

**SOIL AND DEWATERING MANAGEMENT PLAN
– Revised 4/11/2022
Washington Park Preserve
Palmetto, Manatee County, Florida**

Prepared for:

**Manatee County Government
Parks and Natural Resources Division
1112 Manatee Avenue West
Suite 203
Bradenton, Florida 34205**

Prepared by:

**Professional Service Industries, Inc.
5801 Benjamin Center Drive, Suite 112
Tampa, Florida 33634
Telephone (813) 886-1075**

PSI PROJECT NO. 05523453

March 7, 2022

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1.0 INTRODUCTION / BACKGROUND

Professional Service Industries, Inc. (PSI) is pleased to submit this Soil and Dewatering Management Plan (SDMP) to provide procedures for the excavation and relocation of arsenic and petroleum impacted soil within the Washington Park Preserve (WPP) Phase I proposed construction project. These soils are proposed for re-use within the project area but are subject to this assessment and review of current conditions and planned use to ensure public health and safety concerns are met. Dewatering and possibly effluent treatment is prescribed herein to meet the expected need of the discharge of dewatering effluent to adjacent surface water bodies. Thus, the SDMP will also assess potential dewatering issues needed to facilitate construction.

The WPP project is located in a suburban area of western Manatee County in Section 12, Township 34 South, Range 17 East. The overall site consists of approximately 81 acres; however, the area planned for use in this project incorporates approximately 12 acres, with the remainder of the project area to be developed in the future. This improvement project involves converting an historical soil borrow area to a passive nature preserve with limited recreational play fields. A Site Map is included as **Figure 1**.

As part of the pre-project due diligence, a Phase I and Phase II Environmental Site Assessment was conducted for the Sarasota/Manatee Metropolitan Planning Organization in 2014. At that time, the plan for use of the site was shelved but was revitalized with project planning including performance of a Phase I Environmental Site Assessment in April 2020. The results of these investigations have documented the site history and with the performance of the Phase II Environmental Site assessment, it was determined that residual concentrations of arsenic and petroleum hydrocarbons in soils and arsenic and petroleum constituents in groundwater were present in the area to be redeveloped. The constituents found in the 2014 assessment were compared to the Florida Department of Environmental Protection (FDEP) Chapter 62-777 Residential Direct Exposure Soil Target Cleanup Criteria (SCTL-RDE), Groundwater Target Cleanup Levels (GCTL) and SCTL- Leachability. Results indicate soils contained arsenic above SCTL-RDE, with arsenic above the GCTL in one groundwater monitoring well.

The Washington Park Preserve design incorporates passive recreational features including a playground area, a rectangular grassed play field, a pavilion, a restroom pavilion, an access drive and parking, shell walking paths and associated stormwater ponds. Utility installations will include potable water service, sanitary sewer lines and stormwater piping. Dewatering is expected to occur to support utility installation and possibly stormwater pond construction.

This Soil and Dewatering Management Plan provides procedures for the handling and management of arsenic and benzo(a)pyrene (BAP) impacted soil and debris encountered during construction, as well as the management of dewatering effluent within the proposed project footprint.



1.1 PROJECT DESCRIPTION

The Washington Park Preserve construction project consists of infrastructure improvements in order to construct a passive park that will include a playground and a grassed area for team sports. The project features are being built with consideration of the past use of the area, which served as a borrow pit for construction of U S Highway 41 approximately 50 years ago. Some portions of the site were excavated for fill during that period to support road construction. During the Phase II Environmental Site Assessment, test pits were excavated and debris was reportedly discovered present across the site. After use of the site as a borrow pit, the area was left to be overgrown with no recent past use that might serve as a source of contamination. Some minor dumping likely has occurred over time.

1.2 SITE ASSESSMENTS/INVESTIGATIONS

As noted above, Environmental Site Assessments (ESAs) within the proposed Preserve were conducted in 2014 when a Phase I and Phase II ESA was conducted. These assessments were described in reports entitled *Phase I Environmental Site Assessment, Proposed Washington Park Site* and *Phase II Environmental Site Assessment Washington Park Site* dated March 14, 2014, and June 2014, respectively. The assessments were conducted by Cardno TBE and performed for the Sarasota/Manatee Metropolitan Planning Organization.

Results of the Phase I ESA indicated the presence of Recognized Environmental Conditions (RECs) which include: *"The borrow pit is being identified as an REC due to the potential for impacts associated with heavy equipment used during excavation and potential fill material from off-site sources during excavation. Some of the on-site debris is indicative of illicit dumping, which offers the potential for various surface impacts. The former railroad is being identified as an REC due to the potential for on-site impacts related to historical pesticide and herbicide use (that may have contained petroleum constituents) and metals."*

Note that the former railroad referenced above was present on the far western boundary of the site, in a portion of the property not a part of the current proposed construction area.

Subsequently, a Phase II ESA indicated:

"A comparison of the laboratory analytical results of the collected soil samples to Chapter 62-777 Soil Cleanup Target Levels (SCTLs) is summarized as follows. The concentration of arsenic was detected above the SCTL for the residential direct-exposure criteria at the 0.5-2.0 ft bls interval at all sampled locations (SB-1, 2, 4, 6, and 8). The concentration of arsenic also exceeded the residential direct-exposure criteria at the 2.0-4.0 ft bls interval at one sampled location (SB-2)."

In addition, other soil sample results indicate:

- "The concentration of benzene exceeded the SCTL for leachability in three soil samples (SB-6 @ 0.5-2.0 ft bls, SB-6 @ 2-4 ft bls and SB-8 at 0.5-2.0 ft bls)."



- “Laboratory analysis of the soil sample collected from SB-4 @ 0.5-2.0 ft bls revealed benzo(a)pyrene above its SCTL for the residential direct-exposure criteria, but well below the commercial/industrial direct-exposure criteria.”

And in regard to groundwater:

- “The concentration of arsenic was reported above its Groundwater Cleanup Target Level (GCTL) in TMW-3, but well below the Natural Attenuation Default Concentration (NADC).”
- “The concentration of dibenzo(a,h)anthracene was reported above its GCTL in TMW-4, but well below the NADC.”

Locations of these soil and groundwater samples are provided in Figure 1.

An additional Phase I ESA entitled *Phase I Environmental Site Assessment; Proposed Washington Park Site* was completed in April 2020. The assessment was conducted by Cardno TBE and performed for the Manatee County Property Management Department. No new additional information of note was derived from the updated Phase I.

NOTE: This SMP is revised on the basis of the discovery of large volumes of buried waste discovered during the initial phases of construction. As a result of this discovery discussions were held with FDEP indicating site conditions were found which were substantially different than originally discussed with the Department. As a result of this, the Department indicated they expected the project to be executed under, “The Guidance for Disturbance and Use of Old Closed Landfills or Waste Disposal Areas in Florida”, Version 2.3 and dated April 2, 2019.

Subsequently PSI returned to the site and conducted installation of test pits to identify the total depth of cover and depth of debris throughout the project site. Based on those results in general 2 feet of cover was identified in areas not including the stormwater pond location and four small areas around the planned recreational play fields. The attached Figure entitled Washing Park Preserve Clean Fill Overview identified those areas requiring additional fill as well as the needed debris excavation and back fill along the western portion of the site in the area of the stormwater pond.

This change in regulatory requirements provided for the need to modify the existing soil management plan. As such the following changes have been made and are identified in the following pages via the use of strike through and highlighted insertions.



2.0 SAMPLING RESULTS

The following provides a comprehensive summary of prior soil and groundwater assessment results:

2.1 GROUNDWATER

Arsenic was present in TMW-3 at a concentration of 52 micrograms/liter (ug/L). None of the other tested wells exhibited the presence of arsenic. Dibenzo[a,h]anthracene was present above the GCTL in TMW-4 at a concentration of 0.17 ug/L.

2.2 SOILS

Arsenic was identified in all surficial (0.5' below land surface (bls) to 2.0' feet bls) soil samples ranging in concentration from 1.1 mg/kg to 4.9 mg/kg. One soil sample at depth (SB-2, 2-4 ft bls) contained arsenic at 3.1 mg/kg.

Benzene above the SCTL for Leaching to Groundwater occurred in soil boring SB-6 in both sample intervals and was also present above that standard in SB-8. Concentrations of benzene were identified from 0.0078 to 0.011 mg/kg in SB-6. No synthetic precipitation leaching procedure (SPLP) analyses was run on these samples. Data from SB-8 is not germane to this project given the location of that boring is on the far norther boundary of the parcel

Benzo(a)pyrene equivalent in sample SB-4 at 0.5-2.0 ft bls was calculated to be 0.6 mg/kg which is below the Alternative SCTL currently in use by the FDEP.

Subsequent sampling during construction indicated the presence of elevated levels of arsenic and minor exceedance of BaP standards throughout the soils excavated in the vicinity of the stormwater pond.

3.0 OBJECTIVE

The purpose of the Soil and Dewatering Management Plan (SDMP) is to provide the procedures required for the permitting, excavation, and relocation of impacted soils, if warranted, and how the soils will be incorporated into the construction of the proposed project features. Directions regarding potential dewatering in the vicinity of the one arsenic impacted monitoring well are also incorporated.

4.0 APPLICABLE REGULATORY CRITERIA

4.1 SOILS

While the presence of arsenic and benzo(a)pyrene equivalent are above the SCTL-RDE, the concentrations are below alternative soil cleanup target limits currently in use by the FDEP.

With regards to arsenic, in 2007, University of Florida toxicologists Drs. Roberts and Stuchal developed an alternative SCTL for arsenic which is consistently utilized as a recreational standard. This criteria of 5.5 milligrams/kilogram was documented in the letter attached as Appendix A and referenced an Off Road Vehicle Park. Calculations commissioned by the County indicates arsenic concentrations could increase to a value of 17.3 mg/kg and provide for the same level of protection. However, the far more conservative value of 5.5 mg/kg was determined to be appropriate and utilizing this arsenic ASCTL for a passive use park provides an appropriate protective human health standard. All arsenic concentrations identified in the sampling conducted in this proposed area are less than 5.5 mg/kg and as such these soils are not considered as being a human health risk to the users of the facility.

Likewise, FDEP has developed an alternative SCTL for benzo(a) pyrene equivalents and has established that level as 0.7 mg/kg for the residential direct exposure criteria. All B(a)P equivalent results are below this alternative SCTL and thus are not considered to be a human health risk to users of this facility.

The presence of benzene in SB-6 in samples collected from six inches bls to four feet bls indicate exceedances of the leachability to groundwater criteria. No other samples exceeded this standard within the project footprint. Because of the presence of benzene, specific soil management criteria are required to be developed.

Note: During the time this project was being prepared for construction, the FDEP returned the SCTL-for BaPs to 0.1 mg/kg. Subsequently a sample of wastes excavated from the pond site indicated BaPs slightly above the 0.1 mg/kg standard. Arsenic levels from similar samples were found to be above the recreational standard of 5.5 mg/kg, ranging from 5.7 mg/kg to 31 mg/kg.

4.2 GROUNDWATER

Arsenic was present in TMW-3 at a concentration of 52 ug/L, above the GCTL. No other wells exhibited the presence of arsenic. Dibenzo[a,h]anthracene was present above the GCTL in TMW – 4 at a concentration of 0.17 micrograms/liter.

Due to the presence of these constituents, a plan to treat groundwater will be required in the event dewatering is needed to support construction.



5.0 ONSITE SOIL REUSE

In an effort to reduce the importation of fill material, an onsite soil reuse plan should be developed by the Contractor in conjunction with this SMP. This onsite reuse is complicated by the presence of geotechnically unsuitable material. The contractor should account for the presence of arsenic, which is not an issue for onsite reuse, but would be an issue relative to potential export of excess fill from the project.

It is our understanding that the total cut volume is approximately 7,622 cubic yards consisting principally from stormwater pond construction. Imported material per the mass balance includes an additional 480 c.y. of clean fill needed to attain design grades. No fill will be removed from the site based on the mass balance.

In the event geotechnical considerations require the need to export fill, all exported material is likely to contain arsenic above the RDE-SCTL, at least if the source is from the upper one to two feet of soil. This would require proper disposal. Past practice in Manatee County has been to provide this material to the landfill in exchange for their clean fill normally used for daily cover. PSI recommends an evaluation of costs associated with options available to reduce the costs inherent in the mass balance of site fill. A cost evaluation of screening soils to remove solid waste to reduce exported volume or to enhance the quality of fill to be sent to the landfill for daily cover (as opposed to pure disposal) may provide costs savings as well.

In the event soil is excavated and screened, volume may be sufficiently reduced such that only debris is shipped off site as construction and demolition debris. If soil is remaining post construction, it should be tested for the presence of arsenic, BaPs and benzene and based on analytical results there exists the possibility it may then be removed as uncontaminated soil or, if contaminated, managed as described above.

It is also noted that installation of the gravity sewer line will require excavation of soils up to a depth of seven to eight feet. Given the presence of debris, some of this material may be unsuitable for backfill and managed as described above.

The presence of benzene and B(a)P equivalent at SB-6 and SB-4 respectively will not impact the project. The only planned construction in the location of each of these borings is to provide for a 10 foot wide shell pathway so no disturbance other than land clearing is planned for those areas.

Prior to importation of clean fill, the contractor is to provide data documenting the suitability of the fill to be acquired. This effort shall include collection of a soil sample from the active borrow pit providing the purchased fill. This sample shall be analyzed by EPA Method 8260 (Volatile Organic Compounds, Method 8270 (Petroleum Aromatic Hydrocarbons), EPA Method 6010/6020 (8 RCRA Metals), Total Recoverable Petroleum Hydrocarbons (FL-PRO), EPA Method 8081 (organochlorine pesticides). The results shall be submitted to the County for approval prior to importation of fill.

As a result of the discovery of large quantities of debris and elevated arsenic and BaP constituents, the contractor was advised to remove all excavated debris which could not be



recycled (i.e. concrete) and or which could go to a tire disposal facility, to the Lena Road landfill on the basis of their acceptance of the wastes while in receipt of the analytical results.

NO SOIL IS TO BE REUSED FOR CONSTRUCTION PURPOSES.



6.0 DEWATERING

Dewatering for construction is expected to be limited to the installation of the gravity sewer line servicing the proposed restrooms and will extend eastward to an offsite connection. Dewatering is not expected to be necessary for excavation of the stormwater pond. It is expected that no dewatering will be required for other construction activities including installation of the proposed potable water line.

Any required dewatering in most areas can proceed without concern with the exception of the sanitary sewer line in the vicinity of the proposed restrooms. North of that pavilion, groundwater was determined to contain arsenic in excess of the GCTL. No other wells exhibited arsenic and a review of the field data forms developed during that sampling effort indicated the identified arsenic was not due to the presence of high levels of turbidity in the sampled well.

A sentinel monitor well should be installed approximately half the distance between the restroom pavilion and the location of TMW-3 as shown on the attached figure. If possible, dewatering should be limited from the restroom to approximately Sta 2+50. If dewatering is necessary, the sentinel monitor well should be sampled for arsenic following 24 hours of dewatering. Results of this groundwater sample should be provided within 24 hours of collection.

The sentinel well to be labeled MW-A shall be located as shown on Figure 2. It should be constructed via hollow stem auger and be constructed of two inch schedule 40 pvc to an approximate depth of 13 feet below grade. A ten foot section of 0.010 slotted screen shall be installed with a sufficient riser to extend approximately three feet above ground. The riser should be protected by installation of bollards to prevent damage during construction. A 20/30 sand filter pack should be installed with a one foot bentonite seal. The well should be developed until produced water runs clear and a locking cap installed.

Prior to dewatering, the Contractor will be required to submit for an NPDES permit. Groundwater data from the Phase II ESA should be used to support that effort though sampling of the sentinel well will be required to provide data on other analytes required to be tested for in the permit application. See Section 7.3.1 for further details.

In the event arsenic is present above the GCTL (10 ug/l) in the monitor well, the contractor is to provide treatment of dewatered influent and test effluent from the treatment system for the presence of arsenic and continue monitoring until influent concentrations drop below 10 ug/l. Additionally, testing for other analytes will be required by the NPDES permit.

7.0 REQUIRED BEST PRACTICES

4.3 7.1 HEALTH AND SAFETY PLAN

Prior to implementing any field work, the County's selected contractor shall develop a Health and Safety Plan to address worker exposure to impacted dust/soil during the construction process. Soil analytical data collected across the site exhibited arsenic concentrations above the Residential SCTL of 2.1 mg/kg. Exceedances above the Direct Exposure Commercial/Industrial SCTLs were not detected in any of the soil analytical data. While the arsenic exceedances at the proposed park do not represent a significant human health risk during recreational use, activities occurring during construction could produce fugitive dusts which has the potential to create an exposure to arsenic for the contractor's employees. The site-specific HASP shall provide the details for the health and safety component of this project. Details on excavation safety and worker safety along with reduction of worker exposure to fugitive dusts shall be included in the site-specific HASP.

4.4 7.2 STORMWATER

The County's selected contractor shall be required to implement stormwater management control in the form of a stormwater pollution prevention plan (SWPPP). The County's selected contractor shall ensure that the site work associated with soil excavation and soil stockpiling is consistent with the plan. Such practices are detailed in the Best Management Practices portion of the Stantec construction plans.

4.5 7.3 PERMITS

4.5.1 7.4 Environmental Permits

The County, as part of the project permitting, conducted a meeting with the FDEP to notify and seek review of this SMDP for the work associated with the soil re-use and disposal as well as for dewatering for construction of the project. As a result of that meeting, the FDEP concurred that this work did not fall under the purview of Chapter 62-780 FAC and could proceed without their further review given the conditions and prospective actions described in the report. As such, the only environmental related approval required is the NPDES permit described below.

However, due to the discovery of large quantities of solid wastes a subsequent meeting was held with FDEP. During that time the Department indicated all excavated materials were to be properly disposed of and it was acknowledged that none of the excavated material could be utilized for project backfill. It was also determined that at least 2 feet of clean cover was required to be present over the buried debris and subsequently test pit excavation was performed in order to determine the current level of compliance with regards to that requirement.

It was also determined that ALL buried debris in the area of the stormwater pond had to be removed to 2 feet below finished grade and the area of removal be backfilled with 2 feet of clean fill to the finished grade.



The County's contractor is to obtain an NPDES permit and provide groundwater data from the attached report. It is expected that the FDEP will provide a Generic Permit for Discharges From Petroleum Contaminated Sites under the Chapter 62-621.300 (1) permitting authority for dewatering activities that may require additional monitoring.

4.5.2 7.5 Construction Permit

The District's selected contractor for the soil excavation shall obtain all necessary State and Local permits.

4.6 PROJECT CONTROLS AND MANAGEMENT MEASURES

The county's selected contractor shall implement engineering controls to limit the impact of the excavation/construction on the site and surrounding areas. These measures will also preclude cross-contamination by controlling dust emissions, surface erosion, and stormwater run-on and run-off.

4.6.1 Dust Control

Engineering controls and work practices, which shall be used to control emissions, are outlined below.

4.6.2 Watering

Water shall be applied to the site and work area surfaces when airborne dust emissions are present.

4.6.3 Roadway Dust Control

The County's selected contractor shall ensure that haul and access roads and pathways are properly maintained to enhance dust control. Material transport vehicles shall be loaded in a manner to avoid spillage during transport. Any spillage of impacted soils or waste materials during transport shall be cleaned up immediately. Water may also be used for dust control on roadways, if necessary.

4.7 SOIL EXCAVATION PROCEDURE AND EQUIPMENT

The County's selected contractor shall be responsible for onsite activities and safety. The contractor and the County's onsite Project Manager are responsible to implement the following protocols. Because the site is located in a suburban area, potential noise control shall be addressed by the County's selected contractor during the excavation activities. The contractor shall develop a site-specific HASP. The site-specific HASP may require that hearing protection be worn by the contractor crew members.

Work activities shall be planned and scheduled as such to minimize the number of times the impacted soils are handled or disturbed. Excavation, loading, transportation, and stockpiling shall be planned to minimize the aerial extent of waste or work area exposed. Vehicular traffic,



which will include principally truck traffic, shall be controlled on-site by implementing and enforcing traffic routes for all vehicles. These routes shall be clearly marked and drivers will be informed of the traffic plan in writing prior to performing any work at the site. Route markers (e.g., traffic cones and traffic signs) shall be placed as necessary to mark site access and routes of travel. The contractor shall also coordinate as necessary with all other site activities occurring during the soil removal.

The contractor is precluded from excavation activities in the area around SB-6 as shown in Figure 2. In the highlighted area, soils are not to be excavated though the shell walk path may be constructed.

The excavated soil will be placed in an area that is not proposed for inundation or flooding. Based on the limited contaminants present in the soil, no berms or liners are proposed or necessary for the stockpile to limit the impacted soil from leaching to the surface water or groundwater. The contractor shall insure that no soils present in the vicinity of SB-6 (benzene impacted soils) are inadvertently excavated.

In an effort to limit soil erosion and sediment control of the soil stockpile, both non-structural and structural controls shall be used to control storm water run-off and related erosion from the soil stockpile. The structural controls, such as hay bales, shall be used in conjunction with silt fencing and diversion ditches to control surface water runoff. The exact locations of structural controls shall be determined based on the locations prescribed in the construction plans, prior to use of heavy equipment. Controls shall be implemented concurrently with all construction activity and shall be continued throughout the period of construction. Additionally, the County's selected contractor shall implement controls dictated by periods of intense weather. Weather forecasts shall be monitored to provide an alert of such weather conditions.

The County's selected contractor shall install suitable erosion and sediment control measures around the site as depicted in the Stantec plans prior to initiation of any site activities. The contractor shall augment the existing erosion controls as necessary, including the strategic placement of silt fence and hay bales. The controls shall be inspected after each rain event by the contractor to ensure continued performance pursuant to the approved SWPPP.

As noted above no excavated soils are to be re-used on the project site. The need to maintain dust control is emphasized herein due to the presence of higher levels of arsenic than was previously discovered. Furthermore, all excavated material not immediately removed from the site via direct load should be stockpiled on and covered by a minimum 6 mil poly sheeting when left on site and not scheduled to be immediately removed in that day.

Clean backfill is to be imported to the site and emplaced in the four areas shown on Figure 2 in the Appendix entitled, "Washington Park Preserve Clean Fill Overview". Based on the test pit results only those four areas identified do not currently have the requisite 2 feet of clean cover over buried debris. It is our understanding as well that clean fill is also going to be used during construction of the play field and playground areas which will further increase the buffer above the buried debris.



SUMMARY REPORT

The Contractor should prepare a report documenting field activities and summarizing the movement and disposal of on-site soils. The contractor is to provide 'as-built' drawings to the County as well as the results of testing for 'clean fill' constituents. The data collected will be illustrated on figures documenting the location of construction activity and prior assessment results. The figures will illustrate soil relocation areas with associated survey maps.

All data from the analytical testing conducted for any dewatering/treatment activity, including for the NPDES application and for any required treatment mandated by the NPDES permit shall also be provided.



FIGURES

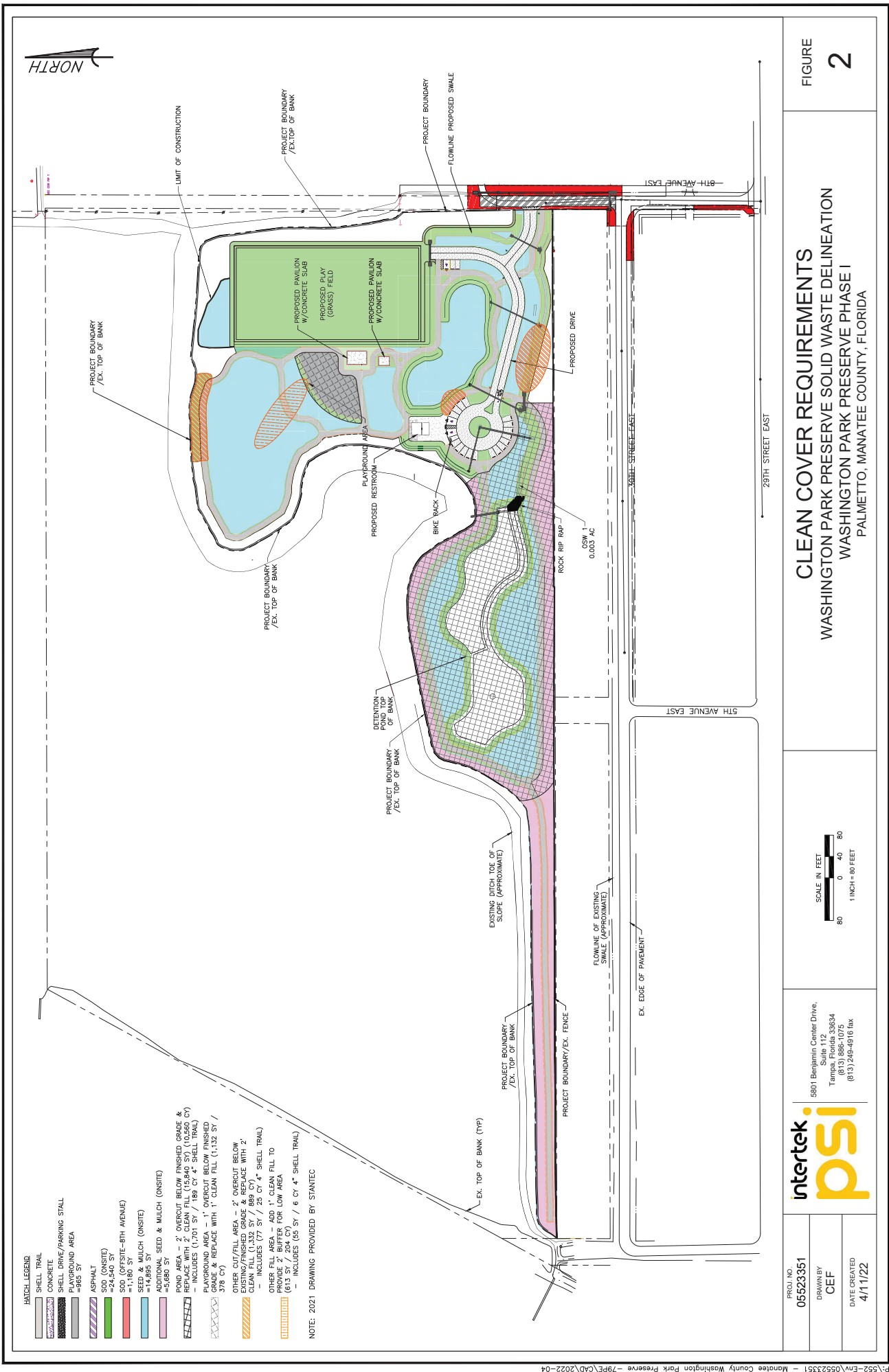


5801 Benjamin Center Drive,
Suite 112
Tampa, Florida 33634
(813) 886-1075
(813) 249-4916 fax



PROJECT NO. 05523124	DRAWN BY CEF	DATE CREATED 8/12/2020
		REFERENCE SCALE 1:1,800

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APPENDIX A

**Correspondence Dated January 23, 2007 from Drs. Robert and
Stuchal to FDEP Bureau
of Waste Cleanup**





Center for Environment & Human Toxicology

PO Box 110885
Gainesville, FL 32611-0885
352-392-4700, ext. 5500
352-392-4707 Fax

January 23, 2007

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Off-Road Vehicle Park SCTL for Arsenic

Dear Ms. Mora-Applegate:

At your request, we have calculated a provisional soil cleanup target level (SCTL) for arsenic under an off-road vehicle park scenario. As you know, we have developed default residential and commercial/industrial land use SCTLs for the Department in the context of Chapter 62-777, FAC. The exposure assumptions used to develop these default SCTLs do not represent well the exposure circumstances likely to exist for an off-road vehicle park; hence, the need to develop provisional values.

Arsenic is a carcinogen, and the risk to exposed individuals will be a function in part of both exposure frequency and exposure duration. In the absence of definitive information on frequency and duration of park use, we have chosen values consistent with recent risk assessments for park and recreational land use in Florida; namely, 200 days/year for 14 years. This represents an individual who begins visiting the park as a child, and continues visits as an adolescent and young adult. We recognize that the off-road park may be used primarily by adults, but have developed an SCTL for a child/adolescent/young adult in order to be health protective. Riders that begin as children will have, over time, somewhat greater exposure per unit body weight, and consequently greater risk, than adult riders.

Another departure from default SCTL exposure assumptions is in the inhalation of dust. All SCTLs include consideration of potential intake of contaminants by incidental ingestion, through dermal contact, and from inhalation of dust and volatilized material. Default scenarios are based on inhalation of dust from undisturbed soil, which clearly does not apply to off-road vehicle use. The Arizona Department of Health Services (under agreement with the Agency for Toxic Substances and Disease Registry of the U.S. Public Health Service) derived a particle emission factor (PEF) for fugitive dusts released during all-terrain vehicle (ATV) activities. This PEF value is based on ATV PM10 emission rates estimated from emission modeling, and was used in the calculation of SCTL values presented here.

The Foundation for The Gator Nation

An Equal Opportunity Institution

Chapter 62-777, F.A.C. includes an oral bioavailability factor of 0.33 for arsenic in the calculation of cleanup target levels. This bioavailability factor was also included in the derivation of a vehicle park SCTL. The provisional SCTL for arsenic under an off-road vehicle park scenario is **5.5 mg/kg**.

Please let us know if you have any questions in the derivation of this SCTL.

Sincerely,

A handwritten signature in black ink, appearing to read "Stephen M. Roberts", with a stylized, flowing script.

Stephen M. Roberts, Ph.D.

A handwritten signature in black ink, appearing to read "Leah D. Stuchal", with a stylized, flowing script.

Leah D. Stuchal, Ph.D.

Equations and Assumptions Used to Calculate Soil Cleanup Target Levels (SCTLs) for an Off-Road Vehicle Park Scenario

$$SCTL = \frac{TR \times BW \times AC}{EF \times ED \times FC \times \left[(CSF_o \times IR_o \times CF) + (CSF_d \times SA \times AF \times DA \times CF) + \left(CSF_i \times IR_i \times \left(\frac{1}{VF} + \frac{1}{PEF} \right) \right) \right]}$$

$$VF = Q/C \times 10^{-4} (m^2/cm^2) \times \frac{\sqrt{3.14 \times D_A \times T}}{2 \times r_b \times D_A}$$

Abbreviation	Definition	Value
SCTL	Soil Cleanup Target Level	chemical-specific (mg/kg)
TR	Target Cancer Risk	1.00E-06
BW	Body Weight	39 (kg)
AT	Carcinogenic Averaging Time	25550 (d)
EF	Exposure Frequency	200 (d/y)
ED	Exposure Duration	14 (y)
FC	Fraction from Contaminated Source	1.0
CSF _o	Oral Cancer Slope Factor	chemical-specific (mg/kg-d) ⁻¹
CSF _d	Dermal Cancer Slope Factor	chemical-specific (mg/kg-d) ⁻¹
CSF _i	Inhalation Cancer Slope Factor	chemical-specific (mg/kg-d) ⁻¹
CF	Correction Factor	1.00E-06 (kg/mg)
SA	Surface Area	4200 (cm ² /d)
AF	Adherence Factor	0.11 (mg/cm ²)
DA	Dermal Absorption	0.01
IR _o	Ingestion Rate	129 (mg/d)
IR _i	Inhalation Rate	12.2 (m ³ /d)
VF	Volatilization Factor	chemical-specific (m ³ /kg)
PEF	Particulate Emission Factor	4.60E+09 (m ³ /kg)
Q/C	Inverse of the Mean Concentration	85.61 (q/m ² -s)
D _A	Apparent Diffusivity	chemical-specific (cm ² /s)
T	Exposure Interval	ED X 3.1536E+07 (s)
ρ _b	Dry Soil Bulk Density	1.5 (g/cm ³)

APPENDIX B

Phase II Environmental Site Assessment Results Washington Park Site Palmetto, FL

**Prepared by Cardno TBE
Dated June 2014**



Phase II Environmental Site Assessment

**Conducted Under
EPA Cooperative Agreement No. BF-95481811-0**

**Washington Park Site
Palmetto, Manatee County, Florida
Parcel ID Nos. 2310800004, 2310600008,
2310200007, and 2519600007**

prepared for:



Sarasota/Manatee Metropolitan Planning Organization

7632 15th Street East
Sarasota, FL 34243-3248

prepared by:



Shaping the Future

380 Park Place Boulevard, Suite 300
Clearwater, FL 33759
Project No. 00022-959-00

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1.0 EXECUTIVE SUMMARY

Cardno TBE has completed a Phase II Environmental Site Assessment of the property identified as the Washington Park Site located in, Palmetto, Manatee County, Florida (Parcel ID Nos. 2310800004, 2310600008, 2310200007, and 2519600007). The Site consists of approximately 81.5 acres of land with a current recorded land use of County-owned vacant land. A USGS vicinity map for the site is provided on **Figure 1** and the approximate site boundaries are depicted on **Figure 2**.

This assessment was prepared in general accordance with the *American Society of Testing and Materials (ASTM) Standard Practices for Environmental Site Assessments: Phase II ESA Process* (ASTM Designation: E1903-11). The purpose of this assessment was to evaluate the recognized environmental conditions (RECs) identified in the Phase I ESA, completed by Cardno TBE in March 2014 for the purpose of providing sufficient information regarding the nature and extent of contamination (if present). This information can be used to assist in making informed business decisions about the property; and where applicable, provide the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA.

The Phase I ESA identified the following recognized environmental conditions (RECs) at the subject property as defined by ASTM Standard Practice E1527-05:

- The subject site has documented on-site borrow pit activity. There is a potential for impacts associated with heavy equipment used for excavation and potential fill material from off-site sources during excavation.
- The subject site is located adjacent to a railroad; therefore, there is the potential for on-site impacts related to historical pesticide and herbicide use (that may have petroleum constituents) and metals.

Please note: this is a cursory summary of the Phase I ESA findings. The full report must be read in its entirety for a comprehensive understanding of these conclusions.

Phase II Scope Summary:

- Conduct limited test pit excavations to determine the general characteristic of on-site fill material with organic vapor analyzer (OVA) screening.
- Installation of eight soil borings within areas of concern based on site and test pit observations with OVA screening.
- Installation of four groundwater monitor wells based on the Phase I ESA findings, test pit and soil boring observations.
- Collection of soil and groundwater samples for laboratory analysis of petroleum hydrocarbons, low-level polycyclic aromatic hydrocarbons (PAHs), and 8 RCRA metals.

Phase II ESA Results:

- The test pit excavation activities identified plastic, metal, glass, brick, and/or concrete debris at all locations. Debris was observed from approximately 2 feet below land surface (bls) to depths of 8 feet bls in all borings installed along the southern portion of the property. No debris was encountered at the boring installed near the northwest corner of the site.
- Laboratory analysis of 10 soil samples collected at interval depths from five boring locations revealed limited soil impacts above residential direct-exposure Soil Cleanup Target Levels (SCTLs) for arsenic in six soil samples and benzo(a)pyrene in one soil sample. These impacts above residential direct-exposure SCTLs are vertically delineated in all but one sample location. The concentration of benzene was also detected above leachability SCTLs in three soil samples.
- Laboratory analysis of shallow groundwater samples collected from four temporary wells installed on-site revealed Groundwater Cleanup Target Level (GCTL) exceedances in samples collected from TMW-3 and TMW-4. The concentration of arsenic exceeded the GCTL in TMW-3 and the concentration of dibenz(a,h)anthracene exceeded the GCTL in TMW-4.

Recommendations:

- Additional soil and groundwater assessment is recommended to delineate the extent of identified GCTL and SCTL exceedances.
- A deed restriction on groundwater use is recommended due to the identified GCTL exceedances.
- If the property is not being considered for residential land use, no additional assessment appears warranted; however, institutional and/or engineering controls on the property may be required.

2.0 BACKGROUND

2.1 Site Description and Features

The subject property is located at 705 and 715 10th Avenue West, Palmetto, Manatee County, Florida (as depicted in **Figures 1 and 2**). The short legal description of the subject property parcel provided in County records, is as follows:

- **Parcel No. 2310800004 (605 E 39th St, Palmetto, 8.5 acres)**
ALL THAT PART OF LOTS 53 & 54 LYING E OF A C L RR R/W & S OF PUBLIC RD
PALMETTO GROVE & GARDEN CO PLAT P-83 PI#23108.0000/4
- **Parcel No. 2310600008 (no address, combined total of 0.6 acres)**
THAT PART OF LOTS 21 & 33 LYING E OF RR PALMETTO GROVE & GARDEN CO PLAT P-82 PI#23106.0000/8
- **Parcel No. 2310200007 (no address, 33 acres)**
THAT PART OF SE1/4 OF SW1/4 LY E OF RR R/W P-80 PI#23102.0000/7
- **Parcel No. 2519600007 (no address, 39.4 acres)**
TRACTS 18,30 & 50 LESS THE S 32.5 FT, TRACTS 19,20 LY E OF RR R/W, TRACTS 31,32,51,52 P-41 PALMETTO GROVE & GARDEN CO PLAT PI#25196.0000/7

2.2 Site History and Land Use

Based on data contained in the Phase I ESA, the site appeared to be undeveloped vacant land until approximately 1973 when land movement/potential excavation was visible, on an aerial photograph, within the southeast quadrant of the subject site. This is consistent with the reported use of the subject site as a borrow pit as part of a highway construction project. Evidence of borrow pit/scarred land within the southeast quadrant of the subject site remained visible through approximately 2004.

2.3 Adjacent Property Use

The current surrounding land use is depicted on **Figure 2**. Land use around the subject site is primarily residential, with a commercial property (boat and RV storage) to the east.

2.4 Summary of Previous Assessments

Other than the Phase I ESA completed by Cardno TBE in March 2014, no assessment data directly related to the subject property has been documented. The Phase I ESA revealed the following REC's:

- The subject site has documented on-site borrow pit activity. There is a potential for impacts associated with heavy equipment used for excavation and potential fill material from off-site sources during excavation.

- The subject site is located adjacent to a railroad; therefore, there is the potential for on-site impacts related to historical pesticide and herbicide use (that may have petroleum constituents) and metals.

2.5 Purpose

The purpose of the Phase II ESA was to evaluate the RECs identified in the Phase I ESA in order to provide sufficient information regarding the nature and extent of contamination (if present). This information can be used to assist in making informed business decisions about the property; and where applicable, to provide the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA. The scope for this Phase II ESA was designed based on these criteria.

2.6 Limitations/Exceptions of Assessment

The conclusions and recommendations contained within this report are based on the data developed during the Phase II ESA investigation. This report was prepared for the Client, and is intended solely for their use. This report is not intended for third-party use without the expressed written consent of the Client and Cardno TBE. This report has been prepared in general accordance with ASTM E 1903-11 Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process. No other warranty, expressed or implied, is made.

2.7 Limiting Conditions and Methodologies Used

No ESA can eliminate all uncertainty. Furthermore, any sample, either surface or subsurface, taken for chemical analysis may or may not be representative of a larger population.

Professional judgment and interpretation are inherent in the process and uncertainty is inevitable. Additional assessment may be able to reduce the uncertainty. Even when Phase II ESA work is executed with an appropriate site-specific standard of care, certain conditions present especially difficult detection problems. Such conditions may include, but are not limited to, complex geological settings, the fate and transport characteristics of certain hazardous substances and petroleum products, the distribution of existing contamination, physical limitations imposed by the location of utilities and other man-made objects, and the limitations of assessment technologies.

Phase II ESAs do not generally require an exhaustive assessment of environmental conditions on a property. There is a point at which the cost of information obtained and the time required to obtain it outweigh the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. If hazardous substance or petroleum releases are confirmed on a parcel of property, the extent of further assessment is related to the degree of uncertainty that is acceptable to the user with respect to the real estate transaction.

Measurements and sampling data only represent the site conditions at the time of data collection. Therefore, the usability of data collected as part of this Phase II ESA may have a finite lifetime depending on the application and use being made of the data. An environmental professional should evaluate whether the generated data are appropriate for any subsequent use beyond the original purpose for which it was collected.

3.0 PHASE II ESA ACTIVITIES

3.1 Sampling Objectives

3.1.1 Conceptual Site Model and Sampling Plan

The conceptual site model takes into consideration the potential distributions of contaminants with respect to their physical properties and anticipated fate and transport characteristics in the setting being assessed. The sampling plan was designed to provide for the collection of potentially contaminated environmental media, if they occur, at locations and depths where the highest concentrations are likely to occur.

The sampling plan developed for this project was based on a potentially variable direction of shallow groundwater flow, as well as the proximity of identified RECs.

3.1.2 Chemical Testing Plan/QAQC

The chemical testing plan was designed to detect the contaminants suspected to be present in the samples collected for comparison to established regulatory cleanup criteria. This testing plan included tests which provide quality assurance (QA) and techniques that provide quality control (QC) over the chemical analysis. A completed chain of custody record accompanied each sample shipment to the analytical laboratory. Chain of custody records provide written documentation regarding sample collection and handling, identify the persons involved in the chain of sample possession, and a written record of requested analytical parameters. In addition, trip blanks were included in all coolers containing samples for VOC analysis.

3.2 Phase II Investigation and Methods

3.2.1 Test Pit Investigation

On May 13, 2014, Cardno TBE and WD Environmental, Inc. advanced six test pits on site to determine the general characteristics of the on-site fill material. Test pits were advanced to the water table across the southern portion of the site as depicted on **Figure 3**. Locations were determined based on historical aerials as well as on-site observations and soils were screened from test pits with an Organic Vapor Analyzer (OVA) equipped with a Photoionization Detector (PID).

3.2.2 Soil Sample Collection

On May 15, 2014, Cardno TBE and Preferred Drilling Solutions, Inc. advanced eight (8) borings within the boundaries of the subject site to a depths between 5.5 to 15.5 feet below land surface (bls). At the time of the assessment, the water table was

encountered between 3 and 15 feet bls across the site. Soil boring locations are depicted on **Figure 3**.

Soil samples were recovered at approximately one-half foot bls, one foot bls, then recovered at two-foot intervals (starting at two feet bls) to the end of the boring. Samples were used for lithologic evaluation and were screened at these intervals for combustible vapors with an OVA equipped with a photoionization detector (PID). Copies of the field sampling logs are included in **Appendix A**.

None of the samples collected for screening exhibited PID readings above 10 parts per million (ppm). In addition, no soil staining or odors indicating excessive contamination were noted. Soil samples were collected for laboratory analysis from soil borings SB-1, 2, 4, 6 and 8 at two shallow intervals (each), as these borings were determined to determine the relationship between debris encountered and environmental impacts (since no significant PID readings were noted). Samples were submitted to an accredited laboratory for the following analyses:

- VOCs via EPA method 8260
- Semi-volatiles via EPA Method 8270
- 8 RCRA Metals via Method 6010/7471

3.2.3 Groundwater Monitor Well Installations/Sample Collection

Four (4) shallow temporary groundwater monitor wells were installed on May 15, 2014, as depicted on **Figure 4** (Temporary Monitor Well Locations). These wells consisted of 1.0-inch diameter Schedule 40 PVC pipe with 10 feet of pre-pack well screen and were installed per FDEP Standard Operating Procedures.

Wells were installed to depths of 10 to 13 feet bls using a Direct-Push Technology (DPT) rig. After installation, monitor wells were sampled not less than 24 hour after development. Copies of the field sampling logs and well construction details are included in **Appendix A**. Groundwater samples were submitted to an accredited laboratory for analysis utilizing the same parameters and guidelines as the soil samples.

4.0 ENVIRONMENTAL ASSESSMENT RESULTS

4.1 Subsurface Conditions

4.1.1 Test Pit Investigation

Test pit observations and Geophysical field observations and OVA results revealed the following:

- Plastic, metal, glass, brick, and/or concrete debris were observed at all locations
- All PID readings were below 10 ppm
- Saturated soils were observed at varying depths across the southern portion of the site (between 3 and 10 feet bls)

4.1.2 Site-specific Soil Lithology

Soil characterization observed during boring installation revealed primarily clayey fine sands or sandy clays to approximately 10 to 12 feet bls. A clay layer was encountered at depths varying from 10 to 15 feet bls in three of the eight borings advanced as part of groundwater monitor well installation. Limestone was encountered at two soil boring at approximately 5 feet bls (SB-4 and SB-6).

4.1.3 Site-specific Depth to Water Evaluation

After at least 24 hours had elapsed after well development and prior to groundwater sampling, depth to water (dtw) measurements were collected from the sampled monitor wells. Due to the distance between wells on this large site, as well as site features such as trees and vegetation, monitor wells were not surveyed to determine a groundwater contour.

4.2 Analytical Data

4.2.1 Soil Analytical Results

A comparison of the laboratory analytical results of the collected soil samples to Chapter 62-777 Soil Cleanup Target Levels (SCTLs) is summarized in **Table 1** and BaP Equivalent Calculations are summarized in **Table 1b**. In summary:

- The concentration of arsenic was detected above the SCTL for the residential direct-exposure criteria at the 0.5-2.0 ft bls interval at all sampled locations (SB-1, 2, 4, 6, and 8). The concentration of arsenic also exceeded the residential direct-exposure criteria at the 2.0-4.0 ft bls interval at one sampled location (SB-2).
- The concentration of benzene exceeded the SCTL for leachability in three soil samples (SB-6 @ 0.5-2.0 ft bls, SB-6 @ 2-4 ft bls and SB-8 at 0.5-2.0 ft bls).
- Laboratory analysis of the soil sample collected from SB-4 @ 0.5-2.0 ft bls revealed benzo(a)pyrene above its SCTL for the residential direct-exposure criteria, but well below the commercial/industrial direct-exposure criteria.

- All other analyzed parameters were not detected or were reported below their respective SCTLs.

4.2.2 Groundwater Analytical Results

A comparison of the laboratory analytical results of the shallow groundwater samples to Chapter 62-777 Groundwater Cleanup Target Levels (GCTLs) is summarized in **Table 2**. In summary:

- The concentration of arsenic was reported above its GCTL in TMW-3, but well below the Natural Attenuation Default Concentration (NADC).
- The concentration of dibenz(a,h)anthracene was reported above its GCTL in TMW-4, but well below the NADC.
- All other analyzed parameters were not detected or were reported below their respective GCTLs.

4.2.3 Laboratory Analyses Quality Control (QC) Observations and Interpretations

No significant QA/QC issues were encountered by Sun Labs. Samples were received in good condition. All spikes and surrogates were recovered within established limits, and all method-specified holding times were met. Minor exceptions noted on select quality control batch samples were primarily due to matrix interference and did not affect data quality or usability.

Based on the QA/QC statements issued by the laboratory, the laboratory data included in this report have been deemed reliable for the Environmental Professional to determine if the corresponding RECs have impacted the subject property.

Laboratory analytical reports are included as **Appendix B**.

5.0 DISCUSSION OF FINDINGS AND CONCLUSIONS

5.1 Recognized Environmental Conditions

Based on the results of this assessment, the recognized environmental conditions discussed in the Phase I ESA appear to have been evaluated. No additional RECs were encountered during this investigation.

5.2 Affected Media

Arsenic was detected at concentrations exceeding the residential direct-exposure SCTL throughout the site; impacts were vertically defined at four or the five sample locations. Arsenic also exceeded the GCTL in the well TMW-3 groundwater sample.

In addition to arsenic, PAHs (as BaP-equivalents) exceeded the residential direct-exposure SCTL at boring location SB-4. SVOCs also exceeded the GCTL in the monitor well TMW-4 location (note: well TMW-4 is not co-located with boring SB-4).

Leachability SCTL exceedances of benzene were identified at two soil boring locations at two different soil horizons (3 soil samples). Although GCTL exceedances of benzene were not identified in groundwater collected from temporary monitor well locations; it has not been determined if benzene has impacted groundwater on site because soil impacts were not co-located with the installation of a temporary monitor well.

5.3 Evaluation of Data Quality

The data gathered during this assessment is sufficient to determine whether hazardous substances or petroleum products were stored, released or disposed at the property.

6.0 RECOMMENDATIONS

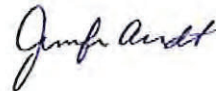
Based on the results of this investigation:

- Additional soil and groundwater assessment is recommended to delineate the extent of identified GCTL and SCTL exceedances.
- Engineering or institutional controls may be appropriate for this property pending impact delineation and based on the intended land use.
- Confirmation groundwater samples are recommended at limited well locations with GCTL exceedances.

7.0 STATEMENT OF QUALITY AND PROFESSIONAL CERTIFICATION

This Phase II ESA was prepared for the Proposed Washington Park Site, in Manatee County, Florida. All data and calculations presented herein have been checked for accuracy and the basis for all conclusions and recommendations have been described. I further certify that this document meets or exceeds Cardno TBE's standards for editorial content, technical accuracy, and quality assurance verification.

Prepared by:

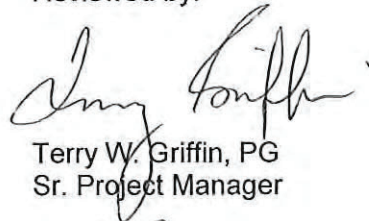


Jennifer Arndt
Project Geologist II

Date: 7-10-14

I declare that I meet the definition of Environmental Professional as defined in 40 CFR Part 312.10 and that I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. I further certify that, in my professional judgment, this report meets the general requirements of ASTM Method E 1903-11, Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process.

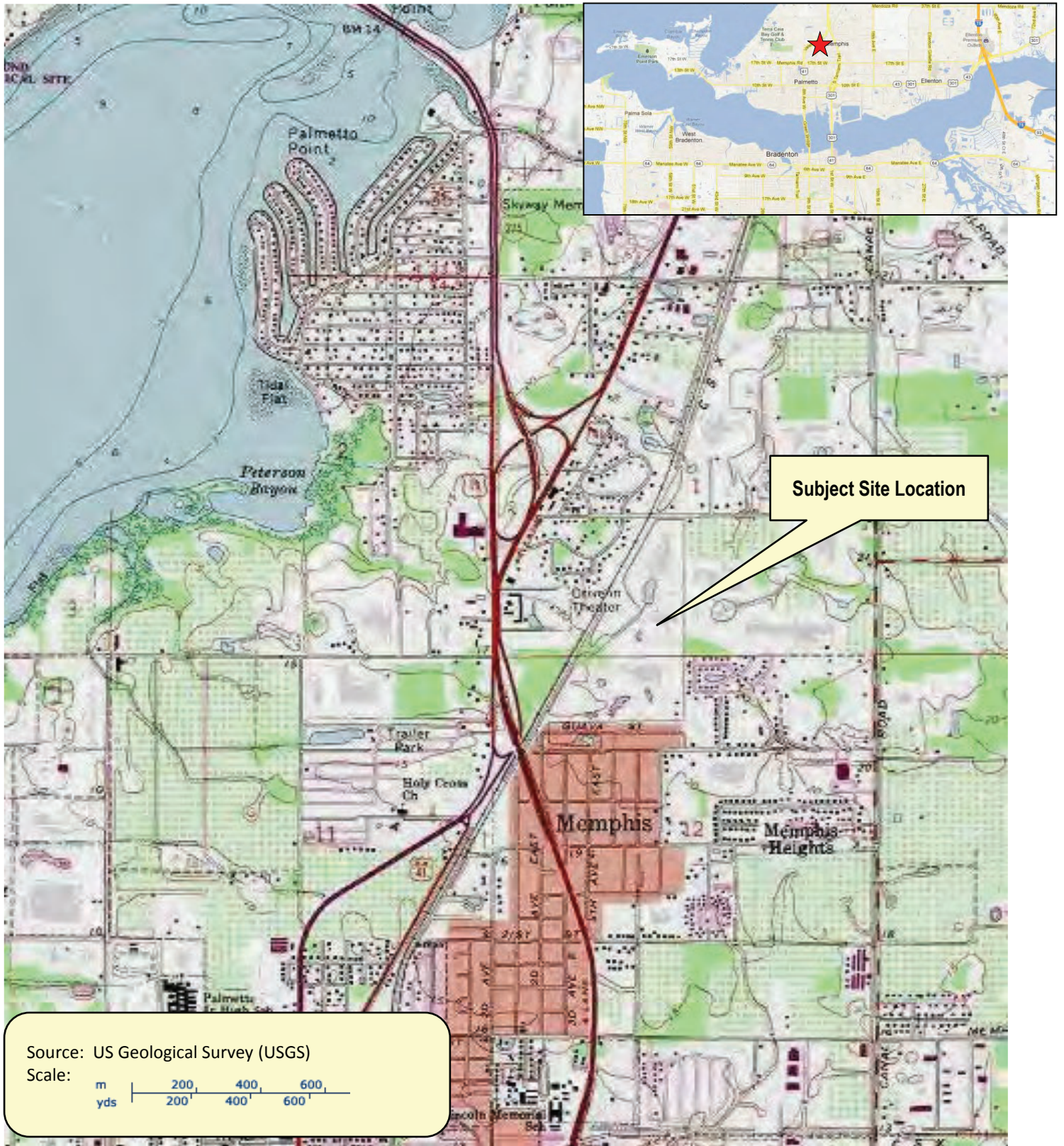
Reviewed by:



Terry W. Griffin, PG
Sr. Project Manager

Date: 7-10-14

Figures



**Washington Park Site
(a/k/a Genesis Project)**
Palmetto, Manatee County, Florida



**Figure 1
USGS/Site Vicinity Map**



Tables

Table 1
Soil Analytical Summary

Meth.	Parameter / CAS Number	CAS #	Units	DE-Residential	DE-Commercial/Industrial	Leach-GW	SB-1@.50ft-2ft	SB-1@2ft-4ft	SB-2@.50ft-2ft	SB-2@2ft-4ft	SB-4@.50ft-2ft	SB-4@2ft-4ft	SB-6@.50ft-2ft	SB-6@2ft-4ft	SB-8@.50ft-2ft	SB-8@2ft-4ft
Date Collected							5/15/2014 Result	5/15/2014 Qual	5/15/2014 Result	5/15/2014 Qual	5/15/2014 Result	5/15/2014 Qual	5/15/2014 Result	5/15/2014 Qual	5/15/2014 Result	5/15/2014 Qual
Metals																
6010	Arsenic	7440-38-2	mg/kg	2.1	12	***	3.2	1.5	4.9	3.1	2.8	1.1	3.0	1.4	2.2	1.2
6010	Barium	7440-39-3	mg/kg	120	130000	1600	15	18	28	38	28	70	17	15	28	13
6010	Cadmium	7440-43-9	mg/kg	82	1700	7.5	0.097	0.098	0.24	0.21	0.26	0.060	0.52	0.24	0.16	0.062
6010	Chromium	7440-47-3	mg/kg	210	470	38	11	6.6	26	18	16	22	20	24	24	6.0
6010	Lead	7439-92-1	mg/kg	400	1400	***	0.92	48	7.6	41	14	4.8	2.4	2.3	8.1	3.7
6010	Selenium	7782-49-2	mg/kg	440	11000	5.2	0.18	0.20	0.17	0.18	0.18	0.18	0.19	0.20	0.19	0.18
6010	Silver	7440-22-4	mg/kg	410	8200	17	0.19	0.21	0.18	0.19	0.19	0.19	0.21	0.22	0.20	0.20
7471	Mercury	7439-97-6	mg/kg	3	17	2.1	0.0041	0.12	0.022	0.052	0.0041	0.040	0.016	0.052	0.027	0.013
Volatile Organic Compounds																
8260	1,1,1-Trichloroethane	71-55-6	mg/kg	730	3900	1.9	0.0011	0.0014	0.0011	0.0010	0.0011	0.00097	0.0011	0.00098	0.0011	0.00092
8260	1,1,2,2-Tetrachloroethane	79-34-5	mg/kg	0.7	1.2	0.001	0.00046	0.00056	0.00043	0.00041	0.00042	0.00039	0.00042	0.00039	0.00043	0.00037
8260	1,1,2-Trichloroethane	79-00-5	mg/kg	1.4	2	0.03	0.00041	0.00050	0.00038	0.00036	0.00038	0.00034	0.00037	0.00035	0.00038	0.00033
8260	1,1-Dichloroethane	75-34-3	mg/kg	390	2100	0.4	0.0011	0.0013	0.0010	0.00095	0.00098	0.00090	0.00098	0.00090	0.00098	0.00085
8260	1,1-Dichloroethene	75-35-4	mg/kg	95	510	0.06	0.0012	0.0015	0.0012	0.0011	0.0011	0.0010	0.0011	0.0011	0.0011	0.00099
8260	1,2,4-Trimethylbenzene	95-63-6	mg/kg	18	95	0.3	0.00037	0.00095	0.0014	0.0015	0.0014	0.00034	0.0013	0.0013	0.0010	0.00070
8260	1,2-Dichlorobenzene	95-50-1	mg/kg	880	5000	17	0.00043	0.00053	0.00041	0.00039	0.00040	0.00037	0.00040	0.00037	0.00040	0.00035
8260	1,2-Dichloroethane	107-06-2	mg/kg	0.5	0.7	0.01	0.00047	0.00057	0.00044	0.00042	0.00043	0.00040	0.00043	0.00040	0.00043	0.00037
8260	1,2-Dichloropropane	78-87-5	mg/kg	0.6	0.9	0.03	0.00064	0.00078	0.00060	0.00057	0.00059	0.00054	0.00059	0.00054	0.00059	0.00051
8260	1,3,5-Trimethylbenzene	108-67-8	mg/kg	15	80	0.3	0.00059	0.00072	0.00061	0.00063	0.00055	0.00050	0.00054	0.00066	0.00055	0.00047
8260	1,3-Dichlorobenzene	541-73-1	mg/kg	380	2200	7	0.00030	0.00037	0.00028	0.00027	0.00028	0.00025	0.00028	0.00026	0.00028	0.00024
8260	1,3-Dichloropropene (Total)	542-75-6	mg/kg	1.4	2.2	0.002	0.00050	0.00061	0.00047	0.00044	0.00046	0.00042	0.00046	0.00042	0.00046	0.00040
8260	1,4-Dichlorobenzene	106-46-7	mg/kg	6.4	9.9	2.2	0.00088	0.0011	0.00084	0.00079	0.00082	0.00075	0.00081	0.00075	0.00082	0.00071
8260	2-Butanone (MEK)	78-93-3	mg/kg	16000	110000	17	0.0021	0.0021	0.0077	0.0076	0.0082	0.0018	0.0020	0.018	0.011	0.0063
8260	2-Hexanone	591-78-6	mg/kg	24	130	1.4	0.0047	0.0057	0.0044	0.0042	0.0043	0.0040	0.0043	0.0040	0.0043	0.0037
8260	4-Methyl-2-pentanone (MIBK)	108-10-1	mg/kg	4300	44000	2.6	0.0027	0.0032	0.0025	0.0024	0.0025	0.0022	0.0024	0.0023	0.0025	0.0021
8260	Acetone	67-64-1	mg/kg	11000	68000	25	0.036	0.12	0.032	0.037	0.081	0.0082	0.049	0.059	0.040	0.0078
8260	Benzene	71-43-2	mg/kg	1.2	1.7	0.07	0.0021	0.0041	0.0029	0.0041	0.0056	0.00080	0.0078	0.011	0.0093	0.0029
8260	Bromochloromethane	74-97-5	mg/kg	95	530	0.6	0.00042	0.00052	0.00040	0.00038	0.00039	0.00036	0.00039	0.00036	0.00039	0.00034
8260	Bromodichloromethane	75-27-4	mg/kg	1.5	2.2	0.004	0.00039	0.00048	0.00037	0.00035	0.00036	0.00033	0.00036	0.00033	0.00036	0.00031
8260	Bromoforn	75-25-2	mg/kg	48	93	0.03	0.00070	0.00085	0.00066	0.00063	0.00065	0.00059	0.00064	0.00060	0.00065	0.00056
8260	Bromomethane	74-83-9	mg/kg	3.1	16	0.05	0.0014	0.0017	0.0013	0.0013	0.0013	0.0012	0.0013	0.0012	0.0013	0.0011
8260	Carbon disulfide	75-15-0	mg/kg	270	1500	5.6	0.0013	0.0025	0.0013	0.0012	0.0012	0.0011	0.0012	0.0011	0.0012	0.0011
8260	Carbon tetrachloride	56-23-5	mg/kg	0.5	0.7	0.04	0.0011	0.0013	0.0010	0.00095	0.00098	0.00090	0.00098	0.00090	0.00098	0.00085
8260	Chlorobenzene	108-90-7	mg/kg	120	650	1.3	0.00061	0.00075	0.00058	0.00065	0.00056	0.00052	0.00056	0.00052	0.00056	0.00049

Table 1
Soil Analytical Summary

Meth.	Date Collected	Parameter / CAS Number	CAS #	Units	DE-Residential	DE-Commercial/Industrial	Leach-GW	SB-1@.50ft-2ft		SB-1@2ft-4ft		SB-2@.50ft-2ft		SB-2@2ft-4ft		SB-4@.50ft-2ft		SB-4@2ft-4ft		SB-6@.50ft-2ft		SB-6@2ft-4ft		SB-8@.50ft-2ft		SB-8@2ft-4ft	
								Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
8260		Chloroethane	75-00-3	mg/kg	3.9	5.4	0.06	0.0011	U	0.0013	U	0.0010	U	0.00095	U	0.00098	U	0.00090	U	0.00098	U	0.00090	U	0.00098	U	0.00085	U
8260		Chloroform	67-66-3	mg/kg	0.4	0.6	0.4	0.00097	U	0.0012	U	0.00092	U	0.00087	U	0.00090	U	0.00082	U	0.00089	U	0.00083	U	0.00090	U	0.00078	U
8260		Chloromethane	74-87-3	mg/kg	4	5.7	0.01	0.0012	U	0.0015	U	0.0012	U	0.0011	U	0.0011	U	0.0010	U	0.0011	U	0.0011	U	0.0011	U	0.00099	U
8260		cis-1,2-Dichloroethene	156-59-2	mg/kg	33	180	0.4	0.00097	U	0.0012	U	0.00092	U	0.00087	U	0.00090	U	0.00082	U	0.00089	U	0.00083	U	0.00090	U	0.00078	U
8260		Dibromochloromethane	124-48-1	mg/kg	1.5	2.3	0.003	0.00020	U	0.00025	U	0.00019	U	0.00018	U	0.00019	U	0.00017	U	0.00019	U	0.00017	U	0.00019	U	0.00016	U
8260		Dibromomethane	74-96-3	mg/kg	96	550	0.3	0.00023	U	0.00028	U	0.00022	U	0.00021	U	0.00021	U	0.00019	U	0.00021	U	0.00020	U	0.00021	U	0.00018	U
8260		Dichlorodifluoromethane	75-71-8	mg/kg	77	410	44	0.0011	U	0.0013	U	0.0010	U	0.00095	U	0.00098	U	0.00090	U	0.00098	U	0.00090	U	0.00098	U	0.00085	U
8260		Ethylbenzene	100-41-4	mg/kg	1500	9200	0.6	0.020	U	0.016	U	0.0020	U	0.0020	U	0.0017	U	0.00063	U	0.0032	U	0.0061	U	0.0028	U	0.0011	U
8260		Isopropylbenzene	98-82-8	mg/kg	220	1200	0.2	0.00061	U	0.00075	U	0.00058	U	0.00055	U	0.00056	U	0.00052	U	0.00056	U	0.00072	U	0.00056	U	0.00049	U
8260		Methyl tert-Butyl Ether (MTBE)	1634-04-4	mg/kg	4400	24000	0.09	0.00080	U	0.00097	U	0.00075	U	0.00071	U	0.00074	U	0.00067	U	0.00073	U	0.00068	U	0.00074	U	0.00064	U
8260		Methylene Chloride	75-09-2	mg/kg	17	26	0.02	0.0019	U	0.0027	U	0.0018	U	0.0017	U	0.0018	U	0.0016	U	0.0018	U	0.0017	U	0.0019	U	0.0016	U
8260		Styrene	100-42-5	mg/kg	3600	23000	3.6	0.00020	U	0.00025	U	0.00019	U	0.00018	U	0.00019	U	0.00017	U	0.00019	U	0.00017	U	0.00019	U	0.00016	U
8260		Tetrachloroethene	127-18-4	mg/kg	8.8	18	0.03	0.00078	U	0.00095	U	0.00073	U	0.00070	U	0.00072	U	0.00066	U	0.00072	U	0.00066	U	0.00072	U	0.00062	U
8260		Toluene	108-88-3	mg/kg	7500	60000	0.5	0.011	U	0.0097	U	0.0024	U	0.0039	U	0.0036	U	0.00066	U	0.0055	U	0.0083	U	0.0049	U	0.0022	U
8260		trans-1,2-Dichloroethene	156-80-5	mg/kg	53	290	0.7	0.0011	U	0.0014	U	0.0011	U	0.0010	U	0.0011	U	0.00097	U	0.0011	U	0.00098	U	0.0011	U	0.00092	U
8260		Trichloroethene	79-01-6	mg/kg	6.4	9.3	0.03	0.00074	U	0.00091	U	0.00070	U	0.00068	U	0.00069	U	0.00063	U	0.00068	U	0.00063	U	0.00069	U	0.00059	U
8260		Trichlorofluoromethane	75-69-4	mg/kg	270	1500	33	0.0011	U	0.0014	U	0.0011	U	0.0010	U	0.0011	U	0.00097	U	0.0011	U	0.00098	U	0.0011	U	0.00092	U
8260		Vinyl chloride	75-01-4	mg/kg	0.2	0.8	0.007	0.0016	U	0.0013	U	0.0010	U	0.00095	U	0.00098	U	0.00090	U	0.00098	U	0.00090	U	0.00098	U	0.00085	U
8260		Xylenes (Total)	1330-20-7	mg/kg	130	700	0.2	0.0024	U	0.00057	U	0.00030	U	0.0040	U	0.0038	U	0.00011	U	0.0043	U	0.0018	U	0.0012	U	0.0016	U

