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Mr. Scott Miller
Remedial Project Manager
Superfund Division
Superfund Remedial Branch
Section C
U.S. EPA Region 4
61 Forsyth Street, SW
Atlanta, GA 30303

ENVIRONMENT

Subject:

**Additional Off-Site Soil Sampling
West, South, Southeast, Residential Busy Street Background and NW 6th Street
Background Locations
Cabot Carbon/Koppers Superfund Site
Gainesville, Florida**

Date:
January 13, 2012

Contact:
Paul Anderson

Phone:
978-937-9999 (ext. 304)

Email:
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Dear Mr. Miller:

Our ref:
B0039196.0001

On behalf of Beazer Inc. (Beazer), ARCADIS is providing this revised proposal for additional off-Site soil samples in the vicinity of the Cabot Carbon/Koppers Superfund Site (Site) in Gainesville, Florida. The sampling locations proposed in this plan reflect changes based upon comments from the US Environmental Protection Agency (USEPA) dated July 11, 2011 on the *Off-Site Data Summary and Fingerprinting Evaluation* submitted on April 6, 2011 (*Off-Site Data Summary Report*); the draft comments received from USEPA on October 12 on the *Additional Off-Site Soil Sampling* plan submitted on August 31, 2011; and the comments received from USEPA on December 2 on the revised draft figures submitted to USEPA on November 21. Sample locations have been proposed to: 1) further delineate off-Site concentrations of arsenic, polynuclear aromatic hydrocarbons (PAHs), and dioxins/furans; 2) to better define local background concentrations of PAHs and dioxins/furans in the vicinity of busy streets outside the one-mile radius of the Site; and 3) to better define local background concentrations of PAHs and dioxins/furans along NW 6th Street to the northwest and southwest of the Site within the one-mile radius. Figures 1, 2 and 3 present the proposed additional sample locations to delineate off-Site arsenic, PAH and dioxin/furan concentrations, respectively. Figure 4 presents the proposed additional sample locations to establish a statistically robust Site-specific busy street background concentration and to define background conditions along NW 6th Street. The additional proposed off-Site

Imagine the result

sampling is described below by constituent followed by a description of the proposed background sampling.

Arsenic

Three sample locations, two west of the Site (SS09 and SS15) and one south of the Site (SS309), had arsenic concentrations above the residential delineation criterion (i.e., the residential SCTL of 2.1 mg/kg). In response to USEPA's comments six additional sampling locations have been selected for potential arsenic delineation: two along NW 31st Avenue, two along NW 26th Avenue, and two along NW 2nd Street (Figure 1, Table 1). The samples will be located within the ROW of each street. Samples on NW 31st Avenue (SS270 and SS271) and NW 26th Avenue (SS272 and SS273) will be located approximately 100 and 200 feet west of existing samples. Samples on NW 2nd Street (SS350 and SS351) will be located approximately 100 and 200 feet south of the existing sample. The samples on NW 31st Avenue and NW 27th Avenue will be analyzed for arsenic only. The samples on NW 2nd Street will be analyzed for arsenic and PAHs (PAH sampling discussed below).

The sampling and analyses will be conducted in phases (Table 1). The 100-foot samples (i.e., SS270, SS272 and SS350, shown in green on Figure 1) will be collected and analyzed first. If arsenic delineation criteria are met within a specific ROW, no other samples in that ROW will be analyzed for arsenic. If arsenic delineation criteria are not met at the 100-foot sample, then the 200-foot sample will be collected and analyzed for arsenic (referred to as contingent samples and shown in blue on Figure 1, Table 1).

Table 1. Proposed Arsenic Samples

Sample Requiring Additional Delineation	Proposed Sample Location	Proposed Contingent Sample Location
SS09	SS270	SS271
SS15	SS272	SS273
SS309	SS350	SS351

