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June 27, 2024

Mr. Gary J. Volenec, P.E.
Engineering Director
City of Key West
1300 White Street
Key West, FL 33040

Subject: **Soil and Groundwater Management Plan**
Former Keys Energy Diesel Plant
Key West, Monroe County, Florida
Project Number PRJ109795

Dear Mr. Volenec:

RES Florida Consulting, LLC is pleased to submit this Soil and Groundwater Management Plan (SGMP) for the Former Keys Energy Diesel Plant project site located in Key West, Florida (Subject Property) in preparation for construction activities. The City is considering preparing a bid package for possible redevelopment of the subject property. As part of the City's planning and preparation, they have requested that RES develop a SGMP that will inform potential bidders of certain obligations related to existing contamination at the Subject Property. It is understood that without a conceptual site plan, the SGMP will be prescriptive to existing conditions at the property but cannot contemplate all activities that may be proposed at the Subject Property. Therefore, the SGMP may need to be modified by the City or the contractor once the proposed land use is known.

Please contact us at (954) 484-8500 if you have questions regarding this information.

Sincerely,
RES FLORIDA CONSULTING, LLC

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1.0 BACKGROUND INFORMATION

The City of Key West (the City) is considering the redevelopment of a City owned 2,404 square foot property comprised of three separate adjoining parcels located at 100 Angela Street, 709 Fort Steet, and 101 Geraldine Street, Key West Florida. The parcels are identified by the Monroe County Property Appraisers Office website as Parcel Numbers 13950, 13960, and 13970, respectively, and herein known as the Subject Property. A location map and an aerial photograph map are included in **Figures 1 and 2**, respectively. It should be noted that the Subject Property is part of an eight-parcel property which includes Parcels 13950, 13960, 13970, 13900, 13910, 13870, 13860 and 13830. The three parcels that consist of the Subject Property are owned by the City of Key West, and the remaining five properties are owned by the Utility Board of the City of Key West. Adjacent to the northwest of the Subject Property is Angela Street followed by residential properties, adjoining northeast a Key West Diesel Substation is in operation within the northeastern portion of the greater eight-parcel property (parcels 13900, 13910, 13870, 13860 and 13830) with residential properties and Emma Street, to the southeast is Geraldine Street followed by residential properties, and to the southwest is Fort Street followed by a site that is currently under redevelopment.

The City provided a Summary Report of Historical Environmental Assessments dated August 9, 2016 for the Key West Diesel Plant Property conducted by Amec Foster Wheeler E&I, Inc (Amec). This report is provided as a reference document in **Appendix A**. Figures 3 and 4 of this document contain a property and site layout map and a property site layout with historical sample locations. Additionally, this report contains historical soil and groundwater analytical maps included as Attachment D. The subject property is part of a larger historical site that operated as a manufactured gas plant in the late 1880s and subsequently as an electrical power plant until the 1950s/1960s. The presence of soil and groundwater contamination has been identified at the former power plant property and it has received a conditional Site Rehabilitation Completion Order (SRCO) from the Florida Department of Environmental Protection (FDEP). The SRCO was conditioned upon the placement of a declaration of a restrictive covenant (RC) on the former power plant property. The RC was completed on the site in 2016 and restricts the use of groundwater, installation of stormwater management systems and dewatering at the Subject Property.

2.0 SITE VISIT AND CONTIGENCY SAMPLE COLLECTION

The Subject Property is occupied by three abandoned buildings which contain multiple generator/equipment pits abandoned in place. These equipment pits appear to be concrete lined. A site reconnaissance was conducted by RES on May 16, 2024 and standing water was observed within the concrete lined generator/equipment pits.

Grab water samples were collected from two onsite equipment pits. Water samples were collected in laboratory supplied containers and packaged in a cooler containing ice for sample preservation. The water samples were delivered to Pace Analytical Laboratories a NELAC-accredited laboratory under chain of custody protocol and analyzed for volatile organic compounds (VOCs), polynuclear aromatic halocarbons (PAHs), total recoverable petroleum hydrocarbons (TRPH), arsenic and lead.

Laboratory analytical results were compared to the Groundwater Cleanup Target Levels (GCTLs) found in Chapter 62-777 of the Florida Administrative Code (F.A.C.). Laboratory analytical results revealed arsenic above the GCTLs, lead above the GCTL and Natural Attenuation Default Concentrations (NADC), and Benzo (b) fluoranthene above the GTCL in the water sample collected from the equipment pit labeled NE Pit. Additionally, laboratory analytical results revealed lead above the GTCL, and TRPH above the GCTL and NADC in the water sample collected from the equipment pit labeled SE Pit. A water analytical summary table is provided in **Table 1**. A water sample analytical map is depicted in **Figure 3**. A laboratory analytical report is included in **Appendix B**.

3.0 CONTAMINATION DESKTOP REVIEW

A desktop review was conducted to assess additional contamination associated with the Subject Property and/or nearby properties. A 500-foot buffer extending from the Subject Property was used to identify nearby sites with potential contamination. The following Florida Department of Environmental Protection (FDEP) Map Direct Layers were reviewed for sites within the 500-foot buffer.

- DEP Cleanup Sites
- ERIC Waste Cleanup
- Petroleum Contamination Monitoring (PCTS) Discharges
- Storage Tank Contamination Monitoring (STCM)
- Solid Waste Facilities
- Solid Waste Disasters Debris Management Sites
- Florida Institutional Controls Registry

The following FDEP Map Direct Layers were also searched but no sites within 500-foot buffer were identified.

- Drycleaning Solvent Program Cleanup Sites
- Brownfield Sites/Areas
- ERIC PAS Sites
- Florida State Funded Cleanup Sites
- Florida Superfund Waste Cleanup Sites
- NPL Superfund Site Boundaries
- Compliance and Enforcement Tracking for HAZardous (CHAZ) Facilities
- County Small Quantity Generators
- Small and Large Quantity Hazardous Waste Generators (SQGs and LQGs)
- Hazardous Waste Treaters Storers and Disposers (TSDs)
- Hazardous Waste Transporter Facilities
- Hazardous Waste Transfer Facilities
- Closed Hazardous Waste Facilities
- Solid Waste Test Sites
- Used Oil Transfer Facilities
- Hurricane Facilities of Concern

Each site identified within the defined screening area from the Subject Property was evaluated for its potential impact on construction activities at the Subject Property. Parcels abutting the Subject Property were defined as adjacent to the Subject Property and rated based on their characteristics. Sites greater than 200 feet from the Subject Property limits were rated based on their characteristics and distance from Subject Property. A total of six facilities were found to have potential contamination within the 500-foot buffer, including the Subject Property. These facilities were evaluated for the potential to have an impact on reconstruction activities and potential dewatering activities at the Subject Property. A contamination assessment table is provided in **Table 2**. A potentially contaminated sites map is provided in **Figure 4**.

The following narratives provide summaries of the nearby facilities' activities, regulatory status (if any), and rationale for identified potential contamination sources and whether they have the potential to impact the redevelopment activities at the Subject Property. In addition to each source's name, address, and facility IDs, the narratives include parcel numbers, figure references, distances to the Subject Property, analytical parameters of concern and media (soil or groundwater), and references to state or local contamination resources are included, if applicable.

Site No. 1

Site Name:	Former Keys Energy Diesel Plant
Parcel ID:	000013950-000000, 000013960-000000, 000013970-000000, 000013900-000000, 000013910-000000, 000013860-000000, 000013780-000000, 000013830-000000
Facility IDs:	ERIC_11628, STCM_9101950
Distance to Project:	Subject Property and Adjacent East

Contamination:	PAH, TRPH, Metals, VOCs, Asbestos (Soil and/or Groundwater)
Remediation Status:	Complete with Conditions
Facility Type:	Keys Power Plant

The City provided a Summary Report of Historical Environmental Assessments dated August 9, 2016 for the Key West Diesel Plant Property conducted by Amec. The summary report identified site assessment activities conducted at the property that included the Subject Property. Soil analytical results indicated concentrations of PAHs, TRPHs, and metals (arsenic, barium, and lead) in the soil (at depths ranging from 1 to 4 feet below grade) above the Soil Cleanup Target Levels (STCLs) found in Chapter 62-777 F.A.C., in the entire eight parcel which includes the Subject Property. The soil impacts at the Subject Property were not defined vertically and horizontally. In addition, the analytical results indicated concentrations of VOCs, PAHs, and TRPHs in the groundwater above the applicable FDEP GCTLs and NADCs at the property.

Following one year of FDEP approved Natural Attenuation Monitoring (NAM) at portions of the property excluding the Subject Property, groundwater analytical results indicated that plumes of VOCs and PAHs present at the eastern portion of the property appeared to be stable. The groundwater VOC analyte and PAH analyte plumes are defined at the eastern portion of the property with the exception of the northeastern edge of the plume. Groundwater TRPH concentrations detected above the applicable GCTL during the assessment activities reduced to below the GCTL during the NAM events. It was concluded that the impacted groundwater plume is stable with limited potential for migration. The FDEP approved a Declaration of Restrictive Covenant (DRC) and issued a SRCO dated April 26, 2016 for the documented impact at the property with a discharge date of February 20, 2012. However, the DRC and the SRCO did not address the documented surficial soil impacts present at the property and Subject Property. Although additional site rehabilitation activities are not required at the property including the Subject Property, additional investigation to address the documented soil impact may be required if planned renovation activities will disturb the land surface (i.e. demolition and/or construction activities, removal of concrete building slabs or soil removal).

An Asbestos Containing Materials (ACM) inspection was performed in July of 2013 at the property that included the three buildings at the Subject Property, and two additional buildings at the larger property (blacksmith shop and machine shop). Thirty-four samples of suspect ACM from 13 different homogenous areas at the property including the Subject Property were collected for laboratory analysis. It was identified that Transite panels, wire insulation, window glaze, and pipe insulation in the three buildings at the Subject Property contain regulated quantities of asbestos (above 1%). Based on the laboratory results the report recommended that the identified ACM should be removed by a licensed Asbestos Abatement contractor prior to renovation or demolition activities.

A Lead Based Paint (LBP) survey performed in July of 2013 at the property found 57 out of a total of 110 X-Ray Fluorescence (XRF) readings collected from various components on the interior and exterior of the buildings contain lead concentration equal to or in excess of 1.0 mg/cm2, as established by the Lead-Based Paint Poisoning Prevention Act, Section 302 and the U.S. Department of Housing and Urban Development (HUD) guidelines. The findings indicated several building components or structures in the three buildings at the Subject Property, and two additional buildings at the property have coatings that contain lead.

Site No. 2

Site Name:	US NAVY-TRUMAN ANNEX OLD NEX SER STA, BLDG #1276 TRUMAN ANNEX WATERFRONT SITE2 DDMS
Parcel ID:	00001630-000801
Facility IDs:	DEP_79805787, STCM_9400059, Solid Waste_101252
Distance to Project:	Adjacent West
Contamination:	Petroleum (Soil & Groundwater)
Remediation Status:	Active
Facility Type:	Former Navy Service Station

This facility is listed on Map Direct as a DEP Cleanup Site (DEP Cleanup ID: 79805787), for storage tank contamination monitoring (STCM) STCM Facility ID: 9400059 The facility is also listed as a solid waste facility, disaster debris management site under facility ID: 101252. This site is located adjacent west of the Subject Property and is currently under construction.

The facility is listed as an old US Navy Service Station. A Tank Registration Form (TRF) dated January 13, 1993, lists four underground storage tanks (USTs) installed in 1961. Two-10,000-gallon USTs, one-550-gallon UST, and one-880-gallon UST. A 1994 Storage TRF lists the two-10,000-gallon USTs removed from the site, the 550-gallon UST as unmaintained storage tank, not in use and not properly disposed; or tank discovered abandoned, and the 880-gallon UST as properly closed in place. According to a historical paper file, two of the USTs were located at the #1276 building facility ID 449400059 old service station, and a third tank was located at 248-C Facility ID 449200364 service station. A closure report dated June 29, 2000, documented a discharge and a Discharge Reporting Form (DRF) was submitted. The historical paper file lists a total of 21 tanks removed from the US Navy Station which corresponds to a larger area west of the facility but does not list any more information regarding the four tanks discussed above. Based on the lack of groundwater assessment activities at this site and the historic and potential current presence of USTs at the site, it is likely that this site would have an impact dewatering activities and redevelopment activities at the Subject Property. Assessment may be required at the property boundary and/or during dewatering activities to ensure that movement of any groundwater plume at this site was not exacerbated by redevelopment activities at the Subject Property. The potential for soil contamination on this site does exist but would not pose a risk to the redevelopment of the Subject Property.

Additionally, the facility was also used as a disaster debris management site. According to the file review conducted the waste planned for the site was for construction and demolition debris in 2024, mixed yard trash 2020 and 2021, and unknown waste type in 2017, temporary staging of disaster debris generated during 2015, 2014, and 2013 as noted on Pre-Authorization for Disaster Debris Management Sites (DDMS) letters for those years. No contamination related to the DDMS is reported.

Site No. 3

Site Name:	THE LOFTS AT BAHAMA VILLAGE
Parcel ID:	00001630-000801
Facility IDs:	ERIC_18433
Distance to Project:	Adjacent West
Contamination:	Arsenic, Benzo(a)Pyrene (BAP) Equivalent (Soil & Groundwater)
Remediation Status:	Active
Facility Type:	Former Navy Service Station and Car Repair Shop

The site is planned to be a multi-family residential development. The property encompasses approximately 3 acres and from about 1940 through 2004 was part of the U.S. Navy Truman Annex Compound. The site was assessed in the 1980s and 1990s as part of the Base Realignment and Closure (BRAC) activities performed by the U.S. Navy. In 2002, the U.S. Navy transferred the Truman Annex Compound to the City of Key West. In a December 2022 Site Assessment Report/Remedial Action Plan (SAR/RAP), groundwater samples were analyzed for a wide range of potential contaminants of concern, including total arsenic, barium, cadmium, chromium, iron and lead, VOCs, PAHs, TRPHs, polychlorinated biphenyls (PCBs), and organochlorine pesticides, all of which were reported below GCTLs. In response to the soil impacts consisting of arsenic and BAP Equivalent it was proposed that the entire site be capped with a combination of impermeable engineering controls (future buildings, parking lot and walkways) and permeable engineering controls (minimum of 2-feet of clean fill in surrounding landscaped areas). The proposed engineering controls (ECs) for this will not be fully implemented until proximately early 2025. A SARA was submitted in August of 2023 requesting No Further Actions with Conditions (NFAC), however FDEP, could not issue an NFAC approval until all ECs are finalized. Soil impacts are present at this facility but will be isolated by the EC. Based on the information available and the proximity to the Subject Property this facility is rated as high risk. While the FDEP is requesting an EC be constructed on this site, based on the most recent groundwater data, there is no groundwater contamination above the GCTLs. If the groundwater contamination remains below the GCTLs, this site will not impact redevelopment activities at the Subject Property. Prior to construction, the City should check that the groundwater conditions at this site remain below the GCTLs.

Site No. 4

Site Name:	Building 1276 - (UST 006/ DOD_9_3226)
Parcel ID:	00001630-000801

Facility IDs:	ERIC_DOD_9_3226
Distance to Project:	100 feet South
Contamination:	Petroleum (Soil)
Remediation Status:	SCRO Complete
Facility Type:	Former Navy Car Repair Shop

This facility is listed on Map Direct as an ERIC Waste Cleanup Facility ID: DOD-9-3226. It should be noted that the parcel ID includes a large area, however, this facility is located east of Allen Avenue. The site is currently developed as an open grass field with no structures on it. The facility operated as a former Navy car repair shop. The site is listed as an ERIC waste cleanup site for hydraulic ram remediation for the Truman Annex, Building 1276. A hydraulic ram is a piston connected to a cylinder filled with oil that powers a hydraulic lift. A January 2007 report documented remediation of soil through removal of hydraulic rams and petroleum contaminated soil, and petroleum fluids from a concrete vault at Building 1276. A Site Rehabilitation Completion Report for building 1276 was submitted November 2008. An SRCO was granted for hydraulic ram remediation in February 2009. It should also be noted that the location of this facility encompasses Site No. 3. Additionally, Site No. 2 is located within the same parcel but subdivided by Allen Avenue. Since this site has no documented groundwater contamination, it will likely not impact redevelopment activities at the Subject Property.

Site No. 5

Site Name:	US NAVY-TRUMAN ANNEX PIER TANKS
Parcel ID:	00001630-001000
Facility IDs:	STCM_9700020
Distance to Project:	400 feet Northwest
Contamination:	Not applicable
Remediation Status:	Not applicable
Facility Type:	Naval Air Station

This facility is listed on Map Direct as an STCM Facility with STCM ID: 9700020. The facility is located approximately 400 feet northwest of the Subject Property. A file review revealed two aboveground storage tanks (ASTs), one 227,178-gallon AST and one 25,000-gallon AST both installed in 1941 and removed in 1988. No other information or documentation is available regarding the removal of the tanks or associated soil or groundwater impacts. It should be noted that this parcel also includes Site No. 6, described below. Depending on the redevelopment activities that will be conducted at the Subject Property, this site may have an impact. While there is no documented groundwater contamination, if dewatering activities are planned, groundwater sampling or dewatering effluent monitoring may be required.

Site No. 6

Site Name:	US NAVY-NAS TRUMAN ANNEX SECURITY GATE
Parcel ID:	00001630-001000
Facility IDs:	STCM_9806255
Distance to Project:	200 feet Northwest
Contamination:	Petroleum, Benzene
Remediation Status:	No Further Assessment
Facility Type:	Naval Air Station

This facility is listed on Map Direct as STCM Facility ID: 9806255. The facility is located approximately 200 feet northwest of the Subject Property. A file review revealed that during the construction of a new fence between Navy property at Truman Annex and the recently BRAC-transferred harbor area property, an unknown underground storage tank (UST 5) was uncovered during installation of the footings. As a result, CH2M HILL Constructors Inc. was tasked to close the underground storage tank in accordance with the State of Florida regulatory requirements. A Tank Closure Assessment Report (TCAR) was submitted in October 2003 and documented that the UST 5 was closed in place due to the location of high-power utilities located directly adjacent to the UST. Four soil borings were advanced to 15 feet below land surface to obtain soil samples for tank operation impact evaluation and four ground water wells were installed to evaluate the groundwater around the

tank. Three of the four soil borings were found to be petroleum impacted in the saturated zone and three of the four groundwater wells appear to be impacted with low levels of benzene. According to a letter correspondence from Florida Department of Health dated April 19, 2004, a Final TCAR was submitted April 13, 2004. The Final TCAR is not available on the FDEP Oculus site, however the FDEP approval letter states that's the data indicates parameters were within cleanup target levels. Based on the information submitted, the Department concluded that no further assessment is required at this time. Depending on the redevelopment activities that will be conducted at the Subject Property, this site may have an impact. While there is no documented groundwater contamination, there appears to have been documented soil contamination. If dewatering activities are planned, additional groundwater or dewatering effluent monitoring may be required.

4.0 SITE SPECIFIC CONDITIONS

For the purposes of this document, contaminated soil and groundwater is defined as soil or groundwater encountered on the Subject Property that require proper handling and disposal. The Subject Property is included in an SRCO with conditions and is subject to institutional controls outline in a DRC. Groundwater analytical results from previous assessments indicated concentrations of VOCs, PAHs, and TRPHs in the groundwater above the applicable GCTLs and NADCs at the property.

The institutional controls outlined in the DRC states that there should be no use of the groundwater under the property (which includes the Subject Property). There shall be no drilling for water conducted on the property, nor shall any wells be installed on the property other than monitoring wells pre-approved in writing by FDEP's Division of Waste Management, in addition to any authorization required by the Division of Water Resource Management (DWRM) and the Water Management Districts (WMD). Additionally, there shall be no stormwater swales, stormwater detention or retention facilities, or ditches on the property. For any dewatering activities, a plan approved by FDEP Division of Waste Management must be in place to address and ensure the appropriate handling, treatment, and disposal of any extracted groundwater that may be contaminated.

It should be noted that the DRC and the SRCO did not address the documented surficial soil impacts present at the property and Subject Property. Soil analytical results of the previous assessment activities indicated concentrations of PAHs, TRPHs, and metals (arsenic, barium, and lead) in the soil (at depths ranging from 1 to 4 feet below grade) above the STCLs at the property including the Subject Property. The soil impacts at the Subject Property were not defined vertically and horizontally.

An ACM inspection was performed in July 2013 at the property that included the three buildings at the Subject Property, and two additional buildings at the property (blacksmith shop and machine shop). It was identified that Transite panels, wire insulation, window glaze, and pipe insulation in the three buildings at the Subject Property contain regulated quantities of asbestos (above 1%), based on the laboratory results and recommended that the identified ACM be removed by a licensed Asbestos Abatement contractor prior to renovation or demolition activities.

An LBP survey performed in July 2013 at the property found 57 out of a total of 110 XRF readings collected from various components on the interior and exterior of the buildings contain lead concentration equal to or in excess of 1.0 mg/cm2, as established by the Lead-Based Paint Poisoning Prevention Act, Section 302 and the HUD guidelines. The findings indicated several building components or structures in the three buildings at the Subject Property, and two additional buildings at the property have coating that contain lead. It is recommended that the LBP be removed by a licensed Lead Abatement contractor prior to renovation or demolition activities at the Subject Property.

Additionally, the Subject Property contains multiple generator/equipment pits abandoned in place currently containing standing water. Laboratory analytical results revealed Arsenic, Benzo (b) fluoranthene above the GCTL and lead and TRPH above the NADC. This water should be containerized and disposed of properly as contaminated water by a remediation contractor or waste disposal contractor who is licensed to haul contaminated materials.

5.0 AIR MONITORING AND DUST CONTROL PLAN

Dust control will be required during soil disturbance at the Subject Property. Dust control measures will be implemented during soil disturbance within the work site and within locations where contaminated soils are temporarily stockpiled or exposed, including the final placement location until they are capped. Stockpiled contaminated soils must remain within appropriate staging areas pending final disposal.

5.1 Dust Control Measures

Vehicular access to the Site shall be controlled and vehicles sprayed with water prior to exiting as necessary to prevent off-site tracking of impacted soil. The following dust control measures shall be implemented when excavating, stockpiling, backfilling, or otherwise disturbing contaminated soils:

- Bare earth areas shall be watered during construction as necessary to minimize the transport of fugitive dust. It may be necessary to limit construction vehicle speeds if bare earth has not been effectively watered. Soil shall not be inundated to the degree that it may cause soil migration.
- A stabilized construction entrance shall be provided to reduce sediment tracking offsite. The road connected to the project shall be cleaned once a day to remove any excess mud, dirt or rock resulting from construction traffic.
- All trucks hauling contaminated soil offsite shall be covered with a tarpaulin.
- If the action of vehicles traveling over the gravel construction entrances is not sufficient to remove the majority of soil, then the tires must be washed before the vehicles enter a public road. If washing is used, a Storm Water Pollution Prevention Plan (SWPPP) must be developed to ensure that provisions are in place to intercept the wash water and trap the sediment before it is carried off the site.
- Parking areas, staging areas and traffic pathways on the site shall be cleaned as necessary to control dust emissions. Adjacent public streets shall be cleaned promptly when soil material from the Site is visible.

We note that if airborne dust is not properly controlled and exceeds the action level criteria outlined in Section 5.2, work shall cease, and proper dust control measures must be implemented prior to resuming activities. The use of respiratory protection may be required if airborne dust conditions persist.

5.2 Action Levels

The US Environmental Protection Agency (EPA) has developed National Ambient Air Quality Standards (NAAQS) for Particulate Matter 10 (PM_{10}), which is listed in the table below. This standard is based on adverse health impacts due to the inhalation of particulates in this size range. This standard is not contaminant specific and applies to all dusts, regardless of the source or type.

USEPA National Ambient Air Quality Standards (NAAQS)	
Particulate Size	24-Hour Standard (mg/m^3)
PM_{10}	**0.150**

OSHA mandates permissible limits for occupational exposure of contaminants. The permissible exposure limit (PEL) is a legal limit in the United States for exposure of an employee to a chemical substance or physical agent. PELs were established by OSHA. The PEL for the Contaminants of Concern (COCs) are outlined in the table below:

PELs for Site Contaminants of Concern		
Contaminant of Concern	**PEL Value (mg/m^3)**	**Units**
Arsenic	**0.5**	(mg/m3)
Barium	**0.5**	(mg/m3)
Lead	**50**	(mg/m3)
TRPH	No PEL identified	NA
Dust	**0.15**	(mg/m3)
PAH		
Naphthalene	**50**	(mg/m3)
Benzo(a)anthracene	**0.2**	(mg/m3)
Benzo(a)pyrene	**0.2**	(mg/m3)
1-Methylnaphtalene	No PEL identified	NA
Benzo(b)fluoranthene	No PEL identified	NA
Benzo(k)fluoranthene	No PEL identified	NA
VOC		
Isopropylbenzene	No PEL identified	NA
1,2,3 Trimethylbenzene	No PEL identified	NA
1,2,4 Trimethylbenzene	No PEL identified	NA
1,3,5 Trimethylbenzene	No PEL identified	NA
Chloromethane	No PEL identified	NA

Notes: PELs are based upon 8-hour TWAs - Source is OSHA 1910.1000 TABLE Z-1
mg/m3=milligrams of substance per cubic meter of air
NA=Not Applicable

Wind speeds over 30 miles per hour (mph) will be used as an action level to cease excavation activities. Personnel will monitor the wind speed daily through the National Weather Service or National Oceanographic and Atmospheric Administration websites to determine the need for additional dust control measures.

5.3 Dust Monitoring

Continuous measurements of PM_{10} will be conducted to assess the effectiveness of dust control measures in real-time. This will allow for identification of work practices that have the potential to generate airborne contaminants within and beyond the work area and assess the relative effectiveness of dust control measures.

DUSTTRAK DRX Aerosol Monitor Model 8533 (or equivalent) (see **Appendix C** for equipment specifications) will be used to collect readings for PM_{10} onsite during excavation activities. Dust monitoring equipment will be installed upwind and downwind of soil disturbance activities along the perimeter of the work area. Monitoring stations will be moved to the appropriate locations based on the location of the ongoing work and wind direction.

The monitoring units will be set up to trigger an audible alarm when the dust concentrations exceed the Action Level of 0.15 mg/m3. Dust monitoring will be recorded in one-minute intervals. The data logged by the monitoring units includes run start time and date, time averaged concentration, elapsed run time, and maximum values with times of occurrence. Those readings will be recorded during each daily monitoring event.

Dust monitoring will be conducted during excavation, movement, and placement of existing contaminated soil beneath the surface. If PM_{10} Action Levels are exceeded, additional/enhanced dust control measures or termination of activities may be required. Respiratory protection may be required during excavation activities if Action Levels are consistently exceeded until dust levels are below the Action Levels. A monitoring log with a map of the Site will be filled out daily to document the placement of each monitoring unit in relation to the work area and the type of soil movement that took place.

6.0 SOIL MANAGEMENT PLAN

All excavated soil is subject to soil management measures to prevent exposure to and migration of contaminated media. A Stormwater Pollution Prevention Plan should be developed to minimize impacts to stormwater runoff from soils excavated during construction activities. Best Management Practices (BMPs) to limit soil runoff should be in place prior to conducting any soil disturbance.

6.1 Soil Handling

As noted above, if soil is excavated during construction, it will be handled in accordance with this Soil Management Plan.

- The location of temporary stockpiles of contaminated soil shall be determined prior to excavation. The BMPs described in a Stormwater Pollution Prevention Plan should be designed to minimize impacts to stormwater runoff from soils excavated during construction activities.
- Excavation and soil management shall be conducted in such a way that contaminated soil does not impact uncontaminated areas of the site, off-site properties, or roadways.
- Excavated soil stored on-site shall be stockpiled and placed on top of heavy-duty plastic sheeting in a designated contaminated area. Wherever practical, excavated soil shall be stockpiled in areas with improved asphalt or concrete surfaces and not adjacent to drainage features. If no areas are available to stockpile soil away from drainage features, then those features will need to be protected. Soil stockpiles shall be covered with impervious material adequate to prevent soil transport by wind or rainwater runoff. When not covered, soil stockpile surfaces shall be kept visibly moist by water spray, as necessary. Covers shall be maintained in good condition.

6.2 Soil Reuse and Imported Fill

If the developer plans to reuse excavated soils, verification sampling (or an alternative approved approach) to confirm soils meet the applicable SCTL(s) should be conducted. A map showing the placement of re-used soil should be submitted to the FDEP as part of the source removal report(s) as outlined in the May 2022, "Guidance for Soil Reuse Involving Soil Blending Activities at Chapter 62-780, F.A.C., Sites" provided in **Appendix D**. It should be noted that soil reuse is not allowed for soils impacted by polychlorinated biphenyls or soils that contain a Resource Conservation and Recovery Act (RCRA) Listed Waste. Hazardous soils are soils that exhibit any one or more of the following properties: ignitability, corrosivity, reactivity, or toxicity. To date, no hazardous soil has been identified on the Subject Property, however, if encountered, these types of soils must be managed and disposed of in accordance with federal regulations.

If the developer intends to use imported backfill. It should be noted that sampling and analysis of imported fill is recommended. The analysis is recommended to include potential COCs associated with the source of the imported fill. The FDEP does not regulate the use of fill under Chapter 62-780, F.A.C. The expectation is that all imported clean fill will meet the applicable SCTL(s). If the imported clean fill is at a later time found to be a source of contamination, the Person Responsible for Site Rehabilitation may be liable for cleanup as outline in the May 2022, "Guidance for Soil Reuse Involving Soil Blending Activities at Chapter 62-780, F.A.C., Sites". Documentation of the origin and amount of imported fill (such as fill tickets) should be maintained to meet reporting requirements at the completion of the project.

6.3 Offsite Disposal

All excavated soil that does not meet clean fill criteria as defined in the May 2022, "Guidance for Soil Reuse Involving Soil Blending Activities at Chapter 62-780, F.A.C., Sites " and is not being re-used on site pursuant to Section 6.2, should be properly disposed of at a Class I landfill in accordance with local, state, and federal regulations. If soil testing is conducted for the purposes of disposal characterization, the following provisions apply:

- The soil sampling frequency outlined in Chapter 62-713, F.A.C., and included as **Appendix E**, should be followed or as required by the soil disposal facility.
- Laboratory analyses shall include VOCs, PAHs, TRPHs, arsenic, barium and lead at a minimum and may include other laboratory parameters deemed necessary by the disposal facility.

- A manifest system shall be used so that contaminated material can be tracked from generation (excavation location, stockpile) to ultimate disposal. The manifests shall comply with all provisions of the appropriate transportation and disposal regulations. The City or an authorized representative is responsible for signing waste manifests.

6.4 Documentation Requirements

A Soil Management Plan Implementation Report (SMPIR) will be required by FDEP within 60 days of completion of SMP activities. The report shall document the completion of soil excavation, disposal, imported fill (volume and clean fill tickets), soil placement in its final location and air monitoring results. The following information and documentation shall be recorded during construction activities and provided to the City within 30 days of completion of earthwork and soil movement, unless otherwise specified below:

- For contaminated soil that is removed from the Site, copies of the trucking manifests, weigh tickets and disposal certificates (waste manifests).
- Documentation specifying origin of clean fill brought to the Site.

The Contractor shall provide as built drawings signed and sealed by a Florida licensed Professional Engineer clearly delineating:

- Areas and depths of contaminated soil excavation;
- Final cover of impacted soil relocation areas (i.e. depth of "clean soil" cover, concrete surface, etc.)

7.0 GROUNDWATER MANAGEMENT PLAN

The institutional controls outlined in the DRC states that there should be no use of the groundwater under the Subject Property. There shall be no drilling for water conducted on the property, nor shall any wells be installed on the property other than monitoring wells pre-approved in writing by FDEP's Division of Waste Management, in addition to any authorization required by the DWRM and the WMD. Additionally, there shall be no stormwater swales, stormwater detention or retention facilities, or ditches on the Subject Property.

In the event dewatering is required for development of the Subject Property, a National Pollutant Discharge Elimination System (NPDES) Permit for discharges from petroleum contaminated sites must be acquired. This Permit is issued under Section 403.0885, Florida Statutes, and applicable rules of the Florida Administrative Code. Coverage under this generic permit constitutes authorization to discharge treated ground water and stormwater that has been contaminated with automotive gasoline, aviation gasoline, jet fuel or diesel fuel to surface waters of the State pursuant to the Department's federally approved NPDES program, provided all criteria specified in this generic permit are met. Until coverage under this permit is terminated, revoked or expires, permittees using this permit are authorized to discharge treated groundwater in accordance with the terms and conditions of this permit. See **Appendix F** for NPDES Permit for Discharges from Petroleum Contaminated Sites DEP Form 62-621.300(1)(a).

For any dewatering activities, a plan approved by FDEP Division of Waste Management must be in place to address and ensure the appropriate handling, treatment, and disposal of any extracted groundwater that may be contaminated. In addition, a dewatering plan will need to be developed for the Subject Property to be used during dewatering. Treatment of groundwater will likely be required by FDEP in order to obtain the NPDES permit. Prior to design of the system, updated groundwater samples should be collected. It is possible that additional groundwater monitoring wells will need to be installed in the location of the dewatering. The installation of additional wells or trenches to reduce the potential of movement of offsite plumes onto the Subject Property may also be required. This will depend on the nature of the dewatering, length of operation, depth of the excavation required, etc. A dewatering contractor who is trained in working on contaminated properties and likely a remediation contractor will be required if dewatering occurs at this Subject Property. A dewatering plan will need to be signed and sealed by a registered professional engineer with the correct experience in design of remediation systems for dewatering purposes.

FIGURES

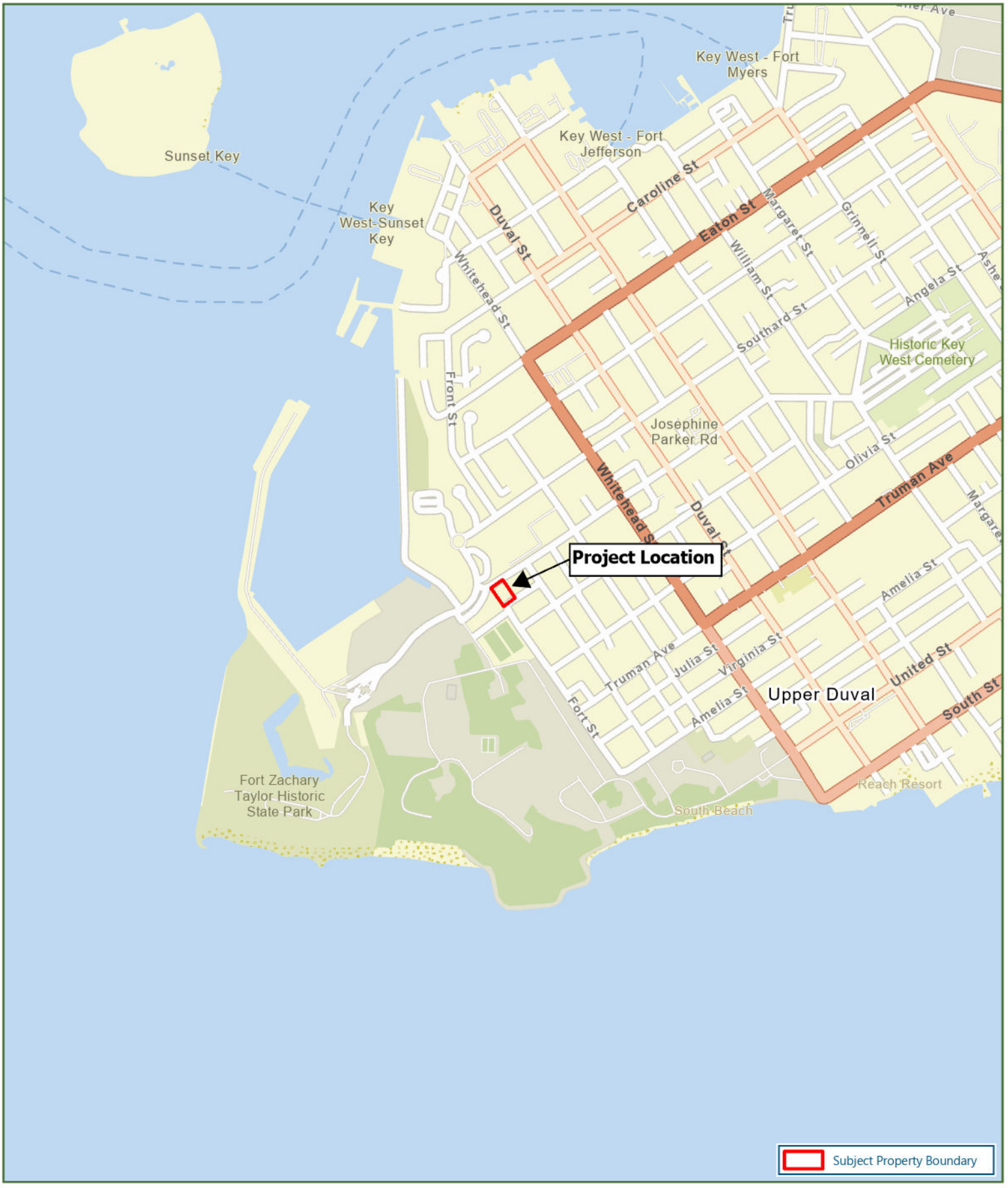


Figure 1
Location Map

Former Key West Diesel Plant
Key West, Monroe County, FL
81.8052°W 24.5511°N

N

1 in = 1,000 ft
0 500 1,000
Feet

Reference: Project limits are approximate. The project boundaries depicted on this map have not been surveyed and are for assessment purposes only. This information is not to be used as final legal boundaries.
Project Number: 109795
Data Source: ESRI Streetmaps
Spatial Reference:
NAD 1983 2011 StatePlane Florida East FIPS 0901 Ft US

res
www.res.us

Cartographer: jfreixa | POC: JF | Path: R:\Resgis\Projects\FL\109795_Former_Keys_Diesel_Pant\PRO\109795 Former Keys Diesel Plant.aprx | Layout: Fig 1. Location Map

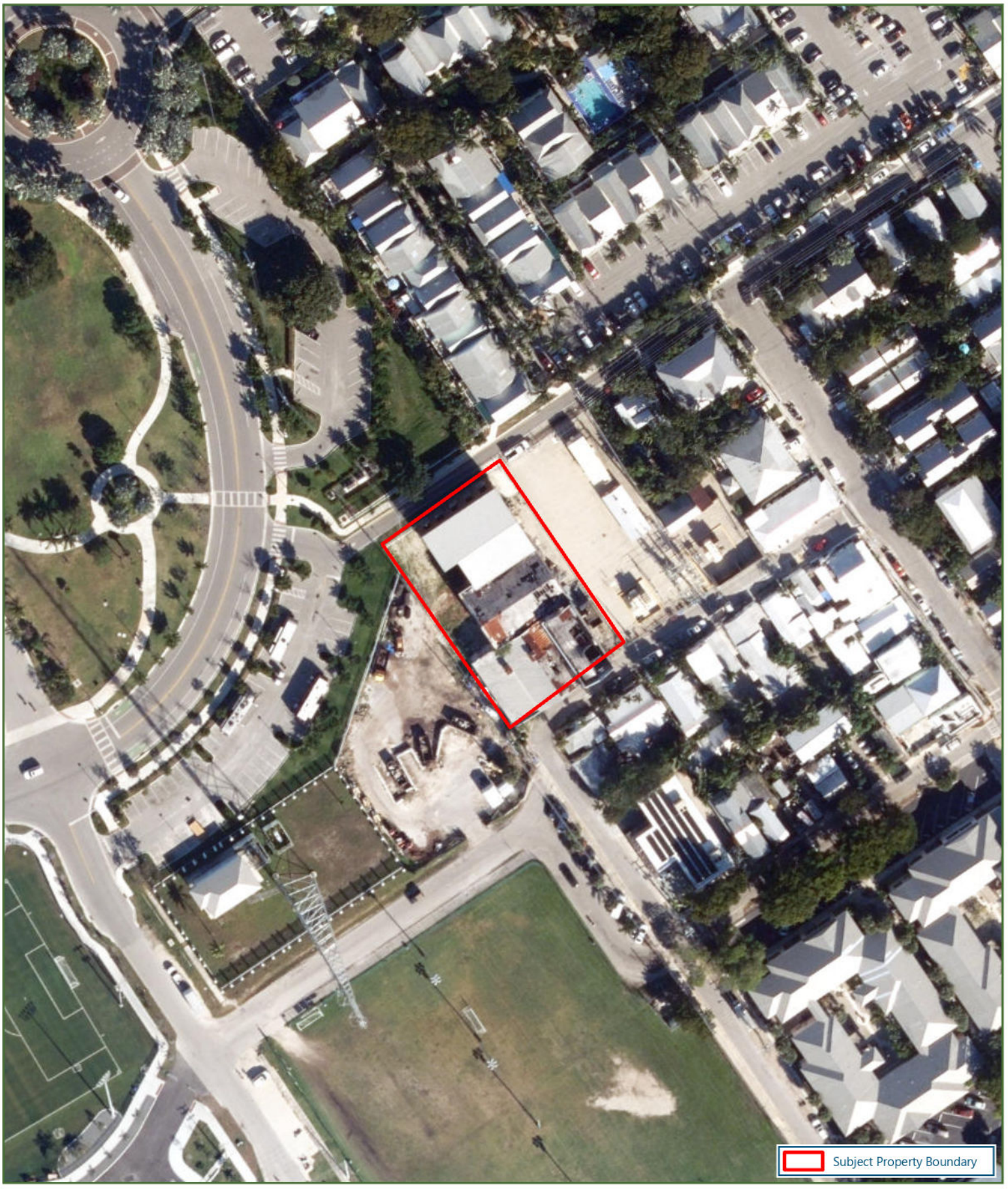


Figure 2
Aerial Photograph

Former Key West Diesel Plant
Key West, Monroe County, FL
81.8052°W 24.5511°N

N

1 in = 100 ft

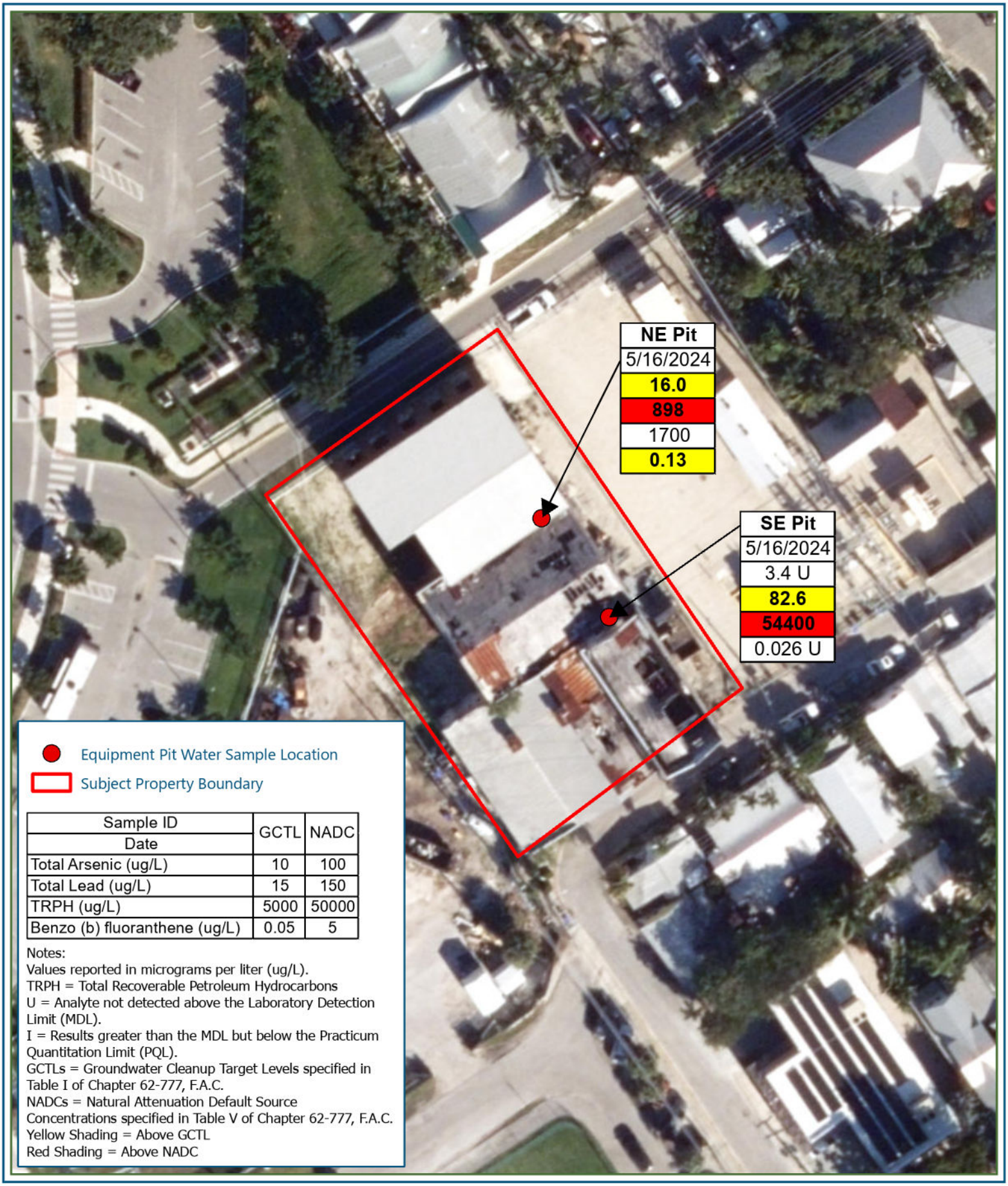
0 50 100

Feet

Reference: Project limits are approximate. The project boundaries depicted on this map have not been surveyed and are for assessment purposes only. This information is not to be used as final legal boundaries.
Project Number: 109795
Data Source: ESRI Streetmaps
Spatial Reference:
NAD 1983 2011 StatePlane Florida East FIPS 0901 Ft US

res
www.res.us

Cartographer: jfreixa | POC: JF | Path: R:\Resgis\Projects\FL\109795_Former_Keys_Diesel_Pant\PRO\109795 Former Keys Diesel Plant.aprx | Layout: Fig 2. Aerial Photograph