Semi-Volatile Organic Compounds & PAHs

8270		1-Methylnaphthalene	90-12-0	mg/kg	200	1800	3.1	0.0073	U	0.0082	U	0.0074	U	0.011	U	0.0075	U	0.0077	U	0.0077	U	0.0081	U	0.015	U	0.015	U
8270		2-Methylnaphthalene	91-57-6	mg/kg	210	2100	8.5	0.0062	U	0.0069	U	0.0063	U	0.015	U	0.0063	U	0.0065	U	0.0065	U	0.0069	U	0.013	U	0.012	U
8270		Acenaphthene	83-32-9	mg/kg	2400	20000	2.1	0.0046	U	0.0078	U	0.0047	U	0.0049	U	0.0047	U	0.0049	U	0.0049	U	0.0052	U	0.0094	U	0.0093	U
8270		Acenaphthylene	208-96-8	mg/kg	1800	20000	27	0.0049	U	0.0054	U	0.0050	U	0.0051	U	0.0051	U	0.0051	U	0.0051	U	0.0054	U	0.0099	U	0.0098	U
8270		Anthracene	120-12-7	mg/kg	21000	300000	2500	0.0038	U	0.0027	U	0.0038	U	0.0040	U	0.0040	U	0.0040	U	0.0040	U	0.0042	U	0.0076	U	0.0076	U
8270		Benz[a]anthracene	56-55-3	mg/kg	#	#	0.8	0.0033	U	0.0053	U	0.0034	U	0.018	U	0.20	U	0.0035	U	0.0035	U	0.0037	U	0.0067	U	0.019	U
8270		Benz[a]pyrene	50-32-8	mg/kg	0.1	0.7	8	0.0044	U	0.042	U	0.0045	U	0.024	U	0.40	U	0.0047	U	0.0047	U	0.0049	U	0.0090	U	0.019	U
8270		Benz[b]fluoranthene	205-99-2	mg/kg	#	#	2.4	0.0060	U	0.070	U	0.0061	U	0.051	U	0.79	U	0.0063	U	0.0063	U	0.0066	U	0.012	U	0.040	U
8270		Benz[g]hijperylene	191-24-2	mg/kg	2500	52000	32000	0.015	U	0.031	U	0.016	U	0.021	U	0.37	U	0.016	U	0.016	U	0.017	U	0.031	U	0.042	U
8270		Benz[k]fluoranthene	207-08-9	mg/kg	#	#	24	0.0042	U	0.021	U	0.0043	U	0.014	U	0.23	U	0.0044	U	0.0044	U	0.0047	U	0.0095	U	0.020	U
8270		Chrysene	218-01-9	mg/kg	#	#	77	0.0027	U	0.053	U	0.0027	U	0.032	U	0.29	U	0.0028	U	0.0028	U	0.0030	U	0.0055	U	0.017	U
8270		Dibenz[a,h]anthracene	53-70-3	mg/kg	#	#	0.7	0.017	U	0.019	U	0.017	U	0.017	U	0.091	U	0.017	U	0.017	U	0.018	U	0.034	U	0.033	U
8270		Fluoranthene	206-44-0	mg/kg	3200	59000	1200	0.0051	U	0.15	U	0.0052	U	0.024	U	0.24	U	0.0054	U	0.0054	U	0.0057	U	0.010	U	0.010	U
8270		Fluorene	86-73-7	mg/kg	2600	33000	160	0.0040	U	0.015	U	0.0041	U	0.0042	U	0.0041	U	0.0042	U	0.0042	U	0.0044	U	0.0081	U	0.0080	U
8270		Indeno[1,2,3-cd]pyrene	193-39-5	mg/kg	#	#	6.6	0.015	U	0.026	U	0.016	U	0.016	U	0.32	U	0.016	U	0.016	U	0.017	U	0.031	U	0.031	U

Washington Park Site, Palmetto

Table 1
Soil Analytical Summary

Meth.	Parameter / CAS Number	CAS #	Units	DE-Residential	DE-Commercial	Leach-GW	SB-1@.50ft-2ft	SB-1@2ft-4ft	SB-2@.50ft-2ft	SB-2@2ft-4ft	SB-4@.50ft-2ft	SB-4@2ft-4ft	SB-6@.50ft-2ft	SB-6@2ft-4ft	SB-8@.50ft-2ft	SB-8@2ft-4ft
	Date Collected						5/15/2014 Result	5/15/2014 Qual	5/15/2014 Result	5/15/2014 Qual	5/15/2014 Result	5/15/2014 Qual	5/15/2014 Result	5/15/2014 Qual	5/15/2014 Result	5/15/2014 Qual
8270	Naphthalene	91-20-3	mg/kg	55	300	1.2	0.012	U	0.012	U	0.012	U	0.013	U	0.025	U
8270	Phenanthrene	85-01-8	mg/kg	2200	36000	250	0.0062	U	0.0063	U	0.041	U	0.0065	U	0.013	U
8270	Pyrene	129-00-0	mg/kg	2400	45000	880	0.015	U	0.016	U	0.30	U	0.016	U	0.031	U
	BaP Equivalents		mg/kg	0.1	0.7	NA	NC		NC		0.6	NC	NC		NC	0

LEGEND:

I = Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
 *** = Isochability criteria values may be derived using the SPLP test to calculate site-specific SCTLs, if required.
 NA = Not Applicable
 NC = Not Calculated

NOTES:

This summary is provided for the convenience of our clients. The signed, hardcopy report is the official report.
 Unless noted by ^g, units have been converted to ug/L (water) or mg/kg (solids) for ease of comparison with Chapter 62-770 Cleanup Target Levels.
 Site concentrations for carcinogenic PAHs have been converted to Benzo(a)pyrene equivalents (SEE TABLE 1B) for each boring

Table 1b: Benzo(a)pyrene Conversion Table
For Direct Exposure Soil Cleanup Target Levels

Site Location: Washington Park Site, Palmetto

Soil Sample No. SB-1

Sample Date 5/15/2014

Depth (ft): 2-4 feet below land surface

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.053	1.0	0.0530
Benzo(a)anthracene	0.027	0.1	0.0027
Benzo(b)fluoranthene	0.070	0.1	0.0070
Benzo(k)fluoranthene	0.021	0.01	0.0002
Chrysene	0.053	0.001	0.0001
Dibenz(a,h)anthracene	0.010	1.0	0.0095
Indeno(1,2,3-cd)pyrene	0.026	0.1	0.0026

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = 0.1

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Soil Sample No. SB-2

Sample Date 5/15/2014

Depth (ft): 2-4 feet below land surface

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.024	1.0	0.0240
Benzo(a)anthracene	0.018	0.1	0.0018
Benzo(b)fluoranthene	0.051	0.1	0.0051
Benzo(k)fluoranthene	0.014	0.01	0.0001
Chrysene	0.032	0.001	0.0000
Dibenz(a,h)anthracene	0.009	1.0	0.0085
Indeno(1,2,3-cd)pyrene	0.008	0.1	0.0008

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = 0.0

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Soil Sample No. SB-4

Sample Date 5/15/2014

Depth (ft): 0.5-2 feet below land surface

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.400	1.0	0.4000
Benzo(a)anthracene	0.200	0.1	0.0200
Benzo(b)fluoranthene	0.790	0.1	0.0790
Benzo(k)fluoranthene	0.230	0.01	0.0023
Chrysene	0.290	0.001	0.0003
Dibenz(a,h)anthracene	0.091	1.0	0.0910
Indeno(1,2,3-cd)pyrene	0.320	0.1	0.0320

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = 0.6

The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Table 1b: Benzo(a)pyrene Conversion Table
For Direct Exposure Soil Cleanup Target Levels

Site Location: Washington Park Site, Palmetto

Soil Sample No. SB-8

Sample Date 5/15/2014

Depth (ft): 2-4 feet below land surface

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.019	1.0	0.0190
Benzo(a)anthracene	0.019	0.1	0.0019
Benzo(b)fluoranthene	0.040	0.1	0.0040
Benzo(k)fluoranthene	0.020	0.01	0.0002
Chrysene	0.017	0.001	0.0000
Dibenz(a,h)anthracene	0.017	1.0	0.0165
Indeno(1,2,3-cd)pyrene	0.016	0.1	0.0016

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = **0.0**

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Table 2
Groundwater Analytical Summary

Washington Park Site, Palmetto

Method	Parameter	CAS #	Units	GCTL	NADC	TMW-1		TMW-2		TMW-3		TMW-4	
	Date Collected					5/19/2014 Result	Qual	5/19/2014 Result	Qual	5/19/2014 Result	Qual	5/19/2014 Result	Qual
Metals													
6010	Arsenic	7440-38-2	ug/L	10	100	5.0	U	5.0	U	52		5.0	U
6010	Barium	7440-39-3	ug/L	2000	20000	180		62		81		65	
6010	Cadmium	7440-43-9	ug/L	5	50	0.93	U	0.93	U	0.93	U	0.93	U
6010	Chromium	7440-47-3	ug/L	100	1000	2.0	U	2.0	U	2.0	U	2.0	U
6010	Lead	7439-92-1	ug/L	15	150	4.7	U	4.7	U	4.7	U	4.7	U
6010	Selenium	7782-49-2	ug/L	50	500	4.4	U	4.4	U	4.4	U	11	I
6010	Silver	7440-22-4	ug/L	100	1000	2.1	U	2.1	U	2.1	U	2.1	U
7470	Mercury	7439-97-6	ug/L	2	20	0.018	U	0.018	U	0.018	U	0.018	U
Volatile Organic Compounds													
8260	1,1,1-Trichloroethane	71-55-6	ug/L	200	2000	0.19	U	0.19	U	0.19	U	0.19	U
8260	1,1,2,2-Tetrachloroethane	79-34-5	ug/L	0.2	2	0.19	U	0.19	U	0.19	U	0.19	U
8260	1,1,2-Trichloroethane	79-00-5	ug/L	5	500	0.92	U	0.92	U	0.92	U	0.92	U
8260	1,1-Dichloroethane	75-34-3	ug/L	70	700	0.23	U	0.23	U	0.23	U	0.23	U
8260	1,1-Dichloroethene	75-35-4	ug/L	7	70	0.34	U	0.34	U	0.34	U	0.34	U
8260	1,2,4-Trimethylbenzene	95-63-6	ug/L	10	100	0.37	U	0.37	U	0.37	U	0.37	U
8260	1,2-Dichlorobenzene	95-50-1	ug/L	600	6000	0.40	U	0.40	U	0.40	U	0.40	U
8260	1,2-Dichloroethane	107-06-2	ug/L	3	300	0.24	U	0.24	U	0.24	U	0.24	U
8260	1,2-Dichloropropane	78-87-5	ug/L	5	50	0.28	U	0.28	U	0.28	U	0.28	U
8260	1,3,5-Trimethylbenzene	108-67-8	ug/L	10	100	0.24	U	0.24	U	0.24	U	0.24	U
8260	1,3-Dichlorobenzene	541-73-1	ug/L	210	2100	0.34	U	0.34	U	0.34	U	0.34	U
8260	1,3-Dichloropropene (Total)	542-75-6	ug/L	0.4	40	0.11	U	0.11	U	0.11	U	0.11	U
8260	1,4-Dichlorobenzene	106-46-7	ug/L	75	750	0.21	U	0.21	U	0.21	U	0.21	U
8260	2-Butanone (MEK)	78-93-3	ug/L	4200	42000	2.1	U	2.1	U	2.1	U	2.1	U
8260	2-Hexanone	591-78-6	ug/L	280	2800	1.5	U	1.5	U	1.5	U	1.5	U
8260	4-Methyl-2-pentanone (MIBK)	108-10-1	ug/L	560	5600	1.3	U	1.3	U	1.3	U	1.3	U
8260	Acetone	67-64-1	ug/L	6300	63000	8.3	I	8.0	I	12	I	6.9	U
8260	Benzene	71-43-2	ug/L	1	100	0.23	U	0.23	U	0.23	U	0.23	U
8260	Bromochloromethane	74-97-5	ug/L	91	910	0.18	U	0.18	U	0.18	U	0.18	U
8260	Bromodichloromethane	75-27-4	ug/L	0.6	60	0.19	U	0.19	U	0.19	U	0.19	U
8260	Bromoform	75-25-2	ug/L	4.4	440	0.35	U	0.35	U	0.35	U	0.35	U
8260	Bromomethane	74-83-9	ug/L	9.8	98	0.43	U	0.43	U	0.43	U	0.43	U
8260	Carbon disulfide	75-15-0	ug/L	700	7000	0.35	U	0.35	U	0.35	U	0.35	U
8260	Carbon tetrachloride	56-23-5	ug/L	3	300	0.18	U	0.18	U	0.18	U	0.18	U
8260	Chlorobenzene	108-90-7	ug/L	100	1000	0.19	U	0.19	U	0.19	U	0.19	U
8260	Chloroethane	75-00-3	ug/L	12	1200	0.36	U	0.36	U	0.36	U	0.36	U
8260	Chloroform	67-66-3	ug/L	70	700	0.19	U	0.19	U	0.19	U	0.19	U
8260	Chloromethane	74-87-3	ug/L	2.7	270	0.32	U	0.32	U	0.32	U	0.32	U
8260	cis-1,2-Dichloroethene	156-59-2	ug/L	70	700	0.22	U	0.22	U	0.22	U	0.22	U
8260	Dibromochloromethane	124-48-1	ug/L	0.4	40	0.33	U	0.33	U	0.33	U	0.33	U
8260	Dibromomethane	74-95-3	ug/L	70	700	0.25	U	0.25	U	0.25	U	0.25	U
8260	Dichlorodifluoromethane	75-71-8	ug/L	1400	14000	0.42	U	0.42	U	0.42	U	0.42	U
8260	Ethylbenzene	100-41-4	ug/L	30	300	0.20	U	0.20	U	0.20	U	0.20	U
8260	isopropylbenzene	98-82-8	ug/L	0.8	8	0.26	U	0.26	U	0.26	U	0.26	U
8260	Methyl tert-Butyl Ether (MTBE)	1634-04-4	ug/L	20	200	0.28	U	0.28	U	0.28	U	0.28	U
8260	Methylene Chloride	75-09-2	ug/L	5	500	0.65	U	0.65	U	0.65	U	0.65	U
8260	Styrene	100-42-5	ug/L	100	1000	0.23	U	0.23	U	0.23	U	0.23	U
8260	Tetrachloroethene	127-18-4	ug/L	3	30	0.36	U	0.36	U	0.36	U	0.36	U
8260	Toluene	108-88-3	ug/L	40	400	0.20	U	0.43	I	0.20	U	0.20	U
8260	trans-1,2-Dichloroethene	156-60-5	ug/L	100	1000	0.22	U	0.22	U	0.22	U	0.22	U
8260	Trichloroethene	79-01-6	ug/L	3	30	0.48	U	0.48	U	0.48	U	0.48	U
8260	Trichlorofluoromethane	75-69-4	ug/L	2100	21000	0.51	U	0.51	U	0.51	U	0.51	U
8260	Vinyl chloride	75-01-4	ug/L	1	100	0.25	U	0.25	U	0.25	U	0.25	U
8260	Xylenes (Total)	1330-20-7	ug/L	20	200	0.22	U	0.22	U	0.22	U	0.22	U

Table 2
Groundwater Analytical Summary

Method	Parameter	CAS #	Units	GCTL	NADC	TMW-1		TMW-2		TMW-3		TMW-4	
	Date Collected					5/19/2014 Result	Qual	5/19/2014 Result	Qual	5/19/2014 Result	Qual	5/19/2014 Result	Qual
PAHs													
8270	1-Methylnaphthalene	90-12-0	ug/L	28	280	0.010	U	0.010	U	0.010	U	0.010	U
8270	2-Methylnaphthalene	91-57-6	ug/L	28	280	0.011	U	0.011	U	0.011	U	0.011	U
8270	Acenaphthene	83-32-9	ug/L	20	200	0.14		0.035		0.012	I	0.0043	U
8270	Acenaphthylene	208-96-8	ug/L	210	2100	0.0092	U	0.0092	U	0.0092	U	0.0092	U
8270	Anthracene	120-12-7	ug/L	2100	21000	0.065		0.016	U	0.032	I	0.016	U
8270	Benz[a]anthracene	56-55-3	ug/L	0.05	5	0.015	I	0.010	U	0.016	I	0.019	I
8270	Benzo[a]pyrene	50-32-8	ug/L	0.2	20	0.014	U	0.014	U	0.014	U	0.014	U
8270	Benzo[b]fluoranthene	205-99-2	ug/L	0.05	5	0.018	I	0.014	U	0.014	U	0.024	I
8270	Benzo[ghi]perylene	191-24-2	ug/L	210	2100	0.013	U	0.013	U	0.013	U	0.028	I
8270	Benzo[k]fluoranthene	207-08-9	ug/L	0.5	50	0.014	I	0.012	U	0.012	U	0.027	I
8270	Chrysene	218-01-9	ug/L	4.8	480	0.022	I	0.011	U	0.011	U	0.035	I
8270	Dibenz[a,h]anthracene	53-70-3	ug/L	0.005	0.5	0.0092	U	0.0092	U	0.0092	U	0.17	
8270	Fluoranthene	206-44-0	ug/L	280	2800	0.032	I	0.015	U	0.015	U	0.015	U
8270	Fluorene	86-73-7	ug/L	280	2800	0.0067	U	0.024	I	0.0067	U	0.0067	U
8270	Indeno[1,2,3-cd]pyrene	193-39-5	ug/L	0.05	5	0.011	U	0.011	U	0.011	U	0.020	I
8270	Naphthalene	91-20-3	ug/L	14	140	0.017	U	0.068	V	0.017	U	0.094	V
8270	Phenanthrene	85-01-8	ug/L	210	2100	0.022	IV	0.014	U	0.026	IV	0.014	U
8270	Pyrene	129-00-0	ug/L	210	2100	0.019	I	0.013	U	0.013	U	0.013	U

NOTES:

This summary is provided for the convenience of our clients. The signed, hardcopy report is the official report.

Regulatory and Guidance Limits are taken from FAC 62-770.

I = Reported value is between the laboratory method detection limit and the laboratory practical quantitation limit

V = Analyte was detected in both the sample and the associated method blank

Appendix A

Field Sampling Logs, Well Construction Plans and Notes

BORING LOG

Page 1 of 1

Boring/Well Number: SB-1		Permit Number:		FDEP Facility Identification Number:							
Site Name: Washington Park		Borehole Start Date: 5-15-14 End Date: 5-15-14		Borehole Start Time: 09:00 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM End Time: 09:30 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM							
Environmental Contractor: Cardno TBE		Geologist's/Engineer's Name:		Environmental Technician's Name: Dana Kress							
Drilling Company: Preferred Drilling		Pavement Thickness (inches): Grass		Borehole Diameter (inches): 3.25							
Drilling Method(s): HA/DP		Apparent Borehole DTW (in feet from soil moisture content): 5-6		Measured Well DTW (in feet after water recharges in well): NA							
				OVA (list model and check type): MiniRae 3000 <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA						0.0	✓ 0	F.S., Brown, shell and rocks, 30% no odor		D	SB-1
						1.3	✓ 1	clayey sand, shell 20%, no odor		D	1.50' - 2'
						2.4	✓ 2	↓		D	@ 09:10
DP						2.2	✓ 3	F.S., dk. Gray, wood/particle/concrete block, no odor		D	
						2.8	✓ 4	↓		M	SB-1
						1.8	✓ 5	↓		W	2.4' @ 09:25
						1.2	✓ 6	F.S., dk. Gray, wood/plastic debris, no odor		S	
						1.3	✓ 7	↓			
						1.4	✓ 8	↓			
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: <i>SB-2/TML-1</i>		Permit Number:		FDEP Facility Identification Number:							
Site Name: <i>Washington Park</i>		Borehole Start Date: <i>5-15-14</i>		Borehole Start Time: <i>09:55</i> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM							
		End Date: <i>5-15-14</i>		End Time: <i>10:50</i> <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM							
Environmental Contractor: <i>Cardno TBE</i>		Geologist's/Engineer's Name:		Environmental Technician's Name: <i>Dana Kress</i>							
Drilling Company: <i>Preferred Drilling</i>		Pavement Thickness (inches): <i>Grass</i>		Borehole Diameter (inches): <i>3.25</i>							
				Borehole Depth (feet): <i>13</i>							
Drilling Method(s): <i>HA/DP</i>		Apparent Borehole DTW (in feet from soil moisture content): <i>5</i>		Measured Well DTW (in feet after water recharges in well): <i>5.11</i>							
				OVA (list model and check type): <i>MiniRae 3000</i> <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
<i>DP</i>						<i>0.6</i>	<i>1.50</i>	<i>Sandy clays, Gray-Orange-Brown, no odor</i>		<i>D</i>	<i>SB-2</i>
						<i>0.8</i>	<i>✓1</i>			<i>D</i>	<i>1.50-2'</i>
						<i>3.2</i>	<i>✓2</i>			<i>D</i>	<i>@ 10:00</i>
						<i>2.6</i>	<i>✓3</i>			<i>D</i>	
						<i>4.1</i>	<i>✓4</i>	<i>Clayey sands, Gray, no odor</i>		<i>M</i>	<i>SB-2</i>
						<i>1.8</i>	<i>✓5</i>			<i>W</i>	<i>21-4'</i>
						<i>1.3</i>	<i>✓6</i>	<i>F.S., Gray, wood debris, no odor</i>		<i>S</i>	<i>@ 10:15</i>
						<i>1.4</i>	<i>✓7</i>				
						<i>1.8</i>	<i>✓8</i>	<i>Clayey sand, Gray, organic odor</i>			
							<i>9</i>				
							<i>10</i>		<i>F.S., Gray, organic odor</i>		
							<i>11</i>		<i>F.S., Gray, shell ss, no odor</i>		
						<i>13/12</i>		<i>Clay, silt, Gray-Green, no odor</i>			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SB-3 / TMW-2		Permit Number:		FDEP Facility Identification Number:							
Site Name: Washington Park		Borehole Start Date: 5-15-14	Borehole Start Time: 10:58	<input checked="" type="checkbox"/> AM <input type="checkbox"/> PM							
		End Date: 5-15-14	End Time: 12:40	<input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
Environmental Contractor: Cardno TBE		Geologist's/Engineer's Name:		Environmental Technician's Name: Dana Kress							
Drilling Company: Preferred Drilling		Pavement Thickness (inches): Grass	Borehole Diameter (inches): 3.25	Borehole Depth (feet): 10							
Drilling Method(s): HA/DP	Apparent Borehole DTW (in feet from soil moisture content): 2-3	Measured Well DTW (in feet after water recharges in well): 3.51	OVA (list model and check type): MiniRae 3000 <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID								
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP						0.0	1.0	clayey sands, Gray-Brown, shell and rocks, no odor		D	no soil sample
						1.2	1			D	
						0.9	2			M	
						0.3	3	F.S., Gray, wood debris, no odor		S	
						0.2	4				
						0.1	5	clayey sands, Gray, no odor			
						0.1	6				
							7	F.S., Gray, no odor			
							8	clayey sand, Gray, no odor			
							9	clayey sand, Gray-orange, med. stiff, no odor			
							10	clay, Gray-Green, stiff, no odor, refusal			
							11				
						12					

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SB-4		Permit Number:		FDEP Facility Identification Number:							
Site Name: Washington Park		Borehole Start Date: 5-15-14 End Date: 5-15-14		Borehole Start Time: 11:25 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM End Time: 11:45 <input checked="" type="checkbox"/> AM <input type="checkbox"/> PM							
Environmental Contractor: Cardno TBE		Geologist's/Engineer's Name:		Environmental Technician's Name: Dana Kress							
Drilling Company: Preferred Drilling		Pavement Thickness (inches): Grass		Borehole Diameter (inches): 3.25							
Drilling Method(s): HA/DP		Apparent Borehole DTW (in feet from soil moisture content): 6.7?		Measured Well DTW (in feet after water recharges in well): NA							
				OVA (list model and check type): MiniRae 3000 <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP						1.8	1.8	clayey sand, shell and rocks, no odor	D		SB-4
						3.4	3.4	↓	D		1.50'-2'
						3.2	3.2	M.G.S., Gray - DK. Gray, glass/metal debris, no odor	D		2 11:30
						4.1	4.1	↓	b		
						7.1	7.1	↓	D		SB-4
						1.8	1.8	M.G.S., Gray - Lt. Gray, no odor	D		2'-4'
							Lower rock, chalky white, no odor	M		2 11:40	
							Refusal at 5.5'				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: <i>SB-5/TMW-3</i>		Permit Number:		FDEP Facility Identification Number:							
Site Name: <i>Washington Park</i>		Borehole Start Date: <i>5-15-14</i>		Borehole Start Time: <i>12:50</i> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
		End Date: <i>5-15-14</i>		End Time: <i>13:25</i> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
Environmental Contractor: <i>Cardno TBE</i>		Geologist's/Engineer's Name:		Environmental Technician's Name: <i>Dana Kress</i>							
Drilling Company: <i>Preferred Drilling</i>		Pavement Thickness (inches): <i>Grass</i>		Borehole Diameter (inches): <i>3.25</i>							
				Borehole Depth (feet): <i>13</i>							
Drilling Method(s): <i>HA/DP</i>		Apparent Borehole DTW (in feet from soil moisture content): <i>6-7</i>		Measured Well DTW (in feet after water recharges in well): <i>6.33</i>							
				OVA (list model and check type): <i>MiniRae 3000</i> <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
<i>DP</i>						<i>0.0</i>	<i>150</i>	<i>F.G.S., Brown, rocks and shell, no odor</i>		<i>D</i>	<i>no sample</i>
						<i>0.1</i>	<i>✓1</i>	<i>↓</i>		<i>D</i>	
						<i>1.1</i>	<i>✓2</i>	<i>↓</i>		<i>D</i>	
						<i>0.9</i>	<i>✓3</i>	<i>F.G.S., Gray-Brown, concrete debris, no odor</i>		<i>D</i>	
						<i>0.8</i>	<i>✓4</i>	<i>↓</i>		<i>D</i>	
						<i>1.1</i>	<i>✓5</i>	<i>F.G.S., black, rocks and concrete debris, no odor</i>		<i>M</i>	
						<i>0.6</i>	<i>✓6</i>	<i>F.G.S., Brown-PK. Brown, shell and concrete debris, no odor</i>		<i>M/W</i>	
						<i>0.3</i>	<i>✓7</i>	<i>↓</i>		<i>S</i>	
						<i>0.8</i>	<i>✓8</i>	<i>↓</i>			
							<i>9</i>	<i>clayey sand, Gray, no odor</i>			
							<i>10</i>	<i>clayey sand, Gray, med. stiff, no odor</i>			
							<i>11</i>	<i>↓</i>			
						<i>13/12</i>	<i>↓</i>				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 2

Boring/Well Number: SB-6		Permit Number:		FDEP Facility Identification Number:							
Site Name: Washington Park		Borehole Start Date: 5-15-14		Borehole Start Time: 13:35 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
		End Date: 5-15-14		End Time: 14:10 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
Environmental Contractor: Cardno TBE		Geologist's/Engineer's Name:		Environmental Technician's Name: Dana Kress							
Drilling Company: Preferred Drilling		Pavement Thickness (inches): Grass		Borehole Diameter (inches): 3.25							
				Borehole Depth (feet): 15.5							
Drilling Method(s): HA/DP		Apparent Borehole DTW (in feet from soil moisture content): 14-15?		Measured Well DTW (in feet after water recharges in well): NA							
				OVA (list model and check type): MiniRae 3000 <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP						0.0	0.0	clayey sand, Gray-Brown, shell and rocks, wood		D	SB-6
						2.6	1			D	15.0'-2'
						2.8	2			D	@ 13.40
						4.1	3	clayey sand, Gray-Brown, lime rock, glass debris, wood		D	
						3.2	4			D	
						1.8	5			D	SB-6
						1.3	6	lime rock, wood		D	2'-4'
						0.9	7			D	@ 13.50
						0.8	8	clayey sand, DK Gray-Black, wood debris, wood		b	
							9			b	
						1.1	10			D	
							11	E.S., sl. clayey, Gray, wood		n/w	
					1.2	12			n/w		

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 2 of 2

Boring/Well Number: <i>SB-6</i>		FDEP Facility Identification Number:		Site Name: <i>Washington Park</i>		Borehole Start Date: <i>5-15-14</i>		End Date: <i>5-15-14</i>				
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)	
<i>PP</i>							13	<i>F.S., sl. clayey, Gray, no odor</i> ↓		<i>M/U</i>		
						<i>0.0</i>	14		↓		<i>D</i>	
							15		<i>clay, Gray-Green, stiff, no odor</i>		<i>D</i>	
							16	<i>15.5' Refusal</i>				
							17					
							18					
							19					
							20					
							21					
							22					
							23					
							24					
						25						
						26						
						27						
						28						
						29						
						30						

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOGPage 1 of 1

Boring/Well Number: <u>SP-7/TNH-4</u>		Permit Number:		FDEP Facility Identification Number:							
Site Name: <u>Washington Park</u>		Borehole Start Date: <u>5-15-14</u>		Borehole Start Time: <u>14:45</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
		End Date: <u>5-15-14</u>		End Time: <u>15:30</u> <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
Environmental Contractor: <u>Cardno TBE</u>		Geologist's/Engineer's Name:		Environmental Technician's Name: <u>Dana Kress</u>							
Drilling Company: <u>Preferred Drilling</u>		Pavement Thickness (inches): <u>Grass</u>		Borehole Diameter (inches): <u>3.25</u>							
				Borehole Depth (feet): <u>12.5</u>							
Drilling Method(s): <u>HA/DP</u>		Apparent Borehole DTW (in feet from soil moisture content): <u>6</u>		Measured Well DTW (in feet after water recharges in well): <u>8.5</u>							
				OVA (list model and check type): <u>MiniRae 3000</u> <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input checked="" type="checkbox"/> Spread <input type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input checked="" type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP						0.1	0.8	clayey sand, Brown-Gray, shell and rock, no odor		D	no sample
						0.1	1			D	
						1.1	2			D	
						1.2	3	clayey sand, Gray, no odor		D	
						0.8	4			D	
						0.9	5	clayey sand, Brown-Gray, no odor		D	
						1.3	6			m/w	
						0.1	7			S	
						0.3	8	clayey sand, H. Gray, no odor			
							9				
							10				
							11				
						12.5	12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: 4B-8		Permit Number:		FDEP Facility Identification Number:							
Site Name: Washington Park		Borehole Start Date: 5-15-14		Borehole Start Time: 15:50 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
		End Date: 5-15-14		End Time: 16:45 <input type="checkbox"/> AM <input checked="" type="checkbox"/> PM							
Environmental Contractor: Cardno TBE		Geologist's/Engineer's Name:		Environmental Technician's Name: Dana Kress							
Drilling Company: Preferred Drilling		Pavement Thickness (inches): Grass		Borehole Diameter (inches): 3.25							
Borehole Depth (feet): 6											
Drilling Method(s): HA/DP		Apparent Borehole DTW (in feet from soil moisture content): 4-5		Measured Well DTW (in feet after water recharges in well): NA							
				OVA (list model and check type): MiniRae 3000 <input type="checkbox"/> FID <input checked="" type="checkbox"/> PID							
Disposition of Drill Cuttings [check method(s)]: <input type="checkbox"/> Drum <input type="checkbox"/> Spread <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Stockpile <input type="checkbox"/> Other (describe if other or multiple items are checked):											
Borehole Completion (check one): <input type="checkbox"/> Well <input type="checkbox"/> Grout <input type="checkbox"/> Bentonite <input checked="" type="checkbox"/> Backfill <input type="checkbox"/> Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA						0.0	0.0	M.G.S., Gray-Brown, rocks and concrete debris, no odor	D		SB-8
						0.0	0.0		D		15' - 2'
						0.2	0.2	M.G.S., Gray-Brown, rocks/shell/concrete debris, no odor	D		@ 16'00
						0.4	0.4		M		
						1.1	1.1	F.S., Brown - Lt. Brown, no odor	M/W		SB-8
						0.8	0.8		S		2' - 4'
					0.9	0.9		S		@ 16'15	
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: <u>TMW-1</u>		Site Name: <u>Washington Park, Palmetto, FL</u>		FDEP Facility I.D. Number:	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input checked="" type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Date(s): <u>5-15-14</u>	
If AG, list feet of riser above land surface: <u>8</u>				Well Install Method: <u>DPT</u>	
Borehole Depth (feet): <u>13</u>		Well Depth (feet): <u>11</u>	Borehole Diameter (inches): <u>3.25</u>	Manhole Diameter (inches): <u>NA</u>	Well Pad Size: <u>NA</u> feet by <u>NA</u> feet
Riser Diameter and Material: <u>1" PVC Sch. 40</u>		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)	Riser Length: <u>1</u> feet from <u>0</u> feet to <u>1</u> feet		
Screen Diameter and Material: <u>1" PVC Sch. 40</u>		Screen Slot Size: <u>0.010</u>		Screen Length: <u>10</u> feet from <u>1</u> feet to <u>11</u> feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: <u> </u> feet from <u>0</u> feet to <u> </u> feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: <u> </u> feet from <u>0</u> feet to <u> </u> feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: <u> </u> feet from <u>0</u> feet to <u> </u> feet	
Filter Pack Material and Size: <u>20/30 Sand</u>		Prepacked Filter Around Screen (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Filter Pack Length: <u>10</u> feet from <u>1</u> feet to <u>11</u> feet	
Filter Pack Seal Material and Size: <u>30/65 F.S.</u>				Filter Pack Seal Length: <u>1</u> feet from <u>0</u> feet to <u>1</u> feet	
Surface Seal Material: <u>30/65 F.S.</u>				Surface Seal Length: <u>1</u> feet from <u>0</u> feet to <u>1</u> feet	

WELL DEVELOPMENT DATA			
Well Development Date: <u>5-15-14</u>		Well Development Method (check one): <input checked="" type="checkbox"/> Surge/Pump <input type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input checked="" type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)		Depth to Groundwater (before developing in feet): <u>5.11</u>	
Pumping Rate (gallons per minute): <u>.15</u>		Maximum Drawdown of Groundwater During Development (feet): <u>2</u>	
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent		Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Total Development Water Removed (gallons): <u>5</u>		Development Duration (minutes): <u>35</u>	
Water Appearance (color and odor) At Start of Development: <u>cloudy, Brown, sl. sulphur</u>		Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water Appearance (color and odor) At End of Development: <u>clear, sl. sulphur</u>			

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: <u>Tmw-2</u>		Site Name: <u>Washington Park, Palmetto, FL</u>		FDEP Facility I.D. Number: _____	
Well Install Date(s): <u>5-15-14</u>					
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input checked="" type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Method: <u>DPT</u>	
If AG, list feet of riser above land surface: <u>1.70</u>				Surface Casing Install Method: <u>NA</u>	
Borehole Depth (feet): <u>10</u>	Well Depth (feet): <u>10</u>	Borehole Diameter (inches): <u>3.25</u>	Manhole Diameter (inches): <u>NA</u>	Well Pad Size: _____ feet by _____ feet <u>NA</u>	
Riser Diameter and Material: <u>1" PVC Sch. 40</u>		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)		Riser Length: <u>0</u> feet from <u>0</u> feet to <u>0</u> feet	
Screen Diameter and Material: <u>1" PVC Sch. 40</u>		Screen Slot Size: <u>0.010</u>		Screen Length: <u>10</u> feet from <u>0</u> feet to <u>10</u> feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet	
Filter Pack Material and Size: <u>20/30 Sand</u>		Prepacked Filter Around Screen (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Filter Pack Length: <u>10</u> feet from <u>0</u> feet to <u>10</u> feet	
Filter Pack Seal Material and Size: <u>30/65 F.S.</u>				Filter Pack Seal Length: <u>.50</u> feet from <u>0</u> feet to <u>.50</u> feet	
Surface Seal Material: <u>30/65 F.S.</u>				Surface Seal Length: <u>.50</u> feet from <u>0</u> feet to <u>.50</u> feet	

WELL DEVELOPMENT DATA			
Well Development Date: <u>5-15-14</u>		Well Development Method (check one): <input checked="" type="checkbox"/> Surge/Pump <input type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input checked="" type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)		Depth to Groundwater (before developing in feet): <u>3.51</u>	
Pumping Rate (gallons per minute): <u>.15</u>	Maximum Drawdown of Groundwater During Development (feet): <u>1.5</u>		Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): <u>5</u>	Development Duration (minutes): <u>35</u>	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Appearance (color and odor) At Start of Development: <u>cloudy, Gray-brown, none</u>		Water Appearance (color and odor) At End of Development: <u>clear, none</u>	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: <u>W-3</u>		Site Name: <u>Washington Park, Palmetto, FL</u>		FDEP Facility I.D. Number: _____	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input checked="" type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Date(s): <u>5-15-14</u>	
If AG, list feet of riser above land surface: <u>2</u>				Well Install Method: <u>DPT</u>	
Borehole Depth (feet): <u>13</u>		Well Depth (feet): <u>13</u>	Borehole Diameter (inches): <u>3.25</u>	Manhole Diameter (inches): <u>NA</u>	Well Pad Size: _____ feet by _____ feet
Riser Diameter and Material: <u>1" PVC Sch. 40</u>		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)	Riser Length: <u>3</u> feet from <u>0</u> feet to <u>3</u> feet		
Screen Diameter and Material: <u>1" PVC Sch. 40</u>		Screen Slot Size: <u>0.010</u>	Screen Length: <u>10</u> feet from <u>3</u> feet to <u>13</u> feet		
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):	1 st Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet		
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):	2 nd Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet		
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length: _____ feet from <u>0</u> feet to _____ feet		
Filter Pack Material and Size: <u>20/30 Sand</u>		Prepacked Filter Around Screen (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Filter Pack Length: <u>12</u> feet from <u>1</u> feet to <u>13</u> feet		
Filter Pack Seal Material and Size: <u>30/65 F.S.</u>			Filter Pack Seal Length: <u>1</u> feet from <u>0</u> feet to <u>1</u> feet		
Surface Seal Material: <u>30/65 F.S.</u>			Surface Seal Length: <u>1</u> feet from <u>0</u> feet to <u>1</u> feet		

WELL DEVELOPMENT DATA			
Well Development Date: <u>5-15-14</u>		Well Development Method (check one): <input checked="" type="checkbox"/> Surge/Pump <input type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input checked="" type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)		Depth to Groundwater (before developing in feet): <u>6.33</u>	
Pumping Rate (gallons per minute): <u>15</u>	Maximum Drawdown of Groundwater During Development (feet): <u>2.5</u>	Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent	Total Development Water Removed (gallons): <u>5</u>	Development Duration (minutes): <u>35</u>	Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water Appearance (color and odor) At Start of Development: <u>cloudy, Gray, none</u>		Water Appearance (color and odor) At End of Development: <u>clear, none</u>	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: <u>TNW-4</u>		Site Name: <u>Washington Park, Palmetto, FL</u>		FDEP Facility I.D. Number:	
Well Location and Type (check appropriate boxes): <input checked="" type="checkbox"/> On-Site <input type="checkbox"/> Right-of-Way <input type="checkbox"/> Off-Site Private Property <input checked="" type="checkbox"/> Above Grade (AG) <input type="checkbox"/> Flush-to-Grade		Well Purpose: <input type="checkbox"/> Perched Monitoring <input checked="" type="checkbox"/> Shallow (Water-Table) Monitoring <input type="checkbox"/> Intermediate or Deep Monitoring <input type="checkbox"/> Remediation or Other (describe)		Well Install Date(s): <u>5-15-14</u>	
If AG, list feet of riser above land surface: <u>2.5</u>				Well Install Method: <u>DPT</u>	
Borehole Depth (feet): <u>12.5</u>		Well Depth (feet): <u>12.5</u>		Borehole Diameter (inches): <u>3.25</u>	
Manhole Diameter (inches): <u>NA</u>		Well Pad Size: <u>NA</u> feet by <u>NA</u> feet			
Riser Diameter and Material: <u>1" PVC Sch. 40</u>		Riser/Screen Connections: <input checked="" type="checkbox"/> Flush-Threaded <input type="checkbox"/> Other (describe)		Riser Length: <u>2.5</u> feet from <u>0</u> feet to <u>2.5</u> feet	
Screen Diameter and Material: <u>1" PVC Sch. 40</u>		Screen Slot Size: <u>0.010</u>		Screen Length: <u>10</u> feet from <u>2.5</u> feet to <u>12.5</u> feet	
1 st Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		1 st Surface Casing I.D. (inches):		1 st Surface Casing Length: <u>NA</u> feet from <u>0</u> feet to <u>NA</u> feet	
2 nd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		2 nd Surface Casing I.D. (inches):		2 nd Surface Casing Length: <u>NA</u> feet from <u>0</u> feet to <u>NA</u> feet	
3 rd Surface Casing Material: also check: <input type="checkbox"/> Permanent <input type="checkbox"/> Temporary		3 rd Surface Casing I.D. (inches):		3 rd Surface Casing Length: <u>NA</u> feet from <u>0</u> feet to <u>NA</u> feet	
Filter Pack Material and Size: <u>20/30 Sand</u>		Prepacked Filter Around Screen (check one): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Filter Pack Length: <u>12</u> feet from <u>1.50</u> feet to <u>12.5</u> feet	
Filter Pack Seal Material and Size: <u>30/65 F.S.</u>				Filter Pack Seal Length: <u>1.50</u> feet from <u>0</u> feet to <u>1.50</u> feet	
Surface Seal Material: <u>30/65 F.S.</u>				Surface Seal Length: <u>1.50</u> feet from <u>0</u> feet to <u>1.50</u> feet	

WELL DEVELOPMENT DATA			
Well Development Date: <u>5-15-14</u>		Well Development Method (check one): <input checked="" type="checkbox"/> Surge/Pump <input type="checkbox"/> Pump <input type="checkbox"/> Compressed Air <input type="checkbox"/> Other (describe)	
Development Pump Type (check): <input type="checkbox"/> Centrifugal <input checked="" type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Other (describe)		Depth to Groundwater (before developing in feet): <u>8.5</u>	
Pumping Rate (gallons per minute): <u>15</u>		Maximum Drawdown of Groundwater During Development (feet): <u>1.9</u>	
Well Purged Dry (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Pumping Condition (check one): <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Intermittent		Total Development Water Removed (gallons): <u>5</u>	
Development Duration (minutes): <u>35</u>		Development Water Drummed (check one): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Water Appearance (color and odor) At Start of Development: <u>cloudy, Brown, none</u>		Water Appearance (color and odor) At End of Development: <u>clear, none</u>	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME: <u>Washington Park</u>		SITE LOCATION: <u>Palmetto, FL</u>	
WELL NO: <u>TMW-1</u>	SAMPLE ID: <u>TMW-1</u>	DATE: <u>5.19.14</u>	

PURGING DATA

WELL DIAMETER (inches): <u>1</u>	TUBING DIAMETER (inches): <u>1/8</u>	WELL SCREEN INTERVAL DEPTH: <u>3</u> feet to <u>13</u> feet	STATIC DEPTH TO WATER (feet): <u>5.54</u>	PURGE PUMP TYPE OR BAILER: <u>PP</u>
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) <u>0.30</u> = (<u>13</u> feet - <u>5.54</u> feet) X <u>0.04</u> gallons/foot = <u>0.30</u> gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): <u>7</u>	FINAL PUMP OR TUBING DEPTH IN WELL (feet): <u>7</u>	PURGING INITIATED AT: <u>1017</u>	PURGING ENDED AT: <u>1047</u>	TOTAL VOLUME PURGED (gallons): <u>1.5</u>

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) <u>µmhos/cm</u> or <u>µS/cm</u>	DISSOLVED OXYGEN (circle units) <u>mg/L</u> or <u>% saturation</u>	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1023	0.30	0.30	0.05	6.51	6.53	24.20	2097.0	1.18	80.0	lt. brown/white	Cloudy/None
1026	0.15	0.45	0.05	6.56	6.56	24.57	2103.0	0.98	80.0	lt. brown/white	Cloudy/None
1029	0.15	0.60	0.05	6.58	6.57	24.56	2107.0	0.85	65.0	lt. brown/white	Cloudy/None
1032	0.15	0.75	0.05	6.60	6.58	24.87	2109.0	0.77	30.0	clear	None
1035	0.15	0.90	0.05	6.61	6.59	25.15	2109.0	0.73	24.0	clear	None
1038	0.15	1.05	0.05	6.62	6.60	24.99	2107.0	0.70	17.0	clear	None
1041	0.15	1.20	0.05	6.63	6.61	25.23	2107.0	0.66	17.0	clear	None
1044	0.15	1.35	0.05	6.64	6.62	25.34	2104.0	0.64	13.0	clear	None
1047	0.15	1.50	0.05	6.65	6.62	25.55	2108.0	0.62	8.1	clear	None
At five well volumes.											

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <u>James Wilson / Cardno</u>		SAMPLER(S) SIGNATURE(S): <u>[Signature]</u>		SAMPLING INITIATED AT: <u>1047</u>	SAMPLING ENDED AT: <u>1057</u>
PUMP OR TUBING DEPTH IN WELL (feet): <u>7</u>		TUBING MATERIAL CODE: <u>PE</u>		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		TUBING Y <input checked="" type="checkbox"/> N (replaced) <input type="checkbox"/>		DUPLICATE: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
TMW-1	3	CG	40 mL	HCl+Ice	—	—	JOC 8260	RFPP	80
TMW-1	1	AG	125 mL	Ice	—	—	PAH	APP	200
TMW-1	1	PE	250 mL	Nitric+Ice	—	—	RCRA 8	APP	200

REMARKS: Tubing may be warming in sunlight. At 1036 moved into shaded place. Temp still rising.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

Color lt brown/white = Cloudy, light brown color.

Pumped to five well volumes to let turbidity come down for RCRA 8 sample.

Form FD 9000-24
GROUNDWATER SAMPLING LOG

SITE NAME:	Washington Park	SITE LOCATION:	Palmetto, FL
WELL NO:	TMW-2	SAMPLE ID:	TMW-2
		DATE:	5.19.14

PURGING DATA

[illegible]

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: James Wilson / Cardio				SAMPLER(S) SIGNATURE(S): 				SAMPLING INITIATED AT: 1127		SAMPLING ENDED AT: 1135			
PUMP OR TUBING DEPTH IN WELL (feet): 6				TUBING MATERIAL CODE: PE				FIELD-FILTERED: Y <input checked="" type="radio"/> N		FILTER SIZE: ____ µm			
FIELD DECONTAMINATION: PUMP Y <input checked="" type="radio"/> N TUBING Y <input checked="" type="radio"/> N (replaced)								DUPLICATE: Y <input checked="" type="radio"/> N					
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
Tmw-2	3	CG	40mL	HCl+Ice	—	—	VOC \$260		RFPP		80		
Tmw-2	1	AG	125mL	Ice	—	—	PAH		APP		400		
Tmw-2	1	PE	250mL	Nitric+Ice	—	—	RCRA#		APP		400		
REMARKS:													
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)													
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)													

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** $\pm 5\%$ **Dissolved Oxygen:** all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $+10\%$ (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally $+5$ NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

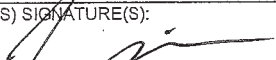
GROUNDWATER SAMPLING LOG

SITE NAME: Washington Park		SITE LOCATION: Palmetto, FL	
WELL NO: TMW-3	SAMPLE ID: TMW-3		DATE: 5.19.14

PURGING DATA

WELL DIAMETER (inches):		TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH:		STATIC DEPTH TO WATER (feet):		PURGE PUMP TYPE OR BAILER:				
1		1/8"	5 feet to 15 feet		7.55		PP				
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) $0.30 = (15 \text{ feet} - 7.55 \text{ feet}) \times 0.04 \text{ gallons/foot} = 0.30 \text{ gallons}$											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable)											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet):		FINAL PUMP OR TUBING DEPTH IN WELL (feet):		PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):					
9		9		1203	1215	0.6					
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/l or % saturation mg/L	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1209	0.30	0.30	0.05	8.30	7.02	27.87	3701.0	0.40	11.0	Clear	None
1212	0.15	0.45	0.05	8.30	7.04	27.71	3718.0	0.34	9.6	Clear	None
1215	0.15	0.60	0.05	8.30	7.04	27.99	3721.0	0.29	8.8	Clear	None
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88 TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016											
PURGING EQUIPMENT CODES: B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: James Wilson / Cardio				SAMPLER(S) SIGNATURE(S): 			SAMPLING INITIATED AT: 1215		SAMPLING ENDED AT: 1224	
PUMP OR TUBING DEPTH IN WELL (feet): 9				TUBING MATERIAL CODE: PE		FIELD-FILTERED: Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		FILTER SIZE: _____ µm		
FIELD DECONTAMINATION: PUMP Y <input type="checkbox"/> N <input checked="" type="checkbox"/> TUBING Y <input type="checkbox"/> N (replaced) <input checked="" type="checkbox"/>						DUPLICATE: Y <input type="checkbox"/> N <input checked="" type="checkbox"/>				
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH				
TMW-3	3	CG	40mL	HCl/ICE	-	-	VOC 8260		RFPP	800/80
TMW-3	1	AG	125mL	ICE	-	-	PAH		APP	200
TMW-3	1	PE	250mL	Nitric/ICE	-	-	PCRAS		APP	200
REMARKS:										
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)										
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)										

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $\pm 10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally $+5$ NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

SITE NAME: Washington Park

SITE LOCATION: Palmetto, FL

WELL NO: Tmw-4

SAMPLE ID: Tmw-4

DATE: 5.19.14

PURGING DATA

WELL DIAMETER (inches):	1	TUBING DIAMETER (inches):	1/8	WELL SCREEN INTERVAL DEPTH: 5 feet to 15 feet	STATIC DEPTH TO WATER (feet):	7.27	PURGE PUMP TYPE OR BAILER:	PP
----------------------------	---	------------------------------	-----	--	----------------------------------	------	-------------------------------	----

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)

0.31 = (15 feet - 7.37 feet) X 0.04 gallons/foot = 0.31 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME										
(only fill out if applicable)										
	=	gallons	+	(gallons/foot	X	feet)	+	gallons =	gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	9	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	11	PURGING INITIATED AT:	1243	PURGING ENDED AT:	1307	TOTAL VOLUME PURGED (gallons):	0.7
--	---	--	----	-----------------------	------	-------------------	------	--------------------------------	-----

[illegible]

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
 TIRING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)

SAMPLING DATA

[illegible]

REMARKS:

Low 13.07 Turbidity was taken pre-flow cell.

MS/MSD

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;
RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: $\pm 5\%$ Dissolved Oxygen: all readings $\leq 20\%$ saturation (see Table FS 2200-2); optionally, $+0.2$ mg/L or $+10\%$ (whichever is greater) Turbidity: all readings ≤ 20 NTU; optionally ± 5 NTU or $\pm 10\%$ (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-8: FIELD INSTRUMENT CALIBRATION RECORDS

INSTRUMENT (MAKE/MODEL#) YSI 556MPS INSTRUMENT # 04L2063

PARAMETER: *[check only one]*

☐ TEMPERATURE ☒ CONDUCTIVITY ☐ SALINITY ☒ pH ☐ ORP
☐ TURBIDITY ☐ RESIDUAL Cl ☒ DO ☐ OTHER _____

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A. DO , DIH_2O

Standard A DO, DIH₂O

Standard B Conductance 100 μ S/cm Exp: 01/15 Lot: 4AA133 / 1000 μ S/cm Exp: 01/15 Lot: 4AA941

Standard C pH 4 Lot: C359207 Exp: 02/15 / pH 7 Lot: C256012 Exp: 09/14 / pH 10 Lot: C256286 Exp: 10/15

[illegible]

Appendix B

Laboratory Analytical Reports



Jennifer Arndt
Cardno TBE, Inc.
380 Park Place Blvd, Suite 300
Clearwater, FL 33759

May 23, 2014

SunLabs Project Number: **4051601**
Client Project Description: **BF-Washington Park**

Dear Mrs. Arndt,

Enclosed is the report of laboratory analysis for the following samples:

Sample Number	Sample Description	Date Collected	Date Received
4051601-01	SB-1@.50ft-2ft	05/15/14 09:10	05/16/14 08:35
4051601-02	SB-1@2ft-4ft	05/15/14 09:25	05/16/14 08:35
4051601-03	SB-2@.50ft-2ft	05/15/14 10:00	05/16/14 08:35
4051601-04	SB-2@2ft-4ft	05/15/14 10:15	05/16/14 08:35
4051601-05	SB-4@.50ft-2ft	05/15/14 11:30	05/16/14 08:35
4051601-06	SB-4@2ft-4ft	05/15/14 11:40	05/16/14 08:35
4051601-07	SB-6@.50ft-2ft	05/15/14 13:40	05/16/14 08:35
4051601-08	SB-6@2ft-4ft	05/15/14 13:50	05/16/14 08:35
4051601-09	SB-8@.50ft-2ft	05/15/14 16:00	05/16/14 08:35
4051601-10	SB-8@2ft-4ft	05/15/14 16:15	05/16/14 08:35
4051601-11	Trip Blank	05/15/14 00:00	05/16/14 08:35

Narrative

Unless otherwise noted below or in the report and where applicable:

- Samples were received at the proper temperature and analyzed as received.
- Sample condition upon receipt is reported on the chain-of-custody attached to this report.
- Results for all solid matrices are reported on a dry weight basis.
- Appropriate calibration and QC criteria were satisfactorily met.
- All applicable holding times for analytes have been met.
- Copies of the chains-of-custody, if received, are attached to this report.

QC Batch B005066 had an exception for VOCs on the MS, MSD, and RPD. The LCS and LCSD were acceptable, so the out of control was attributed to matrix.

QC Batch B005082 had an exception for Lead on the MS. The LCS and LCSD were acceptable, so the out of control was attributed to matrix.

QC Batch B005093 had an exception for Carbon tetrachloride on the MS and MS/MSD RPD. The LCS and LCSD were acceptable, so the out of control was attributed to matrix.

QC Batch B005098 had an exception for VOC's on the MS. The LCS and LCSD were acceptable, so the out of control was attributed to matrix.



If you have any questions or comments concerning this report, please do not hesitate to contact us.

Michael W. Palmer
Vice President, Laboratory Operations

Unless Otherwise Noted and Where Applicable:

The result herein relate only to the items tested or to the samples as received by the laboratory. This report shall not be reproduced except in full, without the written approval of SunLabs. All samples will be disposed of within 60 days of the date of receipt of the samples. All results meet the requirements of the NELAC standards. Uncertainty values are available upon request.



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-01**
Sample Designation: **SB-1@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 09:10**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.0041 U	1	0.0041	0.016	7439-97-6	05/19/14 16:28	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	90	1			NA	05/19/14 09:15	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	65.6	1			321-60-8	05/22/14 03:55	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	86.4	1			1718-51-0	05/22/14 03:55	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.0073 U	1	0.0073	0.029	90-12-0	05/22/14 03:55	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.0062 U	1	0.0062	0.024	91-57-6	05/22/14 03:55	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0046 U	1	0.0046	0.019	83-32-9	05/22/14 03:55	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0049 U	1	0.0049	0.020	208-96-8	05/22/14 03:55	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.0038 U	1	0.0038	0.015	120-12-7	05/22/14 03:55	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.0033 U	1	0.0033	0.013	56-55-3	05/22/14 03:55	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.0044 U	1	0.0044	0.018	50-32-8	05/22/14 03:55	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.0060 U	1	0.0060	0.024	205-99-2	05/22/14 03:55	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.015 U	1	0.015	0.061	191-24-2	05/22/14 03:55	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.0042 U	1	0.0042	0.017	207-08-9	05/22/14 03:55	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.0027 U	1	0.0027	0.011	218-01-9	05/22/14 03:55	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.017 U	1	0.017	0.064	53-70-3	05/22/14 03:55	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.0051 U	1	0.0051	0.020	206-44-0	05/22/14 03:55	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0040 U	1	0.0040	0.015	86-73-7	05/22/14 03:55	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.015 U	1	0.015	0.064	193-39-5	05/22/14 03:55	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.012 U	1	0.012	0.049	91-20-3	05/22/14 03:55	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.0062 U	1	0.0062	0.024	85-01-8	05/22/14 03:55	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.015 U	1	0.015	0.061	129-00-0	05/22/14 03:55	05/19/14 17:40



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-01**
Sample Designation: **SB-1@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 09:10**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	3.2	1	0.28	1.2	7440-38-2	05/20/14 19:12	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	15	1	0.053	0.21	7440-39-3	05/20/14 19:12	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.097 I	1	0.061	0.25	7440-43-9	05/20/14 19:12	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	11	1	0.18	0.72	7440-47-3	05/20/14 19:12	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	0.92 I	1	0.51	2.0	7439-92-1	05/20/14 19:12	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.18 U	1	0.18	0.75	7782-49-2	05/20/14 19:12	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.19 U	1	0.19	0.77	7440-22-4	05/20/14 19:12	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	87.2	1			460-00-4	05/20/14 12:53	05/20/14 08:00
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	109	1			1868-53-7	05/20/14 12:53	05/20/14 08:00
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	95.1	1			2037-26-5	05/20/14 12:53	05/20/14 08:00
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0048	71-55-6	05/20/14 12:53	05/20/14 08:00
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00046 U	1	0.00046	0.0019	79-34-5	05/20/14 12:53	05/20/14 08:00
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00041 U	1	0.00041	0.0018	79-00-5	05/20/14 12:53	05/20/14 08:00
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0043	75-34-3	05/20/14 12:53	05/20/14 08:00
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0051	75-35-4	05/20/14 12:53	05/20/14 08:00
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.00097 I	1	0.00040	0.0018	95-63-6	05/20/14 12:53	05/20/14 08:00
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00043 U	1	0.00043	0.0018	95-50-1	05/20/14 12:53	05/20/14 08:00
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00047 U	1	0.00047	0.0019	107-06-2	05/20/14 12:53	05/20/14 08:00
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00064 U	1	0.00064	0.0026	78-87-5	05/20/14 12:53	05/20/14 08:00
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00059 U	1	0.00059	0.0024	108-67-8	05/20/14 12:53	05/20/14 08:00
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00030 U	1	0.00030	0.0018	541-73-1	05/20/14 12:53	05/20/14 08:00
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00050 U	1	0.00050	0.0019	542-75-6	05/20/14 12:53	05/20/14 08:00
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00088 U	1	0.00088	0.0036	106-46-7	05/20/14 12:53	05/20/14 08:00
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.0021 U	1	0.0021	0.0087	78-93-3	05/20/14 12:53	05/20/14 08:00
2-Hexanone	EPA 8260	mg/kg dry	0.0047 U	1	0.0047	0.019	591-78-6	05/20/14 12:53	05/20/14 08:00
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0027 U	1	0.0027	0.011	108-10-1	05/20/14 12:53	05/20/14 08:00
Acetone	EPA 8260	mg/kg dry	0.036 I	1	0.0097	0.039	67-64-1	05/20/14 12:53	05/20/14 08:00
Benzene	EPA 8260	mg/kg dry	0.0021 I	1	0.00083	0.0033	71-43-2	05/20/14 12:53	05/20/14 08:00
Bromochloromethane	EPA 8260	mg/kg dry	0.00042 U	1	0.00042	0.0018	74-97-5	05/20/14 12:53	05/20/14 08:00
Bromodichloromethane	EPA 8260	mg/kg dry	0.00039 U	1	0.00039	0.0018	75-27-4	05/20/14 12:53	05/20/14 08:00
Bromoform	EPA 8260	mg/kg dry	0.00070 U	1	0.00070	0.0028	75-25-2	05/20/14 12:53	05/20/14 08:00
Bromomethane	EPA 8260	mg/kg dry	0.0014 U	1	0.0014	0.0058	74-83-9	05/20/14 12:53	05/20/14 08:00
Carbon disulfide	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0053	75-15-0	05/20/14 12:53	05/20/14 08:00
Carbon tetrachloride	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0041	56-23-5	05/20/14 12:53	05/20/14 08:00
Chlorobenzene	EPA 8260	mg/kg dry	0.00061 U	1	0.00061	0.0024	108-90-7	05/20/14 12:53	05/20/14 08:00
Chloroethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0042	75-00-3	05/20/14 12:53	05/20/14 08:00
Chloroform	EPA 8260	mg/kg dry	0.00097 U	1	0.00097	0.0037	67-66-3	05/20/14 12:53	05/20/14 08:00
Chloromethane	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0051	74-87-3	05/20/14 12:53	05/20/14 08:00
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00097 U	1	0.00097	0.0040	156-59-2	05/20/14 12:53	05/20/14 08:00
Dibromochloromethane	EPA 8260	mg/kg dry	0.00020 U	1	0.00020	0.0018	124-48-1	05/20/14 12:53	05/20/14 08:00
Dibromomethane	EPA 8260	mg/kg dry	0.00023 U	1	0.00023	0.0018	74-95-3	05/20/14 12:53	05/20/14 08:00
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0042	75-71-8	05/20/14 12:53	05/20/14 08:00
Ethylbenzene	EPA 8260	mg/kg dry	0.020	1	0.00074	0.0030	100-41-4	05/20/14 12:53	05/20/14 08:00
isopropylbenzene	EPA 8260	mg/kg dry	0.00061 U	1	0.00061	0.0025	98-82-8	05/20/14 12:53	05/20/14 08:00
Methylene Chloride	EPA 8260	mg/kg dry	0.0019 U	1	0.0019	0.0077	75-09-2	05/20/14 12:53	05/20/14 08:00
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00080 U	1	0.00080	0.0032	1634-04-4	05/20/14 12:53	05/20/14 08:00
Styrene	EPA 8260	mg/kg dry	0.00020 U	1	0.00020	0.0018	100-42-5	05/20/14 12:53	05/20/14 08:00
Tetrachloroethene	EPA 8260	mg/kg dry	0.00078 U	1	0.00078	0.0031	127-18-4	05/20/14 12:53	05/20/14 08:00



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-01**
Sample Designation: **SB-1@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 09:10**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.011	1	0.00079	0.0032	108-88-3	05/20/14 12:53	05/20/14 08:00
Xylenes (Total)	EPA 8260	mg/kg dry	0.0024	1	0.00013	0.0018	1330-20-7	05/20/14 12:53	05/20/14 08:00
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0046	156-60-5	05/20/14 12:53	05/20/14 08:00
Trichloroethene	EPA 8260	mg/kg dry	0.00074 U	1	0.00074	0.0030	79-01-6	05/20/14 12:53	05/20/14 08:00
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0046	75-69-4	05/20/14 12:53	05/20/14 08:00
Vinyl chloride	EPA 8260	mg/kg dry	0.0016 U	1	0.0016	0.0063	75-01-4	05/19/14 14:14	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-02**
Sample Designation: **SB-1@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 09:25**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.12	1	0.0046	0.018	7439-97-6	05/19/14 16:30	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	81	1			NA	05/19/14 09:17	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	68.8	1			321-60-8	05/22/14 04:14	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	85.2	1			1718-51-0	05/22/14 04:14	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.0082 U	1	0.0082	0.032	90-12-0	05/22/14 04:14	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.0069 U	1	0.0069	0.027	91-57-6	05/22/14 04:14	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0078 I	1	0.0052	0.021	83-32-9	05/22/14 04:14	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0054 U	1	0.0054	0.022	208-96-8	05/22/14 04:14	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.027	1	0.0042	0.017	120-12-7	05/22/14 04:14	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.053	1	0.0037	0.015	56-55-3	05/22/14 04:14	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.042	1	0.0049	0.020	50-32-8	05/22/14 04:14	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.070	1	0.0067	0.027	205-99-2	05/22/14 04:14	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.031 I	1	0.017	0.068	191-24-2	05/22/14 04:14	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.021	1	0.0047	0.019	207-08-9	05/22/14 04:14	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.053	1	0.0030	0.012	218-01-9	05/22/14 04:14	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.019 U	1	0.019	0.072	53-70-3	05/22/14 04:14	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.15	1	0.0057	0.022	206-44-0	05/22/14 04:14	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.015 I	1	0.0044	0.017	86-73-7	05/22/14 04:14	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.026 I	1	0.017	0.072	193-39-5	05/22/14 04:14	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.014 U	1	0.014	0.054	91-20-3	05/22/14 04:14	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.13	1	0.0069	0.027	85-01-8	05/22/14 04:14	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.12	1	0.017	0.068	129-00-0	05/22/14 04:14	05/19/14 17:40



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-02**
Sample Designation: **SB-1@2ft-4ft**

Matrix:
Date Collected: **05/15/14 09:25**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	1.5	1	0.30	1.3	7440-38-2	05/20/14 19:17	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	18	1	0.058	0.23	7440-39-3	05/20/14 19:17	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.098 I	1	0.066	0.27	7440-43-9	05/20/14 19:17	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	6.6	1	0.20	0.78	7440-47-3	05/20/14 19:17	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	48	2	1.1	4.4	7439-92-1	05/21/14 12:28	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.20 U	1	0.20	0.81	7782-49-2	05/20/14 19:17	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.21 U	1	0.21	0.84	7440-22-4	05/20/14 19:17	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	91.3	1			460-00-4	05/19/14 19:13	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	108	1			1868-53-7	05/19/14 19:13	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	98.3	1			2037-26-5	05/19/14 19:13	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.0014 U	1	0.0014	0.0058	71-55-6	05/19/14 19:13	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00056 U	1	0.00056	0.0023	79-34-5	05/19/14 19:13	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00050 U	1	0.00050	0.0022	79-00-5	05/19/14 19:13	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0053	75-34-3	05/19/14 19:13	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0015 U	1	0.0015	0.0063	75-35-4	05/19/14 19:13	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.00095 I	1	0.00049	0.0022	95-63-6	05/19/14 19:13	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00053 U	1	0.00053	0.0022	95-50-1	05/19/14 19:13	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00057 U	1	0.00057	0.0023	107-06-2	05/19/14 19:13	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00078 U	1	0.00078	0.0031	78-87-5	05/19/14 19:13	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00072 U	1	0.00072	0.0029	108-67-8	05/19/14 19:13	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00037 U	1	0.00037	0.0022	541-73-1	05/19/14 19:13	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00061 U	1	0.00061	0.0024	542-75-6	05/19/14 19:13	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0044	106-46-7	05/19/14 19:13	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.016	1	0.0026	0.011	78-93-3	05/19/14 19:13	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0057 U	1	0.0057	0.023	591-78-6	05/19/14 19:13	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0032 U	1	0.0032	0.013	108-10-1	05/19/14 19:13	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.12	1	0.012	0.048	67-64-1	05/19/14 19:13	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.0041	1	0.0010	0.0040	71-43-2	05/19/14 19:13	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00052 U	1	0.00052	0.0022	74-97-5	05/19/14 19:13	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00048 U	1	0.00048	0.0022	75-27-4	05/19/14 19:13	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00085 U	1	0.00085	0.0035	75-25-2	05/19/14 19:13	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0017 U	1	0.0017	0.0071	74-83-9	05/19/14 19:13	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0025 I	1	0.0016	0.0065	75-15-0	05/19/14 19:13	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0050	56-23-5	05/19/14 19:13	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00075 U	1	0.00075	0.0029	108-90-7	05/19/14 19:13	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0051	75-00-3	05/19/14 19:13	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0045	67-66-3	05/19/14 19:13	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.0015 U	1	0.0015	0.0063	74-87-3	05/19/14 19:13	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0049	156-59-2	05/19/14 19:13	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00025 U	1	0.00025	0.0022	124-48-1	05/19/14 19:13	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00028 U	1	0.00028	0.0022	74-95-3	05/19/14 19:13	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0052	75-71-8	05/19/14 19:13	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.016	1	0.00091	0.0037	100-41-4	05/19/14 19:13	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00075 U	1	0.00075	0.0030	98-82-8	05/19/14 19:13	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0027 I	1	0.0024	0.0094	75-09-2	05/19/14 19:13	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00097 U	1	0.00097	0.0039	1634-04-4	05/19/14 19:13	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00025 U	1	0.00025	0.0022	100-42-5	05/19/14 19:13	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00095 U	1	0.00095	0.0038	127-18-4	05/19/14 19:13	05/19/14 09:25



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-02**
Sample Designation: **SB-1@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 09:25**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.0097	1	0.00096	0.0039	108-88-3	05/19/14 19:13	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.00057 I	1	0.00016	0.0022	1330-20-7	05/19/14 19:13	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.0014 U	1	0.0014	0.0056	156-60-5	05/19/14 19:13	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00091 U	1	0.00091	0.0037	79-01-6	05/19/14 19:13	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.0014 U	1	0.0014	0.0056	75-69-4	05/19/14 19:13	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0053	75-01-4	05/19/14 19:13	05/19/14 09:25