PAHs

Six sample locations, three west of the Site (SS06, SS07 and SS13) and three south of the Site (SS307, SS308 and SS309) had PAH concentrations (expressed as benzo(a)pyrene toxic equivalents or BaP-TE) above the residential delineation criterion (i.e., the residential SCTL of 100 ug/kg). One location to the east of the Site (SS310) had a BaP-TE concentration above the industrial delineation criterion (i.e., the industrial SCTL of 700 ug/kg). In response to USEPA's comments, 13 additional sampling locations have been selected for potential PAH delineation: two along NW 32nd Avenue (SS274 and SS275), one along NW 31st Lane (SS276), two along NW 28th Avenue (SS277 and SS278), one along NW 22nd Avenue (SS355), two along NW 3rd Terrace (SS352 and SS353), two along NW 2nd Street (SS350 and SS351), two along NW 23rd Avenue to the east of the Site (SS356 and SS357), and one along NE 1st Boulevard (SS354) (Figure 2, Table 2). All the samples will be located within ROWs. Samples on NW 32nd Avenue and NW 28th Avenue will be located approximately 100 and 200 feet west of existing samples. Samples on NW 3rd Terrace and NW 2nd Street will be located approximately 100 and 200 feet south of the existing sample. Samples on NW 23rd Avenue and NE 1st Boulevard will be located approximately 250 feet to the southwest, southeast, and north, respectively, of existing sample location SS310. The samples on NW 32nd Avenue, NW 28th Avenue, NW 22nd Avenue, NW 3rd Terrace, NW 23rd Avenue and NE 1st Boulevard will be analyzed for PAHs only. The samples on NW 2nd Street will be analyzed for arsenic and PAHs (as indicated above).

The sampling and analyses will be conducted in phases (Table 2). The samples closest to the existing samples requiring further delineation (shown in green on Figure 2) will be collected and analyzed first. If PAH delineation criteria are met within a specific ROW, no other samples in that ROW will be analyzed for PAH. If PAH delineation criteria are not met at the 100-foot sample, then the 200-foot sample will be collected and analyzed for PAHs (referred to as contingent samples and shown in blue on Figure 2, Table 2).

Table 2. Proposed PAH Samples

Sample Requiring Additional Delineation	Proposed Sample Location	Proposed Contingent Sample Location
SS06	SS274	SS275
SS07	SS276	
SS13	SS277	SS278
SS307	SS355	
SS308	SS352	SS353
SS309	SS350	SS351
SS310	SS354	
	SS356	
	SS357	

Dioxins

As discussed in the *Off-Site Data Summary Report* several samples to the west and south of the Site had dioxin/furan concentrations (expressed as 2,3,7,8-tetrachlorodibenzo-p-dioxin toxic equivalents or TCDD-TEQ) above the residential delineation criterion (i.e., the residential SCTL of 7 ng/kg (Figure 3)). Several additional samples will be collected from residential yards to the west and south of the Site and from several private properties to the west of NW 6th Street (Figure 3, Table 3).

Four sample locations are proposed between the Site and NW 6th Street: two locations are proposed along NW 31st Lane and two along NW 30th Avenue (Figure 3). As of 10 January 2012, EPA had not yet obtained an access agreement for the property on which contingent sample SS280 is located. If that sample is needed (based on the result at SS279) and if the access agreement for that property is not obtained by the time the contingent field sampling is implemented, contingent sample SS280 will not be collected. Six samples are proposed to be collected west of NW 6th Street. As of 10 January 2012, EPA had not yet obtained an access agreement for the property on which primary sample SS286 is located. If the access agreement for that property is not obtained by the time the initial field sampling program is implemented, contingent sample SS288 will be collected in lieu of primary sample SS286. Additionally, as of 10 January 2012, EPA had been denied access to the property on which primary sample SS285 is located. If EPA continues to be

denied access to that property at the time the field sampling program is implemented, contingent sample SS287 will be collected in lieu of primary sample SS285. Four samples will be collected to the south of the Site: two along NW 3rd Terrace and two along NW 2nd Street (Figure 3).

The sampling and analyses will be conducted in phases (Table 3). Primary samples (shown in green on Figure 3) will be analyzed first. If appropriate dioxin/furan delineation criteria are met with a specific primary sample, the paired contingent sample will not be collected for analysis of dioxins/furans. If the primary sample exceeds the appropriate delineation criterion, the paired contingent sample will be collected and analyzed for dioxins/furans.