Sample ID / Date	GCTL	NADC
Total Arsenic (ug/L)	10	100
Total Lead (ug/L)	15	150
TRPH (ug/L)	5000	50000
Benzo (b) fluoranthene (ug/L)	0.05	5

Notes:
Values reported in micrograms per liter (ug/L).
TRPH = Total Recoverable Petroleum Hydrocarbons
U = Analyte not detected above the Laboratory Detection Limit (MDL).
I = Results greater than the MDL but below the Practicum Quantitation Limit (PQL).
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.
Yellow Shading = Above GCTL
Red Shading = Above NADC

Figure 3
Equipment Pit Water Analytical Map

Former Key West Diesel Plant
Key West, Monroe County, FL
81.8052°W 24.5511°N

N
1 in = 50 ft
0 25 50
Feet

Reference: Project limits are approximate. The project boundaries depicted on this map have not been surveyed and are for assessment purposes only. This information is not to be used as final legal boundaries.
Project Number: 109795
Data Source: ESRI Streetmaps
Spatial Reference:
NAD 1983 2011 StatePlane Florida East FIPS 0901 Ft US

res
www.res.us

Cartographer: jfreixa | POC: JF | Path: R:\Resgis\Projects\FL\109795_Former_Keys_Diesel_Pant\PRO\109795 Former Keys Diesel Plant.aprx | Layout: Fig 3. Equipment Pit Water Analytical Map

Site 5

Site 1

Site 6

Site 2

Site 4

Site 3

N

0 75 150 300 Feet

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Project Boundary
- 500 Foot Buffer
- Florida Institutional Controls Registry
- PETROLEUM
- ERIC Waste Cleanup
- Storage Tank Contamination Monitoring (STCM)
- Facility
- Waste Processing Area
- Solid Waste Disaster Debris Management Sites

R:\Projects\FL\109795-Former Keys Diesel Plant\5. Maps\Figure 4 - Potentially Contaminated Sites Map.mxd

RES Florida Consulting, LLC
312 SE 17th Street, Suite 200
Fort Lauderdale, Florida 33316
Phone: 954-484-8500

PROJECT NUMBER: PRJ109795

Former Key West Diesel Plant

Key West, Monroe County, Florida

Potentially Contaminated Sites Map

SCALE: 1 "=150 '

DATE: 6/21/2024

FIGURE 4

TABLES

TABLE 1: EQUIPMENT PIT WATER ANALYTICAL SUMMARY
Former Keys Energy Diesel Plant
Key West, Monroe County, Florida
RES Project Number PRJ 109795

Sample ID	NE Pit	SE Pit	GCTL	NADC
Date	5/16/2024	5/16/2024		
Total Arsenic (ug/L)	**16.0**	3.4 U	10	100
Total Lead (ug/L)	**898**	**82.6**	15	150
TRPH (ug/L)	1700	**54400**	5000	50000
Anthra-cene (ug/L)	0.019 U	0.025 I	2100	21000
Benzo (g,h,i) perylene (ug/L)	0.062 I	0.022 U	210	2100
Fluoran-thene (ug/L)	0.17 I	0.017 U	280	2800
Fluorene (ug/L)	0.016 U	0.016 U	280	2800
Phenanthrene (ug/L)	0.094 I	0.018 U	210	2100
Pyrene (ug/L)	0.15 I	0.031 U	210	2100
Benzo (a) pyrene (ug/L)	0.046 I	0.020 U	0.2	20
Benzo (a) anthracene (ug/L)	0.037 I	0.019 U	0.05	5
Benzo (b) fluoranthene (ug/L)	**0.13**	0.026 U	0.05	5
Benzo (k) fluoranthene (ug/L)	0.047 I	0.023 U	0.5	50
Chrysene (ug/L)	0.089 I	0.025 U	4.8	480
Dibenz (a,h) anthracene (ug/L)	0.024 U	0.024 U	0.005	0.5
Indeno (1,2,3-cd) pyrene (ug/L)	0.047 I	0.023 U	0.05	5

Notes:

ug/l - micrograms per liter

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.

U - Indicates the compound analyzed was for but not detected above the method detection limit (MDL).

I - The reported value is between the MDL and the laboratory practical quantitation limit (PQL).

Exceeds GCTL Limit

Exceeds NADC Limit

TABLE 2: CONTAMINATION ASSESSMENT TABLE
Former Keys Energy Diesel Plant
Key West, Monroe County, Florida
RES Project Number PRJ 109795

Site No.	Site Name	Parcel ID	Facility ID	Selection Rational	Facility Type	Approximate Distance to Nearest Point from Subject Site	Contamination Concern	Remediation Status	Rational for Contamination Potential
1	KEY ENERGY SERVICES FKA KEY WEST GAS AND ELECTRIC	000013950-000000 000013960-000000 000013970-000000 000013900-000000 000013910-000000 000013860-000000 000013780-000000 000013830-000000	ERIC_11628 STCM_9101950	ERIC Wate Cleanup, Institutional Controls, STCM	Keys Power Plant	Subject Site and Adjacent East	PAH, TRPH, Metals, VOCs, Asbestos	Complete with Conditions	The FDEP approved a Declaration of Restrictive Covenant (DRC) and issued a SRCO dated April 26, 2016 for the documented impact at the Property with a discharge date of February 20, 2012. However, the DRC and the SRCO did not address the documented surficial soil impacts present at the property and Subject Property. Whereas additional site rehabilitation activities are not required at the property including the Subject Property, additional investigation to address the documented soil impact may be required if planned renovation activities will disturb the land surface (i.e. demolition and/or construction activities, removal of concrete building slabs or soil removal).
2	US NAVY-TRUMAN ANNEX OLD NEX SER STA, BLDG #1276 TRUMAN ANNEX WATERFRONT SITE2 DDMS	00001630-000801	DEP_79805787 STCM_9400059 Solid Waste_101252	DEP Cleanup Site, STCM, Solid Waste Disaster Debris Management Site	Former Navy Service Station	Adjacent West	Petroleum	Active	Based on the lack of groundwater assessment activities at this site and the historic and potential current presence of USTs at the site, it is likely that this site would have an impact dewatering activities and redevelopment activities at the Subject Property. Assessment may be required at the property boundary and/or during dewatering activities to ensure that movement of any groundwater plume at this site was not exacerbated by redevelopment activities at the Subject Property. The potential for soil contamination on this site does exist but would not pose a risk to the redevelopment of the Subject Property.
3	THE LOFTS AT BAHAMA VILLAGE	00001630-000801	ERIC_18433	ERIC Wate Cleanup	Former Navy Service Station and Car Repair Shop	Adjacent West	Arsenic, BAP Equivalent	Active	Soil impacts are present at this facility but will be isolated by the EC. Based on the information available and the proximity to the Subject Property this facility is rated as high risk. While the FDEP is requesting an EC be constructed on this site, based on the most recent groundwater data, there is no groundwater contamination above the GCTLs. If the groundwater contamination remains below the GCTLs, this site will not impact redevelopment activities at the Subject Property. Prior to construction, the City should check that the groundwater conditions at this site remain below the GCTLs.
4	Building 1276 - (UST 006/ DOD_9_3226)	00001630-000801	ERIC_DOD_9_3226	ERIC Wate Cleanup	Former Navy Car Repair Shop	100 feet South	Petroleum	SRCO Complete	A Site Rehabilitation Completion Report for building 1276 was submitted November 2008. An SRCO was granted for hydraulic ram remediation in February 2009. It should also be noted that the location of this facility encompasses Site No. 3. Additionally, Site No. 2 is located within the same parcel but subdivided by Allen Avenue. Since this site has no documented groundwater contamination, it will likely not impact redevelopment activities at the Subject Property.
5	US NAVY-TRUMAN ANNEX PIER TANKS	00001630-001000	STCM_9700020	STCM	Naval Air Station	400 feet Nortwest	N/A	N/A	Depending on the redevelopment activities that will be conducted at the Subject Property, this site may have an impact. While there is no documented groundwater contamination, if dewatering activities are planned, groundwater sampling or dewatering effluent monitoring may be required.
6	US NAVY-NAS TRUMAN ANNEX SECURITY GATE	00001630-001000	STCM_9806255	STCM	Naval Air Station	200 feet Nortwest	Petroleum, Benzene	No Further Assessment	Depending on the redevelopment activities that will be conducted at the Subject Property, this site may have an impact. While there is no documented groundwater contamination, there appears to have been documented soil contamination. If dewatering activities are planned, additional groundwater or dewatering effluent monitoring may be required.

APPENDIX A

Background Reports

August 9, 2016

Mr. James Bouquet, P.E.
Engineering Director
CITY OF KEY WEST
3140 Flagler Avenue
Key West, Florida 33040

Subject: **SUMMARY REPORT OF HISTORICAL ENVIRONMENTAL ASSESSMENTS**
KEY WEST DIESEL PLANT PROPERTY
101-111 GERALDINE STREET
KEY WEST, FLORIDA 33040
AMEC FOSTER WHEELER PROJECT NUMBER 6783-16-2825

Dear Mr. Bouquet

In accordance with our with our proposal dated March 31, 2016, Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has prepared a Summary Report of Historical Environmental Assessments for the Key West Diesel Plant Property (the Property) located in Key West, Florida. Amec Foster Wheeler understands the City of Key West is considering acquiring a portion of the Key West Diesel Plant Property for redevelopment (the Site). Amec Foster Wheeler reviewed historical environmental assessments completed at the Key West Diesel Plant Property by various consultants from 1991 to 2015.

EXECUTIVE SUMMARY

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) has prepared a Summary Report of Historical Environmental Assessments for the Key West Diesel Plant Property (the Property) located in Key West, Florida. Amec Foster Wheeler understands the City of Key West is considering acquiring a portion of the Key West Diesel Plant Property that consists of the three buildings (the Site) located at the western portion of the Property.

Amec Foster Wheeler E&I, Inc.
5845 N.W. 158th Street
Miami Lakes, Florida 33014
Tel (305) 826-5588
Fax (305) 826-1799
www.amecfw.com

Amec Foster Wheeler reviewed historical environmental assessments completed at the Key West Diesel Plant Property by various consultants from 1991 to 2015. Based on the review of historical environmental site assessment reports:

- The Property was first developed and operated as a manufactured gas plant from 1884 to 1889. From approximately 1890 until the 1950/1960s, the Property operated as an electrical power plant using dynamo engines, boilers and oil tanks for the generation of electricity. The engines were fueled using diesel from aboveground storage tanks at the Property. The property is unoccupied with the exception of an electrical substation installed at the former location of the manufactured gas plant that is currently in operation.
- Soil polynuclear aromatic hydrocarbons (PAHs), Total Recoverable Petroleum Hydrocarbons (TRPHs), and metals (arsenic, barium, and lead) impact are present at depths ranging from 1 to 4 feet below grade at the Property including the Site.
- Groundwater Volatile Organic Compounds and PAH impacts are defined with the exception of the northeastern edge of the plume at the eastern portion of the Property and appears to be stable with limited likely migration. Groundwater VOC, PAH and TRPH impacts were not detected at the Site located at the southwestern portion of the Property. The FDEP issued a Site Rehabilitation Completion Order with Conditions (SRCO-C) in April 2016 for the petroleum hydrocarbon discharge (February 2012) at the Property.
- The SRCO-C released KEYS Energy Services from any further obligation to conduct site rehabilitation at the Property except for the conditions outlined in the SRCO-C. FDEP's restrictive covenant for the Property does not allow the use of groundwater under the Property. Restrictions contained in the covenant run with the land and with the title of the Property in order to ensure the perpetual nature of these restrictions. The owner of property shall reference these restrictions in any subsequent lease or deed of conveyance.
- Limited soil assessment had been conducted in the past beneath the sub slabs of the three onsite buildings. Therefore, if planned renovations and/or demolition of the buildings will disturb the soil, additional soil assessment may be required to further define the extent of potential soil impacts. In addition, a soil and groundwater management plan would need to be developed for the Site. The management plan will ensure proposed soil disturbance activities are performed in accordance with existing land use controls and that residual groundwater impact at the Site is not disturbed by site development activities. Any potential soil impact encountered beneath the buildings could be addressed through source removals during scheduled construction activities to minimize cost.

- Water contained in concrete-lined pits surrounding former generators at the Site does not appear to be hazardous based on March 2014 laboratory analytical results. However, additional testing of the water may be required in order to properly dispose of the water once a site development plan has been finalized for the Site due to the age of the existing test results.
- Building components in the three buildings at the Site contain regulated quantities of asbestos (above 1%). The identified Asbestos Containing Materials (ACM) should be removed or properly addressed by a licensed Asbestos Abatement contractor prior to renovation or demolition activities.
- Building components and structures in the three buildings at the Site have paint or coatings that contain lead concentrations in excess of 1.0 mg/cm2, as established by the Lead-Based Paint Poisoning Prevention Act, Section 302 and the HUD guidelines. Where leaded coatings will be disturbed, potentially resulting in airborne lead that could exceed the OSHA lead Action Level, lead abatement should be performed by certified lead abatement contractors prior to renovation activities. If only demolition services will be performed, a lead abatement inspector may be required to oversee the demolition activities.
- Ball park estimated costs for additional site assessment (if warranted) and recommended abatement activities (asbestos and lead) are provided below:
    - If planned renovations and/or demolition of the buildings will disturb soil, additional soil assessment may be required to further define the extent of potential soil impacts. Additional site assessment costs (if required) is estimated to be between $35,000 to $50,000. A cost to remove and properly dispose of any impacted soil that may be identified cannot be provided at this time. Typical costs to remove and dispose of petroleum hydrocarbon impacted soil ranges from $125 to $175/ton.
    - The abatement of asbestos containing materials identified in the three onsite buildings is estimated to cost between $10,000 to $15,000, based on PM Environmental Inc's Pre-Renovation Asbestos Containing Material Survey (July 2013) that estimated the presence of 2,250 sq. ft. of asbestos containing material.
    - Based on PSI's Lead-Based Paint Survey (July 2013) an estimate for lead abatement is difficult to provide without additional information regarding planned renovations for the buildings. Lead abatement costs could exceed $75,000 based on the results of PSI's survey. Additional information regarding planned renovations and/or planned uses for the Site could be used to refine the abatement estimate. Alternatively, a supplementary

Lead-Based Paint Survey to quantify the amount of lead containing finishes would assist in providing a cost estimate for abatement.

PROPERTY AND SITE DESCRIPTION

The Key West Diesel Plant Property is located at 101 - 111 Geraldine Street, Key West in Monroe County, Florida. A topographic map identifying the Property location and the Site is presented as **Figure 1** and an aerial map illustrating the Property is presented as **Figure 2**. Note that the Site is located on the southwestern portion of the Property. Adjacent to the north of the Property is Angela Street followed by residential properties, to the east are residential properties followed by Emma Street, to the south is Geraldine Street followed by residential properties, and to the West a parking lot. The Property consists of eight parcels including parcel numbers 13950, 13960, 13970, 13900, 13910, 13870, 13860 and 13830. The property is approximately 0.78 acres in size. The Property includes three buildings covering an area of approximately 13,300 square foot located at the western portion of the Property, and a 459 square foot blacksmith shop and a 945 square foot machine shop both located in the eastern portion of the Property. An electrical substation constructed in the late 2000s is located on the southeastern portion of the Property.

The City of Key West is considering acquiring a portion of the Property referred to as the Site that consists of the three buildings located at the western portion of the Property. The Site includes the following addresses and parcel numbers; 100 Angela Street (13950), 709 Fort Street (13950), and 101 Geraldine Street (13950) and the Fort Street Extension right-of-way (ROW). A copy of a City of Key West Executive Summary presenting details of the Site is included in **Attachment A**. Monroe County Property Appraisers records for the three parcels of the Site are included in **Attachment B**. A layout of the Property and the Site is presented as **Figure 3**. The Property is owned by the KEYS Energy Services. Photographs of the Site taken by Amec Foster Wheeler during a site visit on May 18, 2016 are included as **Attachment C**.

PROPERTY AND SITE BACKGROUND

Available historical information indicate that the Property was first developed and operated as a manufactured gas plant from 1884 to 1889 by Key West Gas and Electric Co (KWGE). The property began to operate as an electrical power plant in approximately 1890 until the 1950/1960s using dynamo engines, boilers, and oil tanks for the generation of electricity. The engines were fueled by four diesel Aboveground Storage Tanks (ASTs) that included a 27,000 gallon steel tank, a 25,000 gallon concrete tank (portions of the tank below grade), a 12,000 gallon steel tank and a 500 gallon tank that were all located on the

northeastern portion of the Property. A containment wall surrounded the 25,000 gallon and the 27,000 gallon ASTs. Six 25,000 gallon crude oil tanks were located at the southeastern portion of the Property. Fuel was distributed from the tanks to the plant building through underground piping. A cement groundwater pit approximately 20 feet deep that was used for cooling water for the diesel generators was located in the central portion of the Property east of the plant building (three buildings located at the Site). Although the majority of operations at the Property ceased by the late 1960s, a high speed diesel generator that was located on a concrete pad in the vicinity of the fuel tanks remained in operation until the 1970s. An electrical substation currently in operation at the Property is installed at the location of the former manufactured gas plant. The old and inactive electrical plant contained in the three buildings (plant building) occupy the portion of the Property referred to as the Site (parcels 13950, 13960 and 13970). The dynamo engines that used diesel fuel are still present in the old plant building.

Several site assessments were conducted at the Property by various environmental consultants and the State of Florida/USEPA from 1991 through 2012. In July 2013, PM Environmental Inc., (PM) completed a Phase I Environmental Site Assessment (ESA) at the Property. A summary of historical assessments documented in PM's Phase I ESA dated July 26, 2013 indicate that a release was identified in March 1991, based on the presence of free phase hydrocarbons within a concrete lined pit located east of the main building. In addition, free product was identified in one monitoring well (MW-7) that was located to the northwest of the concrete lined pit. As a result of the presence of free product, the former ASTs and the concrete lined pit were emptied, cleaned, and removed in August 1992. A total of approximately 30,000 gallons of free product/impacted groundwater and 3,850 cubic yards of impacted soil were removed from the Property during decommissioning activities. The soil was properly disposed of at an off-site facility. The extent and location of the excavation was not documented in previous reports. Approximately 100 gallons of free product was removed from MW-7 between 1991 and 1992. Subsequent groundwater sampling between 1992 and 1995 did not identify free product at monitoring well MW-7. Groundwater sampling in 1994 and 1995 did not indicate polynuclear aromatic hydrocarbons (PAHs) or Total Recoverable Petroleum Hydrocarbons (TRPHs) concentrations above applicable Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Levels (GCTLs) in the area of the former ASTs and former concrete pit. The FDEP issued a Site Rehabilitation Completion Order (SRCO) dated July 27, 1995 for the March 1991 release.

In August 2012, an investigation to further assess the historical operations at the Property and to determine if the Property qualified as a Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) site was completed on behalf

of the FDEP. Soil and groundwater analytical results indicated PAHs, arsenic, and lead concentrations above FDEP Soil Cleanup Target Levels (SCTLs) in shallow soil samples to the southwest of the machine shop building. In addition, the results indicated isopropyl benzene and PAHs concentrations were above FDEP GCTLs in groundwater samples from the central portion of the Property. Sediment sampling from a storm water catch basin to the south of the Property, across Fort Street, indicated lead concentration above FDEP Sediment Quality Assessment Guidelines. Based on the concentrations of contaminants identified at the Property, the facility did not qualify as a CERCLIS site and no additional CERCLIS investigation was recommended. The documented contamination was referred to the FDEP for additional investigation.

PM's July 26, 2013 Phase I ESA reported the following Recognized Environmental Conditions (RECs) at the Property:

- August 2012 investigation activities on behalf of the FDEP to further assess the historical operations at the subject property documented PAHs, arsenic, and lead concentrations above FDEP SCTLs in shallow soil samples to the southwest of the machine shop building. In addition, isopropyl benzene and PAHs concentrations were above FDEP GCTLs. The contamination appeared to be associated with former operations at the subject property.

- Operation of the Property as a manufactured gas plant (MGP) from approximately 1884 until 1889. Operations of MGPs typically involved the gasification of combustible materials such as coal, wood, or oil. A former retort room (processing area) and a former gasometer (storage container for gas) were identified on the eastern portion of the Property. The by-products of the gasification process typically included petroleum products and/or hazardous substances, including coal tars. The potential existed for a release to have occurred in association with the operation of the former MGP.

- The presence of six former 25,000-gallon crude oil ASTs along the southern property boundary between at least 1912 and 1926 documented in Sanborn maps. In addition, two former crude oil ASTs were identified to the east of the main building. Limited sampling that had been conducted in these areas were not adequate to assess the potential for leaks, spills, and/or overfills that may have occurred in association with these former ASTs; therefore, the potential existed for subsurface contamination to be present.

- Operation of power plant that utilized petroleum products as a fuel source, from approximately 1890 until the 1950s/1960s at the Property. There was a potential for leaks and/or spills to have occurred in association with the operation of the turbine generators and/or other equipment within the plant buildings and at various portions of the Property. The integrity of the floor beneath the generators is unknown and potentially may have subsurface impact present.

- Former machine shops identified on the Property within the southwestern portion of the main building and within the machine shop. Machine shop operations typically involve the use of hazardous substances and/or petroleum products. This time period preceded major environmental regulations and current waste management and disposal procedures. The historical waste management practices associated with the former machine shop operations are unknown and may be a source of subsurface contamination.

The following adjoining and nearby RECs were also identified by PM during the Phase I ESA.

- The north adjoining properties were formerly part of the Truman Annex, which was a part of Naval Air Station Key West, from at least 1892 until 1971. Sanborn maps document the property was occupied by U.S. governmental land dating back to at least 1892. The historic usage of these properties associated with the former military base is unknown from at least 1892 until 1958. There was a potential for operations to have included the use of petroleum products and/or hazardous substances, and/or the occurrence of landfilling activities.

- The south adjoining properties, identified as 110-118 Geraldine Street, was historically occupied by a Standard Oil bulk petroleum plant. There was a potential for leaks, spills, and/or overfills associated with the operation of a former bulk petroleum plant to have resulted in migration of contamination onto the Property.

- The west adjoining property was historically occupied by U.S. governmental land from at least 1892 until 1926. Specifically, a governmental slip had been identified directly west of the property in 1892. Based on previous investigations on the Property, this property was filled in the 1890s or early 1990s. There was a potential for the fill materials to have originated from a contaminated property. As such there was a potential for migration of contamination onto the Property.

Subsequent to the Phase I ESA, PM completed a Phase II ESA (October 8, 2013), which consisted of advancing 16 soil borings (SB-1 through SB-16), installing 10 temporary monitoring wells (TMW-1, TMW-4, TMW-5D, TMW-6D, TMW-7 through TMW-11, and TMW-14) at the Property and collecting soil and groundwater samples for laboratory analysis to investigate the RECs identified in PM's Phase I ESA. Seven out of the 16 soil borings and 3 out of the 10 temporary wells were installed at the plant building at the Site to assess the impact of the plant operations. Results of the PM Phase II ESA indicated concentrations of PAHs (benz(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene), TRPHs, and metals (arsenic, barium, and lead) in the soil above the FDEP SCTLs at the Property and the Site. Five locations at the Site exhibited soil impact. The soil impacts were detected at depths ranging from 1 to 4 feet below grade. The Phase II ESA analytical results indicated concentrations of Volatile Organic Compounds (VOCs), PAHs, and

TRPHs in the groundwater above the applicable FDEP GCTLs and Natural Attenuation Default Concentrations (NADCs) at the Property but not at the Site. Three samples collected at the plant building located at the Site did not exhibit groundwater impact. Figures (Figure 3 and Figure 4, Phase II ESA October 8, 2013) prepared by PM presenting the sample locations with soil and groundwater analytical results are included in **Attachment D**.

From January 2014 through July 2015, PM completed a Site Assessment Report (SAR), (March 10, 2014), a Supplemental SAR (August 25, 2014), and one year of Natural Attenuation Monitoring (NAM) (July 10, 2015) activities based on our review of the history of the Property. The contaminants detected in the soil and groundwater were consistent with the historical use of the property as a gas and electric plant. In addition, the contaminants detected were consistent with previously documented soil and groundwater impacts.

Based on PM's discussions with FDEP documented in the August 25, 2014 SSAR and an FDEP email dated October 31, 2014, the soil impacts were considered a secondary issue due to the abundance of sand and limerock (possible vugular, or oolitic in composition) on the Property. As such, additional soil assessment to delineate the horizontal and vertical extent of the soil impact was not conducted during the supplemental site assessments activities.

The SAR and SSAR assessment activities included the installation of seven permanent monitoring wells and collection of groundwater samples for laboratory analysis of VOCs, PAHs, and TRPHs to further define the contaminants of concern identified in the groundwater during the Phase II ESA. The SAR and SSAR groundwater sampling events indicated that VOC and PAH groundwater impacts are defined at the eastern portion of the Property, with the exception of the northeastern edge of the plume. Additional off property assessment to define the northeastern edge of the plume was not performed with the concurrence of the FDEP (August 26, 2014 memo). Copies of the FDEP correspondences are included in **Attachment E**.

Following one year of NAM approved by FDEP and completed by PM, groundwater analytical results indicated that plumes of VOC analytes and PAH analytes present largely at the eastern portion of the Property appeared to be stable. Groundwater TRPH concentrations detected above the applicable FDEP GCTL during the assessment activities reduced to concentrations below the FDEP GCTL during the subsequent NAM events. Volatile Organic Compound analytes exhibiting concentrations above the applicable FDEP GCTL following one year of NAM include chloromethane (plume at

northeastern portion of the Property), isopropyl benzene, 1,2,3-trimethylbenzene,1,2,4-trimethylbenzene 1,3,5-trimethylbenzene (plume at the eastern portion of the Property). Polynuclear Aromatic analytes exhibiting concentrations above the applicable FDEP GCTL following one year of NAM include benzo(a)pyrene, acenaphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, naphthalene and 1-methylnaphthalene (plume at the eastern portion of the Property). PM concluded that the impacted groundwater plume is stable with limited likely migration of contaminated groundwater to the northeast portion of the Property. Figures (Figure 3 to Figure 5, 4th Quarter, 1st Year NAM, July 10, 2015) prepared by PM presenting the groundwater analytical results and contaminant plumes are included in **Attachment D**. The FDEP approved a Declaration of Restrictive Covenant (DRC) and issued a Site Rehabilitation Completion Order with Conditions (SRCO-C) on April 26, 2016 for the documented impact at the Property for the discharge dated of February 20, 2012. A copy of the SRCO-C is included in **Attachment F**. The monitoring wells utilized for the natural attenuation monitoring program were properly abandoned in June 2016 as detailed in a Monitoring Well Abandonment Report (June 17, 2016) prepared by PM.

SUBSURFACE GEOLOGY AND HYDROGEOLOGY

Key West is located in the Oolite Keys geomorphologic feature of the Southern or Distal Zone geomorphologic province. The lower Florida Keys are an extension of the same oolitic limestone lithology underlying Miami and much of the southeastern Florida. The Keys represent coral reef colonies which built up during the Pleistocene Epoch as a result of fluctuations in sea level. The last major drop in sea level exposed the ancient reefs which make up the Keys today.

The Pleistocene Age deposits underlying the Property include, in descending order, the Miami Limestone (Miami Oolite) and the Key Largo Limestone. The Pleistocene deposits are underlain, in descending order, by the Hawthorn Group (Miocene age) and the Suwannee Limestone (Oligocene age).

The Miami Limestone (5 to 35 feet thick) is composed of white-cream to pale orange, crystalline, granular, and porous to cavernous oolitic limestone. The ooliths may be up to 2.0 millimeters (mm) in diameter. The existence and plentitude of corals and other marine fossils indicates deposition in a marine environment. The oolitic limestone is honeycombed with solution holes, giving it an extremely high permeability. Porosity generally increases with depth. The solution holes may connect with channels open to the ocean. This interconnection would allow for interchange of rainwater to the ocean and sea water into the oolitic limestone. The oolitic limestone in Key West extends to a depth of about 200 feet.

The coralline Key Largo Limestone underlies the Miami Limestone in the lower (oolite) keys. The Key Largo Limestone is a white to tan limestone, consisting of lime-sand, coral skeletal remains and invertebrate shells, marine plant and algal debris. The thickness of the Key Largo Limestone varies irregularly from 75 to over 200 feet.

The Hawthorn Group includes the Arcadia and Peace River Formations. The Hawthorn Group consists primarily of interbedded carbonates (limestone, dolostone), quartz sands and clays. The Hawthorn is considered to be a confining unit that is approximately 900 feet thick in the Key West area. The Suwannee Limestone is composed of highly fossiliferous, cream colored limestone and is found approximately 1,300 feet below grade in the Key West area.

The Miami and Key Largo Limestones together comprise the surficial aquifer on the island. A freshwater lens exists on the western half of the island. No measurable fresh water lens exists in the eastern half of the island due to extensive areas of artificial fill. A fresh groundwater lens exists on the top of the saltwater due to the density differences. The lens exists under water-table conditions and is found between 5 to 8 feet below grade in the Property area. The water table fluctuates and the shape of the lens changes due to tidal effects. Precipitation is the primary type of recharge to the fresh water lens. The lens is approximately 5 feet thick (less than 250 milligrams per liter (mg/l) chloride) in the center of the island. The freshwater head is greater in the center of the island where land surface elevations are higher. Groundwater moves from the center of the lens and discharges along beaches and salt ponds. Based on regional flow patterns, the surficial aquifer flow in the Property area is to the southwest.

The surficial aquifer system in Key West is generally not considered to be an adequate or reliable source of potable water. The freshwater lens on Key West has chloride concentrations varying from zero to 250 mg/l. It is underlain by a number of successively deeper transition zones. These transition zones become progressively more saline with depth and include a very slightly saline water zone (250-400 mg/l), and slightly saline water zone (400-1,500 mg/l), a moderately saline water zone (1,500-5,000 mg/l) and very saline water zone (5,000-19,000 mg/l). The water table has been known to fluctuate from 0.8 feet above mean sea level (MSL) to 2.4 feet above MSL near the center of Old Town, Key West. Tidal effects greatly influence the depth to water table and configuration of the freshwater lens. The freshwater lens averages about 5 inches in thickness in the center of the western half Old Town, Key West. The thickness and amount of the freshwater is dependent on precipitation, discharge to the ocean, evapotranspiration and withdrawal. It is underlain by a freshwater-saltwater mixture. This mixture extends to a depth of about 40 feet deep in the center of the island. The salt-water interface (19,000 mg/l chloride)

exists around this depth. A number of private wells may tap the fresh-water lens in the western half of the island. Most of the private wells are used primarily for irrigation. However, Florida Keys Aqueduct Authority (FKAA) and Monroe County Health Department (MCHD) report that an undetermined number of residents on the island refuse to hookup to the FKAA water lines and use private wells for potable water. The FKAA water lines provide potable water to the Keys from the mainland and water treatment facilities located on the Keys.

The general subsurface soil stratigraphy encountered by PM, based on soil boring logs, consists of two to four feet of medium sand underlain by coral limestone to a depth of 25 feet. The groundwater was encountered at depths ranging from approximately 2.7 to 4.6 feet below grade.

WATER SAMPLING AT THE SITE

In March 2014, PM collected four water samples (SW-1 through SW-4) from the existing concrete-lined pits surrounding the former generators located in the Plant Building at the Site. Each pit measured approximately 40 feet by 14 feet and the depths ranged from approximately 2 to 8 feet deep. The water analytical results indicated VOCs, PAHs and TRPH concentrations were not detected above the FDEP GCTL. Based on the analytical results of the water samples, PM concluded that the water contained in the concrete-lined pits surrounding the former generators did not appear to be hazardous and recommended no further investigation of the water contained in the historical generator pits.

ASBESTOS CONTAINING MATERIAL SURVEY

An inspection for Asbestos Containing Materials (ACM) was performed by PM in July 2013 (Pre-Renovation Asbestos Containing Materials Survey, July 26, 2013) at the Property that included the three buildings at the Site, the blacksmith shop, and the machine shop. The interior of the main building was a combination of concrete and ceramic tile floor, brick and mortar walls, and exposed ceilings throughout the buildings. Tansite panels, wire, and pipe insulation were present in the main control and switchboard area. The blacksmith and machine shop interiors consisted of concrete floors, brick and mortar walls, and exposed ceilings. The exteriors of the buildings consisted of concrete brick and mortar walls with galvanized roofs.

PM collected 34 samples of suspect ACM from 13 different homogenous areas at the Property including the Site for laboratory analysis. Based on the laboratory analytical results PM identified that Transite panels, wire insulation, window glaze, and pipe insulation in the three buildings at the Site contain regulated quantities of asbestos

(above 1%). PM recommended that the identified ACM should be removed by a licensed Asbestos Abatement contractor prior to renovation or demolition activities.

LEAD BASED PAINT SURVEY

Professional Services Industries, Inc. (PSI) performed a lead based paint (LBP) survey in July 2013 at the Property that included the three buildings at the Site, and two additional buildings at the Property (blacksmith shop and machine shop). The LBP survey included a Field survey and X-Ray Fluorescence (XRF) Testing. The Field survey consisted of a visual inspection of both interior and exterior accessible building surfaces for the presence of paints, varnishes or other surface coatings suspected of containing lead. The XRF Testing was performed with an XRF Lead Paint Spectrum Analyzer, LPA-1 manufactured by Radiation Monitoring Devices. Fifty seven out of a total of 110 XRF readings collected from various components on the interior and exterior of the buildings indicated a lead concentration equal to or in excess of 1.0 mg/cm^2, as established by the Lead-Based Paint Poisoning Prevention Act, Section 302 and the HUD guidelines.

PSI's findings indicated the following building components or structures in the three buildings at the Site have coating that contain lead: metal door, I-beams, cross beams, beams, ceiling beams, walls, piping, window frames, doors, door frames, air compressor metal tank frames, tanks, engine exhaust, stairs, top of engine, hand rails and concrete base for switch gear. In addition, the window frames, beams and door frames at the blacksmith building and the door and window frame at the machine shop contain lead.

SUMMARY OF PROPERTY AND SITE CONDITIONS

Recent site assessments activities and one year of NAM were completed by PM at the Property that included the Site. Soil analytical results of the assessment activities indicated concentrations of PAHs, TRPHs, and metals (arsenic, barium, and lead) in the soil (at depths ranging from 1 to 4 feet below grade) above the FDEP SCTLs at the Property including the Site. In addition, the analytical results indicated concentrations of VOCs, PAHs, and TRPHs in the groundwater above the applicable FDEP GCTLs and NADCs at the Property but not at the Site.

Following one year of FDEP approved NAM completed by PM at portions of the Property excluding the Site, groundwater analytical results indicated that plumes of VOC analytes and PAH analytes present at the eastern portion of the Property appeared to be stable. The groundwater VOC analyte and PAH analyte plumes are defined at the eastern portion of the Property with the exception of the northeastern edge of the plume. Groundwater TRPH concentrations detected above the applicable FDEP GCTL during the assessment

activities reduced to concentrations below the FDEP GCTL during the subsequent NAM events. PM concluded that the impacted groundwater plume is stable with limited likely migration of contaminated groundwater for the northeast of the Property. The FDEP approved a Declaration of Restrictive Covenant (DRC) and issued a SRCO-C dated April 26, 2016 for the documented impact at the Property with a discharge date of February 20, 2012.

Water sampling performed by PM in March 2014, from the existing concrete-lined pits surrounding the former generators located in the Plant Building at the Site indicated VOCs, PAHs and TRPH concentrations were not detected above the FDEP GCTL. Based on the analytical results of the water samples PM concluded that the water contained in the concrete-lined pits surrounding the former generators did not appear to be hazardous and recommended no further investigation of the water contained in the historical generator pits.

An ACM inspection was performed by PM in July 2013 at the Property that included the three buildings at the Site, and two additional buildings at the Property (blacksmith shop and machine shop). Thirty four samples of suspect ACM from 13 different homogenous areas at the Property including the Site were collected for laboratory analysis. PM identified that Transite panels, wire insulation, window glaze, and pipe insulation in the three buildings at the Site contain regulated quantities of asbestos (above 1%), based on the laboratory results and recommended that the identified ACM should be removed by a licensed Asbestos Abatement contractor prior to renovation or demolition activities.

An LBP survey performed in July 2013 by PSI at the Property found 57 out of a total of 110 XRF readings collected from various components on the interior and exterior of the buildings contain lead concentration equal to or in excess of 1.0 mg/cm^2, as established by the Lead-Based Paint Poisoning Prevention Act, Section 302 and the HUD guidelines. PSI's findings indicated several building components or structures in the three buildings at the Site, and two additional buildings at the Property (blacksmith shop and machine shop) have coating that contain lead.

CONCLUSION

Amec Foster Wheeler has completed a review of historical environmental site assessment reports for the Key West Diesel Plant Property (the Property) including the Site that consists of the three buildings located at the western portion of the Property and the Fort Street Extension right-of-way (ROW). Soil PAHs, TRPHs, and metals (arsenic, barium, and lead) impact are present at depths ranging from 1 to 4 feet below grade at the Property including the Site. The soil impacts at the Site are not defined vertically and horizontally.

Groundwater VOC and PAH impacts are defined with the exception of the northeastern edge of the plume at the eastern portion of the Property and appears to be stable with limited likely migration. Groundwater VOC, PAH and TRPH impacts were not detected at the Site located at the southwestern portion of the Property.

The FDEP issued a SRCO-C dated April 26, 2016 for the documented impact at the Property regarding a discharge date of February 20, 2012, releasing KEYS Energy Services from any further obligation to conduct site rehabilitation at the Property and the Site except for the conditions outlined in the SRCO-C. However, the DRC and the SRCO including the exceptions did not address the documented surficial soil impacts present at the Property and the Site. Whereas additional site rehabilitation activities are not required at the Property including the Site, additional investigation to address the documented soil impact may be required if planned renovation activities will disturb the land surface (i.e. demolition and/or construction activities, removal of concrete building slabs or soil removal).

The SRCO-C released KEYS Energy Services from any further obligation to conduct site rehabilitation at the Property except for the conditions outlined in the SRCO-C. FDEP's restrictive covenant for the Property does not allow the use of groundwater under the Property. Restrictions contained in the covenant run with the land and with the title of the Property in order to ensure the perpetual nature of these restrictions. The owner of property shall reference these restrictions in any subsequent lease or deed of conveyance.

Water contained in the concrete-lined pits surrounding the former generators do not appear to be hazardous based on March 2014 laboratory analytical results and sampling performed by PM. PM concluded that no further investigation of the water contained in the historical generator pits was necessary. However, additional testing of the water may be required in order to properly dispose of the water once a site development plan has been finalized for the Site.

Transite panels, wire insulation, window glaze, and pipe insulation in the three buildings at the Site contain regulated quantities of asbestos (above 1%) and the identified ACM should be removed or properly addressed by a licensed Asbestos Abatement contractor prior to renovation or demolition activities.

