Attachment A

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Engineering A Sustainable Future
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SITE ASSESSMENT REPORT ADDENDUM #5

PIONEER GARDENS
(FORMER RUCKS WASTEWATER TREATMENT PLANT)
13760 TO 13780 NORTHEAST 5TH AVENUE
NORTH MIAMI, FLORIDA

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Project: City of NM-PG

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1.0 INTRODUCTION AND BACKGROUND

This Site Assessment Report Addendum #5 (SARA#5) presents the results of on-site groundwater sampling and off-site soil assessment conducted at the former Rucks Wastewater Treatment Plant, 13670-13800 Northeast 5th Avenue, North Miami, Miami-Dade County, Florida. **Figure 1, Appendix A** is a Site Map illustrating the property boundary, adjacent streets, and onsite features. This site is owned by the City of North Miami. This Site Assessment Report Addendum has been prepared according to the applicable provisions of Miami-Dade County Code Section 24-11.

Historical research into past uses of the Site has identified several areas of concern. The majority of the site was previously operated as a wastewater treatment plant with a portion of the property known to have contained a plant nursery area. The purpose of this SARA #5 is to obtain additional data on groundwater quality and characterize and fully define the horizontal extent of soil quality at the Site.

1.1 Background

The Site is approximately six acres in size and is located in the area bounded by Northeast 139th Street on the north, Northeast 137th Street on the south, Northeast 4th Avenue on the west, and Northeast 5th Avenue on the east. A wastewater treatment plant (WWTP) operated at the Site from approximately 1963 until 1983. Features on the Site associated with the WWTP consisted of a control house, digester tanks, settling ponds, and storage sheds.

Five areas of concern have been identified on the Site. 1) former sludge pond; 2) street sweepings area; 3) former pond area; 4) plant nursery; and 5) underground storage tank area. **Figure 1, Site Map, Appendix A** identifies the nursery, street sweeping and former UST area with different colored borders.

A Site Assessment Report (SAR) was submitted to DERM in September 2008 documenting soil and groundwater assessment to characterize and define the extent of the effects of past site activities on soil and groundwater quality at the Site. Based on comments from the September 2008 SAR, a Site Assessment Report Addendum (SARA) was prepared and submitted to DERM in January 2009.

A Contamination Assessment Plan (CAP) was generated in April and May 2009 and submitted to DERM for review and comment. The CAP was formulated based on the proposed development of the property with new for-sale affordable housing. DERM submitted comments in a June 25, 2009 letter.

A Site Assessment Report Addendum was prepared in September 2009 documenting the boundary assessment performed on the soil and groundwater at the Site. DERM submitted a review/comments letter on December 21, 2009 (**Appendix B**). A Response to Comments letter was prepared and submitted to DERM on April 15, 2010 based on these December 2009 comments.

DERM submitted an additional review letter on July 6, 2010 (**Appendix B**) which requested another Site Assessment Report Addendum be submitted and requested additional delineation of the soils throughout the Site.

Between July 2010 and October 2010, the development plan for the Site changed from affordable housing to one with "no specific plan".

Between October 2010 and February 2011, Eco Advisors and the NMCRA worked to generate a source removal plan for the Site. In November 2010, Eco Advisors installed a new monitoring well (MW-Street Sweeping-2D (1I)) as requested in DERMs December 21, 2009 comments letter. In addition, soil sampling was conducted in November and December 2010 to determine the leachability of dieldrin within the soils in the nursery area and to confirm the benzo(a)pyrene concentrations along the property boundary. Eco Advisors did not formally submitted the November/December 2010 soil or groundwater data to DERM until the April 2012 SARA#3 submittal.

On February 24, 2011, North Miami CRA requested a suspension of assessment and remediation activities at the Site due to legal issues and economic conditions at that time. In a March 21, 2011 letter (**Appendix B**), DERM granted a deferment of assessment/remediation of impacted soils at the Site. However, DERM could not grant an indefinite extension for groundwater assessment. As a result, DERM required submittal of a SARA including re-sampling of key monitoring wells at the Site.

Eco Advisors submitted a groundwater sampling plan and schedule for additional horizontal and vertical assessment of the groundwater at the Site. DERM reviewed the

plan and schedule in a letter dated June 6, 2011 (**Appendix B**), with no objection to the proposed sampling plan.

On August 8, 2011, Eco Advisors submitted a SARA#2 to the Department of Permitting, Environment, and Regulatory Affairs (PERA) formerly DERM including groundwater sampling from all on-site monitoring wells conducted in July 2011. PERA's written response dated October 3, 2011 (**Appendix B**) included a number of comments/requests including the following: 1) new monitoring wells to the east and west, 2) a new deep monitoring well, and 3) submittal of the November/December 2010 soil and groundwater sampling results.

Around the time of the submittal of the August 2011 SARA#2, the North Miami CRA transferred the property back to the City of North Miami. At this time the City of North Miami Public Works and Parks & Recreation Departments took over management and became Eco Advisors new contacts.

In December 2011, the City of North Miami Public Works Department, along with the Parks and Recreations Department requested an extension of time for the submittal of the SARA #3 until an Architectural and Engineering Firm could be secured and draft a new development plan for the Site. PERA reviewed this request and submitted a response letter on January 27, 2012 (**Appendix B**). In summary, PERA requested a meeting to discuss any proposal to construct a recreation facility at the Site. They also requested that another round of groundwater assessment be performed.

In response to the January 2012 PERA letter, Eco Advisors submitted a proposal to the City of North Miami for the requested monitoring well installation and groundwater assessment. The three requested monitoring wells were installed in March 2012 and groundwater samples from five monitoring wells were collected in April 2012. The results of the April 2012 groundwater sampling activity were presented in SARA #3 submitted on May 1, 2012. Also included within this report were responses to comments from the June 6, 2011 PERA letter and, documentation of soil and groundwater sampling conducted in November/December 2010.

Miami Dade Regulatory and Economic Resources (RER) (formerly PERA) reviewed this May 2012 SARA #3 and submitted a response letter dated June 5, 2012 (**Appendix B**). The letter cited that a previously requested meeting had still not been arranged between

the City and RER; and requested the collection of groundwater samples from all perimeter monitoring wells. In addition, RER requested that the next submittal include a specific proposal to address soils exceeding direct exposure and leachability CTLs.

On July 11, 2012, Eco Advisors and the City of North Miami met with RER to discuss the future of the property and the requests from the June 5, 2012 correspondence. Prior to this meeting, Eco Advisors drafted a groundwater sampling plan along with a separate plan to complete the soil assessment required to determine the best course of action for remediation in connection with the proposed Site development.

SARA#4 was submitted on September 13, 2012. This addendum documented the results of the groundwater assessment activities conducted in July 2012.

RER reviewed SARA#4 and submitted a response letter on November 9, 2012 (**Appendix B**). RER requested that a notarized affidavit from the City of North Miami legal property owner was required to move forward with Conditional Closure for the Site. In addition, RER agreed with the recommendation to conduct off-site soil sampling to define the horizontal extent of soil contaminants at the Site. RER also noted that an interim monitoring plan could not be approved until an evaluation of the arsenic concentrations in MW-7 was completed. Finally, RER requested that the groundwater contaminant plumes be updated and included in the next submittal.

1.2 Scope of Work

The activities associated with the Site Assessment Report Addendum (SARA) #5 were performed between January 25th and February 12th, 2013 and included:

- Gauging the depth to groundwater in all on-site monitoring wells. The location of the monitoring wells are illustrated in **Figure 1, Appendix A**;
- Collecting groundwater samples from monitoring wells MW-7, MW-Street Sweeping, and MW-Street Sweeping-1D and analyzing these samples for the presence of Total Arsenic or Ammonia via EPA Test Method 6010B and EPA Test Method 350.1.
- Conducting off-site soil analysis for the presence of arsenic, dieldrin, and PAHs in selected areas west, south, and east of the Site property lines.

- Updating the existing soil and groundwater figures to indicate iso-concentration contours for each contaminant across the Site by depth.

The performance and results of this soil and groundwater sampling event, along with recommendations for future action at the Site, are presented in the following sections.

1.3 Quality Assurance

All field activities were conducted in general accordance with Chapter 62-770, FAC and "FDEP Standard Operating Procedures (SOP) for Field Activities (DEP-SOP-001/01)" including FT1000 "General Field Testing and Measurements", and FS2200 "Groundwater Sampling". Groundwater sample analysis was conducted by Pace Analytical Services, Inc, 3610 Park Central Blvd N, Pompano Beach, FL 33064 (Laboratory certification No. E86240).

2.0 RESPONSES TO NOVEMBER 9, 2012 RER LETTER

RER Comment #1

The SARA states that "Conditional Closure is generally selected for this site" and that an engineering control plan will be submitted to RER following more defined site development. Be advised that pursuant to Comment 1 of RER's January 27, 2012 letter, if a No Further Action with Conditions is sought for the site, a notarized affidavit signed by the legal property owner stating his/her intent for a conditional site closure and acknowledging and accepting what this type of closure entails, is required.

Eco Advisors Response #1

Eco Advisors prepared a draft affidavit letter for the City of North Miami. This letter was reviewed and subsequently signed by the City of North Miami City Manager. The letter is included in **Appendix C** of this report. .

RER Comment #2

RER does not object to the recommendation to conduct off-site soil sampling for arsenic, PAHs and dieldrin. However, please note that additional off-site soil samples are recommended east of UST-28 and east of UST-30 for PAH analysis.

Eco Advisors Response #2

Eco Advisors conducted off-site soil assessment for arsenic, PAHs, and dieldrin in January 2013. The results of the assessment are documented in Section 3.0 of this report. In addition, Figures 2-14 have been updated to include these off-site soil borings, the results of the analysis at each boring and associated depth interval, and the iso-concentration contours for each analyte.

RER Comment #3

The SARA recommends semi-annual groundwater monitoring of all wells at the site for arsenic, ammonia and fecal coliform to monitor the stability of the groundwater plumes. Be advised that the vertical and horizontal extent of the contaminant plume(s) has not been fully delineated (i.e., ammonia at the intermediate depth, arsenic west of MW-7, etc.). Therefore, an interim monitoring plan cannot be approved at this time. Delineate the groundwater contaminant plumes and provide the results and updated iso-concentration line maps in the next submittal. Please note that separate maps shall be provided per contaminant of concern and per aquifer stratum. Additionally, evaluate the increase in the arsenic concentration in MW-7 (ie., from 9.3 ppb on July 14, 2011 to 228 ppb on July 23, 2012) and discuss the possible causes for the concentration increase. Based on the information provided, RER will comment on the appropriateness of a groundwater monitoring plan for the site.

Eco Advisors Response #3

Eco Advisors acknowledges that the vertical and horizontal extent of the contaminant plume(s) has not been fully delineated with respect to arsenic at MW-7 (12 ft bls) and ammonia at the intermediate depth (approximately 25-30 feet bls)

RER project manager, Ms. Sandra Rezola and Eco Advisors discussed the groundwater assessment with respect to ammonia within the intermediate depth. In December 2012, the Florida Department of Environmental Protection issued a memorandum which may eliminate the groundwater CTL for ammonia from Chapter 62-777, FAC.

It is Eco Advisors understanding that if Miami Dade RER adopts the recommendations included in the FDEP memo, further vertical delineation of the intermediate depth for ammonia in groundwater may not be necessary. Instead, what would be required is an assessment of the movement of intermediate depth ammonia towards the nearest surface water body, which is approximately 0.25 miles or 1,320 feet west of the Site. Monitoring of this movement would be performed for one year.

MW-Street Sweeping and MW-Street Sweeping -1D will be re-sampled and analyzed for the presence of ammonia to determine the current groundwater quality within this area. The results of this sampling activity are presented in Section 4.0 of this report.

Finally, RER and Eco Advisors also discussed the groundwater assessment with respect to arsenic within MW-7. RER and Eco Advisors agreed to resample MW-7 and evaluate 1) the arsenic concentrations between July 2011 and 2012; and 2) the feasibility to install a new shallow monitoring well to the west of MW-7.

RER Comment #4

Note that all subsequent submittals shall provide information on the status of the fencing and vegetative cover at the site.

Eco Advisors Response #4

This comment is acknowledged by Eco Advisors. Currently the Site has a vegetative cover and/or asphalt cover. Fencing is being maintained around the entire property.

RER Comment #5

Please be advised that Dieldrin was not analyzed in SS-10, SS-14 and SS-15; therefore, please make the necessary corrections to Figures 8 through 10.

Eco Advisors Response #5

These corrections have been made and updated in Figures 8-10, **Appendix A**.

RER Comment #6

Comment 4 of RER's June 5, 2012 letter was not discussed. Please clarify the discrepancy with respect to the differing locations of MW-12, MW-13, and MW-14 in the SAR and SARA submittals.

Eco Advisors Response #6

The discrepancy with respect to the differing locations of MW-12, MW-13, and MW-14 in the SAR and SARA submittals was an error not originally corrected when the monitoring wells were installed and figures were modified. The final location of the monitoring wells was shifted south due to the presence of utilities and other structures in the northeast corner of the Site.

RER Comment #7

Please be advised that several data entry fields in the July 2012 Groundwater Sampling Logs have error markings (i.e., cross outs, etc.) without initials. Be advised that pursuant to Section FD 1100 of FDEP's Standard Operating Procedures (SOPs) DEP-SOP-001/01, a marked error and its correction shall be initialed or signed.

Eco Advisors Response #7

Eco Advisors will advise field personnel that all cross-outs require initials per Section FD 1100 of FDEP SOPs DEP-SOP-001/01.

3.0 OFF-SITE SOIL ASSESSMENT

3.1 Soil Sampling and Analysis

Off-Site soil sampling was conducted on January 25, 2013. A total of fourteen (14) soil borings were installed to the west, south, and east of the Site (OS-1 through OS-14). A fifteenth soil boring (OS-15) was scheduled to the east of UST-28, however, access to the Miami Dade County Pump Station could not be coordinated. Eco Advisors will continue to pursue the site manager and collect an offsite soil sample in this area at a later date. . Soil boring locations are shown in **Figures 2 and 3, Appendix A.**

The soil borings were advanced by hand using a 3-inch diameter stainless steel bucket auger. Borings at the Site were advanced to a depth of 3 to 4 feet below land surface (bls) (water table). Final depths varied depending on the location and the water table depth encountered. Soil sample intervals were matched to the adjacent/on-site soil sample depth intervals: 0 to 2 feet and 2.0 to 4.0 feet bls (or the water table, whichever was encountered first) or 0 to 6 inches, 6 inches to 2 feet, and 2 feet to 4.0 feet (or water table, whichever was encountered first).

A total of 37 soil samples were collected and analyzed for the presence of arsenic, PAHs, and dieldrin (total and SPLP). **Table 1, Appendix D** outlines the sampling parameters for each soil sample.

3.2 Soil Sampling Results

Arsenic was analyzed in 31 of the 37 soil samples collected, and was detected at concentrations greater than the residential SCTL in 24 of the 31 samples. These samples included OS-1 (0-2’), OS-1 (2-4’), OS-2 (0-2’), OS-2 (2-4’), OS-3 (0-6”), OS-3 (6”-2’), OS-3 (2’-4’), OS-5 (0-6”), OS-6 (0-6”), OS-6 (6”-2’), OS-6 (2’-4’), OS-7 (0-6”), OS-7 (6”-2’), OS-7 (2’-4’), OS-8 (0-6”), OS-8 (6”-2’), OS-8 (2’-4’), OS-9 (0-6”), OS-9 (6”-2’), OS-9 (2’-3’), OS-10 (0-6”), OS-10 (6”-2’), OS-10 (2’-4’), and OS-11 (6”-2’). In addition, OS-1(2-4’) exceeded the industrial SCTL for arsenic with a concentration of 24.5 mg/kg.

Twelve samples were analyzed for the presence of dieldrin. They were: OS-4 (0-6”), OS-4 (6”-2’), OS-4 (2’-4’), OS-5, (2-3’), OS-6 (2-3’), OS-7 (0-6”), OS-7 (6”-2’), OS-7 (2’-

4'), OS-8 (2-3'), OS-9 (0-6"), OS-9 (6"-2'), and OS-9 (2'-3'). None of these samples contained dieldrin at a concentration exceeding it's residential SCTL.

In addition, three (3) of the 12 samples analyzed for dieldrin were also analyzed for SPLP dieldrin. None had SPLP dieldrin concentrations greater than it's GCTL.

A total of 28 soil samples were collected and analyzed for the presence of PAHs. Nine of the 28 samples had Total benzo(a)pyrene (Total BaP) equivalent present at concentrations greater than their respective residential and industrial SCTLs. This included OS-5 (0-6"), OS-6 (0-6"), OS-7 (0-6"), OS-7 (6"-2'), OS-8 (0-6"), OS-8 (6"-2'), OS-11 (0-6"), OS-12 (0-2'), and OS-13 (0-2').

Soil exceeding the SCTLs for Total BaP were generally observed in samples from the 0 to 0.5 ft depth, both west and southeast of the Nursery area, and east of the Street Sweeping Area. Soil exceeding the SCTLs west of the Nursery Area were also found at the 6-inch to 2 foot depth interval.

Concentrations of Total BaP less than the SCTL were present north of the Nursery Area, west of the Street Sweeping Area, and southeast of the Site.

Tables 1a, 1b, 1c, 2a, 2b, and 2c, Appendix D summarize the laboratory analyses conducted on soil samples collected from each area at the Site at each interval. The analytical results are illustrated in **Figures 2 through 13, Appendix A**. Field notes for this soil sample collection activity are provided in **Appendix E**. The laboratory analytical reports for the January 2013 soil sample analysis is provided in **Appendix F.**

4.0 JANUARY 2013 GROUNDWATER ASSESSMENT

Access to the property is restricted by a chain link fence surrounding the property. Three gates are present at the north, south, and east sides of the Site; each of the gates secured by a chain and lock. The Site remains covered by vegetation (grass) which is maintained monthly.

4.1 Groundwater Levels and Flow Direction

On February 12, 2013, depth to groundwater was gauged in all Site monitoring wells using a Solinst Model 101 – electronic water level indicator. Static groundwater levels ranged from 5.30 feet below top of well casing (ft. btoc) in MW-17 to 7.76 ft. btoc in MW-Nursery-3.

The water table depths were referenced to the well top of casing elevations to provide water table elevations at each well. A summary of the depth to water level measurements and groundwater elevations is presented in **Table 4**, **Appendix D and illustrated in Figure 14, Appendix A**.

The hydraulic gradient and groundwater flow direction varies across the Site. **Figure 14, Appendix A** suggests the presence of two areas of groundwater movement, one on the north side, and one on the southwest side of the Site. As a result, the groundwater radiates in several different directions towards the middle of the Street Sweeping Area at a very slight gradient of 0.0012 ft/ft (1.4 inches per 100 ft) and towards the middle of the Nursery Area at a gradient of approximately 0.0036 ft/ft (4 inches per 100 ft)..

4.2 Groundwater Sample Collection and Analysis

On January 29, 2013, groundwater samples were collected from three onsite monitoring wells: MW-7, MW-Street Sweeping-1, and MW-Street Sweeping-1D.

Prior to sample collection, each monitoring well was purged using a peristaltic pump and dedicated polyethylene tubing until parameter stabilization occurred. The pump flow rate was approximately 0.1 to 0.3 gallons per minute, and the parameters monitored included: pH, turbidity, temperature, dissolved oxygen, and conductivity. All purge water was discharged into new 55-gallon drums staged for ultimate off-site disposal. .

Groundwater samples were collected utilizing a peristaltic pump and dedicated tubing in accordance with the appropriate FDEP SOP (FS 2200 Groundwater Sampling). Upon collection, the samples were immediately placed on ice in an insulated cooler and hand-delivered to Pace Analytical, following appropriate preservation and chain-of-custody

protocols. The groundwater was analyzed in accordance with EPA Test Methods 6010B for total arsenic (MW-7), and EPA Test Method 350.1 for Ammonia (MW-Street Sweeping-1 and MW-Street Sweeping-1D).

Table 5, **Appendix D** provides a summary of the groundwater analytical results. Copies of the Groundwater Sampling Logs are included in **Appendix E**. Copies of the laboratory analytical reports are included in **Appendix G**.

4.3 Groundwater Sample Results

Arsenic

The concentration of arsenic within MW-7 was 0.144 mg/L, which is greater than it's GCTL of 0.010 mg/L, but less than that observed in July 2012 (0.228 mg/L).

The arsenic concentration for MW-7 for this January 2013 sampling event is approximately half of that observed in two previous sampling events (September 2009 and July 2012). Although the arsenic concentration obtained during the sampling of this monitoring well in July 2011 was less than the GCTL, all other results have been much greater than the GCTL.

Eco Advisors compared groundwater elevation and flow data with the arsenic concentrations observed at this monitoring well. The comparison suggests that there may be in increase in arsenic levels when groundwater flow is from the east-northeast, i.e., from the center of the Site where arsenic concentrations are higher.

In addition, the area to the west of monitoring well MW-7 contains trees, large brush and uneven ground as seen in the photographs included in **Appendix H**. Eco Advisors will work with the City of North Miami to investigate the feasibility of installing an additional shallow well to the west of MW-7.

Figure 15a, 15b, and 15c, Appendix A illustrates the locations of the monitoring wells and the concentrations of arsenic observed between July 2011 and January 2013. Iso-concentrations contours were generated using the April/July 2012 and January 2013 data.

Ammonia

Concentrations of ammonia within MW-Street Sweeping-1 and MW-Street Sweeping-1D were 14.2 mg/L and 19.7 mg/L, respectively. Both concentrations are greater than

ammonia's GCTL of 2.8 mg/L. However, these levels are both below the concentrations recorded during the July 2011 and April 2012 sampling events.

Figures 16a, 16b, and 16c, Appendix A show the locations of the monitoring wells and the concentrations of ammonia recorded between July 2011 and January 2013. Iso-concentrations contours were generated using the April/July 2012 and January 2013 data.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Based on the off-site soil and onsite groundwater sampling and analysis performed during January 2013,, and previous compound analysis performed in 2011 and 2012, the following conclusions are submitted for consideration:

- Arsenic is present in the soil throughout the Site, from near surface down to the water table. Some of these concentrations exceed both residential and commercial/industrial SCTLs, with the highest concentrations recorded within the Nursery, UST, and Street Sweeping Areas in the southwest corner and center of the Site. Concentrations exceeding residential SCTLs also extend off-site north, south, and west of these three areas.
- Lead concentrations in soil exceed the SPLP groundwater GCTL within the center of the Nursery Area at various depths down to four feet bls. However, analysis has not detected lead within the groundwater beneath the Site.
- Dieldrin is present in the soil at concentrations exceeding the leachability SCTL and the SPLP GCTL in the center of the Nursery Area. However, dieldrin concentrations have been less than SCTLs in all off-site soil samples analyzed. In addition, analysis has not detected this compound within the groundwater beneath the Site.
- Benzo(a)pyrene is present in the soil throughout the Site, at times in concentrations exceeding both residential and commercial/industrial SCTLs. The highest concentrations recorded have been within the Nursery, UST, and Street Sweeping Areas. Concentrations exceeding residential and commercial/industrial SCTLs also extend off-site south, east, and west of these areas. In addition, analysis has not detected this compound within the groundwater beneath the Site.
- The off-site soil borings installed along the west side of the Nursery area had concentrations of benzo(a)pyrene equivalent much greater than any observed onsite.

- Arsenic concentrations within the groundwater beneath the Site have fluctuated since sampling began in 2008. The highest concentrations (i.e., exceeding GCTL's) have been recorded beneath the Nursery, Street Sweepings, and "Sludge" Areas. Most recently a decrease in the level of arsenic was observed in MW-7. However this concentration remains above the GCTL.
- Ammonia within the groundwater beneath the Site indicates a decreasing trend when compared to the initial sampling events conducted in November 2008 and September 2009. However, GCTL exceedances remain in the southwest corner of the Sludge Area, the central portion of the Street Sweeping Area (around MW-Street Sweeping-1), and in the western portion of the Nursery Area.
- Fecal coliform concentrations within the groundwater appear to be limited to two small areas: one in the Former Sludge Area at the north portion of the Site and the other in the Nursery Area at the southwest portion of the Site.

5.2 Recommendations

Based on the results of this offsite soil and onsite groundwater sampling event, Eco Advisors, LLC recommends the following:

- Installation of an onsite intermediate depth (25 feet bls) monitoring well near the western boundary of the Site; specifically towards the off-site surface water body (i.e., canal) located approximately one-quarter mile west of the Site. Groundwater samples collected from this monitoring well will be analyzed for Ammonia to assess the movement of intermediate depth ammonia towards the nearest surface water body (Eco Advisors Response #3).
- Replacement of MW-Nursery-4 which appears to have been destroyed sometime between July 2012 and February 2013.
- Initiation of a semi-annual groundwater monitoring program for all (40) monitoring wells at the Site. The program would include acquisition of water table data to monitor the groundwater quality and plume dynamics. The compounds analyzed would include arsenic, ammonia and fecal coliform as outlined in **Table 6, Appendix D**. The next sampling event, based on a semi-annual plan, would be scheduled for July 2013.
- Off site soil sampling for the presence of arsenic and BaP where previous off-site sampling could not be performed (e.g., proposed OS-15 to east of UST-28).
- Acquire soil samples adjacent to OS-1 through OS-3 to determine the end point of arsenic concentrations at this location.

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6.0 CERTIFICATION PAGE

I, Christopher M. Cherniak, P.E. #40079, certify that I currently hold an active license in the State of Florida and am competent through education or experience to provide the engineering service contained in this report. I further certify that in my professional judgment this report meets the pertinent requirements of Miami-Dade County Code Chapter 24-11, and was prepared by me or under my responsible charge. Moreover, I certify that Eco Advisors, LLC hold an active license number 28480 to provide the engineering service.

Report prepared by:

Alison D. Witoshynsky, LEP
Project Manager

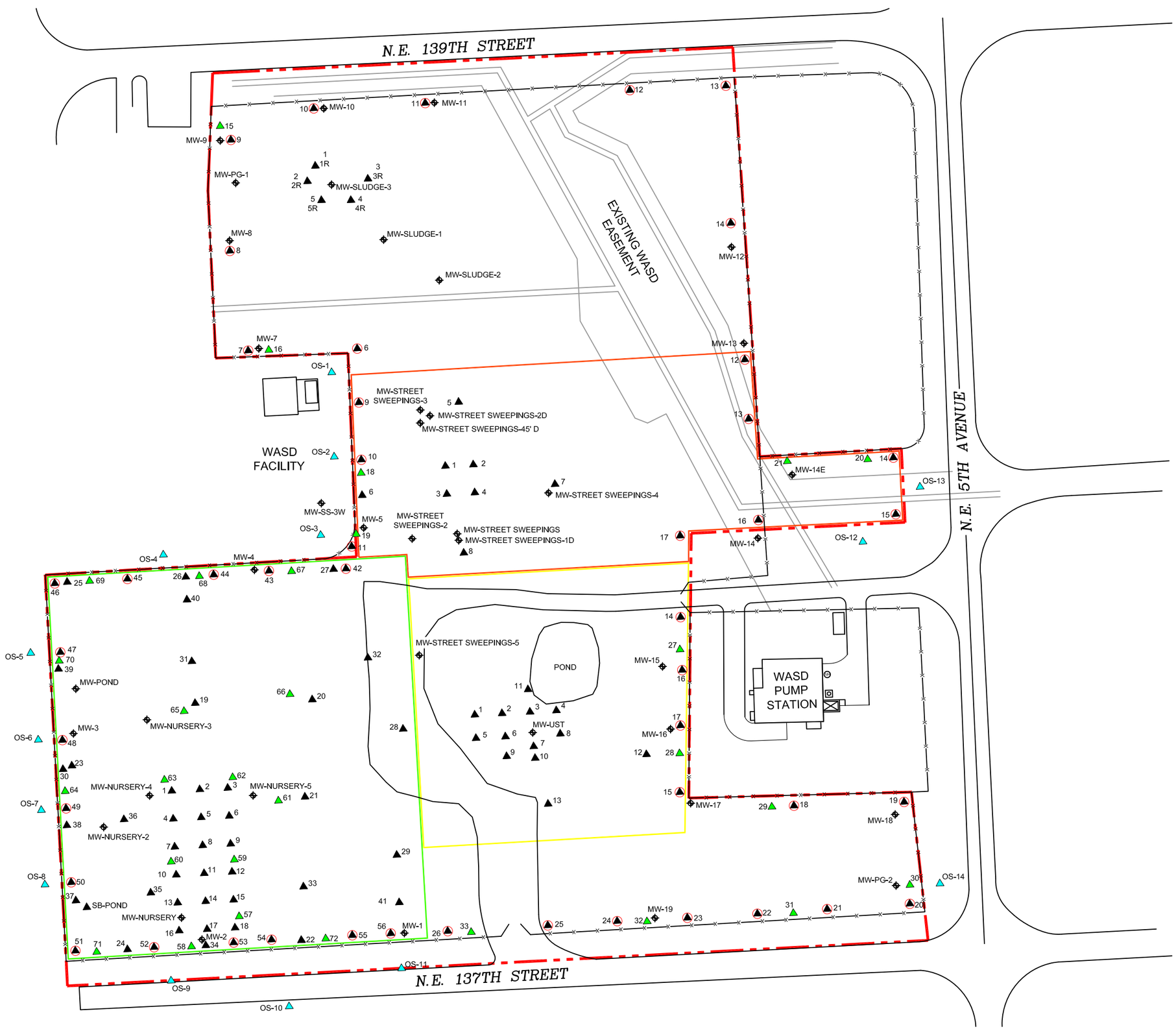
Report reviewed by:

Christopher Cherniak, P.E.
Vice President

CHRISTOPHER MICHAEL CHERNIAK
LICENSE NO. 40079
STATE OF FLORIDA
PROFESSIONAL ENGINEER

APPENDIX A

FIGURES



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 75' FEET

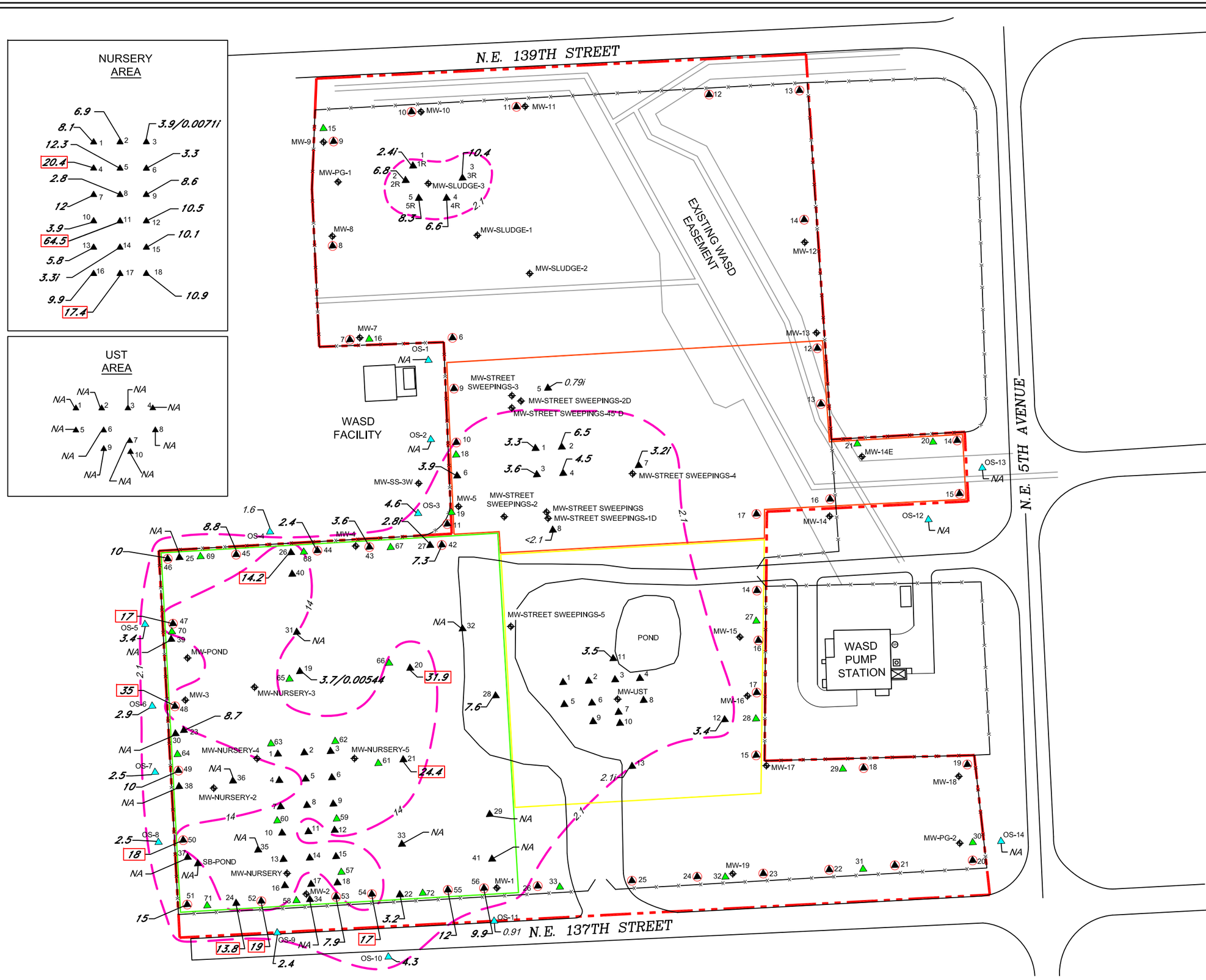
DRAWN BY: TSW
DATE: 02-12-2013
DWG: 1

FIGURE: 1

DRAWING TITLE:

SITE MAP

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- 0.92 — ARSENIC CONCENTRATIONS LESS THAN RESIDENTIAL GCTL
- 3.5 — ARSENIC CONCENTRATIONS GREATER THAN RESIDENTIAL SCTL
- 14 — ARSENIC CONCENTRATIONS GREATER THAN COMM./IND. SCTL
- 3.5/0.0071i — TOTAL ARSENIC / SPLP
- ARSENIC CONTOUR (2.1 mg/kg)
- NA — NOT APPLICABLE
- NS — NOT SAMPLED
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 — 75' FEET

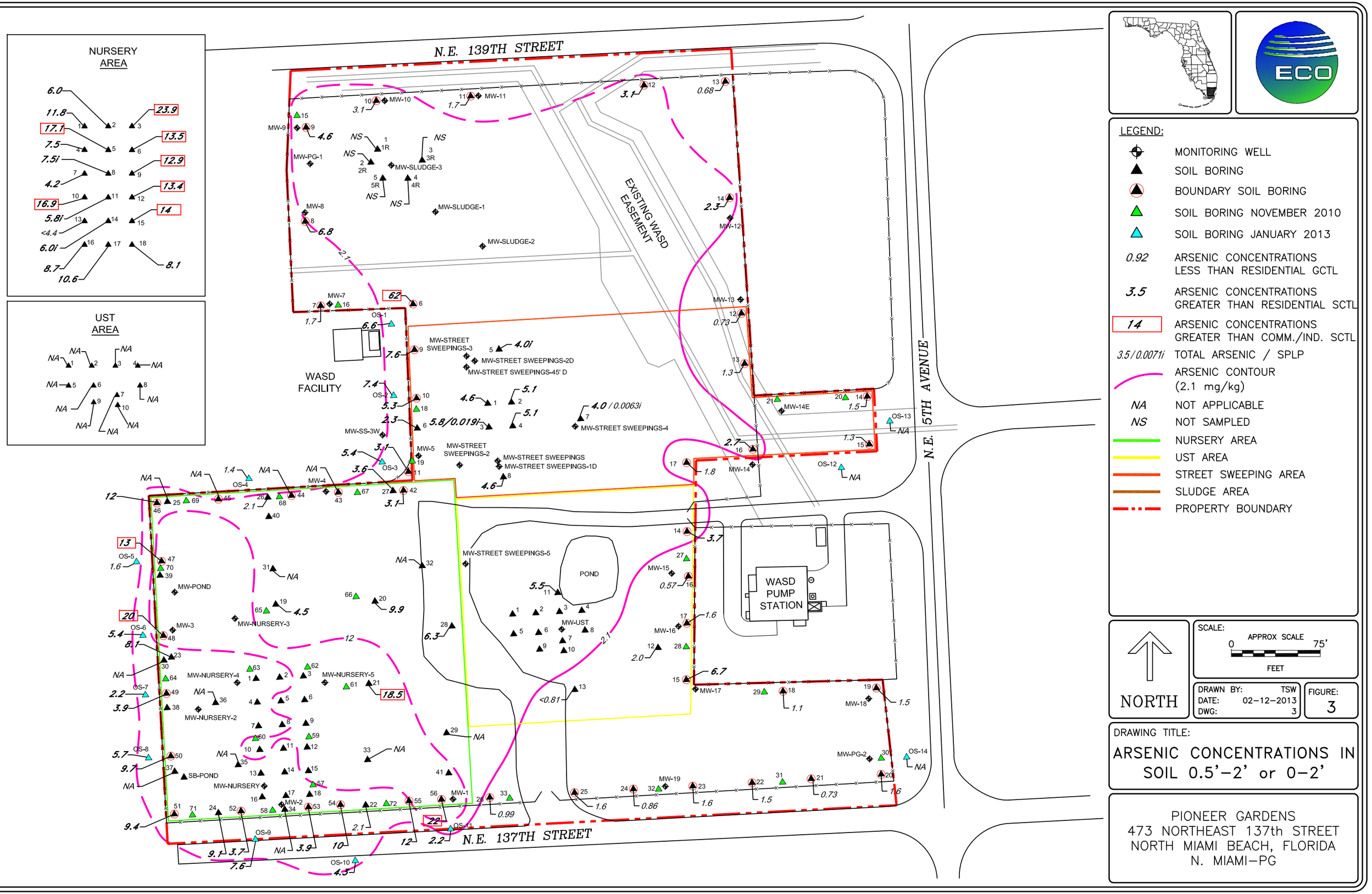
DRAWN BY:	TSW
DATE:	02-12-2013
DWG:	2

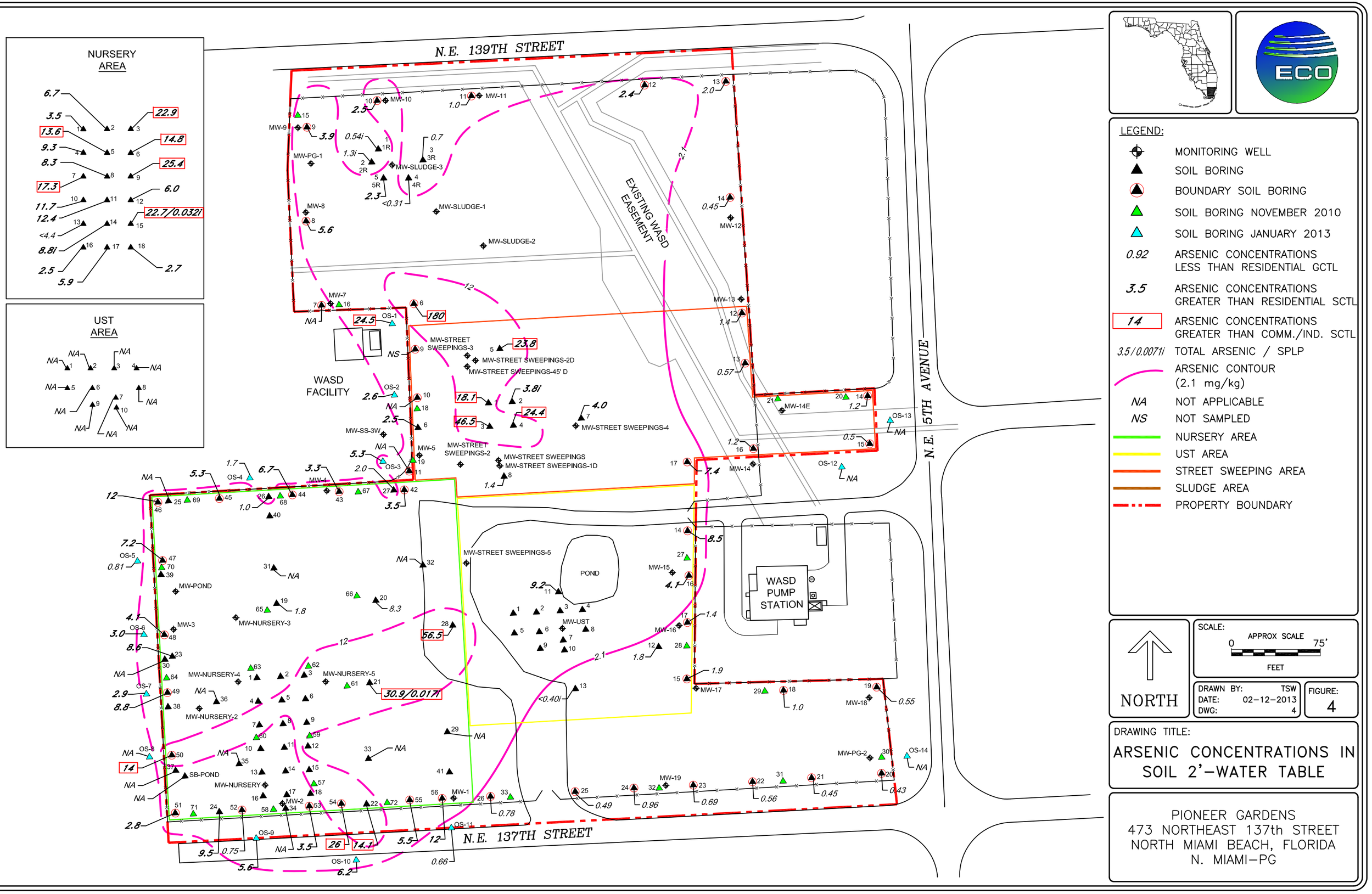
FIGURE: 2

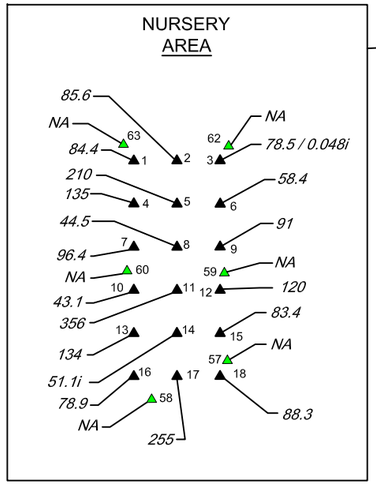
DRAWING TITLE:

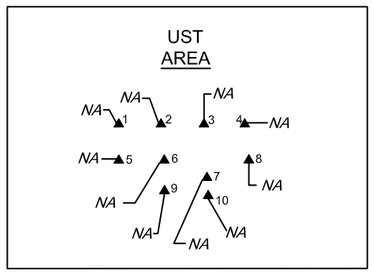
ARSENIC CONCENTRATIONS IN SOIL 0-0.5'

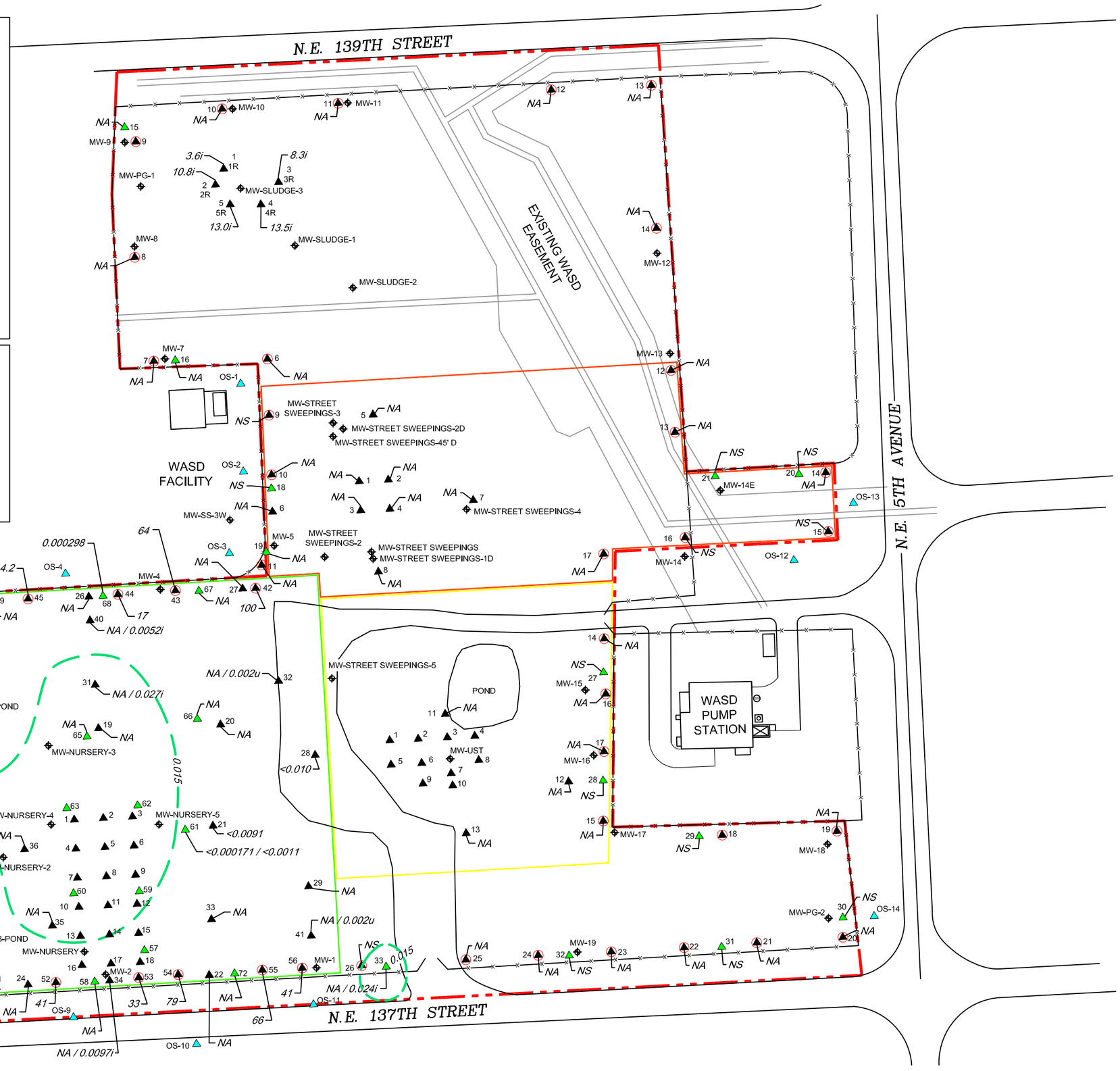
PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG


NURSERY AREA
UST AREA
N.E. 139TH STREET
N.E. 137TH STREET
N.E. 5TH AVENUE
EXISTING WASD EASEMENT
WASD FACILITY
WASD PUMP STATION
POND
MW-POND
MW-SLUDGE-1
MW-SLUDGE-2
MW-SLUDGE-3
MW-NURSERY-1
MW-NURSERY-2
MW-NURSERY-3
MW-NURSERY-4
MW-NURSERY-5
MW-NURSERY
MW-STREET SWEEPINGS-1D
MW-STREET SWEEPINGS-2
MW-STREET SWEEPINGS-2D
MW-STREET SWEEPINGS-3
MW-STREET SWEEPINGS-4
MW-STREET SWEEPINGS-5
MW-STREET SWEEPINGS-45' D
MW-PG-1
MW-PG-2
MW-UST
SB-POND
LEGEND:
MONITORING WELL
SOIL BORING
BOUNDARY SOIL BORING
SOIL BORING NOVEMBER 2010
SOIL BORING JANUARY 2013
0.92 ARSENIC CONCENTRATIONS LESS THAN RESIDENTIAL GCTL
3.5 ARSENIC CONCENTRATIONS GREATER THAN RESIDENTIAL SCTL
14 ARSENIC CONCENTRATIONS GREATER THAN COMM./IND. SCTL
3.5/0.0071i TOTAL ARSENIC / SPLP
ARSENIC CONTOUR (2.1 mg/kg)
NA NOT APPLICABLE
NS NOT SAMPLED
NURSERY AREA
UST AREA
STREET SWEEPING AREA
SLUDGE AREA
PROPERTY BOUNDARY
NORTH
SCALE:
APPROX SCALE
0 75'
FEET
DRAWN BY: TSW
DATE: 02-12-2013
DWG: 3
FIGURE: 3
DRAWING TITLE:
ARSENIC CONCENTRATIONS IN SOIL 0.5'-2' or 0-2'
PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG


NURSERY AREA
UST AREA
N.E. 139TH STREET
N.E. 137TH STREET
N.E. 5TH AVENUE
EXISTING WASD EASEMENT
WASD FACILITY
WASD PUMP STATION
POND
MW-10
MW-11
MW-9
MW-PG-1
MW-SLUDGE-3
MW-SLUDGE-1
MW-SLUDGE-2
MW-8
MW-12
MW-13
MW-7
OS-1
MW-STREET SWEEPINGS-3
MW-STREET SWEEPINGS-2D
MW-STREET SWEEPINGS-45' D
MW-STREET SWEEPINGS-4
MW-14E
OS-13
OS-2
MW-SS-3W
MW-5
MW-STREET SWEEPINGS-2
MW-STREET SWEEPINGS
MW-STREET SWEEPINGS-1D
MW-14
OS-12
OS-3
OS-4
MW-4
MW-STREET SWEEPINGS-5
MW-15
MW-UST
MW-16
MW-17
MW-18
MW-19
MW-PG-2
OS-14
OS-5
MW-POND
MW-3
MW-NURSERY-3
OS-6
OS-7
MW-NURSERY-4
MW-NURSERY-5
MW-NURSERY-2
OS-8
SB-POND
MW-NURSERY
MW-2
MW-1
OS-9
OS-10
OS-11
LEGEND:
MONITORING WELL
SOIL BORING
BOUNDARY SOIL BORING
SOIL BORING NOVEMBER 2010
SOIL BORING JANUARY 2013
0.92 ARSENIC CONCENTRATIONS LESS THAN RESIDENTIAL GCTL
3.5 ARSENIC CONCENTRATIONS GREATER THAN RESIDENTIAL SCTL
14 ARSENIC CONCENTRATIONS GREATER THAN COMM./IND. SCTL
3.5/0.0071i TOTAL ARSENIC / SPLP
ARSENIC CONTOUR (2.1 mg/kg)
NA NOT APPLICABLE
NS NOT SAMPLED
NURSERY AREA
UST AREA
STREET SWEEPING AREA
SLUDGE AREA
PROPERTY BOUNDARY
NORTH
SCALE:
APPROX SCALE
0 75'
FEET
DRAWN BY: TSW
DATE: 02-12-2013
DWG: 4
FIGURE: 4
DRAWING TITLE:
ARSENIC CONCENTRATIONS IN SOIL 2'-WATER TABLE
PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG







ECO

LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- *0.0010* LEAD CONCENTRATIONS 0–0.5' BELOW LAND SURFACE
- *NA / 0.001* TOTAL LEAD / SPLP LEAD
- *NA* NOT APPLICABLE
- *NS* NOT SAMPLED
- SPLP LEAD ISO–CONCENTRATION CONTOUR (0.015 mg/L)
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 75' FEET

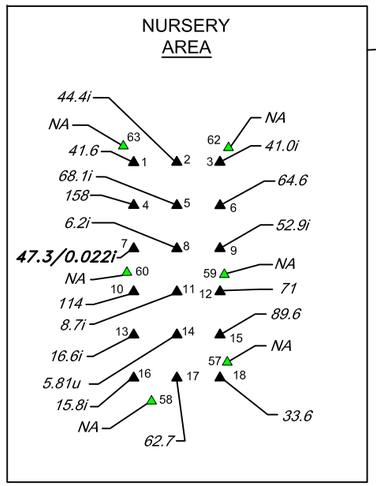
DRAWN BY: TSW
DATE: 02–12–2013
DWG: 5

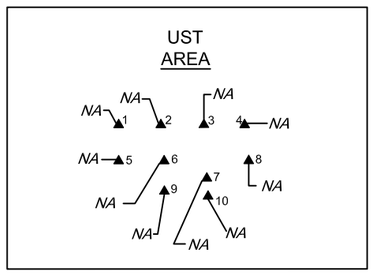
FIGURE: 5

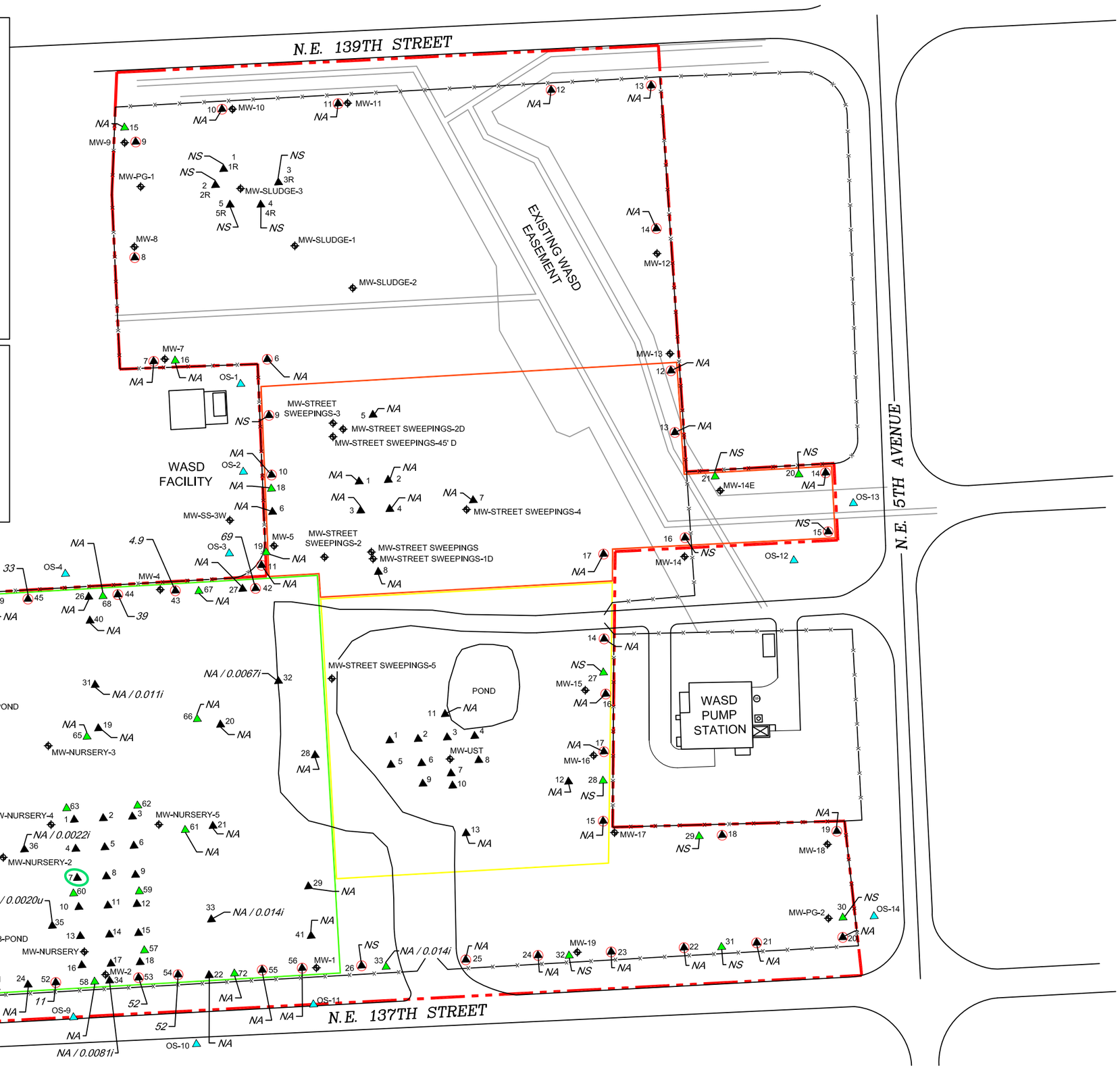
DRAWING TITLE:

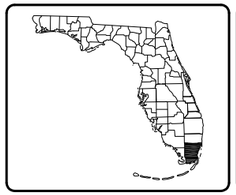
LEAD CONCENTRATIONS IN SOIL 0–0.5'

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG









ECO

LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- 0.0010 — LEAD CONCENTRATIONS 0.5'–2' BELOW LAND SURFACE
- NA / 0.001 — TOTAL LEAD / SPLP LEAD
- NA — NOT APPLICABLE
- NS — NOT SAMPLED
- SPLP LEAD ISO–CONCENTRATION CONTOUR (0.015 mg/L)
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 75' FEET

