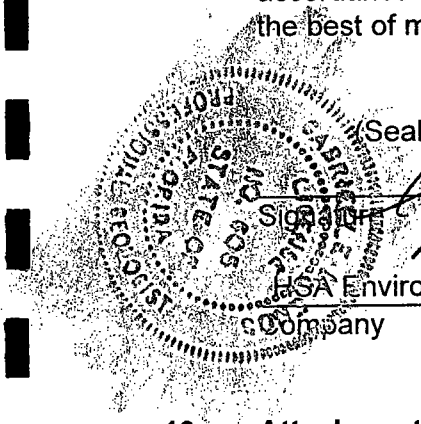
c. ☐ Spill during solvent transfer

d. ☐ Other (explain)

_____

9. **Professional Certification (Professional Geologist or Professional Engineer registered in the State of Florida)**

I hereby certify that the data and findings of this screening report were conducted in accordance with the Site Screening Report Guidance Manual, are accurate and true to the best of my knowledge and were prepared by me or under my direct supervision.



(Seal)

Signature

November 20, 1996
Date

HSA Environmental
Company

920072G
CompQAP Number

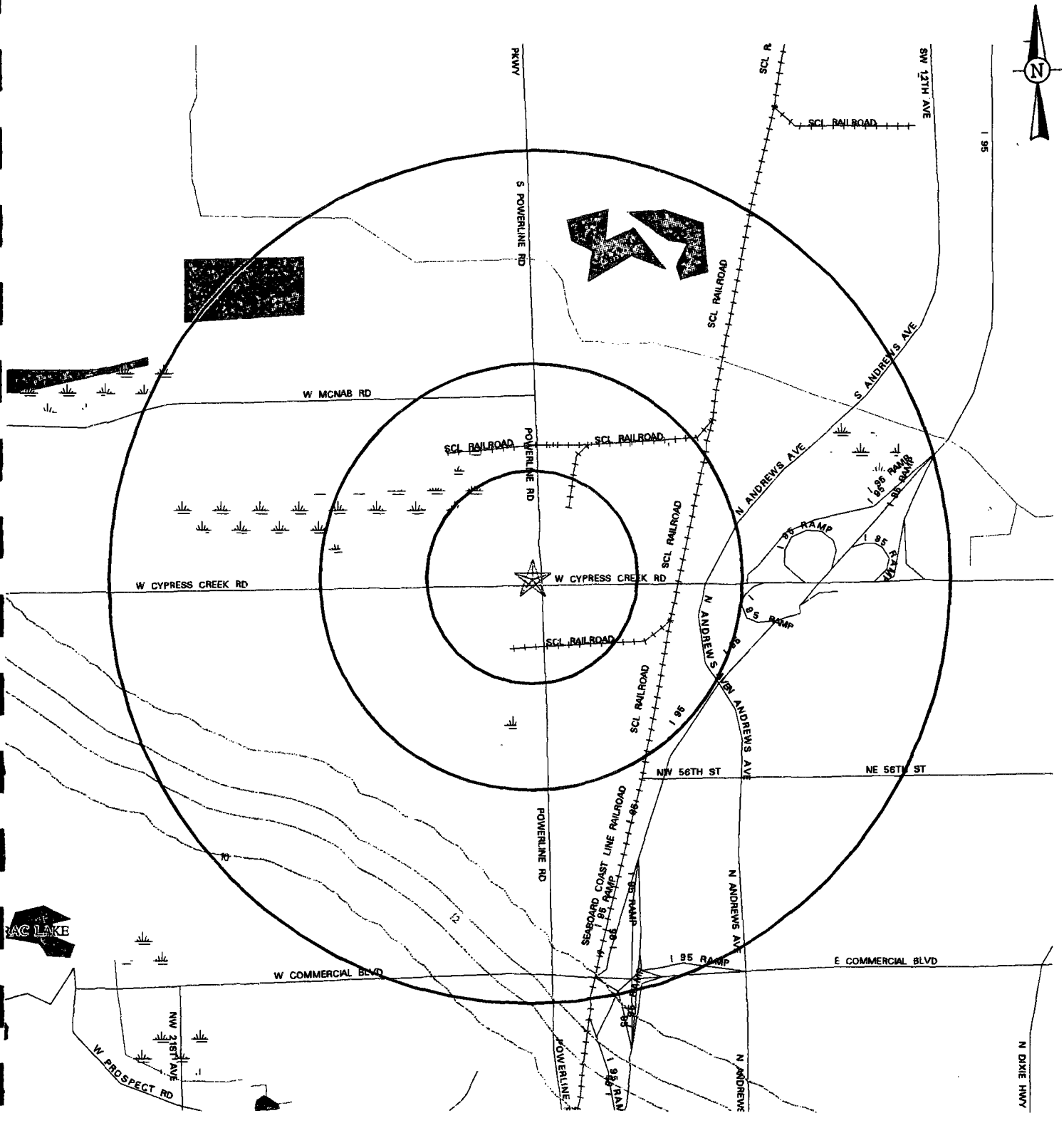
10. **Attachments to the Site Screening Report Form:**

a. ☑ Area map

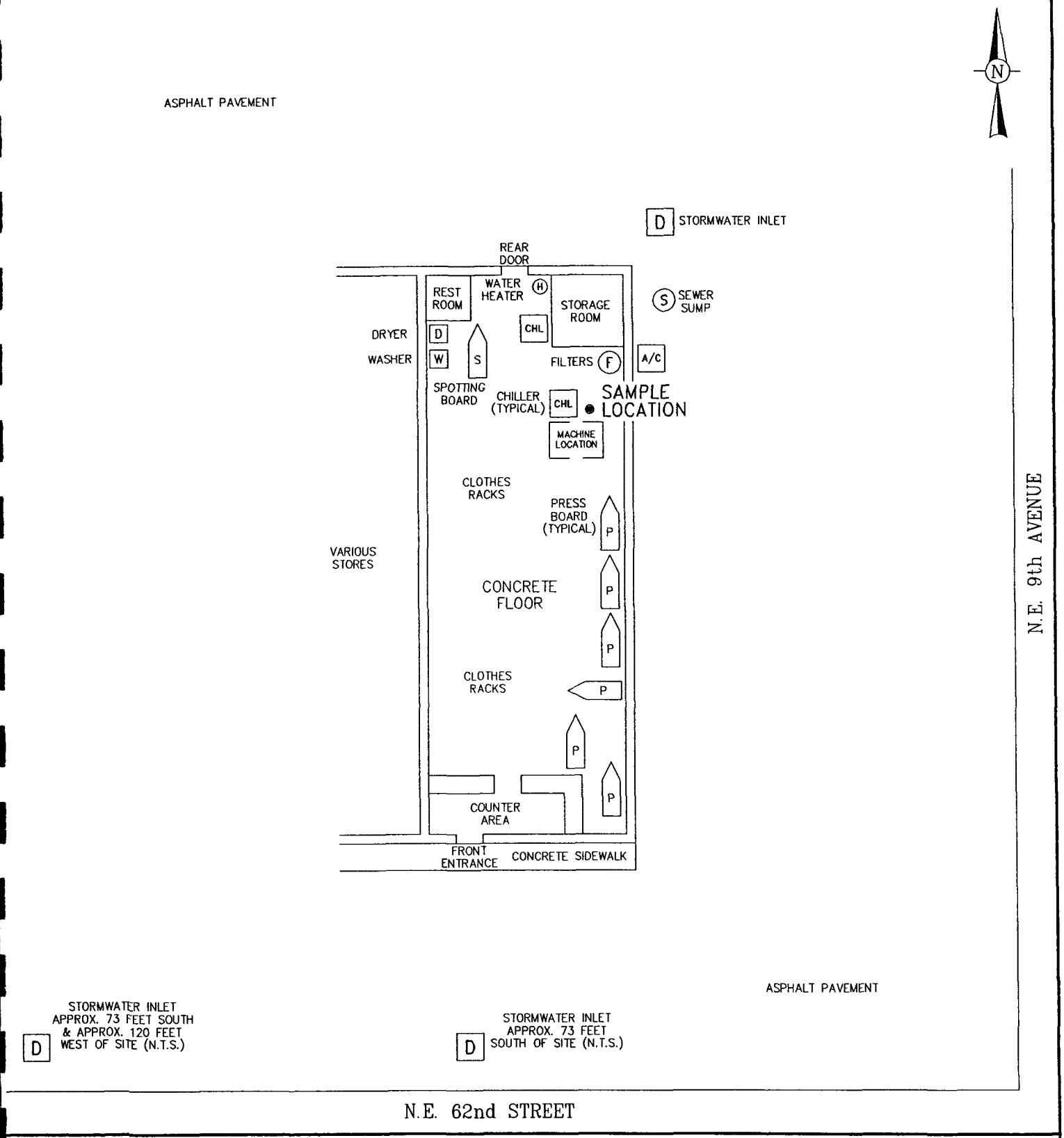
b. ☑ Site map

c. ☑ Supporting analytical soil and/or groundwater data

Note: The Site Screening Report Form is one component of the Application Package. In order for the Application Package to be deemed complete, the Site Screening Report Form must accompany a complete Application Form and any Notice Letter for Joint Application Form(s), if applicable.



ATTACHMENT 10a - AREA MAP NOTE 1, 1/2, AND 1/4 MILE RADII SCALE: 1" = 1650 FT.	SITE NAME: Nu-Look One Hour Cleaners ADDRESS: 900 N.E. 62nd Street CITY: Oakland Park COUNTY: Broward 6-96-D848	SITE CENTERED ON MAP LATITUDE 26 - 12 - 112 N LONGITUDE 80 - 09 - 227 W USGS 1° DIGITAL ELEVATION MODEL:



ATTACHMENT 10b - SITE MAP	SITE NAME: Nu-Look One Hour Cleaners ADDRESS: 900 N.E. 62nd Street CITY: Oakland Park COUNTY: Broward 6-96-D848	SITE CENTERED ON MAP LATITUDE 26 - 12 - 112 N LONGITUDE 80 - 09 - 227 W MAP IS NOT FOR SURVEY PURPOSES
SCALE: 1" = 15 FT.		

Progress Environmental Laboratories

4420 Pendola Point Road
Tampa, Florida 33619
(813) 247-2805
FAX: (813) 248-1537

- CERTIFICATE OF ANALYSIS -
(HRS #E84207 and FDER CompQap #900306G)

To: HSA Environmental, Inc.
4019 East Fowler Avenue
Tampa, FL 33617

Report Date: 10/15/96

Attn: Allen Guins

PEL Lab # : 9610-00072-1
Client ID : NLC-001
Project ID : 6-96-D848
Location : Nu-Look 1 Hr. Clnrs.
Matrix : Solid

Collection Information:
Sample Date: 10/10/96
Sample Time: 16:45
Sampled By : Client
Sample Quality:

ND = Less than MDL

Parameter	Method	Results	Units	MDL
GC Volatiles	EPA 8010			
Dichlorodifluoromethane	EPA 8010	ND	ug/kg	14.0
Chloromethane	EPA 8010	ND	ug/kg	21.5
Vinyl Chloride	EPA 8010	ND	ug/kg	7.3
Bromomethane	EPA 8010	ND	ug/kg	14.8
Chloroethane	EPA 8010	ND	ug/kg	8.4
Trichlorofluoromethane	EPA 8010	ND	ug/kg	10.5
1,1-Dichloroethene	EPA 8010	ND	ug/kg	10.5
Methylene Chloride	EPA 8010	ND	ug/kg	29.1
Trans-1,2-dichloroethene	EPA 8010	ND	ug/kg	12.2
1,1-Dichloroethane	EPA 8010	ND	ug/kg	10.2
Chloroform	EPA 8010	ND	ug/kg	29.1
1,1,1-Trichloroethane	EPA 8010	ND	ug/kg	8.7
Carbontetrachloride	EPA 8010	ND	ug/kg	9.9
1,2-Dichloroethane	EPA 8010	ND	ug/kg	12.2
Trichloroethene	EPA 8010	ND	ug/kg	10.5
1,2-Dichloropropane	EPA 8010	ND	ug/kg	11.0
Bromodichloromethane	EPA 8010	ND	ug/kg	11.9
2-Chloroethylvinyl ether	EPA 8010	ND	ug/kg	37.8
Cis-1,3-Dichloropropene	EPA 8010	ND	ug/kg	11.0
Trans-1,3-Dichloropropene	EPA 8010	ND	ug/kg	12.2
1,1,2-Trichloroethane	EPA 8010	ND	ug/kg	14.8
Tetrachloroethene	EPA 8010	148	ug/kg	10.5
Dibromochloromethane	EPA 8010	ND	ug/kg	14.0
Bromoform	EPA 8010	ND	ug/kg	23.3
1,1,2,2-Tetrachloroethane	EPA 8010	ND	ug/kg	23.8
Analysis date	EPA 8010	10-14-96		
*1,4Dichlorobutane(10-150%)	EPA 8010	97.0	%R	

- CONTINUED ON NEXT PAGE -

Progress Environmental Laboratories

- CERTIFICATE OF ANALYSIS -
(HRS #E84207 and FDER CompQap #900306G)

To: HSA Environmental, Inc.
4019 East Fowler Avenue
Tampa, FL 33617

Report Date: 10/15/96

Attn: Allen Guins

PEL Lab # : 9610-00072-1 (Continued ...)
Client ID : NLC-001

ND = Less than MDL

Parameter	Method	Results	Units	MDL
*4-BFB (10-150%)	EPA 8010	83.0	%R	

- CONTINUED ON NEXT PAGE -

Progress Environmental Laboratories

- CERTIFICATE OF ANALYSIS -
(HRS #E84207 and FDER CompQap #900306G)

To: HSA Environmental, Inc.
4019 East Fowler Avenue
Tampa, FL 33617

Report Date: 10/15/96

Attn: Allen Guins

PEL Lab # : 9610-00072-2
Client ID : Equip. Blank
Project ID : 6-96-D848
Location : Nu-Look 1 Hr. Clnrs.
Matrix : Liquid

Collection Information:
Sample Date: 10/10/96
Sample Time: 16:30
Sampled By : Client
Sample Quality:

ND = Less than MDL

Parameter	Method	Results	Units	MDL
GC Volatiles	EPA 8010			
Dichlorodifluoromethane	EPA 8010	ND	ug/l	0.48
Chloromethane	EPA 8010	ND	ug/l	0.74
Vinyl Chloride	EPA 8010	ND	ug/l	0.25
Bromomethane	EPA 8010	ND	ug/l	0.51
Chloroethane	EPA 8010	ND	ug/l	0.29
Trichlorofluoromethane	EPA 8010	ND	ug/l	0.36
1,1-Dichloroethene	EPA 8010	ND	ug/l	0.36
Methylene Chloride	EPA 8010	ND	ug/l	1.0
Trans-1,2-dichloroethene	EPA 8010	ND	ug/l	0.42
1,1-Dichloroethane	EPA 8010	ND	ug/l	0.35
Chloroform	EPA 8010	ND	ug/l	1.0
1,1,1-Trichloroethane	EPA 8010	ND	ug/l	0.30
Carbontetrachloride	EPA 8010	ND	ug/l	0.34
1,2-Dichloroethane	EPA 8010	ND	ug/l	0.42
Trichloroethene	EPA 8010	ND	ug/l	0.36
1,2-Dichloropropane	EPA 8010	ND	ug/l	0.38
Bromodichloromethane	EPA 8010	ND	ug/l	0.41
2-Chloroethylvinyl ether	EPA 8010	ND	ug/l	1.3
Cis-1,3-Dichloropropene	EPA 8010	ND	ug/l	0.38
Trans-1,3-Dichloropropene	EPA 8010	ND	ug/l	0.42
1,1,2-Trichloroethane	EPA 8010	ND	ug/l	0.51
Tetrachloroethene	EPA 8010	ND	ug/l	0.36
Dibromochloromethane	EPA 8010	ND	ug/l	0.48
Bromoform	EPA 8010	ND	ug/l	0.80
1,1,2,2-Tetrachloroethane	EPA 8010	ND	ug/l	0.82
Analysis date	EPA 8010	10-12-96		
*1,4Dichlorobutane(10-150%)	EPA 8010	101	%R	
*4-BFB (10-150%)	EPA 8010	97.0	%R	

- CONTINUED ON NEXT PAGE -

Progress Environmental Laboratories

- CERTIFICATE OF ANALYSIS -
(HRS #E84207 and FDER CompQap #900306G)

To: HSA Environmental, Inc.
4019 East Fowler Avenue
Tampa, FL 33617

Report Date: 10/15/96

Attn: Allen Guins

Respectfully submitted,
Charles R. Ingram, Quality Assurance Officer.

SITE SCREENING RANKING - DRYCLEANING SOLVENT CLEANUP PROGRAM

06-9501132 Facility ID

Nu-Look One Hour Cleaners Facility Name

CRITERIA		POINTS
Fire or Explosion Hazard		
Free product or volatilized products at or above 10% of the Lower Explosion Limit (LEL) in existing utility conduits or vaults, buildings or inhabited confined spaces; or ignitable free product on surface waters or impoundment's.	NO	0
Threat to Groundwater		
Drinking water wells exist within 1 mile of the site.	No	
Drinking water well is contaminated.		
1. Proximity to Drinking Water Wells (only one may apply)		
A. Uncontaminated Wells		
within 500 feet / within 1/4 mile / within 1/2 mile / within 1 mile		0
B. Contaminated Wells		
within 500 feet / within 1/4 mile / within 1/2 mile / within 1 mile		0
2. Permitted Capacity (only one may apply)		
A. Uncontaminated Wells		
>1MGD / 100,000 - 1MGD / <100,000gpd		0
B. Contaminated Wells		
>1MGD / 100,000 - 1MGD / <100,000gpd		0
3. DRASTIC Index		
79 and below / 80 to 99 / 100 to 119 / 120-139 / 140 to 159 / 160 to 179 / 180 to 199 / 200 to 266	24 pts	24

Initials _____
Date _____

SITE SCREENING RANKING - DRYCLEANING SOLVENT CLEANUP PROGRAM

CRITERIA	POINTS
Contaminant Characteristics / Continual Source (select all that apply)	
1. Site is contaminated with chlorinated drycleaning solvents? (2 pts) Yes ( )	2
2. Soil concentrations of chlorinated drycleaning solvents exceed 1 mg/kg or groundwater concentrations exceed 1500 ug/l? (5 pts) ( ) No	0
Environmental Setting (if no to all click here..... NO)	
1. Within 1/2 mile of surface water body used as a public supply system. (10 pts) ( ) No	0
2. Within 1/2 mile of Outstanding Florida Water Body. (2 pts) ( ) No	0
3. Within 1/4 mile of an area designated as an area of Critical State Concern. (2 pts) ( ) No	0
4. Within 1/4 mile of a surface water body. (1 pt) ( ) No	0
Aquifer Classifications (select all that apply)	
1. Site located in G-I or F-I aquifer area. (3 pts) ( ) No	0
2. Site located in G-II aquifer area. (2 pts) Yes ( )	2
3. Site located in an USEPA designated sole source aquifer. (1 pt)	1
TOTAL SCORE	29

Jennifer Reynolds for JR
PROJECT MANAGER

3/11/97
DATE

Comments:

Site No. 14

Cypress Creek Cleaners
821 NE 62 Street

Site Screening Report Form

Initials ____
Date ____

Please Print or Type (See Site Screening Guidance Manual for instructions)
COMPLETE ENTIRE FORM

Instructions and definitions that are necessary for completing this form can be obtained from the Site Screening Report Guidance Manual. Information provided on this form shall be in accordance with the directions and provisions of the Site Screening Guidance Manual.

1. Facility Identification

a. Facility Name: CYPRESS CREEK DRYCLEANERS

b. Facility Address: 821 NE 62nd STREET

FORT LAUDERDALE, FL. 33334

c. Facility Identification Number (if assigned): 06-9600178

2. Fire or Explosion Hazard:
If a fire or explosion hazard existed at the site, then provide the date that the hazard was reported to the State Warning Point and the local fire department:

__/__/__ Tetrachloroethene site, no explosion hazard present.

NOTE: DO NOT USE THIS SIRE SCREENING REPORT FORM TO REPORT A FIRE OR EXPLOSION HAZARD TO THE DEPARTMENT. If the fire or explosion hazard has not been reported to the State Warning Point at 1-904-413-9911 and the local fire department, then immediately notify these authorities.

3. Documentation of Contamination:

a. Laboratory used to analyze sample:
Spectrum Laboratories, Inc. CompQAP No. 870206G

b. Methodology used: EPA Method 8010

c. Sample Media: X Soil __ Groundwater

Initials ____
Date ____

d. Sample Analysis Results (report highest concentration only):

Sample location	Depth of sample (feet below land surface)	Drycleaning Solvent or breakdown product detected	Concentration (units):
SB-1	4 Feet	Tetrachloroethene	7.21 ug/kg

4. Site Location:
Indicate the latitude and longitude coordinates of the site (accurate to 0.005 minutes):

2 6 - 1 2 . 1 8 3 N
8 0 - 0 8 . 1 8 3 W

Method used for determination: X Quad Map __ Differential GPS

5. Well Survey Information:
Provide the following concerning a drinking water well located with 1 mile of the site, as specified in the site screening guidance manual:

If no drinking water wells exist within 1 mile of the site, check here: X

a. Name, address, permit number and lat/long of the drinking water well:

_____

_____

Permit Number: _____

__ __ - __ __ . __ __ __ N
__ __ - __ __ . __ __ __ W

b. Indicate if the well is contaminated:
__ YES __ NO

c. Indicate the proximity of the well to the site. (select only one):
__ Within 500 feet __ Within ½ mile
__ Within ¼ mile __ Within 1 mile

d. Indicate the type of drinking water well (select only one):
__ Private Drinking Water Well
If Private Drinking Water Well, then indicate the date the well was constructed, if known: __/__/__

__ Public Water Supply Well

e. Indicate the permitted capacity of the well (select only one):
__ Less than 100,000 gallons per day
__ More than 100,000 gallons per day but less than 1 million gallons per day
__ More than 1 million gallons per day

f. Indicate the completed interval of the well, if available:

_____

g. Indicate the aquifer in which the well is completed:
__ Biscayne
__ Floridian
__ Other_____
__ Intermediate (non-Floridian)
__ Sand and gravel
__ Surficial

6. Contaminant Characteristics

Based on analytical data meeting the requirements in Section 3 of the Site Screening Report Guidance Manual:

a. Has contamination from chlorinated drycleaning solvents been detected at the site during this screening or previous assessment activities?

X YES __ NO

b. If YES, indicate the sample matrix and the highest concentration of chlorinated solvents detected (attach supporting documentation).

Matrix		Concentration	
X	Soil	7.21 ug/kg	micrograms/kilogram
__	Groundwater	_____	micrograms/liter

7. Environmental Setting

Indicate if the following features are located within the given proximity of the site.

a. A surface water body, used as a public water supply system, is located within ½ mile of the site?
__ YES X NO

If YES, then indicate the name and location of the surface water body supply system:

_____

b. Is there a surface water body that has been designated as an Outstanding Florida Water Body located within ½ mile of the site?

__ YES X NO

If YES, then indicate the name and location of the water body:

_____

_____

c. Is an area of Critical State Concern located within ½ mile of the site?

__ YES X NO

If YES, then indicate the area of Critical State Concern:

__ Big Cypress Swamp __ Green Swamp

__ Florida Keys

d. Is a surface water body located within ¼ mile of the site?

X YES __ NO

If YES, then indicate the name and location of the closest water body within ¼ mile of the site:

A tributary of the Cypress Creek Canal is located approximately 700 feet north of the site.

8. Probable Source of Contamination:
Check all that apply:

a. Leak or spill from:

__ Solvent or waste solvent storage container

__ Machines or stills

b. Discharge or spill to:

__ Septic tank

__ Sewage line

__ Dry well

__ Directly to ground

__ Directly to other surface that has not been rendered imperious to drycleaning solvents

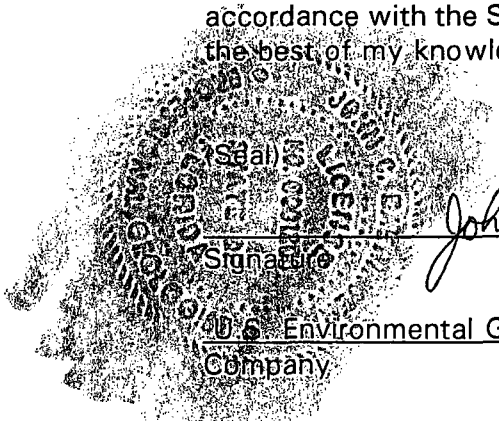
c. __ Spill during solvent transfer

d. X Other (explain)

The soil sample was collected behind the back door of the facility. Due to the limited nature of the assessment, the probable source of impact is unknown.

9. **Professional Certification (Professional Geologist or Professional Engineer registered in the State of Florida)**

I hereby certify that the data and findings of this screening report were conducted in accordance with the Site Screening Report Guidance Manual, are accurate and true to the best of my knowledge and were prepared by me or under my direct supervision.



(Seal)

John C. Baeninger
Signature

8/22/96
Date

U.S. Environmental Group, Inc.
Company

910229G
CompQAP Number

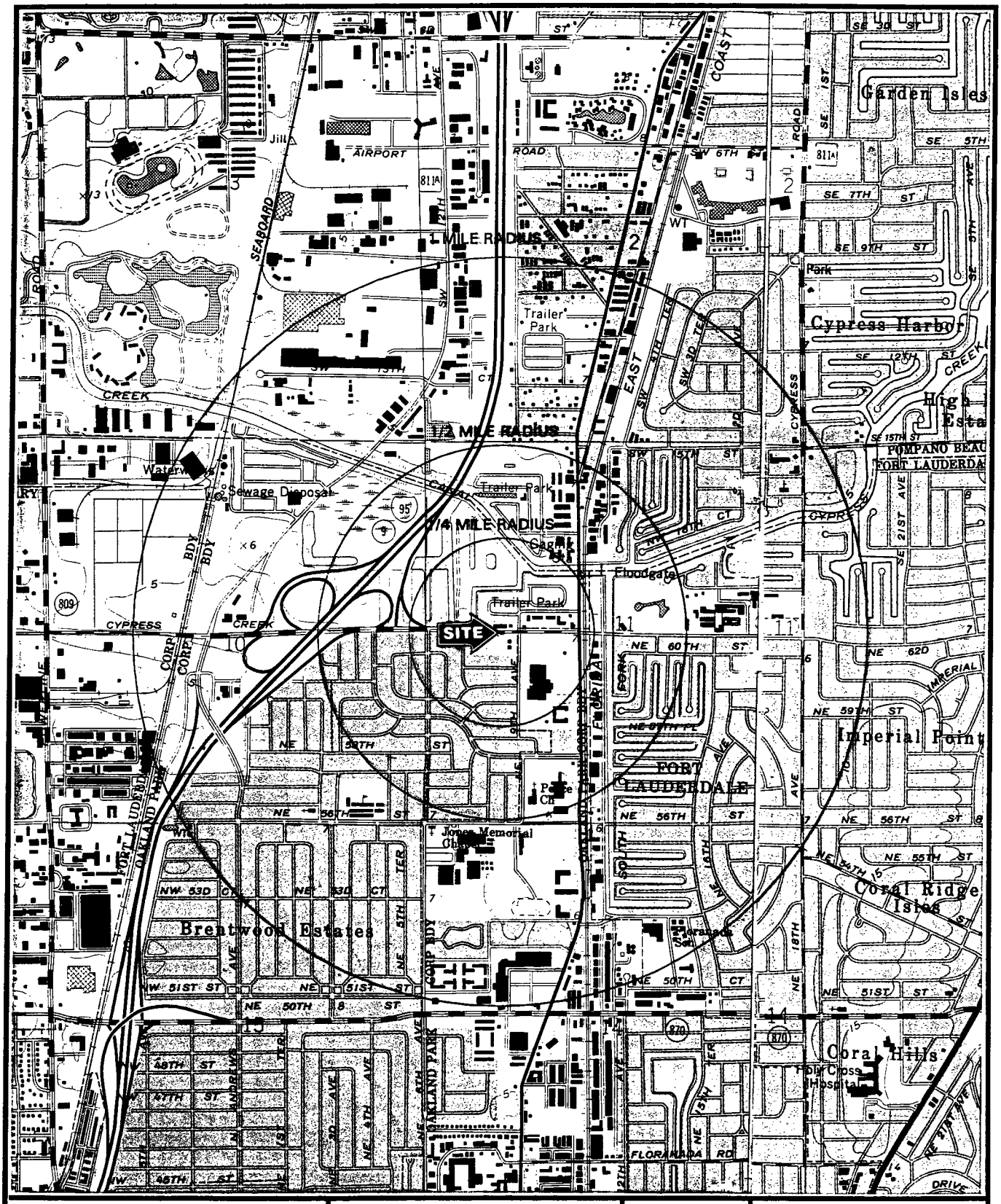
10. Attachments to the Site Screening Report Form:

a. X Area map

b. X Site map

c. X Supporting analytical soil and/or groundwater data

Note: The Site Screening Report Form is one component of the Application Package. In order for the Application Package to be deemed complete, the Site Screening Report Form must accompany a complete Application Form and any Notice Letter for Joint Application Form(s), if applicable.


1 MILE RADIUS
1/2 MILE RADIUS
1/4 MILE RADIUS
SITE
AIRPORT
SEABOARD
COAST
ROAD
CREEK
CYPRESS
CORP BDY
Trailer Park
Sewage Disposal
Garden Isles
Cypress Harbor
Imperial Point
FORT LAUDERDALE
Brentwood Estates
Coral Ridge Isles
Coral Hills
Holy Cross Hospital
Floodgate
Park
FLORANADA RD
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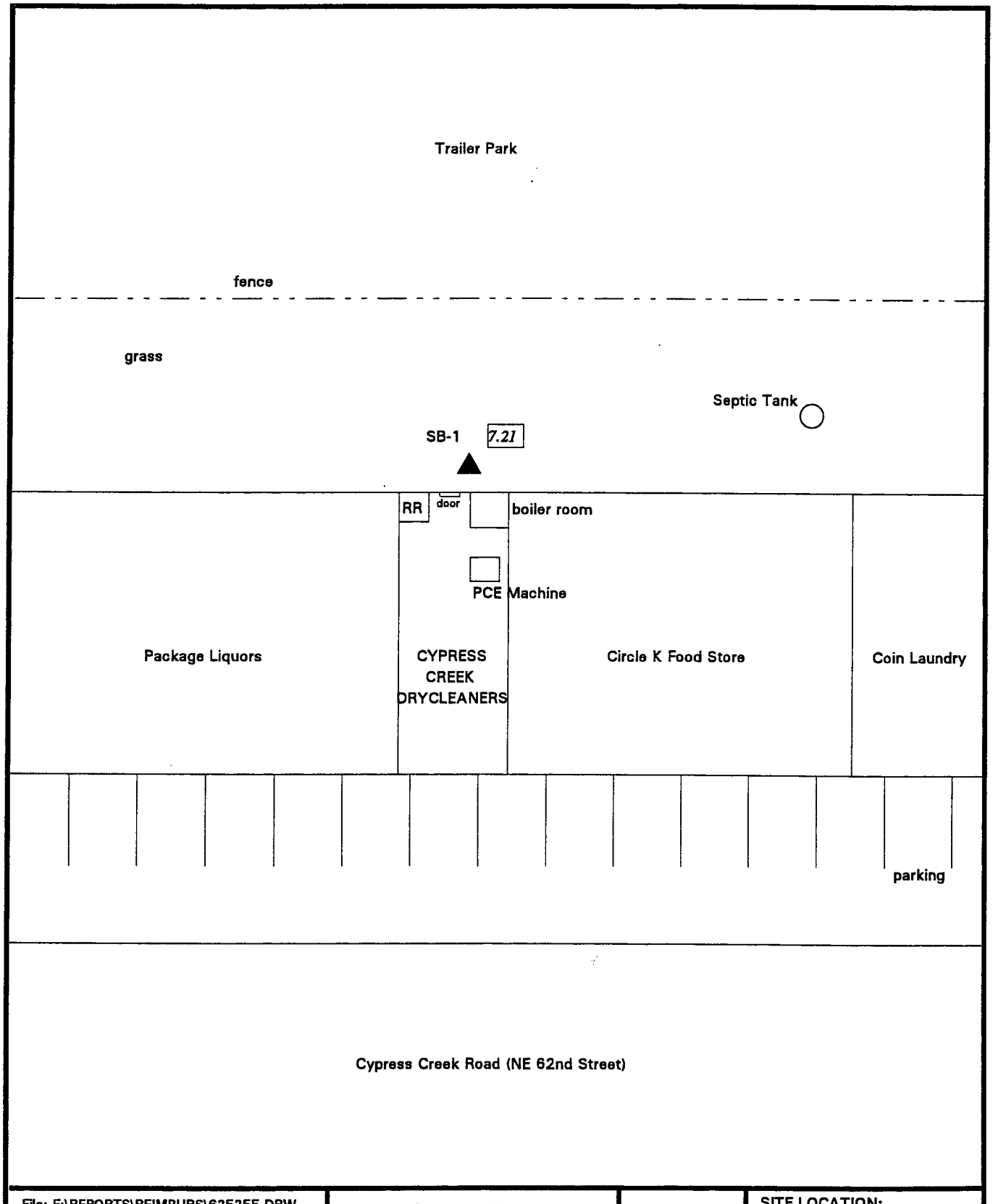

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▲ SB-1 = Soil Boring Location

7.21 = Concentration of Tetrachloroethene (parts per billion)

SCALE: 0' 10' 20'

SITE MAP

Cypress Creek Drycleaners
821 NE 62nd Street
Fort Lauderdale, Florida 33334
Broward County

N W E S

SITE LOCATION:
LATITUDE 26-12.183 N
LONGITUDE 80-08.183 W
USGS 7.5 TOPO QUAD:
FORT LAUDERDALE NORTH, FLORIDA

ATTACHMENT - 10b

SPECTRUM
Laboratories, Inc. FORT LAUDERDALE • SAVANNAH

EPA METHOD 8010

CLIENT: US ENVIRONMENTAL GROUP
SAMPLE NUMBER: 039-081696
LOCATION: 625255/SB-1
ADDITIONAL DATA: 821 62ND STREET/PO 10619
SAMPLED BY: BRIAN CORNELL, USEG
SUBMITTED BY: BRIAN CORNELL, USEG
DATE SAMPLED: 08/16/96 1120
DATE REPORTED: AUG. 19 1996
DILUTION FACTOR: 1.00000
REVISION: 0

FL DRINKING WATER: #86144
FL ENVIRONMENTAL: #E86006
GEORGIA: #2000
SOUTH CAROLINA: #96015
EPA: #FL095
FDER COAP: #870206G
DATE RECEIVED: 08/16/96
SAMPLE MATRIX: SOIL
DATA FILE: ^M8112::D7
DATE ANALYZED: 960817 03:44

CAS No.	PARAMETER	CONCENTRATION (ppb)	MDL* (ppb)
107-05-1	ALLYL CHLORIDE	0.00 ug/kg	(1.00)
100-44-7	BENZYL CHLORIDE	0.00 ug/kg	(0.50)
108-86-1	BROMOBENZENE	0.00 ug/kg	(0.20)
75-27-4	BROMODICHLOROMETHANE	0.00 ug/kg	(0.20)
75-25-2	BROMOFORM	0.00 ug/kg	(0.20)
74-83-9	BROMOMETHANE	0.00 ug/kg	(0.20)
56-23-5	CARBON TETRACHLORIDE	0.00 ug/kg	(0.20)
108-90-7	CHLOROBENZENE	0.00 ug/kg	(0.20)
75-00-3	CHLOROETHANE	0.00 ug/kg	(0.20)
110-75-8	2-CHLOROETHYLVINYLETHER	0.00 ug/kg	(0.50)
67-66-3	CHLOROFORM	0.00 ug/kg	(0.20)
74-87-3	CHLOROMETHANE	0.00 ug/kg	(0.50)
126-99-8	CHLOROPRENE	0.00 ug/kg	(0.20)
106-43-4	4-CHLOROTOLUENE	0.00 ug/kg	(0.20)
124-48-1	DIBROMOCHLOROMETHANE	0.00 ug/kg	(0.20)
96-12-8	1,2DIBROMO3CHLOROPROPANE	0.00 ug/kg	(0.20)
74-95-3	DIBROMOMETHANE	0.00 ug/kg	(0.20)
95-50-1	1,2-DICHLOROBENZENE	0.00 ug/kg	(0.20)
541-73-1	1,3-DICHLOROBENZENE	0.00 ug/kg	(0.20)
106-46-7	1,4-DICHLOROBENZENE	0.00 ug/kg	(0.20)
764-41-0	1,4-DICHLORO-2-BUTENE	0.00 ug/kg	(0.20)
75-71-8	DICHLORODIFLUOROMETHANE	0.00 ug/kg	(0.20)
75-34-3	1,1-DICHLOROETHANE	0.00 ug/kg	(0.25)
107-06-2	1,2-DICHLOROETHANE	0.00 ug/kg	(0.20)
75-35-4	1,1-DICHLOROETHENE	0.00 ug/kg	(0.40)
156-59-2	CIS12DICHLOROETHENE	0.00 ug/kg	(0.20)
156-60-5	t12-DICHLOROETHENE	0.00 ug/kg	(0.25)
75-09-2	METHYLENE CHLORIDE	0.00 ug/kg	(0.50)
78-87-5	1,2-DICHLOROPROPANE	0.00 ug/kg	(0.40)
10061-01-5	CIS-1,3-DICHLOROPROPENE	0.00 ug/kg	(0.50)
10061-02-6	TRANS-1,3-DICLPROPENE	0.00 ug/kg	(0.50)
106-89-8	EPICHLOROHYDRIN	0.00 ug/kg	(0.50)
106-93-4	1,2, DIBROMOETHANE (EDB)	0.00 ug/kg	(0.10)
74-88-4	IODOMETHANE	0.00 ug/kg	(1.00)
79-34-5	1,1,2,2-TETRACHLORETHANE	0.00 ug/kg	(0.20)
630-20-6	1,1,1,2-TETRACHLORETHANE	0.00 ug/kg	(0.20)
127-18-4	TETRACHLOROETHENE	7.21 ug/kg	(0.14)
71-55-6	111-TRICHLOROETHANE	0.00 ug/kg	(0.30)
79-00-5	1,1,2-TRICHLOROETHANE	0.00 ug/kg	(0.30)
79-01-6	TRICHLOROETHENE	0.00 ug/kg	(0.20)
75-69-4	TRICHLOROFLMETHANE	0.00 ug/kg	(1.00)
75-01-4	VINYL CHLORIDE	0.00 ug/kg	(0.17)
544-10-5	1 CHLOROHEXANE	0.00 ug/kg	(0.20)

* ACTUAL DETECTION LIMIT = METHOD DETECTION LIMIT X DILUTION FACTOR
A VALUE OF 0.0 = BMDL (BELOW METHOD DETECTION LIMIT)

LYLE A. JOHNSON, LAB MANAGER

1460 W. McNab Road, Ft. Lauderdale, FL 33309 • Phone: (954) 978-6400 • Fax (954) 978-2233
630 Indian Street, Savannah, Ga. 31401 • Phone: (912) 238-5050 • Fax (912) 234-4815

SOIL SAMPLING METHODOLOGY AND RATIONALE

On August 16, 1996, USEG installed one (1) soil boring at the subject site to assess soil quality conditions. The assessment was conducted in accordance with procedures outlined in the approved Comprehensive Quality Assurance Plan (CompQAP) No. 910229G and following FDEP protocol. The boring was performed behind the north wall of the facility, approximately five feet from the back door. A soil sample was collected at 4.0 feet below land surface (BLS), using a stainless steel hand-auger. The hand-auger was properly cleaned before sampling.

Soil samples were collected for both field and laboratory analysis. The soil sample collected for field analysis was placed in a 16-ounce glass container and filled with 50% soil and 50% headspace by volume. The sample was allowed to equilibrate to ambient temperature and then headspace tested with an organic vapor analyzer equipped with a photoionization detector (OVA/PID). The OVA/PID used was a PhotoVac Inc. MicroTip. The instrument was zeroed with the atmosphere and calibrated with 100 ppm isobutylene.

The results of the OVA/PID analysis for the soil sample obtained from SB-1 was 78.6 ppm at 2.0 feet BLS, and 89.8 ppm at 4.0 feet BLS. Based on the positive result from the OVA/PID screening, a duplicate soil sample from 4.0 feet BLS was placed in a 250 ml glass jar, packed on ice and transported to Spectrum Laboratories, Inc. The sample was analyzed for purgeable halocarbons by EPA Method 8010. The sample was found to contain 7.21 ug/kg (ppb) tetrachloroethene.

Site No. 18

Powertrain Rebuilders, Inc.
897 ½ East Cypress Creek Road

Environmental Protection and Growth Management Department
Pollution Prevention, Remediation and Air Quality Division
One North University Drive, Suite 203, Plantation, Florida 33324
954-519-1260 • FAX 954-765-4804

FDEP Notifier: (Listed in POSSE/Ranger) Powertrain Rebuilders Inc

Facility Name: (Current) No building with this address found

Facility Address: 897 East Cypress Creek Rd

Generator Status: (Circle One) **Non-Handler, Non-Notifier, CESQG, SQG, LQG**

Facility Status: (Circle One) **Open, Closed,**
Potential HW Generator Yes / No

Date: April 18, 2012

Current EPA ID: FLD 984238394

Facility Contact: N/A

Phone Number: 954-

Email Address:

Employees (Number):

Compliance Assistance Visit (CAV) Areas of Concern

An Inspection was conducted at your facility on the date listed above, under the authority of Section 403.091 and Chapter 403, Part IV of the Florida Statutes (F.S.). This inspection was designed to determine your facility's compliance with applicable Florida law regarding solid and hazardous waste management. Relevant provisions of Title 40 Code of Federal Regulations (CFR) §260-271 and §279 have been adopted in Chapters §62-710, §62-737, and §62-730 of the Florida Administrative Code (FAC) and Broward County Ordinance Chapter 27. During the inspection, the following potential items of non-compliance were identified by the inspector. **Please note: this is not a formal enforcement action and may not be a complete listing of all items of non-compliance which exist at the time of the inspection.**

Items Requested, Corrective Actions, and Inspector Comments:

No building with this address found. One building has addresses that end with 895 E cypress Creek Rd, then a separate building is present with an address of 899.

The owner/operator is hereby requested to correct all non-compliance issues. A written description of said corrective actions must be mailed or faxed, to the attention of the inspector at the address and number listed above or emailed to **dgillespie@broward.org** within ( ) days of receipt of this Notice. Failure to correct the non-compliance item(s) will result in the Florida Department of Environmental Protection (FDEP) being notified. Be advised that FDEP **may** take enforcement action if non-compliance continues. If you need further assistance please contact the inspector at the phone number listed below.

Date of Notice:

Operator Signature:

Received by:

Follow-up Visit Required: (Circle One) Yes / (No)

Time Spent On Inspection, including prep time (in full HOURS): One Hour

Inspector Phone Number: (954) 818-7523

Inspector Name: **Dennis Gillespie**

Return to Compliance Date

Referred to FDEP: (Circle One) Yes / (No)

Signature:

Violations Observed

General Requirements:

- ☐ Failure to ensure delivery of HW to proper HW facility [40 CFR §261.5)(27-356(b)(4)c.9] (**RF**)
- ☐ Failure to provide hazardous waste determination [40 CFR §262.11 (27-356(b)(4)c.9)] (**RD**)
- ☐ Facility exceeds 90/180 day time limit [40 CFR §262.34 (27-356(b)(4)c.8)] (**RT**)
- ☐ Failure to notify as generator [40 CFR §262.12] (27-353(g)(1)(**RN**)
- ☐ Failure to use a manifest or reclamation agreement [40 CFR §262.20 (27-356(b)(4)d.1)] (**RM**)
- ☐ Improper disposal of mercury containing devices [§62-737-300(1) FAC (27-353(g)(1)] (**RH**)
- ☐ Failure to provide personal training [40 CFR §265.16, §262.34(27-353(g)(1))] (**RP**)
- ☐ Evidence of release(s) of [40 CFR §262.34(d)(27-353(g)(2))] (**RR**)

Used Oil\Filter Requirements:

- ☐ Failure to label oil containers [§279.2s(c) (**OC**) (27-356(b)(4)a.2.)]
- ☐ Oil containers in poor condition §62.710.401(6) FAC (**OA**) (27-356(b)(4)c.3
- ☐ Oil containers without secondary containment [§62-710-401(6) FAC (**OE**) (27-356(b)(4)a.1.)]
- ☐ Failure to respond to releases [§279.22(d) (**OR**) (27-355)]
- ☐ Failure to document used oil disposal 40 CFR §279.10 (**OD**) (27-356(b)(4)d.1.)
- ☐ Failure to manage used oil filters §62-710.850(1) FAC (**OI**) (27-353(g)(1))

Facility Record Keeping:

- ☐ Manifests 40 CFR §262.40, §262.44 (**FM**) (27-356(b)(4)d.1)
- ☐ Training Records 40 CFR §262.34 (d)(5) (**FC**) (27-356(b)(4)a.6))
- ☐ Contingency plan 40 CFR §262.34 (**FC**)(27-356(b)(4)a.6))
- ☐ Weekly inspection records [§62-730-160(6) FAC (**FW**)] (27-353(g)(1))
- ☐ Information not posted by phone 40 CFR §262.34(d)(4) (**FI**) (27-353(g)(1))
- ☐ Authorities not notified 40 CFR §262.34 (d)(5) (**FA**) (27-355)
- ☐ Failure to maintain disposal records §62-730.030 FAC (**FB**) (27-356(b)(4)d.1)
- ☐ Failure to label UW lamp containers §62-737.400(5) FAC (**FE**) (27-353(g)(1))

Container Management:

- ☐ Unlabeled containers [40 CFR §262.34(a)(3) (27-356(b)(4)a.2.)] (**CL**)
- ☐ Undated containers 40 CFR §262.34(a)(2) (FD) (27-356(b)(4)a.2.) (**FD**)
- ☐ Containers not in good condition (leaking/bulging) [40 CFR §265.171 (27-356(b)(4)c.3) (**CB**)]
- ☐ Open containers 40 CFR [§265.173 (CO) (27-356(b)(4)a.2.) (**CO**)]
- ☐ Inadequate aisle space [§62.730.160 FAC (27-356(b)(4)a.2.) (**CA**)]

Storage Tank Secondary Containment:

- ☐ Drain valves open [§62.671.700(3)(a)(3) FAC (SV) (27-309(c)(1)c. 27-356(b)(4)b.3.b)]
- ☐ Incomplete containment structure [§62-671.700(3)(e) FAC (SC) 27-307(3)c.3.b)]

Materials Provided for Compliance Assistance

- ☐ DEP Small Quanity Genertator Handbook (**MQ**)
- ☐ Computer, TV, Electronic Facts, Recyclers (**MY**)
- ☐ Summary of Used Oil/Used Oil Filter Regs (**MU**)
- ☐ Flourescent lamps/Mercury Containing Devices (**MM**)
- ☐ Antifreeze for Recycling/Antifreeze Facts (**MF**)
- ☐ Florida Automotive Recycles Handbook (**MA**)
- ☐ EPA 8700-12 Document (**ME**)
- ☐ CAV - DEP HW Regulations, for CESQG (**DC**)
- ☐ CAV - DEP HW Regulations, for SQG (**DR**)
- ☐ CAV - Antifreeze Recycling Vendors List (**MV**)
- ☐ CAV - Spill Avoidance Response Procedures (**MI**)
- ☐ CAV - P2 Pamplet (**MP**)
- ☐ CAV - Environmental Reg-Agriculture Industry (**MG**)

DEP Small Business Compliance Assistance Guides

- ☐ DEP Printers Handbook - SBA Program (**DP**)
- ☐ DEP Photo Shops Handbook (**DO**)
- ☐ DEP Pharmarcies Handbook (**DH**)
- ☐ DEP Printed Wiring Board Manufacturers Handbook (**DW**)
- ☐ DEP Furniture Refinishers Handbook (**DF**)
- ☐ DEP Pain Body Shops Handbook (**DB**)
- ☐ DEP Fiber-Reinforced Plastic Mfrs. Handbook (**DE**)
- ☐ DEP Automotive Repair Handbook (**DA**)
- ☐ DEP Managing Hg at Med Facilities Handbook (**DM**)
- ☐ DEP Laboratories Handbook (**DL**)
- ☐ DEP Dry Cleaners Handbook (**DD**)
- ☐ Other Materials (specify in inspection comments) (**DX**)
- ☐ DEP Summary of HW Regulations (**MH**)
- ☐ Environmental Lab List (**ML**)
- ☐ List of HW/Used Oil Transporters (**MT**)
- ☐ Auto Repair Self-Audit Workbook (**MZ**)

Site No. 20

FDOT Operations Center/DOT Powerline Road Dump (DOT Dump Site 1)
5548 NW 9 Avenue

Final

Remedial Action Status Report – Year 21
FDOT Broward Operations Center
5548 NW 9th Avenue
Ft. Lauderdale, FL 33309

Submitted to the Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399

Prepared for the Florida Department of Transportation
3400 West Commercial Boulevard
Ft. Lauderdale, FL 33309

Prepared by CB&I Environmental & Infrastructure, Inc.
14350 Commerce Way
Miami Lakes, FL 33016

Contract No. BDV90
Project No. 149453
Revision No. 1
January 29, 2016

1.0 Introduction

The following Active Remediation Annual Status Report has been prepared by CB&I Environmental & Infrastructure, Inc. (CB&I) for the Florida Department of Transportation, District 4 (FDOT) to summarize the twenty-first year of remedial system operation and maintenance (O&M) and groundwater monitoring activities at the Broward Operations Center (the Site), located at 5548 Northwest 9th Avenue (Powerline Road), Fort Lauderdale, Florida. The Site is identified by the Florida Department of Environmental Protection (FDEP) as Facility ID No. 068622445. A Site Location map is shown as **Figure 1**.