Building components and structures in the three buildings at the Site have paint or coatings that contain lead concentrations in excess of 1.0 mg/cm2, as established by the Lead-Based Paint Poisoning Prevention Act, Section 302 and the HUD guidelines. Where leaded coatings will be disturbed, potentially resulting in airborne lead that could exceed

the OSHA lead Action Level, lead abatement should be performed by certified lead abatement contractors prior to renovation activities. If only demolition services will be performed, a lead abatement inspector may be required to oversee the demolition activities.

RECOMMENDATION

The City of Key West is considering acquiring the Site that consists of the three buildings located at the western portion of the Property. Based on the historical use of the buildings, such as housing generators used for electrical power generation, the presence of impacted soil at the Site, the presence of asbestos containing materials, and lead based paint in building components, and the proximity of the Site to the electrical Keys Substation the following recommendations are provided to minimize potential human exposures:

- The future development and use of the Site should be limited to commercial structures and/or commercial purposes unless engineering controls are incorporated into the site development plan for residential uses.
- Reasonable security measures including installation of a temporary fence should be considered for the Site in order to restrict site access and limit potential exposure to the documented petroleum hydrocarbon impacted soil and asbestos containing material present in the onsite buildings.
- Limited soil assessment had been conducted in the past beneath the sub slabs of the three onsite buildings. Therefore, if planned renovations and/or demolition of the buildings will disturb the soil, additional soil assessment may be required to further define the extent of potential soil impacts. In addition, a soil and groundwater management plan would need to be developed for the Site. The management plan will ensure proposed soil disturbance activities are performed in accordance with existing land use controls and that residual groundwater impact at the Site is not disturbed by site development activities. Any potential soil impact encountered beneath the buildings could be addressed through source removals during scheduled construction activities to minimize cost.
- Additional testing of the water contained in concrete-lined pits surrounding former generators at the Site may be required (due to age of the original test results) in order to properly dispose of the water once a site development plan has been finalized.

- Asbestos containing materials identified in the three buildings should be removed or properly addressed by a licensed Asbestos Abatement contractor prior to renovation or demolition activities.
- Lead abatement of identified lead based paint materials in building components should be performed by certified lead abatement contractors prior to renovation activities. If only demolition activities will be performed, a lead abatement inspector may be required to oversee the demolition activities.
- Ball park estimated costs for the additional site assessment (if warranted) and recommended abatement activities (asbestos and lead) are provided below:
    - If planned renovations and/or demolition of the buildings will disturb soil, additional soil assessment may be required to further define the extent of potential soil impacts. Additional site assessment costs (if required) is estimated to be between $35,000 to $50,000. A cost to remove and properly dispose of any impacted soil that may be identified cannot be provided at this time. Typical costs to remove and dispose of petroleum hydrocarbon impacted soil ranges from $125 to $175/ton.
    - Abatement of asbestos containing materials identified in the three onsite buildings is estimated to be between $10,000 to $15,000, based on PM Environmental Inc's Pre-Renovation Asbestos Containing Material Survey (July 2013) that estimated the presence of 2,250 sq. ft. of asbestos containing material.
    - Based on PSI's Lead-Based Paint Survey (July 2013) an estimate for lead abatement is difficult to provide without additional information regarding planned renovations for the buildings. Lead abatement costs could exceed $75,000 based on the results of PSI's survey. Additional information regarding planned renovations and/or planned uses for the Site could be used to refine the abatement estimate. Alternatively, a supplementary Lead-Based Paint Survey to quantify the amount of lead containing finishes would assist in providing a cost estimate for abatement.

Sincerely,

AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE, INC.

Jonathan Bulley
Senior Engineer

Paul H. Thornbury
Project Manager

REFERENCES

Contamination Assessment Report, CH2M Hill, September 1991

Remedial Action Plan, CH2M Hill, October 1992

Remedial Action Plan Modification, PDG Environmental Services, October 1992

Site Inspection Report, Florida Department of Environmental Protection (FDEP) / US Environmental Project Agency, August 16, 2012

Phase I Environmental Site Assessment, PM Environmental, Inc., July 26, 2013

Phase II Environmental Site Assessment, PM Environmental, Inc., October 8, 2013

Site Assessment Report, PM Environmental, Inc., March 10, 2014

Surface Water Sampling, PM Environmental, Inc., July 22, 2014

Supplemental Site Assessment, PM Environmental, Inc., August 8, 2014

Lead Based Paint Survey, Professional Service Industries, Inc., (PSI) July 18, 2013

Pre-Renovation Asbestos Containing Material Survey, PM Environmental, Inc., July 26, 2013

4th Quarter, 1st Year Natural Attenuation Monitoring Report, PM Environmental, Inc., July 10, 2015

Site Rehabilitation Completion Order, FDEP, April 26, 2016

Well Abandonment Report, PM Environmental, Inc., June 17, 2016

FIGURES

LEGEND

KEY WEST DIESEL PLANT
(THE PROPERTY)

0 500 1000
GRAPHIC SCALE
(FEET)

REFERENCE
USGS - KEY WEST QUADRANGLE, FLORIDA-MONROE CO.
1988 DATUM, GRID ZONE DESIGNATION 17R
7.5 MINUTE SERIES (TOPOGRAPHIC)

Former Key West Gas
& Electric Company

101 - 111 GERALDINE STREET
KEY WEST, FLORIDA

AMEC PROJECT #: 6783-16-2825

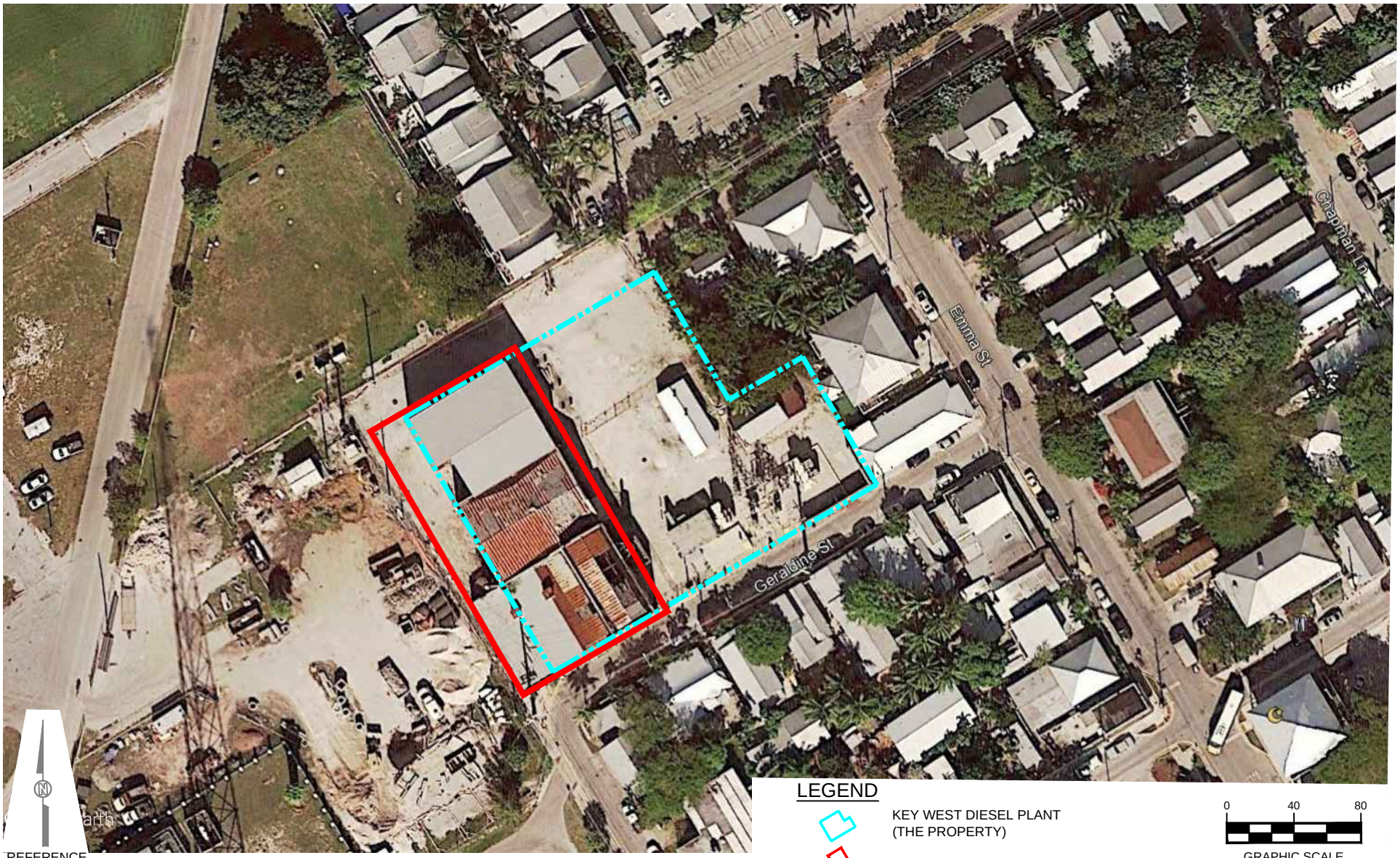
AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.

5845 N.W. 158th STREET
MIAMI LAKES, FL 33014
TEL: (305) 826-5588
FAX: (305) 826-1799

FIGURE 1

TOPOGRAPHIC MAP WITH
PROPERTY BOUNDARY LOCATION

CREATED BY: NAB	DATE: 06/22/16
CHECKED BY: JAB	SCALE: AS SHOWN



REFERENCE
2014 AERIAL PHOTOGRAPH FROM
GOOGLE EARTH PRO

LEGEND

KEY WEST DIESEL PLANT
(THE PROPERTY)

THE SITE

0 40 80
GRAPHIC SCALE
(FEET)

Former Key West Gas & Electric Company

101 - 111 GERALDINE STREET
KEY WEST, FLORIDA

AMEC PROJECT #: 6783-16-2825

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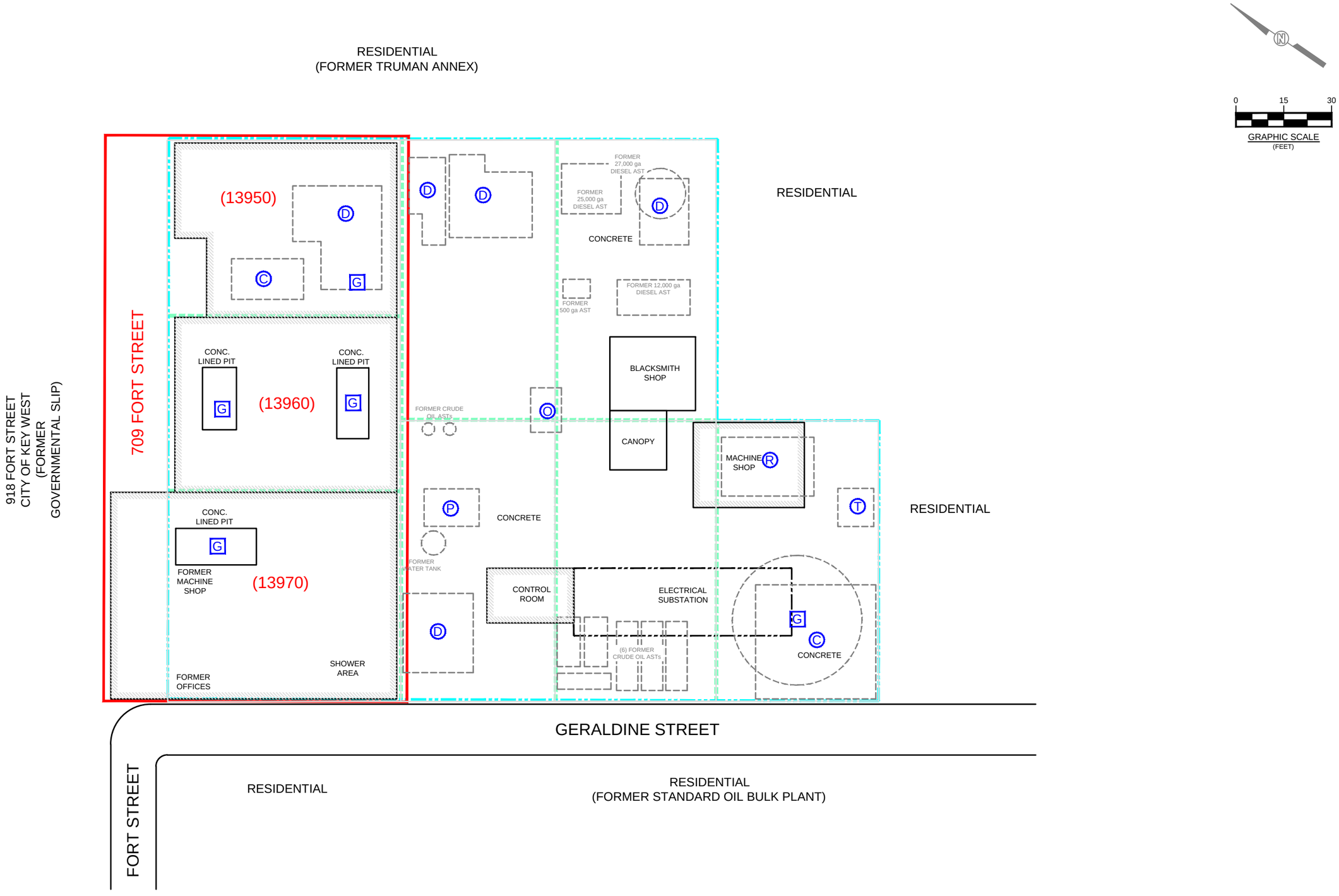
5845 N.W. 158th STREET
MIAMI LAKES, FL 33014
TEL: (305) 826-5588
FAX: (305) 826-1799

FIGURE 2

AERIAL MAP WITH PROPERTY
AND SITE LOCATION

CREATED BY: NAB	DATE: 06/22/16
CHECKED BY: JAB	SCALE: AS SHOWN



REFERENCE:

PE ENVIRONMENTAL INC.,
4th QUARTER, 1st YEAR NATURAL ATTENUATION MONITORING REPORT
(JULY 10, 2015)

NOTE:

MAP IS COLOR CODED.
DO NOT PLOT BLACK & WHITE.

LEGEND

(13950)	PARCEL NUMBER
	PARCEL / LOT BOUNDARY
	PROPERTY BOUNDARY
	SITE BOUNDARY
	FORMER HISTORICAL SITE FEATURES
G	GENERATOR
D	FORMER DWELLING
T	FORMER TOO SHED
C	FORMER CISTERN
P	FORMER PUMP HOUSE
O	FORMER OIL PUMP HOUSE
R	FORMER RETORT ROOM
G	FORMER GASOMETER

amec foster wheeler

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
5845 N.W. 158th STREET
MIAMI LAKES, FL 33014
TEL: (305) 826-5588
FAX: (305) 826-1799
AMECFW PROJECT #: 6783-16-2825

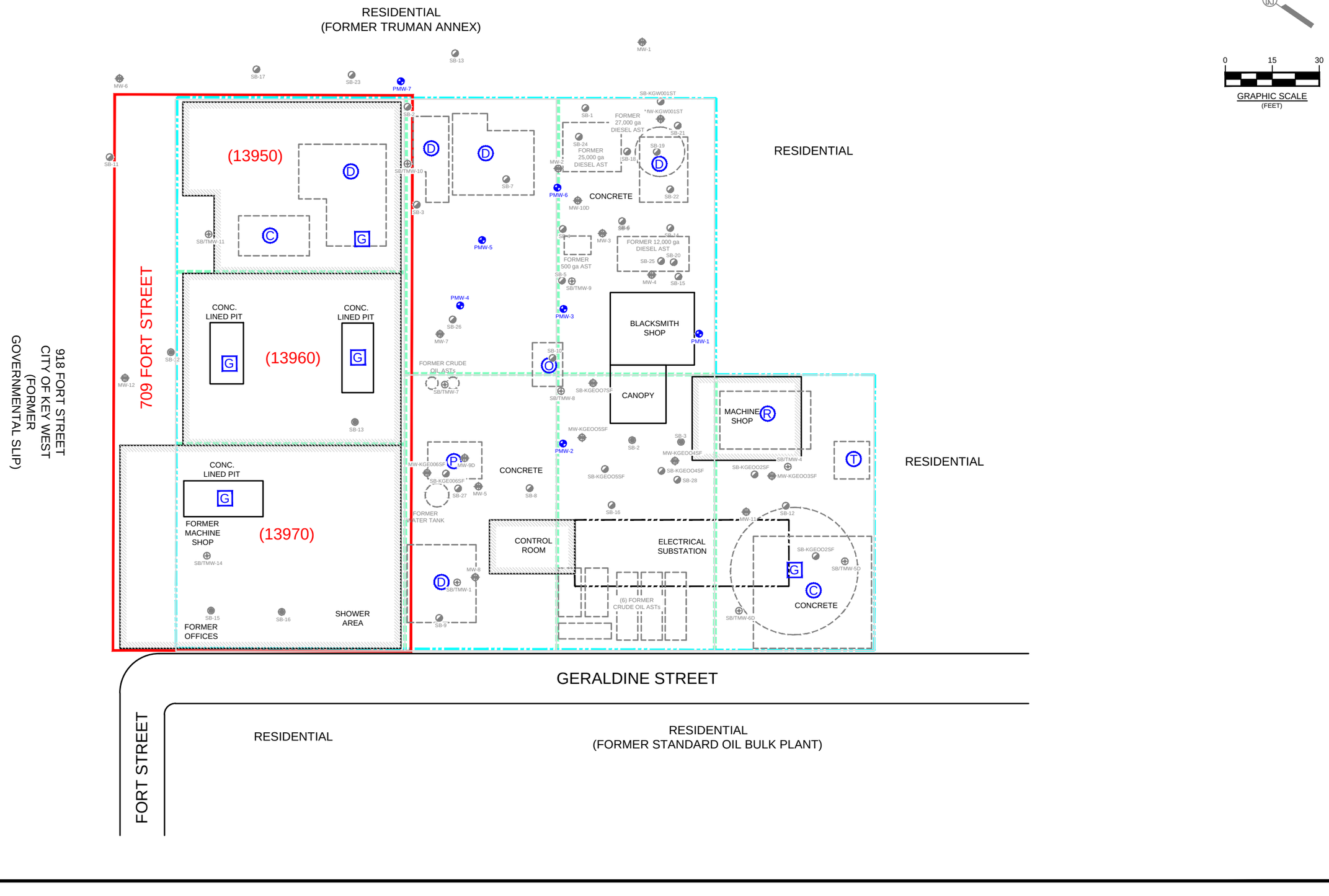
Former Key West Gas & Electric Company

101 - 111 GERALDINE STREET
KEY WEST, FLORIDA

FIGURE 3

PROPERTY AND
SITE LAYOUT

DRAWN BY:	DATE:
NAB	06/22/16
CHECKED BY:	SCALE:
JAB	AS SHOWN



REFERENCE:

BASED ON FIGURE 4 – GW CONC. MAP FOR VOCs EXCEEDING THE GCTL CRITERIA, CREATED BY PM ENVIRONMENTAL ON 7/9/15

NOTE:

MAP IS COLOR CODED.
DO NOT PLOT BLACK & WHITE.

LEGEND

- (13950) PARCEL NUMBER
- PARCEL / LOT BOUNDARY
- PROPERTY BOUNDARY
- SITE BOUNDARY
- FORMER HISTORICAL SITE FEATURES
- G GENERATOR
- D FORMER DWELLING
- T FORMER TOO SHED
- C FORMER CISTERN
- P FORMER PUMP HOUSE
- O FORMER OIL PUMP HOUSE
- R FORMER RETORT ROOM
- G FORMER GASOMETER
- SB-KGEOO2SF FORMER SOIL BORING
- MW-2 FORMER MONITORING WELL
- SB-2 FORMER SOIL BORING
- SB/TMW-5D FORMER SOIL BORING / TEMP. MONITORING WELL
- PMW-1 MONITORING WELL

amec foster wheeler

AMEC FOSTER WHEELER
ENVIRONMENT & INFRASTRUCTURE, INC.
5845 N.W. 158th STREET
MIAMI LAKES, FL 33014
TEL: (305) 826-5588
FAX: (305) 826-1799
AMECFW PROJECT #: 6783-16-2825

Former Key West Gas & Electric Company

101 - 111 GERALDINE STREET
KEY WEST, FLORIDA

FIGURE 4

PROPERTY SITE LAYOUT WITH HISTORICAL SAMPLE LOCATIONS

DRAWN BY:	DATE:
NAB	06/22/16
CHECKED BY:	SCALE:
JAB	AS SHOWN

ATTACHMENT A

CITY OF KEY WEST
EXECUTIVE SUMMARY

THE CITY OF KEY WEST
3140 Flagler Ave Key West, FL 33040 (305) 809-3700

EXECUTIVE SUMMARY

TO: Jim Scholl, City Manager

FROM: Jim Bouquet, P.E., Engineering Director

DATE: March 31, 2016

RE: Pre-acquisition Inspection of the Former Key West Diesel Plant

ACTION STATEMENT

Authorizing the City Manager to execute a Task Order agreement with Amec Foster Wheeler to complete a pre-acquisition inspection of the Former Key West Diesel Plant in the amount of $22,000.00

BACKGROUND

As summarized in a memorandum dated October 23, 2015 (attached), the Engineering Services Department reviewed information provided by KEYS Energy Services (KEYS) regarding possible City of Key West (City) acquisition of a portion (the Site) of the Key West Diesel Plant (the Property). The Site consists of three buildings identified as 100 Angela Street, 709 Fort Street and 101 Geraldine Street and the Fort Street Extension right-of-way (ROW). City staff subsequently requested Amec Foster Wheeler (AFW) prepare a proposal to conduct a pre-acquisition inspection of the Site. City and AFW met on site and established the following City objectives for this project:

- Conduct a structural engineering assessment.
- Review existing environmental information provided by KEYS and prepare an executive summary.
- Prepare an engineering cost estimate for demolition of 101 Geraldine Street and rehabilitation (white box) of the remaining two buildings.

The AFW scope of work and fee are presented in the attached proposal dated March 31, 2016.

PURPOSE AND JUSTIFICATION

The intent of the AFW report is to provide baseline structural condition, environmental issues and restrictions, and building stabilization costs for consideration by the City Commission and citizens.

FINANCIAL

The fee to complete this Task Order proposal is $22,000.00 and will be funded from account #001-1906-519-3100, Professional Services. Work will be performed in accordance with the General Engineering Services Agreement between AFW and the City approved under Resolution 12-280 and extended under Resolution 15-208.

RECOMMENDATION

Staff recommends approving Amec Foster Wheeler to complete a pre-acquisition inspection of the Former Key West Diesel Plant in the amount of $22,000.00 and authorizing the City Manager to execute the Task Order.

ATTACHMENT B

MONROE COUNTY
PROPERTY APPRAISERS RECORDS

Scott P. Russell, CFA
Property Appraiser
Monroe County, Florida

Key West (305) 292-3420
Marathon (305) 289-2550
Plantation Key (305) 852-7130

Property Record Card -
Maps are now launching the new map application version.

Alternate Key: 1014338 Parcel ID: 00013950-000000

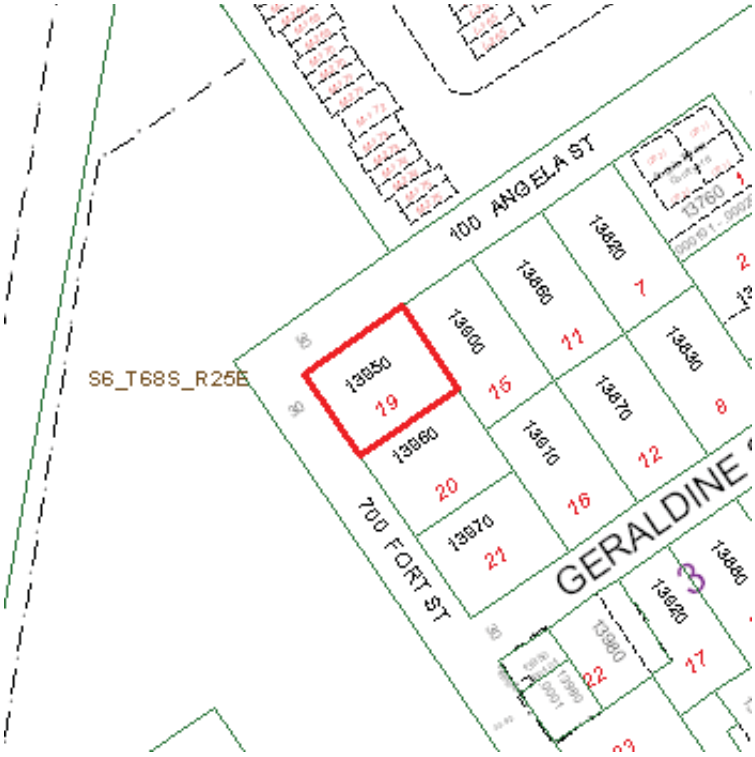
Ownership Details

Mailing Address:
THE UTILITY BOARD OF THE CITY OF KEY WEST
1001 JAMES ST
KEY WEST, FL 33040-6935

Property Details

PC Code:	91 - UTILITIES,WATER TANKS
Millage Group:	11KW
Affordable Housing:	No
Section-Township-Range:	06-68-25
Property Location:	100 ANGELA ST KEY WEST
Legal Description:	KW LOT 19 SQR 3 TR 3 G12-473/74 OR1428-1157/75F/J OR2571-2253/75 OR2592-2258/80C

Click Map Image to open interactive viewer



Exemptions

Exemption	Amount
15 - MUNICIPAL LANDS	667,636.00

Land Details

Land Use Code	Frontage	Depth	Land Area
100E - COMMERCIAL EXEMPT	58	70	4,060.00 SF

Building Summary

Number of Buildings: 1
Number of Commercial Buildings: 1
Total Living Area: 3600
Year Built: 1923

Building 1 Details

Building Type
Effective Age 58
Year Built 1923
Functional Obs 0

Condition P
Perimeter 250
Special Arch 0
Economic Obs 0

Quality Grade 350
Depreciation % 60
Grnd Floor Area 3,600

Inclusions:

Roof Type
Heat 1
Heat Src 1

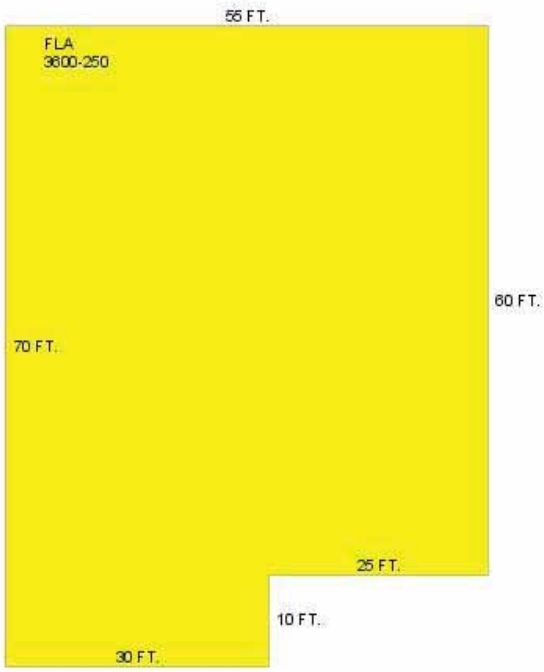
Roof Cover
Heat 2
Heat Src 2

Foundation
Bedrooms 0

Extra Features:

2 Fix Bath	0	**Vacuum**	0
3 Fix Bath	1	**Garbage Disposal**	0
4 Fix Bath	0	**Compactor**	0

5 Fix Bath	0	**Security**	0
6 Fix Bath	0	**Intercom**	0
7 Fix Bath	0	**Fireplaces**	0
Extra Fix	0	**Dishwasher**	0



Sections:

Nbr	Type	Ext Wall	# Stories	Year Built	Attic	A/C	Basement %	Finished Basement %	Area
1	FLA		1	1922					3,600

Interior Finish:

Section Nbr	Interior Finish Nbr	Type	Area %	Sprinkler	A/C
	2602	ELEC/TELEPHONE ETC C	100	N	N

Exterior Wall:

Interior Finish Nbr	Type	Area %
680	BRICK	100

Misc Improvement Details

Nbr	Type	# Units	Length	Width	Year Built	Roll Year	Grade	Life
1	PT3:PATIO	6 SF	3	2	1997	1998	2	50

Appraiser Notes

2002-7-24 THIS PROPERTY IS BEING USED BY KEYS ENERGY SYSTEMS.
OR2790-736/743 DECLARATION OF RESTRICTIVE COVENANT STATES THAT THE ENVIRONMENTAL REPORTS CONFIRM

THAT CONTAMINATED GROUNDWATER EXISTS ON THIS PROPERTY. PROPERTY WAS FORMERLY UTILIZED FOR MANUFACTURED GAS AND ELECTRIC POWER PLANT OPERATIONS AND IS CURRENTLY USED AS AN ELECTRICAL SUBSTATION. IN CONNECTION WITH HISTORIC SITE USES THERE ARE ONSITE PETROLEUM CONSTITUENT IMPACTS TO GROUNDWATER.

Building Permits

Bldg	Number	Date Issued	Date Completed	Amount	Description	Notes
1	9801608	06/04/1998	01/01/1999	1,000	Commercial	POUR CONCRETE PADS

Parcel Value History

Certified Roll Values.

View Taxes for this Parcel.

Roll Year	Total Bldg Value	Total Misc Improvement Value	Total Land Value	Total Just (Market) Value	Total Assessed Value	School Exempt Value	School Taxable Value
2015	207,966	35	459,631	667,632	661,345	667,632	0
2014	207,966	33	443,216	651,215	601,223	651,215	0
2013	207,966	34	338,567	546,567	546,567	546,567	0
2012	207,966	35	338,567	546,568	546,568	546,568	0
2011	207,966	36	451,423	659,425	653,072	659,425	0
2010	207,966	36	385,700	593,702	593,702	593,702	0
2009	207,966	37	456,750	664,753	664,753	664,753	0
2008	207,966	38	466,900	674,904	674,904	674,904	0
2007	134,954	39	466,900	601,893	601,893	601,893	0
2006	134,954	40	263,900	398,894	398,894	398,894	0
2005	134,954	41	263,900	398,895	398,895	398,895	0
2004	134,954	42	259,840	394,836	394,836	394,836	0
2003	134,954	43	259,840	394,837	394,837	394,837	0
2002	134,954	44	71,050	206,048	206,048	206,048	0
2001	134,954	45	60,900	195,899	195,899	195,899	0
2000	134,954	14	50,750	185,718	185,718	185,718	0
1999	134,954	15	50,750	185,719	185,719	185,719	0
1998	90,180	0	50,750	140,930	140,930	140,930	0
1997	90,180	0	42,630	132,810	132,810	132,810	0
1996	81,981	0	42,630	124,611	124,611	124,611	0
1995	81,981	0	42,630	124,611	124,611	124,611	0
1994	81,981	0	42,630	124,611	124,611	124,611	0
1993	81,981	0	42,630	124,611	124,611	124,611	0
1992	81,981	0	42,630	124,611	124,611	124,611	0
1991	81,981	0	42,630	124,611	124,611	124,611	0
1990	102,477	0	32,480	134,957	134,957	134,957	0
1989	102,477	0	31,465	133,942	133,942	133,942	0
1988	84,903	0	26,390	111,293	111,293	111,293	0
1987	83,018	0	12,992	96,010	96,010	96,010	0

1986	83,451	0	12,180	95,631	95,631	95,631	0
1985	81,291	0	12,545	93,836	93,836	93,836	0
1984	79,858	0	12,545	92,403	92,403	92,403	0
1983	79,858	0	12,545	92,403	92,403	92,403	0
1982	68,675	0	8,891	77,566	77,566	77,566	0

Parcel Sales History

NOTE: Sales do not generally show up in our computer system until about two to three months after the date of sale. If a recent sale does not show up in this list, please allow more time for the sale record to be processed. Thank you for your patience and understanding.

Sale Date	Official Records Book/Page	Price	Instrument	Qualification
9/26/2012	2592 / 2258	100	QC	11
4/25/2012	2571 / 2253	100	QC	11

Monroe County Property Appraiser
Scott P. Russell, CFA
P.O. Box 1176 Key West, FL 33041-1176

Scott P. Russell, CFA
Property Appraiser
Monroe County, Florida

Key West (305) 292-3420
Marathon (305) 289-2550
Plantation Key (305) 852-7130

Property Record Card -
Maps are now launching the new map application version.

Alternate Key: 1014346 Parcel ID: 00013960-000000

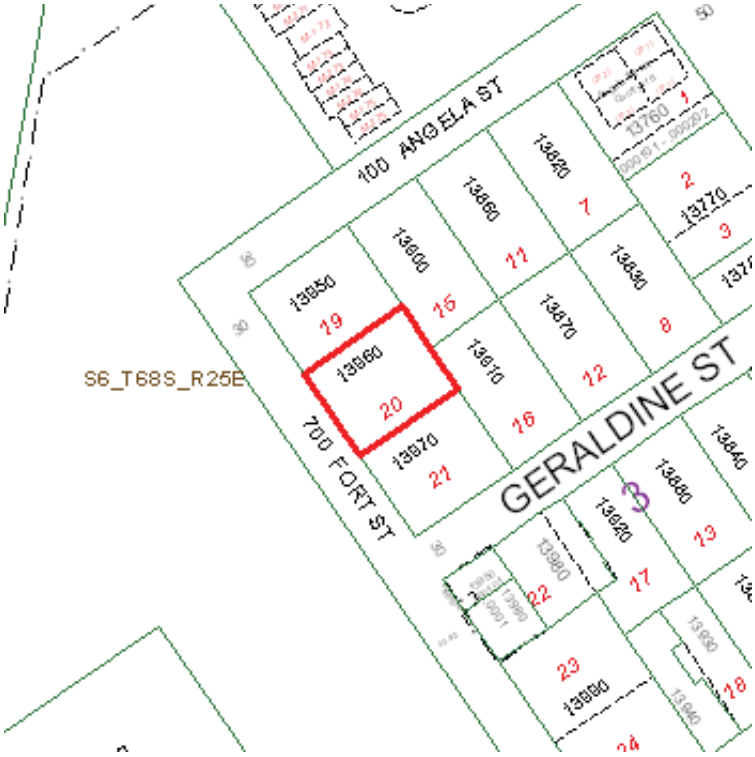
Ownership Details

Mailing Address:
THE UTILITY BOARD OF THE CITY OF KEY WEST
1001 JAMES ST
KEY WEST, FL 33040-6935

Property Details

PC Code: 91 - UTILITIES,WATER TANKS
Millage Group: 11KW
Affordable Housing: No
Section-Township-Range: 06-68-25
Property Location: 709 FORT ST KEY WEST
Legal Description: KW LOT 20 SQR 3 TR 3 G12-473/74 OR1428-1157/75F/J OR2571-2253/75 OR2592-2258/80C

Click Map Image to open interactive viewer



Exemptions

Exemption	Amount
15 - MUNICIPAL LANDS	668,060.00

Land Details

Land Use Code	Frontage	Depth	Land Area
100E - COMMERCIAL EXEMPT	58	70	4,060.00 SF

Building Summary

Number of Buildings: 1
Number of Commercial Buildings: 1
Total Living Area: 3850
Year Built: 1923

Building 1 Details

Building Type		**Condition**	P	**Quality Grade**	350
Effective Age	58	**Perimeter**	250	**Depreciation %**	60
Year Built	1923	**Special Arch**	0	**Grnd Floor Area**	3,850
Functional Obs	0	**Economic Obs**	0		

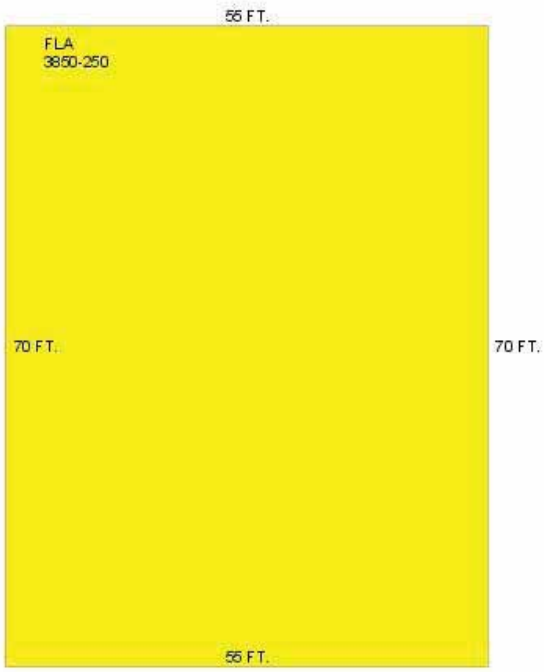
Inclusions:

Roof Type	**Roof Cover**	**Foundation**
Heat 1	**Heat 2**	**Bedrooms** 0
Heat Src 1	**Heat Src 2**	

Extra Features:

2 Fix Bath	0	**Vacuum**	0
3 Fix Bath	0	**Garbage Disposal**	0
4 Fix Bath	0	**Compactor**	0

5 Fix Bath	0	**Security**	0
6 Fix Bath	0	**Intercom**	0
7 Fix Bath	0	**Fireplaces**	0
Extra Fix	0	**Dishwasher**	0



Sections:

Nbr	Type	Ext Wall	# Stories	Year Built	Attic	A/C	Basement %	Finished Basement %	Area
1	FLA		1	1922					3,850

Interior Finish:

Section Nbr	Interior Finish Nbr	Type	Area %	Sprinkler	A/C
	2603	ELEC/TELEPHONE ETC C	100	N	N

Exterior Wall:

Interior Finish Nbr	Type	Area %
681	BRICK	100

Appraiser Notes

2002-7-24 THIS PROPERTY IS BEING USED BY KEYS ENERGY SYSTEMS.
OR2790-736/743 DECLARATION OF RESTRICTIVE COVENANT STATES THAT THE ENVIRONMENTAL REPORTS CONFIRM THAT CONTAMINATED GROUNDWATER EXISTS ON THIS PROPERTY. PROPERTY WAS FORMERLY UTILIZED FOR MANUFACTURED GAS AND ELECTRIC POWER PLANT OPERATIONS AND IS CURRENTLY USED AS AN ELECTRICAL SUBSTATION. IN CONNECTION WITH HISTORIC SITE USES THERE ARE ONSITE PETROLEUM CONSTITUENT IMPACTS TO GROUNDWATER.

Parcel Value History

Certified Roll Values.

View Taxes for this Parcel.

Roll Year	Total Bldg Value	Total Misc Improvement Value	Total Land Value	Total Just (Market) Value	Total Assessed Value	School Exempt Value	School Taxable Value
2015	208,429	0	459,631	668,060	661,864	668,060	0
2014	208,429	0	443,216	651,645	601,695	651,645	0
2013	208,429	0	338,567	546,996	546,996	546,996	0
2012	208,429	0	338,567	546,996	546,996	546,996	0
2011	208,429	0	451,423	659,852	653,541	659,852	0
2010	208,429	0	385,700	594,129	594,129	594,129	0
2009	208,429	0	456,750	665,179	665,179	665,179	0
2008	208,429	0	466,900	675,329	675,329	675,329	0
2007	134,627	0	466,900	601,527	601,527	601,527	0
2006	134,627	0	263,900	398,527	398,527	398,527	0
2005	134,627	0	263,900	398,527	398,527	398,527	0
2004	134,627	0	259,840	394,467	394,467	394,467	0
2003	134,627	0	259,840	394,467	394,467	394,467	0
2002	134,627	0	71,050	205,677	205,677	205,677	0
2001	134,627	0	60,900	195,527	195,527	195,527	0
2000	134,627	0	50,750	185,377	185,377	185,377	0
1999	134,627	0	50,750	185,377	185,377	185,377	0
1998	89,961	0	50,750	140,711	140,711	140,711	0
1997	89,961	0	42,630	132,591	132,591	132,591	0
1996	81,783	0	42,630	124,413	124,413	124,413	0
1995	81,783	0	42,630	124,413	124,413	124,413	0
1994	81,783	0	42,630	124,413	124,413	124,413	0
1993	81,783	0	42,630	124,413	124,413	124,413	0
1992	81,783	0	42,630	124,413	124,413	124,413	0
1991	81,783	0	42,630	124,413	124,413	124,413	0
1990	102,229	0	32,480	134,709	134,709	134,709	0
1989	102,229	0	31,465	133,694	133,694	133,694	0
1988	83,435	0	26,390	109,825	109,825	109,825	0
1987	81,670	0	12,992	94,662	94,662	94,662	0
1986	82,110	0	12,180	94,290	94,290	94,290	0
1985	80,089	0	12,545	92,634	92,634	92,634	0
1984	78,860	0	12,545	91,405	91,405	91,405	0
1983	78,860	0	12,545	91,405	91,405	91,405	0
1982	67,706	0	8,891	76,597	76,597	76,597	0

Parcel Sales History

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Sale Date	Official Records Book/Page	Price	Instrument	Qualification
9/26/2012	2592 / 2258	100	QC	11
4/25/2012	2571 / 2253	100	QC	11

This page has been visited 99,816 times.

Monroe County Property Appraiser
Scott P. Russell, CFA
P.O. Box 1176 Key West, FL 33041-1176

Scott P. Russell, CFA
Property Appraiser
Monroe County, Florida

Key West (305) 292-3420
Marathon (305) 289-2550
Plantation Key (305) 852-7130

Property Record Card -
Maps are now launching the new map application version.

