High Risk Site - 2

Jak Service Center
Inc. DBA United Fuel

RECEIVED
09/03/2018
DERM ENVIRONMENTAL MONITORING & RESTORATION DIVISION

TEMPLATE SITE ASSESSMENT REPORT

[Signature Page]

DATE: 08/29/2018

PO#/TA#/WO#: B22481

Site FDEP Facility ID #	13/8503663 Score: 10
Site Name:	Jak Service Center Inc DBA United Fuel
Address:	6900 SW 8th Street
City:	Miami
County:	Miami-Dade County
Consultant Company:	ATC Group Services LLC
Address:	9955 NW 116th Way, Suite 1
City, State, Zip	Miami, Florida 33178
Consultant Rep.:	Dwight W. Schwendeman
Phone #:	(305) 882 8200
Responsible Party Name:	Jorges & Julia Ugan
Address:	11050 SW 143 Road Place
City, State, Zip:	Miami, Florida 33186
Responsible Party Rep.:	Jorges & Julia Ugan
Phone #:	(305) 904-5975

CERTIFICATION:

Qualified Registered Professional Engineer or Registered Professional Geologist Certification.

I hereby certify that I have supervised the field work (as summarized in the "Recent Site Assessment Activities" section) and preparation of this report, in accordance with Florida Rules and Regulations. As a registered professional geologist and/or professional engineer, as authorized by Chapters 492 or 471, Florida Statutes, I certify that I am a qualified groundwater professional, with knowledge and experience in groundwater contamination assessment and cleanup. To the best of my knowledge, the information and laboratory data summarized in the "Recent Site Assessment Activities" section (including the applicable attachments) are true, accurate, complete, and in accordance with applicable State Rules and Regulations. ***Include a hard (paper) copy of this cover page, signed and sealed, when submitting the report electronically.***

Consultant Name: Fritz Danneveld

Signature: _____

PE or PG License #: 1126

Date: 8/29/18 FLORIDA Stamp or Seal

Site Name: Jak Service Center dba United Fuel
Facility ID #: 13/8503663
Date: 08/29/2018

TABLE OF CONTENTS

SECTIONS INCLUDED IN REPORT:

Appendices

Site Name: Jak Service Center dba United Fuel
Facility ID #: 13/8503663
Date: 08/29/2018

LIST of ATTACHMENTS

(Formats for Tables and Figures are provided in FDEP Petroleum Cleanup Preapproval Program Standard Operating Procedures (SOP) Manual, 5th Edition, April 2005 and subsequent updates, SOP PCS-004, SOP PCS-005, SOP PCS-006 and the October 1998 Assessment Report Preparation guidance). Updated Table formats can be found at the Petroleum Cleanup website.

TABLES

ATTACHED		*TABLE #*	*APPENDIX*
Assessment Tables			
	SOIL SCREENING RESULTS	1	A
	SOIL ANALYTICAL RESULTS	2A-B	A
	GROUNDWATER ANALYTICAL RESULTS *(monitoring wells)*	3A-B	A
	GROUNDWATER ELEVATION DATA	4	A
	MONITORING WELL CONSTRUCTION DETAILS	5	A
	SUPPLY WELL CONSTRUCTION DATA *(includes well owner name and address information)*		A
	SITE ASSESSMENT SUMMARY FORM	6	A

Site Name: Jak Service Center dba United Fuel
Facility ID #: 13/8503663
Date: 08/29/2018

FIGURES

ATTACHED	*FIGURE #*	*APPENDIX*
Assessment Figures		
SITE PLAN - *including current and/or former tank locations, piping/utilities, and extent of soil excavations (if applicable)*	1	B
SITE VICINITY AREA USE MAP - *including all potential off-site sources of contamination and water wells located within 500 feet*	2	B
POTABLE WELL LOCATION MAP - *A USGS quadrangle map illustrating all municipal/public and private supply wells located within 1/2 and 1/4 mile, respectively (respective radii illustrated)*	3	B
SOIL SAMPLING OVA RESULTS - *including data collected during monitoring well installation*	4	B
SOIL SAMPLE ANALYTICAL RESULTS - *including data collected from monitoring well installations.* ***This map can include recommended soil boring locations***	5	B
GROUNDWATER ANALYTICAL RESULTS MAP - *Benzene, BTEX, MTBE & Naphthalene concentrations plotted at each sampling point.* ***This map can include recommended well locations***	6	B
GROUNDWATER ELEVATION CONTOUR MAP *- with flow interpretation for each impacted zone.* ***Note, previous flow interpretations should be submitted when they are not consistent with the current flow interpretation(s)***	10 thru	B
GROUNDWATER PLUME INTERPRETATION(S) *- with contaminant isoconcentration contours plotted for each significant contaminant of concern (or total BTEX)*	7 thru 9	B
ESTIMATED FREE PRODUCT PLUME AREA *- including thickness measured*	NA	
GEOLOGIC/HYDROLOGIC CROSS-SECTION - *including lithologic, well screen and depth to water fluctuation information*	NA	
PROPOSED SOIL BORING AND MONITORING WELL LOCATIONS *(if not illustrated in another figure)*	NA	

FIGURES (continued)

ATTACHED		*FIGURE #*	*APPENDIX*
Remediation Figures			
____	REMEDIAL SYSTEM SITE LAYOUT - *showing remedial system layout and locations of major system components (e.g., monitoring and recovery wells, system housing, effluent discharge, etc.)*	NA	____
____	REMEDIATION SYSTEM SCHEMATIC - *showing treatment influent/effluent discharge, etc.*	NA	____

MISC. ATTACHMENTS

ATTACHED		*APPENDIX*
X	LABORATORY ANALYTICAL REPORTS - *including COCs required for all sampling*	E
X	GROUNDWATER SAMPLING LOGS – *form FD 9000-24 is required for all groundwater sampling*	E
X	FIELD INSTRUMENT CALIBRATION RECORDS- *form FD 9000-8 is required for all groundwater sampling*	E
X	WELL CONSTRUCTION & DEVELOPMENT LOGS *recommend using Petroleum Cleanup Program forms*	D
X	BORING LOGS *recommend using Petroleum Cleanup Program forms*	D
____	CONTAMINATED SOIL AND/OR GW VOLUME AND CONTAMINANT MASS CALCULATIONS	____
____	COPIES OF OFF-SITE ACCESS AGREEMENTS	____
X	COPY OF APPLICABLE WORK ORDER, PURCHASE ORDER, OR TASK ASSIGNMENT	F
X	COPY OF APPLICABLE CHANGE ORDERS	F
____	COPY OF DISPOSAL MANIFESTS - *to document IDW soil and/or groundwater disposal*	____
____	AQUIFER TEST CALCULATIONS	____
____	CHRONOLOGY OF FIELD WORK PERFORMED *- a list of what was performed and when performed*	____

_____ COPY OF PREVIOUS REMEDIAL ACTION PLAN APPROVAL ORDER _____

_____ COPY OF PREVIOUS SITE (OR CONTAMINATION) ASSESSMENT REPORT APPROVAL LETTER _____

_____ OTHER: _____ _____

_____ OTHER: _____ _____

_____ ORIGINAL SIGNED AND SEALED PROFESSIONAL LAND SURVEY _____

_____ ELECTRONIC COPY OF PROFESSIONAL LAND SURVEY

X___ ELECTRONIC COPY OF TEMPLATE SITE ASSESSMENT REPORT

SECTION I - Facility & Discharge Information/Initial Abatement

Site Name

☐ *Cluster Site*

Part _____ Facility FDEP# _____ Site Name: _____

I-A) Site Description

Please provide a brief description of the site and a summary of site history and operations. What type of business or businesses (if any), non-petroleum as well as petroleum, operated at the former/present site? If petroleum, describe where all former and current fuel tanks, lines and dispensers were/are located (indicating how this information was obtained). Describe any access constraints (utility conduits, canopies, land cover, etc.) which also might influence the placement of monitoring wells and/or the installation of soil borings. Indicate whether there are any owner issues or traffic concerns which might effect when the work can be performed? ***Please indicate when the requested information is best illustrated on the site map.***

The site is located at the southwest corner of the of the intersection of Southwest 8th Street and Southwest 69th Avenue, in Miami, Florida as depicted on Figure 1, Appendix A. The site is currently operated as a vehicular fuel service station and convenience store by United Fuel. The current underground storage tank (UST) system consists of two 10,000-gallon capacity USTs used to store regular and premium unleaded gasoline, and one 10,000-gallon capacity UST used to store diesel fuel. The USTs are of double-wall fiberglass construction and fitted with secondary containment sumps at each submersible turbine pump location. Double-wall fiberglass product transfer piping supplies fuel to four gasoline dispensers located in the northeast portion of the site and a single diesel fuel dispenser located on the east side of the site. The dispensers are fitted with secondary containment sumps. The system is fitted with an INCON TS-550 automatic tank gauging system. The UST system was installed in September 1995. The current layout of the site including the UST system and monitoring well network is depicted on Figure 1, Appendix B.