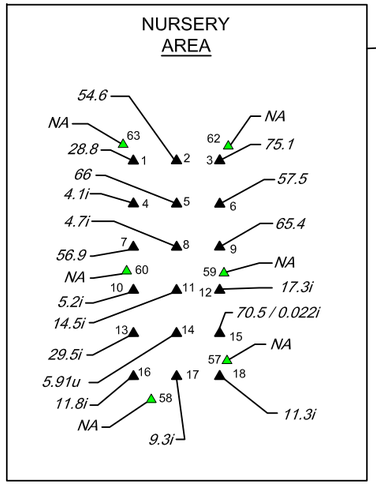
DRAWN BY: TSW
DATE: 02–12–2013
DWG: 6

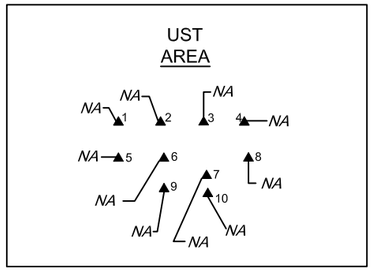
FIGURE: 6

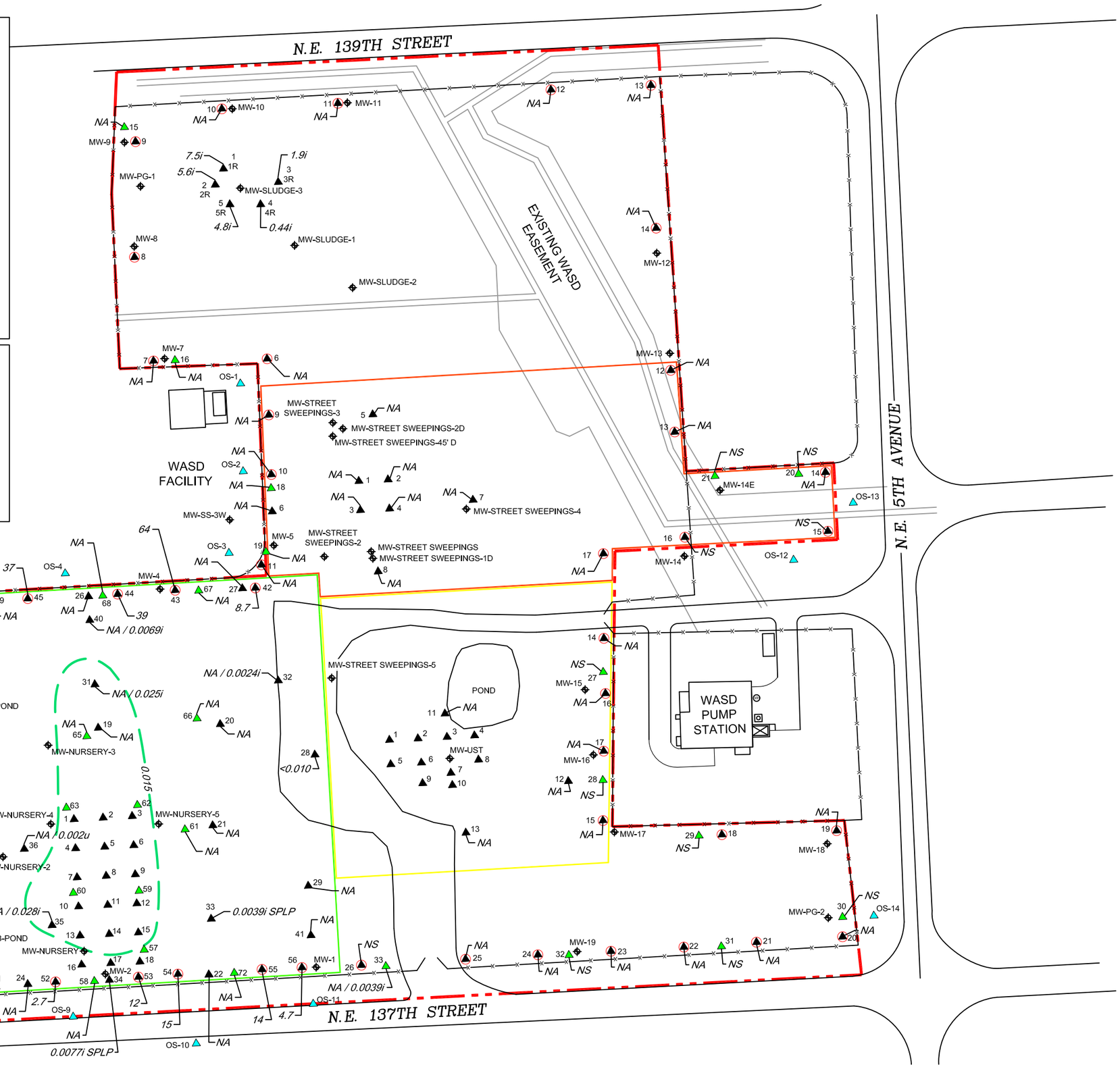
DRAWING TITLE:

LEAD CONCENTRATIONS IN SOIL 0.5'–2'

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG







ECO

LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- *0.48i* LEAD CONCENTRATIONS 2'–4' OR WATER TABLE
- *NA / 0.001* TOTAL LEAD / SPLP LEAD
- *NA* NOT APPLICABLE
- *NS* NOT SAMPLED
- SPLP LEAD ISO–CONCENTRATION CONTOUR (0.015 mg/L)
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 75' FEET

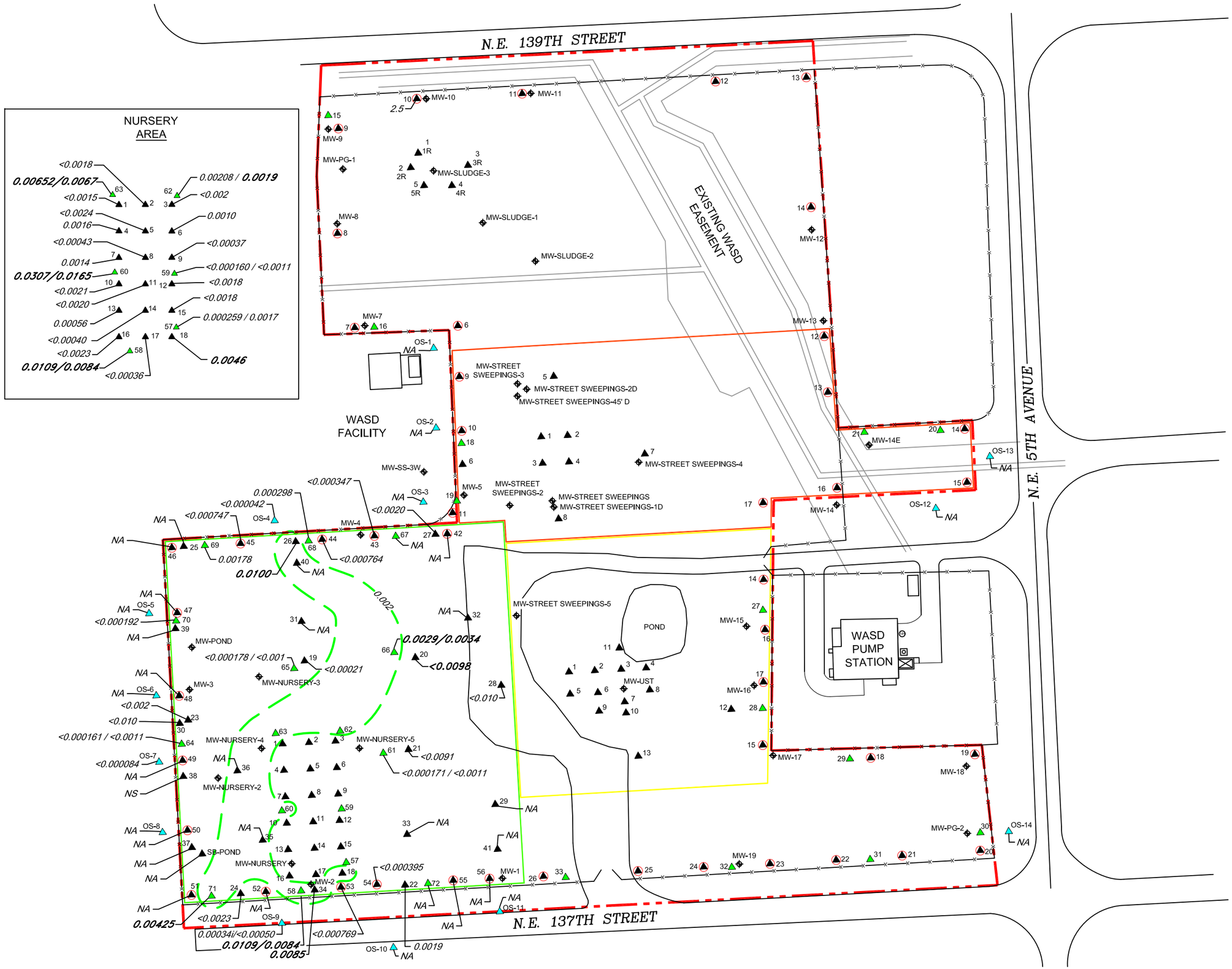
DRAWN BY: TSW
DATE: 02–12–2013
DWG: 7

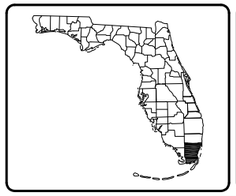
FIGURE: 7

DRAWING TITLE:

LEAD CONCENTRATIONS IN SOIL 2'–WATER TABLE

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG





ECO

LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- 0.0010 — DIELDRIN CONCENTRATIONS LESS THAN RESIDENTIAL SCTL
- 0.002 — DIELDRIN CONCENTRATIONS GREATER THAN RES. SCTL
- 0.01 / 0.1 — DIELDRIN/SPLP DIELDRIN CONC.
- NA — NOT APPLICABLE
- NS — NOT SAMPLED
- DIELDRIN ISO-CONCENTRATION CONTOUR
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 — 75' FEET

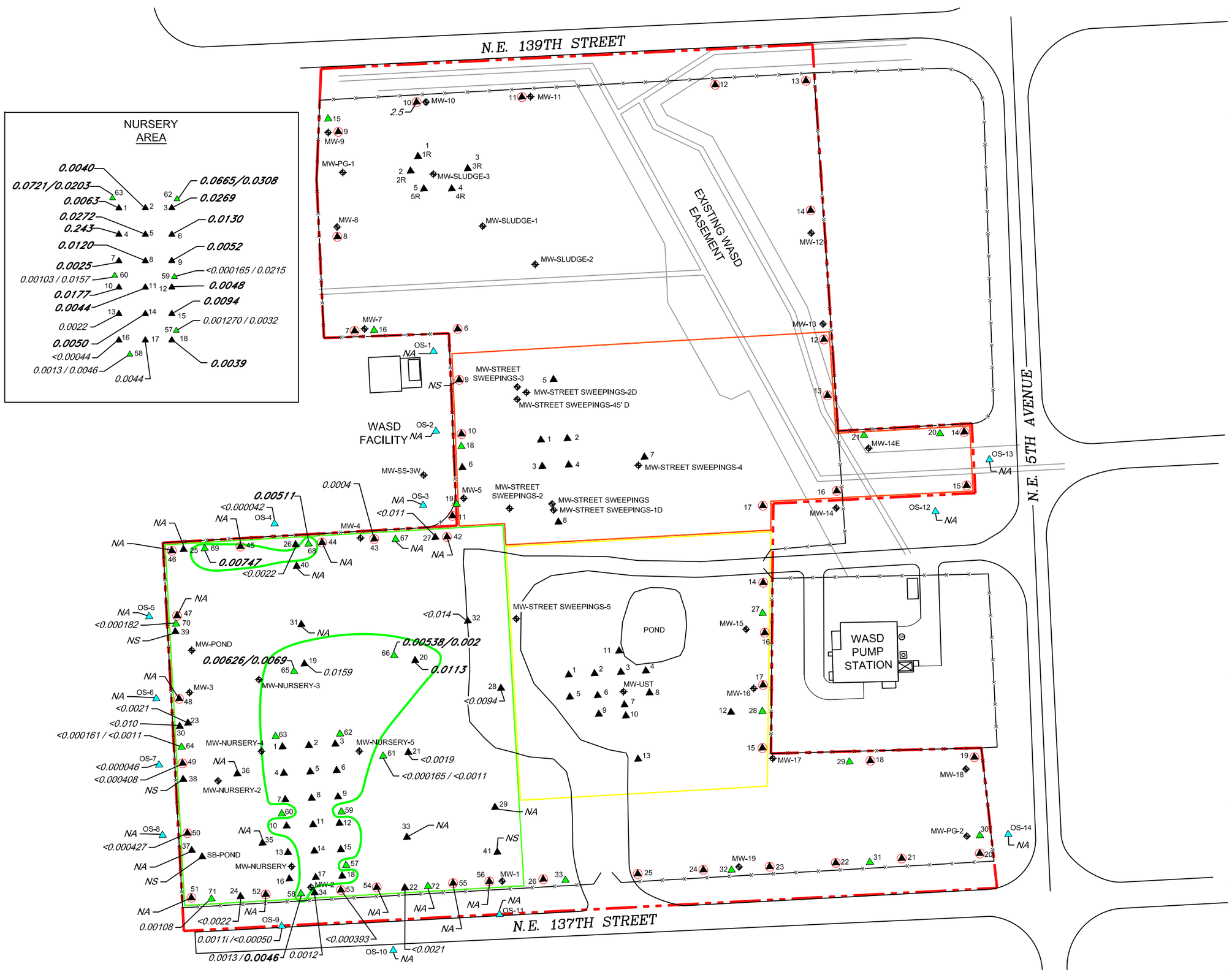
DRAWN BY: TSW
DATE: 02-12-2013
DWG: 8

FIGURE: 8

DRAWING TITLE:

DIELDRIN CONCENTRATIONS IN SOIL 0-0.5'

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- 0.0010 — DIELDRIN CONCENTRATIONS LESS THAN RESIDENTIAL SCTL
- 0.0020 — DIELDRIN CONCENTRATIONS GREATER THAN RES. SCTL
- 0.01 / 0.1 — DIELDRIN/SPLP DIELDRIN CONC.
- NA — NOT APPLICABLE
- NS — NOT SAMPLED
- DIELDRIN ISO-CONCENTRATION CONTOUR
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 — 75' FEET

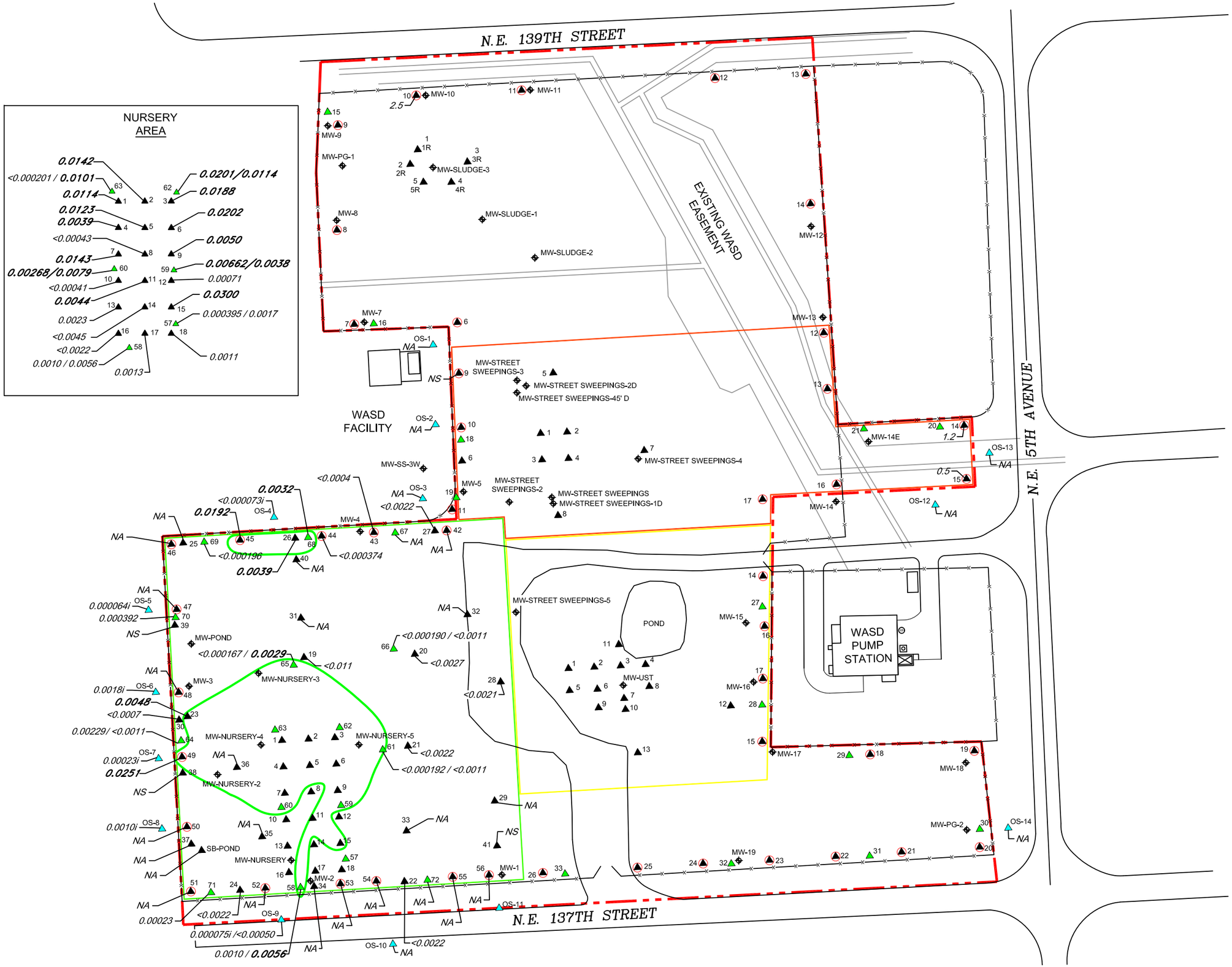
DRAWN BY:	TSW
DATE:	02-12-2013
DWG:	9

FIGURE: 9

DRAWING TITLE:

DIELDRIN CONCENTRATIONS IN SOIL 0.5'-2'

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG



ECO

LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- 0.0010 — DIELDRIN CONCENTRATIONS LESS THAN RESIDENTIAL SCTL
- 0.0020 — DIELDRIN CONCENTRATIONS GREATER THAN RES. SCTL
- 0.01 / 0.1 — DIELDRIN/SPLP DIELDRIN CONC.
- NA — NOT APPLICABLE
- NS — NOT SAMPLED
- DIELDRIN ISO–CONCENTRATION CONTOUR
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 75' FEET

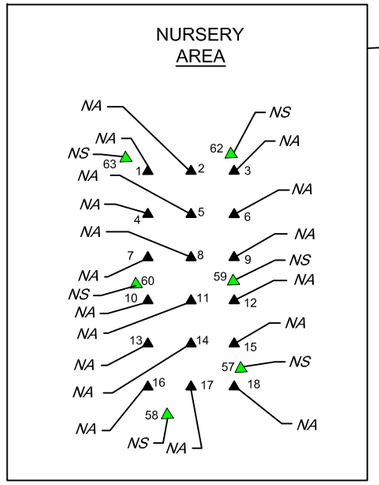
DRAWN BY: TSW
DATE: 02–12–2013
DWG: 10

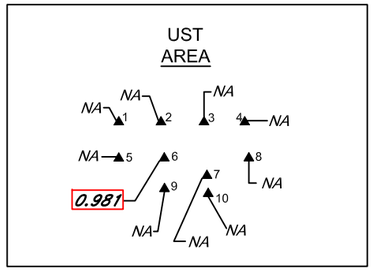
FIGURE: 10

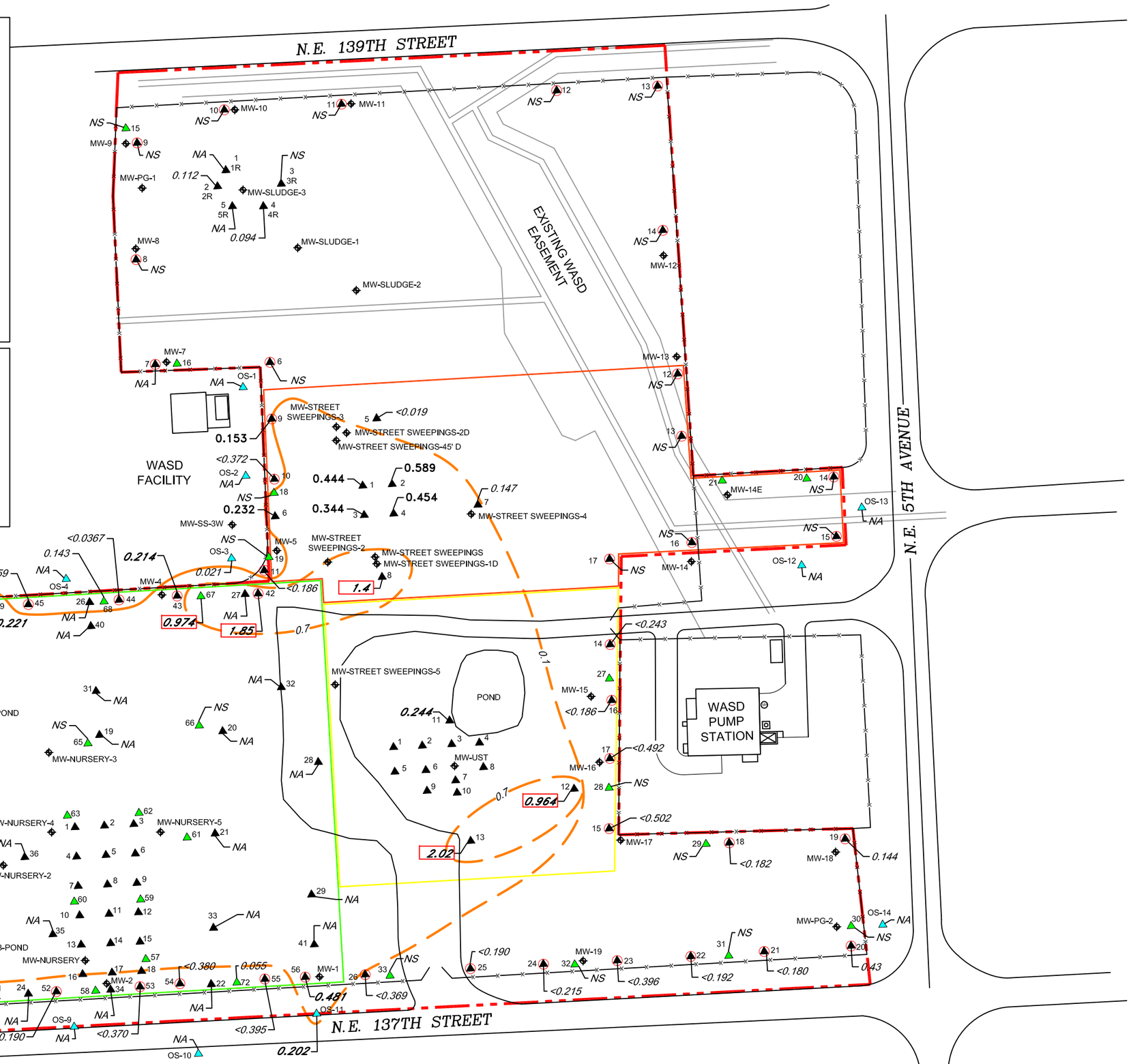
DRAWING TITLE:

DIELDRIN CONCENTRATIONS IN SOIL 2'– WATER TABLE

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG







LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- <0.186 BENZO(a)PYRENE EQUIVALENT
- <0.186 BENZO(a)PYRENE EQUIVALENT GREATER THAN RESIDENTIAL SCTL
- <0.186 BENZO(a)PYRENE EQUIVALENT GREATER THAN COMM./IND. SCTL
- NA NOT APPLICABLE
- NS NOT SAMPLED
- BaP ISO-CONCENTRATION CONTOUR
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

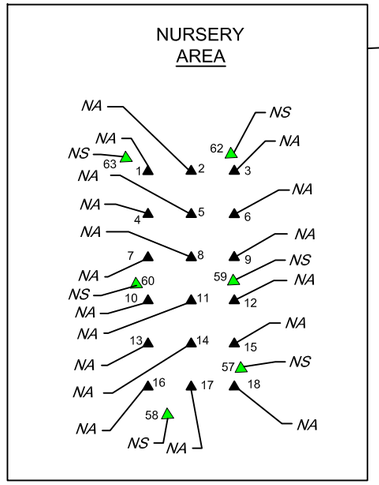
SCALE: APPROX SCALE 0 75' FEET

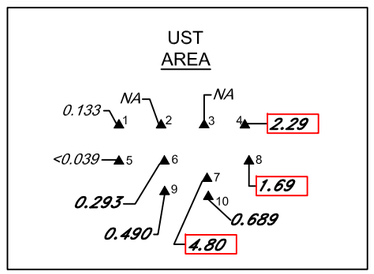
DRAWN BY: TSW
DATE: 02-12-2013
DWG: 11

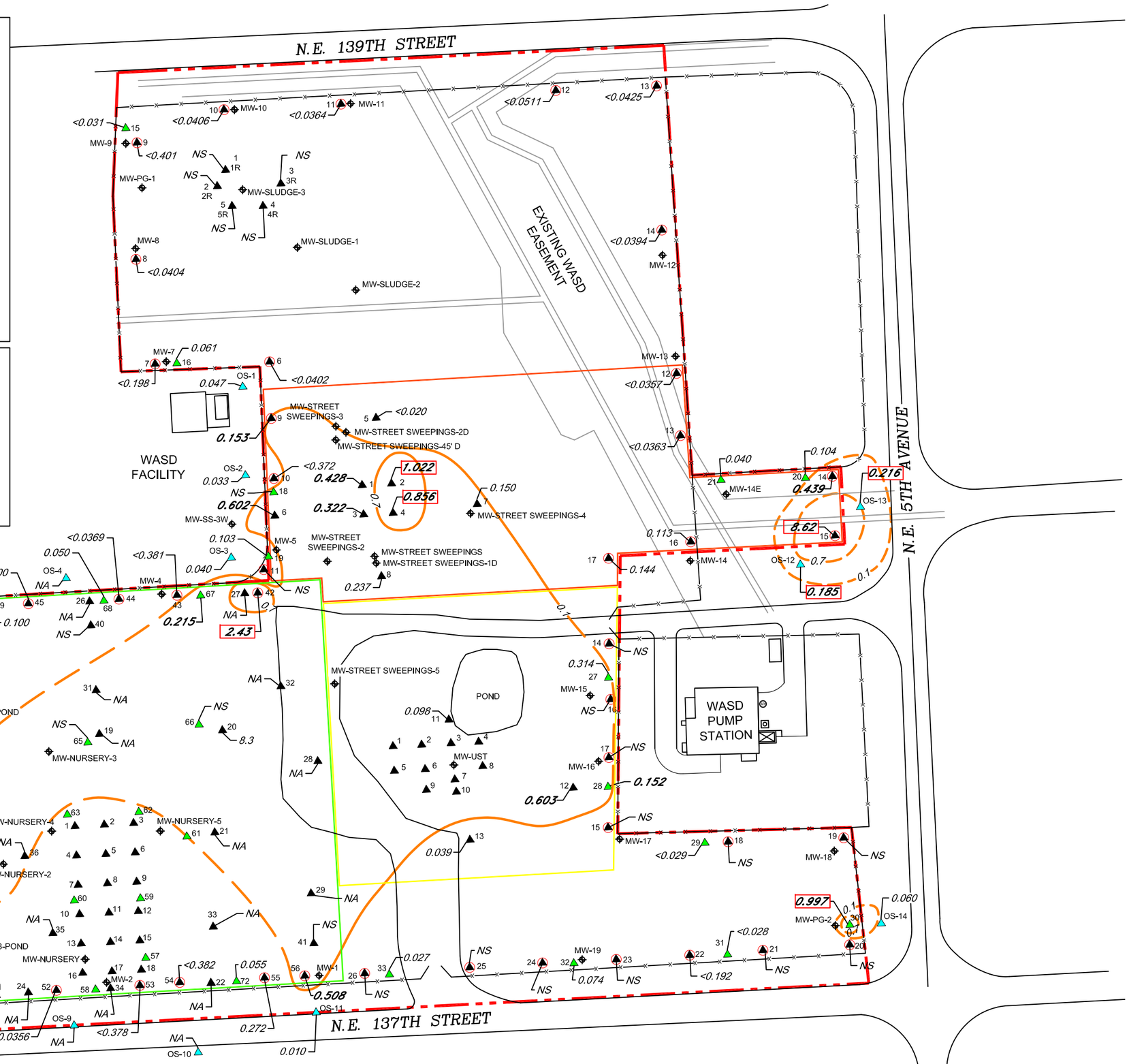
FIGURE: 11

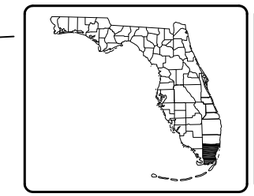
DRAWING TITLE:
BENZO (a) PYRENE CONCENTRATIONS IN SOIL 0-0.5'

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG









ECO

LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- <0.186 BENZO(a)PYRENE EQUIVALENT
- <0.186 BENZO(a)PYRENE EQUIVALENT GREATER THAN RESIDENTIAL SCTL
- <0.186 BENZO(a)PYRENE EQUIVALENT GREATER THAN COMM./IND. SCTL
- NA NOT APPLICABLE
- NS NOT SAMPLED
- BaP ISO-CONCENTRATION CONTOUR
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

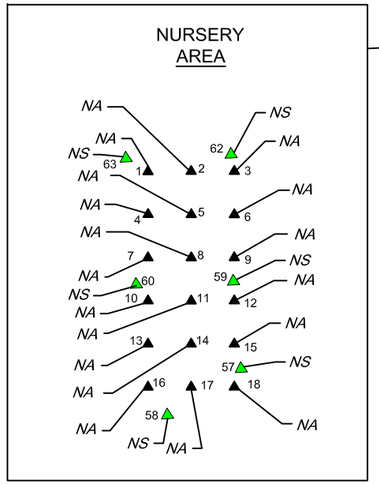
SCALE: APPROX SCALE 0 75' FEET

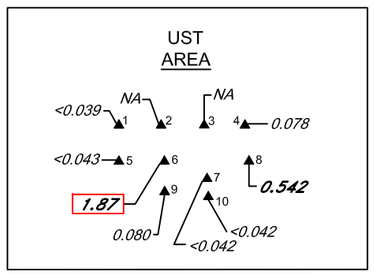
DRAWN BY: TSW
DATE: 02-12-2013
DWG: 12

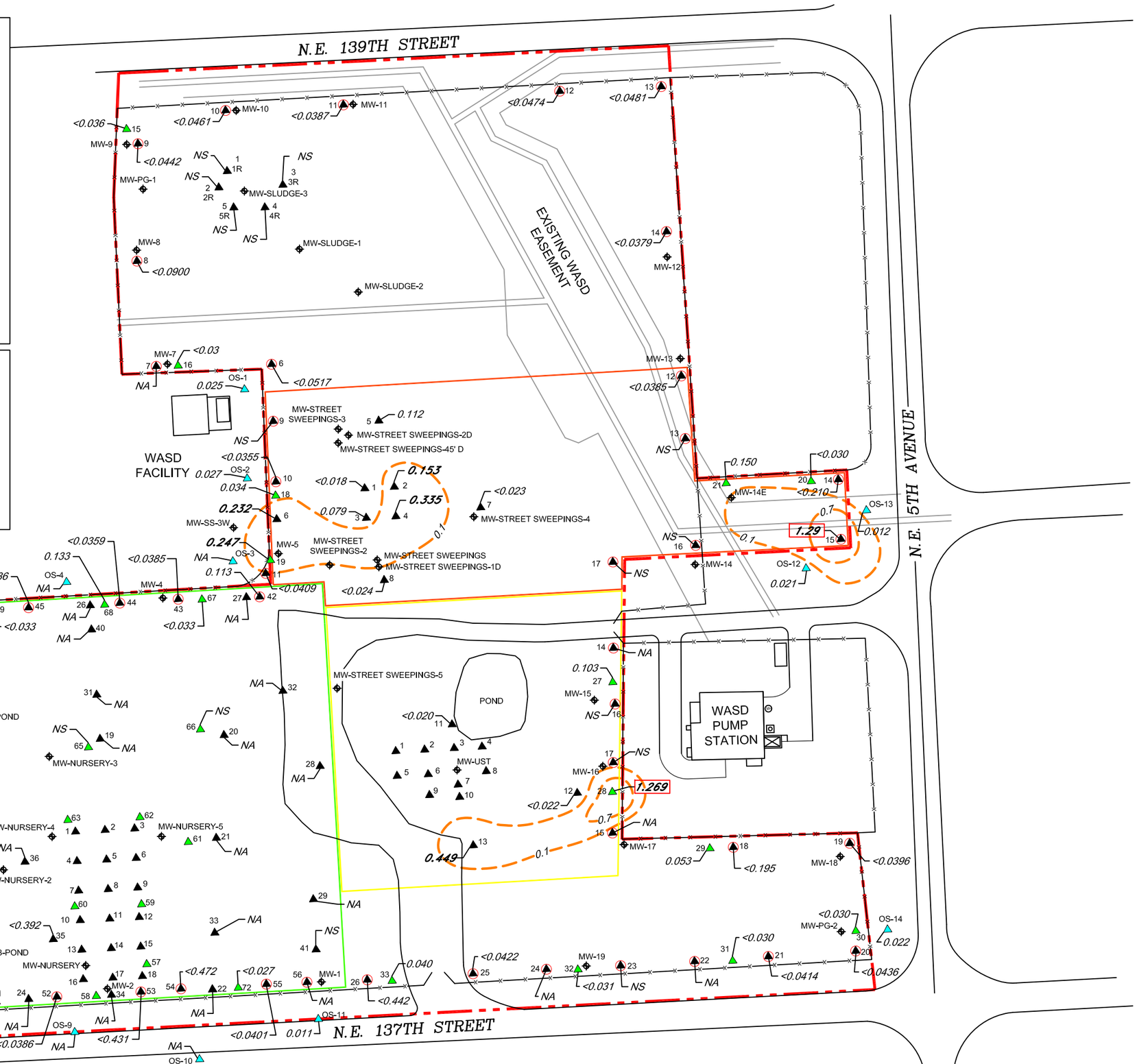
FIGURE: 12

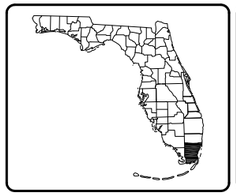
DRAWING TITLE:
BENZO (a) PYRENE CONCENTRATIONS IN SOIL 0.5'-2' OR 0-2'

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG









LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- <0.186 BENZO(a)PYRENE EQUIVALENT
- <0.186 BENZO(a)PYRENE EQUIVALENT GREATER THAN RESIDENTIAL SCTL
- <0.186 BENZO(a)PYRENE EQUIVALENT GREATER THAN COMM./IND. SCTL
- NA NOT APPLICABLE
- NS NOT SAMPLED
- BaP ISO-CONCENTRATION CONTOUR
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 75' FEET

DRAWN BY: TSW
DATE: 02-12-2013
DWG: 13

FIGURE: 13

DRAWING TITLE:
BENZO (a) PYRENE CONCENTRATIONS IN SOIL 2'-WATER TABLE

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG

LEGEND:

- MONITORING WELL
- 1.99 GROUNDWATER ELEVATION
- NM NOT MEASURED
- GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

NORTH

SCALE: APPROX SCALE 0 75' FEET

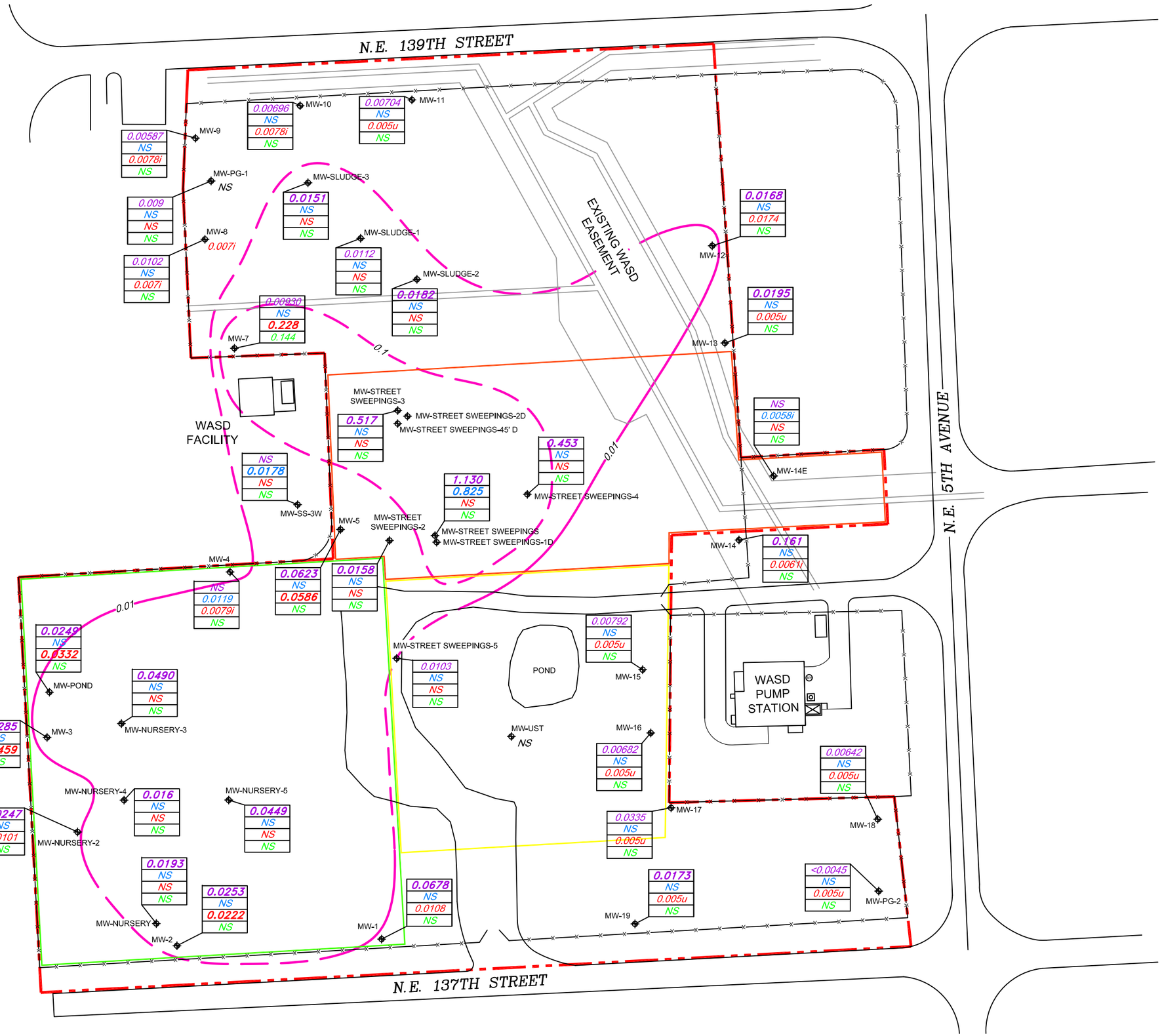
DRAWN BY: TSW
DATE: 02-12-2013
DWG: 14

FIGURE: 14

DRAWING TITLE:

GROUNDWATER ELEVATION MAP

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- ARSENIC CONTOUR JULY 2012 (0.01 mg/L & 0.1 mg/L)
- NS — NOT SAMPLED
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

JULY 2011
APRIL 2012
JULY 2012
JANUARY 2013

ARSENIC CONCENTRATIONS COLOR CODED BY DATE

NORTH

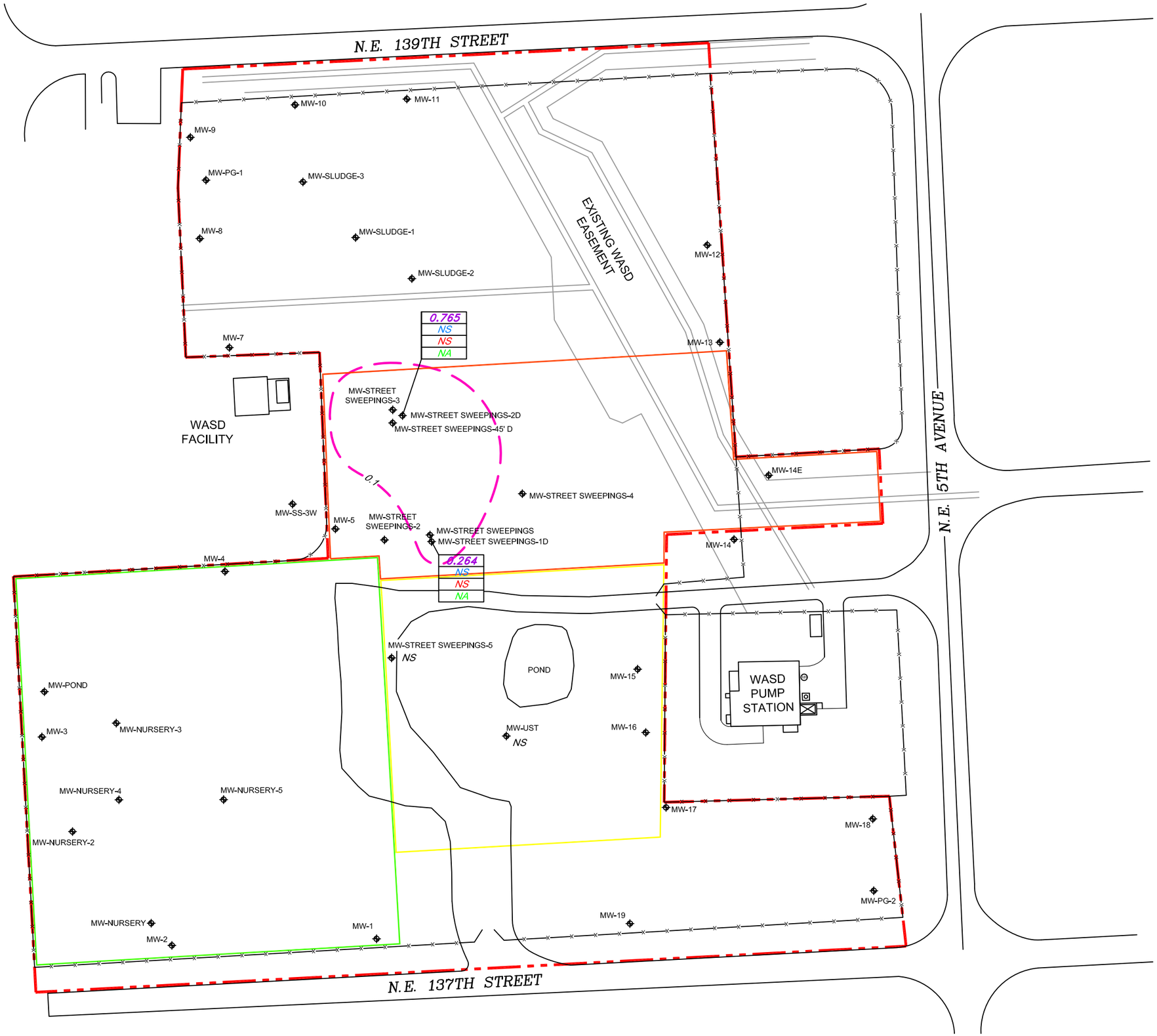
SCALE: APPROX SCALE 0 75' FEET

DRAWN BY: TSW
DATE: 02-12-2013
DWG: 15

FIGURE: 15a

DRAWING TITLE:
GROUNDWATER QUALITY – ARSENIC (SHALLOW)

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- ARSENIC CONTOUR JULY 2011 (0.01 mg/L & 0.1 mg/L)
- NS NOT SAMPLED
- NA NOT APPLICABLE
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

JULY 2011
APRIL 2012
JULY 2012
JANUARY 2013

ARSENIC CONCENTRATIONS COLOR CODED BY DATE

NORTH

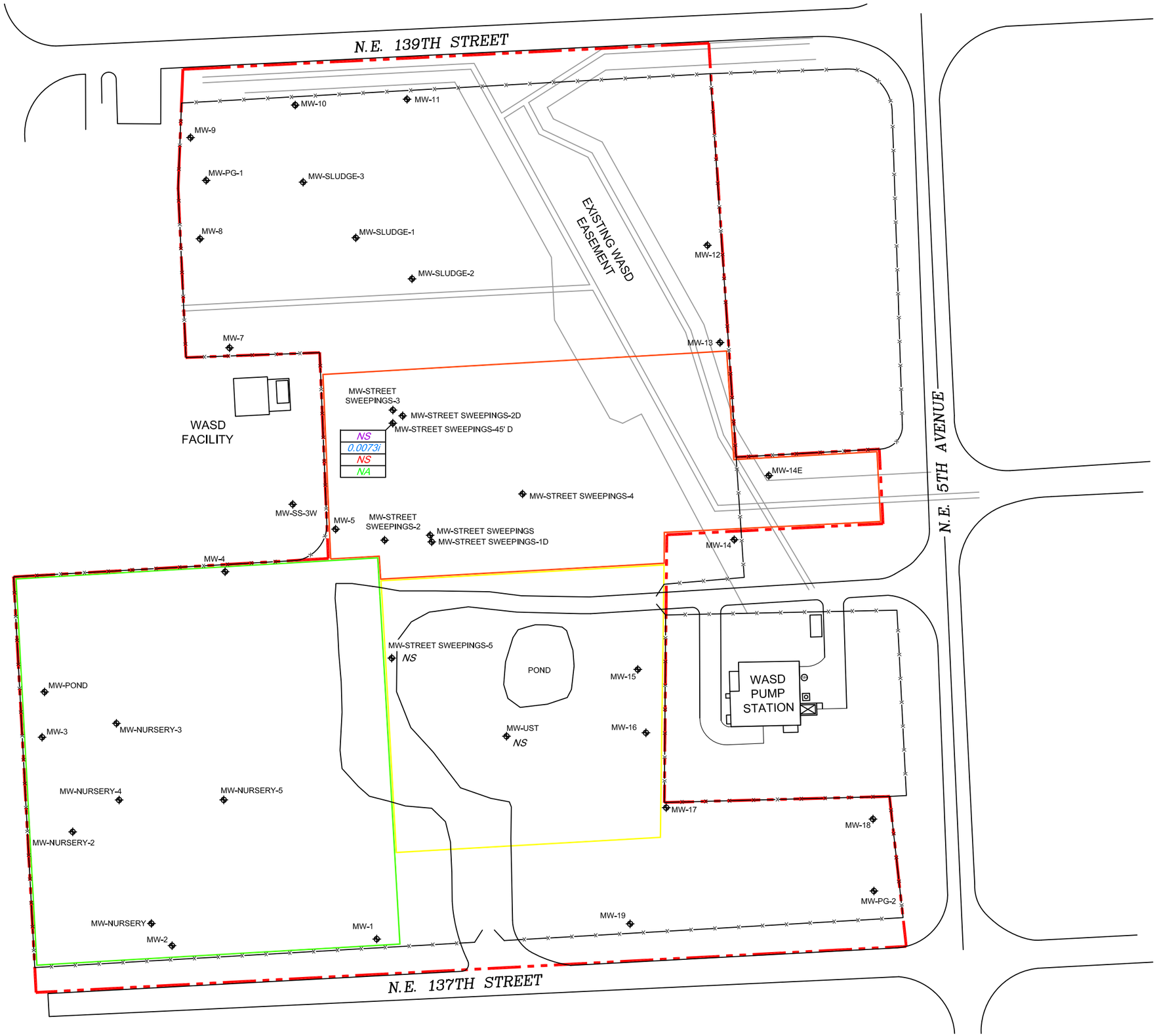
SCALE: APPROX SCALE 0 – 75' FEET

DRAWN BY: TSW
DATE: 02-12-2013
DWG: 15

FIGURE: 15b

DRAWING TITLE:
GROUNDWATER QUALITY – ARSENIC (INTERMEDIATE)

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- NO APRIL CONTOUR
- *NS* NOT SAMPLED
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

JULY 2011	ARSENIC CONCENTRATIONS COLOR CODED BY DATE
APRIL 2012	
JULY 2012	
JANUARY 2013	

NORTH

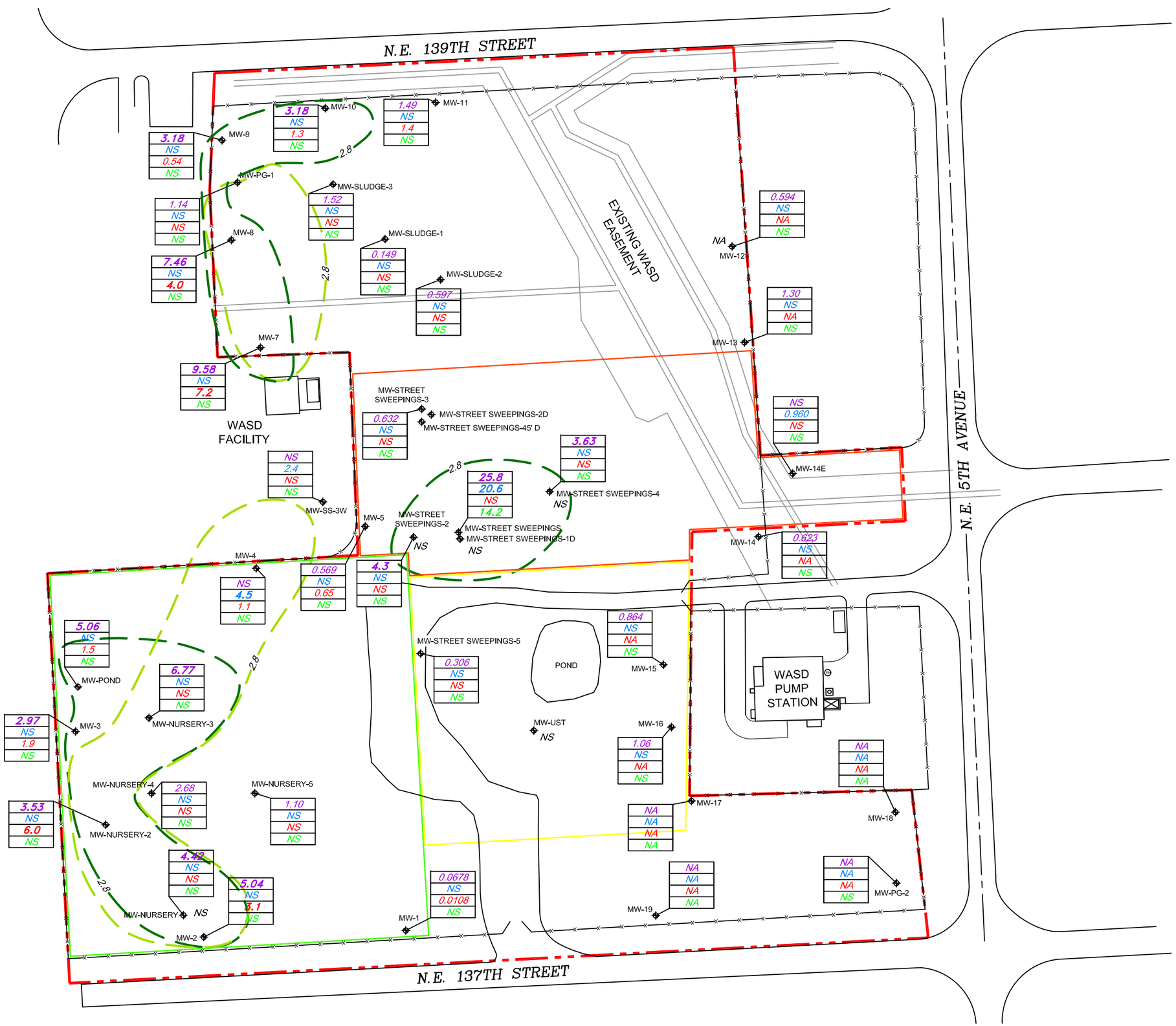
SCALE: APPROX SCALE 0 – 75' FEET

DRAWN BY: TSW
DATE: 02–12–2013
DWG: 15

FIGURE: 15c

DRAWING TITLE:
GROUNDWATER QUALITY – ARSENIC (DEEP 45')

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- AMMONIA CONTOUR JULY 2011 (2.8 mg/L)
- AMMONIA CONTOUR APRIL/JULY 2012 (2.8 mg/L)
- NA NOT APPLICABLE
- NS NOT SAMPLED
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

JULY 2011	AMMONIA CONCENTRATIONS COLOR CODED BY DATE
APRIL 2012	
JULY 2012	
JANUARY 2013	

NORTH

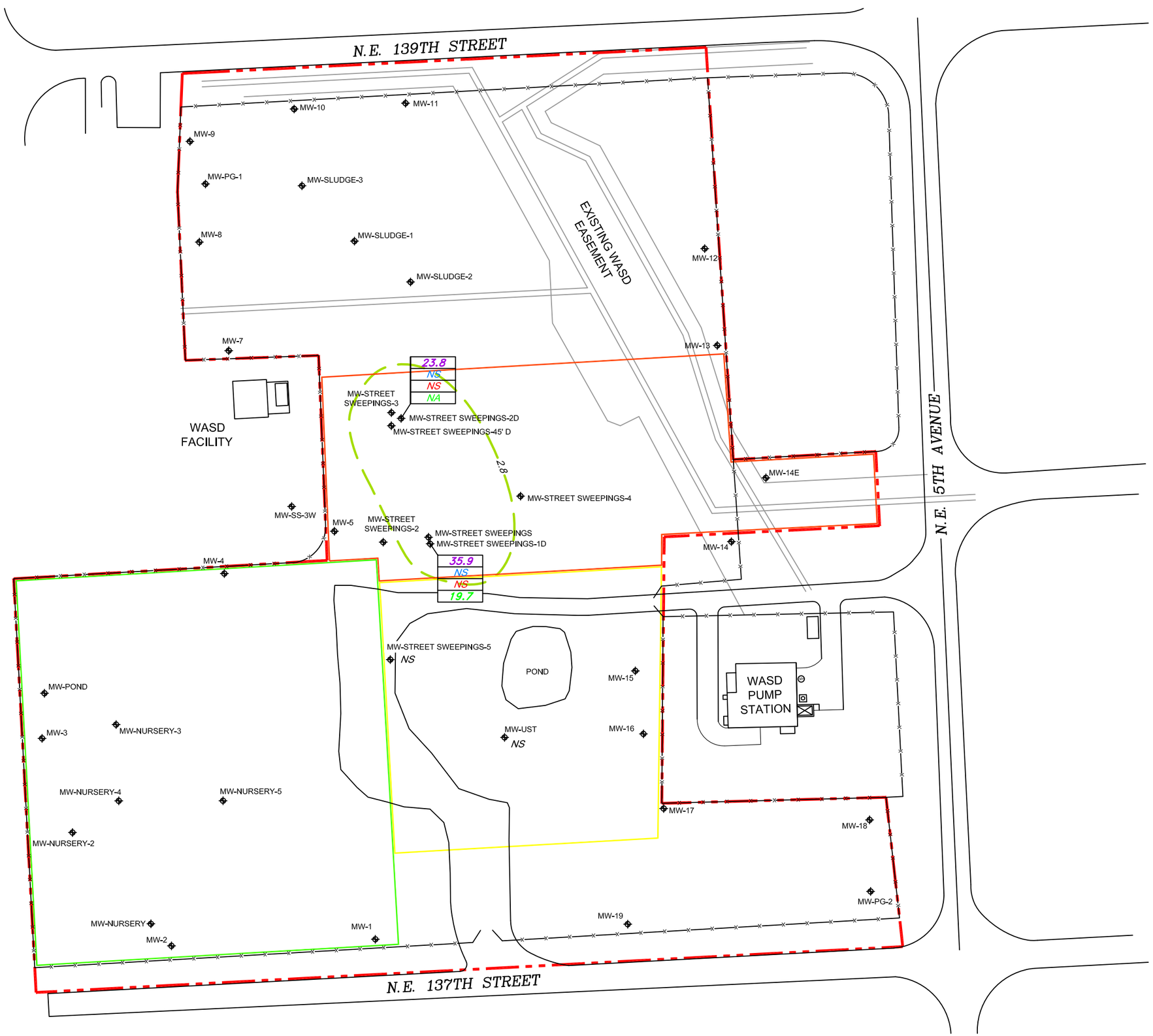
SCALE: APPROX SCALE 0 75' FEET

DRAWN BY: TSW
DATE: 02-12-2013
DWG: 16

FIGURE: 16a

DRAWING TITLE:
GROUNDWATER QUALITY – AMMONIA (SHALLOW)

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- AMMONIA CONTOUR JULY 2011 (2.8 mg/L)
- *NA* NOT APPLICABLE
- *NS* NOT SAMPLED
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

JULY 2011	AMMONIA CONCENTRATIONS COLOR CODED BY DATE
APRIL 2012	
JULY 2012	
JANUARY 2013	

NORTH

SCALE: APPROX SCALE 0 75' FEET

DRAWN BY: TSW
DATE: 02-12-2013
DWG: 16

FIGURE: 16b

DRAWING TITLE:

GROUNDWATER QUALITY – AMMONIA (INTERMEDIATE)

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG

LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- NO AMMONIA CONTOUR
- *NA* NOT APPLICABLE
- *NS* NOT SAMPLED
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

JULY 2011
APRIL 2012
JULY 2012
JANUARY 2013

AMMONIA CONCENTRATIONS COLOR CODED BY DATE

NORTH

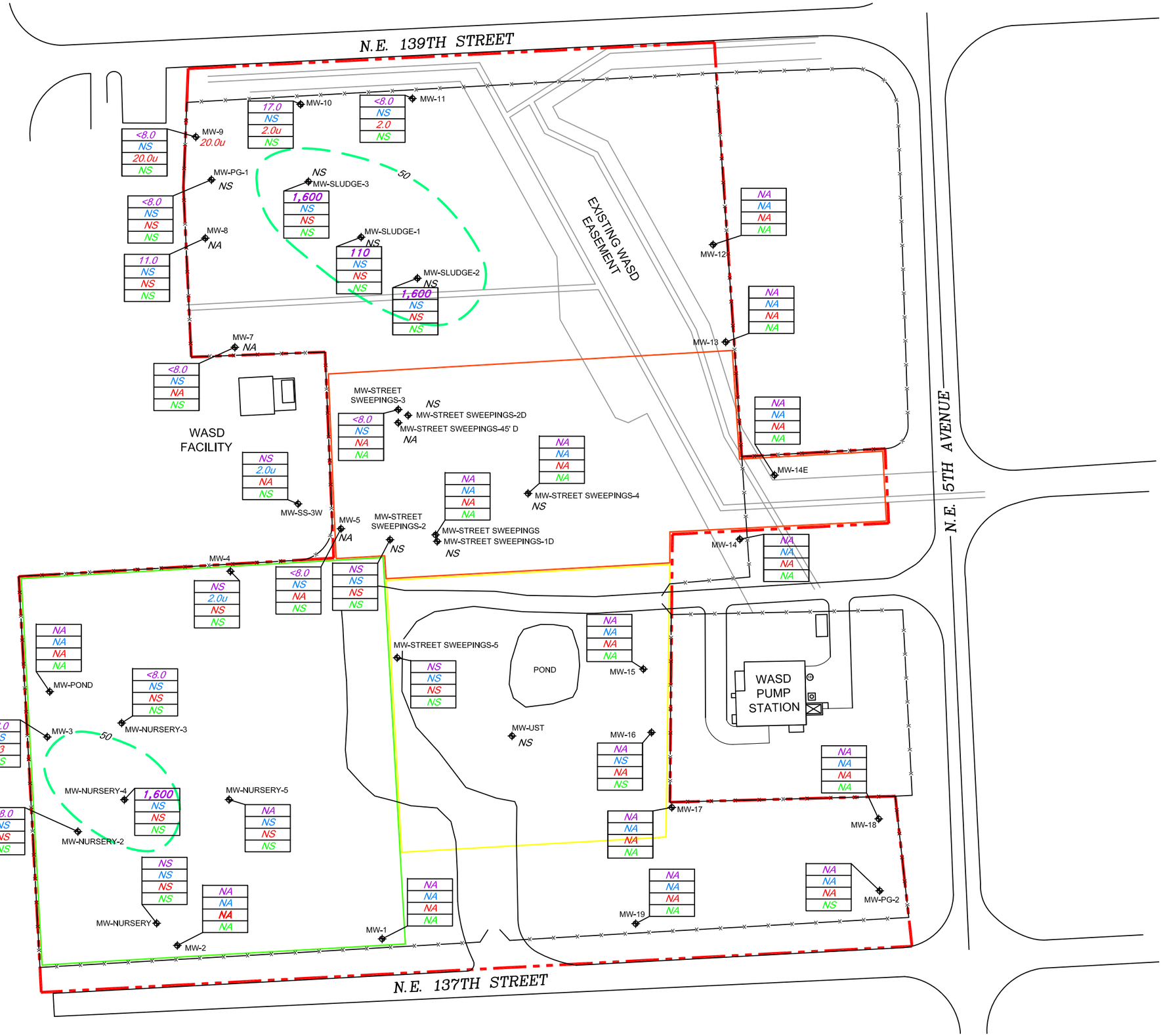
SCALE: APPROX SCALE 0 — 75' FEET

DRAWN BY: TSW
DATE: 02-12-2013
DWG: 16

FIGURE: 16c

DRAWING TITLE:
GROUNDWATER QUALITY – AMMONIA (DEEP 45')

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI–PG



LEGEND:

- MONITORING WELL
- SOIL BORING
- BOUNDARY SOIL BORING
- SOIL BORING NOVEMBER 2010
- SOIL BORING JANUARY 2013
- FECAL COLIFORM CONTOUR (50 MPN/100mL)
- NA NOT APPLICABLE
- NS NOT SAMPLED
- NURSERY AREA
- UST AREA
- STREET SWEEPING AREA
- SLUDGE AREA
- PROPERTY BOUNDARY

JULY 2011	FECAL COLIFORM CONCENTRATIONS COLOR CODED BY DATE
APRIL 2012	
JULY 2012	
JANUARY 2013	

NORTH

SCALE: APPROX SCALE 0 75' FEET

DRAWN BY: TSW
DATE: 02-12-2013
DWG: 17

FIGURE: 17

DRAWING TITLE:
GROUNDWATER QUALITY – FECAL COLIFORMS (SHALLOW)

PIONEER GARDENS
473 NORTHEAST 137th STREET
NORTH MIAMI BEACH, FLORIDA
N. MIAMI-PG

APPENDIX B

MIAMI DADE COUNTY
DERM/PERA/RER CORRESPONDENCE

MIAMI-DADE COUNTY
Carlos A. Gimenez, Mayor

Department of Regulatory and Economic Resources
Environmental Resources Management
701 NW 1st Court, 4th Floor
Miami, Florida 33136-3912
T 305-372-6700 F 305-372-6982
miamidade.gov

November 9, 2012

Mr. Stephen E. Johnson, City Manager
City of North Miami
776 NE 125 Street - 4th Floor
North Miami, FL 33161

CERTIFIED MAIL NO. 7010 2780 0003 4054 1149
RETURN RECEIPT REQUESTED

Re: Site Assessment Report Addendum (SARA) dated September 7, 2012 and prepared by Eco Advisors, LLC for the Pioneer Gardens/Former Rucks Wastewater Treatment Plant facility (IW5-8624/File-8022) located at, near, or in the vicinity of 13760-13780 NE 5th Avenue, North Miami, Miami-Dade County, Florida.