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-03**
Sample Designation: **SB-2@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 10:00**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.022	1	0.0042	0.017	7439-97-6	05/19/14 16:31	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	89	1			NA	05/19/14 09:19	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	7.05	1			321-60-8	05/22/14 04:32	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	9.19	1			1718-51-0	05/22/14 04:32	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.0074 U	1	0.0074	0.029	90-12-0	05/22/14 04:32	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.0063 U	1	0.0063	0.025	91-57-6	05/22/14 04:32	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0047 U	1	0.0047	0.019	83-32-9	05/22/14 04:32	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0050 U	1	0.0050	0.020	208-96-8	05/22/14 04:32	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.0038 U	1	0.0038	0.016	120-12-7	05/22/14 04:32	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.0034 U	1	0.0034	0.014	56-55-3	05/22/14 04:32	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.0045 U	1	0.0045	0.018	50-32-8	05/22/14 04:32	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.0061 U	1	0.0061	0.025	205-99-2	05/22/14 04:32	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.062	191-24-2	05/22/14 04:32	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.0043 U	1	0.0043	0.017	207-08-9	05/22/14 04:32	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.0027 U	1	0.0027	0.011	218-01-9	05/22/14 04:32	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.017 U	1	0.017	0.065	53-70-3	05/22/14 04:32	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.0052 U	1	0.0052	0.020	206-44-0	05/22/14 04:32	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0041 U	1	0.0041	0.016	86-73-7	05/22/14 04:32	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.065	193-39-5	05/22/14 04:32	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.012 U	1	0.012	0.050	91-20-3	05/22/14 04:32	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.0063 U	1	0.0063	0.025	85-01-8	05/22/14 04:32	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.062	129-00-0	05/22/14 04:32	05/19/14 17:40



Report of Laboratory Analysis

SunLabs
Project Number
4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-03**
Sample Designation: **SB-2@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 10:00**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	4.9	1	0.27	1.1	7440-38-2	05/20/14 19:22	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	28	1	0.051	0.21	7440-39-3	05/20/14 19:22	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.24	1	0.058	0.24	7440-43-9	05/20/14 19:22	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	26	1	0.17	0.69	7440-47-3	05/20/14 19:22	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	7.6	1	0.49	1.9	7439-92-1	05/20/14 19:22	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.17 U	1	0.17	0.72	7782-49-2	05/20/14 19:22	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.18 U	1	0.18	0.74	7440-22-4	05/20/14 19:22	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	96.6	1			460-00-4	05/19/14 15:12	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	111	1			1868-53-7	05/19/14 15:12	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	98.2	1			2037-26-5	05/19/14 15:12	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0045	71-55-6	05/19/14 15:12	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00043 U	1	0.00043	0.0018	79-34-5	05/19/14 15:12	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00038 U	1	0.00038	0.0017	79-00-5	05/19/14 15:12	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0041	75-34-3	05/19/14 15:12	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0048	75-35-4	05/19/14 15:12	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.0014 I	1	0.00038	0.0017	95-63-6	05/19/14 15:12	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00041 U	1	0.00041	0.0017	95-50-1	05/19/14 15:12	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00044 U	1	0.00044	0.0018	107-06-2	05/19/14 15:12	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00060 U	1	0.00060	0.0024	78-87-5	05/19/14 15:12	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00061 I	1	0.00056	0.0023	108-67-8	05/19/14 15:12	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00028 U	1	0.00028	0.0017	541-73-1	05/19/14 15:12	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00047 U	1	0.00047	0.0018	542-75-6	05/19/14 15:12	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00084 U	1	0.00084	0.0034	106-46-7	05/19/14 15:12	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.0077 I	1	0.0020	0.0082	78-93-3	05/19/14 15:12	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0044 U	1	0.0044	0.018	591-78-6	05/19/14 15:12	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0025 U	1	0.0025	0.010	108-10-1	05/19/14 15:12	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.032 I	1	0.0092	0.037	67-64-1	05/19/14 15:12	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.0029 I	1	0.00079	0.0031	71-43-2	05/19/14 15:12	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00040 U	1	0.00040	0.0017	74-97-5	05/19/14 15:12	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00037 U	1	0.00037	0.0017	75-27-4	05/19/14 15:12	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00066 U	1	0.00066	0.0027	75-25-2	05/19/14 15:12	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0055	74-83-9	05/19/14 15:12	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0050	75-15-0	05/19/14 15:12	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0038	56-23-5	05/19/14 15:12	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00058 U	1	0.00058	0.0023	108-90-7	05/19/14 15:12	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0039	75-00-3	05/19/14 15:12	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.00092 U	1	0.00092	0.0035	67-66-3	05/19/14 15:12	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0048	74-87-3	05/19/14 15:12	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00092 U	1	0.00092	0.0038	156-59-2	05/19/14 15:12	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0017	124-48-1	05/19/14 15:12	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00022 U	1	0.00022	0.0017	74-95-3	05/19/14 15:12	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0040	75-71-8	05/19/14 15:12	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.0020 I	1	0.00070	0.0028	100-41-4	05/19/14 15:12	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00058 U	1	0.00058	0.0023	98-82-8	05/19/14 15:12	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0018 U	1	0.0018	0.0073	75-09-2	05/19/14 15:12	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00075 U	1	0.00075	0.0030	1634-04-4	05/19/14 15:12	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0017	100-42-5	05/19/14 15:12	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00073 U	1	0.00073	0.0029	127-18-4	05/19/14 15:12	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-03**
Sample Designation: **SB-2@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 10:00**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.0024 I	1	0.00074	0.0030	108-88-3	05/19/14 15:12	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.0030	1	0.00013	0.0017	1330-20-7	05/19/14 15:12	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0043	156-60-5	05/19/14 15:12	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00070 U	1	0.00070	0.0028	79-01-6	05/19/14 15:12	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0043	75-69-4	05/19/14 15:12	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0041	75-01-4	05/19/14 15:12	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-04**
Sample Designation: **SB-2@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 10:15**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.052	1	0.0042	0.017	7439-97-6	05/19/14 16:33	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	86	1			NA	05/19/14 09:21	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	74.0	1			321-60-8	05/22/14 04:51	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	82.3	1			1718-51-0	05/22/14 04:51	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.011 I	1	0.0077	0.030	90-12-0	05/22/14 04:51	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.015 I	1	0.0065	0.026	91-57-6	05/22/14 04:51	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0049 U	1	0.0049	0.020	83-32-9	05/22/14 04:51	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0051 U	1	0.0051	0.021	208-96-8	05/22/14 04:51	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.0040 U	1	0.0040	0.016	120-12-7	05/22/14 04:51	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.018	1	0.0035	0.014	56-55-3	05/22/14 04:51	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.024	1	0.0047	0.019	50-32-8	05/22/14 04:51	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.051	1	0.0063	0.026	205-99-2	05/22/14 04:51	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.021 I	1	0.016	0.064	191-24-2	05/22/14 04:51	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.014 I	1	0.0044	0.017	207-08-9	05/22/14 04:51	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.032	1	0.0028	0.011	218-01-9	05/22/14 04:51	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.017 U	1	0.017	0.067	53-70-3	05/22/14 04:51	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.024	1	0.0054	0.021	206-44-0	05/22/14 04:51	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0042 U	1	0.0042	0.016	86-73-7	05/22/14 04:51	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.067	193-39-5	05/22/14 04:51	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.013 U	1	0.013	0.051	91-20-3	05/22/14 04:51	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.012 I	1	0.0065	0.026	85-01-8	05/22/14 04:51	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.043 I	1	0.016	0.064	129-00-0	05/22/14 04:51	05/19/14 17:40



Report of Laboratory Analysis

SunLabs
Project Number
4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-04**
Sample Designation: **SB-2@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 10:15**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	3.1	1	0.28	1.2	7440-38-2	05/20/14 19:27	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	38	1	0.054	0.21	7440-39-3	05/20/14 19:27	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.21 I	1	0.061	0.25	7440-43-9	05/20/14 19:27	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	18	1	0.18	0.72	7440-47-3	05/20/14 19:27	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	41	2	1.0	4.1	7439-92-1	05/21/14 12:31	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.18 U	1	0.18	0.75	7782-49-2	05/20/14 19:27	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.19 U	1	0.19	0.77	7440-22-4	05/20/14 19:27	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	96.6	1			460-00-4	05/19/14 15:36	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	110	1			1868-53-7	05/19/14 15:36	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	97.7	1			2037-26-5	05/19/14 15:36	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0043	71-55-6	05/19/14 15:36	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00041 U	1	0.00041	0.0017	79-34-5	05/19/14 15:36	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00036 U	1	0.00036	0.0016	79-00-5	05/19/14 15:36	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.00095 U	1	0.00095	0.0039	75-34-3	05/19/14 15:36	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0046	75-35-4	05/19/14 15:36	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.0015 I	1	0.00036	0.0016	95-63-6	05/19/14 15:36	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00039 U	1	0.00039	0.0016	95-50-1	05/19/14 15:36	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00042 U	1	0.00042	0.0017	107-06-2	05/19/14 15:36	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00057 U	1	0.00057	0.0023	78-87-5	05/19/14 15:36	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00053 U	1	0.00053	0.0021	108-67-8	05/19/14 15:36	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00027 U	1	0.00027	0.0016	541-73-1	05/19/14 15:36	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00044 U	1	0.00044	0.0017	542-75-6	05/19/14 15:36	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00079 U	1	0.00079	0.0032	106-46-7	05/19/14 15:36	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.0076 I	1	0.0019	0.0078	78-93-3	05/19/14 15:36	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0042 U	1	0.0042	0.017	591-78-6	05/19/14 15:36	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0024 U	1	0.0024	0.0095	108-10-1	05/19/14 15:36	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.0087 U	1	0.0087	0.035	67-64-1	05/19/14 15:36	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.0041	1	0.00074	0.0029	71-43-2	05/19/14 15:36	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00038 U	1	0.00038	0.0016	74-97-5	05/19/14 15:36	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00035 U	1	0.00035	0.0016	75-27-4	05/19/14 15:36	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00063 U	1	0.00063	0.0025	75-25-2	05/19/14 15:36	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0052	74-83-9	05/19/14 15:36	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0047	75-15-0	05/19/14 15:36	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.00095 U	1	0.00095	0.0036	56-23-5	05/19/14 15:36	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00055 U	1	0.00055	0.0021	108-90-7	05/19/14 15:36	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.00095 U	1	0.00095	0.0037	75-00-3	05/19/14 15:36	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.00087 U	1	0.00087	0.0033	67-66-3	05/19/14 15:36	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0046	74-87-3	05/19/14 15:36	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00087 U	1	0.00087	0.0036	156-59-2	05/19/14 15:36	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00018 U	1	0.00018	0.0016	124-48-1	05/19/14 15:36	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00021 U	1	0.00021	0.0016	74-95-3	05/19/14 15:36	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.00095 U	1	0.00095	0.0038	75-71-8	05/19/14 15:36	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.0020 I	1	0.00066	0.0027	100-41-4	05/19/14 15:36	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00055 U	1	0.00055	0.0022	98-82-8	05/19/14 15:36	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0017 U	1	0.0017	0.0069	75-09-2	05/19/14 15:36	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00071 U	1	0.00071	0.0028	1634-04-4	05/19/14 15:36	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00018 U	1	0.00018	0.0016	100-42-5	05/19/14 15:36	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00070 U	1	0.00070	0.0028	127-18-4	05/19/14 15:36	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-04**
Sample Designation: **SB-2@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 10:15**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.0039	1	0.00070	0.0028	108-88-3	05/19/14 15:36	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.0040	1	0.00012	0.0016	1330-20-7	05/19/14 15:36	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0041	156-60-5	05/19/14 15:36	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00066 U	1	0.00066	0.0027	79-01-6	05/19/14 15:36	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0041	75-69-4	05/19/14 15:36	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.00095 U	1	0.00095	0.0039	75-01-4	05/19/14 15:36	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-05**
Sample Designation: **SB-4@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 11:30**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.0041 U	1	0.0041	0.016	7439-97-6	05/19/14 16:39	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	89	1			NA	05/19/14 09:23	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	70.0	1			321-60-8	05/22/14 05:10	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	83.7	1			1718-51-0	05/22/14 05:10	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.0075 U	1	0.0075	0.029	90-12-0	05/22/14 05:10	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.0063 U	1	0.0063	0.025	91-57-6	05/22/14 05:10	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0047 U	1	0.0047	0.019	83-32-9	05/22/14 05:10	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.083	1	0.0050	0.020	208-96-8	05/22/14 05:10	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.073	1	0.0038	0.016	120-12-7	05/22/14 05:10	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.20	1	0.0034	0.014	56-55-3	05/22/14 05:10	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.40	1	0.0045	0.018	50-32-8	05/22/14 05:10	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.79	1	0.0061	0.025	205-99-2	05/22/14 05:10	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.37	1	0.016	0.062	191-24-2	05/22/14 05:10	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.23	1	0.0043	0.017	207-08-9	05/22/14 05:10	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.29	1	0.0027	0.011	218-01-9	05/22/14 05:10	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.091	1	0.017	0.065	53-70-3	05/22/14 05:10	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.24	1	0.0052	0.020	206-44-0	05/22/14 05:10	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0041 U	1	0.0041	0.016	86-73-7	05/22/14 05:10	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.32	1	0.016	0.065	193-39-5	05/22/14 05:10	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.012 U	1	0.012	0.050	91-20-3	05/22/14 05:10	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.041	1	0.0063	0.025	85-01-8	05/22/14 05:10	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.30	1	0.016	0.062	129-00-0	05/22/14 05:10	05/19/14 17:40



Report of Laboratory Analysis

SunLabs
Project Number
4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-05**
Sample Designation: **SB-4@.50ft-2ft**

Matrix:
Date Collected: **05/15/14 11:30**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	2.8	1	0.28	1.2	7440-38-2	05/20/14 19:32	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	28	1	0.053	0.21	7440-39-3	05/20/14 19:32	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.26	1	0.061	0.25	7440-43-9	05/20/14 19:32	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	16	1	0.18	0.72	7440-47-3	05/20/14 19:32	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	14	1	0.51	2.0	7439-92-1	05/20/14 19:32	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.18 U	1	0.18	0.75	7782-49-2	05/20/14 19:32	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.19 U	1	0.19	0.77	7440-22-4	05/20/14 19:32	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	89.5	1			460-00-4	05/19/14 16:00	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	119	1			1868-53-7	05/19/14 16:00	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	91.1	1			2037-26-5	05/19/14 16:00	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0044	71-55-6	05/19/14 16:00	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00042 U	1	0.00042	0.0017	79-34-5	05/19/14 16:00	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00038 U	1	0.00038	0.0016	79-00-5	05/19/14 16:00	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0040	75-34-3	05/19/14 16:00	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0047	75-35-4	05/19/14 16:00	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.0014 I	1	0.00037	0.0016	95-63-6	05/19/14 16:00	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00040 U	1	0.00040	0.0016	95-50-1	05/19/14 16:00	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00043 U	1	0.00043	0.0017	107-06-2	05/19/14 16:00	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00059 U	1	0.00059	0.0024	78-87-5	05/19/14 16:00	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00055 U	1	0.00055	0.0022	108-67-8	05/19/14 16:00	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00028 U	1	0.00028	0.0016	541-73-1	05/19/14 16:00	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00046 U	1	0.00046	0.0018	542-75-6	05/19/14 16:00	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00082 U	1	0.00082	0.0033	106-46-7	05/19/14 16:00	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.0082	1	0.0020	0.0080	78-93-3	05/19/14 16:00	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0043 U	1	0.0043	0.017	591-78-6	05/19/14 16:00	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0025 U	1	0.0025	0.0098	108-10-1	05/19/14 16:00	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.081	1	0.0090	0.036	67-64-1	05/19/14 16:00	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.0056	1	0.00077	0.0030	71-43-2	05/19/14 16:00	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00039 U	1	0.00039	0.0016	74-97-5	05/19/14 16:00	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00036 U	1	0.00036	0.0016	75-27-4	05/19/14 16:00	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00065 U	1	0.00065	0.0026	75-25-2	05/19/14 16:00	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0054	74-83-9	05/19/14 16:00	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0049	75-15-0	05/19/14 16:00	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0038	56-23-5	05/19/14 16:00	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00056 U	1	0.00056	0.0022	108-90-7	05/19/14 16:00	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0038	75-00-3	05/19/14 16:00	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0034	67-66-3	05/19/14 16:00	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0047	74-87-3	05/19/14 16:00	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0037	156-59-2	05/19/14 16:00	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0016	124-48-1	05/19/14 16:00	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00021 U	1	0.00021	0.0016	74-95-3	05/19/14 16:00	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0039	75-71-8	05/19/14 16:00	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.0017 I	1	0.00069	0.0028	100-41-4	05/19/14 16:00	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00056 U	1	0.00056	0.0023	98-82-8	05/19/14 16:00	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0018 U	1	0.0018	0.0071	75-09-2	05/19/14 16:00	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00074 U	1	0.00074	0.0029	1634-04-4	05/19/14 16:00	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0016	100-42-5	05/19/14 16:00	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00072 U	1	0.00072	0.0029	127-18-4	05/19/14 16:00	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-05**
Sample Designation: **SB-4@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 11:30**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.0036	1	0.00073	0.0029	108-88-3	05/19/14 16:00	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.0038	1	0.00012	0.0016	1330-20-7	05/19/14 16:00	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0042	156-60-5	05/19/14 16:00	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00069 U	1	0.00069	0.0028	79-01-6	05/19/14 16:00	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0042	75-69-4	05/19/14 16:00	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0040	75-01-4	05/19/14 16:00	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-06**
Sample Designation: **SB-4@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 11:40**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.040	1	0.0044	0.017	7439-97-6	05/19/14 16:44	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	86	1			NA	05/19/14 09:25	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	70.0	1			321-60-8	05/22/14 05:28	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	80.8	1			1718-51-0	05/22/14 05:28	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.0077 U	1	0.0077	0.030	90-12-0	05/22/14 05:28	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.0065 U	1	0.0065	0.026	91-57-6	05/22/14 05:28	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0049 U	1	0.0049	0.020	83-32-9	05/22/14 05:28	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0051 U	1	0.0051	0.021	208-96-8	05/22/14 05:28	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.0040 U	1	0.0040	0.016	120-12-7	05/22/14 05:28	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.0035 U	1	0.0035	0.014	56-55-3	05/22/14 05:28	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.0047 U	1	0.0047	0.019	50-32-8	05/22/14 05:28	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.0063 U	1	0.0063	0.026	205-99-2	05/22/14 05:28	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.064	191-24-2	05/22/14 05:28	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.0044 U	1	0.0044	0.017	207-08-9	05/22/14 05:28	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.0028 U	1	0.0028	0.011	218-01-9	05/22/14 05:28	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.017 U	1	0.017	0.068	53-70-3	05/22/14 05:28	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.0054 U	1	0.0054	0.021	206-44-0	05/22/14 05:28	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0042 U	1	0.0042	0.016	86-73-7	05/22/14 05:28	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.068	193-39-5	05/22/14 05:28	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.013 U	1	0.013	0.051	91-20-3	05/22/14 05:28	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.0065 U	1	0.0065	0.026	85-01-8	05/22/14 05:28	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.064	129-00-0	05/22/14 05:28	05/19/14 17:40



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-06**
Sample Designation: **SB-4@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 11:40**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	1.1 I	1	0.27	1.2	7440-38-2	05/20/14 19:49	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	70	1	0.052	0.21	7440-39-3	05/20/14 19:49	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.060 U	1	0.060	0.24	7440-43-9	05/20/14 19:49	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	22	1	0.18	0.70	7440-47-3	05/20/14 19:49	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	4.8	1	0.50	2.0	7439-92-1	05/20/14 19:49	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.18 U	1	0.18	0.73	7782-49-2	05/20/14 19:49	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.19 U	1	0.19	0.75	7440-22-4	05/20/14 19:49	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	94.4	1			460-00-4	05/19/14 16:25	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	112	1			1868-53-7	05/19/14 16:25	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	97.0	1			2037-26-5	05/19/14 16:25	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.00097 U	1	0.00097	0.0040	71-55-6	05/19/14 16:25	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00039 U	1	0.00039	0.0016	79-34-5	05/19/14 16:25	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00034 U	1	0.00034	0.0015	79-00-5	05/19/14 16:25	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0037	75-34-3	05/19/14 16:25	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0043	75-35-4	05/19/14 16:25	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.00034 U	1	0.00034	0.0015	95-63-6	05/19/14 16:25	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00037 U	1	0.00037	0.0015	95-50-1	05/19/14 16:25	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00040 U	1	0.00040	0.0016	107-06-2	05/19/14 16:25	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00054 U	1	0.00054	0.0022	78-87-5	05/19/14 16:25	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00050 U	1	0.00050	0.0020	108-67-8	05/19/14 16:25	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00025 U	1	0.00025	0.0015	541-73-1	05/19/14 16:25	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00042 U	1	0.00042	0.0016	542-75-6	05/19/14 16:25	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00075 U	1	0.00075	0.0031	106-46-7	05/19/14 16:25	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.0018 U	1	0.0018	0.0073	78-93-3	05/19/14 16:25	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0040 U	1	0.0040	0.016	591-78-6	05/19/14 16:25	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0022 U	1	0.0022	0.0090	108-10-1	05/19/14 16:25	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.0082 U	1	0.0082	0.033	67-64-1	05/19/14 16:25	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.00080 I	1	0.00070	0.0028	71-43-2	05/19/14 16:25	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00036 U	1	0.00036	0.0015	74-97-5	05/19/14 16:25	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00033 U	1	0.00033	0.0015	75-27-4	05/19/14 16:25	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00059 U	1	0.00059	0.0024	75-25-2	05/19/14 16:25	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0049	74-83-9	05/19/14 16:25	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0045	75-15-0	05/19/14 16:25	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0034	56-23-5	05/19/14 16:25	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00052 U	1	0.00052	0.0020	108-90-7	05/19/14 16:25	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0035	75-00-3	05/19/14 16:25	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.00082 U	1	0.00082	0.0031	67-66-3	05/19/14 16:25	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.0010 U	1	0.0010	0.0043	74-87-3	05/19/14 16:25	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00082 U	1	0.00082	0.0034	156-59-2	05/19/14 16:25	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00017 U	1	0.00017	0.0015	124-48-1	05/19/14 16:25	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0015	74-95-3	05/19/14 16:25	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0036	75-71-8	05/19/14 16:25	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.00063 U	1	0.00063	0.0025	100-41-4	05/19/14 16:25	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00052 U	1	0.00052	0.0021	98-82-8	05/19/14 16:25	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0016 U	1	0.0016	0.0065	75-09-2	05/19/14 16:25	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00067 U	1	0.00067	0.0027	1634-04-4	05/19/14 16:25	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00017 U	1	0.00017	0.0015	100-42-5	05/19/14 16:25	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00066 U	1	0.00066	0.0026	127-18-4	05/19/14 16:25	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-06**
Sample Designation: **SB-4@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 11:40**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.00066 U	1	0.00066	0.0027	108-88-3	05/19/14 16:25	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.00011 U	1	0.00011	0.0015	1330-20-7	05/19/14 16:25	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00097 U	1	0.00097	0.0039	156-60-5	05/19/14 16:25	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00063 U	1	0.00063	0.0025	79-01-6	05/19/14 16:25	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.00097 U	1	0.00097	0.0039	75-69-4	05/19/14 16:25	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0037	75-01-4	05/19/14 16:25	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-07**
Sample Designation: **SB-6@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 13:40**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.016 I	1	0.0044	0.017	7439-97-6	05/19/14 16:46	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	86	1			NA	05/19/14 09:27	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	65.3	1			321-60-8	05/22/14 05:47	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	81.4	1			1718-51-0	05/22/14 05:47	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.0077 U	1	0.0077	0.030	90-12-0	05/22/14 05:47	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.0065 U	1	0.0065	0.026	91-57-6	05/22/14 05:47	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0049 U	1	0.0049	0.020	83-32-9	05/22/14 05:47	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0051 U	1	0.0051	0.021	208-96-8	05/22/14 05:47	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.0040 U	1	0.0040	0.016	120-12-7	05/22/14 05:47	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.0035 U	1	0.0035	0.014	56-55-3	05/22/14 05:47	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.0047 U	1	0.0047	0.019	50-32-8	05/22/14 05:47	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.0063 U	1	0.0063	0.026	205-99-2	05/22/14 05:47	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.064	191-24-2	05/22/14 05:47	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.0044 U	1	0.0044	0.017	207-08-9	05/22/14 05:47	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.0028 U	1	0.0028	0.011	218-01-9	05/22/14 05:47	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.017 U	1	0.017	0.068	53-70-3	05/22/14 05:47	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.0054 U	1	0.0054	0.021	206-44-0	05/22/14 05:47	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0042 U	1	0.0042	0.016	86-73-7	05/22/14 05:47	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.068	193-39-5	05/22/14 05:47	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.013 U	1	0.013	0.051	91-20-3	05/22/14 05:47	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.0065 U	1	0.0065	0.026	85-01-8	05/22/14 05:47	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.016 U	1	0.016	0.064	129-00-0	05/22/14 05:47	05/19/14 17:40



Report of Laboratory Analysis

SunLabs
Project Number
4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-07**
Sample Designation: **SB-6@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 13:40**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	3.0	1	0.30	1.3	7440-38-2	05/20/14 19:54	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	17	1	0.057	0.23	7440-39-3	05/20/14 19:54	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.52	1	0.065	0.26	7440-43-9	05/20/14 19:54	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	20	1	0.19	0.76	7440-47-3	05/20/14 19:54	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	2.4	1	0.55	2.2	7439-92-1	05/20/14 19:54	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.19 U	1	0.19	0.80	7782-49-2	05/20/14 19:54	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.21 U	1	0.21	0.82	7440-22-4	05/20/14 19:54	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	95.3	1			460-00-4	05/19/14 16:49	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	112	1			1868-53-7	05/19/14 16:49	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	101	1			2037-26-5	05/19/14 16:49	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0044	71-55-6	05/19/14 16:49	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00042 U	1	0.00042	0.0017	79-34-5	05/19/14 16:49	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00037 U	1	0.00037	0.0016	79-00-5	05/19/14 16:49	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0040	75-34-3	05/19/14 16:49	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0047	75-35-4	05/19/14 16:49	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.0013 I	1	0.00037	0.0016	95-63-6	05/19/14 16:49	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00040 U	1	0.00040	0.0016	95-50-1	05/19/14 16:49	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00043 U	1	0.00043	0.0017	107-06-2	05/19/14 16:49	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00059 U	1	0.00059	0.0024	78-87-5	05/19/14 16:49	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00054 U	1	0.00054	0.0022	108-67-8	05/19/14 16:49	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00028 U	1	0.00028	0.0016	541-73-1	05/19/14 16:49	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00046 U	1	0.00046	0.0018	542-75-6	05/19/14 16:49	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00081 U	1	0.00081	0.0033	106-46-7	05/19/14 16:49	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.0020 U	1	0.0020	0.0080	78-93-3	05/19/14 16:49	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0043 U	1	0.0043	0.017	591-78-6	05/19/14 16:49	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0024 U	1	0.0024	0.0098	108-10-1	05/19/14 16:49	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.049	1	0.0089	0.036	67-64-1	05/19/14 16:49	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.0078	1	0.00076	0.0030	71-43-2	05/19/14 16:49	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00039 U	1	0.00039	0.0016	74-97-5	05/19/14 16:49	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00036 U	1	0.00036	0.0016	75-27-4	05/19/14 16:49	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00064 U	1	0.00064	0.0026	75-25-2	05/19/14 16:49	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0054	74-83-9	05/19/14 16:49	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0049	75-15-0	05/19/14 16:49	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0037	56-23-5	05/19/14 16:49	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00056 U	1	0.00056	0.0022	108-90-7	05/19/14 16:49	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0038	75-00-3	05/19/14 16:49	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.00089 U	1	0.00089	0.0034	67-66-3	05/19/14 16:49	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0047	74-87-3	05/19/14 16:49	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00089 U	1	0.00089	0.0037	156-59-2	05/19/14 16:49	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0016	124-48-1	05/19/14 16:49	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00021 U	1	0.00021	0.0016	74-95-3	05/19/14 16:49	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0039	75-71-8	05/19/14 16:49	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.0032	1	0.00068	0.0028	100-41-4	05/19/14 16:49	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00056 U	1	0.00056	0.0023	98-82-8	05/19/14 16:49	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0018 U	1	0.0018	0.0071	75-09-2	05/19/14 16:49	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00073 U	1	0.00073	0.0029	1634-04-4	05/19/14 16:49	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0016	100-42-5	05/19/14 16:49	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00072 U	1	0.00072	0.0028	127-18-4	05/19/14 16:49	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-07**
Sample Designation: **SB-6@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 13:40**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.0055	1	0.00072	0.0029	108-88-3	05/19/14 16:49	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.0043	1	0.00012	0.0016	1330-20-7	05/19/14 16:49	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0042	156-60-5	05/19/14 16:49	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00068 U	1	0.00068	0.0028	79-01-6	05/19/14 16:49	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0042	75-69-4	05/19/14 16:49	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0040	75-01-4	05/19/14 16:49	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-08**
Sample Designation: **SB-6@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 13:50**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.052	1	0.0046	0.018	7439-97-6	05/19/14 16:48	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	81	1			NA	05/19/14 09:29	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	73.0	1			321-60-8	05/22/14 06:06	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	83.7	1			1718-51-0	05/22/14 06:06	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.0081 U	1	0.0081	0.032	90-12-0	05/22/14 06:06	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.0069 U	1	0.0069	0.027	91-57-6	05/22/14 06:06	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0052 U	1	0.0052	0.021	83-32-9	05/22/14 06:06	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0054 U	1	0.0054	0.022	208-96-8	05/22/14 06:06	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.0042 U	1	0.0042	0.017	120-12-7	05/22/14 06:06	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.0037 U	1	0.0037	0.015	56-55-3	05/22/14 06:06	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.0049 U	1	0.0049	0.020	50-32-8	05/22/14 06:06	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.0066 U	1	0.0066	0.027	205-99-2	05/22/14 06:06	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.017 U	1	0.017	0.068	191-24-2	05/22/14 06:06	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.0047 U	1	0.0047	0.018	207-08-9	05/22/14 06:06	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.0030 U	1	0.0030	0.012	218-01-9	05/22/14 06:06	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.018 U	1	0.018	0.071	53-70-3	05/22/14 06:06	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.0057 U	1	0.0057	0.022	206-44-0	05/22/14 06:06	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0044 U	1	0.0044	0.017	86-73-7	05/22/14 06:06	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.017 U	1	0.017	0.071	193-39-5	05/22/14 06:06	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.014 U	1	0.014	0.054	91-20-3	05/22/14 06:06	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.0069 U	1	0.0069	0.027	85-01-8	05/22/14 06:06	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.017 U	1	0.017	0.068	129-00-0	05/22/14 06:06	05/19/14 17:40



Report of Laboratory Analysis

SunLabs
Project Number
4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-08**
Sample Designation: **SB-6@2ft-4ft**

Matrix:
Date Collected: **05/15/14 13:50**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	1.4	1	0.31	1.3	7440-38-2	05/20/14 19:59	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	15	1	0.060	0.24	7440-39-3	05/20/14 19:59	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.24 I	1	0.068	0.28	7440-43-9	05/20/14 19:59	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	24	1	0.20	0.80	7440-47-3	05/20/14 19:59	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	2.3	1	0.58	2.3	7439-92-1	05/20/14 19:59	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.20 U	1	0.20	0.84	7782-49-2	05/20/14 19:59	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.22 U	1	0.22	0.86	7440-22-4	05/20/14 19:59	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	95.4	1			460-00-4	05/19/14 17:13	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	110	1			1868-53-7	05/19/14 17:13	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	98.3	1			2037-26-5	05/19/14 17:13	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0041	71-55-6	05/19/14 17:13	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00039 U	1	0.00039	0.0016	79-34-5	05/19/14 17:13	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00035 U	1	0.00035	0.0015	79-00-5	05/19/14 17:13	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0037	75-34-3	05/19/14 17:13	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0044	75-35-4	05/19/14 17:13	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.0013 I	1	0.00034	0.0015	95-63-6	05/19/14 17:13	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00037 U	1	0.00037	0.0015	95-50-1	05/19/14 17:13	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00040 U	1	0.00040	0.0016	107-06-2	05/19/14 17:13	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00054 U	1	0.00054	0.0022	78-87-5	05/19/14 17:13	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00066 I	1	0.00051	0.0020	108-67-8	05/19/14 17:13	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00026 U	1	0.00026	0.0015	541-73-1	05/19/14 17:13	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00042 U	1	0.00042	0.0017	542-75-6	05/19/14 17:13	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00075 U	1	0.00075	0.0031	106-46-7	05/19/14 17:13	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.018	1	0.0018	0.0074	78-93-3	05/19/14 17:13	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0040 U	1	0.0040	0.016	591-78-6	05/19/14 17:13	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0023 U	1	0.0023	0.0090	108-10-1	05/19/14 17:13	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.059	1	0.0083	0.033	67-64-1	05/19/14 17:13	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.011	1	0.00071	0.0028	71-43-2	05/19/14 17:13	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00036 U	1	0.00036	0.0015	74-97-5	05/19/14 17:13	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00033 U	1	0.00033	0.0015	75-27-4	05/19/14 17:13	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00060 U	1	0.00060	0.0024	75-25-2	05/19/14 17:13	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0050	74-83-9	05/19/14 17:13	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0045	75-15-0	05/19/14 17:13	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0035	56-23-5	05/19/14 17:13	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00052 U	1	0.00052	0.0020	108-90-7	05/19/14 17:13	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0035	75-00-3	05/19/14 17:13	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.00083 U	1	0.00083	0.0032	67-66-3	05/19/14 17:13	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0044	74-87-3	05/19/14 17:13	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00083 U	1	0.00083	0.0034	156-59-2	05/19/14 17:13	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00017 U	1	0.00017	0.0015	124-48-1	05/19/14 17:13	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00020 U	1	0.00020	0.0015	74-95-3	05/19/14 17:13	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0036	75-71-8	05/19/14 17:13	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.0061	1	0.00063	0.0026	100-41-4	05/19/14 17:13	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00072 I	1	0.00052	0.0021	98-82-8	05/19/14 17:13	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0017 U	1	0.0017	0.0066	75-09-2	05/19/14 17:13	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00068 U	1	0.00068	0.0027	1634-04-4	05/19/14 17:13	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00017 U	1	0.00017	0.0015	100-42-5	05/19/14 17:13	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00066 U	1	0.00066	0.0026	127-18-4	05/19/14 17:13	05/19/14 09:25



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-08**
Sample Designation: **SB-6@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 13:50**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.0083	1	0.00067	0.0027	108-88-3	05/19/14 17:13	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.0018	1	0.00011	0.0015	1330-20-7	05/19/14 17:13	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0039	156-60-5	05/19/14 17:13	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00063 U	1	0.00063	0.0026	79-01-6	05/19/14 17:13	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0039	75-69-4	05/19/14 17:13	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0037	75-01-4	05/19/14 17:13	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-09**
Sample Designation: **SB-8@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 16:00**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.027	1	0.0043	0.017	7439-97-6	05/19/14 16:50	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	89	1			NA	05/19/14 09:31	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	69.7	2			321-60-8	05/22/14 06:43	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	80.8	2			1718-51-0	05/22/14 06:43	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.015 U	2	0.015	0.058	90-12-0	05/22/14 06:43	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.013 U	2	0.013	0.049	91-57-6	05/22/14 06:43	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0094 U	2	0.0094	0.038	83-32-9	05/22/14 06:43	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0099 U	2	0.0099	0.040	208-96-8	05/22/14 06:43	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.0076 U	2	0.0076	0.031	120-12-7	05/22/14 06:43	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.0067 U	2	0.0067	0.027	56-55-3	05/22/14 06:43	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.0090 U	2	0.0090	0.036	50-32-8	05/22/14 06:43	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.012 U	2	0.012	0.049	205-99-2	05/22/14 06:43	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.031 U	2	0.031	0.12	191-24-2	05/22/14 06:43	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.0085 U	2	0.0085	0.034	207-08-9	05/22/14 06:43	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.0055 I	2	0.0054	0.022	218-01-9	05/22/14 06:43	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.034 U	2	0.034	0.13	53-70-3	05/22/14 06:43	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.010 U	2	0.010	0.040	206-44-0	05/22/14 06:43	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0081 U	2	0.0081	0.031	86-73-7	05/22/14 06:43	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.031 U	2	0.031	0.13	193-39-5	05/22/14 06:43	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.025 U	2	0.025	0.099	91-20-3	05/22/14 06:43	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.013 U	2	0.013	0.049	85-01-8	05/22/14 06:43	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.031 U	2	0.031	0.12	129-00-0	05/22/14 06:43	05/19/14 17:40



Report of Laboratory Analysis

SunLabs
Project Number
4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-09**
Sample Designation: **SB-8@.50ft-2ft**

Matrix:
Date Collected: **05/15/14 16:00**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	2.2	1	0.28	1.2	7440-38-2	05/20/14 20:04	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	28	1	0.055	0.22	7440-39-3	05/20/14 20:04	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.16 I	1	0.062	0.25	7440-43-9	05/20/14 20:04	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	24	1	0.19	0.73	7440-47-3	05/20/14 20:04	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	8.1	2	1.1	4.2	7439-92-1	05/21/14 12:35	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.19 U	1	0.19	0.77	7782-49-2	05/20/14 20:04	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.20 U	1	0.20	0.79	7440-22-4	05/20/14 20:04	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	90.1	1			460-00-4	05/19/14 17:37	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	113	1			1868-53-7	05/19/14 17:37	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	92.8	1			2037-26-5	05/19/14 17:37	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0044	71-55-6	05/19/14 17:37	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00043 U	1	0.00043	0.0017	79-34-5	05/19/14 17:37	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00038 U	1	0.00038	0.0016	79-00-5	05/19/14 17:37	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0040	75-34-3	05/19/14 17:37	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0047	75-35-4	05/19/14 17:37	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.0010 I	1	0.00037	0.0016	95-63-6	05/19/14 17:37	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00040 U	1	0.00040	0.0016	95-50-1	05/19/14 17:37	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00043 U	1	0.00043	0.0017	107-06-2	05/19/14 17:37	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00059 U	1	0.00059	0.0024	78-87-5	05/19/14 17:37	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00055 U	1	0.00055	0.0022	108-67-8	05/19/14 17:37	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00028 U	1	0.00028	0.0016	541-73-1	05/19/14 17:37	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00046 U	1	0.00046	0.0018	542-75-6	05/19/14 17:37	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00082 U	1	0.00082	0.0034	106-46-7	05/19/14 17:37	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.011	1	0.0020	0.0080	78-93-3	05/19/14 17:37	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0043 U	1	0.0043	0.017	591-78-6	05/19/14 17:37	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0025 U	1	0.0025	0.0098	108-10-1	05/19/14 17:37	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.040	1	0.0090	0.036	67-64-1	05/19/14 17:37	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.0093	1	0.00077	0.0030	71-43-2	05/19/14 17:37	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00039 U	1	0.00039	0.0016	74-97-5	05/19/14 17:37	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00036 U	1	0.00036	0.0016	75-27-4	05/19/14 17:37	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00065 U	1	0.00065	0.0026	75-25-2	05/19/14 17:37	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0013 U	1	0.0013	0.0054	74-83-9	05/19/14 17:37	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0012 U	1	0.0012	0.0049	75-15-0	05/19/14 17:37	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0038	56-23-5	05/19/14 17:37	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00056 U	1	0.00056	0.0022	108-90-7	05/19/14 17:37	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0038	75-00-3	05/19/14 17:37	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0034	67-66-3	05/19/14 17:37	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0047	74-87-3	05/19/14 17:37	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00090 U	1	0.00090	0.0037	156-59-2	05/19/14 17:37	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0016	124-48-1	05/19/14 17:37	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00021 U	1	0.00021	0.0016	74-95-3	05/19/14 17:37	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0039	75-71-8	05/19/14 17:37	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.0028	1	0.00069	0.0028	100-41-4	05/19/14 17:37	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00056 U	1	0.00056	0.0023	98-82-8	05/19/14 17:37	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0019 I	1	0.0018	0.0071	75-09-2	05/19/14 17:37	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00074 U	1	0.00074	0.0029	1634-04-4	05/19/14 17:37	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00019 U	1	0.00019	0.0016	100-42-5	05/19/14 17:37	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00072 U	1	0.00072	0.0029	127-18-4	05/19/14 17:37	05/19/14 09:25



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-09**
Sample Designation: **SB-8@.50ft-2ft**

Matrix: **Soil**
Date Collected: **05/15/14 16:00**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.0049	1	0.00073	0.0029	108-88-3	05/19/14 17:37	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.0012 I	1	0.00012	0.0016	1330-20-7	05/19/14 17:37	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0043	156-60-5	05/19/14 17:37	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00069 U	1	0.00069	0.0028	79-01-6	05/19/14 17:37	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0043	75-69-4	05/19/14 17:37	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.00098 U	1	0.00098	0.0040	75-01-4	05/19/14 17:37	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number
4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-10**
Sample Designation: **SB-8@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 16:15**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7471					Method Qualifier:				
Mercury	EPA 7471	mg/kg dry	0.013 I	1	0.0041	0.016	7439-97-6	05/19/14 16:52	05/19/14 11:01
Percent Solids					Method Qualifier:				
% Solids	EPA 160.3	%	90	1			NA	05/19/14 09:33	05/16/14 14:07
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (1-191)	EPA 8270	%	70.6	2			321-60-8	05/22/14 07:01	05/19/14 17:40
Surrogate: p-Terphenyl-d14 (8-178)	EPA 8270	%	81.0	2			1718-51-0	05/22/14 07:01	05/19/14 17:40
1-Methylnaphthalene	EPA 8270	mg/kg dry	0.015 U	2	0.015	0.058	90-12-0	05/22/14 07:01	05/19/14 17:40
2-Methylnaphthalene	EPA 8270	mg/kg dry	0.012 U	2	0.012	0.049	91-57-6	05/22/14 07:01	05/19/14 17:40
Acenaphthene	EPA 8270	mg/kg dry	0.0093 U	2	0.0093	0.038	83-32-9	05/22/14 07:01	05/19/14 17:40
Acenaphthylene	EPA 8270	mg/kg dry	0.0098 U	2	0.0098	0.040	208-96-8	05/22/14 07:01	05/19/14 17:40
Anthracene	EPA 8270	mg/kg dry	0.0076 U	2	0.0076	0.031	120-12-7	05/22/14 07:01	05/19/14 17:40
Benz[a]anthracene	EPA 8270	mg/kg dry	0.019 I	2	0.0067	0.027	56-55-3	05/22/14 07:01	05/19/14 17:40
Benzo[a]pyrene	EPA 8270	mg/kg dry	0.019 I	2	0.0089	0.036	50-32-8	05/22/14 07:01	05/19/14 17:40
Benzo[b]fluoranthene	EPA 8270	mg/kg dry	0.040 I	2	0.012	0.049	205-99-2	05/22/14 07:01	05/19/14 17:40
Benzo[ghi]perylene	EPA 8270	mg/kg dry	0.042 I	2	0.031	0.12	191-24-2	05/22/14 07:01	05/19/14 17:40
Benzo[k]fluoranthene	EPA 8270	mg/kg dry	0.020 I	2	0.0085	0.033	207-08-9	05/22/14 07:01	05/19/14 17:40
Chrysene	EPA 8270	mg/kg dry	0.017 I	2	0.0053	0.021	218-01-9	05/22/14 07:01	05/19/14 17:40
Dibenz[a,h]anthracene	EPA 8270	mg/kg dry	0.033 U	2	0.033	0.13	53-70-3	05/22/14 07:01	05/19/14 17:40
Fluoranthene	EPA 8270	mg/kg dry	0.010 U	2	0.010	0.040	206-44-0	05/22/14 07:01	05/19/14 17:40
Fluorene	EPA 8270	mg/kg dry	0.0080 U	2	0.0080	0.031	86-73-7	05/22/14 07:01	05/19/14 17:40
Indeno[1,2,3-cd]pyrene	EPA 8270	mg/kg dry	0.031 U	2	0.031	0.13	193-39-5	05/22/14 07:01	05/19/14 17:40
Naphthalene	EPA 8270	mg/kg dry	0.024 U	2	0.024	0.098	91-20-3	05/22/14 07:01	05/19/14 17:40
Phenanthrene	EPA 8270	mg/kg dry	0.012 U	2	0.012	0.049	85-01-8	05/22/14 07:01	05/19/14 17:40
Pyrene	EPA 8270	mg/kg dry	0.031 U	2	0.031	0.12	129-00-0	05/22/14 07:01	05/19/14 17:40



Report of Laboratory Analysis

SunLabs
Project Number
4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-10**
Sample Designation: **SB-8@2ft-4ft**

Matrix:
Date Collected: **05/15/14 16:15**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	mg/kg dry	1.2	1	0.28	1.2	7440-38-2	05/20/14 20:09	05/19/14 10:50
Barium	EPA 6010	mg/kg dry	13	1	0.054	0.22	7440-39-3	05/20/14 20:09	05/19/14 10:50
Cadmium	EPA 6010	mg/kg dry	0.062 U	1	0.062	0.25	7440-43-9	05/20/14 20:09	05/19/14 10:50
Chromium	EPA 6010	mg/kg dry	6.0	1	0.18	0.73	7440-47-3	05/20/14 20:09	05/19/14 10:50
Lead	EPA 6010	mg/kg dry	3.7	1	0.52	2.1	7439-92-1	05/20/14 20:09	05/19/14 10:50
Selenium	EPA 6010	mg/kg dry	0.18 U	1	0.18	0.76	7782-49-2	05/20/14 20:09	05/19/14 10:50
Silver	EPA 6010	mg/kg dry	0.20 U	1	0.20	0.78	7440-22-4	05/20/14 20:09	05/19/14 10:50
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (25-172)	EPA 8260	%	88.7	1			460-00-4	05/19/14 18:01	05/19/14 09:25
Surrogate: Dibromofluoromethane (77-126)	EPA 8260	%	108	1			1868-53-7	05/19/14 18:01	05/19/14 09:25
Surrogate: Toluene-d8 (78-118)	EPA 8260	%	97.3	1			2037-26-5	05/19/14 18:01	05/19/14 09:25
1,1,1-Trichloroethane	EPA 8260	mg/kg dry	0.00092 U	1	0.00092	0.0038	71-55-6	05/19/14 18:01	05/19/14 09:25
1,1,2,2-Tetrachloroethane	EPA 8260	mg/kg dry	0.00037 U	1	0.00037	0.0015	79-34-5	05/19/14 18:01	05/19/14 09:25
1,1,2-Trichloroethane	EPA 8260	mg/kg dry	0.00033 U	1	0.00033	0.0014	79-00-5	05/19/14 18:01	05/19/14 09:25
1,1-Dichloroethane	EPA 8260	mg/kg dry	0.00085 U	1	0.00085	0.0035	75-34-3	05/19/14 18:01	05/19/14 09:25
1,1-Dichloroethene	EPA 8260	mg/kg dry	0.00099 U	1	0.00099	0.0041	75-35-4	05/19/14 18:01	05/19/14 09:25
1,2,4-Trimethylbenzene	EPA 8260	mg/kg dry	0.00070 I	1	0.00032	0.0014	95-63-6	05/19/14 18:01	05/19/14 09:25
1,2-Dichlorobenzene	EPA 8260	mg/kg dry	0.00035 U	1	0.00035	0.0014	95-50-1	05/19/14 18:01	05/19/14 09:25
1,2-Dichloroethane	EPA 8260	mg/kg dry	0.00037 U	1	0.00037	0.0015	107-06-2	05/19/14 18:01	05/19/14 09:25
1,2-Dichloropropane	EPA 8260	mg/kg dry	0.00051 U	1	0.00051	0.0020	78-87-5	05/19/14 18:01	05/19/14 09:25
1,3,5-Trimethylbenzene	EPA 8260	mg/kg dry	0.00047 U	1	0.00047	0.0019	108-67-8	05/19/14 18:01	05/19/14 09:25
1,3-Dichlorobenzene	EPA 8260	mg/kg dry	0.00024 U	1	0.00024	0.0014	541-73-1	05/19/14 18:01	05/19/14 09:25
1,3-Dichloropropene (Total)	EPA 8260	mg/kg dry	0.00040 U	1	0.00040	0.0016	542-75-6	05/19/14 18:01	05/19/14 09:25
1,4-Dichlorobenzene	EPA 8260	mg/kg dry	0.00071 U	1	0.00071	0.0029	106-46-7	05/19/14 18:01	05/19/14 09:25
2-Butanone (MEK)	EPA 8260	mg/kg dry	0.0063 I	1	0.0017	0.0069	78-93-3	05/19/14 18:01	05/19/14 09:25
2-Hexanone	EPA 8260	mg/kg dry	0.0037 U	1	0.0037	0.015	591-78-6	05/19/14 18:01	05/19/14 09:25
4-Methyl-2-pentanone (MIBK)	EPA 8260	mg/kg dry	0.0021 U	1	0.0021	0.0085	108-10-1	05/19/14 18:01	05/19/14 09:25
Acetone	EPA 8260	mg/kg dry	0.0078 U	1	0.0078	0.031	67-64-1	05/19/14 18:01	05/19/14 09:25
Benzene	EPA 8260	mg/kg dry	0.0029	1	0.00066	0.0026	71-43-2	05/19/14 18:01	05/19/14 09:25
Bromochloromethane	EPA 8260	mg/kg dry	0.00034 U	1	0.00034	0.0014	74-97-5	05/19/14 18:01	05/19/14 09:25
Bromodichloromethane	EPA 8260	mg/kg dry	0.00031 U	1	0.00031	0.0014	75-27-4	05/19/14 18:01	05/19/14 09:25
Bromoform	EPA 8260	mg/kg dry	0.00056 U	1	0.00056	0.0023	75-25-2	05/19/14 18:01	05/19/14 09:25
Bromomethane	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0047	74-83-9	05/19/14 18:01	05/19/14 09:25
Carbon disulfide	EPA 8260	mg/kg dry	0.0011 U	1	0.0011	0.0042	75-15-0	05/19/14 18:01	05/19/14 09:25
Carbon tetrachloride	EPA 8260	mg/kg dry	0.00085 U	1	0.00085	0.0033	56-23-5	05/19/14 18:01	05/19/14 09:25
Chlorobenzene	EPA 8260	mg/kg dry	0.00049 U	1	0.00049	0.0019	108-90-7	05/19/14 18:01	05/19/14 09:25
Chloroethane	EPA 8260	mg/kg dry	0.00085 U	1	0.00085	0.0033	75-00-3	05/19/14 18:01	05/19/14 09:25
Chloroform	EPA 8260	mg/kg dry	0.00078 U	1	0.00078	0.0030	67-66-3	05/19/14 18:01	05/19/14 09:25
Chloromethane	EPA 8260	mg/kg dry	0.00099 U	1	0.00099	0.0041	74-87-3	05/19/14 18:01	05/19/14 09:25
cis-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00078 U	1	0.00078	0.0032	156-59-2	05/19/14 18:01	05/19/14 09:25
Dibromochloromethane	EPA 8260	mg/kg dry	0.00016 U	1	0.00016	0.0014	124-48-1	05/19/14 18:01	05/19/14 09:25
Dibromomethane	EPA 8260	mg/kg dry	0.00018 U	1	0.00018	0.0014	74-95-3	05/19/14 18:01	05/19/14 09:25
Dichlorodifluoromethane	EPA 8260	mg/kg dry	0.00085 U	1	0.00085	0.0034	75-71-8	05/19/14 18:01	05/19/14 09:25
Ethylbenzene	EPA 8260	mg/kg dry	0.0011 I	1	0.00059	0.0024	100-41-4	05/19/14 18:01	05/19/14 09:25
isopropylbenzene	EPA 8260	mg/kg dry	0.00049 U	1	0.00049	0.0020	98-82-8	05/19/14 18:01	05/19/14 09:25
Methylene Chloride	EPA 8260	mg/kg dry	0.0016 U	1	0.0016	0.0061	75-09-2	05/19/14 18:01	05/19/14 09:25
Methyl tert-Butyl Ether (MTBE)	EPA 8260	mg/kg dry	0.00064 U	1	0.00064	0.0025	1634-04-4	05/19/14 18:01	05/19/14 09:25
Styrene	EPA 8260	mg/kg dry	0.00016 U	1	0.00016	0.0014	100-42-5	05/19/14 18:01	05/19/14 09:25
Tetrachloroethene	EPA 8260	mg/kg dry	0.00062 U	1	0.00062	0.0025	127-18-4	05/19/14 18:01	05/19/14 09:25



Report of Laboratory Analysis

SunLabs Project Number
4051601

Cardno TBE, Inc.
Project Description
BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-10**
Sample Designation: **SB-8@2ft-4ft**

Matrix: **Soil**
Date Collected: **05/15/14 16:15**
Date Received: **05/16/14 08:35**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Toluene	EPA 8260	mg/kg dry	0.0022 I	1	0.00063	0.0025	108-88-3	05/19/14 18:01	05/19/14 09:25
Xylenes (Total)	EPA 8260	mg/kg dry	0.0016	1	0.00011	0.0014	1330-20-7	05/19/14 18:01	05/19/14 09:25
trans-1,2-Dichloroethene	EPA 8260	mg/kg dry	0.00092 U	1	0.00092	0.0037	156-60-5	05/19/14 18:01	05/19/14 09:25
Trichloroethene	EPA 8260	mg/kg dry	0.00059 U	1	0.00059	0.0024	79-01-6	05/19/14 18:01	05/19/14 09:25
Trichlorofluoromethane	EPA 8260	mg/kg dry	0.00092 U	1	0.00092	0.0037	75-69-4	05/19/14 18:01	05/19/14 09:25
Vinyl chloride	EPA 8260	mg/kg dry	0.00085 U	1	0.00085	0.0035	75-01-4	05/19/14 18:01	05/19/14 09:25



Report of Laboratory Analysis

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

May 23, 2014

SunLabs Sample Number: **4051601-11**
Sample Designation: **Trip Blank**

Matrix:
Date Collected: **05/15/14 00:00**
Date Received: **05/16/14 08:35**

Water
05/15/14 00:00
05/16/14 08:35

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (82-118)	EPA 8260	%	99.4	1			460-00-4	05/20/14 10:24	05/20/14 08:00
Surrogate: Dibromofluoromethane (85-120)	EPA 8260	%	101	1			1868-53-7	05/20/14 10:24	05/20/14 08:00
Surrogate: Toluene-d8 (83-115)	EPA 8260	%	98.7	1			2037-26-5	05/20/14 10:24	05/20/14 08:00
1,1,1-Trichloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.78	71-55-6	05/20/14 10:24	05/20/14 08:00
1,1,2,2-Tetrachloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	79-34-5	05/20/14 10:24	05/20/14 08:00
1,1,2-Trichloroethane	EPA 8260	ug/L	0.92 U	1	0.92	3.7	79-00-5	05/20/14 10:24	05/20/14 08:00
1,1-Dichloroethane	EPA 8260	ug/L	0.23 U	1	0.23	0.92	75-34-3	05/20/14 10:24	05/20/14 08:00
1,1-Dichloroethene	EPA 8260	ug/L	0.34 U	1	0.34	1.3	75-35-4	05/20/14 10:24	05/20/14 08:00
1,2-Dichlorobenzene	EPA 8260	ug/L	0.40 U	1	0.40	1.6	95-50-1	05/20/14 10:24	05/20/14 08:00
1,2-Dichloroethane	EPA 8260	ug/L	0.24 U	1	0.24	0.97	107-06-2	05/20/14 10:24	05/20/14 08:00
1,2-Dichloropropane	EPA 8260	ug/L	0.28 U	1	0.28	1.1	78-87-5	05/20/14 10:24	05/20/14 08:00
1,2,4-Trimethylbenzene	EPA 8260	ug/L	0.37 U	1	0.37	1.5	95-63-6	05/20/14 10:24	05/20/14 08:00
1,3,5-Trimethylbenzene	EPA 8260	ug/L	0.24 U	1	0.24	0.94	108-67-8	05/20/14 10:24	05/20/14 08:00
1,3-Dichlorobenzene	EPA 8260	ug/L	0.34 U	1	0.34	1.4	541-73-1	05/20/14 10:24	05/20/14 08:00
1,3-Dichloropropene (Total)	EPA 8260	ug/L	0.11 U	1	0.11	0.50	542-75-6	05/20/14 10:24	05/20/14 08:00
1,4-Dichlorobenzene	EPA 8260	ug/L	0.21 U	1	0.21	0.84	106-46-7	05/20/14 10:24	05/20/14 08:00
2-Butanone (MEK)	EPA 8260	ug/L	2.1 U	1	2.1	8.4	78-93-3	05/20/14 10:24	05/20/14 08:00
2-Hexanone	EPA 8260	ug/L	1.5 U	1	1.5	10	591-78-6	05/20/14 10:24	05/20/14 08:00
4-Methyl-2-pentanone (MIBK)	EPA 8260	ug/L	1.3 U	1	1.3	5.2	108-10-1	05/20/14 10:24	05/20/14 08:00
Acetone	EPA 8260	ug/L	6.9 U	1	6.9	28	67-64-1	05/20/14 10:24	05/20/14 08:00
Benzene	EPA 8260	ug/L	0.23 U	1	0.23	0.92	71-43-2	05/20/14 10:24	05/20/14 08:00
Bromochloromethane	EPA 8260	ug/L	0.18 U	1	0.18	0.72	74-97-5	05/20/14 10:24	05/20/14 08:00
Bromodichloromethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	75-27-4	05/20/14 10:24	05/20/14 08:00
Bromoform	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-25-2	05/20/14 10:24	05/20/14 08:00
Bromomethane	EPA 8260	ug/L	0.43 U	1	0.43	1.7	74-83-9	05/20/14 10:24	05/20/14 08:00
Carbon disulfide	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-15-0	05/20/14 10:24	05/20/14 08:00
Carbon tetrachloride	EPA 8260	ug/L	0.18 U	1	0.18	0.72	56-23-5	05/20/14 10:24	05/20/14 08:00
Chlorobenzene	EPA 8260	ug/L	0.19 U	1	0.19	0.76	108-90-7	05/20/14 10:24	05/20/14 08:00
Chloroethane	EPA 8260	ug/L	0.36 U	1	0.36	1.4	75-00-3	05/20/14 10:24	05/20/14 08:00
Chloroform	EPA 8260	ug/L	0.19 U	1	0.19	0.74	67-66-3	05/20/14 10:24	05/20/14 08:00
Chloromethane	EPA 8260	ug/L	0.32 U	1	0.32	1.3	74-87-3	05/20/14 10:24	05/20/14 08:00
cis-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-59-2	05/20/14 10:24	05/20/14 08:00
Dibromochloromethane	EPA 8260	ug/L	0.33 U	1	0.33	1.3	124-48-1	05/20/14 10:24	05/20/14 08:00
Dibromomethane	EPA 8260	ug/L	0.25 U	1	0.25	1.0	74-95-3	05/20/14 10:24	05/20/14 08:00
Dichlorodifluoromethane	EPA 8260	ug/L	0.42 U	1	0.42	1.7	75-71-8	05/20/14 10:24	05/20/14 08:00
Ethylbenzene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	100-41-4	05/20/14 10:24	05/20/14 08:00
isopropylbenzene	EPA 8260	ug/L	0.26 U	1	0.26	1.0	98-82-8	05/20/14 10:24	05/20/14 08:00
Methylene Chloride	EPA 8260	ug/L	0.65 U	1	0.65	2.6	75-09-2	05/20/14 10:24	05/20/14 08:00
Methyl tert-Butyl Ether (MTBE)	EPA 8260	ug/L	0.28 U	1	0.28	1.1	1634-04-4	05/20/14 10:24	05/20/14 08:00
Styrene	EPA 8260	ug/L	0.23 U	1	0.23	0.93	100-42-5	05/20/14 10:24	05/20/14 08:00
Tetrachloroethene	EPA 8260	ug/L	0.36 U	1	0.36	1.4	127-18-4	05/20/14 10:24	05/20/14 08:00
Toluene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	108-88-3	05/20/14 10:24	05/20/14 08:00
Xylenes (Total)	EPA 8260	ug/L	0.22 U	1	0.22	0.88	1330-20-7	05/20/14 10:24	05/20/14 08:00
trans-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-60-5	05/20/14 10:24	05/20/14 08:00
Trichloroethene	EPA 8260	ug/L	0.48 U	1	0.48	1.9	79-01-6	05/20/14 10:24	05/20/14 08:00
Trichlorofluoromethane	EPA 8260	ug/L	0.51 U	1	0.51	2.0	75-69-4	05/20/14 10:24	05/20/14 08:00
Vinyl chloride	EPA 8260	ug/L	0.25 U	1	0.25	1.0	75-01-4	05/20/14 10:24	05/20/14 08:00



Footnotes

<i>U</i>	<i>The compound was analyzed for but not detected.</i>
<i>J</i>	<i>The reported value failed to meet the established quality control criteria for either precision or accuracy (see cover letter for explanation)</i>
<i>I</i>	<i>The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.</i>
<i>**</i>	<i>SunLabs is not currently NELAC certified for this analyte. Unless directed otherwise by client, a NELAC certified sub-contract laboratory has performed this analysis (see cover letter for details).</i>
<i>LCS / LCSD</i>	<i>Laboratory Control Sample / Laboratory Control Sample Duplicate</i>
<i>MB</i>	<i>Method Blank</i>
<i>MS / MSD</i>	<i>Matrix Spike / Matrix Spike Duplicate</i>
<i>RPD</i>	<i>Relative Percent Difference</i>



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005040**

Test: **% Solids**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Duplicate (B005040-DUP1)			Parent Sample: 4051601-01		Prepared: 05/16/14 Analyzed: 05/19/14				
% Solids	97	%		90			6.61	200	

Batch No: **B005066**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005066-BLK1)			Prepared & Analyzed: 05/19/14						
Surrogate: 4-Bromofluorobenzene	46	ng/mL	50		91.3	25-172			
Surrogate: Dibromofluoromethane	53	ng/mL	50		106	77-126			
Surrogate: Toluene-d8	46	ng/mL	50		91.1	78-118			
1,1,1-Trichloroethane	0.0013 U	mg/kg wet							
1,1,2,2-Tetrachloroethane	0.00052 U	mg/kg wet							
1,1,2-Trichloroethane	0.00046 U	mg/kg wet							
1,1-Dichloroethane	0.0012 U	mg/kg wet							
1,1-Dichloroethene	0.0014 U	mg/kg wet							
1,2,4-Trimethylbenzene	0.00045 U	mg/kg wet							
1,2-Dichlorobenzene	0.00049 U	mg/kg wet							
1,2-Dichloroethane	0.00053 U	mg/kg wet							
1,2-Dichloropropane	0.00072 U	mg/kg wet							
1,3,5-Trimethylbenzene	0.00067 U	mg/kg wet							
1,3-Dichlorobenzene	0.00034 U	mg/kg wet							
1,3-Dichloropropene (Total)	0.00056 U	mg/kg wet							
1,4-Dichlorobenzene	0.0010 U	mg/kg wet							
2-Butanone (MEK)	0.0024 U	mg/kg wet							
2-Hexanone	0.0053 U	mg/kg wet							
4-Methyl-2-pentanone (MIBK)	0.0030 U	mg/kg wet							
Acetone	0.011 U	mg/kg wet							
Benzene	0.00094 U	mg/kg wet							
Bromochloromethane	0.00048 U	mg/kg wet							
Bromodichloromethane	0.00044 U	mg/kg wet							
Bromoform	0.00079 U	mg/kg wet							
Bromomethane	0.0016 U	mg/kg wet							
Carbon disulfide	0.0015 U	mg/kg wet							
Carbon tetrachloride	0.0012 U	mg/kg wet							
Chlorobenzene	0.00069 U	mg/kg wet							
Chloroethane	0.0012 U	mg/kg wet							
Chloroform	0.0011 U	mg/kg wet							
Chloromethane	0.0014 U	mg/kg wet							
cis-1,2-Dichloroethene	0.0011 U	mg/kg wet							
Dibromochloromethane	0.00023 U	mg/kg wet							
Dibromomethane	0.00026 U	mg/kg wet							
Dichlorodifluoromethane	0.0012 U	mg/kg wet							
Ethylbenzene	0.00084 U	mg/kg wet							
isopropylbenzene	0.00069 U	mg/kg wet							
Methylene Chloride	0.0022 U	mg/kg wet							
Methyl tert-Butyl Ether (MTBE)	0.00090 U	mg/kg wet							
Styrene	0.00023 U	mg/kg wet							
Tetrachloroethene	0.00088 U	mg/kg wet							



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005066**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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Blank (B005066-BLK1)

Prepared & Analyzed: 05/19/14

Toluene	0.00089 U	mg/kg wet
Xylenes (Total)	0.00015 U	mg/kg wet
trans-1,2-Dichloroethene	0.0013 U	mg/kg wet
Trichloroethene	0.00084 U	mg/kg wet
Trichlorofluoromethane	0.0013 U	mg/kg wet
Vinyl chloride	0.0012 U	mg/kg wet

LCS (B005066-BS1)

Prepared & Analyzed: 05/19/14

Surrogate: 4-Bromofluorobenzene	47	ng/mL	50	93.7	25-172
Surrogate: Dibromofluoromethane	52	ng/mL	50	104	77-126
Surrogate: Toluene-d8	52	ng/mL	50	104	78-118
1,1,1-Trichloroethane	0.11	mg/kg wet	0.10	112	78-120
1,1,2,2-Tetrachloroethane	0.10	mg/kg wet	0.10	104	69-124
1,1,2-Trichloroethane	0.11	mg/kg wet	0.10	110	80-125
1,1-Dichloroethane	0.11	mg/kg wet	0.10	106	80-120
1,1-Dichloroethene	0.10	mg/kg wet	0.10	103	80-120
1,2,4-Trimethylbenzene	0.11	mg/kg wet	0.10	108	77-120
1,2-Dichlorobenzene	0.10	mg/kg wet	0.10	104	80-120
1,2-Dichloroethane	0.11	mg/kg wet	0.10	108	80-120
1,2-Dichloropropane	0.11	mg/kg wet	0.10	109	80-120
1,3,5-Trimethylbenzene	0.11	mg/kg wet	0.10	108	67-120
1,3-Dichlorobenzene	0.11	mg/kg wet	0.10	112	74-145
1,3-Dichloropropene (Total)	0.21	mg/kg wet	0.20	105	73-121
1,4-Dichlorobenzene	0.10	mg/kg wet	0.10	103	69-135
2-Butanone (MEK)	1.1	mg/kg wet	1.0	106	53-130
2-Hexanone	1.1	mg/kg wet	1.0	108	51-137
4-Methyl-2-pentanone (MIBK)	1.1	mg/kg wet	1.0	105	57-129
Acetone	1.1	mg/kg wet	1.0	106	70-149
Benzene	0.10	mg/kg wet	0.10	103	80-120
Bromochloromethane	0.11	mg/kg wet	0.10	105	80-120
Bromodichloromethane	0.11	mg/kg wet	0.10	106	80-120
Bromoform	0.11	mg/kg wet	0.10	107	76-120
Bromomethane	0.11	mg/kg wet	0.10	109	76-137
Carbon disulfide	0.10	mg/kg wet	0.10	102	71-146
Carbon tetrachloride	0.11	mg/kg wet	0.10	110	75-120
Chlorobenzene	0.10	mg/kg wet	0.10	103	80-120
Chloroethane	0.10	mg/kg wet	0.10	102	80-123
Chloroform	0.10	mg/kg wet	0.10	103	80-120
Chloromethane	0.11	mg/kg wet	0.10	112	70-126
cis-1,2-Dichloroethene	0.11	mg/kg wet	0.10	107	80-120
Dibromochloromethane	0.11	mg/kg wet	0.10	114	80-120
Dibromomethane	0.11	mg/kg wet	0.10	109	80-120
Dichlorodifluoromethane	0.11	mg/kg wet	0.10	109	78-128
Ethylbenzene	0.10	mg/kg wet	0.10	101	80-120
isopropylbenzene	0.10	mg/kg wet	0.10	101	80-120
Methylene Chloride	0.11	mg/kg wet	0.10	106	72-145
Methyl tert-Butyl Ether (MTBE)	0.11	mg/kg wet	0.10	108	80-120
Styrene	0.10	mg/kg wet	0.10	105	80-120
Tetrachloroethene	0.12	mg/kg wet	0.10	117	80-120
Toluene	0.11	mg/kg wet	0.10	107	74-127
Xylenes (Total)	0.31	mg/kg wet	0.30	104	74-129