Site map (Figure 1) illustrating all current & former tanks, lines and dispensers (including utilities, canopies, etc.) is included in Appendix B

Site Name: Jak Service Center dba United Fuel
Facility ID #: 13/8503663
Date: 08/29/2018

I-B) Petroleum System/Tank History

List current and former UST's and/or AST's operated at site. Systems (PAST AND PRESENT) must be illustrated on Site Plan. This information should be a summary of the Department's STCM database, all tank closure reports (if applicable) and site owner & operator information.

ID#	AST or UST	Size (gallons)	Installation Date	Contents (unleaded gasoline/ diesel/etc.)	Status (active, removed or abandoned [in place])	Date Removed or Abandoned (if applicable)
1	UST	3,000	<08/01/1984	Gasoline	Removed	1995
2	UST	3,000	<08/01/1984	Gasoline	Removed	1991
3	UST	3,000	<08/01/1984	Gasoline	Removed	1991
4	UST	550	Unknown	Waste Oil	Removed	Unknown
5	UST	550	Unknown	Waste Oil	Removed	Unknown
6	UST	550	Unknown	Waste Oil	Removed	Unknown
7	UST	10,000	09/01/1995	Unleaded Gasoline	Active	NA
8	UST	10,000	09/01/1995	Unleaded Gasoline	Active	NA
9	UST	10,000	09/01/1995	Vehicular Diesel	Active	NA

-If above information is different than the Department's STCM database, please indicate source of updated information:

Based on a 1984 Dade County tank registration form dated April 1984 obtained from the RER/DERM Online Environmental Records database, UST Nos. 1 through 3 were installed prior to 1984. Additionally, multiple records reference UST Nos. 1 through 3 as 4,000-gallon capacity versus the 3,000-gallon capacity referenced in the FDEP STCM database.

	YES	NO
Active Site? If yes, please indicate method, date and extent of latest tank and line tightness test (include copy of tightness test results). If tank tightness test results are not available, please explain why they are not necessary or indicate when next tightness test will be performed.	X	

The USTs and piping are of double-wall fiberglass construction and periodic tank and line tightness testing is not required by Chapt62-762, FAC. Periodic compliance testing is performed by Discovery Tank Testing, Inc. The most recent available compliance testing results from July 2016 indicate the tank and line leak detector systems are functional and passed the testing procedures. A copy of the compliance test results are provided in Appendix C.

Copy of tightness test results included in Appendix NA

I-B) Petroleum System/Tank History (continued)

	YES	NO
Petroleum System Closure? *If yes, briefly describe type of petroleum system (AST, UST, distribution lines, etc.) and closure activities conducted.* ***Description not needed if copy of system tank closure report included.***	X	

Note: Section I-C should be used to document soil, groundwater or product removal performed during closures.

A partial removal/upgrade of the vehicular fuel UST system was conducted in July 1991. Two of three 3,000 gallon steel USTs were removed and one 3,000-gallon steel UST was lined and restored to service. Note the three steel USTs are sometimes referenced as 4,000 USTs. Two dispenser islands and associated steel product piping were removed. A single dispenser/island was installed and with double-wall fiberglass piping. A TCAR for the removal of the two 3,000-gallon USTs prepared by Service Station Aid Environmental and dated August 7, 1991. The TCAR references the removal of three 550-gallon and two 2,000-gallon capacity USTs. Note, discussion of the three 550-gallon waste oil tanks is not included in this TSAR as no contamination was recorded at for these tanks and the site PCPP eligibility is specific to the vehicular fuel USTs. The TCAR references the removal of soil with organic vapor analyzer (OVA) readings greater than 500 parts per million (ppm). Groundwater samples were collected from the UST excavation pit for analysis by EPA Methods 602 and 610 for BTEX compounds, MTBE and PAHs. The report references the groundwater is "contaminated by members of the Gasoline groups in the vicinity of the underground storage tank". Groundwater analytical results were above the 1991 state standards and current GCTLs. A copy of the 1991 TCAR is provided in Appendix C.
The remaining 3,000-gallon steel UST piping and dispenser was removed from the subsurface and replaced with a new UST system in September 1995. The new UST system consisted of: three 10,000-gallon capacity double-wall fiberglass UST (two unleaded gas and one diesel fuel); double walled fiberglass piping; four gasoline dispensers north of the building and one diesel fuel dispenser east of the building. A TCAR for the removal of the 3,000-gallon UST was not located during the file review. A DERM tank Inspection Form dated September 12, 1995 indicates a strong petroleum odor was noted and references discussion with the contractor regarding elevated soil sample OVA readings. A copy of the As-Built drawing for the UST system installed in 1995 (current system) are provided in Appendix C.

☐ Description of system closure activities included in attached tank closure report.

Copy of tank or system closure report (if applicable) included in Appendix C

I-C) Release Information

	Discovery Date(s)	Program Type(s): *ATRP, EDI, PCPP, PLRIP or Non-program* *(please indicate if a non-program discharge has been combined with an eligible discharge)*
1st	07/15/1991	PCPP
2nd		
3rd		
4th		
5th		
6th		

-Source description and release history that includes date(s) of release(s), cause(s) of release(s), where they occurred, type(s) of product released and volume(s) of release(s) [please explain how estimates were derived].

Information regarding any discharge was not available in the FDEP OCULUS database. Information available on the RER/DERM Online Environmental Records database regarding the July 1991 discharge is limited to a DERM Site Inspection Form dated July 15, 2018 which references free floating product was observed on the surface of the groundwater exposed during the partial removal/upgrade of the vehicular fuel UST system in 1991 and the 1991 TCAR which references elevated PID readings for soil. A copy of the form is provided in Appendix C.

- *Suspected type(s) of product released:*

[X]	Leaded Gasoline	[ ]	Diesel/Kerosene	[X]	Unleaded Gasoline
[ ]	Used Oil	[ ]	Unknown	[ ]	Other: _____

I-D) Initial Abatement/Source Removal

(Soil/Groundwater/Free Product removal during tank closures):

Was soil contamination detected during petroleum system closure? *If yes, please briefly describe extent of petroleum impacts and method(s) used to identify soil contamination.*	YES	NO	N/A
	X		

The 1991 TCAR references the removal of contaminated soil as follows: "On July 17, 1991 the UST's and surrounding soil were excavated. The extent of the excavation was determined by screening the excavation pit walls with a Photoionization Detector (PID), until organic vapor readings of less than 500 ppm for Gasoline and 50 ppm for Diesel fuel were detected or structural constraints impeded further excavation." There is a date discrepancy with respect to the July 15, 1991 DERM Inspection Form. Reference to excavated and stockpiled soil is referenced in the DERM Site Inspection Form dated July 15, 1991.

Based on review of the DERM tank Inspection Form dated September 12, 1995, contaminated soil was detected during the 1995 removal of the remaining 3,000-gallon capacity UST. A strong petroleum odor was observed at the UST excavation pit. Reportedly, elevated OVA readings were obtained from soil samples collected by the consultant, Miller Engineering. "Contaminated" soil was observed staged on-site which a construction representative indicated was slated for thermal treatment at Rinker. The volume of soil removed and final disposition are unknown. A TCAR for the 1995 UST removal was not located during the review of OCULUS or RER/DERM Online Environmental Records database.

Site map (Figure NA) illustrating soil sampling locations is included in Appendix _____

Tabular summary of soil sampling results (Table NA) is included in Appendix _____

Was contaminated soil removed? *If yes, please describe the horizontal and vertical extents of the soil removal and indicate where contaminated soil might still exist.*	YES	NO	N/A
	X		

Contaminated soil was removed during the 1991 UST removal as referenced above. The 1993 Contamination Assessment Report references the removal of approximately 80 cubic yards of contaminated soil and disposal by a "properly licensed contractor" on page 1 of the report in the Initial Remedial Action section.

Contaminated soil was removed during the 1995 UST removal as referenced above. The volume and disposition is unknown.

Approximate depth to water at time of excavation (if known) ~6 *feet bls*

Approximate amount removed *Unknown* *tons* [ ] *yds*^{3} [~80] *Date:* *1991*

Disposal method: *Unknown*

I-D) Initial Abatement/Source Removal (continued)

	YES	NO	N/A
Was groundwater contamination detected during petroleum system closure? If yes, please indicate whether wells were installed (including their construction details if possible) and indicate the maximum levels for petroleum contaminants of concern that were detected.	X		

Yes, as referenced in Section I-B, concentrations of BTEX compounds were above the 1991 standards and current GCTLs in a sample collected from the groundwater exposed in the UST excavation pit.

Site map (Figure NA) illustrating groundwater sampling locations is included in Appendix _____

	YES	NO	N/A
Was contaminated water removed? If yes, please identify removal location(s) and describe method of removal.		X	

Removal of contaminated water is not referenced in the 1991 TCAR or 1991 DERM inspection form. Removal of contaminated water is not referenced the DERM tank Inspection Form dated September 12, 1995.