Dear Mr. Johnson:

The Environmental Monitoring & Restoration Division of the Department of Regulatory and Economic Resources (RER) has reviewed the referenced submittal, received September 13, 2012 and offers the following comments:

1. The SARA states that "Conditional Closure is generally selected for this site" and that an engineering control plan will be submitted to RER following more defined site development. Be advised that pursuant to Comment 1 of RER's January 27, 2012 letter, if a No Further Action with Conditions is sought for the site, a notarized affidavit signed by the legal property owner stating his/her intent for a conditional site closure and acknowledging and accepting what this type of closure entails, is required.

2. RER does not object to the recommendation to conduct off-site soil sampling for arsenic, PAHs and dieldrin. However, please note that additional off-site soil samples are recommended east of UST-28 and east of UST-30 for PAH analysis.

3. The SARA recommends semi-annual groundwater monitoring of all wells at the site for arsenic, ammonia and fecal coliform to monitor the stability of the groundwater plumes. Be advised that the vertical and horizontal extent of the contaminant plume(s) has not been fully delineated (i.e., ammonia at the intermediate depth, arsenic west of MW-7, etc.). Therefore, an interim monitoring plan cannot be approved at this time. Delineate the groundwater contaminant plumes and provide the results and updated isoconcentration line maps in the next submittal. Please note that separate maps shall be provided per contaminant of concern and per aquifer stratum. Additionally, evaluate the increase in the arsenic concentration in MW-7 (i.e., from 9.3 ppb on July 14, 2011 to 228 ppb on July 23, 2012) and discuss the possible causes for the concentration increase. Based on the information provided, RER will comment on the appropriateness of a groundwater monitoring plan for the site.

4. Note that all subsequent submittals shall provide information on the status of the fencing and vegetative cover at the site.

5. Please be advised that Dieldrin was not analyzed in SS-10, SS-14 and SS-15; therefore, please make the necessary corrections to Figures 8 through 10.

6. Comment 4 of RER's June 5, 2012 letter was not discussed. Please clarify the discrepancy with respect to the differing locations of MW-12, MW-13 and MW-14 in the SAR and SARA submittals.

7. Please be advised that several data entry fields in the July 2012 Groundwater Sampling Logs have error markings (i.e., cross outs, etc.) without initials. Be advised that pursuant to Section FD 1100 of FDEP's Standard Operating Procedures (SOPs) DEP-SOP-001/01, a marked error and its correction shall be initialed or signed.

Be advised that the vertical and horizontal extent of the contaminant plume(s) shall be fully delineated. RER has the option to split any samples deemed necessary with the consultant or laboratory at the subject site. The consultant collecting the samples shall perform field sampling work in accordance with the Standard Operating Procedures provided in Chapter 62-160, Florida Administrative Code (FAC), as amended. The laboratory analyzing the samples shall perform laboratory analyses pursuant to the National Environmental Laboratory Accreditation Program (NELAP) certification requirements. If the data submitted exhibits a substantial variance from RER split sample analysis, a complete resampling using two independent certified laboratories will be required.

RER shall be notified in writing a minimum of three (3) working days prior to the implementation of any sampling or field activities. Email notifications shall be directed to DERMPCD@miamidade.gov. Please include the RER file number on all correspondence.

Therefore, within sixty (60) days of receipt of this letter, you are hereby required to submit to RER for review an addendum to the Site Assessment Report, prepared in accordance with Section 24-44(2)(j)(iv), Code of Miami-Dade County, which shall address the above comments. A review fee of $462 shall be included with the submittal.

Failure to adhere to the items and timeframes stipulated above may result in enforcement action for this site.

If you have any questions regarding this letter, please contact Sandra Rezola (rezols@miamidade.gov) of the Environmental Monitoring & Evaluation Section at (305) 372-6700.

Sincerely,

Wilbur Mayorga, P.E., Chief
Environmental Monitoring & Restoration Division

sr
ec: Alison D. Witoshynsky, Eco Advisors, LLC, ADrescher@ecoadvisors.net
Aleem Ghany, P.E., Director, North Miami Public Works Department, aghany@northmiamifl.gov
Jeff Geimer, Director, North Miami Parks & Recreation Department, jgeimer@northmiamifl.gov

MIAMI-DADE COUNTY

Carlos A. Gimenez, Mayor

Department of Regulatory and Economic Resources
Environmental Resources Management
701 NW 1st Court, 4th Floor
Miami, Florida 33136-3912
T 305-372-6700 F 305-372-6982

miamidade.gov

June 5, 2012

Mr. Stephen E. Johnson, City Manager
City of North Miami
776 NE 125 Street - 4th Floor
North Miami, FL 33161

CERTIFIED MAIL NO. 7010 2780 0003 4054 0920
RETURN RECEIPT REQUESTED

Re: Site Assessment Report Addendum (SARA) dated May 1, 2012 and prepared by Eco Advisors, LLC for the Pioneer Gardens/Former Rucks Wastewater Treatment Plant facility (IW5-8624/File-8022) located at, near, or in the vicinity of 13760-13780 NE 5th Avenue, North Miami, Miami-Dade County, Florida.

Dear Mr. Johnson:

The Environmental Evaluation Section of the Department of Regulatory and Economic Resources (RER) has reviewed the referenced submittal, received May 4, 2012 and offers the following comments:

1. Comment 1 of RER's January 27, 2012 letter approved an extension of time until June 30, 2012 to address contaminated soils and advised that RER should be contacted for a meeting to discuss the proposal to construct a recreational facility at the site. To date RER has not been contacted for said meeting and the above-referenced SARA does not address contaminated soils. Therefore, note that the next submittal shall include a specific proposal to address soils exceeding direct exposure and leachability cleanup target levels (CTLs) at the site. The proposal shall include scaled site maps that show all soil sampling locations in relation to pertinent site features and monitoring wells, and that illustrate the horizontal and vertical extent of the unsaturated zone soil contamination. Be advised that if a No Further Action with Conditions, with institutional controls and engineering controls (if applicable), is sought, then submit a notarized affidavit signed by the legal property owner (or his/her legal representative) stating his/her intent for a conditional site closure and acknowledging and accepting what this type of closure entails.

2. RER acknowledges the proposal in the SARA to monitor all on-site monitoring wells via a scheduled sampling event in July 2012. However, as groundwater assessment and remediation requirements are contingent on the closure option elected, comment 1 above shall be addressed prior to proposing a monitoring only plan (MOP). Notwithstanding the above, resampling of property boundary wells not sampled since July 2011 shall be conducted in the interim to determine further delineation needs, as applicable. Utilizing these resample results, and the results from the April 2012 sampling, prepare and provide scaled site maps that illustrate the degree and extent of groundwater contamination using sufficient isoconcentration lines (separate maps for each contaminant of concern and aquifer depth).

3. RER acknowledges that disposal manifests for the drummed purge water will be provided in the next submittal.

4. The figures provided in the SARA differ from those provided in previous SARs with respect to the locations of MW-12, MW-13 and MW-14. Clarify the cause for this discrepancy in the next submittal.

5. The following inaccuracies/discrepancies were identified in the summary tables provided in the SARA:

   a) Indeno(1,2,3-c,d)pyrene in SS-20(2-3.5) was undetected as per the analytical report and 0.040 as per Table 2a.

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b) The Total Chlordane result in Table 1b for Nursery 62 is 0.0567, whereas the analytical report indicates that the Chlordane result is undetected, the Alpha-Chlordane result is 0.0567 and the Gamma-Chlordane result is 0.0739.
c) The Dieldrin results for Nursery 58 (0.5 to 2 and 2 to 3.5) on Table 1b do not match the results in the analytical reports.
d) Additional Dieldrin analytical reports were provided for Nursery 69; however, not all results were provided in Table 1b.

Please make the applicable corrections and provide the modified tables in the next submittal.

Be advised that the vertical and horizontal extent of the contaminant plume(s) shall be fully delineated. RER has the option to split any samples deemed necessary with the consultant or laboratory at the subject site. The consultant collecting the samples shall perform field sampling work in accordance with the Standard Operating Procedures provided in Chapter 62-160, Florida Administrative Code (FAC), as amended. The laboratory analyzing the samples shall perform laboratory analyses pursuant to the National Environmental Laboratory Accreditation Program (NELAP) certification requirements. If the data submitted exhibits a substantial variance from RER split sample analysis, a complete resampling using two independent certified laboratories will be required.

RER shall be notified in writing a minimum of three (3) working days prior to the implementation of any sampling or field activities. Email notifications shall be directed to DERMPCD@miamidade.gov. Please include the RER file number on all correspondence.

Therefore, within sixty (60) days of receipt of this letter, you are hereby required to submit to RER for review an addendum to the Site Assessment Report, prepared in accordance with Section 24-44(2)(j)(iv), Code of Miami-Dade County, which shall address the above comments. A review fee of $462 shall be included with the submittal.

Failure to adhere to the items and timeframes stipulated above may result in enforcement action for this site.

If you have any questions regarding this letter, please contact Sandra Rezola (rezols@miamidade.gov) of the Environmental Evaluation Section at (305) 372-6700.

Sincerely,

Wilbur Mayorga, P.E., Chief
Environmental Monitoring & Restoration Division

sr
ec: Alison D. Witoshynsky, Eco Advisors, LLC, ADrescher@ecoadvisors.net
Aleem Ghany, P.E., Director, North Miami Public Works Department, aghany@northmiamifl.gov
Jeff Geimer, Director, North Miami Parks & Recreation Department, jgeimer@northmiamifl.gov

MIAMI-DADE COUNTY
miamidade.gov

Department of Permitting, Environment, and Regulatory Affairs
Pollution Control Division
701 NW 1st Court, 4th Floor
Miami, Florida 33136-3912
T 305-372-6700 F 305-372-6982

October 3, 2011

Mr. Tony Crapp Sr., Director
North Miami Community Redevelopment Agency
615 NE 124 Street
North Miami, FL 33161-5522

CERTIFIED MAIL NO. 7010 2780 0003 4054 0319
RETURN RECEIPT REQUESTED

Re: Site Assessment Report Addendum (SARA) dated August 8, 2011 and prepared by Eco Advisors, LLC for the Pioneer Gardens/Former Rucks Water Treatment Plan facility (IW5-8624/File-8022) located at, near, or in the vicinity of 13670-13800 NE 5th Avenue, Miami, Miami-Dade County, Florida.

Dear Mr. Crapp:

The Environmental Evaluation Section of the Department of Permitting, Environment and Regulatory Affairs (PERA) has reviewed the above-referenced request received August 10, 2011 and offers the following comments:

1. Horizontal groundwater delineation for arsenic is required east of MW-14 (161 µg/L) and west of MW-Street Sweepings-3 (517 µg/L). Therefore, PERA recommends the installation of a shallow monitoring well east of MW-14 (on the off-site property owned by the City of North Miami CRA), and west of MW-StreetSweepings-3 and MW-5 (on the off-site property owned by the City of North Miami). Note that horizontal delineation in the areas of proposed MW-20, MW-21 and MW-22 is not required at this time.

2. Please be advised that the arsenic concentration for MW-Nursery-3 as identified in Figure 3 (2.10 mg/L) is not the arsenic result provided in the analytical report for said well (0.049 mg/L). Therefore, if this was a transcription error, and the proposal to install an intermediate depth well in this location was based on the 2.10 mg/L result, then installation of an intermediate depth well in this location is not required.

3. PERA does not object to the proposal to install a deep well (45 feet) immediately adjacent to, and downgradient of, MW-Street Sweepings-2D. Please identify this well with a different name to differentiate it from the intermediate-depth well MW-Street Sweepings-2D.

4. Be advised that the proposed intermediate-depth well, MW-Sludge-2D (30 feet), is not required at this time.

5. PERA does not object to the proposal to investigate MW-4 to determine if redevelopment or replacement is needed. Resarnpling of this well shall be conducted upon redevelopment/reinstallation.

6. Based on the date of last sampling (July 2011), the "continuation of groundwater monitoring of all monitoring wells at the site" is not required at this time. The contaminant plume(s) shall be horizontally and vertically delineated prior to the proposal of a groundwater monitoring plan.

7. Table 3 - Groundwater Sample Analytical Results, indicates that the arsenic in MW-Street-Sweeping 1 increased from 11.3 µg/L in November 23, 2010 to 1130 µg/L in July 13, 2011 (note that the November 23, 2010 analytical reports were not provided to DERM to confirm the 11.3 µg/L concentration). If the November 23, 2010 result in the table is correct, then resample MW-Street-Sweeping 1 for arsenic and investigate the potential cause(s) for this increase. The analytical results and investigation findings shall be provided in the next submittal.

8. The SARA states that "previous fecal coliform data was determined to be unreliable and it is not appropriate to compare those results to the July 2011 data". Please clarify why the coliform data was deemed unreliable.

9. The SARA indicates that the interim engineering controls for soils at the site will be the fencing and existing vegetative cover that is maintained monthly. Be advised that if at any time the vegetative cover is removed

or altered before site construction, and/or found to be inadequate for eliminating particulate migration off-site, then PERA shall be notified within 48 hours and the engineering control shall be restored within 10 days.

10. The SARA states that between October 2010 and February 2011 Eco Advisors installed a new monitoring well and conducted soil sampling to determine the leachability of dieldrin within the soils in the nursery area and confirm the benzo(a)pyrene concentrations along the property boundary; however, "Eco Advisors has not formally submitted this soil or groundwater data to PERA". Although further soil assessment and remediation may be deferred until development plans are finalized (provided an acceptable interim engineering control is implemented), the results of the above-referenced soil and groundwater samples shall be considered in the determination of the appropriate groundwater monitoring needs for the site. Therefore, please utilize the results, as applicable in your evaluation of the groundwater assessment needs for the site and provide the results of this evaluation (and all corresponding analytical reports, quality control documentation, and updated tables of analytical results) in the next submittal.

11. Provide the Groundwater Sampling Log for the July 14, 2011 sampling of MW-4.

12. Please provide the well depth for MW-Street Sweeping 2D, MW-Sludge-2 and MW-Sludge 3 in Table 2, and update Table 2 as monitoring wells are installed. Additionally, please submit the Monitoring Well Construction and Development Log for MW-Street Sweepings 2D.

13. The SARA states that "all purge water was discharged to the ground surface adjacent to each monitoring well". Be advised that discharging the purge/development water to the unpaved source area could contaminate soil at the surface that has not been impacted by the contaminants of concern. Therefore, based on the improper disposal of the investigation-derived waste, provide a scaled site map identifying the unpaved area(s) where purge water was discharged. Be advised that depending on the information provided additional assessment may be required.

14. Be advised that corrections noted in several of the submitted groundwater sampling logs require an initial by the marked error as stated in the Florida Department of Environmental Protection's (FDEP's) Standard Operation Procedures (SOPs) – 001/01, FD 1100 Universal Documentation Requirements. Please ensure that the FDEP's SOPs are adhered to for all future sampling events.

Therefore, within sixty (60) days of receipt of this letter, you are hereby required to submit to the PERA for review a response addressing the above comments. A review fee of $462 shall be included with the submittal.

PERA shall be notified in writing a minimum of three (3) working days prior to the implementation of any sampling or field activities. Email notifications shall be directed to PERAPCD@miamidade.gov. Please include the PERA file number on all correspondence.

Failure to adhere to the items and timeframes stipulated above may result in enforcement action for this site.

If you have any questions regarding this letter, please contact Sandra Rezola (rezols@miamidade.gov) of the Environmental Evaluation Section at (305) 372-6700.

Sincerely,

Wilbur Mayorga, P.E., Chief
Pollution Control Division

sr
ec: Alison D. Witoshynsky, LEP, Eco Advisors, LLC, ADrescher@ecoadvisors.net

MIAMI-DADE COUNTY
miamidade.gov

Department of Environmental Resources Management
Pollution Control Division
701 NW 1st Court, 4th Floor
Miami, Florida 33136-3912
T 305-372-6700 F 305-372-6982

June 6, 2011

Mr. Tony Crapp Sr., Director
North Miami Community Redevelopment Agency
615 NE 124 Street
North Miami, FL 33161-5522

CERTIFIED MAIL NO. 7010 2780 0003 4054 0159
RETURN RECEIPT REQUESTED

Re: Groundwater Assessment Plan and Schedule dated April 15, 2011 and prepared by Eco Advisors, LLC for the Pioneer Gardens/Former Rucks Water Treatment Plan facility (IW5-8624/File-8022) located at, near, or in the vicinity of 13670-13800 NE 5th Avenue, Miami, Miami-Dade County, Florida.

Dear Mr. Crapp:

The Pollution Control Division (PCD) of the Department of Environmental Resources Management (DERM) has reviewed the above-referenced request received April 18, 2011 and offers the following comments:

1. DERM's March 21, 2011 letter stated that DERM may consider deferment of assessment/remediation of impacted soils exceeding direct exposure cleanup target levels until such time as development plans are finalized, provided access to the property is restricted and an interim engineering control over uncovered soils is implemented to minimize dust generation. The above-referenced submittal does not propose an interim engineering control and the wind screening described is insufficient to prevent dust migration. Therefore, an interim engineering control (e.g., sod/grass, gravel, mulch, etc.) that properly minimizes dust potential shall be implemented. Additionally, signs restricting access shall be posted at each of the three gated entrances to the property.

2. DERM has no objection to the groundwater assessment proposed (activity 1A in the Groundwater Assessment Schedule). The next submittal shall include the groundwater sampling results and an updated assessment schedule that considers the groundwater results (and need for delineation) and reflects the modified timeframe for completion of activity 1A. Additionally, the schedule shall incorporate the implementation of the interim engineering control(s). DERM will comment on the modified assessment/engineering control implementation schedule upon receipt and review.

Therefore, within sixty (60) days of receipt of this letter, you are hereby required to submit to the DERM for review a response addressing the above comments. A review fee of $462 shall be included with the submittal.

DERM shall be notified in writing a minimum of three (3) working days prior to the implementation of any sampling or field activities. Email notifications shall be directed to DERMPCD@miamidade.gov. Please include the DERM file number on all correspondence.

Failure to adhere to the items and timeframes stipulated above may result in enforcement action for this site.

If you have any questions regarding this letter, please contact Sandra Rezola (rezols@miamidade.gov) of the Environmental Evaluation Section at (305) 372-6700.

Sincerely,

Wilbur Mayorga, P.E., Chief
Pollution Control Division

Delivering Excellence Every Day

sr
ec: Alison B. Drescher, LEP, Eco Advisors, LLC, ADrescher@ecoadvisors.net

MIAMI-DADE COUNTY

Carlos Alvarez, Mayor

Environmental Resources Management
Pollution Control Division
701 NW 1st Court • 4th Floor
Miami, Florida 33136-3912
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miamidade.gov

March 21, 2011

Mr. Tony Crapp Sr., Director
North Miami Community Redevelopment Agency
615 NE 124 Street
North Miami, FL 33161-5522

CERTIFIED MAIL NO. 7007 2680 0000 0619 6444
RETURN RECEIPT REQUESTED

Re: Request for Suspension of Environmental Activities dated February 24, 2011 and prepared by Eco Advisors, LLC for the Pioneer Gardens/Former Rucks Water Treatment Plan facility (IW5-8624/File-8022) located at, near, or in the vicinity of 13670-13800 NE 5th Avenue, Miami, Miami-Dade County, Florida.

Dear Mr. Crapp:

The Pollution Control Division (PCD) of the Department of Environmental Resources Management (DERM) has reviewed the above-referenced request received February 25, 2011. While DERM acknowledges that assessment/remediation at this site has been complicated by limited funding and the uncertainty of development plans, based on the groundwater contamination at the boundaries of the site, and the potential off-site impacts, DERM offers the following comments:

1. DERM acknowledges that the property will remain fenced and secured from any access by the general public, limiting the potential for direct exposure to contaminated soils. As such, DERM may consider deferment of assessment/remediation of impacted soils exceeding direct exposure cleanup target levels until such time as development plans are finalized, provided access to the property is restricted and an interim engineering control over uncovered soils is implemented to minimize dust generation.

2. Based on the extent of the groundwater contamination at the site, an indefinite extension for groundwater assessment and cleanup cannot be granted. Horizontal and vertical delineation of the groundwater contamination plume(s), followed by remediation (as appropriate), shall be conducted. Therefore, a Site Assessment Report Addendum is required. Based on the time elapsed since the groundwater was sampled (2009), key monitoring wells shall be resampled for the appropriate contaminants of concern to determine current delineation needs.

Therefore, within fifteen (15) days of receipt of this letter contact Sandra Rezola (rezols@miamidade.gov) of the PCD at (305) 372-6700 to schedule a meeting to discuss cost-effective means to satisfy the requirements referenced above and establish timeframes for assessment/remediation.

Please be advised that if you wish to enter into a Consent Agreement (written agreement under Section 24-5(15)(c) of Chapter 24 of the Miami-Dade County Code) with DERM that provides written assurance of voluntary compliance with Chapter 24, Miami-Dade County Environmental Protection Ordinance, you may contact Donna Gordon of the Pollution Regulation and Enforcement Division at 305-372-6964, or gordod@miamidade.gov.

Be advised that failure to comply with the above may result in enforcement action for this site.

Sincerely,

Wilbur Mayorga, P.E., Chief
Pollution Control Division

sr
ec: Alison B. Drescher, LEP, Eco Advisors, LLC, ADrescher@ecoadvisors.net

MIAMI-DADE COUNTY

Carlos Alvarez, Mayor

Environmental Resources Management
Pollution Control Division
701 NW 1st Court • 4th Floor
Miami, Florida 33136-3912
T 305-372-6700 F 305-372-6982

miamidade.gov

July 6, 2010

Mr. Tony Crapp Sr., Director
North Miami Community Redevelopment Agency
615 NE 124 Street
North Miami, FL 33161-5522

CERTIFIED MAIL NO. 7007 2680 0000 0619 6390
RETURN RECEIPT REQUESTED

RE: Response to Comments/Site Assessment Report Addendum (SARA) dated April 15, 2010 submitted and prepared by REP Associates, Inc. for the Pioneer Gardens/Former Rucks Water Treatment Plan facility (IW5-8624/File-8022) located at, near, or in the vicinity of 13670-13800 NE 5th Avenue, Miami, Miami-Dade County, Florida.

Dear Mr. Crapp:

The Environmental Evaluation Section of the Department of Environmental Resources Management (DERM) has reviewed the above-referenced document, received April 19, 2010 and offers the following comments:

1. DERM acknowledges that source removal is being conducted within the Former Sludge Pond, Street Sweeping, and Nursery areas. As stated in DERM's December 21, 2009 correspondence, source removal shall comply with Section 24-44(2)(j)(iii), Code of Miami-Dade County and details of the source removal (including scaled site maps depicting all impacted and excavated areas), and all corresponding disposal documentation/manifests, shall be provided in the next submittal (i.e., Site Assessment Report Addendum/Source Removal Report).

2. DERM acknowledges that dieldrin delineation and leachability testing will be conducted to address comments 7 and 8 of DERM's December 21, 2009 letter. Additionally, DERM acknowledges that additional groundwater sampling for arsenic will be conducted in the Street Sweeping Area in accordance with comment 5 of said letter. Please note that DERM recommended resampling of the wells (to confirm delineation needs) prior to installation of an intermediate-depth well.

3. Please be advised that the Total Benzo(a)pyrene (B(a)P) Equivalent concentration should only be calculated when at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit. As stated in comment 6b of DERM's December 21, 2009 letter, Total B(a)P Equivalents were incorrectly calculated for numerous samples (i.e., concentrations were calculated for samples where no carcinogenic PAHs were detected above the Method Detection Limit). Therefore, please revise Figure 4 and Tables 5a and 5b, as appropriate (i.e., if B(a)Ps were not detected, identify the result as '< [MDL]', for example, SS-14/SB-14 (Street Sweeping Area) should be <0.270 mg/kg, not 0.270 mg/kg). Thereafter, as stated in comment 6 of DERM's December 21, 2009 letter, collect a representative number of soil samples from the property boundaries in those areas where the MDLs did not meet the PAH soil CTLs. Be advised that analytical results must meet the best achievable practical quantitation limits (PQL) or be less than or equal to the applicable CTLs. Supporting technical documentation must be provided if practical quantitation limits at or below the CTLs are not achieved.

4. Page 6 of the Response to Comments/SARA states that the extracts for some of the samples were very dark and viscous. Please clarify if these samples were collected from the Former Sludge Pond

Area (and therefore describe the sludge material) or if the dark and viscous material was documented in samples outside of the Former Sludge Pond.

5. Figure 1 provided in the Response to Comments/SARA depicts "proposed French drains" throughout the property. As stated in DERM's February 24, 2009 Drainage Plan disapproval, stormwater drainage will not be approved in areas of groundwater contamination if the proposed exfiltration systems coincide with the contaminant plumes (both soil and groundwater).

Be advised that the vertical and horizontal extent of the contaminant plume(s) shall be fully delineated. DERM has the option to split any samples deemed necessary with the consultant or laboratory at the subject site. The consultant collecting the samples shall perform field sampling work in accordance with the Standard Operating Procedures provided in Chapter 62-160, Florida Administrative Code (FAC), as amended. The laboratory analyzing the samples shall perform laboratory analyses pursuant to the National Environmental Laboratory Accreditation Program (NELAP) certification requirements. If the data submitted exhibits a substantial variance from the DERM split sample analysis, a complete resampling using two independent certified laboratories will be required.

Sonia Suarez of DERM shall be notified in writing a minimum of three (3) working days prior to the implementation of any sampling or field activities. Email notifications shall be directed to DERMPCD@miamidade.gov. Please include the DERM file number on all correspondence.

Therefore, within ninety (90) days of receipt of this letter, you are hereby required to submit to the DERM for review a Site Assessment Report Addendum/Source Removal Report, prepared in accordance with Section 24-44(2)(j)(iv) and Section 24-44(2)(j)(iii), Code of Miami-Dade County, which shall address the above comments. A review fee of $675 shall be included with the submittal.

Failure to adhere to the items and timeframes stipulated above may result in enforcement action for this site.

If you have any questions regarding this letter, please contact Sandra Rezola (rezols@miamidade.gov) of the Environmental Evaluation Section at (305) 372-6700.

Sincerely,

Wilbur Mayorga, P.E., Chief
Pollution Control Division

sr
ec: Alison Drescher, Project Manager, REP Associates, Inc., ADrescher@ecoadvisors.net
Mr. Tony Crapp Sr., Director, North Miami Community Redevelopment Agency, Crapp@NorthMiamiCRA.org

MIAMI-DADE COUNTY

Carlos Alvarez, Mayor

Environmental Resources Management
Pollution Control Division
701 NW 1st Court • 4th Floor
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miamidade.gov

December 21, 2009

Mr. Tony Crapp Sr., Director
North Miami Community Redevelopment Agency
615 NE 124 Street
North Miami, FL 33161-5522

CERTIFIED MAIL NO. 7007 2680 0000 0710 5454
RETURN RECEIPT REQUESTED

RE: Site Assessment Report Addendum (SARA) dated September 2009 submitted and prepared by REP Associates, Inc. for the Pioneer Gardens/Former Rucks Water Treatment Plan facility (IW5-8624/File-8022) located at, near, or in the vicinity of 13670-13800 NE 5th Avenue, Miami, Miami-Dade County, Florida.

Dear Mr. Crapp:

The Environmental Evaluation Section of the Department of Environmental Resources Management (DERM) has reviewed the above-referenced document, received October 2, 2009 and hereby disapproves it. The following is required:

1. The Contamination Assessment Plans dated April 23, 2009 and May 19, 2009 stated that a background study for arsenic in the groundwater would not be conducted based on the arsenic sample results from the off-site monitoring wells TW-A, TW-B, and TW-C (which were below the applicable arsenic groundwater cleanup target level (CTL)). However, the above-referenced SARA recommends "background assessments of groundwater and soil for arsenic and soil for BaP". Therefore, clarify the intent and the scope of the background studies proposed. Be advised that any background study conducted shall follow the applicable requirements of DERM's RBCA Guidance Document No. 7C, Background Guidance for Contaminated Sites, available at: http://www.miamidade.gov/derm/library/land/rbca_supporting_information.pdf. Note that DERM requires the submittal of a Background Study Sampling Plan prior to implementation. Be advised that based on the results of the background studies, off-site delineation and remediation may be required.

2. DERM does not object to the proposal to conduct source removal of sludge material and ammonia and fecal coliform-impacted soils. Be advised that source removal shall comply with Section 24-44(2)(j)(iii), Code of Miami-Dade County. Details of the source removal (including scaled site maps depicting all impacted and excavated areas), and all corresponding disposal documentation/manifests, shall be provided.

3. Comment 17 of DERM's letter dated March 11, 2009 and comment 1a. of DERM's letter dated June 25, 2009 were not sufficiently addressed. Therefore, provide scaled site map(s) depicting all historic soil and groundwater sample locations and their respective contaminant of concern concentrations (to include results from the Tank Closure Assessment Report, Site Assessment Report, and SARA I and II) in reference to source areas, property boundaries, and other pertinent site features. The horizontal and vertical extent of vadose zone soil contamination shall be illustrated (separate maps per contaminant of concern).

4. Comment 16 of DERM's March 11, 2009 letter was not addressed. Therefore, provide scaled site maps that illustrate the degree and extent of groundwater contamination using sufficient

isoconcentration lines to help define the extent of the plume(s). Separate maps shall be provided per contaminant of concern.

5. MW-Street Sweepings, MW-Street Sweepings 3, and MW-Street Sweepings 4 documented the highest arsenic concentrations during the 2008 sampling event (595 µg/L, 858 µg/L, and 720 µg/L, respectively). Therefore resample these wells for arsenic. If confirmation sampling documents similar concentrations, then install an intermediate-depth well (e.g., screened 25 to 30 feet) immediately adjacent to, and downgradient of, MW-Street Sweepings 3 and analyze the deep well for arsenic. Depending on the results further delineation may be required.

6. The following deficiencies/errors/omissions were noted in the report:

   a. The method detection limits (MDLs) for the carcinogenic PAHs in soil samples SB-7, SB-9, SB-10, SB-11, SB-14(Street Sweeping), SB-43, SB-45 through SB-49, SB-51 through SB-56, SB-14(UST), SB-15, SB-17, SB-18, and SB-21 through 26 were greater the soil CTLs. Therefore, DERM cannot determine whether these samples exceed the applicable CTLs.
   b. Total Benzo(a)pyrene (B(a)P) Equivalent concentrations were not calculated for all samples with carcinogenic detections (i.e., SB-46(2-4), etc.). Additionally, the Total B(a)P Equivalents were incorrectly calculated for numerous samples (i.e., concentrations were calculated for samples where no carcinogenic PAHs were detected). Furthermore, the Total B(a)P Equivalent concentrations were not included as a column in Table 4: Soil Sample Analytical Results.
   c. Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, and Indeno(1,2,3-cd)pyrene results were not included in Table 4 (Nursery Area soil samples SB-42 through SB-56).
   d. Many of the B(a)P Equivalent results for soil samples depicted on Figure 5 state "NA", when these samples were in fact analyzed. For example, almost all of the boundary borings surrounding the former sludge area (i.e., SB-8, SB-9(2-4 only), SB-10, SB-11, SB-12, SB-13, and SB-14) were non-detects for PAHs (with low MDLs); however, they are identified as "NA" on Figure 5.

   Based on the above, recalculate the Total B(a)P Equivalent concentrations and correctly identify the results on a revised Figure 5. Additionally, include the new calculations and the omitted PAH analytes on a revised Table 4. Based on this information, and as appropriate, collect a representative number of soil samples from the property boundaries in those areas where the MDLs did not meet the PAH soil CTLs. Be advised that analytical results must meet the best achievable practical quantitation limits (PQL) or be less than or equal to the applicable CTLs. Supporting technical documentation must be provided if practical quantitation limits at or below the CTLs are not achieved. For further guidance on calculating B(a)P Equivalents for detected carcinogenic PAHs please refer to the DERM Technical Report: Development of Cleanup Target Levels for Chapter 24, Miami-Dade County Code, available at: http://www.miamidade.gov/derm/library/land/rbca_cleanup_target_levels_tech_report.pdf and the Florida Department of Environmental Protection's Benzo(a)pyrene Equivalents Conversion Table.

7. Comment 1c. of DERM's June 25, 2009 letter required analysis of chlorinated pesticides from the soil samples in the boundary areas surrounding the nursery. The SARA documents that not all borings and/or intervals were analyzed as required (e.g., SB-45(2-4) exceeded the leachability CTL; however, the 0.5-2 foot interval wasn't analyzed, SB-51 wasn't analyzed, etc.). Provide the rationale for not analyzing all intervals and all nursery-area soil borings for chlorinated pesticides. Based on this omission, further delineation and/or confirmation sampling may be required.

8. DERM does not object to the proposal to conduct leachability testing in the former nursery area in an attempt to demonstrate that the leachate concentrations of dieldrin do not exceed the groundwater CTLs. However, based on the inconsistent soil sampling methodology utilized (as referenced in comment 7 above), further vertical delineation of the dieldrin contamination may be required. Be advised that direct leachability testing may be performed using USEPA Test Method 1312, Synthetic Precipitation Leaching Procedure (SPLP) extraction or, if the contamination is derived from used oil or similar petroleum products, USEPA Test Method 1311 (TCLP) extraction, followed by the appropriate analysis of the leachate. Leachability testing shall be performed on a minimum of three grab samples from each source area that exceed the applicable leachability-based soil CTLs specified in Section 24-11.1(2)(E) of the Code. The actual number of samples shall be based on the horizontal and vertical extent of contamination and the site-specific lithology.

9. Although the text on page 8 describes general soil conditions and states that soils were generally moist at 4 feet, lithology logs were not provided for the soil borings advanced. Therefore, provide boring logs that include the depth to water in each boring, the sample depth and "description", the moisture content, and the disposition of the drill cuttings. Additionally, low percent solids reported in the analytical reports (i.e., SB-50(2-4), etc.) shall be explained. Furthermore, any known cause for the physical matrix interference documented in the soil sample analytical reports, resulting in dilution that elevated the detection limits, shall be elaborated on. Be advised that pursuant to comment 1b of DERM's June 25, 2009 letter, the depth to water shall be utilized to justify the sampling depths for each boring.

10. Comment 20 of DERM's March 11, 2009 letter was not addressed. Address this comment in the next submittal.

11. Comment 21 of DERM's March 11, 2009 letter was not addressed. In addition, pyrene results for SB-51(0-0.5) and SB-48(0-0.5) and naphthalene results for SB-42(0.5-2) are incorrectly reported in Table 4 of this SARA. Therefore, revised tables that accurately summarize all available analytical results shall be provided.

12. Comment 22 of DERM's March 11, 2009 shall be addressed. Additionally, clarify the status of the drummed drill cuttings referenced in the field notes provided in the SARA. If the drums were disposed, provide the corresponding manifests.

13. Be advised that the Chapter 24, Code of Miami-Dade County coliform water quality standard (groundwater) is 50 MPN/100 mL and not 1000 cfu/100 mL as indicated in Table 6.

14. Be advised that soil sample designations shall not be duplicated to avoid confusion (i.e., there were three soil borings advanced on August 25 and August 26, 2009 that were labeled SB-14, etc.).

Be advised that the vertical and horizontal extent of the contaminant plume(s) shall be fully delineated. DERM has the option to split any samples deemed necessary with the consultant or laboratory at the subject site. The consultant collecting the samples shall perform field sampling work in accordance with the Standard Operating Procedures provided in Chapter 62-160, Florida Administrative Code (FAC), as amended. The laboratory analyzing the samples shall perform laboratory analyses pursuant to the National Environmental Laboratory Accreditation Program (NELAP) certification requirements. If the data submitted exhibits a substantial variance from the DERM split sample analysis, a complete resampling using two independent certified laboratories will be required.

Sonia Suarez of DERM shall be notified in writing a minimum of three (3) working days prior to the implementation of any sampling or field activities. Email notifications shall be directed to DERMPCD@miamidade.gov. Please include the DERM file number on all correspondence.

Therefore, within sixty (60) days of receipt of this letter, you are hereby required to submit to the DERM for review an addendum to the Site Assessment Report, prepared in accordance with Section 24-44(2)(j)(iv), Code of Miami-Dade County, which shall address the above comments. A review fee of $250 shall be included with the submittal.

Failure to adhere to the items and timeframes stipulated above may result in enforcement action for this site.

If you have any questions regarding this letter, please contact Sandra Rezola (rezols@miamidade.gov) of the Environmental Evaluation Section at (305) 372-6700.

Sincerely,

Wilbur Mayorga, P.E., Chief
Pollution Control Division

sr
ec: Alison Drescher, Project Manager, REP Associates, Inc., ADrescher@ecoadvisors.net
Mr. Tony Crapp Sr., Director, North Miami Community Redevelopment Agency, Crapp@NorthMiamiCRA.org

APPENDIX C

NOTARIZED AFFIDAVIT

February 21, 2013

Mr. Wilbur Mayorga
Miami-Dade County
Department of Environment Resources Protection
701 NW 2st Court, 4th Floor
Miami, FL 33136

Re: **Affidavit for No Further Action with Conditions**
Pioneer Gardens (Former Rucks Wastewater Treatment Plant)
13760 to 13780 Northeast 5th Avenue, North Miami, Florida
IW5-8624/File-8022

Dear Mr. Mayorga:

I, Stephen E. Johnson, City Manager, City of North Miami, the legal property owner of the Pioneer Gardens (former Rucks Wastewater Treatment Plant) site (IW5-8624/File-8022) located at 13760 to 13780 NE 5th Avenue, North Miami, FL, has elected to pursue a conditional site closure for this property. I and my staff acknowledge and accept what this type of closure may entail: 1) preparation and recording of a covenant running with the land; 2) implementation of institutional controls; and, 3) implementation of engineering controls or any further action that needs to take place.

Sincerely,

Stephen E. Johnson
City Manager

SEJ:am

Sworn to and subscribed before me, a Notary Public, this 21st day of February, 2013.

Notary Public, State of Florida

ANDREA A. MCDONALD
MY COMMISSION # EE 069974
EXPIRES: May 5, 2015
Bonded Thru Notary Public Underwriters

Print, type, or stamp Commissioned Name of Notary Public

✓ Personally known
__ Produced Identification
Type of Identification _____

776 NE 125 Street | North Miami | Florida | 33161 305.895.9888 Fax: 305.893.1367

APPENDIX D

TABLES

TABLE 1: OFF-SITE SOIL SAMPLING ANALYSIS PLAN (JAN 2013)

Soil Boring	Depth Interval	Sampling Parameter			
		Arsenic	PAH	Deildrin	SPLP Deildrin
OS-1	0-2'	1	1		
	2'- water table (3-4')	1	1		
OS-2	0-2'	1	1		
	2'- water table (3-4')	1	1		
OS-3	0-6"	1	1		
	6"-2'	1	1		
	2'- water table (3-4')	1	1		
OS-4	0-6"	1		1	
	6"-2'	1		1	
	2'- water table (3-4')	1		1	
OS-5	0-6"	1	1		
	6"-2'	1	1		
	2'- water table (3-4')	1	1		
OS-6	0-6"	1	1		
	6"-2'	1	1		
	2'- water table (3-4')	1	1		
OS-7	0-6"	1	1	1	
	6"-2'	1	1	1	
	2'- water table (3-4')	1	1	1	
OS-8	0-6"	1	1		
	6"-2'	1	1		
	2'- water table (3-4')	1	1		
OS-9	0-6"	1		1	1
	6"-2'	1		1	1
	2'- water table (3-4')	1		1	1
OS-10	0-6"	1			
	6"-2'	1			
	2'- water table (3-4')	1			
OS-11	0-6"	1	1		
	6"-2'	1	1		
	2'- water table (3-4')	1	1		
OS-12	0-2'		1		
	2'- water table (3-4')		1		
OS-13	0-2'		1		
	2'- water table (3-4')		1		
OS-14	0-2'		1		
	2'- water table (3-4')		1		
OS-15	0-2'	1	1		
	2'- water table (3-4')	1	1		

TABLE 1a: SOIL SAMPLE ANALYTICAL RESULTS - AMMONIA, BTEX/MTBE, METALS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE				LABORATORY ANALYSIS																
Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Ammonia (ppm)	Benzene (ppm)	Ethyl-benzene (ppm)	Toluene (ppm)	Total Xylenes (ppm)	1,4-Dichloro-benzene (ppm)	MTBE (ppm)	TRPHs (ppm)	Arsenic (ppm)	SPLP Arsenic (ppm)	Barium (ppm)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Mercury (ppm)	Selenium (ppm)	Silver (ppm)
SCTL-L	-	-	-	SPLP	0.007	0.600	0.500	0.200	6.4	0.090	340	SPLP	0.01	1,600	7.5	38	SPLP	2.1	5.2	17
SCTL-I	-	-	-	26,400	1.70	9,200	60,000	700	9.9	24,000	2,700	12	NA	130,000	1,700	470	1400	17	11,000	8,200
SCTL-R	-	-	-	4,400	1.20	1,500	7,500	130	2.2	4,400	460	2.1	NA	120	82	310	400	3	440	410
STREET SWEEPINGS AREA																				
SS-1	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.3**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**4.6**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	**18.1**	NA	NA	NA	NA	NA	NA	NA	NA
SS-2	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**6.5**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**5.1**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	**3.8 i** [1]	NA	NA	NA	NA	NA	NA	NA	NA
SS-3	6/26/2009	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.6**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**5.8**	**0.019 i**	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	**46.5**	NA	NA	NA	NA	NA	NA	NA	NA
SS-4	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**4.5**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**5.1**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	**24.4**	NA	NA	NA	NA	NA	NA	NA	NA
SS-5	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	0.79 i	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**4.0 i**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	**23.8**	**0.057**	NA	NA	NA	NA	NA	NA	NA
SS-6	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.9**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	**2.5**	NA	NA	NA	NA	NA	NA	NA	NA
SS-7	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.2 i**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**4.0**	0.0063 i	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	**71.4**	NA	NA	NA	NA	NA	NA	NA	NA
SS-8	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	2.1 U	0.0054 U	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**4.6**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA
SS-9 (SB-9)	8/25/2009		0 to 2	0.69 i	NA	NA	NA	NA	NA	NA	NA	**7.6**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NS	NA	NA	NA	NA	NA	NA	NA	NS	NA	NA	NA	NA	NA	NA	NA	NA
SS-10 (SB-10)	8/25/2009		0 to 2	1.2	NA	NA	NA	NA	NA	NA	NA	**5.3**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.47 i	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SS-11 (SB-11)	8/25/2009		0 to 2	2.2	NA	NA	NA	NA	NA	NA	NA	**3.1**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SS-912 (SB-12)	8/26/2009		0 to 2	0.84 i	NA	NA	NA	NA	NA	NA	NA	0.73	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	1.0	NA	NA	NA	NA	NA	NA	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA
SS-13 (SB-13)	8/26/2009		0 to 2	0.96	NA	NA	NA	NA	NA	NA	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.95 i	NA	NA	NA	NA	NA	NA	NA	0.57	NA	NA	NA	NA	NA	NA	NA	NA
SS-14 (SB-14)	8/26/2009		0 to 2	1.8	NA	NA	NA	NA	NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	2.8	NA	NA	NA	NA	NA	NA	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA
SS-15 (SB-15)	8/26/2009		0 to 2	1.0	NA	NA	NA	NA	NA	NA	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.58 i	NA	NA	NA	NA	NA	NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA
SS-16 (SB-16)	8/26/2009		0 to 2	1.0	NA	NA	NA	NA	NA	NA	NA	**2.7**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	2.2	NA	NA	NA	NA	NA	NA	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA
SS-17 (SB-17)	8/26/2009		0 to 2	2.2	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	6.7	NA	NA	NA	NA	NA	NA	NA	**7.4**	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1a: SOIL SAMPLE ANALYTICAL RESULTS - AMMONIA, BTEX/MTBE, METALS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE				LABORATORY ANALYSIS																
Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Ammonia (ppm)	Benzene (ppm)	Ethyl-benzene (ppm)	Toluene (ppm)	Total Xylenes (ppm)	1,4-Dichloro-benzene (ppm)	MTBE (ppm)	TRPHs (ppm)	Arsenic (ppm)	SPLP Arsenic (ppm)	Barium (ppm)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Mercury (ppm)	Selenium (ppm)	Silver (ppm)
SCTL-L	-	-	-	SPLP	0.007	0.600	0.500	0.200	6.4	0.090	340	SPLP	0.01	1,600	7.5	38	SPLP	2.1	5.2	17
SCTL-I	-	-	-	26,400	1.70	9,200	60,000	700	9.9	24,000	2,700	12	NA	130,000	1,700	470	1400	17	11,000	8,200
SCTL-R	-	-	-	4,400	1.20	1,500	7,500	130	2.2	4,400	460	2.1	NA	120	82	310	400	3	440	410
UST & SE AREA																				
SB-4	07/06/07	4	2 to 4	NA	<0.1708	<0.1867	<0.2639	<0.4549	NA	<0.1043	34.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-5	10/31/07	4	3	NA	<0.8761	<0.9573	<1.353	<2.333	NA	NA	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-1	03/27/08	3	1	NA	<0.0002	<0.0002	<0.00014	<0.00083	<0.00020	NA	130	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-2	03/27/08	3	1	NA	<0.00017	<0.00017	<0.00012	<0.00072	0.0032	NA	210	NA	NA	NA	NA	NA	NA	NA	NA	NA
UST-1	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0 to 2	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	0.40 i	0.0069 i	NA	NA	NA	NA	NA	NA	NA
UST-2	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**3.6**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	**3.5**	NA	NA	NA	NA	NA	NA	NA	NA
UST-3	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.6**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**2.8**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA	NA	NA	NA	NA	NA	NA	NA
UST-4	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**3.2**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
UST-5	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0 to 2	NA	NA	NA	NA	NA	NA	NA	NA	1.3 i	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	**3**	NA	NA	NA	NA	NA	NA	NA	NA
UST-6	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	1.2	NA	NA	NA	NA	NA	NA	NA	NA
UST-7	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**2.5**	0.0054 U	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	0.35 i	NA	NA	NA	NA	NA	NA	NA	NA
UST-8	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0 to 2	NA	NA	NA	NA	NA	NA	NA	NA	2.1	0.0054 U	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	0.67	NA	NA	NA	NA	NA	NA	NA	NA
UST-9	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0 to 2	NA	NA	NA	NA	NA	NA	NA	NA	0.85	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	0.56	NA	NA	NA	NA	NA	NA	NA	NA
UST-10	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0 to 2	NA	NA	NA	NA	NA	NA	NA	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	0.52	NA	NA	NA	NA	NA	NA	NA	NA
UST-11	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.5**	0.0054 U	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	**5.5**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	**9.2**	NA	NA	NA	NA	NA	NA	NA	NA
UST-12	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.4**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	2.0	0.0054 U	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	1.8	NA	NA	NA	NA	NA	NA	NA	NA
UST-13	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	2.1 i	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	<0.81	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	0.40 i	0.0054 U	NA	NA	NA	NA	NA	NA	NA

TABLE 1a: SOIL SAMPLE ANALYTICAL RESULTS - AMMONIA, BTEX/MTBE, METALS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE				LABORATORY ANALYSIS																
Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Ammonia (ppm)	Benzene (ppm)	Ethyl-benzene (ppm)	Toluene (ppm)	Total Xylenes (ppm)	1,4-Dichloro-benzene (ppm)	MTBE (ppm)	TRPHs (ppm)	Arsenic (ppm)	SPLP Arsenic (ppm)	Barium (ppm)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Mercury (ppm)	Selenium (ppm)	Silver (ppm)
SCTL-L	-	-	-	SPLP	0.007	0.600	0.500	0.200	6.4	0.090	340	SPLP	0.01	1,600	7.5	38	SPLP	2.1	5.2	17
SCTL-I	-	-	-	26,400	1.70	9,200	60,000	700	9.9	24,000	2,700	12	NA	130,000	1,700	470	1400	17	11,000	8,200
SCTL-R	-	-	-	4,400	1.20	1,500	7,500	130	2.2	4,400	460	2.1	NA	120	82	310	400	3	440	410
UST 14 (SB-14)	8/24/2009		0 to 2	2.6	NA	NA	NA	NA	NA	NA	NA	**3.7**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	1.0 i	NA	NA	NA	NA	NA	NA	NA	**8.5**	NA	NA	NA	NA	NA	NA	NA	NA
UST 15 (SB-15)	8/24/2009		0 to 2	2.5	NA	NA	NA	NA	NA	NA	NA	**6.7**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	2.9	NA	NA	NA	NA	NA	NA	NA	1.9	NA	NA	NA	NA	NA	NA	NA	NA
UST 16 (SB-16)	8/24/2009		0 to 2	0.90 i	NA	NA	NA	NA	NA	NA	NA	0.57	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	12	NA	NA	NA	NA	NA	NA	NA	**4.1**	NA	NA	NA	NA	NA	NA	NA	NA
UST 17 (SB-17)	8/24/2009		0 to 2	7.0	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	6.1	NA	NA	NA	NA	NA	NA	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA
UST 18 (SB-18)	8/24/2009		0 to 2	2.7	NA	NA	NA	NA	NA	NA	NA	1.1	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	1.1	NA	NA	NA	NA	NA	NA	NA	1.0	NA	NA	NA	NA	NA	NA	NA	NA
UST 19 (SB-19)	8/24/2009		0 to 2	1.9	NA	NA	NA	NA	NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	<0.485	NA	NA	NA	NA	NA	NA	NA	0.55	NA	NA	NA	NA	NA	NA	NA	NA
UST 20 (SB-20)	8/24/2009		0 to 2	1.3	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	<0.534	NA	NA	NA	NA	NA	NA	NA	0.43	NA	NA	NA	NA	NA	NA	NA	NA
UST 21 (SB-21)	8/24/2009		0 to 2	1.7	NA	NA	NA	NA	NA	NA	NA	0..73	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	<0.507	NA	NA	NA	NA	NA	NA	NA	0.45	NA	NA	NA	NA	NA	NA	NA	NA
UST 22 (SB-22)	8/24/2009		0 to 2	3.5	NA	NA	NA	NA	NA	NA	NA	1.5	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.67 i	NA	NA	NA	NA	NA	NA	NA	0.56	NA	NA	NA	NA	NA	NA	NA	NA
UST 23 (SB-23)	8/24/2009		0 to 2	3.5	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	<0.518	NA	NA	NA	NA	NA	NA	NA	0.69	NA	NA	NA	NA	NA	NA	NA	NA
UST 24 (SB-24)	8/24/2009		0 to 2	1.7	NA	NA	NA	NA	NA	NA	NA	0.86	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	<0.531	NA	NA	NA	NA	NA	NA	NA	0.96	NA	NA	NA	NA	NA	NA	NA	NA
UST 25 (SB-25)	8/24/2009		0 to 2	3	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.93 i	NA	NA	NA	NA	NA	NA	NA	0.49	NA	NA	NA	NA	NA	NA	NA	NA
UST 26 (SB-26)	8/24/2009		0 to 2	2.5	NA	NA	NA	NA	NA	NA	NA	0.99	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.99 i	NA	NA	NA	NA	NA	NA	NA	0.78	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1a: SOIL SAMPLE ANALYTICAL RESULTS - AMMONIA, BTEX/MTBE, METALS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE				LABORATORY ANALYSIS																
Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Ammonia (ppm)	Benzene (ppm)	Ethyl-benzene (ppm)	Toluene (ppm)	Total Xylenes (ppm)	1,4-Dichloro-benzene (ppm)	MTBE (ppm)	TRPHs (ppm)	Arsenic (ppm)	SPLP Arsenic (ppm)	Barium (ppm)	Cadmium (ppm)	Chromium (ppm)	Lead (ppm)	Mercury (ppm)	Selenium (ppm)	Silver (ppm)
SCTL-L	-	-	-	SPLP	0.007	0.600	0.500	0.200	6.4	0.090	340	SPLP	0.01	1,600	7.5	38	SPLP	2.1	5.2	17
SCTL-I	-	-	-	26,400	1.70	9,200	60,000	700	9.9	24,000	2,700	12	NA	130,000	1,700	470	1400	17	11,000	8,200
SCTL-R	-	-	-	4,400	1.20	1,500	7,500	130	2.2	4,400	460	2.1	NA	120	82	310	400	3	440	410
FORMER SLUDGE POND AREA																				
Sludge-1	6/16/2008	5	Sludge	NA	NA	NA	NA	NA	NA	NA	NA	**2.4 i**	NA	43.5	0.20 i	1.3	3.6 i	<0.014	<2.0	<0.079
			Native	NA	NA	NA	NA	NA	NA	NA	NA	0.54 i	NA	3.3 i	0.054 i	2.7	7.5 i	0.026 i	0.55 i	<0.065
Sludge-2	6/16/2008	5	Sludge	NA	NA	NA	NA	NA	NA	NA	NA	**6.8**	NA	0.28	0.28	2.4	10.8 i	0.21	<1.9	0.33 i
			Native	NA	NA	NA	NA	NA	NA	NA	NA	1.3 i	NA	15.0	0.058 i	3.4	5.6 i	0.062 i	0.69 i	<0.084
Sludge-3	6/16/2008	5	Sludge	NA	NA	NA	NA	NA	NA	NA	NA	**10.4**	NA	52.5	0.24 i	1.6	8.3 i	<0.016	33	<0.084
			Native	NA	NA	NA	NA	NA	NA	NA	NA	0.7	NA	5.6 i	<0.060	2.2	1.9 i	0.033 i	2.3 i	<0.072
Sludge-4	6/16/2008	5	Sludge	NA	NA	NA	NA	NA	NA	NA	NA	**6.6**	NA	19.4	0.22 i	5.1	13.5 i	0.098	<1.8	0.26 i
			Native	NA	NA	NA	NA	NA	NA	NA	NA	<0.31	NA	1.3 i	<0.086	0.81 i	0.44 i	<0.021	0.28 i	<0.10
Sludge-5	6/16/2008	5	Sludge	NA	NA	NA	NA	NA	NA	NA	NA	**8.3**	NA	38.2	0.24	1.7	13.0 i	**11.6**	2.1 i	0.089 i
			Native	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA	6.2 i	0.091 i	3	4.8 i	0.14	0.46 i	0.20 i
Sludge-6 (SB-6)	8/26/2009		0 to 2	1.7	NA	NA	NA	NA	NA	NA	NA	**62**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	1.2 i	NA	NA	NA	NA	NA	NA	NA	**180**	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-7 (SB-7)	8/26/2009		0 to 1	1.9	NA	NA	NA	NA	NA	NA	NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-8 (SB-8)	8/26/2009		0 to 2	0.79 i	NA	NA	NA	NA	NA	NA	NA	**6.8**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	1.3	NA	NA	NA	NA	NA	NA	NA	**5.6**	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-9 (SB-9)	8/26/2009		0 to 2	3.2	NA	NA	NA	NA	NA	NA	NA	**4.6**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.72 i	NA	NA	NA	NA	NA	NA	NA	**3.9**	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-10 (SB-10)	8/26/2009		0 to 2	0.51 i	NA	NA	NA	NA	NA	NA	NA	**3.1**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	2.2	NA	NA	NA	NA	NA	NA	NA	**2.5**	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-11 (SB-11)	8/26/2009		0 to 2	0.86 i	NA	NA	NA	NA	NA	NA	NA	1.7	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.96	NA	NA	NA	NA	NA	NA	NA	1.0	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-12 (SB-12)	8/26/2009		0 to 2	<0.625	NA	NA	NA	NA	NA	NA	NA	**3.1**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	<0.580	NA	NA	NA	NA	NA	NA	NA	**2.4**	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-13 (SB-13)	8/26/2009		0 to 2	1.3	NA	NA	NA	NA	NA	NA	NA	0.68	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	3.3	NA	NA	NA	NA	NA	NA	NA	2.0	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-14 (SB-14)	8/26/2009		0 to 2	1.7	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	0.81 i	NA	NA	NA	NA	NA	NA	NA	**0.45**	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-15	11/30/2010	4	0-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2-4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-16	11/30/2010	3.5	0-2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2-3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: fbls - feet below land surface; ft. - feet; ppm - parts per million or milligrams per kilogram (mg/kg); NA - Not Analyzed; NS - Not Sampled; N/A - Not Applicable
SCTL-L = leachability based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-I = Direct Exposure Commercial/Industrial based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-R = Direct Exposure Residential based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code Chapter 24-11
Constituent concentrations denoted in bold exceed the SCTL established in Table 2, Miami-Dade County Code Chapter 24-11
* Site specific based on benzo(a)pyrene Toxicity Equivilency Factor for detected concentrations of benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene
Data flagging criteria: L = Indicates value exceeds calibrations range. I = The reported value is between the laboratory method detection limit and the laboratory practical quantification limit.
Concentrations below the laboratory method detection limit are reported with a less than sign (<).