Table 3. Proposed Dioxin/Furan Samples

Sample(s) Requiring Additional Delineation	Proposed Sample Location	Proposed Contingent Sample Location	Notes
SS204	SS279	SS280	SS280 will not be collected absent an access agreement
SS213	SS281	SS282	
	SS283		
SS217 SS223 SS236 SS249 and SS256	SS284		
	SS285	SS287	SS287 will be collected in the initial round of sampling absent an access agreement for SS285
	SS286	SS288	SS288 will be collected in the initial round of sampling absent an access agreement for SS286
SS308	SS360	SS361	
SS309	SS362	SS363	

Local Background Samples

An additional 10 samples from residential neighborhoods along residential busy streets that are located more than a mile from the Site will also be collected and analyzed for PAHs and dioxins/furans to complete the background residential busy street dataset. Proposed residential busy street background locations are shown on Figure 4.

NW 6th Street Background Sampling

At the request of EPA, Beazer will also collect eight samples along NW 6th Street to better define local background concentrations of PAHs and dioxins/furans to the northwest and southwest of the Site within the one-mile radius. Four samples will be collected to the northwest of the Site and four to the southwest of the site (Figure 4). All of these samples will be located inside the one mile radius of the Site, will be collected from rights-of-way and will be analyzed for PAHs and dioxins/furans.

Sampling and Laboratory Analysis Protocols

Consistent with previous off-Site sampling, final sampling locations will be selected in the field and the U.S. EPA, FDEP, Alachua County and City of Gainesville will be invited to review all locations prior to sampling. All sampling and analysis will be performed in accordance with the *Off-Site Sampling Work Plan* (AMEC, 2008) and the *Quality Assurance Work Plan* (Environmental Standards, 2009). All samples will be grab (point) samples collected from the upper 6 inches of soil. All dioxin samples will be submitted for analysis by USEPA Method 1613B. All PAH samples will be submitted for analysis by USEPA Method 8270C SIM. All arsenic samples will be submitted for analysis by USEPA Method 6020. All samples will be analyzed following a standard 21-day turn-around time.

Should you have any questions or concerns, please don't hesitate to contact Mitchell Brouman of Beazer (412-208-8805) or me.

Sincerely,

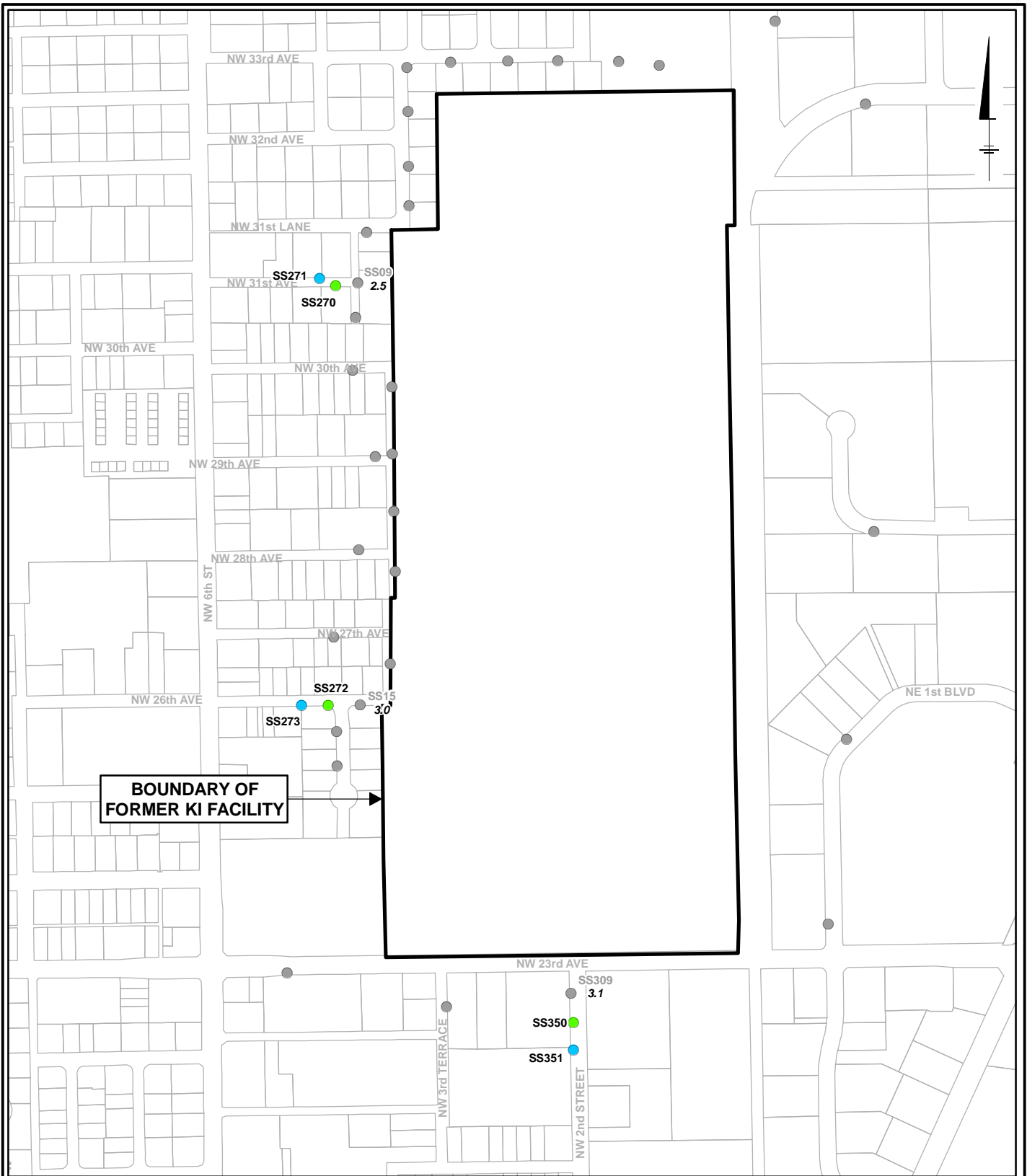
ARCADIS U.S., Inc.