Approximate volume removed: _____ *gallons* *Date(s):* _____

Disposal method: _____

I-D) Initial Abatement/Source Removal (continued)

	YES	NO	N/A
Was free product detected during petroleum system closure? If yes, please describe location(s) where product was observed and thickness observed.	X		

Yes, as referenced in Section I-C, free product was observed floating on the exposed groundwater in the former UST excavation pit by the DERM inspector (refer to DERM 07/15/1991 Inspection Report Form in Appendix C).

Free product is not referenced in the DERM Tank Inspection Form dated September 12, 1995.

Site map (Figure NA) illustrating locations where free product was observed is included in Appendix _____

Tabular summary of product thickness (Table NA) is included in Appendix _____

	YES	NO	N/A
Was free product removed? If yes, please identify removal location(s) and describe method of removal.			

Recovery of free product via absorbent pads is referenced on the 1991 DERM inspection form, however there is no reference of an estimated volume recovered or the disposition of the pads. Free product recovery is not referenced in the 1991 TCAR. The 1993 Contamination Assessment Report references the use of 14 absorbent pads and the "legal disposal" of the pads on page 1 of the report in the Initial Remedial Action section.

Volume removed: _____ *gallons* *Date(s):* _____

Disposal method: _____

SECTION II - Background Site Assessment Information

II-A) Receptor Investigation

	YES	NO	Unknown
Are large (>100,000 gallons per day) public supply potable wells located within 1/2 mile? If yes, please indicate distance(s) and direction(s) from site, if they are located downgradient and if the well(s) are screened deeper than contamination. If unknown, please explain.		X	

.

Potable well survey map (Figure 3) is included in Appendix B
Potable well construction summary (Table NA) is included in Appendix

	YES	NO	Unknown
Are water wells, including irrigation, industrial and all potable wells (<100,000 gallons per day), located within1/4 mile? If yes, please identify the type(s) of wells, their distances and directions from the site, if they are located downgradient and if the well(s) are screened deeper than the contamination. If unknown, please explain.		X	

Water well survey map (Figure) is included in Appendix
Water well construction summary (Table) is included in Appendix

II-A) Receptor Investigation (continued)

	YES	NO
Was an area use survey performed? *If yes, please identify all water wells within the survey area (as identified in the database searches and walk through survey), all surface waters, any basements or other subsurface structures and any other receptors which might be impacted. Please indicate predominant property use in area and if there are any potential off-site contamination sources located within at least a one block radius of the contaminant plume.*		X

Area use survey map (Figure 2) is included in Appendix B

	YES	NO	Unknown
Are there any potable wells that have been impacted by contamination? *If yes, please describe what was done to provide users of the contaminated potable well(s) an alternative drinking water supply. If unknown, please explain.*		X	

II-A) Receptor Investigation (continued)

	YES	NO	Unknown
Are there any surface water bodies which have been impacted by the contamination? *If yes, please describe what (if anything) has been done to abate or prevent contamination impacting surface water. If unknown, please explain.*		X	

	YES	NO
Are the Chapter 62-777, F.A.C., (effective April 17, 2005) default Cleanup Target Levels (CTLs) for soil and groundwater the cleanup goals for this site?	X	

If no, please indicate if the cleanup goals are from the 1999 version of Chapter 62-770, F.A.C., or pre-1999, apply to this site (providing the reason why) or if alternative cleanup target levels have been or might be established for this site (outlining all engineering and/or institutional controls which already exist or will need to be implemented in the future).

Site Name: Jak Service Center dba United Fuel
Facility ID #: 13/8503663
Date: 08/29/2018

II-B) Previous Site Assessment

Information not described in Section I ("release information" or "initial abatement/source removal")

	YES	NO
Was site assessment work performed? *If yes, please indicate who performed it (with reason performed) and dates performed (see table below)*	X	

List of all reports where site assessment information was originally submitted to the FDEP (oldest to most recent):

Date of report	Title of report	Company that prepared report
02/02/1993	Contamination Assessment Report	Petro-Hydro, Inc.
05/27/1994	Contamination Assessment Addendum Report	Petro-Hydro, Inc.
12/05/1994	Contamination Assessment Report Addendum II	Petro-Hydro, Inc.

	YES	NO
Was soil assessment performed? *If yes, please briefly describe work performed and discuss results.* ***A description of the sampling results can be omitted if the data are included with current tabular summaries and soil plume maps (if applicable).***	X	

Soil samples were collected from the 0-2, 2-4 and 4- 6 foot depth intervals from during the advancement of 15 soil borings including monitoring well boreholes. Soil sample headspace screening was conducted with an OVA. "Based on the OVA results obtained during the preparation of the CAR, CARA and CARA II, no excessively contaminated soil was identified at the site". Laboratory analysis was not conducted on any soil samples during the 1992/1994 contamination assessment.

☐ Results included in current soil OVA screening and soil analytical summary tables.

Site map (Figure multi) illustrating sampling locations is included in Appendix C
Tabular summary of soil sampling results (Table 1&2) is included in Appendix C

II-B) Previous Site Assessment (continued)

	YES	NO
Any monitoring wells installed? *If yes, briefly identify where the wells were installed and describe their construction. Please indicate if the wells are still on-site.* ***The well descriptions and can be omitted if the information is included in a current tabular summaries.***	X	

10 shallow water table monitoring wells MW-5 through MW-14 and two deep monitoring wells DMW-1 and DMW-2 were installed during the 1992/1994 contamination assessment. The wells were installed in the vicinity of the former UST area and former dispenser to define dissolved phase hydrocarbons. The shallow water table monitoring wells were installed using hollow stem auger technology and constructed with two-inch diameter Schedule 40 PVC with either 9 or 10 feet of 0.010 or 0.015-inch slotted screen and five feet of solid riser. The borehole annular space was backfilled with either 20/30 or 6/20 grade silica sand. The wells were developed by the over pumping method. The wells were finished below grade in steel manholes..

Site map (Figure 1) illustrating well locations is included in Appendix C
Tabular summary of well construction details (Table 5) is included in Appendix A

	YES	NO
Has direct push (geoprobe) groundwater grab-sampling been performed? *If yes, briefly identify the locations and depths where the samples were collected..* ***A description of the sample locations and results can be omitted if the information is included in current site maps and tabular summaries***		X

Site map (Figure _____) illustrating the groundwater sampling results is included in Appendix _____
Tabular summary of groundwater sampling results (Table _____) is included in Appendix _____

II-B) Previous Site Assessment (continued)

YES NO

Was groundwater sampling performed? *If yes, briefly describe what sampling was performed and summarize results.* ***A description of the sampling results can be omitted if the data are included with the current tabular summaries and groundwater plume maps (if applicable).*** [X] [ ]

Groundwater sampling during the 1992 1992/1994 contamination assessment included the collection of groundwater samples from four compliance wells MW-1 through MW-4), 10 shallow water table monitoring wells (MW-5 through MW-14), and two deep monitoring wells DMW-1 and DMW-2). Groundwater samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX compounds), methyl tert butyl ether (MTBE) polycyclic aromatic hydrocarbons (PAHs), volatile organic halocarbons (VOHs), ethylene dibromide (EDB) and lead (Pb). BTEX compounds and PAHs were detected above the GCTLs and NADCs in several monitoring wells. The highest concentrations of dissolved phase BTEX compounds and PAHs, were detected in monitoring wells MW-1, MW-2 and MW-3, located in close proximity to the former UST area and former dispenser islands.

[ ] Results included in current groundwater analytical summary table.

Site map (Figure multi) illustrating sampling locations is included in Appendix C
Tabular summary of groundwater results (Table 1&2) is included in Appendix C

YES NO

Has free product been observed in wells or excavations (not including tank and/or system closures)? *If yes, please describe.* ***A description of the thickness measured can be omitted if the previous data are included with the current tabular summaries and illustrated on current free product plume maps (if applicable).*** [ ] [X]

Site map (Figure _____) illustrating locations where free product was observed is included in Appendix _____
Tabular summary of free product thickness (Table _____) is included in Appendix _____

II-B) Previous Site Assessment (continued)

Has the previous site assessment been approved by the FDEP (was a CAR or SAR approval letter issued?) YES [X] NO [ ]

Date site assessment (or contamination assessment) was approved: 12/30/1994

II-C) Previous Remediation

Has a Remedial Action Plan been prepared? *If yes, please briefly describe the remedial strategy.* ***The description of the remedial strategy can be omitted if the RAP was implemented (this item will be addressed in the active remediation section that follows).*** YES [ ] NO [X]

Date of RAP: _____ Prepared by: _____

[ ] Remedial Action Plan approved by FDEP. Date of RAP approval order _____

Was soil excavation (not associated with a system closure) performed? *If yes, please briefly describe work performed and discuss results.* YES [ ] NO [X]

The description of the source removal can be omitted if already discussed in the initial abatement section.