Alternate Key: 1014354 Parcel ID: 00013970-000000

Ownership Details

Mailing Address:
THE UTILITY BOARD OF THE CITY OF KEY WEST
1001 JAMES ST
KEY WEST, FL 33040-6935

Property Details

PC Code:	91 - UTILITIES,WATER TANKS
Millage Group:	11KW
Affordable Housing:	No
Section-Township-Range:	06-68-25
Property Location:	101 GERALDINE ST KEY WEST
Legal Description:	KW LOT 21 SQR 3 TR 3 G12-473/74 OR1428-1157/75F/J OR2571-2253/75 OR2592-2258/80C

Click Map Image to open interactive viewer

Exemptions

Exemption	Amount
15 - MUNICIPAL LANDS	773,631.00

Land Details

Land Use Code	Frontage	Depth	Land Area
100E - COMMERCIAL EXEMPT	58	70	4,060.00 SF

Building Summary

Number of Buildings: 1
Number of Commercial Buildings: 1
Total Living Area: 5850
Year Built: 1923

Building 1 Details

Building Type		**Condition**	P	**Quality Grade**	350
Effective Age	58	**Perimeter**	310	**Depreciation %**	60
Year Built	1923	**Special Arch**	0	**Grnd Floor Area**	5,850
Functional Obs	0	**Economic Obs**	0		

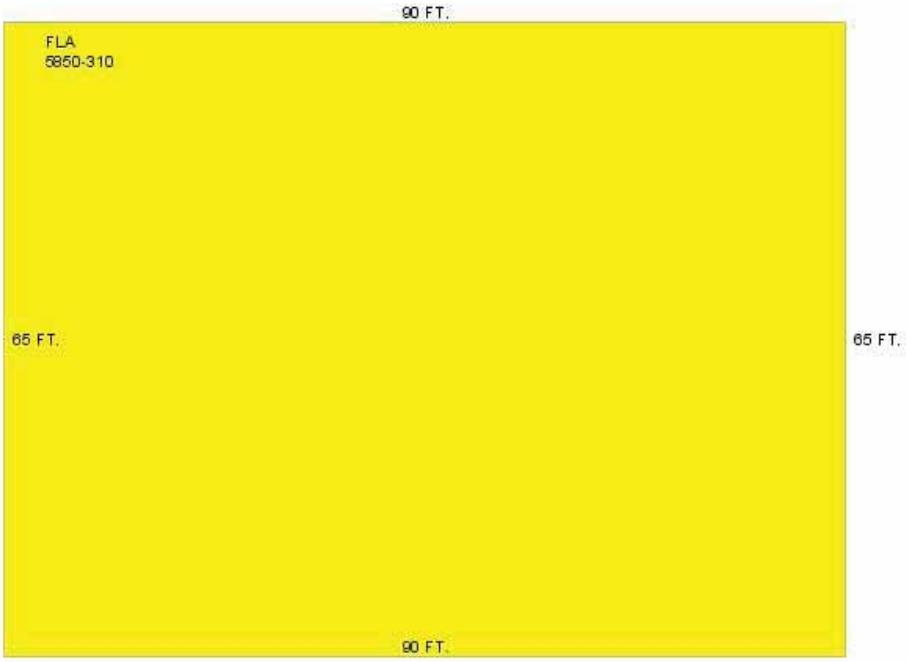
Inclusions:

Roof Type	**Roof Cover**	**Foundation**
Heat 1	**Heat 2**	**Bedrooms** 0
Heat Src 1	**Heat Src 2**	

Extra Features:

2 Fix Bath	0	**Vacuum**	0
3 Fix Bath	1	**Garbage Disposal**	0
4 Fix Bath	0	**Compactor**	0

5 Fix Bath	0	**Security**	0
6 Fix Bath	0	**Intercom**	0
7 Fix Bath	0	**Fireplaces**	0
Extra Fix	0	**Dishwasher**	0



Sections:

Nbr	Type	Ext Wall	# Stories	Year Built	Attic	A/C	Basement %	Finished Basement %	Area
1	FLA		1	1922					5,850

Interior Finish:

Section Nbr	Interior Finish Nbr	Type	Area %	Sprinkler	A/C
	2604	ELEC/TELEPHONE ETC C	100	N	N

Exterior Wall:

Interior Finish Nbr	Type	Area %
682	BRICK	100

Appraiser Notes

2002-7-24 PROPERTY BEING USED BY KEYS ENERGY SYSTEMS
OR2790-736/743 DECLARATION OF RESTRICTIVE COVENANT STATES THAT THE ENVIRONMENTAL REPORTS CONFIRM THAT CONTAMINATED GROUNDWATER EXISTS ON THIS PROPERTY. PROPERTY WAS FORMERLY UTILIZED FOR MANUFACTURED GAS AND ELECTRIC POWER PLANT OPERATIONS AND IS CURRENTLY USED AS AN ELECTRICAL SUBSTATION. IN CONNECTION WITH HISTORIC SITE USES THERE ARE ONSITE PETROLEUM CONSTITUENT IMPACTS TO GROUNDWATER.

Parcel Value History

Certified Roll Values.

View Taxes for this Parcel.

Roll Year	Total Bldg Value	Total Misc Improvement Value	Total Land Value	Total Just (Market) Value	Total Assessed Value	School Exempt Value	School Taxable Value
2015	314,000	0	459,631	773,631	773,631	773,631	0
2014	314,000	0	443,216	757,216	717,823	757,216	0
2013	314,000	0	338,567	652,567	652,567	652,567	0
2012	314,000	0	338,567	652,567	652,567	652,567	0
2011	314,000	0	451,423	765,423	765,423	765,423	0
2010	314,000	0	385,700	699,700	699,700	699,700	0
2009	314,000	0	456,750	770,750	770,750	770,750	0
2008	314,000	0	466,900	780,900	780,900	780,900	0
2007	203,118	0	466,900	670,018	670,018	670,018	0
2006	203,118	0	263,900	467,018	467,018	467,018	0
2005	203,118	0	263,900	467,018	467,018	467,018	0
2004	203,117	0	259,840	462,957	462,957	462,957	0
2003	203,117	0	259,840	462,957	462,957	462,957	0
2002	203,117	0	71,050	274,167	274,167	274,167	0
2001	203,117	0	60,900	264,017	264,017	264,017	0
2000	203,117	0	50,750	253,867	253,867	253,867	0
1999	203,117	0	50,750	253,867	253,867	253,867	0
1998	135,728	0	50,750	186,478	186,478	186,478	0
1997	135,728	0	42,630	178,358	178,358	178,358	0
1996	123,389	0	42,630	166,019	166,019	166,019	0
1995	123,389	0	42,630	166,019	166,019	166,019	0
1994	123,389	0	42,630	166,019	166,019	166,019	0
1993	123,389	0	42,630	166,019	166,019	166,019	0
1992	123,389	0	42,630	166,019	166,019	166,019	0
1991	123,389	0	42,630	166,019	166,019	166,019	0
1990	154,236	0	32,480	186,716	186,716	186,716	0
1989	154,236	0	31,465	185,701	185,701	185,701	0
1988	125,680	0	26,390	152,070	152,070	152,070	0
1987	123,072	0	12,992	136,064	136,064	136,064	0
1986	123,696	0	12,180	135,876	135,876	135,876	0
1985	120,711	0	12,545	133,256	133,256	133,256	0
1984	118,934	0	12,545	131,479	131,479	131,479	0
1983	118,934	0	12,545	131,479	131,479	131,479	0
1982	102,095	0	8,891	110,986	110,986	110,986	0

Parcel Sales History

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Sale Date	Official Records Book/Page	Price	Instrument	Qualification
9/26/2012	2592 / 2258	100	QC	11
4/25/2012	2571 / 2253	100	QC	11

Monroe County Property Appraiser
Scott P. Russell, CFA
P.O. Box 1176 Key West, FL 33041-1176

ATTACHMENT C

SITE PHOTOGRAPHS

PHOTO 1:
Interior of buildings at the Site

PHOTO 2:
Inactive generator inside buildings at the Site

PHOTO 3:
Inactive generator inside buildings at the Site

PHOTO 4:
Interior of buildings at the Site

PHOTO 5:
Interior of buildings at the Site

PHOTO 6:
Interior of buildings at the Site showing an inactive generator

PHOTO 7:
Interior of buildings at the Site

PHOTO 8:
Interior of buildings at the Site showing an inactive generator

PHOTO 9:
Interior of buildings at the Site showing an inactive generator

PHOTO 10:
Interior of buildings at the Site

PHOTO 11:
Interior of buildings at the Site showing an inactive generator

ATTACHMENT D

HISTORICAL FIGURES

Source:
Phase II Environmental Site Assessment Report
PM Environmental, October 8, 2013

SB-10	
9/4/2013	
2.0 – 3.0'	
OTHER VOCs	<MDL
ACETHY	0.041
ANT	0.024
B(a)ANTH	0.04
B(a)PYR	0.045
B(b)FLA	0.075
B(k)FLA	0.024
B(g,h,i)PER	0.063
CHRYSENE	0.054
FL	0.091
I(1,2,3-CD)PY	0.038
Ph	0.054
Py	0.075
TRPH	104
As	19.2
Ba	1,360
Cd	4.3
Cr	31.7
Pb	436
Hg	0.039
Ag	1.4
OTHER METALs	<MDL

SB-3	
9/5/2013	
1.0 – 2.0'	
ACETONE	0.023
OTHER VOCs	<MDL
ACE	0.14
ACETHY	3.2
ANT	1.7
B(a)ANTH	6.5
B(a)PYR	10.5
B(b)FLA	7.7
B(k)FLA	4.4
B(g,h,i)PER	7.3
CHRYSENE	9
DI(A,H)ANT	1.5
FL	5.7
F	0.59
I(1,2,3-CD)PY	3.5
1-M	1.1
2-M	2.1
NAPH	2.5
Ph	3.9
Py	17.5
TRPH	689

SB-4	
9/3/2013	
2.0 – 3.0'	
VOCs	<MDL
ACETHY	0.13
ANT	0.082
B(a)PYR	0.022
B(g,h,i)PER	0.052
FL	0.045
Ph	0.023
Py	0.022
TRPH	<MDL
As	2.9
Ba	9.3
Cr	1.8
Pb	8.9
Hg	0.01
Ag	2.2
OTHER METALs	<MDL

SB-5	
9/4/2013	
3.0 – 4.0'	
ACETONE	0.099
OTHER VOCs	<MDL
ACETHY	0.068
ANT	0.037
B(a)ANTH	0.1
B(a)PYR	0.11
B(b)FLA	0.13
B(k)FLA	0.48
B(g,h,i)PER	0.13
CHRYSENE	0.12
DI(A,H)ANT	0.021
FL	0.11
I(1,2,3-CD)PY	0.074
1-M	0.015
2-M	0.027
NAPH	0.031
Ph	0.063
Py	0.14
TRPH	33.5

SB-8	
9/3/2013	
3.0 – 4.0'	
OTHER VOCs	<MDL
ACE	0.018
ACETHY	1.7
ANT	0.52
B(a)ANTH	0.84
B(a)PYR	10
B(b)FLA	8.2
B(g,h,i)PER	8.6
CHRYSENE	2.5
DI(A,H)ANT	1.1
FL	0.16
F	0.24
I(1,2,3-CD)PY	3.5
1-M	0.062
2-M	0.033
NAPH	0.025
Ph	0.058
Py	5.8
TRPH	484

SB-9	
9/3/2013	
2.0 – 3.0'	
ACETONE	0.039
n-PROP	0.007
OTHER VOCs	<MDL
ACE	0.59
ANT	0.42
B(a)ANTH	0.034
B(a)PYR	0.030
B(g,h,i)PER	0.074
CHRYSENE	0.047
FL	0.067
F	1.4
I(1,2,3-CD)PY	0.017
1-M	1.4
2-M	0.17
NAPH	0.31
Ph	2.8
Py	0.24
TRPH	4,760

SB-11	
9/4/2013	
3.0 – 4.0'	
VOCs	<MDL
ACE	0.017
ACETHY	0.1
ANT	0.053
B(a)ANTH	0.17
B(a)PYR	0.21
B(b)FLA	0.3
B(k)FLA	0.12
B(g,h,i)PER	0.19
CHRYSENE	0.28
DI(A,H)ANT	0.046
FL	0.29
F	0.026
I(1,2,3-CD)PY	0.14
1-M	0.083
2-M	0.096
NAPH	0.066
Ph	0.23
Py	0.28
TRPH	142
As	7.7
Ba	206
Cd	0.93
Cr	16
Pb	445
Hg	0.26
Ag	2.8
OTHER METALs	<MDL

SB-2	
9/3/2013	
1.0 – 2.0'	
ACETONE	0.048
OTHER VOCs	<MDL
ACE	0.042
ACETHY	6.1
ANT	1.6
B(a)ANTH	2.3
B(a)PYR	15.3
B(b)FLA	11.8
B(g,h,i)PER	10.1
CHRYSENE	7.4
DI(A,H)ANT	0.91
FL	1.2
F	0.65
I(1,2,3-CD)PY	3.2
1-M	0.28
2-M	0.44
NAPH	0.46
Ph	0.51
Py	25.1
TRPH	1,280
As	1.7
Ba	22.8
Cd	0.18
Cr	3.3
Pb	41
Hg	0.027
Ag	2.4
OTHER METALs	<MDL

SB-6D	
9/4/2013	
3.0 – 4.0'	
ACETONE	0.058
OTHER VOCs	<MDL
ACE	0.018
ACETHY	0.91
ANT	0.34
B(a)ANTH	0.75
B(a)PYR	1.7
B(b)FLA	1.4
B(k)FLA	0.56
B(g,h,i)PER	2.5
CHRYSENE	1.1
DI(A,H)ANT	0.46
FL	0.53
F	0.13
I(1,2,3-CD)PY	1.1
1-M	0.12
2-M	0.27
NAPH	0.25
Ph	0.29
Py	1.0
TRPH	182
As	10.5
Ba	56
Cd	0.48
Cr	5
Pb	132
Hg	0.076
Ag	2.2
OTHER METALs	<MDL

SB-7	
9/3/2013	
1.0 – 2.0'	
ACETONE	0.027
OTHER VOCs	<MDL
ACE	0.068
ANT	0.17
B(a)ANTH	0.052
B(a)PYR	0.055
B(b)FLA	0.072
B(k)FLA	0.018
B(g,h,i)PER	0.1
CHRYSENE	0.24
FL	0.13
I(1,2,3-CD)PY	0.024
1-M	0.087
2-M	0.34
NAPH	0.2
Ph	0.29
Py	0.2
TRPH	4,330
As	6.6
Ba	67.7
Cd	0.49
Cr	5.6
Pb	151
Hg	0.087
Ag	1.8
OTHER METALs	<MDL

SB-12	
9/4/2013	
3.0 – 4.0'	
ACETONE	0.11
OTHER VOCs	<MDL
ACE	0.017
ACETHY	0.042
ANT	0.029
B(a)ANTH	0.065
B(a)PYR	0.081
B(b)FLA	0.12
B(k)FLA	0.036
B(g,h,i)PER	0.098
CHRYSENE	0.14
FL	0.16
F	0.026
I(1,2,3-CD)PY	0.058
1-M	0.09
2-M	0.1
NAPH	0.034
Ph	0.18
Py	0.14
TRPH	615

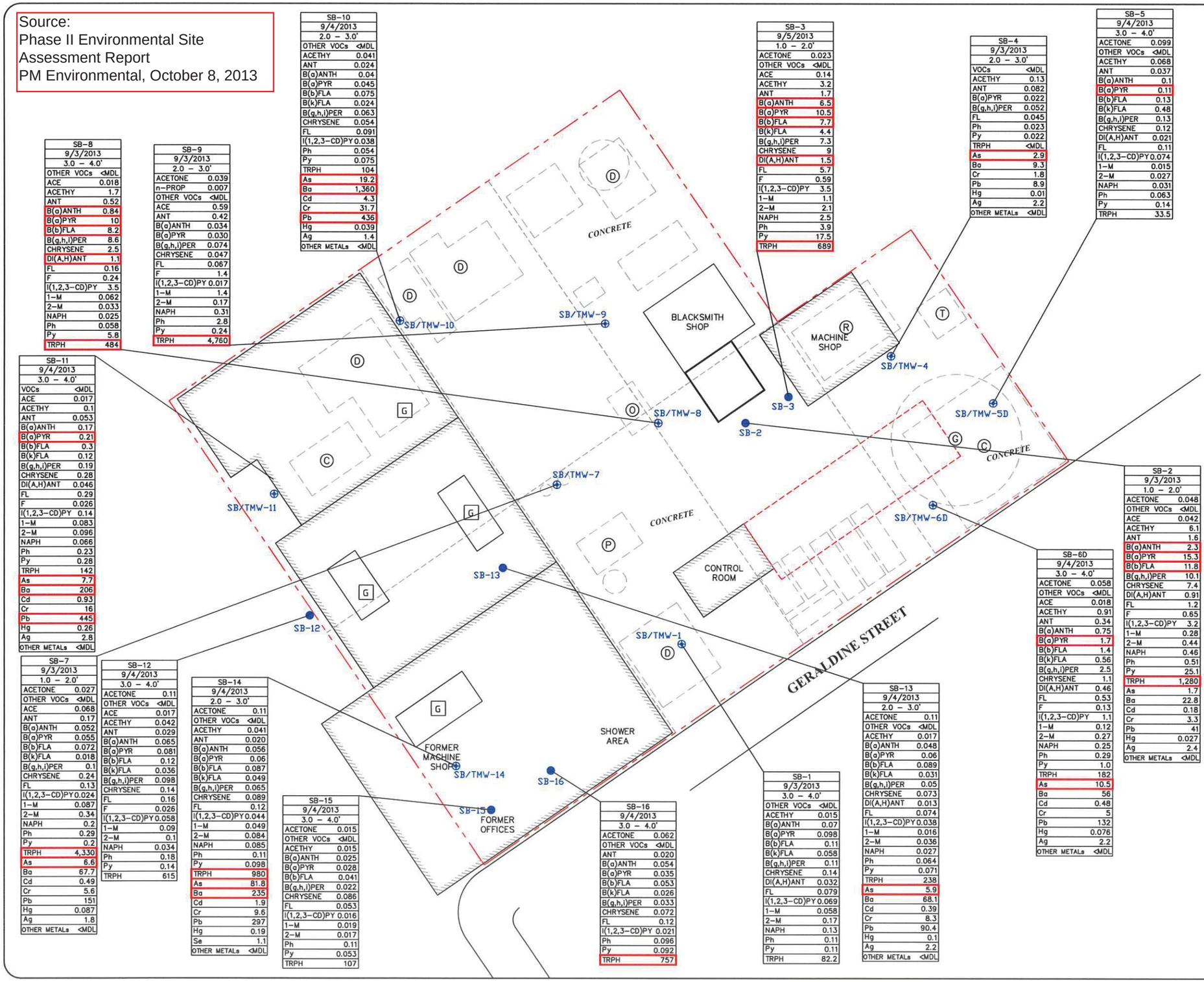
SB-14	
9/4/2013	
2.0 – 3.0'	
ACETONE	0.11
OTHER VOCs	<MDL
ACETHY	0.041
ANT	0.020
B(a)ANTH	0.056
B(a)PYR	0.06
B(b)FLA	0.087
B(k)FLA	0.049
B(g,h,i)PER	0.065
CHRYSENE	0.089
FL	0.12
I(1,2,3-CD)PY	0.044
1-M	0.049
2-M	0.084
NAPH	0.085
Ph	0.11
Py	0.098
TRPH	980
As	81.8
Ba	235
Cd	1.9
Cr	9.6
Pb	297
Hg	0.19
Se	1.1
OTHER METALs	<MDL

SB-15	
9/4/2013	
3.0 – 4.0'	
ACETONE	0.015
OTHER VOCs	<MDL
ACETHY	0.015
B(a)ANTH	0.025
B(a)PYR	0.028
B(b)FLA	0.041
B(g,h,i)PER	0.022
CHRYSENE	0.086
FL	0.053
I(1,2,3-CD)PY	0.016
1-M	0.019
2-M	0.017
Ph	0.11
Py	0.053
TRPH	107

SB-16	
9/4/2013	
3.0 – 4.0'	
ACETONE	0.062
OTHER VOCs	<MDL
ANT	0.020
B(a)ANTH	0.054
B(a)PYR	0.035
B(b)FLA	0.053
B(k)FLA	0.026
B(g,h,i)PER	0.033
CHRYSENE	0.072
FL	0.12
I(1,2,3-CD)PY	0.021
Ph	0.096
Py	0.092
TRPH	757

SB-1	
9/3/2013	
3.0 – 4.0'	
OTHER VOCs	<MDL
ACETHY	0.015
B(a)ANTH	0.07
B(a)PYR	0.098
B(b)FLA	0.11
B(k)FLA	0.058
B(g,h,i)PER	0.11
CHRYSENE	0.14
DI(A,H)ANT	0.032
FL	0.079
I(1,2,3-CD)PY	0.069
1-M	0.058
2-M	0.17
NAPH	0.13
Ph	0.11
Py	0.11
TRPH	82.2

SB-13	
9/4/2013	
2.0 – 3.0'	
ACETONE	0.11
OTHER VOCs	<MDL
ACETHY	0.017
B(a)ANTH	0.048
B(a)PYR	0.06
B(b)FLA	0.089
B(k)FLA	0.031
B(g,h,i)PER	0.05
CHRYSENE	0.073
DI(A,H)ANT	0.013
FL	0.074
I(1,2,3-CD)PY	0.038
1-M	0.016
2-M	0.036
NAPH	0.027
Ph	0.064
Py	0.071
TRPH	238
As	5.9
Ba	68.1
Cd	0.39
Cr	8.3
Pb	90.4
Hg	0.1
Ag	2.2
OTHER METALs	<MDL



LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- PARCEL / LOT BOUNDARIES
- [G] GENERATOR
- (D) FORMER DWELLING
- (T) FORMER TOOL SHED
- (C) FORMER CISTERN
- (P) FORMER PUMP HOUSE
- (O) FORMER OIL/PUMP HOUSE
- (R) FORMER RETORT ROOM
- (G) FORMER GASOMETER

As	ARSENIC
Ba	BARIUM
Cd	CADMIUM
Cr	CHROMIUM
Pb	LEAD
Hg	MERCURY
Se	SELENIUM
Ag	SILVER
ACE	ACENAPHTHENE
ACETHY	ACENAPHTHYLENE
ANT	ANTHRACENE
B(a)ANTH	BENZO(a)ANTHRACENE
B(a)PYR	BENZO(a)PYRENE
B(b)FLA	BENZO(b)FLUORANTHENE
B(g,h,i)PER	BENZO(g,h,i)PERYLENE
B(k)FLA	BENZO(k)FLUORANTHENE
F	FLUORENE
FL	FLUORANTHENE
I(1,2,3-CD)PY	INDENO(1,2,3,CD)PYRENE
1-M	1-METHYLNAPHTHALENE
2-M	2-METHYLNAPHTHALENE
NAPH	NAPHTHALENE
Ph	PHENANTHRENE
Py	PYRENE
DI(A,H)ANT	DIBENZO(a,h)ANTHRACENE
n-PROP	n-PROPYLBENZENE
VOCs	VOLATILE ORGANIC COMPOUNDS
MDL	METHOD DETECTION LIMIT
	VALUE EXCEEDS APPLICABLE CRITERIA
NOTES:	REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED
UNITs	mg/Kg
TRPH	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
PAHs	POLYNUCLEAR AROMATIC COMPOUNDS

PM ENVIRONMENTAL | Environmental & Engineering Services

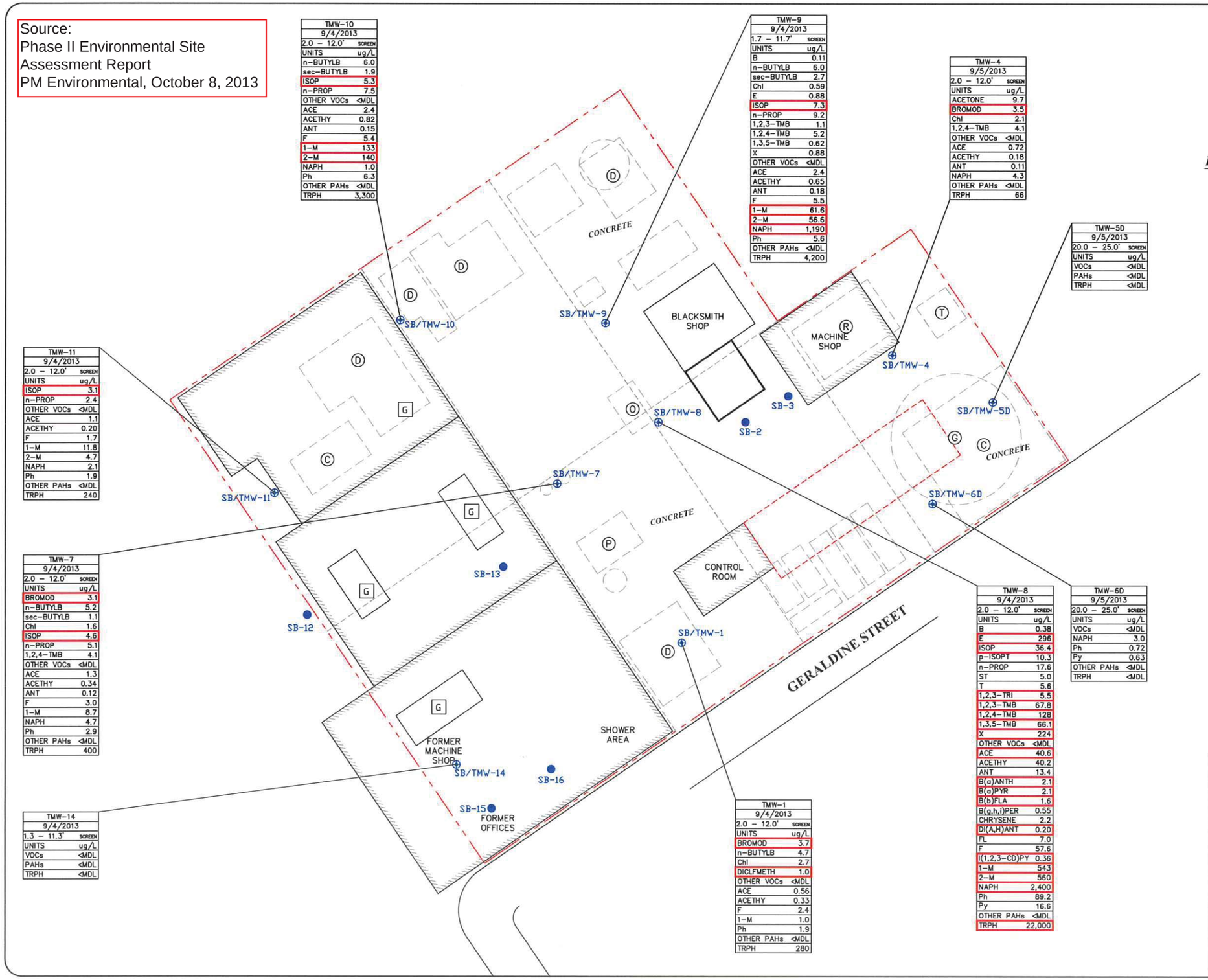
FIGURE 3

SOIL BORING / TEMPORARY MONITORING WELL LOCATION MAP WITH SOIL ANALYTICAL RESULTS

PROJ:
FORMER KEY WEST GAS AND ELECTRIC COMPANY
101-111 GERALDINE STREET
KEY WEST, FL

THIS IS NOT A LEGAL SURVEY	DRN BY: TS/MM/TS/MM	DATE: 10/1/2013
VERIFY SCALE 0 30' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: RS/CCF	SCALE: 1" = 30'
	FILE NAME: 06-3668-1F03R00	

Source:
Phase II Environmental Site Assessment Report
PM Environmental, October 8, 2013



TMW-10	
9/4/2013	
2.0 – 12.0'	SCREEN
UNITS	ug/L
n-BUTYLB	6.0
sec-BUTYLB	1.9
ISOP	5.3
n-PROP	7.5
OTHER VOCs	<MDL
ACE	2.4
ACETHY	0.82
ANT	0.15
F	5.4
1-M	133
2-M	140
NAPH	1.0
Ph	6.3
OTHER PAHs	<MDL
TRPH	3,300

TMW-9	
9/4/2013	
1.7 – 11.7'	SCREEN
UNITS	ug/L
B	0.11
n-BUTYLB	6.0
sec-BUTYLB	2.7
Chl	0.59
E	0.88
ISOP	7.3
n-PROP	9.2
1,2,3-TMB	1.1
1,2,4-TMB	5.2
1,3,5-TMB	0.62
X	0.88
OTHER VOCs	<MDL
ACE	2.4
ACETHY	0.65
ANT	0.18
F	5.5
1-M	61.6
2-M	56.6
NAPH	1,190
Ph	5.6
OTHER PAHs	<MDL
TRPH	4,200

TMW-4	
9/5/2013	
2.0 – 12.0'	SCREEN
UNITS	ug/L
ACETONE	9.7
BROMOD	3.5
Chl	2.1
1,2,4-TMB	4.1
OTHER VOCs	<MDL
ACE	0.72
ACETHY	0.18
ANT	0.11
NAPH	4.3
OTHER PAHs	<MDL
TRPH	66

TMW-5D	
9/5/2013	
20.0 – 25.0'	SCREEN
UNITS	ug/L
VOCs	<MDL
PAHs	<MDL
TRPH	<MDL

TMW-11	
9/4/2013	
2.0 – 12.0'	SCREEN
UNITS	ug/L
ISOP	3.1
n-PROP	2.4
OTHER VOCs	<MDL
ACE	1.1
ACETHY	0.20
F	1.7
1-M	11.8
2-M	4.7
NAPH	2.1
Ph	1.9
OTHER PAHs	<MDL
TRPH	240

TMW-7	
9/4/2013	
2.0 – 12.0'	SCREEN
UNITS	ug/L
BROMOD	3.1
n-BUTYLB	5.2
sec-BUTYLB	1.1
Chl	1.6
ISOP	4.6
n-PROP	5.1
1,2,4-TMB	4.1
OTHER VOCs	<MDL
ACE	1.3
ACETHY	0.34
ANT	0.12
F	3.0
1-M	8.7
NAPH	4.7
Ph	2.9
OTHER PAHs	<MDL
TRPH	400

TMW-14	
9/4/2013	
1.3 – 11.3'	SCREEN
UNITS	ug/L
VOCs	<MDL
PAHs	<MDL
TRPH	<MDL

TMW-1	
9/4/2013	
2.0 – 12.0'	SCREEN
UNITS	ug/L
BROMOD	3.7
n-BUTYLB	4.7
Chl	2.7
DICLFMETH	1.0
OTHER VOCs	<MDL
ACE	0.56
ACETHY	0.33
F	2.4
1-M	1.0
Ph	1.9
OTHER PAHs	<MDL
TRPH	280

TMW-8	
9/4/2013	
2.0 – 12.0'	SCREEN
UNITS	ug/L
B	0.38
E	296
ISOP	36.4
p-ISOPT	10.3
n-PROP	17.6
ST	5.0
T	5.6
1,2,3-TRI	5.5
1,2,3-TMB	67.8
1,2,4-TMB	128
1,3,5-TMB	66.1
X	224
OTHER VOCs	<MDL
ACE	40.6
ACETHY	40.2
ANT	13.4
B(a)ANTH	2.1
B(a)PYR	2.1
B(b)FLA	1.6
B(g,h,i)PER	0.55
CHRYSENE	2.2
DI(A,H)ANT	0.20
FL	7.0
F	57.6
I(1,2,3-CD)PY	0.36
1-M	543
2-M	560
NAPH	2,400
Ph	89.2
Py	16.6
OTHER PAHs	<MDL
TRPH	22,000

TMW-6D	
9/5/2013	
20.0 – 25.0'	SCREEN
UNITS	ug/L
VOCs	<MDL
NAPH	3.0
Ph	0.72
Py	0.63
OTHER PAHs	<MDL
TRPH	<MDL

LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- PARCEL / LOT BOUNDARIES
- G — GENERATOR
- D — FORMER DWELLING
- T — FORMER TOOL SHED
- C — FORMER CISTERN
- P — FORMER PUMP HOUSE
- O — FORMER OIL/PUMP HOUSE
- R — FORMER RETORT ROOM
- G — FORMER GASOMETER

ACE	ACENAPHTHENE
ACETHY	ACENAPHTHYLENE
ANT	ANTHRACENE
Chl	CHLOROFORM
B(a)ANTH	BENZO(a)ANTHRACENE
B(a)PYR	BENZO(a)PYRENE
B(b)FLA	BENZO(b)FLUORANTHENE
B(g,h,i)PER	BENZO(g,h,i)PERYLENE
F	FLUORENE
FL	FLUORANTHENE
I(1,2,3-CD)PY	INDENO(1,2,3,CD)PYRENE
1-M	1-METHYLNAPHTHALENE
2-M	2-METHYLNAPHTHALENE
NAPH	NAPHTHALENE
Ph	PHENANTHRENE
Py	PYRENE
DI(A,H)ANT	DIBENZO(a,h)ANTHRACENE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
1,2,4-TMB	1,2,4-TRIMETHYLBENZENE
1,3,5-TMB	1,3,5-TRIMETHYLBENZENE
1,2,3-TMB	1,2,3-TRIMETHYLBENZENE
ISOP	ISOPROPYLBENZENE
n-PROP	n-PROPYLBENZENE
ST	STYRENE
n-BUTYLB	n-BUTYLBENZENE
sec-BUTYLB	sec-BUTYLBENZENE
BROMOD	BROMODICHLOROMETHANE
DICLFMETH	DIBROMOCHLOROMETHANE
VOCs	VOLATILE ORGANIC COMPOUNDS
MDL	METHOD DETECTION LIMIT
	VALUE EXCEEDS APPLICABLE CRITERIA
NOTES:	REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED
UNITs	µg/L
TRPH	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
PAHs	POLYNUCLEAR AROMATIC COMPOUNDS

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 4

SOIL BORING / TEMPORARY MONITORING WELL LOCATION MAP WITH GROUNDWATER ANALYTICAL RESULTS

PROJ:
FORMER KEY WEST GAS AND ELECTRIC COMPANY
101-111 GERALDINE STREET
KEY WEST, FL

THIS IS NOT A LEGAL SURVEY	DRN BY: TS/MM/TS/MM	DATE: 10/1/2013
VERIFY SCALE 0 30' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: RS/CCF	SCALE: 1" = 30'
	FILE NAME: 06-3668-1F04R00	

PMW-5		PMW-5		PMW-5		PMW-5		PMW-5	
1/29/2014		7/1/2014		11/6/2014		2/11/2014		5/7/2015	
2.30 ~ 12.30'	SCREEN	2.30 ~ 12.30'	SCREEN	2.30 ~ 12.30'	SCREEN	2.30 ~ 12.30'	SCREEN	2.30 ~ 12.30'	SCREEN
ACETONE	10.9	sec-BUTYLB	1.3	n-PROP	0.52	sec-BUTYLB	0.69	VOCs	<MDL
n-BUTYLB	0.85	ISOP	1.3	OTHER VOCs	<MDL	OTHER VOCs	<MDL	ACETHY	0.23
sec-BUTYLB	2.0	n-PROP	1.2	OTHER VOCs	<MDL	ACE	0.9	ANT	0.14
tert-BUTYLB	0.51	OTHER VOCs	<MDL	ACE	0.66	ACETHY	0.32	FL	0.030
Chl	1.3	ACE	0.68	ACETHY	0.19	ANT	0.26	F	1.2
ISOP	3.6	ACETHY	0.21	ANT	0.089	FL	0.045	Ph	0.091
n-PROP	4.9	F	1.7	FL	0.029	F	2.0	Py	0.088
OTHER VOCs	<MDL	1-M	9.8	F	1.5	Ph	0.28	OTHER PAHs	<MDL
ACE	1.0	2-M	5.7	Ph	0.33	Py	0.099		
ACETHY	0.36	OTHER PAHs	<MDL	Py	0.075	1-M	2.3		
ANT	0.21	TRPH	340	1-M	3.1	OTHER PAHs	<MDL		
FL	0.049			OTHER PAHs	<MDL				
F	2.4			TRPH	680				
Ph	2.6								
Py	0.12								
1-M	35.5								
2-M	46.6								
OTHER PAHs	<MDL								
TRPH	810								

PMW-6		PMW-6		PMW-6		PMW-6		PMW-6	
1/29/2014		7/1/2014		11/6/2014		2/11/2014		5/7/2015	
2.10 ~ 12.10'	SCREEN	2.10 ~ 12.10'	SCREEN	2.10 ~ 12.10'	SCREEN	2.10 ~ 12.10'	SCREEN	2.10 ~ 12.10'	SCREEN
n-BUTYLB	1.7	sec-BUTYLB	0.78	ISOP	0.57	VOCs	<MDL	n-BUTYLB	0.54
sec-BUTYLB	2.4	tert-BUTYLB	0.66	OTHER VOCs	<MDL	ACE	0.7	CHLOROMETHANE	7.2
tert-BUTYLB	0.54	ISOP	0.81	ACE	0.96	ACETHY	0.16	1,2-DCA	0.60
ISOP	3.9	OTHER VOCs	<MDL	ACETHY	0.20	ANT	0.23	ISOP	0.85
n-PROP	6.4	ACE	0.98	ANT	0.12	FL	0.057	p-ISOPT	0.79
1,2,3-TMB	1.2	ACETHY	0.22	FL	0.049	F	0.84	n-PROP	0.61
OTHER VOCs	<MDL	F	1.4	F	1.4	Ph	0.24	X	2.4
ACE	2.1	Ph	0.72	Ph	0.7	Py	0.12	OTHER VOCs	<MDL
ACETHY	0.67	1-M	8.3	Py	0.069	OTHER PAHs	<MDL	ANT	0.14
ANT	0.28	2-M	1.2	1-M	1.6			FL	0.056
FL	0.077	OTHER PAHs	<MDL	2-M	2.7			F	0.76
F	3.9	TRPH	420	OTHER PAHs	<MDL			NAPH	3.6
NAPH	2.6			TRPH	1,000			Ph	0.34
Ph	4.2							Py	0.062
Py	0.10							OTHER PAHs	<MDL
1-M	61.0								
2-M	88.5								
OTHER PAHs	<MDL								
TRPH	1,700								

PMW-1		PMW-1		PMW-1		PMW-1		PMW-1	
1/28/2014		7/1/2014		11/6/2014		2/11/2015		5/7/2015	
1.90 ~ 11.90'	SCREEN	1.90 ~ 11.90'	SCREEN	1.90 ~ 11.90'	SCREEN	1.90 ~ 11.90'	SCREEN	1.90 ~ 11.90'	SCREEN
B	0.21	Bro-Ben	1.4	Bro-Ben	1.3	n-BUTYLB	1.7	n-BUTYLB	1.5
n-BUTYLB	3.0	n-BUTYLB	3.0	n-BUTYLB	1.8	E	1.4	ISOP	11.8
E	3.3	E	2.5	E	1.4	ISOP	32.6	n-PROP	3.4
ISOP	48.4	ISOP	43.6	ISOP	28.2	p-ISOPT	2.4	1,2,3-TMB	13.8
p-ISOPT	5.6	p-ISOPT	4.9	p-ISOPT	2.7	n-PROP	8.1	1,2,4-TMB	3.8
n-PROP	15.7	n-PROP	14.6	n-PROP	8.2	1,2,3-TMB	38.4	1,3,5-TMB	11.9
ST	1.4	T	3.5	1,2,3-TMB	28.7	1,2,4-TMB	10.1	X	7.5
T	1.1	1,2,3-TMB	54.7	1,2,4-TMB	11.4	1,3,5-TMB	26.6	OTHER VOCs	<MDL
1,2,3-TRI	2.4	1,2,4-TMB	49	1,3,5-TMB	38.3	X	29.9	ACE	3.8
1,2,3-TMB	61.6	1,3,5-TMB	74.9	X	26	OTHER VOCs	<MDL	ACETHY	5.5
1,2,4-TMB	86.3	X	49.7	OTHER VOCs	<MDL	ACE	10.3	ANT	2.0
1,3,5-TMB	85.2	OTHER VOCs	<MDL	ACE	10.2	ACETHY	8.3	B(a)ANTH	0.079
X	71.9	ACE	11.3	ACETHY	12.7	CHRYSENE	0.095	B(a)PYR	0.95
OTHER VOCs	<MDL	ACETHY	12	ANT	3.7	ANT	2.6	B(b)FLA	0.94
ACE	14.4	ANT	2.9	B(a)ANTH	0.31	FL	1.5	B(k)FLA	0.58
ACETHY	27.5	FL	0.92	B(a)PYR	0.23	F	11.6	B(g,h,i)PER	1.8
ANT	4.6	F	13.3	B(b)FLA	0.46	NAPH	361	FL	1.6
B(a)ANTH	0.16	NAPH	1,390	CHRYSENE	0.038	Ph	29.9	F	5.1
B(b)FLA	0.027	Ph	35.2	FL	1.8	Py	2.7	I(1,2,3-CD)PY	1.9
B(k)FLA	0.028	Py	2.5	F	12.8	1-M	163	NAPH	181
CHRYSENE	0.18	1-M	123	NAPH	677	2-M	41.1	Ph	13.6
FL	2.4	2-M	121	Ph	35.4	OTHER PAHs	<MDL	Py	3.7
F	21.0	OTHER PAHs	<MDL	Py	3.5			1-M	33
NAPH	1,480	TRPH	3,700	1-M	129			2-M	9.9
Ph	41.7			2-M	90.7			OTHER PAHs	<MDL
Py	4.9			OTHER PAHs	<MDL				
1-M	259			TRPH	3,000				
2-M	335								
OTHER PAHs	<MDL								
TRPH	6,300								

PMW-7		PMW-7		PMW-7		PMW-7		PMW-7	
1/29/2014		7/1/2014		11/6/2014		2/11/2014		5/7/2015	
2.25 ~ 12.25'	SCREEN	2.25 ~ 12.25'	SCREEN	2.25 ~ 12.25'	SCREEN	2.25 ~ 12.25'	SCREEN	2.25 ~ 12.25'	SCREEN
ACETONE	11.6	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	1,2-DCA	0.65
sec-BUTYLB	0.78	ACE	0.058	ACE	0.2	ACE	0.15	p-ISOPT	0.56
ISOP	1.1	F	0.090	ACETHY	0.051	ACETHY	0.037	OTHER VOCs	<MDL
n-PROP	2.7	OTHER PAHs	<MDL	ANT	0.032	ANT	0.038	F	0.1
OTHER VOCs	<MDL	TRPH	<MDL	F	0.42	F	0.098	NAPH	3.5
ACE	0.42			Ph	0.040	Ph	0.051	OTHER PAHs	<MDL
ACETHY	0.16			OTHER PAHs	<MDL	Py	0.037		
ANT	0.094			TRPH	73	OTHER PAHs	<MDL		
F	1.0								
Ph	1.1								
Py	0.036								
1-M	11.1								
2-M	12.6								
OTHER PAHs	<MDL								
TRPH	340								

RESIDENTIAL
(FORMER TRUMAN ANNEX)

