PDK Aviation Park Soil Sample Testing March 18, 2020

DEKALB-PEACHTREE AIRPORT KOREY BARNES

| 2000 Airport Rd Ste 212 Atlanta, Ga 30341

AVIATION PARK SOIL SAMPLE TESTING March 18, 2020

Project Background and Description

Lead in Avgas has been a growing concern with communities and its members that live near Peachtree-DeKalb Airport (PDK). The major issue concerning the lead in Avgas is how many individuals, especially children, are exposed to it, how much lead they are being exposed to, and the levels at which it becomes harmful. Lead (pB), being a natural element, is found naturally in the air and soil, these levels are normally observed around 15 to 40 parts per million (ppm) or milligram per kilogram (mg/kg). According to EPA standards, unsafe levels of Lead in bare soil begins at 400 ppm in playground area and 1200 ppm for other areas¹. PDK is unique in that there is a park located near the Aircraft Movement Area (AMA) that community members and their families can come to enjoy and watch airplanes as they operate on the airfield². Being that children are the primary concern when it comes to the Lead issue the aviation park at PDK is the focus area of this project.

Figure 1-EPA Standards for soil – p2

Project Scope

For This project 5 spots were chosen at random in and around the park area as sampling sites³. For each site a sure shape whole was dug measuring approximately 8"X8", as well as 6" to 8" deep depending on the condition of the soil underneath. Wet or dry soil was not taken into consideration as the saturation level of the soil was able to be determined and factored in to determine the lead amount, if any, that was observed in the soil sample. After analyzing and testing were we able to determine the lead amounts in the soil at each of the sample sites.

Figure 2-Aerial view of Park with Sample points – p3

High-Level Testing Requirements

In order to complete this project the soil samples had to be tested by an accredited, county approved facility. For this reason the soil samples were sent to Analytical Environmental Services. Inc. (AES). AES is a highly established and creditable company who has been in the Environmental analyst business for almost 30 years⁴.

Figure 3-AES Accreditation and Certificates – p4

Results

After a week of testing the results of the soil samples came back from AES. All spots thatwere tested fell below the natural occurrence level of lead in bare soil⁵ and below theunsafe levels of Lead in soil.Figure 4-Testing results – p56-AES Technical Sample Results – Appendix p8-p18



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Hazard Standards for Lead in Paint, Dust and Soil (TSCA Section 403)

On June 21, 2019, EPA announced new, tighter standards for lead in dust on floors and window sills to protect children from the harmful effects of lead exposure. The strengthened standards become effective 180 days after publication in the Federal Register.

• Read the press release.

• Read the final rule strengthening the dust-lead hazard standards.

These revised, strengthened standards will reduce the amount of lead in dust that is considered a hazard and that may warrant measures to reduce risks. This action is an important step to reduce exposure to lead sources and directly supports the December 2018 <u>Federal Action Plan to Reduce</u> <u>Childhood Lead Exposures and Associated Health Impacts</u>.

The lead hazard standards help property owners, lead paint professionals, and government agencies identify lead hazards in residential paint, dust and soil. They apply in most pre-1978 housing and child-occupied facilities. Under the 2001 dust-lead hazard standards, lead is considered a hazard when equal to or exceeding 40 micrograms (μ g) of lead in dust per square foot (ft²) on floors, 250 micrograms of lead in dust per square foot on interior window sills, and 400 parts per million (ppm) of lead in bare soil in children's play areas or 1200 ppm average for bare soil in the rest of the yard. In addition, paint in deteriorating condition, on a friction or impact surface, or on certain chewable surfaces is also defined as a hazard. When the 2019 final rule becomes effective, these standards will be lowered from 40 μ g/ft² and 250 μ g/ft² to 10 μ g/ft² and 100 μ g/ft² on floors and window sills, respectively.

Figure 1: EPA Lead in Soil Standards, https://www.epa.gov/lead/hazard-standards-lead-paint-dust-and-soil-tscasection-403