This O&M report includes summaries of site history, remedial system design, remedial system status, remedial system performance monitoring, recovery well abandonment and installation, and quality assurance/quality control. In addition, this report includes remedial system performance evaluations, conclusions, and recommendations for future remedial efforts. This document presents a detailed discussion of information accumulated during remedial system operation from January 1, 2015 to December 31, 2015.

1.1 Site History

The Site includes servicing and refueling facilities for public agencies including FDOT vehicles. The Florida Department of Environmental Regulation (FDER, later FDEP) prepared a Preliminary Assessment Report for the Site in 1985 and a Site Screening Investigation Report in 1988 which determined that one of the on-site gasoline underground storage tanks (USTs) was leaking. The UST was subsequently removed from service by FDOT. A 1989 Contamination Assessment Report determined that a petroleum contamination plume was centered near the fuel dispensing area.

A 1989 Remedial Action Plan (RAP) proposed a groundwater treatment system (GWTS) and a soil vapor extraction system (SVES) for the removal of hydrocarbon contaminated groundwater and soil vapor, respectively, from affected areas of the Site. The system was installed and modifications were implemented after RAP Addendum (RAPA) were approved in 1990 and 1994 addressing higher dynamic influent concentrations detected during system startup. The modified GWTS and SVES installation were completed and commissioned for operation in October of 1994.

In 1997, the SVES internal combustion engine extractor/treatment unit and catalytic converter were replaced with an electrically powered blower/vacuum pump for the

extraction of contaminated soil vapors and atmospheric discharge for disposal of effluent soil vapors.

A 1998 RAPM-I proposed a GWTS to extract, treat, and dispose of hydrocarbon-contaminated groundwater from affected areas of the Site. The GWTS included two recovery wells (RWs), RW-1 and RW-2, with treatment provided by a packed air-stripping tower, six bag filters, a 4,000-pound (lb.) liquid phase carbon vessel, and an infiltration gallery for disposal of treated effluent. Due to an excessive contaminant emissions rate from the air-stripping tower, six 1,000-lb. air-phase carbon vessels were added to treat of the air stripping tower off-gases. In March of 1998, the 4,000-lb. liquid phase carbon vessel and the six bag filters were removed from the GWTS after it was established that the effluent from the air-stripping tower was consistently meeting discharge standards prior to carbon polishing. Following five years of the GWTS operation, it was determined that the GWTS had become relatively inefficient.

In 1999 a RAPM-II was submitted to FDEP outlining design changes to the remedial system to more effectively treat hydrocarbon-contaminated groundwater at the Site. In addition, a deposit control system was installed to control mineral build up in the air-stripping tower. In 2000, RW-2 was properly abandoned and replaced with RW-3.

The RAPM-II proposed the augmentation of the existing GWTS with the addition of an air sparge (AS) system, as well as, augmentation of the existing SVES with the addition of supplemental soil vapor extraction (SVE) wells. The AS system included an air compressor supplying compressed air to vertical AS wells on the periphery of the USTs and fuel dispenser areas and four angled AS wells. The augmentation of the SVES consisted of the addition of eight (8) SVE wells in order to extract soil vapors as well as vapors produced by the AS. Additionally, SVES extracted vapors were treated before atmospheric discharge using two 55-gallon air-phase carbon drums. The two 55-gallon air-phase carbon drums were subsequently removed on in 2005.

In October of 2005, the original air stripping tower was damaged beyond repair due to impacts from Hurricane Wilma. The original air stripping tower was removed, dismantled, and disposed. The original tower blower, chemical feed system and the groundwater recovery pumps were relatively undamaged. Minor repairs were performed to these components. The damaged air stripping tower was replaced with a similar air stripping tower from the FDOT Treasure Coast Operations Center, which was no longer in use. The replacement air stripping tower was dismantled and mobilized from the FDOT Treasure Coast Operations Center to the FDOT Broward Operations Center in January of 2006. Once on-site, the original tower blower, chemical feed system and the groundwater recovery pumps were connected to the replacement tower.

The system components were checked and the groundwater treatment system was re-started.

In an effort to fully delineate the groundwater concentration plume for the original release, five additional monitoring wells were installed (WRS-20 through WRS-24) in March of 2007.

A 2007 RAPM-III was prepared for the installation of a trailer-mounted remedial system. In November of 2007, the trailer-mounted remedial system was activated to accelerate the remediation at the site. The equipment consists of an AS compressor with a heat exchanger, a SVES blower and associated air-water separator. A step-up transformer was installed in the former air compressor shed to provide power to the modular equipment trailer. The modular equipment trailer was connected to the existing SVES and AS system piping. In November of 2007 the original AS compressor and SVE blower were decommissioned and the trailer-mounted system was activated for continuous operation

In 2009 a RAPM-IV was submitted to FDEP to replace the air sparge wells at the Site. The replacement AS wells were constructed with 2-inch diameter schedule 40 polyvinyl chloride (PVC) and 2-feet of 0.010-inch slotted schedule 40 PVC well screen. The AS wells were screened from approximately 23 feet to 25 feet below land surface (bls).

In 2009, the existing USTs at the Site were placed out of service and replaced with new aboveground storage tanks. The USTs, product lines, and dispensers were abandoned in place. The new tank farm is located to the northeast and outside of the current dissolved contamination plume.

A System Start-Up Report/RAPM-V was submitted to FDEP in 2011 proposing the treatment of SVES off-gas vapors with granular activated carbon (GAC) consisting of two 2,000-lb. carbon absorber vessels. The GAC off-gas treatment was operated from April to June of 2012 and discontinued in August of 2012.

In November of 2013, two (2) double-walled 10,000-gallon capacity fiberglass USTs used for storage of unleaded gasoline and one (1) double-walled 10,000-gallon capacity fiberglass UST used for storage of diesel fuel were removed from the Site. According to the Tank Closure Assessment Report (TCAR), no contamination was reported for the vadose zone or groundwater.

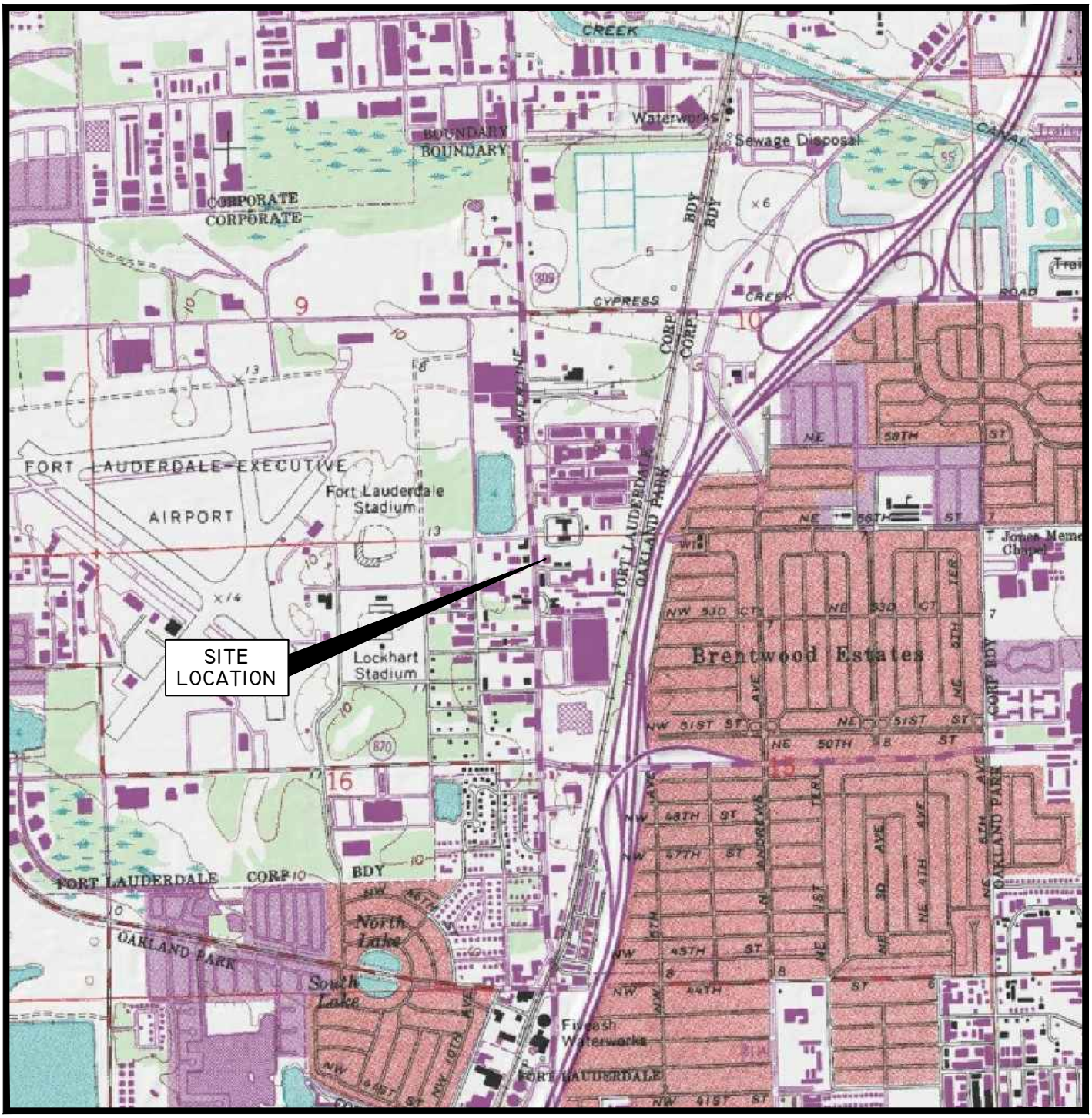
A previous consultant submitted the Years 1-18 Active Remediation Annual Status Reports to FDEP documenting the active remediation activities at the Site. CB&I submitted the subsequent Years 19 and 20 Active Remediation Annual Status Reports.

In July of 2015, CB&I replaced the air stripping tower packing material, blower, and control panel. Specifications for the newly installed equipment are included in **Appendix A**.

In September of 2015 CB&I submitted a RAPM-IV to FDEP proposing to abandon recovery well RW-1 and installation of a new recovery well in a more advantageous location within the dissolved contaminant plume. As a result of continued remediation, the dissolved groundwater contaminant plume had decreased in the recovery well radius of influence and was no longer located in an area of high groundwater contamination. FDEP approved the RAPM-IV on October 1, 2015. A copy of the FDEP approval latter is included in **Appendix B**.

In November and December of 2015 CB&I abandoned the existing recovery well RW-1 and installed a new recovery well (RW-4) within the dissolved contaminant plume. The water and electric lines from the new RW-4 were tied into the existing conduit from RW-1. The existing submersible pump from RW-1 was installed in the new RW-4. Recovery well (RW-4) began continued operations on December 21, 2015.

The objective of this report is to provide a summary of the O&M activities for the period of January 1, 2015, through December 31, 2015. CB&I performed the required inspections, maintenance, and repairs of the AS, SVE, and GWTS systems at the FDOT Broward Operations Center. A detailed description of the system maintenance, repairs, and modifications conducted by CB&I during Year 21 of active remediation is included in **Section 2.0** of this report.



REFERENCE:

7.5 MINUTE U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP, FORT LAUDERDALE, FLORIDA, DATED 1999.

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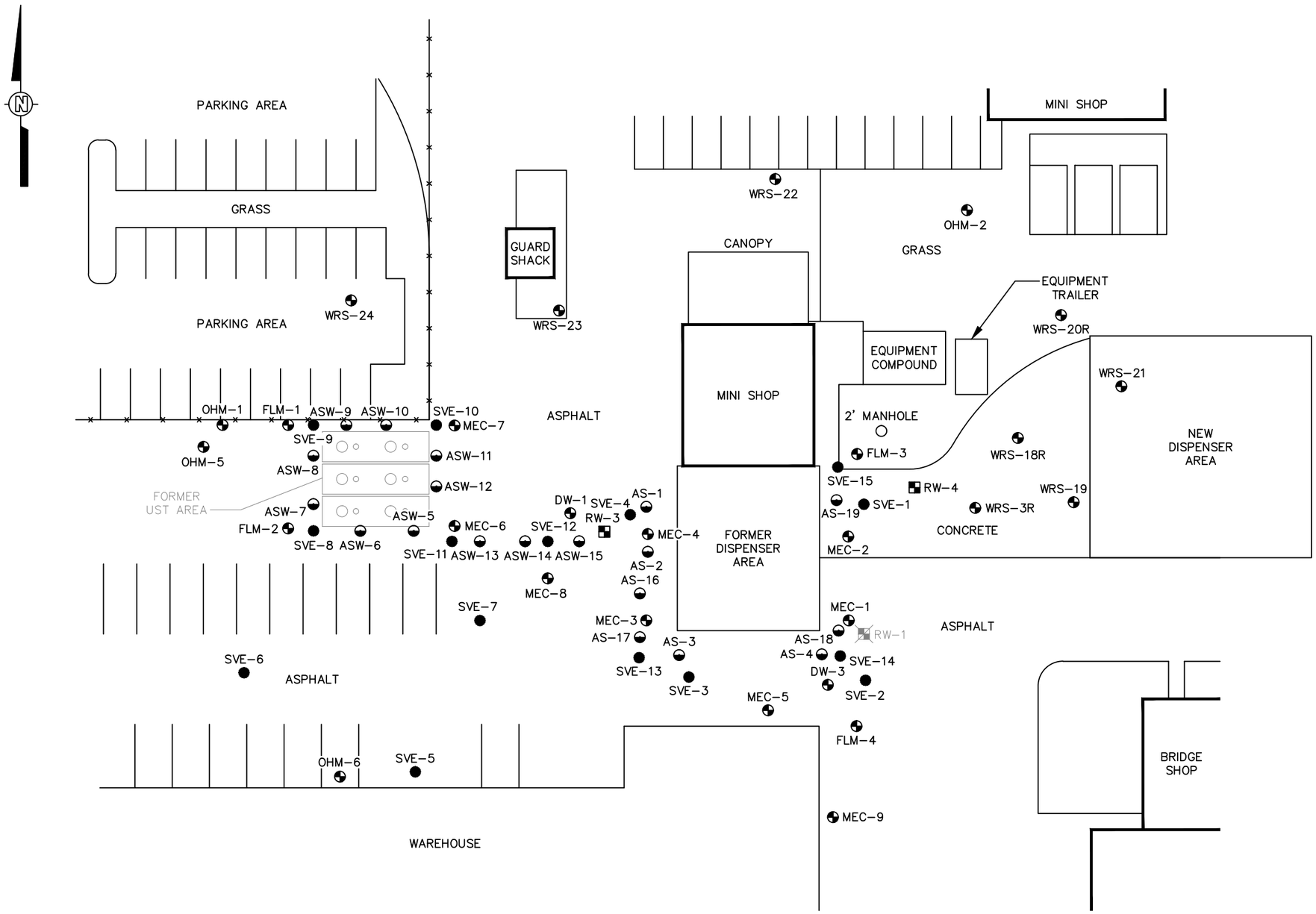
OFFICE:	DATE:	ACAD FILE:
MIAMI LAKES	12-14-15	3919A1

SITE LOCATION MAP

CLIENT:	PM:
FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 4	YH

LOCATION: BROWARD OPERATIONS CENTER
5548 NW 9th AVENUE
FT. LAUDERDALE, BROWARD COUNTY, FLORIDA

DESIGNED:	DRAWN:	PROJECT NO.:	FIGURE:
YH	SDJF	153919	1



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OFFICE:	DATE:	ACAD FILE:
MIAMI LAKES	8-27-15	3919B2

SITE MAP

CLIENT:	PM:
FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT 4	YH

LOCATION: BROWARD OPERATIONS CENTER
5548 NW 9th AVENUE
FT. LAUDERDALE, BROWARD COUNTY, FLORIDA

DESIGNED:	DRAWN:	PROJECT NO.:	FIGURE:
YH	SDJF	153919	2

TABLE 11: GROUNDWATER ANALYTICAL SUMMARY

Facility Name: FDOT Broward Operations Center FDEP Facility ID No. 06/8622445

Sample			Laboratory Analysis (µg/L)																			
ID Number	Well Screen Interval	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
		GCTLs	1	40	30	20	20	20	210	2,100	0.05	0.2	0.05	210	0.5	4.8	0.005	280	280	0.05	14	28	28
		NADCs	100	400	300	200	200	200	2,100	21,000	5	20	5	2,100	50	480	0.5	2,800	2,800	5	140	280	280
FLM-1	5' - 15'	03/08/13	0.10 U	0.50 U	1.1	0.50 U	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	4.80	**22.9**	0.400 U	0.047 (I)	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	**27.3**	6.02	7.75
		09/16/13	0.400 U	0.400 U	7.24	**40.5**	0.400 U	0.079	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.046 (I)	0.015 U	**35.2**	9.23	13.9
		12/17/13	0.400 U	0.400 U	3.92	**23.1**	0.400 U	0.032(I)	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	13.9	1.94	1.27
		03/19/14	0.400 U	0.400 U	7.44	**43.8**	0.400 U	0.070	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.043(I)	0.015 U	**32.6**	8.40	13.2
		06/23/14	0.400 U	0.400 U	7.83	**38.4**	0.400 U	0.065	0.025 U	0.199	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.072	0.015 U	**25.7**	6.31	10.8
		09/23/14	0.400 U	0.400 U	5.49	**30.5**	0.400 U	0.056	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.034(I)	0.015 U	**29.9**	6.14	9.05
		12/15/14	0.400 U	0.400 U	5.08	**39.6**	0.400 U	0.065	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.036 (I)	0.042 (I)	0.015 U	**39.8**	8.09	11.7
		03/23/15	0.400 U	0.400 U	19.8	**103**	0.400 U	0.188	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0050 U	0.025 U	0.110	0.015 U	**54.6**	13.2	17.7
		06/23/15	0.400 U	0.400 U	20.4	**85.1**	0.400 U	0.149	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.081	0.014 U	**64.4**	20.8	**34.3**
		09/24/15	0.400 U	0.400 U	7.68	**23.1**	0.400 U	0.0710	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.040 (I)	0.014 U	**27.7**	7.55	9.99
		12/16/15	0.400 U	0.400 U	2.59	17.4	0.400 U	0.024 (I)	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.024 U	0.014 U	**15.7**	2.91	3.55
FLM-2	5' - 15'	06/23/14	0.400 U	0.400 U	0.800(I)	2.46(I)	0.400 U	0.025 U	0.025 U	0.195	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	2.17	0.723	1.46
		09/23/14	0.400 U	0.400 U	0.680(I)	1.53(I)	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	2.33	0.951	1.64
		12/15/14	0.400 U	0.400 U	0.450 (I)	0.800 U	0.400 U	0.040 (I)	0.025 U	0.035 (I)	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.209	0.061	0.015 U	0.606	0.274	0.337
		03/23/15	0.400 U	0.400 U	0.780 (I)	1.84 (I)	0.400 U	0.188	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.015 U	**3.57**	1.45	2.37
		06/23/15	0.400 U	0.400 U	0.970 (I)	2.67 (I)	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	4.64	1.62	2.93
		09/24/15	0.400 U	0.400 U	0.400 U	1.87 (I)	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	1.98	0.789	1.57
		12/16/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.024 U	0.014 U	0.848	0.268	0.440
FLM-3	7' - 17'	03/08/13	0.10 U	7.0	**808**	**2,030**	0.50 U	0.74 V	0.025 U	1.2 V	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.17 V	0.025 U	**532**	**58.4**	**113**
		06/07/13	0.400 U	1.29	**200**	**439**	0.400 U	0.076	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.037 (I)	0.015 U	**89.6**	10.8	14.5
		09/17/13	0.400 U	2.86	**452**	**1,190**	0.400 U	0.112	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.062	0.015 U	**145**	22.1	**34.8**
		12/17/13	0.400 U	0.400 U	**45.6**	**53.3**	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	**38.6**	5.41	9.02
		03/20/14	0.400 U	1.26	**191**	**852**	0.400 U	0.118	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.074	0.015 U	**85.9**	26.6	**46.5**
		06/24/14	0.400 U	0.710(I)	**257**	**357**	0.400 U	0.123	0.025 U	0.198	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.109	0.015 U	**90.0**	25.8	**44.7**
		09/24/14	0.400 U	0.400 U	0.400 U	**29.5**	0.400 U	0.040(I)	0.025 U	0.038(I)	0.025 U	0.015 U	0.015 U	0.046 (I)	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	**71.4**	9.88	16.6
		12/17/14	0.400 U	0.460 (I)	**195**	**240**	0.400 U	0.073	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.049	0.014 U	**99.1**	17.8	**29.4**
		03/23/15	0.400 U	1.71	**501**	**571**	0.400 U	0.108	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.114	0.014 U	**110**	26.6	**43.3**
		06/24/15	0.400 U	0.400 U	**481**	**1,040**	0.400 U	0.267	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.142	0.014 U	**183**	**73.2**	**141**
		09/25/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.181 J2	0.082 I	0.052 I
		12/17/15	0.400 U	0.400 U	0.400 U	18.3	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U
MEC-1	4.5' - 15.5'	03/08/13	0.10 U	0.50 U	2.7	18.0	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/10/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	3.71	**51.1**	**421**	0.400 U	0.041 (I)	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.031 (I)	0.015 U	**46.1**	8.26	12.3
		12/17/13	0.400 U	0.640(I)	0.880(I)	15.3	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.065(I)	0.050 U	0.050 U
		03/20/14	0.400 U	0.600(I)	3.17	**41.0**	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	1.84	0.196	0.406
		06/24/14	0.400 U	2.62	27.6	**249**	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	5.63	0.888	1.38
		09/23/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		12/16/14	0.400 U	0.400 U	0.400 U	2.27 (I)	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.520	0.048 U	0.090 (I)
		03/23/15	0.400 U	1.55	**42.4**	**307**	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.024 U	0.014 U	4.86	0.271	0.337
		06/24/15	0.400 U	2.81	**47.4**	**417**	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U	0.025 U	0.025 U	0.015 U	13.9	1.80	3.07
		09/24/15	0.400 U	2.37	17.0	**105**	0.400 U	0.035 I	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.025 I	0.014 U	**23.2**	4.23	4.03
		12/17/15	0.400 U	0.400 U	0.680 (I)	3.76	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U

TABLE 11: GROUNDWATER ANALYTICAL SUMMARY

Facility Name: FDOT Broward Operations Center FDEP Facility ID No. 06/8622445

Sample			Laboratory Analysis (µg/L)																			
ID Number	Well Screen Interval	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
		GCTLs	**1**	**40**	**30**	**20**	**20**	**20**	**210**	**2,100**	**0.05**	**0.2**	**0.05**	**210**	**0.5**	**4.8**	**0.005**	**280**	**280**	**0.05**	**14**	**28**	**28**
		NADCs	**100**	**400**	**300**	**200**	**200**	**200**	**2,100**	**21,000**	**5**	**20**	**5**	**2,100**	**50**	**480**	**0.5**	**2,800**	**2,800**	**5**	**140**	**280**	**280**
MEC-4	4' - 14'	03/08/13	0.10 U	0.50 U	4.2	15.8	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.027 (I)	0.025 U	2.7	2.4	4.2
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	11.2	**62.2**	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	1.78	1.87	2.95
		12/16/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		03/19/14	0.400 U	0.400 U	0.400 U	**39.2**	0.400 U	0.033(I)	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.026(I)	0.015 U	4.75	2.63	4.52
		06/24/14	0.400 U	0.910(I)	15.9	**25.8**	0.400 U	0.052	0.025 U	0.196	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.045(I)	0.015 U	10.7	4.86	9.26
		09/23/14	0.400 U	0.400 U	3.12	18.3	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	4.07	2.12	3.82
		12/16/14	0.400 U	0.400 U	2.71	11.6	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U*	0.024 U	0.024 U	0.014 U	0.799	0.558	0.729
		03/23/15	0.400 U	0.400 U	**65.8**	**278**	0.400 U	0.099	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0047 U	0.023 U	0.075	0.014 U	**15.6**	8.20	14.1
		06/24/15	0.400 U	0.400 U	10.2	28.1	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U	0.025 U	0.025 U	0.015 U	3.46	1.47	4.16
		09/24/15	0.400 U	0.400 U	0.400 U	8.35	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	1.89	1.78	2.03
		12/17/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U
MEC-5	4.5' - 14'5	03/07/13	0.10 U	0.50 U	0.50 U	0.87 (I)	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/10/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.086 (I)	0.050 U	0.050 U
		03/19/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.108	0.050 U	0.050 U
		06/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.065 (I)	0.050 U	0.050 U
		09/23/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.066 (I)	0.050 U	0.050 U
		12/16/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.048 U	0.048 U	0.048 U
		03/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0047 U	0.023 U	0.023 U	0.014 U	0.046 U	0.046 U	0.046 U
		06/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.056 (I)	0.050 U	0.050 U
		09/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.084 (I)	0.047 U	0.047 U
		12/17/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U
MEC-6	4' - 14'	03/08/13	0.10 U	0.50 U	0.50 U	0.85 (I)	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/10/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/16/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.144	0.117	0.153
		12/16/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.077 (I)	0.050 U	0.050 U
		03/19/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.501	0.164	0.360
		06/23/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.046 (I)	0.160	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.186	0.067	0.015 U	0.634	0.209	0.217
		09/23/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.029 (I)	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.408	0.335	0.221
		12/15/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.267	0.080 (I)	0.162
		03/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.031 (I)	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0050 U	0.025 U	0.025 U	0.015 U	0.454	0.284	0.789
		06/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.177	0.054 (I)	0.053 (I)
		09/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.066	0.044 (I)	0.109	0.109	0.079	0.060	0.076	0.024 U	0.024 U	0.069	0.0551	0.262	0.649
		12/16/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.024 U	0.014 U	0.090 (I)	0.076 (I)	0.149

TABLE 11: GROUNDWATER ANALYTICAL SUMMARY

Facility Name: FDOT Broward Operations Center FDEP Facility ID No. 06/8622445

Sample			Laboratory Analysis (µg/L)																			
ID Number	Well Screen Interval	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
		GCTLs	**1**	**40**	**30**	**20**	**20**	**20**	**210**	**2,100**	**0.05**	**0.2**	**0.05**	**210**	**0.5**	**4.8**	**0.005**	**280**	**280**	**0.05**	**14**	**28**	**28**
		NADCs	**100**	**400**	**300**	**200**	**200**	**200**	**2,100**	**21,000**	**5**	**20**	**5**	**2,100**	**50**	**480**	**0.5**	**2,800**	**2,800**	**5**	**140**	**280**	**280**
MEC-7	4' - 14'	03/08/13	0.13 (I)	0.50 U	0.53 (I)	1.7	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.045 (I)	0.025 U	1.0 U	1.0 U	1.0 U
		06/10/13	0.400 U	0.400 U	1.42	6.55	0.400 U	0.203	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.109	0.015 U	2.97	4.66	3.04
		09/17/13	0.400 U	0.430(I)	4.16	5.35	0.400 U	0.276	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.150	0.015 U	**22.9**	11.5	25.7
		12/16/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.204	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.145	0.015 U	7.80	4.77	12.6
		03/19/14	0.400 U	0.400 U	0.960(I)	1.49 (I)	0.400 U	0.203	0.025 U	0.033(I)	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.154	0.015 U	10.5	7.19	17.8
		06/23/14	0.400 U	0.400 U	1.26	1.65 (I)	0.400 U	0.315	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.261	0.015 U	7.79	8.76	18.8
		09/23/14	0.400 U	0.400 U	1.31	2.50 (I)	0.400 U	0.327	0.070	0.039(I)	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.215	0.015 U	**14.6**	11.5	21.3
		12/16/14	0.400 U	0.400 U	0.930 (I)	0.800 U	0.400 U	0.237	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.037 (I)	0.180	0.015 U	**14.1**	5.50	13.4
		03/23/15	0.400 U	0.400 U	2.81	1.95 (I)	0.400 U	0.279	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.215	0.014 U	**19.3**	6.93	15.8
		06/23/15	0.400 U	0.400 U	1.85	1.89 (I)	0.400 U	0.339	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.200	0.014 U	**22.0**	12.4	26.6
		09/24/15	0.400 U	0.400 U	1.29	4.12	0.400 U	0.526	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.379	0.014 U	**19.1**	27.6	**40.2**
		12/16/15	0.400 U	0.400 U	0.400 U	1.39 (I)	0.400 U	0.204	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.170	0.014 U	7.13	8.11	11.0
MEC-8	4' - 14'	03/08/13	**1.3**	0.50 U	**64.5**	**61.7**	0.50 U	0.025 U	0.025 U	0.029 (I)	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.028 (I)	0.058 (I)	0.025 U	**64.0**	11.7	22.6
		06/07/13	**1.31**	0.400 U	17.1	**27.5**	0.400 U	0.028 (I)	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.090 (I)	1.27	0.260
		09/17/13	**1.82**	0.560 (I)	**76.2**	**50.2**	0.400 U	0.207	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.118	0.015 U	**85.8**	23.6	**34.1**
		12/16/13	0.560(I)	0.400 U	19.5	18.6	0.400 U	0.082	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.041(I)	0.015 U	**31.1**	8.50	12.6
		03/19/14	**1.89**	0.400 U	0.830(I)	**27.5**	0.400 U	0.109	0.025 U	0.035(I)	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.080	0.015 U	**39.3**	14.4	27.1
		06/23/14	**7.73**	1.39	**36.1**	18.9	0.400 U	0.133	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.131	0.015 U	**68.4**	18.7	**30.3**
		09/23/14	**2.82**	0.430 (I)	1.35	16.5	0.400 U	0.118	0.025 U	0.041(I)	0.029(I)	0.057	0.047(I)	0.038(I)	0.039(I)	0.026(I)	0.0051 U*	0.058	0.073	0.015 U	**52.9**	19.7	**30.0**
		12/16/14	**1.31**	0.400 U	**35.5**	**49.4**	0.400 U	0.131	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.041 (I)	0.088	0.015 U	**64.0**	18.5	**29.3**
		03/23/15	**1.55**	1.33	**64.2**	**70.7**	0.400 U	0.143	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0047 U	0.023 U	0.092	0.014 U	**21.3**	15.9	22.3
		06/24/15	**1.94**	0.400 U	**56.9**	**51.4**	0.400 U	0.214	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U	0.025 U	0.121	0.015 U	**51.9**	**29.2**	**49.9**
		09/24/15	**1.72**	0.400 U	3.52	11.3	0.400 U	0.176	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.097	0.014 U	0.047 U	18.2	5.63
		12/17/15	0.730 (I)	0.400 U	2.69	13.7	0.400 U	0.041 (I)	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.028 (I)	0.028 (I)	0.014 U	0.047 U	2.59	0.047 U
MEC-9	4.5' - 14.5'	03/07/13	0.10 U	0.50 U	0.50 U	1.0	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/10/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.106	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.454	0.050 U	0.081(I)
		03/20/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.087(I)	0.050 U	0.050 U
OHM-1	10' - 20'	03/08/13	0.10 U	0.50 U	0.50 U	0.89 (I)	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/16/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.156	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		03/19/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.077(I)	0.050 U	0.050 U
		06/23/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.669	0.074(I)	0.134
		09/23/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.096(I)	0.050 U	0.050 U
		12/15/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0050 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		03/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.048 U	0.048 U	0.048 U
		06/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0050 U	0.025 U	0.049 U	0.015 U	0.049 U	0.049 U	0.049 U
		09/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U
		12/16/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.024 U	0.014 U	0.047 U	0.047 U	0.047 U
OHM-2	10' - 20'	03/07/13	0.10 U	0.50 U	0.50 U	0.50 U	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.124	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.319	0.050 U	0.064(I)
		03/20/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0049 U	0.025 U	0.025 U	0.015 U	0.103	0.050 U	0.050 U

TABLE 11: GROUNDWATER ANALYTICAL SUMMARY

Facility Name: FDOT Broward Operations Center FDEP Facility ID No. 06/8622445

Sample			Laboratory Analysis (µg/L)																		
ID Number	Well Screen Interval	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
		GCTLs	**1**	**40**	**30**	**20**	**20**	**20**	**210**	**2,100**	**0.05**	**0.2**	**0.05**	**210**	**0.5**	**4.8**	**0.005**	**280**	**280**	**0.05**	**14**	**28**	**28**
		NADCs	**100**	**400**	**300**	**200**	**200**	**200**	**2,100**	**21,000**	**5**	**20**	**5**	**2,100**	**50**	**480**	**0.5**	**2,800**	**2,800**	**5**	**140**	**280**	**280**
OHM-6	6' - 16'	03/07/13	0.10 U	0.50 U	0.50 U	2.0	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.026 (I)	0.15	0.025 U	0.025 U	**0.17**	0.025 U	0.025 U	**0.15**	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/16/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.099(I)	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.226	0.050 U	0.050 U
		03/19/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.064(I)	0.050 U	0.050 U
		06/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.195	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.101	0.050 U	0.051(I)
WRS-3R	3' - 13'	03/08/13	0.49 (I)	27.0	**710**	**3,000**	0.50 U	0.79 V	0.025 U	1.2 V	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.24 V	0.025 U	**323**	**53.1**	**93.6**
		06/07/13	0.400 U	12.0	**215**	**872**	0.400 U	0.135	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.088	0.015 U	**159**	17.5	26.0
		09/17/13	0.400 U	16.2	**367**	**1,570**	0.400 U	0.156	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.078	0.015 U	**130**	23.1	**38.6**
		12/17/13	0.400 U	2.33	**283**	**697**	0.400 U	0.134	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.091	0.015 U	**81.0**	18.1	**32.5**
		03/20/14	0.400 U	5.38	**346**	**888**	0.400 U	0.138	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.085	0.015 U	**64.0**	19.4	**35.2**
		06/24/14	0.400 U	4.18	**328**	**959**	0.400 U	0.205	0.164	0.202	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.162	0.015 U	**93.2**	**30.7**	**54.1**
		09/24/14	0.400 U	0.950(I)	0.400 U	**120**	0.400 U	0.157	0.025 U	0.040(I)	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.101	0.015 U	**106**	**33.8**	**60.4**
		12/17/14	0.400 U	2.30	**284**	**798**	0.400 U	0.112	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.097	0.014 U	**125**	18.3	**31.7**
		03/24/15	0.400 U	4.19	**472**	**861**	0.400 U	0.180	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.125	0.014 U	**114**	20.0	**32.7**
		06/26/15	0.400 U	2.76	**466**	**891**	0.400 U	0.178	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.113	0.014 U	**117**	**40.0**	**81.3**
		09/24/15	0.400 U	0.820 I	**137**	**299**	0.400 U	0.105	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.079	0.014 U	**89.0 L**	21.6	**40.6**
		12/16/15	0.400 U	0.530 I	**73.0**	**82.7**	0.400 U	0.070	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.056	0.014 U	**43.5**	9.75	16.5
WRS-18R	5' - 15'	03/08/13	0.10 U	0.50 U	**125**	**219**	0.50 U	0.58 V	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.056 (I) V	**0.27 V**	**122**	19.2	**34.6 J(M1)**
		06/07/13	0.400 U	0.400 U	**34.2**	**145**	0.400 U	0.026 (I)	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	**32.0**	5.73	8.62
		09/17/13	0.400 U	0.400 U	**150**	**349**	0.400 U	0.105	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.058	0.015 U	**84.6**	16.3	**29.0**
		12/17/13	0.400 U	0.400 U	**72.2**	**189**	0.400 U	0.058	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.039(I)	0.015 U	**63.7**	10.7	19.5
		03/20/14	0.400 U	0.400 U	**125**	**270**	0.400 U	0.085	0.025 U	0.032 (I)	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.043(I)	0.015 U	**65.2**	15.4	**28.2**
		06/24/14	0.400 U	0.400 U	**87.7**	**198**	0.400 U	0.062	0.025 U	0.199	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.183	0.059	0.015 U	**59.3**	12.7	22.3
		09/23/14	0.400 U	0.400 U	**66.3**	**165**	0.400 U	0.062	0.025 U	0.033 (I)	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.034(I)	0.015 U	**73.0**	14.5	26.0
		12/16/14	0.400 U	0.400 U	**88.2**	**165**	0.400 U	0.084	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.052	0.014 U	**81.6**	14.8	28.0
		03/24/15	0.400 U	0.400 U	**151**	**277**	0.400 U	0.136	0.024 U	0.024 U	0.024 U	0.015 U	0.015 U	0.015 U	0.015 U	0.024 U	0.0050 U	0.024 U	1.052	0.014 U	**80.7**	16.0	24.1
		06/26/15	0.400 U	0.400 U	**155**	**234**	0.400 U	0.130	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.052	0.014 U	**103**	25.4	**54.7**
		09/24/15	0.400 U	0.400 U	23.2	**61.5**	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	**28.2**	6.26	12.2
		12/16/15	0.400 U	0.400 U	**60.9**	**103**	0.400 U	0.025 (I)	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	**14.5**	2.28	1.98
WRS-19	5' - 15'	03/07/13	0.10 U	0.50 U	0.50 U	1.0	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.146	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.053 (I)	0.050 U	0.050 U
		03/20/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	2.01	0.259	0.446
		06/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.190	0.050 U	0.050 U
		12/16/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.048 U	0.048 U	0.048 U
		03/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	1.83	0.199	0.299
		06/26/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.031(I)	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.0024 U	0.0024 U	0.014 U	0.518	0.096	0.089(I)
		09/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U
		12/16/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U

TABLE 11: GROUNDWATER ANALYTICAL SUMMARY

Facility Name: FDOT Broward Operations Center FDEP Facility ID No. 06/8622445

Sample			Laboratory Analysis (µg/L)																			
ID Number	Well Screen Interval	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
		GCTLs	1	40	30	20	20	20	210	2,100	0.05	0.2	0.05	210	0.5	4.8	0.005	280	280	0.05	14	28	28
		NADCs	100	400	300	200	200	200	2,100	21,000	5	20	5	2,100	50	480	0.5	2,800	2,800	5	140	280	280
WRS-20R	5' - 15'	03/07/13	0.10 U	0.50 U	0.50 U	0.85 (I)	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.081 (I)	0.050 U	0.050 U
		12/16/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.387	0.050 U	0.080(I)
		03/20/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.122	0.050 U	0.050 U
		06/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.113	0.050 U	0.066(I)
		09/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.066(I)	0.050 U	0.050 U
		12/16/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.048 U	0.048 U	0.048 U
		03/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0047 U	0.023 U	0.023 U	0.014 U	0.051 (I)	0.046 U	0.046 U
		06/26/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.024 U	0.014 U	0.168	0.047 U	0.047 U
		09/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.0.14 U	0.078 (I)	0.047 U	0.047 U
		12/16/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.0.14 U	0.047 U	0.047 U	0.047 U
WRS-21	5' - 15'	03/07/13	0.10 U	0.50 U	0.50 U	0.84 (I)	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.096 (I)	0.050 U	0.050 U
		12/16/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.385	0.050 U	0.087(I)
		03/20/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.113	0.050 U	0.050 U
		06/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.089(I)	0.050 U	0.050 U
		09/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.054(I)	0.050 U	0.050 U
		12/16/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.166	0.048 U	0.075 (I)
		03/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0047 U	0.023 U	0.023 U	0.014 U	0.046 U	0.046 U	0.046 U
		06/26/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.024 U	0.014 U	0.093(I)	0.047 U	0.047 U
		09/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.056 I	0.047 U	0.047 U
		12/16/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U
WRS-22	5' - 15'	03/07/13	0.10 U	0.50 U	0.50 U	0.84 (I)	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		03/20/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.164	0.050 U	0.050 U
		06/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.078 (I)	0.050 U	0.050 U
		09/23/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.146	0.050 U	0.050 U
		12/16/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0050 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		03/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0047 U	0.023 U	0.023 U	0.014 U	0.055 (I)	0.046 U	0.046 U
		06/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.095 (I)	0.055 (I)	0.050 U
		12/18/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U
WRS-23	5' - 15'	03/07/13	0.10 U	0.50 U	0.55 (I)	1.6	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.171	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		03/20/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.205	0.050 U	0.050 U
		06/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.063(I)	0.050 U	0.050 U
		09/23/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.052(I)	0.050 U	0.050 U
		12/16/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.048 U	0.048 U	0.048 U
		03/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0047 U	0.023 U	0.023 U	0.014 U	0.046 U	0.046 U	0.046 U
		06/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.077(I)	0.048 U	0.048 U
		09/25/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.104	0.047 U	0.047 U
		12/18/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U

TABLE 11: GROUNDWATER ANALYTICAL SUMMARY

Facility Name: FDOT Broward Operations Center FDEP Facility ID No. 06/8622445

Sample			Laboratory Analysis (µg/L)																			
ID Number	Well Screen Interval	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	Naphthalene	1-Methyl-naphthalene	2-Methyl-naphthalene
		GCTLs	**1**	**40**	**30**	**20**	**20**	**20**	**210**	**2,100**	**0.05**	**0.2**	**0.05**	**210**	**0.5**	**4.8**	**0.005**	**280**	**280**	**0.05**	**14**	**28**	**28**
		NADCs	**100**	**400**	**300**	**200**	**200**	**200**	**2,100**	**21,000**	**5**	**20**	**5**	**2,100**	**50**	**480**	**0.5**	**2,800**	**2,800**	**5**	**140**	**280**	**280**
WRS-24	5' - 15'	03/25/13	0.10 U	0.50 U	0.50 U	1.1	0.50 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U*	0.025 U	0.025 U	0.025 U	1.0 U	1.0 U	1.0 U
		06/07/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		09/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.252	0.050 U	0.050 U
		12/17/13	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.114	0.050 U	0.050 U
		03/20/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.025 U	0.025 U	0.015 U	0.266	0.050 U	0.050 U
		06/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.00510 U*	0.182	0.025 U	0.015 U	0.057(I)	0.050 U	0.050 U
		09/24/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.025 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.015 U	0.015 U	0.025 U	0.0051 U*	0.025 U	0.025 U	0.015 U	0.050 U	0.050 U	0.050 U
		12/16/14	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.048 U	0.048 U	0.048 U
		03/23/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0047 U	0.023 U	0.023 U	0.014 U	0.046 U	0.046 U	0.046 U
		06/24/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0049 U	0.024 U	0.024 U	0.014 U	0.118	0.048 U	0.048 U
		09/25/15	0.400 U	0.400 U	0.400 U	0.800 U	0.400 U	0.024 U	0.024 U	0.024 U	0.024 U	0.014 U	0.014 U	0.014 U	0.014 U	0.024 U	0.0048 U	0.024 U	0.024 U	0.014 U	0.276	0.056 I	0.099
		12/18/15	0.400 U	0.400 U	0.400U	0.800 U	0.400 U	0.023 U	0.023 U	0.023 U	0.023 U	0.014 U	0.014 U	0.014 U	0.014 U	0.023 U	0.0048 U	0.023 U	0.023 U	0.014 U	0.047 U	0.047 U	0.047 U

Notes:

* = MDL falls above GCTL due to testing limitations, the PQL is used as the accepted limit

µg/L = micrograms per liter

Blank = No data or not analyzed for that specific parameter

Bold and shaded values indicate NADCs exceeded

Bold values indicate GCTLs exceeded

Data collected prior to April 2013 was provided by the previous consultant.

Flagged constituent data qualifers can be reviewed with attached laboratory final report.

GCTLs = Groundwater Cleanup Target Levels per Chapter 62-777, Table I, Florida Administrative Code (FAC)

I = Value between MDL and PQL

J2 = Surrugotate recovery was outside defined limits due to matrix interference.

J(M1) = Estimated value. Matrix spike recovery exceeded QC limits. Batch accpeted based on laboratory control sample (LCS) recovery.

L = Off-scale high; the reported value is above the calibarion range.

MTBE = methyl tertiary butyl ether

NADCs = Natural Attenuation Default Concentrations per Chapter 62-777, Table V, FAC

U = Not Detected

V = Indicates that the analyte was detected in both sample and the assoicated method blank

Site No. 29

Circle K #4865
1177 West Commercial Boulevard

Florida Department of Environmental Protection

Twin Towers Office Bldg. 2600 Blair Stone Road. Tallahassee, Florida 32399-

Division of Waste Management
Bureau of Petroleum Storage Systems

Storage Tank Facility Re-Inspection Site Inspection Report

Facility Information:

Facility ID:	8622524	County:	BROWARD	Inspection Date:	10/10/2014
Facility Type:	A -Retail Station				
Facility Name:	CIRCLE K #4865			# Of Inspected ASTs:	0
	1177 W COMMERCIAL BLVD			USTs:	2
	FORT LAUDERDALE, FL 33309			Mineral Acid Tanks:	0
Latitude:	26° 11' 19.4106"				
Longitude:	80° 9' 32.7681"				
LL Method:	DGPS				

Inspection Result:

Result : In Compliance

Description: Facility is In Compliance.

Financial Responsibility

Financial Responsibility: INSURANCE

Insurance Carrier: IRONSHORE SPECIALTY INSURANCE CO

Effective Date: 12/01/2013 Expiration Date: 12/01/2014

Signatures:

TKBWNR - BROWARD COUNTY ENVIRONMENTAL PROTECTION DEPT

Storage Tank Program Office

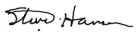
(954) 519-1486

Storage Tank Program Office Phone Number

Steve D. Singer
INSPECTOR NAME

INSPECTOR SIGNATURE

Steve Hansen
REPRESENTATIVE NAME



REPRESENTATIVE SIGNATURE

Facility ID: 8622524

Owners of UST facilities are reminded that the Federal Energy Policy Act of 2005 requires Operator Training at all facilities by August 8, 2012. For further information please visit: http://www.dep.state.fl.us/waste/categories/tanks/pages/op_train.htm

System Tests

Type	Date Completed	Results	Reviewed	Next Due Date	Comment
Completed Tests					
Breach of Integrity Test	11/04/2011	Passed	10/15/2012	11/04/2016	Valley Tank Testing
Annual Inline Leak Detector Test	09/09/2014	Passed	09/24/2014	09/09/2015	Valley Tank Testing did test.
Annual Operability Test	09/16/2014	Failed	09/24/2014	09/29/2014	Valley Tank Testing did test.

Site Visit Comments

10/10/2014

Re-inspection

Met with Steve Hansen of Valley Tank Testing

1) Rusted out plug on premium STP was replaced and cracked cap for fuel level sensor was replaced so no more vapors were being released.
2) Vapor leak in regular sump was repaired (had to tighten and seal fuel level cap).

In compliance.

Inspection Photos

Added Date 10/10/2014

New fuel level sensor cap installed.

Added Date 10/10/2014

New plug installed on premium STP.

Site No. 30

7-Eleven Food Store #34825
901 West Commercial Boulevard

FDEP Copy

received via email 9-6-2016

AGUA ENVIRONMENTAL CONSULTING

September 6, 2016

Mr. Matthew Theisen, P.G.
Broward County – Environmental Protection Department
1 N. University Drive, Suite 203
Plantation, FL 33324

Task 2 Letter Report

RE: 7-Eleven Food Store #34825, Ft. Lauderdale, Broward County, FL; FDEP Facility #068501585 PO# AD936A

Hello Mr. Theisen,

This letter and the attached information is an interim deliverable that summarizes soil and groundwater testing recently completed at the subject site.

Soil testing included the following:

- Installing 16 soil borings identified as SCB-1 through SCB-16. Soil testing at each location was conducted to 10 feet bls, and soil samples were collected for OVM analysis. In addition, soil analytical samples were also collected at boring locations SCB-6, 9, and 15. Each of these soil samples was analyzed to detect BTEX, MTBE, PAH and FL-PRO compounds.