Paul Anderson
Principal Scientist

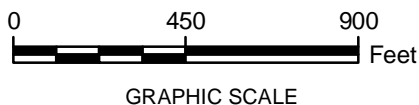
Copies:

Mitchell Brouman, Beazer
John Rice, AMEC
Greg Council, Tetra Tech Geo



LEGEND:

- PROPOSED ARSENIC SAMPLE
- PROPOSED CONTINGENT ARSENIC SAMPLE
- EXISTING SOIL SAMPLE LOCATION
(CONCENTRATION AT THAT LOCATION SHOWN IN ITALICS IN MG/KG)



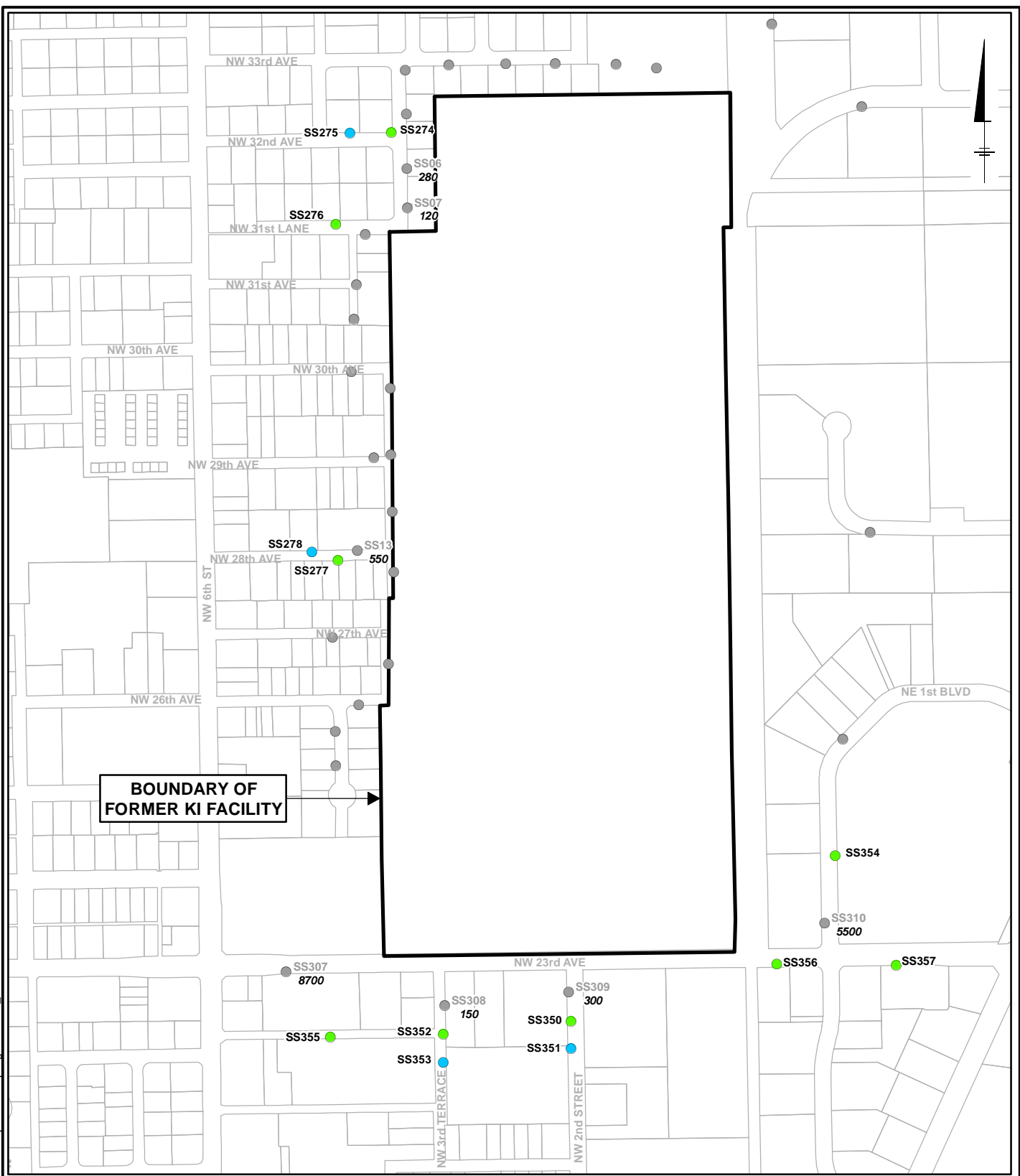
CABOT CARBON/KOPPERS SUPERFUND SITE
 GAINESVILLE, FL

OFF-SITE SAMPLING - 2012
ADDITIONAL PROPOSED
SAMPLING LOCATIONS:
ARSENIC



FIGURE
1

City: SYR Div/Group: SED Created By: K.SINSABAUGH Last Saved By: jrapp
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**BOUNDARY OF
FORMER KI FACILITY**

LEGEND:

- PROPOSED PAH SAMPLE
- PROPOSED CONTINGENT PAH SAMPLE
- EXISTING SOIL SAMPLE LOCATION
(CONCENTRATION AT THAT LOCATION SHOWN IN ITALICS IN MG/KG)