TABLE 1b: SOIL SAMPLE ANALYTICAL RESULTS - AMMONIA, PESTICIDES, METALS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE				LABORATORY ANALYSES										
Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Ammonia (ppm)	Dieldrin (mg/kg)	SPLP Dieldrin (ug/L)	4-4' DDD (ppm)	4-4' DDE (ppm)	4-4' DDT (ppm)	Total Chlordane (ppm)	Arsenic (ppm)	SPLP Arsenic (ppm)	Lead (ppm)	SPLP Lead (ppm)
SCTL-L	-	-	-	SPLP	0.002	0.002	5.8	18	11	9.6	SPLP	0.01	NA	0.015
SCTL-I	-	-	-	26,400	0.3	NA	55	15	15	14	12	NA	1,400	NA
SCTL-R	-	-	-	4,400	0.06	NA	4.2	2.9	2.9	2.8	2.1	NA	400	NA
NURSERY AREA														
SB-Pond	6/25/2008	5	4 to 5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 1	6/26/2008	5	0 to 0.5	NA	<0.0015	NA	NA	NA	NA	NA	**8.1**	NA	84.4	NA
			0.5 to 2	NA	**0.0063**	NA	NA	NA	NA	NA	**11.8**	NA	41.6	NA
			2 to 4	NA	**0.0114**	NA	NA	NA	NA	NA	**3.5**	NA	28.8	NA
Nursery 2	6/26/2008	5	0 to 0.5	NA	<0.0018	NA	NA	NA	NA	NA	**6.9**	NA	85.6	NA
			0.5 to 2	NA	**0.0040**	NA	NA	NA	NA	NA	**6.0**	NA	44.4i	NA
			2 to 4	NA	**0.0142**	NA	NA	NA	NA	NA	**6.7**	NA	54.6	NA
Nursery 3	6/26/2008	5	0 to 0.5	NA	<0.002	NA	NA	NA	NA	NA	**3.9**	0.0071i	78.5	**0.048i**
			0.5 to 2	NA	**0.0296**	NA	NA	NA	NA	NA	**23.9**	NA	41.0i	NA
			2 to 4	NA	**0.0188**	NA	NA	NA	NA	NA	**22.9**	NA	75.1	NA
Nursery 4	6/26/2008	5	0 to 0.5	NA	0.0016	NA	NA	NA	NA	NA	**20.4**	NA	135	NA
			0.5 to 2	NA	**0.243**	NA	NA	NA	NA	NA	**7.5**	NA	158	NA
			2 to 4	NA	**0.0039**	NA	NA	NA	NA	NA	**9.3**	NA	4.1i	NA
Nursery 5	6/26/2008	5	0 to 0.5	NA	<0.0024	NA	NA	NA	NA	NA	**12.3**	NA	210	NA
			0.5 to 2	NA	**0.0272**	NA	NA	NA	NA	NA	**17.1**	NA	68.1i	NA
			2 to 4	NA	**0.0123**	NA	NA	NA	NA	NA	**13.6**	NA	66	NA
Nursery 6	6/26/2008	5	0 to 0.5	NA	0.0010	NA	NA	NA	NA	NA	**3.3**	NA	58.4	NA
			0.5 to 2	NA	**0.0130**	NA	NA	NA	NA	NA	**13.5**	NA	64.6	NA
			2 to 4	NA	**0.0202**	NA	NA	NA	NA	NA	**14.8**	NA	57.5	NA
Nursery 7	6/26/2008	5	0 to 0.5	NA	0.0014	NA	NA	NA	NA	NA	**12**	NA	96.4	NA
			0.5 to 2	NA	**0.0025**	NA	NA	NA	NA	NA	**4.2**	**0.015i**	47.3	**0.022i**
			2 to 4	NA	**0.0143**	NA	NA	NA	NA	NA	**17.3**	NA	56.9	NA
Nursery 8	6/26/2008	5	0 to 0.5	NA	<0.00043	NA	NA	NA	NA	NA	**2.8**	NA	44.5	NA
			0.5 to 2	NA	**0.0120**	NA	NA	NA	NA	NA	**7.5i**	NA	6.2i	NA
			2 to 4	NA	<0.00043	NA	NA	NA	NA	NA	**8.3**	NA	4.7i	NA
Nursery 9	6/25/2008	5	0 to 0.5	NA	<0.00037	NA	NA	NA	NA	NA	**8.6**	NA	91	NA
			0.5 to 2	NA	**0.0052**	NA	NA	NA	NA	NA	**12.9**	NA	52.9i	NA
			2 to 4	NA	**0.0050**	NA	NA	NA	NA	NA	**25.4**	NA	65.4	NA
Nursery 10	6/25/2008	5	0 to 0.5	NA	<0.0021	NA	NA	NA	NA	NA	**3.9**	NA	43.1	NA
			0.5 to 2	NA	**0.0177**	NA	NA	NA	NA	NA	**16.9**	NA	114	NA
			2 to 4	NA	<0.00041	NA	NA	NA	NA	NA	**11.7**	NA	5.2i	NA
Nursery 11	6/25/2008	5	0 to 0.5	NA	<0.0020	NA	NA	NA	NA	NA	**64.5**	NA	356	NA
			0.5 to 2	NA	**0.0044**	NA	NA	NA	NA	NA	**5.8i**	NA	8.7i	NA
			2 to 4	NA	**0.0044**	NA	NA	NA	NA	NA	**12.4**	NA	14.5i	NA
Nursery 12	6/25/2008	5	0 to 0.5	NA	<0.0019	NA	NA	NA	NA	NA	**10.5**	NA	120	NA
			0.5 to 2	NA	**0.0048**	NA	NA	NA	NA	NA	**13.4**	NA	71	NA
			2 to 4	NA	0.00071	NA	NA	NA	NA	NA	**6.0**	NA	17.3i	NA
Nursery 13	6/25/2008	5	0 to 0.5	NA	0.00056	NA	NA	NA	NA	NA	**5.8**	NA	134	NA
			0.5 to 2	NA	0.0022	NA	NA	NA	NA	NA	<4.4[1]	NA	16.6i	NA
			2 to 4	NA	0.0023	NA	NA	NA	NA	NA	<4.4[1]	NA	29.5i	NA
Nursery 14	6/25/2008	5	0 to 0.5	NA	<0.00040	NA	NA	NA	NA	NA	**3.3i**	NA	51.1i	NA
			0.5 to 2	NA	**0.0050**	NA	NA	NA	NA	NA	**6.0i**	NA	<5.8[1]	NA
			2 to 4	NA	<0.0045	NA	NA	NA	NA	NA	**8.8i**	NA	<5.9[1]	NA
Nursery 15	6/25/2008	5	0 to 0.5	NA	<0.0018	NA	NA	NA	NA	NA	**10.1**	NA	83.4	NA
			0.5 to 2	NA	**0.0094**	NA	NA	NA	NA	NA	**14**	NA	89.6	NA
			2 to 4	NA	**0.0300**	NA	NA	NA	NA	NA	**22.7**	**0.032i**	70.5	**0.022i**
Nursery 16	6/25/2008	5	0 to 0.5	NA	<0.0023	NA	NA	NA	NA	NA	**9.9**	NA	78.9	NA
			0.5 to 2	NA	<0.00044	NA	NA	NA	NA	NA	**8.7**	NA	15.8i	NA
			2 to 4	NA	<0.0022	NA	NA	NA	NA	NA	**2.5**	NA	11.8i	NA
Nursery 17	6/25/2008	5	0 to 0.5	NA	<0.00036	NA	NA	NA	NA	NA	**17.4**	NA	255	NA
			0.5 to 2	NA	**0.0044**	NA	NA	NA	NA	NA	**10.6**	NA	62.7	NA
			2 to 4	NA	0.0013	NA	NA	NA	NA	NA	**5.9**	NA	9.3i	NA
Nursery 18	6/25/2008	5	0 to 0.5	NA	**0.0046**	NA	NA	NA	NA	NA	**10.9**	NA	88.3	NA
			0.5 to 2	NA	**0.0039**	NA	NA	NA	NA	NA	**8.1**	NA	33.6	NA
			2 to 4	NA	0.0011	NA	NA	NA	NA	NA	**2.7**	NA	11.3i	NA
Nursery 19	8/4/2008	4.5	0 to 0.5	NA	<0.0021	NA	NA	NA	NA	NA	**3.7**	0.0054 U	NA	NA
			0.5 to 2	NA	**0.0159**	NA	NA	NA	NA	NA	**4.5**	NA	NA	NA
			2 to 3.5	NA	<0.011	NA	NA	NA	NA	NA	1.8	NA	NA	NA
Nursery 20	8/4/2008	4.5	0 to 0.5	NA	<0.0098	NA	NA	NA	NA	NA	**31.9**	NA	NA	NA
			0.5 to 2	NA	**0.0113**	NA	NA	NA	NA	NA	**9.9**	NA	NA	NA
			2 to 3.5	NA	<0.0027	NA	NA	NA	NA	NA	**8.3**	NA	NA	NA
Nursery 21	8/4/2008	4.5	0 to 0.5	NA	<0.0091	NA	NA	NA	NA	NA	**24.4**	NA	NA	NA
			0.5 to 2	NA	<0.0019	NA	NA	NA	NA	NA	**18.5**	NA	NA	NA
			2 to 3.5	NA	<0.0022	NA	NA	NA	NA	NA	**30.9**	**0.017i**	NA	NA
Nursery 22	8/4/2008	4.5	0 to 0.5	NA	0.0019	NA	NA	NA	NA	NA	**3.2**	NA	NA	NA
			0.5 to 2	NA	<0.0021	NA	NA	NA	NA	NA	2.1	NA	NA	NA
			2 to 3.5	NA	<0.0022	NA	NA	NA	NA	NA	**14.1**	NA	NA	NA
Nursery 23	8/4/2008	4.5	0 to 0.5	NA	<0.002	NA	NA	NA	NA	NA	**8.7**	NA	NA	NA
			0.5 to 2	NA	<0.0021	NA	NA	NA	NA	NA	**8.1**	0.011i	NA	NA
			2 to 3.5	NA	**0.0048**	NA	NA	NA	NA	NA	**8.6**	NA	NA	NA
Nursery 24	8/4/2008	4.5	0 to 0.5	NA	<0.0023	NA	NA	NA	NA	NA	**13.8**	NA	NA	NA
			0.5 to 2	NA	<0.0022	NA	NA	NA	NA	NA	**9.1**	NA	NA	NA
			2 to 3.5	NA	<0.0022	NA	NA	NA	NA	NA	**9.5**	NA	NA	NA
Nursery 25	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 26	8/4/2008	4.5	0 to 0.5	NA	**0.0100**	NA	NA	NA	NA	NA	**14.2**	NA	NA	NA
			0.5 to 2	NA	<0.0022	NA	NA	NA	NA	NA	2.1	NA	NA	NA
			2 to 3.5	NA	**0.0039**	NA	NA	NA	NA	NA	1.0	NA	NA	NA
Nursery 27	8/4/2008	4.5	0 to 0.5	NA	<0.0020	NA	NA	NA	NA	NA	**2.8i**	NA	NA	NA
			0.5 to 2	NA	<0.011	NA	NA	NA	NA	NA	**3.6**	NA	NA	NA
			2 to 3.5	NA	<0.0022	NA	NA	NA	NA	NA	2.0	NA	NA	NA
Nursery 28	8/4/2008	4.5	0 to 0.5	NA	<0.010	NA	NA	NA	NA	NA	**7.6**	NA	NA	NA
			0.5 to 2	NA	<0.0094	NA	NA	NA	NA	NA	**6.3**	NA	NA	NA
			2 to 3.5	NA	<0.0021	NA	NA	NA	NA	NA	**56.5**	NA	NA	NA
Nursery 29	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 1b: SOIL SAMPLE ANALYTICAL RESULTS - AMMONIA, PESTICIDES, METALS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE				LABORATORY ANALYSES										
Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Ammonia (ppm)	Dieldrin (mg/kg)	SPLP Dieldrin (ug/L)	4-4' DDD (ppm)	4-4' DDE (ppm)	4-4' DDT (ppm)	Total Chlordane (ppm)	Arsenic (ppm)	SPLP Arsenic (ppm)	Lead (ppm)	SPLP Lead (ppm)
SCTL-L	-	-	-	SPLP	0.002	0.002	5.8	18	11	9.6	SPLP	0.01	NA	0.015
SCTL-I	-	-	-	26,400	0.3	NA	55	15	15	14	12	NA	1,400	NA
SCTL-R	-	-	-	4,400	0.06	NA	4.2	2.9	2.9	2.8	2.1	NA	400	NA
Nursery 30	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.042i**
			0.5 to 2	NA	<0.010	NA	NA	NA	NA	NA	NA	NA	NA	0.0065 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0051 i
	12/22/2008	4.5	2 to 4	NA	<0.0007	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 31	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.027 i**
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.011 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.025 i**
Nursery 32	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0020
			0.5 to 2	NA	<0.014	NA	NA	NA	NA	NA	NA	NA	NA	0.0067 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0024 i
Nursery 33	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.024 i**
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.014 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0039 i
Nursery 34	11/6/2008	4.5	0 to 0.5	NA	0.0085	NA	NA	NA	NA	NA	NA	NA	NA	0.0097 i
			0.5 to 2	NA	0.0012	NA	NA	NA	NA	NA	NA	NA	NA	0.0081 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0077 i
Nursery 35	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.019 i**
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0020
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.028 i**
Nursery 36	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	**0.054**
			0.5 to 2	NA	0.00079	NA	NA	NA	NA	NA	NA	NA	NA	0.0022 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0020
Nursery 37	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0051 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0021 i
Nursery 38	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0021 i
Nursery 39	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0091 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0031 i
Nursery 40	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0052 i
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0069 i
Nursury 41	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.002
Nursery 42 (SB-42)	8/25/2009		0 to 0.5	2.1	NA	NA	NA	NA	NA	NA	**7.3**	NA	100	NA
			0.5 to 2	1.3	NA	NA	NA	NA	NA	NA	**3.1**	NA	69	NA
			2 to 4	0.56 i	NA	NA	NA	NA	NA	NA	**3.5**	NA	8.7	NA
Nursery 43 (SB-43)	8/25/2009		0 to 0.5	1.3	<0.000374	NA	<0.000357	0.00465	<0.000890	0.00398 i	**3.6**	NA	64	NA
			0.5 to 2	0.92 i	0.0004	NA	<0.000379	0.0028	<0.000943	0.00446 i	**NA**	NA	4.9	NA
			2 to 4	1.9	<0.000400	NA	<0.000382	0.0042	<0.000953	0.00434 i	**3.3**	NA	4.1	NA
Nursery 44 (SB-44)	8/25/2009		0 to 0.5	1.9	<0.000764	NA	<0.000730	0.00167 i	<0.00182	0.00308 i	**2.4**	NA	17	NA
			0.5 to 2	0.96	NA	NA	NA	NA	NA	NA	**NA**	NA	39	NA
			2 to 4	0.88	<0.000374	NA	<0.000357	0.0243	<0.000890	0.0323	**6.7**	NA	39	NA
Nursery 45 (SB-45)	8/25/2009		0 to 0.5	2.0	<0.000747	NA	<0.000714	0.00372 i	<0.00178	0.1140	**8.8**	NA	4.2	NA
			0.5 to 2	1.5	NA	NA	NA	NA	NA	NA	NA	NA	33	NA
			2 to 4	0.59 i	**0.0192**	NA	0.0113	0.3030	<0.00184	0.0782	**5.3**	NA	37	NA
Nursery 46 (SB-46)	8/25/2009		0 to 0.5	1.1	NA	NA	NA	NA	NA	NA	**10**	NA	130	NA
			0.5 to 2	0.97	NA	NA	NA	NA	NA	NA	**12**	NA	35	NA
			2 to 4	1.3	NA	NA	NA	NA	NA	NA	**12**	NA	8.7	NA
Nursery 47 (SB-47)	8/25/2009		0 to 0.5	0.84 i	NA	NA	NA	NA	NA	NA	**17**	NA	42	NA
			0.5 to 2	1.0	NA	NA	NA	NA	NA	NA	**13**	NA	33	NA
			2 to 4	1.1	NA	NA	NA	NA	NA	NA	**7.2**	NA	26	NA
Nursery 48 (SB-49)	8/25/2009		0 to 0.5	4.3	NA	NA	NA	NA	NA	NA	**35**	NA	33	NA
			0.5 to 2	1.1	NA	NA	NA	NA	NA	NA	**20**	NA	20	NA
			2 to 4	0.49 i	NA	NA	NA	NA	NA	NA	**4.1**	NA	7.1	NA
Nursery 49 (SB-49)	8/25/2009		0 to 0.5	1.50	NA	NA	NA	NA	NA	NA	**10**	NA	120	NA
			0.5 to 2	0.73 i	<0.000408	NA	<0.000390	0.00973	<0.000972	0.013	**3.9**	NA	18	NA
			2 to 4	1.6000	**0.0251**	NA	<0.000399	0.0383	<0.000995	0.0496	**8.8**	NA	18	NA
Nursery 50 (SB-50)	8/25/2009		0 to 0.5	2.9	NA	NA	NA	NA	NA	NA	**18**	NA	85	NA
			0.5 to 2	1.3	<0.000427	NA	<0.000408	0.0022	<0.00102	0.0127	**9.7**	NA	92	NA
			2 to 4	6.40	NA	NA	NA	NA	NA	NA	**14**	NA	31	NA
Nursery 51 (SB-51)	8/25/2009		0 to 0.5	0.82 i	NA	NA	NA	NA	NA	NA	**15**	NA	26	NA
			0.5 to 2	0.70 i	NA	NA	NA	NA	NA	NA	**9.4**	NA	13	NA
			2 to 4	0.53 i	NA	NA	NA	NA	NA	NA	**2.8**	NA	11	NA
Nursery 52 (SB-52)	8/25/2009		0 to 0.5	1.1	NA	NA	NA	NA	NA	NA	**19**	NA	41	NA
			0.5 to 2	0.64 i	NA	NA	NA	NA	NA	NA	**3.7**	NA	11	NA
			2 to 4	<0.473	NA	NA	NA	NA	NA	NA	0.75	NA	2.7	NA
Nursery 53 (SB-53)	8/25/2009		0 to 0.5	1.4	<0.000769	NA	<0.000735	0.00149 i	<0.00183	0.00337 i	**7.9**	NA	33	NA
			0.5 to 2	0.74 i	<0.000393	NA	<0.000376	0.0092	<0.000936	0.00321 i	**3.9**	NA	52	NA
			2 to 4	<0.527	NA	NA	NA	NA	NA	NA	**3.5**	NA	12	NA
Nursery 54 (SB-54)	8/25/2009		0 to 0.5	2.00	<0.000395	NA	0.00162 i	0.0038	0.0070	0.0015	**17**	NA	79	NA
			0.5 to 2	0.68 i	NA	NA	NA	NA	NA	NA	**10**	NA	52	NA
			2 to 4	<0.577	NA	NA	NA	NA	NA	NA	**26**	NA	15	NA
Nursery 55 (SB-55)	8/25/2009		0 to 0.5	5.00	NA	NA	NA	NA	NA	NA	**12**	NA	66	NA
			0.5 to 2	1.50	NA	NA	NA	NA	NA	NA	**12**	NA	NA	NA
			2 to 4	1.40	NA	NA	NA	NA	NA	NA	**5.5**	NA	14	NA
Nursery 56 (SB-56)	8/25/2009		0 to 0.5	1.80	NA	NA	NA	NA	NA	NA	**9.9**	NA	41	NA
			0.5 to 2	2.00	NA	NA	NA	NA	NA	NA	**22**	NA	NA	NA
			2 to 4	1.30	NA	NA	NA	NA	NA	NA	**12**	NA	4.7	NA

TABLE 1b: SOIL SAMPLE ANALYTICAL RESULTS - AMMONIA, PESTICIDES, METALS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE				LABORATORY ANALYSES										
Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Ammonia (ppm)	Dieldrin (mg/kg)	SPLP Dieldrin (ug/L)	4-4' DDD (ppm)	4-4' DDE (ppm)	4-4' DDT (ppm)	Total Chlordane (ppm)	Arsenic (ppm)	SPLP Arsenic (ppm)	Lead (ppm)	SPLP Lead (ppm)
SCTL-L	-	-	-	SPLP	0.002	0.002	5.8	18	11	9.6	SPLP	0.01	NA	0.015
SCTL-I	-	-	-	26,400	0.3	NA	55	15	15	14	12	NA	1,400	NA
SCTL-R	-	-	-	4,400	0.06	NA	4.2	2.9	2.9	2.8	2.1	NA	400	NA
Nursery 57	12/2/2010		0 to 0.5	NA	0.000259	0.0017	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	0.001270	**0.0032**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	0.000395	0.0017	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 58	12/2/2010		0 to 0.5	NA	**0.0109**	**0.0084**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	0.00125	**0.0046**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	0.00104	**0.0056**	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 59	12/1/2010		0 to 0.5	NA	<0.000160	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	<0.000165	**0.0215**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	**0.00662**	**0.0038**	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 60	12/2/2010		0 to 0.5	NA	**0.0307**	**0.0165**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	0.00103	**0.0157**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	**0.00268**	**0.0079**	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 61	12/1/2010		0 to 0.5	NA	<0.000171	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	<0.000165	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	<0.000192	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 62	12/1/2010		0 to 0.5	NA	**0.00208**	**0.0019**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	**0.0665**	**0.0308**	<0.000172	0.0167	0.0557	<0.00739	NA	NA	NA	NA
			2 to 3.5	NA	**0.0201**	**0.0114**	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 63	12/1/2010		0 to 0.5	NA	**0.00652**	**0.0067**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	**0.0721**	**0.0203**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	<0.000201	**0.0101**	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 64	12/1/2010		0 to 0.5	NA	<0.000161	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	<0.00017	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	**0.00229**	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 65	12/1/2010		0 to 0.5	NA	<0.000178	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	**0.00626**	**0.0069**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	<0.000167	**0.0029**	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 66	12/1/2010		0 to 0.5	NA	**0.00290**	**0.0034**	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	**0.00538**	**0.002**	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	<0.000190	<0.0011	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 67	12/1/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 68	12/1/2010		0 to 0.5	NA	0.000298	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	**0.00511**	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	**0.0032**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 69	12/1/2010		0 to 0.5	NA	0.00178	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	**0.00747**	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	<0.000196	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 70	12/1/2010		0 to 0.5	NA	<0.000192	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	<0.000182	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	0.000392	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery71	12/2/2010		0 to 0.5	NA	**0.00425**	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	0.00108	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	0.000231	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: fbls - feet below land surface; ft. - feet; ppm - parts per million or milligrams per kilogram (mg/kg); NA - Not Analyzed; NS - Not Sampled; N/A - Not Applicable
SCTL-L = leachability based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-I = Direct Exposure Commercial/Industrial based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-R = Direct Exposure Residential based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code Chapter 24-11
Constituent concentrations denoted in bold exceed the SCTL established in Table 2, Miami-Dade County Code Chapter 24-11
* Site specific based on benzo(a)pyrene Toxicity Equivilency Factor for detected concentrations of benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrer
Data flagging criteria: L = Indicates value exceeds calibrations range. I = The reported value is between the laboratory method detection limit and the laboratory practical quantification limit.
Concentrations below the laboratory method detection limit are reported with a less than sign (<).

TABLE 1c: SOIL SAMPLE ANALYTICAL RESULTS - AMMONIA, PESTICIDES, METALS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE				LABORATORY ANALYSES										
Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Ammonia (ppm)	Dieldrin (mg/kg)	SPLP Dieldrin (ug/L)	4-4' DDD (ppm)	4-4' DDE (ppm)	4-4' DDT (ppm)	Total Chlordane (ppm)	Arsenic (ppm)	SPLP Arsenic (ppm)	Lead (ppm)	SPLP Lead (ppm)
SCTL-L	-	-	-	SPLP	0.002	0.002	5.8	18	11	9.6	SPLP	0.01	NA	0.015
SCTL-I	-	-	-	26,400	0.3	NA	55	15	15	14	12	NA	1,400	NA
SCTL-R	-	-	-	4,400	0.06	NA	4.2	2.9	2.9	2.8	2.1	NA	400	NA
OFF SITE														
OS-1	1/25/2013	~4'	0-2'	NA	NA	NA	NA	NA	NA	NA	**6.6**	NA	NA	NA
			2-4'	NA	NA	NA	NA	NA	NA	NA	**24.5**	NA	NA	NA
OS-2	1/25/2013	~4'	0-2'	NA	NA	NA	NA	NA	NA	NA	**7.4**	NA	NA	NA
			2-4'	NA	NA	NA	NA	NA	NA	NA	**2.6**	NA	NA	NA
OS-3	1/25/2013	~4'	0-6"	NA	NA	NA	NA	NA	NA	NA	**4.6**	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	**5.4**	NA	NA	NA
			2-4'	NA	NA	NA	NA	NA	NA	NA	**5.3**	NA	NA	NA
OS-4	1/25/2013	~4'	0-6"	NA	0.000042 U	NA	NA	NA	NA	NA	1.6	NA	NA	NA
			6"-2'	NA	0.000042 U	NA	NA	NA	NA	NA	1.4	NA	NA	NA
			2-4'	NA	0.000073 I	NA	NA	NA	NA	NA	1.7	NA	NA	NA
OS-5	1/25/2013	~3'	0-6"	NA	NA	NA	NA	NA	NA	NA	**3.4**	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	1.6	NA	NA	NA
			2-3'	NA	0.000064 I	NA	NA	NA	NA	NA	0.81	NA	NA	NA
OS-6	1/25/2013	~3'	0-6"	NA	NA	NA	NA	NA	NA	NA	**2.9**	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	**5.4**	NA	NA	NA
			2-3'	NA	0.00018 I	NA	NA	NA	NA	NA	**3.0**	NA	NA	NA
OS-7	1/25/2013	~3'	0-6"	NA	0.000084 U	NA	NA	NA	NA	NA	**2.5**	NA	NA	NA
			6"-2'	NA	0.000046 U	NA	NA	NA	NA	NA	**2.2**	NA	NA	NA
			2-3'	NA	0.00023 I	NA	NA	NA	NA	NA	**2.9**	NA	NA	NA
OS-8	1/25/2013	~3'	0-6"	NA	NA	NA	NA	NA	NA	NA	**2.5**	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	**5.7**	NA	NA	NA
			2-3'	NA	0.0010 I	NA	NA	NA	NA	NA	2.0	NA	NA	NA
OS-9	1/25/2013	~3'	0-6"	NA	0.00034 I	0.00050 U	NA	NA	NA	NA	**2.4**	NA	NA	NA
			6"-2'	NA	0.00011 I	0.00050 U	NA	NA	NA	NA	**7.6**	NA	NA	NA
			2'-3'	NA	0.000075 I	0.00050 U	NA	NA	NA	NA	**5.6**	NA	NA	NA
OS-10	1/25/2013	~3'	0-6"	NA	NA	NA	NA	NA	NA	NA	**4.3**	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	**4.3**	NA	NA	NA
			2'-3'	NA	NA	NA	NA	NA	NA	NA	**6.2**	NA	NA	NA
OS-11	1/25/2013	~4'	0-6"	NA	NA	NA	NA	NA	NA	NA	0.91	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	**2.2**	NA	NA	NA
			2-4'	NA	NA	NA	NA	NA	NA	NA	0.66	NA	NA	NA
OS-12	1/25/2013	~3'	0-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OS-13	1/25/2013	~3'	0-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OS-14	1/25/2013	~4'	0-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2'- 4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes: fbls - feet below land surface; ft. - feet; ppm - parts per million or milligrams per kilogram (mg/kg); NA - Not Analyzed; NS - Not Sampled; N/A - Not Applicab
SCTL-L = leachability based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-1
SCTL-I = Direct Exposure Commercial/Industrial based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-1
SCTL-R = Direct Exposure Residential based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code Chapter 24-1
Constituent concentrations denoted in bold exceed the SCTL established in Table 2, Miami-Dade County Code Chapter 24-1
* Site specific based on benzo(a)pyrene Toxicity Equivilency Factor for detected concentrations of benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyr
Data flagging criteria: L = Indicates value exceeds calibrations range. I = The reported value is between the laboratory method detection limit and the laboratory practical quantification lir

TABLE 2a: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h) anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123c pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	27	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	20,000	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	1,800	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
STREET SWEEPINGS AREA																						
SS-1	6/26/2008	5	0 to 0.5	<0.190	<0.093	<0.093	<0.190	<0.190	<0.190	0.254 i	**0.317**	0.233	0.279	0.127	0.261 i	0.053	0.508	<0.190	0.242	<0.190	0.453	**0.444**
			0.5 to 2	<0.180	<0.091	<0.091	<0.180	<0.180	<0.180	0.349 i	**0.293**	0.220	0.296	0.129	0.341 i	0.052	0.788	<0.180	0.247	0.206 i	0.734	**0.428**
			2 to 4	<0.180	<0.088	<0.088	<0.180	<0.180	<0.180	<0.180	<0.018	<0.018	<0.018	<0.018	<0.088	<0.018	<0.088	<0.180	<0.018	<0.180	<0.088	n/a
SS-2	6/26/2008	5	0 to 0.5	<0.180	<0.090	<0.090	<0.180	<0.180	<0.180	0.341 i	**0.422**	0.406	0.348	0.147	0.349	0.061	0.730	<0.180	0.293	0.183 i	0.599	**0.589**
			0.5 to 2	<0.180	<0.091	<0.091	<0.180	<0.180	0.398	**0.939**	**0.734**	0.552	0.424	0.201	0.765	0.084	2.280	0.270 i	0.526	1.310	1.750	**1.022**
			2 to 4	<0.190	<0.094	<0.094	<0.190	<0.190	<0.190	<0.094	**0.126**	0.088	0.130	0.039	<0.094	<0.019	0.259 i	<0.190	0.0372 i	<0.190	0.198 i	**0.153**
SS-3	6/26/2009	5	0 to 0.5	<0.200	<0.100	<0.100	<0.200	<0.200	<0.200	0.257 i	**0.248**	0.226	0.198	0.084	0.210 i	0.0305 i	0.566	<0.200	0.166	0.341 i	0.473	**0.344**
			0.5 to 2	<0.200	<0.100	<0.100	<0.200	<0.200	<0.200	0.160 i	**0.256**	0.105	0.157	0.085	0.125 i	0.0237 i	0.469	<0.200	0.153	0.288 i	0.454	**0.322**
			2 to 4	<0.220	<0.110	<0.110	<0.220	<0.220	<0.220	<0.110	0.055	0.0353 i	0.054	0.0280 i	<0.110	<0.022	0.208 i	<0.220	0.0346 i	<0.220	0.160 i	0.079
SS-4	6/26/2008	5	0 to 0.5	<0.190	<0.095	<0.095	<0.190	<0.190	<0.190	0.240 i	**0.318**	0.337	0.294	0.125	0.194 i	0.053	0.471	<0.190	0.235	<0.190	0.397	**0.454**
			0.5 to 2	<0.190	<0.093	<0.093	<0.190	<0.190	0.411	**0.946**	**0.534**	0.640	0.571	0.273	0.808	0.110	2.760	0.275 i	0.494	2.060	2.030	**0.856**
			2 to 4	<0.230	<0.110	<0.110	<0.230	<0.230	0.253 i	0.304 i	**0.248**	0.156	0.197	0.188	0.311 i	0.0296 i	1.000	<0.230	0.092	0.298 i	0.959	**0.335**
SS-5	8/4/2008	4.5	0 to 0.5	<0.190	<0.097	<0.097	<0.190	<0.190	<0.190	<0.097	<0.019	<0.019	<0.019	<0.019	<0.097	<0.019	<0.097	<0.190	<0.019	<0.190	<0.097	n/a
			0.5 to 2	<0.200	<0.098	<0.098	<0.200	<0.200	<0.200	<0.098	<0.020	<0.020	<0.020	<0.020	<0.098	<0.020	<0.098	<0.200	<0.020	<0.200	<0.098	n/a
			2 to 3.5	<0.190	<0.380	<0.380	<0.190	<0.190	<0.190	<0.096	0.080	0.077	0.101	0.044	<0.096	<0.019	0.217 i	<0.190	0.089	<0.190	0.225 i	0.112
SS-6	8/4/2008	4.5	0 to 0.5	<0.190	<0.093	<0.370	<0.190	<0.190	<0.190	0.122 i	**0.161**	0.135	0.145	0.039	0.102 i	0.0327 i	0.225 i	<0.190	0.120	<0.190	0.221 i	**0.232**
			0.5 to 2	<0.210	<0.100	<0.100	<0.210	<0.210	<0.210	0.407 i	**0.436**	0.301	0.288	0.124	0.326 i	0.0645	0.854	<0.210	0.290	0.263 i	0.736	**0.602**
			2 to 3.5	<0.190	<0.096	<0.380	<0.190	<0.190	<0.190	0.175 i	**0.142**	0.113	0.0805	0.046	0.154 i	0.0337 i	0.418	<0.190	0.0874	0.231 i	0.343 i	**0.214**
SS-7	8/4/2008	4.5	0 to 0.5	<0.190	<0.094	<0.094	<0.190	<0.190	<0.190	0.105 i	0.100	0.115	0.064	0.0314 i	<0.094	0.0191 i	0.135 i	<0.190	0.060	<0.190	0.198 i	0.147
			0.5 to 2	<0.180	<0.091	<0.360	<0.180	<0.180	<0.180	0.0948 i	**0.102**	0.102	0.132	0.0263 i	<0.091	0.0211 i	0.193 i	<0.180	0.073	<0.180	0.171 i	**0.150**
			2 to 3.5	<0.230	<0.120	<0.120	<0.230	<0.230	<0.230	<0.120	<0.023	<0.023	<0.023	<0.023	<0.120	<0.023	<0.120	<0.230	<0.023	<0.230	<0.120	n/a
SS-8	8/4/2008	4.5	0 to 0.5	<0.200	<0.100	<0.100	<0.200	<0.200	<0.200	<0.100	<0.020	<0.020	<0.020	<0.020	<0.100	<0.020	<0.100	<0.200	<0.020	<0.200	<0.100	n/a
			0.5 to 2	<0.190	<0.093	<0.370	<0.190	<0.190	<0.190	0.175 i	**0.164**	0.143	0.183	0.0351 i	0.150 i	0.0290 i	0.359 i	<0.190	0.114	0.209 i	0.289 i	**0.237**
			2 to 3.5	<0.240	<0.120	<0.120	<0.240	<0.240	<0.240	<0.120	<0.024	<0.024	<0.024	<0.024	<0.120	<0.024	<0.120	<0.240	<0.024	<0.240	<0.120	n/a
SS-9 (SB-9)	8/25/2009		0 to 2	<0.0240	<0.0239	<0.0285	<0.0204	<0.0222	<0.0307	0.0735 i	**0.109 i**	0.0953 i	<0.0421	0.0618 i	0.0771 i	<0.0488	0.165	<0.0311	<0.0405	<0.0233	0.111 i	**0.153**
			2 to 4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS-10 (SB-10)	8/25/2009		0 to 2	<0.232	<0.231	<0.275	<0.197	<0.215	<0.297	<0.360	<0.372	<0.335	<0.407	<0.418	<0.209	<0.472	<0.240	<0.300	<0.391	<0.225	<0.247	**NA**
			2 to 4	<0.0222	<0.0221	<0.0263	<0.0188	<0.0205	<0.0284	<0.0345	<0.0355	<0.0321	<0.0389	<0.0400	<0.0200	<0.0451	0.0337 i	<0.0287	<0.0374	<0.0215	0.0283 i	n/a
SS-11 (SB-11)	8/25/2009		0 to 2	<0.116	<0.115	<0.138	<0.0983	<0.107	<0.148	<0.180	<0.186	<0.168	<0.203	<0.209	<0.105	<0.236	<0.120	<0.150	<0.195	<0.113	<0.123	**NA**
			2 to 4	<0.0255	<0.0254	<0.0303	<0.0216	<0.0236	<0.0326	<0.0396	<0.0409	<0.0369	<0.0448	<0.0460	<0.0230	<0.0519	<0.0264	<0.0330	<0.0430	<0.0248	<0.0271	n/a
SS-12 (SB-12)	8/26/2009		0 to 2	<0.0223	<0.0221	<0.0264	<0.0189	<0.0206	<0.0285	<0.0346	<0.0357	<0.0322	<0.0391	<0.0401	<0.0201	<0.0453	0.0371 i	<0.0288	<0.0375	<0.0216	0.0295 i	n/a
			2 to 4	<0.0240	<0.0239	<0.0285	<0.0204	<0.0222	<0.0307	<0.0373	<0.0385	<0.0347	<0.0421	<0.0433	<0.0216	<0.0488	<0.0248	<0.0311	<0.0405	<0.0233	<0.0255	n/a
SS-13 (SB-13)	8/26/2009		0 to 2	<0.0227	<0.0226	<0.0269	<0.0192	<0.0210	<0.0290	<0.0352	<0.0363	<0.0328	<0.0398	<0.0409	<0.0204	<0.0461	<0.0234	<0.0293	<0.0382	<0.0220	<0.0241	n/a
			2 to 4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS-14 (SB-14)	8/26/2009		0 to 2	<0.0249	<0.0248	<0.0295	0.0585 i	<0.0230	0.0939 i	0.351	**0.308**	0.377	0.214 i	0.264	0.393	<0.0506	1.220	<0.0322	0.303	0.699	0.683	**0.439**
			2 to 4	<0.131	<0.130	<0.155	<0.111	<0.121	<0.167	<0.203	<0.210	<0.189	<0.229	<0.236	<0.118	<0.266	0.401 i	<0.169	<0.221	0.298 i	0.244 i	n/a
SS-15 (SB-15)	8/26/2009		0 to 2	1.060	0.245 i	0.347 i	**2.890**	<0.102	4.920	**8.520**	**4.950**	**5.240**	2.560	5.470	7.450	**1.910**	27.30	2.53	3.17	24.60	14.70	**8.62**
			2 to 4	0.0476 i	0.0394 i	0.0388 i	0.411	<0.0222	0.559	1.230	**0.708**	0.811	0.346	0.751	1.080	0.319	4.360	0.295	0.469	3.460	2.410	**1.29**
SS-16 (SB-16)	8/26/2009		0 to 2	<0.0222	<0.0221	<0.0263	<0.0188	<0.0205	<0.0284	<0.0345	0.0804 i	0.0625 i	<0.0389	0.0424 i	0.0451 i	<0.0451	0.0543 i	<0.0287	<0.0374	<0.0215	0.0397 i	0.113
			2 to 4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS-17 (SB-17)	8/26/2009		0 to 2	<0.0249	<0.0248	<0.0295	<0.0211	<0.0230	<0.0318	0.0409 i	0.0793 i	0.0732 i	<0.0437	<0.0449	0.0494 i	0.051	0.117 i	<0.0322	<0.0420	0.0372 i	0.0829 i	0.144
			2 to 4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
SS-18	11/30/2010		0-2	<0.024	<0.031	<0.032	<0.025	<0.034	<0.040	0.080	0.072	0.076	0.059	0.129	0.174	<0.031	0.120	<0.026	0.055	<0.036	0.086	0.110
			2-3	<0.024	<0.031	<0.032	<0.025	<0.034	<0.040	<0.032	<0.028	<0.023	<0.031	<0.038	0.035	<0.031	<0.043	<0.026	<0.039	<0.036	<0.038	0.034
SS-19	11/30/2010		0-2	<0.030	<0.038	<0.040	<0.031	<0.043	<0.050	0.080	0.064	0.087	0.053	0.063	0.099	<0.038	0.166	0.033	<0.048	0.045	0.123	0.103
			2-3	<0.026	<0.033	<0.034	<0.027	<0.036	<0.043	0.146	**0.158**	0.136	0.140	0.222	0.199	0.047	0.309	<0.028	0.114	0.093	0.244	**0.247**
SS-20	11/30/2010		0-2	<0.023	<0.030	<0.031	<0.024	<0.033	<0.038	0.063	0.069	0.080	0.054	0.078	0.095	<0.030	0.123	<0.025	0.047	0.056	0.141	0.104
			2-3.5	<0.025	<0.032	<0.033	<0.026	<0.035	<0.041	<0.033	<0.030	<0.024	<0.032	<0.039	<0.027	<0.032	<0.045	<0.027	<0.040	<0.038	<0.039	n/a
SS-21	11/30/2010		0-2	<0.024	<0.030	<0.032	0.069	<0.034	0.102	0.565	**0.595**	0.672	0.513	0.702	0.826	0.170	1.370	0.039	0.436	0.688	1.180	**0.940**
			2-3.5	<0.025	<0.032	<0.033	<0.026	<0.035	<0.041	0.100	0.107	0.076	0.091	0.180	0.141	<0.032	0.257	<0.027	0.078	0.122	0.207	**0.150**

TABLE 2a: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h) anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123c pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	27	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	20,000	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	1,800	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
UST & SE AREA																						
SB-4	07/06/07	4	2 to 4	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.003 i	<0.001	<0.001	0.004 i	0.002 i	<0.001	0.006	<0.001	<0.001	<0.002	0.006	0.004
SB-5	10/31/07	4	3	<0.001	<0.001	<0.001	<0.001	<0.003	<0.001	0.0090	0.006 i	0.012	0.009	0.005 i	0.007 i	<0.001	0.011	<0.002	0.009	<0.003	0.011	0.010
SB-1	03/27/08	3	1	<0.0015	<0.0013	<0.0012	<0.0011	0.190	0.220	0.680	**0.790**	1.500	0.410	0.440	0.790	<0.0022	1.300	<0.0027	0.350	0.340	1.2	**1.05**
SB-2	03/27/08	3	1	<0.0017	<0.0014	<0.0013	0.023 i	0.031 i	0.083	0.280	**0.330**	0.450	<0.0012	0.210	0.290	<0.0024	0.720	0.021 i	<0.0030	0.360	0.520	**0.442**
UST-1	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0 to 2	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	0.074	0.0855	0.127	0.0725	0.0428	0.0901	<0.039	0.1680	<0.039	0.0746	0.0655	0.1410	0.133
			2 to 4	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	n/a
UST-2	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST-3	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST-4	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0 to 2	<0.037	<0.037	<0.037	0.121(I)	0.308	0.462	**1.290**	**1.520**	2.240	1.130	0.800	1.490	0.286	2.250	0.145(I)	1.220	0.743	2.170	**2.29**
			2 to 4	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	0.0399 i	0.0454 i	0.0726 i	<0.039	<0.039	0.0504 i	<0.039	0.998 i	<0.039	<0.039	0.0643 i	0.0841 i	0.078
UST-5	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0 to 2	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	n/a
			2 to 4	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	n/a
UST-6	6/16/2008	5	0 to 0.5	<0.037	<0.037	<0.037	<0.037	0.237	0.338	0.629	**0.619**	1.150	0.543	0.360	0.738	0.124 i	1.060	<0.037	0.557	0.408	1.030	**0.981**
			0.5 to 2	<0.039	<0.039	<0.039	<0.039	0.0396 i	0.0728 i	0.199 i	**0.205**	0.314	0.154 i	0.118	0.218	<0.039	0.391	<0.039	0.161 i	0.143 i	0.345	**0.293**
			2 to 4	<0.041	<0.041	<0.041	<0.041	<0.041	0.163 i	**1.190**	**1.320**	1.640	0.721	0.625	1.050	0.173 i	1.940	<0.041	0.831	0.142 i	1.760	**1.87**
UST-7	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0 to 2	<0.036	<0.036	<0.036	0.121 i	0.949	1.250	**3.050**	**3.00**	6.300 L	2.460	1.960	3.830	0.579	4.070	0.120 i	2.650	0.880	4.79 L	**4.80**
			2 to 4	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	n/a
UST-8	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0 to 2	0.0425(I)	<0.038	<0.038	0.0861(I)	0.208	0.335	**1.060**	**1.070**	2.110	0.793	0.682	1.430	0.209	2.630	0.0436 i	0.853	1.430	2.280	**1.69**
			2 to 4	<0.041	<0.041	<0.041	<0.041	0.102 i	0.130 i	0.314	**0.341**	0.708	0.272	0.245	0.422	0.0672 i	0.410	<0.041	0.291	0.0761 i	0.508	**0.542**
UST-9	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0 to 2	<0.038	<0.038	<0.038	<0.038	0.848 i	0.0922 i	0.256	**0.329**	0.665	0.275	0.227	0.392	0.0638 i	0.336	<0.038	<0.038	0.0519 i	0.395	**0.490**
			2 to 4	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	0.0453 i	0.0904 i	0.0428 i	<0.042	0.0542 i	<0.042	0.0594 i	<0.042	<0.042	<0.042	0.0603 i	0.080
UST-10	6/16/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0 to 2	<0.036	<0.036	<0.036	<0.036	0.133 i	0.163 i	0.404	**0.433**	0.921	0.370	0.288	0.510	0.0835 i	0.526	<0.036	0.367	0.0570 i	0.645	**0.689**
			2 to 4	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	n/a
UST-11	8/4/2008	4.5	0 to 0.5	<0.190	<0.093	<0.370	<0.190	<0.190	<0.190	0.164 i	**0.174**	0.140	0.161	0.050	0.154 i	0.0252 i	0.337 i	<0.190	0.134	<0.190	0.306 i	**0.244**
			0.5 to 2	<0.190	<0.093	<0.093	<0.190	<0.190	<0.190	<0.093	0.0636	0.051	0.0485	0.0238 i	<0.093	0.0199 i	0.108 i	<0.190	0.046	<0.190	0.114 i	0.098
			2 to 3.5	<0.200	<0.099	<0.099	<0.200	<0.200	<0.200	<0.099	<0.020	<0.020	<0.020	<0.020	<0.099	<0.020	<0.099	<0.200	<0.020	<0.200	<0.099	n/a
UST-12	8/4/2008	4.5	0 to 0.5	<0.200	<0.100	<0.100	<0.200	<0.200	<0.200	0.575	**0.679**	0.710	0.523	0.246	0.507	0.102	0.774	<0.200	0.518	<0.200	0.978	**0.964**
			0.5 to 2	<0.220	<0.110	<0.110	<0.220	<0.220	<0.220	0.382 i	**0.402**	0.459	0.278	0.142	0.306 i	0.0877	0.403 i	<0.220	0.278	<0.220	0.423 i	**0.603**
			2 to 3.5	<0.220	<0.110	<0.110	<0.220	<0.220	<0.220	<0.110	<0.022	<0.022	<0.022	<0.022	<0.110	<0.022	<0.110	<0.220	<0.022	<0.220	<0.110	n/a
UST-13	8/4/2008	4.5	0 to 0.5	<0.190	<0.093	<0.093	<0.190	<0.190	<0.190	**1.630**	**1.420**	1.450	1.010	0.564	2.43	0.200	2.72	<0.190	0.867	<0.190	2.71	**2.02**
			0.5 to 2	<0.190	<0.093	<0.093	<0.190	<0.190	<0.190	<0.093	0.0211 i	0.0238 i	<0.019	<0.019	<0.093	<0.019	<0.093	<0.190	<0.019	<0.190	<0.093	0.039
			2 to 3.5	<0.190	<0.096	<0.096	<0.190	<0.190	<0.190	0.277 i	**0.314**	0.371	0.258	0.131	0.275 i	0.0487	0.260 i	<0.190	0.204	<0.190	0.468	**0.449**

TABLE 2a: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h) anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123c pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	27	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	20,000	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	1,800	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
UST 14 (SB-14)	8/24/2009		0 to 2	<0.047	<0.151	0.264 i	<0.129	<0.141	<0.194	<0.236	<0.243	<0.219	<0.266	<0.274	<0.137	<0.309	<0.157	<0.196	<0.256	<0.147	<0.161	n/a
			2 to 4	<0.048	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST 15 (SB-15)	8/24/2009		0 to 2	<0.049	<0.312	<0.372	<0.266	<0.290	<0.401	<0.487	<0.502	<0.453	<0.550	<0.565	<0.283	<0.637	<0.324	<0.405	<0.528	<0.304	<0.333	n/a
			2 to 4	<0.050	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST 16 (SB-16)	8/24/2009		0 to 2	<0.051	<0.116	0.202 i	<0.0985	<0.108	<0.149	<0.181	<0.186	<0.168	<0.204	<0.210	<0.105	<0.236	<0.120	<0.150	<0.196	<0.113	<0.124	n/a
			2 to 4	<0.052	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST 17 (SB-17)	8/24/2009		0 to 2	<0.053	<0.306	<0.364	<0.260	<0.284	<0.393	<0.477	<0.492	<0.444	<0.539	<0.554	<0.277	<0.625	<0.318	<0.397	<0.518	<0.298	<0.327	n/a
			2 to 4	<0.054	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST 18 (SB-18)	8/24/2009		0 to 2	<0.055	<0.113	<0.135	<0.0964	<0.105	<0.145	<0.177	<0.182	<0.164	<0.199	<0.205	0.159 i	<0.231	0.120 i	<0.147	<0.192	<0.110	0.131 i	n/a
			2 to 4	<0.056	<0.121	<0.144	<0.103	<0.113	<0.156	<0.189	<0.195	<0.176	<0.213	<0.219	<0.110	<0.247	<0.126	<0.157	<0.205	<0.118	<0.129	n/a
UST 19 (SB-19)	8/24/2009		0 to 2	<0.057	<0.0230	<0.0274	<0.0196	<0.0214	<0.0296	0.0680 i	**0.110 i**	<0.0334	<0.0406	<0.0417	0.0742 i	<0.0470	0.186	<0.0299	<0.0390	0.0788 i	0.109 i	0.144
			2 to 4	<0.058	<0.0246	<0.0293	<0.0210	<0.0229	<0.0316	<0.0384	<0.0396	<0.0357	<0.0434	<0.0446	<0.0223	<0.0503	<0.0256	<0.0320	<0.0417	<0.0240	<0.0263	n/a
UST 20 (SB-20)	8/24/2009		0 to 2	<0.059	<0.222	<0.265	<0.189	<0.207	<0.286	<0.347	<0.358	<0.323	<0.392	<0.403	<0.201	<0.454	<0.231	<0.289	<0.376	<0.217	<0.237	n/a
			2 to 4	<0.060	<0.0271	<0.0323	<0.0231	<0.0252	<0.0348	<0.0423	<0.0436	<0.0394	<0.0478	<0.0491	<0.0246	<0.0554	<0.0282	<0.0352	<0.0459	<0.0264	<0.0290	n/a
UST 21 (SB-21)	8/24/2009		0 to 2	<0.061	<0.112	<0.133	<0.0953	<0.104	<0.144	<0.175	<0.180	<0.163	<0.197	<0.203	<0.101	<0.229	<0.116	<0.145	<0.190	<0.109	<0.120	n/a
			2 to 4	<0.062	<0.0257	0.0450 i	<0.0219	<0.0240	<0.0331	<0.0402	<0.0414	<0.0374	<0.0454	<0.0466	<0.0233	<0.0526	<0.0267	<0.0335	<0.0436	<0.0251	<0.0275	n/a
UST 22 (SB-22)	8/24/2009		0 to 2	<0.063	<0.119	<0.142	<0.101	<0.111	<0.153	<0.186	<0.192	<0.173	<0.210	<0.216	<0.108	<0.243	<0.124	<0.155	<0.201	<0.116	<0.127	n/a
			2 to 4	<0.064	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST 23 (SB-23)	8/24/2009		0 to 2	<0.065	<0.246	<0.293	<0.209	<0.229	<0.316	<0.383	<0.396	<0.357	<0.433	<0.445	<0.223	<0.502	<0.255	<0.319	<0.416	<0.240	<0.263	n/a
			2 to 4	<0.066	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST 24 (SB-24)	8/24/2009		0 to 2	<0.067	<0.133	<0.159	<0.113	<0.124	<0.171	<0.208	<0.215	<0.194	<0.235	<0.241	<0.121	<0.272	<0.138	<0.173	<0.226	<0.130	<0.142	n/a
			2 to 4	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
UST 25 (SB-25)	8/24/2009		0 to 2	<0.069	<0.118	<0.140	<0.100	<0.110	<0.151	<0.184	<0.190	<0.171	<0.208	<0.213	<0.107	<0.241	<0.122	<0.153	<0.200	<0.115	<0.126	n/a
			2 to 4	<0.070	<0.0262	<0.0312	<0.0223	<0.0244	<0.0337	<0.0409	<0.0422	<0.0380	<0.0462	<0.0474	<0.0237	<0.0535	<0.0272	<0.0340	<0.0444	<0.0255	<0.0280	n/a
UST 26 (SB-26)	8/24/2009		0 to 2	<0.071	<0.229	<0.273	<0.195	<0.213	<0.294	<0.358	<0.369	<0.333	<0.404	<0.415	<0.208	<0.468	<0.238	<0.298	<0.388	<0.223	<0.245	n/a
			2 to 4	<0.072	<0.274	<0.327	<0.234	<0.255	<0.353	<0.428	<0.442	<0.399	<0.484	<0.497	<0.249	<0.561	<0.285	<0.357	<0.465	<0.268	<0.293	n/a
UST 27	11/30/2010		0-2	<0.024	<0.031	<0.032	<0.025	0.036	0.041	0.172	**0.204**	0.175	0.172	0.369	0.255	0.057	0.267	<0.026	0.146	0.069	0.31	**0.314**
			2-3	<0.025	<0.032	<0.033	<0.026	<0.035	<0.041	0.058	0.067	0.087	0.056	0.089	0.091	<0.032	0.092	<0.027	0.048	<0.038	0.106	0.103
UST 28	11/30/2010		0-2	<0.026	<0.033	<0.034	<0.027	<0.037	<0.043	0.112	0.105	0.100	0.089	0.183	0.159	<0.033	0.166	<0.028	0.075	<0.039	0.199	**0.152**
			2-3	<0.025	<0.033	<0.034	<0.027	0.172	0.17	0.807	**0.803**	0.955	0.580	1.14	1.08	0.223	1.12	<0.028	0.543	0.216	1.31	**1.269**
UST 29	11/30/2010		0-2	<0.024	<0.031	<0.032	<0.025	<0.034	<0.040	<0.032	<0.029	<0.023	<0.031	<0.038	<0.026	<0.031	<0.043	<0.026	<0.039	<0.037	<0.038	n/a
			2-4	<0.023	<0.030	<0.031	<0.024	<0.033	<0.038	<0.031	0.031	0.026	0.030	0.054	0.045	<0.030	0.051	<0.025	<0.037	<0.035	0.051	0.053
UST 30	11/30/2010		0-2	<0.023	<0.030	<0.031	<0.024	0.09	0.114	0.803	**0.638**	0.927	0.375	0.398	0.989	0.146	1.42	<0.025	0.353	0.118	1.25	**0.997**
			2-3.5	<0.025	<0.032	<0.033	<0.026	<0.036	<0.042	<0.033	<0.030	<0.024	<0.032	<0.039	<0.027	<0.032	<0.045	<0.027	<0.040	<0.038	<0.039	n/a
UST 31	11/30/2010		0-2	<0.024	<0.031	<0.032	<0.025	<0.034	<0.040	<0.032	<0.028	<0.023	<0.031	<0.037	<0.026	<0.031	<0.043	<0.026	<0.038	<0.036	<0.037	n/a
			2-3.5	<0.025	<0.032	<0.033	<0.026	<0.036	<0.042	<0.033	<0.030	<0.024	<0.032	<0.039	<0.027	<0.032	<0.045	<0.027	<0.040	<0.038	<0.039	n/a
UST 32	11/30/2010		0-2	<0.140	<0.038	<0.039	<0.031	<0.042	<0.049	0.059	0.041	0.049	0.040	0.062	0.081	<0.038	0.082	<0.032	<0.048	<0.045	0.103	0.074
			2-2.75	<0.026	<0.034	<0.035	<0.027	<0.037	<0.043	<0.035	<0.031	<0.025	<0.034	<0.041	<0.029	<0.034	<0.047	<0.029	<0.042	<0.040	<0.041	n/a
UST 33	11/30/2010		0-2	<0.023	<0.030	<0.031	<0.024	<0.033	<0.038	<0.031	<0.027	<0.022	<0.030	<0.036	<0.025	<0.030	<0.042	<0.025	<0.037	<0.035	<0.036	n/a
			2-3	<0.028	<0.036	<0.037	<0.029	<0.039	<0.046	<0.037	<0.033	<0.026	<0.036	<0.043	0.039	<0.036	<0.050	<0.030	<0.045	<0.042	0.052	0.040

TABLE 2a: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h) anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123c pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	27	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	20,000	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	1,800	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
FORMER SLUDGE POND AREA																						
Sludge-1	6/16/2008	5	Sludge	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	n/a
			Native	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	n/a
Sludge-2	6/16/2008	5	Sludge	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	0.0443 i	0.0671 i	0.140 i	0.0613 i	0.0436 i	0.0676 i	<0.041	0.0514 i	<0.041	0.0573 i	<0.041	0.0550 i	0.112
			Native	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	n/a
Sludge-3	6/16/2008	5	Sludge	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	n/a
			Native	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	n/a
Sludge-4	6/16/2008	5	Sludge	<0.039	<0.039	<0.039	<0.039	<0.039	<0.039	0.0515 i	0.0550 i	0.0890 i	0.0484 i	<0.039	0.0660 i	<0.039	0.131 i	<0.039	0.0458 i	0.0447 i	0.102 i	0.094
			Native	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	<0.060	n/a
Sludge-5	6/16/2008	5	Sludge	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	n/a
			Native	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	n/a
Sludge-6 (SB-6)	8/26/2009	4	0 to 2	<0.046	<0.0250	<0.0297	<0.0213	<0.0232	<0.0321	<0.0390	<0.0402	<0.0363	<0.0440	<0.0452	<0.0226	<0.0510	<0.0259	<0.0325	<0.0423	<0.0243	<0.0267	n/a
			2 to 4	<0.047	<0.0321	<0.0383	<0.0274	<0.0299	<0.0413	<0.0501	<0.0517	<0.0467	<0.0566	<0.0582	<0.0291	<0.0656	<0.0334	<0.0418	<0.0544	<0.0313	<0.0343	n/a
Sludge-7 (SB-7)	8/26/2009	4	0 to 1	<0.048	<0.123	<0.147	<0.105	<0.115	<0.158	<0.192	<0.198	<0.179	<0.217	<0.223	<0.112	<0.252	<0.128	<0.160	<0.209	<0.120	<0.132	n/a
			2 to 4	<0.049	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sludge-8 (SB-8)	8/26/2009	4	0 to 2	<0.050	<0.0251	<0.0299	<0.0214	<0.0234	<0.0322	<0.0392	<0.0404	<0.0364	<0.0442	<0.0455	<0.0227	<0.0513	<0.0261	<0.0326	<0.0425	<0.0245	<0.0268	n/a
			2 to 4	<0.051	<0.0559	<0.0666	<0.0476	<0.0520	<0.0719	<0.0873	<0.0900	<0.0812	<0.0986	<0.101	<0.0507	<0.114	<0.0581	<0.0727	<0.0947	<0.0545	<0.0597	n/a
Sludge-9 (SB-9)	8/26/2009	4	0 to 2	<0.052	<0.249	<0.297	<0.212	<0.232	<0.320	<0.389	<0.401	<0.362	<0.439	<0.451	<0.226	<0.509	<0.259	<0.324	<0.422	<0.243	<0.266	n/a
			2 to 4	<0.053	<0.0275	<0.0327	<0.0234	<0.0256	<0.0353	<0.0429	<0.0442	<0.0399	<0.0484	<0.0498	<0.02449	<0.0561	<0.0285	<0.0357	<0.0465	<0.0268	<0.0293	n/a
Sludge-10 (SB-10)	8/26/2009	4	0 to 2	<0.054	<0.0252	<0.0300	<0.0215	<0.0235	<0.0324	<0.0394	<0.0406	<0.0366	<0.0444	<0.0457	<0.0228	<0.0515	<0.0262	<0.0328	<0.0427	<0.0246	<0.0269	n/a
			2 to 4	<0.055	<0.0286	<0.0341	<0.0244	<0.0266	<0.0368	<0.0447	<0.0461	<0.0416	<0.0504	<0.0518	<0.0259	<0.0585	<0.0297	<0.0372	<0.0485	<0.0279	<0.0306	n/a
Sludge-11 (SB-11)	8/26/2009	4	0 to 2	<0.056	<0.0226	<0.0269	<0.0193	<0.0210	<0.0291	<0.0353	<0.0364	<0.0329	<0.0399	<0.0410	<0.0205	<0.0462	<0.0235	<0.0294	<0.0383	<0.0220	<0.0242	n/a
			2 to 4	<0.057	<0.0240	<0.0286	<0.0205	<0.0224	<0.0309	<0.0375	<0.0387	<0.0349	<0.0424	<0.0436	<0.0218	<0.0491	<0.0250	<0.0313	<0.0407	<0.0234	<0.0257	n/a
Sludge-12 (SB-12)	8/26/2009	4	0 to 2	<0.058	<0.0317	<0.0378	<0.0270	<0.0295	<0.0408	<0.0495	<0.0511	<0.0491	<0.0559	<0.0575	<0.0288	<0.0648	<0.0330	<0.0413	<0.0538	<0.0309	<0.0339	n/a
			2 to 4	<0.059	<0.0294	<0.0351	<0.0251	<0.0274	<0.0378	<0.0459	<0.0474	<0.0428	<0.0519	<0.0533	<0.0267	<0.0601	<0.0306	<0.0383	<0.0499	<0.0287	<0.0314	n/a
Sludge-13 (SB-13)	8/26/2009	4	0 to 2	<0.060	<0.0264	<0.0314	<0.0225	<0.0245	<0.0339	<0.0412	<0.0425	<0.0383	<0.0465	<0.0478	<0.0239	<0.0539	<0.0274	<0.0343	<0.0447	<0.0257	<0.0282	n/a
			2 to 4	<0.061	<0.0299	<0.0356	<0.0254	<0.0278	<0.0384	<0.0466	<0.0481	<0.0434	<0.0526	<0.0541	<0.0271	<0.0610	<0.0310	<0.0388	<0.0506	<0.0291	<0.0319	n/a
Sludge-14 (SB-14)	8/26/2009	4	0 to 2	<0.062	<0.0245	<0.0292	<0.0208	<0.0228	<0.0314	<0.0382	<0.0394	<0.00355	<0.0431	<0.0443	<0.0222	<0.05000	<0.0254	<0.0318	<0.0414	<0.0239	<0.0261	n/a
			2 to 4	<0.063	<0.0235	<0.0281	<0.0201	<0.0219	<0.0303	<0.0367	<0.0379	<0.0342	<0.0415	<0.0427	<0.0213	<0.0481	<0.0245	<0.0306	<0.0399	<0.0230	<0.0252	n/a
Sludge-15	11/30/2010	4	0-2	<0.026	<0.034	<0.035	<0.028	<0.038	<0.044	<0.035	<0.031	<0.025	<0.034	<0.041	<0.029	<0.034	<0.048	<0.029	<0.043	<0.040	<0.041	n/a
			2-4	<0.030	<0.039	<0.040	<0.032	<0.043	<0.050	<0.040	<0.036	<0.029	<0.039	<0.048	<0.033	<0.039	<0.055	<0.033	<0.049	<0.046	<0.048	n/a
Sludge-16	11/30/2010	3.5	0-2	<0.025	<0.032	<0.033	<0.026	<0.035	<0.041	0.033	0.035	0.045	0.036	<0.039	0.05	<0.032	0.072	<0.027	<0.040	<0.038	0.057	0.061
			2-3.5	<0.025	<0.032	<0.033	<0.026	<0.036	<0.042	<0.033	<0.030	<0.024	<0.032	<0.039	<0.027	<0.032	<0.045	<0.027	<0.041	<0.038	<0.039	n/a

Notes: fbls - feet below land surface; ft. - feet; ppm - parts per million or milligrams per kilogram (mg/kg); NA - Not Analyzed; NS - Not Sampled; N/A - Not Applicable
SCTL-L = leachability based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-I = Direct Exposure Commercial/Industrial based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-R = Direct Exposure Residential based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code Chapter 24-11
Constituent concentrations denoted in bold exceed the SCTL established in Table 2, Miami-Dade County Code Chapter 24-11
* Site specific based on benzo(a)pyrene Toxicity Equivilency Factor for detected concentrations of benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene
Data flagging criteria: L = Indicates value exceeds calibrations range. I = The reported value is between the laboratory method detection limit and the laboratory practical quantification limit.
Concentrations below the laboratory method detection limit are reported with a less than sign (<).