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005066**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS (B005066-BS1)

Prepared & Analyzed: 05/19/14

trans-1,2-Dichloroethene	0.11	mg/kg wet	0.10		106	80-120			
Trichloroethene	0.11	mg/kg wet	0.10		108	80-112			
Trichlorofluoromethane	0.11	mg/kg wet	0.10		105	74-127			
Vinyl chloride	0.11	mg/kg wet	0.10		107	78-131			

LCS Dup (B005066-BSD1)

Prepared & Analyzed: 05/19/14

Surrogate: 4-Bromofluorobenzene	45	ng/mL	50		90.0	25-172			
Surrogate: Dibromofluoromethane	51	ng/mL	50		102	77-126			
Surrogate: Toluene-d8	49	ng/mL	50		98.4	78-118			
1,1,1-Trichloroethane	0.11	mg/kg wet	0.10		108	78-120	3.58	20	
1,1,2,2-Tetrachloroethane	0.10	mg/kg wet	0.10		102	69-124	2.27	20	
1,1,2-Trichloroethane	0.10	mg/kg wet	0.10		102	80-125	7.92	20	
1,1-Dichloroethane	0.10	mg/kg wet	0.10		104	80-120	2.53	20	
1,1-Dichloroethene	0.10	mg/kg wet	0.10		104	80-120	1.13	20	
1,2,4-Trimethylbenzene	0.10	mg/kg wet	0.10		104	77-120	3.34	20	
1,2-Dichlorobenzene	0.11	mg/kg wet	0.10		109	80-120	4.38	20	
1,2-Dichloroethane	0.11	mg/kg wet	0.10		105	80-120	2.85	20	
1,2-Dichloropropane	0.10	mg/kg wet	0.10		101	80-120	7.47	20	
1,3,5-Trimethylbenzene	0.11	mg/kg wet	0.10		106	67-120	1.90	22	
1,3-Dichlorobenzene	0.11	mg/kg wet	0.10		109	74-145	2.02	20	
1,3-Dichloropropene (Total)	0.20	mg/kg wet	0.20		101	73-121	3.95	20	
1,4-Dichlorobenzene	0.11	mg/kg wet	0.10		108	69-135	4.93	20	
2-Butanone (MEK)	1.0	mg/kg wet	1.0		101	53-130	4.42	20	
2-Hexanone	0.97	mg/kg wet	1.0		97.2	51-137	10.5	20	
4-Methyl-2-pentanone (MIBK)	0.97	mg/kg wet	1.0		97.1	57-129	8.13	20	
Acetone	1.0	mg/kg wet	1.0		103	70-149	2.67	20	
Benzene	0.10	mg/kg wet	0.10		102	80-120	1.31	20	
Bromochloromethane	0.10	mg/kg wet	0.10		103	80-120	2.52	20	
Bromodichloromethane	0.10	mg/kg wet	0.10		102	80-120	4.08	20	
Bromoform	0.10	mg/kg wet	0.10		103	76-120	4.38	20	
Bromomethane	0.10	mg/kg wet	0.10		104	76-137	4.15	20	
Carbon disulfide	0.10	mg/kg wet	0.10		102	71-146	0.343	20	
Carbon tetrachloride	0.10	mg/kg wet	0.10		105	75-120	5.28	20	
Chlorobenzene	0.10	mg/kg wet	0.10		104	80-120	0.986	20	
Chloroethane	0.094	mg/kg wet	0.10		93.7	80-123	8.43	20	
Chloroform	0.10	mg/kg wet	0.10		101	80-120	2.15	20	
Chloromethane	0.10	mg/kg wet	0.10		99.8	70-126	11.3	20	
cis-1,2-Dichloroethene	0.11	mg/kg wet	0.10		107	80-120	0.0187	20	
Dibromochloromethane	0.10	mg/kg wet	0.10		105	80-120	8.04	20	
Dibromomethane	0.10	mg/kg wet	0.10		104	80-120	4.07	20	
Dichlorodifluoromethane	0.10	mg/kg wet	0.10		102	78-128	5.99	20	
Ethylbenzene	0.10	mg/kg wet	0.10		101	80-120	0.149	20	
isopropylbenzene	0.10	mg/kg wet	0.10		99.6	80-120	1.89	20	
Methylene Chloride	0.099	mg/kg wet	0.10		98.7	72-145	7.52	20	
Methyl tert-Butyl Ether (MTBE)	0.11	mg/kg wet	0.10		108	80-120	0.323	20	
Styrene	0.10	mg/kg wet	0.10		102	80-120	2.33	20	
Tetrachloroethene	0.11	mg/kg wet	0.10		109	80-120	7.19	20	
Toluene	0.10	mg/kg wet	0.10		99.5	74-127	7.43	20	
Xylenes (Total)	0.30	mg/kg wet	0.30		101	74-129	3.18	20	
trans-1,2-Dichloroethene	0.11	mg/kg wet	0.10		107	80-120	0.489	20	
Trichloroethene	0.11	mg/kg wet	0.10		105	80-112	2.20	20	



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005066**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS Dup (B005066-BSD1)

Prepared & Analyzed: 05/19/14

Trichlorofluoromethane	0.10	mg/kg wet	0.10		100	74-127	4.62	20	
Vinyl chloride	0.099	mg/kg wet	0.10		99.5	78-131	7.45	20	

Matrix Spike (B005066-MS1)

Parent Sample: 4051609-10

Prepared & Analyzed: 05/19/14

Surrogate: 4-Bromofluorobenzene	55	ng/mL	50		109	25-172			
Surrogate: Dibromofluoromethane	39	ng/mL	50		78.9	77-126			
Surrogate: Toluene-d8	40	ng/mL	50		79.7	78-118			
1,1,1-Trichloroethane	0.073	mg/kg dry	0.093	ND	78.8	71-120			
1,1,2,2-Tetrachloroethane	0.070	mg/kg dry	0.093	ND	75.7	71-124			
1,1,2-Trichloroethane	0.097	mg/kg dry	0.093	ND	105	77-127			
1,1-Dichloroethane	0.077	mg/kg dry	0.093	ND	82.7	79-120			
1,1-Dichloroethene	0.075	mg/kg dry	0.093	ND	80.4	63-126			
1,2,4-Trimethylbenzene	0.88	mg/kg dry	0.093	0.032	913	52-129			J
1,2-Dichlorobenzene	0.087	mg/kg dry	0.093	ND	93.7	80-122			
1,2-Dichloroethane	0.080	mg/kg dry	0.093	ND	85.8	81-122			
1,2-Dichloropropane	0.087	mg/kg dry	0.093	ND	93.3	80-120			
1,3,5-Trimethylbenzene	0.27	mg/kg dry	0.093	0.013	281	46-129			J
1,3-Dichlorobenzene	0.092	mg/kg dry	0.093	ND	99.6	60-154			
1,3-Dichloropropene (Total)	0.15	mg/kg dry	0.19	ND	79.7	57-120			
1,4-Dichlorobenzene	0.090	mg/kg dry	0.093	ND	97.3	68-135			
2-Butanone (MEK)	0.74	mg/kg dry	0.93	ND	79.3	55-143			
2-Hexanone	0.69	mg/kg dry	0.93	ND	74.3	51-150			
4-Methyl-2-pentanone (MIBK)	0.76	mg/kg dry	0.93	ND	81.7	61-135			
Acetone	0.93	mg/kg dry	0.93	ND	99.8	45-169			
Benzene	0.23	mg/kg dry	0.093	0.015	232	45-149			J
Bromochloromethane	0.072	mg/kg dry	0.093	ND	77.9	80-120			J
Bromodichloromethane	0.070	mg/kg dry	0.093	ND	75.5	80-123			J
Bromoform	0.097	mg/kg dry	0.093	ND	104	65-120			
Bromomethane	0.071	mg/kg dry	0.093	ND	77.0	56-160			
Carbon disulfide	0.070	mg/kg dry	0.093	ND	75.4	74-143			
Carbon tetrachloride	0.081	mg/kg dry	0.093	ND	87.1	70-120			
Chlorobenzene	0.089	mg/kg dry	0.093	ND	95.5	73-120			
Chloroethane	0.066	mg/kg dry	0.093	ND	71.4	76-129			J
Chloroform	0.079	mg/kg dry	0.093	ND	85.4	77-122			
Chloromethane	0.076	mg/kg dry	0.093	ND	81.5	58-147			
cis-1,2-Dichloroethene	0.081	mg/kg dry	0.093	ND	87.0	75-121			
Dibromochloromethane	0.073	mg/kg dry	0.093	ND	79.0	74-120			
Dibromomethane	0.075	mg/kg dry	0.093	ND	81.1	80-120			
Dichlorodifluoromethane	0.084	mg/kg dry	0.093	ND	90.7	57-145			
Ethylbenzene	0.61	mg/kg dry	0.093	0.039	620	73-120			J
isopropylbenzene	0.15	mg/kg dry	0.093	0.0027	158	68-120			J
Methylene Chloride	0.069	mg/kg dry	0.093	ND	74.1	66-141			
Methyl tert-Butyl Ether (MTBE)	0.076	mg/kg dry	0.093	ND	81.5	79-128			
Styrene	0.10	mg/kg dry	0.093	ND	109	42-130			
Tetrachloroethene	0.078	mg/kg dry	0.093	ND	83.9	57-141			
Toluene	0.31	mg/kg dry	0.093	0.022	309	62-122			J
Xylenes (Total)	2.6	mg/kg dry	0.28	0.18	888	44-136			J
trans-1,2-Dichloroethene	0.074	mg/kg dry	0.093	ND	79.3	72-120			
Trichloroethene	0.093	mg/kg dry	0.093	ND	100	66-124			
Trichlorofluoromethane	0.071	mg/kg dry	0.093	ND	76.7	62-138			
Vinyl chloride	0.077	mg/kg dry	0.093	ND	82.8	71-142			



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005066**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike Dup (B005066-MSD1)			Parent Sample: 4051609-10		Prepared & Analyzed: 05/19/14				
Surrogate: 4-Bromofluorobenzene	51	ng/mL	50		102	25-172			
Surrogate: Dibromofluoromethane	40	ng/mL	50		80.6	77-126			
Surrogate: Toluene-d8	43	ng/mL	50		86.6	78-118			
1,1,1-Trichloroethane	0.073	mg/kg dry	0.092	ND	79.8	71-120	0.320	20	
1,1,2,2-Tetrachloroethane	0.077	mg/kg dry	0.092	ND	83.3	71-124	8.53	20	
1,1,2-Trichloroethane	0.084	mg/kg dry	0.092	ND	91.6	77-127	14.6	20	
1,1-Dichloroethane	0.075	mg/kg dry	0.092	ND	82.0	79-120	1.87	20	
1,1-Dichloroethene	0.075	mg/kg dry	0.092	ND	81.4	63-126	0.182	20	
1,2,4-Trimethylbenzene	0.48	mg/kg dry	0.092	0.032	485	52-129	59.3	20	J
1,2-Dichlorobenzene	0.079	mg/kg dry	0.092	ND	86.0	80-122	9.66	20	
1,2-Dichloroethane	0.076	mg/kg dry	0.092	ND	82.5	81-122	4.96	20	
1,2-Dichloropropane	0.087	mg/kg dry	0.092	ND	94.3	80-120	0.0607	20	
1,3,5-Trimethylbenzene	0.19	mg/kg dry	0.092	0.013	192	46-129	36.4	20	J
1,3-Dichlorobenzene	0.086	mg/kg dry	0.092	ND	94.0	60-154	6.77	20	
1,3-Dichloropropene (Total)	0.17	mg/kg dry	0.18	ND	93.0	57-120	14.4	20	
1,4-Dichlorobenzene	0.083	mg/kg dry	0.092	ND	90.3	68-135	8.52	20	
2-Butanone (MEK)	0.74	mg/kg dry	0.92	ND	80.6	55-143	0.535	20	
2-Hexanone	0.75	mg/kg dry	0.92	ND	81.4	51-150	8.09	20	
4-Methyl-2-pentanone (MIBK)	0.77	mg/kg dry	0.92	ND	83.8	61-135	1.48	20	
Acetone	0.60	mg/kg dry	0.92	ND	65.6	45-169	42.4	20	J
Benzene	0.11	mg/kg dry	0.092	0.015	109	45-149	67.0	20	J
Bromochloromethane	0.072	mg/kg dry	0.092	ND	78.5	80-120	0.236	20	J
Bromodichloromethane	0.070	mg/kg dry	0.092	ND	75.7	80-123	0.804	20	J
Bromoform	0.094	mg/kg dry	0.092	ND	102	65-120	3.12	20	
Bromomethane	0.070	mg/kg dry	0.092	ND	76.2	56-160	2.14	20	
Carbon disulfide	0.069	mg/kg dry	0.092	ND	75.6	74-143	0.764	20	
Carbon tetrachloride	0.078	mg/kg dry	0.092	ND	85.2	70-120	3.18	20	
Chlorobenzene	0.082	mg/kg dry	0.092	ND	88.8	73-120	8.31	20	
Chloroethane	0.074	mg/kg dry	0.092	ND	80.2	76-129	10.7	20	
Chloroform	0.069	mg/kg dry	0.092	ND	75.7	77-122	13.1	20	J
Chloromethane	0.084	mg/kg dry	0.092	ND	92.0	58-147	11.1	20	
cis-1,2-Dichloroethene	0.080	mg/kg dry	0.092	ND	87.6	75-121	0.354	20	
Dibromochloromethane	0.077	mg/kg dry	0.092	ND	84.1	74-120	5.16	20	
Dibromomethane	0.075	mg/kg dry	0.092	ND	81.7	80-120	0.366	20	
Dichlorodifluoromethane	0.078	mg/kg dry	0.092	ND	85.4	57-145	7.06	20	
Ethylbenzene	0.26	mg/kg dry	0.092	0.039	244	73-120	79.9	20	J
isopropylbenzene	0.095	mg/kg dry	0.092	0.0027	101	68-120	44.3	20	J
Methylene Chloride	0.073	mg/kg dry	0.092	ND	79.6	66-141	6.07	20	
Methyl tert-Butyl Ether (MTBE)	0.076	mg/kg dry	0.092	ND	82.8	79-128	0.553	20	
Styrene	0.11	mg/kg dry	0.092	ND	115	42-130	4.42	20	
Tetrachloroethene	0.078	mg/kg dry	0.092	ND	84.9	57-141	0.155	20	
Toluene	0.15	mg/kg dry	0.092	0.022	134	62-122	72.1	20	J
Xylenes (Total)	1.1	mg/kg dry	0.28	0.18	342	44-136	81.3	20	J
trans-1,2-Dichloroethene	0.073	mg/kg dry	0.092	ND	79.3	72-120	1.03	20	
Trichloroethene	0.081	mg/kg dry	0.092	ND	88.3	66-124	13.5	20	
Trichlorofluoromethane	0.069	mg/kg dry	0.092	ND	75.2	62-138	3.03	20	
Vinyl chloride	0.076	mg/kg dry	0.092	ND	82.6	71-142	1.25	20	



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005074**
Test: **Mercury-S 7471**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005074-BLK1)			Prepared & Analyzed: 05/19/14						
Mercury	0.0038 U	mg/kg wet							
LCS (B005074-BS1)			Prepared & Analyzed: 05/19/14						
Mercury	0.48	mg/kg wet	0.50		95.2	80-120			
LCS Dup (B005074-BSD1)			Prepared & Analyzed: 05/19/14						
Mercury	0.48	mg/kg wet	0.50		95.5	80-120	0.277	20	
Matrix Spike (B005074-MS1)			Parent Sample: 4051601-01		Prepared & Analyzed: 05/19/14				
Mercury	0.56	mg/kg dry	0.55	ND	101	80-120			
Matrix Spike Dup (B005074-MSD1)			Parent Sample: 4051601-01		Prepared & Analyzed: 05/19/14				
Mercury	0.55	mg/kg dry	0.53	ND	103	80-120	1.85	20	

Batch No: **B005082**
Test: **RCRA7 6010**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005082-BLK1)			Prepared: 05/19/14 Analyzed: 05/20/14						
Arsenic	0.26 U	mg/kg wet							
Barium	0.050 U	mg/kg wet							
Cadmium	0.057 U	mg/kg wet							
Chromium	0.17 U	mg/kg wet							
Lead	0.48 U	mg/kg wet							
Selenium	0.17 U	mg/kg wet							
Silver	0.18 U	mg/kg wet							
LCS (B005082-BS1)			Prepared: 05/19/14 Analyzed: 05/20/14						
Arsenic	49	mg/kg wet	50		99.6	80-120			
Barium	50	mg/kg wet	50		101	80-120			
Cadmium	48	mg/kg wet	50		96.1	80-120			
Chromium	49	mg/kg wet	50		99.1	80-120			
Lead	49	mg/kg wet	50		98.9	80-120			
Selenium	50	mg/kg wet	50		101	80-120			
Silver	43	mg/kg wet	50		87.0	80-120			
LCS Dup (B005082-BSD1)			Prepared: 05/19/14 Analyzed: 05/20/14						
Arsenic	48	mg/kg wet	50		97.1	80-120	2.49	20	
Barium	49	mg/kg wet	50		98.2	80-120	3.20	20	
Cadmium	48	mg/kg wet	50		97.6	80-120	1.52	20	
Chromium	48	mg/kg wet	50		97.2	80-120	1.90	20	
Lead	47	mg/kg wet	50		94.2	80-120	4.87	20	
Selenium	48	mg/kg wet	50		97.5	80-120	3.84	20	
Silver	44	mg/kg wet	50		88.1	80-120	1.33	20	
Matrix Spike (B005082-MS1)			Parent Sample: 4051601-01		Prepared: 05/19/14 Analyzed: 05/20/14				
Arsenic	49	mg/kg dry	53	3.2	85.6	75-125			
Barium	61	mg/kg dry	53	15	85.9	75-125			
Cadmium	43	mg/kg dry	53	0.097	80.9	75-125			



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005082**

Test: **RCRA7 6010**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike (B005082-MS1)			Parent Sample: 4051601-01		Prepared: 05/19/14 Analyzed: 05/20/14				
Chromium	54	mg/kg dry	53	11	79.7	75-125			
Lead	41	mg/kg dry	53	0.92	75.3	75-125			
Selenium	43	mg/kg dry	53	ND	81.2	75-125			
Silver	41	mg/kg dry	53	ND	76.8	75-125			
Matrix Spike Dup (B005082-MSD1)			Parent Sample: 4051601-01		Prepared: 05/19/14 Analyzed: 05/20/14				
Arsenic	49	mg/kg dry	54	3.2	84.7	75-125	0.0681	20	
Barium	58	mg/kg dry	54	15	79.1	75-125	5.34	20	
Cadmium	46	mg/kg dry	54	0.097	85.9	75-125	7.07	20	
Chromium	54	mg/kg dry	54	11	79.4	75-125	0.590	20	
Lead	41	mg/kg dry	54	0.92	74.8	75-125	0.479	20	J
Selenium	45	mg/kg dry	54	ND	82.8	75-125	3.21	20	
Silver	42	mg/kg dry	54	ND	78.4	75-125	3.18	20	

Batch No: **B005089**

Test: **8270 PAH**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005089-BLK1)			Prepared: 05/19/14 Analyzed: 05/21/14						
Surrogate: 2-Fluorobiphenyl	0.69	mg/kg wet	1.0		69.5	1-191			
Surrogate: p-Terphenyl-d14	0.89	mg/kg wet	1.0		89.3	8-178			
1-Methylnaphthalene	0.0066 U	mg/kg wet							
2-Methylnaphthalene	0.0056 U	mg/kg wet							
Acenaphthene	0.0042 U	mg/kg wet							
Acenaphthylene	0.0044 U	mg/kg wet							
Anthracene	0.0034 U	mg/kg wet							
Benz[a]anthracene	0.0030 U	mg/kg wet							
Benzo[a]pyrene	0.0040 U	mg/kg wet							
Benzo[b]fluoranthene	0.0054 U	mg/kg wet							
Benzo[ghi]perylene	0.014 U	mg/kg wet							
Benzo[k]fluoranthene	0.0038 U	mg/kg wet							
Chrysene	0.0024 U	mg/kg wet							
Dibenz[a,h]anthracene	0.015 U	mg/kg wet							
Fluoranthene	0.0046 U	mg/kg wet							
Fluorene	0.0036 U	mg/kg wet							
Indeno[1,2,3-cd]pyrene	0.014 U	mg/kg wet							
Naphthalene	0.011 U	mg/kg wet							
Phenanthrene	0.0056 U	mg/kg wet							
Pyrene	0.014 U	mg/kg wet							
LCS (B005089-BS1)			Prepared: 05/19/14 Analyzed: 05/21/14						
Surrogate: 2-Fluorobiphenyl	0.63	mg/kg wet	1.0		62.8	1-191			
Surrogate: p-Terphenyl-d14	0.88	mg/kg wet	1.0		88.1	8-178			
1-Methylnaphthalene	0.14	mg/kg wet	0.20		70.2	36-109			
2-Methylnaphthalene	0.14	mg/kg wet	0.20		70.1	39-108			
Acenaphthene	0.14	mg/kg wet	0.20		72.0	45-106			
Acenaphthylene	0.15	mg/kg wet	0.20		74.2	35-113			
Anthracene	0.16	mg/kg wet	0.20		78.9	47-110			



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005089**

Test: **8270 PAH**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS (B005089-BS1)

Prepared: 05/19/14 Analyzed: 05/21/14

Benz[a]anthracene	0.19	mg/kg wet	0.20		96.6	50-126			
Benzo[a]pyrene	0.18	mg/kg wet	0.20		89.5	17-135			
Benzo[b]fluoranthene	0.19	mg/kg wet	0.20		95.3	20-135			
Benzo[ghi]perylene	0.17	mg/kg wet	0.20		83.6	30-130			
Benzo[k]fluoranthene	0.19	mg/kg wet	0.20		95.3	33-129			
Chrysene	0.19	mg/kg wet	0.20		97.3	55-121			
Dibenz[a,h]anthracene	0.17	mg/kg wet	0.20		87.1	33-134			
Fluoranthene	0.20	mg/kg wet	0.20		101	41-127			
Fluorene	0.16	mg/kg wet	0.20		78.3	47-108			
Indeno[1,2,3-cd]pyrene	0.18	mg/kg wet	0.20		88.0	33-129			
Naphthalene	0.14	mg/kg wet	0.20		69.6	42-106			
Phenanthrene	0.16	mg/kg wet	0.20		81.3	45-114			
Pyrene	0.16	mg/kg wet	0.20		79.0	39-124			

LCS Dup (B005089-BSD1)

Prepared: 05/19/14 Analyzed: 05/22/14

Surrogate: 2-Fluorobiphenyl	0.65	mg/kg wet	1.0		64.6	1-191			
Surrogate: p-Terphenyl-d14	0.91	mg/kg wet	1.0		91.1	8-178			
1-Methylnaphthalene	0.16	mg/kg wet	0.20		79.6	36-109	12.7	20	
2-Methylnaphthalene	0.15	mg/kg wet	0.20		76.0	39-108	8.08	20	
Acenaphthene	0.16	mg/kg wet	0.20		77.8	45-106	7.64	20	
Acenaphthylene	0.16	mg/kg wet	0.20		80.3	35-113	7.97	20	
Anthracene	0.17	mg/kg wet	0.20		83.0	47-110	4.99	20	
Benz[a]anthracene	0.21	mg/kg wet	0.20		104	50-126	7.21	20	
Benzo[a]pyrene	0.19	mg/kg wet	0.20		97.0	17-135	8.03	20	
Benzo[b]fluoranthene	0.21	mg/kg wet	0.20		104	20-135	8.37	20	
Benzo[ghi]perylene	0.19	mg/kg wet	0.20		93.0	30-130	10.6	20	
Benzo[k]fluoranthene	0.21	mg/kg wet	0.20		104	33-129	8.81	20	
Chrysene	0.21	mg/kg wet	0.20		103	55-121	5.43	20	
Dibenz[a,h]anthracene	0.19	mg/kg wet	0.20		95.1	33-134	8.76	20	
Fluoranthene	0.21	mg/kg wet	0.20		105	41-127	3.66	20	
Fluorene	0.17	mg/kg wet	0.20		83.8	47-108	6.86	20	
Indeno[1,2,3-cd]pyrene	0.19	mg/kg wet	0.20		97.4	33-129	10.1	20	
Naphthalene	0.15	mg/kg wet	0.20		76.0	42-106	8.70	20	
Phenanthrene	0.17	mg/kg wet	0.20		84.8	45-114	4.27	20	
Pyrene	0.17	mg/kg wet	0.20		86.4	39-124	9.02	20	

Matrix Spike (B005089-MS1)

Parent Sample: 4051609-10

Prepared: 05/19/14 Analyzed: 05/22/14

Surrogate: 2-Fluorobiphenyl	0.64	mg/kg dry	1.1		60.7	1-191			
Surrogate: p-Terphenyl-d14	0.89	mg/kg dry	1.1		83.3	8-178			
1-Methylnaphthalene	0.17	mg/kg dry	0.21	0.020	69.6	32-102			
2-Methylnaphthalene	0.17	mg/kg dry	0.21	0.034	63.0	32-103			
Acenaphthene	0.15	mg/kg dry	0.21	ND	72.4	31-113			
Acenaphthylene	0.15	mg/kg dry	0.21	ND	70.6	6-138			
Anthracene	0.17	mg/kg dry	0.21	ND	81.9	40-112			
Benz[a]anthracene	0.21	mg/kg dry	0.21	0.0037	99.1	34-133			
Benzo[a]pyrene	0.21	mg/kg dry	0.21	ND	100	1-148			
Benzo[b]fluoranthene	0.23	mg/kg dry	0.21	0.011	103	1-151			
Benzo[ghi]perylene	0.20	mg/kg dry	0.21	ND	94.3	8-135			
Benzo[k]fluoranthene	0.22	mg/kg dry	0.21	ND	101	27-126			
Chrysene	0.22	mg/kg dry	0.21	0.0026	100	23-142			
Dibenz[a,h]anthracene	0.19	mg/kg dry	0.21	ND	88.2	29-128			



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005089**

Test: **8270 PAH**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike (B005089-MS1)			Parent Sample: 4051609-10		Prepared: 05/19/14 Analyzed: 05/22/14				
Fluoranthene	0.24	mg/kg dry	0.21	0.019	106	1-195			
Fluorene	0.17	mg/kg dry	0.21	ND	81.0	37-114			
Indeno[1,2,3-cd]pyrene	0.20	mg/kg dry	0.21	ND	95.1	18-130			
Naphthalene	0.22	mg/kg dry	0.21	0.12	48.4	27-105			
Phenanthrene	0.19	mg/kg dry	0.21	0.012	82.5	24-131			
Pyrene	0.17	mg/kg dry	0.21	ND	80.8	1-168			
Matrix Spike Dup (B005089-MSD1)			Parent Sample: 4051609-10		Prepared: 05/19/14 Analyzed: 05/22/14				
Surrogate: 2-Fluorobiphenyl	0.67	mg/kg dry	1.1		63.3	1-191			
Surrogate: p-Terphenyl-d14	0.88	mg/kg dry	1.1		82.3	8-178			
1-Methylnaphthalene	0.17	mg/kg dry	0.21	0.020	71.1	32-102	1.93	20	
2-Methylnaphthalene	0.17	mg/kg dry	0.21	0.034	65.2	32-103	2.73	20	
Acenaphthene	0.16	mg/kg dry	0.21	ND	74.3	31-113	2.64	20	
Acenaphthylene	0.16	mg/kg dry	0.21	ND	74.4	6-138	5.29	20	
Anthracene	0.18	mg/kg dry	0.21	ND	82.7	40-112	0.961	20	
Benz[a]anthracene	0.23	mg/kg dry	0.21	0.0037	106	34-133	6.23	20	
Benzo[a]pyrene	0.23	mg/kg dry	0.21	ND	109	1-148	8.04	20	
Benzo[b]fluoranthene	0.25	mg/kg dry	0.21	0.011	114	1-151	9.95	20	
Benzo[ghi]perylene	0.21	mg/kg dry	0.21	ND	97.6	8-135	3.38	20	
Benzo[k]fluoranthene	0.22	mg/kg dry	0.21	ND	104	27-126	2.60	20	
Chrysene	0.23	mg/kg dry	0.21	0.0026	107	23-142	6.78	20	
Dibenz[a,h]anthracene	0.19	mg/kg dry	0.21	ND	88.5	29-128	0.333	20	
Fluoranthene	0.25	mg/kg dry	0.21	0.019	110	1-195	3.98	20	
Fluorene	0.17	mg/kg dry	0.21	ND	81.6	37-114	0.737	20	
Indeno[1,2,3-cd]pyrene	0.21	mg/kg dry	0.21	ND	100	18-130	5.19	20	
Naphthalene	0.23	mg/kg dry	0.21	0.12	50.3	27-105	1.78	20	
Phenanthrene	0.19	mg/kg dry	0.21	0.012	83.5	24-131	1.16	20	
Pyrene	0.18	mg/kg dry	0.21	ND	85.0	1-168	5.05	20	



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005093**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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Blank (B005093-BLK1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	46	ng/mL	50		91.2	25-172			
Surrogate: Dibromofluoromethane	54	ng/mL	50		108	77-126			
Surrogate: Toluene-d8	50	ng/mL	50		99.3	78-118			
1,1,1-Trichloroethane	0.0013 U	mg/kg wet							
1,1,2,2-Tetrachloroethane	0.00052 U	mg/kg wet							
1,1,2-Trichloroethane	0.00046 U	mg/kg wet							
1,1-Dichloroethane	0.0012 U	mg/kg wet							
1,1-Dichloroethene	0.0014 U	mg/kg wet							
1,2,4-Trimethylbenzene	0.00045 U	mg/kg wet							
1,2-Dichlorobenzene	0.00049 U	mg/kg wet							
1,2-Dichloroethane	0.00053 U	mg/kg wet							
1,2-Dichloropropane	0.00072 U	mg/kg wet							
1,3,5-Trimethylbenzene	0.00067 U	mg/kg wet							
1,3-Dichlorobenzene	0.00034 U	mg/kg wet							
1,3-Dichloropropene (Total)	0.00056 U	mg/kg wet							
1,4-Dichlorobenzene	0.0010 U	mg/kg wet							
2-Butanone (MEK)	0.0024 U	mg/kg wet							
2-Hexanone	0.0053 U	mg/kg wet							
4-Methyl-2-pentanone (MIBK)	0.0030 U	mg/kg wet							
Acetone	0.011 U	mg/kg wet							
Benzene	0.00094 U	mg/kg wet							
Bromochloromethane	0.00048 U	mg/kg wet							
Bromodichloromethane	0.00044 U	mg/kg wet							
Bromoform	0.00079 U	mg/kg wet							
Bromomethane	0.0016 U	mg/kg wet							
Carbon disulfide	0.0015 U	mg/kg wet							
Carbon tetrachloride	0.0012 U	mg/kg wet							
Chlorobenzene	0.00069 U	mg/kg wet							
Chloroethane	0.0012 U	mg/kg wet							
Chloroform	0.0011 U	mg/kg wet							
Chloromethane	0.0014 U	mg/kg wet							
cis-1,2-Dichloroethene	0.0011 U	mg/kg wet							
Dibromochloromethane	0.00023 U	mg/kg wet							
Dibromomethane	0.00026 U	mg/kg wet							
Dichlorodifluoromethane	0.0012 U	mg/kg wet							
Ethylbenzene	0.00084 U	mg/kg wet							
isopropylbenzene	0.00069 U	mg/kg wet							
Methylene Chloride	0.0022 U	mg/kg wet							
Methyl tert-Butyl Ether (MTBE)	0.00090 U	mg/kg wet							
Styrene	0.00023 U	mg/kg wet							
Tetrachloroethene	0.00088 U	mg/kg wet							
Toluene	0.00089 U	mg/kg wet							
Xylenes (Total)	0.00015 U	mg/kg wet							
trans-1,2-Dichloroethene	0.0013 U	mg/kg wet							
Trichloroethene	0.00084 U	mg/kg wet							
Trichlorofluoromethane	0.0013 U	mg/kg wet							
Vinyl chloride	0.0012 U	mg/kg wet							

LCS (B005093-BS1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	42	ng/mL	50		83.8	25-172			
Surrogate: Dibromofluoromethane	52	ng/mL	50		103	77-126			



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005093**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS (B005093-BS1)

Prepared & Analyzed: 05/20/14

Surrogate: Toluene-d8	50	ng/mL	50		99.1	78-118			
1,1,1-Trichloroethane	0.11	mg/kg wet	0.10		108	78-120			
1,1,2,2-Tetrachloroethane	0.096	mg/kg wet	0.10		95.6	69-124			
1,1,2-Trichloroethane	0.099	mg/kg wet	0.10		99.4	80-125			
1,1-Dichloroethane	0.10	mg/kg wet	0.10		104	80-120			
1,1-Dichloroethene	0.10	mg/kg wet	0.10		101	80-120			
1,2,4-Trimethylbenzene	0.10	mg/kg wet	0.10		102	77-120			
1,2-Dichlorobenzene	0.11	mg/kg wet	0.10		106	80-120			
1,2-Dichloroethane	0.10	mg/kg wet	0.10		104	80-120			
1,2-Dichloropropane	0.10	mg/kg wet	0.10		101	80-120			
1,3,5-Trimethylbenzene	0.10	mg/kg wet	0.10		104	67-120			
1,3-Dichlorobenzene	0.11	mg/kg wet	0.10		107	74-145			
1,3-Dichloropropene (Total)	0.20	mg/kg wet	0.20		98.9	73-121			
1,4-Dichlorobenzene	0.099	mg/kg wet	0.10		99.0	69-135			
2-Butanone (MEK)	0.97	mg/kg wet	1.0		96.5	53-130			
2-Hexanone	0.89	mg/kg wet	1.0		89.5	51-137			
4-Methyl-2-pentanone (MIBK)	0.90	mg/kg wet	1.0		90.3	57-129			
Acetone	0.92	mg/kg wet	1.0		91.7	70-149			
Benzene	0.10	mg/kg wet	0.10		101	80-120			
Bromochloromethane	0.10	mg/kg wet	0.10		104	80-120			
Bromodichloromethane	0.099	mg/kg wet	0.10		99.3	80-120			
Bromoform	0.097	mg/kg wet	0.10		97.1	76-120			
Bromomethane	0.10	mg/kg wet	0.10		104	76-137			
Carbon disulfide	0.099	mg/kg wet	0.10		98.8	71-146			
Carbon tetrachloride	0.11	mg/kg wet	0.10		109	75-120			
Chlorobenzene	0.10	mg/kg wet	0.10		99.6	80-120			
Chloroethane	0.091	mg/kg wet	0.10		91.1	80-123			
Chloroform	0.10	mg/kg wet	0.10		99.9	80-120			
Chloromethane	0.097	mg/kg wet	0.10		96.7	70-126			
cis-1,2-Dichloroethene	0.10	mg/kg wet	0.10		104	80-120			
Dibromochloromethane	0.10	mg/kg wet	0.10		105	80-120			
Dibromomethane	0.10	mg/kg wet	0.10		101	80-120			
Dichlorodifluoromethane	0.096	mg/kg wet	0.10		95.7	78-128			
Ethylbenzene	0.096	mg/kg wet	0.10		96.1	80-120			
isopropylbenzene	0.094	mg/kg wet	0.10		94.2	80-120			
Methylene Chloride	0.10	mg/kg wet	0.10		102	72-145			
Methyl tert-Butyl Ether (MTBE)	0.11	mg/kg wet	0.10		106	80-120			
Styrene	0.11	mg/kg wet	0.10		107	80-120			
Tetrachloroethene	0.11	mg/kg wet	0.10		110	80-120			
Toluene	0.10	mg/kg wet	0.10		99.6	74-127			
Xylenes (Total)	0.29	mg/kg wet	0.30		97.1	74-129			
trans-1,2-Dichloroethene	0.10	mg/kg wet	0.10		105	80-120			
Trichloroethene	0.10	mg/kg wet	0.10		104	80-112			
Trichlorofluoromethane	0.099	mg/kg wet	0.10		98.7	74-127			
Vinyl chloride	0.093	mg/kg wet	0.10		93.3	78-131			

LCS Dup (B005093-BSD1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	45	ng/mL	50		90.3	25-172			
Surrogate: Dibromofluoromethane	53	ng/mL	50		106	77-126			
Surrogate: Toluene-d8	51	ng/mL	50		102	78-118			
1,1,1-Trichloroethane	0.11	mg/kg wet	0.10		112	78-120	3.46	20	



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005093**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
LCS Dup (B005093-BSD1)			Prepared & Analyzed: 05/20/14						
1,1,2,2-Tetrachloroethane	0.098	mg/kg wet	0.10		97.7	69-124	2.16	20	
1,1,2-Trichloroethane	0.11	mg/kg wet	0.10		106	80-125	6.22	20	
1,1-Dichloroethane	0.11	mg/kg wet	0.10		109	80-120	3.98	20	
1,1-Dichloroethene	0.10	mg/kg wet	0.10		105	80-120	4.08	20	
1,2,4-Trimethylbenzene	0.10	mg/kg wet	0.10		103	77-120	0.997	20	
1,2-Dichlorobenzene	0.11	mg/kg wet	0.10		109	80-120	3.23	20	
1,2-Dichloroethane	0.11	mg/kg wet	0.10		106	80-120	2.42	20	
1,2-Dichloropropane	0.10	mg/kg wet	0.10		104	80-120	3.02	20	
1,3,5-Trimethylbenzene	0.10	mg/kg wet	0.10		103	67-120	0.367	22	
1,3-Dichlorobenzene	0.11	mg/kg wet	0.10		109	74-145	2.30	20	
1,3-Dichloropropene (Total)	0.21	mg/kg wet	0.20		105	73-121	5.52	20	
1,4-Dichlorobenzene	0.10	mg/kg wet	0.10		103	69-135	3.50	20	
2-Butanone (MEK)	1.1	mg/kg wet	1.0		107	53-130	9.87	20	
2-Hexanone	1.0	mg/kg wet	1.0		103	51-137	14.0	20	
4-Methyl-2-pentanone (MIBK)	0.99	mg/kg wet	1.0		99.3	57-129	9.48	20	
Acetone	1.1	mg/kg wet	1.0		106	70-149	14.2	20	
Benzene	0.10	mg/kg wet	0.10		104	80-120	2.92	20	
Bromochloromethane	0.11	mg/kg wet	0.10		110	80-120	5.22	20	
Bromodichloromethane	0.10	mg/kg wet	0.10		104	80-120	4.38	20	
Bromoform	0.11	mg/kg wet	0.10		106	76-120	9.23	20	
Bromomethane	0.11	mg/kg wet	0.10		108	76-137	3.84	20	
Carbon disulfide	0.10	mg/kg wet	0.10		102	71-146	3.03	20	
Carbon tetrachloride	0.11	mg/kg wet	0.10		108	75-120	0.868	20	
Chlorobenzene	0.10	mg/kg wet	0.10		104	80-120	4.56	20	
Chloroethane	0.098	mg/kg wet	0.10		98.2	80-123	7.47	20	
Chloroform	0.10	mg/kg wet	0.10		104	80-120	3.61	20	
Chloromethane	0.11	mg/kg wet	0.10		105	70-126	8.54	20	
cis-1,2-Dichloroethene	0.11	mg/kg wet	0.10		108	80-120	3.84	20	
Dibromochloromethane	0.11	mg/kg wet	0.10		112	80-120	7.20	20	
Dibromomethane	0.11	mg/kg wet	0.10		107	80-120	5.69	20	
Dichlorodifluoromethane	0.096	mg/kg wet	0.10		96.1	78-128	0.428	20	
Ethylbenzene	0.10	mg/kg wet	0.10		100	80-120	4.02	20	
isopropylbenzene	0.10	mg/kg wet	0.10		102	80-120	8.08	20	
Methylene Chloride	0.11	mg/kg wet	0.10		107	72-145	4.14	20	
Methyl tert-Butyl Ether (MTBE)	0.11	mg/kg wet	0.10		111	80-120	4.08	20	
Styrene	0.12	mg/kg wet	0.10		116	80-120	8.65	20	
Tetrachloroethene	0.12	mg/kg wet	0.10		116	80-120	5.42	20	
Toluene	0.10	mg/kg wet	0.10		104	74-127	4.18	20	
Xylenes (Total)	0.31	mg/kg wet	0.30		104	74-129	6.65	20	
trans-1,2-Dichloroethene	0.11	mg/kg wet	0.10		108	80-120	3.62	20	
Trichloroethene	0.11	mg/kg wet	0.10		107	80-112	2.47	20	
Trichlorofluoromethane	0.10	mg/kg wet	0.10		100	74-127	1.68	20	
Vinyl chloride	0.10	mg/kg wet	0.10		101	78-131	7.44	20	

Matrix Spike (B005093-MS1)

Parent Sample: 4051908-02

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	44	ng/mL	50		88.8	25-172
Surrogate: Dibromofluoromethane	53	ng/mL	50		105	77-126
Surrogate: Toluene-d8	51	ng/mL	50		101	78-118
1,1,1-Trichloroethane	0.095	mg/kg dry	0.084	ND	114	71-120
1,1,2,2-Tetrachloroethane	0.070	mg/kg dry	0.084	ND	82.7	71-124
1,1,2-Trichloroethane	0.081	mg/kg dry	0.084	ND	96.6	77-127



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005093**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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Matrix Spike (B005093-MS1)

Parent Sample: 4051908-02

Prepared & Analyzed: 05/20/14

1,1-Dichloroethane	0.096	mg/kg dry	0.084	ND	114	79-120			
1,1-Dichloroethene	0.085	mg/kg dry	0.084	ND	101	63-126			
1,2,4-Trimethylbenzene	0.085	mg/kg dry	0.084	0.00066	100	52-129			
1,2-Dichlorobenzene	0.085	mg/kg dry	0.084	ND	101	80-122			
1,2-Dichloroethane	0.090	mg/kg dry	0.084	ND	108	81-122			
1,2-Dichloropropane	0.093	mg/kg dry	0.084	ND	111	80-120			
1,3,5-Trimethylbenzene	0.079	mg/kg dry	0.084	ND	94.2	46-129			
1,3-Dichlorobenzene	0.090	mg/kg dry	0.084	ND	107	60-154			
1,3-Dichloropropene (Total)	0.17	mg/kg dry	0.17	ND	104	57-120			
1,4-Dichlorobenzene	0.085	mg/kg dry	0.084	ND	101	68-135			
2-Butanone (MEK)	0.81	mg/kg dry	0.84	ND	96.2	55-143			
2-Hexanone	0.72	mg/kg dry	0.84	ND	86.3	51-150			
4-Methyl-2-pentanone (MIBK)	0.75	mg/kg dry	0.84	ND	89.3	61-135			
Acetone	0.79	mg/kg dry	0.84	0.012	93.3	45-169			
Benzene	0.085	mg/kg dry	0.084	ND	101	45-149			
Bromochloromethane	0.085	mg/kg dry	0.084	ND	101	80-120			
Bromodichloromethane	0.083	mg/kg dry	0.084	ND	98.3	80-123			
Bromoform	0.077	mg/kg dry	0.084	ND	91.4	65-120			
Bromomethane	0.090	mg/kg dry	0.084	ND	108	56-160			
Carbon disulfide	0.085	mg/kg dry	0.084	ND	102	74-143			
Carbon tetrachloride	0.0084	mg/kg dry	0.084	ND	9.98	70-120			J
Chlorobenzene	0.083	mg/kg dry	0.084	ND	98.8	73-120			
Chloroethane	0.086	mg/kg dry	0.084	ND	102	76-129			
Chloroform	0.084	mg/kg dry	0.084	ND	99.6	77-122			
Chloromethane	0.092	mg/kg dry	0.084	ND	109	58-147			
cis-1,2-Dichloroethene	0.092	mg/kg dry	0.084	ND	110	75-121			
Dibromochloromethane	0.084	mg/kg dry	0.084	ND	100	74-120			
Dibromomethane	0.081	mg/kg dry	0.084	ND	96.4	80-120			
Dichlorodifluoromethane	0.088	mg/kg dry	0.084	ND	105	57-145			
Ethylbenzene	0.082	mg/kg dry	0.084	ND	97.0	73-120			
isopropylbenzene	0.079	mg/kg dry	0.084	ND	93.9	68-120			
Methylene Chloride	0.085	mg/kg dry	0.084	ND	102	66-141			
Methyl tert-Butyl Ether (MTBE)	0.087	mg/kg dry	0.084	ND	103	79-128			
Styrene	0.092	mg/kg dry	0.084	ND	109	42-130			
Tetrachloroethene	0.10	mg/kg dry	0.084	ND	120	57-141			
Toluene	0.087	mg/kg dry	0.084	0.0010	102	62-122			
Xylenes (Total)	0.25	mg/kg dry	0.25	0.0017	96.9	44-136			
trans-1,2-Dichloroethene	0.088	mg/kg dry	0.084	ND	105	72-120			
Trichloroethene	0.094	mg/kg dry	0.084	ND	112	66-124			
Trichlorofluoromethane	0.090	mg/kg dry	0.084	ND	107	62-138			
Vinyl chloride	0.087	mg/kg dry	0.084	ND	104	71-142			

Matrix Spike Dup (B005093-MSD1)

Parent Sample: 4051908-02

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	42	ng/mL	50		83.3	25-172			
Surrogate: Dibromofluoromethane	53	ng/mL	50		105	77-126			
Surrogate: Toluene-d8	49	ng/mL	50		97.7	78-118			
1,1,1-Trichloroethane	0.087	mg/kg dry	0.084	ND	103	71-120	9.76	20	
1,1,2,2-Tetrachloroethane	0.081	mg/kg dry	0.084	ND	96.0	71-124	15.0	20	
1,1,2-Trichloroethane	0.076	mg/kg dry	0.084	ND	90.4	77-127	6.48	20	
1,1-Dichloroethane	0.091	mg/kg dry	0.084	ND	108	79-120	5.60	20	
1,1-Dichloroethene	0.084	mg/kg dry	0.084	ND	99.9	63-126	1.04	20	



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005093**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike Dup (B005093-MSD1)			Parent Sample: 4051908-02		Prepared & Analyzed: 05/20/14				
1,2,4-Trimethylbenzene	0.086	mg/kg dry	0.084	0.00066	102	52-129	1.32	20	
1,2-Dichlorobenzene	0.084	mg/kg dry	0.084	ND	99.9	80-122	1.04	20	
1,2-Dichloroethane	0.086	mg/kg dry	0.084	ND	102	81-122	4.91	20	
1,2-Dichloropropane	0.090	mg/kg dry	0.084	ND	106	80-120	3.84	20	
1,3,5-Trimethylbenzene	0.091	mg/kg dry	0.084	ND	108	46-129	14.1	20	
1,3-Dichlorobenzene	0.090	mg/kg dry	0.084	ND	107	60-154	0.311	20	
1,3-Dichloropropene (Total)	0.17	mg/kg dry	0.17	ND	102	57-120	1.60	20	
1,4-Dichlorobenzene	0.086	mg/kg dry	0.084	ND	102	68-135	1.36	20	
2-Butanone (MEK)	0.79	mg/kg dry	0.84	ND	93.8	55-143	2.43	20	
2-Hexanone	0.67	mg/kg dry	0.84	ND	79.3	51-150	8.19	20	
4-Methyl-2-pentanone (MIBK)	0.70	mg/kg dry	0.84	ND	83.7	61-135	6.26	20	
Acetone	0.74	mg/kg dry	0.84	0.012	86.9	45-169	6.79	20	
Benzene	0.080	mg/kg dry	0.084	ND	95.6	45-149	4.98	20	
Bromochloromethane	0.081	mg/kg dry	0.084	ND	96.4	80-120	4.29	20	
Bromodichloromethane	0.078	mg/kg dry	0.084	ND	92.5	80-123	5.95	20	
Bromoform	0.075	mg/kg dry	0.084	ND	88.8	65-120	2.71	20	
Bromomethane	0.076	mg/kg dry	0.084	ND	90.0	56-160	17.7	20	
Carbon disulfide	0.079	mg/kg dry	0.084	ND	94.1	74-143	7.53	20	
Carbon tetrachloride	0.084	mg/kg dry	0.084	ND	99.2	70-120	164	20	J
Chlorobenzene	0.081	mg/kg dry	0.084	ND	95.7	73-120	2.98	20	
Chloroethane	0.072	mg/kg dry	0.084	ND	85.7	76-129	17.6	20	
Chloroform	0.079	mg/kg dry	0.084	ND	94.1	77-122	5.52	20	
Chloromethane	0.079	mg/kg dry	0.084	ND	93.8	58-147	14.8	20	
cis-1,2-Dichloroethene	0.090	mg/kg dry	0.084	ND	107	75-121	2.71	20	
Dibromochloromethane	0.079	mg/kg dry	0.084	ND	93.7	74-120	6.61	20	
Dibromomethane	0.077	mg/kg dry	0.084	ND	92.1	80-120	4.46	20	
Dichlorodifluoromethane	0.074	mg/kg dry	0.084	ND	88.5	57-145	17.0	20	
Ethylbenzene	0.078	mg/kg dry	0.084	ND	92.6	73-120	4.47	20	
isopropylbenzene	0.078	mg/kg dry	0.084	ND	92.5	68-120	1.33	20	
Methylene Chloride	0.075	mg/kg dry	0.084	ND	88.7	66-141	13.5	20	
Methyl tert-Butyl Ether (MTBE)	0.086	mg/kg dry	0.084	ND	103	79-128	0.286	20	
Styrene	0.085	mg/kg dry	0.084	ND	101	42-130	7.27	20	
Tetrachloroethene	0.091	mg/kg dry	0.084	ND	108	57-141	10.8	20	
Toluene	0.079	mg/kg dry	0.084	0.0010	92.7	62-122	9.40	20	
Xylenes (Total)	0.24	mg/kg dry	0.25	0.0017	92.6	44-136	4.28	20	
trans-1,2-Dichloroethene	0.086	mg/kg dry	0.084	ND	102	72-120	2.92	20	
Trichloroethene	0.087	mg/kg dry	0.084	ND	104	66-124	7.23	20	
Trichlorofluoromethane	0.079	mg/kg dry	0.084	ND	94.3	62-138	12.3	20	
Vinyl chloride	0.076	mg/kg dry	0.084	ND	90.7	71-142	13.7	20	



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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Blank (B005098-BLK1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	51	ng/mL	50		102	82-118			
Surrogate: Dibromofluoromethane	50	ng/mL	50		101	85-120			
Surrogate: Toluene-d8	50	ng/mL	50		99.6	83-115			
1,1,1-Trichloroethane	0.19 U	ug/L							
1,1,2,2-Tetrachloroethane	0.19 U	ug/L							
1,1,2-Trichloroethane	0.92 U	ug/L							
1,1-Dichloroethane	0.23 U	ug/L							
1,1-Dichloroethene	0.34 U	ug/L							
1,2-Dichlorobenzene	0.40 U	ug/L							
1,2-Dichloroethane	0.24 U	ug/L							
1,2-Dichloropropane	0.28 U	ug/L							
1,2,4-Trimethylbenzene	0.37 U	ug/L							
1,3,5-Trimethylbenzene	0.24 U	ug/L							
1,3-Dichlorobenzene	0.34 U	ug/L							
1,3-Dichloropropene (Total)	0.11 U	ug/L							
1,4-Dichlorobenzene	0.21 U	ug/L							
2-Butanone (MEK)	2.1 U	ug/L							
2-Hexanone	1.5 U	ug/L							
4-Methyl-2-pentanone (MIBK)	1.3 U	ug/L							
Acetone	6.9 U	ug/L							
Benzene	0.23 U	ug/L							
Bromochloromethane	0.18 U	ug/L							
Bromodichloromethane	0.19 U	ug/L							
Bromoform	0.35 U	ug/L							
Bromomethane	0.43 U	ug/L							
Carbon disulfide	0.35 U	ug/L							
Carbon tetrachloride	0.18 U	ug/L							
Chlorobenzene	0.19 U	ug/L							
Chloroethane	0.36 U	ug/L							
Chloroform	0.19 U	ug/L							
Chloromethane	0.32 U	ug/L							
cis-1,2-Dichloroethene	0.22 U	ug/L							
Dibromochloromethane	0.33 U	ug/L							
Dibromomethane	0.25 U	ug/L							
Dichlorodifluoromethane	0.42 U	ug/L							
Ethylbenzene	0.20 U	ug/L							
isopropylbenzene	0.26 U	ug/L							
Methylene Chloride	0.65 U	ug/L							
Methyl tert-Butyl Ether (MTBE)	0.28 U	ug/L							
Styrene	0.23 U	ug/L							
Tetrachloroethene	0.36 U	ug/L							
Toluene	0.20 U	ug/L							
Xylenes (Total)	0.22 U	ug/L							
trans-1,2-Dichloroethene	0.22 U	ug/L							
Trichloroethene	0.48 U	ug/L							
Trichlorofluoromethane	0.51 U	ug/L							
Vinyl chloride	0.25 U	ug/L							

LCS (B005098-BS1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	50	ng/mL	50		99.2	82-118			
Surrogate: Dibromofluoromethane	49	ng/mL	50		97.5	85-120			



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS (B005098-BS1)

Prepared & Analyzed: 05/20/14

Surrogate: Toluene-d8	49	ng/mL	50		98.3	83-115			
1,1,1-Trichloroethane	10	ug/L	10		100	78-120			
1,1,2,2-Tetrachloroethane	10	ug/L	10		99.8	69-124			
1,1,2-Trichloroethane	10	ug/L	10		104	80-125			
1,1-Dichloroethane	9.8	ug/L	10		98.5	80-120			
1,1-Dichloroethene	10	ug/L	10		105	80-120			
1,2-Dichlorobenzene	10	ug/L	10		100	80-120			
1,2-Dichloroethane	10	ug/L	10		102	80-120			
1,2-Dichloropropane	9.8	ug/L	10		98.4	80-120			
1,2,4-Trimethylbenzene	10	ug/L	10		105	77-120			
1,3,5-Trimethylbenzene	10	ug/L	10		103	67-120			
1,3-Dichlorobenzene	10	ug/L	10		100	74-145			
1,3-Dichloropropene (Total)	19	ug/L	20		94.6	73-121			
1,4-Dichlorobenzene	10	ug/L	10		103	69-135			
2-Butanone (MEK)	88	ug/L	100		88.3	53-130			
2-Hexanone	100	ug/L	100		102	51-137			
4-Methyl-2-pentanone (MIBK)	94	ug/L	100		93.7	57-129			
Acetone	110	ug/L	100		111	70-149			
Benzene	10	ug/L	10		101	80-120			
Bromochloromethane	9.8	ug/L	10		97.9	80-120			
Bromodichloromethane	9.7	ug/L	10		97.1	80-120			
Bromoform	9.4	ug/L	10		94.1	76-120			
Bromomethane	12	ug/L	10		122	76-137			
Carbon disulfide	9.0	ug/L	10		89.8	71-146			
Carbon tetrachloride	11	ug/L	10		108	75-120			
Chlorobenzene	10	ug/L	10		101	80-120			
Chloroethane	11	ug/L	10		111	80-123			
Chloroform	9.9	ug/L	10		98.9	80-120			
Chloromethane	8.4	ug/L	10		84.4	70-126			
cis-1,2-Dichloroethene	9.6	ug/L	10		96.3	80-120			
Dibromochloromethane	9.7	ug/L	10		96.9	80-120			
Dibromomethane	10	ug/L	10		102	80-120			
Dichlorodifluoromethane	10	ug/L	10		100	78-128			
Ethylbenzene	10	ug/L	10		102	80-120			
isopropylbenzene	10	ug/L	10		102	80-120			
Methylene Chloride	9.2	ug/L	10		92.4	72-145			
Methyl tert-Butyl Ether (MTBE)	9.7	ug/L	10		96.6	80-120			
Styrene	9.6	ug/L	10		95.5	80-120			
Tetrachloroethene	10	ug/L	10		100	80-120			
Toluene	9.7	ug/L	10		96.6	74-127			
Xylenes (Total)	30	ug/L	30		98.3	74-129			
trans-1,2-Dichloroethene	10	ug/L	10		103	80-120			
Trichloroethene	10	ug/L	10		99.5	80-120			
Trichlorofluoromethane	8.7	ug/L	10		86.8	74-127			
Vinyl chloride	11	ug/L	10		110	78-131			

LCS Dup (B005098-BS1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	51	ng/mL	50		102	82-118			
Surrogate: Dibromofluoromethane	50	ng/mL	50		100	85-120			
Surrogate: Toluene-d8	50	ng/mL	50		100	83-115			
1,1,1-Trichloroethane	9.8	ug/L	10		98.3	78-120	2.01	20	



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS Dup (B005098-BSD1)

Prepared & Analyzed: 05/20/14

1,1,2,2-Tetrachloroethane	10	ug/L	10		101	69-124	1.29	20	
1,1,2-Trichloroethane	11	ug/L	10		106	80-125	2.76	20	
1,1-Dichloroethane	10	ug/L	10		100	80-120	1.51	20	
1,1-Dichloroethene	11	ug/L	10		107	80-120	1.70	20	
1,2-Dichlorobenzene	11	ug/L	10		106	80-120	5.24	20	
1,2-Dichloroethane	11	ug/L	10		107	80-120	4.40	20	
1,2-Dichloropropane	10	ug/L	10		101	80-120	2.81	20	
1,2,4-Trimethylbenzene	10	ug/L	10		104	77-120	0.961	20	
1,3,5-Trimethylbenzene	11	ug/L	10		106	67-120	2.69	22	
1,3-Dichlorobenzene	10	ug/L	10		102	74-145	1.39	20	
1,3-Dichloropropene (Total)	20	ug/L	20		99.0	73-121	4.49	20	
1,4-Dichlorobenzene	11	ug/L	10		108	69-135	3.98	20	
2-Butanone (MEK)	88	ug/L	100		88.5	53-130	0.272	20	
2-Hexanone	100	ug/L	100		102	51-137	0.166	20	
4-Methyl-2-pentanone (MIBK)	98	ug/L	100		97.8	57-129	4.28	20	
Acetone	110	ug/L	100		107	70-149	3.53	20	
Benzene	10	ug/L	10		105	80-120	3.79	20	
Bromochloromethane	10	ug/L	10		103	80-120	5.37	20	
Bromodichloromethane	9.6	ug/L	10		96.0	80-120	1.14	20	
Bromoform	9.9	ug/L	10		98.7	76-120	4.77	20	
Bromomethane	12	ug/L	10		117	76-137	4.36	20	
Carbon disulfide	9.2	ug/L	10		91.7	71-146	2.09	20	
Carbon tetrachloride	11	ug/L	10		113	75-120	5.16	20	
Chlorobenzene	11	ug/L	10		105	80-120	4.66	20	
Chloroethane	9.1	ug/L	10		91.4	80-123	19.5	20	
Chloroform	10	ug/L	10		103	80-120	3.77	20	
Chloromethane	8.7	ug/L	10		87.1	70-126	3.15	20	
cis-1,2-Dichloroethene	10	ug/L	10		102	80-120	6.04	20	
Dibromochloromethane	10	ug/L	10		102	80-120	5.23	20	
Dibromomethane	11	ug/L	10		107	80-120	4.21	20	
Dichlorodifluoromethane	9.9	ug/L	10		98.9	78-128	1.60	20	
Ethylbenzene	11	ug/L	10		108	80-120	5.62	20	
isopropylbenzene	11	ug/L	10		105	80-120	2.50	20	
Methylene Chloride	10	ug/L	10		100	72-145	8.20	20	
Methyl tert-Butyl Ether (MTBE)	9.8	ug/L	10		98.5	80-120	1.95	20	
Styrene	9.8	ug/L	10		97.6	80-120	2.18	20	
Tetrachloroethene	10	ug/L	10		103	80-120	2.66	20	
Toluene	10	ug/L	10		101	74-127	4.26	20	
Xylenes (Total)	30	ug/L	30		101	74-129	2.54	20	
trans-1,2-Dichloroethene	10	ug/L	10		104	80-120	0.773	20	
Trichloroethene	10	ug/L	10		102	80-120	2.97	20	
Trichlorofluoromethane	8.9	ug/L	10		89.3	74-127	2.84	20	
Vinyl chloride	11	ug/L	10		114	78-131	4.19	20	

Duplicate (B005098-DUP1)

Parent Sample: 4051616-01

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	51	ng/mL	50		101	82-118			
Surrogate: Dibromofluoromethane	50	ng/mL	50		99.8	85-120			
Surrogate: Toluene-d8	51	ng/mL	50		103	83-115			
1,1,1-Trichloroethane	0.19 U	ug/L		ND				200	
1,1,2,2-Tetrachloroethane	0.19 U	ug/L		ND				200	
1,1,2-Trichloroethane	0.92 U	ug/L		ND				200	



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Duplicate (B005098-DUP1)			Parent Sample: 4051616-01		Prepared & Analyzed: 05/20/14				
1,1-Dichloroethane	0.23 U	ug/L		ND				200	
1,1-Dichloroethene	0.34 U	ug/L		ND				200	
1,2-Dichlorobenzene	0.40 U	ug/L		ND				200	
1,2-Dichloroethane	0.24 U	ug/L		ND				200	
1,2-Dichloropropane	0.28 U	ug/L		ND				200	
1,3,5-Trimethylbenzene	0.24 U	ug/L		ND				200	
1,2,4-Trimethylbenzene	0.37 U	ug/L		ND				200	
1,3-Dichlorobenzene	0.34 U	ug/L		ND				200	
1,3-Dichloropropene (Total)	0.11 U	ug/L		ND				200	
1,4-Dichlorobenzene	0.21 U	ug/L		ND				200	
2-Butanone (MEK)	2.1 U	ug/L		ND				200	
2-Hexanone	1.5 U	ug/L		ND				200	
4-Methyl-2-pentanone (MIBK)	1.3 U	ug/L		ND				200	
Acetone	6.9 U	ug/L		ND				200	
Benzene	0.23 U	ug/L		ND				200	
Bromochloromethane	0.18 U	ug/L		ND				200	
Bromodichloromethane	0.19 U	ug/L		ND				200	
Bromoform	0.35 U	ug/L		ND				200	
Bromomethane	0.43 U	ug/L		ND				200	
Carbon disulfide	0.35 U	ug/L		ND				200	
Carbon tetrachloride	0.18 U	ug/L		ND				200	
Chlorobenzene	0.19 U	ug/L		ND				200	
Chloroethane	0.36 U	ug/L		ND				200	
Chloroform	0.19 U	ug/L		ND				200	
Chloromethane	0.32 U	ug/L		ND				200	
cis-1,2-Dichloroethene	0.22 U	ug/L		ND				200	
Dibromochloromethane	0.33 U	ug/L		ND				200	
Dibromomethane	0.25 U	ug/L		ND				200	
Dichlorodifluoromethane	0.42 U	ug/L		ND				200	
Ethylbenzene	0.20 U	ug/L		ND				200	
isopropylbenzene	4.3	ug/L		4.6			5.65	200	
Methylene Chloride	0.65 U	ug/L		ND				200	
Methyl tert-Butyl Ether (MTBE)	0.28 U	ug/L		ND				200	
Styrene	0.23 U	ug/L		ND				200	
Tetrachloroethene	0.36 U	ug/L		ND				200	
Toluene	0.20 U	ug/L		ND				200	
Xylenes (Total)	0.22 U	ug/L		0.40			200	200	
trans-1,2-Dichloroethene	0.22 U	ug/L		ND				200	
Trichloroethene	0.48 U	ug/L		ND				200	
Trichlorofluoromethane	0.51 U	ug/L		ND				200	
Vinyl chloride	0.25 U	ug/L		ND				200	
Matrix Spike (B005098-MS1)			Parent Sample: 4051616-02		Prepared & Analyzed: 05/20/14				
Surrogate: 4-Bromofluorobenzene	49	ng/mL	50		98.9	82-118			
Surrogate: Dibromofluoromethane	51	ng/mL	50		102	85-120			
Surrogate: Toluene-d8	50	ng/mL	50		100	83-115			
1,1,1-Trichloroethane	7.8	ug/L	10	ND	77.8	71-120			
1,1,2,2-Tetrachloroethane	7.0	ug/L	10	ND	69.7	71-124			J
1,1,2-Trichloroethane	7.1	ug/L	10	ND	71.3	77-127			J
1,1-Dichloroethane	7.5	ug/L	10	ND	74.6	79-120			J
1,1-Dichloroethene	7.8	ug/L	10	ND	77.5	63-126			



Quality Control Data

SunLabs
Project Number

4051601

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike (B005098-MS1)			Parent Sample: 4051616-02		Prepared & Analyzed: 05/20/14				
1,2-Dichlorobenzene	6.7	ug/L	10	ND	67.2	80-122			J
1,2-Dichloroethane	7.8	ug/L	10	ND	78.2	81-122			J
1,2-Dichloropropane	7.4	ug/L	10	ND	74.4	80-120			J
1,2,4-Trimethylbenzene	6.5	ug/L	10	ND	65.0	52-129			
1,3,5-Trimethylbenzene	6.5	ug/L	10	ND	64.8	46-129			
1,3-Dichlorobenzene	6.5	ug/L	10	ND	65.1	60-154			
1,3-Dichloropropene (Total)	9.8	ug/L	20	ND	49.2	57-120			J
1,4-Dichlorobenzene	6.6	ug/L	10	ND	66.1	68-135			J
2-Butanone (MEK)	63	ug/L	100	ND	63.4	55-143			
2-Hexanone	73	ug/L	100	ND	72.8	51-150			
4-Methyl-2-pentanone (MIBK)	67	ug/L	100	ND	67.1	61-135			
Acetone	75	ug/L	100	ND	75.1	45-169			
Benzene	7.3	ug/L	10	ND	73.3	45-149			
Bromochloromethane	7.5	ug/L	10	ND	74.6	80-120			J
Bromodichloromethane	7.1	ug/L	10	ND	70.8	80-123			J
Bromoform	6.1	ug/L	10	ND	61.2	65-120			J
Bromomethane	7.9	ug/L	10	ND	78.6	56-160			
Carbon disulfide	7.4	ug/L	10	ND	74.4	74-143			
Carbon tetrachloride	8.0	ug/L	10	ND	80.2	70-120			
Chlorobenzene	7.3	ug/L	10	ND	73.0	73-120			
Chloroethane	8.7	ug/L	10	ND	86.9	76-129			
Chloroform	7.7	ug/L	10	ND	77.1	77-122			
Chloromethane	6.0	ug/L	10	ND	59.7	58-147			
cis-1,2-Dichloroethene	7.0	ug/L	10	ND	70.0	75-121			J
Dibromochloromethane	6.7	ug/L	10	ND	66.9	74-120			J
Dibromomethane	7.3	ug/L	10	ND	73.2	80-120			J
Dichlorodifluoromethane	6.9	ug/L	10	ND	68.8	57-145			
Ethylbenzene	7.0	ug/L	10	ND	69.6	73-120			J
isopropylbenzene	6.7	ug/L	10	ND	66.7	68-120			J
Methylene Chloride	6.6	ug/L	10	ND	65.5	66-141			J
Methyl tert-Butyl Ether (MTBE)	7.2	ug/L	10	ND	71.5	79-128			J
Styrene	6.4	ug/L	10	ND	63.8	42-130			
Tetrachloroethene	6.5	ug/L	10	ND	65.1	57-141			
Toluene	6.8	ug/L	10	ND	68.3	62-122			
Xylenes (Total)	19	ug/L	30	ND	62.3	44-136			
trans-1,2-Dichloroethene	7.3	ug/L	10	ND	72.8	72-120			
Trichloroethene	7.5	ug/L	10	ND	75.1	66-124			
Trichlorofluoromethane	6.0	ug/L	10	ND	60.1	62-138			J
Vinyl chloride	8.7	ug/L	10	ND	87.1	71-142			



Samples Associated with QC Batches

QC Batch ID	Method	Sample List
B005040	EPA 160.3	4051601-01, 4051601-02, 4051601-03, 4051601-04, 4051601-05, 4051601-06, 4051601-07, 4051601-08, 4051601-09, 4051601-10
B005066	EPA 8260	4051601-01, 4051601-02, 4051601-03, 4051601-04, 4051601-05, 4051601-06, 4051601-07, 4051601-08, 4051601-09, 4051601-10
B005074	EPA 7471	4051601-01, 4051601-02, 4051601-03, 4051601-04, 4051601-05, 4051601-06, 4051601-07, 4051601-08, 4051601-09, 4051601-10
B005082	EPA 6010	4051601-01, 4051601-02, 4051601-03, 4051601-04, 4051601-05, 4051601-06, 4051601-07, 4051601-08, 4051601-09, 4051601-10
B005089	EPA 8270	4051601-01, 4051601-02, 4051601-03, 4051601-04, 4051601-05, 4051601-06, 4051601-07, 4051601-08, 4051601-09, 4051601-10
B005093	EPA 8260	4051601-01RE1
B005098	EPA 8260	4051601-11

SunLabs, Inc. Chain of Custody

SOLD

N^o 42355

Client Name:

Cadence B&C

Contact:

Jennifer Hinde

Address:

Shore Dixon

Phone / Fax:

E-Mail:

DN file

SunLabs Project #

40511001

Project Name:

BF-Washington Park

Project #:

PO #:

Alt Bill To:

Due Date Requested*

Standard

☐ FDEP PreApproval site

☐ ADAPT EDD (PGM: _____)

Facility/Site ID:

Remarks / Comments:

Short hold time!