Groundwater testing included the following:

- Installing four 15 ft deep wells identified as MW-2R, MW-7R, MW-11R and MW-19, and one 29 feet deep vertical extent well identified as MW-16DR. Groundwater samples collected from wells MW-2R, MW-11R MW-19, and MW-16DR were BTEX, MTBE, PAH and FL-PRO compounds. Groundwater samples were also collected from existing wells MW-3 and MW-4 and tested as described for the aforementioned wells

- Groundwater samples collected from well MW-7R at the location of the former waste oil UST were analyzed per FDEP Table D.

6216 NW 43rd STREET, STE B
GAINESVILLE, FL 32653
TELEPHONE: 352-745-7733

Results from completing the above technical activities are summarized in the attachments listed below:

Figure 1 – Site Layout and Testing Locations
Figure 2 – Soil Analytical Summary (June 28 & 29, 2016)
Figure 3 - Historic and Recent Groundwater Testing Locations
Figure 4 – Groundwater Analytical Summary (August 10 - 11, 2016)
Figure 5 – Groundwater Contours and Flow Direction (August 10 -11, 2016)
Table 1 – Soil Screening Summary
Table 2 – Soil Analytical Summary
Table 3 – Groundwater Analytical Summary
Table 4 – Groundwater Elevation Summary
BaP Conversion Tables
Attachment A – Soil Testing and Well Installation Field Notes
Attachment B - Boring Logs and Well Construction Logs
Attachment C - Groundwater Sample Field Notes, Sample Logs, and Equipment Calibration Logs
Attachment D – Soil Analytical Laboratory Report
Attachment E – Groundwater Analytical Laboratory Report
Attachment F – Photographs

Soil testing results showed that no petroleum-related analytes were identified above SCTLs. No soil samples were collected for laboratory analysis at the location of the former waste oil UST because no visual indication of staining was identified in any of the collected soil samples.

Depth to groundwater at the site was approximately 8.5 feet bls.

Groundwater analytical testing only identified TRPH above GCTLs in well MW-16DR. No other analytes were identified in any other wells tested above GCTLs. During the installation of well MW-16DR a maximum OVM reading of 150-ppm was recorded at a depth of 9 feet bls, which was below the water table. Review of historical groundwater quality results shows that former deep wells MW-13, RW-1 and RW-2 were all reported to have petroleum-related impacts significantly above GCTLs at some point. However, there is a general lack of historical TRPH groundwater quality results.

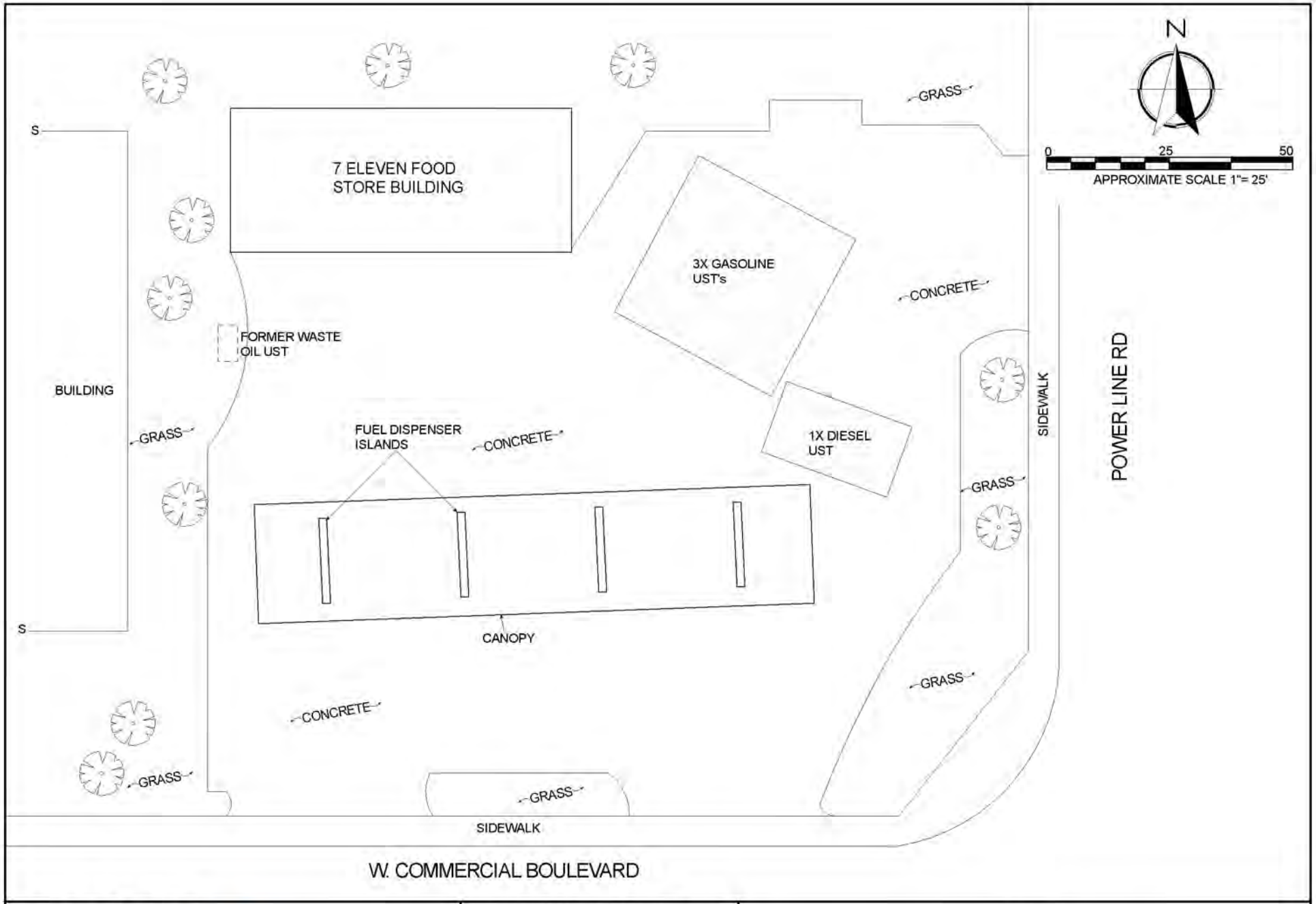
The above results and findings indicate that well MW-16DR should be re-tested to determine if TRPH concentrations in this well will decrease below GCTLs. If not, additional deep wells may be required to demarcate deeper groundwater impacts at this site.

Please contact us if you have any question regarding this deliverable.

Sincerely,

AGUA, LLC

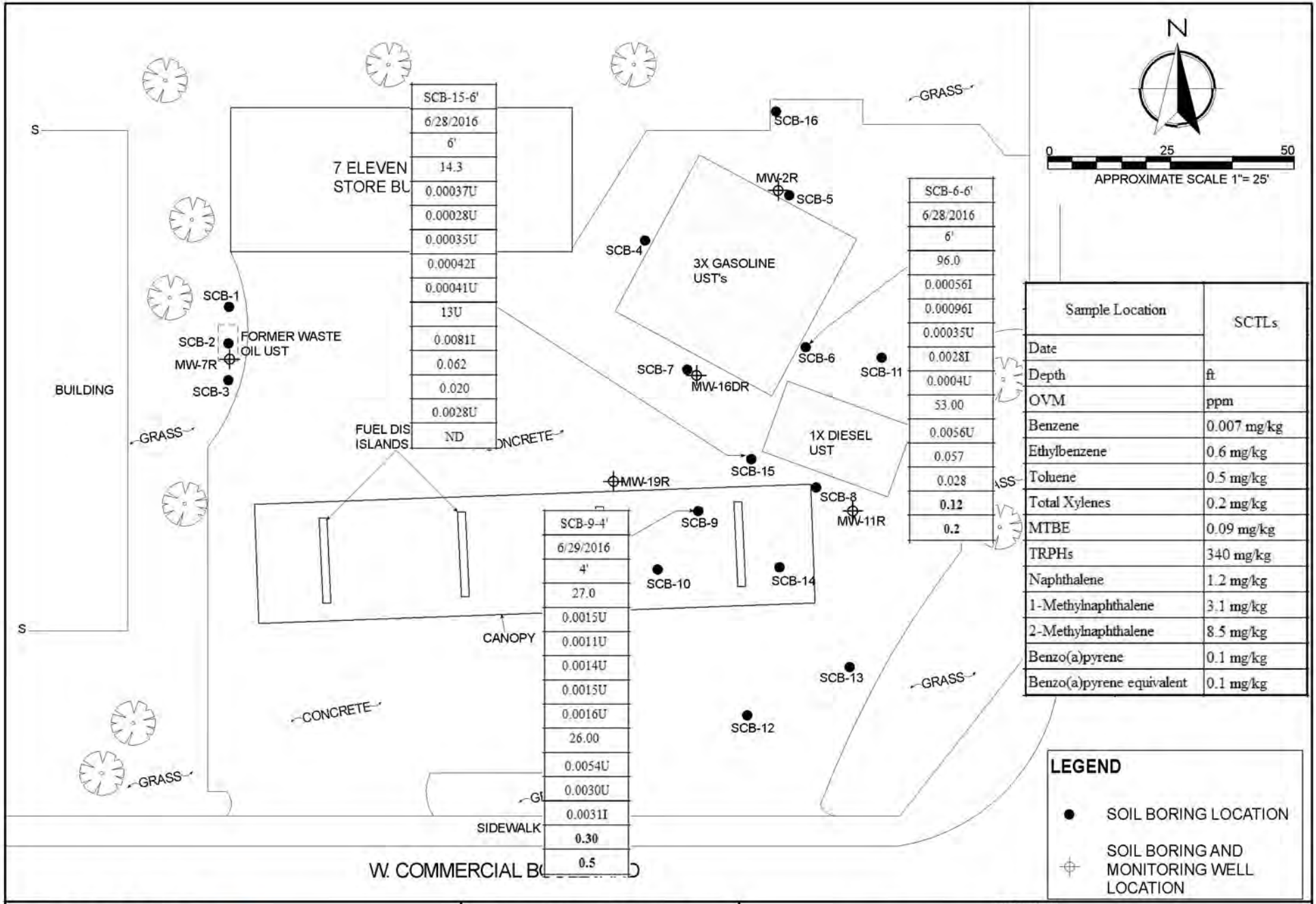
James D. Hirsch, M.S., P.G.
Principal Hydrogeologist



AGUA ENVIRONMENTAL CONSULTING
6216 NW 43rd St Suite B
Gainesville, Florida 32653
Phone: (352)745-7733

PROJECT MANAGER: JAMES HIRSCH	
APPROXIMATE SCALE 1"=25'	
DRN BY: C.I.	DRN DATE= 8/31/16
CHK BY: J.H.	CHK DATE: 8/31/16
APPVD BY: J.H.	APPVD DATE: 8/31/16

FIGURE 1
SITE LAYOUT
7- ELEVEN FOOD STORE# 34825
901 W. COMMERCIAL BOULEVARD, FORT LAUDERDALE, FLORIDA
FDEP FAC. ID# 06/8501585



Sample Location	SCTLs
Date	
Depth	ft
OVM	ppm
Benzene	0.007 mg/kg
Ethylbenzene	0.6 mg/kg
Toluene	0.5 mg/kg
Total Xylenes	0.2 mg/kg
MTBE	0.09 mg/kg
TRPHs	340 mg/kg
Naphthalene	1.2 mg/kg
1-Methylnaphthalene	3.1 mg/kg
2-Methylnaphthalene	8.5 mg/kg
Benzo(a)pyrene	0.1 mg/kg
Benzo(a)pyrene equivalent	0.1 mg/kg

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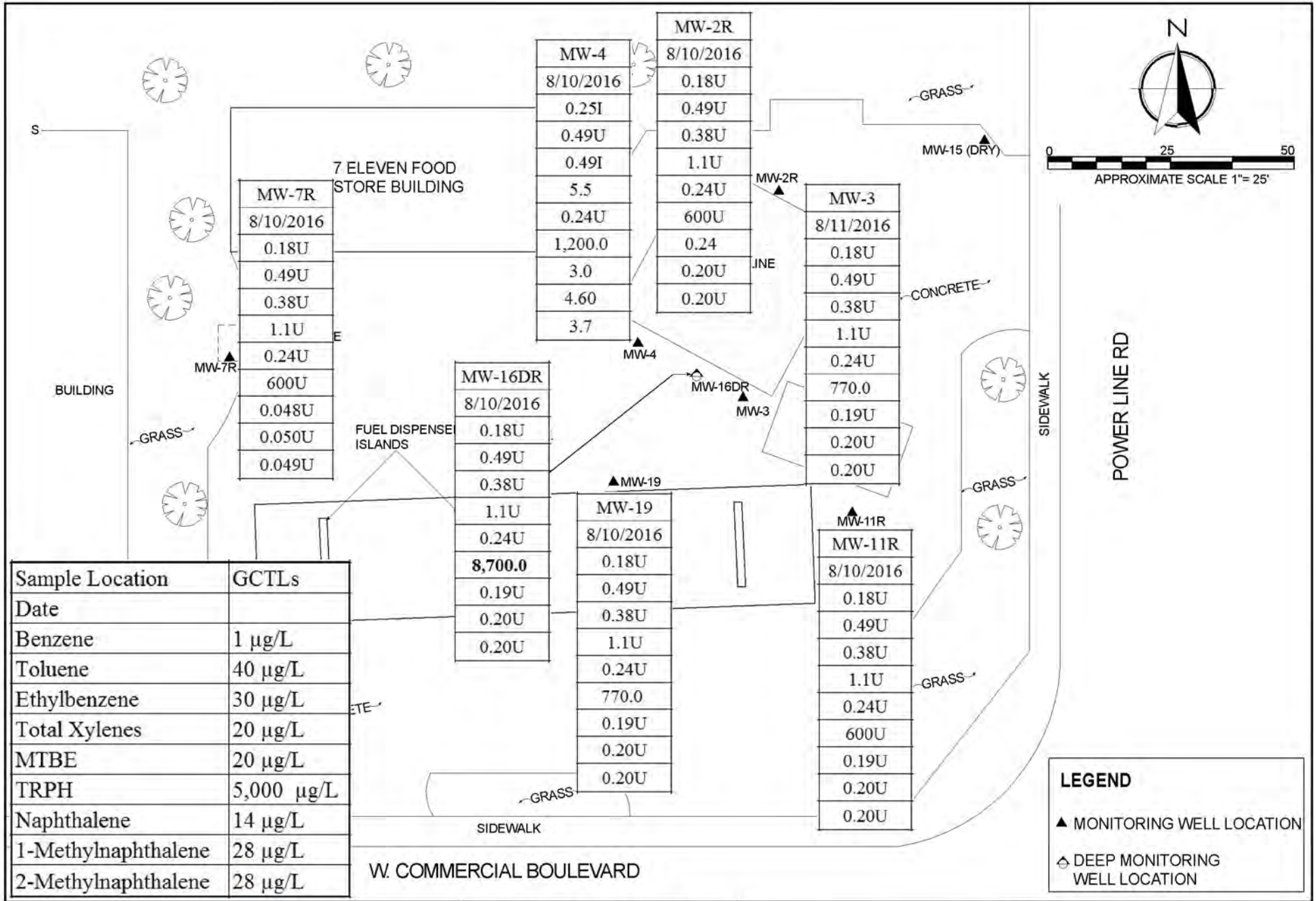
APPROXIMATE SCALE 1"=25'	
DRN BY: C.I.	DRN DATE= 8/31/16
CHK BY: J.H.	CHK DATE: 8/31/16
APPVD BY: J.H.	APPVD DATE: 8/31/16

FIGURE 2
JUNE AND AUGUST 2016 SOIL TESTING LOCATIONS AND SOIL ANALYTICAL SUMMARY
7- ELEVEN FOOD STORE# 34825
901 W. COMMERCIAL BOULEVARD, FORT LAUDERDALE, FLORIDA
FDEP FAC. ID# 06/8501585



Sample Location	GCTLs
Date	
Benzene	1 µg/L
Toluene	40 µg/L
Ethylbenzene	30 µg/L
Total Xylenes	20 µg/L
MTBE	20 µg/L
TRPH	5,000 µg/L
Naphthalene	14 µg/L
1-Methylnaphthalene	28 µg/L
2-Methylnaphthalene	28 µg/L

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Gainesville, Florida 32653
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PROJECT MANAGER: JAMES HIRSCH	
APPROXIMATE SCALE 1"=25'	
DRN BY: C.I.	DRN DATE= 8/29/16
CHK BY: J.H.	CHK DATE: 8/29/16
APPVD BY: J.H.	APPVD DATE: 8/29/16

FIGURE 4
GROUNDWATER ANALYTICAL SUMMARY (AUGUST 10-11, 2016)
7- ELEVEN FOOD STORE# 34825
901 W. COMMERCIAL BOULEVARD, FORT LAUDERDALE, FLORIDA
FDEP FAC. ID# 06/8501585

TABLE 2: SOIL ANALYTICAL SUMMARY - VOAs, TRPHs and Metals

Facility ID # 06/8501585 **Site Name: 7- Eleven Food Store# 34825** **See notes at end of table.**

Sample				OVA	Laboratory Analyses										
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzene (mg/kg)	Ethyl-benzene (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TRPHs (mg/kg)	Arsenic (mg/kg)	Cad-mium (mg/kg)	Chro-mium (mg/kg)	Lead (mg/kg)	Comments
SCB-6-6'	6/28/2016	8.0	6'	96	0.00056I	0.00096I	0.00035U	0.0028I	0.0004U	53	NS	NS	NS	NS	
SCB-9-4'	6/29/2016	8.0	4'	27	0.0015U	0.0011U	0.0014U	0.0015U	0.0016U	26	NS	NS	NS	NS	
SCB-15-6'	6/28/2016	8.0	6'	14.3	0.00037U	0.00028U	0.00035U	0.00042I	0.00041U	13U	NS	NS	NS	NS	
Leachability Based on Groundwater Criteria (mg/kg)					0.007	0.6	0.5	0.2	0.09	340	*	7.5	38	*	
Direct Exposure Residential (mg/kg)					1.2	1,500	7,500	130	4,400	460	2.1	82	210	400	

Notes: NA = Not Available.
NS = Not Sampled.
AGS= Above Groundwater Surface
***** = Leachability value may be determined using TCLP.

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].
***** = Leachability value may be determined using TCLP.
Bold values = Leachability exceedence
I = the reported value is between the method dectection limit and the practical quantitation limit
U = result is below laboratory detection level
L = value reported is above calibration range; the actual value may be higher than the value given.

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

TABLE 2: SOIL ANALYTICAL SUMMARY - Non-Carcinogenic PAHs

Facility ID # 06/8501585 **Site Name: 7- Eleven Food Store# 34825** **See notes at end of table.**

Sample					Laboratory Analyses										
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Naph-thalene (mg/kg)	1-Methyl-naph-thalene (mg/kg)	2-Methyl-naph-thalene (mg/kg)	Acen-aph-thene (mg/kg)	Acen-aph-thylene (mg/kg)	Anthra-cene (mg/kg)	Benzo (g,h,i) pery-lene (mg/kg)	Fluoran-thene (mg/kg)	Fluor-ene (mg/kg)	Phenan-threne (mg/kg)	Pyrene (mg/kg)
SCB-6-6'	6/28/2016	8.0	6'	96	0.0056U	0.057	0.028	0.011	0.0025U	0.013	0.13	0.083	0.011	0.039	0.10
SCB-9-4'	6/29/2016	8.0	4'	27	0.0054U	0.0030U	0.0031I	0.0047I	0.0047I	0.023	0.26	0.28	0.0050I	0.084	0.30
SCB-15-6'	6/28/2016	8.0	6'	14.3	0.0081I	0.062	0.020	0.0033U	0.0031U	0.0027U	0.0074U	0.0026U	0.0033U	0.0027U	0.0025U
Leachability Based on Groundwater Criteria (mg/kg)					1.2	3.1	8.5	2.1	27	2,500	32,000	1,200	160	250	880
Direct Exposure Residential (mg/kg)					55	200	210	2,400	1,800	21,000	2,500	3,200	2,600	2,200	2,400

Notes: NA = Not Available.
NS = Not Sampled.
Bold values = leachibility exceedence
I = the reported value is between the method dectection limit and the practical quantitation limit
U = result is below laboratory detection level
L = value reported is above calibration range; the actual value may be higher than the value given.

If analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

TABLE 2: SOIL ANALYTICAL SUMMARY - Carcinogenic PAHs

Facility ID # 06/8501585 **Site Name: 7- Eleven Food Store# 34825** **See notes at end of table.**

Sample					Laboratory Analyses							
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzo (a) pyrene (mg/kg)	Benzo (a) anthra-cene (mg/kg)	Benzo (b) fluoran-thene (mg/kg)	Benzo (k) fluoran-thene (mg/kg)	Chry-sene (mg/kg)	Dibenz (a,h) anthra-cene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Benzo (a) pyrene equivalent (mg/kg)
SCB-6-6'	6/28/2016	8.0	6'	96	**0.12**	0.038	0.16	0.039	0.054	0.029	0.14	**0.2**
SCB-9-4'	6/29/2016	8.0	4'	27	**0.30**	0.20	0.46	0.15	0.26	0.059	0.29	**0.5**
SCB-15-6'	6/28/2016	8.0	6'	14.3	0.0028U	0.0029U	0.0030U	0.0026U	0.0029U	0.0084U	0.0048U	ND
Leachability Based on Groundwater Criteria (mg/kg)					8	0.8	2.4	24	77	0.7	6.6	**
Direct Exposure Residential (mg/kg)					0.1	#	#	#	#	#	#	0.1

Notes: NA = Not Available.

ND= Not Detected

NS = Not Sampled.

** = Leachability value not applicable.

= Direct Exposure value not applicable except as part of the Benzo(a)pyrene equivalent.

Bold values = leachability exceedence

I = the reported value is between the method dectection limit and the practical quantitation limit

U = result is below laboratory detection level

L = value reported is above calibration range; the actual value may be higher than the value given.

If analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals

Facility ID # 06/8501585 **Site Name: 7- Eleven Food Store# 34825** **See notes at end of table.**

Sample		Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOAs	MTBE	EDB	1,2-Dibromo-3-Chloropro	1,2-Di-chloro-ethane	Total Lead
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1	9/19/1988	**580.0**	BDL	**240.0**	**1,630.0**	2,450.0	BDL	NA	NA	NA	NA
	5/28/1991	**111.0**	10.0	30.0	**87.0**	238.0	**59.0**	NA	NA	NA	NA
	3/12/1992	1.0	5.0	7.0	11.0	25.0	**140.0**	NA	NA	NA	NA
	9/15/1993	**162.0**	**114.0**	**101.0**	**121.0**	498.0	**164.0**	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-2	9/19/1988	**1,390.0**	**42.0**	10.0	**210.0**	1,652.0	BDL	NA	NA	NA	NA
	5/28/1991	**316.0**	**422.0**	**70.0**	**419.0**	1,227.0	**261.0**	NA	NA	NA	NA
	3/21/1992	**940.0**	**175.0**	**120.0**	**1,120.0**	2,355.0	**318.0**	NA	NA	NA	NA
	9/15/1993	**199.0**	**126.0**	**114.0**	**173.0**	612.0	**230.0**	NA	NA	NA	NA
	2/3/1994	**126.0**	**102.0**	**58.0**	**358.0**	644.0	**23.0**	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	20.0	NA	NA	NA	NA
MW-2R	8/10/2016	0.18U	0.49U	0.38U	1.1U	NS	0.24U	NS	NS	NS	NS
MW-3	9/19/1988	**4,060.0**	**145.0**	**260.0**	**2,000.0**	6,465.0	BDL	NA	NA	NA	NA
	5/28/1991	**8,000.0**	**6,450.0**	**3,100.0**	**22,800.0**	40,350.0	**7,650.0**	NA	NA	NA	NA
	11/3/1994	**29.0**	**560.0**	**1,100.0**	**9,300.0**	10,989.0	**130.0**	NA	NA	NA	NA
	8/11/2016	0.18U	0.49U	0.38U	1.1U	NS	0.24U	NS	NS	NS	NS
MW-4	9/19/1988	**320.0**	BDL	BDL	**45.0**	365.0	BDL	NA	NA	NA	NA
	5/28/1991	**6,750.0**	**21,000.0**	**5,050.0**	**24,650.0**	57,450.0	**4,850.0**	NA	NA	NA	NA
	5/5/1994	**2,220.0**	**18,100.0**	**4,900.0**	**27,000.0**	52,220.0	**87.0**	NA	NA	NA	NA
	8/4/1994	**308.0**	**1,440.0**	**1,510.0**	**2,800.0**	6,058.0	**54.0**	NA	NA	NA	NA
	11/3/1944	**4.0**	6.0	**39.0**	**200.0**	249.0	**47.0**	NA	NA	NA	NA
	2/2/1995	**230.0**	**2,700.0**	**610.0**	**10,000.0**	13,540.0	BDL	NA	NA	NA	NA
	8/10/2016	0.25I	0.49U	0.49I	5.5	NS	0.24U	0.015U	0.0057U	NS	NS
MW-5	9/19/1988	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	5/28/1991	**25.0**	BDL	7.0	**23.0**	55.0	**1,050.0**	NA	NA	NA	NA
	3/21/1992	**4.0**	2.0	1.0	14.0	20.0	**242.0**	NA	NA	NA	NA
	9/15/1993	**59.0**	3.0	1.0	**28.0**	91.0	**160.0**	NA	NA	NA	NA
	2/3/1994	**57.0**	1.0	4.0	**32.0**	94.0	**358.0**	NA	NA	NA	NA
	5/5/1994	**7.0**	BDL	BDL	9.0	16.0	**49.0**	NA	NA	NA	NA
	8/4/1994	**2.0**	BDL	BDL	11.0	13.0	**224.0**	NA	NA	NA	NA
	11/3/1994	1.0	BDL	BDL	3.0	4.0	**68.0**	NA	NA	NA	NA
	2/2/1995	1.0	BDL	BDL	BDL	1.0	18.0	NA	NA	NA	NA
MW-6	9/19/1988	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	5/28/1991	**3.0**	18.0	6.0	**38.0**	65.0	BDL	NA	NA	NA	NA
	3/12/1992	BDL	3.0	BDL	BDL	3.0	BDL	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-7	5/28/1991	**2.0**	3.0	3.0	11.0	17.0	**28.0**	NA	NA	NA	NA
	3/21/1992	BDL	4.0	1.0	**23.0**	28.0	BDL	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-7R	8/10/2016	0.18U	0.49U	0.38U	1.1U	NS	0.24U	NS	NS	NS	NS
MW-8	4/9/1987	BDL	2.0	BDL	2.0	4.0	NS	NA	NA	NA	NA
	9/19/1988	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	5/28/1991	BDL	BDL	BDL	11.0	11.0	BDL	NA	NA	NA	NA
	3/21/1992	BDL	BDL	BDL	1.0	1.0	BDL	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-9	4/9/1987	BDL	4.0	BDL	5.0	9.0	NS	NA	NA	NA	NA
	9/19/1988	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	6/25/1991	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	3/21/1992	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-10	6/25/1991	BDL	BDL	BDL	BDL	BDL	**40.0**	NA	NA	NA	NA
	3/21/1992	BDL	BDL	BDL	BDL	BDL	3.0	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	BDL	BDL	18.0	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-11	6/25/1991	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	3/12/1992	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	3.0	3.0	BDL	NA	NA	NA	NA
	2/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	5/5/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	8/4/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	2/2/1995	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-11R	8/10/2016	0.18U	0.49U	0.38U	1.1U	NS	0.24U	NS	NS	NS	NS
MW-12	6/25/1991	**19.0**	4.0	BDL	**32.0**	55.0	**52.0**	NA	NA	NA	NA
	3/12/1992	**35.0**	BDL	BDL	**32.0**	67.0	**160.0**	NA	NA	NA	NA
	9/15/1993	**3.0**	BDL	BDL	5.0	9.0	10.0	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-13	6/25/1991	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	3/21/1992	**3.0**	13.0	13.0	**65.0**	94.0	4.0	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-14	6/25/1991	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	3/12/1992	**13.0**	**82.0**	21.0	**120.0**	236.0	BDL	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-15	7/29/1991	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	3/21/1992	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	9/15/1993	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals

Facility ID # 06/8501585 **Site Name: 7- Eleven Food Store# 34825** **See notes at end of table.**

Sample		Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOAs	MTBE	EDB	1,2-Dibromo-3-Chloropro	1,2-Di-chloro-ethane	Total Lead
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-16D	11/3/1994	**56.0**	4.0	6.0	**130.0**	196.0	**46.0**	NA	NA	NA	NA
MW-16DR	8/10/2016	0.18U	0.49U	0.38U	1.1U	NS	0.24U	NS	NS	NS	NS
MW-17	11/3/1994	BDL	BDL	BDL	BDL	BDL	BDL	NA	NA	NA	NA
MW-19	8/10/2016	0.18U	0.49U	0.38U	1.1U	NS	0.24U	0.015U	0.0057U	NS	NS
GCTLs		1**	40**	30**	20**	NA	20	0.02**	0.2**	3**	15**
NADCs		100	400	300	200	NA	200	2		300	150

Notes:

NA = Not Available.

BDL= Below Detection Limit

NS = Not Sampled.

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

** = As provided in Chapter 62-550, F.A.C.

Bold values = GCTL exceedence

I = the reported value is between the method dectection limit and the practical quantitation limit

U = result is below laboratory detection level

L = value reported is above calibration range; the actual value may be higher than the value given.

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs

Facility ID # 06/8501585 **Site Name: 7- Eleven Food Store# 34825** **See notes at end of table.**

Sample		TRPHs	Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Acen-aph-thene	Acen-aph-thylene	Anthra-cene	Benzo (g,h,i) pery-lene	Fluoran-thene	Fluor-ene	Phenan-threne	Pyrene	Benzo (a) pyrene	Benzo (a) anthra-cene	Benzo (b) fluoran-thene	Benzo (k) fluoran-thene	Chry-sene	Dibenz (a,h) anthra-cene	Indeno (1,2,3-cd) pyrene
Location	**Date**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**	**(µg/L)**
MW-2R	8/10/2016	600U	0.24	0.20U	0.20U	0.16U	0.17U	0.14U	0.19U	0.15U	0.15U	0.16U	0.14U	0.15U	0.049U	0.050U	0.19U	0.13U	0.095U	0.045U
MW-3	8/11/2016	770.0	0.19U	0.20U	0.20U	0.16U	0.17U	0.14U	0.19U	0.15U	0.15U	0.16U	0.14U	0.15U	0.049U	0.050U	0.19U	0.13U	0.095U	0.045U
MW-4	8/10/2016	1,200.0	3.0	4.6	3.7	0.19I	0.17U	0.14U	0.19U	0.15U	0.15U	0.16U	0.14U	0.15U	0.049U	0.050U	0.19U	0.13U	0.095U	0.045U
MW-7R	8/10/2016	600U	0.048U	0.050U	0.049U	0.040U	0.042U	0.035U	0.048U	0.037U	0.038U	0.040U	0.036U	0.037U	0.012U	0.012U	0.048U	0.033U	0.024U	0.011U
MW-11R	8/10/2016	600U	0.19U	0.20U	0.20U	0.16U	0.17U	0.14U	0.19U	0.15U	0.15U	0.16U	0.14U	0.15U	0.049U	0.050U	0.19U	0.13U	0.095U	0.045U
MW-16DR	8/10/2016	**8,700.0**	0.19U	0.20U	0.20U	0.16U	0.17U	0.14U	0.19U	0.15U	0.15U	0.16U	0.14U	0.15U	0.049U	0.050U	0.19U	0.13U	0.095U	0.045U
MW-19	8/10/2016	770.0	0.19U	0.20U	0.20U	0.16U	0.17U	0.14U	0.19U	0.15U	0.15U	0.16U	0.14U	0.15U	0.049U	0.050U	0.19U	0.13U	0.095U	0.045U
GCTLs		5,000	14	28	28	20	210	2,100	210	280	280	210	210	0.2**	0.05[a]	0.05[a]	0.5	4.8	0.005[a]	0.05[a]
NADCs		50,000	140	280	280	200	2,100	21,000	2,100	2,800	2,800	2,100	2,100	20	5	5	50	480	0.5	5

Notes:

NA = Not Available.

NS = Not Sampled.

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

** = As provided in Chapter 62-550, F.A.C.

[a] = See the October 12, 2004 "Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits" to determine how to evaluate data when the CTL is lower than the PQL.

Bold values = GCTL exceedence

I = the reported value is between the method dectection limit and the practical quantitation limit

U = result is below laboratory detection level

L = value reported is above calibration range; the actual value may be higher than the value given.

TABLE 3: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - NAM Paramenters

Facility ID # 06/8501585 **Site Name: 7- Eleven Food Store# 34825**

Sample		Sulfate	Iron, Dissolved	Nitrate as N	Orthophosphate as P	Methane	Chloride
Location	Date	mg/L	mg/L	mg/L	mg/L	ppm	mg/L
MW-4	8/10/2016	1.2I	0.02U	0.050U	0.086I	1.470	
MW-19	8/10/2016	19	**1.6**	0.34I	0.062I	0.219	
GCTLs		250	0.3	10	NA	NA	250
NADCs		2500	3	100	NA	NA	NA

Notes:
NA = Not Available.
NS = Not Sampled.
ND= Not Detected at the Reporting Limit
* SMCL (Maximum contaminant level)
GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.
NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

Site No. 33

Adventure Petroleum
4999 NW 9 Avenue

D0029555

Department of Environmental Regulation
EARLY DETECTION INCENTIVE PROGRAM
NOTIFICATION APPLICATION

Use this form to notify the Department of Environmental Regulation of petroleum contamination problems. This form is required to determine eligibility for the EDI program. FOR NOTIFICATION PURPOSES ONLY.

PLEASE PRINT OR TYPE
Put "X" where answer is unknown.

066819

1. Business/Site Name: AMOCO SERVICE STATION # 7025

Business/Site Operator: JOHN JAIRO DUQUE

Business/Site Owner: AMOCO OIL COMPANY Property Owner: AMOCO OIL

Business/Site Address: 4999 N.W. 9TH AVE FORT LAUDERDALE FL 33009

Telephone Number: (305) 749-1088 / _____ County: BROWARD
(Business) (Home)

Mailing Address: AMOCO OIL COMPANY 7771 W. OAKLAND PARK BLVD #120 FT. LAUDERDALE FL 33351

2. Date of discovery: 12/16/88 (month/day/year)

3. Have you previously reported this discharge to DER? ☒ No ☐ Yes _____
If yes, date of report and to whom

4. Method of initial discovery (circle one only)
   A. Automatic detector in ground, monitoring well, or containment
   B. NFPA 329 test (underground tanks only)
   (C.) Manual test of monitoring wells(s)
   D. Emptying and inspection
   E. Inventory control
   F. Odor or visible signs at facility or in vicinity
   G. Other _____ (explain)

5. Estimated number of gallons lost: X

6. What part of the storage system is leaking? (circle all that apply) A. Dispenser B. Pipe C. Fitting D. Tank E. Overfill (F.) Unknown

   Has the system been repaired? ☐ No ☐ Yes ☒ Unknown

7. Cause of leak (circle all that apply)

	Piping	Tank	
(A.) Unknown	B. Split	G. Split	J. Installation failure
	C. Loose Connection	H. Corrosion	P. Overfill
	D. Other _____	I. Puncture	Q. Accident
			R. Other _____

8. If a tank is leaking, circle the choices which describe the type
   A. Aboveground
   B. Factory welded
   C. Field erected
   D. Underground
   E. Bare or asphalt-coated steel
   F. Fiberglass-clad steel
   G. Fiberglass
   H. Sacrificial anode type
   I. Impressed current type
   J. Double walled
   K. Abandoned or out of service
   M. Other or unknown _____ (explain)

9. Type of product discharged (circle one)
   A. Leaded gasoline
   (B.) Unleaded gasoline
   C. Gasohol or alcohol-enriched gasoline
   D. Vehicular diesel
   E. Aviation fuel
   K. Kerosene
   L. Used oil
   M. General diesel
   Y. Other _____ (explain)
   Z. Unknown _____ (explain)

RECEIVED
DEC 28 1988
BUREAU OF WASTE CLEANUP

10. DER Facility Number X 068501632

11. DER Tank Number X

12. TO THE BEST OF MY KNOWLEDGE AND BELIEF ALL INFORMATION SUBMITTED ON THIS FORM IS TRUE, ACCURATE AND COMPLETE.

ROLANDO BETHART — MAINTENANCE SUPERVISOR — 12/26/88

Signature of Person Completing Form — Title — Date

DER Form 17-70.001(1)

Florida Department of Environmental Protection

Twin Towers Office Bldg. ● 2600 Blair Stone Road ● Tallahassee, Florida 32399-2400

DEP Form # 62-761.900(2)
Form Title Storage Tank Registration Form
Effective Date July 13, 1998
DEP Application No. _____ (Filled in by DEP)

DATA ENTERED
NOV 03 2006
By: MP

Storage Tank Facility Registration Form

Submit a completed form for the facility when registration of storage tanks or compression vessels is required by Chapter 376.303, Florida Statutes

Please review *Registration Instructions* before completing the form.

Please check all that apply	[✓] New Registration	[✓] New Owner	[ ] New Tanks
	[ ] Facility Info Update/Correction	[ ] Owner Info Update/Correction	[ ] Tank Info Update/Correction

A. FACILITY INFORMATION

County: Broward	DEP Facility ID: 8501632

Facility Name: ADVENTURE PETROLEUM dba. Power Line Amoco
Facility Address: 4999 NW 9th Ave City: Fort Lauderdale Zip: 33309
Facility Contact: KAZI IQBAL Business Phone: (954) 491-0094
Facility Type(s): GAS-CONVENIENCE NAICS Code: _____ Financial Responsibility: KAZI IQBAL

24 Hour Emergency Contact: KAZI IQBAL **Emergency Phone:** (954) 288-9469

B. RESPONSIBLE PERSON INFORMATION - Identify Individual(s) or Business(es) responsible for storage tank management, fueling operations, and/or cleanup activities at the facility location named above. **Provide additional information in an attachment if necessary.**

Name: KAZI IQBAL	Facility - Responsible Person Relation Type:	Effective Date
Mail address: 4999 NW 9th AV	[√] **Facility Account Owner (pays fees)**	6044D
City, ST, Zip: FT-LAUDERSALE, FL 33309	Facility Account Owner information must be provided when the facility contains active or out of service storage tanks on site.	
Contact: KAZI IQBAL		
Telephone: 954-491-0094	**STCM Account Number (if known)**	
Identify other appropriate facility relationships for this party: [✓] Facility Owner/Operator [✓] Property Owner [✓] Storage Tank Owner		

Name:	Other owner, relationship type(s)	Effective Date
Mail address:	[X] Facility Owner/Operator	
City, ST, Zip:	[ ] Property Owner	
Contact:	[ ] Storage Tank Owner	
Telephone:	[ ] Other:	

C. TANK/VESSEL INFORMATION - Complete one row for each storage tank or compression vessel system located at this facility.

Tank ID	T/V	A/U	Capacity	Installed	Content	Status/Effective Date		Construction	Piping	Monitoring
1	T	U	10000	6/1/1990	B	U		AGMC	FSCK	SL2H4
2	T	U	10000	6/1/1990	B	U		AGMC	FSCK	SL2H4
3	T	U	10000	6/1/1990	B	U		AGMC	FSCK	SL2H4
4	T	U	10000	6/1/1990	B	U		AGMC	FSCK	SL2H4

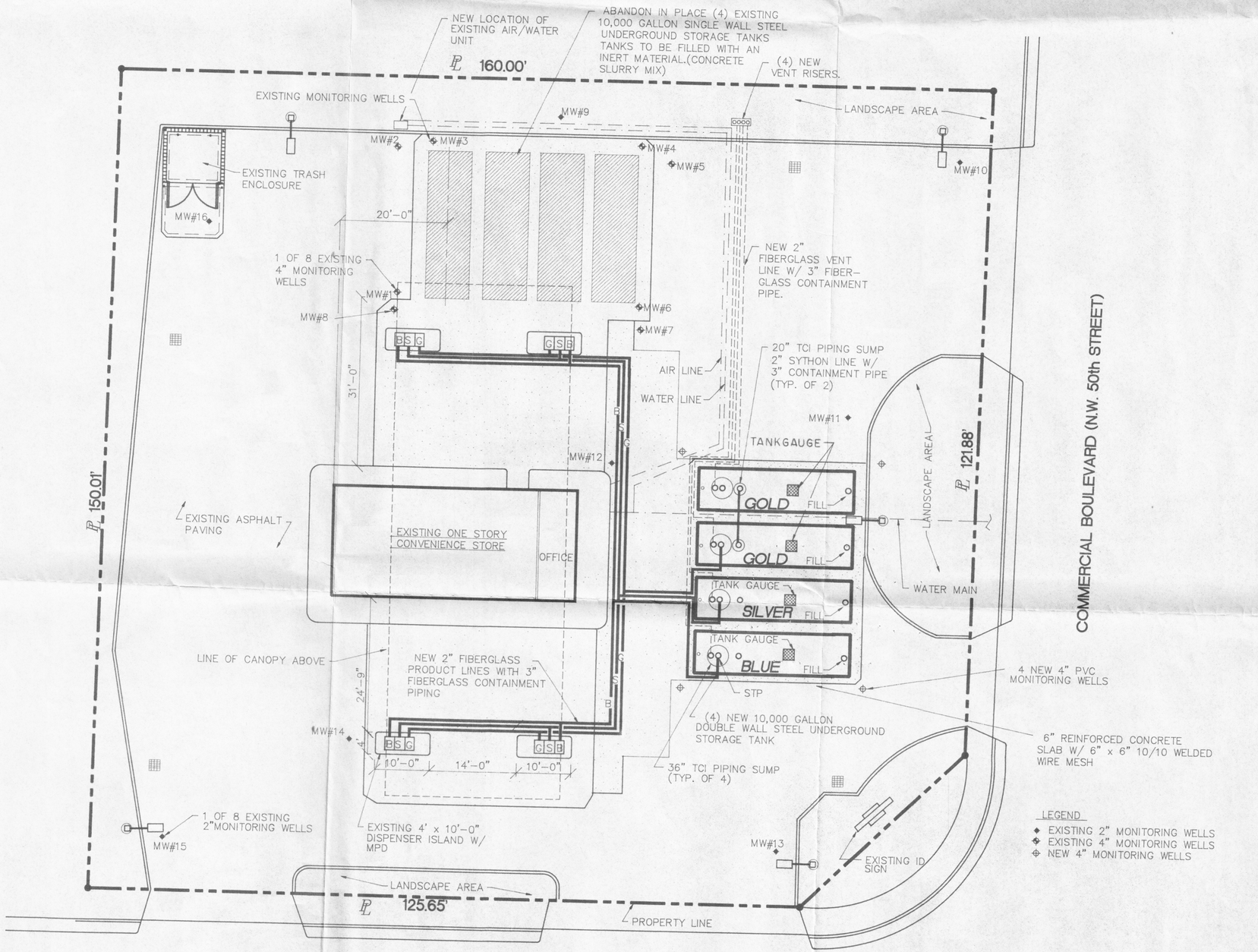
Certified Contractor (peforming tank installation or removal): _____ DBPR License No.: _____

Registration Certification: **To the best of my knowledge and belief, all information submitted on this form is true, accurate, and complete.**

KAZI IQBAL — **Printed Name & Title**
[signature] — **Signature**
10-16-06 — **Date**

DEP 62-761.900(2)

Northwest District	Northeast District	Central District	Southwest District	Southeast District	South District	Marathon Branch Office
160 Governmental Center Blvd.	7825 Baymeadows Way, Suite B200	3319 Maguire Blvd., Suite 232	3804 Coconut Palm Drive	400 North Congress Ave.,	2295 Victoria Ave., Suite 364	2796 Overseas Hwy., Suite 221
Pensacola, FL 32501	Jacksonville, FL 32256	Orlando, FL 32803	Tampa, FL 33619	W Palm Beach, FL 33416	Fort Myers, FL 33901	Marathon, FL 33050
850-595-8360	904-448-4300	407-894-7555	813-744-6100	561-681-6600	941-332-6975	305-289-2310



AS-BUILT SITE PLAN

SCALE: 1"=10'-0"

N

NO.	DATE	REVISIONS	BY

PIECO
PETROLEUM & INDUSTRIAL EQUIPMENT

AMOCO STATION (AS-BUILT)

4999 NORTHWEST 9th AVENUE FORT LAUDERDALE, FL.

DATE	2/28/90
DRAWN BY	PADILLA
DRAFTING APPROVAL	GAP 3/1/90
INSTALLATION APPROVAL	
ELECTRICAL APPROVAL	

FILE NUMBER
AM-89-5003-10

DRAWING
AB-1

1 OF 1

The site has operated as a gas station from at least the late 1980s. The facility operated under the AMOCO and BP brands in the past. At the time of this assessment, the facility was being updated for the Chevron brand. Review of online records located in the FDEP OCULUS database indicated that a Contamination Assessment Report (CAR) was submitted for the site in December 1989. The CAR documented soil and groundwater contamination at the site. Soil excavation was conducted at the site in March 1990 as part of an Initial Remedial Action (IRA). The IRA was conducted during the installation of four new 10,000-gallon gasoline USTs on the north side of the service station. At the same time, four older 10,000-gallon USTs appeared to have been closed in-situ on the western side of the property. The concrete pad covering the closed USTs remains in place. From May 1991 through May 1995 a Remedial Action (RA) program with pump and treat was proposed and implemented for the groundwater at the site. Soil remediation (using soil vapor extraction) as implemented in February 1994. Soil remediation was terminated in March 1995, followed by shutdown of the groundwater remediation system in May 1995.

A Low Score Site Initiative (LSSI) assessment was conducted at the site in the summer of 2015 and an LSSI assessment report was submitted to FDEP sometime before September 2015. The FDEP approved the LSSI report on September 4, 2015.

The property is currently owned by Mr. Kazi Iqral. The property currently consists of an active retail gas station with a store, canopy, four dispenser islands (with three dispensers at each island), a carwash, a dumpster enclosure and onsite parking. The remains of a former air-stripper groundwater treatment system are located adjacent to the west side of the dumpster enclosure.

AECOM conducted a site inspection on October 26, 2016 and a meeting with Mr. Iqral. Sixteen existing monitoring wells were found at the site. Four storm drain catch basins were observed onsite. Housekeeping and the general condition of the site was observed to be clean and neat. The paved areas surrounding the building appeared to be in good shape. Field notes documenting the site inspection and monitoring well inventory are included in **Attachment A**. A site plan, showing the site layout and immediate surrounding areas, structures, current monitoring well locations and the locations of the closed and active USTs, is attached as **Figure 1**. A site vicinity map, identifying the surrounding land uses and water bodies, is attached as **Figure 2**. Information on the onsite monitoring wells is summarized in the attached **Table 1**.

Monitoring Well Redevelopment, Groundwater Sampling, Soil Sampling, and Groundwater Elevation Surveying Procedures

Monitoring Well Redevelopment

The October 2016 initial monitoring well inspection data were compiled in a table and emailed, on November 9, 2016, to Ms. Virginia Eller of FDEP for review. In an email dated November 16, 2016, Ms. Eller requested that AECOM submit a Request for Change (RFC) form to provide for redevelopment of several monitoring wells for possible future sampling. On December 2, 2016, the FDEP approved RFC-4 for the redevelopment of seven monitoring wells (MW-1, MW-2, MW-4, MW-6, MW-11, MW-12 and MW-12-alt). MW-12-alt was located adjacent to MW-12.

On January 16, 2017, an AECOM field scientist and a Florida-licensed environmental driller mobilized to the site to perform the above-referenced work scope. During the time onsite, the drillers noted that existing wells MW-12 and MW-12-alt needed to be replaced and were not suitable for redevelopment. Also, an attempt was made to pump water from MW-4; however, this well did not produce water. Therefore, AECOM's field scientist, Janine Giambalvo, contacted Matthew Holbrook of AECOM to discuss how to proceed for the remaining wells. Ms. Eller and Mr. Creed King of FDEP were contacted on the same day to review the observations made onsite. During that discussion, it was agreed to select six other existing monitoring wells to redevelop. The six alternate wells chosen were shallow wells MW-2, MW-3, MW-5, MW-10, MW-13 and deep well MW-14D. The MW-6 discussed in the above-referenced RFC-4 was retained as a well to redevelop. AECOM directed the drillers to proceed with the revised well redevelopment plan.