Figure 2: PDK Aviation Park with Sample Location Points - Google Earth, 2020

Home	Company	Services	Quality Program	Contact Us	Clients
				Certi	fications
Certifications				ITED I	ACCORDAN
Analytical Environmental Sen certifications and accreditatio by the certifications and accre several proficiency programs	vices, Inc. maintains strict standarr ns requires continuing evaluation aditations that it holds. AES holds (to maintain our high level of qualit	ds to produce quality data. Aquiri of a laboratory and the quality of several local, state and federal a y analytical services.	ng and maintaining approval for a laboratory can be measured in part ccreditations and participates in		Place H
Certifications				Colling Colling	red Laborano
 State of Florida Depai North Carolina Divisio South Carolina Depar American Industrial H 	t. of Health Bureau of Laboratorie n of Water Quality Certificate #562 tment of Health and Environmenta ygiene Association (AIHA-LAP,LLC	s, NELAC Lab E87582 / Certifica 2 / Certificate / Scope II Control (SCDHEC) Lab #98016 2) Lab #100671 includes IHLAP,	te / Scope 5003 / Certificate / Scope ELLAP, and EMLAP / Certificate / Scope	NU SHITZER	FEDITED ASS
National Voluntary La Alaska Department of Georgia Department of State of Lousiana Dep Kentucky Department Department of Agricul Georgia Certified Wat	boratory Accreditation Program (N Environmental Conservation (ADI of Natural Resources Certificate #4 partment of Environmental Quality of Environmental Protection (UST ture Soil Transportation Permit er / Wastewater Laboratory Analys	VLAP) Lab #102082-0 PLM & TI EC), Lab # UST-096 800 Cert. #04068) Lab Cert. #80 its on Staff	EM Analysis / Certificate / Scope	Control of the second s	EAD SOLECTION
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Project Manager for details.

Figure 3: AES Qualification and Accreditations, http://12.201.98.205/Certifications.aspx

Soil Sample Results

(Samples taken Feb 19, 2020)

Sample I.D.	Parameters	Benchmark Value	Results
Location 1	Lead (pB) Content	15 – 40 mg/kg	<u>33.2 mg/kg</u>
Location 2	Lead (pB) Content	15 – 40 mg/kg	<u>11.4 mg/kg</u>
Location 3	Lead (pB) Content	15 – 40 mg/kg	<u>25.5 mg/kg</u>
Location 4	Lead (pB) Content	15 – 40 mg/kg	<u>19.8 mg/kg</u>
Location 5	Lead (pB) Content	15 – 40 mg/kg	<u>27.0 mg/kg</u>

Figure 4: Sample Testing Results, AES

Appendix – AES Technical Report

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.



February 27, 2020 Korey Barnes Peachtree Dekalb Airport 2000 Airport Rd 30341 Atlanta GA Peachtree/Dekalb Airport RE: 2002K15 Dear Korey Barnes: Order No: Analytical Environmental Services, Inc. received 5 samples on 2/19/2020 3:52:00 PM for the analyses presented in following report. No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative. AES's accreditations are as follows:

-NELAP/State of Florida Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, Air & Emissions Volatile Organics, and Drinking Water Microbiology & Metals, effective 07/01/19-06/30/20.

State of Georgia, Department of Natural Resources ID #800 for analysis of Drinking Water Metals, effective through 06/30/20 and Total Coliforms/ E. coli, effective 04/25/17-04/24/20.

-AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Metals and PCM Asbestos), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 11/01/21.

These results relate only to the items tested as received. This report may only be reproduced in full.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Corene DePhinips

Corene Dephillips Project Manager

Analytical Environmental AES Services, inc.		Ar 3080 P	nalytic reside C	al Env ential D HAIN	ironmen Drive, Atl I OF CU	tal Se anta, JST	rvic GA DD	es, Ir 3034 Y	ic. 0-37	'04					Work	: Order: <u>2532KIS</u> Page of	
Orkalb-Reachtree Airport	Address: 20 Atlan	100 Alipe 1a. ben 3	A b 1031	d 574 11	212				T	ANALY	SIS REG	QUESTE	D			Visit our website www.aesatlanta.com for downloadable COCs and to	
PHONE: 770-936-5440 SAMPLED BY: KOREY BARMES		Oderaiba Vd	- -	1 <i>9</i> 4.9	UV	Lead										log in to your AESAccess account.	ar of Containers
# SAMPLE ID	DATE	TIME	GRAB	COMPOSITE	MATRIX (see codes)				P	RESERV	ATION	(see cod	25)			REMARKS	Numbe
1 Sput 1	2/19/20	0 1455	~		501	V		_									1
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Matrix Codes: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water ST=Stormwater WW = Waste Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) Preservative Codes: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc						Date:	27-Feb-20	
Client: Peachtree Dekalb Airport Project Name: Peachtree/Dekalb Airport Lab ID: 2002K15-001				Client Samj Collection I Matrix:	ple ID: Date:	SPOT 1 2/19/2020 Soil	0 2:55:00 PM	
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				(SW)	3050B)			
Lead	33.2	5.23		mg/Kg-dry	293065	1	02/27/2020 14:46	KB
PERCENT MOISTURE D2216								
Percent Moisture	20.6	0		wt%	R418922	2 1	02/21/2020 00:00	JW