CABOT CARBON/KOPPERS SUPERFUND SITE
GAINESVILLE, FL

OFF-SITE SAMPLING - 2012

**ADDITIONAL PROPOSED
SAMPLING LOCATIONS:
PAH**


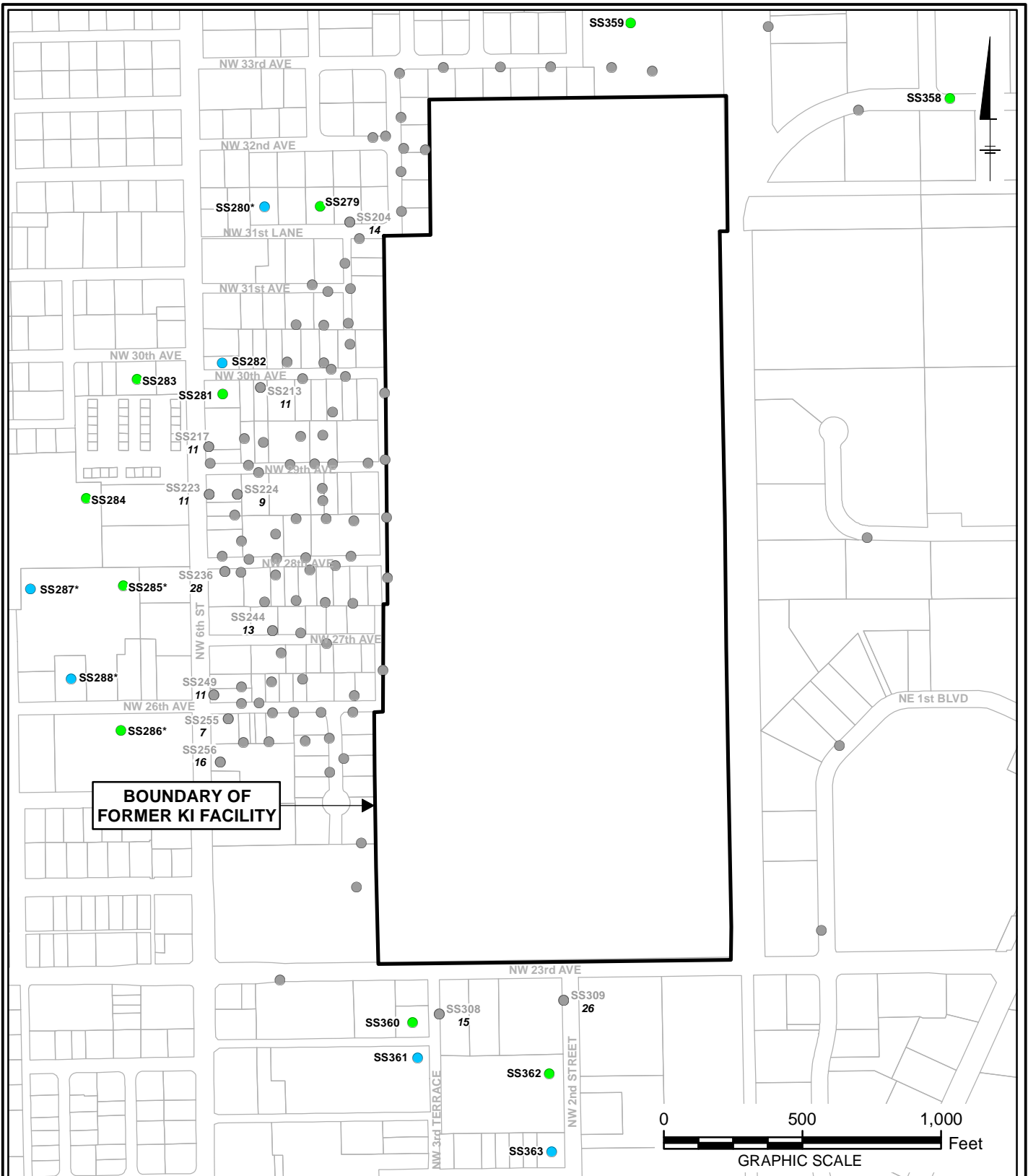
 **ARCADIS**

FIGURE
2



LEGEND:

- EXISTING SOIL SAMPLE LOCATION
(CONCENTRATION AT THAT LOCATION
SHOWN IN ITALICS IN NG/KG)
- PROPOSED DIOXIN/FURAN SAMPLE
- PROPOSED CONTINGENT DIOXIN/FURAN SAMPLE

NOTE:

* AS OF 10 JANUARY 2012 ACCESS AGREEMENTS HAVE NOT BEEN RECEIVED FOR SS280 AND SS286 AND ACCESS TO SS285 HAS BEEN DENIED. ABSENT SIGNED ACCESS AGREEMENTS AT THE TIME OF SAMPLE COLLECTION, SS288 WILL BE COLLECTED IN LIEU OF SS286 AND NO SAMPLE WILL BE COLLECTED IN LIEU OF SS286. SS287 WILL BE COLLECTED IN LIEU OF SS285.