TABLE 2b: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123cd pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	2	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	2,400	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	20,000	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
NURSERY AREA																						
SB-POND	6/25/2008	5	4 to 5								<0.037											
Nursery 1	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 2	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 3	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 4	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 5	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 6	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 7	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 8	6/26/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 9	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 10	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 11	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 12	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 13	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 14	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 15	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 16	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 17	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 18	6/25/2008	5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2b: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123cd pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	2	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	2,400	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	20,000	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
Nursery 19	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 20	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 21	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 22	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 23	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 24	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 25	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 26	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 27	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 28	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 29	8/4/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 30	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	12/22/2008	4.5	2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 31	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 32	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 33	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 34	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 35	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 36	11/6/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 2b: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123cd pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	2	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	2,400	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	20,000	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
Nursery 37	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 38	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 39	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 40	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2 to 4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursury 41	12/22/2008	4.5	0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nursery 42 (SB-42)	8/25/2009		0 to 0.5	<0.283	<0.282	<0.336	<0.240	<0.263	<0.363	0.653 i	**1.350 i**	1.150 i	<0.497	<0.551	0.924 i	<0.576	1.550	<0.367	<0.478	<0.275	1.130 i	**1.85**
			0.5 to 2	**<0.272**	<0.271	<0.323	<0.231	<0.252	<0.348	**1.320 i**	**1.830**	1.500	<0.477	1.380	1.550	<0.553	3.42	<0.352	<0.459	0.993 i	2.330	**2.43**
			2 to 4	<0.0243	<0.0242	<0.0288	<0.0206	<0.0225	<0.0311	0.0387 i	0.0774 i	0.0440 i	<0.0426	<0.0438	0.0381 i	<0.0494	0.104 i	<0.0314	<0.0410	0.0417 i	0.0702 i	0.113
Nursery 43 (SB-43)	8/25/2009		0 to 0.5	<0.0224	<0.0223	<0.0266	<0.0190	<0.0208	<0.0287	0.0841 i	**0.144**	0.153	0.152 i	0.108 i	0.112	<0.0456	0.236	<0.0290	0.226	0.0764 i	0.157	**0.214**
			0.5 to 2	<0.238	<0.236	<0.282	<0.201	<0.220	<0.304	<0.369	<0.381	<0.344	<0.417	<0.429	<0.214	<0.483	<0.246	<0.307	<0.401	<0.231	<0.253	n/a
			2 to 4	<0.0240	<0.0239	<0.0285	<0.0204	<0.0222	<0.0307	<0.0373	<0.0385	<0.0347	<0.0421	<0.0433	<0.0216	<0.0488	<0.0248	<0.0311	<0.0405	<0.0233	<0.0255	n/a
Nursery 44 (SB-44)	8/25/2009		0 to 0.5	<0.0229	<0.0228	<0.0272	<0.0194	<0.0212	<0.0293	<0.0356	<0.0367	<0.0331	<0.0402	<0.0413	<0.0207	<0.0466	<0.0237	<0.0297	<0.0387	<0.0222	<0.0244	n/a
			0.5 to 2	<0.0230	<0.0229	<0.0273	<0.0195	<0.0213	<0.0295	<0.0358	<0.0369	<0.0333	<0.0404	<0.0416	<0.0208	<0.0469	<0.0238	<0.0298	<0.0389	<0.0224	<0.0245	n/a
			2 to 4	<0.0224	<0.0223	<0.0266	<0.0190	<0.0208	<0.0287	<0.0348	<0.0359	<0.0324	<0.0393	<0.0404	<0.0202	<0.0456	<0.0232	<0.0290	<0.0378	<0.0218	<0.0238	n/a
Nursery 45 (SB-45)	8/25/2009		0 to 0.5	<0.0224	<0.0223	<0.0266	<0.0190	<0.0208	<0.0287	<0.0348	<0.0359	<0.0324	<0.0393	<0.0404	<0.0202	<0.0456	<0.0232	<0.0290	<0.0378	<0.0218	<0.0238	n/a
			0.5 to 2	<0.115	<0.114	<0.136	<0.0972	<0.106	<0.147	<0.178	<0.184	<0.166	<0.201	<0.207	<0.103	<0.233	<0.119	<0.148	<0.193	<0.111	<0.122	n/a
			2 to 4	<0.116	<0.115	<0.138	<0.0984	<0.108	<0.148	<0.180	<0.186	<0.168	<0.204	<0.209	<0.105	<0236	<0.120	<0.150	<0.196	<0.113	<0.123	n/a
Nursery 46 (SB-46)	8/25/2009		0 to 0.5	<0.116	<0.115	<0.138	<0.0983	<0.107	<0.148	<0.180	<0.186	<0.168	<0.203	<0.209	<0.105	<0.236	<0.120	<0.150	<0.195	<0.113	<0.123	n/a
			0.5 to 2	<0.0234	<0.0233	<0.0278	<0.0199	<0.0217	<0.0300	<0.0364	<0.0376	<0.0339	<0.0411	<0.0423	<0.0211	<0.0477	<0.0243	<0.0303	<0.0395	<0.0228	<0.0249	n/a
			2 to 4	<0.0255	<0.0254	<0.0303	<0.0216	<0.0236	<0.0326	<0.0396	0.0806 i	0.0438i	0.124 i	<0.0460	0.0338 i	<0.0519	0.0663 i	<0.0330	<0.0430	<0.0248	0.0475 i	0.115
Nursery 47 (SB-47)	8/25/2009		0 to 0.5	<0.113	<0.113	<0.134	<0.0961	<0.105	<0.145	<0.176	<0.182	<0.164	<0.199	<0.204	<0.102	<0.231	<0.117	<0.147	<0.191	<0.110	<0.121	n/a
			0.5 to 2	<0.224	<0.223	<0.266	<0.190	<0.208	<0.287	<0.348	<0.359	<0.324	<0.393	<0.404	<0.202	<0.456	<0.232	<0.290	<0.378	<0.218	<0.238	n/a
			2 to 4	<0.121	<0.121	<0.144	<0.103	<0.113	<0.155	<0.189	<0.195	<0.176	<0.213	<0.219	<0.110	<0.247	<0.126	<0.157	<0.205	<0.118	<0.129	n/a
Nursery 48 (SB-49)	8/25/2009		0 to 0.5	<0.0252	<0.0251	<0.0299	<0.0214	<0.0233	<0.0322	<0.0391	0.079 i	0.0722 i	<0.0442	<0.0454	0.0346 i	<0.0512	<0.0260	<0.0326	<0.0425	<0.0244	0.0327i	0.116
			0.5 to 2	<0.117	<0.117	<0.139	<0.0994	<0.109	<0.150	<0.182	<0.188	<0.170	<0.206	<0.211	<0.106	<0.239	<0.121	<0.152	<0.198	<0.114	<0.125	n/a
			2 to 4	<0.0249	<0.0248	<0.0295	<0.0211	<0.0230	<0.0318	<0.0387	<0.0399	<0.0360	<0.0437	<0.0449	<0.0224	<0.0506	<0.0257	<0.0322	<0.0420	<0.0241	<0.0265	n/a
Nursery 49 (SB-49)	8/25/2009		0 to 0.5	<0.232	<0.231	<0.275	<0.197	<0.215	<0.297	<0.360	<0.372	<0.335	<0.407	<0.418	<0.209	<0.472	<0.240	<0.300	<0.391	<0.225	<0.247	**0.478**
			0.5 to 2	<0.0245	<0.0244	<0.0290	<0.0208	<0.0227	<0.0313	<0.0380	<0.0392	<0.0354	<0.0430	<0.0442	<0.0221	<0.0498	<0.0253	<0.0317	<0.0413	<0.0238	<0.0260	n/a
			2 to 4	<0.0251	<0.0249	<0.0297	<0.0213	<0.0232	<0.0321	<0.0390	<0.0402	<0.0363	<0.0440	<0.0452	<0.0226	<0.0510	<0.0259	<0.0324	<0.0423	<0.0243	<0.0267	n/a
Nursery 50 (SB-50)	8/25/2009		0 to 0.5	<0.0251	<0.0249	<0.0297	<0.0213	<0.0232	<0.0321	0.192	**0.260**	0.365	0.247	0.282	0.281	<0.0510	0.464	<0.0324	0.316	0.0977 i	0.312	**0.376**
			0.5 to 2	<0.0256	<0.0255	<0.0304	<0.217	<0.0237	<0.0328	<0.0398	<0.0411	<0.0371	<0.0450	<0.0462	<0.0231	<0.0521	0.0854 i	<0.0332	<0.0432	<0.0249	0.0509 i	n/a
			2 to 4	<0.0375	<0.0373	<0.0444	<0.0318	<0.0347	<0.0479	<0.0582	<0.0600	<0.0542	<0.0657	<0.0676	<0.0338	<0.0762	<0.0387	<0.0485	<0.0632	<0.0364	<0.0398	n/a
Nursery 51 (SB-51)	8/25/2009		0 to 0.5	<0.0239	<0.0238	<0.0284	<0.0203	<0.0222	<0.0306	<0.0372	<0.0383	<0.0346	<0.0420	<0.0431	<0.0216	<0.0487	<0.0247	<0.0310	<0.0403	<0.0232	0.0340 i	n/a
			0.5 to 2	<0.0243	<0.0242	<0.0288	<0.0206	<0.0225	<0.0311	<0.0378	<0.0389	<0.0351	<0.0426	<0.0438	<0.0219	<0.0494	<0.0251	<0.0314	<0.0410	<0.0236	<0.0258	n/a
			2 to 4	<0.245	<0.244	<0.290	<0.208	<0.227	<0.313	<0.380	<0.392	<0.354	<0.430	<0.442	<0.221	<0.498	<0.253	<0.317	<0.413	<0.238	<0.260	n/a
Nursery 52 (SB-52)	8/25/2009		0 to 0.5	<0.118	<0.118	<0.140	<0.100	<0.110	<0.151	<0.184	<0.190	<0.171	<0.207	<0.213	<0.107	<0.241	<0.122	<0.153	<0.199	<0.115	<0.126	n/a
			0.5 to 2	<0.0222	<0.0221	<0.0263	<0.0188	<0.0206	<0.0284	<0.0345	<0.0356	<0.0321	<0.0389	<0.0400	<0.020	<0.0451	<0.0230	<0.0287	<0.0374	<0.0215	<0.0236	n/a
			2 to 4	<0.0241	<0.0240	<0.0286	<0.0204	<0.0223	<0.0308	<0.0375	<0.0386	<0.0349	<0.0423	<0.0435	<0.0217	<0.0490	<0.0249	<0.0312	<0.0407	<0.0234	<0.0256	n/a
Nursery 53 (SB-53)	8/25/2009		0 to 0.5	<0.231	<0.229	<0.274	<0.196	<0.214	<0.295	<0.358	<0.370	<0.333	<0.405	<0.416	<0.208	<0.469	<0.239	<0.298	<0.389	<0.224	<0.245	n/a
			0.5 to 2	<0.236	<0.235	<0.280	<0.200	<0.218	<0.302	<0.366	<0.378	<0.341	<0.414	<0.425	<0.213	<0.480	<0.244	<0.305	<0.398	<0.229	<0.251	n/a
			2 to 4	<0.269	<0.267	<0.319	<0.228	<0.249	<0.344	<0.417	<0.431	<0.389	<0.471	<0.485	<0.242	<0.547	<0.278	<0.348	<0.453	<0.261	<0.286	n/a
Nursery 54 (SB-54)	8/25/2009		0 to 0.5	<0.237	<0.236	<0.281	<0.201	<0.219	<0.303	<0.368	<0.380	<0.342	<0.416	<0.427	<0.214	<0.482	<0.245	<0.306	<0.399	<0.230	<0.252	n/a
			0.5 to 2	<0.238	<0.237	<0.283	<0.202	<0.221	<0.305	<0.370	<0.382	<0.345	<0.418	<0.430	<0.215	<0.485	<0.247	<0.308	<0.402	<0.231	<0.254	n/a
			2 to 4	<0.294	<0.293	<0.349	<0.250	<0.273	<0.377	<0.457	<0.472	<0.426	<0.517	<0.531	<0.265	<0.599	<0.304	<0.381	<0.496	<0.286	<0.313	n/a
Nursery 55 (SB-55)	8/25/2009		0 to 0.5	<0.247	<0.245	<0.293	<0.209	<0.229	<0.316	<0.383	<0.395	<0.357	<0.433	<0.445	<0.223	<0.502	<0.255	<0.319	<0.416	<0.239	<0.262	n/a
			0.5 to 2	<0.117	<0.116	<0.139	<0.0993	<0.108	<0.150	0.396 i	<0.188	<0.169	<0.205	<0.211	0.430 i	<0.238	0.511 i	<0.151	<0.197	<0.114	<0.462 i	**0.272**
			2 to 4	<0.025	<0.0249	<0.0297	<0.0212	<0.0232	<0.0320	<0.0389	<0.0401	<0.0362	<0.0439	<0.0451	<0.0226	<0.0509	<0.0259	<0.0324	<0.0422	<0.0243	<0.0266	n/a
Nursery 56 (SB-56)	8/25/2009		0 to 0.5	<0.233	<0.232	<0.277	<0.198	<0.216	<0.299	<0.363	<0.374	<0.338	<0.410	<0.421	<0.211	<0.475	<0.241	<0.302	<0.394	<0.227	<0.248	n/a
			0.5 to 2	<0.246	<0.245	<0.292	<0.209	<0.228	<0.315	<0.383	<0.395	<0.356	<0.432	<0.444	<0.222	<0.501	<0.255	<0.319	<0.415	<0.239	<0.262	n/a
			2 to 4	<0.0253	<0.0252	<0.030	<0.0215	<0.0235	<0.0324	<0.0393	<0.0406	<0.0366	<0.0444	<0.0457	<0.0228	<0.0515	<0.0262	<0.0328	<0.0427	<0.0246	<0.0269	n/a

TABLE 2b: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123cd pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	2	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	2,400	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	20,000	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
Nursery 57	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 58	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 59	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 60	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 61	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 62	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 63	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 64	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 65	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 66	12/2/2010		0 to 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			0.5 to 2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
			2 to 3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	n/a
Nursery 67	12/1/2010		0 to 0.5	<0.025	<0.032	<0.033	0.033 i	<0.036	0.090 i	0.572	**0.638**	0.550	0.528	1.01	0.869	0.166	1.29	<0.027	0.469	0.442	1.13	**0.974**
			0.5 to 2	<0.022	<0.029	<0.030	<0.023	<0.032	<0.037	0.120	**0.136**	0.138	0.123	0.191	0.179	0.041 i	0.229	<0.025	0.102 i	<0.034	0.208	**0.215**
			2 to 3.5	<0.028	<0.036	<0.037	<0.029	<0.039	<0.046	<0.037	<0.033	<0.026	<0.036	<0.043	<0.030	<0.036	<0.50	<0.030	<0.045	<0.042	<0.043	n/a
Nursery 68	12/1/2010		0 to 0.5	<0.022	<0.028	<0.029	<0.023	<0.031	<0.037	0.077 i	**0.106**	0.078 i	0.079 i	0.099 i	0.106	<0.028	0.134	<0.024	0.061 i	0.063 i	0.0129	0.143
			0.5 to 2	0.031 i	<0.030	<0.031	<0.024	<0.033	<0.039	0.032 i	0.028 i	<0.022	0.042 i	0.041 i	0.034 i	<0.030	<0.042	<0.025	<0.038	<0.035	0.041 i	0.050
			2-3.5	<0.029	<0.038	<0.039	<0.031	<0.042	<0.049	0.104 i	0.090 i	0.070 i	0.057 i	0.117 i	0.113 i	<0.038	0.126 i	<0.032	0.050 i	<0.044	0.123 i	0.133
Nursery 69	12/1/2010		0 to 0.5	<0.024	<0.031	<0.032	<0.025	<0.034	<0.040	0.136	**0.147**	0.138	0.099 i	0.194	0.165	0.036 i	0.191	<0.026	0.085	0.049 i	0.196	**0.221**
			0.5 to 2	<0.025	<0.032	<0.033	<0.026	<0.035	<0.041	0.067 i	0.066 i	0.085 i	0.053 i	0.062 i	0.081 i	<0.032	0.082 i	<0.027	<0.040	<0.038	0.087 i	0.100
			2-4	<0.027	<0.035	<0.037	<0.029	<0.039	<0.046	<0.037	<0.033	<0.026	<0.035	<0.043	<0.030	<0.035	<0.50	<0.030	<0.044	<0.042	<0.043	n/a
Nursery 70	12/1/2010		0 to 0.5	<0.027	<0.035	<0.036	<0.038	0.048 i	0.048 i	0.230	**0.266**	0.348	0.222	0.375	0.362	0.071	0.292	<0.030	0.191	0.071 i	0.474	**0.417**
			0.5 to 2	<0.025	<0.033	<0.034	<0.027	<0.036	<0.042	0.040 i	0.042 i	0.037 i	<0.033	0.057 i	0.052 i	<0.033	0.050 i	<0.028	<0.041	<0.039	0.060 i	0.069
			2-4	<0.032	<0.041	<0.042	<0.033	<0.045	<0.053	<0.042	<0.038	0.033 i	<0.041	<0.050	0.037 i	<0.041	<0.057	<0.035	<0.051	<0.048	0.053 i	0.048
Nursery 71	12/2/2010		0 to 0.5	<0.024	<0.031	<0.033	<0.026	<0.035	<0.041	0.048	0.059	0.0450	0.0440	0.0600	0.065	<0.031	0.0700	<0.027	<0.039	<0.037	0.0650	0.086
			0.5 to 2	<0.049	<0.064	<0.066	<0.052	<0.071	<0.082	<0.066	<0.059	<0.047	<0.064	<0.078	<0.054	<0.064	<0.089	<0.054	<0.080	<0.075	<0.078	n/a
			2-3.5	<0.058	<0.075	<0.077	<0.061	<0.083	<0.097	<0.077	<0.069	<0.055	<0.075	<0.091	<0.063	<0.075	<0.105	<0.063	<0.094	<0.088	<0.091	n/a
Nursery 72	12/2/2010		0 to 0.5	<0.023	<0.029	<0.030	<0.024	<0.032	<0.038	<0.030	0.034	0.0250	<0.029	<0.036	0.039	<0.029	0.0430	<0.025	<0.037	<0.035	0.0390	0.055
			0.5 to 2	<0.022	<0.029	<0.030	<0.023	<0.032	<0.037	<0.030	0.034	0.0250	<0.029	<0.035	0.0340	<0.029	<0.041	<0.025	<0.036	<0.034	0.0350	0.055
			2-3.5	<0.023	<0.029	<0.030	<0.024	<0.032	<0.038	<0.030	<0.027	<0.022	<0.029	<0.035	<0.025	<0.029	<0.041	<0.025	<0.037	<0.034	<0.035	n/a

Notes: fbls - feet below land surface; ft. - feet; ppm - parts per million or milligrams per kilogram (mg/kg); NA - Not Analyzed; NS - Not Sampled; N/A - Not Applicable
SCTL-L = leachability based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-I = Direct Exposure Commercial/Industrial based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-R = Direct Exposure Residential based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code Chapter 24-11
Constituent concentrations denoted in bold exceed the SCTL established in Table 2, Miami-Dade County Code Chapter 24-11
* Site specific based on benzo(a)pyrene Toxicity Equivilency Factor for detected concentrations of benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene
Data flagging criteria: L = Indicates value exceeds calibrations range. I = The reported value is between the laboratory method detection limit and the laboratory practical quantification limit.
Concentrations below the laboratory method detection limit are reported with a less than sign (<).

TABLE 2c: SOIL SAMPLE ANALYTICAL RESULTS - PAHs AND TOTAL BaP EQUIVALENT

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE Boring No. or Grid Loc.	Date Collected	Depth to Water (ft.)	Sample Interval (fbls)	Naphthalene (ppm)	1-Methyl Naphthalene (ppm)	2-Methyl Naphthalene (ppm)	Acenaph-thene (ppm)	Acenaph-thylene (ppm)	Anthra-cene (ppm)	Benzo(a)-anthracene (ppm)	Benzo(a)-pyrene (ppm)	Benzo(b) fluoranthene (ppm)	Benzo(g,h,i) perylene (ppm)	Benzo (k) fluoranthene (ppm)	Chrysene (ppm)	Dibenzo(a,h) anthracene (ppm)	Fluor-anthene (ppm)	Fluorene (ppm)	Indeno(123c pyrene (ppm)	Phen-anthrene (ppm)	Pyrene (ppm)	Total BaP Equivalent (ppm)
SCTL-L	-	-	-	1.2	1.2	1.2	27	27	2,500	0.8	8.0	2.4	32,000	24	77	0.7	1,200	160	6.6	250	880	
SCTL-I	-	-	-	300	300	300	20,000	20,000	300,000	##	0.7	#	52,000	#	#	#	59,000	33,000	#	36,000	45,000	0.70
SCTL-R	-	-	-	55	55	55	1,800	1,800	2,100	##	0.1	#	2,500	#	#	#	3,200	2,600	#	2,200	2,400	0.10
OFF SITE																						
OS-1	1/25/2013	~4'	0-2'	0.012 U	0.013 U	0.015 U	0.013 U	0.011 U	0.011 U	0.027 I	0.031 I	0.065	0.031 I	0.0078 I	0.037	0.010 U	0.050	0.016 U	0.022 I	0.014 I	0.045	0.047
			2-4'	0.013 U	0.014 U	0.016 U	0.014 U	0.012 U	0.014 I	0.017 I	0.015 I	0.030 U	0.014 U	0.0085 U	0.018 I	0.011 U	0.058	0.018 U	0.015 U	0.081	0.047	0.025
OS-2	1/25/2013	~4'	0-2'	0.012 U	0.013 U	0.015 U	0.013 U	0.011 U	0.011 U	0.021 I	0.020 I	0.044	0.018I	0.0079 U	0.029 I	0.010 U	0.033 I	0.016 U	0.015 I	0.014 U	0.031 I	0.033
			2-4'	0.013 U	0.014 U	0.016 U	0.014 U	0.012 U	0.012 U	0.021 I	0.017 I	0.029 U	0.014 U	0.011 I	0.024 I	0.011 U	0.034 I	0.017 U	0.015 U	0.015 U	0.043	0.027
OS-3	1/25/2013	~4'	0-6"	0.012 U	0.013 U	0.015 U	0.013 U	0.011 U	0.011 U	0.012 I	0.013 I	0.027 U	0.013 U	0.0078 U	0.016 I	0.010 U	0.018I	0.016 U	0.014 U	0.014 U	0.018 I	0.021
			6"-2'	0.012 U	0.013 U	0.015 U	0.014 U	0.012 U	0.011 U	0.022 I	0.025 I	0.054	0.013 U	0.0080 U	0.027 I	0.011 U	0.032 I	0.017 U	0.018 I	0.014 U	0.034 I	0.040
			2-4'	0.013 U	0.014 U	0.016 U	0.014 U	0.012 U	0.012 U	0.034 I	0.035 I	0.076	0.024 I	0.0085 U	0.039	0.011 U	0.040	0.018 U	0.020 I	0.015 U	0.047	0.054
OS-4	1/25/2013	~4'	0-6"	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2-4'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OS-5	1/25/2013	~3'	0-6"	0.012 U	0.013 U	0.015 U	0.013 U	0.012 I	0.043	0.57	0.73	1.10	0.58	0.44	0.72	0.15	1.2	0.016 U	0.53	0.28	0.95	**1.11**
			6"-2'	0.012 U	0.013 U	0.014 U	0.013 U	0.011 U	0.011 U	0.037	0.049	0.086	0.049	0.029 I	0.050	0.013 I	0.079	0.016 U	0.041	0.016 I	0.065	0.079
			2-3'	0.012 U	0.013 U	0.015 U	0.014 U	0.012 U	0.011 U	0.011 I	0.0080 I	0.028 U	0.013 U	0.0081 U	0.013 U	0.011 U	0.014 I	0.017 U	0.015 U	0.014 U	0.013 I	0.017
OS-6	1/25/2013	~3'	0-6"	0.058 U	0.063 U	0.072 U	0.065 U	0.056 U	0.14 I	**2.4**	**3.3**	**6.5**	2.8	0.039 U	3.9	0.590	5.3	0.081 U	2.4	1.1	4.5	**5.02**
			6"-2'	0.012 U	0.013 U	0.015 U	0.013 U	0.011 U	0.011 U	0.030 I	0.031 I	0.058	0.029 I	0.0078 U	0.038	0.010 U	0.048	0.016 U	0..021 I	0.014 U	0.041	0.047
			2-3'	0.012 U	0.013 U	0.015 U	0.014 U	0.012 U	0.011 U	0.011 U	0.0051 I	0.028 U	0.013 U	0.0080 U	0.013 U	0.011 U	0.012 U	0.017 U	0.015 U	0.014 U	0.012 U	0.014
OS-7	1/25/2013	~3'	0-6"	0.11 U	0.12 U	0.14 U	0.17 I	0.15 I	0.510	**6.7**	**9.1**	**17.9**	7.6	18.5	11.0	**1.8**	15.5	0.17 I	6.4	3.7	12.7	**14.2**
			6"-2'	0.012 U	0.014 U	0.016 U	0.014 U	0.012 U	0.024 I	0.360	0.500	0.710	0.400	0.290	0.480	0.096	0.720	0.017 U	0.360	0.130	0.580	**0.742**
			2-3'	0.013 U	0.014 U	0.016 U	0.014 U	0.012 U	0.012 U	0.011 U	0.0046 U	0.030 U	0.014 U	0.0085 U	0.014 U	0.011 U	0.013 U	0.018 U	0.015 U	0.015 U	0.012 U	0.011
OS-8	1/25/2013	~3'	0-6"	0.083 I	0.072 U	0.083 U	0.28	0.16 I	1.4	**19.5**	**21.2**	**30.1**	19.0	0.044 U	21.1	4.8	37.3	0.340	16.4	10.6	30.5	**32.6**
			6"-2'	0.011 U	0.012 U	0.014 U	0.013 U	0.011 U	0.014 I	0.20	0.25	0.48	0.19	0.0076 U	0.28	0.050	0.40	0.016 U	0.170	0.085	0.32	**0.385**
			2-3'	0.013 U	0.014 U	0.016 U	0.014 U	0.012 U	0.012 U	0.011 U	0.0045 U	0.029 U	0.014 U	0.0084 U	0.014 U	0.011 U	0.013 U	0.017 U	0.015 U	0.015 U	0.012 U	0.011
OS-9	1/25/2013	~3'	0-6"	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2'-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OS-10	1/25/2013	~3'	0-6"	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			6"-2'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
			2'-3'	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OS-11	1/25/2013	~4'	0-6"	0.056 U	0.062 U	0.071 U	0.064 U	0.054U	0.053 U	0.13 I	0.13 I	0.24	0.12 I	0.038 U	0.15 I	0.050 U	0.23	0.078 U	0.093 U	0.087 I	0.18	**0.202**
			6"-2'	0.011 U	0.012 U	0.014 U	0.013 U	0.011 U	0.011 U	0.010 U	0.0041 U	0.026 U	0.013 U	0.0076 U	0.013 U	0.010 U	0.011 U	0.016 U	0.014 U	0.013 U	0.011 U	0.010
			2-4'	0.012 U	0.013 U	0.015 U	0.014 U	0.012 U	0.012 U	0.011 U	0.0044 U	0.028 U	0.014 U	0.0082 U	0.013 U	0.011 U	0.012 U	0.017 U	0.015 U	0.014 U	0.012 U	0.011
OS-12	1/25/2013	~3'	0-2'	0.012 U	0.013 U	0.014 U	0.031 U	0.011 U	0.013 I	0.11	0.12	0.23	0.100	0.0077 U	0.150	0.022 I	0.270	0.016 U	0.086	0.110	0.210	**0.185**
			2-3'	0.013 U	0.014 U	0.016 U	0.015 U	0.012 U	0.012 U	0.013 I	0.011 I	0.030 U	0.014 U	0.0086 U	0.014 U	0.011 U	0.020 I	0.018 U	0.015 U	0.015 U	0.017 I	0.021
OS-13	1/25/2013	~3'	0-2'	0.023 I	0.012 U	0.015 I	0.013 U	0.067	0.025 I	0.095	0.15	0.19	0.14	0.0075 U	0.14	0.029 I	0.13	0.016 U	0.088	0.11	0.17	**0.216**
			2-3'	0.014 U	0.015 U	0.018 U	0.016 U	0.013 U	0.013 U	0.013 U	0.0051 U	0.033 U	0.016 U	0.0094 U	0.015 U	0.012 U	0.014 U	0.019 U	0.017 U	0.016 U	0.013 U	0.012
OS-14	1/25/2013	~4'	0-2'	0.011 U	0.012 U	0.014 U	0.013 U	0.011 U	0.011 U	0.037	0.041	0.074	0.033 I	0.0074 U	0.043	0.0099 U	0.068	0.016 U	0.028 I	0.023 I	0.061	0.060
			2'- 4'	0.012 U	0.013 U	0.015 U	0.014 U	0.012 U	0.011 U	0.017 I	0.012 I	0.028 U	0.013 U	0.0081 U	0.014 I	0.011 U	0.033 I	0.017 U	0.015 U	0.022 I	0.023 I	0.022

Notes: fbls - feet below land surface; ft. - feet; ppm - parts per million or milligrams per kilogram (mg/kg); NA - Not Analyzed; NS - Not Sampled; N/A - Not Applicable
SCTL-L = leachability based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-I = Direct Exposure Commercial/Industrial based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code 24-11
SCTL-R = Direct Exposure Residential based Soil Cleanup Target Level established in Table 2, Miami-Dade County Code Chapter 24-11
Constituent concentrations denoted in bold exceed the SCTL established in Table 2, Miami-Dade County Code Chapter 24-11
* Site specific based on benzo(a)pyrene Toxicity Equivilency Factor for detected concentrations of benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene
Data flagging criteria: L = Indicates value exceeds calibrations range. I = The reported value is between the laboratory method detection limit and the laboratory practical quantification limit.
Concentrations below the laboratory method detection limit are reported with a less than sign (<).

TABLE 3: MONITORING WELL CONSTRUCTION DETAILS

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

Well Number	Date Installed	Installation Method	Total Well Depth (ft)	Screened Interval (fbls)	Well Diameter (inches)	Drilling Contractor
MW-Street Sweeping 1	6/25/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Street Sweeping 2	11/6/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Street Sweeping 3	11/6/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-SS-3W	3/19/2012	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Street Sweeping 4	11/6/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Street Sweeping 5	11/7/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Street Sweeping 1D	11/6/2008	Hollow stem auger	25	20-25	2	EnviroDrill
MW-Street Sweeping 2D (1I)	11/18/2010	Hollow stem auger	30	25-30	2	EnviroDrill
MW-Street Sweeping 45D	3/19/2012	Hollow stem auger	45	40-45	2	EnviroDrill
MW-Pond	6/26/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Nursery 1	6/27/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Nursery 2	11/7/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Nursery 3	11/7/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Nursery 4	11/7/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Nursery 5	11/7/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Sludge 1	11/6/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Sludge 2	11/6/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-Sludge 3	11/6/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-PG-1	11/6/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-PG-2	11/6/2008	Hollow stem auger	12	2-12	2	EnviroDrill
MW-1	8/25/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-2	8/25/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-3	8/25/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-4	8/25/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-5	8/25/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-7	8/26/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-8	8/26/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-9	8/26/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-10	8/26/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-11	8/26/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-12	8/25/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-13	8/25/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-14	8/25/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-14E	3/29/2012	Hollow stem auger	12	2-12	2	EnviroDrill
MW-15	8/24/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-16	8/24/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-17	8/24/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-18	8/24/2009	Hollow stem auger	12	2-12	2	EnviroDrill
MW-19	8/24/2009	Hollow stem auger	12	2-12	2	EnviroDrill

TABLE 4: GROUNDWATER ELEVATION SUMMARY

DTW - depth to water

WTE - water table elevation

Facility Name: Former Rucks Water Treatment Plant/Pioneer Gardens, North Miami, Florida

All casing height elevations (TOC) in feet relative to NGVD (1929)

Well No.	MW-Street Sweeping -1		MW-Street Sweeping -2		MW-Street Sweeping -3		MW-Street Sweeping -4		MW-Street Sweeping -5		MW-Street Sweeping 1D		MW-Street Sweeping 2D		MW-Street Sweeping-45D		MW-SS-3W		MW-14E	
Diameter	2"		2"		2"		2"		2"		2"		2"		2"		2"		2"	
Well Depth	12'		12'		12'		12'		12'		25'		30'		45'		12'		12'	
TOC Elev.	8.52		7.39		7.99		8.56		7.38		6.56		NS		8.56		7.33		7.23	
DATE	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**						
06-30-08	3.52	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11-11&12-2008	NA	NA	5.32	2.07	5.90	2.09	6.50	2.06	5.29	2.09	4.50	2.06	NA	NA	NA	NA	NA	NA	NA	NA
11-25-08	4.16	4.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09-01-09	6.58	1.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11-23-10	5.43	3.09	5.71	1.68	6.57	1.42	6.60	1.96	5.38	2.00	NA	NA	6.58	NA	NA	NA	NA	NA	NA	NA
07-11-11	6.15	2.37	5.10	2.29	6.15	1.84	6.20	2.36	4.80	2.58	4.20	2.36	6.25	NA	NA	NA	NA	NA	NA	NA
04-04-12	6.57	1.95	5.48	1.91	6.52	1.47	6.61	1.95	5.45	1.93	NA	NA	NA	NA	6.61	1.95	5.37	1.96	5.30	1.93
07-23-12	6.07	2.45	4.82	2.57	5.61	2.38	5.89	2.67	3.67	3.71	4.21	2.35	6.10	NA	6.20	2.36	NA	NA	4.85	2.38
02-12-13	6.52	2.00	5.41	1.98	6.50	1.49	6.58	1.98	5.40	1.98	4.56	2.00	6.55	NA	6.60	1.96	NA	NA	NA	NA

Well No.	MW-Nursery-1		MW-Nursery-2		MW-Nursery-3		MW-Nursery-4		MW-Nursery-5		MW-Pond		MW-UST-1		MW-Sludge-1		MW-Sludge-2		MW-Sludge-3	
Diameter	2"		2"		2"		2"		2"		2"		2"		2"		2"		2"	
Well Depth	12'		12'		12'		12'		12'		12'		12'		12'		12'		12'	
TOC Elev.	8.22		8.45		9.20		8.53		7.67		8.88		5.00'		7.47		NS		NS	
DATE	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**				
06-30-08	2.25	5.97	NA	NA	NA	NA	NA	NA	NA	NA	3.90	4.98	NA	NA	NA	NA	NA	NA	NA	NA
11-11-08	6.19	2.03	6.40	2.05	7.15	2.05	6.49	2.04	5.62	2.05	6.81	2.07	NA	NA	5.40	2.07	NA	NA	NA	NA
11-25-08	3.90	4.32	NA	NA	NA	NA	NA	NA	NA	NA	4.53	4.35	3.25	1.75	NA	NA	NA	NA	NA	NA
09-01-09	6.32	1.90	6.65	1.80	NA	NA	NA	NA	NA	NA	7.75	1.13	NA	NA	NA	NA	NA	NA	NA	NA
11-23-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07-11-11	5.77	2.45	5.75	2.47	7.10	2.10	5.79	2.74	5.51	2.16	5.74	3.14	NA	NA	5.15	2.32	5.90	NA	4.70	NA
04-04-12	6.32	1.90	6.60	1.62	7.76	1.44	6.97	1.56	6.18	1.49	6.69	2.19	NA	NA	5.65	1.82	6.36	NA	5.45	NA
07-23-12	5.45	2.77	4.98	3.24	6.14	3.06	4.98	3.55	5.04	2.63	5.07	3.81	NA	NA	4.76	2.71	5.52	NA	4.58	NA
02-12-13	6.26	1.96	6.59	1.86	7.76	1.44	NA	NA	6.09	1.58	6.65	2.23	NA	NA	5.60	1.87	6.41	NA	5.49	NA

TABLE 4: GROUNDWATER ELEVATION SUMMARY

DTW - depth to water

WTE - water table elevation

Facility Name: Former Rucks Water Treatment Plant/Pioneer Gardens, North Miami, Florida

All casing height elevations (TOC) in feet relative to NGVD (1929)

Well No.	MW-PG-1		MW-PG-2		MW-1		MW-2		MW-3		MW-4		MW-5		MW-7		MW-8		MW-9	
Diameter	2"		2"		2"		2"		2"		2"		2"		2"		2"		2"	
Well Depth	12'		12'		12'		12'		12'		12'		12'		12'		12'		12'	
TOC Elev.	7.69		7.50		7.33		7.85		8.27		8.07		7.50		7.94		7.41		9.13	
DATE	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**
06-30-08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11-11-08	5.62	2.07	5.49	2.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11-25-08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09-01-09	5.89	1.80	5.58	1.92	5.45	1.88	5.91	1.94	6.40	1.87	6.21	1.86	5.65	1.85	6.11	1.83	5.55	1.86	7.27	1.86
11-23-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07-11-11	5.42	2.27	5.17	2.33	5.01	2.32	5.18	2.67	5.77	2.50	NS	NA	5.25	2.25	5.75	2.19	5.00	2.41	6.45	2.68
04-04-12	5.97	1.72	5.57	1.93	5.40	1.93	6.15	1.70	6.35	1.92	6.12	1.95	5.60	1.90	6.00	1.94	5.51	1.90	7.20	1.93
07-23-12	4.91	2.78	5.14	2.36	4.96	2.37	4.57	3.28	5.12	3.15	5.77	2.30	5.14	2.36	5.68	2.26	4.95	2.46	6.30	2.83
02-12-13	5.95	1.74	5.54	1.96	NA	NA	6.07	1.78	6.30	1.97	6.09	1.98	5.55	1.95	5.97	1.97	5.48	1.93	7.15	1.98

Well No.	MW-10		MW-11		MW-12		MW-13		MW-14		MW-15		MW-16		MW-17		MW-18		MW-19	
Diameter	2"		2"		2"		2"		2"		2"		2"		2"		2"		2"	
Well Depth	12'		12'		12'		12'		12'		12'		12'		12'		12'		12'	
TOC Elev.	7.82		7.90		7.93		7.68		7.79		7.72		7.32		7.28		7.85		7.48	
DATE	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**	**DTW**	**WTE**
06-30-08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11-11-08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11-25-08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
09-01-09	5.90	1.92	6.00	1.90	6.07	1.86	5.79	1.89	5.95	1.84	5.85	1.87	5.40	1.92	5.36	1.92	5.91	1.94	5.57	1.91
11-23-10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
07-11-11	5.40	2.42	5.65	2.25	5.58	2.35	5.40	2.28	5.46	2.33	5.40	2.32	4.90	2.42	4.50	2.78	5.51	2.34	5.10	2.38
04-04-12	6.04	1.78	5.96	1.94	5.95	1.98	5.76	1.92	5.87	1.92	5.80	1.92	5.40	1.92	5.34	1.94	5.93	1.92	5.52	1.96
07-23-12	5.39	2.43	5.37	2.53	5.41	2.52	5.32	2.36	5.36	2.43	5.39	2.33	4.96	2.36	4.90	2.38	5.50	2.35	5.07	2.41
02-12-13	5.91	1.91	5.91	1.99	5.94	1.99	5.73	1.95	5.82	1.97	5.76	1.96	5.34	1.98	5.30	1.98	5.90	1.95	5.47	2.01

TABLE 5: GROUNDWATER SAMPLE ANALYTICAL SUMMARY

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE		LABORATORY ANALYSES																		
Well No.	Date Collected	Ammonia (mg/L)	Fecal Coliform cfu/100ml	Fecal Coliform MPN/100ml	Total Arsenic (mg/L)	Total Lead (mg/L)	Total Cadmium (mg/L)	Dieldrin (µg/L)	Naph-thalene (µg/L)	1-Methyl-naphthalene (µg/L)	2-Methyl-naphthalene (µg/L)	Acenaph-thene (µg/L)	Acenaph thylene (µg/L)	Anthra-cene (µg/L)	Benzo(a)-pyrene (µg/L)	Benzo(g,h,i) perylene (µg/L)	Fluor-anthene (µg/L)	Fluorene (µg/L)	Phen-anthrene (µg/L)	Pyrene (µg/L)
GCTL	-	2.8	1,000	50	0.01	0.015	0.005	0.002	14	28	28	20	210	2,100	0.2	210	280	280	210	210
		GROUNDWATER SAMPLE ANALYTICAL RESULTS																		
MW-Street Sweeping 1	06/30/08	NA	NA	NA	**0.595**	NA	NA	NA	<0.96	<0.48	<0.48	<0.96	<0.96	<0.96	<0.048	<0.096	<0.48		<0.96	<0.48
	09/01/09	NA	NA	NA	NA	NA	<0.000091	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/23/10	NA	NA	NA	0.0113	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	**25.8**	NA	NA	**1.130**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	04/02/12	**20.6**	NA	NA	**0.825**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/30/13	**14.2**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Street Sweeping 2	11/12/08	NA	NA	NA	**0.0978**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	**4.31**	NA	NA	**0.158**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Street Sweeping 3	11/12/08	NA	NA	NA	**0.858**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/23/10	NA	NA	NA	**0.587**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	0.632	NA	<8.0	**0.517**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-SS-3W	04/02/12	2.4	**1,600**	NA	**0.0178**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	04/10/12	NA	NA	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Street Sweeping 4	11/12/08	NA	NA	NA	**0.720**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/23/10	NA	NA	NA	**0.242**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	**3.63**	NA	NA	**0.453**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Street Sweeping 5	11/11/08	NA	NA	NA	**0.0291**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	0.306	NA	NA	0.0103	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Street Sweeping 1D	11/12/08	NA	NA	NA	**0.448**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	**35.9**	NA	NA	**0.264**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/30/13	**19.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Street Sweeping 2D (1I)	11/23/10	NA	NA	NA	**0.629**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	**23.8**	NA	NA	**0.765**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Street Sweeping-45D	04/02/12	1.1	NA	NA	0.0073i	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Pond	06/30/08	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/12/08	NA	NA	NA	NA	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/01/09	**12**	2.00	2.00	**0.023**	<0.00012	NA	NA	<0.015	<0.015	<0.015	0.021 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.013 i	<0.0049	<0.015
	07/13/11	**5.06**	NA	NA	**0.0249**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	1.5	NA	NA	**0.0332**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Nursery 1	06/30/08	NA	NA	NA	**0.0158(I)**	<0.002	NA	<0.0096	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/11/08	**6.2**	NA	NA	NA	NA	NA	<0.0096	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/01/09	**6.5**	<2.00	<2.00	0.0085	<0.00012	NA	NA	<0.015	<0.015	<0.015	0.014 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.0098 i	<0.0049	<0.015
	07/11/11	**4.42**	NA	NA	**0.0193**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Nursery 2	11/11/08	**11.7**	NA	NA	NA	NA	NA	<0.0095	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/01/09	**5.6**	<2.00	NA	**0.023**	<0.00012	NA	NA	<0.015	<0.015	<0.015	0.027	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.020 i	0.0061 i	<0.015
	07/13/11	**3.53**	NA	<8.0	**0.0247**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	**6.0**	NA	NA	0.0101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Nursery 3	11/11/08	**19.5**	NA	NA	NA	NA	NA	<0.0095	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	**6.77**	NA	<8.00	**0.0490**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Nursery 4	11/11/08	**15.0**	NA	NA	NA	NA	NA	<0.0097	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	2.68	NA	**1,600**	**0.016**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Nursery 5	11/11/08	2.1	NA	NA	NA	NA	NA	<0.0097	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	1.10	NA	NA	**0.0449**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Sludge 1	11/10/08	**3.77**	**7,900**	NA	**0.037**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	0.149	NA	**110**	0.0112	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-Sludge 2	11/10/08	NA	**1,360**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/13/11	0.597	NA	**1,600**	**0.0182**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5: GROUNDWATER SAMPLE ANALYTICAL SUMMARY

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE		LABORATORY ANALYSES																		
Well No.	Date Collected	Ammonia (mg/L)	Fecal Coliform cfu/100ml	Fecal Coliform MPN/100ml	Total Arsenic (mg/L)	Total Lead (mg/L)	Total Cadmium (mg/L)	Dieldrin (µg/L)	Naph-thalene (µg/L)	1-Methyl-naphthalene (µg/L)	2-Methyl-naphthalene (µg/L)	Acenaph-thene (µg/L)	Acenaph thylene (µg/L)	Anthra-cene (µg/L)	Benzo(a)-pyrene (µg/L)	Benzo(g,h,i) perylene (µg/L)	Fluor-anthene (µg/L)	Fluorene (µg/L)	Phen-anthrene (µg/L)	Pyrene (µg/L)
GCTL	-	2.8	1,000	50	0.01	0.015	0.005	0.002	14	28	28	20	210	2,100	0.2	210	280	280	210	210
		GROUNDWATER SAMPLE ANALYTICAL RESULTS																		
MW-Sludge-3	07/14/11	1.52	NA	**1,600**	**0.0151**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-PG-1	11/12/08	NA	NA	NA	**0.0278**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/01/09	**3.3**	<2.00	<2.00	0.0046	<0.00012	NA	NA	<0.015	<0.015	<0.015	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/14/11	1.41	NA	<8.00	0.009	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-PG-2	11/12/08	NA	NA	NA	0.0121	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	09/01/09	0.13	24.0	24.0	0.0043	<0.00012	NA	NA	<0.015	<0.015	<0.015	0.0058 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/11/11	NA	NA	NA	0.00450 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	09/01/09	0.85	<2.00	<2.00	**0.035**	<0.00012	NA	<0.0014	<0.015	<0.015	<0.015	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/11/11	0.237	NA	NA	**0.0678**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	NA	NA	NA	0.0108	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-2	09/01/09	**5.8**	22.0	NA	**0.053**	<0.00012	NA	<0.0014	<0.015	<0.015	<0.015	0.0076 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/11/11	**5.04**	NA	NA	**0.0253**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	**3.1**	NA	NA	**0.0222**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	09/01/09	**5.8**	**5,000**	NA	**0.037**	<0.00012	NA	<0.0014	<0.015	0.015 i	0.019 i	0.023 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.016 i	<0.0049	<0.015
	07/13/11	**2.97**	NA	<8.00	**0.0285**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	1.9	NA	23	**0.0459**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-4	09/02/09	**12**	252	NA	**0.040**	<0.00012	NA	<0.0014	0.019 i	<0.015	<0.015	0.0077 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/14/11	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	04/02/12	**4.5**	10 U	<MDL	0.0119	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	1.1	NA	NA	0.0079 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-5	09/02/09	2.7	580	NA	**0.092**	<0.00012	NA	NA	<0.015	<0.015	<0.015	0.034	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.018 i	<0.0049	<0.015
	07/13/11	0.569	NA	<8.0	**0.0623**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	0.65	NA	NA	**0.0586**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-7	09/03/09	**23**	<2.00	NA	**0.280**	<0.00012	NA	NA	0.036	0.024 i	0.031	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/14/11	**9.58**	NA	<8.00	0.00930	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	**7.2**	NA	NA	**0.228**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	01/30/13	NA	NA	NA	**0.144**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-8	09/03/09	**7.6**	<2.00	NA	0.005	<0.00012	NA	NA	0.028	0.023 i	0.024 i	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/14/11	**7.46**	NA	11.0	0.0102	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/23/12	**4.0**	NA	NA	0.007 i	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-9	09/03/09	**9.2**	**>1,000**	NA	**0.052**	<0.00012	NA	NA	0.063	0.062	0.061	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/14/11	**3.18**	NA	<8.00	0.00587	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	0.54	NA	20.0 U	0.0078 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-10	09/03/09	1.2	278	NA	**0.016**	<0.00012	NA	NA	0.034	0.028	0.033	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	0.016 i
	07/14/11	**3.18**	NA	17.0	0.00696	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	1.3	NA	2.0 U	0.0078 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-11	09/03/09	2.8	**22,500**	NA	**0.020**	<0.00012	NA	NA	0.05	0.034	0.042	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/14/11	1.49	NA	<8.00	0.00704	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	1.4	NA	2.0	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-12	09/03/09	2.7	200	NA	**0.063**	<0.00012	NA	NA	0.017 i	0.022 i	<0.015	0.027	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.0092 i	0.0096 i	<0.015
	07/14/11	0.594	NA	NA	**0.0168**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	**0.0174**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-13	09/02/09	2.1	<2.0	NA	**0.020**	<0.00012	NA	NA	<0.015	<0.015	<0.015	0.017 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.011 i	0.0069 i	<0.015
	07/14/11	1.30	NA	NA	**0.0195**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 5: GROUNDWATER SAMPLE ANALYTICAL SUMMARY

Facility Name: Former Rucks Water Treatment Plant/PioneerGardens, North Miami, Florida

SAMPLE		LABORATORY ANALYSES																		
Well No.	Date Collected	Ammonia (mg/L)	Fecal Coliform cfu/100ml	Fecal Coliform MPN/100ml	Total Arsenic (mg/L)	Total Lead (mg/L)	Total Cadmium (mg/L)	Dieldrin (µg/L)	Naph-thalene (µg/L)	1-Methyl-naphthalene (µg/L)	2-Methyl-naphthalene (µg/L)	Acenaph-thene (µg/L)	Acenaph thylene (µg/L)	Anthra-cene (µg/L)	Benzo(a)-pyrene (µg/L)	Benzo(g,h,i) perylene (µg/L)	Fluor-anthene (µg/L)	Fluorene (µg/L)	Phen-anthrene (µg/L)	Pyrene (µg/L)
GCTL	-	2.8	1,000	50	0.01	0.015	0.005	0.002	14	28	28	20	210	2,100	0.2	210	280	280	210	210
		GROUNDWATER SAMPLE ANALYTICAL RESULTS																		
MW-14	09/03/09	1.5	170	NA	**0.017**	<0.00012	NA	NA	<0.015	<0.015	<0.015	0.011 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/14/11	0.623	NA	NA	**0.161**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	0.0061 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-14E	04/02/12	0.960	NA	NA	0.0058i	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-15	09/01/09	2.1	790	NA	**0.031**	<0.00012	NA	NA	0.023 i	0.017 i	0.027	0.023 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.015 i	<0.0049	<0.015
	07/11/11	0.864	NA	NA	0.00792	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-16	09/01/09	1.6	700	NA	**0.022**	<0.00012	NA	NA	<0.015	<0.015	<0.015	0.0060 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.0044 i	<0.0049	<0.015
	07/11/11	1.06	NA	NA	0.00682	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-17	09/01/09	0.80	510	NA	0.0043	<0.00012	NA	NA	<0.015	<0.015	<0.015	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/11/11	NA	NA	NA	**0.0335**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-18	09/01/09	0.25	6.00	NA	0.011	<0.00012	NA	NA	<0.015	<0.015	<0.015	<0.0045	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	<0.0034	<0.0049	<0.015
	07/11/11	NA	NA	NA	0.00642	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-19	09/01/09	0.24	42.0	NA	**0.018**	<0.00012	NA	NA	0.0290	0.0300	0.024 i	0.023 i	<0.0027	<0.0031	<0.0043	<0.0048	<0.0060	0.012 i	<0.0049	<0.015
	07/11/11	NA	NA	NA	**0.0173**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	07/24/12	NA	NA	NA	0.005 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Equipment Blank	11/12/08	<0.050	960	NA	<0.0054	<0.002	NA	<0.0096	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
NS - Not Sampled; N/A - Not Applicable
Units are micrograms per liter (µg/L) or milligrams per liter (mg/L)

GCTL = Groundwater Cleanup Target Level established in Table 1, Miami-Dade County Code Chapter 24-11
Constituent concentrations denoted in **bold** exceed the GCTL established in Table 1, Miami-Dade County Code Chapter 24-11