The drillers used a pump and hose to redevelop each of the seven selected wells by pumping to remove sediment from the well screens and to produce clear water. AECOM sent an email to Ms. Eller on January 17, 2017 to confirm that the seven wells (MW-2, MW-3, MW-5, MW-6, MW-10, MW-13 and MW-14D) were successfully redeveloped and were producing clear water. Field notes discussing the monitoring well redevelopments are included in **Attachment A.**

Groundwater Sampling

On February 2, 2017, groundwater samples were collected from monitoring wells MW-2, MW-3, MW-5, MW-6, MW-10 MW-13 and MW-14D. The groundwater samples were analyzed for benzene, toluene, ethyl benzene, xylenes, and methyl-tertiary-butyl-ether (BTEX and MTBE) by EPA Method 8260B, polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270D and total recoverable petroleum hydrocarbons (TRPH) by the Florida Petroleum Residual Organics (FLPRO) method. The seven wells were sampled in accordance with FDEP's Standard Operating Procedure (SOP) 001/01, and approved variances. Each well was purged until three consecutive readings of pH, temperature, conductivity, dissolved oxygen, and turbidity were within DEP-SOP specifications, indicating stabilization. Each well was purged using a low flow, variable speed, battery-powered peristaltic pump and new polyethylene and silicone tubing. The inlet of the tubing was positioned within the top 2 feet of the water column for each shallow well. Samples for analysis by EPA Method 8260B were collected directly from the pump tubing and placed into laboratory supplied, pre-preserved, 40 milliliter (ml) glass vials. Samples for analysis by EPA Method 8270D and the FL-PRO Method were collected directly from the pump tubing and placed into laboratory supplied 1-liter amber glass bottles. All groundwater samples were placed on wet ice upon collection and submitted under chain of custody to Testamerica Laboratories, Inc. (Testamerica) at their Tampa, Florida facility. Monitoring well sampling logs are provided in **Attachment B**. Equipment calibration sheets are included in **Attachment C**.

Soil Sampling

On April 20 and 24, 2017, nine soil borings (SB-1 through SB-9) were advanced throughout the site by using a hand auger and a direct-push (DP) drill rig. Soil borings SB-1 through SB-5 were advanced adjacent to the closed UST concrete pad. Soil borings SB-6 and SB-7 were advanced in the asphalt area to the west of the active UST pad. Soil borings SB-8 and SB-9 were advanced in the asphalt area between the closed UST pad and the west end of the carwash. The above SB locations were in areas

where soil sampling had been conducted during previous assessment. **Figures 3A** and **3B** depict the locations of SB-1 through SB-9.

Lithologic observations and organic vapor analyzer (OVA) readings were collected at discrete intervals in each boring to a depth of 10 feet below land surface (BLS). At each interval, a raw unfiltered OVA reading was collected. If this reading was greater than 10 parts per million (ppm) then an activated carbon filter was attached to the instrument to screen for methane. The resulting "filtered" reading was subtracted from the unfiltered reading and the net reading was noted as representing the presence of suspected petroleum vapors for that sample. Soil boring logs for SB-1 through SB-9 are included as **Attachment D**. A copy of the equipment calibration sheet for the OVA is included in **Attachment C**.

Upon in-field discussion of the lithologic and OVA data with the FDEP site manager, Ms. Eller, a total of three soil borings were selected by FDEP for lab sampling at specific depths for each borehole. The three lab sample borings were SB-3, SB-4 and SB-8. At each of these locations a second hand auger/ DP rig borehole was placed approximately 1 foot away from the initial hole and the sampling equipment advanced to the chosen depth interval. The soil lab samples were analyzed for BTEX and MTBE by EPA Method 8260B, PAHs by EPA Method 8270D and TRPH by the FLPRO method. Soil samples were collected in accordance with FDEP's Standard Operating Procedure (SOP) 001/01, and approved variances. The BTEX-MTBE samples were collected first, immediately from the sampling tool for direct placement into the preserved 40 ml glass vials. The PAH and TRPH samples were collected next for direct placement into the appropriate glass containers. All soil samples were placed in a cooler with wet ice upon collection and submitted under chain of custody to Testamerica at their Tampa, Florida facility. The boreholes were then backfilled, tamped and sealed in place via asphalt patches.

Groundwater Elevation Survey

A top-of-casing (TOC) and groundwater elevation survey was conducted for the monitoring wells on June 12, 2017. A laser level and stadia rod were used to measure TOC readings for each well. An electronic water level probe was used to measure depth-to water (DTW) readings. The TOC and DTW data were then used to calculate relative groundwater elevations for each well. The readings were plotted on the site plan to interpret the apparent groundwater flow direction and calculate gradient.

Assessment Results

Groundwater

The groundwater sampling results collected in February 2017, indicated that the concentrations of total xylenes in MW-14D and benzo(a)anthracene and benzo(b)fluoranthene in MW-3 exceeded the Chapter 62-777 FAC groundwater cleanup target levels (GCTLs). These three compounds, however, were well below the Chapter 62-777 FAC groundwater natural attenuation default concentrations (NADCs). The total xylenes concentration in MW-14D resulted in xylenes being undelineated vertically at the site. The concentrations of all other tested analytes in the seven sampled wells were below the GCTLs. The groundwater analytical data are listed on **Tables 2A** through **2C** and are shown on **Figure 2.** Groundwater laboratory analytical reports are included in **Appendix E**. Field notes for groundwater sampling activities are included in **Appendix A**.

Soil

Based on soil samples collected in April 2017, the soil beneath this site generally consists of fine to medium-grained sand. Sand was encountered from 2 inches to at least 10 feet BLS. The maximum net OVA reading collected for this assessment was 4,700 ppm observed in the 8 to 10 feet interval of SB-4. All other net OVA readings in SB-1 through SB-9 ranged from 0 to 240 ppm. The soil OVA screening data are listed on **Table 3A** and included on **Figure 3A**.

The soil analytical results indicated that all tested analytes in the samples collected from SB-3, SB-4 and SB-8 were below the Chapter 62-777 Florida Administrative Code (FAC) soil residential direct-exposure cleanup target levels (SCTLs). The soil analytical data are listed on **Tables 3B** through **3D** and are included on **Figure 3B**. Calculations for benzo(a)pyrene-equivalent concentrations are attached as **Table 3E**. Soil laboratory analytical reports are included in **Appendix E**. Field notes for soil sampling activities are included in **Attachment A**. A lithologic cross-section was generated using selected soil borings data is attached as **Figure 3C**.

Groundwater Elevation Survey

Top-of-casing and groundwater depth-to-water measurements were collected for all functional monitoring wells on June 12, 2017. The groundwater elevation data indicated an apparent groundwater flow direction to the east. The groundwater elevation data are listed on **Table 4** and are shown on **Figure 4**. The calculated groundwater gradients across the site are also shown on **Figure 4**.

Soil Cuttings and Development Water Disposal

No drilling cuttings were generated during the soil borings conducted for this assessment. Well development water and groundwater sampling well purge water were directed onto an impervious surface to evaporate.

Groundwater Receptor Survey

A receptor survey was conducted at the site on June 12, 2017. This included a review of Florida Department of Health potable well survey records, identification of known underground utilities at the site and in the adjacent streets, review of aerial maps, and a driving survey of the immediate areas up to 500 feet from the site in all directions. The survey indicated that public water supply wells were not identified within ½-mile radius of the site. Three private low-volume irrigation water supply wells were identified along NW 48th Street, within ½-mile radius southwest of the site. Surface water bodies, schools, nursing homes or other receptors were not identified within a 500-foot radius of the site. The receptor survey notes, review sheet, and attachments are attached as **Appendix F**.

Recommendation

Based on the soil and groundwater analytical results observed during this assessment, AECOM has not identified an ongoing source of soil contamination at the site. However, low levels of groundwater contaminants, exceeding the GCTLs, for total xylenes in MW-14D and benzo(a)anthracene and benzo(b)fluoranthene in MW-3 were identified. Due to the total xylenes being undelineated vertically in MW-14D, confirmation sampling could be conducted during Task 3 to determine if the total xylenes remains above the GCTL. AECOM recommends that natural attenuation monitoring (NAM) be conducted at this site.

If you have any questions or require additional information, please contact Matthew Holbrook directly at 305-514-2486.

Yours sincerely,

AECOM

Matthew Holbrook, PG
Environmental Scientist III

Stephen Starke, PG
Senior Project Manager

Attachments:

Figures

Tables

Attachment A – Copies of Field Notes

Attachment B – Groundwater Sampling Logs

Attachment C - Field Equipment Calibration Sheets

Attachment D – Soil Boring Logs

Attachment E – Soil and Groundwater Analytical Reports and Chain-of-Custody Forms

Attachment F – Receptor Survey Package

Westbound Commercial Boulevard

Median

Eastbound Commercial Boulevard

Property Boundary

Adjacent Property (McDonald's)

Former Air Stripper Tower Compound

Adjacent Property (Parking for McDonald's)

Adjacent Property (Parking for McDonald's)

Southbound Northwest 9th Avenue

Median

Sidewalk

Grass

Asphalt

Concrete

Canopy

Store

Carwash

Dumpster Compound

Dumpster Compound Storage

MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11
MW-12
MW-13
MW-14D
MW-NE
MW-SE

UE
UT/C
UW
US

30 15 0 30
Feet

Legend
Existing Monitoring Well

Catch Basin
Soakage Pit Manhole
UE Underground Electric
UT/C Underground Telephone/ Communications
UW Underground Water
US Underground Sewer

Active Petroleum Storage UST
Approximate Product Line Route
Approximate Vent Line Route
Dispenser Island
Dispenser
Closed Petroleum Storage UST
Carwash Reclaim Tank

Florida Department of Environmental Protection
Petroleum Restoration Program

Adventure Petroleum, 4999 NW 9th Avenue
Fort Lauderdale, FL

SITE PLAN

N

FIGURE 1

Catch Basin
Soakage Pit Manhole
UE Underground Electric
UT/C Underground Telephone/ Communications
UW Underground Water
US Underground Sewer

Active Petroleum Storage UST
Approximate Product Line Route
Approximate Vent Line Route
Dispenser Island
Dispenser
Closed Petroleum Storage UST
Carwash Reclaim Tank

Westbound Commercial Boulevard

Median

Eastbound Commercial Boulevard

MW-10	2/2/2017
BTEX + MTBE	0.44-0.60 U
PAHs	0.032-0.22 U
TRPH (C8 - C40)	370 U

Sidewalk
UT/C
UT/C
UE
MW-10
Grass / Landscaping
UW
Property Boundary
Asphalt
MW-9
MW-NE
Grass
MW-8
Avenue
Grass
Aspha
MW-5
MW-SE
MW-1
MW-2
UE
Canopy
MW-13
Store
MW-12
Grass
Sidewalk
Southbound No
Adjacent Property (McDonald's)
MW-4
MW-3
MW-14D
MW-6
Grass
Asphalt
Concrete
UE
Asph
Dumpster Compound Storage
MW-11
Carwash
MW-7
Stripper Tower Compound
Grass
Grass
Dumpster Compound
Gra
Adjacent Property (Parking for McDonald's)
Grass
Grass
Sidewalk
Grass
Grass
US
30 15 0 30
Feet

MW-5	2/2/2017
BTEX + MTBE	0.44-0.60 U
PAHs	0.038-0.26 U
TRPH (C8 - C40)	400 U

MW-2	2/2/2017
BTEX + MTBE	0.44-0.60 U
PAHs	0.032-0.22 U
TRPH (C8 - C40)	380 U

MW-3	2/2/2017
Ethylbenzene	6.9
Total Xylenes	3.4
Other BTEX + MTBE	0.44-0.60 U
Naphthalene	1.6
1-methyl-Naphthalene	17
2-methyl-Naphthalene	21
Acenaphene	0.43 I
Floranthene	0.43
Phenanthrene	0.65
Pyrene	0.33 I
Benzo(a)anthracene	**0.070 I**
Benzo(b)fluoranthene	**0.061 I**
Other PAHs	0.034-0.23 U
TRPH (C8 - C40)	1300 U

MW-13	2/2/2017
BTEX + MTBE	0.44-0.60 U
Naphthalene	0.57
2-methyl-Naphthalene	0.24 I
Other PAHs	0.032-0.22 U
TRPH (C8 - C40)	370 U

MW-6	2/2/2017
BTEX + MTBE	0.44-0.60 U
PAHs	0.034-0.23 U
TRPH (C8 - C40)	370 U

MW-14D	2/2/2017
Ethylbenzene	22
Total Xylenes	**27**
Other BTEX + MTBE	0.44-0.60 U
Naphthalene	0.92
Other PAHs	0.034-0.23 U
TRPH (C8 - C40)	380 U

U - Analyte reported as below the laboratory method detection limit. All analytes are in micrograms per Liter
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Legend
Existing Monitoring Well

Florida Department of Environmental Protection
Petroleum Restoration Program

Adventure Petroleum, 4999 NW 9th Avenue
Fort Lauderdale, FL

GROUNDWATER ANALYTICAL DATA

N

FIGURE 2

3 - 4 indicates soil sample depth interval in feet.
0.3 - Final organic vapor analyzer reading in ppm
ppm - parts per million

SB-6	4/24/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	0

SB-7	4/20/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	0

SB-2	4/20/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	0

SB-1	4/24/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	0

SB-3	4/20/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	240

SB-5	4/24/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	0

SB-9	4/20/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	0

SB-4	4/24/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	4700

SB-8	4/20/2017
0 -1	0
1 - 2	0
2 - 3	0
3 - 4	0
4 - 6	0
6 - 8	0
8 - 10	5

Eastbound Commercial Boulevard

Adjacent

Southb

Sidewalk
UT/C
UT/C
UE
MW-10
Grass / Landscaping
Asphalt
MW-9
MW-NE
SB-6
SB-7
Grass
Aspha
MW-5
MW-SE
SB-1
SB-2
MW-2
MW-1
UE
Canopy
MW-1
MW-12
SB-5
Store
MW-4
SB-4
SB-3
MW-3
MW-14D
MW-6
SB-9
SB-8
Asphalt
Concrete
UE
Asphalt
Grass
Dumpster Compound Storage
MW-11
Carwash
Grass
Former Stripper Tower Compound
Dumpster Compound
Adjacent Property
(Parking for McDonald's)
Adjacent Property
(Parking for McDonald's)
Grass
Grass
alk

30 15 0 30
Feet

Catch Basin
Soakage Pit Manhole
UE Underground Electric
UT/C Underground Telephone/ Communications
UW Underground Water
US Underground Sewer

Active Petroleum Storage UST
Approximate Product Line Route
Approximate Vent Line Route
Dispenser Island
Dispenser
Closed Petroleum Storage UST
Carwash Reclaim Tank

Legend
Existing Monitoring Well
Soil Boring Location

Florida Department of Environmental Protection
Petroleum Restoration Program

Adventure Petroleum, 4999 NW 9th Avenue
Fort Lauderdale, FL

SOIL SCREENING DATA

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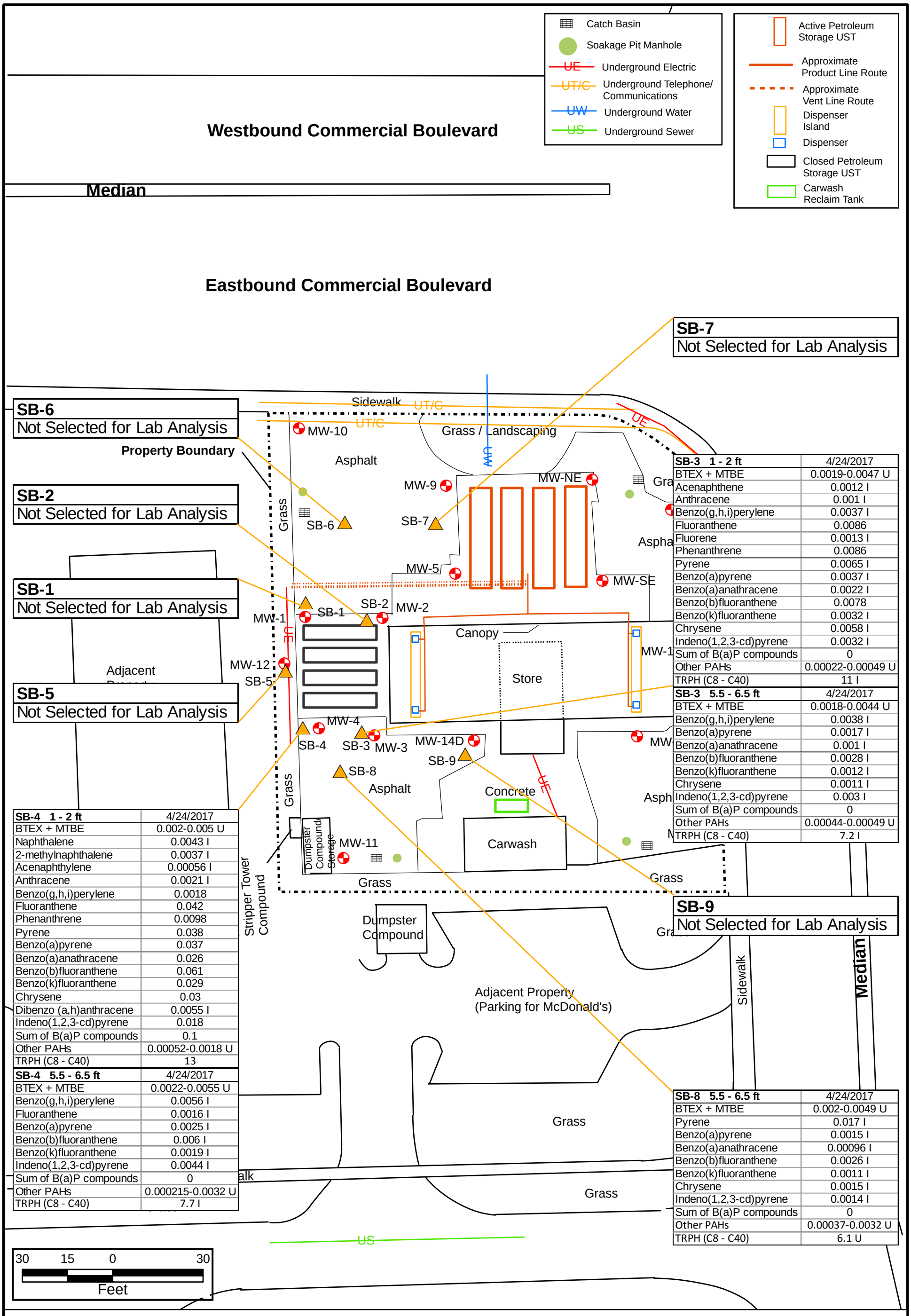
FIGURE 3a



SB-3 1 - 2 ft	4/24/2017
BTEX + MTBE	0.0019-0.0047 U
Acenaphthene	0.0012 I
Anthracene	0.001 I
Benzo(g,h,i)perylene	0.0037 I
Fluoranthene	0.0086
Fluorene	0.0013 I
Phenanthrene	0.0086
Pyrene	0.0065 I
Benzo(a)pyrene	0.0037 I
Benzo(a)anathracene	0.0022 I
Benzo(b)fluoranthene	0.0078
Benzo(k)fluoranthene	0.0032 I
Chrysene	0.0058 I
Indeno(1,2,3-cd)pyrene	0.0032 I
Sum of B(a)P compounds	0
Other PAHs	0.00022-0.00049 U
TRPH (C8 - C40)	11 I
SB-3 5.5 - 6.5 ft	4/24/2017
BTEX + MTBE	0.0018-0.0044 U
Benzo(g,h,i)perylene	0.0038 I
Benzo(a)pyrene	0.0017 I
Benzo(a)anathracene	0.001 I
Benzo(b)fluoranthene	0.0028 I
Benzo(k)fluoranthene	0.0012 I
Chrysene	0.0011 I
Indeno(1,2,3-cd)pyrene	0.003 I
Sum of B(a)P compounds	0
Other PAHs	0.00044-0.00049 U
TRPH (C8 - C40)	7.2 I

SB-4 1 - 2 ft	4/24/2017
BTEX + MTBE	0.002-0.005 U
Naphthalene	0.0043 I
2-methylnaphthalene	0.0037 I
Acenaphthylene	0.00056 I
Anthracene	0.0021 I
Benzo(g,h,i)perylene	0.0018
Fluoranthene	0.042
Phenanthrene	0.0098
Pyrene	0.038
Benzo(a)pyrene	0.037
Benzo(a)anathracene	0.026
Benzo(b)fluoranthene	0.061
Benzo(k)fluoranthene	0.029
Chrysene	0.03
Dibenzo (a,h)anthracene	0.0055 I
Indeno(1,2,3-cd)pyrene	0.018
Sum of B(a)P compounds	0.1
Other PAHs	0.00052-0.0018 U
TRPH (C8 - C40)	13
SB-4 5.5 - 6.5 ft	4/24/2017
BTEX + MTBE	0.0022-0.0055 U
Benzo(g,h,i)perylene	0.0056 I
Fluoranthene	0.0016 I
Benzo(a)pyrene	0.0025 I
Benzo(b)fluoranthene	0.006 I
Benzo(k)fluoranthene	0.0019 I
Indeno(1,2,3-cd)pyrene	0.0044 I
Sum of B(a)P compounds	0
Other PAHs	0.000215-0.0032 U
TRPH (C8 - C40)	7.7 I

SB-8 5.5 - 6.5 ft	4/24/2017
BTEX + MTBE	0.002-0.0049 U
Pyrene	0.017 I
Benzo(a)pyrene	0.0015 I
Benzo(a)anathracene	0.00096 I
Benzo(b)fluoranthene	0.0026 I
Benzo(k)fluoranthene	0.0011 I
Chrysene	0.0015 I
Indeno(1,2,3-cd)pyrene	0.0014 I
Sum of B(a)P compounds	0
Other PAHs	0.00037-0.0032 U
TRPH (C8 - C40)	6.1 U

U - Analyte reported as below the laboratory method detection limit. All analyses shown in miligrams per Kilogram
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

Legend
- Existing Monitoring Well
- Soil Boring Location

Florida Department of Environmental Protection
Petroleum Restoration Program

Adventure Petroleum, 4999 NW 9th Avenue
Fort Lauderdale, FL

SOIL ANALYTICAL DATA

N

FIGURE 3b

30 15 0 30
Feet

Catch Basin
Soakage Pit Manhole
UE Underground Electric
UT/C Underground Telephone/ Communications
UW Underground Water
US Underground Sewer

Active Petroleum Storage UST
Approximate Product Line Route
Approximate Vent Line Route
Dispenser Island
Dispenser
Closed Petroleum Storage UST
Carwash Reclaim Tank

Westbound Commercial Boulevard

Median

Eastbound Commercial Boulevard

Property Boundary

Adjacent Property (McDonald's)

Sidewalk
UT/C
UT/C
UE
MW-10
Grass / Landscaping
UW
Asphalt
MW-9
MW-NE
Grass
MW-8
A
SB-6
SB-7
Asphalt
UT/C
UE
MW-5
MW-SE
SB-1
SB-2
MW-2
MW-1
UE
Canopy
MW-13
MW-12
SB-5
Store
Grass
Sidewalk
MW-4
SB-4
SB-3
MW-3
MW-14D
MW-6
SB-9
A"
SB-8
Asphalt
Concrete
UE
Asphalt
Grass
Dumpster Compound Storage
MW-11
Carwash
MW-7
Grass
Grass

Southbound Northwest 9th Avenue

Median

Stratigraphic Units

Asphalt and Base Rock

Fine to medium Sand

SB-7 SB-6 SB-2 SB-3 SB-9

0 1 2 3 4 5 6 7 8

Soil Boring Cross Section A - A' - Vertical scale is in feet below grade. Refer to map scale for distances.

Legend
Existing Monitoring Well
Soil Boring Location

A
A'
Soil Boring Lithologic Cross Section Traverse

Florida Department of Environmental Protection
Petroleum Restoration Program

Adventure Petroleum, 4999 NW 9th Avenue
Fort Lauderdale, FL

LITHOLOGIC CROSS-SECTION

N

FIGURE 3c

30 15 0 30
Feet

Catch Basin
Soakage Pit Manhole
UE Underground Electric
UT/C Underground Telephone/ Communications
UW Underground Water
US Underground Sewer

Active Petroleum Storage UST
Approximate Product Line Route
Approximate Vent Line Route
Dispenser Island
Dispenser
Closed Petroleum Storage UST
Carwash Reclaim Tank

Westbound Commercial Boulevard

Median

Eastbound Commercial Boulevard

Property Boundary

Adjacent Property (McDonald's)

Former Air Stripper Tower Compound

Adjacent Property (Parking for McDonald's)

Southbound Northwest 9th Avenue

Median

Sidewalk
Grass / Landscaping
Asphalt
Grass
Canopy
Store
Concrete
Carwash
Dumpster Compound Storage
Dumpster Compound
UT/C
UE
UW
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11
MW-12
MW-13
MW-14D
MW-NE
MW-SE
NG
55.09
55.07
55.16*
45.04*
55.08
55.06
55.07
54.96
55.18*
54.95
45.09*
55.15
55.04
54.89
55.00
55.05
55.10
92.20
A
A'
A''
A'''
B
B'
B''
B'''

Hydraulic Gradient Calculations for A to A'''
GW Elevation Change A - A' = 55.10 - 55.05 = 0.05 ft
GW Elevation Change A' A'' = 55.05 - 55.00 = 0.05 ft
GW Elevation Change A'' - A''' = 55.00 - 54.95 = 0.05 ft

Map Distance A - A' is 78 ft
Map Distance A' - A'' is 43 ft
Map Distance A'' - A''' is 18 ft

Calculated Gradients:
A - A' : 0.05 ft / 78 ft = 0.000641 ft / ft
A' - A'' : 0.05 ft / 43 ft = 0.00116 ft / ft
A'' - A''' : 0.05 ft / 18 ft = 0.00278 ft / ft

Hydraulic Gradient Calculations for B to B'''
GW Elevation Change B - B' = 55.10 - 55.05 = 0.05 ft
GW Elevation Change B' B'' = 55.05 - 55.00 = 0.05 ft
GW Elevation Change B'' - B''' = 55.00 - 54.95 = 0.05 ft

Map Distance B - B' is 112 ft
Map Distance B' - B'' is 14 ft
Map Distance B'' - B''' is 15 ft

Calculated Gradients:
B - B' : 0.05 ft / 112 ft = 0..000446 ft / ft
B' - B'' : 0.05 ft / 14 ft = 0.00357 ft / ft
B'' - B''' : 0.05 ft / 15 ft = 0.00333 ft / ft

Legend
Existing Monitoring Well
Gauging Date: 6/12/17
NG - Not Gauged
* - Anomalous Reading
55.15 - Water Table Elevation (accurate to ± 0.01 ft)
Groundwater Elevation Contour
Apparent Groundwater Flow Direction
A' - Intersection point of GW flow line with GW contour

Florida Department of Environmental Protection
Petroleum Restoration Program
Adventure Petroleum, 4999 NW 9th Avenue
Fort Lauderdale, FL
GROUNDWATER ELEVATION DATA

N

FIGURE 4

Table 1: Inventory of Existing Monitoring Wells

Facility Name: Adventure Petroleum
Facility ID: 068501632
Facility Address 4999 NW 9th Avenue, Fort Lauderdale, FL

Well ID#	Diameter (in)	Total Depth (ft)	Well-Access and Cap	Redeveloped on 1/16/17	Needs Replacement
MW-1	4	6	ok		Yes
MW-2	4	6.8	ok	Yes	
MW-3	4	12.6	ok	Yes	
MW-4	4	7	ok		Yes
MW-5	4	18	ok	Yes	
MW-6	2	7	ok	Yes	
MW-7	2	12.5	ok		
MW-8	2	11.3	ok		
MW-9	4	18	ok		
MW-10	2	12.7	ok	Yes	
MW-11	2	4.45	ok		Yes
MW-12	2	7	cap Ok, well access pad cracked		Yes
MW-13	2	6.8	ok	Yes	
MW-14D	2	25	ok	Yes	
MW-15	Abandoned - Not Found				
New UST NE	4	18.3	ok		
New UST SE	4	18.5	ok		
Carwash NW	4	4.5	ok		
Carwash NE	4	3.2	ok	-	Yes

Notes:
Inspection Date: October 26, 2016 NG - Not Gauged
AECOM and EarthTech Drilling on site for repair and redevelopment: January 17, 2017

TABLE 2a: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals

Facility ID#: **068501632** **Facility Name:** **Adventure Petroleum** **See notes at end of table.**

Sample Location	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total VOAs (µg/L)	MTBE (µg/L)	EDB (µg/L)	1,2-Di-chloro-ethane (µg/L)	Total Arsenic (µg/L)	Total Cad-mium (µg/L)	Total Chro-mium (µg/L)	Total Lead (µg/L)
MW-1	6/14/89	**38.2**	8.16	**60.5**	**62.5**	170	**479**	0.005 U	1 U	NS	NS	NS	1 U
MW-2	6/14/89	**499**	**1360**	**1010**	**2020**	4890	**1380**	0.005 U	1 U	NS	NS	NS	1 U
	2/2/17	0.50 U	0.51 U	0.44 U	0.50 U		0.44 U	NS	NS	NS	NS	NS	NS
MW-3	6/14/89	**567**	4800	**3450**	**9660**	18500	**298**	0.005 U	1 U	NS	NS	NS	1 U
	2/2/17	0.50 U	0.51 U	6.9	3.4		0.44 U	NS	NS	NS	NS	NS	NS
MW-4	6/14/89	619	5480	3290	10500	19900	**170**	0.005 U	1 U	NS	NS	NS	1 U
MW-5	6/14/89	0.5 U	**79.7**	0.5 U	0.5 U	79.7	0.5 U	0.005 U	1 U	NS	NS	NS	1 U
	2/2/17	0.50 U	0.51 U	0.44 U	0.50 U		0.44 U	NS	NS	NS	NS	NS	NS
MW-6	6/14/89	0.5 U	18.6	0.5 U	0.5 U	18.6	0.5 U	0.005 U	1 U	NS	NS	NS	1 U
	2/2/17	0.50 U	0.51 U	0.44 U	0.50 U		0.44 U	NS	NS	NS	NS	NS	NS
MW-7	7/31/89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.005 U	1 U	NS	NS	NS	5
MW-8	7/31/89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.005 U	1 U	NS	NS	NS	1 U
GCTLs		1**	40**	30**	20**	Nappl	20	0.02**	3**	10**	5**	100**	15**
NADCs		100	400	300	200	NAppl	200	2	300	100	50	1000	150

Notes:

NS = Not Sampled. U - Analyte reported below the method detection limit.

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C. **Bold** - analyte exceeds GCTL

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C. **Bold** - analyte exceeds NADC

** = As provided in Chapter 62-550, F.A.C.

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

Freshwater Surface Water (FSW), Marine Surface Water (MSW) and Groundwater of Low Yield/Poor Quality (LY/PQ) CTLs should be added to the base of the table as applicable.

TABLE 2a: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals (continued)

Facility ID#: 068501632 **Facility Name:** Adventure Petroleum **See notes at end of table.**

Sample Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total VOAs (µg/L)	MTBE (µg/L)	EDB (µg/L)	1,2-Di-chloro-ethane (µg/L)	Total Arsenic (µg/L)	Total Cad-mium (µg/L)	Total Chro-mium (µg/L)	Total Lead (µg/L)
MW-9	7/31/89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.005 U	1 U	NS	NS	NS	**16**
MW-10	7/31/89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.005 U	1 U	NS	NS	NS	1 U
	2/2/17	0.50 U	0.51 U	0.44 U	0.50 U		0.44 U	NS	NS	NS	NS	NS	NS
MW-11	7/31/89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.005 U	1 U	NS	NS	NS	1 U
MW-12	7/31/89	623	4670	2200	6400	13990	1570	0.005 U	1 U	NS	NS	NS	3
MW-13	8/29/89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	15	0.005 U	1 U	NS	NS	NS	3.9
	2/2/17	0.50 U	0.51 U	0.44 U	0.50 U		0.44 U	NS	NS	NS	NS	NS	NS
MW-14D	8/29/89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	7.5	0.005 U	1 U	NS	NS	NS	1.6
	2/2/17	0.50 U	0.51 U	22	**27**		0.44 U	NS	NS	NS	NS	NS	NS
MW-15	11/7/89	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.005 U	1 U	NS	NS	NS	1 U
GCTLs		1**	40**	30**	20**	NA	20	0.02**	3**	10**	5**	100**	15**
NADCs		100	400	300	200	NA	200	2	300	100	50	1,000	150

Notes:

NS = Not Sampled. U - Analyte reported below the method detection limit.

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

** = As provided in Chapter 62-550, F.A.C.

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

Freshwater Surface Water (FSW), Marine Surface Water (MSW) and Groundwater of Low Yield/Poor Quality (LY/PQ) CTLs should be added to the base of the table as applicable.

TABLE 2b: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs

Facility ID#: 068501632 **Facility Name:** Adventure Petroleum **See notes at end of table.**

Sample Location	Date	TRPHs (µg/L)	Naph-thalene (µg/L)	1-Methyl-naph-thalene (µg/L)	2-Methyl-naph-thalene (µg/L)	Acen-aph-thene (µg/L)	Acen-aph-thylene (µg/L)	Anthra-cene (µg/L)	Benzo (g,h,i) pery-lene (µg/L)	Fluoran-thene (µg/L)	Fluor-ene (µg/L)	Phenan-threne (µg/L)	Pyrene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (a) anthra-cene (µg/L)	Benzo (b) fluoran-thene (µg/L)	Benzo (k) fluoran-thene (µg/L)	Chry-sene (µg/L)	Dibenz (a,h) anthra-cene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)
MW-1	6/14/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	6/14/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/17	380 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.045 U	0.045 U	0.22 U	0.22 U	0.032 U	0.045 U
MW-3	6/14/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/17	1300 U	1.6	17	21	0.43 I	0.23 U	0.23 U	0.23 U	0.43	0.23 U	0.65	0.33 I	0.23 U	**0.070 I**	**0.061 I**	0.23 U	0.23 U	0.034 U	0.046 U
MW-4	6/14/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	6/14/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/17	400 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.26 U	0.052 U	0.052 U	0.26 U	0.26 U	0.038 U	0.052 U
MW-6	6/14/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/17	370 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.046 U	0.046 U	0.23 U	0.23 U	0.034 U	0.046 U
MW-7	7/31/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-8	7/31/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GCTLs		5,000	14	28	28	20	210	2,100	210	280	280	210	210	0.2**	0.05[a]	0.05[a]	0.5	4.8	0.005[a]	0.05[a]
NADCs		50,000	140	280	280	200	2,100	21,000	2,100	2,800	2,800	2,100	2,100	20	5	5	50	480	0.5	5

Notes: **Bold** - analyte exceeds GCTL

NS = Not Sampled.

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

** = As provided in Chapter 62-550, F.A.C.

[a] = See the October 12, 2004 "Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits" to determine how to evaluatie data when the CTL is lower than the PQL.

U - Analyte reported below the method detection limit.

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

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

Freshwater Surface Water (FSW), Marine Surface Water (MSW) and Groundwater of Low Yield/Poor Quality (LY/PQ) CTLs should be added to the base of the table as applicable.

TABLE 2b: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs (continued)

Facility ID#: 068501632 **Facility Name:** Adventure Petroleum **See notes at end of table.**

Sample Location	Date	TRPHs (µg/L)	Naph-thalene (µg/L)	1-Methyl-naph-thalene (µg/L)	2-Methyl-naph-thalene (µg/L)	Acen-aph-thene (µg/L)	Acen-aph-thylene (µg/L)	Anthra-cene (µg/L)	Benzo (g,h,i) pery-lene (µg/L)	Fluoran-thene (µg/L)	Fluor-ene (µg/L)	Phenan-threne (µg/L)	Pyrene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (a) anthra-cene (µg/L)	Benzo (b) fluoran-thene (µg/L)	Benzo (k) fluoran-thene (µg/L)	Chry-sene (µg/L)	Dibenz (a,h) anthra-cene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)
MW-9	7/31/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	7/31/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/17	370 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.045 U	0.045 U	0.22 U	0.22 U	0.032 U	0.045 U
MW-11	7/31/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	7/31/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-13	8/29/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/17	370 U	0.57	0.22 U	0.24 I	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.045 U	0.045 U	0.22 U	0.22 U	0.032 U	0.045 U
MW-14D	8/29/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/2/17	380 U	0.92	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.23 U	0.046 U	0.046 U	0.23 U	0.23 U	0.034 U	0.046 U
MW-15	11/7/89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GCTLs		5,000	14	28	28	20	210	2,100	210	280	280	210	210	0.2**	0.05[a]	0.05[a]	0.5	4.8	0.005[a]	0.05[a]
NADCs		50,000	140	280	280	200	2,100	21,000	2,100	2,800	2,800	2,100	2,100	20	5	5	50	480	0.5	5

Notes:

NS = Not Sampled.

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

** = As provided in Chapter 62-550, F.A.C.

[a] = See the October 12, 2004 "Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits" to determine how to evaluatie data when the CTL is lower than the PQL.

U - Analyte reported below the method detection limit.

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

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

Freshwater Surface Water (FSW), Marine Surface Water (MSW) and Groundwater of Low Yield/Poor Quality (LY/PQ) CTLs should be added to the base of the table as applicable.

TABLE 2c: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - ^Other Contaminants not listed in Chapter 62-770, F.A.C.

Facility ID#: 068501632 **Facility Name:** Adventure Petroleum

Sample		M & p Xylene	o Xylene					
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1	2/2/2017	NS	NS					
MW-2	2/2/2017	0.60 U	0.50 U					
MW-3	2/2/2017	2.5	0.93 I					
MW-4	2/2/2017	NS	NS					
MW-5	2/2/2017	0.60 U	0.50 U					
MW-6	2/2/2017	0.60 U	0.50 U					
MW-7	2/2/2017	NS	NS					
MW-8	2/2/2017	NS	NS					
MW-9	2/2/2017	NS	NS					
MW-10	2/2/2017	0.60 U	0.50 U					
MW-11	2/2/2017	NS	NS					
MW-12	2/2/2017	NS	NS					
MW-13	2/2/2017	0.60 U	0.50 U					
MW-14D	2/2/2017	18	8.5					
MW-15	2/2/2017	NS	NS					
GCTLs		NA	NA					
NADCs		NA	NA					

Notes: NA = Not Available.

NS = Not Sampled.

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

** = As provided in Chapter 62-550, F.A.C.

^ = These chemicals may be present in petroleum fuels but are not currently included in Table A of Chapter 62-770, F.A.C. (list of Petroleum Products' Contaminants of Concern), and therefore it is not required by rule that samples be analyzed for these chemicals. Summary columns have been provided for the circumstances in which these chemicals and others reported by the laboratory are detected, to comply with subparagraph 62-770.600(8)(a)25., F.A.C.

U - Analyte reported below the method detection limit.

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

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

Freshwater Surface Water (FSW), Marine Surface Water (MSW) and Groundwater of Low Yield/Poor Quality (LY/PQ) CTLs should be added to the base of the table as applicable.

TABLE 3a: SOIL SCREENING SUMMARY

Facility Name: Adventure Petroleum **Facility ID#: 068501632**

SAMPLE			OVA SCREENING RESULTS				
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (FBLS)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
SB-1	4/24/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	
			6 - 8	0	NA	0	
			8 -10	0	NA	0	
SB-2	4/20/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	
			6 - 8	0	NA	0	
			8 -10	160	165	0	
SB-3	4/20/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	Lab sample collected
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	Lab sample collected 5.5 - 6.5 ft
			6 - 8	0	NA	0	
			8 -10	350	110	240	
SB-4	4/24/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	Lab sample collected
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	Lab sample collected 5.5 - 6.5 ft
			6 - 8	0	NA	0	
			8 -10	7000	2300	4700	
SB-5	4/20/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	
			6 - 8	0	NA	0	
			8 -10	0	NA	0	
SB-6	4/24/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	
			6 - 8	0	NA	0	
			8 -10	10	10	0	

TABLE 3a: SOIL SCREENING SUMMARY

Facility Name: Adventure Petroleum **Facility ID#: 068501632**

SAMPLE			OVA SCREENING RESULTS				
BORING NO.	DATE COLLECTED	DEPTH TO WATER	SAMPLE INTERVAL (FBLS)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	COMMENTS
SB-7	4/20/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	
			6 - 8	0	NA	0	
			8 -10	30	30	0	
SB-8	4/20/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	Lab sample collected 5.5 - 6.5 ft
			6 - 8	0	NA	0	
			8 -10	845	840	5	
SB-9	4/20/2017	8.0	0 - 1	0	NA	0	
			1 - 2	0	NA	0	
			2 - 3	0	NA	0	
			3 - 4	0	NA	0	
			4 - 6	0	NA	0	
			6 - 8	0	NA	0	
			8 -10	10	10	0	

Notes:
NA - Not Analyzed

TABLE 3b: SOIL ANALYTICAL SUMMARY - VOAs, TRPHs and Metals

Facility ID#: 68501632 **Facility Name:** Adventure Petroleum **See notes at end of table.**

Sample				OVA	Laboratory Analyses										
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzene (mg/kg)	Ethyl-benzene (mg/kg)	Toluene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TRPHs (mg/kg)	Arsenic (mg/kg)	Cad-mium (mg/kg)	Chro-mium (mg/kg)	Lead (mg/kg)	Comments
SB-3	4/24/17	8	1-2 ft	0	0.0024 U	0.0019 U	0.0024 U	0.0024 U	0.0047 U	11 I	NA	NA	NA	NA	Lab Dilution of 1
		8	5.5-6.5 ft	0	0.0022 U	0.0018 U	0.0022 U	0.0022 U	0.0044 U	7.2 I	NA	NA	NA	NA	Lab Dilution of 1
SB-4	4/24/17	8	1-2 ft	0	0.0025 U	0.002 U	0.0025 U	0.0025 U	0.005 U	23	NA	NA	NA	NA	Lab Dilution of 1
		8	5.5-6.5 ft	0	0.0027 U	0.0022 U	0.0027 U	0.0027 U	0.0055 U	7.7 I	NA	NA	NA	NA	Lab Dilution of 1
SB-8	4/24/17	8	5.5-6.5 ft	0	0.0025 U	0.002 U	0.0025 U	0.0025 U	0.0049 U	6.1 U	NA	NA	NA	NA	Lab Dilution of 1
Leachability Based on Groundwater Criteria (mg/kg)					0.007	0.6	0.5	0.2	0.09	340	*	7.5	38	*	
Direct Exposure Residential (mg/kg)					1.2	1,500	7,500	130	4,400	460	2.1	82	210	400	

Notes: NA = Not Analyzed

* = Leachability value may be determined using TCLP.

U - Analyte reported below the method detection limit.

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

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

TABLE 3c: SOIL ANALYTICAL SUMMARY - Non-Carcinogenic PAHs

Facility ID#: 68501632 **Facility Name:** Adventure Petroleum **See notes at end of table.**

Sample				OVA	Laboratory Analyses											
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Naph-thalene (mg/kg)	1-Methyl-naph-thalene (mg/kg)	2-Methyl-naph-thalene (mg/kg)	Acen-aph-thene (mg/kg)	Acen-aph-thylene (mg/kg)	Anthra-cene (mg/kg)	Benzo (g,h,i) pery-lene (mg/kg)	Fluoran-thene (mg/kg)	Fluor-ene (mg/kg)	Phenan-threne (mg/kg)	Pyrene (mg/kg)	Comments
SB-3	4/24/17	8	1-2 ft	0	0.0032 U	0.0019 I	0.0031 U	0.0012 I	0.00049 U	0.001 I	0.0037 I	0.0086	0.0013 I	0.0086	0.0065 I	Lab Dilution of 1
		8	5.5-6.5 ft	0	0.0032 U	0.0018 U	0.0031 U	0.00052 U	0.00049 U	0.00063 U	0.0038 I	0.0012 U	0.00062 U	0.003 U	0.00062 U	Lab Dilution of 1
SB-4	4/24/17	8	1-2 ft	0	0.0043 I	0.0018 U	0.0037 I	0.00052 U	0.00056 I	0.0021 I	0.0018	0.042	0.00062 U	0.0098	0.038	Lab Dilution of 1
		8	5.5-6.5 ft	0	0.0032 U	0.0017 U	0.003 U	0.00051 U	0.00048 U	0.00061 U	0.0056 I	0.0016 I	0.00061 U	0.003 U	0.00061 U	Lab Dilution of 1
SB-8	4/24/17	8	5.5-6.5 ft	0	0.0032 U	0.0017 U	0.0030 U	0.00051 U	0.00048 U	0.00061 U	0.00037 U	0.0011 U	0.00061 U	0.003 U	0.0017 I	Lab Dilution of 1
Leachability Based on Groundwater Criteria (mg/kg)					1.2	3.1	8.5	2.1	27	2,500	32,000	1,200	160	250	880	
Direct Exposure Residential (mg/kg)					55	200	210	2,400	1,800	21,000	2,500	3,200	2,600	2,200	2,400	

Notes:

U - Analyte reported below the method detection limit.

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

If analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

TABLE 3d: SOIL ANALYTICAL SUMMARY - Carcinogenic PAHs

Facility ID#: 68501632 **Facility Name:** Adventure Petroleum **See notes at end of table.**

Sample				OVA	Laboratory Analyses								
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzo (a) pyrene (mg/kg)	Benzo (a) anthra-cene (mg/kg)	Benzo (b) fluoran-thene (mg/kg)	Benzo (k) fluoran-thene (mg/kg)	Chry-sene (mg/kg)	Dibenz (a,h) anthra-cene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Benzo (a) pyrene equivalent (mg/kg)	Comments
SB-3	4/24/17	8	1-2 ft	0	0.0037 I	0.0022 I	0.0078	0.0032 I	0.0058 I	0.00022 U	0.0032 I	0.0	Lab Dilution of 1
		8	5.5-6.5 ft	0	0.0017 I	0.001 I	0.0028 I	0.0012 I	0.0011 I	0.00044 U	0.003 I	0.0	Lab Dilution of 1
SB-4	4/24/17	8	1-2 ft	0	0.037	0.026	0.061	0.029	0.03	0.0055 I	0.018	0.1	Lab Dilution of 1
		8	5.5-6.5 ft	0	0.0025 I	0.00057 U	0.006 I	0.0019 I	0.00031 U	0.000215 U	0.0044 I	0.0	Lab Dilution of 1
SB-8	4/24/17	8	5.5-6.5 ft	0	0.0015 I	0.00096 I	0.0026 I	0.0011 I	0.0015 I	0.00043 U	0.0014 I	0.0	Lab Dilution of 1
Leachability Based on Groundwater Criteria (mg/kg)					8	0.8	2.4	24	77	0.7	6.6	**	
Direct Exposure Residential (mg/kg)					0.1	#	#	#	#	#	#	0.1	

Notes:

** = Leachability value not applicable.

= Direct Exposure value not applicable except as part of the Benzo(a)pyrene equivalent.

U - Analyte reported below the method detection limit.

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

If analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

TABLE 4: GROUNDWATER ELEVATION SUMMARY

Facility Name: Adveture Petroleum **Facility ID#: 068501632**

All Measurements = Feet
No Data = Blank

WELL NO.	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7		MW-8	
DIAMETER	4	in	4	in	4	in	4	in	4	in	2	in	2	in	2	in
WELL DEPTH		ft	12.00	ft	12.60	ft		ft	18.00	ft	7.00	ft	12.50	ft	11.30	ft
SCREEN INT.			2 - 12 ft		2.6 - 12.6 ft				8 - 18 ft				2.5 - 12.5 ft		1. - 11.3 ft	
TOC ELEVAT.	59.51	ft	59.77	ft	59.83	ft	59.84	ft	59.90	ft	59.90	ft	59.62	ft	59.01	ft

DATE	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF
6/12/2017	55.09	4.42		55.07	4.70		55.16	4.67			NG		55.07	4.83		55.06	4.84		55.07	4.55		54.96	4.05	

WELL NO.	MW-9		MW-10		MW-11		MW-12		MW-13		MW-14D		MW-NE		MW-SE	
DIAMETER	4	in	2	in	2	in	2	in	2	in	2	in	4	in	4	in
WELL DEPTH	18.00	ft		ft		ft		ft	13.00	ft	25.00	ft	18.30	ft	18.50	ft
SCREEN INT.	8 - 18 ft								3 - 13 ft		7.53 - 25 ft		8.3 - 18.3 ft		8.5 - 18.5 ft	
TOC ELEVAT.	59.32	ft	59.28	ft	59.13	ft	50.41	ft	59.60	ft	50.00	ft	58.89	ft	59.36	ft

DATE	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF	ELEV	DTW	DIFF
6/12/2017	55.04	4.28		55.15	4.13		55.08	4.05		45.09	5.32		54.95	4.65		45.04	4.96		54.99	3.90		55.18	4.18	

Notes: All well top-of-casings measured April 12, 2016.
All depth to water, top of casing and calculated water table elevations accurate to ± 0.01 ft.