CABOT CARBON/KOPPERS SUPERFUND SITE
 GAINESVILLE, FL

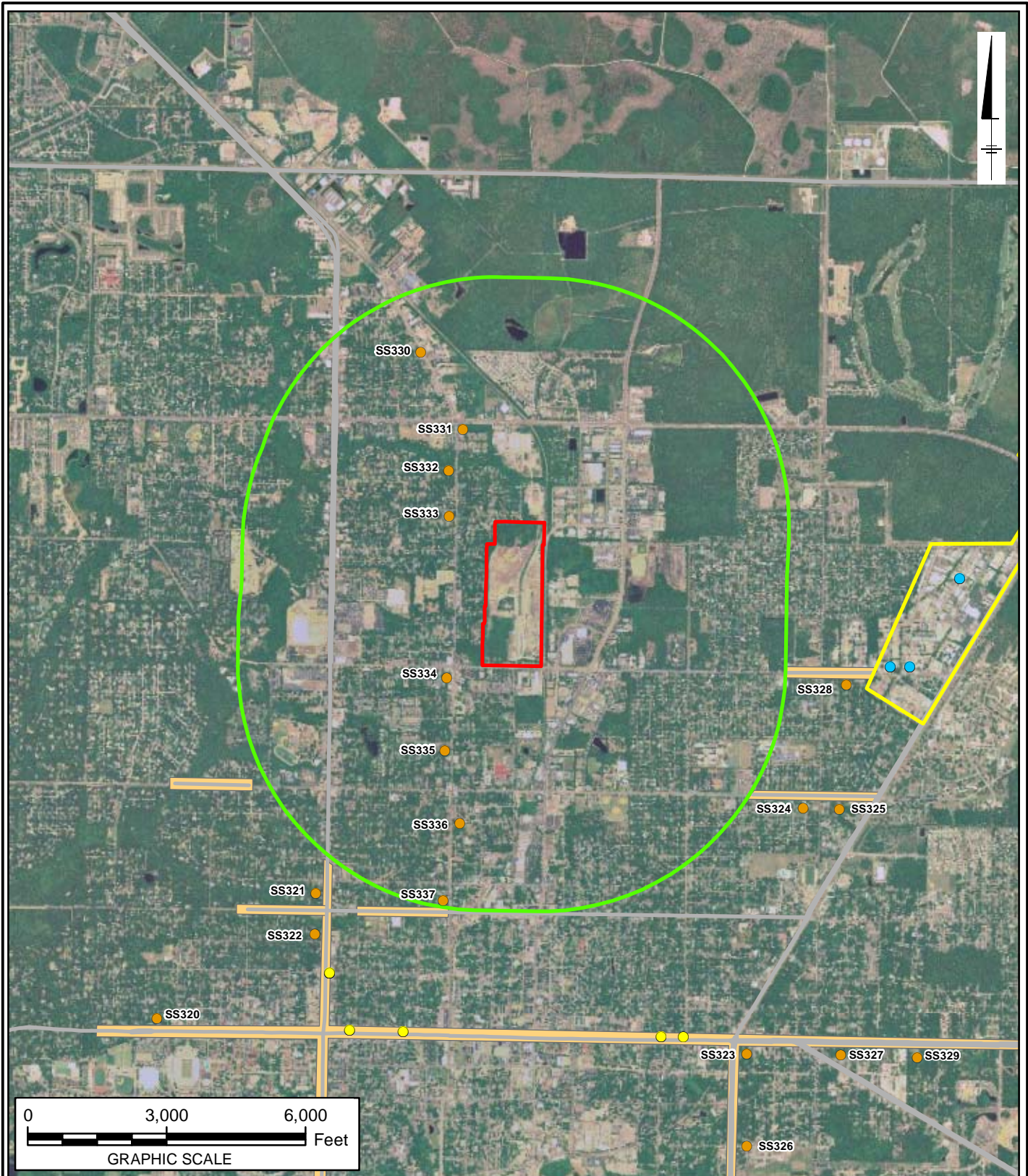
OFF-SITE SAMPLING - 2012

**ADDITIONAL PROPOSED
 SAMPLING LOCATIONS:
 DIOXINS/FURANS**



FIGURE
3

City: SYR Div/Group: SED Created By: K.SINSABAUGH Last Saved By: jrapp
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LEGEND:

- 2010 BACKGROUND INDUSTRIAL SOIL SAMPLE LOCATION
- 2010 BACKGROUND BUSY STREET SOIL SAMPLE LOCATION
- PROPERTY BOUNDARY
- PROPOSED RESIDENTIAL BUSY STREET BACKGROUND SAMPLING AREA
- PROPOSED INDUSTRIAL BACKGROUND SAMPLING AREA
- ONE MILE SITE RADIUS
- PROPOSED BUSY STREET BACKGROUND SAMPLE
- BUSY STREET

CABOT CARBON/KOPPERS SUPERFUND SITE
 GAINESVILLE, FL

OFF-SITE SAMPLING - 2012
PROPOSED BUSY STREET
BACKGROUND SAMPLING
LOCATIONS



FIGURE
4