Approximate depth to water at time of excavation (if known) _____ *feet*

Site map (Figure_____) illustrating sampling locations and extent of excavation(s) is included in Appendix _____

Tabular summary of soil sampling results (Table_____) is included in Appendix _____

II-C) Previous Remediation (continued)

	YES	NO
Has active remediation been performed? If yes, please indicate dates performed (each applicable technology), evaluate previous system effectiveness and indicate if any previous equipment is still available for cleanup.		X

Identify type(s) of active remediation previously performed:

- ☐ Air Sparging & Vapor Extraction
- ☐ Groundwater Recovery (pump & treat)
- ☐ Multiphase Extraction (w/dual phase)
- ☐ Limited scope well over-development
- ☐ Excavation
- ☐ Enhanced Bio-Remediation (ORC, etc.)
- ☐ Free Product Recovery
- ☐ Other: _____

SECTION III - Recent Site Assessment Activities

III-A) Soil Investigation

[soil sampling]

Was soil (vadose zone and smear zone) investigated? *If yes, please provide a brief discussion of soil sampling methodology, including the method(s) used to collect the laboratory samples. If no, please explain.*	YES	NO
	X	

Soil assessment tasks were conducted on June 5, 2018 using a hand tools and a GeoProbe direct push rig operated by JAEE Environmental Services. Five soil borings (SB-1 through SB-5) were advanced at the approximate locations identified on the site map provided by the RER/DERM in the scope of work email dated April 12, 2018. The GeoProbe soil sampling core tool was advanced to eight feet below grade to ensure recovery through the six foot depth interval. Soil samples were collected at two-foot intervals to six feet below grade per the scope of work. Soil sample headspace analysis was conducted in the field utilizing a Mini RAE 3000 photoionization detector. Soil samples ranged from below the OVA detection limit of 0.1 ppm (multiple boring locations/depths) to 0.5 ppm for the soil sample collected from the 0 to 2 foot depth interval at SB-3. The lithology encountered during soil boring advancement consisted primarily of mixed fill (former UST area), a medium to fine grain sand, and very light grey to white oolitic limestone. The water table was encountered at approximately 6.1 feet below grade. Per discussion with the RER/DERM case manager, grey stained soil with a petroleum odor was observed in the samples recovered from just below six feet to at least approximately eight feet below grade at soil borings SB-3, SB-4 and SB-5. The soil samples recovered from the six to eight foot depth interval were not screened with an OVA or sampled for laboratory analysis as per the FDEP PO and RFC No. 1.

Soil samples were collected for laboratory analysis directly from the hand auger bucket or direct push acetate sleeve using a soil syringe, encore sampler or stainless steel spoon as appreciate for the required analysis.

Date of last soil screening event (OVA data) with or without laboratory sampling: 06/05/2018

Site map (Figure 1) illustrating sampling locations is included in Appendix B

Tabular summary of soil screening results (Table 1) is included in Appendix A

Tabular summary of laboratory soil sampling results (Table 2AB) is included in Appendix B

Soil sampling logs (for laboratory samples) are included in Appendix D

Soil samples (previous sampling events included) have been collected and analyzed for:

Required for all suspected GAG & KAG contaminated sites.

X	BTEX/MTBE (*low//high)*	X	PAHs	X	TRPHs

Required for all sites where Used Oil contamination is suspected.

	Priority Pollutant Volatile Organics & Extractable Organics	X	As, Cd, Cr, Pb		TRPHs

III-A) Soil Investigation (continued)

	YES	NO	N/A
Was soil Investigative Derived Waste (IDW) generated?		X	

If yes, please describe method used for identifying soil needing disposal:

Volume of contaminated soil disposed of: _____ ☐ *drums* ☐ *cu. yds.*

Disposal method: _____

[soil results]

	YES	NO	N/A
Was soil contamination above applicable Cleanup Target Levels identified above the water table?		X	

If yes, identify where concentrations above CTLs were detected, depths encountered and corresponding OVA readings. If no, please indicate whether laboratory results agree with OVA readings (if they do not agree, please discuss significance of OVA screening data and/or reliability of laboratory results). If "N/A", please explain.

All vadose zone soil sample OVA results were less than one ppm. A total of five soil samples were collected during the soil assessment program as per the RER/DERM April 12, 2018 email and RFC No. 1. Soil samples were collected from soil boring SB-1 (4 - 6 feet), SB-2 (0 - 2 feet), SB-3 (0 - 2 feet) SB-4 (4 – 6 feet) and SB-5 (2 – 4 feet). The soil samples were submitted to SGS for analysis in accordance with EPA Test Methods 8260B for benzene, ethylbenzene, toluene and total xylenes (BTEX compounds) and methyl tert butyl ether (MTBE) and 8270C for polycyclic aromatic hydrocarbons (PAHs), and the FL-Pro Method for total recoverable petroleum hydrocarbons (TRPH). Additionally, the soil sample collected at SB-5 was analyzed by EPA Test Method 6010 for lead. Target petroleum hydrocarbon compounds were not detected above the Soil Cleanup Target Levels (SCTLs) in any of the five soil samples. Lead was not detected above the SCTLs in the soil sample collected from SB-5.

Approximate volume of vadose zone soil contamination: NA *cu. yds.*

Site map (Figure NA) illustrating extent of soil contamination is included in Appendix _____

Soil concentration summary (Table 2AB) is included in Appendix A

Soil sampling logs (for laboratory samples) are included in Appendix D

III-A) Soil Investigation (continued)

	YES	NO	N/A
Was vadose zone soil contamination delineated? *If no, please describe where additional borings should be located (indicating proposed depths of investigations). If "N/A", please explain.*			X

Site map (Figure _____) illustrating proposed sampling locations is included in Appendix _____

	YES	NO	N/A
Has a smear zone been identified? Definition: The "smear zone" is the soil contamination located within the zone of water table fluctuation (it has been described as a "secondary source" of contamination). *If yes, please discuss the horizontal and vertical contaminant mass distribution in the smear zone. If no, please describe what additional information is needed (soil borings, well data, etc.). If "N/A", please explain.*	X		

As previously mentioned, grey stained soil with a petroleum odor was observed in the samples recovered from just below six feet to at least approximately eight feet below grade at soil borings SB-3, SB-4 and SB-5. The soil samples recovered from the six to eight foot depth interval were not screened with an OVA or sampled for laboratory analysis as per the FDEP PO and RFC No. 1.

Site map (Figure NA) illustrating proposed sampling locations is included in Appendix _____

III-B) Groundwater Investigation

[monitoring wells/direct push]

	YES	NO
Were monitoring wells installed (or abandoned)? If yes, briefly identify which wells were installed/abandoned and describe their construction. ***The well locations and construction details can be omitted if the information is included in current site maps and tabular summaries.***	X	

Monitoring well installation was conducted on June 5, 2018 as direct by the RER/DERM through the approval of RFC No. 1. Monitoring well MW-9 was installed by JAEE Environmental Services (license No. 11313) under the supervision of ATC personnel at the location. Monitoring well MW-9 was installed to a depth of approximately 13 feet below grade by the direct push method using a GeoProbe rig. The well was constructed of 1.5-inch diameter Schedule 40 PVC, with 10 feet of stainless steel, wire mesh-wrapped pre-packed screen and approximately three feet of solid riser. The well was finished at the surface within a traffic bearing road box and fitted with an expandable collar, water tight, lockable cap. The well was developed by the over pumping method.

Site map (Figure 1) illustrating the well locations is included in Appendix B
Tabular summary of well construction details (Table 5) is included in Appendix A
Monitoring well completion reports are included in Appendix D

	YES	NO
Was direct push (geoprobe) groundwater grab-sampling performed? If yes, briefly identify the locations and depths where the samples were collected.. ***A description of the sample locations and results can be omitted if the information is included in current site maps and tabular summaries***		N

Site map (Figure NA) illustrating the groundwater sampling results is included in Appendix _____
Tabular summary of groundwater sampling results (Table _____) is included in Appendix _____

III-B) Groundwater Investigation (continued)

[groundwater sampling]

Was groundwater sampling performed? *If yes, please provide a brief discussion of groundwater purging and sampling methodology and identify the wells that were sampled. If no, please explain.* ***A description of the sampling results can be omitted if the information is illustrated in current contaminant plume maps and tabular summaries***	YES	NO
	X	

Groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8 and MW-B on February 21 and 22, 2018as per PO No. B22481. The groundwater sampling was performed in accordance with FDEP SOP FS 2200 "Groundwater Sampling". Depth-to-groundwater and depth-to-bottom measurements were utilized to calculate the well volumes for the six wells. Well purging was conducted using a peristaltic pump fitted with disposable polyethylene tubing. The wells were purged at a flow rate between 0.1 and 0.2 gallons per minute (gpm) while temperature, pH, turbidity, conductivity and dissolved oxygen readings were measured and recorded. Groundwater samples were collected and placed in the appropriate containers as designated by SGS. The sample containers were placed on ice and shipped by Federal Express to SGS for analysis in accordance with EPA Test Methods 8260B for BTEX compounds and MTBE and 8270D for PAHs, and the FL-Pro Method for TRPH. Additionally, the groundwater sample collected from MW-7 was submitted for analysis in accordance with EPA Test Methods 8260B for volatile organic compounds (VOCs), 504.1 for ethylene dibromide and 6010C for lead. A groundwater sample was collected from MW-9 (new well) on June 7, 2018 for analysis in accordance with EPA Test Methods 8260B for BTEX compounds and MTBE, 8270D for PAHs, 6010 for lead, and the FL-Pro Method for TRPH. Groundwater sampling was performed as previously referenced.