Qualifiers: * Value exceeds maximum contaminant level

BRL Below reporting limit

- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
 Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc						Date:	27-Feb-20	
Client: Peachtree Dekalb Airport Project Name: Peachtree/Dekalb Airport Lab ID: 2002K15-002				Client Samp Collection D Matrix:	ole ID: Date:	SPOT 2 2/19/2020 Soil	0 3:00:00 PM	
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				(SW3	8050B)			
Lead	11.4	3.96		mg/Kg-dry	293065	1	02/27/2020 14:35	KB
PERCENT MOISTURE D2216 Percent Moisture	19.4	0		wt%	R418922	2 1	02/21/2020 00:00	JW

Qualifiers: * Value exceeds maximum contaminant level

- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Sample ID: ion Date: :	SPOT 3 2/19/2020 Soil	0 3:03:00 PM	
BatchID	Dilution Factor	Date Analyzed	Analyst
SW3050B)			
g-dry 293065	5 1	02/27/2020 14:48	KB
% R41892	2 1	02/21/2020 00:00	JW
	Sample ID: ion Date: : : : : : : : : : : : : : : : : : :	Sample ID: SPOT 3 ion Date: 2/19/202/ : Soil : Soil : BatchID BatchID Dilution Factor SW3050B) :g-dry 293065 1 t% R418922 1	BatchID SPOT 3 2/19/2020 3:03:00 PM : Soil : Soil : BatchID Factor Date Analyzed SW3050B) : : 293065 1 : 02/27/2020 14:48 t% R418922 1 : 02/21/2020 00:00

Qualifiers: * Value exceeds maximum contaminant level

- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix

Narr See case narrative

- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc						Date:	27-Feb-20	
Client: Peachtree Dekalb Airport Project Name: Peachtree/Dekalb Airport Lab ID: 2002K15-004				Client Samp Collection D Matrix:	de ID: date:	SPOT 4 2/19/202 Soi1	0 3:10:00 PM	
Analyses	Result	Reporting Limit	Qual	Units 1	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, TOTAL SW6010D				(SW3	8050B)			
Lead	19.8	3.90		mg/Kg-dry	293065	1	02/27/2020 14:51	KB
PERCENT MOISTURE D2216								
Percent Moisture	15.6	0		wt%	R418922	2 1	02/21/2020 00:00	JW

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Value exceeds maximum contaminant level

- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
 - S Spike Recovery outside limits due to matrix
 - Narr See case narrative
- F Analyzed in the lab which is a deviation from the method
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc	c					Date:	27-Feb-20	
Client: Peachtree Dekalb Airport Project Name: Peachtree/Dekalb Airport Lab ID: 2002K15-005				Client Samp Collection D Matrix:	ole ID: Date:	SPOT 5 2/19/2020 Soi1	0 3:15:00 PM	
Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analys
METALS, TOTAL SW6010D				(SW3	3050B)			
Lead	27.0	3.86		mg/Kg-dry	293065	1	02/27/2020 14:53	KB
PERCENT MOISTURE D2216								
Percent Moisture	16.7	0		wt%	R418922	2 1	02/21/2020 00:00	JW

Value exceeds maximum containingin rever	Qualifiers:		Value exceeds maximum contaminant level
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- BRL Below reporting limit
 - H Holding times for preparation or analysis exceeded
 - N Analyte not NELAC certified
 - B Analyte detected in the associated method blank
 - > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
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- < Less than Result value
- J Estimated value detected below Reporting Limit

6	ANALYTICAL
	ENVIRONMENTAL
AES	SERVICES, INC.

SAMPLE/COOLER RECEIPT CHECKLIST

Save as

Clear

AES Work Order Number: 2002K15

1. Client Name: Peachtree Dekalb Airport Carrier: FedEx UPS USPS Client Courier Other

۷.	camer: redex UPS USPS client Other Other			-		
		Yes	No	N/A	Details	Comments
3.	Shipping container/cooler received in good condition?	\odot	0	0	damaged leaking other	
4.	Custody seals present on shipping container?	0	\odot	0		
5.	Custody seals intact on shipping container?	O.	0	0		
6.	Temperature blanks present?	\odot	0	0		
7.	Cooler temperature(s) within limits of 0-6 ⁹ C? [See item 13 and 14 for temperature recordings.]	\odot	0	0	Cooling initiated for recently collected samples / ice present 🗌	
8.	Chain of Custody (COC) present?	\odot	0	0		
9.	Chain of Custody signed, dated, and timed when relinquished and received?	\odot	0	Ő		
10.	Sampler name and/or signature on COC?	\odot	0	0		
11.	Were all samples received within holding time?	\odot	0	0		
12.	TAT marked on the COC?	\odot	0	0	If no TAT indicated, proceeded with standard TAT per Te	erms & Conditions.
13.	Cooler 1 Temperature 4.7 °C Cooler 2 Temperature			°C	Cooler 3 Temperature °C Coole	er 4 Temperature [©] C
14.	Cooler 5 Temperature ^o C Cooler 6 Temperature			°C	Cooler 7 Temperature ºC Coole	er 8 Temperature °C