Florida Department of Environmental Protection
Twin Towers Office Bldg. 2600 Blair Stone Road, Tallahassee, Florida, 32399-2400
Division of Waste Management
Petroleum Storage Systems
Storage Tank Facility Compliance Assistance Site Inspection Report

Facility Information:

Facility ID: 8501632 County: BROWARD Inspection Date: 06/23/2017
Facility Type: A - Retail Station
Facility Name: ADVENTURE PETROLEUM # of Inspected ASTs: 0
4999 NW 9TH AVE USTs: 4
FORT LAUDERDALE, FL 33309-3112 Mineral Acid Tanks: 0
Latitude: 26° 11' 17.5331"
Longitude: 80° 9' 20.1998"
LL Method: DGPS

Inspection Result:

Result: In Compliance

Signatures:

TKBWNR - BROWARD COUNTY ENVIRONMENTAL PROTECTION DEPT (954) 519-1259

Storage Tank Program Office and Phone Number

Steve D. Singer	Mark Desravinds
Inspector Name	**Representative Name**
Inspector Signature **Principal Inspector** **BROWARD COUNTY ENVIRONMENTAL PROTECTION DEPT**	**Representative Signature** **Employee** **Adventure Petroleum**

Owners of UST facilities are reminded that the Federal Energy Policy Act of 2005 and 40 CFR 280 Subpart J, requires Operator Training at all facilities by October 15, 2018. For further information please visit: http://www.dep.state.fl.us/waste/categories/tanks/pages/op_train.htm

Financial Responsibility:

Financial Responsibility: INSURANCE
Insurance Carrier: AMERICAN SAFETY
Effective Date: 10/25/2015 Expiration Date: 10/25/2017

Completed System Tests

Type	Date Completed	Results	Reviewed	Next Due Date	Comment
Annual Inline Leak Detector Test	04/12/2017	Passed	06/28/2017	04/12/2018	Discovery Tank Testing did test.

Site Visit Comments

06/23/2017

1) Had previously met with Todd of S. Florida Sales & Svc at site on 6/13/17, who were going to disconnect the west side regular tank from the regular tank next to it which has the STP pump. This was all due to discovery of product in west tank interstice during annual inspection. Discovery Tank Testing did tank test on 4/12/17, and report sent to office. Also submitted an incident report. Appears no product was released from tank to environment (all stayed in interstice-believe caused by a a small leak on the inner tank wall).
2) SFS contacted me and said the suction system was disconnected and had contacted Al Reid who was satisfied the west tank was now shut off from main tank. West tank was emptied by Southgate who pumped any remaining fuel into the main regular tank. Fill for west tank now has a steel cap with lock and is now out of service (see attached registration).
3) All the caps for the four tank interstice access ports have been replaced with new ones and all are now accessible. Checked interstice on all four and all were dry (see photo).
4) Discovery Tank also did line leak detector tests 4/12/17, and all passed.
5) Facility is now in compliance. No plans to repair and put tank back in service at this time.
6) Report emailed to: kazii@aol.com

Inspection Photos

Facility ID: 8501632

Added Date 06/28/2017

One of the four new interstice access caps.

Added Date 06/28/2017

Fill for w. Tank capped and locked.

Site No. 34

Shell-First Coast Energy #1818
890 NW 50 Street

Florida Department of Environmental Protection

Twin Towers Office Bldg. 2600 Blair Stone Road. Tallahassee, Florida 32399-

Division of Waste Management
Bureau of Petroleum Storage Systems

Storage Tank Facility Annual Compliance Site Inspection Report

Facility Information:

Facility ID:	8501625	County:	BROWARD	Inspection Date:	01/12/2016
Facility Type:	A -Retail Station				
Facility Name:	SHELL-FIRST COAST ENERGY #1818			# Of Inspected ASTs:	0
	890 NW 50TH ST			USTs:	3
	FORT LAUDERDALE, FL 33309			Mineral Acid Tanks:	0
Latitude:	26° 11' 16.4258"				
Longitude:	80° 9' 17.7476"				
LL Method:	DGPS				

Inspection Result:

Result : In Compliance

Description: Facility is In Compliance.

Financial Responsibility

Financial Responsibility: INSURANCE

Insurance Carrier: CRUM & FORSTER SPECIALTY INS. CO.

Effective Date: 04/23/2014 Expiration Date: 04/23/2016

Findings:

Class A Owner Training Certificates are present.
Class B Maintenance Training Certificates are present.
Class C Operator Training Certificates are present.

Signatures:

TKBWNR - BROWARD COUNTY ENVIRONMENTAL PROTECTION DEPT

Storage Tank Program Office

(954) 519-1259

Storage Tank Program Office Phone Number

Facility ID: 8501625

Steve D. Singer
INSPECTOR NAME

Roland Williams
REPRESENTATIVE NAME

INSPECTOR SIGNATURE

REPRESENTATIVE SIGNATURE

Owners of UST facilities are reminded that the Federal Energy Policy Act of 2005 requires Operator Training at all facilities by August 8, 2012. For further information please visit: http://www.dep.state.fl.us/waste/categories/tanks/pages/op_train.htm

System Tests

Type	Date Completed	Results	Reviewed	Next Due Date	Comment
Completed Tests					
Annual Inline Leak Detector Test	04/22/2015	Passed	01/12/2016	04/22/2016	Tanknology did test.
Annual Operability Test	04/22/2015	Passed	01/12/2016	04/22/2016	Tanknology did test.

Reviewed Records

Record Category	Record Type	From Date	To Date	Reviewed Record Comment
Life Time	Written Release Detection Response Level Info	01/12/2016	01/12/2016	
Two Years	Monthly Maint. Visual Examinations and Results	01/01/2015	01/12/2016	
Two Years	Certificate of Financial Responsiblity	04/23/2014	04/23/2016	
Two Years	Electronic Release Detection Equip. Monthly Checks	01/01/2015	01/12/2016	

Site Visit Comments

01/12/2016

Have three U/G, D/W gasoline tanks (Premium, plus, regular). Met Roland Williams of USPI who does the monthly visual inspections for facility.
1) All equipment is properly labeled.
2) Fills/vapor recovery checked and OK. Dual/assist system. Fill pipes checked and flapper valves visible. Spill buckets checked and all looked OK (middle tank has a DW spill bucket with dipstick for checking interstice). Vapor recovery poppets checked and OK..
3) Sump liners checked and OK. Test boots pulled back and or allow drainage on D/W fiberglass piping in sumps. Sensors properly placed.
4) Dispenser liners checked and OK. Shear valves were properly anchored. Sensors were properly placed.
5) Vent checked and OK. Three tanks manifolded to one vent line.
6) Veeder Root TLS 350 system checked and OK. System checks inventory, annular space, line pressure test, dispenser liners and sumps. Was working. See attached photo of sensor printout-all systems normal.
7) Tanks have a brine filled interstice, so BOI test N/R. See attached photo of brine port/sensor.

Facility ID: 8501625

Site Visit Comments

7) All paperework was in order. Tanknology did the annual certifications for leak detection system and line leak detector test 4/22/15 and all passed.
8) Site sketch and photos reviewed.
9) Facility/tank info reviewed-no changes.
10) Lat/Long checked via Google Earth-no changes.
11) Wells on site. Recommend closing these if not needed.
12) Report emailed to: kkusmirek@firstcoastenergy.com.

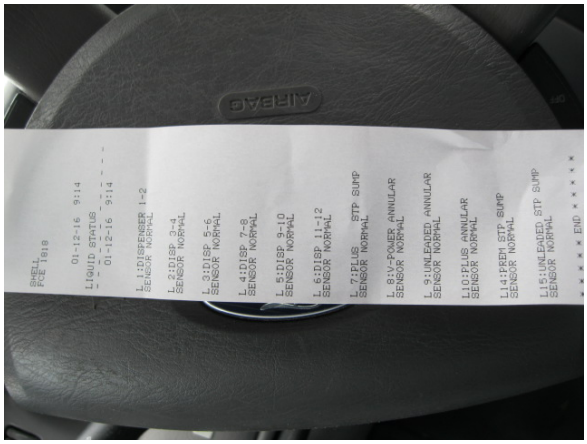
Inspection Photos

Added Date 01/12/2016

One of the 3 brine sensors.

Added Date 01/12/2016

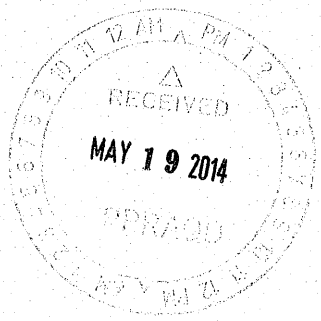
Veeder Root sensor printout.



Site No. 37

Sunoco-Twin Oil Co
4891 Powerline Road

Earth Systems
Environmental Consulting



May 15, 2014

David Singleton, P.G.
Broward County Environmental Protection
& Growth Management Department
1 North University Drive, Suite 203
Plantation, FL 33324

SUBJECT: Supplemental Site Assessment Report II
Sunoco - Twin Oil
4891 Powerline Road, Oakland Park
FDEP No. 06/8627788
Task Assignment GC651-107B

Dear Mr. Singleton:

This *Supplemental Site Assessment Report II* (SSAR II) summarizes groundwater assessment activities conducted at the Sunoco - Twin Oil facility in Oakland Park, Florida. The assessment was performed to supplement information provided in Earth Systems' May 2013 *Template Site Assessment Report* (TSAR) and October 30, 2013 SSAR. The project is being administered under Florida Department of Environmental Protection (FDEP) cleanup contract GC651-107B.

Earth Systems performed soil and groundwater assessment activities at the site from January 2013 through October 2013 to evaluate the extent of adsorbed and dissolved hydrocarbon impacts. The results of the investigation were summarized in a TSAR dated May 2013 and a SSAR dated October 30, 2013. Soil analytical data collected during the assessment activities indicate adsorbed hydrocarbons are present above Chapter 62-777, Florida Administrative Code (FAC) Soil Cleanup Target Levels (SCTLs) in the vadose and smear zones on the south and east sides of the underground storage tank (UST) vault. The impacted soil is defined onsite and no additional soil assessment is required. Groundwater analytical data indicates dissolved hydrocarbons are present and appear to extend offsite to the east. Impacts on the adjacent property to the south have been confirmed. The hydrocarbon concentrations generally increase with depth and subside at approximately 55 feet below land surface (bls).

Based on the information gathered during the site assessment activities, Earth Systems and FDEP agreed it was appropriate to complete additional groundwater assessment to delineate the dissolved hydrocarbon impacts to the east. This report summarizes the supplemental assessment activities performed to complete the delineation of the hydrocarbon impacted groundwater.

A site plan depicting the current site layout, as well as the current and abandoned well locations, is provided as **Figure 1**. Soil screening and analytical data for the samples collected in January 2013 are illustrated on **Figures 2A** though **2C**. Groundwater analytical data is depicted on **Figures 3A** though **3D**. Historical assessment activities are summarized on **Tables 1** though **Table 6**.

PROPERTY ACCESS AGREEMENT

In order to delineate the hydrocarbon impacted groundwater east of Sunoco - Twin Oil's property line, Earth Systems engaged the adjacent property owner, the Florida Department of Transportation (FDOT), to obtain authorization to install two monitoring wells in the center median of Powerline Road. A General Use Permit application was submitted on December 18, 2013. The application was rejected on December 31, 2013 due to a suspected water main beneath the work zone. Supplemental information was provided to FDOT on January 13 and 31, 2014 indicating the water main may not be in the proposed work zone since the layout of the road has been modified since the date of the As-Built drawings (1970). On March 24, 2014, the FDOT granted permission to install the wells in the center median. A copy of the signed General Use Permit agreement is provided in **Appendix A**.

While awaiting a response from FDOT, Earth Systems submitted a Change Order (CO) on February 13, 2014 for authorization to mail an offsite access request to the property owner on the east side of Powerline Road (Universel Hotel, Inc.). The CO was executed on March 12, 2014 and the offsite access request was sent to the property owner on March 14, 2014. Earth Systems has not received a response from the owner of the Universal Palms Hotel. However, access is no longer required as the FDOT authorized the installation of the wells in the center median of Powerline Road. A copy of the offsite access request is provided in **Appendix A**.

MONITORING WELL INSTALLATION

From April 7 through 10, 2014, Earth Systems supervised Earth Tech Drilling during the installation of one shallow monitoring well (MW-10R) and six deep monitoring wells (DW-28 through DW-33). Monitoring well MW-10R was installed to a depth of 13 feet bls with 10 feet of screen using the Hollow Stem Auger (HSA) Method. Double-cased deep wells DW-28 through DW-32 were installed to a depth of 40 feet bls with 5 feet of screen using the Mud Rotary (MR) Method. The outer 6-inch PVC casing for each 40 foot well was set at a depth of 30 feet bls. Double-cased deep well DW-33 was installed to a depth of 25 feet bls with 5 feet of screen using the MR Method. The outer 6-inch PVC casing for the 25 foot well was set at a depth of 16 feet bls.

The wells were finished within 8-inch diameter steel manholes. The manholes were completed flush to surface grade within concrete well pads with locking caps. The monitoring well inventory and construction details are listed on **Table 4**.

During installation of the wells, soil samples were collected and screened using an organic vapor analyzer equipped with a photoionization detector (OVA/PID). Soil screening data is summarized on **Table 1**. Soil Boring Logs, Well Construction and Development Logs, and Well Completion Reports are included in **Appendix B**.

A total of 27 drums of drill cuttings/mud were generated during the well installation event. Seventeen drums were picked up from the site on April 9, 2014 and delivered to Clean Earth of Southern Florida (Clean Earth) for thermal treatment. The remaining ten drums were picked up from the site on April 12, 2014 and delivered to Clean Earth for thermal treatment. Clean Earth deemed five of the ten drums unacceptable due to high water content caused by the utilization of the mud rotary method. Clean Earth contracted FCC Environmental to dispose of the five drums with high water content. The waste disposal manifests are included in **Appendix B**.

MONITORING WELL REPLACEMENT

As documented in the October 2013 *SSAR*, root blockage was detected in well MW-10 during the September 30, 2013 gauging event. Well MW-10 was screened from 3 to 11 feet bls. Earth Systems recommended replacing well MW-10 with a new shallow monitoring well (MW-10R) screened 3 to 13 feet bls.

On April 7, 2014, Earth Systems supervised Earth Tech Drilling during the replacement of monitoring well MW-10. The manhole, well pad, and casing for well MW-10 were removed. Due to the proximity of well MW-10 to underground utilities and an oil/water separator, the well was replaced in the same location as former well MW-10. The construction details for well MW-10R are discussed above.

GROUNDWATER ANALYTICAL DATA

On April 16 and 17, 2014, Earth Systems collected groundwater samples from the seven new wells, as well as from 21 existing wells. The existing wells were chosen because they either had not been sampled within the last 180 days or analytical data did not demonstrate two consecutive sampling events with concentrations below Chapter 62-777, FAC Groundwater Cleanup Target Levels (GCTLs). The sampled wells include MW-1 through MW-6, MW-8, MW-9, MW-10R, MW-11 through MW-14, DW-1, DW-2, DW-7, DW-9, DW-11R, DW-12R, DW-15, DW-16, DW-17, and DW-28 through DW-33. Prior to sample collection, Earth Systems gauged each well for DTW and the presence of free product using an oil/water interface probe. Free product was not encountered. Following the gauging event, the wells were purged in accordance with FDEP Standard Operating Procedures. The samples were placed on ice and delivered to Accutest in Orlando, Florida. The groundwater samples were analyzed for Volatile Organic Aromatics (VOAs) using EPA Method 8260 and Polynuclear Aromatic Hydrocarbons (PAHs) using EPA Method 8270.

Upon receipt of the groundwater samples from April 16 and 17, 2014, Accutest measured macro bubbles (>6 mm in diameter) in the VOA vials for samples collected from wells MW-10R, DW-16, DW-17, DW-28, and DW-33. Earth Systems suspects the macro bubbles were the result of the hydrochloric acid preservative reacting with carbonate in the limestone formation. In an attempt to minimize the potential of elevated method detection limits (MDLs), Earth Systems remobilized to the site on April 22, 2014 to resample the monitoring wells that contained macro bubbles. The samples were delivered to Accutest and analyzed for VOAs using EPA Method 8260. Despite resampling, an anti-foaming agent was still required to stabilize the samples. Elevated MDLs were not required and each MDL was below its respective GCTL.

Analytical results from the April 2014 sampling events indicate tested compounds were present above GCTLs in the samples collected from wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-8, MW-11, MW-12, MW-13, DW-1, DW-2, DW-7, DW-9, DW-11R, DW-15, and DW-17. Dissolved hydrocarbon exceedances are summarized below:

- Benzene [GCTL of 1 microgram per liter (µg/L)] was detected at or above its GCTL in the samples collected from wells MW-1, MW-2, MW-3, MW-4, MW-8, MW-11, MW-12, MW-13, DW-9, and DW-11R at concentrations ranging from 1.6 µg/L to 121 µg/L.
- Ethylbenzene (GCTL of 30 µg/L) was detected above its GCTL in the sample collected from well DW-2 at a concentration of 157 µg/L.
- Total Xylenes (GCTL of 20 µg/L) were detected above the GCTL in the samples collected from wells MW-3, MW-4, MW-11, DW-2, DW-7, and DW-17 at concentrations ranging from 22.7 µg/L to 1066 µg/L.
- MTBE (GCTL of 20 µg/L) was detected above its GCTL in the samples collected from wells MW-2, MW-3, MW-4, and DW-2 at concentrations ranging from 20.7 µg/L to 51.2 µg/L.
- Naphthalene (GCTL of 14 µg/L) was detected above its GCTL in the samples collected from wells DW-2 and DW-7 at concentrations of 57.5 µg/L and 59.1 µg/L, respectively.
- 1-Methylnaphthalene (GCTL of 28 µg/L) was detected above its GCTL in the sample collected from well DW-7 at a concentration of 32.5 µg/L.
- 2-Methylnaphthalene (GCTL of 28 µg/L) was detected above its GCTL in the sample collected from well DW-7 at a concentration of 51.7 µg/L.
- 1,2,4-Trimethylbenzene (GCTL of 10 µg/L) was detected above its GCTL in the samples collected from wells DW-1, DW-2, DW-7, and DW-17 at concentrations ranging from 86.1 µg/L to 690 µg/L.
- 1,3,5-Trimethylbenzene (GCTL of 10 µg/L) was detected above its GCTL in the samples collected from wells DW-1, DW-2, DW-7, and DW-17 at concentrations ranging from 26.8 µg/L to 178 µg/L.
- Cumene (GCTL of 0.8 µg/L) was detected above its GCTL in the samples collected from wells MW-2, MW-3, MW-6, DW-1, DW-2, DW-7, DW-11R, DW-15, and DW-17 at concentrations ranging from 0.89 µg/L to 26.6 µg/L.

Tested compounds were not detected at or above GCTLs in the samples collected from wells MW-5, MW-9, MW-10R, MW-14, DW-12R, DW-16, and DW-28 through DW-33. Tested compounds were present above Chapter 62-777, FAC Natural Attenuation Default Concentrations (NADCs) in the samples collected from wells MW-4, MW-6, DW-1, DW-2, and DW-7. Groundwater analytical results are summarized on **Tables 5A**, **5B**, and **5C** and illustrated on **Figures 3A, 3B**, **3C**, and **3D**. Copies of the groundwater sampling logs are included in **Appendix C.** A copy of the groundwater analytical report is included in **Appendix D.**

GROUNDWATER FLOW DIRECTION

On April 16, 2014, depth-to-water (DTW) measurements were gauged in 44 monitoring wells using an oil/water interface probe. Free product was not encountered in any of the wells gauged. The DTW measurements are presented in **Table 6**.

The site is equipped with fourteen viable upper zone monitoring wells with screen intervals that bisect the water table. The groundwater flow direction in the upper zone was generally toward the west on April 16, 2014. The average DTW was 7.2 feet bls, with an average elevation of 92.90 feet above an arbitrary datum. A groundwater elevation contour map for the upper zone is included as **Figure 4A**.

The site is equipped with fifteen wells with screen intervals from 20 to 25 feet bls. The groundwater flow direction at the 20 to 25 feet bls interval was generally toward the west on April 16, 2014. The average DTW was 7.3 feet bls, with an average elevation of 92.84 feet above an arbitrary datum. A groundwater elevation contour map for the 20 to 25 feet bls interval is included as **Figure 4B**.

The site is equipped with thirteen wells with screen intervals from 35 to 40 feet bls. The groundwater flow direction at the 35 to 40 feet bls interval was generally toward the west on April 16, 2014. The average DTW was 7.3 feet bls, with an average elevation of 92.90 feet above an arbitrary datum. A groundwater elevation contour map for the 35 to 40 feet bls interval is included as **Figure 4C**.

The site is equipped with two vertical extent wells (DW-15 and DW-23) with a screen interval from 50 to 55 feet bls. The DTW at the 50 to 55 feet bls interval averaged 7.0 feet bls on April 16, 2014, with an average elevation of 92.91 feet above an arbitrary datum. A minimum of three points are necessary to estimate the direction of groundwater flow.

As illustrated by the contours depicted on **Figures 4A, 4B,** and **4C**, the groundwater elevation levels are similar across the site at the different depth intervals. Since a vertical gradient exists when a change in hydraulic head is present between the shallow and deep depth intervals, a significant vertical hydraulic gradient does not appear to be evident at the facility.

GROUNDWATER EVALUATION

Shallow Zone

The areal extent of the site's shallow dissolved hydrocarbon impacts was delineated during the April 2013 through April 2014 assessment activities. The extent of dissolved hydrocarbon impacts in the shallow zone has been approximately delineated to the north (MW-9, MW-12, and MW-13), east (MW-14 and MW-8), south (MW-5 and MW-7), and west (MW-10 and MW-11). While dissolved hydrocarbon impacts were detected slightly above GCTLs in perimeter wells MW-8, MW-12, and MW-13, additional surficial aquifer delineation is not recommended in the vicinity of these wells. An increase in dissolved hydrocarbons was measured in well MW-11 since the April 2013 sampling event. Earth Systems recommends monitoring the dissolved hydrocarbon levels in well MW-11 to evaluate if the increasing trend continues. If an increasing trend is evident or the levels remain above GCTLs, additional delineation west of well MW-11 onto the adjacent residential property may be necessary. The extent of shallow zone dissolved hydrocarbon impacts is depicted on **Figure 3A**.

20 to 25 Feet bls Depth Interval

The areal extent of the site's dissolved hydrocarbon impacts at the 20 to 25 feet bls interval was delineated during the April 2013 through April 2014 assessment activities. Two dissolved hydrocarbon plumes are present at the 20 to 25 feet bls depth interval. The areal extent of the dissolved hydrocarbons on the south side of the property has been approximately delineated to the north (DW-19), east (DW-33), west (DW-16 and DW-18), and south (DW-3, DW-5, DW-22). While dissolved hydrocarbon impacts were detected slightly above GCTLs in perimeter well DW-18, additional delineation of the aquifer in the vicinity of this well is not recommended. The extent of dissolved hydrocarbon impacts at the 20 to 25 feet bls interval on the southern portion of the property is depicted on **Figure 3B**.

While dissolved Benzene was detected slightly above GCTLs in the sample collected from well DW-9 in April 2014, additional delineation of the northern plume is not recommended at this time. The impacts do not extend beyond the northern property boundary, as tested compounds were not present above GCTLs in well DW-10. The extent of dissolved hydrocarbon impacts at the 20 to 25 feet bls interval on the northeastern portion of the property is depicted on **Figure 3B**.

35 to 40 Feet bls Depth Interval

The areal extent of the site's dissolved hydrocarbon impacts at the 35 to 40 feet bls interval was delineated during the September 2013 through April 2014 assessment activities. The areal extent of the site's dissolved hydrocarbon impacts at the 35 to 40 feet bls depth interval has been delineated to the west (DW-21, DW-28, and DW-31), south (DW-26 and DW-27), east (DW-12R, DW-30, and DW-32), and north (DW-29). The extent of dissolved hydrocarbon impacts at the 35 to 40 feet bls interval is depicted on **Figure 3C**.

50 to 55 Feet bls Depth Interval

The vertical extent of the site's dissolved hydrocarbon impacts is defined by wells DW-15 and DW-23, which are screened from 50 to 55 feet bls. While Cumene was detected above its GCTL (but less than its NADC) in the samples collected from wells DW-15 and DW-23, Earth Systems recommends monitoring the Cumene levels to evaluate if a decreasing trend is evident. Additional assessment of the 50 to 55 feet bls interval is not recommended at this time. The dissolved hydrocarbon impacts at the 50 to 55 feet bls intervals are depicted on **Figure 3D**.

CONCLUSIONS AND RECOMMENDATIONS

A review of historical soil analytical data indicates adsorbed hydrocarbons are present above SCTLs in the vadose and smear zones on the south and east sides of the UST vault. The impacted soil is defined onsite and no additional soil assessment is recommended. A review of groundwater analytical data collected since April 2013 indicates dissolved hydrocarbons are present at the site and extend offsite to the property to the south. There are no known impacts offsite to the north, east, or west. The hydrocarbon concentrations generally increase with depth and subside at approximately 55 feet bls.

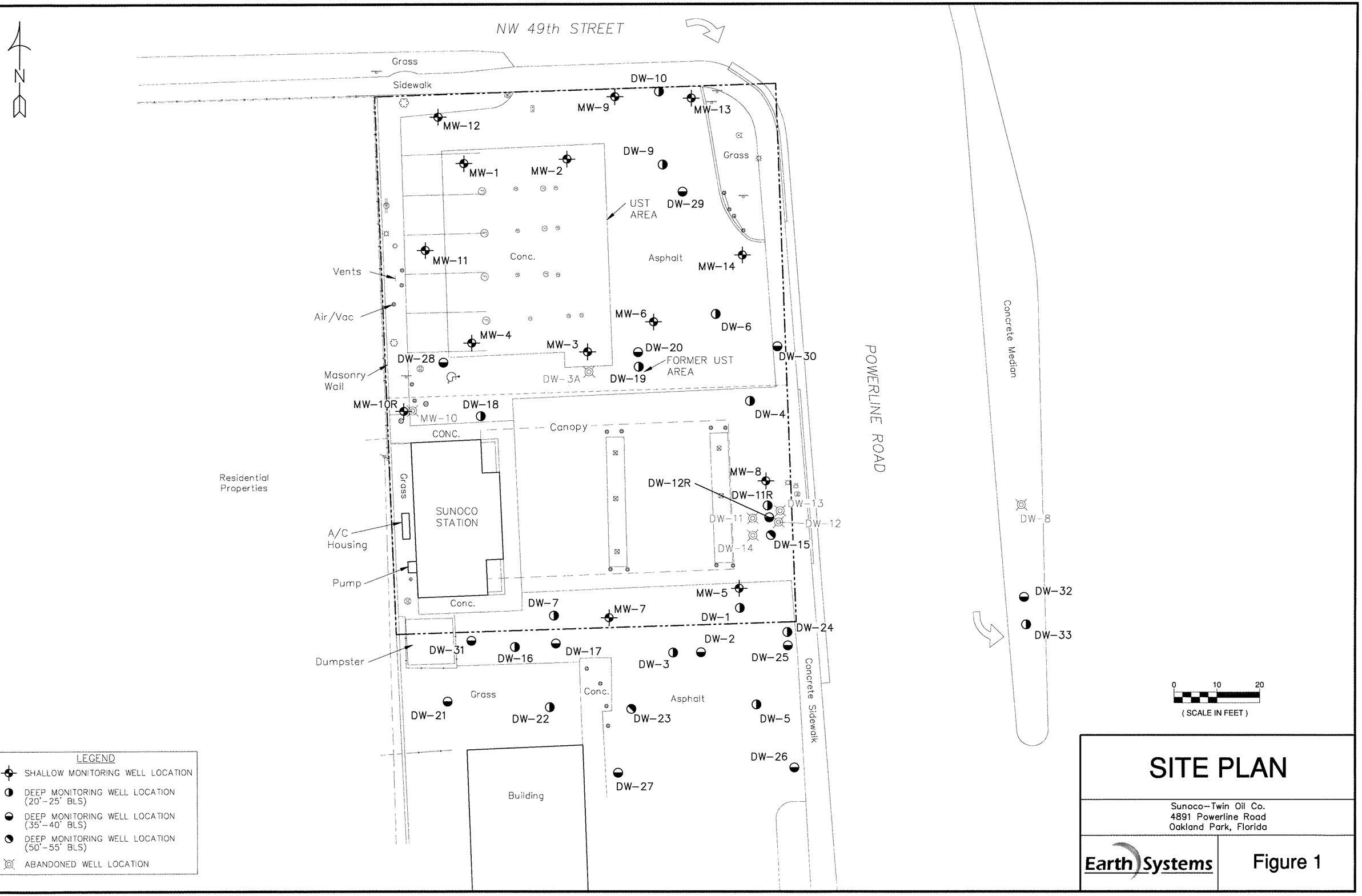
Based on the information gathered during the site assessment activities, soil and groundwater impacts at the site have been delineated. Earth Systems recommends the preparation of a Remedial Action Plan (RAP) to address the hydrocarbon impacted soil and groundwater located on and adjacent to the property.

If you have questions concerning the information presented in this report, please contact me at (561) 588-3985.

Sincerely,

EARTH SYSTEMS

Craig Cohen, P.E.
Senior Engineer



SITE PLAN

Sunoco-Twin Oil Co.
4891 Powerline Road
Oakland Park, Florida

Earth Systems

Figure 1

05/14 F(C)

TABLE 2A: SOIL ANALYTICAL SUMMARY - VOAs, TRPHs and Metals

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** **See notes at end of table.**

Sample					Laboratory Analyses										
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TRPHs (mg/kg)	Arsenic (mg/kg)	Cad-mium (mg/kg)	Chro-mium (mg/kg)	Lead (mg/kg)	Comments
February 22, 1991 - Soil Assessment Event															
SB-1	2/22/1991	--	2 - 5	--	0.001 U	0.001 U	0,001 U	0.001 U	0.001 U	--	--	--	--	--	
SB-2	2/22/1991	--	2 - 5	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--	--	--	
SB-3	2/22/1991	--	2 - 5	--	0.006470	0.005 U	0.015	0.0556	0.005 U	--	--	--	--	--	
SB-4	2/22/1991	--	2 - 5	--	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	--	--	--	--	--	
SB-5	2/22/1991	--	2 - 5	--	0.005 U	0.0205	0.00637	0.0601	0.005 U	1.0 U	--	--	--	--	
February 2003 - Soil Borings Near SW Corner of Tank Area															
SB-1	2/24/2003	8	6	80	0.0052 U	0.0052 U	0.0052 U	0.0052 U	0.0052 U	20	--	--	--	--	
SB-2	2/24/2003	8	6	32	0.0054 U	0.0054 U	0.0054 U	0.0054 U	0.0054 U	16	--	--	--	--	
SB-5	2/24/2003	8	6	26	0.0051 U	0.0051 U	0.0051 U	0.0051 U	0.0051 U	18	--	--	--	--	
January 2013 - Soil Assessment Event															
SB-16	1/17/2013	7.5	6	130	0.0011 U	0.0011 U	0.0012 U	0.0154 I	0.0011 U	23.9	--	--	--	--	
SB-16	1/17/2013	7.5	8	66.5	0.0073	0.0022 I	0.0011 U	0.0311	0.0019 I	15.8	--	--	--	--	
SB-17	1/17/2013	7.5	6	106	0.0011 U	0.0014 I	0.0012 U	0.0034 U	0.0011 U	5.90 I	--	--	--	--	
SB-18	1/17/2013	7.5	6	118	0.0011 I	0.0021 I	0.0011 U	0.0106 I	0.0010 U	294	--	--	--	--	
SB-18	1/17/2013	7.5	8	523	0.0054	0.0017 I	0.0683	0.0030 U	0.0010 U	30.8	--	--	--	--	
SB-19	1/17/2013	7.5	4	194	0.00091 U	0.00091 U	0.0010 U	0.0028 U	0.00091 U	11.3	--	--	--	--	
SB-19	1/17/2013	7.5	10	129	0.00092 U	0.0014 I	0.0239	0.0101 I	0.0011 I	174	--	--	--	--	
SB-19	1/17/2013	7.5	12	358	0.0065	0.0010 U	0.0391	0.0031 U	0.0019 I	18.6	--	--	--	--	
SB-21	1/17/2013	7.5	6	73.3	0.0011 U	0.0011 U	0.0012 U	0.0032 U	0.0011 U	20.7	--	--	--	--	
SB-26	1/17/2013	8.0	6	<1	0.0011 U	0.0011 U	0.0012 U	0.0035 U	0.0011 U	5.76 I	--	--	--	--	
SB-27	1/17/2013	8.0	6	<1	0.0011 U	0.0011 U	0.0012 U	0.0033 U	0.0011 U	32.9	--	--	--	--	
SB-29	1/17/2013	8.0	38	83.2	0.00098 U	0.00098 U	0.0318	0.173	0.0216	6.1 U	--	--	--	--	
Leachability Based on Groundwater Criteria (mg/kg)					0.007	0.5	0.6	0.2	0.09	340	**	7.5	38	**	
Direct Exposure Residential (mg/kg)					1.2	7,500	1,500	130	4,400	460	2.1	82	210	400	

-- = Sample not analyzed for constituent or not reported

MTBE = Methyl Tert Butyl Ether

TRPH = Total Recoverable Petroleum Hydrocarbons

Exposure values based upon 62-777 F.A.C. criteria (April 17, 2005)

Results in bold exceed FDEP Leachability Target Levels

**** = Leachability value may be determined using TCLP**

Qualifiers: U = Result below MDL

I = Result between MDL and PQL

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

TABLE 2B: SOIL ANALYTICAL SUMMARY - Non-Carcinogenic PAHs

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** **See notes at end of table.**

Sample					Laboratory Analyses											
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Naph-thalene (mg/kg)	1-Methyl-naph-thalene (mg/kg)	2-Methyl-naph-thalene (mg/kg)	Acen-aph-thene (mg/kg)	Acen-aph-thylene (mg/kg)	Anthra-cene (mg/kg)	Benzo (g,h,i) pery-lene (mg/kg)	Fluoran-thene (mg/kg)	Fluor-ene (mg/kg)	Phenan-threne (mg/kg)	Pyrene (mg/kg)	Comments
February 22, 1991 - Soil Assessment Event																
SB-1	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	--	--	--	
SB-2	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	--	--	--	
SB-3	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	--	--	--	
SB-4	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	--	--	--	
SB-5	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	--	--	--	
February 2003 - Soil Borings Near SW Corner of Tank Area																
SB-1	2/24/2003	8	6	80	0.0089	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	
SB-2	2/24/2003	8	6	32	0.0091	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	
SB-5	2/24/2003	8	6	26	0.013	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	
January 2013 - Soil Assessment Event																
SB-16	1/17/2013	7.5	6	130	0.055 U	0.055 U	0.055 U	0.055 U	0.055 U	0.034 U	0.0068 U	0.034 U	0.055 U	0.034 U	0.034 U	
SB-16	1/17/2013	7.5	8	66.5	0.063 U	0.063 U	0.063 U	0.063 U	0.063 U	0.039 U	0.0079 U	0.039 U	0.063 U	0.039 U	0.039 U	
SB-17	1/17/2013	7.5	6	106	0.057 U	0.057 U	0.057 U	0.057 U	0.057 U	0.036 U	0.0071 U	0.036 U	0.057 U	0.036 U	0.036 U	
SB-18	1/17/2013	7.5	6	118	0.061 U	0.122 I	0.160	0.061 U	0.061 U	0.038 U	0.0102 I	0.038 U	0.061 U	0.038 U	0.038 U	
SB-18	1/17/2013	7.5	8	523	0.789	0.572	1.04	0.064 U	0.064 U	0.040 U	0.0080 U	0.040 U	0.064 U	0.040 U	0.040 U	
SB-19	1/17/2013	7.5	4	194	0.055 U	0.055 U	0.055 U	0.055 U	0.055 U	0.034 U	0.0112 I	0.034 U	0.055 U	0.034 U	0.034 U	
SB-19	1/17/2013	7.5	10	129	**2.87**	2.97	3.30	0.0635 I	0.060 U	0.038 U	0.0075 U	0.038 U	0.155	0.191	0.0534 I	
SB-19	1/17/2013	7.5	12	358	1.24	0.217	0.210	0.064 U	0.064 U	0.040 U	0.0080 U	0.040 U	0.064 U	0.040 U	0.040 U	
SB-21	1/17/2013	7.5	6	73.3	0.056 U	0.056 U	0.056 U	0.056 U	0.056 U	0.035 U	0.185	0.0931 I	0.056 U	0.035 U	0.0783 I	
SB-26	1/17/2013	8.0	6	<1	0.056 U	0.056 U	0.056 U	0.056 U	0.056 U	0.035 U	0.0069 U	0.035 U	0.056 U	0.035 U	0.035 U	
SB-27	1/17/2013	8.0	6	<1	0.055 U	0.055 U	0.055 U	0.055 U	0.055 U	0.034 U	0.0069 U	0.034 U	0.055 U	0.034 U	0.034 U	
SB-29	1/17/2013	8.0	38	83.2	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.041 U	0.0081 U	0.041 U	0.065 U	0.041 U	0.041 U	
Leachability Based on Groundwater Criteria (mg/kg)					1.2	3.1	8.5	2.1	27	2,500	32,000	1,200	160	250	880	
Direct Exposure Residential (mg/kg)					55	200	210	2,400	1,800	21,000	2,500	3,200	2,600	2,200	2,400	

-- = Sample not analyzed for constituent or not reported

Exposure values based upon 62-777 F.A.C. criteria (April 17, 2005)

Results in bold exceed FDEP Leachability Target Levels

Qualifiers: U = Result below MDL

I = Result between MDL and PQL

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

TABLE 2C: SOIL ANALYTICAL SUMMARY - Carcinogenic PAHs

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** **See notes at end of t**

Sample					Laboratory Analyses								
Boring/ Well No.	Date Collected	Depth to Water (ft)	Sample Interval (fbls)	Net OVA Reading (ppm)	Benzo (a) anthra-cene (mg/kg)	Benzo (a) pyrene (mg/kg)	Benzo (b) fluoran-thene (mg/kg)	Benzo (k) fluoran-thene (mg/kg)	Chry-sene (mg/kg)	Dibenz (a,h) anthra-cene (mg/kg)	Indeno (1,2,3-cd) pyrene (mg/kg)	Benzo (a) pyrene equivalent (mg/kg)	Comments
February 22, 1991 - Soil Assessment Event													
SB-1	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	
SB-2	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	
SB-3	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	
SB-4	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	
SB-5	2/22/1991	--	2 - 5	--	--	--	--	--	--	--	--	--	
February 2003 - Soil Borings Near SW Corner of Tank Area													
SB-1	2/24/2003	8	6	80	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	--	
SB-2	2/24/2003	8	6	32	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	--	
SB-5	2/24/2003	8	6	26	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	0.0033 U	--	
January 2013 - Soil Assessment Event													
SB-16	1/17/2013	7.5	6	130	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	0.0068 U	--	
SB-16	1/17/2013	7.5	8	66.5	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	0.0079 U	--	
SB-17	1/17/2013	7.5	6	106	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	0.0071 U	--	
SB-18	1/17/2013	7.5	6	118	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	0.0077 U	--	
SB-18	1/17/2013	7.5	8	523	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	--	
SB-19	1/17/2013	7.5	4	194	0.0080 I	0.0090 I	0.0129 I	0.0085 I	0.0084 I	0.0069 U	0.0133 I	0.03	
SB-19	1/17/2013	7.5	10	129	0.0125 I	0.0075 U	0.0075 U	0.0075 U	0.0098 I	0.0075 U	0.0075 U	0.01	
SB-19	1/17/2013	7.5	12	358	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	0.0080 U	--	
SB-21	1/17/2013	7.5	6	73.3	0.108	**0.19**	0.221	0.134	0.126	0.046	0.251	**0.30**	
SB-26	1/17/2013	8.0	6	<1	0.0069 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	--	
SB-27	1/17/2013	8.0	6	<1	0.0069 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	0.0069 U	--	
SB-29	1/17/2013	8.0	38	83.2	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	0.0081 U	--	
Leachability Based on Groundwater Criteria (mg/kg)					0.8	8	2.4	24	77	0.7	6.6	**	
Direct Exposure Residential (mg/kg)					#	0.1	#	#	#	#	#	0.1	

-- = Sample not analyzed for constituent or not reported

Exposure values based upon 62-777 F.A.C. criteria (April 17, 2005)

Results in bold exceed FDEP Leachability Target Levels

 # = Direct Exposure value not applicable except as part of the Benzo(a)pyrene equivalent.

**** = Leachability value not applicable**

Qualifiers: **U = Result below MDL**

I = Result between MDL and PQL

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

TABLE 3A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals
(Temporary Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil**

See notes at end of table.

Sample			Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOAs	MTBE	Dibromo-ethane (EDB)	1,2-Dichloro-ethane (DCA)	Total Arsenic	Total Cad-mium	Total Chro-mium	Total Lead
Location	Interval (ft bls)	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TW-1	7 - 11	1/14/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-2	21 - 25	1/15/2013	0.85 I	0.20 U	0.29 U	0.50 U	0.9	3.7	--	0.22 U	--	--	--	--
TW-2	36 - 40	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-2	51 - 55	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-3	7 - 11	1/14/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.58 I	--	0.22 U	--	--	--	--
TW-4	7 - 11	1/15/2013	**2.4**	2.2	0.29 U	7.8	12.4	8.2	--	0.22 U	--	--	--	--
TW-4	21 - 25	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-4	36 - 40	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-4	51 - 55	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-5	7 - 11	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-6	7 - 11	1/14/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-6	21 - 25	1/14/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.22 I	--	0.22 U	--	--	--	--
TW-6	36 - 40	1/16/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-6	51 - 55	1/16/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-7	7 - 11	1/14/2013	0.32 I	0.20 U	0.29 U	1.4 I	1.7	0.65 I	--	0.22 U	--	--	--	--
TW-8	21 - 25	1/16/2013	**9.3**	1.6	0.97 I	3.5	15.4	2.7	--	0.22 U	--	--	--	--
TW-8	36 - 40	1/16/2013	0.36 I	0.20 U	0.84 I	0.67 I	1.9	0.66 I	--	0.22 U	--	--	--	--
TW-8	51 - 55	1/16/2013	0.21 U	0.20 U	0.29 U	2.0 I	2.0	9.6	--	0.22 U	--	--	--	--
TW-9	21 - 25	1/17/2013	0.21 U	0.20 U	1.5	6.6	8.1	1.2	--	0.22 U	--	--	--	--
TW-9	36 - 40	1/17/2013	**2.2**	0.40 U	**80.2**	**323**	405	17.2	--	0.44 U	--	--	--	--
TW-9	51 - 55	1/17/2013	0.62 I	0.20 U	3.7	**128**	132	7.6	--	0.22 U	--	--	--	--
TW-10	21 - 25	1/16/2013	**22.2**	4.8 I	**36.9**	**296**	360	**288**	--	1.1 U	--	--	--	--
TW-10	36 - 40	1/16/2013	**7.2**	6.4	**202**	**912**	1128	**180**	--	1.1 U	--	--	--	--
TW-10	44 - 48	1/16/2013	**2.3**	1.5	**73.6**	**348**	425	**21.1**	--	0.22 U	--	--	--	--
GCTLs			1**	40**	30**	20**	NA	20	0.02**	3**	10**	5**	100**	15**
NADCs			100	400	300	200	NA	200	2	300	100	50	1,000	150

-- = Sample not analyzed for constituent

NCD = no compounds detected

** = As provided in Chapter 62-550, F.A.C.

Concentrations in bold are above GCTLs

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

Analytical Results reported in µg/L

MTBE = Methyl tert-Butyl Ether

VOAs = Volatile Organic Aromatics

Qualifiers: U = Result below MDL

I = Result between MDL and PQL

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

TABLE 3B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs
(Temporary Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil**

See notes at end of table.

Sample			Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Total Naph-thalenes	Acen-aph-thene	Acen-aph-thylene	Anthra-cene	Benzo (a) anthra-cene	Benzo (a) pyrene	Benzo (b) fluoran-thene	Benzo (g,h,i) pery-lene	Benzo (k) fluoran-thene	Chry-sene	Dibenz (a,h) anthra-cene	Fluoran-thene	Fluor-ene	Indeno (1,2,3-cd) pyrene	Phenan-threne	Pyrene
Location	Interval (ft bis)	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TW-1	7 - 11	1/14/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-2	21 - 25	1/15/2013	0.38 U	2.1	2.0	4.1	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.39 I	0.038 U	0.40 I	0.24 U
TW-2	36 - 40	1/15/2013	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
TW-2	51 - 55	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-3	7 - 11	1/14/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-4	7 - 11	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-4	21 - 25	1/15/2013	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
TW-4	36 - 40	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-4	51 - 55	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.044 I	0.038 U	0.038 U	0.038 U	0.038 U	0.046 I	0.038 U	0.25 I	0.38 U	0.038 U	0.44 I	0.24 U
TW-5	7 - 11	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-6	7 - 11	1/14/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-6	21 - 25	1/14/2013	0.45 I	0.38 U	0.38 U	0.5	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.056 I	0.038 U	0.24 I	0.38 U	0.038 U	0.30 I	0.24 U
TW-6	36 - 40	1/16/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-6	51 - 55	1/16/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.29 I	0.24 U
TW-7	7 - 11	1/14/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-8	21 - 25	1/16/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.040 I	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-8	36 - 40	1/16/2013	**21.4**	10.2	5.4	37.0	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-8	51 - 55	1/16/2013	0.70 I	5.9	6.5	13.1	0.80 I	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-9	21 - 25	1/17/2013	0.39 I	0.39 U	0.39 U	0.4	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
TW-9	36 - 40	1/17/2013	**21.9**	0.38 U	0.38 U	21.9	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-9	51 - 55	1/17/2013	3.8	0.38 U	0.38 U	3.8	0.38 U	0.38 U	0.24 U	**0.054 I**	0.038 U	0.046 I	0.038 U	0.038 U	0.064 I	0.038 U	0.24 U	0.38 U	0.038 U	0.30 I	0.24 U
TW-10	21 - 25	1/16/2013	**18.2**	3.4	4.6	26.2	0.38 U	0.38 U	0.24 U	0.038 I	0.038 U	**0.052 I**	0.038 U	0.038 U	0.053 I	0.038 U	0.24 U	0.38 U	0.044 I	0.24 U	0.24 U
TW-10	36 - 40	1/16/2013	**68.6**	19.9	26.1	115	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-10	44 - 48	1/16/2013	**20.7**	4.4	4.9	30.0	0.39 U	0.39 U	0.24 U	**0.057 I**	0.048 I	**0.074 I**	0.040 I	0.039 U	0.072 I	0.039 U	0.27 I	0.39 U	**0.054 I**	0.24 U	0.24 U
GCTLs			14	28	28	--	20	210	2,100	0.05[a]	0.2**	0.05[a]	210	0.5	4.8	0.005[a]	280	280	0.05[a]	210	210
NADCs			140	280	280	--	200	2,100	21,000	5	20	5	2,100	50	480	0.5	2,800	2,800	5	2,100	2,100

NCD = no compounds detected

**** = As provided in Chapter 62-550, F.A.C.**

Concentrations in bold are above GCTLs

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

Analytical Results reported in µg/L

PAH = Polynuclear Aromatic Hydrocarbons

Qualifiers U = Result below MDL

I = Result between MDL and PQL

D = Sample diluted by a factor of x

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

a = See the October 12, 2004 "Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits" to determine how to evaluate data when the CTL is lower than the PQL.

TABLE 3A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals
(Temporary Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil**

See notes at end of table.