If groundwater sampling not performed, indicate date of last sampling event (if applicable): _____

Indicate wells sampled on that date (if applicable): _____

Site map (Figure 6) illustrating the groundwater sampling results is included in Appendix B

Tabular summary of groundwater sampling results (Table 3AB) is included in Appendix A

Groundwater field sampling logs are included in Appendix E

Groundwater samples (previous sampling events included) have been collected and analyzed for:

Required for all suspected GAG/KAG sites.

[X] BTEX/MTBE	[X] PAHs	[X] TRPHs

Required for all contaminated GAG/KAG sites.

[ ] EDB	[X] Lead (Pb)	[ ] VOHs

Required for all suspected used oil (or unknown fuel type) contaminated sites.

[ ] Priority Pollutant Volatile Organics & Extractable Organics	[ ] As, Cd, Cr, Pb	[ ] TRPHs

III-B) Groundwater Investigation (continued)

	YES	NO	N/A
Was groundwater IDW generated? If yes, please explain why disposal on-site was not possible.		X	

Volume of contaminated groundwater disposed of: _____ [ ] *drums* [ ] *gallons*

[groundwater results]

	YES	NO	N/A
Was groundwater contamination identified above the applicable Cleanup Target Levels? If yes, indicate locations where highest concentrations detected with depths encountered. If "N/A", please explain.	X		

The analytical results for the groundwater samples collected from monitoring wells MW-1 through MW-7, MW-B and MW-9 were below the Groundwater Cleanup Target Levels (GCTLs) for BTEX compounds, MTBE and TRPH. PAHs were not detected above the GCTLs in the groundwater samples collected from MW-2 through MW-6, MW-B and MW-9. Polycyclic aromatic hydrocarbons (PAHs) were detected above the GCTLs in the groundwater samples collected from monitoring wells MW-1 and MW-7 as follows:

- Concentrations of 1-methylnaphthalene (40.2 µg/l) and 2-methylnaphthalene (38.9 µg/l) were above the GCTL of 28 µg/l and below the Natural Attenuation Default Concentration (NADC) of 280 µg/l in the groundwater sample collect from MW-1.
- The concentration of naphthalene (84.9 µg/l) was above the GCTL of 14 µg/l and below the Natural Attenuation Default Concentration (NADC) of 140 µg/l in the groundwater sample collect from MW-7.
- Concentrations of 1-methylnaphthalene (75.1 µg/l) and 2-methylnaphthalene (118 µg/l) were above the GCTL of 28 µg/l and below the Natural Attenuation Default Concentration (NADC) of 280 µg/l in the groundwater sample collected from MW-7.

Ethylene dibromide, VOCs and lead were not detected above the GCTLs in the groundwater sample collected from MW-7. Lead was not detected above the GCTL in the groundwater sample collected from MW-9.

Approximate volume of contaminated groundwater: Unknown *gallons*

Plume maps [Figure(s) 7-9] illustrating extent of groundwater contamination is/are included in Appendix B

III-B) Groundwater Investigation (continued)

	YES	NO	N/A
Has horizontal delineation been completed in the surficial aquifer? If no, please describe where additional sampling is required (indicating wells and needed analyses) and/or additional monitoring wells should be installed (indicating proposed screened intervals for each). If "N/A", please explain.		X	

An additional monitoring well is required to provide horizontal definition of dissolved phase PAHs west of MW-1.

Site map (Figure 8-9) illustrating proposed monitoring well locations is included in Appendix B

	YES	NO	N/A
Has vertical delineation been completed in the plume area? If no, please describe where additional sampling is required (indicating needed analyses) and/or identify locations where vertical extent well(s) should be installed (indicating proposed screened intervals, single or double cased and length of surface casings). If "N/A", please explain.		X	

Deep monitoring wells are required adjacent to MW-1 and MW-7 to provide vertical delineation of PAHs.

Site map (Figure _____) illustrating proposed vertical extent well locations is included in Appendix _____

III-B) Groundwater Investigation (continued)

	YES	NO	Unknown
Is the lower aquifer(s) contaminated? If yes, please describe location and estimated depth of contamination. If unknown, please explain.			X

As indicated previously, deep monitoring wells are required adjacent to MW-1 and MW-7 to provide vertical delineation of PAHs.

Cross-section (Figure _____) illustrating vertical extent of contamination is included in Appendix _____

	YES	NO
Were natural attenuation parameters data collected? If yes, please specify which parameters were collected (and where collected) and provide interpretation of results.		X

Site map (Figure NA) illustrating natural attenuation parameter data is included in Appendix _____
Tabular summary of parameter sampling results (Table _____) is included in Appendix _____

III-B) Groundwater Investigation (continued)

[impacted receptors]

Have any supply wells or surface waters been impacted? *If yes, please indicate concentration(s) of water sample(s) taken and the wells/surface water body/bodies impacted. If unknown, please explain.*

YES	NO	Unknown
	X	

Is surface water and/or sediment sampling required? *If yes, please indicate where samples should be collected, and the proposed analyses. [Note: surface water sampling results should be summarized with the groundwater analytical results and sediment sampling results should be summarized with the soil analytical results.] If unknown, please explain.*

YES	NO	Unknown
	X	

Site map (Figure _____) illustrating sampling locations is included in Appendix _____

Are there any potable wells that need to be sampled? *If yes, please indicate wells to be sampled, and the proposed analyses. If unknown, please explain.*

YES	NO	Unknown
	X	

Site map (Figure _____) illustrating potable well locations is included in Appendix _____

III-C) Free Product Investigation

	YES	NO
Is free product present? *If yes, please indicate where product has been observed and its thickness, describe the product (color, odor, etc.) and estimate the type and age of the product.*		X

Site map (Figure _____) illustrating free product thickness at well locations is included in Appendix _____
Tabular summary of free product thickness (Table _____) is included in Appendix _____

	YES	NO	N/A
Has the extent of free product been delineated? *If no, please describe where additional wells or piezometers should be located.*			X

Site map (Figure _____) illustrating locations of proposed piezometers or wells is included in Appendix _____

	YES	NO	N/A
Is free product recovery ongoing? *If yes, please indicate the method and frequency of removal and summarize recovery efforts to date.*			X

Tabular summary of product recovery amounts (Table _____) is included in Appendix _____

	YES	NO	N/A
If free product recovery is not ongoing, are free product recovery efforts recommended? *If yes, please indicate the proposed method and frequency of removal. If no, please explain why product removal is not recommended.*			X

Site map (Figure _____) illustrating locations of proposed additional piezometers and/or wells for free product recovery is included in Appendix _____

III-D) Comments

Any issues or concerns not addressed in previous questions which might help better describe the degree and extent of the contamination at this site.

Evaluation of petroleum pact to soil in the saturated zone is recommended to evaluate long term effects on groundwater from petroleum stained soil observed as discussed in Section III A.

SECTION IV - Impacted Media

IV-A) Lithologic Summary

The impacted aquifer(s) can be best characterized by the following description (predominantly):
Select One

[ ] Sands [SW, SP, SM]	[ ] Sandy Clay, Clayey Sand or Silty Clays [SC, ML, CL]	[ ] Clays [CH]
[ ] Intermingled Sands and Clays	[ ] Intermingled Sands, Clays and Limestone	[X] Limestone [LS]

Please describe a typical soil column and all defined aquifers (perched/upper/lower). This should include a brief description of the site lithology (using the Unified Soil Classification System), and all other geologic and/or hydrogeologic characteristics of the area which might influence migration or transport of the contamination.

The lithology encountered during soil boring advancement consisted primarily of mixed fill (former UST area), a medium to fine grain sand (SW), and very light grey to white oolitic limestone. The water table was encountered at approximately 6.1 feet below grade.