		_						
14.	Cooler 5 Temperature	°C	Cooler 6 Temperature	°C	Cooler 7 Temperature	°C		

15	Comments:
10.	comments.

			I certify that I have completed sections 1-15 (dated initials).					
		Yes	No	N/A	Details	Comments		
16	Were sample containers intact upon receipt?	\odot	0	0				
17	Custody seals present on sample containers?	0	Ō	Ô				
18	Custody seals intact on sample containers?	Ő	Ô	Ō				
19	Do sample container labels match the COC?	۲	0	0	incomplete info illegible no label other			
20	Are analyses requested indicated on the COC?	\odot	0	0				
21	Were all of the samples listed on the COC received?	۲	0	0	samples received but not listed on COC samples listed on COC not received			
22	Was the sample collection date/time noted?	Ô	Ô	0				
23	Did we receive sufficient sample volume for indicated analyses?	Õ	Ô	Ю.				
24	Were samples received in appropriate containers?	0	Ô	0				
25	Were VOA samples received without headspace (< 1/4" bubble)?	0	Ô	0				
26	Were trip blanks submitted?	10	Ó	Ō	listed on COC not listed on COC			

27. Comments:

	This section only applies to samples where pH can be checked at Sample Receipt.							1	I certify that I have co	mpleted sections 16-27 (dated initials).	CT 2/20/2020
C		Ye	s	N	0	N	/A	A Details		Comments	
28.	Have containers needing chemical preservation been checked? *)	()	())			
29.	Containers meet preservation guidelines?	C))	())			
30.	Was pH adjusted at Sample Receipt?	C)	0)	())			

* Note: Certain analyses require chemical preservation but must be checked in the laboratory and not upon Sample Receipt such as Coliforms, VOCs and Oil & Grease/TPH. I certify that I have completed sections 28-30 (dated initials).

CT 2/20/2020

Checklist 6.9.17 Rev 2

Locked

Analytical Environmental Se	rvices, Inc	:							Date:	27-Feb-20
Client: Peachtree Deka Project Name: Peachtree/Deka Workorder: 2002K15	alb Airport alb Airport						ANALY	TICAL QC BatchII	SUMN): 29306	ARY REPORT
Sample ID: MB-293065	Client ID:				Uni	ts: mg/Kg	Prep	Date: 02/26	/2020	Run No: 419460
SampleType: MBLK	TestCode:	METALS, TOTAL SV	V6010D		Bat	chID: 293065	Anal	ysis Date: 02/27	/2020	Seq No: 9475910
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Lead	BRL	5.00								
Sample ID: LCS-293065	Client ID:				Uni	ts: mg/Kg	Prep	Date: 02/26	/2020	Run No: 419460
SampleType: LCS	TestCode:	METALS, TOTAL SV	V6010D		Bat	chID: 293065	Anal	ysis Date: 02/27	/2020	Seq No: 9475913
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Lead	44.91	5.00	50.00		89.8	80	120			
Sample ID: 2002K15-002AMS	Client ID:	SPOT 2			Uni	ts: mg/Kg-d	lry Prep	Date: 02/26	/2020	Run No: 419460
SampleType: MS	TestCode:	METALS, TOTAL SV	V6010D		Bat	chID: 293065	Anal	ysis Date: 02/27	/2020	Seq No: 9475915
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Lead	46.09	3.97	39.68	11.41	87.4	75	125			
Sample ID: 2002K15-002AMSD	Client ID:	SPOT 2			Uni	ts: mg/Kg-d	lry Prep	Date: 02/26	/2020	Run No: 419460
SampleType: MSD	TestCode:	METALS, TOTAL SV	V6010D		Bat	chID: 293065	Anal	ysis Date: 02/27	/2020	Seq No: 9475916
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Lead	50.78	3.97	39.72	11.41	99.1	75	125	46.09	9.69	20

 Qualifiers:
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 Greater than Result value

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 Below reporting limit

 J
 Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

- N Analyte not NELAC certified
- S Spike Recovery outside limits due to matrix
- B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
- R RPD outside limits due to matrix

End of Report