PMW-3		PMW-3		PMW-3		PMW-3		PMW-3	
1/28/2014		7/1/2014		11/6/2014		2/11/2014		5/7/2015	
2.25 ~ 12.25'	SCREEN	2.25 ~ 12.25'	SCREEN	2.25 ~ 12.25'	SCREEN	2.25 ~ 12.25'	SCREEN	2.25 ~ 12.25'	SCREEN
ACETONE	13.0	n-BUTYLB	0.89	sec-BUTYLB	0.61	sec-BUTYLB	0.69	sec-BUTYLB	0.66
BROMOD	0.69	sec-BUTYLB	1.7	OTHER VOCs	<MDL	OTHER VOCs	<MDL	OTHER VOCs	<MDL
n-BUTYLB	1.4	tert-BUTYLB	0.56	ACE	1.2	ACE	1.9	ACETHY	0.17
sec-BUTYLB	1.8	ISOP	2.8	ACETHY	0.15	ACETHY	0.44	ANT	0.18
Chl	1.0	n-PROP	3.6	ANT	0.11	ANT	0.26	B(b)FLA	0.16
ISOP	4.4	OTHER VOCs	<MDL	FL	0.093	FL	0.37	FL	0.18
n-PROP	6.4	ACE	2.1	F	1.5	F	3.0	F	1.2
1,2,3-TMB	1.1	ACETHY	0.5	Ph	0.25	Ph	0.12	Ph	0.091
OTHER VOCs	<MDL	F	3.4	Py	0.19	Py	0.63	Py	0.37
ACE	2.2	Ph	2.0	1-M	3.2	1-M	2.2	OTHER PAHs	<MDL
ACETHY	0.60	1-M	32.2	OTHER PAHs	<MDL	OTHER PAHs	<MDL		
ANT	0.35	2-M	7.5	TRPH	1,400				
CHRYSENE	0.035	OTHER PAHs	<MDL						
FL	0.51	TRPH	660						
F	4.0								
NAPH	2.6								
Ph	4.4								
Py	0.88								
1-M	55.1								
2-M	55.2								
OTHER PAHs	<MDL								
TRPH	930								

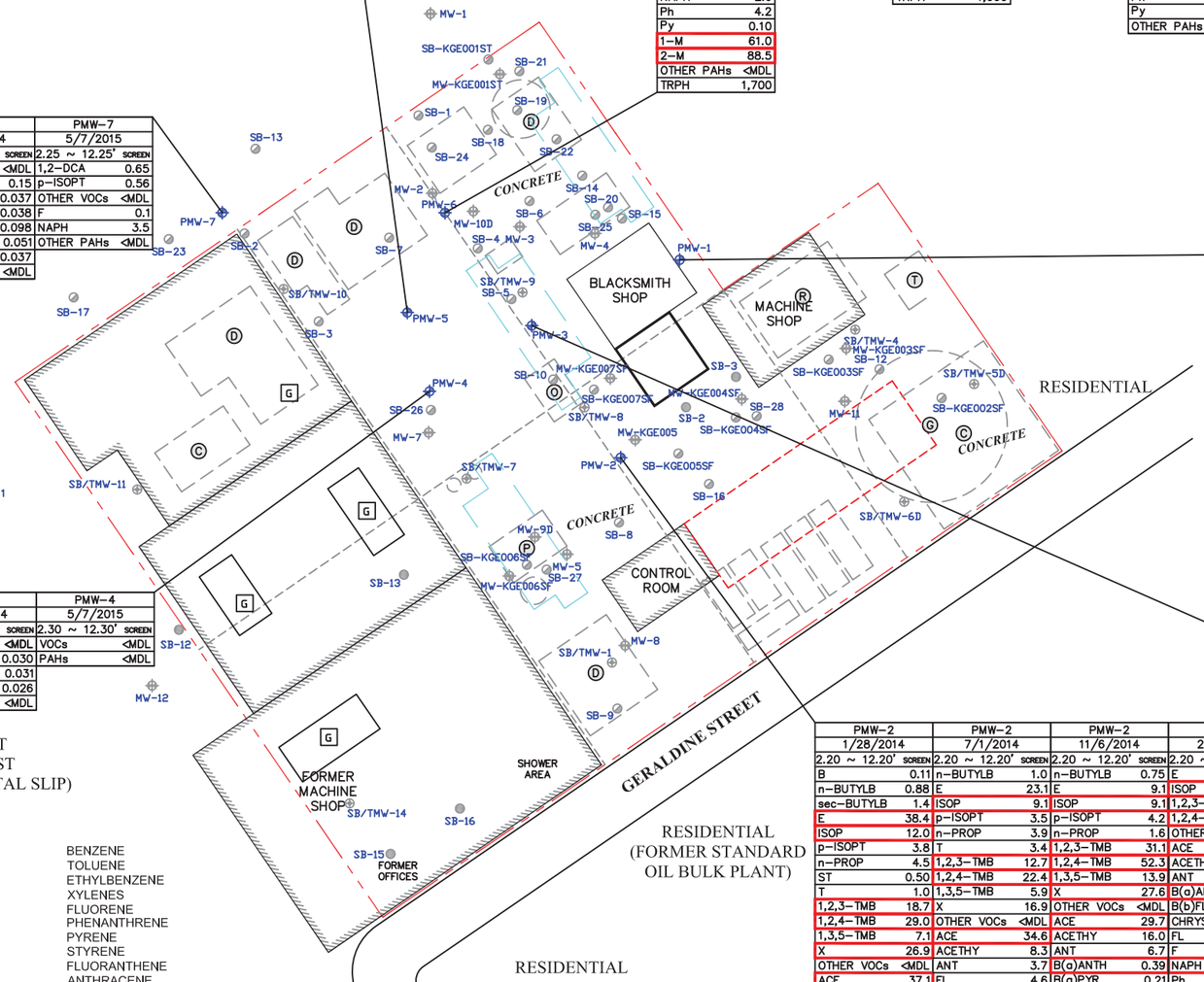
PMW-4		PMW-4		PMW-4		PMW-4		PMW-4	
1/28/2014		7/1/2014		11/6/2014		2/11/2014		5/7/2015	
2.30 ~ 12.30'	SCREEN	2.30 ~ 12.30'	SCREEN	2.30 ~ 12.30'	SCREEN	2.30 ~ 12.30'	SCREEN	2.30 ~ 12.30'	SCREEN
sec-BUTYLB	0.84	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL	VOCs	<MDL
n-PROP	1.5	ACE	0.046	Ph	0.032	Ph	0.031	PAHs	<MDL
OTHER VOCs	<MDL	OTHER PAHs	<MDL	OTHER PAHs	<MDL	ACE	0.030		
ACE	0.48	TRPH	<MDL	TRPH	<MDL	Py	0.026		
ACETHY	0.18					OTHER PAHs	<MDL		
ANT	0.12								
FL	0.047								
F	1.1								
Ph	0.37								
Py	0.072								
OTHER PAHs	<MDL								
TRPH	230								

918 FORT STREET
CITY OF KEY WEST
(FORMER GOVERNMENTAL SLIP)

PMW-2		PMW-2		PMW-2		PMW-2		PMW-2	
1/28/2014		7/1/2014		11/6/2014		2/11/2014		5/7/2015	
2.20 ~ 12.20'	SCREEN	2.20 ~ 12.20'	SCREEN	2.20 ~ 12.20'	SCREEN	2.20 ~ 12.20'	SCREEN	2.20 ~ 12.20'	SCREEN
B	0.11	n-BUTYLB	1.0	n-BUTYLB	0.75	E	7.3	sec-BUTYLB	0.56
n-BUTYLB	0.88	E	23.1	E	9.1	ISOP	6.1	E	3.9
sec-BUTYLB	1.4	ISOP	9.1	ISOP	9.1	1,2,3-TMB	10.6	ISOP	4.2
E	38.4	p-ISOPT	3.5	p-ISOPT	4.2	1,2,4-TMB	13.2	p-ISOPT	1.5
ISOP	12.0	n-PROP	3.9	n-PROP	1.6	OTHER VOCs	<MDL	n-PROP	0.70
p-ISOPT	3.8	T	3.4	1,2,3-TMB	31.1	ACE	38.7	T	0.63
n-PROP	4.5	1,2,3-TMB	12.7	1,2,4-TMB	52.3	ACETHY	12.5	1,2,3-TMB	12.3
ST	0.50	1,2,4-TMB	22.4	1,3,5-TMB	13.9	ANT	5.4	1,2,4-TMB	10.3
T	1.0	1,3,5-TMB	5.9	X	27.6	B(a)ANTH	0.39	1,3,5-TMB	4.8
1,2,3-TMB	18.7	X	16.9	OTHER VOCs	<MDL	B(b)FLA	0.081	X	9.3
1,2,4-TMB	29.0	OTHER VOCs	<MDL	ACE	29.7	CHRYSENE	0.5	OTHER VOCs	<MDL
1,3,5-TMB	7.1	ACE	34.6	ACETHY	16.0	FL	6.2	ACE	23.2
X	26.9	ACETHY	8.3	ANT	6.7	F	8.0	ACETHY	8.9
OTHER VOCs	<MDL	ANT	3.7	B(a)ANTH	0.39	NAPH	185	ANT	5.5
ACE	37.1	FL	4.6	B(a)PYR	0.21	Ph	56	B(a)ANTH	0.048
ACETHY	11.2	F	5.7	B(b)FLA	0.42	Py	13.1	B(a)PYR	0.069
ANT	5.5	NAPH	346	CHRYSENE	0.11	1-M	115	B(b)FLA	0.090
B(a)ANTH	0.54	Ph	49.2	FL	4.3	2-M	16.4	FL	5.2
B(a)PYR	0.14	Py	10.3	F	10	OTHER PAHs	<MDL	F	6.4
B(b)FLA	0.12	1-M	132	NAPH	622			NAPH	179
B(g,h,i)PER	0.043	2-M	31.2	Ph	52.5			Ph	34.5
CHRYSENE	0.49	OTHER PAHs	<MDL	Py	8.8			Py	11.5
FL	5.8	TRPH	1,600	1-M	120			1-M	52
F	9.7			2-M	81.9			2-M	8.8
I(1,2,3-CD)PY	0.026			OTHER PAHs	<MDL			OTHER PAHs	<MDL
NAPH	219			TRPH	2,700				
Ph	55.0								
Py	12.1								
1-M	187								
2-M	62.4								
OTHER PAHs	<MDL								
TRPH	2,300								

RESIDENTIAL
(FORMER STANDARD
OIL BULK PLANT)

RESIDENTIAL



LEGEND:

	SUBJECT PROPERTY
	APPROXIMATE FORMER/ HISTORICAL SITE FEATURES
	PARCEL / LOT BOUNDARIES
	PROPOSED SITE FEATURES
G	GENERATOR
D	FORMER DWELLING
T	FORMER TOOL SHED
C	FORMER CISTERN
P	FORMER PUMP HOUSE
O	FORMER OIL/PUMP HOUSE
R	FORMER RETORT ROOM
G	FORMER GASOMETER
	FORMER SOIL BORING
	FORMER MONITORING WELL
	FORMER SOIL BORING
	FORMER SOIL BORING/ TEMPORARY MONITORING WELL
	MONITORING WELL

B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	XYLENES
F	FLUORENE
Ph	PHENANTHRENE
Py	PYRENE
ST	STYRENE
FL	FLUORANTHENE
ANT	ANTHRACENE
ACE	ACENAPHTHENE
Chl	CHLOROFORM
ACETHY	ACENAPHTHYLENE
B(a)ANTH	BENZO(a)ANTHRACENE
B(a)PYR	BENZO(a)PYRENE
B(b)FLA	BENZO(b)FLUORANTHENE
B(g,h,i)PER	BENZO(g,h,i)PERYLENE
B(k)FLA	BENZO(k)FLUORANTHENE
1-M	1-METHYLNAPHTHALENE
2-M	2-METHYLNAPHTHALENE
NAPH	NAPHTHALENE
1,2,3-TRI	1,2,3-TRICHLOROPROPANE
1,2,4-TMB	1,2,4-TRIMETHYLBENZENE
1,3,5-TMB	1,3,5-TRIMETHYLBENZENE
1,2,3-TMB	1,2,3-TRIMETHYLBENZENE
I(1,2,3-CD)PY	INDENO(1,2,3,CD)PYRENE
ISOP	ISOPROPYLBENZENE
p-ISOPT	p-ISOPROPYLTOLUENE

1,2-DCA	1,2-DICHLOROETHANE
n-PROP	n-PROPYLBENZENE
n-BUTYLB	n-BUTYLBENZENE
sec-BUTYLB	sec-BUTYLBENZENE
tert-BUTYLB	tert-BUTYLBENZENE
BROMOD	BROMODICHLOROMETHANE
VOCs	VOLATILE ORGANIC COMPOUNDS
PAHs	POLYNUCLEAR AROMATIC COMPOUNDS
TRPH	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
MDL	METHOD DETECTION LIMIT
UNITS	µg/L
	VALUE EXCEEDS APPLICABLE CRITERIA
NOTES:	REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED

Source:
4th Quarter, 1st Year Natural Attenuation Monitoring Report, PM Environmental, July 10, 2015

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 3

SOIL BORING/MONITORING WELL LOCATION MAP WITH GROUNDWATER ANALYTICAL RESULTS

PROJ:
FORMER KEY WEST GAS AND ELECTRIC COMPANY
101-111 GERALDINE STREET
KEY WEST, FL

THIS IS NOT A LEGAL SURVEY	DRN BY: TS/MM/CS/ES/KS	DATE: 7/9/2015
VERIFY SCALE 0 40' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: RS/CCF	SCALE: 1" = 40'
	FILE NAME: 06-3668-4F03R03	

Source:
4th Quarter, 1st Year Natural Attenuation Monitoring Report, PM Environmental, July 10, 2015

LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- PARCEL / LOT BOUNDARIES
- PROPOSED SITE FEATURES
- G — GENERATOR
- D — FORMER DWELLING
- T — FORMER TOOL SHED
- C — FORMER CISTERN
- P — FORMER PUMP HOUSE
- O — FORMER OIL/PUMP HOUSE
- R — FORMER RETORT ROOM
- G — FORMER GASOMETER
- FORMER SOIL BORING
- FORMER MONITORING WELL
- FORMER SOIL BORING
- FORMER SOIL BORING / TEMPORARY MONITORING WELL
- MONITORING WELL
- ISOPROPYLBENZENE GCTL 0.8 µg/L
- 1,2,3 TRIMETHYLBENZENE GCTL 10 µg/L AND
- 1,2,4 TRIMETHYLBENZENE GCTL 10 µg/L
- 1,3,5 TRIMETHYLBENZENE GCTL 10 µg/L
- CHLOROMETHANE GCTL 2.7 µg/L

UNITs µg/L

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 4

GROUNDWATER CONCENTRATION MAP FOR VOCs EXCEEDING THE GCTL CRITERIA (5/2015)

PROJ:
FORMER KEY WEST GAS AND ELECTRIC COMPANY
101-111 GERALDINE STREET
KEY WEST, FL

THIS IS NOT A LEGAL SURVEY	DRN BY: TS/CS/ES/KS	DATE: 7/9/2015
VERIFY SCALE 0 — 30' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: RS/CCF	SCALE: 1" = 30'
	FILE NAME: 06-3668-4F04R06	

Source:
4th Quarter, 1st Year Natural Attenuation Monitoring Report, PM Environmental, July 10, 2015

LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- PARCEL / LOT BOUNDARIES
- PROPOSED SITE FEATURES
- G — GENERATOR
- D — FORMER DWELLING
- T — FORMER TOOL SHED
- C — FORMER CISTERN
- P — FORMER PUMP HOUSE
- O — FORMER OIL/PUMP HOUSE
- R — FORMER RETORT ROOM
- G — FORMER GASOMETER
- FORMER SOIL BORING
- FORMER MONITORING WELL
- FORMER SOIL BORING
- FORMER SOIL BORING / TEMPORARY MONITORING WELL
- MONITORING WELL
- 1-METHYLNAPHTHALENE GCTL 28 µg/L
- NAPHTHALENE GCTL 14 µg/L
- BENZO(a)ANTHRACENE GCTL 0.05 µg/L
  BENZO(a)PYRENE GCTL 0.2 µg/L
  BENZO(b)FLUORANTHENE GCTL 0.05 µg/L
  BENZO(k)FLUORANTHENE GCTL 0.5 µg/L
- UNITs — µg/L

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 5

GROUNDWATER CONCENTRATION MAP FOR PAHs EXCEEDING THE GCTL CRITERIA (5/2015)

PROJ:
FORMER KEY WEST GAS AND ELECTRIC COMPANY
101-111 GERALDINE STREET
KEY WEST, FL

THIS IS NOT A LEGAL SURVEY	DRN BY: TS/CS/ES/KS	DATE: 7/9/2015
VERIFY SCALE 0 — 30' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: RS/CCF	SCALE: 1" = 30'
	FILE NAME: 06-3668-4F05R04	

ATTACHMENT E

FDEP CORRESPONDENCES

Candace Chin Fatt

From: Masella, Charles <Charles.Masella@dep.state.fl.us>
Sent: Thursday, October 31, 2013 1:30 PM
To: Candace Chin Fatt
Cc: McLaurin, Albert; Sautter, Mark
Subject: COM_303264 Former Key West Gas and Eletric Company

October 31, 2013

Candace Chin Fatt
PM Environmental, Inc.
954-924-1801
ChinFatt@pmenv.com

Re: Phase II ESA Discussion
Former Key West Gas & Electric
Monroe County
COM_303264

Dear Ms. Chin Fatt:

Pursuant to out telephone conversation this afternoon, the primary constituents that are of a concern are the petroleum product components and residues. In the submittal received on October 17, 2013 by the South District, it appears that there are three monitoring well positions (TMW-8, TMW-9, and TMW-10) that indicate significant exceedances over Chapter 62-777 F.A.C. Groundwater Cleanup Target Levels (GCTLs). These constituents are Ethylbenzene, and Naphthalene (also 1 & 2-Methylnaphthalenes). The BaPs are breakdown (daughter components) and may attenuate. We further see readings for Lead and Arsenic, but although exceeding criteria, are not significant at this time, and may be addressed following delineation of the petroleum product plume.

The area of greater concern is the ellipse that includes TMW-8, TMW-9, and TMW-10. I would suggest concentrating groundwater remediation efforts in this part of the property. Careful over-pumping proceeding groundwater collection might assist in the removal to the Polynuclear Aromatic Hydrocarbons (PAHs) in the upper watertable, and speed the volatilization of the Ethylbenzene.

As for soils, they are a secondary issue, due to the abundance of sand and limerock (possibly vugular, or oolitic in composition) on the site. Plus the gradient may be alternating due to the proximity of the surrounding water-body, so we would not expect you to labor too much on exact determination of directional issues. In the event you expect to encounter elevated Total Recoverable Petroleum Hydrocarbons (TRPHs), I would suggest analysis through Fractionation or Speciation. This may indicate a carbon concentration within criteria.

You may proceed with your assessment without the submittal of a work plan to the Department. The assessment should be conducted pursuant to Chapter 62-780 F.A.C.

Charles A. Masella
FDEP-SD CAP WC/TK
239-344-5667
Charles.Masella@dep.state.fl.us

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTH DISTRICT
P.O. BOX 2549
FORT MYERS, FL 33902-2549
SouthDistrict@dep.state.fl.us

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

To: **Charles A. Masella**
Florida Department of Environmental Protection

From: **Mark A. Sautter**
Florida Department of Environmental Protection

Date: **August 26, 2014**

Subject: **Monroe County – WC**
Supplemental Site Assessment Report
Former Key West Gas and Electric Company
101-111 Geraldine Street
Key West, Florida 33040
Waste Cleanup Tracking Number: COM_303264

The Florida Department of Environmental Protection (Department) has conducted a technical review of the Supplemental Site Assessment Report (SSAR) for the Former Key West Gas and Electric Company facility. The submittal was generated by PM Environmental, Inc. (PM), and received by the Department on August 25, 2014. Site activities were initiated to address the petroleum contaminant confirmed through an October 8, 2013, Phase II Environmental Site Assessment (PH II ESA).

On September 4, 2013, PM personnel supervised the installation of advancement of sixteen (16) soil borings (SB-1 through SB-16) and the installation of ten (10) temporary groundwater monitoring wells (TMW-1, TMW-4, TMW-5D, TMW-6D, TMW-7 through TMW-11, and TMW-14). PM personnel collected sixteen (16) soil samples and ten (10) groundwater samples. The collected samples were submitted for laboratory analysis for Volatile Organic Compounds (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs), Total Recoverable Petroleum Hydrocarbons (TRPH), Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver. The laboratory analytical data reported concentrations of PAHs, TRPH, and Metals in excess of their respective Florida Administrative Code (F.A.C.) Rule 62-777 Soil Cleanup Target Levels (SCTLs) and VOCs, PAHs, and TRPH in concentrations exceeding their respective F.A.C. Rule 62-777 Groundwater Cleanup Target Levels (GCTLs) and/or Natural Attenuation Default Concentrations (NADCs).

Based upon the findings of the PH II ESA, PM recommended that a Site Assessment (SA) be performed and, on January 27, 2014, PM personnel supervised the installation of seven (7) permanent groundwater monitoring wells (PMW-1 through PMW-7). Groundwater samples were collected from the newly installed wells on January 28, 2014. The collected samples were submitted for laboratory analysis by EPA Method 8260B for VOCs, EPA Method 8270C for PAHs, and by the Florida Residual Petroleum Organics (FL-PRO) Method for Total Recoverable Petroleum Hydrocarbons (TRPH).

The laboratory analytical data reported Isopropyl Benzene (Cumene) in PMW-1, PMW-2, PMW-3, PMW-5, PMW-6, and PMW-7 at 48.4 micrograms per liter (µg/l), 12.0 µg/l, 4.4 µg/l, 3.6 µg/l, 3.9 µg/l, and 1.1 µg/l, respectively. These concentrations exceed the GCTL of 0.8 µg/l. In addition, the concentrations detected in PMW-1 and PMW-2 exceed the NADC of 8 µg/l. Bromodichloromethane was detected in PMW-3 at 0.69 µg/l. This concentration exceeds the GCTL of 0.6 µg/l. Ethylbenzene was detected in MW-2 at 38.8 µg/l. This concentration exceeds the GCTL of 30 µg/l. 1,2,3-Trichloropropane was detected in PMW-1 at 2.4 µg/l. This concentration exceeds the GCTL of 0.02 µg/l and the NADC of 2 µg/l. However, when this value is rounded in accordance with the memorandum issued by the Director of the Division of Waste Management, Jorge Caspary, the resulting concentration is 2 µg/l; equal to, but not exceeding the NADC. 1,2,3-Trimethylbenzene was detected in PMW-1 and PMW-2 at 61.6 µg/l and 18.7 µg/l, respectively. These concentrations exceed the GCTL of 10. 1,2,4-Trimethylbenzene was detected in PMW-1 and PMW-2 at 86.3 µg/l and 29 µg/l, respectively. These concentrations exceed the GCTL of 10 µg/l. 1,3,5-Trimethylbenzene was detected in PMW-1 at 85.2 µg/l. This concentration exceeds the GCTL of 10 µg/l. Total Xylenes were detected in PMW-1 and PMW-2 at 71.9 µg/l and 26.9 µg/l, respectively. These concentrations exceed the GCTL of 20 µg/l. Acenaphthene was detected in PMW-2 at 37.1 µg/l. This concentration exceeds the GCTL of 20 µg/l. Benzo(a)anthracene was detected in PMW-1 and PMW-2 at 0.16 µg/l and 0.54 µg/l, respectively. These concentrations exceed the GCTL of 0.05 µg/l. Benzo(b)fluoranthene was detected in PMW-2 at 0.12 µg/l. This concentration exceeds the GCTL of 0.05 µg/l. Naphthalene was detected in PMW-1 and PMW-2 at 1,480 µg/l and 219 µg/l, respectively. These concentrations exceed the GCTL of 14 µg/l and the NADC of 140 µg/l. 1-Methylnaphthalene was detected in PMW-1, PMW-2, PMW-3, PMW-5, and PMW-6 at 259 µg/l, 187 µg/l, 55.1 µg/l, 35.5 µg/l, and 61.0 µg/l, respectively. These concentrations exceed the GCTL of 28 µg/l. 2-Methylnaphthalene was detected in PMW-1, PMW-2, PMW-3, PMW-5, and PMW-6 at 335 µg/l, 62.4 µg/l, 55.2 µg/l, 46.6 µg/l, and 88.5 µg/l, respectively. These concentrations exceed the GCTL of 28 µg/l. In addition, the concentration detected in PMW-1 exceeds the NADC of 280 µg/l. TRPH was detected in PMW-1 at 6,300 µg/l. This concentration exceeds the GCTL of 5,000 µg/l.

On July 1, 2014, PM personnel collected groundwater samples from seven (7) groundwater monitoring wells (PMW-1 through PMW-7). The collected samples were submitted for laboratory analysis by EPA Method 8260B for VOCs, EPA Method 8270C for PAHs, and by the FL-PRO Method for TRPH.

The analytical data reported Cumene in PMW-1, PMW-2, PMW-3, PMW-5, and PMW-6 at 43.6 µg/l, 9.1 µg/l, 2.8 µg/l, 1.3 µg/l, and 0.81 µg/l, respectively. These concentrations exceed the GCTL of 0.8 µg/l. In addition, the concentrations detected in PMW-1 and PMW-2 exceed the NADC of 8 µg/l. 1,2,3-Trimethylbenzene was detected at 54.7 µg/l and 12.7 µg/l in PMW-1 and PMW-2, respectively. These concentrations exceed the GCTL of 10 µg/l. Similarly, 1,2,4-Trimethylbenzene was detected in PMW-1 and PMW-2 at 49 µg/l and 22.4 µg/l, respectively. These concentrations exceed the GCTL of 10 µg/l. Xylenes and 1,3,5-Trimethylbenzene were detected in PMW-1 at 49.7 µg/l and 74.9 µg/l, respectively. These concentrations exceed their

respective GCTLs of 20 µg/l and 10 µg/l. Acenaphthene was detected in PMW-2 at 34.6 µg/l. This concentration exceeds the GCTL of 20 µg/l. Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene were detected in PMW-1 at 1,390 µg/l, 123 µg/l, and 121 µg/l, and in PMW-2 at 346 µg/l, 132 µg/l, and 31.2 µg/l, respectively. These concentrations exceed their respective GCTLs of 14 µg/l, 28 µg/l, and 28 µg/l. The concentrations of Naphthalene in PMW-1 and PMW-2 also exceed the NADC of 280 µg/l. 1-Methylnaphthalene was also detected in PMW-3 at 32.2 µg/l. This concentration exceeds the GCTL of 28 µg/l.

Summary:
The Florida Department of Environmental Protection (Department) has completed our technical review of the Supplemental Site Assessment Report (SSAR) for the Former Key West Gas and Electric Company and concurs with the environmental consultant that the onsite plume of dissolved hydrocarbons is largely delineated. While additional, offsite delineation is required in the vicinity of PMW-1, the Department understands that the necessary monitoring well installation will require the procurement of an Offsite Access Agreement from the adjoining property owner. As this may take considerable time to obtain, the Department concurs with the consultant that Natural Attenuation Monitoring (NAM) of the existing wells is appropriate for this site. The July 2014 sampling event will be considered the Year-1, Quarter-1 Natural Attenuation Monitoring event. Subsequent quarterly events should include the collection of groundwater samples from PMW-1 through PMW-7. The collected samples should be submitted for laboratory analysis by EPA Method 8260B for VOCs and EPA Method 8270C for PAHs.

The dramatic reduction in the concentrations and distribution of contaminants of concern between the January 2014 and July 2014 sampling events suggests a seasonal fluctuation at this site. If, however, after one (1) year of quarterly samples the concentrations and distribution remain relatively constant, the Department will consider a semi-annual monitoring schedule and a reduction of sample points. The Year-1, Quarter-2 NAM event should be scheduled for October 2014. The environmental consultant should also attempt to obtain the Offsite Access Agreement in order to install the additional monitoring well to be situated northeast of PMW-1.

ATTACHMENT F

SITE REHABILITATION COMPLETION ORDER WITH CONDITIONS AND DECLARATION OF RESTRICTIVE COVENANT

Florida Department of Environmental Protection

South District
Post Office Box 2549
Fort Myers, Florida 33902-2549
SouthDistrict@dep.state.fl.us

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

April 26, 2016

VIA ELECTRONIC MAIL

Mr. Stanley Rzad
Keys Energy Services
1001 James Street
Key West, Florida 33041-6100
E-mailed to: Stanley.Rzad@keysenergy.com

Subject: Monroe County – WC
Site Rehabilitation Completion Order (SRCO) Approval
No Further Action Risk Management Option Level III (NFA RMO III)
Former Key West Gas and Electric Company
101-111 Geraldine Street, Key West, Florida 33040
Waste Cleanup Tracking Number: COM_303264
Discharge Date: February 20, 2012

Dear Mr. Rzad:

The Florida Department of Environmental Protection (Department) has completed our technical review of the documentation (including No Further Action with Institutional Controls Proposal for Former Key West Gas and Electric Company, generated by PM Environmental, Inc. (PM)) submitted in support of a Site Rehabilitation Completion Order with Conditions (SRCO-C) pursuant to Florida Administrative Code (F.A.C.) Rule 62-780.680(3) Risk Management Option Level III (RMO III) for the Former Key West Gas and Electric Company Facility located at 101-111 Geraldine Street, Key West, Florida 33040. All the documents submitted to date are adequate to meet the site assessment requirements of Rule 62-780.680(3) Florida Administrative Code (F.A.C.). The DRC is hereby incorporated by reference in this Site Rehabilitation Completion Order (Order) No Further Action Risk Management Options Level III (NFA RMO III). Therefore, you are released from any further obligation to conduct site rehabilitation at the site for petroleum product contamination associated with the discharge referenced above, except as set forth below.

1) In the event concentrations of petroleum products' contaminants of concern migrate beyond the established physical limits as documented in the Declaration of Restrictive Covenant approved in this Order, or if a subsequent discharge of petroleum or petroleum product occurs at the site, the Florida Department of Environmental Protection (Department) may require assessment and site rehabilitation pursuant to Chapter 62-780, F.A.C., to reduce concentrations of petroleum products' contaminants of concern to the levels approved in the SRCO or otherwise allowed by Chapter 62-777, F.A.C.

2) Additionally, you are required to properly abandon all monitoring wells within 60 days of receipt of this Order. The monitoring wells must be plugged and abandoned in accordance with the requirements of Subsection 62-532.500(4), F.A.C.

Legal Issues

The Department's Order shall become final unless a timely petition for an administrative hearing is filed under sections 120.569 and 120.57, Florida Statutes (F.S.), within 21 days of receipt of this Order. The procedures for petitioning for an administrative hearing are set forth below. Persons affected by this Order have the following options:

1) If you choose to accept the Department's decision regarding the DRC NFA RMO III you do not have to do anything. This Order is final and effective on the date filed with the Clerk of the Department, which is indicated on the last page of this Order.

2) If you choose to challenge the decision, you may do the following:

   a) File a request for an extension of time to file a petition for an administrative hearing with the Department's Agency Clerk in the Office of General Counsel within 21 days of receipt of this Order; such a request should be made if you wish to meet with the Department in an attempt to informally resolve any disputes without first filing a petition for an administrative hearing; or

   b) File a petition for an administrative hearing with the Department's Agency Clerk in the Office of General Counsel within 21 days of receipt of this Order.

Please be advised that mediation of this decision pursuant to section 120.573, F.S., is not available.

How to Request an Extension of Time to File a Petition for an Administrative Hearing

For good cause shown, pursuant to subsection 62-110.106(4), F.A.C., the Department may grant a request for an extension of time to file a petition for an administrative hearing. Such a request must be filed (received) by the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from Keys Energy Services shall mail a copy of the request to Mr. Stanley Rzad (Stanley.Rzad@keysenergy.com), Keys Energy Services, 1001 James Street, Key West, Florida 33041-6100, at the time of filing. Timely filing a request for an extension of time tolls the time period within which a petition for an administrative hearing must be made.

How to File a Petition for an Administrative Hearing

A person whose substantial interests are affected by this Order may petition for an administrative hearing under sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) by the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, within 21 days of receipt of this Order. Petitioner, if different from Keys Energy Services shall mail a copy of the request to Mr. Stanley Rzad (Stanley.Rzad@keysenergy.com), Keys Energy Services,

1001 James Street, Key West, Florida 33041-6100, at the time of filing. Failure to file a petition within this time period shall waive the right of anyone who may request an administrative hearing under sections 120.569 and 120.57, F.S.

Pursuant to subsection 120.569(2), F.S. and rule 28-106.201, F.A.C., a petition for an administrative hearing shall contain the following information:

a) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any; the facility owner's name and address, if different from the petitioner; the FDEP facility number, and the name and address of the facility;

b) A statement of when and how each petitioner received notice of the Department's action or proposed action;

c) An explanation of how each petitioner's substantial interests are or will be affected by the Department's action or proposed action;

d) A statement of the disputed issues of material fact, or a statement that there are no disputed facts;

e) A statement of the ultimate facts alleged, including a statement of the specific facts the petitioner contends warrant reversal or modification of the Department's action or proposed action;

f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the Department's action or proposed action; and

g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Department's action or proposed action.

This Order is final and effective on the date filed with the Clerk of the Department, which is indicated on the last page of this Order. Timely filing a petition for an administrative hearing postpones the date this Order takes effect until the Department issues either a final order pursuant to an administrative hearing or an Order Responding to Supplemental Information provided to the Department pursuant to meetings with the Department.

Judicial Review

Any party to this Order has the right to seek judicial review of it under section 120.68, F.S., by filing a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Department's Agency Clerk in the Office of General Counsel at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000, and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days after this Order is filed with the Department's clerk (see below).

Questions

Any questions regarding the Department's review of your Declaration of Restrictive Covenant (DRC) No Further Action Risk Management Options Level III (NFA RMO III) should be directed to Mark A. Sautter at (239) 344-5690 or Mark.Sautter@dep.state.fl.us. **Whenever possible, please submit any written response(s) electronically to FTM.Tanks.Cleanup@dep.state.fl.us.**

Questions regarding legal issues should be referred to the Department's Office of General Counsel at (850) 245-2242. Contact with any of the above does not constitute a petition for an administrative hearing or a request for an extension of time to file a petition for an administrative hearing. The FDEP Waste Cleanup Tracking Number for this site is **COM_303264**. Please use this identification on all future correspondence with the Department.

Sincerely,

Jon M. Iglehart
Director of District Management
South District

JMI/MAS/se

Enclosures: (1) Site Rehabilitation Completion Order (SRCO) Approval April 19, 2016
(2) Declaration of Restrictive Covenant

cc: Candace Chin Fatt – PM (chinfatt@pmenv.com)
Lindsay C. Walton, Esq. – Goldstein Env. Law Firm (lwalton@goldsteinenvlaw.com)
Dan Blackwell – FDEP (Dan.Blackwell@dep.state.fl.us)
Toni Sturtevant – FDEP (Toni.Sturtevant@dep.state.fl.us)
Jennifer Carpenter – FDEP (Jennifer.Carpenter@dep.state.fl.us)
Elizabeth Sweigert –FDEP (Elizabeth.Sweigert@dep.state.fl.us)
Charles A. Masella – FDEP (Charles.Masella@dep.state.fl.us)
Ryan Snyder – FDEP (Ryan.Snyder@dep.state.fl.us)
Mark A. Sautter – FDEP (Mark.Sautter@dep.state.fl.us)

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

April 26, 2016
Date

SRCO Approval Attachment

SRCO NFA RMO III for Waste Cleanup Tracking Number: COM_303264

Former Key West Gas and Electric Company
101-111 Geraldine Street, Key West, Florida 33040
Waste Cleanup Tracking Number: COM_303264
Discharge Date: February 20, 2012

I hereby certify that in my judgment, the components of this Site Rehabilitation Completion Order (SRCO) satisfy the requirements set forth in Chapter 62-780.680(3), Florida Administrative Code (F.A.C.), No Further Action Risk Management Options Level III (NFA RMO-III) and that the conclusions in this report provide reasonable assurances that the objectives in Chapter 62-780.680(3), F.A.C., have been met.

_ I personally completed this review.

X This review was conducted by Mark A. Sautter working under my direct supervision.

_____
Charles A. Masella
Projects Manager-Environmental Consultant
Florida Department of Environmental Protection

April 21, 2016

_____
Date

Doc# 2070475 04/06/2016 11:48AM
Filed & Recorded in Official Records of
MONROE COUNTY AMY HEAVILIN

Doc# 2070475
Bk# 2790 Pg# 736

This instrument prepared by:
Lindsay C. Walton, Esq.
The Goldstein Environmental Law Firm, P.A.
One Southeast Third Avenue, Suite 2120
Miami, Florida 33131
Tel: (305) 777-1686
Email: lwalton@Goldsteinenvlaw.com

DECLARATION OF RESTRICTIVE COVENANT

This **DECLARATION OF RESTRICTIVE COVENANT** (hereinafter "Declaration") is made by **THE UTILITY BOARD OF THE CITY OF KEY WEST, FLORIDA,** authorized to conduct business in the State of Florida (hereinafter "Grantor") and the **FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION** (hereinafter "FDEP"). The Grantor and the FDEP are the "Parties" under this Declaration.

I. Recitals

A. The Grantor is the fee simple owner of that certain real property situated in the City of Key West, Monroe County, Florida, more particularly described in the legal description attached hereto at Exhibit A and made a part of this Declaration hereof (hereinafter the "Property"). The street address of the Property is 100 Angela Street, Key West, Monroe County, FL, and the parcel numbers are 13950; 13960; 13970; 13900; 13910; 13870; 13860; and 13830.

B. The FDEP Facility Identification Number for the Property is COM_303264.

C. The Property was formerly utilized for manufactured gas and electric power plant operations and is currently used as an electrical substation. In connection with historic site uses, there are onsite petroleum constituent impacts to groundwater. The assessment of groundwater at the Property is documented in the following reports that are incorporated into this Declaration by reference (hereinafter, the "Environmental Reports"):

1. Correspondence issued by C. A. Masella, FDEP, to S. Rzad, Keys Energy Services, regarding Former Key West Gas and Electric Company Site, Waste Cleanup Tracking Number: COM_303264, dated July 16, 2015;

2. 4th Quarter, 1st Year Natural Attenuation Monitoring Report, prepared by PM Environmental, dated July 10, 2015;

3. 3rd Quarter, 1st Year Natural Attenuation Monitoring Report, prepared by PM Environmental, dated March 11, 2015;

4. 2nd Quarter, 1st Year Natural Attenuation Monitoring Report, prepared by PM Environmental, dated December 5, 2014;

5. Supplemental Site Assessment Report, prepared by PM Environmental, dated August 25, 2014; and

6. Site Assessment Report and 1st Quarter, 1st Year Natural Attenuation Monitoring Report, prepared by PM Environmental, dated March 10, 2014.

D. The Environmental Reports set forth the nature and extent of the contamination located at the Property. These reports confirm that contaminated groundwater as defined by Chapter 62-780, Florida Administrative Code (F.A.C.), exist on the Property. Also, these reports document that the groundwater contamination does not extend beyond the Property boundary, that the extent of the groundwater contamination does not exceed 1/4 acre, and the groundwater contamination is not migrating.

E. It is the intent that the restrictions in this Declaration reduce or eliminate the risk of exposure of users or occupants of the Property and the environment to the contaminants and to reduce or eliminate the threat of migration of the contaminants.

F. FDEP has agreed to issue the Grantor, or its respective successors or assigns, a Site Rehabilitation Completion Order (hereinafter "SRCO") upon recordation of this Declaration, and the FDEP can unilaterally revoke the SRCO if the conditions of this Declaration or of the SRCO are not met. Additionally, if concentrations of contaminants increase above the levels approved in the SRCO, or if a subsequent discharge occurs at the Property, the FDEP may require site rehabilitation to reduce concentrations of contamination to the levels allowed by the applicable FDEP rules. The SRCO relating to this Declaration can be found by contacting the South District office of the FDEP.

G. The Grantor deems it desirable and in the best interest of all present and future owners of the Property that an SRCO be obtained and maintained so long as contaminants remain at the Property above applicable cleanup target levels, and that the Property be held subject to certain restrictions, all of which are more particularly hereinafter set forth.

II. Agreement

NOW, THEREFORE, to induce the FDEP to issue the SRCO and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by each of the undersigned Parties, Grantor agrees as follows:

1. The foregoing Recitals are true and correct and are incorporated herein by reference.

2. The Grantor hereby imposes on the Property the following restrictions:

    a. There shall be no use of the groundwater under the Property. There shall be no drilling for water conducted on the Property, nor shall any wells be installed on the Property other than monitoring wells pre-approved in writing by FDEP's Division of Waste Management, in addition to any authorizations required by the Division of Water Resource Management ("DWRM") and the Water Management Districts ("WMD"). Additionally, there shall be no stormwater swales, stormwater detention

or retention facilities, or ditches on the Property. For any dewatering activities, a plan approved by FDEP's Division of Waste Management must be in place to address and ensure the appropriate handling, treatment, and disposal of any extracted groundwater that may be contaminated.

3. In the remaining paragraphs, all references to "Grantor" and "FDEP" shall also mean and refer to their respective successors and assigns.

4. For the purpose of monitoring the restrictions contained herein, FDEP is hereby granted a right of entry upon and access to the Property at reasonable times and with reasonable notice to GRANTOR.

5. It is the intention of Grantor that the restrictions contained in this Declaration shall touch and concern the Property, run with the land and with the title to the Property, and shall apply to and be binding upon and inure to the benefit of Grantor and to the FDEP, and to any and all parties hereafter having any right, title or interest in the Property or any part thereof as provided by applicable law. The FDEP may enforce the terms and conditions of this Declaration by injunctive relief and other appropriate available legal remedies. Any forbearance on behalf of the FDEP to exercise its right in the event of the failure of the Grantor to comply with the provisions of this Declaration shall not be deemed or construed to be a waiver of the FDEP's rights hereunder. This Declaration shall continue in perpetuity, unless otherwise modified in writing by Grantor and the FDEP as provided in Paragraph 7 of this Declaration. These restrictions may also be enforced in a court of competent jurisdiction by any other person, firm, corporation, or governmental agency that is substantially benefited by this Declaration. If the Grantor does not or will not be able to comply with any or all of the provisions of this Declaration, the Grantor shall notify the FDEP in writing within three (3) calendar days. Additionally, Grantor shall notify FDEP thirty (30) days prior to any conveyance or sale, granting or transferring the Property, to any heirs, successors, assigns or grantees, including, without limitation, the conveyance of any security interest in said Property.

6. In order to ensure the perpetual nature of these restrictions, Grantor shall reference these restrictions in any subsequent lease or deed of conveyance, including the recording book and page of record of this Declaration. Furthermore, prior to the entry into a landlord-tenant relationship with respect to the Property, the Grantor agrees to notify in writing all proposed tenants of the Property of the existence and contents of this Declaration.