Sample			Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOAs	MTBE	Dibromo-ethane (EDB)	1,2-Dichloro-ethane (DCA)	Total Arsenic	Total Cad-mium	Total Chro-mium	Total Lead
Location	Interval (ft bls)	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TW-1	7 - 11	1/14/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-2	21 - 25	1/15/2013	0.85 I	0.20 U	0.29 U	0.50 U	0.9	3.7	--	0.22 U	--	--	--	--
TW-2	36 - 40	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-2	51 - 55	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-3	7 - 11	1/14/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.58 I	--	0.22 U	--	--	--	--
TW-4	7 - 11	1/15/2013	**2.4**	2.2	0.29 U	7.8	12.4	8.2	--	0.22 U	--	--	--	--
TW-4	21 - 25	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-4	36 - 40	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-4	51 - 55	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-5	7 - 11	1/15/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-6	7 - 11	1/14/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-6	21 - 25	1/14/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.22 I	--	0.22 U	--	--	--	--
TW-6	36 - 40	1/16/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-6	51 - 55	1/16/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	--	0.22 U	--	--	--	--
TW-7	7 - 11	1/14/2013	0.32 I	0.20 U	0.29 U	1.4 I	1.7	0.65 I	--	0.22 U	--	--	--	--
TW-8	21 - 25	1/16/2013	**9.3**	1.6	0.97 I	3.5	15.4	2.7	--	0.22 U	--	--	--	--
TW-8	36 - 40	1/16/2013	0.36 I	0.20 U	0.84 I	0.67 I	1.9	0.66 I	--	0.22 U	--	--	--	--
TW-8	51 - 55	1/16/2013	0.21 U	0.20 U	0.29 U	2.0 I	2.0	9.6	--	0.22 U	--	--	--	--
TW-9	21 - 25	1/17/2013	0.21 U	0.20 U	1.5	6.6	8.1	1.2	--	0.22 U	--	--	--	--
TW-9	36 - 40	1/17/2013	**2.2**	0.40 U	**80.2**	**323**	405	17.2	--	0.44 U	--	--	--	--
TW-9	51 - 55	1/17/2013	0.62 I	0.20 U	3.7	**128**	132	7.6	--	0.22 U	--	--	--	--
TW-10	21 - 25	1/16/2013	**22.2**	4.8 I	**36.9**	**296**	360	**288**	--	1.1 U	--	--	--	--
TW-10	36 - 40	1/16/2013	**7.2**	6.4	**202**	**912**	1128	**180**	--	1.1 U	--	--	--	--
TW-10	44 - 48	1/16/2013	**2.3**	1.5	**73.6**	**348**	425	**21.1**	--	0.22 U	--	--	--	--
GCTLs			1**	40**	30**	20**	NA	20	0.02**	3**	10**	5**	100**	15**
NADCs			100	400	300	200	NA	200	2	300	100	50	1,000	150

-- = Sample not analyzed for constituent

NCD = no compounds detected

** = As provided in Chapter 62-550, F.A.C.

Concentrations in bold are above GCTLs

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

Analytical Results reported in µg/L

MTBE = Methyl tert-Butyl Ether

VOAs = Volatile Organic Aromatics

Qualifiers: U = Result below MDL

I = Result between MDL and PQL

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

TABLE 3B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs
(Temporary Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil**

See notes at end of table.

Sample			Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Total Naph-thalenes	Acen-aph-thene	Acen-aph-thylene	Anthra-cene	Benzo (a) anthra-cene	Benzo (a) pyrene	Benzo (b) fluoran-thene	Benzo (g,h,i) pery-lene	Benzo (k) fluoran-thene	Chry-sene	Dibenz (a,h) anthra-cene	Fluoran-thene	Fluor-ene	Indeno (1,2,3-cd) pyrene	Phenan-threne	Pyrene
Location	Interval (ft bis)	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
TW-1	7 - 11	1/14/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-2	21 - 25	1/15/2013	0.38 U	2.1	2.0	4.1	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.39 I	0.038 U	0.40 I	0.24 U
TW-2	36 - 40	1/15/2013	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
TW-2	51 - 55	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-3	7 - 11	1/14/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-4	7 - 11	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-4	21 - 25	1/15/2013	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
TW-4	36 - 40	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-4	51 - 55	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.044 I	0.038 U	0.038 U	0.038 U	0.038 U	0.046 I	0.038 U	0.25 I	0.38 U	0.038 U	0.44 I	0.24 U
TW-5	7 - 11	1/15/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-6	7 - 11	1/14/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-6	21 - 25	1/14/2013	0.45 I	0.38 U	0.38 U	0.5	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.056 I	0.038 U	0.24 I	0.38 U	0.038 U	0.30 I	0.24 U
TW-6	36 - 40	1/16/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-6	51 - 55	1/16/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.29 I	0.24 U
TW-7	7 - 11	1/14/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-8	21 - 25	1/16/2013	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.040 I	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-8	36 - 40	1/16/2013	**21.4**	10.2	5.4	37.0	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-8	51 - 55	1/16/2013	0.70 I	5.9	6.5	13.1	0.80 I	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-9	21 - 25	1/17/2013	0.39 I	0.39 U	0.39 U	0.4	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
TW-9	36 - 40	1/17/2013	**21.9**	0.38 U	0.38 U	21.9	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-9	51 - 55	1/17/2013	3.8	0.38 U	0.38 U	3.8	0.38 U	0.38 U	0.24 U	**0.054 I**	0.038 U	0.046 I	0.038 U	0.038 U	0.064 I	0.038 U	0.24 U	0.38 U	0.038 U	0.30 I	0.24 U
TW-10	21 - 25	1/16/2013	**18.2**	3.4	4.6	26.2	0.38 U	0.38 U	0.24 U	0.038 I	0.038 U	**0.052 I**	0.038 U	0.038 U	0.053 I	0.038 U	0.24 U	0.38 U	0.044 I	0.24 U	0.24 U
TW-10	36 - 40	1/16/2013	**68.6**	19.9	26.1	115	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
TW-10	44 - 48	1/16/2013	**20.7**	4.4	4.9	30.0	0.39 U	0.39 U	0.24 U	**0.057 I**	0.048 I	**0.074 I**	0.040 I	0.039 U	0.072 I	0.039 U	0.27 I	0.39 U	**0.054 I**	0.24 U	0.24 U
GCTLs			14	28	28	--	20	210	2,100	0.05[a]	0.2**	0.05[a]	210	0.5	4.8	0.005[a]	280	280	0.05[a]	210	210
NADCs			140	280	280	--	200	2,100	21,000	5	20	5	2,100	50	480	0.5	2,800	2,800	5	2,100	2,100

NCD = no compounds detected

**** = As provided in Chapter 62-550, F.A.C.**

Concentrations in bold are above GCTLs

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

Analytical Results reported in µg/L

PAH = Polynuclear Aromatic Hydrocarbons

Qualifiers U = Result below MDL

I = Result between MDL and PQL

D = Sample diluted by a factor of x

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

a = See the October 12, 2004 "Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits" to determine how to evaluate data when the CTL is lower than the PQL.

TABLE 5A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals
(Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample		Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOAs	MTBE	Dibromo-ethane (EDB)	1,2-Dichloro-ethane (DCA)	Total Arsenic	Total Cad-mium	Total Chro-mium	Total Lead
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
CW-1	9/19/1988	1.0 U	1.0 U	1.0 U	1.0 U	NCD	1.0 U	--	--	--	--	--	--
CW-2	9/19/1988	**61.0**	1.0 U	1.0 U	1.0 U	61	1.0 U	--	--	--	--	--	--
CW-3	9/19/1988	**5.0**	1.0 U	1.0 U	1.0 U	5	1.0 U	--	--	--	--	--	--
CW-5	9/19/1988	1.0 U	1.0 U	1.0 U	1.0 U	NCD	1.0 U	--	--	--	--	--	--
CW-6	9/19/1988	**80**	1.0 U	**35**	10	125	1.0 U	--	--	--	--	--	--
MW-1	2/28/1992	**4**	2	BDL	9	15	6	--	--	--	--	--	--
	7/8/1992	**81**	BDL	1	8	90	9	--	BDL	--	--	--	--
	10/7/1992	--	--	--	--	--	--	BDL	--	--	--	--	BDL
	12/22/1992	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--	--	--	--
	6/9/1994	**16.7**	11.6	BDL	15.4	43.7	3.4	--	--	--	--	--	--
	2/24/2003	**140**	**190**	1 U	**64**	394	**4000**	--	--	--	--	--	--
	5/16/2003	**150**	**42**	1.3	**86**	279	**690**	--	--	--	--	--	--
	8/18/2003	**55**	18	1.0	**42**	116	**33**	--	--	--	--	--	--
	2/23/2012	**19.3**	2.81	0.460 I	10.1	32.7	**27.9**	0.00686 U	0.270 U	--	--	--	0.120 I
	4/8/2013	**4.5**	1.2	0.29 U	3.2	8.9	4.5	0.30 U	0.22 U	--	--	--	--
	4/16/2014	**1.6**	0.50 I	0.28 U	2.18 I	4.3	6.1	0.24 U	0.24 U	--	--	--	--
MW-2	2/28/1992	1	3	BDL	19	23	7	--	--	--	--	--	--
	10/7/1992	**48**	2	25	17	92	BDL	BDL	BDL	--	--	--	1
	10/9/1992	--	--	--	--	--	--	--	--	--	--	--	--
	6/9/1994	**86.4**	1.8	2.2	**450**	540	0.72	--	--	--	--	--	--
	11/11/1996	**3**	1	BDL	7	11	**613**	--	--	--	--	--	--
	11/10/1998	**201**	**91.8**	5.83	**123.6**	422	**3470**	--	--	--	--	--	--
	2/24/2003	**200**	**250**	1 U	**140**	590	**18000**	--	--	--	--	--	--
	5/16/2003	**260**	34	**60**	**130**	484	**3300**	--	--	--	--	--	--
	8/18/2003	**120**	BDL	BDL	BDL	120	**140**	--	--	--	--	--	--
	2/23/2012	**89.5**	17.4	0.580 I	**47.8**	155	**76.6**	0.00686 U	0.270 U	--	--	--	0.170 I
	4/9/2013	**58.6**	11.4	0.29 U	**27.7**	97.7	**21.7**	0.30 U	0.22 U	--	--	--	--
	4/16/2014	**16.3**	1.6	0.28 U	12.3	30.2	**33.8**	0.24 U	0.24 U	--	--	--	--

TABLE 5A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample Location	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total VOAs (µg/L)	MTBE (µg/L)	Dibromo-ethane (EDB) (µg/L)	1,2-Dichloro-ethane (DCA) (µg/L)	Total Arsenic (µg/L)	Total Cad-mium (µg/L)	Total Chro-mium (µg/L)	Total Lead (µg/L)
MW-3	2/28/1992	1	4	BDL	8	13	5	--	--	--	--	--	--
	10/7/1992	**60**	6	2	16	84	BDL	BDL	BDL	--	--	--	2
	10/9/1992	--	--	--	--	--	--	--	--	--	--	--	--
	6/9/1994	**16.2**	6.7	BDL	11.1	34	1.6	--	--	--	--	--	--
	11/11/1996	1	BDL	BDL	BDL	1	BDL	--	--	--	--	--	--
	11/10/1998	**114**	**94.2**	4.22	**46.3**	259	**2960**	--	--	--	--	--	--
	7/19/2002	0.01 Ft of Free Product											
	9/28/2002	**30**	BDL	BDL	**25**	55	**31**						
	2/24/2003	**220**	**190**	1 U	**76**	486	**18000**	--	--	--	--	--	--
	5/16/2003	**250**	**52**	**72**	**120**	494	**19000**	--	--	--	--	--	--
	8/18/2003	**110**	**49**	BDL	**78**	237	**970**	--	--	--	--	--	--
	2/23/2012	**179**	**49.6**	0.940 I	**71.7**	301	**94.4**	0.00686 U	0.270 U	--	--	--	0.190 I
	4/9/2013	**93.2**	15.8	0.59 I	12.7	122	**30.0**	0.30 U	0.22 U	--	--	--	--
	4/17/2014	**98.5**	5.8	1.3	**22.7**	128	**36.5**	0.24 U	0.24 U	--	--	--	--
MW-4	2/28/1992	BDL	2	BDL	BDL	2	BDL	--	--	--	--	--	--
	10/7/1992	**3**	12	BDL	**25**	40	BDL	BDL	BDL	--	--	--	2
	10/9/1992	--	--	--	--	--	--	--	--	--	--	--	--
	6/9/1994	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	11/26/2002	**300**	**150**	2.8	**120**	573	**2100**	--	--	--	--	--	--
	2/24/2003	**82**	25 U	25 U	25 U	82	**4700**	--	--	--	--	--	--
	5/16/2003	**190**	17	**80**	**120**	407	**330**	--	--	--	--	--	--
	8/18/2003	**91**	34	BDL	**85**	210	**300**	--	--	--	--	--	--
	2/23/2012	**163**	26.8	0.710 I	**68.6**	259	**66.5**	0.00686 U	0.270 U	--	--	--	0.140 I
	4/9/2013	**77.6**	**54.2**	0.48 I	**152**	284	**45.7**	0.30 U	0.22 U	--	--	--	--
	4/17/2014	**121**	39.7	2.0	**49.5**	212	**51.2**	0.24 U	0.24 U	--	--	--	--

TABLE 5A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample Location	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total VOAs (µg/L)	MTBE (µg/L)	Dibromo-ethane (EDB) (µg/L)	1,2-Dichloro-ethane (DCA) (µg/L)	Total Arsenic (µg/L)	Total Cad-mium (µg/L)	Total Chro-mium (µg/L)	Total Lead (µg/L)
MW-5	2/28/1992	**95**	3	**43**	**208**	349	**128**	--	--	--	--	--	--
	7/8/1992	**5**	BDL	BDL	**72**	77	**42**	--	BDL	--	--	--	--
	10/7/1992	--	--	--	--	--	--	BDL	--	--	--	--	2
	12/22/1992	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	6/9/1994	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	9/22/2003	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	2/24/2012	0.260 U	0.490 U	0.0800 U	1.11 I	1.11	0.430 U	0.00686 U	0.270 U	--	--	--	0.250 I
	4/9/2013	0.21 U	0.20 U	0.29 U	4.2	4.2	0.21 U	0.30 U	0.22 U	--	--	--	--
	4/16/2014	0.24 U	0.20 U	0.28 U	1.7	1.7	0.33 I	0.24 U	0.24 U	--	--	--	--
MW-6	5/19/1992	**143**	BDL	**102**	**41**	286	4	--	--	--	--	--	**32**
	7/8/1992	**22**	BDL	BDL	BDL	22	**156**	--	BDL	--	--	--	--
	10/7/1992	--	--	--	--	--	--	--	--	--	--	--	--
	10/9/1992	--	--	--	--	--	--	BDL	--	--	--	--	--
	12/22/1992	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	6/9/1994	**15.8**	4.7	7.0	5.5	33	BDL	--	--	--	--	--	--
	9/28/2002	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	10/17/2002	**8.3**	BDL	7.9	BDL	16	**28**	--	--	--	--	--	--
	8/18/2003	**14**	3	13	10	**40**	3.2	--	--	--	--	--	--
	2/23/2012	**7.86**	2.32	3.18 I	5.22	18.6	9.38	0.00686 U	0.270 U	--	--	--	0.250 I
	4/9/2013	0.21 U	0.20 U	0.53 I	0.50 U	0.53	1.5	0.30 U	0.22 U	--	--	--	--
	4/17/2014	0.29 I	0.20 U	0.39 I	0.91 I	1.6	2.3	0.24 U	0.24 U	--	--	--	--
MW-7	5/19/1992	**2**	BDL	2	12	16	BDL	BDL	BDL	--	--	--	11
	12/22/1992	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	6/9/1994	**31.6**	3.3	**63.4**	**325**	423	BDL	--	--	--	--	--	--
	11/11/1996	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	9/28/2002	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	10/17/2002	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	9/22/2003	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	2/24/2012	0.260 U	0.490 U	0.0800 U	0.360 I	0.36	0.430 U	0.00686 U	0.270 U	--	--	--	0.870 I
	4/10/2013	0.21 U	0.20 U	0.43 I	2.8 I	3.2	0.59 I	0.30 U	0.22 U	--	--	--	--

TABLE 5A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample		Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOAs	MTBE	Dibromo-ethane (EDB)	1,2-Dichloro-ethane (DCA)	Total Arsenic	Total Cad-mium	Total Chro-mium	Total Lead
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-8	5/19/1992	**3**	14	BDL	**38**	55	BDL	--	--	--	--	--	**16**
	7/8/1992	BDL	BDL	BDL	BDL	NCD	BDL	--	BDL	--	--	--	--
	10/7/1992	--	--	--	--	--	--	--	--	--	--	--	--
	10/9/1992	--	--	--	--	--	--	BDL	--	--	--	--	**16**
	12/22/1992	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	6/9/1994	BDL	BDL	BDL	1.1	1.1	BDL	--	--	--	--	--	--
	9/22/2003	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	2/24/2012	0.390 I	0.490 U	0.0800 U	0.500 I	0.89	3.43 I	0.00686 U	0.270 U	--	--	--	0.0900 I
	4/9/2013	**4.4**	0.80 I	0.29 U	2.2 I	7.4	0.72 I	0.30 U	0.22 U	--	--	--	--
	4/16/2014	**4.4**	1.2	0.31 I	4.7	10.6	2.6	0.24 U	0.24 U	--	--	--	--
MW-9	3/25/1993	**61**	14	**191**	**308**	574	**38**	--	--	--	--	--	--
	6/9/1994	BDL	1.0	BD:	**365**	366	1.5	--	--	--	--	--	--
	11/11/1996	**18**	7	8	**22**	55	**34**	--	--	--	--	--	--
	5/16/2003	**19**	12	1 U	**4.8**	36	**250**	--	--	--	--	--	--
	8/18/2003	**8.2**	9.6	BDL	**4.7**	23	**79**	--	--	--	--	--	--
	2/23/2012	**98.9**	**96.0**	4.09 I	**43.5**	242	15.8	0.00686 U	0.270 U	--	--	--	0.320 I
	4/9/2013	**5.4**	0.43 I	0.29 U	5.2	11.0	2.9	0.30 U	0.22 U	--	--	--	--
	4/16/2014	0.43 I	0.20 U	0.28 U	3.7	4.1	6.8	0.24 U	0.24 U	--	--	--	--
MW-10	8/18/2003	BDL	BDL	BDL	BDL	NCD	7.1	--	--	--	--	--	--
	4/9/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--
MW-10R	4/22/2014	0.24 U	0.20 U	0.28 U	0.68 U	NCD	4.9	0.24 U	0.24 U	--	--	--	--
MW-11	4/8/2013	**2.3**	0.97 I	0.29 U	2.9 I	6.2	4.1	0.30 U	0.22 U	--	--	--	--
	4/16/2014	**21.2**	2.7	0.56 I	**36.8**	61.3	15.6	0.24 U	0.24 U	--	--	--	--
MW-12	4/8/2013	**3.9**	1.4	0.29 U	2.8 I	8.1	2.9	0.30 U	0.22 U	--	--	--	--
	4/16/2014	**2.2**	1.8	0.28 U	6.1	10.1	1.2	0.24 U	0.24 U	--	--	--	--
MW-13	4/9/2013	**5.4**	0.34 I	0.50 I	2.5 I	8.7	7.5	0.30 U	0.22 U	--	--	--	--
	4/16/2014	**3.7**	1.3	0.33 I	3.6	8.9	0.44 I	0.24 U	0.24 U	--	--	--	--
MW-14	4/9/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--
	4/17/2014	0.24 U	0.20 U	0.28 U	0.68 U	NCD	0.20 U	0.24 U	0.24 U	--	--	--	--

TABLE 5A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total VOAs (µg/L)	MTBE (µg/L)	Dibromo-ethane (EDB) (µg/L)	1,2-Dichloro-ethane (DCA) (µg/L)	Total Arsenic (µg/L)	Total Cad-mium (µg/L)	Total Chro-mium (µg/L)	Total Lead (µg/L)
DW-1	4/6/1992	**520**	141	**434**	**887**	1982	**524**	--	BDL	--	--	--	**17**
(20' - 25' bls)	4/30/1992	**1489**	140	**770**	**1516**	3915	**17**	--	--	--	--	--	--
	12/22/1992	**241**	39	**374**	**647**	1301	6	--	--	--	--	--	--
	9/9/1993	**1404**	**4760**	**1771**	**6875**	14810	**20**	--	--	--	--	--	--
	6/9/1994	**302**	**1418**	**604**	**3806**	6130	1	--	--	--	--	--	--
	2/24/2012	0.610 I	0.490 U	1.64 I	2.65 I	4.90	6.14	0.00686 U	0.270 U	--	--	--	1.04 I
	4/10/2013	0.35 I	0.21 I	15.4	14.5	30.5	2.2	0.30 U	0.22 U	--	--	--	--
	4/16/2014	0.77 I	0.35 I	14.0	19.3	34.5	2.2	0.24 U	0.24 U	--	--	--	--
DW-2	6/24/1992	**54**	BDL	BDL	**51**	105	BDL	--	--	--	--	--	--
(35' - 40' bls)	7/8/1992	BDL	BDL	BDL	BDL	NCD	**214**	--	--	--	--	--	--
	10/7/1992	--	--	--	--	--	--	BDL	--	--	--	--	1
	12/22/1992	**7**	1	6	**235**	249	BDL	--	BDL	--	--	--	--
	1/21/1993	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	6/9/1994	**5**	2	2	4	13	1	--	--	--	--	--	--
	11/11/1996	**113**	BDL	BDL	**332**	445	**212**	--	--	--	--	--	--
	2/24/2012	**1.49 I**	5.7	**47.2**	**495**	549	7.32	0.00686 U	0.270 U	--	--	--	0.320 I
	4/10/2013	**2.3 I**	30.3	**259**	**2000**	2289	**20.7**	0.30 U	2.2 U	--	--	--	--
	4/16/2014	1.4 I	10.9	**157**	**1066**	1235	**20.7**	1.2 U	1.2 U	--	--	--	--
DW-3	3/25/1993	**32**	2	5	**40**	79	BDL	--	--	--	--	--	--
(20' - 25' bls)	9/9/1993	**179**	1	29	**186**	395	BDL	--	--	--	--	--	--
	6/9/1994	**72**	3	14	**147**	236	BDL	--	--	--	--	--	--
	2/24/2012	0.260 U	0.490 U	0.0800 U	0.310 U	NCD	0.430 U	0.00686 U	0.270 U	--	--	--	0.160 I
	4/10/2013	0.21 U	0.20 U	0.29 U	1.7 I	1.7	0.67 I	0.30 U	0.22 U	--	--	--	--
DW-3A	3/30/2004	**63**	13	BDL	17	92	**2420**	--	--	--	--	--	--
(16' - 21' bls)	5/12/2004	BDL	**1180**	**1480**	**278**	2938	**8690**	--	--	--	--	--	--
	2/23/2012	0.970 I	0.490 U	0.0800 U	0.310 U	0.97	6.85	0.00686 U	0.270 U	--	--	--	1.94 I
	4/8/2013	0.25 Feet of Free Product											
	4/30/2013	No Free Product Detected											
	9/20/2013	Abandoned											

TABLE 5A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample Location	Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total VOAs (µg/L)	MTBE (µg/L)	Dibromo-ethane (EDB) (µg/L)	1,2-Dichloro-ethane (DCA) (µg/L)	Total Arsenic (µg/L)	Total Cad-mium (µg/L)	Total Chro-mium (µg/L)	Total Lead (µg/L)
DW-4	10/15/1993	**1230**	**85**	**504**	**419**	2238	**74**	--	--	--	--	--	--
(20' - 25' bls)	6/9/1994	**839**	19	**644**	**330**	1832	6	--	--	--	--	--	--
	9/22/2003	BDL	BDL	6.2	BDL	6.2	BDL	--	--	--	--	--	--
	2/24/2012	0.260 U	0.490 U	0.0800 U	0.310 U	NCD	1.18 I	0.00686 U	0.270 U	--	--	--	0.630 I
	4/9/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--
DW-5	10/15/1993	1	BDL	BDL	2	3	17	--	--	--	--	--	--
(20' - 25' bls)	6/9/1994	BDL	BDL	5	6	11	BDL	--	--	--	--	--	--
	11/11/1996	**5**	2	1	**26**	34	BDL	--	--	--	--	--	--
	2/24/2012	0.260 U	0.490 U	0.0800 U	0.310 U	NCD	0.430 U	0.00686 U	0.270 U	--	--	--	**19.1**
	4/10/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--
DW-6	11/29/1993	**287**	1	**546**	**655**	1489	3	--	--	--	--	--	--
(20' - 25' bls)	6/23/1994	**200**	BDL	**114**	**319**	633	1	--	--	--	--	--	--
	2/23/2012	0.260 U	0.490 U	0.0800 U	0.310 U	NCD	0.430 U	0.00686 U	0.270 U	--	--	--	2.05 I
	4/9/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--
DW-7	11/29/1993	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
(20' - 25' bls)	6/23/1994	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	2/24/2012	**3.81 I**	26.8	**138**	**1400**	1569	**52.3**	0.00686 U	0.270 U	--	--	--	0.0434 U
	4/10/2013	**3.3**	9.8	**63.9**	**448**	525	4.2	0.30 U	0.22 U	--	--	--	--
	4/17/2014	1.3 I	1.1 I	20.7	**99.6**	123	3.8	0.48 U	0.48 U	--	--	--	--
DW-8	11/29/1993	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
(20' - 25' bls)	6/9/1994	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	2/23/2012	Abandoned											
DW-9	1/6/1994	**9**	BDL	BDL	9	18	9	--	--	--	--	--	--
(20' - 25' bls)	6/23/1994	**19**	5	127	**80**	231	11	--	--	--	--	--	--
	2/23/2012	0.260 U	0.490 U	0.0800 U	0.310 U	NCD	0.430 U	0.00686 U	0.270 U	--	--	--	1.26 I
	4/9/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.46 I	0.30 U	0.22 U	--	--	--	--
	4/17/2014	**1.7**	0.20 U	0.28 U	0.68 U	1.7	1.4	0.24 U	0.24 U	--	--	--	--
DW-10	7/20/1994	**29**	3	**123**	14	169	5	--	--	--	--	--	--
(20' - 25' bls)	11/11/1996	BDL	BDL	BDL	BDL	NCD	BDL	--	--	--	--	--	--
	2/23/2012	0.260 U	0.490 U	0.0800 U	0.310 U	NCD	0.430 U	0.00686 U	0.270 U	--	--	--	2.06 I
	4/9/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--

TABLE 5A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample		Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total VOAs	MTBE	Dibromo-ethane (EDB)	1,2-Dichloro-ethane (DCA)	Total Arsenic	Total Cad-mium	Total Chro-mium	Total Lead
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
DW-11	12/24/1994	**78**	**132**	**270**	**139**	619	**41**	--	--	--	--	--	--
(20' - 25' bls)	11/11/1996	**192**	**1140**	**3160**	**15500**	19992	**268**	--	--	--	--	--	--
	2/23/2012	Abandoned											
DW-11R	4/8/2013	**5.4**	0.94 I	1.1	3.4	10.8	2.5	0.30 U	0.22 U	--	--	--	--
(20' - 25' bls)	4/16/2014	**2.3**	0.34 I	0.28 U	0.90 I	3.5	2.6	0.24 U	0.24 U	--	--	--	--
DW-12	1/30/1995	**424**	21	**163**	**398**	1006	**151**	--	--	--	--	--	--
(35' - 40' bls)	2/18/1995	**862**	23	**331**	**958**	2174	**237**	--	--	--	--	--	--
	11/11/1996	**298**	BDL	**106**	**89**	493	**166**	--	--	--	--	--	--
	2/23/2012	Abandoned											
DW-12R	4/9/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--
(35' - 40' bls)	4/16/2014	0.24 U	2.5	0.93 I	3.4	6.9	0.20 U	0.24 U	0.24 U	--	--	--	--
DW-13	3/17/1995	**122**	2	2	**28**	154	--	--	--	--	--	--	--
(45' - 50' bls)	11/11/1996	**181**	2	**136**	**118**	437	21	--	--	--	--	--	--
	2/23/2012	Abandoned											
DW-14	2/3/1997	1.2	1.0 U	1.0 U	3.0 U	1.0	1.0 U	--	--	--	--	--	--
(64' - 69' bls)	2/23/2012	Abandoned											
DW-15	4/8/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	4.2	0.30 U	0.22 U	--	--	--	--
(50' - 55' bls)	4/16/2014	0.24 U	0.23 I	0.28 U	0.68 U	0.23	3.4	0.24 U	0.24 U	--	--	--	--
DW-16	4/8/2013	0.21 U	0.20 U	6.2	14.5	20.7	1.1	0.30 U	0.22 U	--	--	--	--
(20' - 25' bls)	4/22/2014	0.24 U	0.20 U	0.28 U	0.68 U	NCD	0.92 I	0.24 U	0.24 U	--	--	--	--
DW-17	4/10/2013	0.71 I	0.26 I	24.8	**174**	200	19.7	0.30 U	0.22 U	--	--	--	--
(35' - 40' bls)	4/22/2014	0.45 I	0.20 U	7.9	**54.1**	62.5	15.9	0.24 U	0.24 U	--	--	--	--
DW-18 (20' - 25' bls)	10/1/2013	**6.4**	0.34 I	0.29 U	2.3 I	9.1	13.1	0.30 U	0.22 U	--	--	--	--
DW-19 (20' - 25' bls)	10/1/2013	0.21 U	0.29 U	0.20 U	0.50 U	NCD	7.2	0.30 U	0.22 U	--	--	--	--
DW-20 (35' - 40' bls)	10/1/2013	**80.4**	0.32 I	0.38 I	2.7	83.8	10.4	0.30 U	0.22 U	--	--	--	--
DW-21 (35' - 40' bls)	9/30/2013	0.21 U	0.29 U	0.20 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--

TABLE 5A: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample Location	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	Total VOAs (µg/L)	MTBE (µg/L)	Dibromo-ethane (EDB) (µg/L)	1,2-Dichloro-ethane (DCA) (µg/L)	Total Arsenic (µg/L)	Total Cad-mium (µg/L)	Total Chro-mium (µg/L)	Total Lead (µg/L)
DW-22 (20' - 25' bls)	9/30/2013	0.57 I	0.28 I	0.29 U	0.50 U	0.85	0.21 U	0.30 U	0.22 U	--	--	--	--
DW-23 (50' - 55' bls)	10/1/2013	0.21 U	0.20 U	0.29 U	0.33 I	0.33	14.5	0.30 U	0.22 U	--	--	--	--
DW-24 (20' - 25' bls)	10/1/2013	1.1	0.40 I	2.2	17.5	21.2	17.0	0.30 U	0.22 U	--	--	--	--
DW-25 (35' - 40' bls)	10/1/2013	**2.5**	5.8	**68.7**	**424 D[5]**	501	**39.6**	0.30 U	0.22 U	--	--	--	--
DW-26 (35' - 40' bls)	9/30/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--
DW-27 (35' - 40' bls)	9/30/2013	0.21 U	0.20 U	0.29 U	0.50 U	NCD	0.21 U	0.30 U	0.22 U	--	--	--	--
DW-28 (35' - 40' bls)	4/22/2014	0.24 U	0.20 U	0.28 U	0.68 U	NCD	1.4	0.24 U	0.24 U	--	--	--	--
DW-29 (35' - 40' bls)	4/16/2014	0.24 U	0.20 U	0.28 U	0.68 U	NCD	0.34 I	0.24 U	0.24 U	--	--	--	--
DW-30 (35' - 40' bls)	4/17/2014	0.24 U	0.20 U	0.28 U	0.68 U	NCD	0.36 I	0.24 U	0.24 U	--	--	--	--
DW-31 (35' - 40' bls)	4/17/2014	0.24 U	0.20 U	0.28 U	0.68 U	NCD	0.20 U	0.24 U	0.24 U	--	--	--	--
DW-32 (35' - 40' bls)	4/17/2014	0.24 U	0.20 U	0.28 U	0.68 U	NCD	0.20 U	0.24 U	0.24 U	--	--	--	--
DW-33 (20' - 25' bls)	4/22/2014	0.24 U	0.20 U	0.28 U	1.23 I	1.2	0.20 U	0.24 U	0.24 U	--	--	--	--
GCTLs		1**	40**	30**	20**	NA	20	0.02**	3**	10**	5**	100**	15**
NADCs		100	400	300	200	NA	200	2	300	100	50	1,000	150

-- = Not reported or Sample not analyzed for constituent
NCD = no compounds detected
* = Surface water from southern swale
** = As provided in Chapter 62-550, F.A.C.
Concentrations in bold are above FDEP GCTLs
GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.
NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

Analytical Results reported in µg/L
MTBE = Methyl Tert-Butyl Ether
VOAs = Volatile Organic Aromatics

Qualifiers: U or BDL = Result below MDL
I = Result between MDL and PQL
D = Sample diluted by a factor of x
MDL = Method Detection Limit
PQL = Practical Quantitation Limit

TABLE 5B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs
(Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample		TRPHs	Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Total Naph-thalenes	Acen-aph-thene	Acen-aph-thylene	Anthra-cene	Benzo (a) anthra-cene	Benzo (a) pyrene	Benzo (b) fluoran-thene	Benzo (g,h,i) pery-lene	Benzo (k) fluoran-thene	Chry-sene	Dibenz (a,h) anthra-cene	Fluoran-thene	Fluor-ene	Indeno (1,2,3-cd) pyrene	Phenan-threne	Pyrene
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
CW-1	9/19/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CW-2	9/19/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CW-3	9/19/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CW-5	9/19/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CW-6	9/19/1988	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	2/28/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/8/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/7/1992	BDL	--	--	--	NCD	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/18/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	0.166	0.249	0.141	0.56	0.0403 I	0.0200 U	0.0294 I	0.0359 I	0.0197 I	**0.143**	0.0175 I	0.0176 I	0.035 I	0.0046 U	0.0865	0.041 I	0.0127 I	0.0604	0.0769
	4/8/2013	--	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
	4/16/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.046 I	0.038 U	0.038 I	0.038 U	0.038 U	0.041 I	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
MW-2	2/28/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/7/1992	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/9/1992	--	--	--	--	47	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/10/1998	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/18/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	1.03 U	16.9	18.8	35.7	0.200 U	0.200 U	0.200 U	0.0471 U	0.0415 U	0.0453 U	0.0461 U	0.0475 U	0.0467 U	0.0460 U	0.200 U	0.200 U	0.0463 U	0.200 U	0.200 U
	4/9/2013	--	0.40 I	12.7	15.7	28.8	0.41 I	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.50 I	0.039 U	0.33 I	0.24 U
	4/16/2014	--	0.87 I	14.6	16.3	31.8	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.55 I	0.038 U	0.28 I	0.24 U

TABLE 5B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs
(Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample		TRPHs	Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Total Naph-thalenes	Acen-aph-thene	Acen-aph-thylene	Anthra-cene	Benzo (a) anthra-cene	Benzo (a) pyrene	Benzo (b) fluoran-thene	Benzo (g,h,i) pery-lene	Benzo (k) fluoran-thene	Chry-sene	Dibenz (a,h) anthra-cene	Fluoran-thene	Fluor-ene	Indeno (1,2,3-cd) pyrene	Phenan-threne	Pyrene
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-3	2/28/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/7/1992	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/9/1992	--	--	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/10/1998	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/19/2002	0.01 Ft of Free Product																			
	9/28/2002	--	BDL	5.0	3.2	8.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/24/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/18/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	0.863	5.75	7.22	13.8	0.242	0.0200 U	0.243	**0.170**	0.110	**0.287**	0.164	0.210	0.231	**0.137**	0.647	0.219	**0.158**	0.420	0.794
	4/9/2013	--	0.39 U	3.4	3.8	7.2	0.44 I	0.39 U	0.24 U	0.043 I	0.039 U	0.039 U	0.039 U	0.039 U	0.065 I	0.039 U	0.42 I	0.39 U	0.039 U	0.24 I	0.56 I
	4/17/2014	--	0.38 U	2.4	1.9	4.3	0.43 I	0.38 U	0.24 U	0.051 I	0.038 U	0.038 U	0.038 U	0.038 U	0.067 I	0.038 U	0.42 I	0.40 I	0.038 U	0.26 I	0.44 I
MW-4	2/28/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/7/1992	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/9/1992	--	--	--	--	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/26/2002	BDL	BDL	0.4	0.5	0.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	2/24/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/18/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	1.67	1.31	1.33	4.3	0.212	0.0200 U	0.0860	0.0269 I	0.0415 U	0.00453 U	0.00461 U	0.00475 U	0.0241 I	0.00460 U	0.136	0.0825	0.00463 U	0.101	0.153
	4/9/2013	--	0.38 U	0.84 I	0.73 I	1.6	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
	4/17/2014	--	0.38 U	0.65 I	0.52 I	1.2	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
MW-5	2/28/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/8/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/7/1992	BDL	--	--	--	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/22/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2012	--	0.104 U	0.115 U	0.0606 U	NCD	0.0202 U	0.0202 U	0.0202 U	0.00476 U	0.00419 U	0.00458 U	0.00466 U	0.00480 U	0.00472 U	0.00465 U	0.0202 U	0.0202 U	0.00468 U	0.0202 U	0.0202 U
	4/9/2013	--	0.74 I	0.39 U	0.39 U	0.74	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
	4/16/2014	--	1.1	0.38 U	0.38 U	1.1	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U

TABLE 5B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs
(Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil**

See notes at end of table.

Sample		TRPHs	Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Total Naph-thalenes	Acen-aph-thene	Acen-aph-thylene	Anthra-cene	Benzo (a) anthra-cene	Benzo (a) pyrene	Benzo (b) fluoran-thene	Benzo (g,h,i) pery-lene	Benzo (k) fluoran-thene	Chry-sene	Dibenz (a,h) anthra-cene	Fluoran-thene	Fluor-ene	Indeno (1,2,3-cd) pyrene	Phenan-threne	Pyrene
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-6	5/19/1992	BDL	--	--	--	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/8/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/7/1992	--	--	--	--	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/9/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/28/2002	--	6.5	6.9	9.5	22.9	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/17/2002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/18/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	**20.3**	5.87	4.54 I	30.7	0.200 U	0.200 U	0.200 U	0.0471 U	0.0415 U	0.0453 U	0.0461 U	0.0475 U	0.0467 U	0.0460 U	0.200 U	0.200 U	0.0463 U	0.200 U	0.200 U
	4/9/2013	--	3.6	6.2	6.6	16.4	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
	4/17/2014	--	0.54 I	4.5	4.1	9.1	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
MW-7	5/19/1992	BDL	--	--	--	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/28/2002	--	BDL	BDL	BDL	NCD	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
	10/17/2002	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/22/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2012	--	0.103 U	0.114 U	0.0600 U	NCD	0.0200 U	0.0200 U	0.0200 U	0.00471 U	0.00415 U	0.00453 U	0.00461 U	0.00475 U	0.00467 U	0.00460 U	0.0200 U	0.0200 U	0.00463 U	0.0369 I	0.0200 U
	4/10/2013	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
MW-8	5/19/1992	BDL	--	--	--	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/8/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/7/1992	--	--	--	--	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/9/1992	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/22/2003	400 U	0.10 U	0.10 U	0.10 U	NCD	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
	2/24/2012	--	0.103 U	0.114 U	0.0600 U	NCD	0.0200 U	0.0200 U	0.0200 U	0.00471 U	0.00415 U	0.00453 U	0.00461 U	0.00475 U	0.00467 U	0.00460 U	0.0200 U	0.0200 U	0.00463 U	0.0200 U	0.0200 U
	4/9/2013	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
	4/16/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U

TABLE 5B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs
(Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample		TRPHs	Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Total Naph-thalenes	Acen-aph-thene	Acen-aph-thylene	Anthra-cene	Benzo (a) anthra-cene	Benzo (a) pyrene	Benzo (b) fluoran-thene	Benzo (g,h,i) pery-lene	Benzo (k) fluoran-thene	Chry-sene	Dibenz (a,h) anthra-cene	Fluoran-thene	Fluor-ene	Indeno (1,2,3-cd) pyrene	Phenan-threne	Pyrene
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-9	3/25/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/16/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/18/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	0.396 I	6.15	7.42	14.0	0.250	0.0317 I	0.0804	0.0217 I	0.00415 U	0.00453 U	0.00461 U	0.00475 U	0.00467 U	0.00460 U	0.0301 I	0.197	0.00463 U	0.0997	0.0340 I
	4/9/2013	--	0.39 U	2.8	2.9	5.7	0.39 U	0.39 U	0.25 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.25 U	0.39 U	0.039 U	0.25 U	0.25 U
	4/16/2014	--	0.51 I	7.5	8.1	16.1	0.43 I	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.45 I	0.038 U	0.24 U	0.24 U
MW-10	8/18/2003	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/9/2013	--	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
MW-10R	4/17/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
MW-11	4/8/2013	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
	4/16/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
MW-12	4/8/2013	--	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.25 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.25 U	0.39 U	0.039 U	0.25 U	0.25 U
	4/16/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
MW-13	4/9/2013	--	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.25 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.25 U	0.39 U	0.039 U	0.25 U	0.25 U
	4/16/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
MW-14	4/9/2013	--	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.25 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.25 U	0.39 U	0.039 U	0.25 U	0.25 U
	4/17/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-1	4/6/1992	1500	--	--	--	9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	4/30/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/9/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/9/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2012	--	**14.7**	6.60	8.41	29.7	0.200 U	0.200 U	0.200 U	0.0471 U	0.0415 U	0.0453 U	0.0461 U	0.0475 U	0.0467 U	0.0460 U	0.200 U	0.200 U	0.0463 U	0.200 U	0.200 U
	4/10/2013	--	7.6	4.9	7.0	19.5	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
	4/16/2014	--	8.7	4.8	6.8	20.3	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U

TABLE 5B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs
(Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample		TRPHs	Naph-thalene	1-Methyl-naph-thalene	2-Methyl-naph-thalene	Total Naph-thalenes	Acen-aph-thene	Acen-aph-thylene	Anthra-cene	Benzo (a) anthra-cene	Benzo (a) pyrene	Benzo (b) fluoran-thene	Benzo (g,h,i) pery-lene	Benzo (k) fluoran-thene	Chry-sene	Dibenz (a,h) anthra-cene	Fluoran-thene	Fluor-ene	Indeno (1,2,3-cd) pyrene	Phenan-threne	Pyrene
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
DW-2	6/24/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(35' - 40' bls)	7/8/1992	--	--	--	--	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/7/1992	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/22/1992	--	--	--	--	BDL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	1/21/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/9/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2012	--	**18.8**	1.15 U	0.606 U	18.8	0.202 U	0.202 U	0.202 U	0.0476 U	0.0419 U	0.0458 U	0.0466 U	0.0480 U	0.0472 U	0.0465 U	0.202 U	0.202 U	0.0468 U	0.202 U	0.202 U
	4/10/2013	--	**69**	2.9	3.3	75	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
	4/16/2014	--	**57.5**	2.1	2.3	62	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-3	3/25/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	9/9/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/9/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2012	--	0.104 U	0.115 U	0.0603 U	NCD	0.0201 U	0.0201 U	0.0201 U	0.00473 U	0.00417 U	0.00455 U	0.00463 U	0.00477 U	0.00469 U	0.00462 U	0.0201 U	0.0201 U	0.00465 U	0.0256 I	0.0201 U
	4/10/2013	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-3A	3/30/2004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(16' - 21' bls)	5/12/2004	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	0.139 I	0.676	0.608	1.3	0.289	0.0200 U	0.0390 I	0.00471 U	0.00415 U	0.00453 U	0.00461 U	0.00475 U	0.00467 U	0.00460 U	0.0200 U	0.380	0.00463 U	0.186	0.0200 U
	4/8/2013	0.25 Feet of Free Product																			
	4/30/2013	No Free Product Detected																			
	9/20/2013	Abandoned																			
DW-4	10/15/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	6/9/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/22/2003	1500	2.4	0.10 U	12	14.4	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
	2/24/2012	--	2.80	2.15	0.0854 I	5.0	0.116	0.0201 U	0.0201 U	0.00473 U	0.00417 U	0.00455 U	0.00463 U	0.00477 U	0.00469 U	0.00462 U	0.0201 U	0.0201 U	0.00465 U	0.0548	0.0201 U
	4/9/2013	--	1.0	1.6	0.38 U	2.6	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-5	10/15/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	6/9/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2012	--	0.104 U	0.115 U	0.0603 U	NCD	0.0201 U	0.0201 U	0.0201 U	0.0193 I	0.00417 U	0.00455 U	0.00463 U	0.00477 U	0.00469 U	0.00462 U	0.0403 I	0.0201 U	0.00465 U	0.0432 I	0.0363 I
	4/10/2013	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-6	11/29/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	0.482 I	0.730	0.0844 I	1.3	0.0606	0.0200 U	0.0200 U	0.00471 U	0.00415 U	0.00453 U	0.00461 U	0.00475 U	0.00467 U	0.00460 U	0.0200 U	0.0200 U	0.00463 U	0.0407 I	0.0200 U
	4/9/2013	--	1.7	5.9	2.4	10.0	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U

TABLE 5B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs
(Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample Location	Date	TRPHs (µg/L)	Naph-thalene (µg/L)	1-Methyl-naph-thalene (µg/L)	2-Methyl-naph-thalene (µg/L)	Total Naph-thalenes (µg/L)	Acen-aph-thene (µg/L)	Acen-aph-thylene (µg/L)	Anthra-cene (µg/L)	Benzo (a) anthra-cene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoran-thene (µg/L)	Benzo (g,h,i) pery-lene (µg/L)	Benzo (k) fluoran-thene (µg/L)	Chry-sene (µg/L)	Dibenz (a,h) anthra-cene (µg/L)	Fluoran-thene (µg/L)	Fluor-ene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Phenan-threne (µg/L)	Pyrene (µg/L)
DW-7	11/29/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/24/2012	--	**273**	**89.5**	**124**	487	2.02 U	2.02 U	2.02 U	0.476 U	0.419 U	0.458 U	0.466 U	0.480 U	0.472 U	0.465 U	2.02 U	2.02 U	0.468 U	2.02 U	2.02 U
	4/10/2013	--	**87.4**	**34.5**	**54.3**	176	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
	4/17/2014	--	**59.1**	**32.5**	**51.7**	143	0.39 U	0.39 U	0.25 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.25 U	0.39 U	0.039 U	0.25 U	0.25 U
DW-8	11/29/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	6/9/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	Abandoned																			
DW-9	1/6/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	6/23/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	2.45	2.11	2.44	7.0	0.0641	0.0200 U	0.0224 I	**0.0810**	0.181	**0.422**	0.296	0.180	0.174	0.00460 U	0.138	0.0832	**0.217**	0.0672	0.149
	4/9/2013	--	3.4	3.2	3.0	9.6	0.39 U	0.39 U	0.25 U	0.039 U	0.047 I	**0.13 I**	0.042 I	0.042 I	0.060 I	0.039 U	0.25 U	0.39 U	**0.061 I**	0.25 U	0.25 U
	4/17/2014	--	0.72 I	0.92 I	0.92 I	2.6	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-10	7/20/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	--	0.132 I	0.648	0.324 I	1.1	0.0252 I	0.0200 U	0.0200 U	0.00471 U	0.00415 U	0.00453 U	0.00461 U	0.00475 U	0.00467 U	0.00460 U	0.0220 I	0.0200 U	0.00463 U	0.0594	0.0200 U
	4/9/2013	--	0.39 U	0.39 U	0.39 U	NCD	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
DW-11	12/24/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(20' - 25' bls)	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	Abandoned																			
DW-11R	4/8/2013	--	1.1	0.58 I	0.91 I	2.59	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
(20' - 25' bls)	4/16/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-12	1/30/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(35' - 40' bls)	2/18/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	Abandoned																			
DW-12R	4/9/2013	--	5.2	3.2	1.7	10.1	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
(35' - 40' bls)	4/16/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-13	3/17/1995	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(45' - 50' bls)	11/11/1996	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/23/2012	Abandoned																			
DW-14	2/3/1997	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
(64' - 69' bls)	2/23/2012	Abandoned																			
DW-15	4/8/2013	--	0.39 U	1.6	1.4	3.0	0.39 U	0.39 U	0.25 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.25 U	0.39 U	0.039 U	0.25 U	0.25 U
(50' - 55' bls)	4/16/2014	--	0.38 U	1.3	0.57 I	1.9	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U

TABLE 5B: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs
(Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample Location	Date	TRPHs (µg/L)	Naph-thalene (µg/L)	1-Methyl-naph-thalene (µg/L)	2-Methyl-naph-thalene (µg/L)	Total Naph-thalenes (µg/L)	Acen-aph-thene (µg/L)	Acen-aph-thylene (µg/L)	Anthra-cene (µg/L)	Benzo (a) anthra-cene (µg/L)	Benzo (a) pyrene (µg/L)	Benzo (b) fluoran-thene (µg/L)	Benzo (g,h,i) pery-lene (µg/L)	Benzo (k) fluoran-thene (µg/L)	Chry-sene (µg/L)	Dibenz (a,h) anthra-cene (µg/L)	Fluoran-thene (µg/L)	Fluor-ene (µg/L)	Indeno (1,2,3-cd) pyrene (µg/L)	Phenan-threne (µg/L)	Pyrene (µg/L)
DW-16	4/8/2013	--	2.4	0.39 U	0.39 U	2.4	0.39 U	0.39 U	0.24 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.039 U	0.24 U	0.39 U	0.039 U	0.24 U	0.24 U
(20' - 25' bls)	4/17/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-17	4/10/2013	--	**30.4**	4.1	4.7	39.2	0.58 I	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.35 I	0.38 U	0.038 U	1.3	0.24 U
(35' - 40' bls)	4/17/2014	--	11.2	1.4	1.5	14.1	0.54 I	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.47 I	0.46 I	0.038 U	1.7	0.24 I
DW-18 (20' - 25' bls)	10/1/2013	--	0.75 U	0.52 I	0.37 U	0.52	0.75 U	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	0.37 U	0.75 U	0.037 U	0.75 U	0.37 U
DW-19 (20' - 25' bls)	10/1/2013	--	1.5 I	4.4	2.2	8.1	0.75 U	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	0.37 U	0.75 U	0.037 U	0.75 U	0.37 U
DW-20 (35' - 40' bls)	10/1/2013	--	0.78 I	3.6	4.0	8.4	0.75 U	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	0.37 U	1.3 I	0.037 U	0.75 U	0.37 U
DW-21 (35' - 40' bls)	9/30/2013	--	0.75 U	0.37 U	0.37 U	NCD	0.75 U	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	0.37 U	0.75 U	0.037 U	0.75 U	0.37 U
DW-22 (20' - 25' bls)	9/30/2013	--	1.2 I	0.37 U	0.37 U	1.2	0.75 U	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	0.37 U	0.75 U	0.037 U	0.75 U	0.37 U
DW-23 (50' - 55' bls)	10/1/2013	--	0.75 U	1.4 I	1.3 I	2.7	0.75 U	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	0.37 U	0.75 U	0.037 U	0.75 U	0.37 U
DW-24 (20' - 25' bls)	10/1/2013	--	**19.0**	5.5	11.3	35.8	0.83 I	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	0.61 I	0.75 U	0.037 U	2.7	0.38 I
DW-25 (35' - 40' bls)	10/1/2013	--	**65.2**	11.8	23.2	100	0.75 U	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	1.0 I	0.75 U	0.037 U	3.7	0.65 I
DW-26 (35' - 40' bls)	9/30/2013	--	0.75 U	0.37 U	0.37 U	NCD	0.75 U	0.75 U	0.75 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.37 U	0.037 U	0.37 U	0.75 U	0.037 U	0.75 U	0.37 U
DW-27 (35' - 40' bls)	9/30/2013	--	0.75 U	0.37 U	0.37 U	NCD	0.75 U	0.75 U	0.75 U	0.037 U	0.052 I	0.042 I	0.058 I	0.037 U	0.37 U	0.037 U	0.37 U	0.75 U	0.046 I	0.75 U	0.37 U
DW-28 (35' - 40' bls)	4/17/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-29 (35' - 40' bls)	4/16/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-30 (35' - 40' bls)	4/17/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-31 (35' - 40' bls)	4/17/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-32 (35' - 40' bls)	4/17/2014	--	0.38 U	0.38 U	0.38 U	NCD	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
DW-33 (20' - 25' bls)	4/17/2014	--	9.0	0.72 I	0.63 I	10.4	0.38 U	0.38 U	0.24 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.038 U	0.24 U	0.38 U	0.038 U	0.24 U	0.24 U
GCTLs		5,000	14	28	28	--	20	210	2,100	0.05[a]	0.2**	0.05[a]	210	0.5	4.8	0.005[a]	280	280	0.05[a]	210	210
NADCs		50,000	140	280	280	--	200	2,100	21,000	5	20	5	2,100	50	480	0.5	2,800	2,800	5	2,100	2,100

-- = Sample not analyzed for constituent or not reported

* = Surface water from southern swale

** = As provided in Chapter 62-550, F.A.C.

Concentrations in bold are above FDEP GCTLs

GCTLs = Groundwater Cleanup Target Levels specified in Table I of Chapter 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Table V of Chapter 62-777, F.A.C.