Soil Volatiles have to be frozen AT THE LAB within 48 hours of collection. Please ensure they reach the lab as quickly as possible after sampling to ensure samples do not go out of hold. Be aware of holiday closures. Plan sampling schedule accordingly!

Length of Record Retention if other than 5 years: *

SUNLABS, INC. RESERVES THE RIGHT TO BILL FOR DISPOSAL OF UNUSED/ UNRETURNED SAMPLES AND TO RETURN UNUSED SAMPLES.

Relinquished By:

Relinquished To:

Date:

Time:

Relinquished By:

Relinquished To:

Date:

Time:

Relinquished By:

Relinquished To:

Date:

Time:

Relinquished By:

Relinquished To:

Date:

Time:

SunLabs, Inc.

5460 Beaumont Center Blvd., Suite 520, Tampa, Florida 33634

Phone: 813-881-9401 / Fax: 813-354-4861

e-mail: info@SunLabsInc.com www.SunLabsInc.com

Sample #	Sample Description	Sampled		# of Bottles	Analysis / Method Requested	Bottle Type	Preservative	Matrix
		Date	Time					
-01	GB-1 @ 50 Pt - 2 Pt	5-15-14	09:10	5	8260 Full List	415	VS	50
-02	GB-1 @ 2 Pt - 4 Pt		09:35	1	LL PATHS	50	1	50
-03	GB-2 @ 50 Pt - 2 Pt		10:00	1				
-04	GB-2 @ 2 Pt - 4 Pt		10:15	1				
-05	GB-4 @ 50 Pt - 2 Pt		11:30	1	(42)			
-06	GB-4 @ 2 Pt - 4 Pt		11:40	1				
-07	GB-6 @ 50 Pt - 2 Pt		13:40	1				
-08	GB-6 @ 2 Pt - 4 Pt		13:50	1				
-09	GB-8 @ 50 Pt - 2 Pt		16:00	1				
-10	GB-8 @ 2 Pt - 4 Pt		16:15	1				
-11	Tip Blank			1				

Sample Type Codes:	Preservative Codes:	Matrix Codes:
GV = Glass Vial	H = Hydrochloric Acid + Ice	A = Air
GA = Glass Amber	I = Ice only	DW = Drinking Water
P = Plastic	N = Nitric Acid	GW = Ground Water
S = Soil Jar	B = Sodium bisulfate + Ice	SE = Sediment
	S = Sulfuric Acid + Ice	
	VS = NaHSO ₄ , MeOH, + Ice	
	T = Sodium thiosulfate + Ice	
	O = Other (Specify)	

Standard Use Only	Special Condition / User Request
SW = Surface Water	Custody Seals present?
WS = Waste	Custody Seals intact?
WW = Waste Water	Custody Seals attached?
W = Water (Blanks)	Shipping Bags attached?
O = Other (Specify)	Sample containers intact?
	Seals within holding time?
	Sufficient volume for all analyses?
	Are vials head-space free?
	Proper containers and preservatives?

Received upon receipt:	Temp:
2.8°C	

Received on Ice:	Temp:
Y N / NA	



Jennifer Arndt
Cardno TBE, Inc.
380 Park Place Blvd, Suite 300
Clearwater, FL 33759

June 05, 2014

SunLabs Project Number: **4051906**
Client Project Description: **BF-Washington Park**

Dear Mrs. Arndt,

Enclosed is the report of laboratory analysis for the following samples:

Sample Number	Sample Description	Date Collected	Date Received
4051906-01	TMW-1	05/19/14 10:47	05/19/14 15:15
4051906-02	TMW-2	05/19/14 11:27	05/19/14 15:15
4051906-03	TMW-3	05/19/14 12:15	05/19/14 15:15
4051906-04	TMW-4	05/19/14 13:07	05/19/14 15:15
4051906-05	Trip Blank	05/19/14 00:00	05/19/14 15:15

Narrative

Unless otherwise noted below or in the report and where applicable:

- Samples were received at the proper temperature and analyzed as received.
- Sample condition upon receipt is reported on the chain-of-custody attached to this report.
- Results for all solid matrices are reported on a dry weight basis.
- Appropriate calibration and QC criteria were satisfactorily met.
- All applicable holding times for analytes have been met.
- Copies of the chains-of-custody, if received, are attached to this report.

QC Batch B005098 had an exception for VOC's on the MS. The LCS and LCSD were acceptable, so the out of control was attributed to matrix.

QC Batch B005154 had an exception for PAH's on the MS/MSD RPD. The LCS and LCSD were acceptable, so the out of control was attributed to matrix.

If you have any questions or comments concerning this report, please do not hesitate to contact us.

Michael W. Palmer
Vice President, Laboratory Operations

Unless Otherwise Noted and Where Applicable:

The result herein relate only to the items tested or to the samples as received by the laboratory. This report shall not be reproduced except in full, without the written approval of SunLabs. All samples will be disposed of within 60 days of the date of receipt of the samples. All results meet the requirements of the NELAC standards. Uncertainty values are available upon request.



Report of Laboratory Analysis

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-01**
Sample Designation: **TMW-1**

Matrix: **Groundwater**
Date Collected: **05/19/14 10:47**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
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Mercury by EPA 7470

Method Qualifier:

Mercury	EPA 7470	ug/L	0.018 U	1	0.018	0.073	7439-97-6	05/21/14 11:40	05/20/14 14:29
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Polynuclear Aromatic Hydrocarbons by Method 8270

Method Qualifier:

Surrogate: 2-Fluorobiphenyl (0-115)	EPA 8270	%	65.7	1			321-60-8	06/03/14 22:19	05/22/14 11:55
Surrogate: p-Terphenyl-d14 (1-148)	EPA 8270	%	87.2	1			1718-51-0	06/03/14 22:19	05/22/14 11:55
Acenaphthene	EPA 8270	ug/L	0.14	1	0.0043	0.018	83-32-9	06/03/14 22:19	05/22/14 11:55
Acenaphthylene	EPA 8270	ug/L	0.0092 U	1	0.0092	0.037	208-96-8	06/03/14 22:19	05/22/14 11:55
Anthracene	EPA 8270	ug/L	0.065	1	0.016	0.062	120-12-7	06/03/14 22:19	05/22/14 11:55
Benzo[a]anthracene	EPA 8270	ug/L	0.015 I	1	0.010	0.042	56-55-3	06/03/14 22:19	05/22/14 11:55
Benzo[a]pyrene	EPA 8270	ug/L	0.014 U	1	0.014	0.057	50-32-8	06/03/14 22:19	05/22/14 11:55
Benzo[b]fluoranthene	EPA 8270	ug/L	0.018 I	1	0.014	0.058	205-99-2	06/03/14 22:19	05/22/14 11:55
Benzo[ghi]perylene	EPA 8270	ug/L	0.013 U	1	0.013	0.052	191-24-2	06/03/14 22:19	05/22/14 11:55
Benzo[k]fluoranthene	EPA 8270	ug/L	0.014 I	1	0.012	0.045	207-08-9	06/03/14 22:19	05/22/14 11:55
Chrysene	EPA 8270	ug/L	0.022 I	1	0.011	0.042	218-01-9	06/03/14 22:19	05/22/14 11:55
Dibenz[a,h]anthracene	EPA 8270	ug/L	0.0092 U	1	0.0092	0.036	53-70-3	06/03/14 22:19	05/22/14 11:55
Fluoranthene	EPA 8270	ug/L	0.032 I	1	0.015	0.060	206-44-0	06/03/14 22:19	05/22/14 11:55
Fluorene	EPA 8270	ug/L	0.0067 U	1	0.0067	0.027	86-73-7	06/03/14 22:19	05/22/14 11:55
Indeno[1,2,3-cd]pyrene	EPA 8270	ug/L	0.011 U	1	0.011	0.043	193-39-5	06/03/14 22:19	05/22/14 11:55
1-Methylnaphthalene	EPA 8270	ug/L	0.010 U	1	0.010	0.041	90-12-0	06/03/14 22:19	05/22/14 11:55
2-Methylnaphthalene	EPA 8270	ug/L	0.011 U	1	0.011	0.043	91-57-6	06/03/14 22:19	05/22/14 11:55
Naphthalene	EPA 8270	ug/L	0.017 U	1	0.017	0.065	91-20-3	06/03/14 22:19	05/22/14 11:55
Phenanthrene	EPA 8270	ug/L	0.022 I,V	1	0.014	0.057	85-01-8	06/03/14 22:19	05/22/14 11:55
Pyrene	EPA 8270	ug/L	0.019 I	1	0.013	0.052	129-00-0	06/03/14 22:19	05/22/14 11:55

RCRA7 Metals by EPA 6010

Method Qualifier:

Arsenic	EPA 6010	ug/L	5.0 U	1	5.0	20	7440-38-2	05/20/14 21:15	05/20/14 10:16
Barium	EPA 6010	ug/L	180	1	0.52	2.1	7440-39-3	05/20/14 21:15	05/20/14 10:16
Cadmium	EPA 6010	ug/L	0.93 U	1	0.93	3.7	7440-43-9	05/20/14 21:15	05/20/14 10:16
Chromium	EPA 6010	ug/L	2.0 U	1	2.0	8.1	7440-47-3	05/20/14 21:15	05/20/14 10:16
Lead	EPA 6010	ug/L	4.7 U	1	4.7	19	7439-92-1	05/20/14 21:15	05/20/14 10:16
Selenium	EPA 6010	ug/L	4.4 U	1	4.4	18	7782-49-2	05/20/14 21:15	05/20/14 10:16
Silver	EPA 6010	ug/L	2.1 U	1	2.1	8.2	7440-22-4	05/20/14 21:15	05/20/14 10:16



Report of Laboratory Analysis

SunLabs Project Number
4051906

Cardno TBE, Inc.
Project Description
BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-01**
Sample Designation: **TMW-1**

Matrix: **Groundwater**
Date Collected: **05/19/14 10:47**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (82-118)	EPA 8260	%	99.9	1			460-00-4	05/20/14 15:49	05/20/14 08:00
Surrogate: Dibromofluoromethane (85-120)	EPA 8260	%	99.0	1			1868-53-7	05/20/14 15:49	05/20/14 08:00
Surrogate: Toluene-d8 (83-115)	EPA 8260	%	98.8	1			2037-26-5	05/20/14 15:49	05/20/14 08:00
1,1,1-Trichloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.78	71-55-6	05/20/14 15:49	05/20/14 08:00
1,1,2,2-Tetrachloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	79-34-5	05/20/14 15:49	05/20/14 08:00
1,1,2-Trichloroethane	EPA 8260	ug/L	0.92 U	1	0.92	3.7	79-00-5	05/20/14 15:49	05/20/14 08:00
1,1-Dichloroethane	EPA 8260	ug/L	0.23 U	1	0.23	0.92	75-34-3	05/20/14 15:49	05/20/14 08:00
1,1-Dichloroethene	EPA 8260	ug/L	0.34 U	1	0.34	1.3	75-35-4	05/20/14 15:49	05/20/14 08:00
1,2-Dichlorobenzene	EPA 8260	ug/L	0.40 U	1	0.40	1.6	95-50-1	05/20/14 15:49	05/20/14 08:00
1,2-Dichloroethane	EPA 8260	ug/L	0.24 U	1	0.24	0.97	107-06-2	05/20/14 15:49	05/20/14 08:00
1,2-Dichloropropane	EPA 8260	ug/L	0.28 U	1	0.28	1.1	78-87-5	05/20/14 15:49	05/20/14 08:00
1,2,4-Trimethylbenzene	EPA 8260	ug/L	0.37 U	1	0.37	1.5	95-63-6	05/20/14 15:49	05/20/14 08:00
1,3,5-Trimethylbenzene	EPA 8260	ug/L	0.24 U	1	0.24	0.94	108-67-8	05/20/14 15:49	05/20/14 08:00
1,3-Dichlorobenzene	EPA 8260	ug/L	0.34 U	1	0.34	1.4	541-73-1	05/20/14 15:49	05/20/14 08:00
1,3-Dichloropropene (Total)	EPA 8260	ug/L	0.11 U	1	0.11	0.50	542-75-6	05/20/14 15:49	05/20/14 08:00
1,4-Dichlorobenzene	EPA 8260	ug/L	0.21 U	1	0.21	0.84	106-46-7	05/20/14 15:49	05/20/14 08:00
2-Butanone (MEK)	EPA 8260	ug/L	2.1 U	1	2.1	8.4	78-93-3	05/20/14 15:49	05/20/14 08:00
2-Hexanone	EPA 8260	ug/L	1.5 U	1	1.5	10	591-78-6	05/20/14 15:49	05/20/14 08:00
4-Methyl-2-pentanone (MIBK)	EPA 8260	ug/L	1.3 U	1	1.3	5.2	108-10-1	05/20/14 15:49	05/20/14 08:00
Acetone	EPA 8260	ug/L	8.3 I	1	6.9	28	67-64-1	05/20/14 15:49	05/20/14 08:00
Benzene	EPA 8260	ug/L	0.23 U	1	0.23	0.92	71-43-2	05/20/14 15:49	05/20/14 08:00
Bromochloromethane	EPA 8260	ug/L	0.18 U	1	0.18	0.72	74-97-5	05/20/14 15:49	05/20/14 08:00
Bromodichloromethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	75-27-4	05/20/14 15:49	05/20/14 08:00
Bromoform	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-25-2	05/20/14 15:49	05/20/14 08:00
Bromomethane	EPA 8260	ug/L	0.43 U	1	0.43	1.7	74-83-9	05/20/14 15:49	05/20/14 08:00
Carbon disulfide	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-15-0	05/20/14 15:49	05/20/14 08:00
Carbon tetrachloride	EPA 8260	ug/L	0.18 U	1	0.18	0.72	56-23-5	05/20/14 15:49	05/20/14 08:00
Chlorobenzene	EPA 8260	ug/L	0.19 U	1	0.19	0.76	108-90-7	05/20/14 15:49	05/20/14 08:00
Chloroethane	EPA 8260	ug/L	0.36 U	1	0.36	1.4	75-00-3	05/20/14 15:49	05/20/14 08:00
Chloroform	EPA 8260	ug/L	0.19 U	1	0.19	0.74	67-66-3	05/20/14 15:49	05/20/14 08:00
Chloromethane	EPA 8260	ug/L	0.32 U	1	0.32	1.3	74-87-3	05/20/14 15:49	05/20/14 08:00
cis-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-59-2	05/20/14 15:49	05/20/14 08:00
Dibromochloromethane	EPA 8260	ug/L	0.33 U	1	0.33	1.3	124-48-1	05/20/14 15:49	05/20/14 08:00
Dibromomethane	EPA 8260	ug/L	0.25 U	1	0.25	1.0	74-95-3	05/20/14 15:49	05/20/14 08:00
Dichlorodifluoromethane	EPA 8260	ug/L	0.42 U	1	0.42	1.7	75-71-8	05/20/14 15:49	05/20/14 08:00
Ethylbenzene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	100-41-4	05/20/14 15:49	05/20/14 08:00
isopropylbenzene	EPA 8260	ug/L	0.26 U	1	0.26	1.0	98-82-8	05/20/14 15:49	05/20/14 08:00
Methylene Chloride	EPA 8260	ug/L	0.65 U	1	0.65	2.6	75-09-2	05/20/14 15:49	05/20/14 08:00
Methyl tert-Butyl Ether (MTBE)	EPA 8260	ug/L	0.28 U	1	0.28	1.1	1634-04-4	05/20/14 15:49	05/20/14 08:00
Styrene	EPA 8260	ug/L	0.23 U	1	0.23	0.93	100-42-5	05/20/14 15:49	05/20/14 08:00
Tetrachloroethene	EPA 8260	ug/L	0.36 U	1	0.36	1.4	127-18-4	05/20/14 15:49	05/20/14 08:00
Toluene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	108-88-3	05/20/14 15:49	05/20/14 08:00
Xylenes (Total)	EPA 8260	ug/L	0.22 U	1	0.22	0.88	1330-20-7	05/20/14 15:49	05/20/14 08:00
trans-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-60-5	05/20/14 15:49	05/20/14 08:00
Trichloroethene	EPA 8260	ug/L	0.48 U	1	0.48	1.9	79-01-6	05/20/14 15:49	05/20/14 08:00
Trichlorofluoromethane	EPA 8260	ug/L	0.51 U	1	0.51	2.0	75-69-4	05/20/14 15:49	05/20/14 08:00
Vinyl chloride	EPA 8260	ug/L	0.25 U	1	0.25	1.0	75-01-4	05/20/14 15:49	05/20/14 08:00



Report of Laboratory Analysis

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-02**
Sample Designation: **TMW-2**

Matrix: **Groundwater**
Date Collected: **05/19/14 11:27**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Mercury by EPA 7470					Method Qualifier:				
Mercury	EPA 7470	ug/L	0.018 U	1	0.018	0.073	7439-97-6	05/21/14 11:42	05/20/14 14:29
Polynuclear Aromatic Hydrocarbons by Method 8270					Method Qualifier:				
Surrogate: 2-Fluorobiphenyl (0-115)	EPA 8270	%	54.5	1			321-60-8	06/03/14 22:41	05/22/14 11:55
Surrogate: p-Terphenyl-d14 (1-148)	EPA 8270	%	90.6	1			1718-51-0	06/03/14 22:41	05/22/14 11:55
Acenaphthene	EPA 8270	ug/L	0.035	1	0.0043	0.018	83-32-9	06/03/14 22:41	05/22/14 11:55
Acenaphthylene	EPA 8270	ug/L	0.0092 U	1	0.0092	0.037	208-96-8	06/03/14 22:41	05/22/14 11:55
Anthracene	EPA 8270	ug/L	0.016 U	1	0.016	0.062	120-12-7	06/03/14 22:41	05/22/14 11:55
Benzo[a]anthracene	EPA 8270	ug/L	0.010 U	1	0.010	0.042	56-55-3	06/03/14 22:41	05/22/14 11:55
Benzo[a]pyrene	EPA 8270	ug/L	0.014 U	1	0.014	0.057	50-32-8	06/03/14 22:41	05/22/14 11:55
Benzo[b]fluoranthene	EPA 8270	ug/L	0.014 U	1	0.014	0.058	205-99-2	06/03/14 22:41	05/22/14 11:55
Benzo[ghi]perylene	EPA 8270	ug/L	0.013 U	1	0.013	0.052	191-24-2	06/03/14 22:41	05/22/14 11:55
Benzo[k]fluoranthene	EPA 8270	ug/L	0.012 U	1	0.012	0.045	207-08-9	06/03/14 22:41	05/22/14 11:55
Chrysene	EPA 8270	ug/L	0.011 U	1	0.011	0.042	218-01-9	06/03/14 22:41	05/22/14 11:55
Dibenz[a,h]anthracene	EPA 8270	ug/L	0.0092 U	1	0.0092	0.036	53-70-3	06/03/14 22:41	05/22/14 11:55
Fluoranthene	EPA 8270	ug/L	0.015 U	1	0.015	0.060	206-44-0	06/03/14 22:41	05/22/14 11:55
Fluorene	EPA 8270	ug/L	0.024 I	1	0.0067	0.027	86-73-7	06/03/14 22:41	05/22/14 11:55
Indeno[1,2,3-cd]pyrene	EPA 8270	ug/L	0.011 U	1	0.011	0.043	193-39-5	06/03/14 22:41	05/22/14 11:55
1-Methylnaphthalene	EPA 8270	ug/L	0.010 U	1	0.010	0.041	90-12-0	06/03/14 22:41	05/22/14 11:55
2-Methylnaphthalene	EPA 8270	ug/L	0.011 U	1	0.011	0.043	91-57-6	06/03/14 22:41	05/22/14 11:55
Naphthalene	EPA 8270	ug/L	0.068 V	1	0.017	0.065	91-20-3	06/03/14 22:41	05/22/14 11:55
Phenanthrene	EPA 8270	ug/L	0.014 U	1	0.014	0.057	85-01-8	06/03/14 22:41	05/22/14 11:55
Pyrene	EPA 8270	ug/L	0.013 U	1	0.013	0.052	129-00-0	06/03/14 22:41	05/22/14 11:55
RCRA7 Metals by EPA 6010					Method Qualifier:				
Arsenic	EPA 6010	ug/L	5.0 U	1	5.0	20	7440-38-2	05/20/14 21:19	05/20/14 10:16
Barium	EPA 6010	ug/L	62	1	0.52	2.1	7440-39-3	05/20/14 21:19	05/20/14 10:16
Cadmium	EPA 6010	ug/L	0.93 U	1	0.93	3.7	7440-43-9	05/20/14 21:19	05/20/14 10:16
Chromium	EPA 6010	ug/L	2.0 U	1	2.0	8.1	7440-47-3	05/20/14 21:19	05/20/14 10:16
Lead	EPA 6010	ug/L	4.7 U	1	4.7	19	7439-92-1	05/20/14 21:19	05/20/14 10:16
Selenium	EPA 6010	ug/L	4.4 U	1	4.4	18	7782-49-2	05/20/14 21:19	05/20/14 10:16
Silver	EPA 6010	ug/L	2.1 U	1	2.1	8.2	7440-22-4	05/20/14 21:19	05/20/14 10:16



Report of Laboratory Analysis

SunLabs
Project Number
4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-02**
Sample Designation: **TMW-2**

Matrix: **Groundwater**
Date Collected: **05/19/14 11:27**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260			Method Qualifier:						
Surrogate: 4-Bromofluorobenzene (82-118)	EPA 8260	%	96.8	1			460-00-4	05/20/14 16:09	05/20/14 08:00
Surrogate: Dibromofluoromethane (85-120)	EPA 8260	%	105	1			1868-53-7	05/20/14 16:09	05/20/14 08:00
Surrogate: Toluene-d8 (83-115)	EPA 8260	%	98.7	1			2037-26-5	05/20/14 16:09	05/20/14 08:00
1,1,1-Trichloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.78	71-55-6	05/20/14 16:09	05/20/14 08:00
1,1,2,2-Tetrachloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	79-34-5	05/20/14 16:09	05/20/14 08:00
1,1,2-Trichloroethane	EPA 8260	ug/L	0.92 U	1	0.92	3.7	79-00-5	05/20/14 16:09	05/20/14 08:00
1,1-Dichloroethane	EPA 8260	ug/L	0.23 U	1	0.23	0.92	75-34-3	05/20/14 16:09	05/20/14 08:00
1,1-Dichloroethene	EPA 8260	ug/L	0.34 U	1	0.34	1.3	75-35-4	05/20/14 16:09	05/20/14 08:00
1,2-Dichlorobenzene	EPA 8260	ug/L	0.40 U	1	0.40	1.6	95-50-1	05/20/14 16:09	05/20/14 08:00
1,2-Dichloroethane	EPA 8260	ug/L	0.24 U	1	0.24	0.97	107-06-2	05/20/14 16:09	05/20/14 08:00
1,2-Dichloropropane	EPA 8260	ug/L	0.28 U	1	0.28	1.1	78-87-5	05/20/14 16:09	05/20/14 08:00
1,2,4-Trimethylbenzene	EPA 8260	ug/L	0.37 U	1	0.37	1.5	95-63-6	05/20/14 16:09	05/20/14 08:00
1,3,5-Trimethylbenzene	EPA 8260	ug/L	0.24 U	1	0.24	0.94	108-67-8	05/20/14 16:09	05/20/14 08:00
1,3-Dichlorobenzene	EPA 8260	ug/L	0.34 U	1	0.34	1.4	541-73-1	05/20/14 16:09	05/20/14 08:00
1,3-Dichloropropene (Total)	EPA 8260	ug/L	0.11 U	1	0.11	0.50	542-75-6	05/20/14 16:09	05/20/14 08:00
1,4-Dichlorobenzene	EPA 8260	ug/L	0.21 U	1	0.21	0.84	106-46-7	05/20/14 16:09	05/20/14 08:00
2-Butanone (MEK)	EPA 8260	ug/L	2.1 U	1	2.1	8.4	78-93-3	05/20/14 16:09	05/20/14 08:00
2-Hexanone	EPA 8260	ug/L	1.5 U	1	1.5	10	591-78-6	05/20/14 16:09	05/20/14 08:00
4-Methyl-2-pentanone (MIBK)	EPA 8260	ug/L	1.3 U	1	1.3	5.2	108-10-1	05/20/14 16:09	05/20/14 08:00
Acetone	EPA 8260	ug/L	8.0 I	1	6.9	28	67-64-1	05/20/14 16:09	05/20/14 08:00
Benzene	EPA 8260	ug/L	0.23 U	1	0.23	0.92	71-43-2	05/20/14 16:09	05/20/14 08:00
Bromochloromethane	EPA 8260	ug/L	0.18 U	1	0.18	0.72	74-97-5	05/20/14 16:09	05/20/14 08:00
Bromodichloromethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	75-27-4	05/20/14 16:09	05/20/14 08:00
Bromoform	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-25-2	05/20/14 16:09	05/20/14 08:00
Bromomethane	EPA 8260	ug/L	0.43 U	1	0.43	1.7	74-83-9	05/20/14 16:09	05/20/14 08:00
Carbon disulfide	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-15-0	05/20/14 16:09	05/20/14 08:00
Carbon tetrachloride	EPA 8260	ug/L	0.18 U	1	0.18	0.72	56-23-5	05/20/14 16:09	05/20/14 08:00
Chlorobenzene	EPA 8260	ug/L	0.19 U	1	0.19	0.76	108-90-7	05/20/14 16:09	05/20/14 08:00
Chloroethane	EPA 8260	ug/L	0.36 U	1	0.36	1.4	75-00-3	05/20/14 16:09	05/20/14 08:00
Chloroform	EPA 8260	ug/L	0.19 U	1	0.19	0.74	67-66-3	05/20/14 16:09	05/20/14 08:00
Chloromethane	EPA 8260	ug/L	0.32 U	1	0.32	1.3	74-87-3	05/20/14 16:09	05/20/14 08:00
cis-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-59-2	05/20/14 16:09	05/20/14 08:00
Dibromochloromethane	EPA 8260	ug/L	0.33 U	1	0.33	1.3	124-48-1	05/20/14 16:09	05/20/14 08:00
Dibromomethane	EPA 8260	ug/L	0.25 U	1	0.25	1.0	74-95-3	05/20/14 16:09	05/20/14 08:00
Dichlorodifluoromethane	EPA 8260	ug/L	0.42 U	1	0.42	1.7	75-71-8	05/20/14 16:09	05/20/14 08:00
Ethylbenzene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	100-41-4	05/20/14 16:09	05/20/14 08:00
isopropylbenzene	EPA 8260	ug/L	0.26 U	1	0.26	1.0	98-82-8	05/20/14 16:09	05/20/14 08:00
Methylene Chloride	EPA 8260	ug/L	0.65 U	1	0.65	2.6	75-09-2	05/20/14 16:09	05/20/14 08:00
Methyl tert-Butyl Ether (MTBE)	EPA 8260	ug/L	0.28 U	1	0.28	1.1	1634-04-4	05/20/14 16:09	05/20/14 08:00
Styrene	EPA 8260	ug/L	0.23 U	1	0.23	0.93	100-42-5	05/20/14 16:09	05/20/14 08:00
Tetrachloroethene	EPA 8260	ug/L	0.36 U	1	0.36	1.4	127-18-4	05/20/14 16:09	05/20/14 08:00
Toluene	EPA 8260	ug/L	0.43 I	1	0.20	0.80	108-88-3	05/20/14 16:09	05/20/14 08:00
Xylenes (Total)	EPA 8260	ug/L	0.22 U	1	0.22	0.88	1330-20-7	05/20/14 16:09	05/20/14 08:00
trans-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-60-5	05/20/14 16:09	05/20/14 08:00
Trichloroethene	EPA 8260	ug/L	0.48 U	1	0.48	1.9	79-01-6	05/20/14 16:09	05/20/14 08:00
Trichlorofluoromethane	EPA 8260	ug/L	0.51 U	1	0.51	2.0	75-69-4	05/20/14 16:09	05/20/14 08:00
Vinyl chloride	EPA 8260	ug/L	0.25 U	1	0.25	1.0	75-01-4	05/20/14 16:09	05/20/14 08:00



Report of Laboratory Analysis

SunLabs
Project Number
4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-03**
Sample Designation: **TMW-3**

Matrix: **Groundwater**
Date Collected: **05/19/14 12:15**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
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Mercury by EPA 7470

Method Qualifier:

Mercury	EPA 7470	ug/L	0.018 U	1	0.018	0.073	7439-97-6	05/21/14 11:44	05/20/14 14:29
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Polynuclear Aromatic Hydrocarbons by Method 8270

Method Qualifier:

Surrogate: 2-Fluorobiphenyl (0-115)	EPA 8270	%	58.0	1			321-60-8	06/03/14 23:04	05/22/14 11:55
Surrogate: p-Terphenyl-d14 (1-148)	EPA 8270	%	85.4	1			1718-51-0	06/03/14 23:04	05/22/14 11:55
Acenaphthene	EPA 8270	ug/L	0.012 I	1	0.0043	0.018	83-32-9	06/03/14 23:04	05/22/14 11:55
Acenaphthylene	EPA 8270	ug/L	0.0092 U	1	0.0092	0.037	208-96-8	06/03/14 23:04	05/22/14 11:55
Anthracene	EPA 8270	ug/L	0.032 I	1	0.016	0.062	120-12-7	06/03/14 23:04	05/22/14 11:55
Benzo[a]anthracene	EPA 8270	ug/L	0.016 I	1	0.010	0.042	56-55-3	06/03/14 23:04	05/22/14 11:55
Benzo[a]pyrene	EPA 8270	ug/L	0.014 U	1	0.014	0.057	50-32-8	06/03/14 23:04	05/22/14 11:55
Benzo[b]fluoranthene	EPA 8270	ug/L	0.014 U	1	0.014	0.058	205-99-2	06/03/14 23:04	05/22/14 11:55
Benzo[ghi]perylene	EPA 8270	ug/L	0.013 U	1	0.013	0.052	191-24-2	06/03/14 23:04	05/22/14 11:55
Benzo[k]fluoranthene	EPA 8270	ug/L	0.012 U	1	0.012	0.045	207-08-9	06/03/14 23:04	05/22/14 11:55
Chrysene	EPA 8270	ug/L	0.011 U	1	0.011	0.042	218-01-9	06/03/14 23:04	05/22/14 11:55
Dibenz[a,h]anthracene	EPA 8270	ug/L	0.0092 U	1	0.0092	0.036	53-70-3	06/03/14 23:04	05/22/14 11:55
Fluoranthene	EPA 8270	ug/L	0.015 U	1	0.015	0.060	206-44-0	06/03/14 23:04	05/22/14 11:55
Fluorene	EPA 8270	ug/L	0.0067 U	1	0.0067	0.027	86-73-7	06/03/14 23:04	05/22/14 11:55
Indeno[1,2,3-cd]pyrene	EPA 8270	ug/L	0.011 U	1	0.011	0.043	193-39-5	06/03/14 23:04	05/22/14 11:55
1-Methylnaphthalene	EPA 8270	ug/L	0.010 U	1	0.010	0.041	90-12-0	06/03/14 23:04	05/22/14 11:55
2-Methylnaphthalene	EPA 8270	ug/L	0.011 U	1	0.011	0.043	91-57-6	06/03/14 23:04	05/22/14 11:55
Naphthalene	EPA 8270	ug/L	0.017 U	1	0.017	0.065	91-20-3	06/03/14 23:04	05/22/14 11:55
Phenanthrene	EPA 8270	ug/L	0.026 I,V	1	0.014	0.057	85-01-8	06/03/14 23:04	05/22/14 11:55
Pyrene	EPA 8270	ug/L	0.013 U	1	0.013	0.052	129-00-0	06/03/14 23:04	05/22/14 11:55

RCRA7 Metals by EPA 6010

Method Qualifier:

Arsenic	EPA 6010	ug/L	52	1	5.0	20	7440-38-2	05/20/14 21:35	05/20/14 10:16
Barium	EPA 6010	ug/L	81	1	0.52	2.1	7440-39-3	05/20/14 21:35	05/20/14 10:16
Cadmium	EPA 6010	ug/L	0.93 U	1	0.93	3.7	7440-43-9	05/20/14 21:35	05/20/14 10:16
Chromium	EPA 6010	ug/L	2.0 U	1	2.0	8.1	7440-47-3	05/20/14 21:35	05/20/14 10:16
Lead	EPA 6010	ug/L	4.7 U	1	4.7	19	7439-92-1	05/20/14 21:35	05/20/14 10:16
Selenium	EPA 6010	ug/L	4.4 U	1	4.4	18	7782-49-2	05/20/14 21:35	05/20/14 10:16
Silver	EPA 6010	ug/L	2.1 U	1	2.1	8.2	7440-22-4	05/20/14 21:35	05/20/14 10:16



Report of Laboratory Analysis

SunLabs Project Number
4051906

Cardno TBE, Inc.
Project Description
BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-03**
Sample Designation: **TMW-3**

Matrix: **Groundwater**
Date Collected: **05/19/14 12:15**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (82-118)	EPA 8260	%	99.6	1			460-00-4	05/20/14 16:28	05/20/14 08:00
Surrogate: Dibromofluoromethane (85-120)	EPA 8260	%	103	1			1868-53-7	05/20/14 16:28	05/20/14 08:00
Surrogate: Toluene-d8 (83-115)	EPA 8260	%	99.4	1			2037-26-5	05/20/14 16:28	05/20/14 08:00
1,1,1-Trichloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.78	71-55-6	05/20/14 16:28	05/20/14 08:00
1,1,2,2-Tetrachloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	79-34-5	05/20/14 16:28	05/20/14 08:00
1,1,2-Trichloroethane	EPA 8260	ug/L	0.92 U	1	0.92	3.7	79-00-5	05/20/14 16:28	05/20/14 08:00
1,1-Dichloroethane	EPA 8260	ug/L	0.23 U	1	0.23	0.92	75-34-3	05/20/14 16:28	05/20/14 08:00
1,1-Dichloroethene	EPA 8260	ug/L	0.34 U	1	0.34	1.3	75-35-4	05/20/14 16:28	05/20/14 08:00
1,2-Dichlorobenzene	EPA 8260	ug/L	0.40 U	1	0.40	1.6	95-50-1	05/20/14 16:28	05/20/14 08:00
1,2-Dichloroethane	EPA 8260	ug/L	0.24 U	1	0.24	0.97	107-06-2	05/20/14 16:28	05/20/14 08:00
1,2-Dichloropropane	EPA 8260	ug/L	0.28 U	1	0.28	1.1	78-87-5	05/20/14 16:28	05/20/14 08:00
1,2,4-Trimethylbenzene	EPA 8260	ug/L	0.37 U	1	0.37	1.5	95-63-6	05/20/14 16:28	05/20/14 08:00
1,3,5-Trimethylbenzene	EPA 8260	ug/L	0.24 U	1	0.24	0.94	108-67-8	05/20/14 16:28	05/20/14 08:00
1,3-Dichlorobenzene	EPA 8260	ug/L	0.34 U	1	0.34	1.4	541-73-1	05/20/14 16:28	05/20/14 08:00
1,3-Dichloropropene (Total)	EPA 8260	ug/L	0.11 U	1	0.11	0.50	542-75-6	05/20/14 16:28	05/20/14 08:00
1,4-Dichlorobenzene	EPA 8260	ug/L	0.21 U	1	0.21	0.84	106-46-7	05/20/14 16:28	05/20/14 08:00
2-Butanone (MEK)	EPA 8260	ug/L	2.1 U	1	2.1	8.4	78-93-3	05/20/14 16:28	05/20/14 08:00
2-Hexanone	EPA 8260	ug/L	1.5 U	1	1.5	10	591-78-6	05/20/14 16:28	05/20/14 08:00
4-Methyl-2-pentanone (MIBK)	EPA 8260	ug/L	1.3 U	1	1.3	5.2	108-10-1	05/20/14 16:28	05/20/14 08:00
Acetone	EPA 8260	ug/L	12 I	1	6.9	28	67-64-1	05/20/14 16:28	05/20/14 08:00
Benzene	EPA 8260	ug/L	0.23 U	1	0.23	0.92	71-43-2	05/20/14 16:28	05/20/14 08:00
Bromochloromethane	EPA 8260	ug/L	0.18 U	1	0.18	0.72	74-97-5	05/20/14 16:28	05/20/14 08:00
Bromodichloromethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	75-27-4	05/20/14 16:28	05/20/14 08:00
Bromoform	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-25-2	05/20/14 16:28	05/20/14 08:00
Bromomethane	EPA 8260	ug/L	0.43 U	1	0.43	1.7	74-83-9	05/20/14 16:28	05/20/14 08:00
Carbon disulfide	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-15-0	05/20/14 16:28	05/20/14 08:00
Carbon tetrachloride	EPA 8260	ug/L	0.18 U	1	0.18	0.72	56-23-5	05/20/14 16:28	05/20/14 08:00
Chlorobenzene	EPA 8260	ug/L	0.19 U	1	0.19	0.76	108-90-7	05/20/14 16:28	05/20/14 08:00
Chloroethane	EPA 8260	ug/L	0.36 U	1	0.36	1.4	75-00-3	05/20/14 16:28	05/20/14 08:00
Chloroform	EPA 8260	ug/L	0.19 U	1	0.19	0.74	67-66-3	05/20/14 16:28	05/20/14 08:00
Chloromethane	EPA 8260	ug/L	0.32 U	1	0.32	1.3	74-87-3	05/20/14 16:28	05/20/14 08:00
cis-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-59-2	05/20/14 16:28	05/20/14 08:00
Dibromochloromethane	EPA 8260	ug/L	0.33 U	1	0.33	1.3	124-48-1	05/20/14 16:28	05/20/14 08:00
Dibromomethane	EPA 8260	ug/L	0.25 U	1	0.25	1.0	74-95-3	05/20/14 16:28	05/20/14 08:00
Dichlorodifluoromethane	EPA 8260	ug/L	0.42 U	1	0.42	1.7	75-71-8	05/20/14 16:28	05/20/14 08:00
Ethylbenzene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	100-41-4	05/20/14 16:28	05/20/14 08:00
isopropylbenzene	EPA 8260	ug/L	0.26 U	1	0.26	1.0	98-82-8	05/20/14 16:28	05/20/14 08:00
Methylene Chloride	EPA 8260	ug/L	0.65 U	1	0.65	2.6	75-09-2	05/20/14 16:28	05/20/14 08:00
Methyl tert-Butyl Ether (MTBE)	EPA 8260	ug/L	0.28 U	1	0.28	1.1	1634-04-4	05/20/14 16:28	05/20/14 08:00
Styrene	EPA 8260	ug/L	0.23 U	1	0.23	0.93	100-42-5	05/20/14 16:28	05/20/14 08:00
Tetrachloroethene	EPA 8260	ug/L	0.36 U	1	0.36	1.4	127-18-4	05/20/14 16:28	05/20/14 08:00
Toluene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	108-88-3	05/20/14 16:28	05/20/14 08:00
Xylenes (Total)	EPA 8260	ug/L	0.22 U	1	0.22	0.88	1330-20-7	05/20/14 16:28	05/20/14 08:00
trans-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-60-5	05/20/14 16:28	05/20/14 08:00
Trichloroethene	EPA 8260	ug/L	0.48 U	1	0.48	1.9	79-01-6	05/20/14 16:28	05/20/14 08:00
Trichlorofluoromethane	EPA 8260	ug/L	0.51 U	1	0.51	2.0	75-69-4	05/20/14 16:28	05/20/14 08:00
Vinyl chloride	EPA 8260	ug/L	0.25 U	1	0.25	1.0	75-01-4	05/20/14 16:28	05/20/14 08:00



Report of Laboratory Analysis

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-04**
Sample Designation: **TMW-4**

Matrix: **Groundwater**
Date Collected: **05/19/14 13:07**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
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Mercury by EPA 7470

Method Qualifier:

Mercury	EPA 7470	ug/L	0.018 U	1	0.018	0.073	7439-97-6	05/27/14 10:02	05/23/14 14:27
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Polynuclear Aromatic Hydrocarbons by Method 8270

Method Qualifier:

Surrogate: 2-Fluorobiphenyl (0-115)	EPA 8270	%	61.5	1			321-60-8	06/03/14 23:26	05/22/14 11:55
Surrogate: p-Terphenyl-d14 (1-148)	EPA 8270	%	83.2	1			1718-51-0	06/03/14 23:26	05/22/14 11:55
Acenaphthene	EPA 8270	ug/L	0.0043 U	1	0.0043	0.018	83-32-9	06/03/14 23:26	05/22/14 11:55
Acenaphthylene	EPA 8270	ug/L	0.0092 U	1	0.0092	0.037	208-96-8	06/03/14 23:26	05/22/14 11:55
Anthracene	EPA 8270	ug/L	0.016 U	1	0.016	0.062	120-12-7	06/03/14 23:26	05/22/14 11:55
Benzo[a]anthracene	EPA 8270	ug/L	0.019 I	1	0.010	0.042	56-55-3	06/03/14 23:26	05/22/14 11:55
Benzo[a]pyrene	EPA 8270	ug/L	0.014 U	1	0.014	0.057	50-32-8	06/03/14 23:26	05/22/14 11:55
Benzo[b]fluoranthene	EPA 8270	ug/L	0.024 I	1	0.014	0.058	205-99-2	06/03/14 23:26	05/22/14 11:55
Benzo[ghi]perylene	EPA 8270	ug/L	0.028 I	1	0.013	0.052	191-24-2	06/03/14 23:26	05/22/14 11:55
Benzo[k]fluoranthene	EPA 8270	ug/L	0.027 I	1	0.012	0.045	207-08-9	06/03/14 23:26	05/22/14 11:55
Chrysene	EPA 8270	ug/L	0.035 I	1	0.011	0.042	218-01-9	06/03/14 23:26	05/22/14 11:55
Dibenz[a,h]anthracene	EPA 8270	ug/L	0.17	1	0.0092	0.036	53-70-3	06/03/14 23:26	05/22/14 11:55
Fluoranthene	EPA 8270	ug/L	0.015 U	1	0.015	0.060	206-44-0	06/03/14 23:26	05/22/14 11:55
Fluorene	EPA 8270	ug/L	0.0067 U	1	0.0067	0.027	86-73-7	06/03/14 23:26	05/22/14 11:55
Indeno[1,2,3-cd]pyrene	EPA 8270	ug/L	0.020 I	1	0.011	0.043	193-39-5	06/03/14 23:26	05/22/14 11:55
1-Methylnaphthalene	EPA 8270	ug/L	0.010 U	1	0.010	0.041	90-12-0	06/03/14 23:26	05/22/14 11:55
2-Methylnaphthalene	EPA 8270	ug/L	0.011 U	1	0.011	0.043	91-57-6	06/03/14 23:26	05/22/14 11:55
Naphthalene	EPA 8270	ug/L	0.094 V	1	0.017	0.065	91-20-3	06/03/14 23:26	05/22/14 11:55
Phenanthrene	EPA 8270	ug/L	0.014 U	1	0.014	0.057	85-01-8	06/03/14 23:26	05/22/14 11:55
Pyrene	EPA 8270	ug/L	0.013 U	1	0.013	0.052	129-00-0	06/03/14 23:26	05/22/14 11:55

RCRA7 Metals by EPA 6010

Method Qualifier:

Arsenic	EPA 6010	ug/L	5.0 U	1	5.0	20	7440-38-2	05/22/14 19:08	05/22/14 10:37
Barium	EPA 6010	ug/L	65	1	0.52	2.1	7440-39-3	05/22/14 19:08	05/22/14 10:37
Cadmium	EPA 6010	ug/L	0.93 U	1	0.93	3.7	7440-43-9	05/22/14 19:08	05/22/14 10:37
Chromium	EPA 6010	ug/L	2.0 U	1	2.0	8.1	7440-47-3	05/22/14 19:08	05/22/14 10:37
Lead	EPA 6010	ug/L	4.7 U	1	4.7	19	7439-92-1	05/22/14 19:08	05/22/14 10:37
Selenium	EPA 6010	ug/L	11 I	1	4.4	18	7782-49-2	05/22/14 19:08	05/22/14 10:37
Silver	EPA 6010	ug/L	2.1 U	1	2.1	8.2	7440-22-4	05/22/14 19:08	05/22/14 10:37



Report of Laboratory Analysis

SunLabs Project Number
4051906

Cardno TBE, Inc.
Project Description
BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-04**
Sample Designation: **TMW-4**

Matrix: **Groundwater**
Date Collected: **05/19/14 13:07**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (82-118)	EPA 8260	%	97.7	1			460-00-4	05/20/14 16:48	05/20/14 08:00
Surrogate: Dibromofluoromethane (85-120)	EPA 8260	%	105	1			1868-53-7	05/20/14 16:48	05/20/14 08:00
Surrogate: Toluene-d8 (83-115)	EPA 8260	%	98.7	1			2037-26-5	05/20/14 16:48	05/20/14 08:00
1,1,1-Trichloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.78	71-55-6	05/20/14 16:48	05/20/14 08:00
1,1,2,2-Tetrachloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	79-34-5	05/20/14 16:48	05/20/14 08:00
1,1,2-Trichloroethane	EPA 8260	ug/L	0.92 U	1	0.92	3.7	79-00-5	05/20/14 16:48	05/20/14 08:00
1,1-Dichloroethane	EPA 8260	ug/L	0.23 U	1	0.23	0.92	75-34-3	05/20/14 16:48	05/20/14 08:00
1,1-Dichloroethene	EPA 8260	ug/L	0.34 U	1	0.34	1.3	75-35-4	05/20/14 16:48	05/20/14 08:00
1,2-Dichlorobenzene	EPA 8260	ug/L	0.40 U	1	0.40	1.6	95-50-1	05/20/14 16:48	05/20/14 08:00
1,2-Dichloroethane	EPA 8260	ug/L	0.24 U	1	0.24	0.97	107-06-2	05/20/14 16:48	05/20/14 08:00
1,2-Dichloropropane	EPA 8260	ug/L	0.28 U	1	0.28	1.1	78-87-5	05/20/14 16:48	05/20/14 08:00
1,2,4-Trimethylbenzene	EPA 8260	ug/L	0.37 U	1	0.37	1.5	95-63-6	05/20/14 16:48	05/20/14 08:00
1,3,5-Trimethylbenzene	EPA 8260	ug/L	0.24 U	1	0.24	0.94	108-67-8	05/20/14 16:48	05/20/14 08:00
1,3-Dichlorobenzene	EPA 8260	ug/L	0.34 U	1	0.34	1.4	541-73-1	05/20/14 16:48	05/20/14 08:00
1,3-Dichloropropene (Total)	EPA 8260	ug/L	0.11 U	1	0.11	0.50	542-75-6	05/20/14 16:48	05/20/14 08:00
1,4-Dichlorobenzene	EPA 8260	ug/L	0.21 U	1	0.21	0.84	106-46-7	05/20/14 16:48	05/20/14 08:00
2-Butanone (MEK)	EPA 8260	ug/L	2.1 U	1	2.1	8.4	78-93-3	05/20/14 16:48	05/20/14 08:00
2-Hexanone	EPA 8260	ug/L	1.5 U	1	1.5	10	591-78-6	05/20/14 16:48	05/20/14 08:00
4-Methyl-2-pentanone (MIBK)	EPA 8260	ug/L	1.3 U	1	1.3	5.2	108-10-1	05/20/14 16:48	05/20/14 08:00
Acetone	EPA 8260	ug/L	6.9 U	1	6.9	28	67-64-1	05/20/14 16:48	05/20/14 08:00
Benzene	EPA 8260	ug/L	0.23 U	1	0.23	0.92	71-43-2	05/20/14 16:48	05/20/14 08:00
Bromochloromethane	EPA 8260	ug/L	0.18 U	1	0.18	0.72	74-97-5	05/20/14 16:48	05/20/14 08:00
Bromodichloromethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	75-27-4	05/20/14 16:48	05/20/14 08:00
Bromoform	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-25-2	05/20/14 16:48	05/20/14 08:00
Bromomethane	EPA 8260	ug/L	0.43 U	1	0.43	1.7	74-83-9	05/20/14 16:48	05/20/14 08:00
Carbon disulfide	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-15-0	05/20/14 16:48	05/20/14 08:00
Carbon tetrachloride	EPA 8260	ug/L	0.18 U	1	0.18	0.72	56-23-5	05/20/14 16:48	05/20/14 08:00
Chlorobenzene	EPA 8260	ug/L	0.19 U	1	0.19	0.76	108-90-7	05/20/14 16:48	05/20/14 08:00
Chloroethane	EPA 8260	ug/L	0.36 U	1	0.36	1.4	75-00-3	05/20/14 16:48	05/20/14 08:00
Chloroform	EPA 8260	ug/L	0.19 U	1	0.19	0.74	67-66-3	05/20/14 16:48	05/20/14 08:00
Chloromethane	EPA 8260	ug/L	0.32 U	1	0.32	1.3	74-87-3	05/20/14 16:48	05/20/14 08:00
cis-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-59-2	05/20/14 16:48	05/20/14 08:00
Dibromochloromethane	EPA 8260	ug/L	0.33 U	1	0.33	1.3	124-48-1	05/20/14 16:48	05/20/14 08:00
Dibromomethane	EPA 8260	ug/L	0.25 U	1	0.25	1.0	74-95-3	05/20/14 16:48	05/20/14 08:00
Dichlorodifluoromethane	EPA 8260	ug/L	0.42 U	1	0.42	1.7	75-71-8	05/20/14 16:48	05/20/14 08:00
Ethylbenzene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	100-41-4	05/20/14 16:48	05/20/14 08:00
isopropylbenzene	EPA 8260	ug/L	0.26 U	1	0.26	1.0	98-82-8	05/20/14 16:48	05/20/14 08:00
Methylene Chloride	EPA 8260	ug/L	0.65 U	1	0.65	2.6	75-09-2	05/20/14 16:48	05/20/14 08:00
Methyl tert-Butyl Ether (MTBE)	EPA 8260	ug/L	0.28 U	1	0.28	1.1	1634-04-4	05/20/14 16:48	05/20/14 08:00
Styrene	EPA 8260	ug/L	0.23 U	1	0.23	0.93	100-42-5	05/20/14 16:48	05/20/14 08:00
Tetrachloroethene	EPA 8260	ug/L	0.36 U	1	0.36	1.4	127-18-4	05/20/14 16:48	05/20/14 08:00
Toluene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	108-88-3	05/20/14 16:48	05/20/14 08:00
Xylenes (Total)	EPA 8260	ug/L	0.22 U	1	0.22	0.88	1330-20-7	05/20/14 16:48	05/20/14 08:00
trans-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-60-5	05/20/14 16:48	05/20/14 08:00
Trichloroethene	EPA 8260	ug/L	0.48 U	1	0.48	1.9	79-01-6	05/20/14 16:48	05/20/14 08:00
Trichlorofluoromethane	EPA 8260	ug/L	0.51 U	1	0.51	2.0	75-69-4	05/20/14 16:48	05/20/14 08:00
Vinyl chloride	EPA 8260	ug/L	0.25 U	1	0.25	1.0	75-01-4	05/20/14 16:48	05/20/14 08:00



Report of Laboratory Analysis

SunLabs Project Number
4051906

Cardno TBE, Inc.
Project Description
BF-Washington Park

June 05, 2014

SunLabs Sample Number: **4051906-05**
Sample Designation: **Trip Blank**

Matrix: **Water**
Date Collected: **05/19/14 00:00**
Date Received: **05/19/14 15:15**

Parameters	Method	Units	Results	Dil Factor	MDL	PQL	CAS Number	Date/Time Analyzed	Date/Time Prep
Volatile Organic Compounds by EPA 8260					Method Qualifier:				
Surrogate: 4-Bromofluorobenzene (82-118)	EPA 8260	%	97.8	1			460-00-4	05/20/14 10:44	05/20/14 08:00
Surrogate: Dibromofluoromethane (85-120)	EPA 8260	%	99.5	1			1868-53-7	05/20/14 10:44	05/20/14 08:00
Surrogate: Toluene-d8 (83-115)	EPA 8260	%	100	1			2037-26-5	05/20/14 10:44	05/20/14 08:00
1,1,1-Trichloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.78	71-55-6	05/20/14 10:44	05/20/14 08:00
1,1,2,2-Tetrachloroethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	79-34-5	05/20/14 10:44	05/20/14 08:00
1,1,2-Trichloroethane	EPA 8260	ug/L	0.92 U	1	0.92	3.7	79-00-5	05/20/14 10:44	05/20/14 08:00
1,1-Dichloroethane	EPA 8260	ug/L	0.23 U	1	0.23	0.92	75-34-3	05/20/14 10:44	05/20/14 08:00
1,1-Dichloroethene	EPA 8260	ug/L	0.34 U	1	0.34	1.3	75-35-4	05/20/14 10:44	05/20/14 08:00
1,2-Dichlorobenzene	EPA 8260	ug/L	0.40 U	1	0.40	1.6	95-50-1	05/20/14 10:44	05/20/14 08:00
1,2-Dichloroethane	EPA 8260	ug/L	0.24 U	1	0.24	0.97	107-06-2	05/20/14 10:44	05/20/14 08:00
1,2-Dichloropropane	EPA 8260	ug/L	0.28 U	1	0.28	1.1	78-87-5	05/20/14 10:44	05/20/14 08:00
1,2,4-Trimethylbenzene	EPA 8260	ug/L	0.37 U	1	0.37	1.5	95-63-6	05/20/14 10:44	05/20/14 08:00
1,3,5-Trimethylbenzene	EPA 8260	ug/L	0.24 U	1	0.24	0.94	108-67-8	05/20/14 10:44	05/20/14 08:00
1,3-Dichlorobenzene	EPA 8260	ug/L	0.34 U	1	0.34	1.4	541-73-1	05/20/14 10:44	05/20/14 08:00
1,3-Dichloropropene (Total)	EPA 8260	ug/L	0.11 U	1	0.11	0.50	542-75-6	05/20/14 10:44	05/20/14 08:00
1,4-Dichlorobenzene	EPA 8260	ug/L	0.21 U	1	0.21	0.84	106-46-7	05/20/14 10:44	05/20/14 08:00
2-Butanone (MEK)	EPA 8260	ug/L	2.1 U	1	2.1	8.4	78-93-3	05/20/14 10:44	05/20/14 08:00
2-Hexanone	EPA 8260	ug/L	1.5 U	1	1.5	10	591-78-6	05/20/14 10:44	05/20/14 08:00
4-Methyl-2-pentanone (MIBK)	EPA 8260	ug/L	1.3 U	1	1.3	5.2	108-10-1	05/20/14 10:44	05/20/14 08:00
Acetone	EPA 8260	ug/L	6.9 U	1	6.9	28	67-64-1	05/20/14 10:44	05/20/14 08:00
Benzene	EPA 8260	ug/L	0.23 U	1	0.23	0.92	71-43-2	05/20/14 10:44	05/20/14 08:00
Bromochloromethane	EPA 8260	ug/L	0.18 U	1	0.18	0.72	74-97-5	05/20/14 10:44	05/20/14 08:00
Bromodichloromethane	EPA 8260	ug/L	0.19 U	1	0.19	0.76	75-27-4	05/20/14 10:44	05/20/14 08:00
Bromoform	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-25-2	05/20/14 10:44	05/20/14 08:00
Bromomethane	EPA 8260	ug/L	0.43 U	1	0.43	1.7	74-83-9	05/20/14 10:44	05/20/14 08:00
Carbon disulfide	EPA 8260	ug/L	0.35 U	1	0.35	1.4	75-15-0	05/20/14 10:44	05/20/14 08:00
Carbon tetrachloride	EPA 8260	ug/L	0.18 U	1	0.18	0.72	56-23-5	05/20/14 10:44	05/20/14 08:00
Chlorobenzene	EPA 8260	ug/L	0.19 U	1	0.19	0.76	108-90-7	05/20/14 10:44	05/20/14 08:00
Chloroethane	EPA 8260	ug/L	0.36 U	1	0.36	1.4	75-00-3	05/20/14 10:44	05/20/14 08:00
Chloroform	EPA 8260	ug/L	0.19 U	1	0.19	0.74	67-66-3	05/20/14 10:44	05/20/14 08:00
Chloromethane	EPA 8260	ug/L	0.32 U	1	0.32	1.3	74-87-3	05/20/14 10:44	05/20/14 08:00
cis-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-59-2	05/20/14 10:44	05/20/14 08:00
Dibromochloromethane	EPA 8260	ug/L	0.33 U	1	0.33	1.3	124-48-1	05/20/14 10:44	05/20/14 08:00
Dibromomethane	EPA 8260	ug/L	0.25 U	1	0.25	1.0	74-95-3	05/20/14 10:44	05/20/14 08:00
Dichlorodifluoromethane	EPA 8260	ug/L	0.42 U	1	0.42	1.7	75-71-8	05/20/14 10:44	05/20/14 08:00
Ethylbenzene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	100-41-4	05/20/14 10:44	05/20/14 08:00
isopropylbenzene	EPA 8260	ug/L	0.26 U	1	0.26	1.0	98-82-8	05/20/14 10:44	05/20/14 08:00
Methylene Chloride	EPA 8260	ug/L	0.73 I	1	0.65	2.6	75-09-2	05/20/14 10:44	05/20/14 08:00
Methyl tert-Butyl Ether (MTBE)	EPA 8260	ug/L	0.28 U	1	0.28	1.1	1634-04-4	05/20/14 10:44	05/20/14 08:00
Styrene	EPA 8260	ug/L	0.23 U	1	0.23	0.93	100-42-5	05/20/14 10:44	05/20/14 08:00
Tetrachloroethene	EPA 8260	ug/L	0.36 U	1	0.36	1.4	127-18-4	05/20/14 10:44	05/20/14 08:00
Toluene	EPA 8260	ug/L	0.20 U	1	0.20	0.80	108-88-3	05/20/14 10:44	05/20/14 08:00
Xylenes (Total)	EPA 8260	ug/L	0.22 U	1	0.22	0.88	1330-20-7	05/20/14 10:44	05/20/14 08:00
trans-1,2-Dichloroethene	EPA 8260	ug/L	0.22 U	1	0.22	0.88	156-60-5	05/20/14 10:44	05/20/14 08:00
Trichloroethene	EPA 8260	ug/L	0.48 U	1	0.48	1.9	79-01-6	05/20/14 10:44	05/20/14 08:00
Trichlorofluoromethane	EPA 8260	ug/L	0.51 U	1	0.51	2.0	75-69-4	05/20/14 10:44	05/20/14 08:00
Vinyl chloride	EPA 8260	ug/L	0.25 U	1	0.25	1.0	75-01-4	05/20/14 10:44	05/20/14 08:00



Footnotes

<i>V</i>	<i>The analyte was detected in both the sample and the associated method blank.</i>
<i>U</i>	<i>The compound was analyzed for but not detected.</i>
<i>J</i>	<i>The reported value failed to meet the established quality control criteria for either precision or accuracy (see cover letter for explanation)</i>
<i>I</i>	<i>The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.</i>
<i>**</i>	<i>SunLabs is not currently NELAC certified for this analyte. Unless directed otherwise by client, a NELAC certified sub-contract laboratory has performed this analysis (see cover letter for details).</i>
<i>LCS / LCSD</i>	<i>Laboratory Control Sample / Laboratory Control Sample Duplicate</i>
<i>MB</i>	<i>Method Blank</i>
<i>MS / MSD</i>	<i>Matrix Spike / Matrix Spike Duplicate</i>
<i>RPD</i>	<i>Relative Percent Difference</i>



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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Blank (B005098-BLK1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	51	ng/mL	50		102	82-118			
Surrogate: Dibromofluoromethane	50	ng/mL	50		101	85-120			
Surrogate: Toluene-d8	50	ng/mL	50		99.6	83-115			
1,1,1-Trichloroethane	0.19 U	ug/L							
1,1,2,2-Tetrachloroethane	0.19 U	ug/L							
1,1,2-Trichloroethane	0.92 U	ug/L							
1,1-Dichloroethane	0.23 U	ug/L							
1,1-Dichloroethene	0.34 U	ug/L							
1,2-Dichlorobenzene	0.40 U	ug/L							
1,2-Dichloroethane	0.24 U	ug/L							
1,2-Dichloropropane	0.28 U	ug/L							
1,2,4-Trimethylbenzene	0.37 U	ug/L							
1,3,5-Trimethylbenzene	0.24 U	ug/L							
1,3-Dichlorobenzene	0.34 U	ug/L							
1,3-Dichloropropene (Total)	0.11 U	ug/L							
1,4-Dichlorobenzene	0.21 U	ug/L							
2-Butanone (MEK)	2.1 U	ug/L							
2-Hexanone	1.5 U	ug/L							
4-Methyl-2-pentanone (MIBK)	1.3 U	ug/L							
Acetone	6.9 U	ug/L							
Benzene	0.23 U	ug/L							
Bromochloromethane	0.18 U	ug/L							
Bromodichloromethane	0.19 U	ug/L							
Bromoform	0.35 U	ug/L							
Bromomethane	0.43 U	ug/L							
Carbon disulfide	0.35 U	ug/L							
Carbon tetrachloride	0.18 U	ug/L							
Chlorobenzene	0.19 U	ug/L							
Chloroethane	0.36 U	ug/L							
Chloroform	0.19 U	ug/L							
Chloromethane	0.32 U	ug/L							
cis-1,2-Dichloroethene	0.22 U	ug/L							
Dibromochloromethane	0.33 U	ug/L							
Dibromomethane	0.25 U	ug/L							
Dichlorodifluoromethane	0.42 U	ug/L							
Ethylbenzene	0.20 U	ug/L							
isopropylbenzene	0.26 U	ug/L							
Methylene Chloride	0.65 U	ug/L							
Methyl tert-Butyl Ether (MTBE)	0.28 U	ug/L							
Styrene	0.23 U	ug/L							
Tetrachloroethene	0.36 U	ug/L							
Toluene	0.20 U	ug/L							
Xylenes (Total)	0.22 U	ug/L							
trans-1,2-Dichloroethene	0.22 U	ug/L							
Trichloroethene	0.48 U	ug/L							
Trichlorofluoromethane	0.51 U	ug/L							
Vinyl chloride	0.25 U	ug/L							

LCS (B005098-BS1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	50	ng/mL	50		99.2	82-118			
Surrogate: Dibromofluoromethane	49	ng/mL	50		97.5	85-120			



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS (B005098-BS1)