TABLE 6: GROUNDWATER SAMPLING PLAN - JULY 2013

Monitoring Well	Proposed/ Existing	Sampling Parameter		
		Arsenic	Ammonia	Fecal Coliform
MW-Street Sweeping 1	Existing	X	X	
MW-Street Sweeping 2	Existing	X	X	
MW-Street Sweeping 3	Existing	X	X	X
MW-SS-3W	Existing	X	X	X
MW-Street Sweeping 4	Existing	X	X	
MW-Street Sweeping 5	Existing	X	X	
MW-Street Sweeping 1D	Existing	X	X	
MW-Street Sweeping 1I(30')	Existing	X	X	
MW-Street Sweeping 45D	Existing	X	X	
MW-Pond	Existing	X	X	
MW-Nursery 1	Existing	X	X	
MW-Nursery 2	Existing	X	X	X
MW-Nursery 3	Existing	X	X	X
MW-Nursery 4R	Existing	X	X	X
MW-Nursery 5	Existing	X	X	X
MW-Sludge 1	Existing	X	X	X
MW-Sludge 2	Existing	X	X	X
MW-Sludge 3	Existing	X	X	X
MW-PG-1	Existing	X	X	X
MW-PG-2	Existing	X		
MW-1	Existing	X	X	
MW-2	Existing	X	X	
MW-3	Existing	X	X	
MW-3I (30')	Proposed		X	
MW-4	Existing	X	X	X
MW-5	Existing	X	X	
MW-7	Existing	X	X	
MW-8	Existing	X	X	X
MW-9	Existing	X	X	
MW-10	Existing	X	X	X
MW-11	Existing	X	X	
MW-12	Existing	X		
MW-13	Existing	X	X	
MW-14	Existing	X	X	
MW-14E	Existing	X		
MW-15	Existing	X		
MW-16	Existing	X		
MW-17	Existing	X		
MW-18	Existing	X		
MW-19	Existing	X		

Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

Facility/Site Name: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-1 0-2'
Sample Date 01/25/2013 10:45
Location:
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	0.031	1.0	0.0310
Benzo(a)anthracene	0.027	0.1	0.0027
Benzo(b)fluoranthene	0.065	0.1	0.0065
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.037	0.001	0.0000
Dibenz(a,h)anthracene	0.005	1.0	0.0050
Indeno(1,2,3-cd)pyrene	0.022	0.1	0.0022

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

Total Benzo(a)pyrene Equivalents = 0.047

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-1 2'-4'
Sample Date 01/25/2013 10:45
Location:
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	0.015	1.0	0.0150
Benzo(a)anthracene	0.017	0.1	0.0017
Benzo(b)fluoranthene	0.015	0.1	0.0015
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.018	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.025

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-2 0-2'
Sample Date 01/25/2013 10:25
Location:
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	0.020	1.0	0.0200
Benzo(a)anthracene	0.021	0.1	0.0021
Benzo(b)fluoranthene	0.044	0.1	0.0044
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.029	0.001	0.0000
Dibenz(a,h)anthracene	0.005	1.0	0.0050
Indeno(1,2,3-cd)pyrene	0.015	0.1	0.0015

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

Total Benzo(a)pyrene Equivalents = 0.033

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-2 2-4'
Sample Date 01/25/2013 10:25
Location:
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	0.017	1.0	0.0170
Benzo(a)anthracene	0.021	0.1	0.0021
Benzo(b)fluoranthene	0.014	0.1	0.0014
Benzo(k)fluoranthene	0.011	0.01	0.0001
Chrysene	0.024	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.027

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-3 0-6"
Sample Date 01/25/2013 10:05
Location:
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	0.013	1.0	0.0130
Benzo(a)anthracene	0.012	0.1	0.0012
Benzo(b)fluoranthene	0.014	0.1	0.0014
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.016	0.001	0.0000
Dibenz(a,h)anthracene	0.005	1.0	0.0050
Indeno(1,2,3-cd)pyrene	0.007	0.1	0.0007

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

Total Benzo(a)pyrene Equivalents = 0.021

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-3 6"-2'
Sample Date 01/25/2013 10:05
Location:
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	0.025	1.0	0.0250
Benzo(a)anthracene	0.022	0.1	0.0022
Benzo(b)fluoranthene	0.054	0.1	0.0054
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.027	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
Indeno(1,2,3-cd)pyrene	0.018	0.1	0.0018

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

Total Benzo(a)pyrene Equivalents = 0.040

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-3 2'-4'
Sample Date 01/25/2013 10:05
Location:
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	0.035	1.0	0.0350
Benzo(a)anthracene	0.034	0.1	0.0034
Benzo(b)fluoranthene	0.076	0.1	0.0076
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.039	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.054

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-5 0-6"
Sample Date 01/25/2013 11:30
Location:
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	0.730	1.0	0.7300
Benzo(a)anthracene	0.570	0.1	0.0570
Benzo(b)fluoranthene	1.100	0.1	0.1100
Benzo(k)fluoranthene	0.440	0.01	0.0044
Chrysene	0.720	0.001	0.0007
Dibenz(a,h)anthracene	0.150	1.0	0.1500
Indeno(1,2,3-cd)pyrene	0.530	0.1	0.0530

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

Total Benzo(a)pyrene Equivalents = 1.11

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

The concentration shown EXCEEDS 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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-5 6"-2'
Sample Date 01/25/2013 11:30
Location:
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	0.049	1.0	0.0490
Benzo(a)anthracene	0.037	0.1	0.0037
Benzo(b)fluoranthene	0.086	0.1	0.0086
Benzo(k)fluoranthene	0.029	0.01	0.0003
Chrysene	0.050	0.001	0.0001
Dibenz(a,h)anthracene	0.013	1.0	0.0130
Indeno(1,2,3-cd)pyrene	0.041	0.1	0.0041

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

Total Benzo(a)pyrene Equivalents = 0.079

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-5 2'-3'
Sample Date 01/25/2013 11:30
Location:
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	0.008	1.0	0.0080
Benzo(a)anthracene	0.011	0.1	0.0011
Benzo(b)fluoranthene	0.014	0.1	0.0014
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.006	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.017

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-6 0-6"
Sample Date 01/25/2013 11:25
Location:
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	3.300	1.0	3.3000
Benzo(a)anthracene	2.400	0.1	0.2400
Benzo(b)fluoranthene	6.500	0.1	0.6500
Benzo(k)fluoranthene	0.020	0.01	0.0002
Chrysene	3.900	0.001	0.0039
Dibenz(a,h)anthracene	0.590	1.0	0.5900
Indeno(1,2,3-cd)pyrene	2.400	0.1	0.2400

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

Total Benzo(a)pyrene Equivalents = 5.02

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

The concentration shown EXCEEDS 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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-6 6"-2'
Sample Date 01/25/2013 11:25
Location:
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	0.031	1.0	0.0310
Benzo(a)anthracene	0.030	0.1	0.0030
Benzo(b)fluoranthene	0.058	0.1	0.0058
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.038	0.001	0.0000
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 = 0.047

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-6 2'-3'
Sample Date 01/25/2013 11:25
Location:
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	0.005	1.0	0.0050
Benzo(a)anthracene	0.006	0.1	0.0006
Benzo(b)fluoranthene	0.014	0.1	0.0014
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.006	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.014

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-7 0-6"
Sample Date 01/25/2013 11:20
Location:
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	9.100	1.0	9.1000
Benzo(a)anthracene	6.700	0.1	0.6700
Benzo(b)fluoranthene	17.900	0.1	1.7900
Benzo(k)fluoranthene	18.500	0.01	0.1850
Chrysene	11.000	0.001	0.0110
Dibenz(a,h)anthracene	1.800	1.0	1.8000
Indeno(1,2,3-cd)pyrene	6.400	0.1	0.6400

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

Total Benzo(a)pyrene Equivalents = 14.2

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

The concentration shown EXCEEDS 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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-7 6"-2'
Sample Date 01/25/2013 11:20
Location:
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	0.500	1.0	0.5000
Benzo(a)anthracene	0.360	0.1	0.0360
Benzo(b)fluoranthene	0.710	0.1	0.0710
Benzo(k)fluoranthene	0.290	0.01	0.0029
Chrysene	0.480	0.001	0.0005
Dibenz(a,h)anthracene	0.096	1.0	0.0960
Indeno(1,2,3-cd)pyrene	0.360	0.1	0.0360

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

Total Benzo(a)pyrene Equivalents = 0.742

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-7 2'-3'
Sample Date 01/25/2013 11:20
Location:
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	0.002	1.0	0.0020
Benzo(a)anthracene	0.006	0.1	0.0006
Benzo(b)fluoranthene	0.015	0.1	0.0015
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.007	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.011

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-8 0-6"
Sample Date 01/25/2013 11:10
Location:
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	21.200	1.0	21.2000
Benzo(a)anthracene	19.500	0.1	1.9500
Benzo(b)fluoranthene	30.100	0.1	3.0100
Benzo(k)fluoranthene	0.022	0.01	0.0002
Chrysene	21.100	0.001	0.0211
Dibenz(a,h)anthracene	4.800	1.0	4.8000
Indeno(1,2,3-cd)pyrene	16.400	0.1	1.6400

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

Total Benzo(a)pyrene Equivalents = 32.6

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

The concentration shown EXCEEDS 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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-8 6"-2'
Sample Date 01/25/2013 11:10
Location:
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	0.250	1.0	0.2500
Benzo(a)anthracene	0.200	0.1	0.0200
Benzo(b)fluoranthene	0.480	0.1	0.0480
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.280	0.001	0.0003
Dibenz(a,h)anthracene	0.050	1.0	0.0500
Indeno(1,2,3-cd)pyrene	0.170	0.1	0.0170

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

Total Benzo(a)pyrene Equivalents = 0.385

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-8 2'-3'
Sample Date 01/25/2013 11:10
Location:
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	0.002	1.0	0.0020
Benzo(a)anthracene	0.006	0.1	0.0006
Benzo(b)fluoranthene	0.014	0.1	0.0014
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.007	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.011

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-11 0-6"
Sample Date 01/25/2013 08:55
Location:
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	0.130	0.1	0.0130
Benzo(b)fluoranthene	0.240	0.1	0.0240
Benzo(k)fluoranthene	0.019	0.01	0.0002
Chrysene	0.150	0.001	0.0002
Dibenz(a,h)anthracene	0.025	1.0	0.0250
Indeno(1,2,3-cd)pyrene	0.093	0.1	0.0093

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

Total Benzo(a)pyrene Equivalents = 0.202

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-11 6-2'
Sample Date 01/25/2013 08:55
Location:
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	0.002	1.0	0.0020
Benzo(a)anthracene	0.005	0.1	0.0005
Benzo(b)fluoranthene	0.013	0.1	0.0013
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.006	0.001	0.0000
Dibenz(a,h)anthracene	0.005	1.0	0.0050
Indeno(1,2,3-cd)pyrene	0.007	0.1	0.0007

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

Total Benzo(a)pyrene Equivalents = 0.010

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-11 2'-4'
Sample Date 01/25/2013 08:55
Location:
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	0.002	1.0	0.0020
Benzo(a)anthracene	0.006	0.1	0.0006
Benzo(b)fluoranthene	0.014	0.1	0.0014
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.006	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.011

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-12 0-2'
Sample Date 01/25/2013 09:45
Location:
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	0.120	1.0	0.1200
Benzo(a)anthracene	0.110	0.1	0.0110
Benzo(b)fluoranthene	0.230	0.1	0.0230
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.150	0.001	0.0002
Dibenz(a,h)anthracene	0.022	1.0	0.0220
Indeno(1,2,3-cd)pyrene	0.086	0.1	0.0086

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

Total Benzo(a)pyrene Equivalents = 0.185

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-12 2-3'
Sample Date 01/25/2013 09:45
Location:
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	0.011	1.0	0.0110
Benzo(a)anthracene	0.013	0.1	0.0013
Benzo(b)fluoranthene	0.015	0.1	0.0015
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.007	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.021

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-13 0-2'
Sample Date 01/25/2013 09:35
Location:
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	0.150	1.0	0.1500
Benzo(a)anthracene	0.095	0.1	0.0095
Benzo(b)fluoranthene	0.190	0.1	0.0190
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.140	0.001	0.0001
Dibenz(a,h)anthracene	0.029	1.0	0.0290
Indeno(1,2,3-cd)pyrene	0.088	0.1	0.0088

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

Total Benzo(a)pyrene Equivalents = 0.216

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-13 2'-3'
Sample Date 01/25/2013 09:35
Location:
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	0.003	1.0	0.0030
Benzo(a)anthracene	0.006	0.1	0.0006
Benzo(b)fluoranthene	0.016	0.1	0.0016
Benzo(k)fluoranthene	0.005	0.01	0.0001
Chrysene	0.008	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.012

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-14 0-2"
Sample Date 01/25/2013 09:25
Location:
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	0.041	1.0	0.0410
Benzo(a)anthracene	0.037	0.1	0.0037
Benzo(b)fluoranthene	0.074	0.1	0.0074
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.043	0.001	0.0000
Dibenz(a,h)anthracene	0.005	1.0	0.0050
Indeno(1,2,3-cd)pyrene	0.028	0.1	0.0028

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

Total Benzo(a)pyrene Equivalents = 0.060

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: Jan '13 Soils/Pioneer Gardens
Location:
Facility/Site ID No.:

Soil Sample No. OS-14 2-4"
Sample Date 01/25/2013 09:25
Location:
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	0.012	1.0	0.0120
Benzo(a)anthracene	0.017	0.1	0.0017
Benzo(b)fluoranthene	0.014	0.1	0.0014
Benzo(k)fluoranthene	0.004	0.01	0.0000
Chrysene	0.014	0.001	0.0000
Dibenz(a,h)anthracene	0.006	1.0	0.0060
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 = 0.022

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

APPENDIX E

FIELD NOTES

REP ASSOCIATES INC.
ENVIRONMENTAL CONSULTANTS & ENGINEERS

ECO ADVISORS, LLC
Engineering A Sustainable Future

3931 RCA Blvd. Suite 3114, Palm Beach Gardens, FL. 33410
PH: (561) 627 1810 FX: (561) 627 2270

Field Notes

Job #: Pioneer Gardens	Client: City of N Miami			
REP Associates/Eco Advisors Representative: ADW	Date: 1/25/13	Arrived: 0830	Departed: 1215	Weather Conditions:
Purpose of Site Visit: Soil assess - off-site				

Time:	Chronology of Events:
0830	Arrive on-site. Driller on site.
	Look at adjacent property access for samples
	west of nursery area. no problems
0840	Meet with Luis Cotera & review other utility
	markings & white line locations
	Luis will mark main lines on property east
	gate. Asked for contact for east pump station
	Ray Argiola or Aroldo Hernandez. left message.
0850	Safety meeting w/ driller - set up at first location
0855	OS-11 0-6" lime rock fill
	6"-2' lt to med grey qtz sand
	2-4' (WT) ↓
0905	OS-9 0-6" dk brown top soil
	6"-2' lime rock fill / tan clay w/ dark striations
	2'-3' (WT)
0915	OS-10 0-6" grass dk brown top soil
	across street 6"-2' med to dk brown top soil / med tan clayey sand
	2'-3' (WT) tan clay.
0925	OS-14 0-2' med to light brown
	2-4' (WT) qtz sand.
0935	OS-13 0-2' top soil / med to light grey qtz sand w/ lime rock frag
	2-3' (WT) light to med grey qtz sand - @3' dk brn clay layer sand.
0945	OS-12 0-2' med. grey qtz sand w/ lime rock frag
	2-3' (WT) med-grey qtz sand.
1000	Meet stormwater crew @ lift station on w/ NW side.
1005	OS-3 0-6" top soil / grass
	6-2' med brown qtz sand w/ limerock frag.
	2-4' med to dk brown

All field activities were performed in strict compliance with REP's Corporate Health and Safety Manual.
All sampling procedures were performed in accordance with Florida Department of Environmental Protection Standard Operating Procedures.

Signed: Alan D. Wehrhynsky

REP ASSOCIATES INC.
ENVIRONMENTAL CONSULTANTS & ENGINEERS

ECO ADVISORS, LLC
Engineering A Sustainable Future

3931 RCA Blvd. Suite 3114, Palm Beach Gardens, FL. 33410
PH: (561) 627 1810 FX: (561) 627 2270

Field Notes

Job #: Pioneer Gardens.	Client: City of N. Miami			
REP Associates/Eco Advisors Representative: ADW	Date: 1/25/13	Arrived: 0830	Departed: 1215	Weather Conditions:
Purpose of Site Visit: Off site soil assess.				

Time:	Chronology of Events:		
1025	OS-2	0-2'	med tan qtz sand w/ lime rock frag
		2-4'(WT)	med brown " " " " "
1045	OS-1	0-2	
		2-4'(WT)	same
1055	move to west side of Nursery at adjacent prop.		
	start South - move North.		
1110	OS-8	0-6"	topsoil dk brown / roots
		6"-2'	med to dk brown qtz sand w/ lime rock
		2-3'(WT)	
1120	OS-7	0-6"	sample wet / must be draining area for run off. (grass top soil)
		6"-2'	med to dk brown qtz sand w/ lime rock frag.
		2-3'(WT)	
1125	OS-6	0-6"	
		6"-2'	same
		2-3'(WT)	
1130	OS-5	0-6"	
		6"-2'	same
		2-3'(WT)	
1145	finish sample chain of custody & cooler packing		
1215	Depart site. for laboratory.		

All field activities were performed in strict compliance with REP's Corporate Health and Safety Manual.
All sampling procedures were performed in accordance with Florida Department of Environmental Protection Standard Operating Procedures.

Signed: Alan D. Wetoshynsky

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CHAIN OF CUSTODY RECORD

LAB W.O #_____ Quote: 01112013 Page 1 of 4

Company Name: Eco Advisors PO#
Address: 3931 RCA Blvd Suite 3104
City: PBG State: FL Zip: 33410
Attn: Alan Wolchynsky Fax#
email: [illegible] Phone:
Project Name: Pioneer Gardens Proj # JAN 13 soil
Sampler Signature: [illegible]
Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A

LAB ANALYSIS

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity Ok(Y/N)	Total # of containers	Arsenic (31)	PAH (28)	Dieldrin (9)	Spec Dieldrin (3)						EXAMPLE Diss. Lead 6010
																	# of Containers / Size/Type: 1 / 16ozP
1	OS-11 0-6"	11/25/13	0855	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
2	OS-11 6"-2'		0855	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
3	OS-11 2'-4'		0855	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
4	OS-9 0-6"		0905	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
5	OS-9 6"-2'		0905	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
6	OS-9 2'-3'		0905	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
7	OS-10 0-6"		0915	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
8	OS-10 6"-2'		0915	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
9	OS-10 2'-3'		0915	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	
10	OS-14 0-2'		0925	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐	☐	

Sample TRC pH Pres Codes

REMARKS

OS for off-site

Circle T.A.T. REQUEST (Push Fees Approved): Standard: Y N; PUSH: Today 1D 2D 3D 4D 5D ___
Short Hold: Y____ N____
Circle QA/QC Report Level: 1 2 3 4 CLP AFCEE QAPP Other_____
EDD (Fees May Apply): ADaPT SEDD ERPIMS TSV CSV Other _____
COC Condition: OK Incomplete
Required State Certification: FL GA SC NC NJ PA LA TX IL ___
Coolers #'s - Temp °C: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	Alan Dulchynsky	Eco	11/25/13	1245	[illegible]	[illegible]	11/25	[illegible]
2								
3								
4								

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Z	Ziploc bag
AP	Amber Plastic	TB	Tedlar bag
AG	Amber Glass	WP	Whirl pak
SJ	Soil Jar	G	Gallon Jug
Other_____		TC	Terra-core

PPV Prepreserved vial
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, other_____ 40ml 500ml 250ml 125 ml
Example: 4ozP = 4oz Plastic, 8ozSJ= 8oz Soil Jar

Matrix Codes

SD	Solid Waste	OL	Oil
GW	Ground Water	SL	Sludge
EFF	Effluent	SO	Soil Sediment
AFW	Analyte Free H20	AQ	Aqueous
WW	Waste Water	NA	Nonaqueous
DW	Drinking Water	PE	Petroleum
SW	Surface Water	O	Other_____ (Please specify)
ML	Misc. Liquid		

Preservative Type Codes

A. None	E. HCL	I. Ice
B. HNO3	F. MeOH	J. MCAA
C. H2SO4	G. Na2S2O3	K. Zn Acetate
D. NaOH	H. NaHSO4	O. Other

Lab Use Only	YES	NO	N/A
Non-Conformance Found?			
Samples INTACT upon arrival?			
Received on Wet Ice?			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals intact?			
Volatiles rec'd without headspace?			
Proper Containers Used?			

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CHAIN OF CUSTODY RECORD

LAB W.O #_____ Quote: 01112013 Page 2 of 4

Company Name: Eco Advisors PO#
Address: 2931 RCA Blvd Suite 3114
City: Palm Beach Gardens State: FL Zip: 33410
Attn: Alexandra Wolbarsky Fax#
email: awolbarsky@ericksonc.net Phone:
Project Name: Pioneer Gardens Proj #: Jan'13 Soils
Sampler Signature: [signature]
Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A

LAB ANALYSIS

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers	Arsenic	PAH	Deldrin	SPLP Duskin						EXAMPLE Diss. Lead 6010
								# of Containers / Size/Type									1 / 16ozP
1	OS-14 2-4'	1/25/13	0925	S	N		1		1								
2	OS-13 0-2'		0935	S	N		1		1								
3	OS-13 2-3'		0935	S	N		1		1								
4	OS-12 0-2'		0945	S	N		1		1								
5	OS-12 2-3'		0945	S	N		1		1								
6	OS-3 0-6'		1005	S	N		1		1								
7	OS-3 6"-2'		1005	S	N		1		1								
8	OS-3 2'-4'		1005	S	N		1		1								
9	OS-2 0-2'		1025	S	N		1		1								
10	OS-2 2-4'		1025	S	N		1		1								

Parameters

Sample / TRC / pH / Pres Codes

Circle T.A.T. REQUEST (Rush Fees Apply)
Standard: Y / N
PUSH: Today 1D 2D 3D 4D 5D ___

Short Hold: Y____ N____

Circle QA/QC Report Level: 1 2 3 4 CLP AFCEE QAPP Other_____

EDD (Fees May Apply): ADaPT SEDD ERPIMS TSV CSV Other_____

COC Condition: OK Incomplete

Required State Certification: FL GA SC NC NJ PA LA TX IL ___

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[signature]	ECC	1/25/13	1245	[signature]	[signature]	1/25	1245
2								
3								
4								

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Z	Ziploc bag
AP	Amber Plastic	TB	Tedlar bag
AG	Amber Glass	WP	Whirl pak
SJ	Soil Jar	G	Gallon Jug
Other_____		TC	Terra-core

PPV Prepreserved vial
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, other_____ 40ml 500ml 250ml 125 ml
Example: 4ozP = 4oz Plastic, 8ozSJ= 8oz Soil Jar

Matrix Codes

SD	Solid Waste	OL	Oil
GW	Ground Water	SL	Sludge
EFF	Effluent	SO	Soil Sediment
AFW	Analyte Free H20	AQ	Aqueous
WW	Waste Water	NA	Nonaqueous
DW	Drinking Water	PE	Petroleum
SW	Surface Water	O	Other_____ (Please specify)
ML	Misc. Liquid		

Preservative Type Codes

A. None	E. HCL	I. Ice
B. HNO3	F. MeOH	J. MCAA
C. H2SO4	G. Na2S2O3	K. Zn Acetate
D. NaOH	H. NaHSO4	O. Other

REMARKS

OS for off-site

Coolers #'s - Temp °C: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___

Lab Use Only	YES	NO	N/A
Non-Conformance Found?			
Samples INTACT upon arrival?			
Received on Wet Ice?			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatiles rec'd without headspace?			
Proper Containers Used?			

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CHAIN OF CUSTODY RECORD

LAB W.O #_____ Quote: 01112013 Page 3 of 4

Company Name: Eco Advisors PO#
Address:
City: State: Zip:
Attn: Fax#
email: Phone:
Project Name: Pioneer Gardens Proj #
Sampler Signature: [illegible] Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A

LAB ANALYSIS

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers	Arsenic	PAH	Deldrin	SPLP Deldrin					EXAMPLE Diss. Lead 6010	REMARKS
																# of Containers / Size/Type	
																1 / 16ozP	
1	OS-1 0-2'	11/25/13	1045	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
2	OS-1 2-4'		1045	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
3	OS-4 0-6'		1055	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
4	OS-4 6"-2'		1055	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
5	OS-4 2'-4'		1055	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
6	OS-8 0-6"		1110	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
7	OS-8 6"-2'		1110	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
8	OS-8 2'-3'		1110	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
9	OS-7 0-6'		1120	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		
10	OS-7 6"-2'		1120	S	N		1	☐	☐	☐	☐	☐	☐	☐	☐		

Circle T.A.T. REQUEST (Rush Fees Approval)
Standard: Y N
RUSH: Today 1D 2D 3D 4D 5D ___

Short Hold: Y____ N____

Circle QA/QC Report Level: 1 2 3 4 CLP AFCEE QAPP Other_____

EDD (Fees May Apply): ADaPT SEDD ERPIMS TSV CSV Other_____

COC Condition: OK Incomplete

Required State Certification: FL GA SC NC NJ PA LA TX IL ___

Coolers #'s - Temp °C: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[illegible]	Eco	11/25/13	1245	[illegible]	[illegible]	11/25	12:45
2								
3								
4								

Lab Use Only	YES	NO	N/A
Non-Conformance Found?			
Samples INTACT upon arrival?			
Received on Wet Ice?			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatiles rec'd without headspace?			
Proper Containers Used?			

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Z	Ziploc bag
AP	Amber Plastic	TB	Tedlar bag
AG	Amber Glass	WP	Whirl pak
SJ	Soil Jar	G	Gallon Jug
Other_____		TC	Terra-core

PPV Prepreserved vial
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, other_____
40ml 500ml 250ml 125 ml
Example: 4ozP = 4oz Plastic, 8ozSJ= 8oz Soil Jar

Matrix Codes

SD	Solid Waste	OL	Oil
GW	Ground Water	SL	Sludge
EFF	Effluent	SO	Soil Sediment
AFW	Analyte Free H20	AQ	Aqueous
WW	Waste Water	NA	Nonaqueous
DW	Drinking Water	PE	Petroleum
SW	Surface Water	O	Other_____ (Please specify)
ML	Misc. Liquid		

Preservative Type Codes

A. None	E. HCL	I. Ice
B. HNO3	F. MeOH	J. MCAA
C. H2SO4	G. Na2S2O3	K. Zn Acetate
D. NaOH	H. NaHSO4	O. Other

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CHAIN OF CUSTODY RECORD

LAB W.O #_____ Quote: 011203 Page 4 of 4

Company Name: Eco Advisors PO#

Address:

City: State: Zip:

Attn: Fax#

email: Phone:

Project Name: Pioneer Gardens Proj # Jan 13 soils

Sampler Signature: Circle One Event: Daily Weekly Monthly Quartely Semi-Annual Annual N/A

LAB ANALYSIS

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers	Parameters: Arsenic	PAH	Dieldrin	SPLP Barium						EXAMPLE Diss. Lead 6010
								# of Containers Size/Type									1 16ozP
1	DS-7 2'-3'	1/25/13	1120	S	N		1	1	1	1							
2	DS-6 0-6"		1125	S	N		1	1	1								
3	DS-6 6'-2'		1125	S	N		1	1	1								
4	DS-6 2'-3'		1125	S	N		1	1	1								
5	DS-5 0-6"		1120	S	N		1	1	1								
6	DS-5 6"-2'		1130	S	N		1	1	1								
7	DS-5 2'-3'		1130	S	N		1	1	1								
8																	
9																	
10																	

Circle T.A.T. REQUEST (Rush Fees Approved): Standard Y N; PUSH Today 1D 2D 3D 4D 5D ___

Short Hold: Y____ N____

Circle QA/QC Report Level: 1 2 3 4 CLP AFCEE QAPP Other_____

EDD (Fees May Apply): ADaPT SEDD ERPIMS TSV CSV Other _____

COC Condition: OK Incomplete

Required State Certification: FL GA SC NC NJ PA LA TX IL ___

Coolers #'s - Temp °C: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1	[illegible]	Eco	1/25/13	1245	[illegible]	[illegible]	1/25	[illegible]
2								
3								
4								

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Z	Ziploc bag
AP	Amber Plastic	TB	Tedlar bag
AG	Amber Glass	WP	Whirl pak
SJ	Soil Jar	G	Gallon Jug
Other_____		TC	Terra-core

PPV Prepreserved vial

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, other_____ 40ml 500ml 250ml 125 ml

Example: 4ozP = 4oz Plastic, 8ozSJ= 8oz Soil Jar

Matrix Codes

SD	Solid Waste	OL	Oil
GW	Ground Water	SL	Sludge
EFF	Effluent	SO	Soil Sediment
AFW	Analyte Free H20	AQ	Aqueous
WW	Waste Water	NA	Nonaqueous
DW	Drinking Water	PE	Petroleum
SW	Surface Water	O	Other_____ (Please specify)
ML	Misc. Liquid		

Preservative Type Codes

A. None	E. HCL	I. Ice
B. HNO3	F. MeOH	J. MCAA
C. H2SO4	G. Na2S2O3	K. Zn Acetate
D. NaOH	H. NaHSO4	O. Other

REMARKS

Lab Use Only	YES	NO	N/A
Non-Conformance Found?			
Samples INTACT upon arrival?			
Received on Wet Ice?			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals Intact?			
Volatiles rec'd without headspace?			
Proper Containers Used?			

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: City of North Miami - Pioneer Gardens	SITE LOCATION: North Miami, Florida
WELL NO: MW- 7	SAMPLE ID: MW - 7	DATE: ~~07/ /2011~~ 1-29-13

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4"	WELL SCREEN INTERVAL DEPTH: 14 feet to 4 feet	STATIC DEPTH TO WATER (feet): 6.06	PURGE PUMP TYPE OR BAILER: AP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) 8.00 = (14 feet – 6.06 feet) X 0.16 gallons/foot = 1.28 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): 7.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.5	PURGING INITIATED AT: 2:10	PURGING ENDED AT: 2:45	TOTAL VOLUME PURGED (gallons): 3.5

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	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
225	1.5	1.5	0.1	6.22	6.56	25.45	1197	0.80	57.0	Brown	None
230	.5	2.0	0.1	6.22	6.57	25.43	1201	0.67	28.6	Lt Br	1
235	.5	2.5	0.1	6.22	6.56	25.38	1202	0.62	15.9	Yellow	1
240	.5	3	0.1	6.22	6.56	25.42	1202	0.56	12.7	Yellow	1
245	.5	3.5	0.1	6.22	6.56	25.43	1203	0.51	10.5	Yellow	1

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: David Story Eco Advisors/Allson W. & ~~Tom~~ W.	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 2:50	SAMPLING ENDED AT: 2:55
PUMP OR TUBING DEPTH IN WELL (feet): 7.5	TUBING MATERIAL CODE: AP	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (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			
MW-7	1	PE	250 mL	none	none	---	Arsenic	APP	<500
	~~1~~	~~PE~~	~~250 mL~~	~~none~~	~~none~~	~~---~~	~~Ammonia~~	~~APP~~	~~<500~~

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** = 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:** ± 5% **Dissolved Oxygen:** all readings ≤ 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 ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: City of North Miami - Pioneer Gardens	SITE LOCATION: North Miami, Florida
WELL NO: MW-Street Sweeping	SAMPLE ID: MW-Street Sweeping	DATE: 07/~~____~~/2011 1-29-13

PURGING DATA

WELL DIAMETER (inches): 2	TUBING DIAMETER (inches): 1/4"	WELL SCREEN INTERVAL DEPTH: 5 feet to 15 feet	STATIC DEPTH TO WATER (feet): 6.54	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) 8.46 = (15 feet – 6.54 feet) X 0.16 gallons/foot = 1.35 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): 8	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8	PURGING INITIATED AT: 115	PURGING ENDED AT: 145	TOTAL VOLUME PURGED (gallons): 2.5

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	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
130	1.5	1.5	0.1	6.80	6.78	25.61	1728	0.79	8.33	Yellow	None
135	.5	2.0	0.1	6.80	6.81	25.55	1723	0.68	7.50	|	|
140	.5	2.5	0.1	6.86	6.78	25.46	1717	0.64	5.71	|	|

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: Eco Advisors/~~Alison W. & Tom W.~~ Donald Stacy	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1:50	SAMPLING ENDED AT: 1:55
PUMP OR TUBING DEPTH IN WELL (feet): 8	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (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			
~~→~~	~~1~~	~~PE~~	~~250 mL~~	~~none~~	~~none~~	~~---~~	~~Arsenic~~	~~APP~~	~~<500~~
MW-SS	1	PE	250 mL	none	none	---	Ammonia	APP	<500

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** = 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:** ± 5% **Dissolved Oxygen:** all readings ≤ 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 ± 10% (whichever is greater)

Revision Date: February 12, 2009

Form FD 9000-24

GROUNDWATER SAMPLING LOG

SITE NAME: City of North Miami - Pioneer Gardens	SITE LOCATION: North Miami, Florida
WELL NO: MW-Street Sweeping-1D / SAMPLE ID: MW-Street Sweeping-1D	DATE: ~~07/~~ /2011 1-29-11

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches): 1/4"	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 4.57	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) 26.43 = (25 feet – 4.57 feet) X 0.16 gallons/foot = 3.27 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): 6	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 6	PURGING INITIATED AT: 1225	PURGING ENDED AT: 1100	TOTAL VOLUME PURGED (gallons): 5.5

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	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1245	4	4	0.2	4.68	6.83	25.93	8.33	0.98	2.44	Yellow	None
1250	.5	4.5	0.1	4.63	6.82	25.93	8.78	1.22	3.11		
1255	.5	5	0.1	4.63	6.81	26.05	8.85	1.17	5.02		
100	.5	5.5	0.1	4.63	6.80	26.11	8.88	1.09	6.78		

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: Eco Advisors/Alison W. & Tom W.	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1105	SAMPLING ENDED AT: 1110
PUMP OR TUBING DEPTH IN WELL (feet): 6	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: _____ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N (replaced))	DUPLICATE: Y (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			
~~—~~	~~1~~	~~PE~~	~~250 mL~~	~~none~~	~~none~~		~~Arsenic~~	~~APP~~	~~<500~~
MW-551D	1	PE	250 mL	none	none	---	Ammonia	APP	<500

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** = 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.

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pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 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 ± 10% (whichever is greater)

Revision Date: February 12, 2009

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY RECORD

LAB W.O #_____ Quote:_____ Page___of___

Company Name: Eco Advisors PO#
Address: 3931 RCA BLVD #3114
City: PB Gardens State: FL Zip: 33410
Attn: Andrew Drescher, W. Todd Fax#
email: adrescher@ecoadvisors.net Phone: 561-627-1810
Project Name: Minear Gardens Proj #
Sampler Signature:
Circle One Event: Daily Weekly Monthly Quartely Semi-Annual Annual N/A

LAB ANALYSIS

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code*	Field Filtered	Integrity OK(Y/N)	Total # of containers	Ammonia	Arsenic								EXAMPLE Diss. Lead 6010	REMARKS
																	# of Containers / Size/Type	
																	1 / 16ozP	
1	MW-Shed Sweep ID	1-29-13	1:05	GW			1	✓										
2	MW-Shed Sweep		1:50				1	✓										
3	MW-7		2:50				1		✓									
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Parameters: Sample, TRC, pH, Pres Codes

Circle T.A.T. REQUEST (Rush Fees Approved) Standard	RUSH	Short Hold	Circle QA/QC Report Level	EDD (Fees May Apply)		COC Condition	Required State Certification
Y N	Today 1D 2D 3D 4D 5D ___	Y____ N____	1 2 3 4 CLP AFCEE QAPP Other_____	ADaPT SEDD ERPIMS TSV CSV Other_____		OK Incomplete	FL GA SC NC NJ PA LA TX IL ___

Item	Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
1		ECO	1-29-13	3:23			1/29/13	15:23
2								
3								
4								

Container Type Codes

AV	Amber Vial	ES	Encore Sampler
CV	Clear Vial	PPV	Prepreserved vial
P	Plastic	PL C	Plastic container
AL	Amber Liter	PL J	Plastic Jar
CL	Clear Liter	Z	Ziploc bag
AP	Amber Plastic	TB	Tedlar bag
AG	Amber Glass	WP	Whirl pak
SJ	Soil Jar	G	Gallon Jug
Other_____		TC	Terra-core

PPV Prepreserved vial
Size(s): 2oz, 4oz, 8oz, 16oz, 32oz or 1L, other_____
40ml 500ml 250ml 125 ml
Example: 4ozP = 4oz Plastic, 8ozSJ= 8oz Soil Jar

Matrix Codes

SD	Solid Waste	OL	Oil
GW	Ground Water	SL	Sludge
EFF	Effluent	SO	Soil Sediment
AFW	Analyte Free H20	AQ	Aqueous
WW	Waste Water	NA	Nonaqueous
DW	Drinking Water	PE	Petroleum
SW	Surface Water	O	Other_____ (Please specify)
ML	Misc. Liquid		

Preservative Type Codes

A. None	E. HCL	I. Ice
B. HNO3	F. MeOH	J. MCAA
C. H2SO4	G. Na2S2O3	K. Zn Acetate
D. NaOH	H. NaHSO4	O. Other

Coolers #'s - Temp °C: 1 ___ 2 ___ 3 ___ 4 ___ 5 ___

Lab Use Only	YES	NO	N/A
Non-Conformance Found?			
Samples INTACT upon arrival?			
Received on Wet Ice?			
Proper Preservatives Indicated?			
Received within holding time?			
Custody seals intact?			
Volatiles rec'd without headspace?			
Proper Containers Used?			

APPENDIX F

SOIL ANALYTICAL REPORT

Pace Analytical Services, Inc.
3610 Park Central Blvd N
Pompano Beach, FL 33064
954-582-4300

February 14, 2013

Alison Drescher
Eco Advisors, LLC
3931 RCA Blvd. Suite 3114
Palm Beach Gardens, FL 33410

RE: Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Dear Alison Drescher:
Enclosed are the analytical results for sample(s) received by the laboratory on January 25, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This is a revised report.

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

Sincerely,

Christina Raschke

christina.raschke@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
3610 Park Central Blvd N
Pompano Beach, FL 33064
954-582-4300

CERTIFICATIONS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pace Analytical Services - Ormond certification number E83509
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Washington Certification #: C955
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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Pace Analytical Services, Inc.
3610 Park Central Blvd N
Pompano Beach, FL 33064
954-582-4300

SAMPLE SUMMARY

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3581078001	**OS-11 0-6''**	Solid	01/25/13 08:55	01/25/13 12:45
3581078002	**OS-11 6-2'**	Solid	01/25/13 08:55	01/25/13 12:45
3581078003	**OS-11 2'-4'**	Solid	01/25/13 08:55	01/25/13 12:45
3581078004	**OS-09 0-6''**	Solid	01/25/13 09:05	01/25/13 12:45
3581078005	**OS-09 6''-2'**	Solid	01/25/13 09:05	01/25/13 12:45
3581078006	**OS-09 2'-3'**	Solid	01/25/13 09:05	01/25/13 12:45
3581078007	**OS-10 0-6''**	Solid	01/25/13 09:15	01/25/13 12:45
3581078008	**OS-10 6''-2'**	Solid	01/25/13 09:15	01/25/13 12:45
3581078009	**OS-10 2'-3'**	Solid	01/25/13 09:15	01/25/13 12:45
3581078010	**OS-14 0-2''**	Solid	01/25/13 09:25	01/25/13 12:45
3581078011	**OS-14 2-4''**	Solid	01/25/13 09:25	01/25/13 12:45
3581078012	**OS-13 0-2'**	Solid	01/25/13 09:35	01/25/13 12:45
3581078013	**OS-13 2'-3'**	Solid	01/25/13 09:35	01/25/13 12:45
3581078014	**OS-12 0-2'**	Solid	01/25/13 09:45	01/25/13 12:45
3581078015	**OS-12 2-3'**	Solid	01/25/13 09:45	01/25/13 12:45
3581078016	**OS-3 0-6''**	Solid	01/25/13 10:05	01/25/13 12:45
3581078017	**OS-3 6''-2'**	Solid	01/25/13 10:05	01/25/13 12:45
3581078018	**OS-3 2'-4'**	Solid	01/25/13 10:05	01/25/13 12:45
3581078019	**OS-2 0-2'**	Solid	01/25/13 10:25	01/25/13 12:45
3581078020	**OS-2 2-4'**	Solid	01/25/13 10:25	01/25/13 12:45
3581078021	**OS-1 0-2'**	Solid	01/25/13 10:45	01/25/13 12:45
3581078022	**OS-1 2'-4'**	Solid	01/25/13 10:45	01/25/13 12:45
3581078023	**OS-4 0-6''**	Solid	01/25/13 10:55	01/25/13 12:45
3581078024	**OS-4 6''-2'**	Solid	01/25/13 10:55	01/25/13 12:45
3581078025	**OS-4 2'-4'**	Solid	01/25/13 10:55	01/25/13 12:45
3581078026	**OS-8 0-6''**	Solid	01/25/13 11:10	01/25/13 12:45
3581078027	**OS-8 6''-2'**	Solid	01/25/13 11:10	01/25/13 12:45
3581078028	**OS-8 2'-3'**	Solid	01/25/13 11:10	01/25/13 12:45
3581078029	**OS-7 0-6''**	Solid	01/25/13 11:20	01/25/13 12:45
3581078030	**OS-7 6''-2'**	Solid	01/25/13 11:20	01/25/13 12:45
3581078031	**OS-7 2'-3'**	Solid	01/25/13 11:20	01/25/13 12:45
3581078032	**OS-6 0-6''**	Solid	01/25/13 11:25	01/25/13 12:45
3581078033	**OS-6 6''-2'**	Solid	01/25/13 11:25	01/25/13 12:45
3581078034	**OS-6 2'-3'**	Solid	01/25/13 11:25	01/25/13 12:45
3581078035	**OS-5 0-6''**	Solid	01/25/13 11:30	01/25/13 12:45
3581078036	**OS-5 6''-2'**	Solid	01/25/13 11:30	01/25/13 12:45
3581078037	**OS-5 2'-3'**	Solid	01/25/13 11:30	01/25/13 12:45

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Pace Analytical Services, Inc.
3610 Park Central Blvd N
Pompano Beach, FL 33064
954-582-4300

SAMPLE ANALYTE COUNT

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3581078001	**OS-11 0-6''**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078002	**OS-11 6-2'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078003	**OS-11 2'-4'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	PML	1	PASI-O
3581078004	**OS-09 0-6''**	EPA 8081	JLG	3	PASI-O
		EPA 8081	JLG	3	PASI-O
		EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078005	**OS-09 6''-2'**	EPA 8081	JLG	3	PASI-O
		EPA 8081	JLG	3	PASI-O
		EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078006	**OS-09 2'-3'**	EPA 8081	JLG	3	PASI-O
		EPA 8081	JLG	3	PASI-O
		EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078007	**OS-10 0-6''**	EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078008	**OS-10 6''-2'**	EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078009	**OS-10 2'-3'**	EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078010	**OS-14 0-2''**	EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078011	**OS-14 2-4''**	EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078012	**OS-13 0-2'**	EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078013	**OS-13 2'-3'**	EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078014	**OS-12 0-2'**	EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O

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SAMPLE ANALYTE COUNT

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3581078015	**OS-12 2-3'**	EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078016	**OS-3 0-6''**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078017	**OS-3 6''-2'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078018	**OS-3 2'-4'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078019	**OS-2 0-2'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078020	**OS-2 2-4'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078021	**OS-1 0-2'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078022	**OS-1 2'-4'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078023	**OS-4 0-6''**	EPA 8081	JLG	3	PASI-O
		EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078024	**OS-4 6''-2'**	EPA 8081	JLG	3	PASI-O
		EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078025	**OS-4 2'-4'**	EPA 8081	JLG	3	PASI-O
		EPA 6010	JTJ	1	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078026	**OS-8 0-6''**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	EAO, TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078027	**OS-8 6''-2'**	EPA 6010	JTJ	1	PASI-O
		EPA 8270	TWB	21	PASI-O

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SAMPLE ANALYTE COUNT

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	WMW	1	PASI-O
3581078028	**OS-8 2'-3'**	EPA 8081	JLG	3	PASI-O
		EPA 6010	TAP	1	PASI-O
		EPA 8270	EAO	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078029	**OS-7 0-6''**	EPA 8081	JLG	3	PASI-O
		EPA 6010	TAP	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078030	**OS-7 6''-2'**	EPA 8081	JLG	3	PASI-O
		EPA 6010	TAP	1	PASI-O
		EPA 8270	EAO	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078031	**OS-7 2'-3'**	EPA 8081	JLG	3	PASI-O
		EPA 6010	TAP	1	PASI-O
		EPA 8270	EAO	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078032	**OS-6 0-6''**	EPA 6010	TAP	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078033	**OS-6 6''-2'**	EPA 6010	TAP	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078034	**OS-6 2'-3'**	EPA 8081	JLG	3	PASI-O
		EPA 6010	TAP	1	PASI-O
		EPA 8270	TWB	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078035	**OS-5 0-6''**	EPA 6010	TAP	1	PASI-O
		EPA 8270	EAO	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078036	**OS-5 6''-2'**	EPA 6010	TAP	1	PASI-O
		EPA 8270	EAO	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O
3581078037	**OS-5 2'-3'**	EPA 8081	JLG	3	PASI-O
		EPA 6010	TAP	1	PASI-O
		EPA 8270	EAO	21	PASI-O
		ASTM D2974-87	WMW	1	PASI-O