NCD = no compounds detected

Analytical Results reported in µg/L

PAH = Polynuclear Aromatic Hydrocarbons

TRPH = Total Recoverable Petroleum Hydrocarbons

Qualifiers U or BDL = Result below MDL

I = Result between MDL and PQL

D = Sample diluted by a factor of x

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

a = See the October 12, 2004 "Guidance for the Selection of Analytical Methods and for the Evaluation of Practical Quantitation Limits" to determine how to evaluate data when the CTL is lower than the PQL.

TABLE 5C: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - Other Contaminants not listed in Chapter 62-770, F.A.C.* (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample		1,2,4-Tri-methyl-benzene	1,3,5-Tri-methyl-benzene	tert-Butyl alcohol	ETBE	TAME	DIPE	Ethanol	Cumene (Isopropyl benzene)	n-Propylbenzene	[other]
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1	2/23/2012	0.150 I	0.250 U	213	2.59 I	2.00 U	1.00 U	250 U	0.250 U	0.330 I	--
	4/8/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.61 I	--
	4/16/2014	0.24 U	0.20 U	--	--	--	--	--	0.21 I	0.51 I	--
MW-2	2/23/2012	0.360 I	0.660 I	416	4.05 I	2.00 U	1.00 U	250 U	2.28 I	6.32	--
	4/9/2013	0.20 U	0.20 U	--	--	--	--	--	**6.0**	20.2	--
	4/16/2014	0.24 U	0.26 I	--	--	--	--	--	**5.0**	14.6	--
MW-3	2/23/2012	1.06 I	0.580 I	835	11.7	2.00 U	1.00 U	250 U	**4.38 I**	10.2	--
	4/9/2013	0.20 U	0.32 I	--	--	--	--	--	**3.2**	7.9	--
	4/17/2014	1.7 I	1.8 I	--	--	--	--	--	**3.7**	8.8	--
MW-4	2/23/2012	1.52 I	0.710 I	1280	12.5	2.00 U	1.00 U	250 U	0.620 I	1.38 I	--
	4/9/2013	6.9	6.4	--	--	--	--	--	0.50 I	0.87 I	--
	4/17/2014	4.0	1.6 I	--	--	--	--	--	0.67 I	1.4	--
MW-5	2/24/2012	1.21 I	0.910 I	1.14 I	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.180 U	--
	4/9/2013	**13.1**	4.7	--	--	--	--	--	0.65 I	0.26 I	--
	4/16/2014	8.1	4.1	--	--	--	--	--	0.78 I	0.24 U	--
MW-6	2/23/2012	0.670 I	0.260 I	295	4.52 I	2.00 U	1.00 U	250 U	**36.6**	82.2	--
	4/9/2013	0.20 U	0.20 U	--	--	--	--	--	**38.4**	116 L	--
	4/17/2014	0.24 U	0.20 U	--	--	--	--	--	**26.6**	81.1	--
MW-7	2/24/2012	0.320 I	0.250 U	1.00 U	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.180 U	--
	4/10/2013	2.3	0.91 I	--	--	--	--	--	0.20 U	0.30 I	--
MW-8	2/24/2012	0.250 I	0.250 U	62.7	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.180 U	--
	4/9/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
	4/16/2014	0.62 I	0.53 I	--	--	--	--	--	0.20 U	0.24 U	--
MW-9	2/23/2012	1.97 I	1.15 I	26.7	2.00 U	2.00 U	1.00 U	250 U	0.460 I	1.03 I	--
	4/9/2013	0.20 U	0.20 U	--	--	--	--	--	0.36 I	0.98 I	--
	4/16/2014	0.24 U	0.20 U	--	--	--	--	--	0.47 I	1.1	--
MW-10	4/9/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
MW-10R	4/22/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
MW-11	4/8/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
	4/16/2014	3.1	0.99 I	--	--	--	--	--	0.20 U	0.24 U	--

TABLE 5C: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - Other Contaminants not listed in Chapter 62-770, F.A.C.* (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil**

See notes at end of table.

Sample Location	Sample Date	1,2,4-Tri-methyl-benzene (µg/L)	1,3,5-Tri-methyl-benzene (µg/L)	tert-Butyl alcohol (µg/L)	ETBE (µg/L)	TAME (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Cumene (Isopropyl benzene) (µg/L)	n-Propylbenzene (µg/L)	[other] (µg/L)
MW-12	4/8/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
	4/16/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
MW-13	4/9/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
	4/16/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
MW-14	4/9/2013	1.0 I	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
	4/17/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
DW-1 (20' - 25' bls)	2/24/2012	**85.5**	9.31	145	2.00 U	2.00 U	1.00 U	250 U	**2.33 I**	6.51	--
	4/10/2013	**275 L**	**53.6**	--	--	--	--	--	**23.2**	60.3	--
	4/16/2014	**352**	**58.8**	--	--	--	--	--	**26.6**	69.6	--
DW-2 (35' - 40' bls)	2/24/2012	**265**	**79.0**	5.00 I	2.00 U	2.00 U	1.00 U	250 U	**9.76**	21.1	--
	4/10/2013	**1000 L**	**312**	--	--	--	--	--	**32.4**	76.2	--
	4/16/2014	**690**	**178**	--	--	--	--	--	**21.3**	49.8	--
DW-3 (20' - 25' bls)	2/24/2012	0.210 I	0.250 U	1.38 I	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.180 U	--
	4/10/2013	0.80 I	0.23 I	--	--	--	--	--	0.20 U	0.23 U	--
DW-3A (16' - 21' bls)	2/23/2012	0.140 U	0.250 U	65.4	2.13 I	2.00 U	1.00 U	250 U	0.250 I	0.410 I	--
	4/8/2013	0.25 Feet of Free Product									
	4/30/2013	No Free Product Detected									
	9/20/2013	Abandoned									
DW-4 (20' - 25' bls)	2/24/2012	0.680 I	0.270 I	2.24 I	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.180 U	--
	4/9/2013	0.51 I	0.20 U	--	--	--	--	--	0.20 U	0.23 I	--
DW-5 (20' - 25' bls)	2/24/2012	0.140 U	0.250 U	1.25 I	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.180 U	--
	4/10/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
DW-6 (20' - 25' bls)	2/23/2012	0.140 U	0.250 U	1.47 I	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.240 I	--
	4/9/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
DW-7 (20' - 25' bls)	2/24/2012	**2010**	**529**	331	2.00 U	11.4	1.00 U	250 U	**57.2**	161	--
	4/10/2013	**633 L**	**204**	--	--	--	--	--	**27.2**	80.2	--
	4/17/2014	**428**	**99.4**	--	--	--	--	--	**7.5**	35.2	--
DW-9 (20' - 25' bls)	2/23/2012	0.320 I	0.250 U	1.78 I	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.180 U	--
	4/9/2013	0.78 I	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
	4/17/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--

TABLE 5C: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - Other Contaminants not listed in Chapter 62-770, F.A.C.* (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil** See notes at end of table.

Sample Location	Date	1,2,4-Tri-methyl-benzene (µg/L)	1,3,5-Tri-methyl-benzene (µg/L)	tert-Butyl alcohol (µg/L)	ETBE (µg/L)	TAME (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Cumene (Isopropyl benzene) (µg/L)	n-Propylbenzene (µg/L)	[other] (µg/L)
DW-10	2/23/2012	0.140 U	0.250 U	1.00 U	2.00 U	2.00 U	1.00 U	250 U	0.250 U	0.180 U	--
(20' - 25' bls)	4/9/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
DW-11R	4/8/2013	3.4	0.64 I	--	--	--	--	--	**1.6**	6.6	--
(20' - 25' bls)	4/16/2014	5.4	0.60 I	--	--	--	--	--	**0.89 I**	2.5	--
DW-12R	4/9/2013	2.6	0.67 I	--	--	--	--	--	0.46 I	0.72 I	--
(35' - 40' bls)	4/16/2014	0.50 I	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
DW-15	4/8/2013	0.20 U	0.20 U	--	--	--	--	--	**1.9**	5.5	--
(20' - 25' bls)	4/16/2014	0.24 U	0.20 U	--	--	--	--	--	**1.8**	3.2	--
DW-16	4/8/2013	**10.6**	4.2	--	--	--	--	--	**1.9**	4.0	--
(20' - 25' bls)	4/22/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
DW-17	4/10/2013	**281**	**94.4**	--	--	--	--	--	**7.3**	21.6	--
(35' - 40' bls)	4/22/2014	**86.1**	**26.8**	--	--	--	--	--	**1.8**	5.3	--
DW-18 (20' - 25' bls)	10/1/2013	0.20 U	0.20 U	--	--	--	--	--	**1.3**	2.8	--
DW-19 (20' - 25' bls)	10/1/2013	0.20 U	0.20 U	--	--	--	--	--	0.49 I	1.8	--
DW-20 (35' - 40' bls)	10/1/2013	0.20 U	0.20 U	--	--	--	--	--	**0.85 I**	2.4	--
DW-21 (35' - 40' bls)	9/30/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
DW-22 (20' - 25' bls)	9/30/2013	0.27 I	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
DW-23 (50' - 55' bls)	10/1/2013	0.20 U	0.57 I	--	--	--	--	--	**6.9**	17.9	--
DW-24 (20' - 25' bls)	10/1/2013	**76.0 D[2]**	**20.1**	--	--	--	--	--	**1.7**	4.0	--
DW-25 (35' - 40' bls)	10/1/2013	**452 D[5]**	**146 D[5]**	--	--	--	--	--	**24.1**	49.6	--
DW-26 (35' - 40' bls)	9/30/2013	0.34 I	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
DW-27 (35' - 40' bls)	9/30/2013	0.20 U	0.20 U	--	--	--	--	--	0.20 U	0.23 U	--
DW-28 (35' - 40' bls)	4/22/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
DW-29 (35' - 40' bls)	4/16/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
DW-30 (35' - 40' bls)	4/17/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--

TABLE 5C: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - Other Contaminants not listed in Chapter 62-770, F.A.C.* (Permanent Wells)

Facility ID#: 06/8627788 **Facility Name: Sunoco - Twin Oil**

See notes at end of table.

Sample Location	Sample Date	1,2,4-Tri-methyl-benzene (µg/L)	1,3,5-Tri-methyl-benzene (µg/L)	tert-Butyl alcohol (µg/L)	ETBE (µg/L)	TAME (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	Cumene (Isopropyl benzene) (µg/L)	n-Propylbenzene (µg/L)	[other] (µg/L)
DW-31 (35' - 40' bls)	4/17/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
DW-32 (35' - 40' bls)	4/17/2014	0.24 U	0.20 U	--	--	--	--	--	0.20 U	0.24 U	--
DW-33 (20' - 25' bls)	4/22/2014	7.9	0.87 I	--	--	--	--	--	0.25 I	0.24 U	--
GCTLs		10	10	1400	1000	500	1000	10000	0.8	NA	
LY/PQ (NADCs)		100	100	14000	10000	5000	10000	100000	8	NA	

-- = Sample not analyzed for constituent

Concentrations in bold are above FDEP GCTLs

µg/L = micrograms per liter

GCTLs = Groundwater Cleanup Target Levels specified in Chapters 62-520 and 62-777, F.A.C.

NADCs = Natural Attenuation Default Source Concentrations specified in Chapters 62-520 and 62-777, F.A.C.

LY/PQ = Groundwater of Low Yield/Poor Quality Criteria

* = These chemicals may be present in petroleum fuels but are not currently included in Table A of Chapter 62-770, F.A.C. (list of Petroleum Products' Contaminants of Concern), and therefore it is not required by rule that samples be analyzed for these chemicals. Summary columns have been provided for the circumstances in which these chemicals and others reported by the laboratory are detected, to comply with subparagraph 62-770.600(8)(a)25., F.A.C.

Qualifiers:

U = Result below MDL

I = Result between MDL and PQL

V = Present in blank

D = Sample diluted by lab

L = Value exceeds calibration range

MDL = Method Detection Limit

PQL = Practical Quantitation Limit

Site No. 45

Hollingsworth Solderless Terminal
700 NW 57 Place

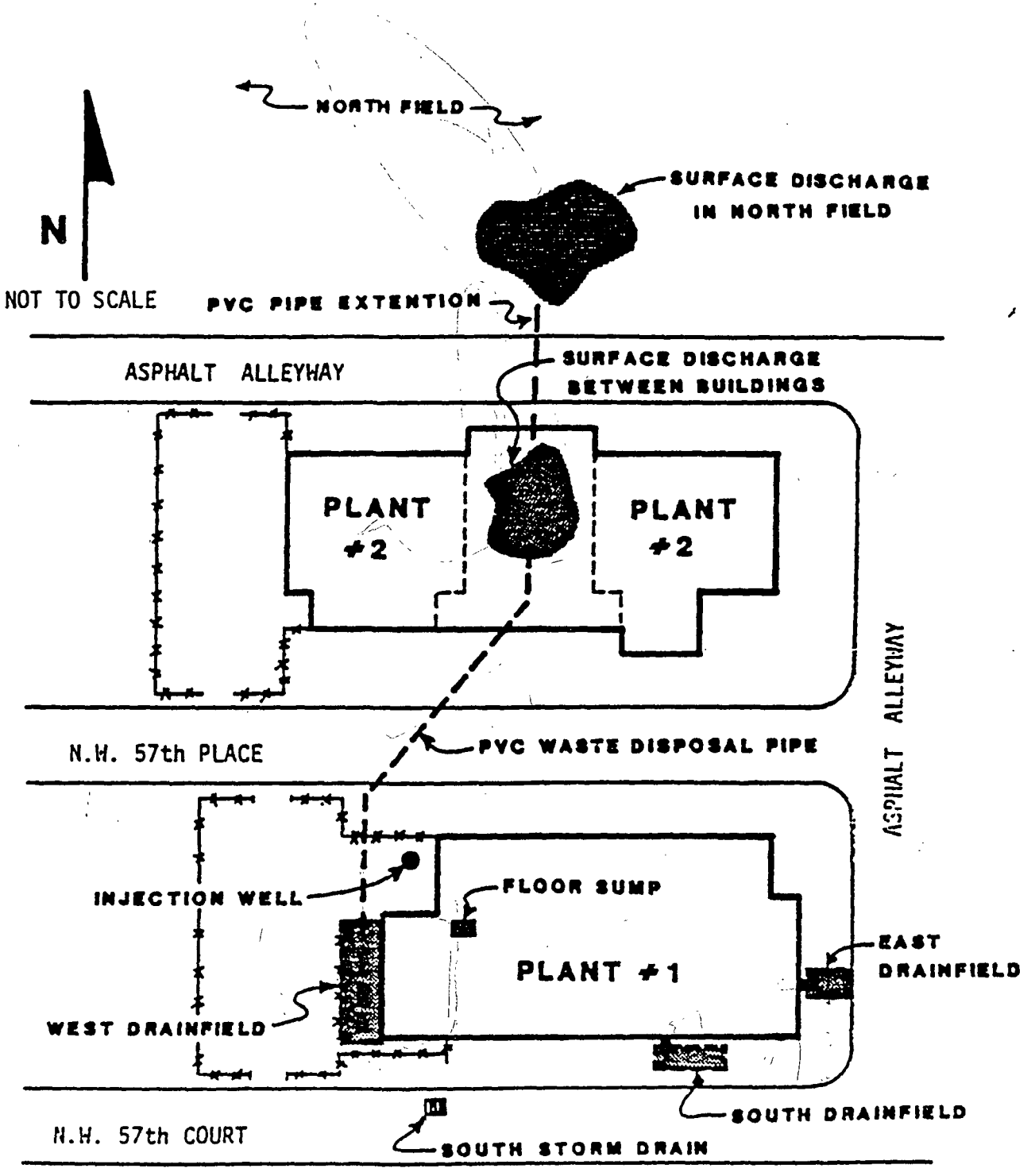
FINAL INTERIM REPORT
HOLLINGSWORTH SOLDERLESS TERMINAL COMPANY
FOCUSED FEASIBILITY STUDY

NOVEMBER 19, 1984

DOCUMENT CONTROL NUMBER
119-WP1-RT-AMTA-1

HWC FILE COPY
Site # or Name: 16
Category: _____
File: _____

CAMP DRESSER & McKEE INC.
Atlanta, Georgia



From: Ecology and Environment, Inc.
December, 1982

Remedial Action Master Plan
Hollingsworth Solderless Terminal Co.
Figure 2-4, Page 2-12

HSTC SITE LAYOUT

FIGURE 2-1

CDM

TABLE 2-1

SOURCES OF CONTAMINATION

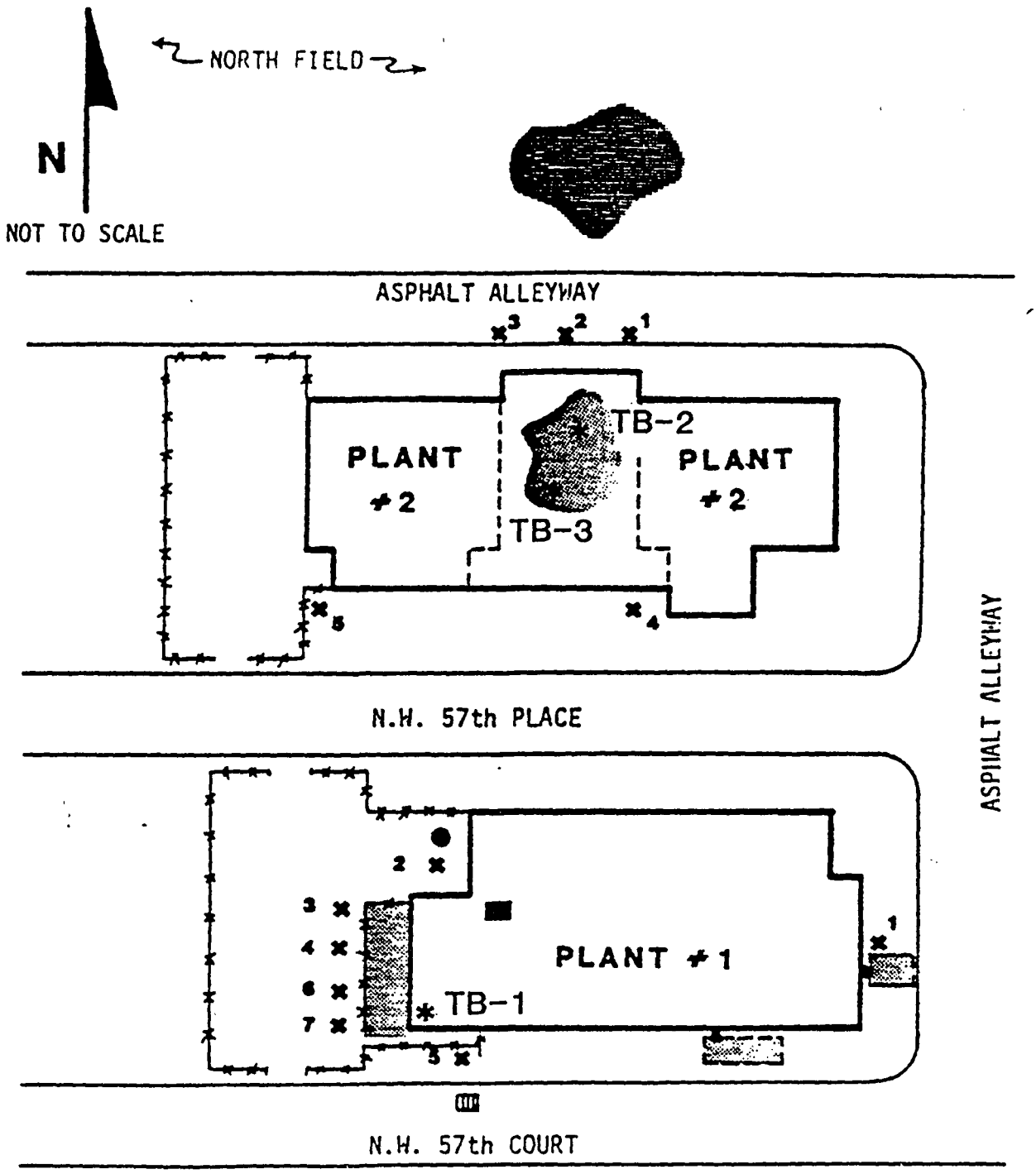
Source	Disposal Use
Injection well	Liquid dye, trichloroethylene
South and east drainfields	Trichloroethylene, oil and grease
West drainfield	Electroplating wastes (nickel, tin, copper, acids, caustics, trichloroethylene)
South storm drain	Electroplating wastes
Onsite surface discharge	Electroplating wastes
Offsite surface discharge	Electroplating wastes

TABLE 2-2

VOLUME OF CONTAMINANTS

	Disposal of Contaminants[a/]	
TCE Disposal Area	Average GPD	Peak GPD
Atmosphere (from vapor degreaser)	7.0	7.0
Injection well (from shop pans)	0.5	10.0
Drainfield-east (from shop pans)	0.5	10.0
Floor drain (from floor clean-up)	1.0	1.0
Drainfield-west or storm drain-south (from vapor degreaser)	2.0	25.0
TCE Totals	11.0	53.0
Drainfield Wastewater Disposal		
Copper - 200 to 800 mg/l	860	1,700
Nickel - 1 to 10 mg/l		
Estimated Wastewater Flows		
1974 - 1979	8 - 10,000 GPD	
1979 - 1980	3 - 5,000 GPD	
1980 - 1982	2 - 4,000 GPD	

a/ Adapted from: Enviropact, Inc., February 1, 1982, letter to the Broward County Environmental Quality Control Board.



✖ SOIL BORING

SOIL BORING LOCATIONS

FIGURE 3-1

From: Ecology and Environment, Inc.
December, 1982

Remedial Action Master Plan
Hollingsworth Solderless Terminal Co.
Figure 2-5, Page 2-24

CDM.

TABLE 3-1

SUMMARY OF SOIL ANALYSES - PLANT NO. 1[a/]

Site-Depth	TCE (ug/l)	Oil and Grease (mg/l)	Nickel (mg/l)	Tin (mg/l)	Copper (mg/l)
1 - 2'	< 10	30	26.0	< 1	13
- 5'	< 10	20	1.1	< 1	30
- 7'	< 10	250	< 1	< 1	< 1
- 9'	< 10	30	4.2	< 1	1.3
2 - 2'	< 10	13,220	5.5	16	74
- 5'	< 10	10	2.2	< 1	6.2
- 7'	< 10	30	5.1	< 1	4.4
- 9'	< 10	30	5.7	< 1	1.1
3 - 2'	< 10	40	21	< 1	136
- 7'	< 10	20	2.8	< 1	169
- 9'	< 10	30	13.6	48	1,100
4 - 2'	< 10	30	3.3	< 1	32
- 5'	< 10	< 1	7.1	< 1	52
- 7'	< 10	< 1	1.6	< 1	49
- 9'	< 10	20	21	< 1	335
5 - 2'	< 10	10	27	< 1	1.0
- 5'	< 10	30	4.0	< 1	49
- 7'	< 10	< 1	5.1	< 1	49
- 9'	< 10	10	4.0	15	2
6 - 2'	--	--	47.1	5,960	9,030
- 5'	--	--	40.6	70.0	7,290
- 7'	--	--	80.0	20.7	1,540
- 9'	--	--	10.2	1,440	1,941
7 - 2'	--	--	10.3	164	1,357
- 5'	--	--	2.4	129	690
- 7'	--	--	1.6	63.5	320
- 9'	--	--	3.3	201	540

a/ From: Ecology and Environment, Inc., December 1982, Remedial Action Master Plan - Hollingsworth Solderless Terminal Company, Table 2-2, page 2-23.

TABLE 3-2

SUMMARY OF SOIL ANALYSES - PLANT NO. 2[a/]

Site-Depth	Copper (mg/l)	Nickel (mg/l)	Tin (mg/l)
1 - 2'	5.90	<1.00	<10.00
- 4'	1.80	<1.00	<10.00
- 6'	1.30	<1.00	<10.00
- 8'	<1.00	<1.00	<10.00
- 10'	3.20	<1.00	<10.00
2 - 2'	16.9	<1.00	19.1
- 4'	1.50	<1.00	27.9
- 6'	1.10	<1.00	39.80
- 8'	2.80	<1.00	24.40
- 10'	1.20	<1.00	32.40
3 - 2'	10.9	<1.00	<10.00
- 4'	1.10	<1.00	120.40
- 6'	<1.00	<1.00	29.30
- 8'	<1.00	<1.00	<10.00
- 10'	<1.00	<1.00	29.70
4 - 2'	1.50	<1.00	39.70
- 4'	1.30	<1.00	23.70
- 6'	<1.00	<1.00	145.40
- 8'	1.80	<1.00	<10.00
- 10'	1.50	<1.00	<10.00
5 - 2'	2.90	<1.00	19.50
- 4'	2.10	<1.00	19.40
- 6'	<1.00	<1.00	23.10
- 8'	1.50	<1.00	<10.00
- 10'	1.50	<1.00	43.30
Grab sample	203,300.00	815.00	6,610.00

a/ From Ecology and Environment, Inc., December 1982, Remedial Action Master Plan - Hollingsworth Solderless Terminal Company, Table 2-9, Page 2-34.

TABLE 3-3

RESULTS OF MONITORING WELL SAMPLES[a/]

GROUP NO. 1

Sample Location	Label	Depth	Trichloro-ethylene (ug/l)	pH	Oil & Grease (mg/l)	Nickel (mg/l)	Tin (mg/l)	Copper (mg/l)	Dates of Sampling
East Cluster	D	25'	1.6	6.0	2	<0.1	<1	<0.1	9/28/81
East Cluster	C	50'	14.6	7.6	1	<0.1	<1	<0.1	9/28/81
East Cluster	2	75'	11.0	7.5	3	<0.1	<1	<0.1	9/28/81
East Cluster	E	100'	7.2	7.5	8	<0.1	<1	<0.1	9/28/81
West Cluster	8	25'	<1-1	7.1-7.5	<1-3	<0.1	<1	<0.1	9/16-9/28/81
West Cluster	7	50'	4.0-36.5	7.2-7.3	<1-3	<0.1	<1	<0.1	9/16-9/28/81
West Cluster	6	75'	3.2-4.7	7.3-7.4	<1-1	<0.1	<1	<0.1	9/16-9/28/81
West Cluster	5	100'	2.1-6.3	7.0-7.4	<1-2	<0.1	<1	<0.1	9/16-9/28/81
South PVC	B	25'	10-328	5.4-6.4	2-6	<0.1	<1	<.03-0.92	7/22-9/28/81
West PVC	A	25'	<1	6.8-7.1	<1-2	<0.1	<1	<0.3-1.08	7/22-9/28/81

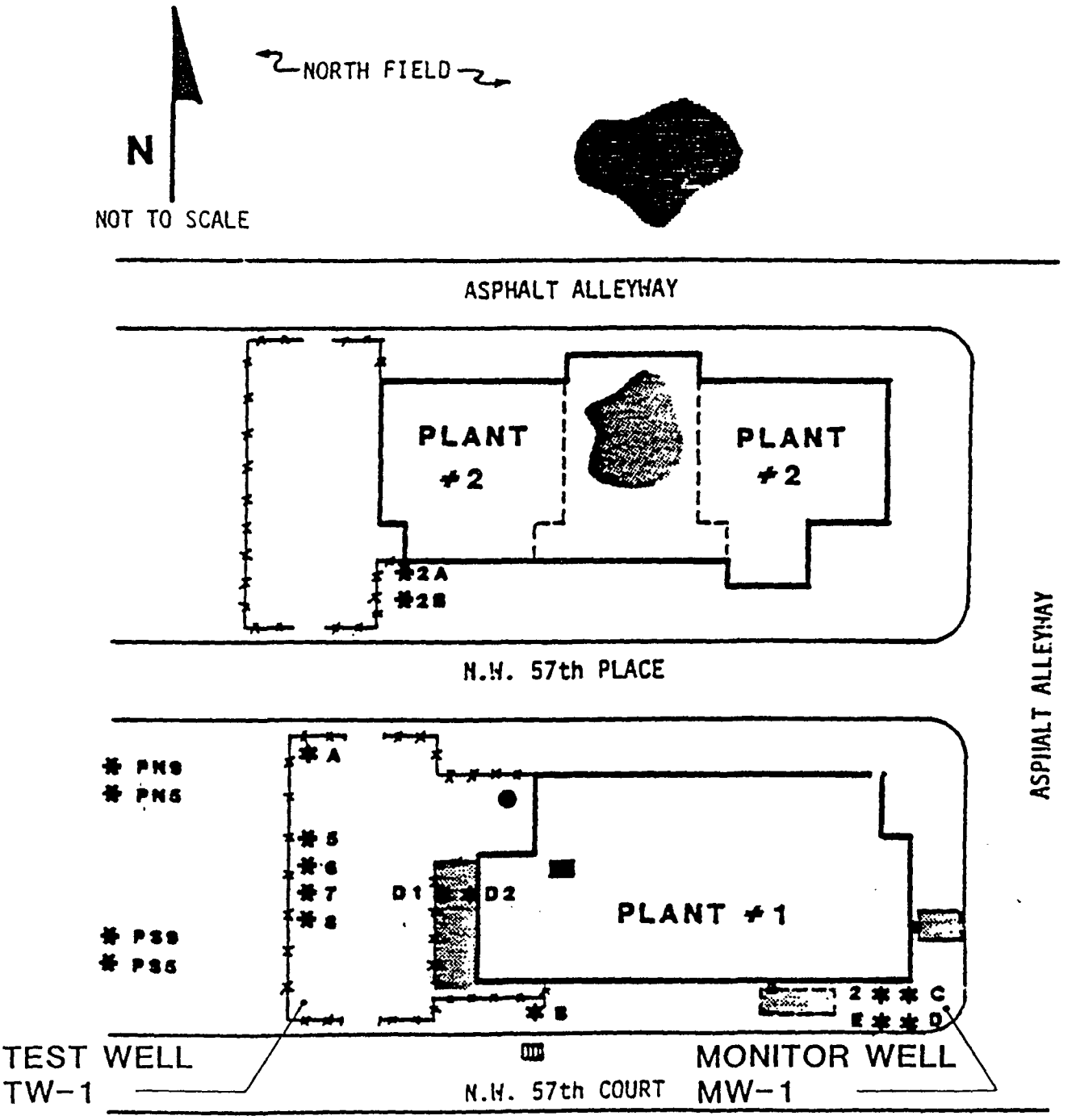
GROUP NO. 2 - All results are reported in ug/l.

Sample Location	Label	Depth	Trichloroethylene	Trichloroethane	Dichloroethene	No. of Samples	Dates of Sampling
East Cluster	D	25'	<1.0 - 5.3	<1.0	68.2 - 182	12	10/30/81 - 1/26/82
	C	50'	165 - 325	<1.0	1120 - 2160	12	10/30/81 - 1/26/82
	2	75'	<1.0 - 15.8	<1.0	64 - 587	12	10/30/81 - 1/26/82
	E	100'	4.5 - 12.3	<1.0	2.8 - 16.6	12	10/30/81 - 1/26/82
West Cluster	8	25'	1.1 - 4.3	<1.0	2.8 - 18.5	12	10/30/81 - 1/26/82
	7	50'	1.7 - 18.0	<1.0	2.9 - 6.6	12	10/30/81 - 1/26/82
	6	75'	254 - 534	<1.0	26.1 - 59.2	12	10/30/81 - 1/26/82
	5	100'	10.5 - 22.5	<1.0	4.7 - 10.1	12	10/30/81 - 1/26/82
South PVC	B	25'	1860 - 4300	<1.0	185 - 896	12	10/30/81 - 1/26/82
West PVC	A	25'	<1.0	<1.0	<1.0	12	10/30/81 - 1/26/82
West Drainfield	D_1	10'	262	<1.0	1630	1	1/26/82
	D_2	20'	95.3	<1.0	188	1	1/26/82
Parking Lot North	PN5	50'	<1.0	<1.0	<1.0	1	1/26/82
	PN9	90'	<1.0	<1.0	<1.0	1	1/26/82
Parking Lot South	PS5	50'	<1.0	<1.0	<1.0	1	1/26/82
	PS9	90'	<1.0	<1.0	<1.0	1	1/26/82

GROUP NO. 3

Sampling Date	Well Depth	Copper (mg/l)	Lead (mg/l)	Zinc (mg/l)	trans-1,2-dichloroethene (ug/l)	1,1,1-trichloroethane (ug/l)	Trichloroethylene (ug/l)
7/6/82	15'	<0.1	<0.1	<1.0	125.1	<1	<1
	25'	<0.1	<0.1	<1.0	13.8	<1	<1
7/9/82	15'	<0.1	<0.1	<1.0	86.2	-	<1
	25'	<0.1	<0.1	<1.0	62.3	-	<1

a/ From: Ecology and Environment, Inc., December 1982, Remedial Action Master Plan - Hollingsworth Solderless Terminal Company, Tables 2-4, 2-5, 2-10, Pages 2-27, 2-28, 2-36.



* MONITOR WELL

MONITOR WELL LOCATIONS

From: Ecology and Environment, Inc.
December, 1982

FIGURE 3-2

Remedial Action Master Plan
Hollingsworth Solderless Terminal Co.
Figure 2-6, Page 2-25

CDM.

TABLE 4-1

ENVIROPACT SOIL BORING RESULTS

Analysis Parameter (mg/l)	Boring TB-1 3'-depth-6'		Boring TB-2 3'-depth-6'		Boring TB-3 3'-depth-6'	
Total Copper	2,840.00	6.90	2.90	3.80	1.50	3.30
E.P. Leachable Copper	12.74	<0.1	<0.1	<0.1	<0.1	<0.1
Total Nickel	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
E.P. Leachable Nickel	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Lead	11.0	<1.0	<1.0	<1.0	2.20	1.20
E.P. Leachable Lead	<0.1	<0.1	<0.1	<0.1	<0.1	0.23
Total Tin	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00
E.P. Leachable Tin	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

6.4 Data Review

According to the 2008 AROD, the remedy was expected to achieve the groundwater cleanup goals in five years or less. The EPA sampled the site groundwater monitoring wells (Figure 4) in November 2010, January 2012, April 2013, January 2015 and May 2016 in the former South and West Drainfields (Table 10) and from wells underlying Plant #1 (Table 11). A detailed summary of historical data from 2010 to 2016 is presented in Appendix F. The only contaminants exceeding the cleanup goals during the last five years were breakdown products of TCE, including cis12DCE and vinyl chloride. Table 10 shows that vinyl chloride is the only COC that remains above the cleanup goal downgradient of the two drainfields in 2016. The concentrations of vinyl chloride in the West Drainfield have met the cleanup goal of 1 µg/L in all wells except one, PMW-1, located immediately southwest of the drainfield with a concentration of 1.1 µg/L which is very close to meeting the cleanup goal. In the South Drainfield, vinyl chloride exhibits a general decline in all wells with only one well, RW-2 (located immediately southeast of the drainfield), exceeding the cleanup goal of 1 µg/L with a concentration of 45 µg/L. All wells further downgradient of the two wells exceeding the vinyl chloride cleanup in the West and South Drainfields are below detection or below the cleanup goal of 1 µg/L for vinyl chloride.

Table 11 shows that the concentrations of vinyl chloride and cis12DCE exhibit an overall decline over the past five years with one exception, well IW-1, located on the east side of former Plant #1. In 2010, the concentrations of vinyl chloride in IW-1 slightly exceeded the cleanup goal of 1 µg/L with a concentration of 1.1 µg/L; the next sampling event at this well occurred in 2015, where there was a significant increase to 1,100 µg/L. The May 2016 sample from IW-1 shows that the 2015 concentration was likely an anomaly as the most recent concentration of 1.6 µg/L is only slightly above the cleanup goal of 1 µg/L and is consistent with the concentration detected in 2010. Similarly, the concentration of cis12DCE was below detection in IW-1 in 2010 but increased above the cleanup goal of 70 µg/L in 2015 with a concentration of 250 µg/L. The May 2016 sample concentration of 0.31 µg/L at IW-1 is well below the cleanup goal of 70 µg/L for cis12DCE. PMW-6, located in southeast corner of Plant #1 and downgradient of IW-1, was below detection for vinyl chloride and cis12DCE demonstrating that the residual concentrations of TCE breakdown products remain localized to IW-1. The concentrations of vinyl chloride and cis12DCE remain below cleanup goals on the west side of Plant #1 based on the results of well IW-11. Additional monitoring is recommended until all wells meet the ROD cleanup goals in groundwater.

Table 10: Cis12DCE and Vinyl Chloride Groundwater Data in the Drainfields (2010-2016)

Well	Location Description	Sample Date	Vinyl chloride (Cleanup Goal=1 µg/L)	Cis12DCE (Cleanup Goal=70 µg/L)
West Drainfield				
PMW-2	Center of drainfield	November 2010	0.032	<0.50
		January 2012	--	--
		April 2013	--	--
		January 2015	<0.50	<0.50
		May 2016	<0.50	0.69
RW-1	South end of drainfield	November 2010	**3.8**	7.7
		January 2012	--	--
		April 2013	**1.3**	1.0
		January 2015	**1.4**	1.5
		May 2016	0.88	1.5

Well	Location Description	Sample Date	Vinyl chloride (Cleanup Goal=1 µg/L)	Cis12DCE (Cleanup Goal=70 µg/L)
PMW-1	Downgradient and southwest of RW-1	November 2010	**36**	38
		January 2012	**26**	31
		April 2013	**6.8**	7.2
		January 2015	**3.9**	2.2
		May 2016	**1.1**	1.2
IW-14	Downgradient and south of PMW-1	November 2010	0.94	0.20
		January 2012	--	--
		April 2013	--	--
		January 2015	<0.50	<0.50
		May 2016	<0.50	<0.50
PMW-3	Downgradient and southeast of RW-1	November 2010	**8.7**	1.3
		January 2012	**2.4**	0.46
		April 2013	**4.5**	2.7
		January 2015	0.39J	0.20
		May 2016	0.14J	<0.50
IW-12	Downgradient and southeast of PMW-3	May 2016	<0.50	<0.50
South Drainfield				
PMW-5	Center of drainfield	November 2010	0.98	0.63
		January 2012	--	--
		April 2013	--	--
		January 2015	--	--
		May 2016	0.35J	1.0
RW-2	Downgradient and southeast of drainfield	November 2010	**120**	17
		January 2012	**3.9**	2.1
		April 2013	**50**	15
		January 2015	**35**	55
		May 2016	**45**	12
IW-5	Downgradient and south of RW-2	November 2010	0.46	0.25
		January 2012	--	--
		April 2013	--	--
		January 2015	<0.50	<0.50
		May 2016	<0.50	<0.50
PMW-7	Downgradient and southeast of RW-2	November 2010	0.10	0.28
		January 2012	--	--
		April 2013	--	--
		January 2015	<0.50	0.22
		May 2016	<0.50	<0.50

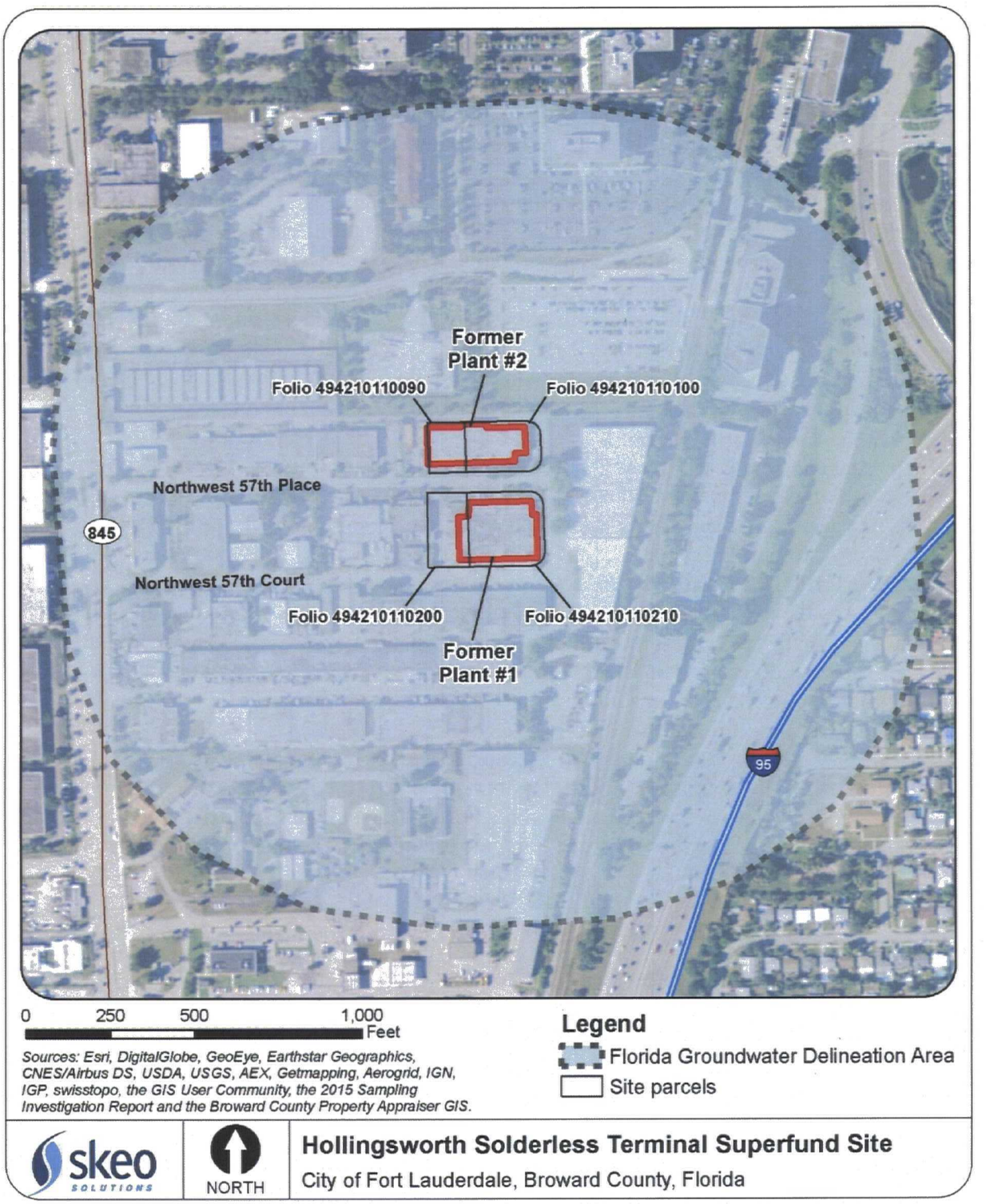
Notes:
-- well not sampled. **Bold** – concentration exceeds cleanup goal.
J – estimated value.

Table 11: Cis12DCE and Vinyl Chloride Groundwater Data Under Plant #1 (2010-2016)

Well	Location Description	Sample Date	Vinyl chloride (Cleanup Goal=1 µg/L)	Cis12DCE (Cleanup Goal=70 µg/L)
Plant #1 West Side				
IW-11	Southwest corner of building	November 2010	0.24	0.39
		January 2012	--	--
		April 2013	--	--
		January 2015	0.74	<0.50
		May 2016	<0.50	<0.50
Plant #1 East Side				
IW-1	Southeast corner of building	November 2010	**1.1**	<0.50
		January 2012	--	--
		April 2013	--	--
		January 2015	**1,100**	**250**
		May 2016	**1.3/1.6 (duplicate)**	0.26J/0.31J (duplicate)
PMW-6	Downgradient of IW-1	November 2010	0.11	<0.50
		January 2012	--	--
		April 2013	--	--
		January 2015	--	--
		May 2016	0.57	<0.50

Notes:
-- well not sampled. **Bold** – concentration exceeds cleanup goal.

Figure 3: Institutional Control Base 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.

Appendix F: Supplemental Information Supporting the Data Review

Figure F-1: Monitor Well Location Map

Sampling Investigation Report
Hollingsworth Solderless Terminal Company

Figure 1
Sample Location Map
Hollingsworth Solderless Terminal
Fort Lauderdale, Florida

SESD Project Number 15-0069

Table F-1: Current and Historical Groundwater Data – 2010 to 2016

	Trichloroethene (µg/L)				
Remedial Target Level	5.0 µg/L MCL, 3.0 µg/L Clean Up Goal, 300 µg/L FLNADC				
Station ID	November 2010	January 2012	April 2013	January 2015	May 2016
IW-1	0.50 U	--	--	12 U	0.50 U | 0.50 U
IW-5	0.50 U	--	--	0.50 U	0.50 U
IW-11	0.50 U	--	--	0.50 U	0.50 U
IW-12	0.50 U	--	--	0.50 U	0.50 U
IW-14	0.50 U,O	--	--	0.50 U	0.50 U
PMW-1	0.50 U,O | 0.50 U,O	0.50 U	0.50 U	0.50 U | 0.50 U	0.50 U
PMW-2	0.50 U	--	--	0.50 U	**0.51**
PMW-3	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
PMW-5	0.50 U,O	--	--	--	0.50 U
PMW-6	0.50 U	--	--	--	0.50 U
PMW-7	0.50 U	--	--	0.50 U	0.50 U
RW-1	**1.4**	--	0.50 U	**0.70** | **0.62**	**0.25 J**
RW-2	**0.13 J,O**	0.50 U | 0.50 U	0.50 U | 0.50 U	0.50 U	0.50 U

	Vinyl Chloride (µg/L)				
Remedial Target Level	2.0 µg/L MCL, 1.0 µg/L Clean Up Goal, 100 µg/L FLNADC				
Station ID	November 2010	January 2012	April 2013	January 2015	May 2016
IW-1	**1.1**	--	--	**1,100**	**1.3** | **1.6**
IW-5	**0.46**	--	--	0.50 U	0.50 U
IW-11	**0.24**	--	--	**0.74**	0.50 U
IW-12	**0.022**	--	--	0.50 U	0.50 U
IW-14	**0.94 O**	--	--	0.50 U	0.50 U
PMW-1	**36 O** | **34 O**	**26**	**6.8**	**3.9** | **3.8**	**1.1**
PMW-2	**0.032 O**	--	--	0.50 U	0.50 U
PMW-3	**8.7 O**	**2.4**	**4.5**	**0.39 J,O**	**0.14 J,O**
PMW-5	**0.98 O**	--	--	--	**0.35 J,O**
PMW-6	**0.11**	--	--	--	**0.57**
PMW-7	**0.10 O**	--	--	0.50 U	0.50 U
RW-1	**3.8**	--	**1.3**	**1.4** | **1.4**	**0.88**
RW-2	**120**	**3.9** | **3.9**	**48** | **50**	**35**	**45**

Detections are bold. Data shaded exceed a Remedial Target Level.
U - The analyte was not detected at or above the reporting limit.
J - The identification of the analyte is acceptable; the reported value is an estimate.
O - Additional data qualifier. See Final Analytical Report for qualifier.