Prepared & Analyzed: 05/20/14

Surrogate: Toluene-d8	49	ng/mL	50		98.3	83-115			
1,1,1-Trichloroethane	10	ug/L	10		100	78-120			
1,1,2,2-Tetrachloroethane	10	ug/L	10		99.8	69-124			
1,1,2-Trichloroethane	10	ug/L	10		104	80-125			
1,1-Dichloroethane	9.8	ug/L	10		98.5	80-120			
1,1-Dichloroethene	10	ug/L	10		105	80-120			
1,2-Dichlorobenzene	10	ug/L	10		100	80-120			
1,2-Dichloroethane	10	ug/L	10		102	80-120			
1,2-Dichloropropane	9.8	ug/L	10		98.4	80-120			
1,2,4-Trimethylbenzene	10	ug/L	10		105	77-120			
1,3,5-Trimethylbenzene	10	ug/L	10		103	67-120			
1,3-Dichlorobenzene	10	ug/L	10		100	74-145			
1,3-Dichloropropene (Total)	19	ug/L	20		94.6	73-121			
1,4-Dichlorobenzene	10	ug/L	10		103	69-135			
2-Butanone (MEK)	88	ug/L	100		88.3	53-130			
2-Hexanone	100	ug/L	100		102	51-137			
4-Methyl-2-pentanone (MIBK)	94	ug/L	100		93.7	57-129			
Acetone	110	ug/L	100		111	70-149			
Benzene	10	ug/L	10		101	80-120			
Bromochloromethane	9.8	ug/L	10		97.9	80-120			
Bromodichloromethane	9.7	ug/L	10		97.1	80-120			
Bromoform	9.4	ug/L	10		94.1	76-120			
Bromomethane	12	ug/L	10		122	76-137			
Carbon disulfide	9.0	ug/L	10		89.8	71-146			
Carbon tetrachloride	11	ug/L	10		108	75-120			
Chlorobenzene	10	ug/L	10		101	80-120			
Chloroethane	11	ug/L	10		111	80-123			
Chloroform	9.9	ug/L	10		98.9	80-120			
Chloromethane	8.4	ug/L	10		84.4	70-126			
cis-1,2-Dichloroethene	9.6	ug/L	10		96.3	80-120			
Dibromochloromethane	9.7	ug/L	10		96.9	80-120			
Dibromomethane	10	ug/L	10		102	80-120			
Dichlorodifluoromethane	10	ug/L	10		100	78-128			
Ethylbenzene	10	ug/L	10		102	80-120			
isopropylbenzene	10	ug/L	10		102	80-120			
Methylene Chloride	9.2	ug/L	10		92.4	72-145			
Methyl tert-Butyl Ether (MTBE)	9.7	ug/L	10		96.6	80-120			
Styrene	9.6	ug/L	10		95.5	80-120			
Tetrachloroethene	10	ug/L	10		100	80-120			
Toluene	9.7	ug/L	10		96.6	74-127			
Xylenes (Total)	30	ug/L	30		98.3	74-129			
trans-1,2-Dichloroethene	10	ug/L	10		103	80-120			
Trichloroethene	10	ug/L	10		99.5	80-120			
Trichlorofluoromethane	8.7	ug/L	10		86.8	74-127			
Vinyl chloride	11	ug/L	10		110	78-131			

LCS Dup (B005098-BSD1)

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	51	ng/mL	50		102	82-118			
Surrogate: Dibromofluoromethane	50	ng/mL	50		100	85-120			
Surrogate: Toluene-d8	50	ng/mL	50		100	83-115			
1,1,1-Trichloroethane	9.8	ug/L	10		98.3	78-120	2.01	20	



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS Dup (B005098-BSD1)

Prepared & Analyzed: 05/20/14

1,1,2,2-Tetrachloroethane	10	ug/L	10		101	69-124	1.29	20	
1,1,2-Trichloroethane	11	ug/L	10		106	80-125	2.76	20	
1,1-Dichloroethane	10	ug/L	10		100	80-120	1.51	20	
1,1-Dichloroethene	11	ug/L	10		107	80-120	1.70	20	
1,2-Dichlorobenzene	11	ug/L	10		106	80-120	5.24	20	
1,2-Dichloroethane	11	ug/L	10		107	80-120	4.40	20	
1,2-Dichloropropane	10	ug/L	10		101	80-120	2.81	20	
1,3,5-Trimethylbenzene	11	ug/L	10		106	67-120	2.69	22	
1,2,4-Trimethylbenzene	10	ug/L	10		104	77-120	0.961	20	
1,3-Dichlorobenzene	10	ug/L	10		102	74-145	1.39	20	
1,3-Dichloropropene (Total)	20	ug/L	20		99.0	73-121	4.49	20	
1,4-Dichlorobenzene	11	ug/L	10		108	69-135	3.98	20	
2-Butanone (MEK)	88	ug/L	100		88.5	53-130	0.272	20	
2-Hexanone	100	ug/L	100		102	51-137	0.166	20	
4-Methyl-2-pentanone (MIBK)	98	ug/L	100		97.8	57-129	4.28	20	
Acetone	110	ug/L	100		107	70-149	3.53	20	
Benzene	10	ug/L	10		105	80-120	3.79	20	
Bromochloromethane	10	ug/L	10		103	80-120	5.37	20	
Bromodichloromethane	9.6	ug/L	10		96.0	80-120	1.14	20	
Bromoform	9.9	ug/L	10		98.7	76-120	4.77	20	
Bromomethane	12	ug/L	10		117	76-137	4.36	20	
Carbon disulfide	9.2	ug/L	10		91.7	71-146	2.09	20	
Carbon tetrachloride	11	ug/L	10		113	75-120	5.16	20	
Chlorobenzene	11	ug/L	10		105	80-120	4.66	20	
Chloroethane	9.1	ug/L	10		91.4	80-123	19.5	20	
Chloroform	10	ug/L	10		103	80-120	3.77	20	
Chloromethane	8.7	ug/L	10		87.1	70-126	3.15	20	
cis-1,2-Dichloroethene	10	ug/L	10		102	80-120	6.04	20	
Dibromochloromethane	10	ug/L	10		102	80-120	5.23	20	
Dibromomethane	11	ug/L	10		107	80-120	4.21	20	
Dichlorodifluoromethane	9.9	ug/L	10		98.9	78-128	1.60	20	
Ethylbenzene	11	ug/L	10		108	80-120	5.62	20	
isopropylbenzene	11	ug/L	10		105	80-120	2.50	20	
Methylene Chloride	10	ug/L	10		100	72-145	8.20	20	
Methyl tert-Butyl Ether (MTBE)	9.8	ug/L	10		98.5	80-120	1.95	20	
Styrene	9.8	ug/L	10		97.6	80-120	2.18	20	
Tetrachloroethene	10	ug/L	10		103	80-120	2.66	20	
Toluene	10	ug/L	10		101	74-127	4.26	20	
Xylenes (Total)	30	ug/L	30		101	74-129	2.54	20	
trans-1,2-Dichloroethene	10	ug/L	10		104	80-120	0.773	20	
Trichloroethene	10	ug/L	10		102	80-120	2.97	20	
Trichlorofluoromethane	8.9	ug/L	10		89.3	74-127	2.84	20	
Vinyl chloride	11	ug/L	10		114	78-131	4.19	20	

Duplicate (B005098-DUP1)

Parent Sample: 4051616-01

Prepared & Analyzed: 05/20/14

Surrogate: 4-Bromofluorobenzene	51	ng/mL	50		101	82-118			
Surrogate: Dibromofluoromethane	50	ng/mL	50		99.8	85-120			
Surrogate: Toluene-d8	51	ng/mL	50		103	83-115			
1,1,1-Trichloroethane	0.19 U	ug/L		ND				200	
1,1,2,2-Tetrachloroethane	0.19 U	ug/L		ND				200	
1,1,2-Trichloroethane	0.92 U	ug/L		ND				200	



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Duplicate (B005098-DUP1)			Parent Sample: 4051616-01		Prepared & Analyzed: 05/20/14				
1,1-Dichloroethane	0.23 U	ug/L		ND				200	
1,1-Dichloroethene	0.34 U	ug/L		ND				200	
1,2-Dichlorobenzene	0.40 U	ug/L		ND				200	
1,2-Dichloroethane	0.24 U	ug/L		ND				200	
1,2-Dichloropropane	0.28 U	ug/L		ND				200	
1,2,4-Trimethylbenzene	0.37 U	ug/L		ND				200	
1,3,5-Trimethylbenzene	0.24 U	ug/L		ND				200	
1,3-Dichlorobenzene	0.34 U	ug/L		ND				200	
1,3-Dichloropropene (Total)	0.11 U	ug/L		ND				200	
1,4-Dichlorobenzene	0.21 U	ug/L		ND				200	
2-Butanone (MEK)	2.1 U	ug/L		ND				200	
2-Hexanone	1.5 U	ug/L		ND				200	
4-Methyl-2-pentanone (MIBK)	1.3 U	ug/L		ND				200	
Acetone	6.9 U	ug/L		ND				200	
Benzene	0.23 U	ug/L		ND				200	
Bromochloromethane	0.18 U	ug/L		ND				200	
Bromodichloromethane	0.19 U	ug/L		ND				200	
Bromoform	0.35 U	ug/L		ND				200	
Bromomethane	0.43 U	ug/L		ND				200	
Carbon disulfide	0.35 U	ug/L		ND				200	
Carbon tetrachloride	0.18 U	ug/L		ND				200	
Chlorobenzene	0.19 U	ug/L		ND				200	
Chloroethane	0.36 U	ug/L		ND				200	
Chloroform	0.19 U	ug/L		ND				200	
Chloromethane	0.32 U	ug/L		ND				200	
cis-1,2-Dichloroethene	0.22 U	ug/L		ND				200	
Dibromochloromethane	0.33 U	ug/L		ND				200	
Dibromomethane	0.25 U	ug/L		ND				200	
Dichlorodifluoromethane	0.42 U	ug/L		ND				200	
Ethylbenzene	0.20 U	ug/L		ND				200	
isopropylbenzene	4.3	ug/L		4.6			5.65	200	
Methylene Chloride	0.65 U	ug/L		ND				200	
Methyl tert-Butyl Ether (MTBE)	0.28 U	ug/L		ND				200	
Styrene	0.23 U	ug/L		ND				200	
Tetrachloroethene	0.36 U	ug/L		ND				200	
Toluene	0.20 U	ug/L		ND				200	
Xylenes (Total)	0.22 U	ug/L		0.40			200	200	
trans-1,2-Dichloroethene	0.22 U	ug/L		ND				200	
Trichloroethene	0.48 U	ug/L		ND				200	
Trichlorofluoromethane	0.51 U	ug/L		ND				200	
Vinyl chloride	0.25 U	ug/L		ND				200	
Matrix Spike (B005098-MS1)			Parent Sample: 4051616-02		Prepared & Analyzed: 05/20/14				
Surrogate: 4-Bromofluorobenzene	49	ng/mL	50		98.9	82-118			
Surrogate: Dibromofluoromethane	51	ng/mL	50		102	85-120			
Surrogate: Toluene-d8	50	ng/mL	50		100	83-115			
1,1,1-Trichloroethane	7.8	ug/L	10	ND	77.8	71-120			
1,1,2,2-Tetrachloroethane	7.0	ug/L	10	ND	69.7	71-124			J
1,1,2-Trichloroethane	7.1	ug/L	10	ND	71.3	77-127			J
1,1-Dichloroethane	7.5	ug/L	10	ND	74.6	79-120			J
1,1-Dichloroethene	7.8	ug/L	10	ND	77.5	63-126			



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005098**

Test: **8260 VOC**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike (B005098-MS1)			Parent Sample: 4051616-02		Prepared & Analyzed: 05/20/14				
1,2-Dichlorobenzene	6.7	ug/L	10	ND	67.2	80-122			J
1,2-Dichloroethane	7.8	ug/L	10	ND	78.2	81-122			J
1,2-Dichloropropane	7.4	ug/L	10	ND	74.4	80-120			J
1,2,4-Trimethylbenzene	6.5	ug/L	10	ND	65.0	52-129			
1,3,5-Trimethylbenzene	6.5	ug/L	10	ND	64.8	46-129			
1,3-Dichlorobenzene	6.5	ug/L	10	ND	65.1	60-154			
1,3-Dichloropropene (Total)	9.8	ug/L	20	ND	49.2	57-120			J
1,4-Dichlorobenzene	6.6	ug/L	10	ND	66.1	68-135			J
2-Butanone (MEK)	63	ug/L	100	ND	63.4	55-143			
2-Hexanone	73	ug/L	100	ND	72.8	51-150			
4-Methyl-2-pentanone (MIBK)	67	ug/L	100	ND	67.1	61-135			
Acetone	75	ug/L	100	ND	75.1	45-169			
Benzene	7.3	ug/L	10	ND	73.3	45-149			
Bromochloromethane	7.5	ug/L	10	ND	74.6	80-120			J
Bromodichloromethane	7.1	ug/L	10	ND	70.8	80-123			J
Bromoform	6.1	ug/L	10	ND	61.2	65-120			J
Bromomethane	7.9	ug/L	10	ND	78.6	56-160			
Carbon disulfide	7.4	ug/L	10	ND	74.4	74-143			
Carbon tetrachloride	8.0	ug/L	10	ND	80.2	70-120			
Chlorobenzene	7.3	ug/L	10	ND	73.0	73-120			
Chloroethane	8.7	ug/L	10	ND	86.9	76-129			
Chloroform	7.7	ug/L	10	ND	77.1	77-122			
Chloromethane	6.0	ug/L	10	ND	59.7	58-147			
cis-1,2-Dichloroethene	7.0	ug/L	10	ND	70.0	75-121			J
Dibromochloromethane	6.7	ug/L	10	ND	66.9	74-120			J
Dibromomethane	7.3	ug/L	10	ND	73.2	80-120			J
Dichlorodifluoromethane	6.9	ug/L	10	ND	68.8	57-145			
Ethylbenzene	7.0	ug/L	10	ND	69.6	73-120			J
isopropylbenzene	6.7	ug/L	10	ND	66.7	68-120			J
Methylene Chloride	6.6	ug/L	10	ND	65.5	66-141			J
Methyl tert-Butyl Ether (MTBE)	7.2	ug/L	10	ND	71.5	79-128			J
Styrene	6.4	ug/L	10	ND	63.8	42-130			
Tetrachloroethene	6.5	ug/L	10	ND	65.1	57-141			
Toluene	6.8	ug/L	10	ND	68.3	62-122			
Xylenes (Total)	19	ug/L	30	ND	62.3	44-136			
trans-1,2-Dichloroethene	7.3	ug/L	10	ND	72.8	72-120			
Trichloroethene	7.5	ug/L	10	ND	75.1	66-124			
Trichlorofluoromethane	6.0	ug/L	10	ND	60.1	62-138			J
Vinyl chloride	8.7	ug/L	10	ND	87.1	71-142			



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005104**
Test: **Mercury-W 7470**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005104-BLK1)			Prepared: 05/20/14 Analyzed: 05/21/14						
Mercury	0.018 U	ug/L							
LCS (B005104-BS1)			Prepared: 05/20/14 Analyzed: 05/21/14						
Mercury	4.8	ug/L	5.0		96.8	80-120			
LCS Dup (B005104-BSD1)			Prepared: 05/20/14 Analyzed: 05/21/14						
Mercury	4.9	ug/L	5.0		97.1	80-120	0.320	20	
Matrix Spike (B005104-MS1)			Parent Sample: 4051906-02			Prepared: 05/20/14 Analyzed: 05/21/14			
Mercury	4.7	ug/L	5.0	ND	94.7	75-125			
Matrix Spike Dup (B005104-MSD1)			Parent Sample: 4051906-02			Prepared: 05/20/14 Analyzed: 05/21/14			
Mercury	4.7	ug/L	5.0	ND	94.5	75-125	0.209	20	

Batch No: **B005106**
Test: **RCRA7 6010**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005106-BLK1)			Prepared & Analyzed: 05/20/14						
Arsenic	5.0 U	ug/L							
Barium	0.52 U	ug/L							
Cadmium	0.93 U	ug/L							
Chromium	2.0 U	ug/L							
Lead	4.7 U	ug/L							
Selenium	4.4 U	ug/L							
Silver	2.1 U	ug/L							
LCS (B005106-BS1)			Prepared & Analyzed: 05/20/14						
Arsenic	990	ug/L	990		99.9	80-120			
Barium	890	ug/L	990		90.0	80-120			
Cadmium	950	ug/L	990		95.6	80-120			
Chromium	960	ug/L	990		97.0	80-120			
Lead	950	ug/L	990		96.4	80-120			
Selenium	960	ug/L	990		97.4	80-120			
Silver	870	ug/L	990		87.9	80-120			
LCS Dup (B005106-BSD1)			Prepared & Analyzed: 05/20/14						
Arsenic	970	ug/L	990		98.0	80-120	1.93	20	
Barium	930	ug/L	990		93.8	80-120	4.11	20	
Cadmium	950	ug/L	990		95.5	80-120	0.0747	20	
Chromium	910	ug/L	990		91.6	80-120	5.79	20	
Lead	940	ug/L	990		94.7	80-120	1.83	20	
Selenium	930	ug/L	990		94.2	80-120	3.26	20	
Silver	880	ug/L	990		88.9	80-120	1.13	20	
Matrix Spike (B005106-MS1)			Parent Sample: 4051908-01			Prepared & Analyzed: 05/20/14			
Arsenic	1000	ug/L	990	ND	101	75-125			
Barium	1000	ug/L	990	57	98.0	75-125			
Cadmium	960	ug/L	990	ND	96.5	75-125			



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005106**

Test: **RCRA7 6010**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike (B005106-MS1)			Parent Sample: 4051908-01		Prepared & Analyzed: 05/20/14				
Chromium	1000	ug/L	990	17	98.9	75-125			
Lead	1000	ug/L	990	26	97.9	75-125			
Selenium	990	ug/L	990	ND	100	75-125			
Silver	890	ug/L	990	ND	90.2	75-125			
Matrix Spike Dup (B005106-MSD1)			Parent Sample: 4051908-01		Prepared & Analyzed: 05/20/14				
Arsenic	1000	ug/L	990	ND	102	75-125	1.06	20	
Barium	1000	ug/L	990	57	99.4	75-125	1.32	20	
Cadmium	950	ug/L	990	ND	96.2	75-125	0.248	20	
Chromium	950	ug/L	990	17	94.0	75-125	5.07	20	
Lead	970	ug/L	990	26	95.6	75-125	2.33	20	
Selenium	970	ug/L	990	ND	98.0	75-125	2.37	20	
Silver	890	ug/L	990	ND	90.4	75-125	0.140	20	

Batch No: **B005143**

Test: **RCRA7 6010**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005143-BLK1)			Prepared & Analyzed: 05/22/14						
Arsenic	5.0 U	ug/L							
Barium	0.52 U	ug/L							
Cadmium	0.93 U	ug/L							
Chromium	2.0 U	ug/L							
Lead	4.7 U	ug/L							
Selenium	4.4 U	ug/L							
Silver	2.1 U	ug/L							
LCS (B005143-BS1)			Prepared & Analyzed: 05/22/14						
Arsenic	1000	ug/L	990		104	80-120			
Barium	960	ug/L	990		97.1	80-120			
Cadmium	970	ug/L	990		97.6	80-120			
Chromium	970	ug/L	990		97.9	80-120			
Lead	1000	ug/L	990		101	80-120			
Selenium	1000	ug/L	990		104	80-120			
Silver	930	ug/L	990		94.4	80-120			
LCS Dup (B005143-BSD1)			Prepared & Analyzed: 05/22/14						
Arsenic	1000	ug/L	990		105	80-120	0.647	20	
Barium	970	ug/L	990		98.0	80-120	0.911	20	
Cadmium	1000	ug/L	990		101	80-120	3.15	20	
Chromium	970	ug/L	990		98.3	80-120	0.405	20	
Lead	1000	ug/L	990		101	80-120	0.866	20	
Selenium	1000	ug/L	990		102	80-120	1.98	20	
Silver	960	ug/L	990		97.3	80-120	3.04	20	
Matrix Spike (B005143-MS1)			Parent Sample: 4051906-04		Prepared & Analyzed: 05/22/14				
Arsenic	1000	ug/L	990	ND	101	75-125			
Barium	930	ug/L	990	65	87.0	75-125			
Cadmium	930	ug/L	990	ND	94.3	75-125			



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005143**

Test: **RCRA7 6010**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike (B005143-MS1)			Parent Sample: 4051906-04		Prepared & Analyzed: 05/22/14				
Chromium	890	ug/L	990	ND	90.3	75-125			
Lead	890	ug/L	990	ND	89.4	75-125			
Selenium	1000	ug/L	990	11	101	75-125			
Silver	880	ug/L	990	ND	89.3	75-125			
Matrix Spike Dup (B005143-MSD1)			Parent Sample: 4051906-04		Prepared & Analyzed: 05/22/14				
Arsenic	1000	ug/L	990	ND	101	75-125	0.525	20	
Barium	920	ug/L	990	65	86.5	75-125	0.490	20	
Cadmium	940	ug/L	990	ND	95.0	75-125	0.766	20	
Chromium	880	ug/L	990	ND	89.4	75-125	1.05	20	
Lead	890	ug/L	990	ND	89.7	75-125	0.335	20	
Selenium	1000	ug/L	990	11	101	75-125	0.346	20	
Silver	890	ug/L	990	ND	89.5	75-125	0.268	20	

Batch No: **B005154**

Test: **8270 LVI PAH**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005154-BLK1)			Prepared: 05/22/14 Analyzed: 06/03/14						
Surrogate: p-Terphenyl-d14	5.0	ug/L	8.0		62.9	1-148			
Surrogate: 2-Fluorobiphenyl	4.8	ug/L	8.0		60.3	0-115			
Acenaphthene	0.0042 U	ug/L							
Acenaphthylene	0.0088 U	ug/L							
Anthracene	0.015 U	ug/L							
Benz[a]anthracene	0.0096 U	ug/L							
Benzo[a]pyrene	0.014 U	ug/L							
Benzo[b]fluoranthene	0.014 U	ug/L							
Benzo[ghi]perylene	0.013 U	ug/L							
Benzo[k]fluoranthene	0.011 U	ug/L							
Chrysene	0.010 U	ug/L							
Dibenz[a,h]anthracene	0.0088 U	ug/L							
Fluoranthene	0.014 U	ug/L							
Fluorene	0.0064 U	ug/L							
Indeno[1,2,3-cd]pyrene	0.010 U	ug/L							
1-Methylnaphthalene	0.0096 U	ug/L							
2-Methylnaphthalene	0.010 U	ug/L							
Naphthalene	0.047	ug/L							
Phenanthrene	0.017	ug/L							
Pyrene	0.013 U	ug/L							
LCS (B005154-BS1)			Prepared: 05/22/14 Analyzed: 06/04/14						
Surrogate: 2-Fluorobiphenyl	4.1	ug/L	8.0		51.7	0-115			
Surrogate: p-Terphenyl-d14	6.1	ug/L	8.0		76.8	1-148			
Acenaphthene	2.2	ug/L	4.0		54.7	49-90			
Acenaphthylene	2.2	ug/L	4.0		56.2	43-106			
Anthracene	2.6	ug/L	4.0		63.8	51-98			
Benz[a]anthracene	3.4	ug/L	4.0		86.0	47-106			
Benzo[a]pyrene	2.8	ug/L	4.0		68.8	31-118			



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005154**
Test: **8270 LVI PAH**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
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LCS (B005154-BS1)

Prepared: 05/22/14 Analyzed: 06/04/14

Benzo[b]fluoranthene	3.7	ug/L	4.0		91.8	23-119			
Benzo[ghi]perylene	2.4	ug/L	4.0		60.1	38-110			
Benzo[k]fluoranthene	3.1	ug/L	4.0		77.2	30-112			
Chrysene	3.1	ug/L	4.0		77.7	53-95			
Dibenz[a,h]anthracene	2.7	ug/L	4.0		68.7	39-119			
Fluoranthene	2.8	ug/L	4.0		69.1	25-122			
Fluorene	2.5	ug/L	4.0		62.9	50-96			
Indeno[1,2,3-cd]pyrene	2.8	ug/L	4.0		70.8	40-113			
1-Methylnaphthalene	2.3	ug/L	4.0		56.8	44-98			
2-Methylnaphthalene	2.2	ug/L	4.0		55.8	42-92			
Naphthalene	2.3	ug/L	4.0		57.0	50-95			
Phenanthrene	2.5	ug/L	4.0		61.4	44-97			
Pyrene	2.8	ug/L	4.0		70.9	24-121			

LCS Dup (B005154-BSD1)

Prepared: 05/22/14 Analyzed: 06/04/14

Surrogate: p-Terphenyl-d14	6.7	ug/L	8.0		84.3	1-148			
Surrogate: 2-Fluorobiphenyl	5.0	ug/L	8.0		62.4	0-115			
Acenaphthene	2.7	ug/L	4.0		66.8	49-90	20.0	20	
Acenaphthylene	2.7	ug/L	4.0		68.2	43-106	19.2	20	
Anthracene	3.0	ug/L	4.0		75.1	51-98	16.4	20	
Benz[a]anthracene	3.6	ug/L	4.0		90.5	47-106	5.12	20	
Benzo[a]pyrene	3.0	ug/L	4.0		74.9	31-118	8.39	20	
Benzo[b]fluoranthene	3.8	ug/L	4.0		95.7	23-119	4.16	20	
Benzo[ghi]perylene	2.7	ug/L	4.0		66.3	38-110	9.78	20	
Benzo[k]fluoranthene	3.3	ug/L	4.0		82.5	30-112	6.57	20	
Chrysene	3.3	ug/L	4.0		83.0	53-95	6.57	20	
Dibenz[a,h]anthracene	2.9	ug/L	4.0		72.7	39-119	5.65	20	
Fluoranthene	3.1	ug/L	4.0		78.1	25-122	12.2	20	
Fluorene	3.0	ug/L	4.0		75.9	50-96	18.7	20	
Indeno[1,2,3-cd]pyrene	2.9	ug/L	4.0		71.7	40-113	1.22	20	
1-Methylnaphthalene	2.6	ug/L	4.0		65.3	44-98	13.9	20	
2-Methylnaphthalene	2.7	ug/L	4.0		67.8	42-92	19.4	20	
Naphthalene	2.6	ug/L	4.0		66.2	50-95	14.8	20	
Phenanthrene	2.9	ug/L	4.0		72.3	44-97	16.2	20	
Pyrene	3.2	ug/L	4.0		78.8	24-121	10.6	20	

Matrix Spike (B005154-MS1)

Parent Sample: 4051906-04

Prepared: 05/22/14 Analyzed: 06/04/14

Surrogate: 2-Fluorobiphenyl	3.9	ug/L	8.3		46.3	0-115			
Surrogate: p-Terphenyl-d14	7.6	ug/L	8.3		90.7	1-148			
Acenaphthene	2.1	ug/L	4.2	ND	50.4	47-94			
Acenaphthylene	2.2	ug/L	4.2	ND	53.0	44-105			
Anthracene	2.8	ug/L	4.2	ND	66.6	41-100			
Benz[a]anthracene	3.9	ug/L	4.2	0.019	92.3	28-120			
Benzo[a]pyrene	3.4	ug/L	4.2	ND	80.4	1-135			
Benzo[b]fluoranthene	4.0	ug/L	4.2	0.024	95.5	1-149			
Benzo[ghi]perylene	4.0	ug/L	4.2	0.028	94.9	1-138			
Benzo[k]fluoranthene	3.9	ug/L	4.2	0.027	94.1	1-132			
Chrysene	3.5	ug/L	4.2	0.035	83.8	31-108			
Dibenz[a,h]anthracene	5.8	ug/L	4.2	0.17	136	1-148			
Fluoranthene	3.3	ug/L	4.2	ND	78.5	6-140			
Fluorene	2.6	ug/L	4.2	ND	63.3	55-96			



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005154**
Test: **8270 LVI PAH**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Matrix Spike (B005154-MS1)			Parent Sample: 4051906-04		Prepared: 05/22/14 Analyzed: 06/04/14				
Indeno[1,2,3-cd]pyrene	4.7	ug/L	4.2	0.020	111	1-137			
1-Methylnaphthalene	2.1	ug/L	4.2	ND	50.5	1-158			
2-Methylnaphthalene	2.1	ug/L	4.2	ND	50.2	1-125			
Naphthalene	2.1	ug/L	4.2	0.094	48.0	1-148			
Phenanthrene	2.6	ug/L	4.2	ND	63.1	37-113			
Pyrene	3.4	ug/L	4.2	ND	80.7	3-140			
Matrix Spike Dup (B005154-MSD1)			Parent Sample: 4051906-04		Prepared: 05/22/14 Analyzed: 06/04/14				
Surrogate: p-Terphenyl-d14	7.7	ug/L	8.3		92.2	1-148			
Surrogate: 2-Fluorobiphenyl	5.7	ug/L	8.3		68.0	0-115			
Acenaphthene	3.0	ug/L	4.2	ND	71.0	47-94	33.9	20	J
Acenaphthylene	3.2	ug/L	4.2	ND	75.6	44-105	35.2	20	J
Anthracene	3.3	ug/L	4.2	ND	79.8	41-100	18.0	20	
Benz[a]anthracene	4.0	ug/L	4.2	0.019	95.5	28-120	3.46	20	
Benzo[a]pyrene	3.4	ug/L	4.2	ND	82.7	1-135	2.80	20	
Benzo[b]fluoranthene	4.0	ug/L	4.2	0.024	96.6	1-149	1.16	20	
Benzo[ghi]perylene	4.0	ug/L	4.2	0.028	95.8	1-138	1.01	20	
Benzo[k]fluoranthene	4.1	ug/L	4.2	0.027	98.0	1-132	4.04	20	
Chrysene	3.6	ug/L	4.2	0.035	85.4	31-108	1.85	20	
Dibenz[a,h]anthracene	6.1	ug/L	4.2	0.17	143	1-148	5.40	20	
Fluoranthene	3.5	ug/L	4.2	ND	83.2	6-140	5.80	20	
Fluorene	3.6	ug/L	4.2	ND	86.2	55-96	30.6	20	J
Indeno[1,2,3-cd]pyrene	4.8	ug/L	4.2	0.020	115	1-137	3.25	20	
1-Methylnaphthalene	2.9	ug/L	4.2	ND	70.6	1-158	33.3	20	J
2-Methylnaphthalene	3.0	ug/L	4.2	ND	73.2	1-125	37.2	20	J
Naphthalene	2.8	ug/L	4.2	0.094	66.0	1-148	30.4	20	J
Phenanthrene	3.2	ug/L	4.2	ND	75.7	37-113	18.2	20	
Pyrene	3.6	ug/L	4.2	ND	85.3	3-140	5.47	20	



Quality Control Data

SunLabs
Project Number

4051906

Cardno TBE, Inc.

Project Description

BF-Washington Park

Batch No: **B005198**
Test: **Mercury-W 7470**

Analyte	Result	Units	Spike Level	Parent Result	%REC	%REC Limits	RPD	RPD Limit	Flags
Blank (B005198-BLK1)			Prepared: 05/23/14 Analyzed: 05/27/14						
Mercury	0.018 U	ug/L							
LCS (B005198-BS1)			Prepared: 05/23/14 Analyzed: 05/27/14						
Mercury	4.7	ug/L	5.0		94.2	80-120			
LCS Dup (B005198-BSD1)			Prepared: 05/23/14 Analyzed: 05/27/14						
Mercury	4.7	ug/L	5.0		93.4	80-120	0.791	20	
Matrix Spike (B005198-MS1)			Parent Sample: 4051906-04			Prepared: 05/23/14 Analyzed: 05/27/14			
Mercury	4.6	ug/L	5.0	ND	91.5	75-125			
Matrix Spike Dup (B005198-MSD1)			Parent Sample: 4051906-04			Prepared: 05/23/14 Analyzed: 05/27/14			
Mercury	4.7	ug/L	5.0	ND	93.6	75-125	2.23	20	

Samples Associated with QC Batches

QC Batch ID	Method	Sample List
B005098	EPA 8260	4051906-01, 4051906-02, 4051906-03, 4051906-04, 4051906-05
B005104	EPA 7470	4051906-01, 4051906-02, 4051906-03
B005106	EPA 6010	4051906-01, 4051906-02, 4051906-03
B005143	EPA 6010	4051906-04
B005154	EPA 8270	4051906-01, 4051906-02, 4051906-03, 4051906-04
B005198	EPA 7470	4051906-04

Client Name: Candice YBE
Contact: Jennifer Pickett
Address: Shawnee Pixon
Phone / Fax: ON file
E-Mail:

No. 42354

SunLabs Project # 4051906

Project Name: BF - Washington Park

Project #: _____
PO #: _____
Alt Bill To: _____

Phone / Fax:
E-Mail :

Due Date Requested*:

FDEP PreApproval site

ADaPT EDD (PGM):

Facility/Site ID:

Remarks / Comments:

Run trip blank per PM request.

**Length of Record Retention if
other than 5 years.***

Printed Name / Affiliation:

Sampler Signature / Date:

Printed Name / Affiliation: James Wilson / Cardno

SUNLABS, INC. RESERVES THE RIGHT TO BILL FOR DISPOSAL OF UNUSED/ UNRETURNED SAMPLES AND TO RETURN UNUSED SAMPLES.

Relinquished By:

16

Time:

Bottle Type Codes:	Preservative Codes:
---------------------------	----------------------------

GV = Glass Vial
GVS = Low Level Volatile Kit

GA = Glass Amber
T = Tedlar Bag

P = Plastic
O = Other (Specify)

S = Soil Jar

Matrix Codes: SO = Soil SOL = Solid

A = Air
SW = Surface Water

DW = Drinking Water
WS = Waste
WW = Waste Water

GW = Ground Water
W = Water (Blanks)

SF = Sediment
O = Other (Specify)

Interval Use Only

Term upon receipt 10.1.00

11

Received on Ice? ☒ Y ☐ N / NA

same day

Rev 11/11

* See General Terms and Conditions on Reverse

SunLabs, Inc.

5460 Beaumont Center Blvd., Suite 520, Tampa, Florida 33634

Phone: 813-881-9401 / Fax: 813-354-4661
info@SunLabsInc.com www.SunLabsInc.com

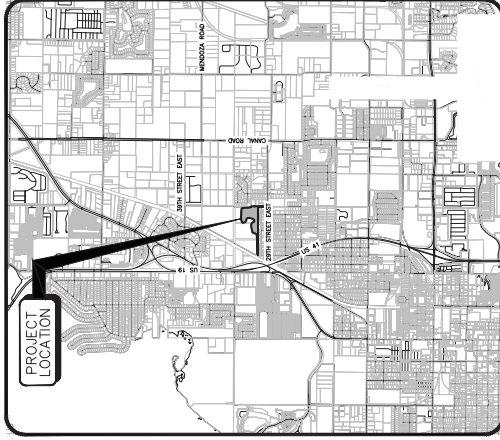
APPENDIX C

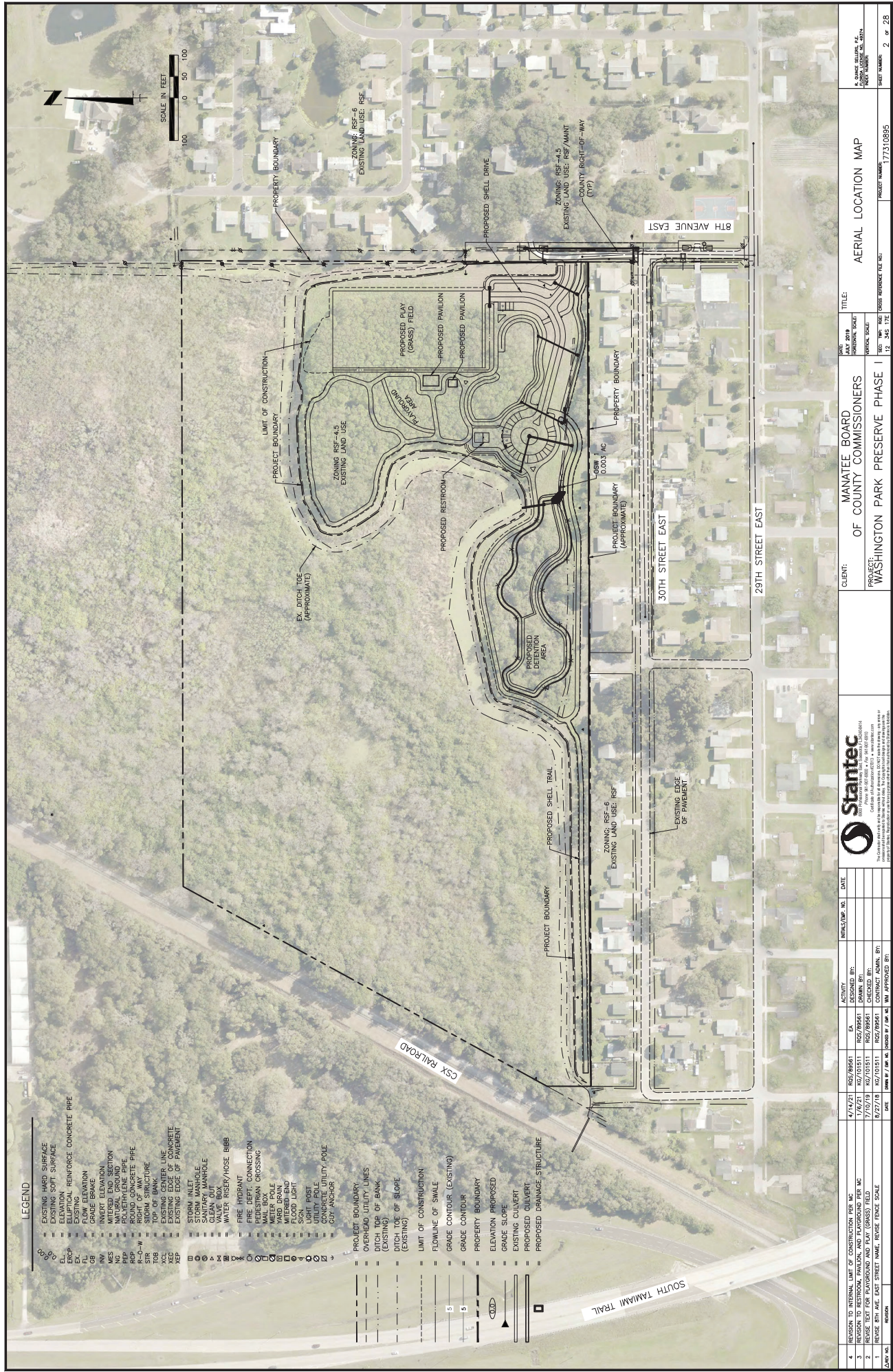
Site Construction Plans

**BOARD OF COUNTY COMMISSIONERS,
MANATEE COUNTY, FL
1112 MANATEE AVENUE WEST
BRADENTON, FL 34205
(941) 748-4501**

OBTAIN ANY REQUIRED TREE REMOVAL PERMIT FROM MANATEE COUNTY.

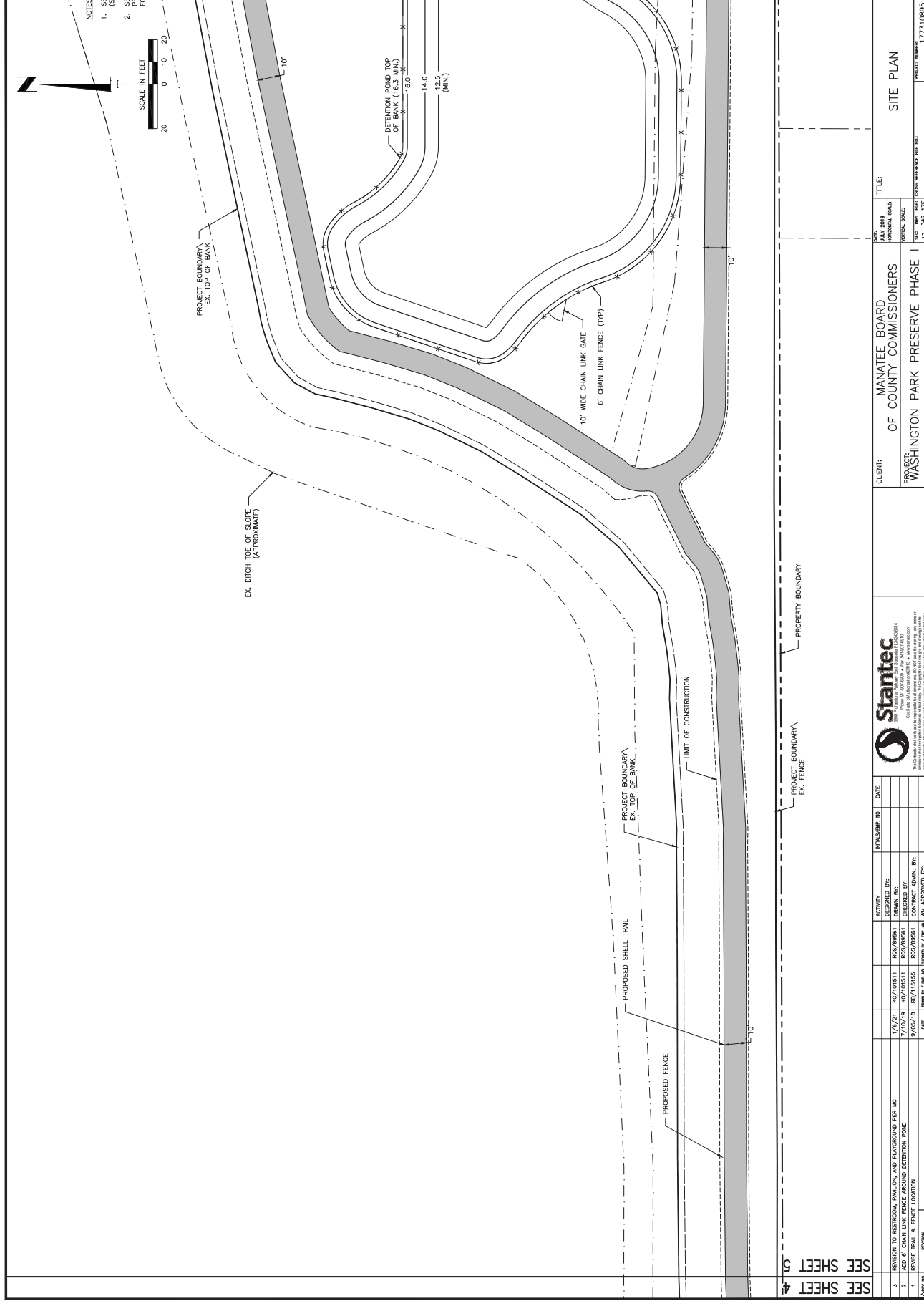
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 Stantec <small>1000 Franklin Avenue, Suite 1000, San Francisco, CA 94104 Phone: 415.774.8000 Fax: 415.774.8001 Email: info@stantec.com Website: www.stantec.com</small>		CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS		TITLE: AERIAL LOCATION MAP	
ACTIVITY		DATE JAN 2010		PROJECT: WASHINGTON PARK PRESERVE PHASE I	
DESIGNED BY: EA DRAWN BY: R05/R0561 CHECKED BY: R05/R0561 CONTRACT ADMIN. BY: R05/R0561		INTERNAL/PROP. NO.		PROJECT NUMBER: 1773-0895	
4 REGION TO INTERNAL LIMIT OF CONSTRUCTION PER MC		1/1/21		DESIGN REFERENCE FILE NO.:	
3 REGION TO RESTRADING, PAVILION, AND PLAYGROUND PER MC		1/6/21		NO. TWP. R05	
2 REGION TO RESTRADING AND PLAY (GRASS) FIELD		1/6/21		12 345 17E	
1 REGION 8TH AVE. EAST STREET NAME, REGION FENCE SCALE		8/27/19		SHEET NUMBER: 2 of 28	
DATE		ISSUED BY / JPM		SHEET NUMBER: 2 of 28	





NOTES:
1. REFER AERIAL LOCATION MAP (SHEET 2) FOR LEGEND.
2. BEST MANAGEMENT PRACTICE (BMP) LOCATIONS FOR SILT FENCE LOCATIONS.

SCALE IN FEET
0 10 20

SEE SHEET 4
SEE SHEET 5
SEE SHEET 6

MANATEE BOARD OF COUNTY COMMISSIONERS
PROJECT: WASHINGTON PARK PRESERVE PHASE

DATE: 12/24/17
PROJECT NUMBER: 177310895

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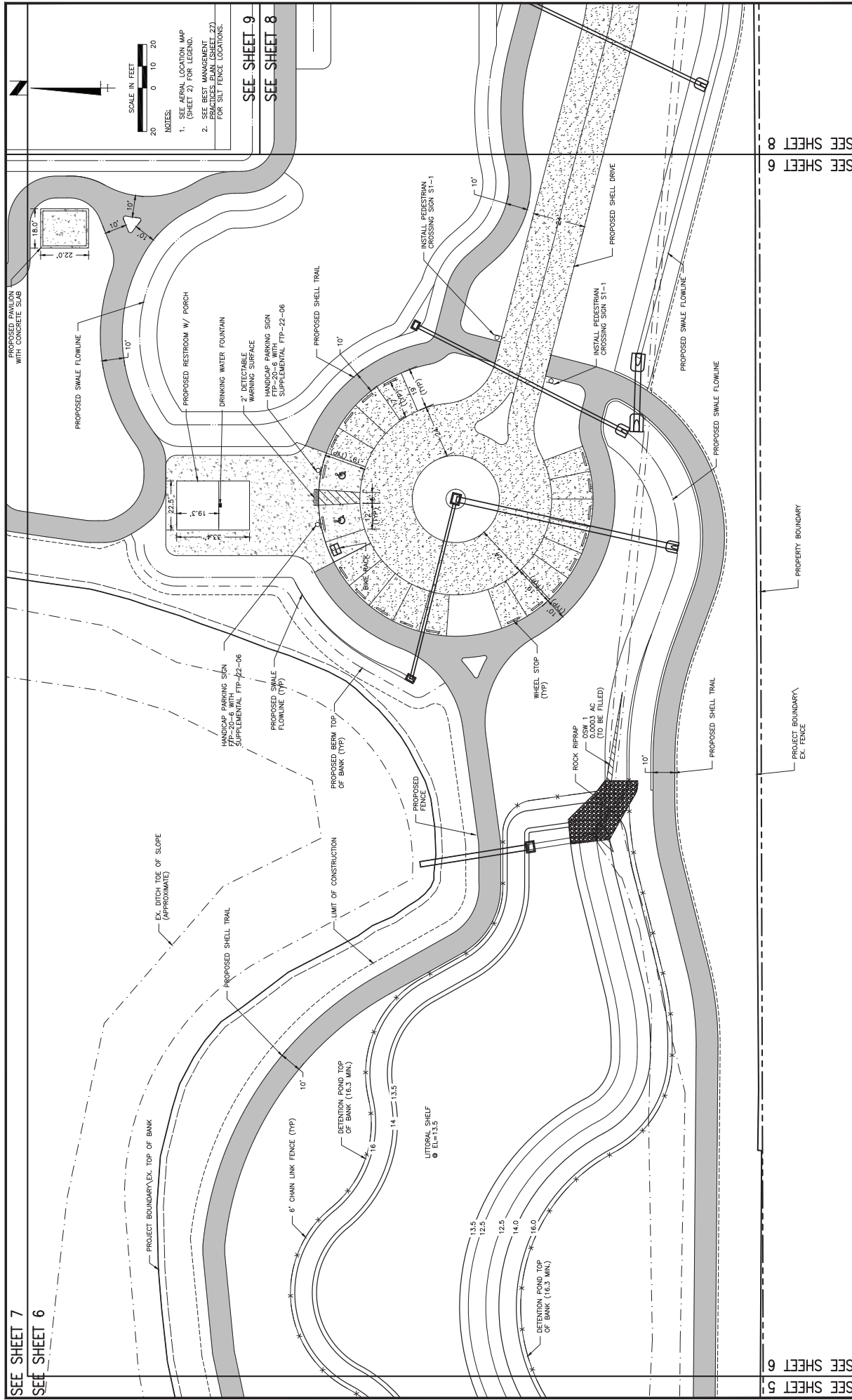
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PROJECT NUMBER: 177310895

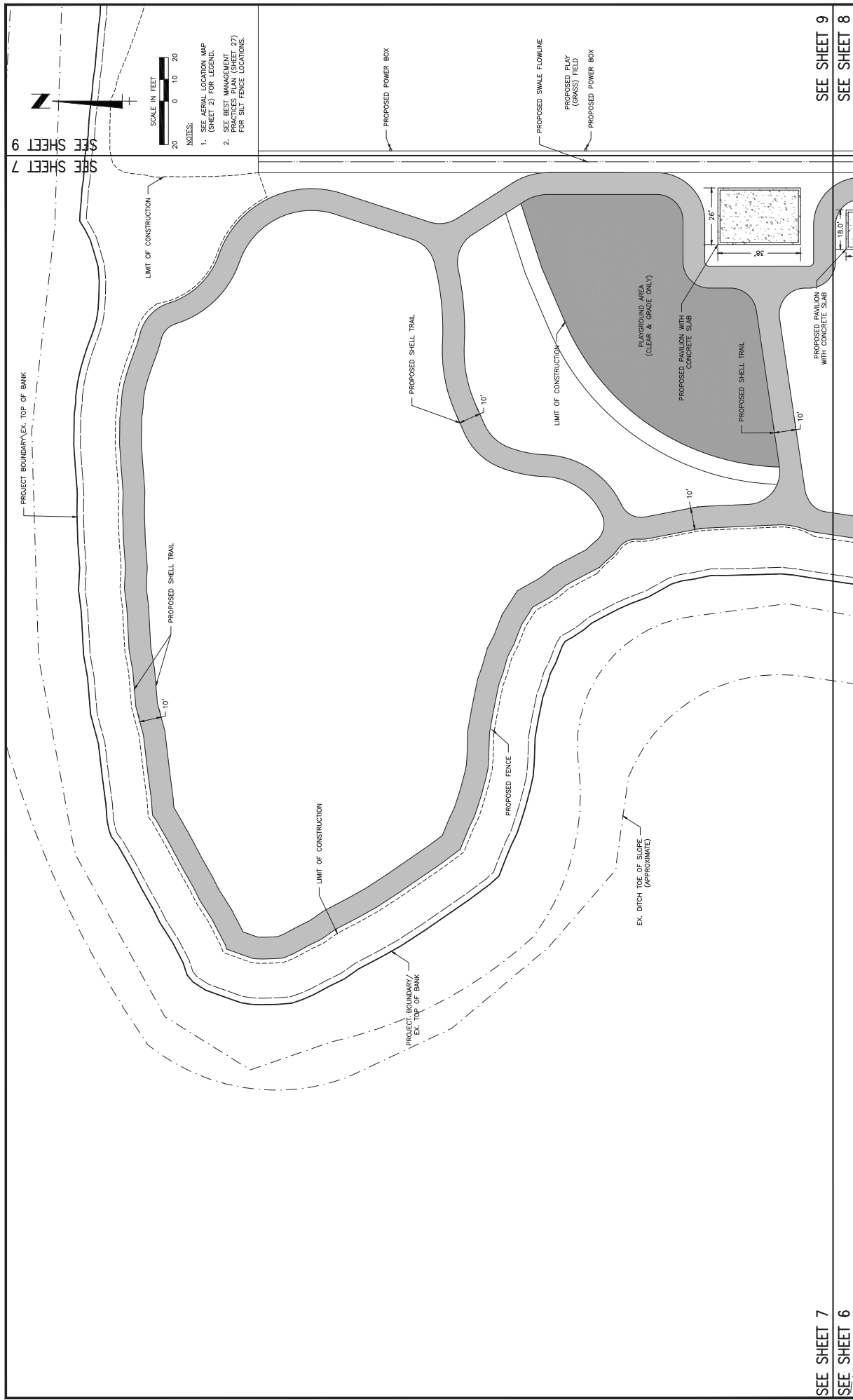
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PROJECT NUMBER: 177310895

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SEE SHEET 7
SEE SHEET 6

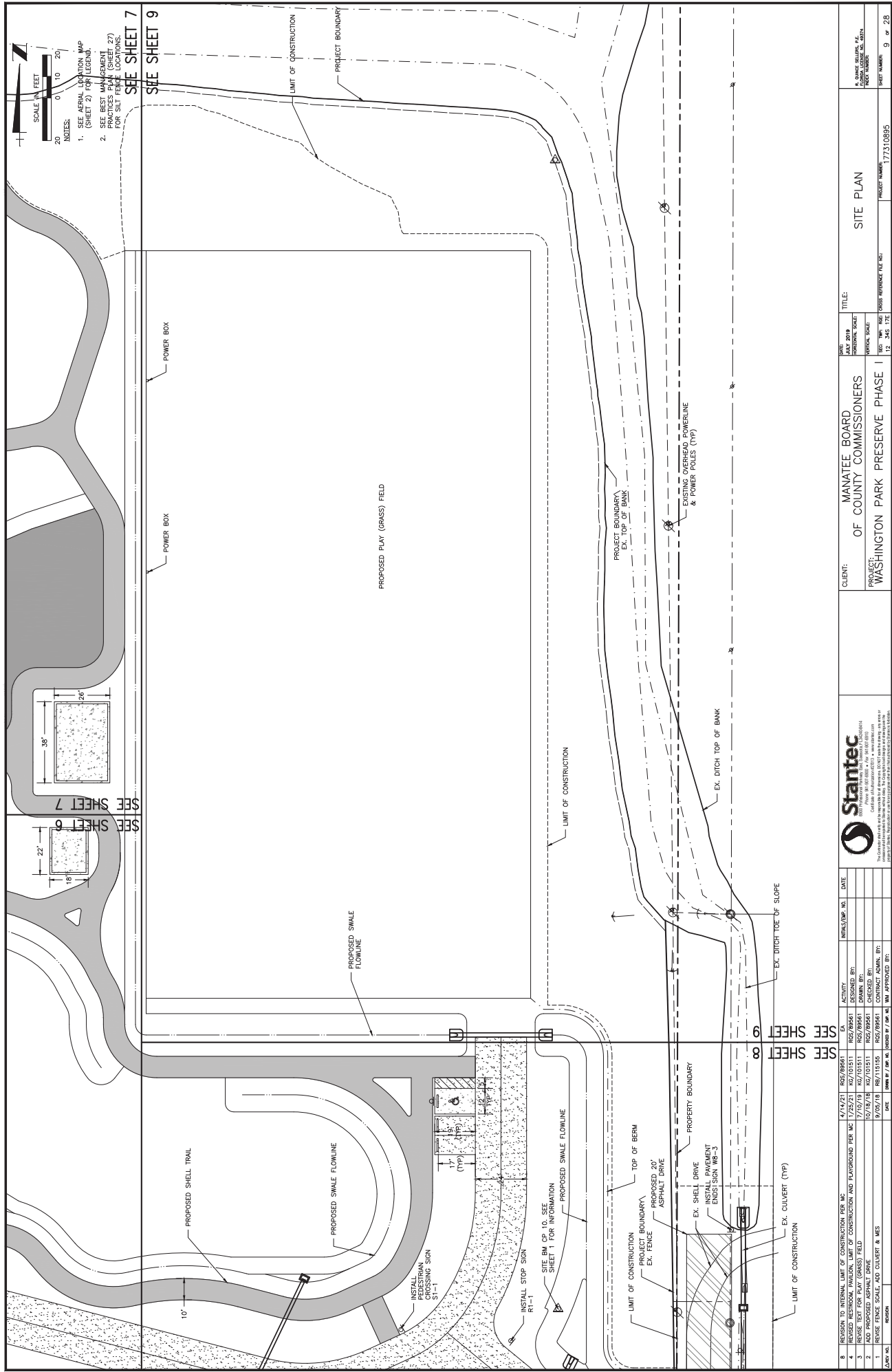
SEE SHEET 8

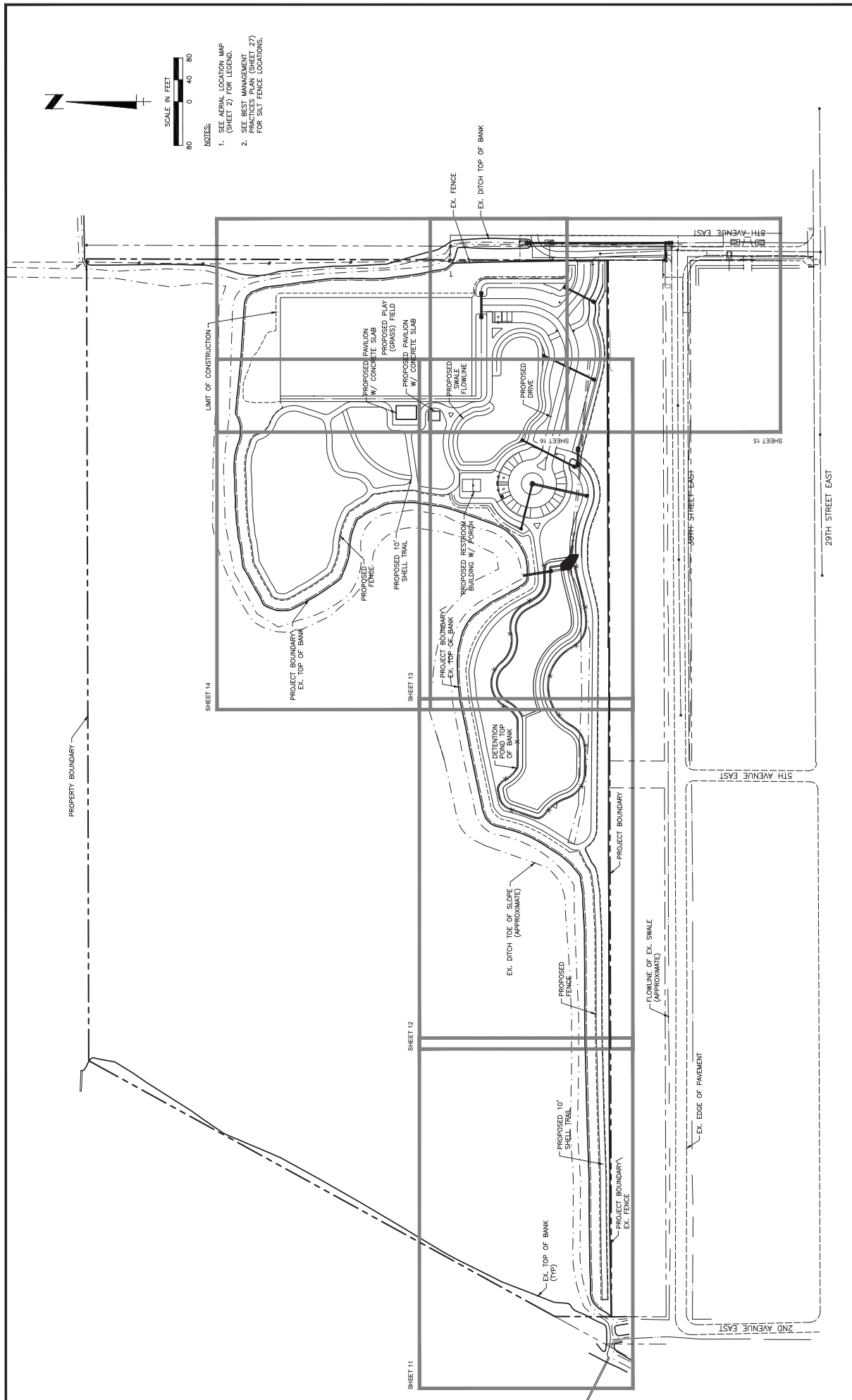
 Stantec 3501 Riverchase Lane, Suite 200 Houston, Texas 77056-3809 Phone: 281.444.4000 Fax: 281.444.4001 Email: stantec@stantec.com		CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS PROJECT: WASHINGTON PARK PRESERVE PHASE I		TITLE: SITE PLAN	
DATE: 4/1/12 DESIGNED BY: EA DRAWN BY: KZ/10/11 CHECKED BY: R5/10/11 CONTRACT ADMIN. BY: R5/10/11		DATE: MAY 2012 PROJECT NAME: WASHINGTON PARK PRESERVE PHASE I PROJECT SCALE: AS SHOWN		SHEET NO.: 12 OF 28 SHEET NAME: WASHINGTON PARK PRESERVE PHASE I	
4. REVISION TO INTERNAL LIMIT OF CONSTRUCTION PER MC 3. REVISION TO FOOTING, PAVILION, AND GRASSING PER MC 2. REVISION TO PLAYGROUND AND PLAY (GRASS) FIELD 1. REUSE FENCE & TRAIL LOCATION		4. REVISION TO INTERNAL LIMIT OF CONSTRUCTION PER MC 3. REVISION TO FOOTING, PAVILION, AND GRASSING PER MC 2. REVISION TO PLAYGROUND AND PLAY (GRASS) FIELD 1. REUSE FENCE & TRAIL LOCATION		4. REVISION TO INTERNAL LIMIT OF CONSTRUCTION PER MC 3. REVISION TO FOOTING, PAVILION, AND GRASSING PER MC 2. REVISION TO PLAYGROUND AND PLAY (GRASS) FIELD 1. REUSE FENCE & TRAIL LOCATION	
4. REVISION TO INTERNAL LIMIT OF CONSTRUCTION PER MC 3. REVISION TO FOOTING, PAVILION, AND GRASSING PER MC 2. REVISION TO PLAYGROUND AND PLAY (GRASS) FIELD 1. REUSE FENCE & TRAIL LOCATION		4. REVISION TO INTERNAL LIMIT OF CONSTRUCTION PER MC 3. REVISION TO FOOTING, PAVILION, AND GRASSING PER MC 2. REVISION TO PLAYGROUND AND PLAY (GRASS) FIELD 1. REUSE FENCE & TRAIL LOCATION		4. REVISION TO INTERNAL LIMIT OF CONSTRUCTION PER MC 3. REVISION TO FOOTING, PAVILION, AND GRASSING PER MC 2. REVISION TO PLAYGROUND AND PLAY (GRASS) FIELD 1. REUSE FENCE & TRAIL LOCATION	



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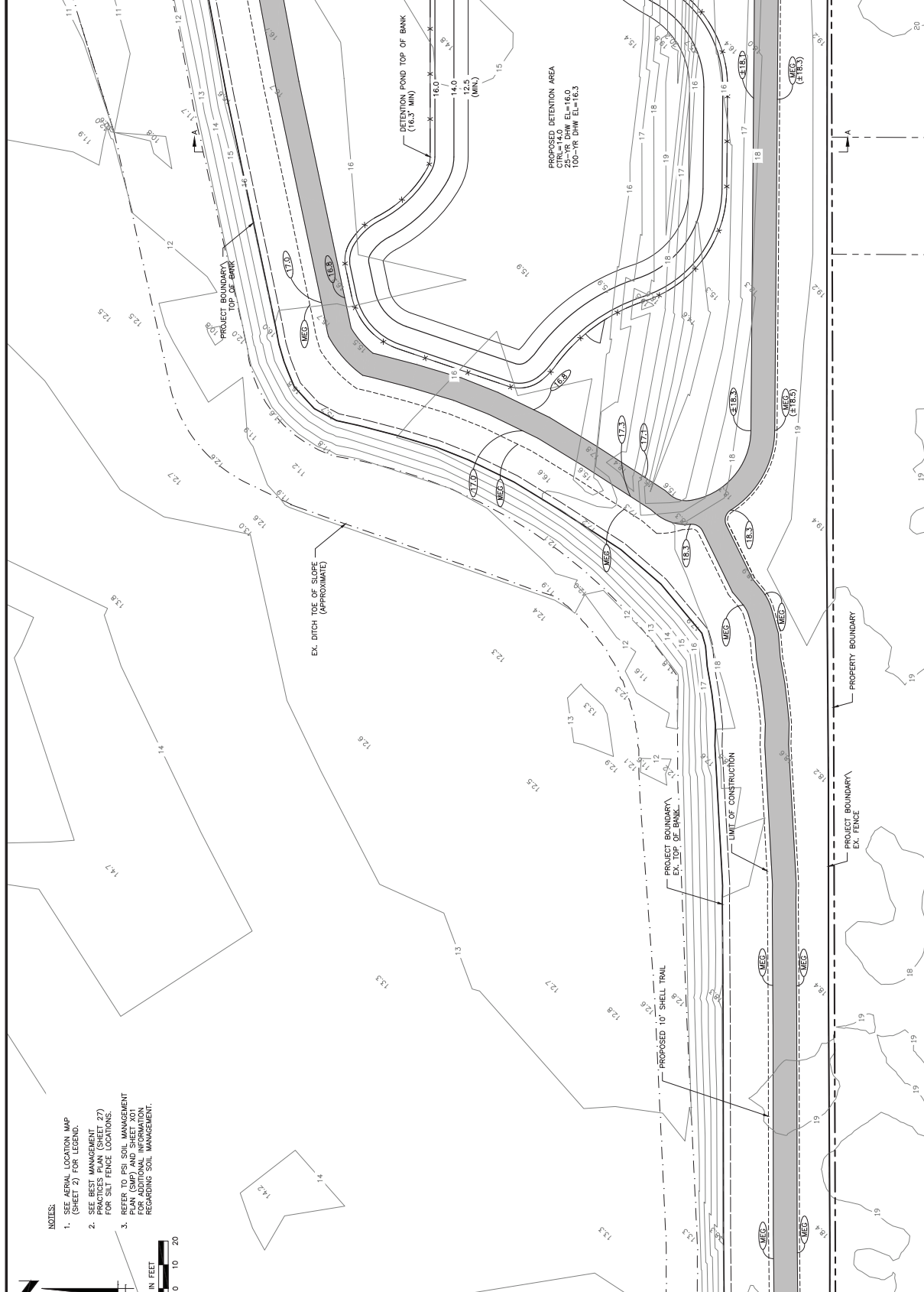
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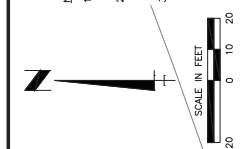
REVISION TO INTERNAL LIMIT OF CONSTRUCTION PER MC				ACTIVITY				DATE				CLIENT:	MANATEE BOARD OF COUNTY COMMISSIONERS	TITLE:	PROJECT NUMBER:	SHEET NUMBER:
NO.	DATE	BY	REASON	NO.	DATE	BY	REASON	NO.	DATE	BY	REASON					
4	4/14/21	RSS/BR/ST	EA	DESIGNED BY:								PROJECT: WASHINGTON PARK PRESERVE PHASE	OF COUNTY COMMISSIONERS	GRADING AND DRAINAGE PLAN	177310895	10 of 28
3	1/6/21	RSS/BR/ST	EA	DRAWN BY:												
2	9/25/18	BR/ST/ST	EA	CHECKED BY:												
1	9/25/18	BR/ST/ST	EA	DESIGNED BY:												
0				DATE												



NO.	DATE	BY	REASON	NO.	DATE	BY	REASON	NO.	DATE	BY	REASON
4	4/14/21	RSS/BR/ST	EA	DESIGNED BY:							
3	1/6/21	RSS/BR/ST	EA	DRAWN BY:							
2	9/25/18	BR/ST/ST	EA	CHECKED BY:							
1	9/25/18	BR/ST/ST	EA	DESIGNED BY:							
0				DATE							



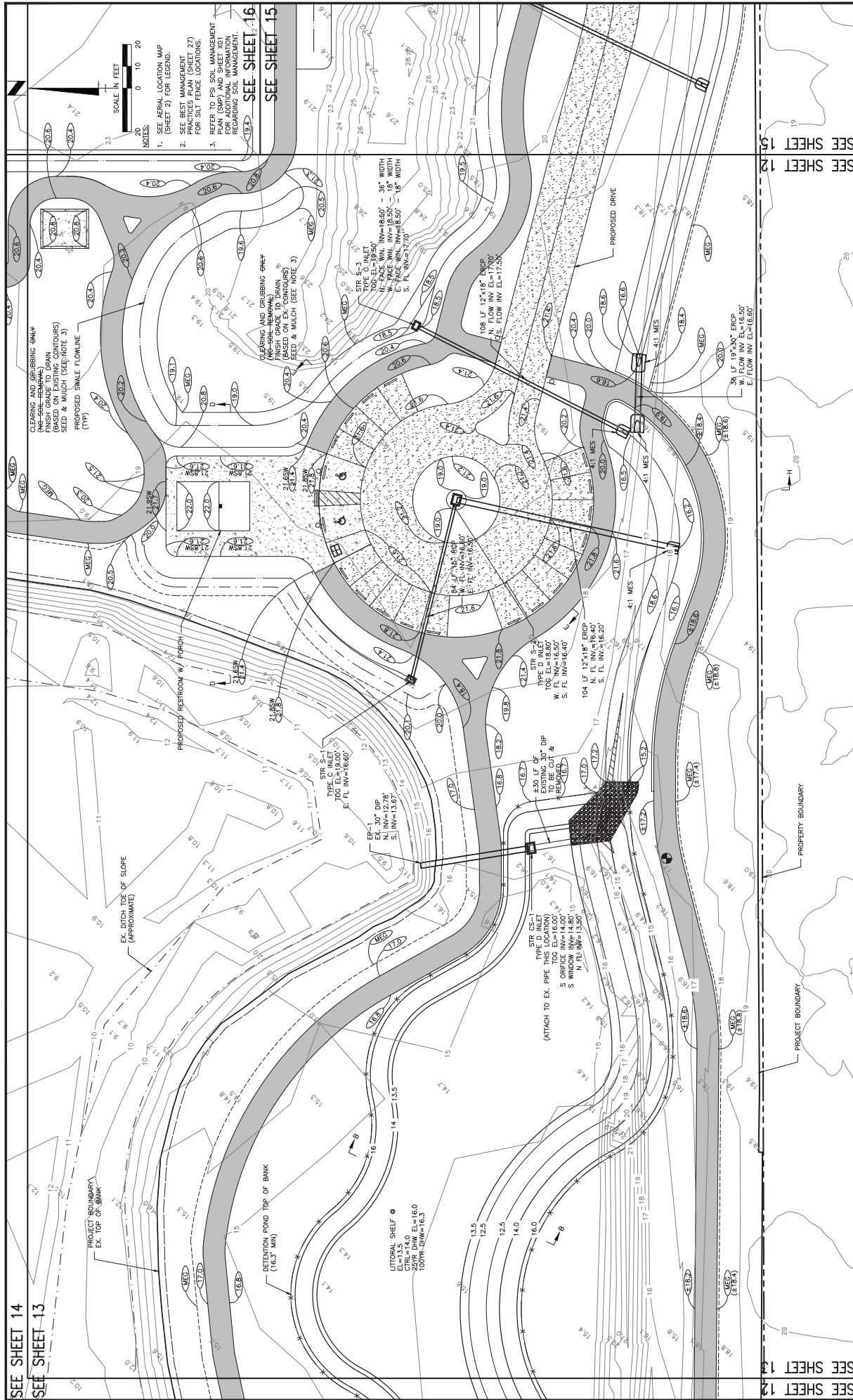
- NOTES:
1. SEE AERIAL LOCATION MAP (SHEET 2) FOR LEGEND.
 2. SEE BEST MANAGEMENT PRACTICES PLAN (SHEET 27) FOR SILT FENCE LOCATIONS.
 3. REFER TO PSI SOIL MANAGEMENT PLAN FOR ADDITIONAL INFORMATION REGARDING SOIL MANAGEMENT.