7. This Declaration is binding until a partial or full release of this Declaration is executed by the FDEP Secretary (or by the Secretary's designee) and by the Grantor and is recorded in the public records of the county in which the land is located. To receive prior approval from the FDEP to remove this Declaration or any requirement herein, applicable cleanup target levels established pursuant to Florida Statutes and FDEP rules must have been achieved at the Property. This Declaration may be modified in writing only. Any modification of or amendment to this Declaration must be executed by both the Grantor and the FDEP and be recorded by the Grantor as an amendment hereto.

8. If any provision of this Declaration is held to be invalid by any court of competent jurisdiction, the invalidity of that provision shall not affect the validity of any other provisions of the Declaration. All such other provisions shall continue unimpaired in full force and effect.

9. The Grantor covenants and represents that on the date of execution of this Declaration that the Grantor is seized of the Property in fee simple and has good right to create, establish, and impose this restrictive covenant on the use of the Property. The Grantor also covenants and warrants that the Property is free and clear of any and all liens, mortgages, or encumbrances that could impair GRANTOR'S rights to impose the restrictive covenant described in the Declaration.

[SIGNATURES APPEAR ON FOLLOWING PAGES]

IN WITNESS WHEREOF, the Grantor has executed this Declaration, this 24 day of February, 2016.

BY: The Utility Board of the City of Key West, Florida
d/b/a KEYS Energy Services
1001 James Street
Key West, FL 33040

Peter Batty, Chairman

Signed, sealed and delivered in the presence of:

Witness Date: 2/24/2016

Print Name: Lynne Tejeda

Witness Date: 2/24/2016

Print Name: Stanley Ward

NOTARY

STATE OF Florida)

COUNTY OF Monroe)

The foregoing instrument was acknowledged before me this 24 day of Feb, 2016, by Peter Batty.

Personally Known ✓ OR Produced Identification _____.

Type of Identification Produced _____.

Signature of Notary Public

Edee Gates-Delph
Print Name of Notary Public

EDEE GATES-DELPH
Notary Public - State of Florida
My Comm. Expires Jun 10, 2017
Commission # FF 25885

Commission No. FF 25885

Commission Expires: June 10, 2017

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
By:

JON IGLEHART,
Director of District Management

Dept. of Environmental Protection
South District
P O Box 2549
Fort Myers, Florida 33902-2549

Approved as to form by:

Toni Sturtevant, Asst. General Counsel
Florida Department of
Environmental Protection
Office of General Counsel

Signed, sealed, and delivered in
in the presence of:

Witness Signature

TERRANCE P. CERULLO
Printed Name

March 29, 2016
Date

Witness Signature

MARK SATTLER
Printed Name

3/29/2016
Date

STATE OF FLORIDA
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me this 29th day of March 2016, by JON IGLEHART, who is personally known to me.

Marie Vidrine
Notary Public, State of Florida at Large

MARIE VIDRINE
MY COMMISSION # EE856886
EXPIRES February 18, 2017
(407) 398-0153 FloridaNotaryService.com

Exhibit A

Exhibit A

Legal Description

Subdivisions Eight (8), Eleven (11), Twelve (12), Fifteen (15), Sixteen (16), Nineteen (19), Twenty (20), and Twenty-one (21) in Square Three (3) of Tract Three (3), according to a Diagram of Thomas J. Ashe's Subdivision recorded in Deed Book "I", Page 77 of the Public Records of Monroe County, Florida.

APPENDIX B

Equipment Pit Laboratory Analytical Report

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

May 22, 2024

Junnio Freixa
Resource Environmental Solutions (RES)-FTL
312 SE 17th Street
Suite 200
Fort Lauderdale, FL 33316

RE: Project: RUSH Keys Sampling
Pace Project No.: 35880484

Dear Junnio Freixa:

Enclosed are the analytical results for sample(s) received by the laboratory on May 17, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Yvette Prieto
yvette.prieto@pacelabs.com
(813)881-9401
Project Manager

Enclosures

cc: Lilian Arguello, Resource Environmental Solutions (RES)-FTL
Maria Paituvi, Resource Environmental Solutions (RES)-FTL

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

CERTIFICATIONS

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Pace Analytical Services Ormond Beach
8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
California Certification# 3096
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
DoD-ANAB #:ADE-3199
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Maryland Certification: #346
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Ohio DEP 87780
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

SAMPLE SUMMARY

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35880484001	**NE Pit**	Water	05/16/24 17:20	05/17/24 16:45
35880484002	**SE Pit**	Water	05/16/24 17:30	05/17/24 16:45

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

SAMPLE ANALYTE COUNT

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35880484001	**NE Pit**	FL-PRO	PKC	3	PASI-O
		EPA 6010	TMA	2	PASI-O
		EPA 8270 by SIM	BLB	20	PASI-O
		EPA 8260	AS4	57	PASI-O
35880484002	**SE Pit**	FL-PRO	PKC	3	PASI-O
		EPA 6010	TMA	2	PASI-O
		EPA 8270 by SIM	BLB	20	PASI-O
		EPA 8260	AS4	57	PASI-O

PASI-O = Pace Analytical Services - Ormond Beach

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

PROJECT NARRATIVE

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Method: **FL-PRO**
Description: FL-PRO Water, Low Volume
Client: Resource Environmental Solutions (RES)-FTL
Date: May 22, 2024

General Information:
2 samples were analyzed for FL-PRO by Pace Analytical Services Ormond Beach. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

QC Batch: 1012824

J(S0): Estimated Value. Surrogate recovery outside laboratory control limits.

- DUP (Lab ID: 5567281)
  - o-Terphenyl (S)
- MS (Lab ID: 5567280)
  - o-Terphenyl (S)

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 1012824

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 35880444005

J(M1): Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 5567280)
  - Petroleum Range Organics

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

PROJECT NARRATIVE

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Method: **FL-PRO**
Description: FL-PRO Water, Low Volume
Client: Resource Environmental Solutions (RES)-FTL
Date: May 22, 2024

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

PROJECT NARRATIVE

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Method: **EPA 6010**
Description: 6010 MET ICP
Client: Resource Environmental Solutions (RES)-FTL
Date: May 22, 2024

General Information:
2 samples were analyzed for EPA 6010 by Pace Analytical Services Ormond Beach. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Method: **EPA 8270 by SIM**
Description: 8270 MSSV PAHLV by SIM
Client: Resource Environmental Solutions (RES)-FTL
Date: May 22, 2024

General Information:
2 samples were analyzed for EPA 8270 by SIM by Pace Analytical Services Ormond Beach. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Method: **EPA 8260**
Description: 8260 MSV
Client: Resource Environmental Solutions (RES)-FTL
Date: May 22, 2024

General Information:
2 samples were analyzed for EPA 8260 by Pace Analytical Services Ormond Beach. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 1013478

J(v2): The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.

- BLANK (Lab ID: 5570175)
  - Bromomethane
- DUP (Lab ID: 5570177)
  - Bromomethane
- NE Pit (Lab ID: 35880484001)
  - Bromomethane
- SE Pit (Lab ID: 35880484002)
  - Bromomethane

J(v3): The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.

- LCS (Lab ID: 5570176)
  - Bromomethane
- MS (Lab ID: 5570178)
  - Bromomethane

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Method: **EPA 8260**
Description: 8260 MSV
Client: Resource Environmental Solutions (RES)-FTL
Date: May 22, 2024

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 1013478

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- BLANK (Lab ID: 5570175)
  - 1,2-Dichloroethene (Total)
- DUP (Lab ID: 5570177)
  - 1,2-Dichloroethene (Total)
- LCS (Lab ID: 5570176)
  - 1,2-Dichloroethene (Total)
- MS (Lab ID: 5570178)
  - 1,2-Dichloroethene (Total)
- NE Pit (Lab ID: 35880484001)
  - 1,2-Dichloroethene (Total)
- SE Pit (Lab ID: 35880484002)
  - 1,2-Dichloroethene (Total)

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Sample: NE Pit **Lab ID: 35880484001** Collected: 05/16/24 17:20 Received: 05/17/24 16:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume	Analytical Method: FL-PRO Preparation Method: EPA 3510 Pace Analytical Services - Ormond Beach								
Petroleum Range Organics	**1.7**	mg/L	1.1	0.84	1	05/19/24 13:00	05/20/24 14:28		
Surrogates									
o-Terphenyl (S)	99	%	66-139		1	05/19/24 13:00	05/20/24 14:28	84-15-1	
N-Pentatriacontane (S)	79	%	42-159		1	05/19/24 13:00	05/20/24 14:28	630-07-09	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Ormond Beach								
Arsenic	**16.0**	ug/L	10.0	3.4	1	05/19/24 11:05	05/21/24 13:52	7440-38-2	
Lead	**898**	ug/L	10.0	2.1	1	05/19/24 11:05	05/21/24 13:52	7439-92-1	
8270 MSSV PAHLV by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510 Pace Analytical Services - Ormond Beach								
Acenaphthene	**0.018 U**	ug/L	0.47	0.018	1	05/20/24 12:49	05/20/24 20:54	83-32-9	
Acenaphthylene	**0.029 U**	ug/L	0.47	0.029	1	05/20/24 12:49	05/20/24 20:54	208-96-8	
Anthracene	**0.019 U**	ug/L	0.47	0.019	1	05/20/24 12:49	05/20/24 20:54	120-12-7	
Benzo(a)anthracene	**0.037 I**	ug/L	0.095	0.019	1	05/20/24 12:49	05/20/24 20:54	56-55-3	
Benzo(a)pyrene	**0.046 I**	ug/L	0.19	0.020	1	05/20/24 12:49	05/20/24 20:54	50-32-8	
Benzo(b)fluoranthene	**0.13**	ug/L	0.095	0.026	1	05/20/24 12:49	05/20/24 20:54	205-99-2	
Benzo(g,h,i)perylene	**0.062 I**	ug/L	0.47	0.022	1	05/20/24 12:49	05/20/24 20:54	191-24-2	
Benzo(k)fluoranthene	**0.047 I**	ug/L	0.47	0.023	1	05/20/24 12:49	05/20/24 20:54	207-08-9	
Chrysene	**0.089 I**	ug/L	0.47	0.025	1	05/20/24 12:49	05/20/24 20:54	218-01-9	
Dibenz(a,h)anthracene	**0.024 U**	ug/L	0.14	0.024	1	05/20/24 12:49	05/20/24 20:54	53-70-3	
Fluoranthene	**0.17 I**	ug/L	0.47	0.017	1	05/20/24 12:49	05/20/24 20:54	206-44-0	
Fluorene	**0.016 U**	ug/L	0.47	0.016	1	05/20/24 12:49	05/20/24 20:54	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.047 I**	ug/L	0.14	0.023	1	05/20/24 12:49	05/20/24 20:54	193-39-5	
1-Methylnaphthalene	**0.037 U**	ug/L	1.9	0.037	1	05/20/24 12:49	05/20/24 20:54	90-12-0	
2-Methylnaphthalene	**0.065 U**	ug/L	1.9	0.065	1	05/20/24 12:49	05/20/24 20:54	91-57-6	
Naphthalene	**0.27 U**	ug/L	1.9	0.27	1	05/20/24 12:49	05/20/24 20:54	91-20-3	
Phenanthrene	**0.094 I**	ug/L	0.47	0.018	1	05/20/24 12:49	05/20/24 20:54	85-01-8	
Pyrene	**0.15 I**	ug/L	0.47	0.030	1	05/20/24 12:49	05/20/24 20:54	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	61	%	32-100		1	05/20/24 12:49	05/20/24 20:54	321-60-8	
p-Terphenyl-d14 (S)	75	%	48-112		1	05/20/24 12:49	05/20/24 20:54	1718-51-0	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Ormond Beach								
Acetone	**8.7 U**	ug/L	25.0	8.7	1		05/22/24 06:42	67-64-1	
Acetonitrile	**12.2 U**	ug/L	50.0	12.2	1		05/22/24 06:42	75-05-8	
Benzene	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 06:42	71-43-2	
Bromochloromethane	**0.37 U**	ug/L	1.0	0.37	1		05/22/24 06:42	74-97-5	
Bromodichloromethane	**0.19 U**	ug/L	1.0	0.19	1		05/22/24 06:42	75-27-4	
Bromoform	**0.48 U**	ug/L	3.0	0.48	1		05/22/24 06:42	75-25-2	
Bromomethane	**3.9 U**	ug/L	10.0	3.9	1		05/22/24 06:42	74-83-9	J(v2)
2-Butanone (MEK)	**6.7 U**	ug/L	50.0	6.7	1		05/22/24 06:42	78-93-3	
Carbon disulfide	**1.8 U**	ug/L	10.0	1.8	1		05/22/24 06:42	75-15-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

ANALYTICAL RESULTS

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Sample: NE Pit **Lab ID: 35880484001** Collected: 05/16/24 17:20 Received: 05/17/24 16:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Ormond Beach								
Carbon tetrachloride	**0.44 U**	ug/L	3.0	0.44	1		05/22/24 06:42	56-23-5	
Chlorobenzene	**0.35 U**	ug/L	1.0	0.35	1		05/22/24 06:42	108-90-7	
Chloroethane	**3.7 U**	ug/L	10.0	3.7	1		05/22/24 06:42	75-00-3	
Chloroform	**0.56 U**	ug/L	1.0	0.56	1		05/22/24 06:42	67-66-3	
Chloromethane	**0.43 U**	ug/L	1.0	0.43	1		05/22/24 06:42	74-87-3	
1,2-Dibromo-3-chloropropane	**1.9 U**	ug/L	5.0	1.9	1		05/22/24 06:42	96-12-8	
Dibromochloromethane	**0.45 U**	ug/L	2.0	0.45	1		05/22/24 06:42	124-48-1	
1,2-Dibromoethane (EDB)	**0.31 U**	ug/L	1.0	0.31	1		05/22/24 06:42	106-93-4	
Dibromomethane	**0.68 U**	ug/L	2.0	0.68	1		05/22/24 06:42	74-95-3	
1,2-Dichlorobenzene	**0.60 U**	ug/L	1.0	0.60	1		05/22/24 06:42	95-50-1	
1,4-Dichlorobenzene	**0.28 U**	ug/L	1.0	0.28	1		05/22/24 06:42	106-46-7	
trans-1,4-Dichloro-2-butene	**2.5 U**	ug/L	10.0	2.5	1		05/22/24 06:42	110-57-6	
1,1-Dichloroethane	**0.34 U**	ug/L	1.0	0.34	1		05/22/24 06:42	75-34-3	
1,2-Dichloroethane	**0.27 U**	ug/L	1.0	0.27	1		05/22/24 06:42	107-06-2	
1,2-Dichloroethene (Total)	**0.27 U**	ug/L	1.0	0.27	1		05/22/24 06:42	540-59-0	N2
1,1-Dichloroethene	**0.59 U**	ug/L	1.0	0.59	1		05/22/24 06:42	75-35-4	
cis-1,2-Dichloroethene	**0.27 U**	ug/L	1.0	0.27	1		05/22/24 06:42	156-59-2	
trans-1,2-Dichloroethene	**0.23 U**	ug/L	1.0	0.23	1		05/22/24 06:42	156-60-5	
1,2-Dichloropropane	**0.23 U**	ug/L	1.0	0.23	1		05/22/24 06:42	78-87-5	
cis-1,3-Dichloropropene	**0.17 U**	ug/L	1.0	0.17	1		05/22/24 06:42	10061-01-5	
trans-1,3-Dichloropropene	**0.37 U**	ug/L	1.0	0.37	1		05/22/24 06:42	10061-02-6	
Ethylbenzene	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 06:42	100-41-4	
2-Hexanone	**6.6 U**	ug/L	25.0	6.6	1		05/22/24 06:42	591-78-6	
Iodomethane	**3.6 U**	ug/L	10.0	3.6	1		05/22/24 06:42	74-88-4	
Isopropylbenzene (Cumene)	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 06:42	98-82-8	
Methylene Chloride	**1.7 U**	ug/L	5.0	1.7	1		05/22/24 06:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	**7.5 U**	ug/L	25.0	7.5	1		05/22/24 06:42	108-10-1	
Methyl-tert-butyl ether	**1.2 U**	ug/L	5.0	1.2	1		05/22/24 06:42	1634-04-4	
Styrene	**0.26 U**	ug/L	1.0	0.26	1		05/22/24 06:42	100-42-5	
1,1,1,2-Tetrachloroethane	**0.32 U**	ug/L	1.0	0.32	1		05/22/24 06:42	630-20-6	
1,1,2,2-Tetrachloroethane	**0.59 U**	ug/L	1.0	0.59	1		05/22/24 06:42	79-34-5	
Tetrachloroethene	**0.38 U**	ug/L	1.0	0.38	1		05/22/24 06:42	127-18-4	
Toluene	**0.33 U**	ug/L	1.0	0.33	1		05/22/24 06:42	108-88-3	
1,1,1-Trichloroethane	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 06:42	71-55-6	
1,1,2-Trichloroethane	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 06:42	79-00-5	
Trichloroethene	**0.36 U**	ug/L	1.0	0.36	1		05/22/24 06:42	79-01-6	
Trichlorofluoromethane	**0.72 U**	ug/L	1.0	0.72	1		05/22/24 06:42	75-69-4	
1,2,3-Trichloropropane	**0.53 U**	ug/L	2.0	0.53	1		05/22/24 06:42	96-18-4	
1,2,4-Trimethylbenzene	**0.24 U**	ug/L	1.0	0.24	1		05/22/24 06:42	95-63-6	
1,3,5-Trimethylbenzene	**0.24 U**	ug/L	1.0	0.24	1		05/22/24 06:42	108-67-8	
Vinyl acetate	**1.8 U**	ug/L	10.0	1.8	1		05/22/24 06:42	108-05-4	
Vinyl chloride	**0.39 U**	ug/L	1.0	0.39	1		05/22/24 06:42	75-01-4	
Xylene (Total)	**2.1 U**	ug/L	5.0	2.1	1		05/22/24 06:42	1330-20-7	
m&p-Xylene	**0.75 U**	ug/L	4.0	0.75	1		05/22/24 06:42	179601-23-1	
o-Xylene	**0.57 U**	ug/L	1.0	0.57	1		05/22/24 06:42	95-47-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

ANALYTICAL RESULTS

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Sample: NE Pit **Lab ID: 35880484001** Collected: 05/16/24 17:20 Received: 05/17/24 16:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Ormond Beach								
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130		1		05/22/24 06:42	460-00-4	
Toluene-d8 (S)	100	%	70-130		1		05/22/24 06:42	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		05/22/24 06:42	2199-69-1	

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ANALYTICAL RESULTS

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Sample: SE Pit **Lab ID: 35880484002** Collected: 05/16/24 17:30 Received: 05/17/24 16:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume	Analytical Method: FL-PRO Preparation Method: EPA 3510 Pace Analytical Services - Ormond Beach								
Petroleum Range Organics	**54.4**	mg/L	9.3	7.5	10	05/19/24 13:00	05/21/24 10:04		
Surrogates									
o-Terphenyl (S)	89	%	66-139		1	05/19/24 13:00	05/20/24 14:41	84-15-1	
N-Pentatriacontane (S)	80	%	42-159		1	05/19/24 13:00	05/20/24 14:41	630-07-09	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Ormond Beach								
Arsenic	**3.4 U**	ug/L	10.0	3.4	1	05/19/24 11:05	05/21/24 13:55	7440-38-2	
Lead	**82.6**	ug/L	10.0	2.1	1	05/19/24 11:05	05/21/24 13:55	7439-92-1	
8270 MSSV PAHLV by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510 Pace Analytical Services - Ormond Beach								
Acenaphthene	**0.018 U**	ug/L	0.48	0.018	1	05/20/24 12:49	05/20/24 21:17	83-32-9	
Acenaphthylene	**0.030 U**	ug/L	0.48	0.030	1	05/20/24 12:49	05/20/24 21:17	208-96-8	
Anthracene	**0.025 I**	ug/L	0.48	0.019	1	05/20/24 12:49	05/20/24 21:17	120-12-7	
Benzo(a)anthracene	**0.019 U**	ug/L	0.097	0.019	1	05/20/24 12:49	05/20/24 21:17	56-55-3	
Benzo(a)pyrene	**0.020 U**	ug/L	0.19	0.020	1	05/20/24 12:49	05/20/24 21:17	50-32-8	
Benzo(b)fluoranthene	**0.026 U**	ug/L	0.097	0.026	1	05/20/24 12:49	05/20/24 21:17	205-99-2	
Benzo(g,h,i)perylene	**0.022 U**	ug/L	0.48	0.022	1	05/20/24 12:49	05/20/24 21:17	191-24-2	
Benzo(k)fluoranthene	**0.023 U**	ug/L	0.48	0.023	1	05/20/24 12:49	05/20/24 21:17	207-08-9	
Chrysene	**0.025 U**	ug/L	0.48	0.025	1	05/20/24 12:49	05/20/24 21:17	218-01-9	
Dibenz(a,h)anthracene	**0.024 U**	ug/L	0.15	0.024	1	05/20/24 12:49	05/20/24 21:17	53-70-3	
Fluoranthene	**0.017 U**	ug/L	0.48	0.017	1	05/20/24 12:49	05/20/24 21:17	206-44-0	
Fluorene	**0.016 U**	ug/L	0.48	0.016	1	05/20/24 12:49	05/20/24 21:17	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.023 U**	ug/L	0.15	0.023	1	05/20/24 12:49	05/20/24 21:17	193-39-5	
1-Methylnaphthalene	**0.038 U**	ug/L	1.9	0.038	1	05/20/24 12:49	05/20/24 21:17	90-12-0	
2-Methylnaphthalene	**0.066 U**	ug/L	1.9	0.066	1	05/20/24 12:49	05/20/24 21:17	91-57-6	
Naphthalene	**0.28 U**	ug/L	1.9	0.28	1	05/20/24 12:49	05/20/24 21:17	91-20-3	
Phenanthrene	**0.018 U**	ug/L	0.48	0.018	1	05/20/24 12:49	05/20/24 21:17	85-01-8	
Pyrene	**0.031 U**	ug/L	0.48	0.031	1	05/20/24 12:49	05/20/24 21:17	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	62	%	32-100		1	05/20/24 12:49	05/20/24 21:17	321-60-8	
p-Terphenyl-d14 (S)	71	%	48-112		1	05/20/24 12:49	05/20/24 21:17	1718-51-0	
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Ormond Beach								
Acetone	**8.7 U**	ug/L	25.0	8.7	1		05/22/24 07:03	67-64-1	
Acetonitrile	**12.2 U**	ug/L	50.0	12.2	1		05/22/24 07:03	75-05-8	
Benzene	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 07:03	71-43-2	
Bromochloromethane	**0.37 U**	ug/L	1.0	0.37	1		05/22/24 07:03	74-97-5	
Bromodichloromethane	**0.19 U**	ug/L	1.0	0.19	1		05/22/24 07:03	75-27-4	
Bromoform	**0.48 U**	ug/L	3.0	0.48	1		05/22/24 07:03	75-25-2	
Bromomethane	**3.9 U**	ug/L	10.0	3.9	1		05/22/24 07:03	74-83-9	J(v2)
2-Butanone (MEK)	**6.7 U**	ug/L	50.0	6.7	1		05/22/24 07:03	78-93-3	
Carbon disulfide	**1.8 U**	ug/L	10.0	1.8	1		05/22/24 07:03	75-15-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

ANALYTICAL RESULTS

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Sample: SE Pit **Lab ID: 35880484002** Collected: 05/16/24 17:30 Received: 05/17/24 16:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Ormond Beach								
Carbon tetrachloride	**0.44 U**	ug/L	3.0	0.44	1		05/22/24 07:03	56-23-5	
Chlorobenzene	**0.35 U**	ug/L	1.0	0.35	1		05/22/24 07:03	108-90-7	
Chloroethane	**3.7 U**	ug/L	10.0	3.7	1		05/22/24 07:03	75-00-3	
Chloroform	**0.56 U**	ug/L	1.0	0.56	1		05/22/24 07:03	67-66-3	
Chloromethane	**0.43 U**	ug/L	1.0	0.43	1		05/22/24 07:03	74-87-3	
1,2-Dibromo-3-chloropropane	**1.9 U**	ug/L	5.0	1.9	1		05/22/24 07:03	96-12-8	
Dibromochloromethane	**0.45 U**	ug/L	2.0	0.45	1		05/22/24 07:03	124-48-1	
1,2-Dibromoethane (EDB)	**0.31 U**	ug/L	1.0	0.31	1		05/22/24 07:03	106-93-4	
Dibromomethane	**0.68 U**	ug/L	2.0	0.68	1		05/22/24 07:03	74-95-3	
1,2-Dichlorobenzene	**0.60 U**	ug/L	1.0	0.60	1		05/22/24 07:03	95-50-1	
1,4-Dichlorobenzene	**0.28 U**	ug/L	1.0	0.28	1		05/22/24 07:03	106-46-7	
trans-1,4-Dichloro-2-butene	**2.5 U**	ug/L	10.0	2.5	1		05/22/24 07:03	110-57-6	
1,1-Dichloroethane	**0.34 U**	ug/L	1.0	0.34	1		05/22/24 07:03	75-34-3	
1,2-Dichloroethane	**0.27 U**	ug/L	1.0	0.27	1		05/22/24 07:03	107-06-2	
1,2-Dichloroethene (Total)	**0.27 U**	ug/L	1.0	0.27	1		05/22/24 07:03	540-59-0	N2
1,1-Dichloroethene	**0.59 U**	ug/L	1.0	0.59	1		05/22/24 07:03	75-35-4	
cis-1,2-Dichloroethene	**0.27 U**	ug/L	1.0	0.27	1		05/22/24 07:03	156-59-2	
trans-1,2-Dichloroethene	**0.23 U**	ug/L	1.0	0.23	1		05/22/24 07:03	156-60-5	
1,2-Dichloropropane	**0.23 U**	ug/L	1.0	0.23	1		05/22/24 07:03	78-87-5	
cis-1,3-Dichloropropene	**0.17 U**	ug/L	1.0	0.17	1		05/22/24 07:03	10061-01-5	
trans-1,3-Dichloropropene	**0.37 U**	ug/L	1.0	0.37	1		05/22/24 07:03	10061-02-6	
Ethylbenzene	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 07:03	100-41-4	
2-Hexanone	**6.6 U**	ug/L	25.0	6.6	1		05/22/24 07:03	591-78-6	
Iodomethane	**3.6 U**	ug/L	10.0	3.6	1		05/22/24 07:03	74-88-4	
Isopropylbenzene (Cumene)	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 07:03	98-82-8	
Methylene Chloride	**1.7 U**	ug/L	5.0	1.7	1		05/22/24 07:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	**7.5 U**	ug/L	25.0	7.5	1		05/22/24 07:03	108-10-1	
Methyl-tert-butyl ether	**1.2 U**	ug/L	5.0	1.2	1		05/22/24 07:03	1634-04-4	
Styrene	**0.26 U**	ug/L	1.0	0.26	1		05/22/24 07:03	100-42-5	
1,1,1,2-Tetrachloroethane	**0.32 U**	ug/L	1.0	0.32	1		05/22/24 07:03	630-20-6	
1,1,2,2-Tetrachloroethane	**0.59 U**	ug/L	1.0	0.59	1		05/22/24 07:03	79-34-5	
Tetrachloroethene	**0.38 U**	ug/L	1.0	0.38	1		05/22/24 07:03	127-18-4	
Toluene	**0.33 U**	ug/L	1.0	0.33	1		05/22/24 07:03	108-88-3	
1,1,1-Trichloroethane	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 07:03	71-55-6	
1,1,2-Trichloroethane	**0.30 U**	ug/L	1.0	0.30	1		05/22/24 07:03	79-00-5	
Trichloroethene	**0.36 U**	ug/L	1.0	0.36	1		05/22/24 07:03	79-01-6	
Trichlorofluoromethane	**0.72 U**	ug/L	1.0	0.72	1		05/22/24 07:03	75-69-4	
1,2,3-Trichloropropane	**0.53 U**	ug/L	2.0	0.53	1		05/22/24 07:03	96-18-4	
1,2,4-Trimethylbenzene	**0.24 U**	ug/L	1.0	0.24	1		05/22/24 07:03	95-63-6	
1,3,5-Trimethylbenzene	**0.24 U**	ug/L	1.0	0.24	1		05/22/24 07:03	108-67-8	
Vinyl acetate	**1.8 U**	ug/L	10.0	1.8	1		05/22/24 07:03	108-05-4	
Vinyl chloride	**0.39 U**	ug/L	1.0	0.39	1		05/22/24 07:03	75-01-4	
Xylene (Total)	**2.1 U**	ug/L	5.0	2.1	1		05/22/24 07:03	1330-20-7	
m&p-Xylene	**0.75 U**	ug/L	4.0	0.75	1		05/22/24 07:03	179601-23-1	
o-Xylene	**0.57 U**	ug/L	1.0	0.57	1		05/22/24 07:03	95-47-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

ANALYTICAL RESULTS

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Sample: SE Pit **Lab ID: 35880484002** Collected: 05/16/24 17:30 Received: 05/17/24 16:45 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260 Pace Analytical Services - Ormond Beach								
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130		1		05/22/24 07:03	460-00-4	
Toluene-d8 (S)	101	%	70-130		1		05/22/24 07:03	2037-26-5	
1,2-Dichlorobenzene-d4 (S)	100	%	70-130		1		05/22/24 07:03	2199-69-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

QC Batch: 1012841
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35880484001, 35880484002

METHOD BLANK: 5567309 Matrix: Water
Associated Lab Samples: 35880484001, 35880484002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	3.4 U	10.0	3.4	05/21/24 09:54	
Lead	ug/L	2.1 U	10.0	2.1	05/21/24 09:54	

LABORATORY CONTROL SAMPLE: 5567310

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	250	247	99	80-120	
Lead	ug/L	250	262	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5567311 5567312

Parameter	Units	35880165004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	3.4 U	250	250	240	238	96	95	75-125	1	20	
Lead	ug/L	6.6 I	250	250	261	260	102	101	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

QC Batch: 1013478
QC Batch Method: EPA 8260
Analysis Method: EPA 8260
Analysis Description: 8260 MSV
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35880484001, 35880484002

METHOD BLANK: 5570175 Matrix: Water
Associated Lab Samples: 35880484001, 35880484002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.32 U	1.0	0.32	05/22/24 01:16	
1,1,1-Trichloroethane	ug/L	0.30 U	1.0	0.30	05/22/24 01:16	
1,1,2,2-Tetrachloroethane	ug/L	0.59 U	1.0	0.59	05/22/24 01:16	
1,1,2-Trichloroethane	ug/L	0.30 U	1.0	0.30	05/22/24 01:16	
1,1-Dichloroethane	ug/L	0.34 U	1.0	0.34	05/22/24 01:16	
1,1-Dichloroethene	ug/L	0.59 U	1.0	0.59	05/22/24 01:16	
1,2,3-Trichloropropane	ug/L	0.53 U	2.0	0.53	05/22/24 01:16	
1,2,4-Trimethylbenzene	ug/L	0.24 U	1.0	0.24	05/22/24 01:16	
1,2-Dibromo-3-chloropropane	ug/L	1.9 U	5.0	1.9	05/22/24 01:16	
1,2-Dibromoethane (EDB)	ug/L	0.31 U	1.0	0.31	05/22/24 01:16	
1,2-Dichlorobenzene	ug/L	0.60 U	1.0	0.60	05/22/24 01:16	
1,2-Dichloroethane	ug/L	0.27 U	1.0	0.27	05/22/24 01:16	
1,2-Dichloroethene (Total)	ug/L	0.27 U	1.0	0.27	05/22/24 01:16	N2
1,2-Dichloropropane	ug/L	0.23 U	1.0	0.23	05/22/24 01:16	
1,3,5-Trimethylbenzene	ug/L	0.24 U	1.0	0.24	05/22/24 01:16	
1,4-Dichlorobenzene	ug/L	0.28 U	1.0	0.28	05/22/24 01:16	
2-Butanone (MEK)	ug/L	6.7 U	50.0	6.7	05/22/24 01:16	
2-Hexanone	ug/L	6.6 U	25.0	6.6	05/22/24 01:16	
4-Methyl-2-pentanone (MIBK)	ug/L	7.5 U	25.0	7.5	05/22/24 01:16	
Acetone	ug/L	8.7 U	25.0	8.7	05/22/24 01:16	
Acetonitrile	ug/L	12.2 U	50.0	12.2	05/22/24 01:16	
Benzene	ug/L	0.30 U	1.0	0.30	05/22/24 01:16	
Bromochloromethane	ug/L	0.37 U	1.0	0.37	05/22/24 01:16	
Bromodichloromethane	ug/L	0.19 U	1.0	0.19	05/22/24 01:16	
Bromoform	ug/L	0.48 U	3.0	0.48	05/22/24 01:16	
Bromomethane	ug/L	3.9 U	10.0	3.9	05/22/24 01:16	J(v2)
Carbon disulfide	ug/L	1.8 U	10.0	1.8	05/22/24 01:16	
Carbon tetrachloride	ug/L	0.44 U	3.0	0.44	05/22/24 01:16	
Chlorobenzene	ug/L	0.35 U	1.0	0.35	05/22/24 01:16	
Chloroethane	ug/L	3.7 U	10.0	3.7	05/22/24 01:16	
Chloroform	ug/L	0.56 U	1.0	0.56	05/22/24 01:16	
Chloromethane	ug/L	0.43 U	1.0	0.43	05/22/24 01:16	
cis-1,2-Dichloroethene	ug/L	0.27 U	1.0	0.27	05/22/24 01:16	
cis-1,3-Dichloropropene	ug/L	0.17 U	1.0	0.17	05/22/24 01:16	
Dibromochloromethane	ug/L	0.45 U	2.0	0.45	05/22/24 01:16	
Dibromomethane	ug/L	0.68 U	2.0	0.68	05/22/24 01:16	
Ethylbenzene	ug/L	0.30 U	1.0	0.30	05/22/24 01:16	
Iodomethane	ug/L	3.6 U	10.0	3.6	05/22/24 01:16	
Isopropylbenzene (Cumene)	ug/L	0.30 U	1.0	0.30	05/22/24 01:16	
m&p-Xylene	ug/L	0.75 U	4.0	0.75	05/22/24 01:16	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

METHOD BLANK: 5570175 Matrix: Water
Associated Lab Samples: 35880484001, 35880484002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Methyl-tert-butyl ether	ug/L	1.2 U	5.0	1.2	05/22/24 01:16	
Methylene Chloride	ug/L	1.7 U	5.0	1.7	05/22/24 01:16	
o-Xylene	ug/L	0.57 U	1.0	0.57	05/22/24 01:16	
Styrene	ug/L	0.26 U	1.0	0.26	05/22/24 01:16	
Tetrachloroethene	ug/L	0.38 U	1.0	0.38	05/22/24 01:16	
Toluene	ug/L	0.33 U	1.0	0.33	05/22/24 01:16	
trans-1,2-Dichloroethene	ug/L	0.23 U	1.0	0.23	05/22/24 01:16	
trans-1,3-Dichloropropene	ug/L	0.37 U	1.0	0.37	05/22/24 01:16	
trans-1,4-Dichloro-2-butene	ug/L	2.5 U	10.0	2.5	05/22/24 01:16	
Trichloroethene	ug/L	0.36 U	1.0	0.36	05/22/24 01:16	
Trichlorofluoromethane	ug/L	0.72 U	1.0	0.72	05/22/24 01:16	
Vinyl acetate	ug/L	1.8 U	10.0	1.8	05/22/24 01:16	
Vinyl chloride	ug/L	0.39 U	1.0	0.39	05/22/24 01:16	
Xylene (Total)	ug/L	2.1 U	5.0	2.1	05/22/24 01:16	
1,2-Dichlorobenzene-d4 (S)	%	99	70-130		05/22/24 01:16	
4-Bromofluorobenzene (S)	%	103	70-130		05/22/24 01:16	
Toluene-d8 (S)	%	100	70-130		05/22/24 01:16	

LABORATORY CONTROL SAMPLE: 5570176

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.3	106	70-130	
1,1,1-Trichloroethane	ug/L	20	20.8	104	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	20.2	101	68-125	
1,1,2-Trichloroethane	ug/L	20	21.5	107	70-130	
1,1-Dichloroethane	ug/L	20	20.4	102	70-130	
1,1-Dichloroethene	ug/L	20	18.9	94	66-133	
1,2,3-Trichloropropane	ug/L	20	19.8	99	62-127	
1,2,4-Trimethylbenzene	ug/L	20	20.5	102	70-130	
1,2-Dibromo-3-chloropropane	ug/L	20	18.2	91	45-137	
1,2-Dibromoethane (EDB)	ug/L	20	22.6	113	70-130	
1,2-Dichlorobenzene	ug/L	20	19.7	98	70-130	
1,2-Dichloroethane	ug/L	20	19.3	96	70-130	
1,2-Dichloroethene (Total)	ug/L	40	39.8	99	70-130	N2
1,2-Dichloropropane	ug/L	20	21.4	107	70-130	
1,3,5-Trimethylbenzene	ug/L	20	20.5	103	70-130	
1,4-Dichlorobenzene	ug/L	20	20.6	103	70-130	
2-Butanone (MEK)	ug/L	100	113	113	47-143	
2-Hexanone	ug/L	100	108	108	48-145	
4-Methyl-2-pentanone (MIBK)	ug/L	100	109	109	57-132	
Acetone	ug/L	100	84.1	84	46-148	
Acetonitrile	ug/L	100	116	116	33-175	
Benzene	ug/L	20	20.8	104	70-130	
Bromochloromethane	ug/L	20	23.0	115	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

LABORATORY CONTROL SAMPLE: 5570176

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromodichloromethane	ug/L	20	21.4	107	70-130	
Bromoform	ug/L	20	19.4	97	49-126	
Bromomethane	ug/L	20	15.6	78	10-165	J(v3)
Carbon disulfide	ug/L	20	19.6	98	60-141	
Carbon tetrachloride	ug/L	20	19.9	99	63-126	
Chlorobenzene	ug/L	20	21.4	107	70-130	
Chloroethane	ug/L	20	17.7	89	71-142	
Chloroform	ug/L	20	21.3	106	70-130	
Chloromethane	ug/L	20	20.0	100	40-140	
cis-1,2-Dichloroethene	ug/L	20	21.0	105	70-130	
cis-1,3-Dichloropropene	ug/L	20	21.0	105	70-130	
Dibromochloromethane	ug/L	20	21.7	109	62-118	
Dibromomethane	ug/L	20	22.3	112	70-130	
Ethylbenzene	ug/L	20	20.7	104	70-130	
Iodomethane	ug/L	20	16.9	85	10-164	
Isopropylbenzene (Cumene)	ug/L	20	21.4	107	70-130	
m&p-Xylene	ug/L	40	41.8	105	70-130	
Methyl-tert-butyl ether	ug/L	20	18.6	93	64-124	
Methylene Chloride	ug/L	20	18.3	91	65-136	
o-Xylene	ug/L	20	21.1	106	70-130	
Styrene	ug/L	20	21.2	106	70-130	
Tetrachloroethene	ug/L	20	21.9	109	64-134	
Toluene	ug/L	20	21.1	105	70-130	
trans-1,2-Dichloroethene	ug/L	20	18.8	94	68-127	
trans-1,3-Dichloropropene	ug/L	20	20.4	102	65-121	
trans-1,4-Dichloro-2-butene	ug/L	20	17.4	87	42-129	
Trichloroethene	ug/L	20	21.2	106	70-130	
Trichlorofluoromethane	ug/L	20	17.0	85	65-135	
Vinyl acetate	ug/L	20	21.6	108	60-144	
Vinyl chloride	ug/L	20	17.8	89	68-131	
Xylene (Total)	ug/L	60	62.9	105	70-130	
1,2-Dichlorobenzene-d4 (S)	%			99	70-130	
4-Bromofluorobenzene (S)	%			106	70-130	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE SAMPLE: 5570178

Parameter	Units	35880778011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.32 U	20	21.4	107	70-130	
1,1,1-Trichloroethane	ug/L	0.30 U	20	22.6	113	70-130	
1,1,2,2-Tetrachloroethane	ug/L	0.59 U	20	20.2	101	68-125	
1,1,2-Trichloroethane	ug/L	0.30 U	20	21.6	108	70-130	
1,1-Dichloroethane	ug/L	0.34 U	20	23.2	116	70-130	
1,1-Dichloroethene	ug/L	0.59 U	20	20.7	103	66-133	
1,2,3-Trichloropropane	ug/L	0.53 U	20	19.2	96	62-127	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

MATRIX SPIKE SAMPLE: 5570178

Parameter	Units	35880778011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	0.24 U	20	18.9	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	1.9 U	20	17.1	86	45-137	
1,2-Dibromoethane (EDB)	ug/L	0.31 U	20	22.4	112	70-130	
1,2-Dichlorobenzene	ug/L	0.60 U	20	18.2	91	70-130	
1,2-Dichloroethane	ug/L	0.27 U	20	19.6	98	70-130	
1,2-Dichloroethene (Total)	ug/L	0.27 U	40	43.2	108	70-130	N2
1,2-Dichloropropane	ug/L	0.23 U	20	22.2	111	70-130	
1,3,5-Trimethylbenzene	ug/L	0.24 U	20	18.8	94	70-130	
1,4-Dichlorobenzene	ug/L	0.28 U	20	18.6	93	70-130	
2-Butanone (MEK)	ug/L	6.7 U	100	106	106	47-143	
2-Hexanone	ug/L	6.6 U	100	104	104	48-145	
4-Methyl-2-pentanone (MIBK)	ug/L	7.5 U	100	109	109	57-132	
Acetone	ug/L	8.7 U	100	78.0	78	46-148	
Acetonitrile	ug/L	12.2 U	100	97.6	98	33-175	
Benzene	ug/L	0.30 U	20	22.2	111	70-130	
Bromochloromethane	ug/L	0.37 U	20	22.0	110	70-130	
Bromodichloromethane	ug/L	0.19 U	20	22.6	113	70-130	
Bromoform	ug/L	0.48 U	20	17.5	87	49-126	
Bromomethane	ug/L	3.9 U	20	4.9 I	25	10-165	J(v3)
Carbon disulfide	ug/L	1.8 U	20	21.2	106	60-141	
Carbon tetrachloride	ug/L	0.44 U	20	21.4	107	63-126	
Chlorobenzene	ug/L	0.35 U	20	21.2	106	70-130	
Chloroethane	ug/L	3.7 U	20	18.6	93	71-142	
Chloroform	ug/L	0.56 U	20	22.0	110	70-130	
Chloromethane	ug/L	0.43 U	20	18.6	93	40-140	
cis-1,2-Dichloroethene	ug/L	0.27 U	20	22.3	111	70-130	
cis-1,3-Dichloropropene	ug/L	0.17 U	20	20.6	103	70-130	
Dibromochloromethane	ug/L	0.45 U	20	20.9	104	62-118	
Dibromomethane	ug/L	0.68 U	20	22.5	112	70-130	
Ethylbenzene	ug/L	0.30 U	20	20.2	101	70-130	
Iodomethane	ug/L	3.6 U	20	3.7 I	19	10-164	
Isopropylbenzene (Cumene)	ug/L	0.30 U	20	20.1	100	70-130	
m&p-Xylene	ug/L	0.75 U	40	40.2	100	70-130	
Methyl-tert-butyl ether	ug/L	1.2 U	20	18.9	94	64-124	
Methylene Chloride	ug/L	1.7 U	20	18.0	90	65-136	
o-Xylene	ug/L	0.57 U	20	20.6	103	70-130	
Styrene	ug/L	0.26 U	20	20.6	103	70-130	
Tetrachloroethene	ug/L	0.38 U	20	20.3	101	64-134	
Toluene	ug/L	0.33 U	20	21.5	108	70-130	
trans-1,2-Dichloroethene	ug/L	0.23 U	20	20.9	104	68-127	
trans-1,3-Dichloropropene	ug/L	0.37 U	20	19.7	99	65-121	
trans-1,4-Dichloro-2-butene	ug/L	2.5 U	20	14.7	73	42-129	
Trichloroethene	ug/L	0.36 U	20	21.7	108	70-130	
Trichlorofluoromethane	ug/L	0.72 U	20	18.6	93	65-135	
Vinyl acetate	ug/L	1.8 U	20	19.4	97	60-144	
Vinyl chloride	ug/L	0.39 U	20	19.1	96	68-131	
Xylene (Total)	ug/L	2.1 U	60	60.7	101	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