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-11 0-6" **Lab ID: 3581078001** Collected: 01/25/13 08:55 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**0.91**	mg/kg	0.51	0.26	1	01/29/13 16:44	01/30/13 10:02	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.064U**	mg/kg	0.17	0.064	5	01/30/13 07:30	01/31/13 05:28	83-32-9	
Acenaphthylene	**0.054U**	mg/kg	0.17	0.054	5	01/30/13 07:30	01/31/13 05:28	208-96-8	
Anthracene	**0.053U**	mg/kg	0.17	0.053	5	01/30/13 07:30	01/31/13 05:28	120-12-7	
Benzo(a)anthracene	**0.13 I**	mg/kg	0.17	0.050	5	01/30/13 07:30	01/31/13 05:28	56-55-3	
Benzo(a)pyrene	**0.13 I**	mg/kg	0.17	0.020	5	01/30/13 07:30	01/31/13 05:28	50-32-8	
Benzo(b)fluoranthene	**0.24**	mg/kg	0.17	0.13	5	01/30/13 07:30	01/31/13 05:28	205-99-2	
Benzo(g,h,i)perylene	**0.12 I**	mg/kg	0.17	0.063	5	01/30/13 07:30	01/31/13 05:28	191-24-2	
Benzo(k)fluoranthene	**0.038U**	mg/kg	0.17	0.038	5	01/30/13 07:30	01/31/13 05:28	207-08-9	
Chrysene	**0.15 I**	mg/kg	0.17	0.062	5	01/30/13 07:30	01/31/13 05:28	218-01-9	
Dibenz(a,h)anthracene	**0.050U**	mg/kg	0.17	0.050	5	01/30/13 07:30	01/31/13 05:28	53-70-3	
Fluoranthene	**0.23**	mg/kg	0.17	0.057	5	01/30/13 07:30	01/31/13 05:28	206-44-0	
Fluorene	**0.078U**	mg/kg	0.17	0.078	5	01/30/13 07:30	01/31/13 05:28	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.093 I**	mg/kg	0.17	0.068	5	01/30/13 07:30	01/31/13 05:28	193-39-5	
1-Methylnaphthalene	**0.062U**	mg/kg	0.17	0.062	5	01/30/13 07:30	01/31/13 05:28	90-12-0	
2-Methylnaphthalene	**0.071U**	mg/kg	0.17	0.071	5	01/30/13 07:30	01/31/13 05:28	91-57-6	
Naphthalene	**0.056U**	mg/kg	0.17	0.056	5	01/30/13 07:30	01/31/13 05:28	91-20-3	
Phenanthrene	**0.087 I**	mg/kg	0.17	0.066	5	01/30/13 07:30	01/31/13 05:28	85-01-8	
Pyrene	**0.18**	mg/kg	0.17	0.054	5	01/30/13 07:30	01/31/13 05:28	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	52	%	10-110		5	01/30/13 07:30	01/31/13 05:28	4165-60-0	
2-Fluorobiphenyl (S)	68	%	18-110		5	01/30/13 07:30	01/31/13 05:28	321-60-8	
Terphenyl-d14 (S)	74	%	10-123		5	01/30/13 07:30	01/31/13 05:28	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.0**	%	0.10	0.10	1		01/29/13 04:22		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-11 6-2' **Lab ID: 3581078002** Collected: 01/25/13 08:55 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.2**	mg/kg	0.52	0.26	1	01/29/13 16:44	01/30/13 10:13	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 05:51	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 05:51	208-96-8	
Anthracene	**0.011U**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 05:51	120-12-7	
Benzo(a)anthracene	**0.010U**	mg/kg	0.035	0.010	1	01/30/13 07:30	01/31/13 05:51	56-55-3	
Benzo(a)pyrene	**0.0041U**	mg/kg	0.035	0.0041	1	01/30/13 07:30	01/31/13 05:51	50-32-8	
Benzo(b)fluoranthene	**0.026U**	mg/kg	0.035	0.026	1	01/30/13 07:30	01/31/13 05:51	205-99-2	
Benzo(g,h,i)perylene	**0.013U**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 05:51	191-24-2	
Benzo(k)fluoranthene	**0.0076U**	mg/kg	0.035	0.0076	1	01/30/13 07:30	01/31/13 05:51	207-08-9	
Chrysene	**0.013U**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 05:51	218-01-9	
Dibenz(a,h)anthracene	**0.010U**	mg/kg	0.035	0.010	1	01/30/13 07:30	01/31/13 05:51	53-70-3	
Fluoranthene	**0.011U**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 05:51	206-44-0	
Fluorene	**0.016U**	mg/kg	0.035	0.016	1	01/30/13 07:30	01/31/13 05:51	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.014U**	mg/kg	0.035	0.014	1	01/30/13 07:30	01/31/13 05:51	193-39-5	
1-Methylnaphthalene	**0.012U**	mg/kg	0.035	0.012	1	01/30/13 07:30	01/31/13 05:51	90-12-0	
2-Methylnaphthalene	**0.014U**	mg/kg	0.035	0.014	1	01/30/13 07:30	01/31/13 05:51	91-57-6	
Naphthalene	**0.011U**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 05:51	91-20-3	
Phenanthrene	**0.013U**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 05:51	85-01-8	
Pyrene	**0.011U**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 05:51	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	51	%	10-110		1	01/30/13 07:30	01/31/13 05:51	4165-60-0	
2-Fluorobiphenyl (S)	59	%	18-110		1	01/30/13 07:30	01/31/13 05:51	321-60-8	
Terphenyl-d14 (S)	60	%	10-123		1	01/30/13 07:30	01/31/13 05:51	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.8**	%	0.10	0.10	1		01/29/13 04:22		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-11 2'-4' **Lab ID: 3581078003** Collected: 01/25/13 08:55 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**0.66**	mg/kg	0.56	0.28	1	01/29/13 16:44	01/30/13 10:16	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.038	0.014	1	01/30/13 07:30	01/31/13 06:14	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.038	0.012	1	01/30/13 07:30	01/31/13 06:14	208-96-8	
Anthracene	**0.012U**	mg/kg	0.038	0.012	1	01/30/13 07:30	01/31/13 06:14	120-12-7	
Benzo(a)anthracene	**0.011U**	mg/kg	0.038	0.011	1	01/30/13 07:30	01/31/13 06:14	56-55-3	
Benzo(a)pyrene	**0.0044U**	mg/kg	0.038	0.0044	1	01/30/13 07:30	01/31/13 06:14	50-32-8	
Benzo(b)fluoranthene	**0.028U**	mg/kg	0.038	0.028	1	01/30/13 07:30	01/31/13 06:14	205-99-2	
Benzo(g,h,i)perylene	**0.014U**	mg/kg	0.038	0.014	1	01/30/13 07:30	01/31/13 06:14	191-24-2	
Benzo(k)fluoranthene	**0.0082U**	mg/kg	0.038	0.0082	1	01/30/13 07:30	01/31/13 06:14	207-08-9	
Chrysene	**0.013U**	mg/kg	0.038	0.013	1	01/30/13 07:30	01/31/13 06:14	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.038	0.011	1	01/30/13 07:30	01/31/13 06:14	53-70-3	
Fluoranthene	**0.012U**	mg/kg	0.038	0.012	1	01/30/13 07:30	01/31/13 06:14	206-44-0	
Fluorene	**0.017U**	mg/kg	0.038	0.017	1	01/30/13 07:30	01/31/13 06:14	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.038	0.015	1	01/30/13 07:30	01/31/13 06:14	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.038	0.013	1	01/30/13 07:30	01/31/13 06:14	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.038	0.015	1	01/30/13 07:30	01/31/13 06:14	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.038	0.012	1	01/30/13 07:30	01/31/13 06:14	91-20-3	
Phenanthrene	**0.014U**	mg/kg	0.038	0.014	1	01/30/13 07:30	01/31/13 06:14	85-01-8	
Pyrene	**0.012U**	mg/kg	0.038	0.012	1	01/30/13 07:30	01/31/13 06:14	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	58	%	10-110		1	01/30/13 07:30	01/31/13 06:14	4165-60-0	
2-Fluorobiphenyl (S)	68	%	18-110		1	01/30/13 07:30	01/31/13 06:14	321-60-8	
Terphenyl-d14 (S)	71	%	10-123		1	01/30/13 07:30	01/31/13 06:14	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.4**	%	0.10	0.10	1		01/31/13 10:12		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-09 0-6" **Lab ID: 3581078004** Collected: 01/25/13 09:05 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.00034 I**	mg/kg	0.0019	0.000045	1	01/30/13 23:30	01/31/13 17:37	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	90	%	63-132		1	01/30/13 23:30	01/31/13 17:37	877-09-8	
Decachlorobiphenyl (S)	75	%	47-167		1	01/30/13 23:30	01/31/13 17:37	2051-24-3	
8081 GCS Pesticides, SPLP	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
	Leachate Method/Date: EPA 1312; 01/29/13 18:35								
Dieldrin	**0.00000050U**	mg/L	0.000010	0.00000050	1	01/31/13 07:30	01/31/13 13:13	60-57-1	
Surrogates									
Decachlorobiphenyl (S)	82	%	41.7-109.1		1	01/31/13 07:30	01/31/13 13:13	2051-24-3	
Tetrachloro-m-xylene (S)	81	%	66.5-120.3		1	01/31/13 07:30	01/31/13 13:13	877-09-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.4**	mg/kg	0.57	0.28	1	01/29/13 16:44	01/30/13 10:27	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.4**	%	0.10	0.10	1		01/29/13 04:22		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-09 6''-2' **Lab ID: 3581078005** Collected: 01/25/13 09:05 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.00011 I**	mg/kg	0.0020	0.000048	1	01/30/13 23:30	01/31/13 19:12	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	63-132		1	01/30/13 23:30	01/31/13 19:12	877-09-8	
Decachlorobiphenyl (S)	92	%	47-167		1	01/30/13 23:30	01/31/13 19:12	2051-24-3	
8081 GCS Pesticides, SPLP	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
	Leachate Method/Date: EPA 1312; 01/29/13 18:35								
Dieldrin	**0.00000050U**	mg/L	0.000010	0.00000050	1	01/31/13 07:30	01/31/13 13:31	60-57-1	
Surrogates									
Decachlorobiphenyl (S)	57	%	41.7-109.1		1	01/31/13 07:30	01/31/13 13:31	2051-24-3	
Tetrachloro-m-xylene (S)	73	%	66.5-120.3		1	01/31/13 07:30	01/31/13 13:31	877-09-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**7.6**	mg/kg	0.59	0.29	1	01/29/13 16:44	01/30/13 10:30	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.3**	%	0.10	0.10	1		01/29/13 04:22		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-09 2'-3' **Lab ID: 3581078006** Collected: 01/25/13 09:05 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.000075 I**	mg/kg	0.0022	0.000051	1	01/30/13 23:30	01/31/13 20:08	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	78	%	63-132		1	01/30/13 23:30	01/31/13 20:08	877-09-8	
Decachlorobiphenyl (S)	76	%	47-167		1	01/30/13 23:30	01/31/13 20:08	2051-24-3	
8081 GCS Pesticides, SPLP	Analytical Method: EPA 8081 Preparation Method: EPA 3510								
	Leachate Method/Date: EPA 1312; 01/29/13 18:35								
Dieldrin	**0.00000050U**	mg/L	0.000010	0.00000050	1	01/31/13 07:30	01/31/13 13:50	60-57-1	
Surrogates									
Decachlorobiphenyl (S)	69	%	41.7-109.1		1	01/31/13 07:30	01/31/13 13:50	2051-24-3	
Tetrachloro-m-xylene (S)	71	%	66.5-120.3		1	01/31/13 07:30	01/31/13 13:50	877-09-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.6**	mg/kg	0.61	0.31	1	01/29/13 16:44	01/30/13 10:34	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.4**	%	0.10	0.10	1		01/29/13 04:23		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-10 0-6" **Lab ID: 3581078007** Collected: 01/25/13 09:15 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.3**	mg/kg	0.68	0.34	1	01/29/13 16:44	01/30/13 10:38	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**28.2**	%	0.10	0.10	1		01/29/13 04:23		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-10 6''-2' **Lab ID: 3581078008** Collected: 01/25/13 09:15 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.3**	mg/kg	0.63	0.32	1	01/29/13 16:44	01/30/13 10:41	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.8**	%	0.10	0.10	1		01/29/13 04:23		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-10 2'-3' **Lab ID: 3581078009** Collected: 01/25/13 09:15 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.2**	mg/kg	0.66	0.33	1	01/29/13 16:44	01/30/13 10:45	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**24.4**	%	0.10	0.10	1		01/29/13 04:23		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-14 0-2" **Lab ID: 3581078010** Collected: 01/25/13 09:25 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.034	0.013	1	01/30/13 07:30	01/31/13 06:36	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 06:36	208-96-8	
Anthracene	**0.011U**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 06:36	120-12-7	
Benzo(a)anthracene	**0.037**	mg/kg	0.034	0.010	1	01/30/13 07:30	01/31/13 06:36	56-55-3	
Benzo(a)pyrene	**0.041**	mg/kg	0.034	0.0040	1	01/30/13 07:30	01/31/13 06:36	50-32-8	
Benzo(b)fluoranthene	**0.074**	mg/kg	0.034	0.026	1	01/30/13 07:30	01/31/13 06:36	205-99-2	
Benzo(g,h,i)perylene	**0.033 I**	mg/kg	0.034	0.012	1	01/30/13 07:30	01/31/13 06:36	191-24-2	
Benzo(k)fluoranthene	**0.0074U**	mg/kg	0.034	0.0074	1	01/30/13 07:30	01/31/13 06:36	207-08-9	
Chrysene	**0.043**	mg/kg	0.034	0.012	1	01/30/13 07:30	01/31/13 06:36	218-01-9	
Dibenz(a,h)anthracene	**0.0099U**	mg/kg	0.034	0.0099	1	01/30/13 07:30	01/31/13 06:36	53-70-3	
Fluoranthene	**0.068**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 06:36	206-44-0	
Fluorene	**0.016U**	mg/kg	0.034	0.016	1	01/30/13 07:30	01/31/13 06:36	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.028 I**	mg/kg	0.034	0.013	1	01/30/13 07:30	01/31/13 06:36	193-39-5	
1-Methylnaphthalene	**0.012U**	mg/kg	0.034	0.012	1	01/30/13 07:30	01/31/13 06:36	90-12-0	
2-Methylnaphthalene	**0.014U**	mg/kg	0.034	0.014	1	01/30/13 07:30	01/31/13 06:36	91-57-6	
Naphthalene	**0.011U**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 06:36	91-20-3	
Phenanthrene	**0.023 I**	mg/kg	0.034	0.013	1	01/30/13 07:30	01/31/13 06:36	85-01-8	
Pyrene	**0.061**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 06:36	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	50	%	10-110		1	01/30/13 07:30	01/31/13 06:36	4165-60-0	
2-Fluorobiphenyl (S)	59	%	18-110		1	01/30/13 07:30	01/31/13 06:36	321-60-8	
Terphenyl-d14 (S)	65	%	10-123		1	01/30/13 07:30	01/31/13 06:36	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.3**	%	0.10	0.10	1		01/29/13 04:24		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-14 2-4" **Lab ID: 3581078011** Collected: 01/25/13 09:25 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.037	0.014	1	01/30/13 07:30	01/31/13 06:58	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.037	0.012	1	01/30/13 07:30	01/31/13 06:58	208-96-8	
Anthracene	**0.011U**	mg/kg	0.037	0.011	1	01/30/13 07:30	01/31/13 06:58	120-12-7	
Benzo(a)anthracene	**0.017 I**	mg/kg	0.037	0.011	1	01/30/13 07:30	01/31/13 06:58	56-55-3	
Benzo(a)pyrene	**0.012 I**	mg/kg	0.037	0.0044	1	01/30/13 07:30	01/31/13 06:58	50-32-8	
Benzo(b)fluoranthene	**0.028U**	mg/kg	0.037	0.028	1	01/30/13 07:30	01/31/13 06:58	205-99-2	
Benzo(g,h,i)perylene	**0.013U**	mg/kg	0.037	0.013	1	01/30/13 07:30	01/31/13 06:58	191-24-2	
Benzo(k)fluoranthene	**0.0081U**	mg/kg	0.037	0.0081	1	01/30/13 07:30	01/31/13 06:58	207-08-9	
Chrysene	**0.014 I**	mg/kg	0.037	0.013	1	01/30/13 07:30	01/31/13 06:58	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.037	0.011	1	01/30/13 07:30	01/31/13 06:58	53-70-3	
Fluoranthene	**0.033 I**	mg/kg	0.037	0.012	1	01/30/13 07:30	01/31/13 06:58	206-44-0	
Fluorene	**0.017U**	mg/kg	0.037	0.017	1	01/30/13 07:30	01/31/13 06:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.037	0.015	1	01/30/13 07:30	01/31/13 06:58	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.037	0.013	1	01/30/13 07:30	01/31/13 06:58	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.037	0.015	1	01/30/13 07:30	01/31/13 06:58	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.037	0.012	1	01/30/13 07:30	01/31/13 06:58	91-20-3	
Phenanthrene	**0.022 I**	mg/kg	0.037	0.014	1	01/30/13 07:30	01/31/13 06:58	85-01-8	
Pyrene	**0.023 I**	mg/kg	0.037	0.012	1	01/30/13 07:30	01/31/13 06:58	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	57	%	10-110		1	01/30/13 07:30	01/31/13 06:58	4165-60-0	
2-Fluorobiphenyl (S)	68	%	18-110		1	01/30/13 07:30	01/31/13 06:58	321-60-8	
Terphenyl-d14 (S)	72	%	10-123		1	01/30/13 07:30	01/31/13 06:58	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.6**	%	0.10	0.10	1		01/29/13 04:26		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-13 0-2' **Lab ID: 3581078012** Collected: 01/25/13 09:35 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.034	0.013	1	01/30/13 07:30	01/31/13 07:20	83-32-9	
Acenaphthylene	**0.067**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 07:20	208-96-8	
Anthracene	**0.025 I**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 07:20	120-12-7	
Benzo(a)anthracene	**0.095**	mg/kg	0.034	0.010	1	01/30/13 07:30	01/31/13 07:20	56-55-3	
Benzo(a)pyrene	**0.15**	mg/kg	0.034	0.0040	1	01/30/13 07:30	01/31/13 07:20	50-32-8	
Benzo(b)fluoranthene	**0.19**	mg/kg	0.034	0.026	1	01/30/13 07:30	01/31/13 07:20	205-99-2	
Benzo(g,h,i)perylene	**0.14**	mg/kg	0.034	0.012	1	01/30/13 07:30	01/31/13 07:20	191-24-2	
Benzo(k)fluoranthene	**0.0075U**	mg/kg	0.034	0.0075	1	01/30/13 07:30	01/31/13 07:20	207-08-9	
Chrysene	**0.14**	mg/kg	0.034	0.012	1	01/30/13 07:30	01/31/13 07:20	218-01-9	
Dibenz(a,h)anthracene	**0.029 I**	mg/kg	0.034	0.0099	1	01/30/13 07:30	01/31/13 07:20	53-70-3	
Fluoranthene	**0.13**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 07:20	206-44-0	
Fluorene	**0.016U**	mg/kg	0.034	0.016	1	01/30/13 07:30	01/31/13 07:20	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.088**	mg/kg	0.034	0.013	1	01/30/13 07:30	01/31/13 07:20	193-39-5	
1-Methylnaphthalene	**0.012U**	mg/kg	0.034	0.012	1	01/30/13 07:30	01/31/13 07:20	90-12-0	
2-Methylnaphthalene	**0.015 I**	mg/kg	0.034	0.014	1	01/30/13 07:30	01/31/13 07:20	91-57-6	
Naphthalene	**0.023 I**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 07:20	91-20-3	
Phenanthrene	**0.11**	mg/kg	0.034	0.013	1	01/30/13 07:30	01/31/13 07:20	85-01-8	
Pyrene	**0.17**	mg/kg	0.034	0.011	1	01/30/13 07:30	01/31/13 07:20	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	53	%	10-110		1	01/30/13 07:30	01/31/13 07:20	4165-60-0	
2-Fluorobiphenyl (S)	64	%	18-110		1	01/30/13 07:30	01/31/13 07:20	321-60-8	
Terphenyl-d14 (S)	67	%	10-123		1	01/30/13 07:30	01/31/13 07:20	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**4.2**	%	0.10	0.10	1		01/29/13 04:26		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-13 2'-3' **Lab ID: 3581078013** Collected: 01/25/13 09:35 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.016U**	mg/kg	0.043	0.016	1	01/30/13 07:30	01/31/13 07:42	83-32-9	
Acenaphthylene	**0.013U**	mg/kg	0.043	0.013	1	01/30/13 07:30	01/31/13 07:42	208-96-8	
Anthracene	**0.013U**	mg/kg	0.043	0.013	1	01/30/13 07:30	01/31/13 07:42	120-12-7	
Benzo(a)anthracene	**0.013U**	mg/kg	0.043	0.013	1	01/30/13 07:30	01/31/13 07:42	56-55-3	
Benzo(a)pyrene	**0.0051U**	mg/kg	0.043	0.0051	1	01/30/13 07:30	01/31/13 07:42	50-32-8	
Benzo(b)fluoranthene	**0.033U**	mg/kg	0.043	0.033	1	01/30/13 07:30	01/31/13 07:42	205-99-2	
Benzo(g,h,i)perylene	**0.016U**	mg/kg	0.043	0.016	1	01/30/13 07:30	01/31/13 07:42	191-24-2	
Benzo(k)fluoranthene	**0.0094U**	mg/kg	0.043	0.0094	1	01/30/13 07:30	01/31/13 07:42	207-08-9	
Chrysene	**0.015U**	mg/kg	0.043	0.015	1	01/30/13 07:30	01/31/13 07:42	218-01-9	
Dibenz(a,h)anthracene	**0.012U**	mg/kg	0.043	0.012	1	01/30/13 07:30	01/31/13 07:42	53-70-3	
Fluoranthene	**0.014U**	mg/kg	0.043	0.014	1	01/30/13 07:30	01/31/13 07:42	206-44-0	
Fluorene	**0.019U**	mg/kg	0.043	0.019	1	01/30/13 07:30	01/31/13 07:42	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.017U**	mg/kg	0.043	0.017	1	01/30/13 07:30	01/31/13 07:42	193-39-5	
1-Methylnaphthalene	**0.015U**	mg/kg	0.043	0.015	1	01/30/13 07:30	01/31/13 07:42	90-12-0	
2-Methylnaphthalene	**0.018U**	mg/kg	0.043	0.018	1	01/30/13 07:30	01/31/13 07:42	91-57-6	
Naphthalene	**0.014U**	mg/kg	0.043	0.014	1	01/30/13 07:30	01/31/13 07:42	91-20-3	
Phenanthrene	**0.016U**	mg/kg	0.043	0.016	1	01/30/13 07:30	01/31/13 07:42	85-01-8	
Pyrene	**0.013U**	mg/kg	0.043	0.013	1	01/30/13 07:30	01/31/13 07:42	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	35	%	10-110		1	01/30/13 07:30	01/31/13 07:42	4165-60-0	
2-Fluorobiphenyl (S)	44	%	18-110		1	01/30/13 07:30	01/31/13 07:42	321-60-8	
Terphenyl-d14 (S)	49	%	10-123		1	01/30/13 07:30	01/31/13 07:42	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**23.6**	%	0.10	0.10	1		01/29/13 04:26		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-12 0-2' **Lab ID: 3581078014** Collected: 01/25/13 09:45 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 08:04	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 08:04	208-96-8	
Anthracene	**0.013 I**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 08:04	120-12-7	
Benzo(a)anthracene	**0.11**	mg/kg	0.035	0.010	1	01/30/13 07:30	01/31/13 08:04	56-55-3	
Benzo(a)pyrene	**0.12**	mg/kg	0.035	0.0042	1	01/30/13 07:30	01/31/13 08:04	50-32-8	
Benzo(b)fluoranthene	**0.23**	mg/kg	0.035	0.027	1	01/30/13 07:30	01/31/13 08:04	205-99-2	
Benzo(g,h,i)perylene	**0.10**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 08:04	191-24-2	
Benzo(k)fluoranthene	**0.0077U**	mg/kg	0.035	0.0077	1	01/30/13 07:30	01/31/13 08:04	207-08-9	
Chrysene	**0.15**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 08:04	218-01-9	
Dibenz(a,h)anthracene	**0.022 I**	mg/kg	0.035	0.010	1	01/30/13 07:30	01/31/13 08:04	53-70-3	
Fluoranthene	**0.27**	mg/kg	0.035	0.012	1	01/30/13 07:30	01/31/13 08:04	206-44-0	
Fluorene	**0.016U**	mg/kg	0.035	0.016	1	01/30/13 07:30	01/31/13 08:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.086**	mg/kg	0.035	0.014	1	01/30/13 07:30	01/31/13 08:04	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 08:04	90-12-0	
2-Methylnaphthalene	**0.014U**	mg/kg	0.035	0.014	1	01/30/13 07:30	01/31/13 08:04	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.035	0.012	1	01/30/13 07:30	01/31/13 08:04	91-20-3	
Phenanthrene	**0.11**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 08:04	85-01-8	
Pyrene	**0.21**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 08:04	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	38	%	10-110		1	01/30/13 07:30	01/31/13 08:04	4165-60-0	
2-Fluorobiphenyl (S)	48	%	18-110		1	01/30/13 07:30	01/31/13 08:04	321-60-8	
Terphenyl-d14 (S)	58	%	10-123		1	01/30/13 07:30	01/31/13 08:04	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.0**	%	0.10	0.10	1		01/29/13 04:26		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-12 2-3' **Lab ID: 3581078015** Collected: 01/25/13 09:45 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.015U**	mg/kg	0.040	0.015	1	01/30/13 07:30	01/31/13 08:26	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.040	0.012	1	01/30/13 07:30	01/31/13 08:26	208-96-8	
Anthracene	**0.012U**	mg/kg	0.040	0.012	1	01/30/13 07:30	01/31/13 08:26	120-12-7	
Benzo(a)anthracene	**0.013 I**	mg/kg	0.040	0.012	1	01/30/13 07:30	01/31/13 08:26	56-55-3	
Benzo(a)pyrene	**0.011 I**	mg/kg	0.040	0.0046	1	01/30/13 07:30	01/31/13 08:26	50-32-8	
Benzo(b)fluoranthene	**0.030U**	mg/kg	0.040	0.030	1	01/30/13 07:30	01/31/13 08:26	205-99-2	
Benzo(g,h,i)perylene	**0.014U**	mg/kg	0.040	0.014	1	01/30/13 07:30	01/31/13 08:26	191-24-2	
Benzo(k)fluoranthene	**0.0086U**	mg/kg	0.040	0.0086	1	01/30/13 07:30	01/31/13 08:26	207-08-9	
Chrysene	**0.014U**	mg/kg	0.040	0.014	1	01/30/13 07:30	01/31/13 08:26	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.040	0.011	1	01/30/13 07:30	01/31/13 08:26	53-70-3	
Fluoranthene	**0.020 I**	mg/kg	0.040	0.013	1	01/30/13 07:30	01/31/13 08:26	206-44-0	
Fluorene	**0.018U**	mg/kg	0.040	0.018	1	01/30/13 07:30	01/31/13 08:26	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.040	0.015	1	01/30/13 07:30	01/31/13 08:26	193-39-5	
1-Methylnaphthalene	**0.014U**	mg/kg	0.040	0.014	1	01/30/13 07:30	01/31/13 08:26	90-12-0	
2-Methylnaphthalene	**0.016U**	mg/kg	0.040	0.016	1	01/30/13 07:30	01/31/13 08:26	91-57-6	
Naphthalene	**0.013U**	mg/kg	0.040	0.013	1	01/30/13 07:30	01/31/13 08:26	91-20-3	
Phenanthrene	**0.015U**	mg/kg	0.040	0.015	1	01/30/13 07:30	01/31/13 08:26	85-01-8	
Pyrene	**0.017 I**	mg/kg	0.040	0.012	1	01/30/13 07:30	01/31/13 08:26	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	46	%	10-110		1	01/30/13 07:30	01/31/13 08:26	4165-60-0	
2-Fluorobiphenyl (S)	54	%	18-110		1	01/30/13 07:30	01/31/13 08:26	321-60-8	
Terphenyl-d14 (S)	62	%	10-123		1	01/30/13 07:30	01/31/13 08:26	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.8**	%	0.10	0.10	1		01/29/13 04:27		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-3 0-6" **Lab ID: 3581078016** Collected: 01/25/13 10:05 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.6**	mg/kg	0.54	0.27	1	01/29/13 16:44	01/30/13 10:49	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 08:49	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 08:49	208-96-8	
Anthracene	**0.011U**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 08:49	120-12-7	
Benzo(a)anthracene	**0.012 I**	mg/kg	0.036	0.010	1	01/30/13 07:30	01/31/13 08:49	56-55-3	
Benzo(a)pyrene	**0.013 I**	mg/kg	0.036	0.0042	1	01/30/13 07:30	01/31/13 08:49	50-32-8	
Benzo(b)fluoranthene	**0.027U**	mg/kg	0.036	0.027	1	01/30/13 07:30	01/31/13 08:49	205-99-2	
Benzo(g,h,i)perylene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 08:49	191-24-2	
Benzo(k)fluoranthene	**0.0078U**	mg/kg	0.036	0.0078	1	01/30/13 07:30	01/31/13 08:49	207-08-9	
Chrysene	**0.016 I**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 08:49	218-01-9	
Dibenz(a,h)anthracene	**0.010U**	mg/kg	0.036	0.010	1	01/30/13 07:30	01/31/13 08:49	53-70-3	
Fluoranthene	**0.018 I**	mg/kg	0.036	0.012	1	01/30/13 07:30	01/31/13 08:49	206-44-0	
Fluorene	**0.016U**	mg/kg	0.036	0.016	1	01/30/13 07:30	01/31/13 08:49	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.014U**	mg/kg	0.036	0.014	1	01/30/13 07:30	01/31/13 08:49	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 08:49	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.036	0.015	1	01/30/13 07:30	01/31/13 08:49	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.036	0.012	1	01/30/13 07:30	01/31/13 08:49	91-20-3	
Phenanthrene	**0.014U**	mg/kg	0.036	0.014	1	01/30/13 07:30	01/31/13 08:49	85-01-8	
Pyrene	**0.018 I**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 08:49	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	43	%	10-110		1	01/30/13 07:30	01/31/13 08:49	4165-60-0	
2-Fluorobiphenyl (S)	53	%	18-110		1	01/30/13 07:30	01/31/13 08:49	321-60-8	
Terphenyl-d14 (S)	59	%	10-123		1	01/30/13 07:30	01/31/13 08:49	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.7**	%	0.10	0.10	1		01/29/13 04:27		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-3 6''-2' **Lab ID: 3581078017** Collected: 01/25/13 10:05 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.4**	mg/kg	0.55	0.28	1	01/29/13 16:44	01/30/13 10:53	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.037	0.014	1	01/30/13 07:30	01/31/13 09:11	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.037	0.012	1	01/30/13 07:30	01/31/13 09:11	208-96-8	
Anthracene	**0.011U**	mg/kg	0.037	0.011	1	01/30/13 07:30	01/31/13 09:11	120-12-7	
Benzo(a)anthracene	**0.022 I**	mg/kg	0.037	0.011	1	01/30/13 07:30	01/31/13 09:11	56-55-3	
Benzo(a)pyrene	**0.025 I**	mg/kg	0.037	0.0043	1	01/30/13 07:30	01/31/13 09:11	50-32-8	
Benzo(b)fluoranthene	**0.054**	mg/kg	0.037	0.028	1	01/30/13 07:30	01/31/13 09:11	205-99-2	
Benzo(g,h,i)perylene	**0.013U**	mg/kg	0.037	0.013	1	01/30/13 07:30	01/31/13 09:11	191-24-2	
Benzo(k)fluoranthene	**0.0080U**	mg/kg	0.037	0.0080	1	01/30/13 07:30	01/31/13 09:11	207-08-9	
Chrysene	**0.027 I**	mg/kg	0.037	0.013	1	01/30/13 07:30	01/31/13 09:11	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.037	0.011	1	01/30/13 07:30	01/31/13 09:11	53-70-3	
Fluoranthene	**0.032 I**	mg/kg	0.037	0.012	1	01/30/13 07:30	01/31/13 09:11	206-44-0	
Fluorene	**0.017U**	mg/kg	0.037	0.017	1	01/30/13 07:30	01/31/13 09:11	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.018 I**	mg/kg	0.037	0.014	1	01/30/13 07:30	01/31/13 09:11	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.037	0.013	1	01/30/13 07:30	01/31/13 09:11	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.037	0.015	1	01/30/13 07:30	01/31/13 09:11	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.037	0.012	1	01/30/13 07:30	01/31/13 09:11	91-20-3	
Phenanthrene	**0.014U**	mg/kg	0.037	0.014	1	01/30/13 07:30	01/31/13 09:11	85-01-8	
Pyrene	**0.034 I**	mg/kg	0.037	0.012	1	01/30/13 07:30	01/31/13 09:11	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	59	%	10-110		1	01/30/13 07:30	01/31/13 09:11	4165-60-0	
2-Fluorobiphenyl (S)	72	%	18-110		1	01/30/13 07:30	01/31/13 09:11	321-60-8	
Terphenyl-d14 (S)	84	%	10-123		1	01/30/13 07:30	01/31/13 09:11	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.0**	%	0.10	0.10	1		01/29/13 04:27		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-3 2'-4' **Lab ID: 3581078018** Collected: 01/25/13 10:05 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.3**	mg/kg	0.57	0.28	1	01/29/13 16:44	01/30/13 10:56	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 09:33	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 09:33	208-96-8	
Anthracene	**0.012U**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 09:33	120-12-7	
Benzo(a)anthracene	**0.034 I**	mg/kg	0.039	0.011	1	01/30/13 07:30	01/31/13 09:33	56-55-3	
Benzo(a)pyrene	**0.035 I**	mg/kg	0.039	0.0046	1	01/30/13 07:30	01/31/13 09:33	50-32-8	
Benzo(b)fluoranthene	**0.076**	mg/kg	0.039	0.029	1	01/30/13 07:30	01/31/13 09:33	205-99-2	
Benzo(g,h,i)perylene	**0.024 I**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 09:33	191-24-2	
Benzo(k)fluoranthene	**0.0085U**	mg/kg	0.039	0.0085	1	01/30/13 07:30	01/31/13 09:33	207-08-9	
Chrysene	**0.039**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 09:33	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.039	0.011	1	01/30/13 07:30	01/31/13 09:33	53-70-3	
Fluoranthene	**0.040**	mg/kg	0.039	0.013	1	01/30/13 07:30	01/31/13 09:33	206-44-0	
Fluorene	**0.018U**	mg/kg	0.039	0.018	1	01/30/13 07:30	01/31/13 09:33	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.020 I**	mg/kg	0.039	0.015	1	01/30/13 07:30	01/31/13 09:33	193-39-5	
1-Methylnaphthalene	**0.014U**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 09:33	90-12-0	
2-Methylnaphthalene	**0.016U**	mg/kg	0.039	0.016	1	01/30/13 07:30	01/31/13 09:33	91-57-6	
Naphthalene	**0.013U**	mg/kg	0.039	0.013	1	01/30/13 07:30	01/31/13 09:33	91-20-3	
Phenanthrene	**0.015U**	mg/kg	0.039	0.015	1	01/30/13 07:30	01/31/13 09:33	85-01-8	
Pyrene	**0.047**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 09:33	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	57	%	10-110		1	01/30/13 07:30	01/31/13 09:33	4165-60-0	
2-Fluorobiphenyl (S)	71	%	18-110		1	01/30/13 07:30	01/31/13 09:33	321-60-8	
Terphenyl-d14 (S)	81	%	10-123		1	01/30/13 07:30	01/31/13 09:33	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.6**	%	0.10	0.10	1		01/29/13 04:27		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-2 0-2' **Lab ID: 3581078019** Collected: 01/25/13 10:25 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**7.4**	mg/kg	0.54	0.27	1	01/29/13 16:44	01/30/13 11:00	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 09:54	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 09:54	208-96-8	
Anthracene	**0.011U**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 09:54	120-12-7	
Benzo(a)anthracene	**0.021 I**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 09:54	56-55-3	
Benzo(a)pyrene	**0.020 I**	mg/kg	0.036	0.0043	1	01/30/13 07:30	01/31/13 09:54	50-32-8	
Benzo(b)fluoranthene	**0.044**	mg/kg	0.036	0.027	1	01/30/13 07:30	01/31/13 09:54	205-99-2	
Benzo(g,h,i)perylene	**0.018 I**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 09:54	191-24-2	
Benzo(k)fluoranthene	**0.0079U**	mg/kg	0.036	0.0079	1	01/30/13 07:30	01/31/13 09:54	207-08-9	
Chrysene	**0.029 I**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 09:54	218-01-9	
Dibenz(a,h)anthracene	**0.010U**	mg/kg	0.036	0.010	1	01/30/13 07:30	01/31/13 09:54	53-70-3	
Fluoranthene	**0.033 I**	mg/kg	0.036	0.012	1	01/30/13 07:30	01/31/13 09:54	206-44-0	
Fluorene	**0.016U**	mg/kg	0.036	0.016	1	01/30/13 07:30	01/31/13 09:54	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015 I**	mg/kg	0.036	0.014	1	01/30/13 07:30	01/31/13 09:54	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 09:54	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.036	0.015	1	01/30/13 07:30	01/31/13 09:54	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.036	0.012	1	01/30/13 07:30	01/31/13 09:54	91-20-3	
Phenanthrene	**0.014U**	mg/kg	0.036	0.014	1	01/30/13 07:30	01/31/13 09:54	85-01-8	
Pyrene	**0.031 I**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 09:54	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	65	%	10-110		1	01/30/13 07:30	01/31/13 09:54	4165-60-0	
2-Fluorobiphenyl (S)	76	%	18-110		1	01/30/13 07:30	01/31/13 09:54	321-60-8	
Terphenyl-d14 (S)	82	%	10-123		1	01/30/13 07:30	01/31/13 09:54	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.4**	%	0.10	0.10	1		01/29/13 04:33		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-2 2-4' **Lab ID: 3581078020** Collected: 01/25/13 10:25 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.6**	mg/kg	0.57	0.29	1	01/29/13 16:44	01/30/13 11:11	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 10:16	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 10:16	208-96-8	
Anthracene	**0.012U**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 10:16	120-12-7	
Benzo(a)anthracene	**0.021 I**	mg/kg	0.039	0.011	1	01/30/13 07:30	01/31/13 10:16	56-55-3	
Benzo(a)pyrene	**0.017 I**	mg/kg	0.039	0.0045	1	01/30/13 07:30	01/31/13 10:16	50-32-8	
Benzo(b)fluoranthene	**0.029U**	mg/kg	0.039	0.029	1	01/30/13 07:30	01/31/13 10:16	205-99-2	
Benzo(g,h,i)perylene	**0.014U**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 10:16	191-24-2	
Benzo(k)fluoranthene	**0.011 I**	mg/kg	0.039	0.0084	1	01/30/13 07:30	01/31/13 10:16	207-08-9	
Chrysene	**0.024 I**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 10:16	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.039	0.011	1	01/30/13 07:30	01/31/13 10:16	53-70-3	
Fluoranthene	**0.034 I**	mg/kg	0.039	0.013	1	01/30/13 07:30	01/31/13 10:16	206-44-0	
Fluorene	**0.017U**	mg/kg	0.039	0.017	1	01/30/13 07:30	01/31/13 10:16	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.039	0.015	1	01/30/13 07:30	01/31/13 10:16	193-39-5	
1-Methylnaphthalene	**0.014U**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 10:16	90-12-0	
2-Methylnaphthalene	**0.016U**	mg/kg	0.039	0.016	1	01/30/13 07:30	01/31/13 10:16	91-57-6	
Naphthalene	**0.013U**	mg/kg	0.039	0.013	1	01/30/13 07:30	01/31/13 10:16	91-20-3	
Phenanthrene	**0.015U**	mg/kg	0.039	0.015	1	01/30/13 07:30	01/31/13 10:16	85-01-8	
Pyrene	**0.043**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 10:16	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	61	%	10-110		1	01/30/13 07:30	01/31/13 10:16	4165-60-0	
2-Fluorobiphenyl (S)	73	%	18-110		1	01/30/13 07:30	01/31/13 10:16	321-60-8	
Terphenyl-d14 (S)	80	%	10-123		1	01/30/13 07:30	01/31/13 10:16	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.8**	%	0.10	0.10	1		01/29/13 04:33		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-1 0-2' **Lab ID: 3581078021** Collected: 01/25/13 10:45 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.6**	mg/kg	0.55	0.27	1	01/29/13 16:44	01/30/13 11:14	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 10:36	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 10:36	208-96-8	
Anthracene	**0.011U**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 10:36	120-12-7	
Benzo(a)anthracene	**0.027 I**	mg/kg	0.036	0.010	1	01/30/13 07:30	01/31/13 10:36	56-55-3	
Benzo(a)pyrene	**0.031 I**	mg/kg	0.036	0.0042	1	01/30/13 07:30	01/31/13 10:36	50-32-8	
Benzo(b)fluoranthene	**0.065**	mg/kg	0.036	0.027	1	01/30/13 07:30	01/31/13 10:36	205-99-2	
Benzo(g,h,i)perylene	**0.031 I**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 10:36	191-24-2	
Benzo(k)fluoranthene	**0.0078U**	mg/kg	0.036	0.0078	1	01/30/13 07:30	01/31/13 10:36	207-08-9	
Chrysene	**0.037**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 10:36	218-01-9	
Dibenz(a,h)anthracene	**0.010U**	mg/kg	0.036	0.010	1	01/30/13 07:30	01/31/13 10:36	53-70-3	
Fluoranthene	**0.050**	mg/kg	0.036	0.012	1	01/30/13 07:30	01/31/13 10:36	206-44-0	
Fluorene	**0.016U**	mg/kg	0.036	0.016	1	01/30/13 07:30	01/31/13 10:36	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.022 I**	mg/kg	0.036	0.014	1	01/30/13 07:30	01/31/13 10:36	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 07:30	01/31/13 10:36	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.036	0.015	1	01/30/13 07:30	01/31/13 10:36	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.036	0.012	1	01/30/13 07:30	01/31/13 10:36	91-20-3	
Phenanthrene	**0.014 I**	mg/kg	0.036	0.014	1	01/30/13 07:30	01/31/13 10:36	85-01-8	
Pyrene	**0.045**	mg/kg	0.036	0.011	1	01/30/13 07:30	01/31/13 10:36	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	65	%	10-110		1	01/30/13 07:30	01/31/13 10:36	4165-60-0	
2-Fluorobiphenyl (S)	80	%	18-110		1	01/30/13 07:30	01/31/13 10:36	321-60-8	
Terphenyl-d14 (S)	88	%	10-123		1	01/30/13 07:30	01/31/13 10:36	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.0**	%	0.10	0.10	1		01/29/13 04:34		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-1 2'-4' **Lab ID: 3581078022** Collected: 01/25/13 10:45 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**24.5**	mg/kg	0.59	0.30	1	01/29/13 16:44	01/30/13 11:18	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 10:58	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 10:58	208-96-8	
Anthracene	**0.014 I**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 10:58	120-12-7	
Benzo(a)anthracene	**0.017 I**	mg/kg	0.039	0.011	1	01/30/13 07:30	01/31/13 10:58	56-55-3	
Benzo(a)pyrene	**0.015 I**	mg/kg	0.039	0.0046	1	01/30/13 07:30	01/31/13 10:58	50-32-8	
Benzo(b)fluoranthene	**0.030U**	mg/kg	0.039	0.030	1	01/30/13 07:30	01/31/13 10:58	205-99-2	
Benzo(g,h,i)perylene	**0.014U**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 10:58	191-24-2	
Benzo(k)fluoranthene	**0.0085U**	mg/kg	0.039	0.0085	1	01/30/13 07:30	01/31/13 10:58	207-08-9	
Chrysene	**0.018 I**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 10:58	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.039	0.011	1	01/30/13 07:30	01/31/13 10:58	53-70-3	
Fluoranthene	**0.058**	mg/kg	0.039	0.013	1	01/30/13 07:30	01/31/13 10:58	206-44-0	
Fluorene	**0.018U**	mg/kg	0.039	0.018	1	01/30/13 07:30	01/31/13 10:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.039	0.015	1	01/30/13 07:30	01/31/13 10:58	193-39-5	
1-Methylnaphthalene	**0.014U**	mg/kg	0.039	0.014	1	01/30/13 07:30	01/31/13 10:58	90-12-0	
2-Methylnaphthalene	**0.016U**	mg/kg	0.039	0.016	1	01/30/13 07:30	01/31/13 10:58	91-57-6	
Naphthalene	**0.013U**	mg/kg	0.039	0.013	1	01/30/13 07:30	01/31/13 10:58	91-20-3	
Phenanthrene	**0.081**	mg/kg	0.039	0.015	1	01/30/13 07:30	01/31/13 10:58	85-01-8	
Pyrene	**0.047**	mg/kg	0.039	0.012	1	01/30/13 07:30	01/31/13 10:58	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	60	%	10-110		1	01/30/13 07:30	01/31/13 10:58	4165-60-0	
2-Fluorobiphenyl (S)	74	%	18-110		1	01/30/13 07:30	01/31/13 10:58	321-60-8	
Terphenyl-d14 (S)	81	%	10-123		1	01/30/13 07:30	01/31/13 10:58	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.3**	%	0.10	0.10	1		01/29/13 04:34		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-4 0-6" **Lab ID: 3581078023** Collected: 01/25/13 10:55 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.000042U**	mg/kg	0.0018	0.000042	1	01/30/13 23:30	01/31/13 18:53	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	92	%	63-132		1	01/30/13 23:30	01/31/13 18:53	877-09-8	
Decachlorobiphenyl (S)	85	%	47-167		1	01/30/13 23:30	01/31/13 18:53	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**1.6**	mg/kg	0.51	0.26	1	01/29/13 16:44	01/30/13 11:22	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.2**	%	0.10	0.10	1		01/29/13 04:34		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-4 6''-2' **Lab ID: 3581078024** Collected: 01/25/13 10:55 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.000042U**	mg/kg	0.0018	0.000042	1	01/30/13 23:30	01/31/13 20:27	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	87	%	63-132		1	01/30/13 23:30	01/31/13 20:27	877-09-8	
Decachlorobiphenyl (S)	93	%	47-167		1	01/30/13 23:30	01/31/13 20:27	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**1.4**	mg/kg	0.52	0.26	1	01/29/13 16:44	01/30/13 11:25	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.6**	%	0.10	0.10	1		01/29/13 04:34		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-4 2'-4' **Lab ID: 3581078025** Collected: 01/25/13 10:55 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.000073 I**	mg/kg	0.0018	0.000043	1	01/30/13 23:30	01/31/13 17:56	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	90	%	63-132		1	01/30/13 23:30	01/31/13 17:56	877-09-8	
Decachlorobiphenyl (S)	108	%	47-167		1	01/30/13 23:30	01/31/13 17:56	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**1.7**	mg/kg	0.54	0.27	1	01/29/13 16:44	01/30/13 11:29	7440-38-2	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.6**	%	0.10	0.10	1		01/29/13 04:34		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-8 0-6" **Lab ID: 3581078026** Collected: 01/25/13 11:10 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010		Preparation Method: EPA 3050						
Arsenic	**2.5**	mg/kg	0.61	0.31	1	01/29/13 16:44	01/30/13 11:33	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270		Preparation Method: EPA 3546						
Acenaphthene	**0.28**	mg/kg	0.20	0.075	5	01/30/13 07:30	01/31/13 11:19	83-32-9	
Acenaphthylene	**0.16 I**	mg/kg	0.20	0.064	5	01/30/13 07:30	01/31/13 11:19	208-96-8	
Anthracene	**1.4**	mg/kg	0.20	0.062	5	01/30/13 07:30	01/31/13 11:19	120-12-7	
Benzo(a)anthracene	**19.5**	mg/kg	0.20	0.059	5	01/30/13 07:30	01/31/13 11:19	56-55-3	
Benzo(a)pyrene	**21.2**	mg/kg	1.0	0.12	25	01/30/13 07:30	01/31/13 18:04	50-32-8	
Benzo(b)fluoranthene	**30.1**	mg/kg	1.0	0.77	25	01/30/13 07:30	01/31/13 18:04	205-99-2	
Benzo(g,h,i)perylene	**19.0**	mg/kg	0.20	0.074	5	01/30/13 07:30	01/31/13 11:19	191-24-2	
Benzo(k)fluoranthene	**0.044U**	mg/kg	0.20	0.044	5	01/30/13 07:30	01/31/13 11:19	207-08-9	
Chrysene	**21.1**	mg/kg	1.0	0.36	25	01/30/13 07:30	01/31/13 18:04	218-01-9	
Dibenz(a,h)anthracene	**4.8**	mg/kg	0.20	0.059	5	01/30/13 07:30	01/31/13 11:19	53-70-3	
Fluoranthene	**37.3**	mg/kg	1.0	0.33	25	01/30/13 07:30	01/31/13 18:04	206-44-0	
Fluorene	**0.34**	mg/kg	0.20	0.092	5	01/30/13 07:30	01/31/13 11:19	86-73-7	
Indeno(1,2,3-cd)pyrene	**16.4**	mg/kg	0.20	0.080	5	01/30/13 07:30	01/31/13 11:19	193-39-5	
1-Methylnaphthalene	**0.072U**	mg/kg	0.20	0.072	5	01/30/13 07:30	01/31/13 11:19	90-12-0	
2-Methylnaphthalene	**0.083U**	mg/kg	0.20	0.083	5	01/30/13 07:30	01/31/13 11:19	91-57-6	
Naphthalene	**0.083 I**	mg/kg	0.20	0.066	5	01/30/13 07:30	01/31/13 11:19	91-20-3	
Phenanthrene	**10.6**	mg/kg	0.20	0.077	5	01/30/13 07:30	01/31/13 11:19	85-01-8	
Pyrene	**30.5**	mg/kg	1.0	0.32	25	01/30/13 07:30	01/31/13 18:04	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	40	%	10-110		5	01/30/13 07:30	01/31/13 11:19	4165-60-0	
2-Fluorobiphenyl (S)	54	%	18-110		5	01/30/13 07:30	01/31/13 11:19	321-60-8	
Terphenyl-d14 (S)	65	%	10-123		5	01/30/13 07:30	01/31/13 11:19	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.1**	%	0.10	0.10	1		01/29/13 04:34		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-8 6''-2' **Lab ID: 3581078027** Collected: 01/25/13 11:10 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.7**	mg/kg	0.52	0.26	1	01/29/13 16:44	01/30/13 08:52	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 11:42	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 11:42	208-96-8	
Anthracene	**0.014 I**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 11:42	120-12-7	
Benzo(a)anthracene	**0.20**	mg/kg	0.035	0.010	1	01/30/13 07:30	01/31/13 11:42	56-55-3	
Benzo(a)pyrene	**0.25**	mg/kg	0.035	0.0041	1	01/30/13 07:30	01/31/13 11:42	50-32-8	
Benzo(b)fluoranthene	**0.48**	mg/kg	0.035	0.026	1	01/30/13 07:30	01/31/13 11:42	205-99-2	
Benzo(g,h,i)perylene	**0.19**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 11:42	191-24-2	
Benzo(k)fluoranthene	**0.0076U**	mg/kg	0.035	0.0076	1	01/30/13 07:30	01/31/13 11:42	207-08-9	
Chrysene	**0.28**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 11:42	218-01-9	
Dibenz(a,h)anthracene	**0.050**	mg/kg	0.035	0.010	1	01/30/13 07:30	01/31/13 11:42	53-70-3	
Fluoranthene	**0.40**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 11:42	206-44-0	
Fluorene	**0.016U**	mg/kg	0.035	0.016	1	01/30/13 07:30	01/31/13 11:42	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.17**	mg/kg	0.035	0.014	1	01/30/13 07:30	01/31/13 11:42	193-39-5	
1-Methylnaphthalene	**0.012U**	mg/kg	0.035	0.012	1	01/30/13 07:30	01/31/13 11:42	90-12-0	
2-Methylnaphthalene	**0.014U**	mg/kg	0.035	0.014	1	01/30/13 07:30	01/31/13 11:42	91-57-6	
Naphthalene	**0.011U**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 11:42	91-20-3	
Phenanthrene	**0.085**	mg/kg	0.035	0.013	1	01/30/13 07:30	01/31/13 11:42	85-01-8	
Pyrene	**0.32**	mg/kg	0.035	0.011	1	01/30/13 07:30	01/31/13 11:42	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	60	%	10-110		1	01/30/13 07:30	01/31/13 11:42	4165-60-0	
2-Fluorobiphenyl (S)	73	%	18-110		1	01/30/13 07:30	01/31/13 11:42	321-60-8	
Terphenyl-d14 (S)	89	%	10-123		1	01/30/13 07:30	01/31/13 11:42	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.0**	%	0.10	0.10	1		01/29/13 04:34		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-8 2'-3' **Lab ID: 3581078028** Collected: 01/25/13 11:10 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.0010 I**	mg/kg	0.0020	0.000046	1	02/08/13 01:00	02/08/13 20:20	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	87	%	63-132		1	02/08/13 01:00	02/08/13 20:20	877-09-8	
Decachlorobiphenyl (S)	93	%	47-167		1	02/08/13 01:00	02/08/13 20:20	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.0**	mg/kg	0.58	0.29	1	02/07/13 16:28	02/12/13 16:04	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.039	0.014	1	02/07/13 17:00	02/08/13 08:20	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.039	0.012	1	02/07/13 17:00	02/08/13 08:20	208-96-8	
Anthracene	**0.012U**	mg/kg	0.039	0.012	1	02/07/13 17:00	02/08/13 08:20	120-12-7	
Benzo(a)anthracene	**0.011U**	mg/kg	0.039	0.011	1	02/07/13 17:00	02/08/13 08:20	56-55-3	
Benzo(a)pyrene	**0.0045U**	mg/kg	0.039	0.0045	1	02/07/13 17:00	02/08/13 08:20	50-32-8	
Benzo(b)fluoranthene	**0.029U**	mg/kg	0.039	0.029	1	02/07/13 17:00	02/08/13 08:20	205-99-2	
Benzo(g,h,i)perylene	**0.014U**	mg/kg	0.039	0.014	1	02/07/13 17:00	02/08/13 08:20	191-24-2	
Benzo(k)fluoranthene	**0.0084U**	mg/kg	0.039	0.0084	1	02/07/13 17:00	02/08/13 08:20	207-08-9	
Chrysene	**0.014U**	mg/kg	0.039	0.014	1	02/07/13 17:00	02/08/13 08:20	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.039	0.011	1	02/07/13 17:00	02/08/13 08:20	53-70-3	
Fluoranthene	**0.013U**	mg/kg	0.039	0.013	1	02/07/13 17:00	02/08/13 08:20	206-44-0	
Fluorene	**0.017U**	mg/kg	0.039	0.017	1	02/07/13 17:00	02/08/13 08:20	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.039	0.015	1	02/07/13 17:00	02/08/13 08:20	193-39-5	
1-Methylnaphthalene	**0.014U**	mg/kg	0.039	0.014	1	02/07/13 17:00	02/08/13 08:20	90-12-0	
2-Methylnaphthalene	**0.016U**	mg/kg	0.039	0.016	1	02/07/13 17:00	02/08/13 08:20	91-57-6	
Naphthalene	**0.013U**	mg/kg	0.039	0.013	1	02/07/13 17:00	02/08/13 08:20	91-20-3	
Phenanthrene	**0.015U**	mg/kg	0.039	0.015	1	02/07/13 17:00	02/08/13 08:20	85-01-8	
Pyrene	**0.012U**	mg/kg	0.039	0.012	1	02/07/13 17:00	02/08/13 08:20	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	62	%	10-110		1	02/07/13 17:00	02/08/13 08:20	4165-60-0	
2-Fluorobiphenyl (S)	66	%	18-110		1	02/07/13 17:00	02/08/13 08:20	321-60-8	
Terphenyl-d14 (S)	78	%	10-123		1	02/07/13 17:00	02/08/13 08:20	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.5**	%	0.10	0.10	1		02/06/13 00:50		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-7 0-6" **Lab ID: 3581078029** Collected: 01/25/13 11:20 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.000084U**	mg/kg	0.0036	0.000084	1	01/30/13 23:30	01/31/13 18:34	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	100	%	63-132		1	01/30/13 23:30	01/31/13 18:34	877-09-8	
Decachlorobiphenyl (S)	102	%	47-167		1	01/30/13 23:30	01/31/13 18:34	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.5**	mg/kg	1.0	0.52	1	01/29/13 16:44	01/30/13 16:48	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.17 I**	mg/kg	0.35	0.13	5	01/30/13 07:30	01/31/13 12:48	83-32-9	
Acenaphthylene	**0.15 I**	mg/kg	0.35	0.11	5	01/30/13 07:30	01/31/13 12:48	208-96-8	
Anthracene	**0.51**	mg/kg	0.35	0.11	5	01/30/13 07:30	01/31/13 12:48	120-12-7	
Benzo(a)anthracene	**6.7**	mg/kg	0.35	0.10	5	01/30/13 07:30	01/31/13 12:48	56-55-3	
Benzo(a)pyrene	**9.1**	mg/kg	0.35	0.040	5	01/30/13 07:30	01/31/13 12:48	50-32-8	
Benzo(b)fluoranthene	**17.9**	mg/kg	0.35	0.26	5	01/30/13 07:30	01/31/13 12:48	205-99-2	
Benzo(g,h,i)perylene	**7.6**	mg/kg	0.35	0.12	5	01/30/13 07:30	01/31/13 12:48	191-24-2	
Benzo(k)fluoranthene	**18.5**	mg/kg	0.35	0.075	5	01/30/13 07:30	01/31/13 12:48	207-08-9	
Chrysene	**11.0**	mg/kg	0.35	0.12	5	01/30/13 07:30	01/31/13 12:48	218-01-9	
Dibenz(a,h)anthracene	**1.8**	mg/kg	0.35	0.099	5	01/30/13 07:30	01/31/13 12:48	53-70-3	
Fluoranthene	**15.5**	mg/kg	0.35	0.11	5	01/30/13 07:30	01/31/13 12:48	206-44-0	
Fluorene	**0.17 I**	mg/kg	0.35	0.16	5	01/30/13 07:30	01/31/13 12:48	86-73-7	
Indeno(1,2,3-cd)pyrene	**6.4**	mg/kg	0.35	0.13	5	01/30/13 07:30	01/31/13 12:48	193-39-5	
1-Methylnaphthalene	**0.12U**	mg/kg	0.35	0.12	5	01/30/13 07:30	01/31/13 12:48	90-12-0	
2-Methylnaphthalene	**0.14U**	mg/kg	0.35	0.14	5	01/30/13 07:30	01/31/13 12:48	91-57-6	
Naphthalene	**0.11U**	mg/kg	0.35	0.11	5	01/30/13 07:30	01/31/13 12:48	91-20-3	
Phenanthrene	**3.7**	mg/kg	0.35	0.13	5	01/30/13 07:30	01/31/13 12:48	85-01-8	
Pyrene	**12.7**	mg/kg	0.35	0.11	5	01/30/13 07:30	01/31/13 12:48	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	41	%	10-110		5	01/30/13 07:30	01/31/13 12:48	4165-60-0	
2-Fluorobiphenyl (S)	54	%	18-110		5	01/30/13 07:30	01/31/13 12:48	321-60-8	
Terphenyl-d14 (S)	59	%	10-123		5	01/30/13 07:30	01/31/13 12:48	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**52.2**	%	0.10	0.10	1		01/29/13 04:37		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-7 6''-2' **Lab ID: 3581078030** Collected: 01/25/13 11:20 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.000046U**	mg/kg	0.0020	0.000046	1	01/30/13 23:30	01/31/13 18:15	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	94	%	63-132		1	01/30/13 23:30	01/31/13 18:15	877-09-8	
Decachlorobiphenyl (S)	95	%	47-167		1	01/30/13 23:30	01/31/13 18:15	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.2**	mg/kg	0.56	0.28	1	01/29/13 16:44	01/30/13 16:52	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.038	0.014	1	01/30/13 10:30	01/31/13 15:27	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.038	0.012	1	01/30/13 10:30	01/31/13 15:27	208-96-8	
Anthracene	**0.024 I**	mg/kg	0.038	0.012	1	01/30/13 10:30	01/31/13 15:27	120-12-7	
Benzo(a)anthracene	**0.36**	mg/kg	0.038	0.011	1	01/30/13 10:30	01/31/13 15:27	56-55-3	
Benzo(a)pyrene	**0.50**	mg/kg	0.038	0.0045	1	01/30/13 10:30	01/31/13 15:27	50-32-8	
Benzo(b)fluoranthene	**0.71**	mg/kg	0.038	0.029	1	01/30/13 10:30	01/31/13 15:27	205-99-2	
Benzo(g,h,i)perylene	**0.40**	mg/kg	0.038	0.014	1	01/30/13 10:30	01/31/13 15:27	191-24-2	
Benzo(k)fluoranthene	**0.29**	mg/kg	0.038	0.0083	1	01/30/13 10:30	01/31/13 15:27	207-08-9	
Chrysene	**0.48**	mg/kg	0.038	0.014	1	01/30/13 10:30	01/31/13 15:27	218-01-9	
Dibenz(a,h)anthracene	**0.096**	mg/kg	0.038	0.011	1	01/30/13 10:30	01/31/13 15:27	53-70-3	
Fluoranthene	**0.72**	mg/kg	0.038	0.013	1	01/30/13 10:30	01/31/13 15:27	206-44-0	
Fluorene	**0.017U**	mg/kg	0.038	0.017	1	01/30/13 10:30	01/31/13 15:27	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.36**	mg/kg	0.038	0.015	1	01/30/13 10:30	01/31/13 15:27	193-39-5	
1-Methylnaphthalene	**0.014U**	mg/kg	0.038	0.014	1	01/30/13 10:30	01/31/13 15:27	90-12-0	
2-Methylnaphthalene	**0.016U**	mg/kg	0.038	0.016	1	01/30/13 10:30	01/31/13 15:27	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.038	0.012	1	01/30/13 10:30	01/31/13 15:27	91-20-3	
Phenanthrene	**0.13**	mg/kg	0.038	0.014	1	01/30/13 10:30	01/31/13 15:27	85-01-8	
Pyrene	**0.58**	mg/kg	0.038	0.012	1	01/30/13 10:30	01/31/13 15:27	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	72	%	10-110		1	01/30/13 10:30	01/31/13 15:27	4165-60-0	
2-Fluorobiphenyl (S)	74	%	18-110		1	01/30/13 10:30	01/31/13 15:27	321-60-8	
Terphenyl-d14 (S)	99	%	10-123		1	01/30/13 10:30	01/31/13 15:27	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.7**	%	0.10	0.10	1		01/29/13 04:38		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-7 2'-3' **Lab ID: 3581078031** Collected: 01/25/13 11:20 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.00023 I**	mg/kg	0.0020	0.000048	1	02/08/13 01:00	02/08/13 20:39	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	86	%	63-132		1	02/08/13 01:00	02/08/13 20:39	877-09-8	
Decachlorobiphenyl (S)	87	%	47-167		1	02/08/13 01:00	02/08/13 20:39	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.9**	mg/kg	0.57	0.29	1	02/07/13 16:28	02/12/13 16:22	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.039	0.014	1	02/07/13 17:00	02/08/13 08:42	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.039	0.012	1	02/07/13 17:00	02/08/13 08:42	208-96-8	
Anthracene	**0.012U**	mg/kg	0.039	0.012	1	02/07/13 17:00	02/08/13 08:42	120-12-7	
Benzo(a)anthracene	**0.011U**	mg/kg	0.039	0.011	1	02/07/13 17:00	02/08/13 08:42	56-55-3	
Benzo(a)pyrene	**0.0046U**	mg/kg	0.039	0.0046	1	02/07/13 17:00	02/08/13 08:42	50-32-8	
Benzo(b)fluoranthene	**0.030U**	mg/kg	0.039	0.030	1	02/07/13 17:00	02/08/13 08:42	205-99-2	
Benzo(g,h,i)perylene	**0.014U**	mg/kg	0.039	0.014	1	02/07/13 17:00	02/08/13 08:42	191-24-2	
Benzo(k)fluoranthene	**0.0085U**	mg/kg	0.039	0.0085	1	02/07/13 17:00	02/08/13 08:42	207-08-9	
Chrysene	**0.014U**	mg/kg	0.039	0.014	1	02/07/13 17:00	02/08/13 08:42	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.039	0.011	1	02/07/13 17:00	02/08/13 08:42	53-70-3	
Fluoranthene	**0.013U**	mg/kg	0.039	0.013	1	02/07/13 17:00	02/08/13 08:42	206-44-0	
Fluorene	**0.018U**	mg/kg	0.039	0.018	1	02/07/13 17:00	02/08/13 08:42	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.039	0.015	1	02/07/13 17:00	02/08/13 08:42	193-39-5	
1-Methylnaphthalene	**0.014U**	mg/kg	0.039	0.014	1	02/07/13 17:00	02/08/13 08:42	90-12-0	
2-Methylnaphthalene	**0.016U**	mg/kg	0.039	0.016	1	02/07/13 17:00	02/08/13 08:42	91-57-6	
Naphthalene	**0.013U**	mg/kg	0.039	0.013	1	02/07/13 17:00	02/08/13 08:42	91-20-3	
Phenanthrene	**0.015U**	mg/kg	0.039	0.015	1	02/07/13 17:00	02/08/13 08:42	85-01-8	
Pyrene	**0.012U**	mg/kg	0.039	0.012	1	02/07/13 17:00	02/08/13 08:42	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	57	%	10-110		1	02/07/13 17:00	02/08/13 08:42	4165-60-0	
2-Fluorobiphenyl (S)	63	%	18-110		1	02/07/13 17:00	02/08/13 08:42	321-60-8	
Terphenyl-d14 (S)	70	%	10-123		1	02/07/13 17:00	02/08/13 08:42	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.10	0.10	1		02/06/13 00:51		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-6 0-6" **Lab ID: 3581078032** Collected: 01/25/13 11:25 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010		Preparation Method: EPA 3050						
Arsenic	**2.9**	mg/kg	0.54	0.27	1	01/29/13 16:44	01/30/13 16:57	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270		Preparation Method: EPA 3546						
Acenaphthene	**0.065U**	mg/kg	0.18	0.065	5	02/08/13 15:30	02/11/13 12:09	83-32-9	
Acenaphthylene	**0.056U**	mg/kg	0.18	0.056	5	02/08/13 15:30	02/11/13 12:09	208-96-8	
Anthracene	**0.14 I**	mg/kg	0.18	0.055	5	02/08/13 15:30	02/11/13 12:09	120-12-7	
Benzo(a)anthracene	**2.4**	mg/kg	0.18	0.052	5	02/08/13 15:30	02/11/13 12:09	56-55-3	
Benzo(a)pyrene	**3.3**	mg/kg	0.18	0.021	5	02/08/13 15:30	02/11/13 12:09	50-32-8	
Benzo(b)fluoranthene	**6.5**	mg/kg	0.18	0.13	5	02/08/13 15:30	02/11/13 12:09	205-99-2	
Benzo(g,h,i)perylene	**2.8**	mg/kg	0.18	0.064	5	02/08/13 15:30	02/11/13 12:09	191-24-2	
Benzo(k)fluoranthene	**0.039U**	mg/kg	0.18	0.039	5	02/08/13 15:30	02/11/13 12:09	207-08-9	
Chrysene	**3.9**	mg/kg	0.18	0.064	5	02/08/13 15:30	02/11/13 12:09	218-01-9	
Dibenz(a,h)anthracene	**0.59**	mg/kg	0.18	0.051	5	02/08/13 15:30	02/11/13 12:09	53-70-3	
Fluoranthene	**5.3**	mg/kg	0.18	0.058	5	02/08/13 15:30	02/11/13 12:09	206-44-0	
Fluorene	**0.081U**	mg/kg	0.18	0.081	5	02/08/13 15:30	02/11/13 12:09	86-73-7	
Indeno(1,2,3-cd)pyrene	**2.4**	mg/kg	0.18	0.070	5	02/08/13 15:30	02/11/13 12:09	193-39-5	
1-Methylnaphthalene	**0.063U**	mg/kg	0.18	0.063	5	02/08/13 15:30	02/11/13 12:09	90-12-0	
2-Methylnaphthalene	**0.072U**	mg/kg	0.18	0.072	5	02/08/13 15:30	02/11/13 12:09	91-57-6	
Naphthalene	**0.058U**	mg/kg	0.18	0.058	5	02/08/13 15:30	02/11/13 12:09	91-20-3	
Phenanthrene	**1.1**	mg/kg	0.18	0.068	5	02/08/13 15:30	02/11/13 12:09	85-01-8	
Pyrene	**4.5**	mg/kg	0.18	0.056	5	02/08/13 15:30	02/11/13 12:09	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	45	%	10-110		5	02/08/13 15:30	02/11/13 12:09	4165-60-0	
2-Fluorobiphenyl (S)	50	%	18-110		5	02/08/13 15:30	02/11/13 12:09	321-60-8	
Terphenyl-d14 (S)	58	%	10-123		5	02/08/13 15:30	02/11/13 12:09	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.8**	%	0.10	0.10	1		01/29/13 04:39		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-6 6''-2' **Lab ID: 3581078033** Collected: 01/25/13 11:25 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.4**	mg/kg	0.54	0.27	1	01/29/13 16:44	01/30/13 17:01	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.036	0.013	1	02/08/13 15:30	02/11/13 12:31	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.036	0.011	1	02/08/13 15:30	02/11/13 12:31	208-96-8	
Anthracene	**0.011U**	mg/kg	0.036	0.011	1	02/08/13 15:30	02/11/13 12:31	120-12-7	
Benzo(a)anthracene	**0.030 I**	mg/kg	0.036	0.010	1	02/08/13 15:30	02/11/13 12:31	56-55-3	
Benzo(a)pyrene	**0.031 I**	mg/kg	0.036	0.0042	1	02/08/13 15:30	02/11/13 12:31	50-32-8	
Benzo(b)fluoranthene	**0.058**	mg/kg	0.036	0.027	1	02/08/13 15:30	02/11/13 12:31	205-99-2	
Benzo(g,h,i)perylene	**0.029 I**	mg/kg	0.036	0.013	1	02/08/13 15:30	02/11/13 12:31	191-24-2	
Benzo(k)fluoranthene	**0.0078U**	mg/kg	0.036	0.0078	1	02/08/13 15:30	02/11/13 12:31	207-08-9	
Chrysene	**0.038**	mg/kg	0.036	0.013	1	02/08/13 15:30	02/11/13 12:31	218-01-9	
Dibenz(a,h)anthracene	**0.010U**	mg/kg	0.036	0.010	1	02/08/13 15:30	02/11/13 12:31	53-70-3	
Fluoranthene	**0.048**	mg/kg	0.036	0.012	1	02/08/13 15:30	02/11/13 12:31	206-44-0	
Fluorene	**0.016U**	mg/kg	0.036	0.016	1	02/08/13 15:30	02/11/13 12:31	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.021 I**	mg/kg	0.036	0.014	1	02/08/13 15:30	02/11/13 12:31	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.036	0.013	1	02/08/13 15:30	02/11/13 12:31	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.036	0.015	1	02/08/13 15:30	02/11/13 12:31	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.036	0.012	1	02/08/13 15:30	02/11/13 12:31	91-20-3	
Phenanthrene	**0.014U**	mg/kg	0.036	0.014	1	02/08/13 15:30	02/11/13 12:31	85-01-8	
Pyrene	**0.041**	mg/kg	0.036	0.011	1	02/08/13 15:30	02/11/13 12:31	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	63	%	10-110		1	02/08/13 15:30	02/11/13 12:31	4165-60-0	
2-Fluorobiphenyl (S)	72	%	18-110		1	02/08/13 15:30	02/11/13 12:31	321-60-8	
Terphenyl-d14 (S)	78	%	10-123		1	02/08/13 15:30	02/11/13 12:31	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**8.2**	%	0.10	0.10	1		01/29/13 04:39		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-6 2'-3' **Lab ID: 3581078034** Collected: 01/25/13 11:25 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.00018 I**	mg/kg	0.0019	0.000045	1	02/08/13 01:00	02/08/13 20:58	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	90	%	63-132		1	02/08/13 01:00	02/08/13 20:58	877-09-8	
Decachlorobiphenyl (S)	107	%	47-167		1	02/08/13 01:00	02/08/13 20:58	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.0**	mg/kg	0.56	0.28	1	02/07/13 16:28	02/12/13 16:25	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.037	0.014	1	02/08/13 15:30	02/11/13 12:53	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.037	0.012	1	02/08/13 15:30	02/11/13 12:53	208-96-8	
Anthracene	**0.011U**	mg/kg	0.037	0.011	1	02/08/13 15:30	02/11/13 12:53	120-12-7	
Benzo(a)anthracene	**0.011U**	mg/kg	0.037	0.011	1	02/08/13 15:30	02/11/13 12:53	56-55-3	
Benzo(a)pyrene	**0.0051 I**	mg/kg	0.037	0.0044	1	02/08/13 15:30	02/11/13 12:53	50-32-8	
Benzo(b)fluoranthene	**0.028U**	mg/kg	0.037	0.028	1	02/08/13 15:30	02/11/13 12:53	205-99-2	
Benzo(g,h,i)perylene	**0.013U**	mg/kg	0.037	0.013	1	02/08/13 15:30	02/11/13 12:53	191-24-2	
Benzo(k)fluoranthene	**0.0080U**	mg/kg	0.037	0.0080	1	02/08/13 15:30	02/11/13 12:53	207-08-9	
Chrysene	**0.013U**	mg/kg	0.037	0.013	1	02/08/13 15:30	02/11/13 12:53	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.037	0.011	1	02/08/13 15:30	02/11/13 12:53	53-70-3	
Fluoranthene	**0.012U**	mg/kg	0.037	0.012	1	02/08/13 15:30	02/11/13 12:53	206-44-0	
Fluorene	**0.017U**	mg/kg	0.037	0.017	1	02/08/13 15:30	02/11/13 12:53	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.037	0.015	1	02/08/13 15:30	02/11/13 12:53	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.037	0.013	1	02/08/13 15:30	02/11/13 12:53	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.037	0.015	1	02/08/13 15:30	02/11/13 12:53	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.037	0.012	1	02/08/13 15:30	02/11/13 12:53	91-20-3	
Phenanthrene	**0.014U**	mg/kg	0.037	0.014	1	02/08/13 15:30	02/11/13 12:53	85-01-8	
Pyrene	**0.012U**	mg/kg	0.037	0.012	1	02/08/13 15:30	02/11/13 12:53	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	65	%	10-110		1	02/08/13 15:30	02/11/13 12:53	4165-60-0	
2-Fluorobiphenyl (S)	69	%	18-110		1	02/08/13 15:30	02/11/13 12:53	321-60-8	
Terphenyl-d14 (S)	76	%	10-123		1	02/08/13 15:30	02/11/13 12:53	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.1**	%	0.10	0.10	1		02/06/13 00:51		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-5 0-6" **Lab ID: 3581078035** Collected: 01/25/13 11:30 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.4**	mg/kg	0.53	0.27	1	01/29/13 16:44	01/30/13 17:06	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 10:30	01/31/13 15:50	83-32-9	
Acenaphthylene	**0.012 I**	mg/kg	0.036	0.011	1	01/30/13 10:30	01/31/13 15:50	208-96-8	
Anthracene	**0.043**	mg/kg	0.036	0.011	1	01/30/13 10:30	01/31/13 15:50	120-12-7	
Benzo(a)anthracene	**0.57**	mg/kg	0.036	0.010	1	01/30/13 10:30	01/31/13 15:50	56-55-3	
Benzo(a)pyrene	**0.73**	mg/kg	0.036	0.0042	1	01/30/13 10:30	01/31/13 15:50	50-32-8	
Benzo(b)fluoranthene	**1.1**	mg/kg	0.036	0.027	1	01/30/13 10:30	01/31/13 15:50	205-99-2	
Benzo(g,h,i)perylene	**0.58**	mg/kg	0.036	0.013	1	01/30/13 10:30	01/31/13 15:50	191-24-2	
Benzo(k)fluoranthene	**0.44**	mg/kg	0.036	0.0078	1	01/30/13 10:30	01/31/13 15:50	207-08-9	
Chrysene	**0.72**	mg/kg	0.036	0.013	1	01/30/13 10:30	01/31/13 15:50	218-01-9	
Dibenz(a,h)anthracene	**0.15**	mg/kg	0.036	0.010	1	01/30/13 10:30	01/31/13 15:50	53-70-3	
Fluoranthene	**1.2**	mg/kg	0.036	0.012	1	01/30/13 10:30	01/31/13 15:50	206-44-0	
Fluorene	**0.016U**	mg/kg	0.036	0.016	1	01/30/13 10:30	01/31/13 15:50	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.53**	mg/kg	0.036	0.014	1	01/30/13 10:30	01/31/13 15:50	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 10:30	01/31/13 15:50	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.036	0.015	1	01/30/13 10:30	01/31/13 15:50	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.036	0.012	1	01/30/13 10:30	01/31/13 15:50	91-20-3	
Phenanthrene	**0.28**	mg/kg	0.036	0.014	1	01/30/13 10:30	01/31/13 15:50	85-01-8	
Pyrene	**0.95**	mg/kg	0.036	0.011	1	01/30/13 10:30	01/31/13 15:50	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	75	%	10-110		1	01/30/13 10:30	01/31/13 15:50	4165-60-0	
2-Fluorobiphenyl (S)	74	%	18-110		1	01/30/13 10:30	01/31/13 15:50	321-60-8	
Terphenyl-d14 (S)	91	%	10-123		1	01/30/13 10:30	01/31/13 15:50	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.9**	%	0.10	0.10	1		01/29/13 05:11		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-5 6''-2' **Lab ID: 3581078036** Collected: 01/25/13 11:30 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**1.6**	mg/kg	0.54	0.27	1	01/29/13 16:44	01/30/13 17:10	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 10:30	01/31/13 16:12	83-32-9	
Acenaphthylene	**0.011U**	mg/kg	0.036	0.011	1	01/30/13 10:30	01/31/13 16:12	208-96-8	
Anthracene	**0.011U**	mg/kg	0.036	0.011	1	01/30/13 10:30	01/31/13 16:12	120-12-7	
Benzo(a)anthracene	**0.037**	mg/kg	0.036	0.010	1	01/30/13 10:30	01/31/13 16:12	56-55-3	
Benzo(a)pyrene	**0.049**	mg/kg	0.036	0.0042	1	01/30/13 10:30	01/31/13 16:12	50-32-8	
Benzo(b)fluoranthene	**0.086**	mg/kg	0.036	0.027	1	01/30/13 10:30	01/31/13 16:12	205-99-2	
Benzo(g,h,i)perylene	**0.049**	mg/kg	0.036	0.013	1	01/30/13 10:30	01/31/13 16:12	191-24-2	
Benzo(k)fluoranthene	**0.029 I**	mg/kg	0.036	0.0077	1	01/30/13 10:30	01/31/13 16:12	207-08-9	
Chrysene	**0.050**	mg/kg	0.036	0.013	1	01/30/13 10:30	01/31/13 16:12	218-01-9	
Dibenz(a,h)anthracene	**0.013 I**	mg/kg	0.036	0.010	1	01/30/13 10:30	01/31/13 16:12	53-70-3	
Fluoranthene	**0.079**	mg/kg	0.036	0.012	1	01/30/13 10:30	01/31/13 16:12	206-44-0	
Fluorene	**0.016U**	mg/kg	0.036	0.016	1	01/30/13 10:30	01/31/13 16:12	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.041**	mg/kg	0.036	0.014	1	01/30/13 10:30	01/31/13 16:12	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.036	0.013	1	01/30/13 10:30	01/31/13 16:12	90-12-0	
2-Methylnaphthalene	**0.014U**	mg/kg	0.036	0.014	1	01/30/13 10:30	01/31/13 16:12	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.036	0.012	1	01/30/13 10:30	01/31/13 16:12	91-20-3	
Phenanthrene	**0.016 I**	mg/kg	0.036	0.014	1	01/30/13 10:30	01/31/13 16:12	85-01-8	
Pyrene	**0.065**	mg/kg	0.036	0.011	1	01/30/13 10:30	01/31/13 16:12	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	74	%	10-110		1	01/30/13 10:30	01/31/13 16:12	4165-60-0	
2-Fluorobiphenyl (S)	75	%	18-110		1	01/30/13 10:30	01/31/13 16:12	321-60-8	
Terphenyl-d14 (S)	96	%	10-123		1	01/30/13 10:30	01/31/13 16:12	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**7.8**	%	0.10	0.10	1		01/29/13 05:11		