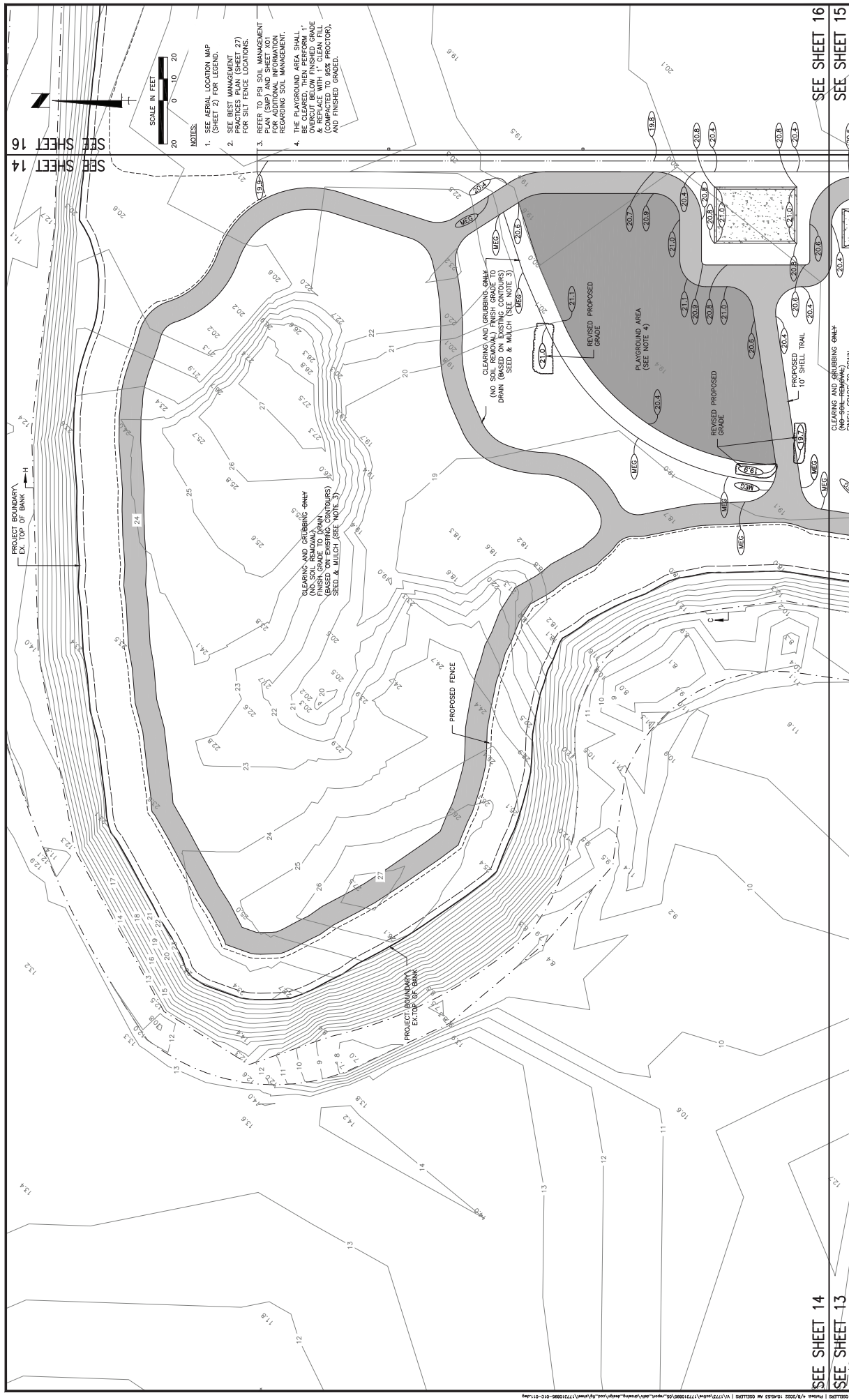


DATE				MANATEE BOARD OF COUNTY COMMISSIONERS				GRADING AND DRAINAGE PLAN			
PROJECT				WASHINGTON PARK PRESERVE PHASE				PROJECT NUMBER 177310895			
SHEET NUMBER				SHEET NUMBER				SHEET NUMBER			
12 OF 28				12 OF 28				12 OF 28			

DATE				MANATEE BOARD OF COUNTY COMMISSIONERS				GRADING AND DRAINAGE PLAN			
PROJECT				WASHINGTON PARK PRESERVE PHASE				PROJECT NUMBER 177310895			
SHEET NUMBER				SHEET NUMBER				SHEET NUMBER			
12 OF 28				12 OF 28				12 OF 28			

DATE				MANATEE BOARD OF COUNTY COMMISSIONERS				GRADING AND DRAINAGE PLAN			
PROJECT				WASHINGTON PARK PRESERVE PHASE				PROJECT NUMBER 177310895			
SHEET NUMBER				SHEET NUMBER				SHEET NUMBER			
12 OF 28				12 OF 28				12 OF 28			

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SEE SHEET 14 SEE SHEET 16

SCALE IN FEET 0 10 20

NOTES:
1. SEE AERIAL LOCATION MAP (SHEET 2) FOR LEGEND.
2. SEE BEST MANAGEMENT PRACTICES PLAN (SHEET 27) FOR SALT FENCE LOCATIONS.
3. REFER TO PSI SOIL MANAGEMENT PLAN FOR ADDITIONAL INFORMATION REGARDING SOIL MANAGEMENT.
4. THE PLAYGROUND AREA SHALL BE CLEARED, THEN PERFORM 1" OF CLEAN FILL, AND FINISHED GRADED.

PROJECT BOUNDARY EX. TOP OF BANK

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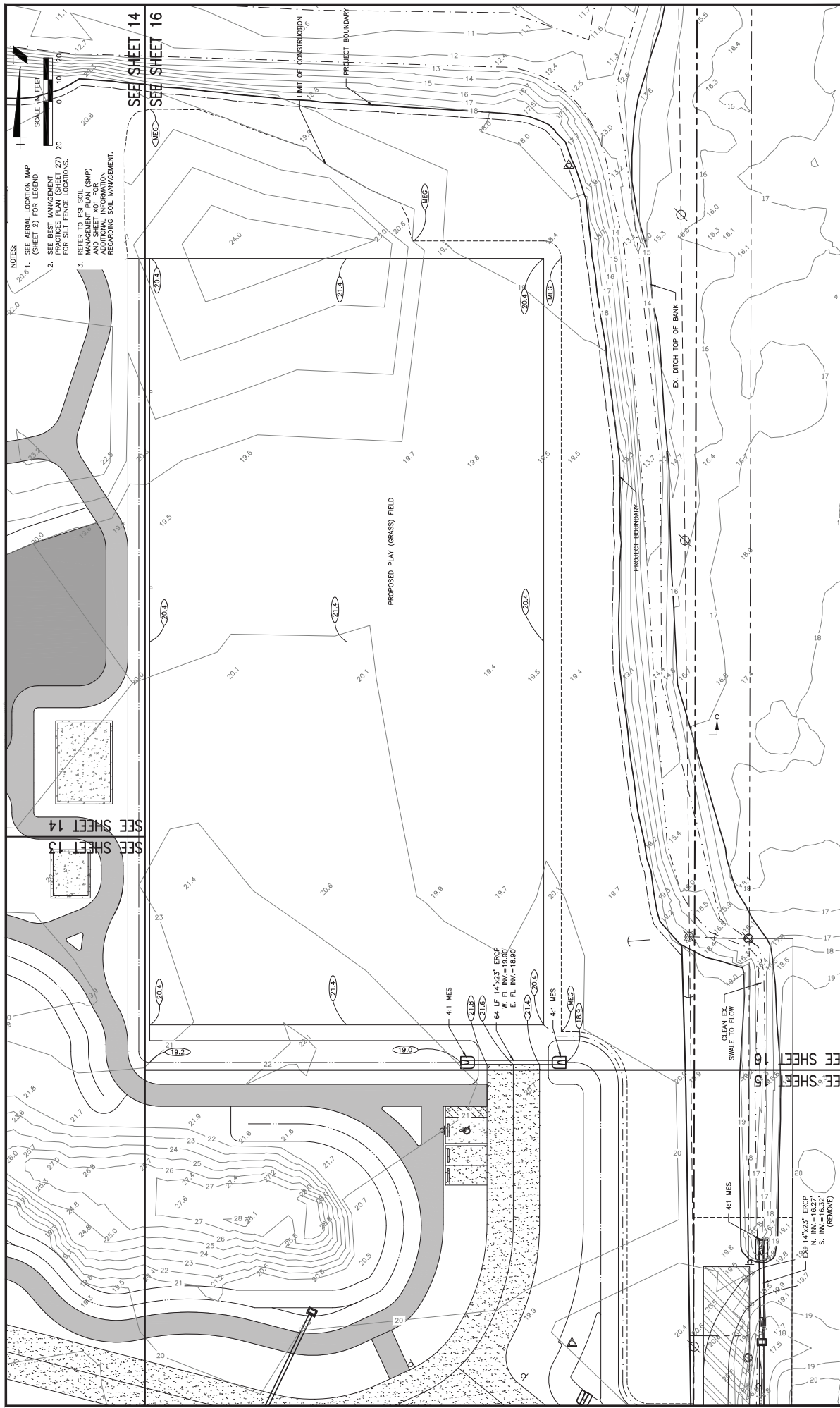
SEE SHEET 16

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SEE SHEET 14

SEE SHEET 16



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- SEE AERIAL LOCATION MAP (SHEET 27) FOR LEGEND.
- SEE BEST MANAGEMENT PRACTICES PLAN (SHEET 27) FOR SOIL FENCE BORROWINGS.
- REFER TO PSI SOIL MANAGEMENT PLAN (SMP) FOR ADDITIONAL INFORMATION REGARDING SOIL MANAGEMENT.

DN



SEE SHEET 13
SEE SHEET 14

SEE SHEET 14
SEE SHEET 16

PROPOSED PLAY (GRASS) FIELD

10

EX. DITCH TOP OF BANK -

SEE SHEET 3-6



Stantec
6900 Professional Parkway East, Saskatoon, S3N 3C2
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The Contributor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any minor corrections shall be indicated by dimension lines. The Contributor shall provide all dimensions and drawings in the units specified. The Contributor shall retain the original drawing and drawings in the units specified. The Contributor shall retain the original drawing and drawings in the units specified. The Contributor shall retain the original drawing and drawings in the units specified.

CLIENT:	MANATEE BOARD OF COUNTY COMMISSIONERS
PROJECT:	WASHINGTON PARK PRESERVE PHASE

PROJECT: WASHINGTON PARK PRESERVE PHASE

TITLE: GRADING AND DRAINAGE PLAN

CROSS REFERENCE FILE NO.:	PROJECT NUMBER:
	177310895

SEQ:	TMPT:	AGE:
12	34S	17E

UTILITY GENERAL NOTES:

- WATER DISTRIBUTION GENERAL NOTES:

WATER DISTRIBUTION GENERAL NOTES:

2. WATER MAIN INSTALLATION SHALL BE CONSTRUCTED TO THE ELEVATIONS AND DEPTHS AS INDICATED ON THE PLANS WITHIN A 25 FT. COST TO RELAY MAIN IF NECESSARY SHALL BE BORNE BY THE

5. THE CONTRACTOR SHALL PROVIDE AND UTILIZE A METERED JUMPER ASSEMBLY BETWEEN THE EXISTING POTABLE WATER SOURCE RIDING AND THE NEW WATER MAIN IN ORDER TO PROVIDE BACKFLOW

- WASTEWATER GENERAL NOTES:**

. ELEVATIONS SHOWN ON THE PLANS FOR FLOWLINES OF PROPOSED WASTEWATER MAINS SHALL BE

- SANITARY SEWER SERVICE GENERAL NOTES:

1. METALLIC IDENTIFICATION TAPE SHALL EXTEND FROM WYE CONNECTION TO THE END OF THE SERVICE

- TRENCH GENERAL NOTES:**

WHERE WATER, RECLAIMED, SEWER MAINS, FORCEMAINS AND/OR STORM SEWERS WOULD CROSS WITH

2. DISCHARGE FROM DEWATERING OPERATION SHALL BE DISPOSED OF IN SUCH A MANNER THAT IT SHALL NOT INTERFERE WITH THE NORMAL DRAINAGE OF THE AREA IN WHICH THE WORK IS BEING PERFORMED.

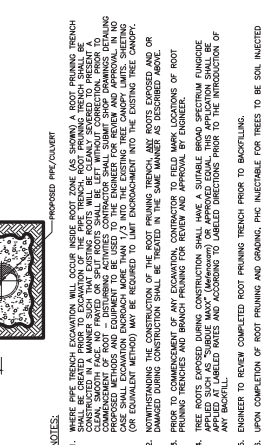
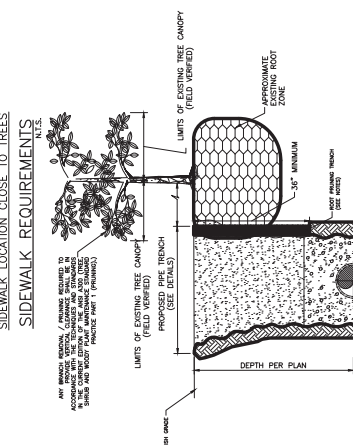
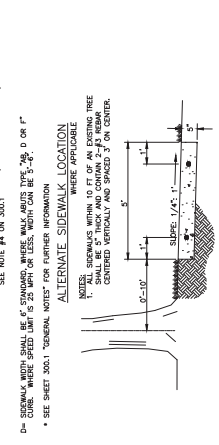
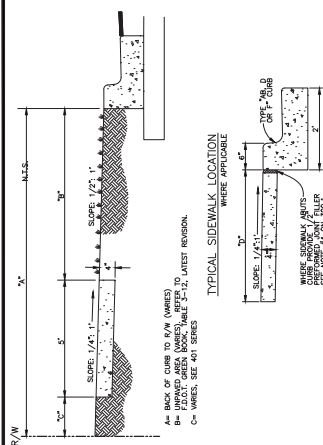
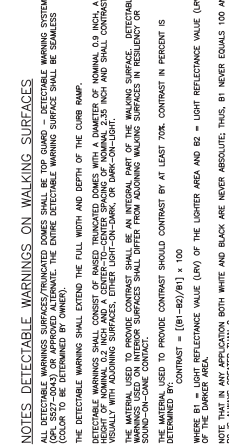
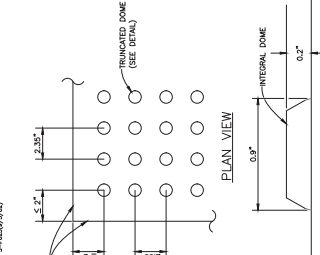
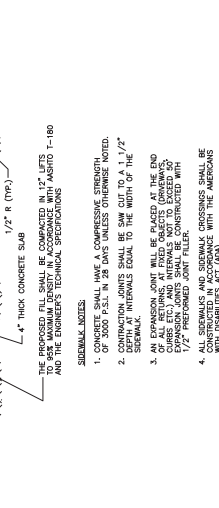
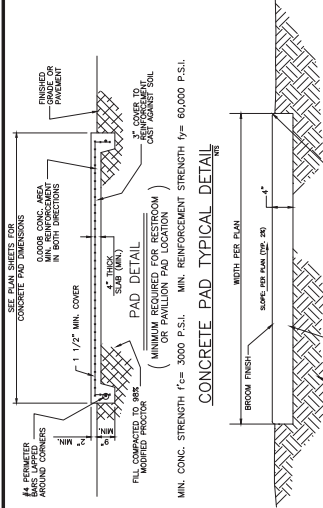
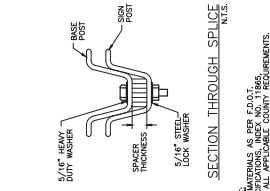
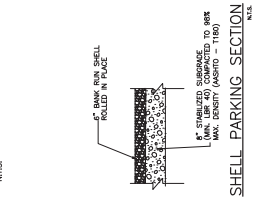
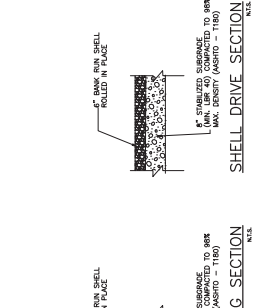
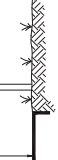
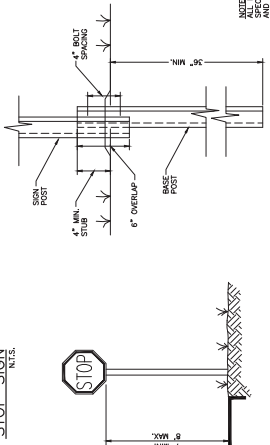
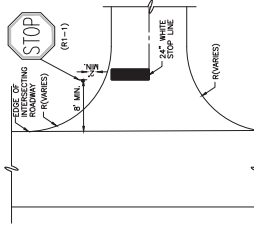
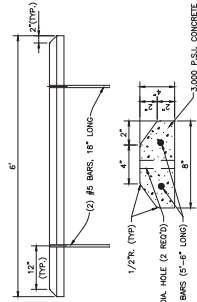
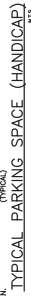
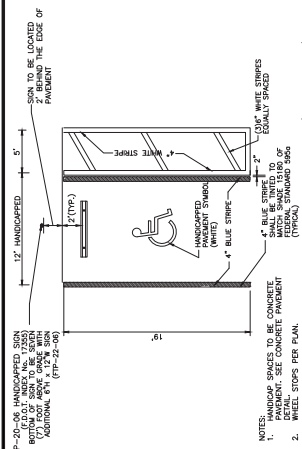
1. THE CONTRACTOR SHALL PROVIDE SOIL COMPACTION TESTING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. SEE SPECIFICATIONS, SECTION 05110, PART 1, SUBSECTION 1.01, FOR TESTING REQUIREMENTS.

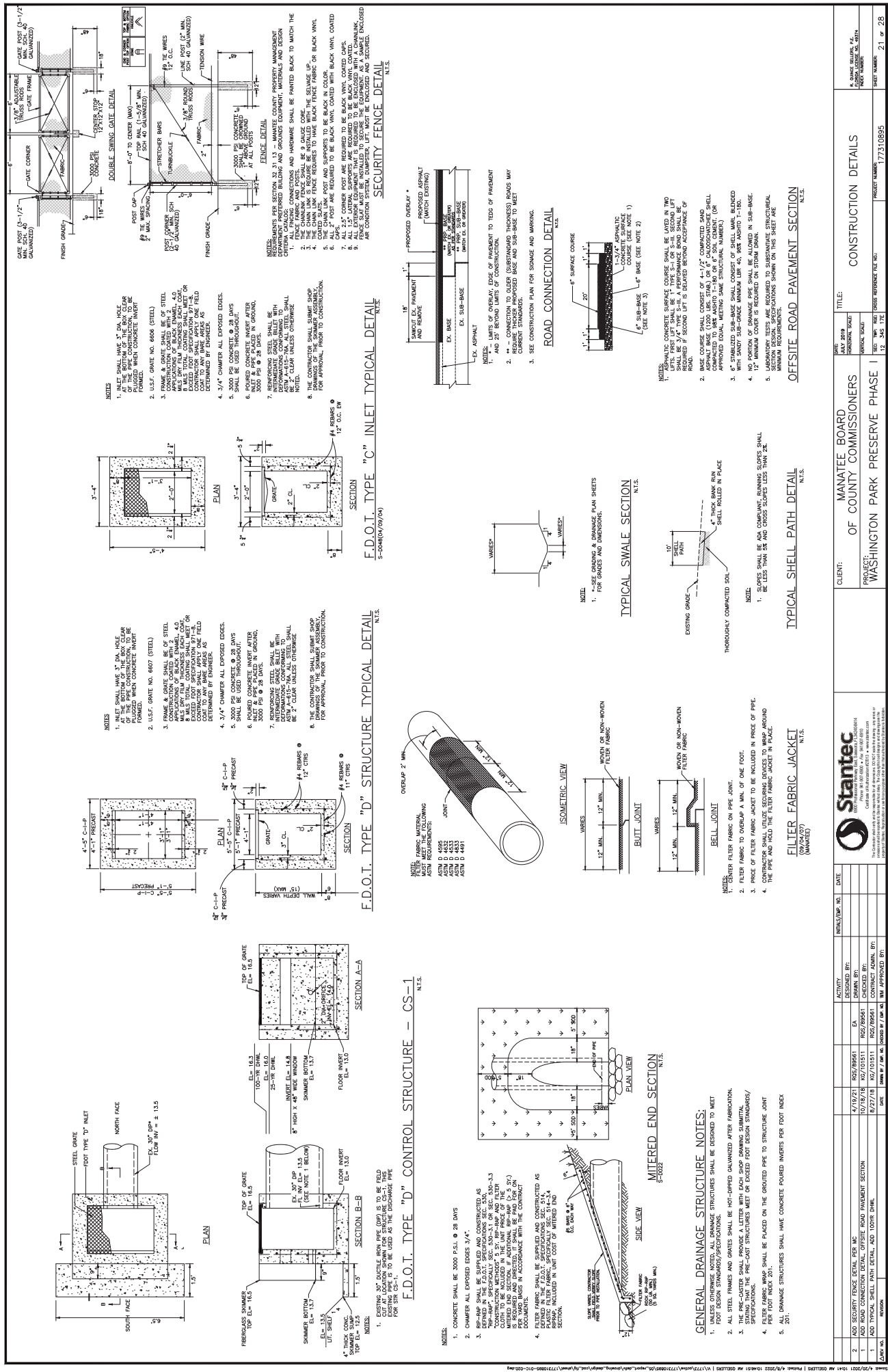
- S-BUILTS:**
CONSTRUCTION METHODS OFFERED OR COMMITTED TO THE ENVIRONMENT OF RECORD

	7/1/98	8/1/98	9/1/98	10/1/98	11/1/98	12/1/98	1/1/99	2/1/99	3/1/99	4/1/99	5/1/99	6/1/99	7/1/99	8/1/99	9/1/99	10/1/99	11/1/99	12/1/99	1/1/00	2/1/00	3/1/00	4/1/00	5/1/00	6/1/00	7/1/00	8/1/00	9/1/00	10/1/00	11/1/00	12/1/00	1/1/01	2/1/01	3/1/01	4/1/01	5/1/01	6/1/01	7/1/01	8/1/01	9/1/01	10/1/01	11/1/01	12/1/01	1/1/02	2/1/02	3/1/02	4/1/02	5/1/02	6/1/02	7/1/02	8/1/02	9/1/02	10/1/02	11/1/02	12/1/02	1/1/03	2/1/03	3/1/03	4/1/03	5/1/03	6/1/03	7/1/03	8/1/03	9/1/03	10/1/03	11/1/03	12/1/03	1/1/04	2/1/04	3/1/04	4/1/04	5/1/04	6/1/04	7/1/04	8/1/04	9/1/04	10/1/04	11/1/04	12/1/04	1/1/05	2/1/05	3/1/05	4/1/05	5/1/05	6/1/05	7/1/05	8/1/05	9/1/05	10/1/05	11/1/05	12/1/05	1/1/06	2/1/06	3/1/06	4/1/06	5/1/06	6/1/06	7/1/06	8/1/06	9/1/06	10/1/06	11/1/06	12/1/06	1/1/07	2/1/07	3/1/07	4/1/07	5/1/07	6/1/07	7/1/07	8/1/07	9/1/07	10/1/07	11/1/07	12/1/07	1/1/08	2/1/08	3/1/08	4/1/08	5/1/08	6/1/08	7/1/08	8/1/08	9/1/08	10/1/08	11/1/08	12/1/08	1/1/09	2/1/09	3/1/09	4/1/09	5/1/09	6/1/09	7/1/09	8/1/09	9/1/09	10/1/09	11/1/09	12/1/09	1/1/10	2/1/10	3/1/10	4/1/10	5/1/10	6/1/10	7/1/10	8/1/10	9/1/10	10/1/10	11/1/10	12/1/10	1/1/11	2/1/11	3/1/11	4/1/11	5/1/11	6/1/11	7/1/11	8/1/11	9/1/11	10/1/11	11/1/11	12/1/11	1/1/12	2/1/12	3/1/12	4/1/12	5/1/12	6/1/12	7/1/12	8/1/12	9/1/12	10/1/12	11/1/12	12/1/12	1/1/13	2/1/13	3/1/13	4/1/13	5/1/13	6/1/13	7/1/13	8/1/13	9/1/13	10/1/13	11/1/13	12/1/13	1/1/14	2/1/14	3/1/14	4/1/14	5/1/14	6/1/14	7/1/14	8/1/14	9/1/14	10/1/14	11/1/14	12/1/14	1/1/15	2/1/15	3/1/15	4/1/15	5/1/15	6/1/15	7/1/15	8/1/15	9/1/15	10/1/15	11/1/15	12/1/15	1/1/16	2/1/16	3/1/16	4/1/16	5/1/16	6/1/16	7/1/16	8/1/16	9/1/16	10/1/16	11/1/16	12/1/16	1/1/17	2/1/17	3/1/17	4/1/17	5/1/17	6/1/17	7/1/17	8/1/17	9/1/17	10/1/17	11/1/17	12/1/17	1/1/18	2/1/18	3/1/18	4/1/18	5/1/18	6/1/18	7/1/18	8/1/18	9/1/18	10/1/18	11/1/18	12/1/18	1/1/19	2/1/19	3/1/19	4/1/19	5/1/19	6/1/19	7/1/19	8/1/19	9/1/19	10/1/19	11/1/19	12/1/19	1/1/20	2/1/20	3/1/20	4/1/20	5/1/20	6/1/20	7/1/20	8/1/20	9/1/20	10/1/20	11/1/20	12/1/20	1/1/21	2/1/21	3/1/21	4/1/21	5/1/21	6/1/21	7/1/21	8/1/21	9/1/21	10/1/21	11/1/21	12/1/21	1/1/22	2/1/22	3/1/22	4/1/22	5/1/22	6/1/22	7/1/22	8/1/22	9/1/22	10/1/22	11/1/22	12/1/22	1/1/23	2/1/23	3/1/23	4/1/23	5/1/23	6/1/23	7/1/23	8/1/23	9/1/23	10/1/23	11/1/23	12/1/23	1/1/24	2/1/24	3/1/24	4/1/24	5/1/24	6/1/24	7/1/24	8/1/24	9/1/24	10/1/24	11/1/24	12/1/24	1/1/25	2/1/25	3/1/25	4/1/25	5/1/25	6/1/25	7/1/25	8/1/25	9/1/25	10/1/25	11/1/25	12/1/25	1/1/26	2/1/26	3/1/26	4/1/26	5/1/26	6/1/26	7/1/26	8/1/26	9/1/26	10/1/26	11/1/26	12/1/26	1/1/27	2/1/27	3/1/27	4/1/27	5/1/27	6/1/27	7/1/27	8/1/27	9/1/27	10/1/27	11/1/27	12/1/27	1/1/28	2/1/28	3/1/28	4/1/28	5/1/28	6/1/28	7/1/28	8/1/28	9/1/28
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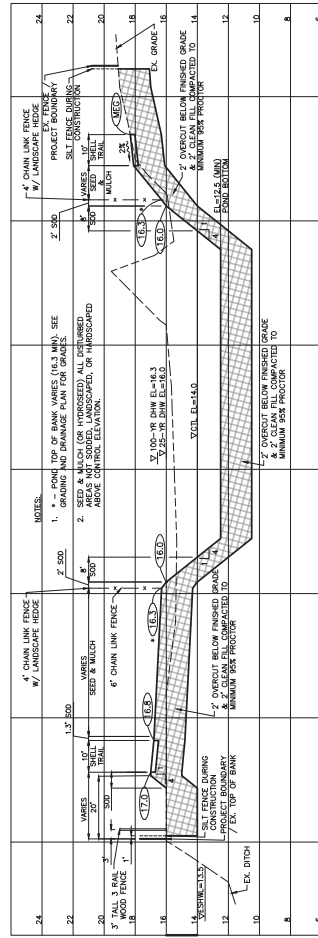
1. RECORD DRAWINGS, IF PREPARED BY THE CONTRACTOR OR CONTRACTOR'S SURVEYOR; DRAFT COPIES AS THE DESIGN POLYNICE SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO CALLING A MEETING.

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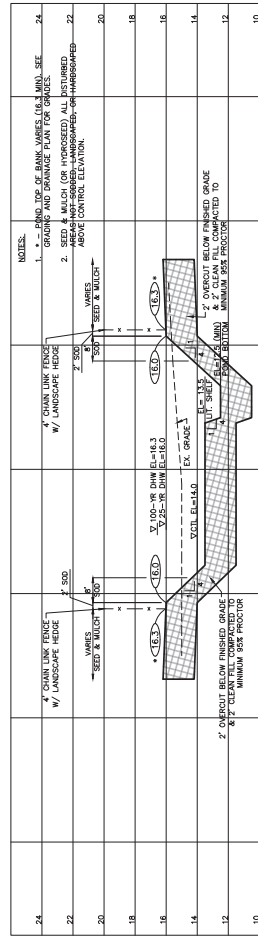
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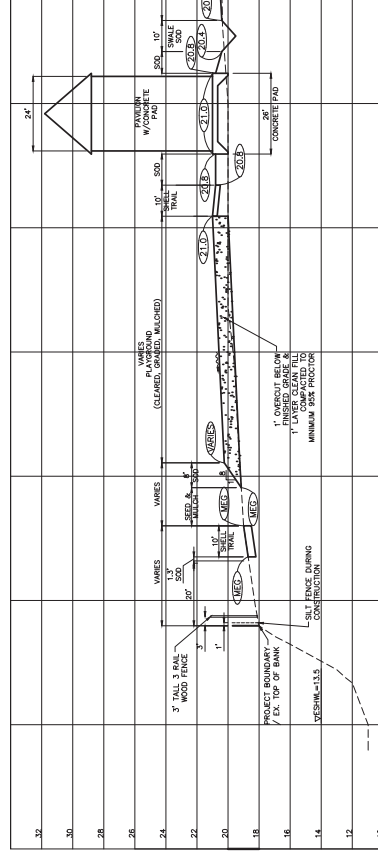
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WASHINGTON PARK PRESERVE PHASE		WASHINGTON PARK PRESERVE PHASE		WASHINGTON PARK PRESERVE PHASE	
PROJECT		PROJECT		PROJECT	
12. 345. 175		12. 345. 175		12. 345. 175	
177310895		177310895		177310895	
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21 # 28		21 # 28		21 # 28	
21 # 28		21 # 28		21 # 28	



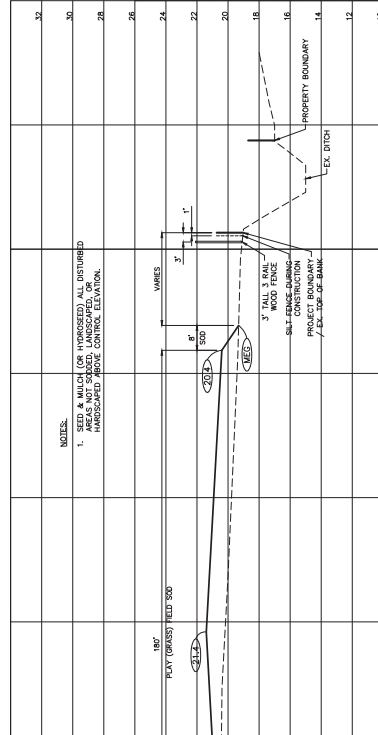
A-A TYPICAL POND BOTTOM SECTION



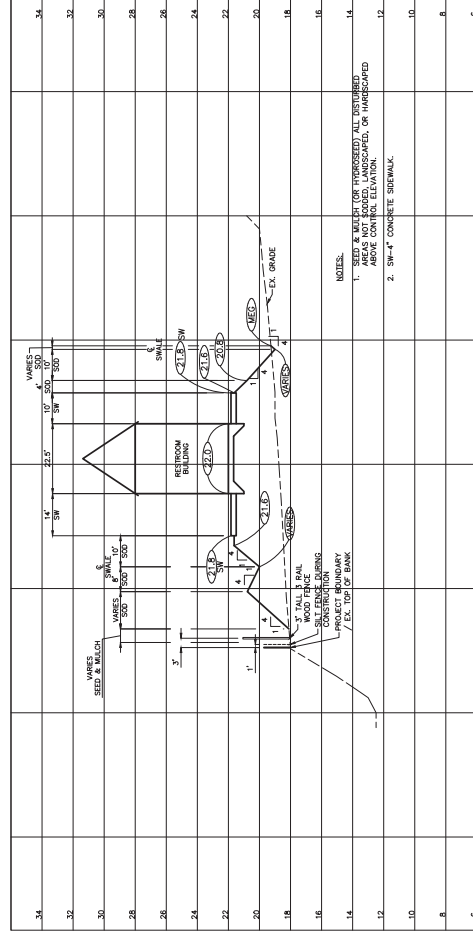
B-B TYPICAL POND LITTORAL SHELF SECTION



C-C TYPICAL PLAY (GRASS) FIELD / PLAYGROUND SECTION

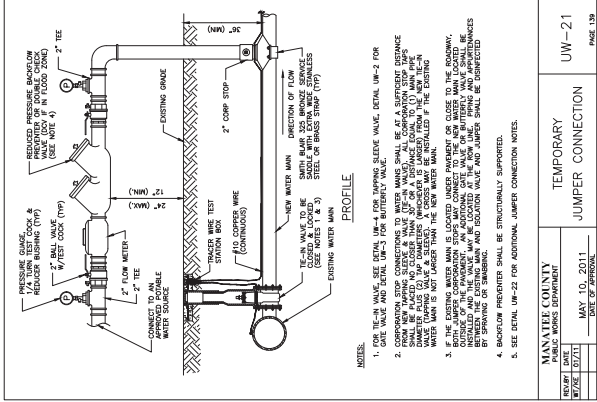
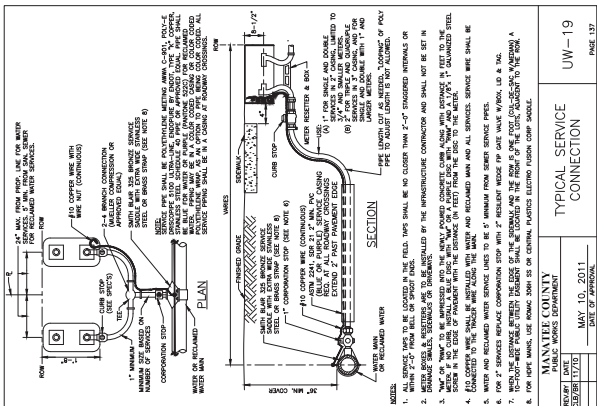
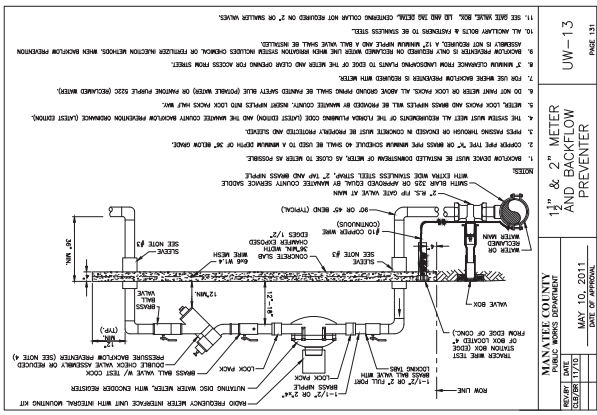
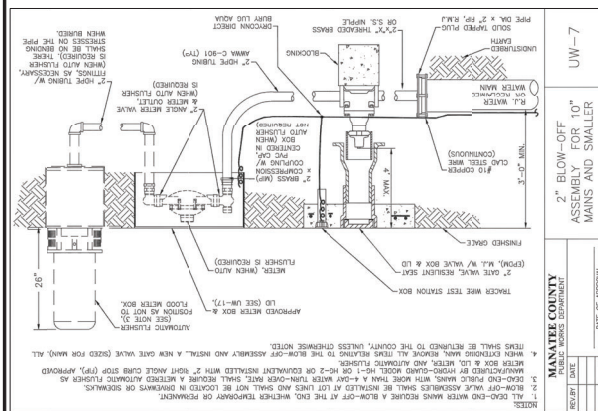
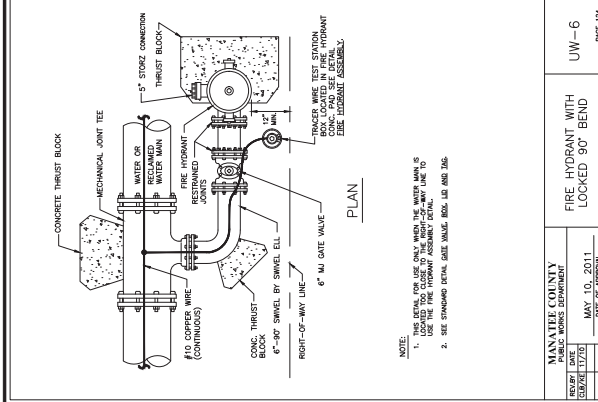
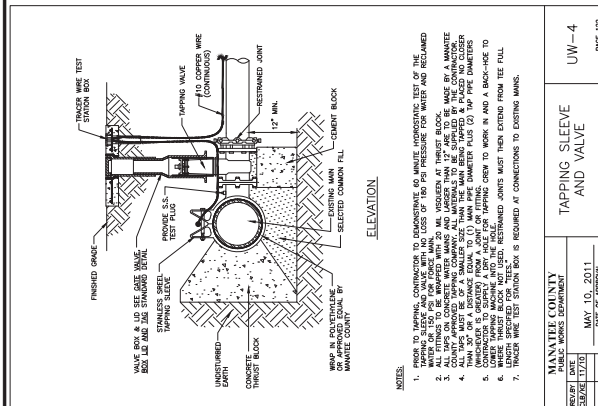
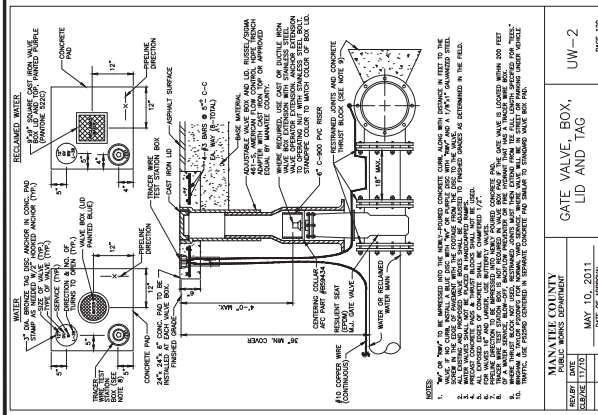


D-D TYPICAL RESTROOM PAVILION SECTION

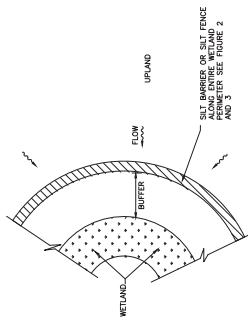


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8	REV	SEC	A-B	C-D	E-F	FIR	WFO	RMP	ES
7	REV	SEC	A-B	B-C	D-E	FIR	WFO	RMP	ES
6	REV	SEC	A-B	B-C	D-E	FIR	WFO	RMP	ES
5	REV	SEC	A-B	B-C	D-E	FIR	WFO	RMP	ES
4	REV	SEC	A-B	B-C	D-E	FIR	WFO	RMP	ES
3	REV	SEC	A-B	B-C	D-E	FIR	WFO	RMP	ES
2	REV	SEC	A-B	B-C	D-E	FIR	WFO	RMP	ES
1	REV	SEC	A-B	B-C	D-E	FIR	WFO	RMP	ES

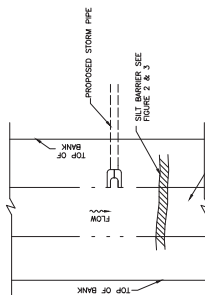
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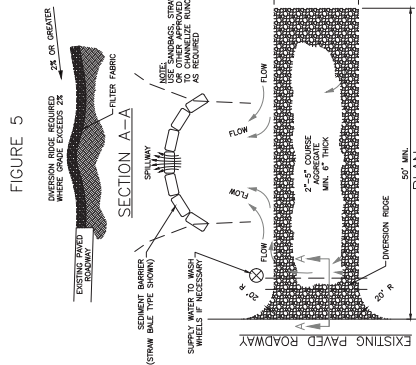
 Stantec 10000 Parkway Blvd., Suite 1000 Dallas, Texas 75244 Phone: 972.688.7000 • Fax: 972.688.0000 Email: stantec@stantec.com										CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS PROJECT: WASHINGTON PARK PRESERVE PHASE I										TITLE: UTILITY DETAILS WATER DISTRIBUTION									
DATE: 10/16/18 ISSUED BY: R52/B5651 DESIGNED BY: R52/B5651 DRAWN BY: R52/B5651 CHECKED BY: R52/B5651 IN CHARGE: R52/B5651 CONTRACT NO.: 177310895 DATE: 10/16/18 REVISION: 1										DATE: 10/16/18 ISSUED BY: R52/B5651 DESIGNED BY: R52/B5651 DRAWN BY: R52/B5651 CHECKED BY: R52/B5651 IN CHARGE: R52/B5651 CONTRACT NO.: 177310895 DATE: 10/16/18 REVISION: 1										DATE: 10/16/18 ISSUED BY: R52/B5651 DESIGNED BY: R52/B5651 DRAWN BY: R52/B5651 CHECKED BY: R52/B5651 IN CHARGE: R52/B5651 CONTRACT NO.: 177310895 DATE: 10/16/18 REVISION: 1									



WETLAND BUFFER



SILT BARRIER AT CONNECTION
OF STORM PIPE TO EXISTING SWALE



TEMPORARY CONSTRUCTION
ENTRANCE DETAIL

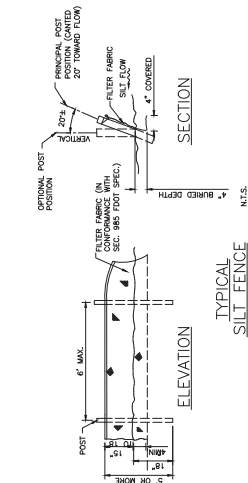
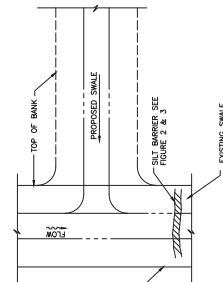
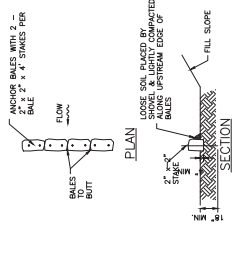


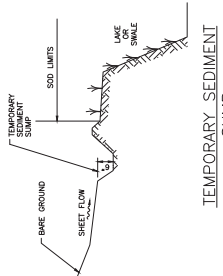
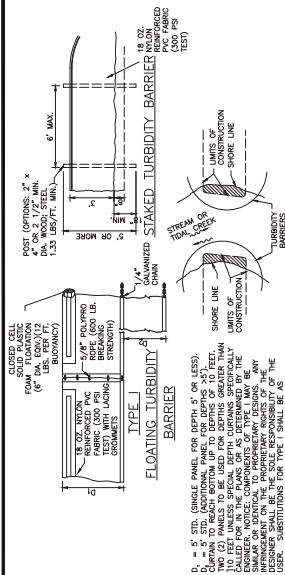
FIGURE 2



SILT BARRIER AT CONNECTION
OF SWALE TO EXISTING SWALE
N.T.S.



TYPICAL BALE SILT BARRIER
NTS.

FIGURE 7
N.T.S.

NOTES:
1. TRAFFIC BARRIERS ARE TO BE USED IN ALL DESIGNATIONS APPROVED BY THE ENGINEER.



TURBIDITY BARRIER APPLICATIONS

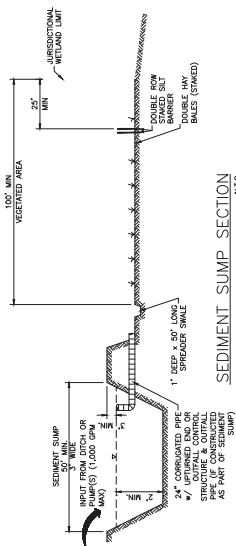


FIGURE 8



NOTES: THE CONTRACTOR SHALL ADEE ALL APPLICABLE CONDITIONS OF THE REGULATORY AGENCY PERMITS AND HAVE COPIES OF THE PERMITS ON SITE. IF IT IS NECESSARY FOR GROUNDWATER DEWATERING TO DISCHARGE OFFSITE, THEN THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITTING FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). THE CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COSTS FOR OBTAINING AND/OR MODIFYING ALL APPLICABLE PERMITTING FOR THE DISCHARGE OF GROUNDWATER DEWATERING AND FOR COMPLIING WITH ALL SWINNO AND FDEP PERMITTING REQUIREMENTS. THE CONTRACTOR SHALL CONSTRUCTION IN PHASES WHEREVER POSSIBLE TO MINIMIZE SOIL LOSS AND CONTROL EROSION.

- [illegible]

 Stantec 10000 Park Meadows Drive, Suite 100 Denver, CO 80261 Phone: 303.440.8100 • Fax: 303.440.8600 Email: denver@stantec.com • www.stantec.com		CLIENT: MANATEE BOARD OF COUNTY COMMISSIONERS		DATE: JULY 2019 HORIZONTAL SCALE:		TITLE: BEST MANAGEMENT PRACTICES DETAILS	
PROJECT: WASHINGTON PARK PRESERVE PHASE I		PROJECT NUMBER: 177310895		SHEET NUMBER: 28 OF 28		R. JAMES SULLIVAN, P.E. PROJECT MANAGER N. JAMES SULLIVAN, P.E. PROJECT MANAGER	

APPENDIX A

**Correspondence Dated January 23, 2007 from Drs. Robert and
Stuchal to FDEP Bureau
of Waste Cleanup**



APPENDIX B

Phase II Environmental Site Assessment Results Washington Park Site Palmetto, FL

**Prepared by Cardno TBE
Dated June 2014**



APPENDIX C

Site Construction Plans

APPENDIX A

**Correspondence Dated January 23, 2007 from Drs. Robert and
Stuchal to FDEP Bureau
of Waste Cleanup**



APPENDIX B

Phase II Environmental Site Assessment Results Washington Park Site Palmetto, FL

**Prepared by Cardno TBE
Dated June 2014**



APPENDIX C

Site Construction Plans



PSI Project Number: 05523453

September 8, 2022

Professional Service Industries, Inc.
5801 Benjamin Center Drive, Suite 112, Tampa, FL 33634
Phone: (813) 886-1075
Fax: (813) 249-4916

Mr. Robert Sellers
Florida Department of Environmental Protection – Southwest District
13051 Telecom Parkway
Temple Terrace, FL 33637
Robert.Sellers@FloridaDEP.gov

RE: **Solid Waste Assessment Letter Report – Response to Comments**
Washington Park Preserve
3011 8th Avenue East
Palmetto, Manatee County, Florida 34221

Dear Mr. Sellers;

Professional Service Industries, Inc. (PSI), an Intertek company, is pleased to submit for your review and consideration our Solid Waste Assessment Letter Report – Response to Comments for the Washington Park Preserve. The comment letter was received on August 3, 2022, our responses are below each comment in *red*.

The Department of Environmental Protection has reviewed the above referenced report dated June 2, 2022, received June 6, 2022, prepared by Professional Service Industries, Inc. (PSI) on behalf of the Manatee County Parks and Recreation Division. The department has the following comments on the above referenced document:

1. The extent of the buried waste does not appear to have been fully delineated. Additional delineation should be conducted to the west and south of test pit #8, near the proposed playground area and the site boundary. The delineation should determine the extent of the buried waste within the boundaries of the site and ensure that there is a minimum of 2-foot of cover at all locations where buried waste will be left in place.

A 2-foot overcut below finished grade with 2 foot of clean fill will be conducted at the proposed playground area.

Test pit 8 was conducted on a low area on the site, further assessment to the south and west should not be necessary as solid waste is assumed to extend to the boundaries of the site in these directions.

2. It does not appear that groundwater has been fully assessed at the site. Temporary monitoring well TWM-3 recorded arsenic concentrations above regulatory limits, as documented in the 2014 Phase II Environmental Site Assessment Report. The department recommends the installation of permanent monitoring wells to complete groundwater assessment and delineation. Analysis of groundwater from



temporary monitoring wells often have “false high” detections of metals due to their construction methodology and potentially higher turbidity levels in the samples.

A permanent monitoring well (MW-1) has been installed to the west of the playground area, in the same vicinity as the former TMW-3. The well was sampled on November 8, 2021 for arsenic, a result of 2.4 (l) µg/L was returned. This result is below the GCTL for arsenic in groundwater of 10 µg/L.

The arsenic detection in TMW-3 during the Phase II assessment was the only detection found.

3. Groundwater assessment should also include groundwater elevation measurements to determine the direction of groundwater flow in the surficial aquifer at the site.

At least two additional monitoring wells will be required to accurately determine groundwater flow direction. Groundwater contamination has been shown to not be present at the site from samples collected during the Phase II investigation and from the permanently installed monitoring well MW-1.

The site should be regulated under the solid waste regulations, not under 62-780.

4. Most of the deeper waste appears to be located in the area of the proposed stormwater detention pond. The horizontal and vertical extent of waste has not been fully delineated in this area and buried waste extends below the water table at some test pit locations. Figure 2 indicates a 2-foot overcut below finished grade of the pond and replaced with 2-foot thick, clean backfill. As discussed in the January 12, 2022 virtual meeting, if any buried waste is to be left in place within the proposed detention pond area, the pond will need to be lined.

All of the solid waste debris in and immediately surrounding the stormwater detention pond area will be excavated down to native soil and removed from site and backfilled with clean fill to design/natural grade. A redesign of the pond is currently underway.

5. Section 4.3, Item (b) of the Guidance For Disturbance And Use Of Old Closed Landfills Or Waste Disposal Areas In Florida, Version 2.3 Final, dated April 2, 2019 requires that a combustible gas survey be conducted prior to waste disturbance or removal. Soil monitoring probes must be installed where the wastes are located and sampled for combustible gases. Soil monitoring probes shall extend to the depth of the base of the buried waste or at least three feet below ground surface, whichever is deeper. Sampling must be conducted in the headspace of the monitoring probe without purging the gas before collecting the sample.

Buried waste will be removed from the proposed stormwater detention pond area. Solid waste extends to below the groundwater. In addition, buried waste will be removed and backfilled with clean fill back to natural grade within the hatched area northwest of the proposed playground, shown on Figure 2.

Only one enclosed structure will be present on the site, a restroom near the parking area, to the south of test pit #16. A passive methane mitigation system can be installed at this location as the foundation has not yet been constructed. The foundation for the restroom building will consist of 10-inches of crushed



concrete. The restroom building has been fabricated off site and will be installed once the foundation is completed. The passive methane mitigation system can be adapted to be an active mitigation system if excess methane is detected at the restroom location.

6. Ambient air monitoring should be conducted during excavation activities to ensure that conditions for combustible gases are not being created.

Monitoring for methane gas can be conducted during the excavation of the solid waste at the proposed stormwater detention pond and in the hatched area northwest of the proposed playground (Figure 2).

7. If soils are screened during waste removal for use as backfill and placed on the surface or mixed within the top 2 feet, those soils must be managed so as to not cause violations of applicable Department standards and criteria. Section 4.5, Item (b) of the Guidance For Disturbance And Use Of Old Closed Landfills Or Waste Disposal Areas In Florida, Version 2.3 Final, dated April 2, 2019, allows for the calculation of a separate human health risk assessment (HRA) to determine the potential risks from the proposed use of the Screened Solid Waste (SSW). The Soil Cleanup Target Levels contained in Table II of Chapter 62-777, F.A.C. would apply if no HRA is conducted.

Screening of solid waste from soils will not occur at this site.

8. Sampling of SSW should include discrete and composite samples at the minimum frequency indicated in Table 1 of the guidance document referenced in Comment 7, above.

Screening of solid waste from soils will not occur at this site.

9. Discussion, Page 3: Please provide an explanation on how the section narrative which discusses pH, manholes in the vicinity of the lift station and corrosion of sump pumps is related to the solid waste assessment of the Washington Park Preserve site.

A corrected version of the Letter Report, omitting the erroneously included items, was submitted to Robert Sellers on July 8, 2022.



PSI appreciates the opportunity to be of service to the FDEP – Solid Waste Permitting & Waste Cleanup Division. We look forward to working with you on this important project. If you have any questions, please feel free to contact us at (813) 886-1075.

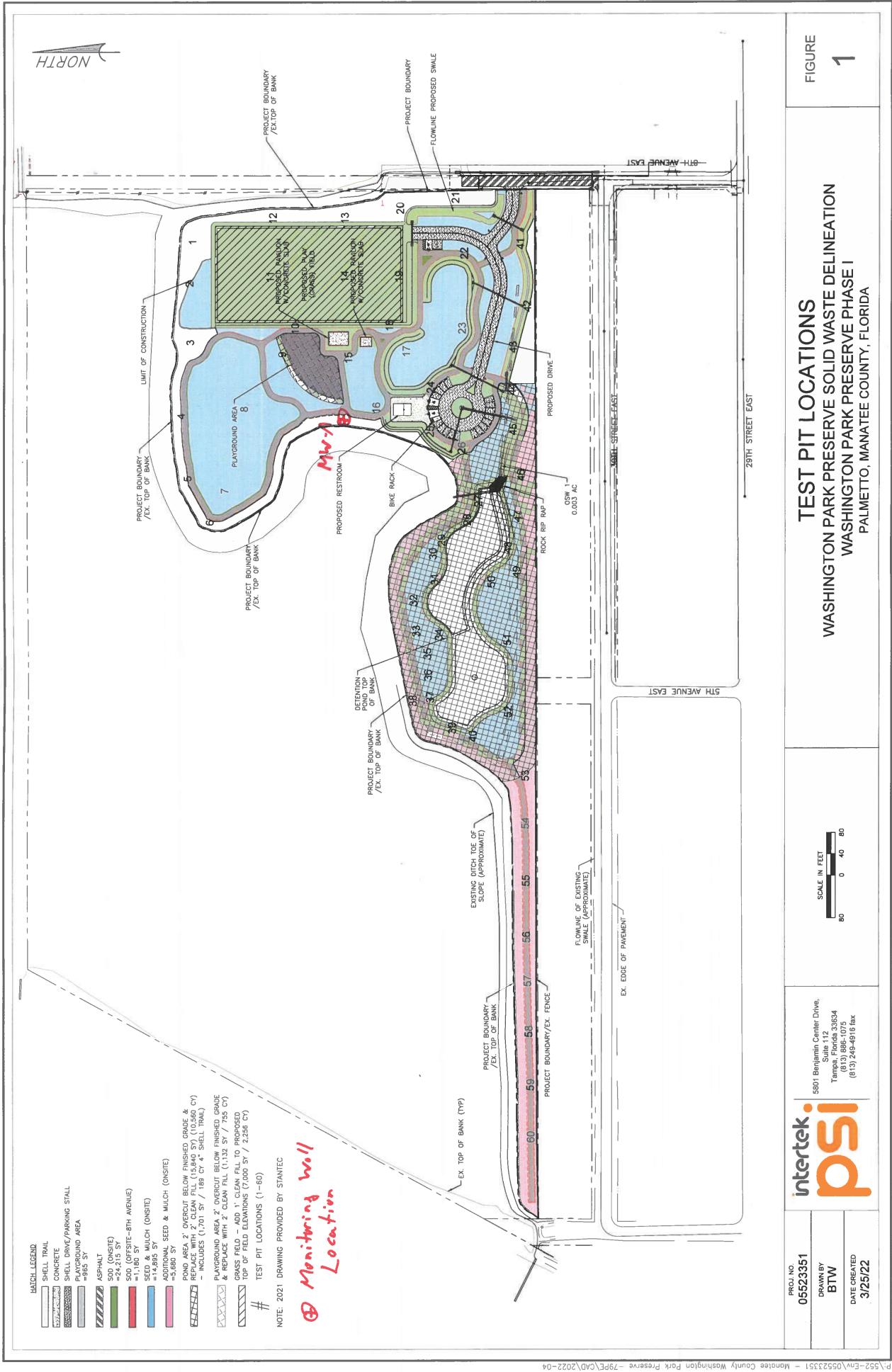
Respectfully submitted,
PROFESSIONAL SERVICE INDUSTRIES, INC.

Scott Jordan, P. E.
Project Engineer

Michael Rothenburg, P. E.
Environmental Services Department Manager

Cc: Melissa Madden, Southwest District DEP, melissa.madden@FloridaDEP.gov
Justin Chamberlain, P.G., Southwest District DEP, justin.chamberlain@FloridaDEP.gov
Alissa Powers, Manatee County Parks and Natural Resources, Alissa.powers@mymanatee.org

Attachments: Figure 1, Analytical Report



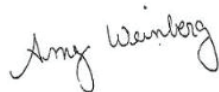
ANALYTICAL REPORT

Eurofins TestAmerica, Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

Laboratory Job ID: 660-115214-1
Client Project/Site: Washinton Park

For:
Professional Service Industries (PSI)
5801 Benjamin Center Drive
Suite 112
Tampa, Florida 33634

Attn: Scott Jordan



Authorized for release by:
11/11/2021 1:08:36 PM

Amy Weinberg, Project Manager II
(813)885-7427
amy.weinberg@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Certification Summary	12
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Sample Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-115214-1	MW-A	Water	11/08/21 10:43	11/08/21 15:00

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Case Narrative

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Job ID: 660-115214-1

Laboratory: Eurofins TestAmerica, Tampa

Narrative

Job Narrative
660-115214-1

Comments

No additional comments.

Receipt

The sample was received on 11/8/2021 3:00 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.4° C.

Metals

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

Definitions/Glossary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.

Glossary

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

Detection Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Lab Sample ID: 660-115214-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0024	I	0.010	0.0019	mg/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Tampa

Client Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Date Collected: 11/08/21 10:43

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115214-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024	I	0.010	0.0019	mg/L		11/10/21 08:46	11/11/21 10:12	1

QC Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 660-245375/1-A
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019	U	0.010	0.0019	mg/L		11/10/21 08:46	11/11/21 09:52	1

Lab Sample ID: LCS 660-245375/2-A
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.00		mg/L		100	80 - 120

Lab Sample ID: 660-115185-B-1-D MS
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0027	I	1.00	1.03		mg/L		103	75 - 125

Lab Sample ID: 660-115185-B-1-E MSD
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0027	I	1.00	1.02		mg/L		102	75 - 125	1	20

QC Association Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Metals

Prep Batch: 245375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115214-1	MW-A	Total Recoverable	Water	3005A	
MB 660-245375/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 660-245375/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
660-115185-B-1-D MS	Matrix Spike	Total Recoverable	Water	3005A	
660-115185-B-1-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 245436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115214-1	MW-A	Total Recoverable	Water	6010D	245375
MB 660-245375/1-A	Method Blank	Total Recoverable	Water	6010D	245375
LCS 660-245375/2-A	Lab Control Sample	Total Recoverable	Water	6010D	245375
660-115185-B-1-D MS	Matrix Spike	Total Recoverable	Water	6010D	245375
660-115185-B-1-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	245375

Lab Chronicle

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Date Collected: 11/08/21 10:43

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115214-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			245375	11/10/21 08:46	GG	TAL TAM
Total Recoverable	Analysis	6010D		1	245436	11/11/21 10:12	GG	TAL TAM

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Method Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL TAM
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL TAM

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Accreditation/Certification Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Laboratory: Eurofins TestAmerica, Tampa

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E84282	06-30-22

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Login Sample Receipt Checklist

Client: Professional Service Industries (PSI)

Job Number: 660-115214-1

Login Number: 115214

List Source: Eurofins TestAmerica, Tampa

List Number: 1

Creator: Arevalo, Maria L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



PSI Project Number: 0552-3453
October 207, 2022

Professional Service Industries, Inc.
5801 Benjamin Center Drive, Suite 112, Tampa, FL 33634
Phone: (813) 886-1075
Fax: (813) 249-4916

Mr. Robert Sellers
Environmental Specialist III
Permitting and Waste Cleanup
Florida Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace FL

Attention: Mr. Robert Sellers

Re: **Washington Park Preserve**
WACS Facility #107492

Dear Mr. Sellers:

Thank you for time today as well as that of Justin Chamberlain and Melissa Madden. We appreciate the time taken to address what amount to a pressing contractual issue for Manatee County. To that end, please find attached the additional information you requested along with the County's commitment to ensure that the completion of work on the eastern side of the project meets with the full health and safety requirements we discussed.

To that end please find attached the following:

1. Monitoring Well Location Map (MW-A)
2. Vapor Monitoring Point Diagram
3. Proposed Passive Landfill Gas Mitigation System
4. Monitoring Well Completion Report
5. Analytical Results from MW-A (arsenic only)
6. Construction Plan for the Modular Bathroom Building (Sent Under Separate Cover)

As was noted on our call, Manatee County has committed to conducting landfill gas monitoring at various locations around the eastern portion of the restroom building, will monitor for landfill gas during the de minimis excavations, which may be required for the placement and service to the building, and will commit to four quarterly monitoring events over a one year period of the two vapor monitoring points to be installed at 2 locations within five feet of the structure. In addition, and this will be conducted at a later date, the County will monitor the future pond excavation for landfill gas and to advise if wastes other than construction and demolition debris might be encountered.



Additional information will be provided in our scheduled response to your October 8, 2022, review but in the meantime the County has asked the attached information be submitted for your review in order to ensure the Department has no objection to the resumption of construction activities on the eastern side of the project.

Should you have any questions please feel free to contact Simona Brinkman of the County at 954.748.4501 extension 5814.

Respectfully submitted,
PROFESSIONAL SERVICE INDUSTRIES, INC.

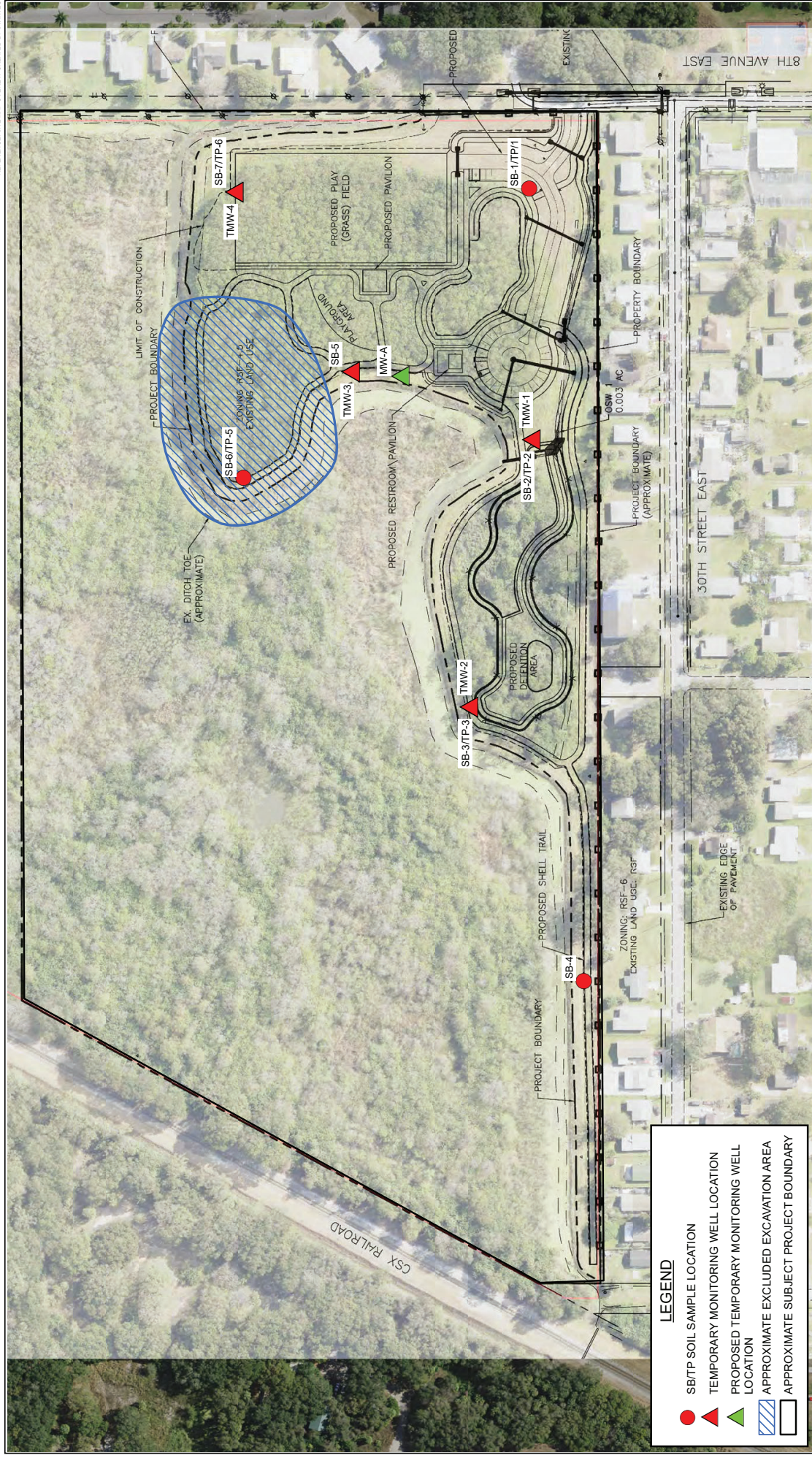
A handwritten signature in blue ink, appearing to read 'Michael Rothenburg'.