Lithologic cross-section (Figure NA) is included in Appendix _____

Is the lithologic information obtained to date sufficient to characterize the impacted media?	YES	NO
	[X]	[ ]

If no, please explain [indicating area(s) where additional lithologic data are needed]. ***A map illustrating where the additional borings/wells need to be located can be omitted if those locations have been identified in the soil and/or groundwater sections.***

Site map illustrating proposed lithologic boring locations (Figure _____) is included in Appendix _____

IV-B) Hydrologic Summary

	YES	NO
Have all the monitoring well tops-of-casings been surveyed? *If no, please describe why this information has not been obtained. [Note, the TOC survey does not have to be performed by a Professional Land Surveyor. However, if the monitoring wells are installed prior to the survey, then the TOCs should be included in the Professional Land Survey.]*	X	

	YES	NO
Was a professional land survey performed? *If yes, please indicate date of survey, whether it was saved on disk (indicating type of program), and who performed it. Also indicate which monitoring wells (if any) were included in the survey. [Note: the site map must be based on the professional land survey.]*		X

	yes	no
Is original signed and sealed professional land survey included?		
Is copy of electronic version of land survey (labeled with ID #, site name & report date) included?		

	YES	NO
Have depth to groundwater and groundwater flow direction in the upper zone aquifer been determined? *If yes, please indicate average depth to water and fluctuation range (low/high stand) in all impacted areas of the site. If no, please explain.*	X	

Depth-to-groundwater measurements were gauged in MW-1 through MW-8 and MW-B on February 21, 2018. The monitoring well top-of-casing (TOC) elevations were determined with an auto-level to the nearest 0.01 foot on February 21, 2018. The TOCs were referenced to a temporary benchmark with an arbitrary elevation of +20.00 feet. Casing elevations, depth-to-groundwater measurements and resultant water table elevation data are presented in Table 4 Appendix A. On February 21, 2018, depth-to-groundwater measurements within monitoring wells MW-1 through MW-8 and MW-B ranged between 6.05 and 6.86 with an average depth-to-groundwater of 6.49 feet. The apparent groundwater flow direction on February 21, 2018 was towards the northeast with a hydraulic gradient of 0.00003 ft./ft. calculated between MW-1 and MW-7.

Site map(s) [Figure(s) 10] illustrating upper zone water table elevations and interpretation(s) of groundwater flow direction(s) is/are included in Appendix B

Tabular summary of all groundwater elevation data (Table 4) is included in Appendix A

IV-B) Hydrologic Summary (continued)

	YES	NO
Have depth to groundwater and groundwater flow direction(s) in lower and/or intermediate aquifer(s) been determined?		N

If yes, please indicate average depth to water and fluctuation range in vertical extent wells (low/high stand). If no, please explain.

Site map [Figure(s)_____] illustrating lower/intermediate zone water table elevations and interpretation(s) of groundwater flow direction(s) is/are included in Appendix _____

	YES	NO
Are perched aquifer conditions suspected? *If yes, please indicate estimated depth and thickness of perched zone and whether perched zone extends across entire site.*		N

Site map (Figure _____) illustrating estimated lateral extent of perched zone (when it does not extend across entire site), water level elevations and interpretation(s) of groundwater flow direction(s) is/are included in Appendix _____

	YES	NO	Unknown
Is the site tidally influenced? *If yes, please indicate tidal fluctuation range and whether groundwater flow direction might change during tidal cycle. If unknown, please indicate whether this issue is important at this site (outlining data collection plan if needed).*			X

The site is located approximately 3,100 feet southeast of a canal connected to the Miami river. Due to the distance to the nearest potentially tidally influenced water body, it is not likely that the groundwater beneath the site is tidally influenced.

Site map(s) [Figure(s)_____] illustrating changes in flow direction is/are included in Appendix _____

IV-B) Hydrologic Summary (continued)

Is groundwater flow in the impacted aquifers being influenced by pumping from nearby water supply wells?

YES	NO	Unknown
	X	

If yes, please explain how this was determined and indicate which water well(s) are influencing groundwater flow. If unknown, please indicate whether this issue is important at this site (outlining data collection plan if needed).

Site map(s) [Figure(s) _____] illustrating changes in flow direction due to pumping from nearly water supply wells is/are included in Appendix _____

Has the average hydraulic gradient (ft/ft) been determined? *If yes, please indicate range of values (if applicable) and whether gradient is uniform across the site. Is there evidence of a vertical gradient? If "N/A", please explain.*

YES	NO	N/A
X		

The apparent groundwater flow direction on February 21, 2018 was towards the northeast with a hydraulic gradient of 0.00003 ft./ft. calculated between MW-1 and MW-7.

Hydraulic gradient data and calculations included in Appendix _____

Have any aquifer tests been performed at the subject site?

YES	NO
	N

If yes, please describe test method (slug test, pumping test, etc.), which wells were used, date performed and summarize test results [transmissivity, hydraulic conductivity, rate of groundwater flow, pumping rates (gpm), etc.]

Aquifer test data and calculations included in Appendix _____

IV-B) Hydrologic Summary (continued)

Depth to groundwater in upper zone water-table wells (ft):	5.5	to	7.5	Average (ft):	6.5
Depth to groundwater in lower zone vertical extent wells (ft):		to		Average (ft):	

Observed maximum range of upper zone fluctuation (ft): 2 Tidally influenced? Yes [ ] No [X]

IV-C) Risk Evaluation

	YES	NO
Is human health, safety, or welfare affected by exposure to the contamination or will the contamination substantially affect, or migrate to and substantially affect a known public or private source of potable water? *If yes, please describe in detail.*	[ ]	[X]

SECTION V - Post Assessment Summary & Recommendations

Filled out AFTER site assessment has been completed

V-A) Site Assessment Summary

The Site Assessment Summary table shall be completed and submitted as an attachment to this TSAR. The summary is a separate Excel worksheet.

Site Assessment Summary completed and included as Table____ in Appendix A.

	YES	NO
Are all the documents submitted to date adequate to meet the site assessment requirements of Rule 62-780.600, Florida Administrative Code (F.A.C.)?		X

V-B) Recommendations

	YES	NO
Is No Further Action (NFA) without conditions recommended? If yes, please provide reasons NFA is appropriate.		X

	YES	NO
Is No Further Action (NFA) with conditions recommended? If yes, please provide reasons conditional NFA is appropriate and describe the conditions [the needed institutional or engineering controls] *pursuant to Rule 62-770.680(2), F.A.C.*		X

Horizontal and vertical definition of dissolved phase PAHs above the GCTLs is required before a closure option can be selected.

V-B) Recommendations (continued)

	YES	NO
If the groundwater plume is shrinking or stable is there any reason that Remediation by Natural Attenuation (RNA) cannot be the selected remedial strategy?		X

If no, outline the proposed monitoring plan including monitoring wells, sampling parameters and sampling frequency. If yes, specify why natural attenuation is not appropriate.

Horizontal and vertical definition of dissolved phase PAHs above the GCTLs is required before a remedial strategy is selected.

Monitoring Wells: _____

Contaminants: _____ Frequency: _____ Duration: _____

	YES	NO
Is Source Removal (soil or free product) recommended? If yes, please outline proposed method and extent of source removal (is dewatering needed?)		X

Site map (Figure _____) illustrating proposed extent of excavation is included in Appendix _____

V-B) Recommendations (continued)

	YES	NO
Is a Limited Scope Remedial Action Plan (LSRAP) needed?		X

If yes, please provide reasons for performing limited remediation and briefly outline plan for remediation.

Site map (Figure_____) illustrating locations of any proposed recovery wells (if applicable) is included in Appendix _____

If RAP already approved for site...

	YES	NO
Is a Remedial Action Modification Plan (RAMP) needed?		X

If yes, please provide reasons for continuing approved RA at the site and indicate proposed modifications.

V-B) Recommendations (continued)

	YES	NO
Is a Remedial Action Plan (RAP) needed? *If yes, please provide reasons for performing in-situ remediation at the site and indicate which remediation technology or combination of technologies is recommended or should be evaluated (with reasons for recommendation).*		X

	YES	NO
Is a Pilot Test recommended? *If yes, please indicate recommended remedial technology and outline specifics of proposed pilot test. Details include area of site where test is planned, recovery/air sparging well construction details, which wells will be used to evaluate test, proposed recovery and/or pumping and/or blowing rates and plan for IDW disposal (if applicable).*		X

The FDEP should be consulted before preparing a pilot test outline.

Site map (Figure_____) illustrating pilot test layout is included in Appendix _____

V-C) Comments

Any issues or concerns not addressed in previous questions which might influence remediation decisions at this site.

SECTION VI - Program Issues
(for state funded cleanup sites)

List of all consultant company personnel (not subcontractor employees) that participated in the field work or helped to prepare the report:

Name	Duties	Dates On-Site (if applicable)		
Dwight W. Schwendeman	Project management/field work supervision	01/18/2018	thru	06/07/2018
Leif Rodney	Field work/data management	02/21/2018	thru	06/07/2018
Fritz Damveld	Profession geologist oversight and review		thru	
			thru	
			thru	
			thru	
			thru	
			thru	
			thru	

VI-A) Work Plan and Cost Summary

Briefly summarize initial work plan.

Site inspection, collection/analysis of groundwater samples from selected existing monitoring wells, soil assessment, monitoring well installation and groundwater sampling. Preparation of two Interim Assessment Reports and this TSAR.