MATRIX SPIKE SAMPLE: 5570178

Parameter	Units	35880778011 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,2-Dichlorobenzene-d4 (S)	%				99	70-130	
4-Bromofluorobenzene (S)	%				104	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 5570177

Parameter	Units	35880778010 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.32 U	0.32 U		40	
1,1,1-Trichloroethane	ug/L	0.30 U	0.30 U		40	
1,1,2,2-Tetrachloroethane	ug/L	0.59 U	0.59 U		40	
1,1,2-Trichloroethane	ug/L	0.30 U	0.30 U		40	
1,1-Dichloroethane	ug/L	0.34 U	0.34 U		40	
1,1-Dichloroethene	ug/L	0.59 U	0.59 U		40	
1,2,3-Trichloropropane	ug/L	0.53 U	0.53 U		40	
1,2,4-Trimethylbenzene	ug/L	0.24 U	0.24 U		40	
1,2-Dibromo-3-chloropropane	ug/L	1.9 U	1.9 U		40	
1,2-Dibromoethane (EDB)	ug/L	0.31 U	0.31 U		40	
1,2-Dichlorobenzene	ug/L	0.60 U	0.60 U		40	
1,2-Dichloroethane	ug/L	0.27 U	0.27 U		40	
1,2-Dichloroethene (Total)	ug/L	0.27 U	0.27 U		40	N2
1,2-Dichloropropane	ug/L	0.23 U	0.23 U		40	
1,3,5-Trimethylbenzene	ug/L	0.24 U	0.24 U		40	
1,4-Dichlorobenzene	ug/L	0.28 U	0.28 U		40	
2-Butanone (MEK)	ug/L	6.7 U	6.7 U		40	
2-Hexanone	ug/L	6.6 U	6.6 U		40	
4-Methyl-2-pentanone (MIBK)	ug/L	7.5 U	7.5 U		40	
Acetone	ug/L	8.7 U	8.7 U		40	
Acetonitrile	ug/L	12.2 U	12.2 U		40	
Benzene	ug/L	0.30 U	0.30 U		40	
Bromochloromethane	ug/L	0.37 U	0.37 U		40	
Bromodichloromethane	ug/L	0.19 U	0.19 U		40	
Bromoform	ug/L	0.48 U	0.48 U		40	
Bromomethane	ug/L	3.9 U	3.9 U		40	J(v2)
Carbon disulfide	ug/L	1.8 U	1.8 U		40	
Carbon tetrachloride	ug/L	0.44 U	0.44 U		40	
Chlorobenzene	ug/L	0.35 U	0.35 U		40	
Chloroethane	ug/L	3.7 U	3.7 U		40	
Chloroform	ug/L	0.56 U	0.56 U		40	
Chloromethane	ug/L	0.43 U	0.43 U		40	
cis-1,2-Dichloroethene	ug/L	0.27 U	0.27 U		40	
cis-1,3-Dichloropropene	ug/L	0.17 U	0.17 U		40	
Dibromochloromethane	ug/L	0.45 U	0.45 U		40	
Dibromomethane	ug/L	0.68 U	0.68 U		40	
Ethylbenzene	ug/L	0.30 U	0.30 U		40	
Iodomethane	ug/L	3.6 U	3.6 U		40	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

SAMPLE DUPLICATE: 5570177

Parameter	Units	35880778010 Result	Dup Result	RPD	Max RPD	Qualifiers
Isopropylbenzene (Cumene)	ug/L	0.30 U	0.30 U		40	
m&p-Xylene	ug/L	0.75 U	0.75 U		40	
Methyl-tert-butyl ether	ug/L	1.2 U	1.2 U		40	
Methylene Chloride	ug/L	1.7 U	1.7 U		40	
o-Xylene	ug/L	0.57 U	0.57 U		40	
Styrene	ug/L	0.26 U	0.26 U		40	
Tetrachloroethene	ug/L	0.38 U	0.38 U		40	
Toluene	ug/L	0.33 U	0.33 U		40	
trans-1,2-Dichloroethene	ug/L	0.23 U	0.23 U		40	
trans-1,3-Dichloropropene	ug/L	0.37 U	0.37 U		40	
trans-1,4-Dichloro-2-butene	ug/L	2.5 U	2.5 U		40	
Trichloroethene	ug/L	0.36 U	0.36 U		40	
Trichlorofluoromethane	ug/L	0.72 U	0.72 U		40	
Vinyl acetate	ug/L	1.8 U	1.8 U		40	
Vinyl chloride	ug/L	0.39 U	0.39 U		40	
Xylene (Total)	ug/L	2.1 U	2.1 U		40	
1,2-Dichlorobenzene-d4 (S)	%	101	100		40	
4-Bromofluorobenzene (S)	%	105	103		40	
Toluene-d8 (S)	%	100	101		40	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

QC Batch: 1012913
QC Batch Method: EPA 3510
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270 Water PAHLV by SIM MSSV
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35880484001, 35880484002

METHOD BLANK: 5567475 Matrix: Water
Associated Lab Samples: 35880484001, 35880484002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	0.039 U	2.0	0.039	05/20/24 16:23	
2-Methylnaphthalene	ug/L	0.068 U	2.0	0.068	05/20/24 16:23	
Acenaphthene	ug/L	0.019 U	0.50	0.019	05/20/24 16:23	
Acenaphthylene	ug/L	0.031 U	0.50	0.031	05/20/24 16:23	
Anthracene	ug/L	0.020 U	0.50	0.020	05/20/24 16:23	
Benzo(a)anthracene	ug/L	0.020 U	0.10	0.020	05/20/24 16:23	
Benzo(a)pyrene	ug/L	0.021 U	0.20	0.021	05/20/24 16:23	
Benzo(b)fluoranthene	ug/L	0.027 U	0.10	0.027	05/20/24 16:23	
Benzo(g,h,i)perylene	ug/L	0.023 U	0.50	0.023	05/20/24 16:23	
Benzo(k)fluoranthene	ug/L	0.024 U	0.50	0.024	05/20/24 16:23	
Chrysene	ug/L	0.026 U	0.50	0.026	05/20/24 16:23	
Dibenz(a,h)anthracene	ug/L	0.025 U	0.15	0.025	05/20/24 16:23	
Fluoranthene	ug/L	0.018 U	0.50	0.018	05/20/24 16:23	
Fluorene	ug/L	0.017 U	0.50	0.017	05/20/24 16:23	
Indeno(1,2,3-cd)pyrene	ug/L	0.024 U	0.15	0.024	05/20/24 16:23	
Naphthalene	ug/L	0.29 U	2.0	0.29	05/20/24 16:23	
Phenanthrene	ug/L	0.019 U	0.50	0.019	05/20/24 16:23	
Pyrene	ug/L	0.032 U	0.50	0.032	05/20/24 16:23	
2-Fluorobiphenyl (S)	%	69	32-100		05/20/24 16:23	
p-Terphenyl-d14 (S)	%	75	48-112		05/20/24 16:23	

LABORATORY CONTROL SAMPLE: 5567476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	5	2.9	58	34-103	
2-Methylnaphthalene	ug/L	5	2.9	57	35-100	
Acenaphthene	ug/L	5	2.9	58	38-102	
Acenaphthylene	ug/L	5	2.8	57	35-97	
Anthracene	ug/L	5	3.0	59	46-107	
Benzo(a)anthracene	ug/L	5	3.0	61	55-113	
Benzo(a)pyrene	ug/L	5	3.1	62	51-112	
Benzo(b)fluoranthene	ug/L	5	3.3	66	58-116	
Benzo(g,h,i)perylene	ug/L	5	3.3	66	45-116	
Benzo(k)fluoranthene	ug/L	5	3.4	67	58-118	
Chrysene	ug/L	5	3.4	69	58-120	
Dibenz(a,h)anthracene	ug/L	5	3.3	66	46-114	
Fluoranthene	ug/L	5	3.2	64	54-118	
Fluorene	ug/L	5	2.9	58	40-105	
Indeno(1,2,3-cd)pyrene	ug/L	5	3.3	66	46-114	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

LABORATORY CONTROL SAMPLE: 5567476

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Naphthalene	ug/L	5	2.9	58	34-97	
Phenanthrene	ug/L	5	3.1	62	47-110	
Pyrene	ug/L	5	3.2	64	54-117	
2-Fluorobiphenyl (S)	%			60	32-100	
p-Terphenyl-d14 (S)	%			69	48-112	

MATRIX SPIKE SAMPLE: 5567477

Parameter	Units	35880265001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	0.038 U	4.9	2.8	56	34-103	
2-Methylnaphthalene	ug/L	0.068 U	4.9	2.7	56	35-100	
Acenaphthene	ug/L	0.019 U	4.9	2.8	56	38-102	
Acenaphthylene	ug/L	0.031 U	4.9	2.7	55	35-97	
Anthracene	ug/L	0.020 U	4.9	2.9	59	46-107	
Benzo(a)anthracene	ug/L	0.020 U	4.9	3.0	62	55-113	
Benzo(a)pyrene	ug/L	0.021 U	4.9	3.1	62	51-112	
Benzo(b)fluoranthene	ug/L	0.027 U	4.9	3.2	66	58-116	
Benzo(g,h,i)perylene	ug/L	0.023 U	4.9	3.2	64	45-116	
Benzo(k)fluoranthene	ug/L	0.024 U	4.9	3.2	66	58-118	
Chrysene	ug/L	0.026 U	4.9	3.3	67	58-120	
Dibenz(a,h)anthracene	ug/L	0.025 U	4.9	3.2	64	46-114	
Fluoranthene	ug/L	0.018 U	4.9	3.2	64	54-118	
Fluorene	ug/L	0.017 U	4.9	2.8	57	40-105	
Indeno(1,2,3-cd)pyrene	ug/L	0.024 U	4.9	3.2	64	46-114	
Naphthalene	ug/L	0.29 U	4.9	2.8	57	34-97	
Phenanthrene	ug/L	0.019 U	4.9	3.0	61	47-110	
Pyrene	ug/L	0.032 U	4.9	3.2	64	54-117	
2-Fluorobiphenyl (S)	%				56	32-100	
p-Terphenyl-d14 (S)	%				66	48-112	

SAMPLE DUPLICATE: 5567478

Parameter	Units	35880080001 Result	Dup Result	RPD	Max RPD	Qualifiers
1-Methylnaphthalene	ug/L	0.037 U	0.036 U		40	
2-Methylnaphthalene	ug/L	0.066 U	0.064 U		40	
Acenaphthene	ug/L	0.018 U	0.018 U		40	
Acenaphthylene	ug/L	0.030 U	0.029 U		40	
Anthracene	ug/L	0.019 U	0.019 U		40	
Benzo(a)anthracene	ug/L	0.019 U	0.019 U		40	
Benzo(a)pyrene	ug/L	0.020 U	0.020 U		40	
Benzo(b)fluoranthene	ug/L	0.026 U	0.025 U		40	
Benzo(g,h,i)perylene	ug/L	0.022 U	0.022 U		40	
Benzo(k)fluoranthene	ug/L	0.023 U	0.022 U		40	
Chrysene	ug/L	0.025 U	0.024 U		40	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

SAMPLE DUPLICATE: 5567478

Parameter	Units	35880080001 Result	Dup Result	RPD	Max RPD	Qualifiers
Dibenz(a,h)anthracene	ug/L	0.024 U	0.023 U		40	
Fluoranthene	ug/L	0.017 U	0.017 U		40	
Fluorene	ug/L	0.016 U	0.016 U		40	
Indeno(1,2,3-cd)pyrene	ug/L	0.023 U	0.022 U		40	
Naphthalene	ug/L	0.28 U	0.27 U		40	
Phenanthrene	ug/L	0.018 U	0.018 U		40	
Pyrene	ug/L	0.031 U	0.030 U		40	
2-Fluorobiphenyl (S)	%	55	56			
p-Terphenyl-d14 (S)	%	66	66			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA

Project: RUSH Keys Sampling
Pace Project No.: 35880484

QC Batch: 1012824
QC Batch Method: EPA 3510
Analysis Method: FL-PRO
Analysis Description: FL-PRO Water Low Volume
Laboratory: Pace Analytical Services - Ormond Beach
Associated Lab Samples: 35880484001, 35880484002

METHOD BLANK: 5567278 Matrix: Water
Associated Lab Samples: 35880484001, 35880484002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	1.0	0.80	05/20/24 14:01	
N-Pentatriacontane (S)	%	90	42-159		05/20/24 14:01	
o-Terphenyl (S)	%	88	66-139		05/20/24 14:01	

LABORATORY CONTROL SAMPLE: 5567279

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/L	5	4.4	87	66-119	
N-Pentatriacontane (S)	%			95	42-159	
o-Terphenyl (S)	%			86	66-139	

MATRIX SPIKE SAMPLE: 5567280

Parameter	Units	35880444005 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/L	0.76 I	4.5	3.1	52	65-123	J(M1)
N-Pentatriacontane (S)	%				58	42-159	
o-Terphenyl (S)	%				57	66-139	J(S0)

SAMPLE DUPLICATE: 5567281

Parameter	Units	35880444006 Result	Dup Result	RPD	Max RPD	Qualifiers
Petroleum Range Organics	mg/L	0.82 I	0.92		20	
N-Pentatriacontane (S)	%	65	57			
o-Terphenyl (S)	%	66	56			J(S0)

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALIFIERS

Project: RUSH Keys Sampling
Pace Project No.: 35880484

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Compound was analyzed for but not detected.
J(M1)	Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
J(S0)	Estimated Value. Surrogate recovery outside laboratory control limits.
J(v2)	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
J(v3)	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have a low bias.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

Pace Analytical Services, LLC
3610 Park Central Blvd N
Pompano Beach, FL 33064
(954)582-4300

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RUSH Keys Sampling
Pace Project No.: 35880484

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35880484001	**NE Pit**	EPA 3510	1012824	FL-PRO	1012981
35880484002	**SE Pit**	EPA 3510	1012824	FL-PRO	1012981
35880484001	**NE Pit**	EPA 3010	1012841	EPA 6010	1012914
35880484002	**SE Pit**	EPA 3010	1012841	EPA 6010	1012914
35880484001	**NE Pit**	EPA 3510	1012913	EPA 8270 by SIM	1013060
35880484002	**SE Pit**	EPA 3510	1012913	EPA 8270 by SIM	1013060
35880484001	**NE Pit**	EPA 8260	1013478		
35880484002	**SE Pit**	EPA 8260	1013478		

Pace® Location Requested (City/State):
Pace Analytical Pompano Beach
3610 Park Central Blvd North, Pompano Beach, FL 33064

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 35880484

35880484

Company Name:	Resource Environmental Solutions (RES)-FTL	Contact/Report To:	Junnio Freixa
Street Address:	312 SE 17th Street, Fort Lauderdale, FL 33316	Phone #:	(954)484-8500
		E-Mail:	jfreixa@res.us
		Cc E-Mail:	
Customer Project #:	RRJ 109 795	Invoice To:	Lilian Arguello
Project Name:	RUSH Keys Sampling	Invoice E-Mail:	larguello@res.us
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Florida

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	6010 As, Pb	8260 MSV	8270 PAH	FL PRO	Sample Comment
NE Pit	SW	✓	5/16/24	5:20 pm			8			✓	✓	✓	✓	
SE Pit	SW	✓	5/16/24	5:30 pm			8			✓	✓	✓	✓	

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: **Yvette Prieto**
AcctNum / Client ID:
Table #:
Profile / Template: **12578**
Prelog / Bottle Ord. ID: **EZ 3113864**

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By: (Printed Name) Junnio Freixa
Signature:

Customer Remarks / Special Conditions / Possible Hazards:

Coolers: Thermometer ID: Correction Factor (°C): Obs. Temp. (°C) Corrected Temp. (°C) On Ice:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Junnio Freixa / RES	5/17/24 9:10 am	Catalya Rey	5/17/24 9:13	
Catalya Rey	5/17/24		5/17/24 1845	Delivered by: [ ] In- Person [ ] Courier
	5/17/24 1830	344/Pace	5-7-24 22125/2.9°	[ ] FedEx [ ] UPS [ ] Other
				Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

Pace

Sample Condition Upon Receipt (SCUR)

WO#: 35880484
PM: YMP Due Date: 05/28/24
CLIENT: 36-ESCIEN

Project #
Project Manager:
Client:

Date and Initials of person:
Examining contents: _____
Label: _____
Deliver: _____
pH: _____

Thermometer Used: T-398 Date: 05/17/2024 Time: 1717 Initials: KV

State of Origin: _____ ☐ For WV projects, all containers verified to ≤6 °C

Cooler #1 Temp.°C	5.7 (Visual)	-0.1 (Correction Factor)	5.6 (Actual)	☑Samples on ice, cooling process has begun.
Cooler #2 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #3 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #4 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #5 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #6 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Recheck for OOT °C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	Time: _____ Initials: _____

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☑Pace ☐Other: _____

Shipping Method: ☐Standard Overnight ☐First Overnight ☐Priority Overnight ☐Ground ☐International Priority ☐Other: _____

Billing: ☐Recipient ☐Sender ☐Third Party ☐Credit Card ☐Unknown

Tracking # _____

Custody Seal Present: ☐Yes ☑No **Seal properly placed and intact:** ☐Yes ☑No **Ice:** ☑Wet ☐Blue ☐Dry ☐None ☐Melted

Packing Material: ☐Bubble Wrap ☐Bubble Bags ☐None ☐Other:

Samples shorted to lab: ☐Yes ☐No (If yes, complete the following)
Shorted Date: _____ **Shorted Time:** _____
Bottle Quantity / Type:

Chain of Custody:	**Present:** ☑Yes ☐No | **Filled Out:** ☑Yes ☐No ☐N/A | **Sampler Name:** ☑Yes ☐No ☐N/A			
	Relinquished To Pace: ☑Yes ☐No ☐N/A | **Sampling Date(s):** ☑Yes ☐No ☐N/A | **Sampling Time(s):** ☑Yes ☐No ☐N/A			
Samples Arrived within Hold Time.	☑Yes	☐No	☐N/A	Comments:
Rush Turnaround Requested on COC.	☐Yes	☑No	☐N/A	Comments:
Sufficient Volume.	☐Yes	☐No	☑N/A	Comments:
Correct Containers Used.	☐Yes	☐No	☑N/A	Comments:
Containers Intact.	☐Yes	☐No	☑N/A	Comments:
Sample Labels Match COC (Sample ID, Date/Time of Collection).	☐Yes	☑No	☑N/A	Comments:
All containers needing acid / base preservation have been checked.	☐Yes	☐No	☑N/A	**Preservation Information**
All containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: Vials, Microbiology, O&G, PFAS	☐Yes	☐No	☑N/A	**Preservative:** _____ **Date:** _____ **Lot / Trace:** _____ **Time:** _____ **Amount added (mL):** _____ **Initials:** _____
Headspace in Volatile Vials? (>6mm):	☐Yes	☐No	☑N/A	
Trip Blank Present:	☐Yes	☐No	☑N/A	

Comments / Resolutions (use back for additional comments): _____

Pace

Sample Condi[illegible]UR)

WO#: 35880484
PM: YMP Due Date: 05/28/24
CLIENT: 36-ESCIEN

Project #
Project Manager:
Client:

Date and Initials of person:
Examining contents: _____
Label: _____
Deliver: MM
pH: _____

Thermometer Used: T-414 Date: 5-17-24 Time: 22:53 Initials: MM

State of Origin: _____ ☐ For WV projects, all containers verified to ≤6 °C

Cooler #1 Temp.°C	3.0 (Visual)	-0.1 (Correction Factor)	2.9 (Actual)	☐Samples on ice, cooling process has begun.
Cooler #2 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #3 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #4 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #5 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Cooler #6 Temp.°C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	☐Samples on ice, cooling process has begun.
Recheck for OOT °C	_____ (Visual)	_____ (Correction Factor)	_____ (Actual)	Time: _____ Initials: _____

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☑Commercial ☐Pace ☐Other: _____

Shipping Method: ☐Standard Overnight ☐First Overnight ☐Priority Overnight ☐Ground ☐International Priority ☐Other: _____

Billing: ☐Recipient ☐Sender ☐Third Party ☐Credit Card ☐Unknown

Tracking # _____

Custody Seal Present: ☑Yes ☐No **Seal properly placed and intact:** ☑Yes ☐No **Ice:** ☑Wet ☐Blue ☐Dry ☐None ☐Melted

Packing Material: ☐Bubble Wrap ☐Bubble Bags ☐None ☐Other:

Samples shorted to lab: ☐Yes ☐No (If yes, complete the following)
Shorted Date: _____ **Shorted Time:** _____
Bottle Quantity / Type:

Chain of Custody:	**Present:** ☑Yes ☐No | **Filled Out:** ☑Yes ☐No ☐N/A | **Sampler Name:** ☑Yes ☐No ☐N/A			
	Relinquished To Pace: ☑Yes ☐No ☐N/A | **Sampling Date(s):** ☑Yes ☐No ☐N/A | **Sampling Time(s):** ☑Yes ☐No ☐N/A			
Samples Arrived within Hold Time.	☑Yes	☐No	☐N/A	Comments:
Rush Turnaround Requested on COC.	☐Yes	☑No	☐N/A	Comments:
Sufficient Volume.	☑Yes	☐No	☐N/A	Comments:
Correct Containers Used.	☑Yes	☐No	☐N/A	Comments:
Containers Intact. MM	~~☑Yes~~	☑No	☐N/A	Comments:
Sample Labels Match COC (Sample ID, Date/Time of Collection).	☑Yes	☐No	☐N/A	Comments:
All containers needing acid / base preservation have been checked.	☑Yes	☐No	☐N/A	Preservation Information: Preservative: _____ Date: _____
All containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: Vials, Microbiology, O&G, PFAS	☑Yes	☐No	☐N/A	Lot / Trace: _____ Time: _____ Amount added (mL): _____ Initials: _____
Headspace in Volatile Vials? (>6mm):	☐Yes	☑No	☐N/A	
Trip Blank Present:	☐Yes	☑No	☐N/A	

Comments / Resolutions (use back for additional comments): Sample 15: NE P.T 2 out of the 8260 the lid came broken

APPENDIX C

Equipment Manual Documents

DUSTTRAK™ DRX AEROSOL MONITORS MODELS 8533, 8533EP AND 8534

REAL-TIME DUST AND AEROSOL MONITORING FOR ANY ENVIRONMENT, ANY APPLICATION

Only DustTrak™ DRX Aerosol Monitors can simultaneously measure both mass and size fraction—no other monitor can do both. DustTrak DRX models are battery-operated, data-logging, light-scattering laser photometers that give you real-time aerosol mass readings. They use a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved stability and low maintenance. From desktop with external pump models to a handheld model, the DustTrak DRX offers a suitable solution for harsh industrial workplaces, construction and environmental sites and other outdoor applications, as well as clean office settings. DustTrak DRX monitors measure aerosol concentrations such as dust, smoke, fumes and mists.

Features and Benefits

All Models

+ Real-time mass concentration and size fraction readings, as well as data-logging allow for data analysis during and after sampling.
+ Simultaneously measure size-segregated mass fraction concentrations corresponding to PM1, PM2.5, Respirable, PM10, and Total PM size fractions
+ Easy-to-use graphical user interface with color touch-screen for effortless operation

Handheld Model (8534)

+ Long life internal pump for continuous sampling
+ Single-point data collection for walk through surveys
+ Lightweight design with ergonomic handle for portable applications

Desktop Models (8533 and 8533EP)

+ Energy-efficient, long lasting external pump for continuous, unattended, 24/7, outdoor monitoring applications (Model 8533EP only)
+ Long life internal pump for shorter work-shift or IAQ sampling applications (Model 8533)
+ Gravimetric reference sampling capability for custom reference calibrations
+ Automatic zeroing (with optional zero module) to minimize the effect of zero drift
+ STEL alarm setpoint for tracking 15-minute average mass concentrations
+ Standard and advanced calibration capabilities for consistent accuracy
+ Environmental protected and tamper-proof secure (with an optional environmental enclosure)
+ Inlet sample conditioning (with optional heated inlet sample conditioner) to reduce the effect of humidity on photometric mass measurements (for use with an environmental enclosure)
+ Cloud Data Management System hosted by Netronix™

UNDERSTANDING, ACCELERATED

Unsurpassed Technology and Performance

DustTrak DRX monitors are laser photometers that simultaneously measure five size segregated mass fraction concentrations at once–something no other monitor can do. The desktop, desktop with external pump and handheld monitors are continuous, real-time, 90°, light-scattering laser photometers that simultaneously measure size-segregated mass fraction concentrations corresponding to PM1, PM2.5, Respirable, PM10, and Total PM fractions. They combine both particle cloud (total area of scattered light) and single particle detection to achieve mass fraction measurements.

This size-segregated mass fraction measurement technique is superior to either a basic photometer or optical particle counter (OPC). It delivers the mass concentration of a photometer and the size resolution of an OPC. Typically, photometers can be used at high mass concentration, but they do not give any size information (unless used with size selective inlet conditioners) and significantly underestimate large particle mass concentrations. OPC's provide size and count information; however, they do not provide any mass concentration information and cannot be used in high mass concentration environments. The DustTrak DRX can do both.

Handheld Models: Perfect for Walk-Through Surveys and Single-Point Data Collection Applications

The DustTrak DRX handheld Model 8534 is lightweight and portable. It is perfect for industrial hygiene surveys, point source location monitoring, indoor air quality investigations, engineering control evaluations/validation, and for baseline trending and screening. Like the desktop models, it has manual and programmable data logging functions. In addition, the handheld model also has a single-point data logging capability for walk-through industrial hygiene surveys and indoor air quality investigations.

Desktop Models: Ideal for Long-Term Surveys and Remote Monitoring Applications

The DustTrak DRX is also offered as a standard desktop (Model 8533), as well as a desktop with external pump (Model 8533EP.) Both models have manual and programmable data logging functions, making them ideal for unattended applications. The standard desktop model is most suitable for indoor, continuous monitoring, while the desktop with external pump is designed for 24/7 unattended, remote monitoring outdoors.

The DustTrak DRX desktop models come with USB (device and host), Ethernet, and analog and alarm outputs allowing remote access to data. User adjustable alarm setpoints for instantaneous or 15-minute short-term excursion limit (STEL) are also available on desktop models. The alarm output with user-defined setpoint alerts you when upset or changing conditions occur.

The DustTrak DRX Desktop Monitors have several unique features:

+ External pump (Model 8533EP) with low power consumption for continuous, unattended monitoring in remote outdoor locations.
+ Gravimetric sampling capability using a 37-mm filter cassette which can be inserted in-line with the aerosol stream allowing you to perform an integral gravimetric analysis for custom reference calibrations.
+ Zeros automatically using the external zeroing module. This optional accessory is used when sampling over extended periods of time. By zeroing the monitor during sampling, the effect of zero drift is minimized.
+ STEL alarm feature for tracking 15-minute average mass concentrations when alarm setpoint has been reached for applications like monitoring fugitive emissions at hazardous waste sites.
+ Provide for environmental protection and tamper-proof security using an environmental enclosure. This optional accessory encloses the instrument within a waterproof, lockable, custom-designed case.
+ Condition the sample air stream before entering the instrument optics using a heated inlet sample conditioner (designed for use with the environmental enclosure.) This optional accessory is used in humid environments. By conditioning the sample, the humidity and water vapor are minimized.
+ Standard and advanced calibration capabilities. The DustTrak DRX Aerosol Monitor has two calibration factors: a photometric calibration factor (PCF) and a size calibration factor (SCF). The PCF accounts for the photometric response difference between A1 Test Dust and the aerosol under measurement, while the SCF accounts for the aerodynamic size difference.
  - The primary goal of the standard calibration is to obtain the SCF for the aerosol of interest. The standard calibration process is very easy and does not require comparison to gravimetric samples. Measure with and without a PM2.5 impactor, and the instrument takes the ratio of these two size distributions and compares this reading to the PM2.5 impactor transmission efficiency curve to calculate the SCF. However, the absolute mass concentration may not be as accurate as the advanced calibration.
  - The advanced calibration method yields high size segregated mass concentration accuracy. It involves two separate gravimetric measurements to obtain PCF and SCF in sequence. The advanced calibration will accurately measure size segregated mass concentrations.

Applications	Desktop	Handheld
Aerosol research studies	+	+
Baseline trending and screening	+	+
Engineering control evaluations		+
Engineering studies		+
Epidemiology studies	+	+
Indoor air quality investigations	+	+
Industrial/occupational hygiene surveys	+	+
Point source monitoring		+
Outdoor environmental monitoring	+	
Process monitoring	+	+
Remote monitoring	+	

DustTrak DRX Aerosol Monitor Features

All Models

+ Li-Ion rechargeable batteries
+ Internal and external battery charging capabilities
+ Outlet port for isokinetic sampling applications
+ User serviceable sheath flow and pump filters
+ Logged test pause and restart feature
+ Logged test programming
  - Color touch screen–either manual mode or program mode
  - TRAKPRO™ Data Analysis Software via a PC
+ User adjustable custom calibration settings
+ Instantaneous alarm settings with visual and audible warnings
+ Real-time graph display
+ View statistical information during and after sampling
+ On-screen instrument status indicators: FLOW, LASER and FILTER
+ Filter service indicator for user preventative maintenance

Desktop Models (8533 and 8533EP)

+ Long life external pump (8533EP)
+ Internal pump (8533)
+ Hot swappable batteries
+ Gravimetric reference sample capability
+ STEL alarm setpoint

Optional Accessories

+ Auto zeroing module
+ Protective environmental enclosure (8535 and 8537)
+ Heated inlet sample conditioner (for use with an environmental enclosure)
+ Cloud Data Management System as hosted by Netronix™

Handheld Model (8534)

+ Long life internal pump
+ Single-point data collection for walk through surveys

Easy to Program and Operate

The graphical user interface with color touch-screen puts everything at your fingertips. The easy-to-read display shows real-time mass concentration and graphical data, as well as other statistical information along with instrument pump, laser and flow status, and much more. Perform quick walk-through surveys or program the instrument's advanced logging modes for long-term sampling investigations. Program start times, total sampling times, logging intervals, alarm setpoints and many other parameters. You can even set up the instrument for continuous unattended operation.

TRAKPRO™ Software Makes Monitoring Easier than Ever

TrakPro™ Data Analysis Software allows you to set up and program directly from a PC. It even features the ability for remote programming and data acquisition from your PC via wireless communication options or over an Ethernet network. As always, you can print graphs, raw data tables, and statistical and comprehensive reports for recordkeeping purposes.

Battery Performance*		
Models 8533 and 8533EP (Typical) 6600 mAH Li-Ion Battery Pack (P/N 801680)	1 Battery	2 Batteries
Battery runtime (hours)	Up to 6	Up to 12
Charge time* (hours) in DustTrak	4	8
Charge time* (hours) in external battery charger (P/N 801685)	4	8

Model 8534 (Typical) 3600 mAH Li-Ion Battery Pack (P/N 801681)	Battery
Battery runtime (hours)	Up to 6
Charge time* (hours) in DustTrak	4
Charge time* (hours) in external battery charger (P/N 801686)	4

* Of a fully depleted battery

SPECIFICATIONS

DUSTTRAK™ DRX AEROSOL MONITORS MODELS 8533, 8533EP AND 8534

Sensor Type
90° light scattering

Particle Size Range
0.1 to 15 µm

Aerosol Concentration Range

8533 Desktop	0.001 to 150 mg/m³
8533EP Desktop with External Pump	0.001 to 150 mg/m³
8534 Handheld	0.001 to 150 mg/m³

Display
Size Segregated Mass Fractions for PM1, PM2.5, Respirable, PM10 and Total. All displayed

Resolution
±0.1% of reading or 0.001 mg/m³, whichever is greater

Zero Stability
±0.002 mg/m³ per 24 hours at 10 sec time constant

Flow Rate
3.0 L/min

Flow Accuracy
±5% of factory set point, internal flow controlled

Temperature Coefficient
+0.001 mg/m³ per °C

Operational Temp
32 to 120°F (0 to 50°C)

Storage Temp
-4 to 140°F (-20 to 60°C)

Operational Humidity
0 to 95% RH, non-condensing

Time Constant
User adjustable, 1 to 60 seconds

Data Logging
5 MB of on-board memory (> 60,000 data points)
45 days at 1 minute logging interval

Log Interval
User adjustable, 1 second to 1 hour

Physical Size (H x W x D)

Handheld	4.9 x 4.8 x 12.5 in. (12.5 x 12.1 x 31.6 cm)
Desktop	5.3 x 8.5 x 8.8 in. (13.5 x 21.6 x 22.4 cm)
External Pump	4.0 x 7.0 x 3.5 in. (10.0 x 18.0 x 9.0 cm)

Weight

Handheld	2.9 lb (1.3 kg), 3.3 lb (1.5 kg) with battery
Desktop	3.5 lb (1.6 kg), 4.5 lb (2.0 kg) - 1 battery, 5.5 lb (2.5 kg) - 2 batteries
External Pump	3.0 lb (1.4 kg)

Communications

8533	USB (host and device) and Ethernet. Stored data accessible using flash memory drive
8533EP	USB (host and device) and Ethernet. Stored data accessible using flash memory drive plus, cable assembly for external pump
8534	USB (host and device). Stored data accessible using flash memory drive

Power-AC
Switching AC power adapter with universal line cord included, 115-240 VAC

Analog Out

8533/8533EP	User selectable output, 0 to 5 V or 4 to 20 mA. User selectable scaling range

Alarm Out

8533/8533EP	Relay or audible buzzer Relay Non-latching MOSFET switch + User selectable set point + -5% deadband + Connector 4-pin, Mini-DIN connectors
8534	Audible buzzer

Screen

8533/8533EP	5.7 in. VGA color touchscreen
8534	3.5 in. VGA color touchscreen

Gravimetric Sampling

8533/8533EP	Removable 37 mm cartridge (user supplied)

CE Rating

Immunity	EN61236-1:2006
Emissions	EN61236-1:2006

Specifications are subject to change without notice.

UNDERSTANDING, ACCELERATED

TSI Incorporated - Visit our website **www.tsi.com** for more information.

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Germany	**Tel:** +49 241 523030		

P/N 6001981 Rev G

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APPENDIX D

Guidance for Soil Reuse Involving Soil Blending Activities

Guidance for Soil Reuse Involving Soil Blending Activities at Chapter 62-780, F.A.C., Sites

Florida Department of Environmental Protection
Division of Waste Management
District and Business Support Program
Tallahassee, FL
May 2022

Disclaimer:
This document is guidance for engaging in site activities involving soil reuse including soil blending and placement within the contaminated site. If soil reuse is planned for a Chapter 62-780 site, a detailed description of the soil reuse activities should be included in the site's Soil Management Plan (SMP). This guidance is not intended to provide the mechanics on how to blend soil. Nothing in this guidance supersedes any Federal, State, or Local requirements; nor, as guidance, does it create any new rule requirements under Chapter 62-780, Florida Administrative Code (F.A.C.). All applicable Florida Department of Environmental Protection (FDEP) rules must still be adhered to.

The FDEP District and Business Support Program has prepared this guidance to promote consistency of data interpretation and to conduct soil blending in a protective manner for sites where soil reuse is performed. Nothing in this document precludes consideration of soil management practices on a site-specific basis.

DEFINITIONS

Contaminated Site

The term “contaminated site” is defined in ss. 376.301(11), Florida Statutes, as: “any contiguous land, sediment, surface water, or groundwater areas that contain contaminants that may be harmful to human health or the environment.” The definition in Section 62-780.200(47), F.A.C., points to this statutory definition and defines “site” to mean “contaminated site” as defined in the statute. The term “site” should not be confused with or used interchangeably with “property,” “facility,” “parcel,” or other similar terms.

In other words, a contaminated site is the area where contaminants of concern exist or have spread from the source. A site may encompass the source property and adjoining properties if the impacts have spread beyond the source property boundaries.

Decision Unit

A Decision Unit (DU) is defined as the volume of soil over which cleanup decisions will be made. For ease of analysis, the DU size may be set equivalent to the exposure unit size of the receptor of concern, but this is not required.

Exposure Unit

“Exposure Unit” means an area over which receptors are expected to have equal and random exposure. Exposure units shall be determined in accordance with the Chapter 62-780, F.A.C.

Soil Reuse

Soil reuse is considered to be any time site soils that exceed Direct Exposure soil cleanup target levels (SCTLs) or other applicable SCTLs are blended with lesser contaminated soils, including with imported clean fill, with the goal of achieving the applicable SCTL(s) in the blended soil. The blended soils may then be placed anywhere within the contaminated site for which that soil meets the applicable SCTL(s). Post-placement verification sampling is recommended for all areas where the blended soils were placed to confirm that the applicable SCTL(s) have been met. Blended soils should only be placed on the source property and other properties within the contaminated site being remediated (i.e., when the site extends beyond the source property boundaries such that it is a multi-property contamination site).

Source Property

The property where the release or discharge occurred.

Stockpile

Excavated, impacted site soils that are accumulated from remedial actions, which are temporarily stored and properly managed in accordance with the site's SMP to prevent the spread of impacts to uncontaminated areas.

Stockpiles may be contaminated, blended or 'clean' (meets applicable SCTLs) soil. Stockpiles of site soil should be assumed to be contaminated until analytical data demonstrates otherwise.

ACRONYMS

ASCTL	Alternative Soil Cleanup Target Level
bls	Below Land Surface
COC	Contaminant of Concern
DU	Decision Unit
F.A.C.	Florida Administrative Code
Ft	Feet
FDEP	Florida Department of Environmental Protection
ISM	Incremental Sampling Methodology
PRSR	Person Responsible for Site Rehabilitation
RCRA	Resource Conservation and Recovery Act
SCTL	Soil Cleanup Target Level
SMP	Soil Management Plan

BACKGROUND

Soil blending has been allowed by the Division of Waste Management (Division) for several years. This guidance was developed for large land tracts like former agricultural land or former golf courses that are redeveloped as primarily residential parcels. This guidance may need to be modified for other types of sites undergoing rehabilitation under Chapter 62-780, F.A.C., if blending activities are proposed. The Person Responsible for Site Rehabilitation (PRSR) may have discussions with the FDEP to determine the applicability and/or modifications of this guidance.

Soil blending has not always been performed in a consistent manner from one site to another. Many times, what becomes the normal practice in one geographic area is performed quite differently in other areas. In retrospect, not all previous soil reuse practices are equally protective, and this guidance is intended to provide safeguards so that current soil reuse practices are protective regardless of whether they are consistent with precedent. Soil blending is a remedial activity where site soils from an area of soil impacts are physically blended with non-contaminated soils with the goal of achieving a level of Contaminants of Concern (COCs) in soil that meets the applicable SCTL(s).

One important part of soil blending activities which has been found to be inconsistent and, therefore, potentially not equally protective is the methodology for collection of stockpile samples and the interpretation of these results. The methodology used to create stockpiles, the number of samples collected, the depth within the stockpile from which the sample is collected, and the type of sampling process used to collect a sample varies considerably from site to site. Site closure decisions have been made based on such stockpile sampling results and blended soil stockpile sampling results. Because of the variability in volumes of stockpiles and sampling techniques, it is important to understand whether the sampling results accurately characterize the soil concentrations for the stockpiles.

There are no easy answers for correcting the uncertainties in stockpile sampling methodology. This is discussed in more detail in the *White Paper – Stockpile Sampling for Soil Reuse at a Site* (Stuchal and Roberts, December 2020). To date, the Department and other state environmental agencies throughout the United States have not found economical solutions to reduce the uncertainties. In fact, researching other states' practices regarding soil blending revealed that most states do not allow the blending of soils to achieve lower soil concentrations.

PURPOSE

This guidance has been prepared to address the uncertainties associated with site soil reuse. The guidance should not be used to re-evaluate sites which have previously received an approved Site Rehabilitation Completion Order. This guidance provides general criteria for soil blending projects. Soil blending may not be a viable remedial strategy for all sites. The suitability of blending soil to meet the applicable SCTL(s) must be carefully evaluated based on site-specific information, including the desired closure endpoint, the concentrations and

distributions of the COCs, soil type(s), leachability potential, and the amount of imported fill (if needed to blend with the impacted soil) that the site has the capacity to accept. A demonstration should be provided and supported with appropriate documentation that, following soil blending, the soil concentration will achieve the applicable SCTL(s). It is recommended that proposed soil blending procedures be approved prior to any reuse activities being conducted on a site. An initial site assessment should be conducted prior to the implementation of source removal or blending activities.

This guidance does not promote the reuse of soils that are not suitable for reuse purposes. For example, soil reuse is not allowed for soils impacted by polychlorinated biphenyls or soils that contain a Resource Conservation and Recovery Act (RCRA) Listed Waste. It should be noted that soil containing a listed waste may meet residential SCTLs but is still regulated as hazardous and cannot be reused. Hazardous soils are soils that exhibit any one or more of the following properties: ignitability, corrosivity, reactivity, or toxicity. These types of soils must be managed and disposed of in accordance with federal regulations. Please refer to the revised FDEP August 9, 2006 guidance memorandum – Management of Contaminated Media under RCRA.