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ANALYTICAL RESULTS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Sample: OS-5 2'-3' **Lab ID: 3581078037** Collected: 01/25/13 11:30 Received: 01/25/13 12:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8081 GCS Pesticides	Analytical Method: EPA 8081 Preparation Method: EPA 3546								
Dieldrin	**0.000064 I**	mg/kg	0.0019	0.000046	1	02/08/13 01:00	02/08/13 21:17	60-57-1	
Surrogates									
Tetrachloro-m-xylene (S)	91	%	63-132		1	02/08/13 01:00	02/08/13 21:17	877-09-8	
Decachlorobiphenyl (S)	100	%	47-167		1	02/08/13 01:00	02/08/13 21:17	2051-24-3	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**0.81**	mg/kg	0.55	0.27	1	02/07/13 16:28	02/12/13 16:36	7440-38-2	
8270 MSSV Short List Microwave	Analytical Method: EPA 8270 Preparation Method: EPA 3546								
Acenaphthene	**0.014U**	mg/kg	0.037	0.014	1	02/07/13 17:00	02/08/13 09:25	83-32-9	
Acenaphthylene	**0.012U**	mg/kg	0.037	0.012	1	02/07/13 17:00	02/08/13 09:25	208-96-8	
Anthracene	**0.011U**	mg/kg	0.037	0.011	1	02/07/13 17:00	02/08/13 09:25	120-12-7	
Benzo(a)anthracene	**0.011 I**	mg/kg	0.037	0.011	1	02/07/13 17:00	02/08/13 09:25	56-55-3	
Benzo(a)pyrene	**0.0080 I**	mg/kg	0.037	0.0044	1	02/07/13 17:00	02/08/13 09:25	50-32-8	
Benzo(b)fluoranthene	**0.028U**	mg/kg	0.037	0.028	1	02/07/13 17:00	02/08/13 09:25	205-99-2	
Benzo(g,h,i)perylene	**0.013U**	mg/kg	0.037	0.013	1	02/07/13 17:00	02/08/13 09:25	191-24-2	
Benzo(k)fluoranthene	**0.0081U**	mg/kg	0.037	0.0081	1	02/07/13 17:00	02/08/13 09:25	207-08-9	
Chrysene	**0.013U**	mg/kg	0.037	0.013	1	02/07/13 17:00	02/08/13 09:25	218-01-9	
Dibenz(a,h)anthracene	**0.011U**	mg/kg	0.037	0.011	1	02/07/13 17:00	02/08/13 09:25	53-70-3	
Fluoranthene	**0.014 I**	mg/kg	0.037	0.012	1	02/07/13 17:00	02/08/13 09:25	206-44-0	
Fluorene	**0.017U**	mg/kg	0.037	0.017	1	02/07/13 17:00	02/08/13 09:25	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.015U**	mg/kg	0.037	0.015	1	02/07/13 17:00	02/08/13 09:25	193-39-5	
1-Methylnaphthalene	**0.013U**	mg/kg	0.037	0.013	1	02/07/13 17:00	02/08/13 09:25	90-12-0	
2-Methylnaphthalene	**0.015U**	mg/kg	0.037	0.015	1	02/07/13 17:00	02/08/13 09:25	91-57-6	
Naphthalene	**0.012U**	mg/kg	0.037	0.012	1	02/07/13 17:00	02/08/13 09:25	91-20-3	
Phenanthrene	**0.014U**	mg/kg	0.037	0.014	1	02/07/13 17:00	02/08/13 09:25	85-01-8	
Pyrene	**0.013 I**	mg/kg	0.037	0.012	1	02/07/13 17:00	02/08/13 09:25	129-00-0	
Surrogates									
Nitrobenzene-d5 (S)	56	%	10-110		1	02/07/13 17:00	02/08/13 09:25	4165-60-0	
2-Fluorobiphenyl (S)	60	%	18-110		1	02/07/13 17:00	02/08/13 09:25	321-60-8	
Terphenyl-d14 (S)	71	%	10-123		1	02/07/13 17:00	02/08/13 09:25	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.8**	%	0.10	0.10	1		02/06/13 00:51		

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: MPRP/12000 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 3581078001, 3581078002, 3581078003, 3581078004, 3581078005, 3581078006, 3581078007, 3581078008, 3581078009, 3581078016, 3581078017, 3581078018, 3581078019, 3581078020, 3581078021, 3581078022, 3581078023, 3581078024, 3581078025, 3581078026

METHOD BLANK: 552164 Matrix: Solid
Associated Lab Samples: 3581078001, 3581078002, 3581078003, 3581078004, 3581078005, 3581078006, 3581078007, 3581078008, 3581078009, 3581078016, 3581078017, 3581078018, 3581078019, 3581078020, 3581078021, 3581078022, 3581078023, 3581078024, 3581078025, 3581078026

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	0.24U	0.48	01/30/13 09:55	

LABORATORY CONTROL SAMPLE: 552165

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	12.4	12.3	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 552166 552167

Parameter	Units	3581078001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	0.91	13.2	12.7	14.2	14.9	101	110	75-125	5	20	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: MPRP/12001 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 3581078027, 3581078029, 3581078030, 3581078032, 3581078033, 3581078035, 3581078036

METHOD BLANK: 552168 Matrix: Solid
Associated Lab Samples: 3581078027, 3581078029, 3581078030, 3581078032, 3581078033, 3581078035, 3581078036

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	0.24U	0.49	01/30/13 08:35	

LABORATORY CONTROL SAMPLE: 552169

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	12.1	12.5	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 552170 552171

Parameter	Units	3581078027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	5.7	12.8	13.3	19.0	18.9	105	100	75-125	.4	20	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: MPRP/12131 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 3581078028, 3581078031, 3581078034, 3581078037

METHOD BLANK: 559592 Matrix: Solid
Associated Lab Samples: 3581078028, 3581078031, 3581078034, 3581078037

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	0.24U	0.49	02/12/13 15:30	

LABORATORY CONTROL SAMPLE: 559593

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	12.1	12.2	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 559594 559595

Parameter	Units	3581078028 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	2.0	14.7	14.5	19.8	17.9	121	110	75-125	10	20	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: OEXT/11362 Analysis Method: EPA 8081
QC Batch Method: EPA 3546 Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 3581078004, 3581078005, 3581078006, 3581078023, 3581078024, 3581078025, 3581078029, 3581078030

METHOD BLANK: 552873 Matrix: Solid
Associated Lab Samples: 3581078004, 3581078005, 3581078006, 3581078023, 3581078024, 3581078025, 3581078029, 3581078030

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dieldrin	mg/kg	0.000040U	0.0017	01/31/13 15:43	
Decachlorobiphenyl (S)	%	113	47-167	01/31/13 15:43	
Tetrachloro-m-xylene (S)	%	99	63-132	01/31/13 15:43	

LABORATORY CONTROL SAMPLE: 552874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dieldrin	mg/kg	.017	0.018	108	70-132	
Decachlorobiphenyl (S)	%			114	47-167	
Tetrachloro-m-xylene (S)	%			98	63-132	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 553341 553342

Parameter	Units	3581078005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dieldrin	mg/kg	0.00000050U mg/L	.02	.02	0.021	0.016	106	79	70-132	29	40	
Decachlorobiphenyl (S)	%						71	65	47-167			
Tetrachloro-m-xylene (S)	%						83	83	63-132			

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: OEXT/11457 Analysis Method: EPA 8081
QC Batch Method: EPA 3546 Analysis Description: 8081 GCS Pesticides
Associated Lab Samples: 3581078028, 3581078031, 3581078034, 3581078037

METHOD BLANK: 558650 Matrix: Solid
Associated Lab Samples: 3581078028, 3581078031, 3581078034, 3581078037

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dieldrin	mg/kg	0.000040U	0.0017	02/08/13 19:05	
Decachlorobiphenyl (S)	%	100	47-167	02/08/13 19:05	
Tetrachloro-m-xylene (S)	%	98	63-132	02/08/13 19:05	

LABORATORY CONTROL SAMPLE: 558651

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dieldrin	mg/kg	.017	0.018	107	70-132	
Decachlorobiphenyl (S)	%			103	47-167	
Tetrachloro-m-xylene (S)	%			94	63-132	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 558972 558973

Parameter	Units	3581078028 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dieldrin	mg/kg	0.0010 I	.02	.02	0.020	0.020	101	100	70-132	.1	40	
Decachlorobiphenyl (S)	%						94	91	47-167			
Tetrachloro-m-xylene (S)	%						90	91	63-132			

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: OEXT/11367 Analysis Method: EPA 8081
QC Batch Method: EPA 3510 Analysis Description: 8081 GCS SPLP Pesticides
Associated Lab Samples: 3581078004, 3581078005, 3581078006

METHOD BLANK: 553316 Matrix: Water
Associated Lab Samples: 3581078004, 3581078005, 3581078006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dieldrin	mg/L	0.00000050U	0.000010	01/31/13 16:22	
Decachlorobiphenyl (S)	%	86	41.7-109.1	01/31/13 16:22	
Tetrachloro-m-xylene (S)	%	71	66.5-120.3	01/31/13 16:22	

LABORATORY CONTROL SAMPLE & LCSD: 553317 553426

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Dieldrin	mg/L	.0005	0.00046	0.00047	93	94	63-130	.6	40	
Decachlorobiphenyl (S)	%				82	87	41.7-109.			
Tetrachloro-m-xylene (S)	%				77	76	66.5-120.			

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: OEXT/11349 | Analysis Method: EPA 8270
QC Batch Method: EPA 3546 | Analysis Description: 8270 Solid MSSV Microwave Short Spike

Associated Lab Samples: 3581078001, 3581078002, 3581078003, 3581078010, 3581078011, 3581078012, 3581078013, 3581078014, 3581078015, 3581078016, 3581078017, 3581078018, 3581078019, 3581078020, 3581078021, 3581078022, 3581078026, 3581078027, 3581078029

METHOD BLANK: 552284 | Matrix: Solid

Associated Lab Samples: 3581078001, 3581078002, 3581078003, 3581078010, 3581078011, 3581078012, 3581078013, 3581078014, 3581078015, 3581078016, 3581078017, 3581078018, 3581078019, 3581078020, 3581078021, 3581078022, 3581078026, 3581078027, 3581078029

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	0.012U	0.033	01/31/13 04:19	
2-Methylnaphthalene	mg/kg	0.013U	0.033	01/31/13 04:19	
Acenaphthene	mg/kg	0.012U	0.033	01/31/13 04:19	
Acenaphthylene	mg/kg	0.010U	0.033	01/31/13 04:19	
Anthracene	mg/kg	0.010U	0.033	01/31/13 04:19	
Benzo(a)anthracene	mg/kg	0.0096U	0.033	01/31/13 04:19	
Benzo(a)pyrene	mg/kg	0.0039U	0.033	01/31/13 04:19	
Benzo(b)fluoranthene	mg/kg	0.025U	0.033	01/31/13 04:19	
Benzo(g,h,i)perylene	mg/kg	0.012U	0.033	01/31/13 04:19	
Benzo(k)fluoranthene	mg/kg	0.0072U	0.033	01/31/13 04:19	
Chrysene	mg/kg	0.012U	0.033	01/31/13 04:19	
Dibenz(a,h)anthracene	mg/kg	0.0095U	0.033	01/31/13 04:19	
Fluoranthene	mg/kg	0.011U	0.033	01/31/13 04:19	
Fluorene	mg/kg	0.015U	0.033	01/31/13 04:19	
Indeno(1,2,3-cd)pyrene	mg/kg	0.013U	0.033	01/31/13 04:19	
Naphthalene	mg/kg	0.011U	0.033	01/31/13 04:19	
Phenanthrene	mg/kg	0.012U	0.033	01/31/13 04:19	
Pyrene	mg/kg	0.010U	0.033	01/31/13 04:19	
2-Fluorobiphenyl (S)	%	58	18-110	01/31/13 04:19	
Nitrobenzene-d5 (S)	%	50	10-110	01/31/13 04:19	
Terphenyl-d14 (S)	%	69	10-123	01/31/13 04:19	

LABORATORY CONTROL SAMPLE: 552285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	1.1	69	27-123	
2-Methylnaphthalene	mg/kg	1.7	1.1	65	16-137	
Acenaphthene	mg/kg	1.7	1.1	64	37-120	
Acenaphthylene	mg/kg	1.7	1.1	66	41-120	
Anthracene	mg/kg	1.7	1.1	63	45-120	
Benzo(a)anthracene	mg/kg	1.7	1.2	71	44-120	
Benzo(a)pyrene	mg/kg	1.7	1.1	68	44-123	
Benzo(b)fluoranthene	mg/kg	1.7	1.1	69	37-124	
Benzo(g,h,i)perylene	mg/kg	1.7	1.2	70	42-125	
Benzo(k)fluoranthene	mg/kg	1.7	1.1	68	44-126	
Chrysene	mg/kg	1.7	1.2	72	45-120	
Dibenz(a,h)anthracene	mg/kg	1.7	1.2	71	43-124	
Fluoranthene	mg/kg	1.7	1.2	74	45-120	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

LABORATORY CONTROL SAMPLE: 552285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	mg/kg	1.7	1.2	70	42-120	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.2	72	43-123	
Naphthalene	mg/kg	1.7	1.0	62	40-120	
Phenanthrene	mg/kg	1.7	1.2	69	36-125	
Pyrene	mg/kg	1.7	1.1	68	41-123	
2-Fluorobiphenyl (S)	%			61	18-110	
Nitrobenzene-d5 (S)	%			52	10-110	
Terphenyl-d14 (S)	%			66	10-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 552629 552630

Parameter	Units	3581078027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	0.012U	1.8	1.8	1.5	1.5	85	84	27-123	2	40	
2-Methylnaphthalene	mg/kg	0.014U	1.8	1.8	1.5	1.4	82	80	16-137	3	40	
Acenaphthene	mg/kg	0.013U	1.8	1.8	1.4	1.4	81	78	37-120	3	40	
Acenaphthylene	mg/kg	0.011U	1.8	1.8	1.5	1.4	84	81	41-120	3	40	
Anthracene	mg/kg	0.014 I	1.8	1.8	1.5	1.4	82	80	45-120	2	40	
Benzo(a)anthracene	mg/kg	0.20	1.8	1.8	1.9	1.8	94	90	44-120	4	40	
Benzo(a)pyrene	mg/kg	0.25	1.8	1.8	1.9	1.8	95	89	44-123	6	40	
Benzo(b)fluoranthene	mg/kg	0.48	1.8	1.8	2.0	1.9	87	79	37-124	7	40	
Benzo(g,h,i)perylene	mg/kg	0.19	1.8	1.8	1.7	1.7	87	84	42-125	3	40	
Benzo(k)fluoranthene	mg/kg	0.0076 U	1.8	1.8	2.0	1.8	110	103	44-126	6	40	
Chrysene	mg/kg	0.28	1.8	1.8	2.0	1.9	96	90	45-120	6	40	
Dibenz(a,h)anthracene	mg/kg	0.050	1.8	1.8	1.5	1.6	83	87	43-124	5	40	
Fluoranthene	mg/kg	0.40	1.8	1.8	2.3	2.1	106	95	45-120	9	40	
Fluorene	mg/kg	0.016U	1.8	1.8	1.6	1.6	90	87	42-120	3	40	
Indeno(1,2,3-cd)pyrene	mg/kg	0.17	1.8	1.8	1.8	1.7	90	87	43-123	4	40	
Naphthalene	mg/kg	0.011U	1.8	1.8	1.3	1.3	74	74	40-120	.3	40	
Phenanthrene	mg/kg	0.085	1.8	1.8	1.7	1.7	93	89	36-125	4	40	
Pyrene	mg/kg	0.32	1.8	1.8	2.1	1.9	99	90	41-123	8	40	
2-Fluorobiphenyl (S)	%						75	74	18-110			
Nitrobenzene-d5 (S)	%						60	60	10-110			
Terphenyl-d14 (S)	%						85	84	10-123			

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: OEXT/11350 | Analysis Method: EPA 8270
QC Batch Method: EPA 3546 | Analysis Description: 8270 Solid MSSV Microwave Short Spike
Associated Lab Samples: 3581078030, 3581078035, 3581078036

METHOD BLANK: 552292 | Matrix: Solid
Associated Lab Samples: 3581078030, 3581078035, 3581078036

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	0.012U	0.033	01/31/13 14:43	
2-Methylnaphthalene	mg/kg	0.013U	0.033	01/31/13 14:43	
Acenaphthene	mg/kg	0.012U	0.033	01/31/13 14:43	
Acenaphthylene	mg/kg	0.010U	0.033	01/31/13 14:43	
Anthracene	mg/kg	0.010U	0.033	01/31/13 14:43	
Benzo(a)anthracene	mg/kg	0.0096U	0.033	01/31/13 14:43	
Benzo(a)pyrene	mg/kg	0.0039U	0.033	01/31/13 14:43	
Benzo(b)fluoranthene	mg/kg	0.025U	0.033	01/31/13 14:43	
Benzo(g,h,i)perylene	mg/kg	0.012U	0.033	01/31/13 14:43	
Benzo(k)fluoranthene	mg/kg	0.0072U	0.033	01/31/13 14:43	
Chrysene	mg/kg	0.012U	0.033	01/31/13 14:43	
Dibenz(a,h)anthracene	mg/kg	0.0095U	0.033	01/31/13 14:43	
Fluoranthene	mg/kg	0.011U	0.033	01/31/13 14:43	
Fluorene	mg/kg	0.015U	0.033	01/31/13 14:43	
Indeno(1,2,3-cd)pyrene	mg/kg	0.013U	0.033	01/31/13 14:43	
Naphthalene	mg/kg	0.011U	0.033	01/31/13 14:43	
Phenanthrene	mg/kg	0.012U	0.033	01/31/13 14:43	
Pyrene	mg/kg	0.010U	0.033	01/31/13 14:43	
2-Fluorobiphenyl (S)	%	82	18-110	01/31/13 14:43	
Nitrobenzene-d5 (S)	%	85	10-110	01/31/13 14:43	
Terphenyl-d14 (S)	%	109	10-123	01/31/13 14:43	

LABORATORY CONTROL SAMPLE: 552293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	1.4	83	27-123	
2-Methylnaphthalene	mg/kg	1.7	1.4	84	16-137	
Acenaphthene	mg/kg	1.7	1.4	86	37-120	
Acenaphthylene	mg/kg	1.7	1.5	89	41-120	
Anthracene	mg/kg	1.7	1.6	93	45-120	
Benzo(a)anthracene	mg/kg	1.7	1.5	92	44-120	
Benzo(a)pyrene	mg/kg	1.7	1.6	95	44-123	
Benzo(b)fluoranthene	mg/kg	1.7	1.5	90	37-124	
Benzo(g,h,i)perylene	mg/kg	1.7	1.7	99	42-125	
Benzo(k)fluoranthene	mg/kg	1.7	1.6	96	44-126	
Chrysene	mg/kg	1.7	1.5	88	45-120	
Dibenz(a,h)anthracene	mg/kg	1.7	1.6	98	43-124	
Fluoranthene	mg/kg	1.7	1.7	102	45-120	
Fluorene	mg/kg	1.7	1.5	89	42-120	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.6	98	43-123	
Naphthalene	mg/kg	1.7	1.3	79	40-120	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

LABORATORY CONTROL SAMPLE: 552293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	mg/kg	1.7	1.6	94	36-125	
Pyrene	mg/kg	1.7	1.7	101	41-123	
2-Fluorobiphenyl (S)	%			79	18-110	
Nitrobenzene-d5 (S)	%			81	10-110	
Terphenyl-d14 (S)	%			107	10-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 552631 552632

Parameter	Units	3581201001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	0.014U	2	2	1.5	1.6	76	79	27-123	3	40	
2-Methylnaphthalene	mg/kg	0.016U	2	2	1.6	1.6	78	81	16-137	4	40	
Acenaphthene	mg/kg	0.014U	2	2	1.6	1.6	80	80	37-120	.6	40	
Acenaphthylene	mg/kg	0.012U	2	2	1.6	1.6	81	82	41-120	1	40	
Anthracene	mg/kg	0.012U	2	2	1.7	1.7	86	88	45-120	2	40	
Benzo(a)anthracene	mg/kg	0.011U	2	2	1.7	1.7	87	86	44-120	1	40	
Benzo(a)pyrene	mg/kg	0.0046 U	2	2	1.8	1.8	92	90	44-123	2	40	
Benzo(b)fluoranthene	mg/kg	0.030U	2	2	1.8	1.9	92	95	37-124	4	40	
Benzo(g,h,i)perylene	mg/kg	0.014U	2	2	1.8	1.8	92	91	42-125	.9	40	
Benzo(k)fluoranthene	mg/kg	0.0085 U	2	2	1.7	1.6	87	82	44-126	6	40	
Chrysene	mg/kg	0.014U	2	2	1.7	1.7	86	85	45-120	.9	40	
Dibenz(a,h)anthracene	mg/kg	0.011U	2	2	1.8	1.8	92	92	43-124	.1	40	
Fluoranthene	mg/kg	0.013U	2	2	1.9	1.8	94	93	45-120	2	40	
Fluorene	mg/kg	0.018U	2	2	1.7	1.6	84	82	42-120	3	40	
Indeno(1,2,3-cd)pyrene	mg/kg	0.015U	2	2	1.8	1.8	92	92	43-123	.9	40	
Naphthalene	mg/kg	0.013U	2	2	1.4	1.5	73	76	40-120	4	40	
Phenanthrene	mg/kg	0.015U	2	2	1.8	1.8	88	90	36-125	2	40	
Pyrene	mg/kg	0.012U	2	2	1.9	1.9	93	93	41-123	.1	40	
2-Fluorobiphenyl (S)	%						76	78	18-110			
Nitrobenzene-d5 (S)	%						75	77	10-110			
Terphenyl-d14 (S)	%						97	99	10-123			

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: OEXT/11448 Analysis Method: EPA 8270
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave Short Spike
Associated Lab Samples: 3581078028, 3581078031, 3581078034, 3581078037

METHOD BLANK: 557490 Matrix: Solid
Associated Lab Samples: 3581078028, 3581078031, 3581078034, 3581078037

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	0.012U	0.033	02/08/13 07:37	
2-Methylnaphthalene	mg/kg	0.013U	0.033	02/08/13 07:37	
Acenaphthene	mg/kg	0.012U	0.033	02/08/13 07:37	
Acenaphthylene	mg/kg	0.010U	0.033	02/08/13 07:37	
Anthracene	mg/kg	0.010U	0.033	02/08/13 07:37	
Benzo(a)anthracene	mg/kg	0.0096U	0.033	02/08/13 07:37	
Benzo(a)pyrene	mg/kg	0.0039U	0.033	02/08/13 07:37	
Benzo(b)fluoranthene	mg/kg	0.025U	0.033	02/08/13 07:37	
Benzo(g,h,i)perylene	mg/kg	0.012U	0.033	02/08/13 07:37	
Benzo(k)fluoranthene	mg/kg	0.0072U	0.033	02/08/13 07:37	
Chrysene	mg/kg	0.012U	0.033	02/08/13 07:37	
Dibenz(a,h)anthracene	mg/kg	0.0095U	0.033	02/08/13 07:37	
Fluoranthene	mg/kg	0.011U	0.033	02/08/13 07:37	
Fluorene	mg/kg	0.015U	0.033	02/08/13 07:37	
Indeno(1,2,3-cd)pyrene	mg/kg	0.013U	0.033	02/08/13 07:37	
Naphthalene	mg/kg	0.011U	0.033	02/08/13 07:37	
Phenanthrene	mg/kg	0.012U	0.033	02/08/13 07:37	
Pyrene	mg/kg	0.010U	0.033	02/08/13 07:37	
2-Fluorobiphenyl (S)	%	66	18-110	02/08/13 07:37	
Nitrobenzene-d5 (S)	%	64	10-110	02/08/13 07:37	
Terphenyl-d14 (S)	%	78	10-123	02/08/13 07:37	

LABORATORY CONTROL SAMPLE: 557491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	1.1	67	27-123	
2-Methylnaphthalene	mg/kg	1.7	1.1	66	16-137	
Acenaphthene	mg/kg	1.7	1.1	64	37-120	
Acenaphthylene	mg/kg	1.7	1.1	67	41-120	
Anthracene	mg/kg	1.7	1.2	73	45-120	
Benzo(a)anthracene	mg/kg	1.7	1.2	74	44-120	
Benzo(a)pyrene	mg/kg	1.7	1.3	78	44-123	
Benzo(b)fluoranthene	mg/kg	1.7	1.1	68	37-124	
Benzo(g,h,i)perylene	mg/kg	1.7	1.2	72	42-125	
Benzo(k)fluoranthene	mg/kg	1.7	1.3	80	44-126	
Chrysene	mg/kg	1.7	1.3	78	45-120	
Dibenz(a,h)anthracene	mg/kg	1.7	1.2	74	43-124	
Fluoranthene	mg/kg	1.7	1.3	76	45-120	
Fluorene	mg/kg	1.7	1.1	66	42-120	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.2	74	43-123	
Naphthalene	mg/kg	1.7	1.0	62	40-120	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

LABORATORY CONTROL SAMPLE: 557491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	mg/kg	1.7	1.2	74	36-125	
Pyrene	mg/kg	1.7	1.3	77	41-123	
2-Fluorobiphenyl (S)	%			67	18-110	
Nitrobenzene-d5 (S)	%			62	10-110	
Terphenyl-d14 (S)	%			77	10-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 558289 558290

Parameter	Units	3581898020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	0.014U	2	2	1.4	1.5	70	77	27-123	9	40	
2-Methylnaphthalene	mg/kg	0.016U	2	2	1.3	1.5	69	75	16-137	9	40	
Acenaphthene	mg/kg	0.014U	2	2	1.3	1.4	67	71	37-120	6	40	
Acenaphthylene	mg/kg	0.012U	2	2	1.4	1.5	70	76	41-120	7	40	
Anthracene	mg/kg	0.012U	2	2	1.4	1.5	74	76	45-120	3	40	
Benzo(a)anthracene	mg/kg	0.011U	2	2	1.5	1.5	75	76	44-120	.8	40	
Benzo(a)pyrene	mg/kg	0.0045 U	2	2	1.5	1.6	78	79	44-123	2	40	
Benzo(b)fluoranthene	mg/kg	0.029U	2	2	1.4	1.4	71	72	37-124	1	40	
Benzo(g,h,i)perylene	mg/kg	0.014U	2	2	1.4	1.4	70	69	42-125	.5	40	
Benzo(k)fluoranthene	mg/kg	0.0084 U	2	2	1.5	1.6	79	80	44-126	2	40	
Chrysene	mg/kg	0.014U	2	2	1.6	1.6	80	81	45-120	1	40	
Dibenz(a,h)anthracene	mg/kg	0.011U	2	2	1.4	1.4	74	74	43-124	.4	40	
Fluoranthene	mg/kg	0.013U	2	2	1.5	1.5	76	78	45-120	2	40	
Fluorene	mg/kg	0.017U	2	2	1.3	1.4	68	72	42-120	6	40	
Indeno(1,2,3-cd)pyrene	mg/kg	0.015U	2	2	1.4	1.5	73	74	43-123	2	40	
Naphthalene	mg/kg	0.013U	2	2	1.3	1.4	67	72	40-120	8	40	
Phenanthrene	mg/kg	0.015U	2	2	1.5	1.5	77	77	36-125	.6	40	
Pyrene	mg/kg	0.012U	2	2	1.5	1.5	79	79	41-123	.4	40	
2-Fluorobiphenyl (S)	%						69	72	18-110			
Nitrobenzene-d5 (S)	%						63	69	10-110			
Terphenyl-d14 (S)	%						77	77	10-123			

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: OEXT/11458 | Analysis Method: EPA 8270
QC Batch Method: EPA 3546 | Analysis Description: 8270 Solid MSSV Microwave Short Spike
Associated Lab Samples: 3581078032, 3581078033, 3581078034

METHOD BLANK: 558652 | Matrix: Solid
Associated Lab Samples: 3581078032, 3581078033, 3581078034

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	0.012U	0.033	02/11/13 08:55	
2-Methylnaphthalene	mg/kg	0.013U	0.033	02/11/13 08:55	
Acenaphthene	mg/kg	0.012U	0.033	02/11/13 08:55	
Acenaphthylene	mg/kg	0.010U	0.033	02/11/13 08:55	
Anthracene	mg/kg	0.010U	0.033	02/11/13 08:55	
Benzo(a)anthracene	mg/kg	0.0096U	0.033	02/11/13 08:55	
Benzo(a)pyrene	mg/kg	0.0039U	0.033	02/11/13 08:55	
Benzo(b)fluoranthene	mg/kg	0.025U	0.033	02/11/13 08:55	
Benzo(g,h,i)perylene	mg/kg	0.012U	0.033	02/11/13 08:55	
Benzo(k)fluoranthene	mg/kg	0.0072U	0.033	02/11/13 08:55	
Chrysene	mg/kg	0.012U	0.033	02/11/13 08:55	
Dibenz(a,h)anthracene	mg/kg	0.0095U	0.033	02/11/13 08:55	
Fluoranthene	mg/kg	0.011U	0.033	02/11/13 08:55	
Fluorene	mg/kg	0.015U	0.033	02/11/13 08:55	
Indeno(1,2,3-cd)pyrene	mg/kg	0.013U	0.033	02/11/13 08:55	
Naphthalene	mg/kg	0.011U	0.033	02/11/13 08:55	
Phenanthrene	mg/kg	0.012U	0.033	02/11/13 08:55	
Pyrene	mg/kg	0.010U	0.033	02/11/13 08:55	
2-Fluorobiphenyl (S)	%	76	18-110	02/11/13 08:55	
Nitrobenzene-d5 (S)	%	69	10-110	02/11/13 08:55	
Terphenyl-d14 (S)	%	80	10-123	02/11/13 08:55	

LABORATORY CONTROL SAMPLE: 558653

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	1.7	1.2	75	27-123	
2-Methylnaphthalene	mg/kg	1.7	1.2	74	16-137	
Acenaphthene	mg/kg	1.7	1.2	73	37-120	
Acenaphthylene	mg/kg	1.7	1.3	78	41-120	
Anthracene	mg/kg	1.7	1.3	78	45-120	
Benzo(a)anthracene	mg/kg	1.7	1.3	80	44-120	
Benzo(a)pyrene	mg/kg	1.7	1.4	85	44-123	
Benzo(b)fluoranthene	mg/kg	1.7	1.3	79	37-124	
Benzo(g,h,i)perylene	mg/kg	1.7	1.4	86	42-125	
Benzo(k)fluoranthene	mg/kg	1.7	1.4	85	44-126	
Chrysene	mg/kg	1.7	1.5	89	45-120	
Dibenz(a,h)anthracene	mg/kg	1.7	1.5	87	43-124	
Fluoranthene	mg/kg	1.7	1.3	80	45-120	
Fluorene	mg/kg	1.7	1.2	74	42-120	
Indeno(1,2,3-cd)pyrene	mg/kg	1.7	1.4	86	43-123	
Naphthalene	mg/kg	1.7	1.2	71	40-120	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

LABORATORY CONTROL SAMPLE: 558653

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	mg/kg	1.7	1.3	80	36-125	
Pyrene	mg/kg	1.7	1.4	83	41-123	
2-Fluorobiphenyl (S)	%			75	18-110	
Nitrobenzene-d5 (S)	%			67	10-110	
Terphenyl-d14 (S)	%			80	10-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 559807 559808

Parameter	Units	3582214021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	0.012U	1.8	1.8	1.3	1.2	72	69	27-123	5	40	
2-Methylnaphthalene	mg/kg	0.014U	1.8	1.8	1.2	1.2	70	68	16-137	3	40	
Acenaphthene	mg/kg	0.013U	1.8	1.8	1.2	1.2	70	70	37-120	.3	40	
Acenaphthylene	mg/kg	0.011U	1.8	1.8	1.3	1.3	72	72	41-120	.07	40	
Anthracene	mg/kg	0.011U	1.8	1.8	1.3	1.3	73	73	45-120	.9	40	
Benzo(a)anthracene	mg/kg	0.010U	1.8	1.8	1.4	1.3	78	77	44-120	1	40	
Benzo(a)pyrene	mg/kg	0.0040 U	1.8	1.8	1.4	1.4	82	80	44-123	2	40	
Benzo(b)fluoranthene	mg/kg	0.026U	1.8	1.8	1.2	1.2	71	70	37-124	2	40	
Benzo(g,h,i)perylene	mg/kg	0.012U	1.8	1.8	1.3	1.3	75	76	42-125	1	40	
Benzo(k)fluoranthene	mg/kg	0.0074 U	1.8	1.8	1.4	1.5	82	84	44-126	3	40	
Chrysene	mg/kg	0.012U	1.8	1.8	1.5	1.5	87	87	45-120	.2	40	
Dibenz(a,h)anthracene	mg/kg	0.0099 U	1.8	1.8	1.4	1.4	78	78	43-124	.1	40	
Fluoranthene	mg/kg	0.011U	1.8	1.8	1.3	1.3	76	77	45-120	.8	40	
Fluorene	mg/kg	0.016U	1.8	1.8	1.2	1.2	70	70	42-120	.7	40	
Indeno(1,2,3-cd)pyrene	mg/kg	0.013U	1.8	1.8	1.3	1.4	77	78	43-123	.8	40	
Naphthalene	mg/kg	0.011U	1.8	1.8	1.1	1.1	66	64	40-120	2	40	
Phenanthrene	mg/kg	0.013U	1.8	1.8	1.3	1.3	76	75	36-125	1	40	
Pyrene	mg/kg	0.011U	1.8	1.8	1.4	1.4	79	81	41-123	2	40	
2-Fluorobiphenyl (S)	%						71	69	18-110			
Nitrobenzene-d5 (S)	%						63	63	10-110			
Terphenyl-d14 (S)	%						80	80	10-123			

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: PMST/1579 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 3581078001, 3581078002, 3581078004, 3581078005, 3581078006, 3581078007, 3581078008, 3581078009, 3581078010, 3581078011, 3581078012, 3581078013, 3581078014, 3581078015, 3581078016, 3581078017, 3581078018, 3581078019, 3581078020, 3581078021, 3581078022, 3581078023, 3581078024, 3581078025, 3581078026

SAMPLE DUPLICATE: 551754

Parameter	Units	3581078001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.0	5.3	6	10	

SAMPLE DUPLICATE: 551755

Parameter	Units	3581078010 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.3	4.3	.6	10	

SAMPLE DUPLICATE: 551756

Parameter	Units	3581078019 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	9.4	7.8	18	10	

SAMPLE DUPLICATE: 551757

Parameter	Units	3581078029 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	52.2	51.5	1	10	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: PMST/1580
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 3581078035, 3581078036

SAMPLE DUPLICATE: 551758

Parameter	Units	3581078035 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.9	7.7	2	10	

SAMPLE DUPLICATE: 551759

Parameter	Units	3581133008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.1	17.1	.2	10	

SAMPLE DUPLICATE: 551760

Parameter	Units	3581134005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.9	8.3	7	10	

SAMPLE DUPLICATE: 551761

Parameter	Units	3581134014 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.9	14.7	1	10	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: PMST/1583
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 3581078003

SAMPLE DUPLICATE: 553519

Parameter	Units	3581031001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	98.6	98.7	.1	10	

SAMPLE DUPLICATE: 553520

Parameter	Units	3581424006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	18.4	17.4	6	10	

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QUALITY CONTROL DATA

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

QC Batch: PMST/1587 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 3581078028, 3581078031, 3581078034, 3581078037

SAMPLE DUPLICATE: 556722

Parameter	Units	3581078028 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.5	13.2	9	10	

SAMPLE DUPLICATE: 556723

Parameter	Units	3581802004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.7	14.5	13	10	J(D6)

SAMPLE DUPLICATE: 556724

Parameter	Units	3581821003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.1	4.2	4	10	

SAMPLE DUPLICATE: 556725

Parameter	Units	3581745004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.1	11.6	12	10	J(D6)

SAMPLE DUPLICATE: 556726

Parameter	Units	3581865003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	9.0	8.8	2	10	

SAMPLE DUPLICATE: 556727

Parameter	Units	3581863003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.6	12.1	4	10	

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QUALIFIERS

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

I	The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
J(D6)	Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3581078004	**OS-09 0-6''**	EPA 3546	OEXT/11362	EPA 8081	GCSV/7757
3581078005	**OS-09 6''-2'**	EPA 3546	OEXT/11362	EPA 8081	GCSV/7757
3581078006	**OS-09 2'-3'**	EPA 3546	OEXT/11362	EPA 8081	GCSV/7757
3581078023	**OS-4 0-6''**	EPA 3546	OEXT/11362	EPA 8081	GCSV/7757
3581078024	**OS-4 6''-2'**	EPA 3546	OEXT/11362	EPA 8081	GCSV/7757
3581078025	**OS-4 2'-4'**	EPA 3546	OEXT/11362	EPA 8081	GCSV/7757
3581078028	**OS-8 2'-3'**	EPA 3546	OEXT/11457	EPA 8081	GCSV/7822
3581078029	**OS-7 0-6''**	EPA 3546	OEXT/11362	EPA 8081	GCSV/7757
3581078030	**OS-7 6''-2'**	EPA 3546	OEXT/11362	EPA 8081	GCSV/7757
3581078031	**OS-7 2'-3'**	EPA 3546	OEXT/11457	EPA 8081	GCSV/7822
3581078034	**OS-6 2'-3'**	EPA 3546	OEXT/11457	EPA 8081	GCSV/7822
3581078037	**OS-5 2'-3'**	EPA 3546	OEXT/11457	EPA 8081	GCSV/7822
3581078004	**OS-09 0-6''**	EPA 3510	OEXT/11367	EPA 8081	GCSV/7760
3581078005	**OS-09 6''-2'**	EPA 3510	OEXT/11367	EPA 8081	GCSV/7760
3581078006	**OS-09 2'-3'**	EPA 3510	OEXT/11367	EPA 8081	GCSV/7760
3581078001	**OS-11 0-6''**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078002	**OS-11 6-2'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078003	**OS-11 2'-4'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078004	**OS-09 0-6''**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078005	**OS-09 6''-2'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078006	**OS-09 2'-3'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078007	**OS-10 0-6''**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078008	**OS-10 6''-2'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078009	**OS-10 2'-3'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078016	**OS-3 0-6''**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078017	**OS-3 6''-2'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078018	**OS-3 2'-4'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078019	**OS-2 0-2'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078020	**OS-2 2-4'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078021	**OS-1 0-2'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078022	**OS-1 2'-4'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078023	**OS-4 0-6''**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078024	**OS-4 6''-2'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078025	**OS-4 2'-4'**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078026	**OS-8 0-6''**	EPA 3050	MPRP/12000	EPA 6010	ICP/7733
3581078027	**OS-8 6''-2'**	EPA 3050	MPRP/12001	EPA 6010	ICP/7734
3581078028	**OS-8 2'-3'**	EPA 3050	MPRP/12131	EPA 6010	ICP/7809
3581078029	**OS-7 0-6''**	EPA 3050	MPRP/12001	EPA 6010	ICP/7734
3581078030	**OS-7 6''-2'**	EPA 3050	MPRP/12001	EPA 6010	ICP/7734
3581078031	**OS-7 2'-3'**	EPA 3050	MPRP/12131	EPA 6010	ICP/7809
3581078032	**OS-6 0-6''**	EPA 3050	MPRP/12001	EPA 6010	ICP/7734
3581078033	**OS-6 6''-2'**	EPA 3050	MPRP/12001	EPA 6010	ICP/7734
3581078034	**OS-6 2'-3'**	EPA 3050	MPRP/12131	EPA 6010	ICP/7809

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3581078035	**OS-5 0-6"**	EPA 3050	MPRP/12001	EPA 6010	ICP/7734
3581078036	**OS-5 6"-2'**	EPA 3050	MPRP/12001	EPA 6010	ICP/7734
3581078037	**OS-5 2'-3'**	EPA 3050	MPRP/12131	EPA 6010	ICP/7809
3581078001	**OS-11 0-6"**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078002	**OS-11 6-2'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078003	**OS-11 2'-4'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078010	**OS-14 0-2"**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078011	**OS-14 2-4"**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078012	**OS-13 0-2'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078013	**OS-13 2'-3'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078014	**OS-12 0-2'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078015	**OS-12 2-3'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078016	**OS-3 0-6"**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078017	**OS-3 6"-2'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078018	**OS-3 2'-4'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078019	**OS-2 0-2'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078020	**OS-2 2-4'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078021	**OS-1 0-2'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078022	**OS-1 2'-4'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078026	**OS-8 0-6"**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078027	**OS-8 6"-2'**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078028	**OS-8 2'-3'**	EPA 3546	OEXT/11448	EPA 8270	MSSV/4301
3581078029	**OS-7 0-6"**	EPA 3546	OEXT/11349	EPA 8270	MSSV/4271
3581078030	**OS-7 6"-2'**	EPA 3546	OEXT/11350	EPA 8270	MSSV/4272
3581078031	**OS-7 2'-3'**	EPA 3546	OEXT/11448	EPA 8270	MSSV/4301
3581078032	**OS-6 0-6"**	EPA 3546	OEXT/11458	EPA 8270	MSSV/4311
3581078033	**OS-6 6"-2'**	EPA 3546	OEXT/11458	EPA 8270	MSSV/4311
3581078034	**OS-6 2'-3'**	EPA 3546	OEXT/11448	EPA 8270	MSSV/4301
3581078034	**OS-6 2'-3'**	EPA 3546	OEXT/11458	EPA 8270	MSSV/4311
3581078035	**OS-5 0-6"**	EPA 3546	OEXT/11350	EPA 8270	MSSV/4272
3581078036	**OS-5 6"-2'**	EPA 3546	OEXT/11350	EPA 8270	MSSV/4272
3581078037	**OS-5 2'-3'**	EPA 3546	OEXT/11448	EPA 8270	MSSV/4301
3581078001	**OS-11 0-6"**	ASTM D2974-87	PMST/1579		
3581078002	**OS-11 6-2'**	ASTM D2974-87	PMST/1579		
3581078003	**OS-11 2'-4'**	ASTM D2974-87	PMST/1583		
3581078004	**OS-09 0-6"**	ASTM D2974-87	PMST/1579		
3581078005	**OS-09 6"-2'**	ASTM D2974-87	PMST/1579		
3581078006	**OS-09 2'-3'**	ASTM D2974-87	PMST/1579		
3581078007	**OS-10 0-6"**	ASTM D2974-87	PMST/1579		
3581078008	**OS-10 6"-2'**	ASTM D2974-87	PMST/1579		
3581078009	**OS-10 2'-3'**	ASTM D2974-87	PMST/1579		
3581078010	**OS-14 0-2"**	ASTM D2974-87	PMST/1579		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jan '13 Soils/Pioneer Gardens
Pace Project No.: 3581078

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3581078011	**OS-14 2-4''**	ASTM D2974-87	PMST/1579		
3581078012	**OS-13 0-2'**	ASTM D2974-87	PMST/1579		
3581078013	**OS-13 2'-3'**	ASTM D2974-87	PMST/1579		
3581078014	**OS-12 0-2'**	ASTM D2974-87	PMST/1579		
3581078015	**OS-12 2-3'**	ASTM D2974-87	PMST/1579		
3581078016	**OS-3 0-6''**	ASTM D2974-87	PMST/1579		
3581078017	**OS-3 6''-2'**	ASTM D2974-87	PMST/1579		
3581078018	**OS-3 2'-4'**	ASTM D2974-87	PMST/1579		
3581078019	**OS-2 0-2'**	ASTM D2974-87	PMST/1579		
3581078020	**OS-2 2-4'**	ASTM D2974-87	PMST/1579		
3581078021	**OS-1 0-2'**	ASTM D2974-87	PMST/1579		
3581078022	**OS-1 2'-4'**	ASTM D2974-87	PMST/1579		
3581078023	**OS-4 0-6''**	ASTM D2974-87	PMST/1579		
3581078024	**OS-4 6''-2'**	ASTM D2974-87	PMST/1579		
3581078025	**OS-4 2'-4'**	ASTM D2974-87	PMST/1579		
3581078026	**OS-8 0-6''**	ASTM D2974-87	PMST/1579		
3581078027	**OS-8 6''-2'**	ASTM D2974-87	PMST/1579		
3581078028	**OS-8 2'-3'**	ASTM D2974-87	PMST/1587		
3581078029	**OS-7 0-6''**	ASTM D2974-87	PMST/1579		
3581078030	**OS-7 6''-2'**	ASTM D2974-87	PMST/1579		
3581078031	**OS-7 2'-3'**	ASTM D2974-87	PMST/1587		
3581078032	**OS-6 0-6''**	ASTM D2974-87	PMST/1579		
3581078033	**OS-6 6''-2'**	ASTM D2974-87	PMST/1579		
3581078034	**OS-6 2'-3'**	ASTM D2974-87	PMST/1587		
3581078035	**OS-5 0-6''**	ASTM D2974-87	PMST/1580		
3581078036	**OS-5 6''-2'**	ASTM D2974-87	PMST/1580		
3581078037	**OS-5 2'-3'**	ASTM D2974-87	PMST/1587		

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APPENDIX G

GROUNDWATER ANALYTICAL REPORT

Pace Analytical Services, Inc.
3610 Park Central Blvd N
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954-582-4300

February 05, 2013

Alison Drescher
Eco Advisors, LLC
3931 RCA Blvd. Suite 3114
Palm Beach Gardens, FL 33410

RE: Project: Pioneer Gardens
Pace Project No.: 3581373

Dear Alison Drescher:
Enclosed are the analytical results for sample(s) received by the laboratory on January 30, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Christina Raschke

christina.raschke@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Pioneer Gardens
Pace Project No.: 3581373

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Arizona Certification #: AZ0735
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nevada Certification: FL NELAC Reciprocity
New Hampshire Certification #: 2958
New Jersey Certification #: FL765
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Pace Analytical Services - Ormond certification number E83509
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Washington Certification #: C955
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Pioneer Gardens
Pace Project No.: 3581373

Lab ID	Sample ID	Matrix	Date Collected	Date Received
3581373001	**MW Street Sweeping 1D**	Water	01/29/13 13:05	01/30/13 13:53
3581373002	**MW Street Sweeping**	Water	01/29/13 13:50	01/30/13 13:53
3581373003	**MW-7**	Water	01/29/13 14:50	01/30/13 13:53

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SAMPLE ANALYTE COUNT

Project: Pioneer Gardens
Pace Project No.: 3581373

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3581373001	**MW Street Sweeping 1D**	EPA 350.1	SOA	1	PASI-O
3581373002	**MW Street Sweeping**	EPA 350.1	SOA	1	PASI-O
3581373003	**MW-7**	EPA 6010	TAP	1	PASI-O

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ANALYTICAL RESULTS

Project: Pioneer Gardens
Pace Project No.: 3581373

Sample: MW Street Sweeping 1D **Lab ID: 3581373001** Collected: 01/29/13 13:05 Received: 01/30/13 13:53 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**19.7**	mg/L	0.25	0.10	5		01/31/13 09:23	7664-41-7	

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ANALYTICAL RESULTS

Project: Pioneer Gardens
Pace Project No.: 3581373

Sample: MW Street Sweeping **Lab ID: 3581373002** Collected: 01/29/13 13:50 Received: 01/30/13 13:53 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
350.1 Ammonia	Analytical Method: EPA 350.1								
Nitrogen, Ammonia	**14.2**	mg/L	0.050	0.020	1		01/31/13 08:15	7664-41-7	

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ANALYTICAL RESULTS

Project: Pioneer Gardens
Pace Project No.: 3581373

Sample: MW-7 **Lab ID: 3581373003** Collected: 01/29/13 14:50 Received: 01/30/13 13:53 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Arsenic	**144**	ug/L	10.0	5.0	1	01/31/13 17:59	02/01/13 17:11	7440-38-2	

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QUALITY CONTROL DATA

Project: Pioneer Gardens
Pace Project No.: 3581373

QC Batch: MPRP/12034 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET
Associated Lab Samples: 3581373003

METHOD BLANK: 553866 | Matrix: Water
Associated Lab Samples: 3581373003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	5.0U	10.0	02/01/13 15:42	

LABORATORY CONTROL SAMPLE: 553867

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	250	246	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 553868 553869

Parameter	Units	3581197012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	5.0U	250	250	259	256	104	102	75-125	1	20	

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QUALITY CONTROL DATA

Project: Pioneer Gardens
Pace Project No.: 3581373

QC Batch: WETA/23488 | Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 | Analysis Description: 350.1 Ammonia
Associated Lab Samples: 3581373001, 3581373002

METHOD BLANK: 553408 | Matrix: Water
Associated Lab Samples: 3581373001, 3581373002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	0.020U	0.050	01/31/13 07:47	

LABORATORY CONTROL SAMPLE: 553409

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1	1.0	100	90-110	

MATRIX SPIKE SAMPLE: 553411

Parameter	Units	3581293001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.11	1	1.1	100	90-110	

SAMPLE DUPLICATE: 553410

Parameter	Units	3581293001 Result	Dup Result	RPD	Max RPD	Qualifiers
Nitrogen, Ammonia	mg/L	0.11	0.11	.4	20	

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QUALIFIERS

Project: Pioneer Gardens
Pace Project No.: 3581373

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Pioneer Gardens
Pace Project No.: 3581373

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3581373003	**MW-7**	EPA 3010	MPRP/12034	EPA 6010	ICP/7753
3581373001	**MW Street Sweeping 1D**	EPA 350.1	WETA/23488		
3581373002	**MW Street Sweeping**	EPA 350.1	WETA/23488		

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APPENDIX H

PHOTO LOG

MW-7 from Miami-Dade Stormwater Station

Area west of MW-7 from Miami-Dade Stormwater Station

North Side of Miami-Dade Stormwater Station

Northeast Corner of Miami Dade Stormwater Station (MW-7 to North)

ECO ADVISORS, LLC
Engineering A Sustainable Future

Client :	**City of North Miami**
Location:	**Pioneer Gardens-Former Rucks WWTP**
Ref:	**IW5-8624/File-8022**
Date of pic.:	**January 25, 2013**