Copy of original work order or task assignment is included in appendix F

Was any extra work authorized? *If yes, please summarize extra work planned for site.*	YES	NO
		X

Only change in drilling method.

Copies of all authorization forms are included in Appendix F

VI-A) Work Plan and Cost Summary (continued)

	YES	NO
Was any planned work <u>not</u> performed? If yes, please describe work not performed with reasons why not performed.		X

	YES	NO
Are there any changes in cost from original work order, purchase order, or task assignment? If yes, please describe the changes and cost adjustments that will be required for invoicing.	X	

Change in drilling costs from hollow stem auger to direct push due to overhead clearance constraints.

Copies of all needed subcontractor and/or materials invoices and draft change order cost template included in Appendix _____

APPENDIX A

TABLES

TABLE 1: SOIL SCREENING RESULTS

Facility Name: Jak Service Center dba United Fuel

6900 SW 8th Street, Miami

FAC ID#: 13/8503663

ft-bls = Feet Below Land Surface
ppm = parts per million
- = No Reading Taken
NR = No Recovery
NA = Not Applicable
Readings taken with Mini RAE 3000 PID

SAMPLE			OVA SCREENING RESULTS			COMMENTS
SAMPLE NO.	DATE COLLECTED	SAMPLE INTERVAL (ft-bls)	TOTAL READING (ppm)	CARBON FILTERED (ppm)	NET READING (ppm)	
SB-1	6/5/2018	0 - 2			<0.1	
		2 - 4			<0.1	
		4 - 6			<0.1	4 - 6' Lab Sample
SB-2	6/5/2018	0 - 2			<0.1	0 - 2' Lab Sample
		2 - 4			<0.1	
		4 - 6			<0.1	
SB-3	6/5/2018	0 - 2			0.5	0 - 2' Lab Sample
		2 - 4			<0.1	
		4 - 6			<0.1	
SB-4	6/5/2018	0 - 2			<0.1	
		2 - 4			<0.1	
		4 - 6			0.1	4 - 6' Lab Sample
SB-5	6/5/2018	0 - 2			<1	
		2 - 4			0.3	2 - 4' Lab Sample
		4 - 6			<1	

TABLE 2A: SOIL ANALYCAL RESULTS - VOAs and TRPH

Facility ID#: **13/8503663** **Facility Name:** **Jak Service Center dba United Fuel**

6900 SW 8th Street, Miami

Sample				OVA	Laboratory Analyses						
Soil Sample ID	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)	Lead (mg/kg)
SB-1	6/5/2018	~5.0	4 - 6	<0.1	0.0019 U	0.0015 U	0.0015 U	0.0032 U	0.0015 U	6.2 U	N/A
SB-2	6/5/2018	~5.0	0 - 2	<0.1	0.0011 U	0.00089 U	0.00089 U	0.0019 U	0.00089 U	5.7 U	N/A
SB-3	6/5/2018	~5.0	0 - 2	0.5	0.0014 U	0.0011 U	0.0011 U	0.0023 U	0.0011 U	9.07	N/A
SB-4	6/5/2018	~5.0	4 - 6	0.1	0.00069 U	0.00057 U	0.00057 U	0.0012 i	0.00057 U	9.12	N/A
SB-5	6/5/2018	~5.0	2 - 4	0.3	0.00082 U	0.00067 U	0.00067 U	0.0014 U	0.00067 U	5.5 U	4.0 i
Leachability Based on Groundwater Criteria (mg/kg)					0.007	0.6	0.5	0.2	0.09	340	
Direct Exposure Residential (mg/kg)					1.2	1,500	7,500	130	4,400	460	

Notes: N/A = Not Analyzed for this parameter

NS = Not Sampled. **Bolded Text indicates value exceeds GCTL.**

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

J = The value is outside laboratory established criteria.

***Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

TABLE 2B: SOIL ANALYTICAL SUMMARY - PAHs

Facility ID#: **13/8503663** **Facility Name:** **Jak Service Center dba United Fuel**

6900 SW 8th Street, Miami

Sample				OVA	Laboratory Analyses										
Soil Sample ID	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)
SB-1	6/5/2018	~5.0	4 - 6	0	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.020 U	0.0041 U	0.020 U	0.032 U	0.020 U	0.020 U
SB-2	6/5/2018	~5.0	4 - 6	0	0.031 U	0.031 U	0.031 U	0.031 U	0.031 U	0.019 U	0.0039 U	0.019 U	0.031 U	0.019 U	0.019 U
SB-3	6/5/2018	~5.0	0 - 2	0.5	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.017 U	0.0383	0.116	0.028 U	0.0295 i	0.0908
SB-4	6/5/2018	~5.0	4 - 6	0.1	0.029 U	0.029 U	0.029 U	0.029 U	0.029 U	0.018 U	0.0036 U	0.018 U	0.029 U	0.018 U	0.018 U
SB-5	6/5/2018	~5.0	2 - 4	0.3	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U	0.018 U	0.0036 U	18 U	0.028 U	0.018 U	0.018 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				OVA	Laboratory Analyses							
Soil Sample ID	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)
SB-1	6/5/2018	~5.0	4 - 6	0	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U	0.0041 U	NC
SB-2	6/5/2018	~5.0	0 - 2	0	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	NC
SB-3	6/5/2018	~5.0	0 - 2	0.5	0.0447	0.0525	0.0444	0.0438	0.0653	3.5 U	0.0361	0.060
SB-4	6/5/2018	~5.0	4 - 6	0.1	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	NC
SB-5	6/5/2018	~5.0	2 - 4	0.3	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	0.0036 U	NC
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 Analyzed for this parameter N/A = Not Applicable, composite soil sample collected from stockpiled soils *Calculations provided in Appendix C

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

** = Leachability value not applicable. NC - Not calculated <0.1 mg/kg

[a] - Soil sample SB-3 was collected within one foot of the water table and is considered a "wet" sample and therefore the Benzo(a)pyrene equivalent is not considered an exceedance of the SCTL.

TABLE 3A: GROUNDWATER ANALYTICAL SUMMARY - VOCs, Lead and TRPH

Facility ID#: 13/85036 Facility Name: Jak Service Center dba United Fuel

6900 SW 8th Street, Miami

Sample		Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	1,2-Dichloroethane	Ethylene Dibromide	Lead	TRPH
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)
MW-1	2/21/2018	0.31 U	0.30 U	0.36 U	0.72 U	0.23 U	N/A	N/A	N/A	1.79
MW-2	2/21/2018	0.32 i	0.30 U	0.36 U	0.72 U	0.23 U	N/A	N/A	N/A	2.13
MW-3	2/21/2018	0.58 i	0.32 i	0.50 i	1.3 i	0.23 U	N/A	N/A	N/A	1.63
MW-4	2/21/2018	0.31 U	0.30 U	0.36 U	0.72 U	0.23 U	N/A	N/A	N/A	0.30
MW-5	2/22/2018	0.31 U	0.30 U	0.36 U	0.72 U	0.23 U	N/A	N/A	N/A	0.15 U
MW-6	2/22/2018	0.31 U	0.30 U	0.36 U	0.72 U	0.23 U	N/A	N/A	N/A	0.15 U
MW-7	2/22/2018	0.32 i	0.30 U	3.5	0.80	0.23 U	0.31 U	0.010 U	**18**	3.25

TABLE 3A: GROUNDWATER ANALYTICAL SUMMARY - VOCs, Lead and TRPH

Facility ID#: 13/85036 Facility Name: Jak Service Center dba United Fuel

6900 SW 8th Street, Miami

Sample		Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	1,2-Dichloroethane	Ethylene Dibromide	Lead	TRPH
Location	Date	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)
MW-8	2/22/2018	0.31 U	0.30 U	0.36 U	0.72 U	0.23 U	N/A	N/A	N/A	0.15 U
MW-B	2/22/2018	0.31 U	0.30 U	0.36 U	0.72 U	0.23 U	N/A	N/A	N/A	0.15 U
MW-9	6/7/2018	0.31 U	0.30 U	0.36 U	0.72 U	0.23 U	N/A	N/A	5.4	0.665
GCTLs		1**	40**	30**	20**	20	3	0.02	15	5
NADCs		100	400	300	200	200	30	2	150	50

Notes: NA = Not Analyzed for this parameter. NS = Not Sampled.

Bolded Text indicates value exceeds GCTL.