Soils at the contaminated site that are not suitable for reuse should be addressed in some other manner (e.g., either removed from the site and properly disposed of at an appropriate permitted facility or capped with an engineering control).

SUMMARY OF IMPORTANT POINTS TO CONSIDER

1. Any time there is reuse conducted on a site, verification sampling (or an alternative approved approach) to confirm soils meet the applicable SCTL(s) should be conducted at every location on the property where blended soils were placed. This verification data and a map showing the placement of re-used soil should be submitted to the FDEP as part of the source removal report(s).
2. Reuse feasibility should be evaluated following the initial soil site assessment. For example, wide-spread impacts of elevated soil concentrations should be evaluated (pilot testing, blending ratio calculations, etc.) to determine if the soil is suitable for reuse. Contaminated soils not suitable for reuse should be properly disposed of off-site at a permitted facility or managed with institutional and engineering controls on the site.
3. The physical soil blending activity is only allowed within the original impacted soil area(s) (the contaminated site), on an impervious surface, or in a container to prevent the spread of contamination to previously unimpacted areas.
4. All soil disposal off-site shall be arranged by the PRSR; all analytical requirements for off-site disposal at a permitted waste facility are directed by the receiving facility and not the FDEP. Chapter 62-780, F.A.C., requires that this activity be thoroughly documented in report submittals to the FDEP.
5. Stockpiles used for blending activities are considered temporary soil storage and must be removed before 60 days elapse in accordance with Subparagraph 62-

780.500(3)(a)10, F.A.C.[1] Note: If the site is a RCRA site, the timeframe is 90 days and removal must adhere to federal regulations (and on-site reuse is not permissible).

6. When excavated contaminated soil or sediment is temporarily stored or stockpiled, the soil or sediment should be placed on an impermeable surface to prevent leachate infiltration and secured in a manner that prevents human exposure to contaminated soil or sediment and prevent soil or sediment exposure to precipitation that may cause surface runoff. Stockpiled soil on a permeable surface may necessitate additional soil and/or groundwater sampling once the stockpiled soil has been removed to verify that a new release/discharge has not occurred.
7. The FDEP will allow the use of non-contaminated soils, including imported clean fill, for blending purposes.
8. Sampling and analysis of any imported fill is recommended. The analysis is recommended to include site COCs and potential COCs associated with the source of the imported fill. The FDEP does not regulate the use of fill under Chapter 62-780, F.A.C. The expectation is that all imported clean fill will meet the applicable SCTL(s). If the imported clean fill is at a later time found to be a source of contamination, the PRSR may be liable for cleanup.
9. The source of imported fill and the site locations where clean fill is placed should be documented.
10. Soil reuse actions should be thoroughly planned in an SMP and documented in the Remedial Action Plan Report. The SMP should be approved by the FDEP prior to implementation of soil reuse activities (see Guidance for Preparation of Soil Management Plans).

SITE ASSESSMENT

Prior to making any decision regarding soil reuse on a site where rehabilitation is being conducted under Chapter 62-780, F.A.C., a complete site soil assessment should be completed.

DEVELOPING A SOIL MANAGEMENT PLAN (SMP)

The SMP is a component of the Remedial Action Plan and should include a thorough discussion on how soils will be managed as part of any excavation activities including interim actions. Guidance for developing a SMP is available: Guidance for Preparation of Soil Management Plans.

[1] For RCRA cleanups, hazardous soils can be consolidated within an Area of Contamination (See United States Environmental Protection Agency guidance) without being considered placement. If hazardous soils are moved outside of an Area of Concern and placed on the ground, "placement" occurs along with Land Disposal violations. There is a 90-day limit for storage in containers and/or tanks or a containment building without a permit. RCRA does have a 40 CFR Part 270 Subpart H RAP (a type of RCRA permit) for temporary storage (up to 2 years) in a Staging Pile that can be used for management of hazardous soils.

VERIFICATION SAMPLING

Verification sampling and analysis should be performed to confirm the blended soils meet the applicable SCTL(s) any time site soils are blended and reused for any purpose anywhere on the property. If alternative approaches other than verification sampling are proposed, the alternative should be described in detail and documented in the SMP.

1. The verification sampling and analysis plan should be thoroughly documented in the SMP.
2. Verification sampling should only be conducted after the blended soils are reused on the contaminated site.
3. The locations where reused soils are placed should be thoroughly documented and the areas should be precisely located on site figures.
4. Verification sampling should be conducted within the depth interval where blended soils were used. Typically, placement of blended soil occurs within the top two feet (ft) and verification sampling should be conducted at the direct exposure interval of 0-2 ft below land surface (bls). Where blended soils were placed deeper than 2 ft, verification sampling may need to be conducted to the full depth of the reuse fill area. Note this sampling depth interval is different from the standard rule requirement (0-0.5 ft, 0.5-2 ft) because the blended soil is expected to be relatively homogeneous.
5. Representative vertical samples should be collected. For example, where soil reuse has occurred within the top two feet, discrete interval verification samples should be collected from homogenized soil collected from 0-2 ft bls, and not at a single sample depth interval (e.g. a point sample collected at 1 ft bls). Note: this does not apply when sampling for volatile organic compound analysis.
6. Verification samples should be used to characterize the reused soil to determine if the soil concentration results meet the applicable SCTL(s).
7. Verification sampling may be conducted using either discrete (homogenized soil representing the sample interval) or Incremental Sampling Methodology (ISM) sampling methodologies. Composite sampling methods other than ISM are not used for site closure per Chapter 62-780, F.A.C.
8. The verification sampling and analysis plan should include the size of the exposure unit for the verification sampling. The default exposure unit size per Chapter 62-780, F.A.C., is ¼ acre (generally the size of a residential lot). Other sizes of the exposure unit may be proposed but must be approved by FDEP. Note that larger exposure unit sizes may require a Declaration of Restrictive Covenant to prevent subdivision of the exposure unit.
9. The number of verification samples should be at a density which characterizes and ensures the blended soils meet the applicable SCTL(s).

10. A verification sampling plan is site-specific. The number and placement of verification samples may vary from site to site depending on the conceptual site model, where blended soil originated from, and its final placement.

EVALUATION OF VERIFICATION SAMPLING RESULTS

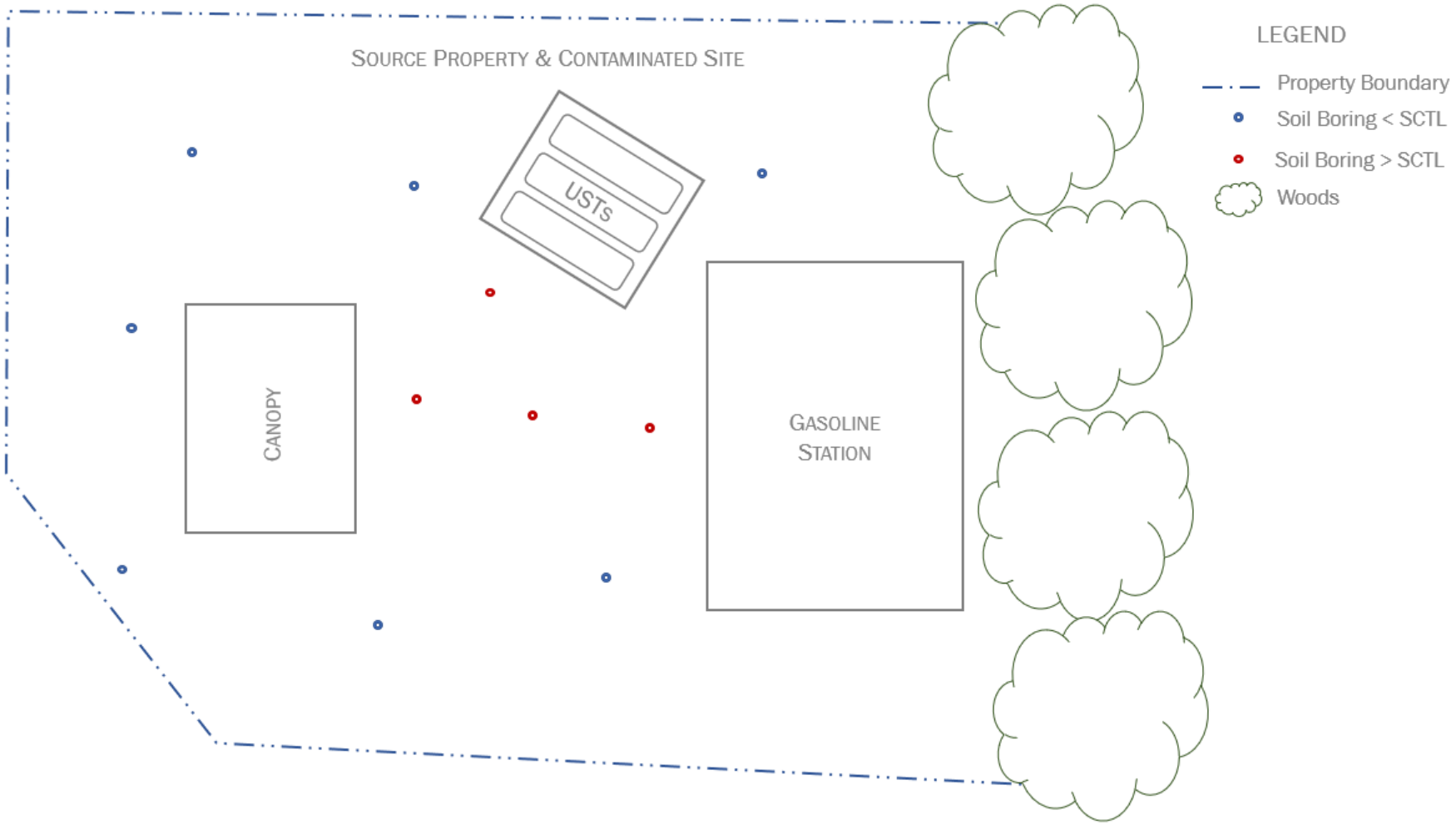
The FDEP will evaluate the verification sampling results for each exposure unit.

- If the result exceeds the applicable SCTL(s), then step-out samples may be collected within the exposure unit. Step out samples should continue to be collected at sufficient distances to ensure that all soil exceeding the applicable SCTL(s) has been identified.
- These step-out results should help determine if the area represented by the sample might need the soil replaced or re-blended or if the contamination may be managed by an engineering control.

STOCKPILE SAMPLING VERIFICATION USING INCREMENTAL SAMPLING METHODOLOGY

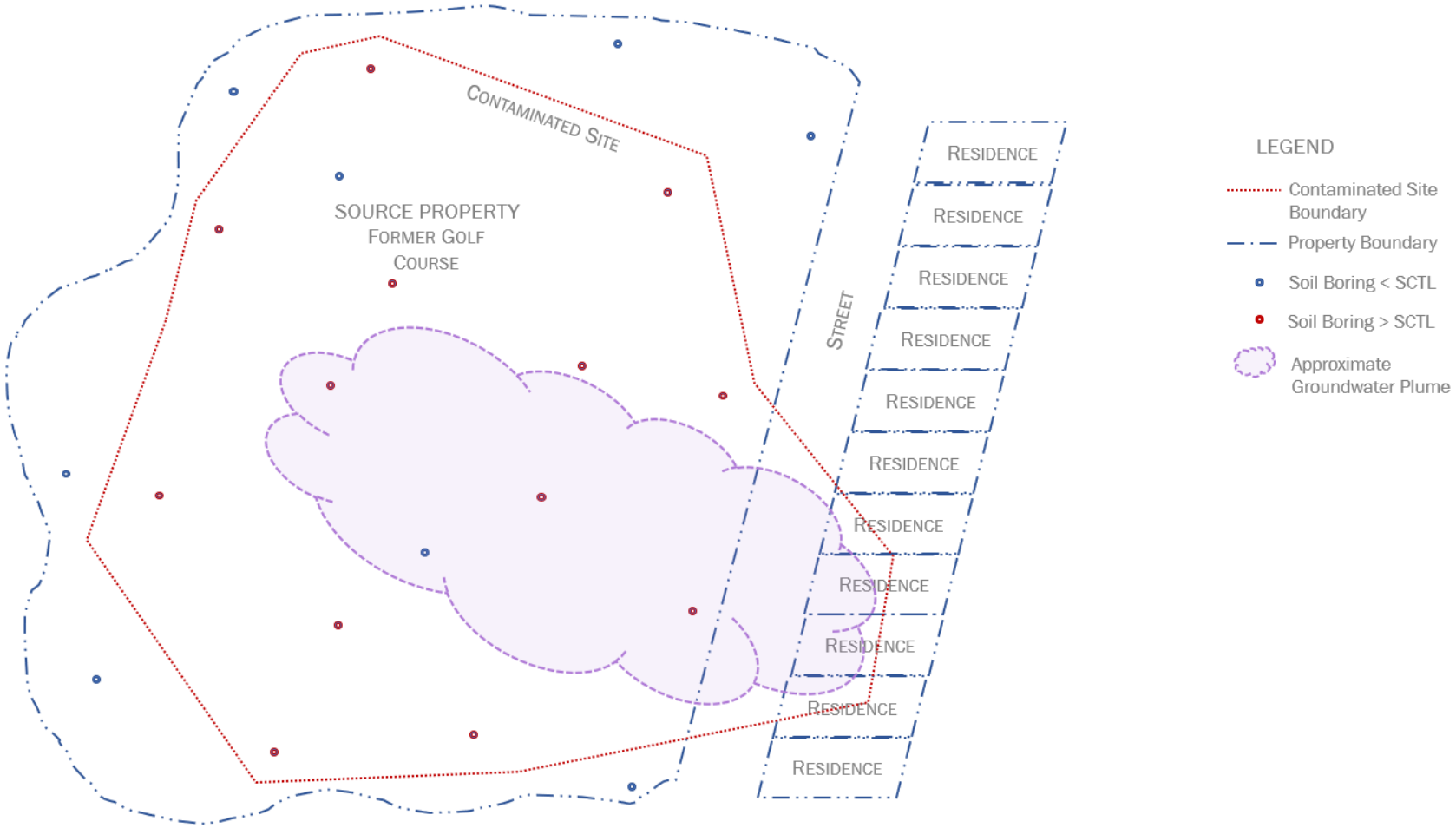
The Division commissioned a study by the University of Florida, Center for Environmental and Human Toxicology to evaluate stockpile sampling methodology that would be part of Best Management Practices for site soil reuse [see *White Paper – Stockpile Sampling for Soil Reuse at a Site* (Stuchal and Roberts, December 2020)]. The results of the study indicated that ISM yielded the most representative characterization. If verification sampling as described above is not conducted, an alternative approach could be to verify that stockpiled blended soils meet applicable SCTL(s) using ISM as per *Interstate Technology and Regulatory Council* guidance and the *White Paper*. ISM or an equivalently rigorous stockpile sampling regimen could be allowable for verification of stockpile sampling results. Discrete or composite sampling methods are generally not statistically robust enough characterization methods to be representative of contaminant concentrations for decision making purposes.

Figure 1: A Contaminated Site & Source Property can be the same



A Source Property is the location where the release or discharge occurred. A Contaminated Site is the area where contaminants of concern exist or have spread from the source. In some instances, such as the example in Figure 1, the Contaminated Site is entirely within the Source Property. In this example, soil impacts above soil cleanup target levels (SCTLs) are limited to the source property. Therefore, the Contaminated Site is within the Source Property.

Figure 2: Example of a Contaminated Site that extends beyond the Source Property



A Contaminated Site includes the area where contaminants of concern exist or have spread from the source and may extend beyond the Source Property. Figure 2 demonstrates contamination extending beyond the Source Property (Former Golf Course) beneath the roadway and onto the adjacent Residences. In this example, the Contaminated Site includes the Source Property, Street, and four Residences.

APPENDIX E

Soil Sampling Frequency Outlined in Chapter 62-713, F.A.C

62-713.900 Forms.

The forms used by the Department for soil treatment facilities are adopted and incorporated by reference in this section. The form is listed by rule number, which is also the form number, and with the title, subject and effective date. Copies of forms may be obtained from a local District Office or by writing to the Florida Department of Environmental Protection, Solid Waste Section, MS 4565, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(1) Form 62-713.900(1): Application for Permit to Construct or Operate a Stationary Soil Treatment Facility, effective August 5, 1999.

(2) Form 62-713.900(2): Notification of Intent to Use a General Permit to Construct or Operate a Mobile Soil Treatment Facility, effective August 5, 1999.

(3) Form 62-713.900(3): Soil Testing Reporting Form, effective August 5, 1999.

Specific Authority 403.061, 403.704 FS. Law Implemented 403.0877, 403.707 FS. History–New 8-5-99.

Table A. Minimum Number of Soil Samples Required

Amount of Soil by Volume, yd3	Amount of Soil by Weight, tons	Number of Discrete Samples Required for Volatile Organics	Number of Composite Samples Required for non-Volatile Organics
<100	<140	1	1
100 to <500	140 to <700	3	3
500 to <1000	700 to <1400	5	5
For each additional 500 yd3	For each additional 700 tons	1	1

Table B. Total Metals Analysis and TCLP Test Requirements

If	Exceeds	TCLP Test Criteria
Total Arsenic	100 mg/kg	5.0 mg/L
Total Barium	2000 mg/kg	100.0 mg/L
Total Cadmium	20 mg/kg	1.0 mg/L
Total Chromium	100 mg/kg	5.0 mg/L
Total Lead	100 mg/kg	5.0 mg/L
Total Mercury	4 mg/kg	0.2 mg/L
Total Selenium	20 mg/kg	1.0 mg/L
Total Silver	100 mg/kg	5.0 mg/L

APPENDIX F

NPDES Permit for Discharges from Petroleum Contaminated Sites DEP Form 62-621.300(1)(a)

NPDES GENERIC PERMIT FOR DISCHARGES FROM PETROLEUM CONTAMINATED SITES

DEP Form 62-621.300(1)(a)

Effective Month, Day, Year

Part I. Authorization to Discharge

This permit is issued under Section 403.0885, Florida Statutes, and applicable rules of the Florida Administrative Code. Coverage under this generic permit constitutes authorization to discharge treated ground water and stormwater that has been contaminated with automotive gasoline, aviation gasoline, jet fuel or diesel fuel to surface waters of the State pursuant to the Department's federally-approved National Pollutant Discharge Elimination System (NPDES) program, provided all criteria specified in this generic permit are met. Until coverage under this permit is terminated, revoked or expires, permittees using this permit are authorized to discharge treated groundwater in accordance with the terms and conditions of this permit.

Part II. Definitions

For the purposes of this permit, the following terms have the following meanings unless the context clearly indicates otherwise:

A. "Bypass" is as defined in Rule 62-620.200, F.A.C.

B. "Ground Water" is as defined in Rule 62-520.200, F.A.C.

C. "Point Source" is as defined in Rule 62-620.200, F.A.C.

D. "Predominantly fresh waters" as defined in Rule 62-302.200, F.A.C.

E. "Predominantly marine waters" as defined in Rule 62-302.200, F.A.C.

F. "Surface Waters" means those waters defined in Section 403.031(13), F.S., excluding underground waters.

G. "Upset" is as defined in Rule 62-620.200, F.A.C.

Part III. General Provisions

A. Coverage under this generic permit is limited to a term not to exceed five years from the effective date of coverage.

B. Discharges of more than 30 days, (Long Term Discharges), authorized by this permit shall meet the effluent limitations and monitoring requirements of Part IV.A or Part IV.B of this permit as applicable. Short Term Discharges authorized by this permit are limited to a maximum of 30 days of discharge during the duration of coverage under this permit such discharges shall meet the effluent limitations and monitoring requirements of Part V of this permit.

C. Discharges from pump tests to characterize the aquifer that last for eight (8) hours or less, are covered under this generic permit without the need to submit a request for coverage to the Department provided the permittee has data indicating that only contamination from petroleum fuels is present at the site.

D. Except as specified in Part III.C of this generic permit, coverage under this generic permit shall be effective upon written notification from the Department in accordance with Rule 62-621.101, F.A.C.

E. In accordance with Rule 62-4.052, F.A.C., the annual regulatory program and surveillance fees required for a facility that discharges more than thirty (30) days shall be $2850.00 per year. There is no annual fee for sites authorized to discharge under Part V of this permit (Short Term Discharges).

F. A renewal of coverage under this generic permit shall be submitted as specified in DEP Form 62-621.300(1)(b), at least 30 days before expiration of the current coverage.

G. To terminate coverage under this generic permit the permittee shall submit DEP Form 62-621.300(1)(e), within 30 days after completion of the discharge activity or upon expiration of coverage, whichever occurs first.

Part IV. Long Term Discharges (more than thirty (30) days)

A. Contamination by Automotive Gasoline Effluent Limitations and Monitoring Requirements

The Permittee is authorized to discharge treated ground water and stormwater that has been contaminated by automotive gasoline. These contaminated waters shall be treated by air stripping, followed by activated carbon adsorption, if necessary, or equivalent treatment to meet the following effluent limitations. Such discharges shall be limited and monitored by the Permittee as specified in Table 1:

Table 1

Parameter	Units	Daily Maximum Effluent Limitations	Frequency of Analysis	Sample Type
Flow	MGD	Report	Continuous	Flowmeter
Benzene	µg/l	1.0	1/month	Grab
* Total Lead	µg/l	See Rule 62-302.530, F.A.C.	1/month	Grab
**Hardness, Total (as $CaCO_3$)	mg/l	Report	1/month	Grab
pH	s.u.	See Part IV.A.1	1/month	Grab
Acute Whole Effluent Toxicity	percent	See Part IV.A.2 and Part IV.A.3	See Part IV.A.4	Grab

* Monitoring for this parameter is required only when contamination results from leaded fuel.

** Monitoring for this parameter is required only when monitoring Total Lead and the effluent is discharged to predominantly fresh waters.

1. The pH of the effluent shall not vary more than one unit above or below natural background of predominantly fresh waters and coastal waters as defined in paragraph 62-302.520(3)(b), F.A.C. or more than two-tenths unit above or below natural background of open waters as defined in paragraph 62-302.520(3)(f), F.A.C., provided that the pH is not lowered to less than 6 units in predominantly fresh waters, or less than 6.5 units in predominantly marine waters, or raised above 8.5 units. If natural background is less than 6 units, in predominantly fresh waters or 6.5 units in predominantly marine waters the pH shall not vary below natural background or vary more than one unit above natural background of predominantly fresh waters and coastal waters, or more than two-tenths unit above natural background of open waters. If natural background is higher than 8.5 units, the pH shall not vary above natural background or vary more than one unit below natural background of predominantly fresh waters and coastal waters, or more than two-tenths unit below natural background of open waters.
2. Within thirty (30) days after commencement of discharge, the Permittee, shall test for acute toxicity as provided in Rule 62-621.303, F.A.C., to evaluate whole effluent toxicity of the discharge from the outfall. If more than one (1) outfall exists, separate tests shall be performed on each outfall.
3. A 96-hour LC50 of less than 100% effluent shall constitute a violation of Rule 62-4.241(1)(a), F.A.C., and the terms of this permit. The testing for this requirement must conform with Rule 62-621.303, F.A.C.
4. Toxicity tests shall be conducted once every month until three (3) valid monthly tests have been completed, and once every year thereafter for the duration of the permit, unless notified otherwise by the Department.
5. Samples for the monitoring requirements specified above shall be taken at the nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
6. Effluent monitoring results shall be reported in accordance with Part VI of this permit.
7. A Best Management Practices (BMP) plan shall be prepared in accordance with Rule 62-621.260, F.A.C., and in conjunction with the development of the Remedial Action Plan required by the Department.
8. Ground water and stormwater that has been contaminated with automotive gasoline which has also been contaminated with aviation gasoline, jet fuel or diesel fuel shall meet the effluent limitations and monitoring requirements of Part IV.B of this generic permit.

B. Contamination by Aviation Gasoline, Jet Fuel or Diesel Fuel Effluent Limitations and Monitoring Requirements

The Permittee is authorized to discharge treated ground water and stormwater that has been contaminated by aviation gasoline, jet fuel or diesel fuel. These contaminated waters shall be treated by air stripping, followed by activated carbon adsorption, if necessary, or equivalent treatment to meet the following effluent limitations. Such discharges shall be limited and monitored by the Permittee as specified in Table 2:

Table 2

Parameter	Units	Daily Maximum Effluent Limitations	Frequency of Analysis	Sample Type
Flow	MGD	Report	Continuous	Flowmeter
Benzene	µg/l	1.0	1/month	Grab
Naphthalene	µg/l	100.0	1/month	Grab
* Total Lead	µg/l	See Rule 62-302.530, F.A.C.	1/month	Grab
**Hardness, Total (as $CaCO_3$)	mg/l	Report	1/month	Grab
pH	s.u.	See Part IV.B.1	1/month	Grab
Acute Whole Effluent Toxicity	percent	See Part IV.B.2 and Part IV.B.3	See Part IV.B.4	Grab

* Monitoring for this parameter is required only when contamination results from leaded fuel.

** Monitoring for this parameter is required only when monitoring Total Lead and the effluent is discharged to predominantly fresh waters.

1. The pH of the effluent shall not vary more than one unit above or below natural background of predominantly fresh waters and coastal waters as defined in paragraph 62-302.520(3)(b), F.A.C. or more than two-tenths unit above or below natural background of open waters as defined in paragraph 62-302.520(3)(f), F.A.C., provided that the pH is not lowered to less than 6 units in predominantly fresh waters, or less than 6.5 units in predominantly marine waters, or raised above 8.5 units. If natural background is less than 6 units, in predominantly fresh waters or 6.5 units in predominantly marine waters, the pH shall not vary below natural background or vary more than one unit above natural background of predominantly fresh waters and coastal waters, or more than two-tenths unit above natural background of open waters. If natural background is higher than 8.5 units, the pH shall not vary above natural background or vary more than one unit below natural background of predominantly fresh waters and coastal waters, or more than two-tenths unit below natural background of open waters.
2. Within thirty (30) days after commencement of discharge, the Permittee, shall test for acute toxicity as provided in Rule 62-621.303, F.A.C., to evaluate whole effluent toxicity of the discharge from the outfall. If more than one (1) outfall exists, separate tests shall be performed on each outfall.
3. A 96-hour LC50 of less than 100% effluent shall constitute a violation of Rule 62-4.241(1)(a), F.A.C., and the terms of this permit. The testing for this requirement must conform with Rule 62-621.303, F.A.C.
4. Toxicity tests shall be conducted once every month until three (3) valid monthly tests have been completed, and once every year thereafter for the duration of the permit, unless notified otherwise by the Department.
5. Samples for monitoring requirements specified above shall be taken at the nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.
6. Effluent monitoring results shall be reported in accordance with Part VI of this permit.
7. A Best Management Practices (BMP) plan shall be prepared in accordance with Rule 62-621.260, F.A.C., and in conjunction with the development of the Remedial Action Plan required by the Department.
8. Ground water and stormwater that has been contaminated with aviation gasoline, jet fuel or diesel fuel which has also been contaminated with automotive gasoline shall meet the effluent limitations and monitoring requirements of Part IV.B of this generic permit.

Part V. Short Term Discharges (maximum of thirty (30) days or less)

A. Effluent Limitations and Monitoring Requirements for Sites with an Assessment

1. If benzene, naphthalene, or total lead concentrations indicative of contamination from petroleum fuels are known to be present as a result of a site assessment prepared in accordance with Rule 62-780, F.A.C., and the discharge will occur for thirty (30) days or less, the Permittee shall comply with the applicable effluent limitations and monitoring requirements shown in Table 3.

Table 3

Parameter	Units	Daily Maximum Effluent Limitations	Frequency of Analysis When Discharge Occurs for 30 Days or Less	Frequency of Analysis When Discharge Occurs for Less Than a Week	Sample Type
Flow	MGD	Report	Continuous	Continuous	Flowmeter
Benzene	µg/l	1.0	1/week	1/discharge	Grab
Naphthalene (if present)	µg/l	100.0	1/week	1/discharge	Grab
* Total Lead (if present)	µg/l	See Rule 62-302.530, F.A.C.	1/week	1/discharge	Grab
**Hardness, Total (as $CaCO_3$)	mg/l	Report	1/week	1/discharge	Grab
pH	s.u.	See Part V.A.1(a)	1/week	1/discharge	Grab

* Monitoring for this parameter is required only when contamination results from leaded fuel.

** Monitoring for this parameter is required only when monitoring Total Lead and the effluent is discharged to predominantly fresh waters.

(a) The pH of the effluent shall not vary more than one unit above or below natural background of predominantly fresh waters and coastal waters as defined in paragraph 62-302.520(3)(b), F.A.C. or more than two-tenths unit above or below natural background of open waters as defined in paragraph 62-302.520(3)(f), F.A.C., provided that the pH is not lowered to less than 6 units in predominantly fresh waters, or less than 6.5 units in predominantly marine waters, or raised above 8.5 units. If natural background is less than 6 units, in predominantly fresh waters or 6.5 units in predominantly marine waters, the pH shall not vary below natural background or vary more than one unit above natural background of predominantly fresh waters and coastal waters, or more than two-tenths unit above natural background of open waters. If natural background is higher than 8.5 units, the pH shall not vary above natural background or vary more than one unit below natural background of predominantly fresh waters and coastal waters, or more than two-tenths unit below natural background of open waters.

(b) Discharges that occur for thirty (30) days or less but last more than a week shall monitor for the applicable parameters in Table 3 once (1) per week during the length of the discharge.

(c) Discharges that last less than a week shall monitor for the applicable parameters in Table 3 once during the length of the discharge.

(d) Samples for monitoring requirements specified above shall be taken at the nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving water.

(e) Effluent monitoring results shall be kept onsite and made available to the Department upon request.

2. Pump Tests to Characterize the Aquifer (Discharges of Eight (8) Hours or Less) Effluent Limitations and Monitoring Requirements for Sites with an Assessment

(a) If benzene, naphthalene or total lead concentrations indicative of contamination from petroleum fuels are known to be present as a result of a site assessment prepared in accordance with Rule 62-780, F.A.C., and the discharge is for a pump test to characterize the aquifer that will occur for eight (8) hours or less, then the discharge is covered under this generic permit without the need to submit a request for coverage to the Department.

(b) The Permittee shall monitor the effluent one time during the discharge for the parameters listed in Table 4.

Table 4

Parameter	Units	Daily Maximum Effluent Limitations	Frequency of Analysis	Sample Type
Flow	MGD	Report	Continuous	Flowmeter
Benzene	µg/l	1.0	1/discharge	Grab
Naphthalene (if present)	µg/l	100.0	1/discharge	Grab
* Total Lead (if present)	µg/l	See Rule 62-302.530, F.A.C.	1/discharge	Grab
**Hardness, Total (as $CaCO_3$)	mg/l	Report	1/discharge	Grab
pH	s.u.	See Part V.A.2(c)	1/discharge	Grab

* Monitoring for this parameter is required only when contamination results from leaded fuel.

** Monitoring for this parameter is required only when monitoring Total Lead and the effluent is discharged to predominantly fresh waters.

(c) The pH of the effluent shall not vary more than one unit above or below natural background of predominantly fresh waters and coastal waters as defined in paragraph 62-302.520(3)(b), F.A.C. or more than two-tenths unit above or below natural background of open waters as defined in paragraph 62-302.520(3)(f), F.A.C., provided that the pH is not lowered to less than 6 units in predominantly fresh waters, or less than 6.5 units in predominantly marine waters, or raised above 8.5 units. If natural background is less than 6 units, in predominantly fresh waters or 6.5 units in predominantly marine waters, the pH shall not vary below natural background or vary more than one unit above natural background of predominantly fresh waters and coastal waters, or more than two-tenths unit above natural background of open waters. If natural background is higher than 8.5 units, the pH shall not vary above natural background or vary more than one unit below natural background of predominantly fresh waters and coastal waters, or more than two-tenths unit below natural background of open waters.

(d) Samples for the monitoring requirements specified above shall be taken at the nearest accessible point after final treatment but prior to actual discharge or mixing with the receiving waters.

(e) Effluent monitoring results shall be kept onsite and made available to the Department upon request.

(f) Coverage under Part V.A.2 of this permit is limited to a total of eight (8) hours of discharge.

B. Effluent Limitations and Monitoring Requirements for Sites Without an Assessment

1. Applicants that do not have a site assessment prepared in accordance with Rule 62-780, F.A.C., but wish to be covered under the provisions of Part V.A.1 or Part V.A.2 of this permit shall conduct analytical tests of untreated ground water samples for the parameters listed in Table 5.
2. The analytical tests shall be conducted in accordance with Part IX.11 of this permit.
3. If the reported levels of benzene, naphthalene or lead in the ground water sample exceed the screening values listed Table 5 and the other parameters meet the screening value, then the discharge is covered under Part V.A.1 or Part V.A.2 of this permit.
4. If the reported levels of Mercury, Cadmium, Copper, Zinc or Chromium (Hex) exceed the screening values identified in Table 5, the site is not eligible for coverage under this permit.

Table 5.

Parameter	**Units**	**Screening Values for Discharges into Predominantly Fresh Waters**	**Screening Values for Discharges into Predominantly Marine Waters**
pH,	s.u.	6.0-8.5	6.5-8.5
Total Recoverable Mercury	µg/l	0.012	0.025
Total Recoverable Cadmium	µg/l	See Part V.B.5	8.8
Total Recoverable Copper	µg/l	See Part V.B.5	3.7
Total Recoverable Lead	µg/l	See Part V.B.5	8.5
Total Recoverable Zinc	µg/l	See Part V.B.5	86.0
Total Recoverable Chromium (Hex.)	µg/l	11.0	50.0
Benzene	µg/l	1.0	1.0
Naphthalene	µg/l	100.0	100.0
Hardness, Total (as $CaCO_3$)	mg/l	Report	Not Applicable

5. The screening value for “Total Recoverable Cadmium”, “Total Recoverable Copper”, “Total Recoverable Lead” and “Total Recoverable Zinc” shall be calculated using the equations specified in Rule 62-302.530, F.A.C. The “ln H” means the natural logarithm of total hardness expressed as mg/L of $CaCO_3$. For metals criteria involving equations with hardness, the hardness shall be set at 25 mg/L if actual hardness is <25 mg/L and set at 400 mg/L if actual hardness is >400 mg/L.

Part VI. Reporting of Monitoring Results

Monitoring results obtained for each calendar month shall be summarized and reported on a Discharge Monitoring Report (DMR) form (DEP Form 62-620.910(10)), quarterly. The DMR form shall be submitted electronically in accordance with Rule 62-621.250 F.A.C., using the DEP Business Portal at http: //www .fldepportal.com/go/. The DMR shall be submitted to the Department after each calendar quarter no later than the 28th day of the month following the completed calendar quarter. For example, data for January-March shall be submitted by April 28. Calendar quarters are January-March, April-June, July-September and October-December.

Part VII. Recordkeeping Requirements

The permittee shall maintain the following records and make them available for inspection.

A. Records of all data, including reports and documents, used to complete the Notice of Intent requesting coverage under the permit for at least 3 years from the date the Notice of Intent was filed.

B. Records of all compliance monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, including, if applicable, a copy of the laboratory certification showing the certification number of the laboratory, for at least three years from the date the sample or measurement was taken.

C. Copy of the permit and copy of the coverage letter issued by the Department for three years or for the duration of coverage whichever is greater.

Part VIII. Other Conditions

A. Discharge shall at all times be free from floating solids, visible foam, turbidity, or visible oil in such amounts as to form nuisances on surface waters.

B. When requested by the Department, the permittee shall provide any information required by law which is needed to determine whether there is cause for revoking and reissuing, or terminating coverage under this permit, or to determine compliance with the permit. The permittee shall also provide to the Department, upon request, copies of records required by this permit to be kept. If the permittee becomes aware of relevant facts that were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted, or corrections reported to the Department within 10 days of discovery.

C. Coverage under this permit may be suspended, revoked and reissued, or terminated in accordance with Rule 62-620.345, F.A.C., if the Secretary determines that there has been a violation of any of the terms or conditions of the permit, there has been a violation of state water quality standards or the permittee has submitted false, incomplete or inaccurate data or information.

Part IX. General Conditions

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit are binding and enforceable pursuant to Chapter 403, F.S. Any permit noncompliance constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, permit termination, permit revocation and reissuance. [62-620.610(1), F.A.C.]

2. As provided in Section 403.087(7), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor authorize any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit. [62-620.610(3), F.A.C.]

3. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title. [62-620.610(4), F.A.C.]

4. This permit does not relieve the permittee from liability and penalties for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted source; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [62-620.610(5), F.A.C.]

5. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control, and related appurtenances, that are installed and used by the permittee to achieve compliance with the conditions of this permit. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to maintain or achieve compliance with the conditions of the permit. [62-620.610(7), F.A.C.]

6. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, including an authorized representative of the Department and authorized EPA personnel, when applicable, upon presentation of credentials or other documents as may be required by law, and at reasonable times, depending upon the nature of the concern being investigated, to:

   (a) Enter upon the permittee's premises where a regulated facility, system, or activity is located or conducted, or where records shall be kept under the conditions of this permit;

   (b) Have access to and copy any records that shall be kept under the conditions of this permit;

   (c) Inspect the facilities, equipment, practices, or operations regulated or required under this permit; and

   (d) Sample or monitor any substances or parameters at any location necessary to assure compliance with this permit or Department rules.

   [62-620.610(9), F.A.C.]

7. In accepting this permit, the permittee understands and agrees that all records and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except as such use is proscribed by Section 403.111, F.S., or Rule 62-620.302, F.A.C. Such evidence shall only be used to the extent that it is consistent with the Florida Rules of Civil Procedure and applicable evidentiary rules. [62-620.610(10), F.A.C.]

8. The permittee, in accepting this permit, agrees to pay the applicable regulatory program and surveillance fee in accordance with Rule 62-4.052, F.A.C. [62-620.610(13)]

9. This permit is transferable only upon Department approval in accordance with Rule 62-620.340, F.A.C. The permittee shall be liable for any noncompliance of the permitted activity until the transfer is approved by the Department. [62-620.610(14)]

10. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The permittee shall be responsible for any and all damages which may result from the changes and may be subject to enforcement action by the Department for penalties or revocation of this permit. The notice shall include the following information:

    (a) A description of the anticipated noncompliance;

    (b) The period of the anticipated noncompliance, including dates and times; and

    (c) Steps being taken to prevent future occurrence of the noncompliance.

    [62-620.610(17)]

11. Sampling and monitoring data shall be collected, analyzed, and reported in accordance with Rule 62-4.246, Chapters 62-160, F.A.C., and 40 CFR 136, as appropriate.

    (a) If the permittee monitors any contaminant more frequently than required by the permit, using Department approved test procedures, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

    (b) Except as specifically provided in Rule 62-160.300, F.A.C., any laboratory test required by this permit shall be performed by a laboratory that has been certified by the Department of Health Environmental Laboratory Certification Program (DOH ELCP). Such certification shall be for the matrix/analytical technology/analyte(s) being measured to comply with this permit. For domestic wastewater facilities, testing for parameters listed in subsection 62-160.300(4), F.A.C., shall be conducted under the direction of a certified operator.

    (c) Field activities including on-site tests and sample collection shall follow the applicable standard operating procedures described in DEP-SOP-001/01 adopted by reference in Chapter 62-160, F.A.C.

    (d) Alternate field procedures and laboratory methods may be used where they have been approved in accordance with Rules 62-160.220 and 62-160.330, F.A.C.

    [62-620.610(18)]

12. The permittee shall report to the Department any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

    (a) The following shall be included as information which must be reported within 24 hours under this condition:

        1. Any unanticipated bypass which causes any reclaimed water or the effluent to exceed any permit limitation or results in an unpermitted discharge,

        2. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,

        3. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and

        4. Any unauthorized discharge to surface or ground waters.

    (b) Oral reports as required by this subsection shall be provided as follows:

        1. For unauthorized releases or spills of treated or untreated wastewater reported pursuant to subparagraph (a)4. that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WATCH OFFICE TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the permittee becomes aware of the discharge. The permittee, to the extent known, shall provide the following information to the State Watch Office:

            a. Name, address, and telephone number of person reporting;

            b. Name, address, and telephone number of permittee or responsible person for the discharge;

            c. Date and time of the discharge and status of discharge (ongoing or ceased);

            d. Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);

            e. Estimated amount of the discharge;

            f. Location or address of the discharge;

            g. Source and cause of the discharge;

            h. Whether the discharge was contained on-site, and cleanup actions taken to date;

            i. Description of area affected by the discharge, including name of water body affected, if any; and

            j. Other persons or agencies contacted.

        2. Oral reports, not otherwise required to be provided pursuant to subparagraph (b)1. above, shall be provided to the Department within 24 hours from the time the permittee becomes aware of the circumstances. (c) If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report.

    [62-620.610(20), F.A.C.]

13. The permittee shall report all instances of noncompliance not reported under conditions (10), (11) of this permit at the time monitoring reports are submitted. This report shall contain the same information required by condition (12) of this permit. [62-620.610(21)]

14. Bypass Provisions.

    (a) Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless the permittee affirmatively demonstrates that:

        1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

        2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

3. The permittee submitted notices as required under General Condition 14(b) of this permit.

(b) If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least 10 days before the date of the bypass. The permittee shall submit notice of an unanticipated bypass within 24 hours of learning about the bypass as required in General Condition 9 of this permit. A notice shall include a description of the bypass and its cause; the period of the bypass, including exact dates and times; if the bypass has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass.

(c) The Department shall approve an anticipated bypass, after considering its adverse effect, if the permittee demonstrates that it will meet the three conditions listed in General Condition 14(a)1. through 3. of this permit.

(d) A permittee may allow any bypass to occur which does not cause reclaimed water or effluent limitations to be exceeded if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of General Condition 14(a) through (c) of this permit.

[62-620.610(22), F.A.C.]

15. Upset Provisions.

(a) A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that the permittee can identify the cause(s) of the upset;

2. The permitted facility was at the time being properly operated;

3. The permittee submitted notice of the upset as required in General Condition 12 of this permit; and

4. The permittee complied with any remedial measures required under General Condition 4 of this permit.

(b) In any enforcement proceeding, the burden of proof for establishing the occurrence of an upset rests with the permittee.

(c) Before an enforcement proceeding is instituted, no representation made during the Department review of a claim that noncompliance was caused by an upset is final agency action subject to judicial review.

[62-620.610(23), F.A.C.]