Michael Rothenburg, P.E.
Principal Consultant

Enclosures:

Figures

y:\552-env\05523453 - manatee cty, wpp, solid waste assessment\10-20 fdep submittal\fdep 10-20submittal.docx



LEGEND

- SB/TP SOIL SAMPLE LOCATION
- TEMPORARY MONITORING WELL LOCATION
- PROPOSED TEMPORARY MONITORING WELL LOCATION
- APPROXIMATE EXCLUDED EXCAVATION AREA
- APPROXIMATE SUBJECT PROJECT BOUNDARY

PROJECT NO. 05523124		intertek psi		5801 Benjamin Center Drive, Suite 112 Tomball, TX 77375 Phone: (813) 886-1075 Fax: (813) 249-4916	
DRAWN BY CEF					
DATE CREATED 8/12/2020					
REFERENCE SCALE 1" = 800'					

0 75 150 300 Feet

1 Inch = 150 Feet

FIGURE 2

/MONITORING WELL LOCATION

WASHINGTON PARK SITE

PALMETTO, MANATEE COUNTY, FLORIDA





Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form # 62-701.900(30)

Form Title: Monitoring Well Completion Report

Effective Date: January 6, 2010

Incorporated in Rule 62-701.510(3), F.A.C.

MONITORING WELL COMPLETION REPORT

DATE: 10/17/2022

FACILITY NAME: Washington Park Preserve

DEP PERMIT NO.: _____ WACS FACILITY ID NO.: #107492

WACS MONITORING SITE NUM.: _____ WACS WELL NO.: MW-A

WELL TYPE: BACKGROUND ☐ DETECTION ☒ COMPLIANCE ☐

LATITUDE: 27 ° 32 ' 29.33 " LONGITUDE: 82 ° 33 ' 28.40 "

(see back for LAT / LONG requirements):

Coordinate Accuracy _____ Datum _____ Elevation Datum _____

Collection Method _____ Collection Date _____

Collector Name _____ Collector Affiliation _____

AQUIFER MONITORED: Surficial

DRILLING METHOD: DPT DATE INSTALLED: _____

INSTALLED BY: Net Drilling

BORE HOLE DIAMETER: 2" TOTAL DEPTH: 12' (BLS)

CASING TYPE: PVC CASING DIAMETER: 2" CASING LENGTH: 2'

SCREEN TYPE: slotted SCREEN SLOT SIZE: 0.01 inch SCREEN LENGTH: 10'

SCREEN DIAMETER: 2" SCREEN INTERVAL: 2ft TO 12ft (BLS)

FILTER PACK TYPE: Sand FILTER PACK GRAIN SIZE: 20/30

INTERVAL COVERED: 2' TO 12' (BLS)

SEALANT TYPE: Bentonite SEALANT INTERVAL: 0' TO 2' (BLS)

GROUT TYPE: _____ GROUT INTERVAL: _____ TO _____ (BLS)

TOP OF CASING ELEVATION (NGVD): _____ GROUND SURFACE ELEVATION (NGVD): _____

DESCRIBE WELL DEVELOPMENT: Peristaltic Pump

POST DEVELOPMENT WATER LEVEL ELEVATION (NGVD): _____

DATE AND TIME MEASURED: _____

REMARKS: Form completed post construction with available informaiton

NAME OF PERSON PREPARING REPORT: Michael Rothenburg, PSI 813.917.0403

(Name, Organization, Phone No., E-mail)

Northwest District
160 Government Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way Ste 200B
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
13051 N. Telecom Pky.
Temple Terrace, FL
813-632-7600

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
239-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

NOTE: ATTACH AS-BUILT MW CONSTRUCTION DIAGRAM AND LITHOLOGIC LOG.(NGVD) NATIONAL GEODETIC VERTICAL DATUM OF 1988 (BLS) = BELOW LAND SURFACE

Latitude must be measured in degrees, minutes and seconds, to at least two (2) decimal places.

Longitude must be measured in degrees, minutes and seconds, to at least two (2) decimal places.

Eastings and northings (State Plane Coordinates) **must** be converted to latitude and longitude.

Coordinate Accuracy: the measured, estimated degree of correctness of the measurement. An accuracy of 15 feet or 5 meters is preferred.

Datum: the horizontal reference for measuring locations on the Earth's surface. NAD83-North American Datum of 1983 is preferred.

Elevation Datum: the reference datum from which elevation measurements are made. NGVD88 (National Geodetic Vertical Datum of 1988) is preferred.

Collection Method: the method or mechanism used to derive the measurements, e.g. GPS, map, aerial photo, etc.

Collection Date: the date and time on which the measurements were taken.

Collector Name: the name of the person taking the measurement.

Collector Affiliation: the agency or company for whom the collector works.

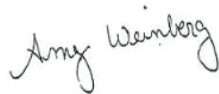
ANALYTICAL REPORT

Eurofins TestAmerica, Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

Laboratory Job ID: 660-115214-1
Client Project/Site: Washinton Park

For:
Professional Service Industries (PSI)
5801 Benjamin Center Drive
Suite 112
Tampa, Florida 33634

Attn: Scott Jordan



Authorized for release by:
11/11/2021 1:08:36 PM

Amy Weinberg, Project Manager II
(813)885-7427
amy.weinberg@Eurofinset.com

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-115214-1	MW-A	Water	11/08/21 10:43	11/08/21 15:00

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Case Narrative

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Job ID: 660-115214-1

Laboratory: Eurofins TestAmerica, Tampa

Narrative

Job Narrative
660-115214-1

Comments

No additional comments.

Receipt

The sample was received on 11/8/2021 3:00 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.4° C.

Metals

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

Definitions/Glossary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.

Glossary

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

Detection Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Lab Sample ID: 660-115214-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0024	I	0.010	0.0019	mg/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Tampa

Client Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Date Collected: 11/08/21 10:43

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115214-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024	I	0.010	0.0019	mg/L		11/10/21 08:46	11/11/21 10:12	1

QC Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 660-245375/1-A
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019	U	0.010	0.0019	mg/L		11/10/21 08:46	11/11/21 09:52	1

Lab Sample ID: LCS 660-245375/2-A
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.00		mg/L		100	80 - 120

Lab Sample ID: 660-115185-B-1-D MS
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0027	I	1.00	1.03		mg/L		103	75 - 125

Lab Sample ID: 660-115185-B-1-E MSD
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0027	I	1.00	1.02		mg/L		102	75 - 125	1	20

QC Association Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Metals

Prep Batch: 245375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115214-1	MW-A	Total Recoverable	Water	3005A	
MB 660-245375/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 660-245375/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
660-115185-B-1-D MS	Matrix Spike	Total Recoverable	Water	3005A	
660-115185-B-1-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 245436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115214-1	MW-A	Total Recoverable	Water	6010D	245375
MB 660-245375/1-A	Method Blank	Total Recoverable	Water	6010D	245375
LCS 660-245375/2-A	Lab Control Sample	Total Recoverable	Water	6010D	245375
660-115185-B-1-D MS	Matrix Spike	Total Recoverable	Water	6010D	245375
660-115185-B-1-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	245375

Lab Chronicle

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Date Collected: 11/08/21 10:43

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115214-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			245375	11/10/21 08:46	GG	TAL TAM
Total Recoverable	Analysis	6010D		1	245436	11/11/21 10:12	GG	TAL TAM

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Method Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL TAM
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL TAM

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Accreditation/Certification Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Laboratory: Eurofins TestAmerica, Tampa

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E84282	06-30-22

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TAL-8210

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Login Sample Receipt Checklist

Client: Professional Service Industries (PSI)

Job Number: 660-115214-1

Login Number: 115214

List Source: Eurofins TestAmerica, Tampa

List Number: 1

Creator: Arevalo, Maria L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



PSI Project Number: 0552-3453
November 11, 2022

Professional Service Industries, Inc.
5801 Benjamin Center Drive, Suite 112, Tampa, FL 33634
Phone: (813) 886-1075
Fax: (813) 249-4916

Mr. Robert Sellers
Environmental Specialist III
Permitting and Waste Cleanup
Florida Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace FL

Attention: Mr. Robert Sellers

Re: **Washington Park Preserve**
WACS Facility #107492
Response to Comments Dated October 25, 2022

Dear Mr. Sellers:

Thank you for your response to our request to continue work on the east side of the Washington Park Preserve project being undertaken by Manatee County. Your comments/questions provided in the email dated October 25, 2022 were received and follow in bold and the following discussion is provided with our responses in italics.

- 1) **As discussed in October 20, 2022 meeting, landfill gas monitoring should be performed on the eastern side of the site, not just on the eastern portion of the restroom building. The monitoring should be conducted for a minimum of 4 quarterly events. The results of the quarterly monitoring events will be evaluated to determine if more frequent and/or continued monitoring is needed. Additional monitoring points may also be necessary if gas is present at the site.**

Response: Manatee County will conduct quarterly landfill gas monitoring as requested for one year and will report results of each event. Sampling will occur at the seven locations shown in the Figure entitled "Landfill Gas Monitoring Points." These points will be installed immediately following construction in order to minimize the possibility of damage.

2) **Vapor Monitoring Point Detail:**

- **Please confirm that the petcock to be used in gas sampling activities has a valve to shut in the probe.**

Response: The attached Vapor Monitoring Point Detail has a valve added to the petcock to indicate the ability to close off the monitoring point.

- **Please provide specifications for the PVC screen.**

Response: That same drawing has the screen slot detail (0.010") added.



3) Passive Landfill Gas Mitigation System Drawing (Figure 1):

- The plans for the prefabricated restroom building indicated that the building footprint is 22'-6" x 21'-5" Figure 1 shows the dimension of 19'-3" x 33'-4". Please clarify.
- Response comments on September 8, 2022 stated that there would be 10 inches of crushed concrete beneath the restroom structure. Figure 1 shows 12 inches of crushed concrete. Please verify which is correct.
- Figure 1 shows the bathroom wall extending into the ground. The plans submitted did not include this extension. Please clarify.
- Please provide specifications for the perforations in the HDPE pipe and the geofilter fabric.
- Please provide the proposed subgrade specifications and confirm that it will be sufficient to prevent settlement related damage to the structure due to the presence of buried waste.

Response: The drawing has been revised to reflect the area of the crushed concrete foundation which will extend slightly beyond the edge of the building and the appropriate dimensions are shown. The crushed concrete has been designed to be 12 inches thick with the appropriate dimension called out on the drawing. The wall section has been revised to reflect an accurate representation of the pre-fab building.

The gas collection piping shall be constructed of 4" HDPE SDR 11 with perforations 3/8" by 8" long with four slots per row spaced at 90 degree separations around the pipe. Rows shall be spaced every 16" on center with each row alternating by 45 degrees. Pre-manufactured piping, if used shall have equivalent open area.

Geotextile fabric to be used shall be Mirafi 500X or equivalent. Fabric shall be used to wrap the HDPE to prevent encroachment of crushed concrete material.

The construction plans for the pre-fabricated restroom building call for ground improvement utilizing mechanical equipment to compact the existing fill to a 95% AASHTO T-180 with 8 inches of a lime rock subbase (LBR 40 Minimum) compacted to 98% (AASHTO T-180). As noted above the crushed concrete 12" thick (LBR100) shall extend 1 ft beyond the base of the building. Pursuant to the manufacturer of the modular building this will provide for a sufficient loading capacity for the building.

Construction activities on the east side of the project have been limited to the addition of fill material where two feet of clean soils were not present in order to obtain the required two feet of clearance above buried waste. No significant areas of subsidence were noted during initial construction activities. However, Manatee County will monitor site conditions for subsidence and in the event it may occur, additional clean fill will be used to repair the affected area.

Also, you had requested ground water sampling logs for the sample collected of MW-A performed on November 8, 2021. In our response of October 7, 2022, the well was installed for information to be developed for use by Manatee County and their engineers/contractors. The sampling for arsenic was



conducted for internal information only. We have subsequently conducted an additional search for the logs but were not able to find the requested document. PSI's standard practice is to conduct the work in substantial conformance to the FDEP SOP's and while written documentation is unavailable, we are confident that the analytical results represent actual conditions

PSI appreciates the opportunity to be of service. If you have any questions, please feel free to contact us at (813) 886-1075.

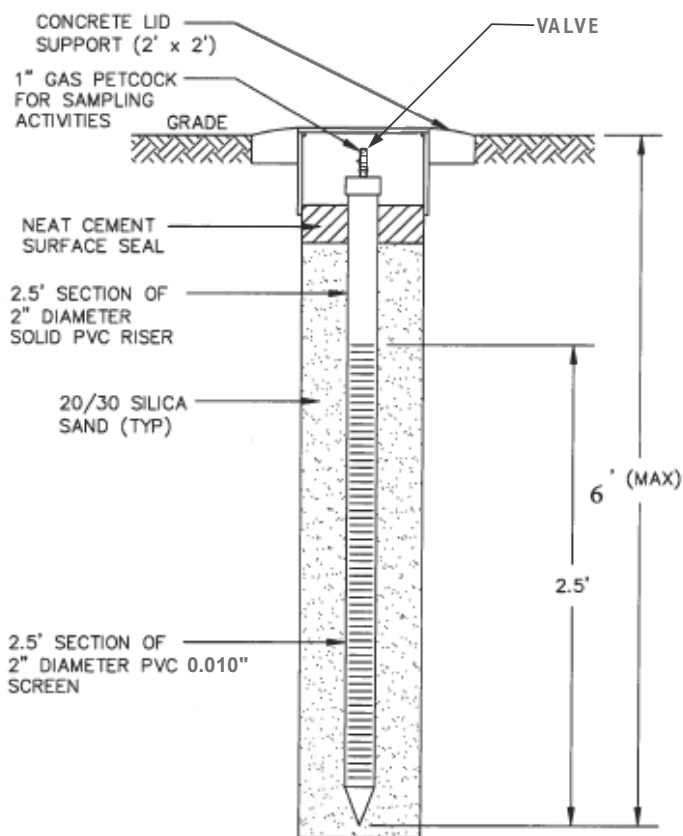
Respectfully submitted,
PROFESSIONAL SERVICE INDUSTRIES, INC.

Michael Rothenburg, P.E.
Principal Consultant

Enclosures:

- (1) Passive Landfill Gas Mitigation System
- (2) Vapor Monitoring Point
- (3) Vapor Monitor Well Location

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VAPOR MONITORING POINT DIAGRAM

Scale: NOT TO SCALE

PROJ. NO.
005523351

DRAWN BY
DJG

DATE REVISED

SCALE: N.T.S.



5801 Benjamin Center Drive,
Suite 112
Tampa, Florida 33634
(813) 886-1075
(813) 248-4916 fax

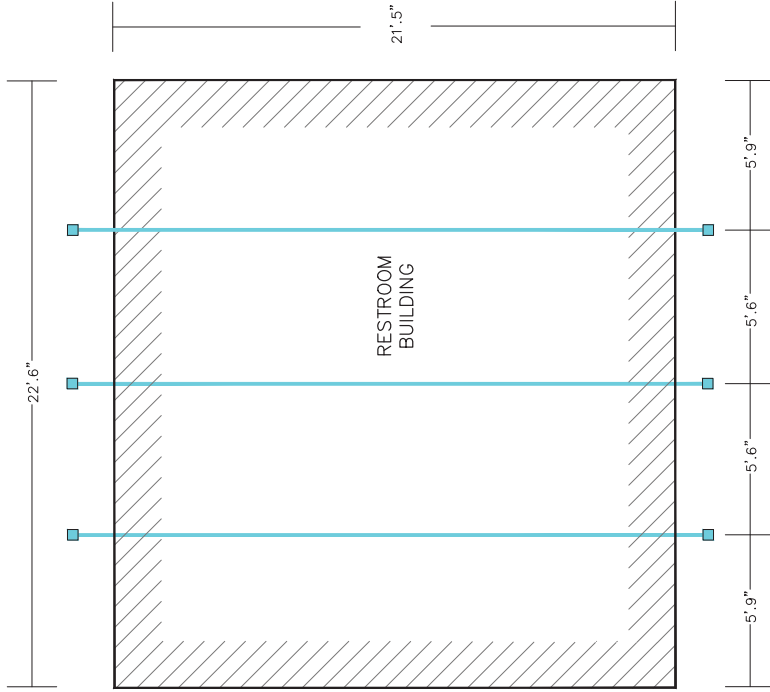
VAPOR MONITORING POINT DETAIL

Washington Park
3011 8TH AVENUE EAST
PALMETTO, MANATEE COUNTY, FLORIDA

FIGURE

typ

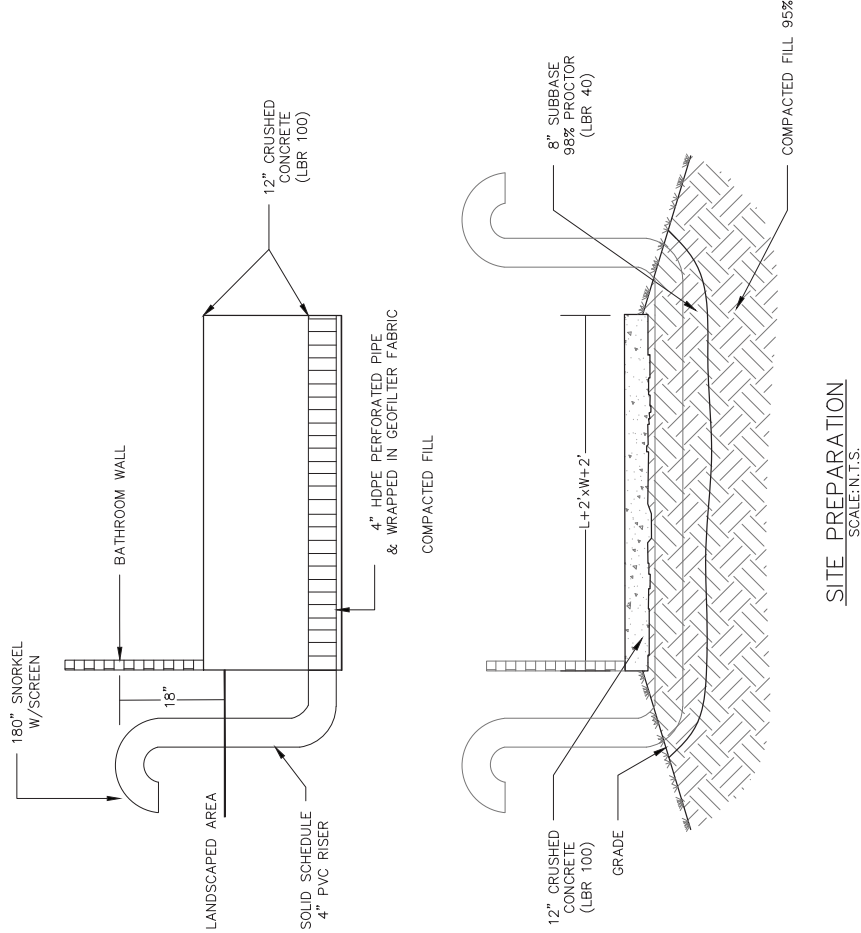
MITIGATION SYSTEM LAYOUT



LEGEND

- HORIZONTAL VAPOR VENT PIPING AND 4" HDPE PERFORATED PIPE
- VERTICAL VENT PIPE 4"Ø PVC 1 FT ABOVE GRADE

VENT STACK DETAIL



SITE PREPARATION
SCALE: 1"=1'-0"

PASSIVE LANDFILL GAS MITIGATION SYSTEM DRAWING
WASHINGTON PARK PRESERVE
3011 8TH AVENUE EAST
PALMETTO, MANATEE COUNTY, FLORIDA

NOT TO SCALE

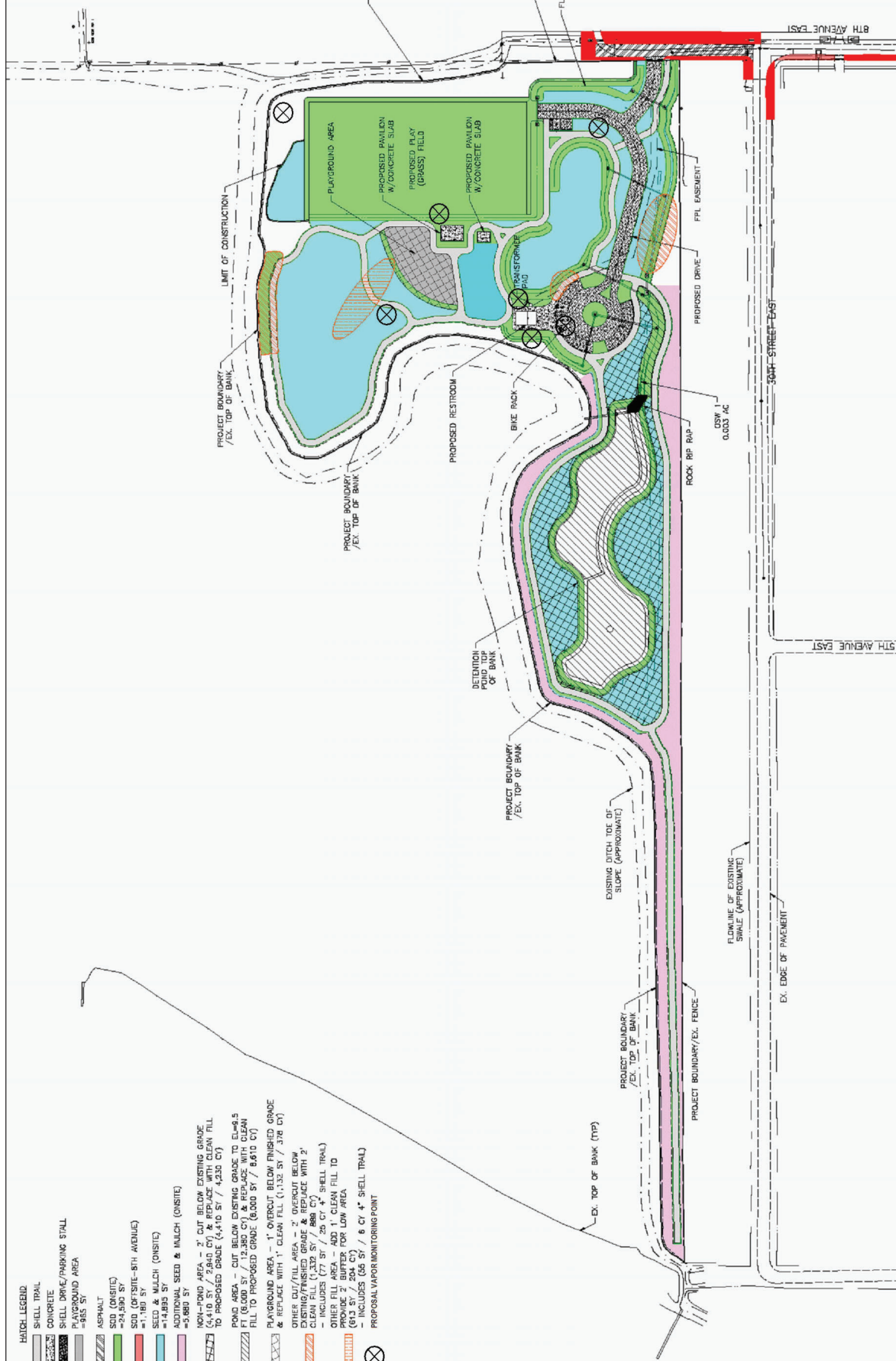
5801 Benjamin Center Drive,
Tampa, Florida 33634
(813) 886-1075
(813) 249-4916 fax



PROJ. NO.
05523351
DRAWN BY
MAC
DATE CREATED
11/09/22

HATCH LEGEND

- SHELL TRAIL
- CONCRETE
- SHELL DRIVE/PARKING STALL
- PLAYGROUND AREA
- ASPHALT
- SCD (ON-SITE)
- SCD (OFF-SITE-8TH AVENUE)
- SCD & MULCH (ON-SITE)
- ADDITIONAL SEED & MULCH (ON-SITE)
- NON-POND AREA - 2" CUT BELOW EXISTING GRADE (4,410 SY / 2,840 CY) & REPLACE WITH CLEAN FILL TO PROPOSED GRADE (4,410 SY / 4,230 CY)
- POND AREA - CUT BELOW EXISTING GRADE TO EL+9.5 FT (8,000 SY / 12,380 CY) & REPLACE WITH CLEAN FILL TO PROPOSED GRADE (8,000 SY / 8,610 CY)
- PLAYGROUND AREA - 1" OVERCUT BELOW FINISHED GRADE & REPLACE WITH 1" CLEAN FILL (1,132 SY / 378 CY)
- OTHER CUT/FILL AREA - 2" OVERCUT BELOW EXISTING/FINISHED GRADE & REPLACE WITH 2" CLEAN FILL (1,132 SY / 378 CY)
- CLAY/SHALE (ON-SITE) / 25 CY 4" SHELL TRAIL
- OTHER FILL AREA - ADD 1" CLEAN FILL TO PROVIDE 2' BUFFER FOR LOW AREA (613 SY / 204 CY)
- INCLUDES (66 SY / 6 CY 4" SHELL TRAIL)
- PROPOSAL VAPOR MONITORING POINT



5801 Benjamin Center Drive,
Suite 112
Tampa, Florida 33634
(813) 886-1075
(813) 249-4916 fax

Not To Scale
Site Plan Taken From Prior
Stantec Figure X-01

PROPOSED LANDFILL GAS MONITORING POINTS

WASHINGTON PARK PRESERVE
3011 8TH AVENUE EAST
PALMETTO, MANATEE COUNTY, FLORIDA

PROJ. NO.
05523351
DRAWN BY
MAC
DATE CREATED
11/09/22



PSI Project Number: 0552-3351
November 11 2022

Professional Service Industries, Inc.
5801 Benjamin Center Drive, Suite 112, Tampa, FL 33634
Phone: (813) 886-1075
Fax: (813) 249-4916

Mr. Robert Sellers
Environmental Specialist III
Permitting and Waste Cleanup
Florida Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace FL

Attention: Mr. Robert Sellers

Re: **Washington Park Preserve**
WACS Facility #107492
Additional Information from October 17, 2022 Submittal

Dear Mr. Sellers:

Previously we had responded to your questions in a letter dated September 8, 2022. We had provided the needed information for all but your question No. 5 as the calculations to determine the quantities of buried c and d debris which would be encountered in the pond and other construction. That information is now available and is provided below, along with the figure entitled, "Sod, Seed and Mulch" X-01 as provided by Stantec.

5. Please provide details regarding the offsite relocation of the excavated waste and soils including estimated volume removed and copies of waste manifests to be submitted once excavation is complete.

Response- The excavated wastes shall be hauled to the Lena Road landfill, a Class I landfill operated by Manatee County. The County has obtained the internal approval for use of that disposal site. Volume of material to be removed from the pond is estimated at 12,380 cubic yards and an additional 4,789 cubic yards will be removed from the remainder of the site. The volume of all material removed shall be documented in manifests to be submitted at project completion.



PSI appreciates the opportunity to be of service. If you have any questions, please feel free to contact us at (813) 886-1075.

Respectfully submitted,
PROFESSIONAL SERVICE INDUSTRIES, INC.

Michael Rothenburg, P.E.
Senior Engineer

Enclosures:

Sod, Seed and Mulch Exhibit X-01

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repsonse\nov9fdepresponse.docx

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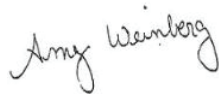
ANALYTICAL REPORT

Eurofins TestAmerica, Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

Laboratory Job ID: 660-115213-1
Client Project/Site: Washinton Park

For:
Professional Service Industries (PSI)
5801 Benjamin Center Drive
Suite 112
Tampa, Florida 33634

Attn: Scott Jordan



Authorized for release by:
11/10/2021 3:29:50 PM

Amy Weinberg, Project Manager II
(813)885-7427
amy.weinberg@Eurofinset.com

LINKS

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results through
TotalAccess

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-115213-1	AS1	Solid	11/08/21 13:10	11/08/21 15:00
660-115213-2	AS2	Solid	11/08/21 13:16	11/08/21 15:00
660-115213-3	AS3	Solid	11/08/21 13:22	11/08/21 15:00

Case Narrative

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Job ID: 660-115213-1

Laboratory: Eurofins TestAmerica, Tampa

Narrative

Job Narrative 660-115213-1

Comments

No additional comments.

Receipt

The samples were received on 11/8/2021 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS Semi VOA

Method 8270D SIM: The following samples were diluted due to the dark and viscous nature of the sample extract: AS1 (660-115213-1), AS2 (660-115213-2) and AS3 (660-115213-3). Elevated reporting limits (RL) are provided.

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

Metals

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

Organic Prep

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

Definitions/Glossary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Indicates that the compound was analyzed for but not detected.

Glossary

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

Detection Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Client Sample ID: AS1

Lab Sample ID: 660-115213-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	9.1	I	62	8.6	ug/Kg	5	✱	8270D	Total/NA
Acenaphthylene	23	I	42	9.0	ug/Kg	5	✱	8270D	Total/NA
Phenanthrene	43		42	28	ug/Kg	5	✱	8270D	Total/NA
Anthracene	27	I	42	3.8	ug/Kg	5	✱	8270D	Total/NA
Fluoranthene	140		42	13	ug/Kg	5	✱	8270D	Total/NA
Pyrene	170		42	9.9	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]anthracene	92		42	9.4	ug/Kg	5	✱	8270D	Total/NA
Chrysene	130		42	9.7	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	190		42	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[k]fluoranthene	82		42	11	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	130		42	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[g,h,i]perylene	90		42	10	ug/Kg	5	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	43		42	9.4	ug/Kg	5	✱	8270D	Total/NA
Dibenz(a,h)anthracene	21	I	42	10	ug/Kg	5	✱	8270D	Total/NA
Arsenic	5.7		1.3	0.11	mg/Kg	1	✱	6010D	Total/NA

Client Sample ID: AS2

Lab Sample ID: 660-115213-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	12	I	43	9.5	ug/Kg	5	✱	8270D	Total/NA
Anthracene	13	I	43	4.0	ug/Kg	5	✱	8270D	Total/NA
Fluoranthene	76		43	14	ug/Kg	5	✱	8270D	Total/NA
Pyrene	91		43	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]anthracene	45		43	9.8	ug/Kg	5	✱	8270D	Total/NA
Chrysene	62		43	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	84		43	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[k]fluoranthene	39	I	43	12	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	60		43	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[g,h,i]perylene	34	I	43	11	ug/Kg	5	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	21	I	43	9.8	ug/Kg	5	✱	8270D	Total/NA
Arsenic	9.5		1.4	0.12	mg/Kg	1	✱	6010D	Total/NA

Client Sample ID: AS3

Lab Sample ID: 660-115213-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	9.1	I	42	3.9	ug/Kg	5	✱	8270D	Total/NA
Fluoranthene	61		42	13	ug/Kg	5	✱	8270D	Total/NA
Pyrene	75		42	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]anthracene	37	I	42	9.5	ug/Kg	5	✱	8270D	Total/NA
Chrysene	65		42	9.8	ug/Kg	5	✱	8270D	Total/NA
Benzo[b]fluoranthene	61		42	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[k]fluoranthene	33	I	42	12	ug/Kg	5	✱	8270D	Total/NA
Benzo[a]pyrene	62		42	10	ug/Kg	5	✱	8270D	Total/NA
Benzo[g,h,i]perylene	34	I	42	10	ug/Kg	5	✱	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	20	I	42	9.5	ug/Kg	5	✱	8270D	Total/NA
Dibenz(a,h)anthracene	11	I	42	10	ug/Kg	5	✱	8270D	Total/NA
Arsenic	31		1.3	0.11	mg/Kg	1	✱	6010D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Tampa

Client Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Client Sample ID: AS1

Lab Sample ID: 660-115213-1

Date Collected: 11/08/21 13:10

Matrix: Solid

Date Received: 11/08/21 15:00

Percent Solids: 80.2

Method: 8270D - PAHs by GC/MS (SIM)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	19	U	62	19	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
2-Methylnaphthalene	9.1	I	62	8.6	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
1-Methylnaphthalene	11	U	42	11	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Acenaphthylene	23	I	42	9.0	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Acenaphthene	8.9	U	42	8.9	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Fluorene	9.1	U	42	9.1	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Phenanthrene	43		42	28	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Anthracene	27	I	42	3.8	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Fluoranthene	140		42	13	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Pyrene	170		42	9.9	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Benzo[a]anthracene	92		42	9.4	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Chrysene	130		42	9.7	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Benzo[b]fluoranthene	190		42	10	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Benzo[k]fluoranthene	82		42	11	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Benzo[a]pyrene	130		42	10	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Benzo[g,h,i]perylene	90		42	10	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Indeno[1,2,3-cd]pyrene	43		42	9.4	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Dibenz(a,h)anthracene	21	I	42	10	ug/Kg	✱	11/09/21 07:55	11/09/21 13:46	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-methylnaphthalene-d10	66		20 - 150				11/09/21 07:55	11/09/21 13:46	5
Fluoranthene-d10	79		25 - 150				11/09/21 07:55	11/09/21 13:46	5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	5.7		1.3	0.11	mg/Kg	✱	11/09/21 10:33	11/09/21 15:50	1

Client Sample ID: AS2

Lab Sample ID: 660-115213-2

Date Collected: 11/08/21 13:16

Matrix: Solid

Date Received: 11/08/21 15:00

Percent Solids: 76.6

Method: 8270D - PAHs by GC/MS (SIM)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	20	U	65	20	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
2-Methylnaphthalene	8.9	U	65	8.9	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
1-Methylnaphthalene	11	U	43	11	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Acenaphthylene	12	I	43	9.5	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Acenaphthene	9.3	U	43	9.3	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Fluorene	9.5	U	43	9.5	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Phenanthrene	29	U	43	29	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Anthracene	13	I	43	4.0	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Fluoranthene	76		43	14	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Pyrene	91		43	10	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Benzo[a]anthracene	45		43	9.8	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Chrysene	62		43	10	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Benzo[b]fluoranthene	84		43	10	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Benzo[k]fluoranthene	39	I	43	12	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Benzo[a]pyrene	60		43	10	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Benzo[g,h,i]perylene	34	I	43	11	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5
Indeno[1,2,3-cd]pyrene	21	I	43	9.8	ug/Kg	✱	11/09/21 07:55	11/09/21 13:25	5

Eurofins TestAmerica, Tampa

Client Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Client Sample ID: AS2

Date Collected: 11/08/21 13:16

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-2

Matrix: Solid

Percent Solids: 76.6

Method: 8270D - PAHs by GC/MS (SIM) (Continued)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	10	U	43	10	ug/Kg	☆	11/09/21 07:55	11/09/21 13:25	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-methylnaphthalene-d10	48		20 - 150				11/09/21 07:55	11/09/21 13:25	5
Fluoranthene-d10	52		25 - 150				11/09/21 07:55	11/09/21 13:25	5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9.5		1.4	0.12	mg/Kg	☆	11/09/21 10:33	11/09/21 16:52	1

Client Sample ID: AS3

Date Collected: 11/08/21 13:22

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-3

Matrix: Solid

Percent Solids: 78.9

Method: 8270D - PAHs by GC/MS (SIM)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	20	U	63	20	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
2-Methylnaphthalene	8.7	U	63	8.7	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
1-Methylnaphthalene	11	U	42	11	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Acenaphthylene	9.2	U	42	9.2	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Acenaphthene	9.0	U	42	9.0	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Fluorene	9.2	U	42	9.2	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Phenanthrene	29	U	42	29	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Anthracene	9.1	I	42	3.9	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Fluoranthene	61		42	13	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Pyrene	75		42	10	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Benzo[a]anthracene	37	I	42	9.5	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Chrysene	65		42	9.8	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Benzo[b]fluoranthene	61		42	10	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Benzo[k]fluoranthene	33	I	42	12	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Benzo[a]pyrene	62		42	10	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Benzo[g,h,i]perylene	34	I	42	10	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Indeno[1,2,3-cd]pyrene	20	I	42	9.5	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Dibenz(a,h)anthracene	11	I	42	10	ug/Kg	☆	11/09/21 07:55	11/09/21 13:05	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-methylnaphthalene-d10	39		20 - 150				11/09/21 07:55	11/09/21 13:05	5
Fluoranthene-d10	47		25 - 150				11/09/21 07:55	11/09/21 13:05	5

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	31		1.3	0.11	mg/Kg	☆	11/09/21 10:33	11/09/21 16:55	1

QC Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Method: 8270D - PAHs by GC/MS (SIM)

Lab Sample ID: MB 660-245222/1-A

Matrix: Solid

Analysis Batch: 245262

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 245222

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	3.1	U	9.7	3.1	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
2-Methylnaphthalene	1.3	U	9.7	1.3	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
1-Methylnaphthalene	1.7	U	6.5	1.7	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Acenaphthylene	1.4	U	6.5	1.4	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Acenaphthene	1.4	U	6.5	1.4	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Fluorene	1.4	U	6.5	1.4	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Phenanthrene	4.4	U	6.5	4.4	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Anthracene	0.59	U	6.5	0.59	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Fluoranthene	2.1	U	6.5	2.1	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Pyrene	1.5	U	6.5	1.5	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Benzo[a]anthracene	1.5	U	6.5	1.5	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Chrysene	1.5	U	6.5	1.5	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Benzo[b]fluoranthene	1.6	U	6.5	1.6	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Benzo[k]fluoranthene	1.8	U	6.5	1.8	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Benzo[a]pyrene	1.6	U	6.5	1.6	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Benzo[g,h,i]perylene	1.6	U	6.5	1.6	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Indeno[1,2,3-cd]pyrene	1.5	U	6.5	1.5	ug/Kg		11/08/21 07:44	11/09/21 06:57	1
Dibenz(a,h)anthracene	1.6	U	6.5	1.6	ug/Kg		11/08/21 07:44	11/09/21 06:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-methylnaphthalene-d10	65		20 - 150	11/03/21 0: 714	11/09/21 06:57	1
Fluoranthene-d10	: 6		25 - 150	11/03/21 0: 714	11/09/21 06:57	1

Lab Sample ID: LCS 660-245222/2-A

Matrix: Solid

Analysis Batch: 245262

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 245222

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	328	248		ug/Kg		76	51 - 114
2-Methylnaphthalene	328	245		ug/Kg		75	50 - 112
1-Methylnaphthalene	328	244		ug/Kg		74	50 - 113
Acenaphthylene	328	277		ug/Kg		84	55 - 115
Acenaphthene	328	273		ug/Kg		83	55 - 115
Fluorene	328	265		ug/Kg		81	58 - 118
Phenanthrene	328	260		ug/Kg		79	59 - 119
Anthracene	328	308		ug/Kg		94	58 - 118
Fluoranthene	328	278		ug/Kg		85	60 - 120
Pyrene	328	331		ug/Kg		101	62 - 127
Benzo[a]anthracene	328	280		ug/Kg		85	66 - 129
Chrysene	328	328		ug/Kg		100	66 - 127
Benzo[b]fluoranthene	328	279		ug/Kg		85	66 - 126
Benzo[k]fluoranthene	328	330		ug/Kg		101	62 - 125
Benzo[a]pyrene	328	304		ug/Kg		93	62 - 123
Benzo[g,h,i]perylene	328	282		ug/Kg		86	57 - 127
Indeno[1,2,3-cd]pyrene	328	263		ug/Kg		80	59 - 134
Dibenz(a,h)anthracene	328	273		ug/Kg		83	63 - 128

Eurofins TestAmerica, Tampa

QC Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Method: 8270D - PAHs by GC/MS (SIM) (Continued)

Lab Sample ID: LCS 660-245222/2-A

Matrix: Solid

Analysis Batch: 245262

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 245222

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-methylnaphthalene-d10	: 8		20 - 150
Fluoranthene-d10	35		25 - 150

Lab Sample ID: 660-115170-A-1-C MS

Matrix: Solid

Analysis Batch: 245262

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 245222

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	3.8	U	407	307		ug/Kg	✱	76	51 - 114
2-Methylnaphthalene	1.7	U	407	309		ug/Kg	✱	76	50 - 112
1-Methylnaphthalene	2.1	U	407	325		ug/Kg	✱	80	50 - 113
Acenaphthylene	1.8	U	407	337		ug/Kg	✱	83	55 - 115
Acenaphthene	1.7	U	407	333		ug/Kg	✱	82	55 - 115
Fluorene	1.8	U	407	341		ug/Kg	✱	84	58 - 118
Phenanthrene	5.5	U	407	307		ug/Kg	✱	75	59 - 119
Anthracene	0.74	U	407	366		ug/Kg	✱	90	58 - 118
Fluoranthene	2.5	U	407	337		ug/Kg	✱	83	60 - 120
Pyrene	1.9	U	407	381		ug/Kg	✱	94	62 - 127
Benzo[a]anthracene	1.8	U	407	345		ug/Kg	✱	85	66 - 129
Chrysene	1.9	U	407	394		ug/Kg	✱	97	66 - 127
Benzo[b]fluoranthene	1.9	U	407	349		ug/Kg	✱	86	66 - 126
Benzo[k]fluoranthene	2.2	U	407	397		ug/Kg	✱	98	62 - 125
Benzo[a]pyrene	2.0	U	407	369		ug/Kg	✱	91	62 - 123
Benzo[g,h,i]perylene	2.0	U	407	350		ug/Kg	✱	86	57 - 127
Indeno[1,2,3-cd]pyrene	1.8	U	407	321		ug/Kg	✱	79	59 - 134
Dibenz(a,h)anthracene	2.0	U	407	335		ug/Kg	✱	82	63 - 128

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2-methylnaphthalene-d10	: 4		20 - 150
Fluoranthene-d10	35		25 - 150

Lab Sample ID: 660-115170-A-1-D MSD

Matrix: Solid

Analysis Batch: 245262

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 245222

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	3.8	U	401	290		ug/Kg	✱	72	51 - 114	6	30
2-Methylnaphthalene	1.7	U	401	281		ug/Kg	✱	70	50 - 112	9	30
1-Methylnaphthalene	2.1	U	401	280		ug/Kg	✱	70	50 - 113	15	30
Acenaphthylene	1.8	U	401	310		ug/Kg	✱	77	55 - 115	8	30
Acenaphthene	1.7	U	401	304		ug/Kg	✱	76	55 - 115	9	30
Fluorene	1.8	U	401	306		ug/Kg	✱	76	58 - 118	11	30
Phenanthrene	5.5	U	401	285		ug/Kg	✱	71	59 - 119	7	30
Anthracene	0.74	U	401	338		ug/Kg	✱	84	58 - 118	8	30
Fluoranthene	2.5	U	401	329		ug/Kg	✱	82	60 - 120	3	30
Pyrene	1.9	U	401	356		ug/Kg	✱	89	62 - 127	7	30
Benzo[a]anthracene	1.8	U	401	314		ug/Kg	✱	78	66 - 129	10	30
Chrysene	1.9	U	401	364		ug/Kg	✱	91	66 - 127	8	30

Eurofins TestAmerica, Tampa

QC Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Method: 8270D - PAHs by GC/MS (SIM) (Continued)

Lab Sample ID: 660-115170-A-1-D MSD

Matrix: Solid

Analysis Batch: 245262

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 245222

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[b]fluoranthene	1.9	U	401	294		ug/Kg	✱	73	66 - 126	17	30
Benzo[k]fluoranthene	2.2	U	401	394		ug/Kg	✱	98	62 - 125	1	30
Benzo[a]pyrene	2.0	U	401	337		ug/Kg	✱	84	62 - 123	9	30
Benzo[g,h,i]perylene	2.0	U	401	316		ug/Kg	✱	79	57 - 127	10	30
Indeno[1,2,3-cd]pyrene	1.8	U	401	293		ug/Kg	✱	73	59 - 134	9	30
Dibenz(a,h)anthracene	2.0	U	401	305		ug/Kg	✱	76	63 - 128	9	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-methylnaphthalene-d10	6:		20 - 150
Fluoranthene-d10	::		25 - 150

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 660-245304/1-A

Matrix: Solid

Analysis Batch: 245320

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 245304

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.083	U	1.0	0.083	mg/Kg		11/09/21 10:33	11/09/21 14:13	1

Lab Sample ID: LCS 660-245304/2-A

Matrix: Solid

Analysis Batch: 245320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 245304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	47.7		mg/Kg		95	80 - 120

Lab Sample ID: 660-115149-C-1-B MS

Matrix: Solid

Analysis Batch: 245320

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 245304

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.092	U	59.9	56.8		mg/Kg	✱	95	75 - 125

Lab Sample ID: 660-115149-C-1-C MSD

Matrix: Solid

Analysis Batch: 245320

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 245304

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.092	U	50.1	47.3		mg/Kg	✱	94	75 - 125	18	20

QC Association Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

GC/MS Semi VOA

Prep Batch: 245222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115213-1	AS1	Total/NA	Solid	3546	
660-115213-2	AS2	Total/NA	Solid	3546	
660-115213-3	AS3	Total/NA	Solid	3546	
MB 660-245222/1-A	Method Blank	Total/NA	Solid	3546	
LCS 660-245222/2-A	Lab Control Sample	Total/NA	Solid	3546	
660-115170-A-1-C MS	Matrix Spike	Total/NA	Solid	3546	
660-115170-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 245262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115213-1	AS1	Total/NA	Solid	8270D	245222
660-115213-2	AS2	Total/NA	Solid	8270D	245222
660-115213-3	AS3	Total/NA	Solid	8270D	245222
MB 660-245222/1-A	Method Blank	Total/NA	Solid	8270D	245222
LCS 660-245222/2-A	Lab Control Sample	Total/NA	Solid	8270D	245222
660-115170-A-1-C MS	Matrix Spike	Total/NA	Solid	8270D	245222
660-115170-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	245222

Metals

Prep Batch: 245304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115213-1	AS1	Total/NA	Solid	3050B	
660-115213-2	AS2	Total/NA	Solid	3050B	
660-115213-3	AS3	Total/NA	Solid	3050B	
MB 660-245304/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 660-245304/2-A	Lab Control Sample	Total/NA	Solid	3050B	
660-115149-C-1-B MS	Matrix Spike	Total/NA	Solid	3050B	
660-115149-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 245320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115213-1	AS1	Total/NA	Solid	6010D	245304
660-115213-2	AS2	Total/NA	Solid	6010D	245304
660-115213-3	AS3	Total/NA	Solid	6010D	245304
MB 660-245304/1-A	Method Blank	Total/NA	Solid	6010D	245304
LCS 660-245304/2-A	Lab Control Sample	Total/NA	Solid	6010D	245304
660-115149-C-1-B MS	Matrix Spike	Total/NA	Solid	6010D	245304
660-115149-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	6010D	245304

General Chemistry

Analysis Batch: 245276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115213-1	AS1	Total/NA	Solid	Moisture	
660-115213-2	AS2	Total/NA	Solid	Moisture	
660-115213-3	AS3	Total/NA	Solid	Moisture	
660-115213-2 DU	AS2	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Client Sample ID: AS1

Date Collected: 11/08/21 13:10

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	245276	11/09/21 05:39	AJG	TAL TAM

Client Sample ID: AS1

Date Collected: 11/08/21 13:10

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-1

Matrix: Solid

Percent Solids: 80.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			245222	11/09/21 07:55	MT	TAL TAM
Total/NA	Analysis	8270D		5	245262	11/09/21 13:46	MWJ	TAL TAM
Total/NA	Prep	3050B			245304	11/09/21 10:33	GG	TAL TAM
Total/NA	Analysis	6010D		1	245320	11/09/21 15:50	GG	TAL TAM

Client Sample ID: AS2

Date Collected: 11/08/21 13:16

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	245276	11/09/21 05:24	AJG	TAL TAM

Client Sample ID: AS2

Date Collected: 11/08/21 13:16

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-2

Matrix: Solid

Percent Solids: 76.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			245222	11/09/21 07:55	MT	TAL TAM
Total/NA	Analysis	8270D		5	245262	11/09/21 13:25	MWJ	TAL TAM
Total/NA	Prep	3050B			245304	11/09/21 10:33	GG	TAL TAM
Total/NA	Analysis	6010D		1	245320	11/09/21 16:52	GG	TAL TAM

Client Sample ID: AS3

Date Collected: 11/08/21 13:22

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	245276	11/09/21 05:34	AJG	TAL TAM

Client Sample ID: AS3

Date Collected: 11/08/21 13:22

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-3

Matrix: Solid

Percent Solids: 78.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			245222	11/09/21 07:55	MT	TAL TAM
Total/NA	Analysis	8270D		5	245262	11/09/21 13:05	MWJ	TAL TAM
Total/NA	Prep	3050B			245304	11/09/21 10:33	GG	TAL TAM
Total/NA	Analysis	6010D		1	245320	11/09/21 16:55	GG	TAL TAM

Eurofins TestAmerica, Tampa

Lab Chronicle

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

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Method Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Method	Method Description	Protocol	Laboratory
8270D	PAHs by GC/MS (SIM)	SW846	TAL TAM
6010D	Metals (ICP)	SW846	TAL TAM
Moisture	Percent Moisture	EPA	TAL TAM
3050B	Preparation, Metals	SW846	TAL TAM
3546	Microwave Extraction	SW846	TAL TAM

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Accreditation/Certification Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-1

Laboratory: Eurofins TestAmerica, Tampa

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E84282	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:11/10/2021

Login Sample Receipt Checklist

Client: Professional Service Industries (PSI)

Job Number: 660-115213-1

Login Number: 115213

List Source: Eurofins TestAmerica, Tampa

List Number: 1

Creator: Arevalo, Maria L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

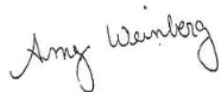
ANALYTICAL REPORT

Eurofins TestAmerica, Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

Laboratory Job ID: 660-115213-2
Client Project/Site: Washinton Park

For:
Professional Service Industries (PSI)
5801 Benjamin Center Drive
Suite 112
Tampa, Florida 33634

Attn: Scott Jordan



Authorized for release by:
11/15/2021 4:25:25 PM

Amy Weinberg, Project Manager II
(813)885-7427
amy.weinberg@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-115213-1	AS1	Solid	11/08/21 13:10	11/08/21 15:00
660-115213-2	AS2	Solid	11/08/21 13:16	11/08/21 15:00
660-115213-3	AS3	Solid	11/08/21 13:22	11/08/21 15:00

Case Narrative

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-2

Job ID: 660-115213-2

Laboratory: Eurofins TestAmerica, Tampa

Narrative

Job Narrative
660-115213-2

Comments

No additional comments.

Receipt

The samples were received on 11/8/2021 4:00 P3 . Mnless otherwise noted belowUthe samples arrived in , ood conditionUand where requiredUproperly preserved and on ice. The temperature of the cooler at receipt was 4.y° C.

Metals

No analqtical or gualitq issues were notedUother than those described in the Definitions/Glossarq pa, e.

Definitions/Glossary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-2

Qualifiers

Metals

Qualifier	Qualifier Description
T	Indicates that the cop would y as analmed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
U	zisted under the "D"colup n to desiLnate that the result is reworted on a drmy eiLht basis
" g	Percent gecoverm
C%z	Contains %ree ziRuid
C%T	Colonm%orp inL Tnit
CF%	Contains Fo %ree ziRuid
DNg	Duwlicate Nrror gatio (norp aliqed absolute difference)
Dil %ac	Dilution %actor
Dz	Detection zip it (DoD/DEN)
DzQg, QgNQF	Indicates a DilutionQg e-analmsisQg e-eAtractionCor additional Initial p etals/anion analmsis of the sap we
DzC	Decision zewel Concentration (g adiochep istrm)
NDz	Nstip ated Detection zip it (DioAin)
zED	zip it of Detection (DoD/DEN)
zEx	zip it of x uantitation (DoD/DEN)
QCz	NP, recop p ended "QaAip up Contap inant zewel"
QD,	Qinip up Detectable , ctivitm(g adiochep istrm)
QDC	Qinip up Detectable Concentration (g adiochep istrm)
QDz	Qethod Detection zip it
Qz	Qinip up zewel (DioAin)
QPF	Qost Probable Fup ber
Qx z	Qethod x uantitation zip it
FC	Fot Calculated
FD	Fot Detected at the rewortinL lip it (or QDz or NDz if shoy n)
FNM	FeLative / , bsent
PES	Positive / Present
Px z	Practical x uantitation zip it
PgNS	Presup wtive
x C	x ualitmControl
g Ng	g elative Nrror gatio (g adiochep istrm)
g z	g ewortinL zip it or g eRusted zip it (g adiochep istrm)
g PD	g elative Percent DifferenceQa p easure of the relative difference bety een ty o woints
GN%	GAcitmNRuivalent %actor (DioAin)
GNx	GAcitmNRuivalent x uotient (DioAin)
GF GC	Goo Fup erous G Count

Detection Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-2

Client Sample ID: AS1

Lab Sample ID: 660-115213-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.011		0.010	0.0019	mg/L	1		6010D	SPLP East

Client Sample ID: AS2

Lab Sample ID: 660-115213-2

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.16		0.010	0.0019	mg/L	1		6010D	SPLP East

Client Sample ID: AS3

Lab Sample ID: 660-115213-3

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.076		0.010	0.0019	mg/L	1		6010D	SPLP East

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Tampa

Client Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-2

Client Sample ID: AS1

Date Collected: 11/08/21 13:10

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-1

Matrix: Solid

Method: 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011		0.010	0.0019	mg/L		11/12/21 08:50	11/15/21 12:49	1

Client Sample ID: AS2

Date Collected: 11/08/21 13:16

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-2

Matrix: Solid

Method: 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.16		0.010	0.0019	mg/L		11/12/21 08:50	11/15/21 13:01	1

Client Sample ID: AS3

Date Collected: 11/08/21 13:22

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-3

Matrix: Solid

Method: 6010D - Metals (ICP) - SPLP East

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.076		0.010	0.0019	mg/L		11/12/21 08:50	11/15/21 13:04	1

QC Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-2

Method: 6010D - Metals (ICP)

Lab Sample ID: LCS 660-245513/2-A

Matrix: Solid

Analysis Batch: 245613

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 245513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.905		mg/L		99	100 - 120

Lab Sample ID: LB 660-245488/1-B

Matrix: Solid

Analysis Batch: 245613

Client Sample ID: Method Blank

Prep Type: SPLP East

Prep Batch: 245513

Analyte	LB Result	LB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019	8	0.010	0.0019	mg/L		11/12/21 00:50	11/15/21 12:70	1

Lab Sample ID: 660-115213-1 MS

Matrix: Solid

Analysis Batch: 245613

Client Sample ID: AS1

Prep Type: SPLP East

Prep Batch: 245513

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.011		1.00	1.01		mg/L		100	35 - 125

Lab Sample ID: 660-115213-1 MSD

Matrix: Solid

Analysis Batch: 245613

Client Sample ID: AS1

Prep Type: SPLP East

Prep Batch: 245513

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.011		1.00	1.01		mg/L		100	35 - 125	1	20

QC Association Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-2

Metals

Leach Batch: 245488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115213-1	AS1	SPLP East	Solid	1312	
660-115213-2	AS2	SPLP East	Solid	1312	
660-115213-3	AS3	SPLP East	Solid	1312	
LB 660-245488/1-B	Method Blank	SPLP East	Solid	1312	
660-115213-1 MS	AS1	SPLP East	Solid	1312	
660-115213-1 MSD	AS1	SPLP East	Solid	1312	

Prep Batch: 245513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115213-1	AS1	SPLP East	Solid	3010A	245488
660-115213-2	AS2	SPLP East	Solid	3010A	245488
660-115213-3	AS3	SPLP East	Solid	3010A	245488
LB 660-245488/1-B	Method Blank	SPLP East	Solid	3010A	245488
LCS 660-245513/2-A	Lab Control Sample	Total/NA	Solid	3010A	
660-115213-1 MS	AS1	SPLP East	Solid	3010A	245488
660-115213-1 MSD	AS1	SPLP East	Solid	3010A	245488

Analysis Batch: 245613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115213-1	AS1	SPLP East	Solid	6010D	245513
660-115213-2	AS2	SPLP East	Solid	6010D	245513
660-115213-3	AS3	SPLP East	Solid	6010D	245513
LB 660-245488/1-B	Method Blank	SPLP East	Solid	6010D	245513
LCS 660-245513/2-A	Lab Control Sample	Total/NA	Solid	6010D	245513
660-115213-1 MS	AS1	SPLP East	Solid	6010D	245513
660-115213-1 MSD	AS1	SPLP East	Solid	6010D	245513

Lab Chronicle

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-2

Client Sample ID: AS1

Date Collected: 11/08/21 13:10

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			245488	11/11/21 15:45	AA	TAL TAM
SPLP East	Prep	3010A			245513	11/12/21 08:50	GG	TAL TAM
SPLP East	Analysis	6010D		1	245613	11/15/21 12:49	GG	TAL TAM

Client Sample ID: AS2

Date Collected: 11/08/21 13:16

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			245488	11/11/21 15:45	AA	TAL TAM
SPLP East	Prep	3010A			245513	11/12/21 08:50	GG	TAL TAM
SPLP East	Analysis	6010D		1	245613	11/15/21 13:01	GG	TAL TAM

Client Sample ID: AS3

Date Collected: 11/08/21 13:22

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115213-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP East	Leach	1312			245488	11/11/21 15:45	AA	TAL TAM
SPLP East	Prep	3010A			245513	11/12/21 08:50	GG	TAL TAM
SPLP East	Analysis	6010D		1	245613	11/15/21 13:04	GG	TAL TAM

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Method Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115213-2

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL TAM
1312	SPLP Extraction	SW846	TAL TAM
3010A	Preparation, Total Metals	SW846	TAL TAM

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Accreditation/Certification Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-2

Laboratory: Eurofins TestAmerica, Tampa

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E83282	06-40-22

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Login Sample Receipt Checklist

Client: Professional Service Industries (PSI)

Job Number: 660-115213-2

Login Number: 115213

List Source: Eurofins TestAmerica, Tampa

List Number: 1

Creator: Arevalo, Maria L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Facility/Site Name: Washington Park Preserve
 Location: Palmetto, Florida
 Facility/Site ID No.: _____
 Soil Sample No. AS1
 Sample Date 11/8/2021
 Location: Spoils Pile
 Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.130	1.0	0.1300
Benzo(a)anthracene	0.092	0.1	0.0092
Benzo(b)fluoranthene	0.190	0.1	0.0190
Benzo(k)fluoranthene	0.082	0.01	0.0008
Chrysene	0.130	0.001	0.0001
Dibenz(a,h)anthracene	0.021	1.0	0.0210
Indeno(1,2,3-cd)pyrene	0.043	0.1	0.0043

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = **0.2**

The concentration shown EXCEEDS the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Summary Criteria for Table Entries			
Detection	Concentration Reported	Data Qualifier	Enter
Various	Quantified with certainty	None	reported value
Various	Estimated	J	reported (estimated) value
ND at MDL	MDL	U	1/2 reported value
< MDL	Estimated	T	reported (estimated) value
≥ MDL but < PQL	Estimated	I	reported (estimated) value
≥ MDL but < PQL	PQL	M	1/2 reported value

Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Facility/Site Name: Washington Park Preserve
 Location: Palmetto, Florida
 Facility/Site ID No.: _____
 Soil Sample No. AS2
 Sample Date 11/8/2021
 Location: Spoils Pile
 Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.060	1.0	0.0600
Benzo(a)anthracene	0.045	0.1	0.0045
Benzo(b)fluoranthene	0.084	0.1	0.0084
Benzo(k)fluoranthene	0.039	0.01	0.0004
Chrysene	0.062	0.001	0.0001
Dibenz(a,h)anthracene	0.005	1.0	0.0050
Indeno(1,2,3-cd)pyrene	0.021	0.1	0.0021

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = 0.1

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Summary Criteria for Table Entries			
Detection	Concentration Reported	Data Qualifier	Enter
Various	Quantified with certainty	None	reported value
Various	Estimated	J	reported (estimated) value
ND at MDL	MDL	U	1/2 reported value
< MDL	Estimated	T	reported (estimated) value
≥ MDL but < PQL	Estimated	I	reported (estimated) value
≥ MDL but < PQL	PQL	M	1/2 reported value

Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Facility/Site Name: Washington Park Preserve
 Location: Palmetto, Florida
 Facility/Site ID No.: _____

Soil Sample No. AS3
 Sample Date 11/8/2021
 Location: Spoils Pile
 Depth (ft): _____

INSTRUCTIONS: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value;
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value;
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value;
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value;
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

Contaminant	Concentration (mg/kg)	Toxic Equivalency Factor	Benzo(a)pyrene Equivalents
Benzo(a)pyrene	0.062	1.0	0.0620
Benzo(a)anthracene	0.037	0.1	0.0037
Benzo(b)fluoranthene	0.061	0.1	0.0061
Benzo(k)fluoranthene	0.033	0.01	0.0003
Chrysene	0.065	0.001	0.0001
Dibenz(a,h)anthracene	0.011	1.0	0.0110
Indeno(1,2,3-cd)pyrene	0.020	0.1	0.0020

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

Total Benzo(a)pyrene Equivalents = 0.1

The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.

The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.

Summary Criteria for Table Entries			
Detection	Concentration Reported	Data Qualifier	Enter
Various	Quantified with certainty	None	reported value
Various	Estimated	J	reported (estimated) value
ND at MDL	MDL	U	1/2 reported value
< MDL	Estimated	T	reported (estimated) value
≥ MDL but < PQL	Estimated	I	reported (estimated) value
≥ MDL but < PQL	PQL	M	1/2 reported value

ANALYTICAL REPORT

Eurofins TestAmerica, Tampa
6712 Benjamin Road
Suite 100
Tampa, FL 33634
Tel: (813)885-7427

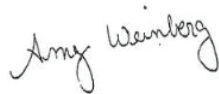
Laboratory Job ID: 660-115214-1

Client Project/Site: Washinton Park

For:

Professional Service Industries (PSI)
5801 Benjamin Center Drive
Suite 112
Tampa, Florida 33634

Attn: Scott Jordan



Authorized for release by:
11/11/2021 1:08:36 PM

Amy Weinberg, Project Manager II
(813)885-7427

amy.weinberg@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
660-115214-1	MW-A	Water	11/08/21 10:43	11/08/21 15:00

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Case Narrative

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Job ID: 660-115214-1

Laboratory: Eurofins TestAmerica, Tampa

Narrative

Job Narrative
660-115214-1

Comments

No additional comments.

Receipt

The sample was received on 11/8/2021 3:00 PM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.4° C.

Metals

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

Definitions/Glossary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Qualifiers

Metals

Qualifier	Qualifier Description
I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U	Indicates that the compound was analyzed for but not detected.

Glossary

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

Detection Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Lab Sample ID: 660-115214-1

Analyte	Result	Qualifier	PQL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0024	I	0.010	0.0019	mg/L	1		6010D	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Tampa

Client Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Date Collected: 11/08/21 10:43

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115214-1

Matrix: Water

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

Analyte	Result	Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024	I	0.010	0.0019	mg/L		11/10/21 08:46	11/11/21 10:12	1

QC Sample Results

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 660-245375/1-A
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	MB Result	MB Qualifier	PQL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019	U	0.010	0.0019	mg/L		11/10/21 08:46	11/11/21 09:52	1

Lab Sample ID: LCS 660-245375/2-A
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.00		mg/L		100	80 - 120

Lab Sample ID: 660-115185-B-1-D MS
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Matrix Spike
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0027	I	1.00	1.03		mg/L		103	75 - 125

Lab Sample ID: 660-115185-B-1-E MSD
Matrix: Water
Analysis Batch: 245436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total Recoverable
Prep Batch: 245375

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0027	I	1.00	1.02		mg/L		102	75 - 125	1	20

QC Association Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Metals

Prep Batch: 245375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115214-1	MW-A	Total Recoverable	Water	3005A	
MB 660-245375/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 660-245375/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
660-115185-B-1-D MS	Matrix Spike	Total Recoverable	Water	3005A	
660-115185-B-1-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	3005A	

Analysis Batch: 245436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
660-115214-1	MW-A	Total Recoverable	Water	6010D	245375
MB 660-245375/1-A	Method Blank	Total Recoverable	Water	6010D	245375
LCS 660-245375/2-A	Lab Control Sample	Total Recoverable	Water	6010D	245375
660-115185-B-1-D MS	Matrix Spike	Total Recoverable	Water	6010D	245375
660-115185-B-1-E MSD	Matrix Spike Duplicate	Total Recoverable	Water	6010D	245375

Lab Chronicle

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Client Sample ID: MW-A

Date Collected: 11/08/21 10:43

Date Received: 11/08/21 15:00

Lab Sample ID: 660-115214-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			245375	11/10/21 08:46	GG	TAL TAM
Total Recoverable	Analysis	6010D		1	245436	11/11/21 10:12	GG	TAL TAM

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Method Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	TAL TAM
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL TAM

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAM = Eurofins TestAmerica, Tampa, 6712 Benjamin Road, Suite 100, Tampa, FL 33634, TEL (813)885-7427

Accreditation/Certification Summary

Client: Professional Service Industries (PSI)
Project/Site: Washinton Park

Job ID: 660-115214-1

Laboratory: Eurofins TestAmerica, Tampa

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Florida	NELAP	E84282	06-30-22

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Login Sample Receipt Checklist

Client: Professional Service Industries (PSI)

Job Number: 660-115214-1

Login Number: 115214

List Source: Eurofins TestAmerica, Tampa

List Number: 1

Creator: Arevalo, Maria L

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	