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.

i = Laboratory result between MDL and PQL U - Not Detected (ND)

TABLE 3B: GROUNDWATER ANALYTICAL SUMMARY - PAHs

Facility ID#: 13/8503663 **Facility Name: Jak Service Center dba United Fuel**

6900 SW 8th Street, Miami

Sample		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
ID	13/8503663	(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-1	2/21/2018	0.59 i	**40.2 a**	**38.9 a**	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.39 i	0.20 U	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
MW-2	2/21/2018	1.5	9.5	8.2	0.65 i	0.32 U	0.20 U	0.032 U	0.20 U	0.63 i	0.37 i	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
MW-3	2/21/2018	13.4	13.4	21.8	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.43 i	0.20 U	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
MW-4	2/21/2018	0.49 i	2.5	2.4	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.20 U	0.20 U	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
MW-5	2/22/2018	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.20 U	0.20 U	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
MW-6	2/21/2018	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.20 U	0.20 U	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
MW-7	2/22/2018	**84.9 a**	**75.1 a**	**118 a**	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.54 i	0.23 i	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U

TABLE 3B: GROUNDWATER ANALYTICAL SUMMARY - PAHs

Facility ID#: 13/8503663 **Facility Name: Jak Service Center dba United Fuel**

6900 SW 8th Street, Miami

Sample		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
ID	13/8503663	(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-8	2/22/2018	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.20 U	0.20 U	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
MW-B	2/22/2018	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.20 U	0.20 U	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
MW-9	6/7/2018	0.32 U	0.32 U	0.72 i	0.32 U	0.32 U	0.20 U	0.032 U	0.20 U	0.20 U	0.20 U	0.20 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U	0.032 U
GCTLS		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]
NADC		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

NA = Not Analyzed for this parameter. 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.

i = Laboratory result between MDL and PQL U - Not Detected (ND) **Bolded Text indicates value exceeds GCTL.**

a - Results from Run 2

TABLE 4: GROUNDWATER ELEVATION SUMMARY

Facility Name: Jak Service Center dba United Fuel
6900 SW 8th Street, Miami
FAC ID#: 13/8503663

NM = Not Measured
Blank = No Data

Well No.	MW-1			MW-2			MW-3			MW-4		
Diameter (in)	2			2			2			2		
Well Depth (ft)	19.1			18.1			12.0			19.3		
Screen Interval (ft)	4.1-19.1			3.1-18.1			2-12			4.3-19.3		
TOC Elevation (ft)	15.39			15.39			15.37			15.51		
DATE	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**
2/21/2018	8.69	6.70		8.68	6.71		8.68	6.69		8.70	6.81	
6/5/2018												

Well No.	MW-5			MW-6			MW-7			MW-8		
Diameter (in)	2			2			2			2		
Well Depth (ft)	14.7			13.3			13.0			12.7		
Screen Interval (ft)	4.7-14.7			3.3-13.3			3-13			2.7-12.7		
TOC Elevation (ft)	15.13			14.50			15.04			14.72		
DATE	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**
2/21/2018	8.70	6.43		8.67	5.83		8.67	6.37		8.67	6.05	
6/5/2018												

Well No.	MW-B			MW-9		
Diameter (in)	2			1.5		
Well Depth (ft)	14.6			13.0		
Screen Interval (ft)	4.6-14.6			3-13		
TOC Elevation (ft)	15.56			15.87		
DATE	**ELEV**	**DTW**	**FP**	**ELEV**	**DTW**	**FP**
2/21/2018	8.70	6.86				
6/5/2018				9.54	6.33	

TABLE 5 : MONITORING WELL CONSTRUCTION DETAILS

Facility Name: Jak Service Center dba United Fuel
6900 SW 8th Street, Miami
FAC ID#: 13/8503663

HSA = Hollow Stem Auger
DP = Direct Push
NA = Not Applicable * estimated
NM = Not Measured
DC = Driven Casing

Well ID	Date of Installation	Installation Method	Top of Casing Elevation*	A/G Riser Length	Total Well Depth	Screened Interval	Well Diameter (inches)	Remarks
1992 / 1994 Contamination Assessment								
MW-1	Unknown	HSA	NA	No	14 feet	4 - 14 feet	2	Destroyed during 1995 UST replacement
MW-2	Unknown	HSA	15.04	No	13 feet	3 - 13 feet	2	Appears to be current MW-7
MW-3	Unknown	HSA	NA	No	13 feet	3 - 13 feet	2	Destroyed during 1995 UST replacement
MW-4	Unknown	HSA	NA	No	14 feet	4 - 14 feet	2	Destroyed during 1995 UST replacement
MW-5	12/9/92	HSA	15.56	No	13 feet	3 - 13 feet	2	Appears to be current MW-B
MW-6	12/9/92	HSA	14.72	No	12 feet	2 - 12 feet	2	Appears to be Ccurrent MW-8
MW-7	12/9/92	HSA	NA	No	12 feet	2 - 12 feet	2	Destroyed during 1995 UST replacement
MW-8	12/9/92	HSA	NA	No	12 feet	2 - 12 feet	2	Destroyed during 1995 UST replacement
MW-9	4/28/94	HSA	NA	No	15 feet	5 - 15 feet	2	Destroyed during 1995 UST replacement
MW-10	4/28/94	HSA	NA	No	15 feet	5 - 15 feet	2	Destroyed during 1995 UST replacement
MW-11	4/28/94	HSA	NA	No	15 feet	5 - 15 feet	2	Destroyed during 1995 UST replacement
MW-12	10/28/94	HSA	15.13	No	14 feet	4 - 14 feet	2	Appears to be current MW-5
MW-13	10/28/94	HSA	NA	No	14 feet	4 - 14 feet	2	Destroyed during 1995 UST replacement
MW-14	10/28/94	HSA	NA	No	14 feet	4 - 14 feet	2	Destroyed during 1995 UST replacement
DMW-1	12/9/92	HAS/DC	NA	No	35 feet	25-35 feet	2	Destroyed during 1995 UST replacement
DMW-2	4/28/94	HAS/DC	NA	No	45 feet	40-45 feet	2	Destroyed during 1995 UST replacement

TABLE 5 : MONITORING WELL CONSTRUCTION DETAILS

Facility Name: Jak Service Center dba United Fuel
6900 SW 8th Street, Miami
FAC ID#: 13/8503663

HSA = Hollow Stem Auger
DP = Direct Push
NA = Not Applicable * estimated
NM = Not Measured

Current Compliance wells								
Well ID	Date of Installation	Installation Method	Top of Casing Elevation*	A/G Riser Length	Total Well Depth	Screened Interval*	Well Diameter (inches)	Remarks
MW-1	9/1/95	Unknown	15.39	No	19 feet	5 - 19 feet	2	
MW-2	9/1/95	Unknown	15.39	No	18 feet	5 - 18 feet	2	
MW-3	9/1/95	Unknown	15.37	No	12 feet	2 - 12 feet	2	
MW-4	9/1/95	Unknown	15.51	No	19 feet	5 - 19 feet	2	
2018 Limited Site Assessment								
MW-9	6/5/18	DP	15.87	No	13 feet	3 - 13 feet	1.5	

TABLE 6

Site Assessment Summary Worksheet

FDEP FAC ID #: 13/8503663

Site Name: Jak Service Center Inc. dba United Fuel

Does Site Qualify for LTNAM: Yes

Dominant Lithology Vadose Zone

First Lithology (USCS): Mixed sand and limestone fragment fill

Second Lithology (USCS): Limestone

Dominant Lithology Saturated Zone

First Lithology (USCS): Limestone

Second Lithology (USCS): Limestone

Average Depth to Water: 5' - 10'

Groundwater Flow Direction: Northeast

Recommended Technology for SRCO: Natural Attenuation

Combined Technology:

Consultant SRCO Cost Estimate: $25,001 - $50,000

Consultant NFAC Cost Estimate: $25,001 - $50,000

GW Contaminants one per constituent	≤ GCTLs	≤ NADC	> NADC	Not Analyzed
Benzene	X			
Ethylbenzene	X			
Toluene	X			
Total Xylenes	X			
MTBE	X			
Naphthalene		X		
1-Methylnaphthalene		X		
2-Methylnaphthalene		X		
TRPHs	X			
EDB	X			
As				X
Pb	X			
Other	X			

Soil Contaminants (select one unless Leachability & Direct Exposure CTLs exceeded)	No Soil Exceedences*	Exceeds Leachability	Exceeds Direct Exposure	Not Analyzed
Benzene	X			
Ethylbenzene	X			
Toluene	X			
Total Xylenes	X			
MTBE	X			
Naphthalene	X			
1-Methylnaphthalene	X			
2-Methylnaphthalene	X			
Other PAHs	X			
TRPHs	X			
As				X
Pb	X			
Other				X

* Below direct exposure and leachability (or alternative SCTLS established through SPLP or fractionation)

Plume Characteristics	Groundwater	Soil
Shrinking or Stable	Yes	
On-site only	Unknown	N/A
Plume <1/4 acre	Unknown	N/A
Exclusion Zone Only	No	N/A
In FDOT ROW only	No	N/A
On State-Owned Land Only	No	N/A
Organoleptic Exceedence only (< HB CTLs)	No	
DE Soil Exceedences above 2'		No
DE Soil Exceedences from 2' to 10'		Unknown
DE Soil Exceedences below 10'		Unknown
Free Product	No	
Site Qualifies for LSSI NFA (any score)	Unknown	

DE = Direct Exposure CTLS ; HB = Health Based