Table F-1: Current and Historical Groundwater Data – 2010 to 2016 (continued)

Remedial Target Level	cis-1,2-Dichloroethene (µg/L)				
	70 µg/L MCL, 70 µg/L Clean Up Goal, 700 µg/L FLNADC				
Station ID	November 2010	January 2012	April 2013	January 2015	May 2016
IW-1	0.50 U	--	--	250	0.26 J,O | 0.31 J,O
IW-5	**0.25 J,O**	--	--	0.50 U	0.50 U
IW-11	**0.39 J,O**	--	--	0.50 U	0.50 U
IW-12	0.50 U	--	--	0.50 U	0.50 U
IW-14	**0.20 J,O**	--	--	0.50 U	0.50 U
PMW-1	**38 O** | **37 O**	**31**	**7.2**	**2.2** | **2.2**	**1.2**
PMW-2	0.50 U	--	--	0.50 U	**0.69**
PMW-3	**1.3 O**	**0.46, J,O**	**2.7**	**0.20 J,O**	0.50 U
PMW-5	**0.63 O**	--	--	--	**1.0**
PMW-6	0.50 U	--	--	--	0.50 U
PMW-7	**0.28 J,O**	--	--	**0.22 J,O**	0.50 U
RW-1	**7.7**	--	**1.0**	**1.5** | **1.4**	**1.5**
RW-2	**17**	**2.0** | **2.1**	**14** | **15**	**55**	**12**

Remedial Target Level	trans-1,2-Dichloroethene (µg/L)				
	100 µg/L MCL, 100 µg/L Clean Up Goal, 1,000 µg/L FLNADC				
Station ID	November 2010	January 2012	April 2013	January 2015	May 2016
IW-1	0.50 U	--	--	**8.8 J, O**	**0.44 J** | **0.60**
IW-5	0.50 U	--	--	0.50 U	0.50 U
IW11	0.50 U	--	--	0.50 U	0.50 U
IW-12	0.50 U	--	--	0.50 U	0.50 U
IW-14	**1.0 O**	--	--	0.50 U	0.50 U
PMW-1	**1.8 O** | **1.9 O**	--	--	**0.21 J,O** | **0.19 J,O**	0.50 U
PMW-2	0.50 U	--	--	0.50 U	0.50 U
PMW-3	**0.29 J,O**	--	--	0.50 U	0.50 U
PMW-5	0.50 U	--	--	--	0.50 U
PMW-6	0.50 U	--	--	--	0.50 U
PMW-7	0.50 U	--	--	0.50U	0.50 U
RW-1	**0.47 J,O**	--	--	0.50 U | 0.50 U	0.50 U
RW-2	**2.2**	--	--	**0.46 J,O**	**0.73**

Detections are bold. Data shaded exceed a Remedial Target Level.
U - The analyte was not detected at or above the reporting limit.
J - The identification of the analyte is acceptable; the reported value is an estimate.
O - Additional data qualifier. See Final Analytical Report for qualifier.

Figure F-2: Summary of Cis-2DCE and Vinyl Chloride 2015 Groundwater Results

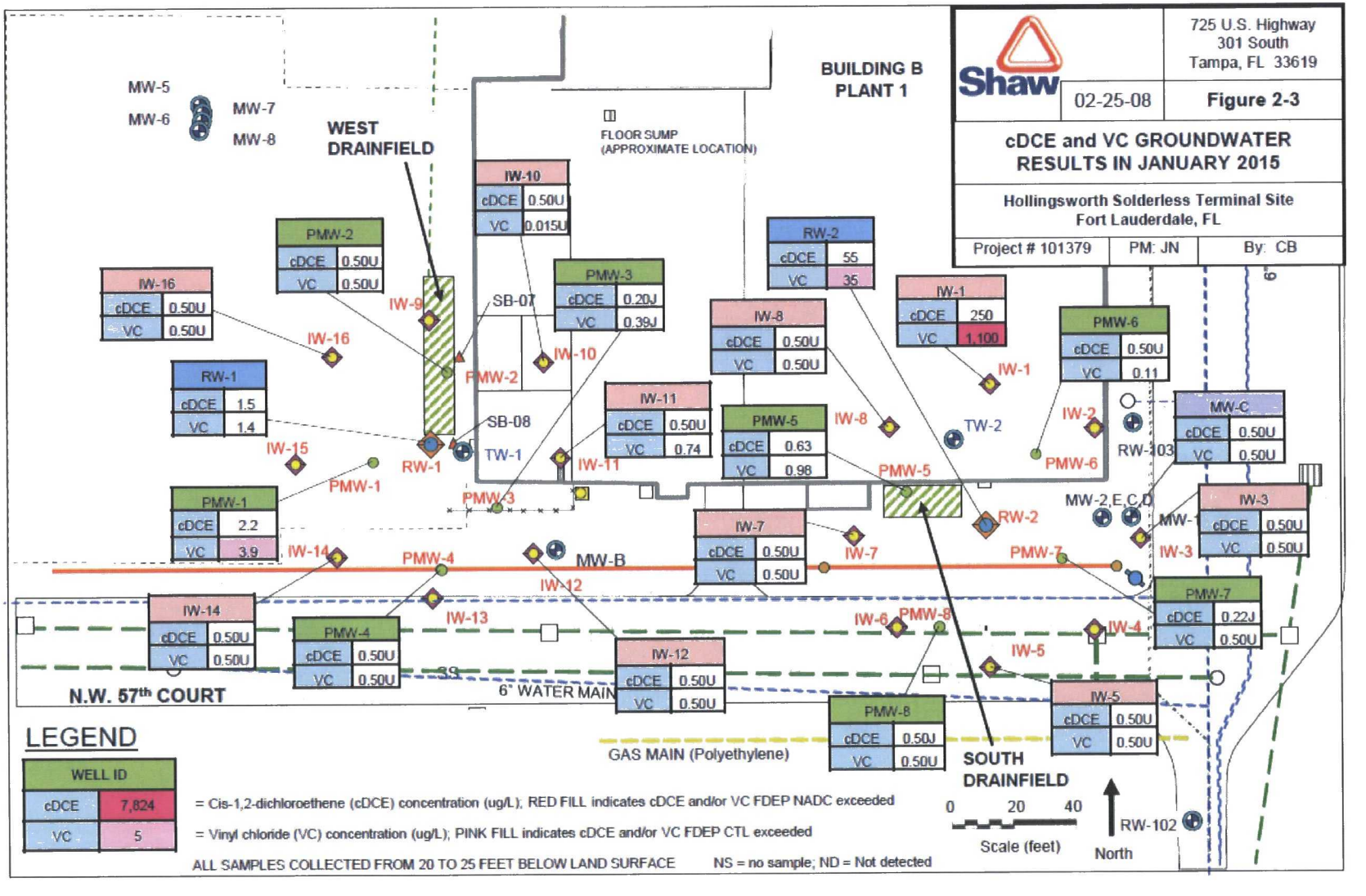
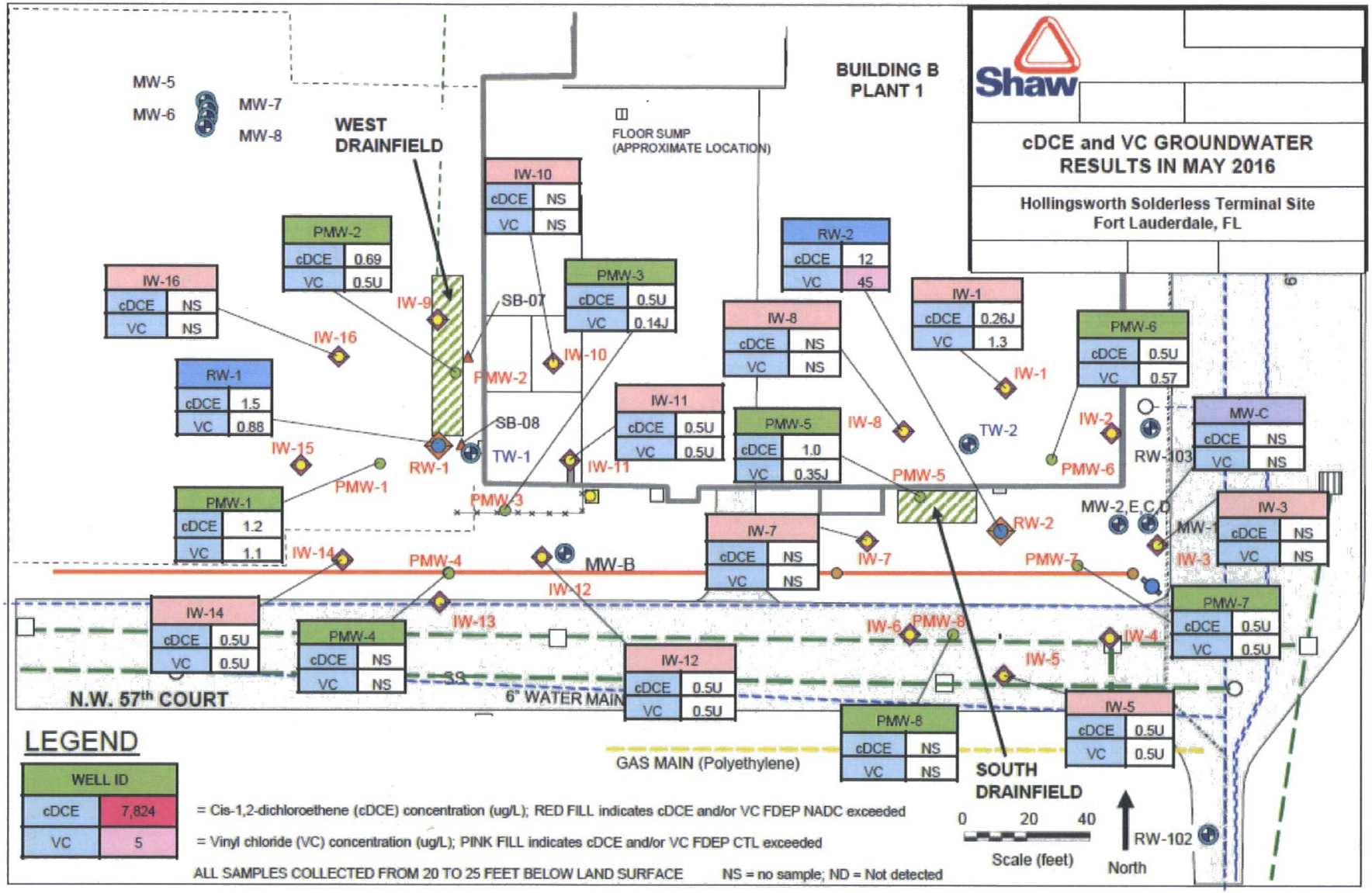


Figure F-3: Summary of Cis-12DCE and Vinyl Chloride 2016 Groundwater Results



Appendix G: Risk Assessment Analysis in Support of Question B

The 1986 ROD cleanup goals for soil in the East Drainfield were soil concentrations that did not result in exceedance of the EPA's Extraction Procedure Toxicity Characteristics (EP) toxicity test results for copper, lead and nickel, while a level of 1 mg/kg was established for total VOCs. The EP toxicity criteria have not changed since the 1986 ROD. The protectiveness of the soil cleanup goal of 1 mg/kg for total VOCs cannot be evaluated because the value is not chemical-specific. However, in the 2001 ESD, the EPA developed chemical-specific soil cleanup goals for three VOCs (trans12DCE, TCE and vinyl chloride) based on leaching to groundwater. To determine if the leachability-based levels are also protective for direct contact, the cleanup levels were compared to the EPA's most current residential-based RSLs for soil as well as the state SCTLs established under FAC Chapter 62-777. As demonstrated in Table G-1, the remedial goals established in the ESD remain valid because the relative risk associated with the goals based on the EPA's RSLs demonstrates that the remediation goals are below 1 x 10^{-6}, the lower bound of the EPA's risk management range of 1 x 10^{-6} to 1 x 10^{-4}, and below the EPA's target noncancer hazard quotient (HQ) of 1.0 for residential exposure. The risks are also below FDEP's target level of 1 x 10^{-6}.

Table G-1: Evaluation of Soil Cleanup Goals

COC	2001 ESD Cleanup Goals (mg/kg)	State Residential SCTL Direct Contact (mg/kg)	EPA Residential Soil RSLs (mg/kg)[a]		Relative Risk of 2001 ESD Remedial Goal		Cleanup Goal Exceeds State SCTL?
			Cancer Risk 1 x 10^{-6}	Noncancer HQ = 1	Cancer Risk[b]	Noncancer HQ	
Trans-1,2-dichloroethylene	0.4	53	NA	1,600	--	0.0003	No
Trichloroethylene	0.030	6.4	0.94	4.1	3.2 x 10^{-8}	0.007	No
Vinyl chloride	0.007	0.2	0.06	70	1.2 x 10^{-7}	0.0001	No

Notes:

a. The current RSLs are available at http://www.epa.gov/risk/risk-based-screening-table-generic-tables (accessed 12/28/2015).

b. Cancer risks calculated using the following equation:
Cancer risk = (Cleanup level ÷ cancer risk-based RSL) × 10^{-6}
Noncancer HQ = Cleanup level ÷ non-cancer RSL

NA – toxicity value not established for this COC.

In addition, the groundwater cleanup goals were ARARs and remain valid since the values have not changed since the 2008 AROD. However, to evaluate the effect of any changes of toxicity values on the groundwater cleanup goals, a screening-level risk evaluation was conducted. As shown in Table G-2 only the cleanup goal for cis-12DCE results in a noncancer HQ slightly greater than 1.0. The cleanup goal is based on the federal and state MCL of 70 µg/L which remain current. In addition, the EPA reviewed cis-12DCE as part of the Six Year Review and determined that the MCL is still protective of human health.

Table G-2: Evaluation of Groundwater Cleanup Goals

COC	2008 AROD Cleanup Goals (µg/L)	State Residential GCTL (µg/L)	EPA Tap Water RSLs (µg/L)[a]		Relative Risk		Cleanup Goal Exceeds State GCTL?
			Cancer Risk 1×10^{-6}	Noncancer HQ = 1	Cancer Risk[b]	Noncancer HQ	
cis-12DCE	70	70	NA	36	--	**1.9**	No
trans12DCE	100	100	NA	360	==	0.28	No
TCE	3.0	3	0.49	2.8	6.1×10^{-6}	1	No
Vinyl chloride	1.0	1	0.019	44	5.3×10^{-5}	0.023	No

Notes:

a. The current RSLs are available at http://www.epa.gov/risk/risk-based-screening-table-generic-tables (accessed 7/20/2016).

b. Cancer risks calculated using the following equation:
Cancer risk = (Cleanup level ÷ cancer risk-based RSL) × 10^{-6}
Noncancer HQ = Cleanup level ÷ non-cancer RSL

NA – toxicity value not established for this COC.

VOCs are present in groundwater underlying the Site. Therefore, vapor intrusion exposure is a potential completed exposure pathway for Plant #1 where residual groundwater contamination remains. A screening-level vapor intrusion evaluation was conducted to determine if this potential exposure pathway requires more in-depth analysis. Soil vapor samples have not been collected near Plant #1. Therefore, the most current groundwater data collected in May 2016 from wells located within the building footprint or adjacent to the building were used. Those COCs exceeding the ROD cleanup goals were included. The only COC that exceeded the ROD cleanup goal in the May 2016 data set is vinyl chloride.

The maximum detections of vinyl chloride in the May 2016 sampling event was entered into the EPA's Vapor Intrusion Screening Level (VISL) calculator to evaluate this exposure pathway. As shown in Table G-3, the maximum concentration of VOCs observed in 2016 was in RW-2, resulting in cancer risks within the EPA's risk management range of 1×10^{-6} to 1×10^{-4} and below the EPA's noncancer HQ of 1.0. These results indicate that the vapor intrusion exposure pathway does not require further evaluation as the concentrations continue to decline over time.

Table G-3: Screening-Level Vapor Intrusion Evaluation at the Plant Building #1

COC	Groundwater Concentration Detected in May 2016 (µg/L)[a]	2015 VISL Calculator[b] (Average groundwater temperature 25°C)	
		Industrial Exposure	
		Cancer Risk	Noncancer HQ
Maximum near Plant #1			
Vinyl chloride	45 (RW-2)	1.8×10^{-5}	0.12

Notes:

a. Data obtained from the EPA on June 2, 2016. Samples collected by the EPA's Science and Ecosystem Support Division (SESD) in May 2016.

b. VISL calculator version 3.46 accessed at http://www.epa.gov/vaporintrusion

The U.S. Environmental Protection Agency, Region 4 Announces the Completion of the Fifth Five-Year Review for the Hollingsworth Solderless Terminal Superfund Site, Fort Lauderdale, Broward County, Florida

Purpose/Objective: The Comprehensive Environmental Response, Compensation, and Liability Act, as amended by the Superfund Amendments and Reauthorization Act of 1986, requires review of remedial actions addressing hazardous substances every five years to make sure the selected remedies remain protective of human health and the environment. In 2016, EPA conducted the fifth Five-Year Review of the remedies for contaminated media (groundwater and soils) associated with the Hollingsworth Solderless Terminal Superfund site (the Site) in Fort Lauderdale, Florida.

Site Background: The 3.5-acre area is located in a commercial and industrial area in Fort Lauderdale. The Hollingsworth Company made solderless electrical connectors on site from 1968 to 1982, when it filed for bankruptcy. In 1982, the company dismantled and sold its plant equipment. The facility was purchased in 2004 and remodeled. Today, several tenants use the area for commercial purposes. Past soldering operations resulted in the contamination of soil and groundwater with solvents and heavy metals. EPA listed the Site on the Superfund program's National Priorities List (NPL) in 1983.

Cleanup Actions: EPA selected the Site's cleanup plan in the Site's 1986 Record of Decision (ROD), 2001 Explanation of Significant Differences (ESD) and 2008 Amended ROD. The plan included treatment of volatile organic compounds (VOCs) in the soil near the former East Drainfield, recovery and treatment of contaminated groundwater, excavation of VOC-contaminated soil, bioremediation of groundwater near the former South Drainfield and septic tank in the West Drainfield, and institutional controls to restrict groundwater use.

Five-Year Review Protectiveness Statement: The remedy currently protects human health and the environment because contaminated soils have been removed such that no land use restrictions are needed, groundwater contamination remains on site and institutional controls are in place that restrict the use of groundwater at the Site. In order for the remedy to be protective in the long term, site monitoring wells need to be repaired and monitored on a regular basis.

Five-Year Review Schedule: EPA completed the fifth Five-Year Review process for the Site in September 2016. The next Five-Year Review for the Site is required within five years of the signature of this Five-Year Review, by September 2021.

Contact Information: Community members who have questions about the Site or the Five-Year Review process are asked to contact:

Galo Jackson, EPA Remedial Project Manager
Phone: (404) 562-8937
Email: jackson.galo@epa.gov

L'Tonya Spencer, EPA Community Involvement Coordinator
Phone: (404) 562-8913 | (800) 564-7577 (toll-free)
Email: spencer.latonya@epa.gov

Mailing Address: U.S. EPA Region 4, 61 Forsyth Street, S.W., 11th Floor, Atlanta, GA 30303-8960

Additional information is available at the Site's local document repository, located at Broward County Public Library, 100 South Andrews Avenue, Level 5, Fort Lauderdale, Florida 33301, and online at:
https://cumulis.epa.gov/supercpad/CurSites/csitinfo.cfm?id=0400548&msspp=med.

Site No. 48

Graphic Products, Inc.
1140 NW 55 Street

Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Direct Dial Phone #: 850-921-9684

David B. Struhs
Secretary

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WEST PALM BEACH

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WEST PALM BEACH

June 1, 2000

Christopher P. Williams
Vice President
Graphic Products, Inc.
1140 N.W. 55th Street
Fort Lauderdale, Florida 33309

Miles Dearden
D & B Paint Manufacturing Company
531 Melrose Avenue
Winter Park, Florida 32789

RE: Liability for Groundwater Contamination; OGC Case No. 00-0891-C

Dear Messrs. Williams and Dearden:

Hello. I am the enforcement attorney within the Department of Environmental Protection's Office of General Counsel responsible for cases of contamination of the State's groundwater by hazardous substances. Each of you is certainly very aware of the groundwater contamination issues in the land underlying your facilities (generally referred to collectively as the "Site"). In the case of D&B, a Consent Order was signed with the Department's predecessor agency in March 1985. Graphic Products signed a Consent Order for the contamination on its property in June 1987. While assessment activities were completed by each party, no remedial plans have been submitted or are pending with the Department as required in each Consent Order. Apparently, D&B has been generally unresponsive or uninterested in these problems for over ten years. While Graphic Products has been a bit more cooperative with the Department, it has been unwilling to move forward with any remediation until sources of contamination have been removed from the adjacent D & B property.

Given the lack of progress at the Site, the Department's Site Investigation Section, at the request of the Southeast District Office, contracted with the IT Corporation in an attempt to determine the cause and extent of the contamination on the Site. On March 29, 2000, the District received a Final Draft copy of the Interim Assessment Report completed regarding the Site. The clear conclusion of the Report is that **both** D&B and Graphic Products have contributed to the large chlorinated solvent plume in the groundwater. This factual assertion, supported by ample evidence, led the District to conclude that the groundwater contamination at the Site should not be dealt with in separate actions with D & B and Graphic Products, but that both cases needed to proceed simultaneously. Therefore, as is evident above, a new OGC Case Number has been assigned to this Site, and the two separate pending actions against D&B and Graphic

groundwater contamination underlying the two properties in a comprehensive fashion that can address the conditions on a Site-wide basis.

Given the complexity associated with a consolidation of the two cases and the general lack of cooperation from both parties, the Southeast District prepared a Case Report for this Site and requested that the Office of General Counsel file suit to compel compliance with the Consent Orders. Such compliance means the completion of a remedial action to cleanup the Site. Of course, any lawsuit will also include a claim for any response costs expended by the Department at the Site pursuant to the State's equivalent of the federal Superfund law, as contained in Chapters 376 and 403 of the Florida Statutes.

In reviewing the files in each separate enforcement action, I noted that there has been little to no recent attempt to reach a negotiated settlement of this matter. Given that this is the initial contact from the Department since our decision to consolidate these two cases, I believe a meeting would be appropriate before the initiation of litigation. I therefore suggest that we meet in the Southeast District Office (400 N. Congress Avenue, West Palm Beach) at 10:00 a.m. on Friday, June 16th, 2000. At that time we can discuss the options available to the parties and attempt to coordinate an effective approach to site remediation. Of course, you are welcome to attend the meeting with any representatives you choose, including legal counsel and environmental consultants.

Please call me back directly to confirm that your company will attend the meeting. I look forward to working with you and your representatives.

Sincerely,

Anthony J. Ettore
Assistant General Counsel

cc: Ralph G. Dearden, President
D & B Paint Manufacturing Company
c/o API Marine, 1100 N. W. 55th Street, Fort Lauderdale, FL 33309
Tim Gray, SED

Site No. 49

D&B Paint Manufacturing Company
1100 NW 55 Street

[1]

D&B PAINT MFG. COMPANY
FLD065677189
PRELIMINARY ASSESSMENT

A. SITE DESCRIPTION. D&B Paint Mfg. Company manufactures latex and acrylic paints. The facility is located in a commercial/industrial area, at 1100 NW 55th Street, Broward County, Ft. Lauderdale, Florida. The facility is currently active, and has been in operation since at least 1973.

B. DESCRIPTION OF HAZARDOUS CONDITIONS, INCIDENTS AND PERMIT VIOLATIONS. Water which is used to rinse the latex paint mixing vats is pumped to the roof of the D&B building for evaporation. Periodically, heavy rains have caused this rinsewater to overflow the roof and spill onto the ground where it runs onto adjacent properties. Numerous surface spills have also been noticed in the drum storage area. Inside the building, unmarked 55-gallon drums and paint buckets are stacked on top of each other, with no aisle space. Outside the building, pallets and debris are piled haphazardly.

Groundwater samples collected by FDER (10/15/84) detected very high levels of VOC's: 765 ug/l 1,3-Dichlorobenzene, 690 ug/l 1,4-Dichlorobenzene, 1180 ug/l Trichloroethene, 136,000 ug/l 1,2-Dichloroethene, 340 ug/l xylenes, and 345 ug/l vinyl chloride. Heavy metals were not detected. Dimethyl phenol was found in a neighboring test well on Graphic Products' site, and since Graphic Products does not use the product it is suspected that D&B is the source.

Warning and violation notices relating to the paint spills were issued 3/14/83 and five times in 1984. A Consent Order was issued for closure purposes by FDER 3/7/85. There is no indication that D&B has complied with the Consent Order, and a windshield survey 7/25/85 revealed poor housekeeping practices.

C. NATURE OF HAZARDOUS MATERIALS. The hazardous substances found on-site include latex and acrylic paint sludges and rinsewater, paint additives and solvents. The chemicals are toxic, volatile and potentially explosive and the latex paint wastes are soluble in water.

D. ROUTES OF CONTAMINATION. Groundwater has been contaminated by paint wastes spilled on the ground. Other possible routes of contamination include surface water, air and direct contact.

E. POSSIBLE AFFECTED POPULATION AND RESOURCES. D&B Paint is located in a commercial/industrial area which is served by the Executive/Prospect municipal wellfield. The site is approximately 1/4 mile southeast of the closest pumping well, thus contaminants detected in the groundwater at D&B could migrate into the recharge area of the wellfield. The source for the wellfield is the Biscayne aquifer which is a shallow, unconfined, sole-source aquifer for the entire Ft. Lauderdale area. Some residents use private well water for watering their lawns, and contaminated groundwater could affect the grass and other plant life, in addition to impacting the users.

D&B is located approximately 1/4 mile southeast of a lake, thus groundwater contaminants could flow into surface water, impacting aquatic flora and fauna and recreational users.

Continuous poor housekeeping practices may expose workers (numbering less than 10) and the general public to toxic substances via direct contact or inhalation of volatilized chemicals.

F. RECOMMENDATIONS AND JUSTIFICATIONS. D&B has high levels of measured volatile organic compounds in the groundwater, is located within close proximity of the municipal wellfield and surface water bodies, and has received numerous discharge violation notices.

FDER issued a Notice of Violation (NOV) and Orders for Corrective Action to the owner on November 7, 1984. A Consent Order was issued and signed by both D&B and FDER on March 7, 1985.

Because FDER already has documented the contamination problem at D&B, and cleanup orders have been outlined and agreed to, it is recommended that this site receive a low priority for inspection.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D065677189

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
D&B Paint Mfg. Company	1100 NW 55th Street

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Ft. Lauderdale	FL	33309	Broward	011	17

09 COORDINATES LATITUDE	LONGITUDE
26 11 40.0	080 09 30.0

10 DIRECTIONS TO SITE (Starting from nearest public road)

Proceed north through Ft. Lauderdale on I-95. Exit off I-95 at Route 870, heading west and proceed 1/4 of a mile. Turn right onto NW 10th Terrace, follow this road for 1/4 mile then turn left onto NW 55th Street.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
D&B Paint Mfg. Company	1100 NW 55th Street

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Ft. Lauderdale	FL	33309	(305) 776-0185

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)
Ralph G. Dearden - President	same

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
same			(305) 776-0185

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL

☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☒ A. RCRA 3001 DATE RECEIVED: 07/28/80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: __/__/__ (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION

☒ YES DATE 07/25/85 (MONTH DAY YEAR)
☐ NO

See Attachment "A"

BY (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☒ F. OTHER: Broward County Environmental Quality Control Board (BCEQCB) (Specify)

CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)	03 YEARS OF OPERATION
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	pre-1973 (BEGINNING YEAR) present (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Latex and acrylic paint sludges, rinsewater, paint additives and solvents are generated and stored on-site. Latex paint sludges are stored on the rooftop; all other wastes are stored in drums or tanks.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Rinsewater which is used to wash out latex (colored) paint vats has periodically spilled onto the ground, contaminating soils and groundwater on and off-site. Nearby drinking water and surface water supplies may become contaminated from these discharges. Waste storage of paint sludges poses a risk to workers and the public.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☒ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Eric Nuzie Eric S. Nuzie	FDER	(904) 488-0190

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Willard Murray	N/A	E.C. Jordan Co.	(207) 775-5401	08 14 85 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

LWE

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D065677189

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A. SOLID
- [X] B. POWDER, FINES
- [X] C. SLUDGE
- [ ] D. OTHER (Specify)
- [ ] E. SLURRY
- [X] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS: unknown
CUBIC YARDS: unknown
NO. OF DRUMS: 12+ (wind-shield survey 7/25/83)

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [ ] D. PERSISTENT
- [X] E. SOLUBLE
- [ ] F. INFECTIOUS
- [X] G. FLAMMABLE
- [ ] H. IGNITABLE
- [X] I. HIGHLY VOLATILE
- [X] J. EXPLOSIVE
- [X] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		80 GPD of paint sludges are
OLW	OILY WASTE			generated.
SOL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS	unknown		
IOC	INORGANIC CHEMICALS	unknown		
ACD	ACIDS			
BAS	BASES	unknown		
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
BAS	Ammonia (aqueous)	7664-41-7	DR	unknown	
SLU	Glycol	999	DR	unknown	
SLU	Kaolin	1332-58-7	DR	unknown	
IOC	Aluminum sulfate	10043-01-3	DR	unknown	
IOC	Titanium dioxide	13463-67-7	BAGS	unknown	
OCC	Phenylmercury AcetatePMA[1]	62-38-4	DR	unknown	
OCC	1,2-Dibromo-2,4-dicyano butane	999	DR	unknown	
SOL	Xylene	1330-20-7	DR	unknown	
SOL	Naptha	8030-30-6	DR	unknown	
IOC	Calcium carbonate	1317-65-3	BAGS	unknown	

V. FEEDSTOCKS (See Appendix for CAS Numbers) N/A

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

BC EQCB Inspection Report 8/20/81
FDER Waste Compliance Report 7/16/84

[1] After November 1983 PMA was replaced with Tektamer 38 (1,2-Dibromo-2,4-dicyano butane)
[2] Those chemicals found in acrylic paints are stored in drums. transferred to settling tanks and then re-used or pumped out by an authorized dealer. Chemicals found in latex ~~(colored)~~ paints are discharged to the roof and allowed to evaporate.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
FL	D065677189

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION — 02 ☒ OBSERVED (DATE: 10/15/84) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ — 04 NARRATIVE DESCRIPTION

Groundwater sampling by FDER (10/15/84) detected high levels of volatile organic compounds (including 136,000 ug/1 1,2-Dichloroethene, 1180 ug/1 Trichloroethene, 765 ug/1 1,3-Dichlorobenzene and 690 ug/1 1,4-Dichlorobenzene), xylenes, vinyl chloride and cyanide. Mercury may also be present but a sampling error rendered the results inconclusive.

01 ☒ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ — 04 NARRATIVE DESCRIPTION

D&B is located less than 1/4 mile southwest of a lake and less than one mile from a feeder canal. High levels of paint wastes in the groundwater at the site may migrate into surface waters. No surface water samples have been taken.

01 ☒ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 3001-10,000 — 04 NARRATIVE DESCRIPTION

Contaminants in the latex paint vat rinsewater, which are allowed to evaporate off of the roof, may volatilize into the air. No air samples have been taken.

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 3001-10,000 — 04 NARRATIVE DESCRIPTION

Some of the chemicals stored in drums in the building are highly reactive and potentially explosive. D&B has been notorious for having unmarked drums and paint buckets stacked on top of each other with no aisle space. Pallets and debris are also haphazardly piled outside.

01 ☒ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 3001-10,000 — 04 NARRATIVE DESCRIPTION

Workers may be exposed to nuisance dusts, toxic fumes and burn-inflicting liquids if chemicals are not stored properly or spills occur. The general public may come in direct contact with hazardous materials, contaminated groundwater used for irrigation and potentially contaminated surface water and soils.

01 ☒ F. CONTAMINATION OF SOIL — 02 ☒ OBSERVED (DATE: 7/12/84) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 0.5 — 04 NARRATIVE DESCRIPTION

Although much of the site is paved, spills and overflows off the roof of paint-contaminated washwater have drained into surface soils on or off-site. The extremely high levels of solvents in the groundwater suggest that the soils are also contaminated. No soil samples have been taken.

01 ☒ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ — 04 NARRATIVE DESCRIPTION

Area residents are served by the Executive/Prospect municipal water supply. D&B is located 1/4 mile southeast of the closest pumping well in this wellfield, thus contaminants detected in the groundwater at D&B could migrate into the recharge area of the wellfield.

01 ☒ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 1-100 — 04 NARRATIVE DESCRIPTION

Workers may be exposed to toxic substances during the rinsing process where vats of acrylic and latex paints are rinsed out. Workers may also come in direct contact with paint or oil sludges spilled on the pavement or contaminated rinsewater flowing off the roof.

01 ☒ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 10,000+ — 04 NARRATIVE DESCRIPTION

Drums are stored both in the building and outside. The area around the building is fenced, but the rest of the property is not fenced, posted or guarded thus area residents and workers could be exposed to any surface spills or overflows from the roof.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: FL | 02 SITE NUMBER: D065677189

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Remote potential. Spills of paint wastes to the ground would probably kill existing grass, weeds and small plants at the point of entry, but would not affect longterm plant productivity and growth. There was no observed damage to the flora on-site.

01 ☐ K. DAMAGE TO FAUNA
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

Remote potential. Paint wastes may kill microfauna in the soils at the point of entry, but will not affect longterm fauna populations. This facility is located in a highly industrial site and no fauna was observed at the site.

01 ☐ L. CONTAMINATION OF FOOD CHAIN
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Remote potential. Solvents and paint wastes do not accumulate in animals or in the environment. If mercury is present, it could accumulate in the food chain.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking drums)
02 ☒ OBSERVED (DATE: 5/13/76) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 3001-10,000
04 NARRATIVE DESCRIPTION

Between 1976 and 1983, EQCB noted at least six incidents of paint surface spills at the D&B site. The spills were generally near the building (coming off the roof) or in the drum storage area.

01 ☒ N. DAMAGE TO OFFSITE PROPERTY
02 ☒ OBSERVED (DATE: 7/30/84) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION Several off-site properties notified EQCB that paint overflowing from D&B Paint Mfg. Co.'s roof was spilling onto their property. Dimethyl phenol was detected in groundwater (10/15/84) at Graphic Products, located next door to D&B, and is suspected to be from D&B since Graphic Products does not use this product.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

None reported.

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING
02 ☒ OBSERVED (DATE: 5/13/76) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION An EQCB inspection (5/13/76) noted that the gravel drainfield, used until 9/80 to dispose of all paint rinsewater, was saturated with paint wastes. Between 1983 and 1984, D&B received six violation notices for allowing paint washwater that was stored on the roof to spill onto the ground.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

None known.

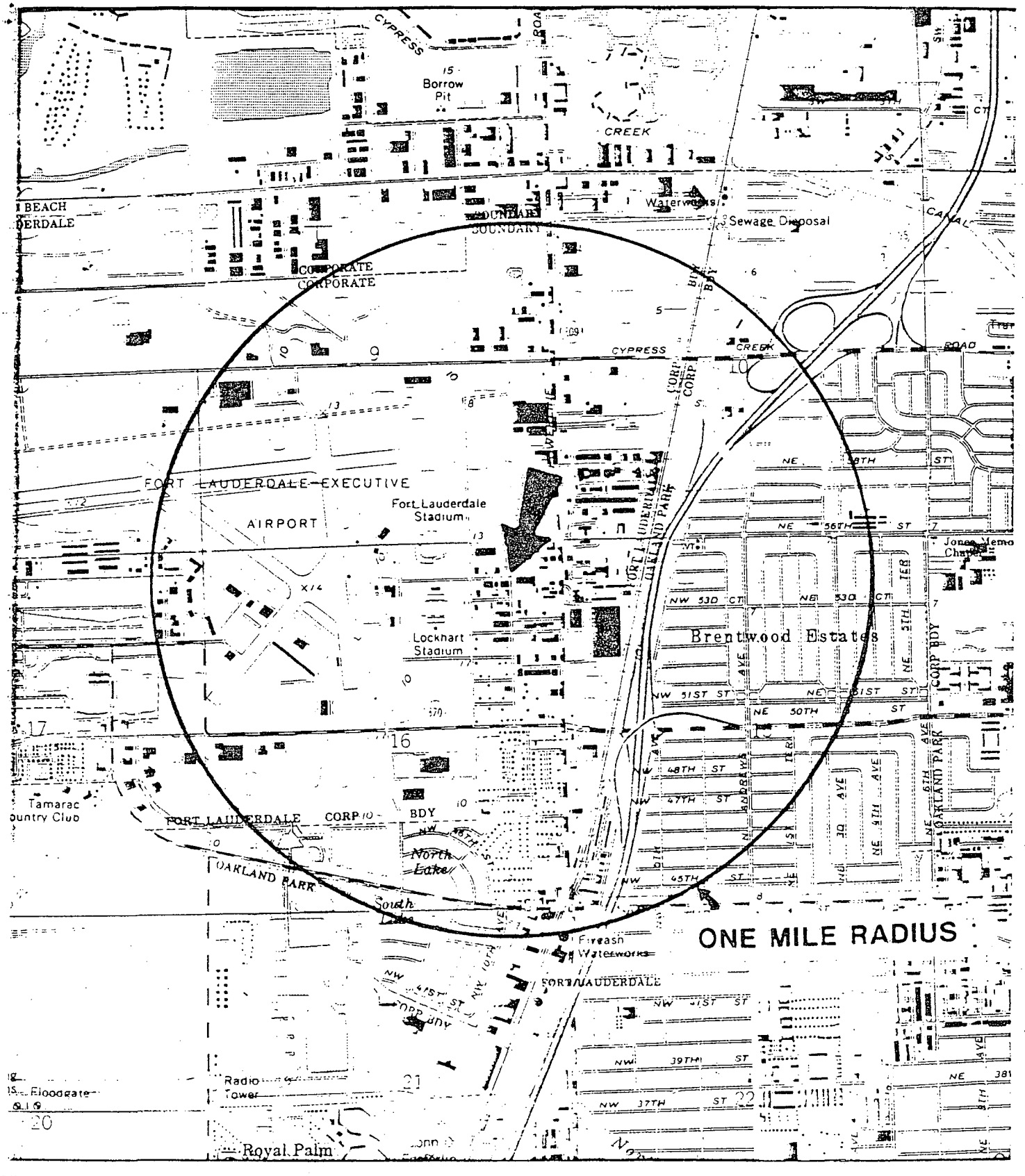
III. TOTAL POPULATION POTENTIALLY AFFECTED: 10,000+

IV. COMMENTS

A Consent Order was issued 3/7/85 by FDER following several notices of violation and warnings, regarding illegal spilling of hazardous substances from the roof onto the ground.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

See attached reference list.



SCALE 1 : 24000

0 1/2 1 MILE

1000 0 1000 2000 FEET

N

SITE LOCATION MAP

D&B Paint Mfg. Co.

1106 NW 55th Street

USGS QUAD Ft. Lauderdale North

DATE 1983

EC JORDAN CO

DAMES & MOORE A PROFESSIONAL LIMITED PARTNERSHIP
[illegible] BOCA RATON, FLORIDA 33432 (305) 392-9070

December 5, 1988

RECEIVED
DEC 8 1988
[illegible]

Florida Department of Environmental
Regulations
1900 South Congress Avenue
Suite A
West Palm Beach, Florida 33406

Attention: Mr. Thomas Sirna

Monitoring Well Installation
Soil and Groundwater Sampling Analyses Results
D & B Paint Company
Fort Lauderdale, Florida
For D & B Paint Company

Dear Mr. Sirna:

Enclosed are the results of the July 27, 1988 soil sample analyses from the surface sample collected during the installation of the deep monitor well (MW #5), and the results of the ground water sample analysis from all five wells. We regret the delay in submitting these results. Any additional results requested will be forwarded as they become available.

Sincerely yours,
DAMES & MOORE

Carlos F. Garcia
Project Hydrogeologist

CFG
Enclosure

copy
EPTO
Mercury
+ Pb
Should be req.
for extent
of contam.

TECH ANALYSIS, INC.
A Subsidiary of
Paul R. McGinnes and Associates Consulting Laboratories, Inc.
4168 WESTROADS DRIVE - WEST PALM BEACH, FLORIDA 33407-1241 - (407) 842-2849

Client: Dames & Moore
350 W. Camino Gardens Blvd.
Boca Raton, FL. 33432

September 19, 1988

Project: D & B Paints

Job No. 88-8-10-DB-109

Sample: Well water samples collected 8/10/88 by K. Stewart of McGinnes Labs. Wells 1-4 were cleared approximately four times by peristaltic pump before sample collection. Well five was cleared at least three times by electric pump. Samples were collected directly from the pump into pre-preserved brown glass bottles with teflon caps for Mercury analyses, and 500 mL plastic bottles for TSS analyses. All sampling procedures performed using EPA and DER approved methods per McGinnes Laboratories Quality Assurance Plan #87232G.

Analysis:

Parameter	MW #1	MW #2	MW #3	MW #4	MW #5
Mercury, mg/L Hg	0.004	0.003	<0.001	<0.001	<0.001
Total Suspended Solids, mg/L	2	6	3	<2	8

Date/Tech: Hg - 8/19 & 8/26 BK
TSS - 8/12 BK

Methods: All analyses performed using EPA and DER approved methods per McGinnes Laboratories Quality Assurance Plan #87232G. Hg - EPA 245.1, TSS - EPA 160.2.

Barbara J. Knecht
Technician

Supervisor - McGinnes Laboratories
DHRS Laboratories I.D. No. 86140/E86070

PAUL R. MCGINNES AND ASSOCIATES
CONSULTING LABORATORIES, INC.

4168 WESTROADS DRIVE - WEST PALM BEACH, FLORIDA 33407-1241 - (407) 842-2849

Client: Dames & Moore
350 W. Camino Gardens Blvd.
Boca Raton, FL. 33432

August 31, 1988

Sample: Soil sample received in lab 7/27/88.
Collected 7/27/88 by client
using laboratory supplied containers.

Job No. 88-7-27-DM-229

Project: D & B Paints

Analysis:

Parameters	Results	Date/Tech
Lead, mg/kg Pb	122	8/1 HW
Cadmium, mg/kg Cd	<0.2	8/1 HW
Silver, mg/kg Ag	<1	8/1 HW
Arsenic, mg/kg As	<0.5	8/2 HW
Mercury, mg/kg Hg	5.84	8/4 & 8/12 HW,I
Selenium, mg/kg Se	<0.5	8/2 HW
Chromium, mg/kg Cr	<1	8/1 HW
Barium, mg/kg Ba	<5	8/1 HW

Method: All analyses performed using DER and EPA approved methods per McGinnes Laboratories Quality Assurance Plan #87232G. EPA Method - Pb - 7420, Cd - 7130, Ag - 7760, As - 7060, Hg - 7470, Se - 7740, Cr - 7190, Ba - 7080.

Barbara J. Knecht
Technician

Supervisor - McGinnes Laboratories
DHRS Laboratory I.D. No. 86140/E86070

THESE SAMPLES WERE NOT COLLECTED BY McGINNES LABORATORIES PERSONNEL AND THE RESULTS ARE WARRANTED TO REPRESENT SAMPLES ONLY AS RECEIVED BY McGINNES LABORATORIES.

MEMORANDUM TO FILE

Florida Department of Environmental Protection

WASTE CLEANUP INSPECTION REPORT

Facility Name:	**Former D&B Paints COM_68445** **Former Graphic Products COM_68904**
DEP/EPA ID#	OGC File Nos. 00-0891 and 11-1291
Address:	1100 and 1140 NW 55th Street, Fort Lauderdale Broward County
Date of Inspection:	October 28, 2011
Participants:	Leslie Smith, Geetha Selvendran FDEP
Landowner of Record:	The former D&B property is currently owned by Calabrese, Inc., who acquired the land on February 15, 2007 from 1100 Property, LLC. 1100 Property LLC was formed by the Deardens (Miles, Ralph, Pamela, Maureen, and Holly Yates) 4/29/2005 and was dissolved 9/25/2009. Michael Calabrese operates a body shop repair business on the property under the corporate identity of All Insurance Collision Repair, Inc. Mr. Calabrese purchased the land with assurances that the Deardens would complete the site rehabilitation.
Responsible Officials:	Per the Stipulated Final Consent Judgment, the Responsible parties are D&B Paint Manufacturing, Co., Ralph Dearden, Pamela Dearden, Miles C. Dearden, Maureen Dearden, Holly Yates, Susan H. Williams, Christopher Williams, and Graphic Products, Incorporated.
Purpose:	The purpose of the site visit was to determine if either of the sites and/or site conditions appeared to be different from that provided by the most recent assessment documents.

WASTE CLEANUP CASE HISTORY

The former D&B facility (D&B) is located adjacent to and east of the former Graphic Products (GP) facility. Both facilities historically conducted operations in the alleyway that separated the two facilities. The alleyway is owned by GP, except for the few feet that extend west of D&B's building. Because of the close proximity of the two facilities and sharing the alleyway, the groundwater contamination emanating from both facilities or from either facility is comingled.

GP was a circuit board manufacturer and D&B manufactured paints. Both facilities were family businesses started by the previous generation and continued by their children. Both were the subject of hazardous waste inspection and enforcement. Both utilized products and generated wastes that contained solvents and metals. Investigation of both facilities was started circa 1982.

Consent Orders between the Department and GP (OGC# 85-0995 and #87-0151) assessed hazardous waste penalties A Consent Order between the Department and D&B, signed by Ralph Dearden as President (OGC# 84-0732) ("Order") was executed March 11, 1985, but a copy could not be located by this case manager.

In 2000, after drums (containing paint related wastes apparently originating at the D&B facility) were found discarded near the Everglades National Park in Miami-Dade County, Ralph Dearden was found guilty of conspiring to violate RCRA and two counts of illegal disposal of hazardous waste. He was sentenced to two years imprisonment with three years' probation and ordered to pay $117,800 in fines and penalties.

Also in 2000, because the site rehabilitation of neither site was progressing, the Department initiated enforcement against both parties.

GP participated in mediation; D&B did not. After considerable legal effort and the execution of a sampling warrant against D&B, a Stipulated Final Consent Judgment (SFCJ) was issued, naming both GP and D&B as parties responsible for site rehabilitation. The SFCJ included provisions to follow 62-780, F.A.C. as the rule to govern both cleanups. It also contained language to "divide the baby." In short, GP was deemed responsible for the chlorinated solvent contamination, and D&B was deemed responsible for the non-chlorinated solvent contamination and metals. Some questions have since arisen regarding the "Tortfeasor's Act" and how (or if) it affected the outcome of mediation and the SFCJ. That issue appears to remain unresolved and has not been discussed since approximately 2006. The SFCJ was modified in 2006 in order to adjust timelines. Copies of the legal documents related to this settlement were attached to the "Request for OGC Assistance," dated January 14, 2011.

Because both respondents' facilities are adjacent; the groundwater plumes are comingled; and solvents are involved in both cleanups; both respondents were asked to allow the other party access onto their facility, allow the other party to utilize the groundwater wells on their property, and use EPA Method 8260 (which can measure both some chlorinated and non-chlorinated solvents). Both facilities agreed and, since selling the properties, subsequent RPO's have also cooperated with the Department and one another. This cooperation has allowed the Department to use the data from one cleanup to better define and supplement the other cleanup. The two cases are managed separately, but are coordinated to ensure that the tasks on both sites are timed to occur in the most productive sequence. Delays by one of the parties can cause delays and additional costs to the other.

NARRATIVE

The surrounding area and facilities appeared to be unchanged. Mr. Calabrese is still operating under the name of All Insurance Auto Repair. The former GP building is still unoccupied. There is a new "for sale" sign on the fence of the former GP parcel behind the building.

Report prepared by:_____ Date:_____11-07-2011_____

Leslie Smith
Environmental Specialist III