



PARS
Environmental
Inc.

LEAD IN DRINKING WATER TESTING REPORT – PHASE II

**WOODBIDGE TWP. SCHOOL DISTRICT
JOHN F. KENNEDY HIGH SCHOOL FIELD
HOUSE/CONCESSION STAND
200 WASHINGTON AVENUE
ISELIN, NEW JERSEY 08830**

PREPARED FOR:

**Woodbridge Township School District
PO Box 428
School Street
Woodbridge, New Jersey 07095**

PREPARED BY:

**PARS Environmental, Inc.
500 Horizon Drive, Suite 540
Robbinsville, New Jersey 08691
Tel: 609-890-7277
Fax: 609-890-9116**

PARS Project No. 1135-01

August 2016



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EXECUTIVE SUMMARY

PARS Environmental, Inc. (PARS) was retained by the Woodbridge Township School District (District) to conduct lead in drinking water testing at the John F. Kennedy High School Field House/Concession Stand (JFK FH/CS). PARS conducted the lead in drinking water testing on May 4, 2016. Based upon the results of the initial testing, expanded testing was completed on July 14, 2016. The purpose of the investigation was to further test for lead in drinking water in the building. The water samples were collected from strategic high priority locations throughout the building, as recommended in the United States Environmental Protection Agency (USEPA) *3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance (USEPA 3Ts)*. PARS collected the additional water samples from kitchen faucet sinks located throughout the building. The sample collection took place in the morning prior to the facility opening and before any water was drawn.

FINDINGS

The USEPA National Primary Drinking Water Regulations requires that immediate action be taken if samples from any drinking water outlet exhibit lead concentrations greater than 15 micrograms per liter ($\mu\text{g/l}$). A total of four (4) water samples were collected and analyzed. An exceedance of the 15 $\mu\text{g/l}$ action level was identified in the following locations:

- Kitchen Faucet #1 (Initial and Flush Draws)
- Kitchen Faucet #3 (Initial Draw)

Based on the laboratory analytical results, there may be a lead issue with the pipes and fixtures within the building. PARS recommends immediate corrective actions at these locations (i.e., take out of service, install appropriate filtration, replace fixture, retest, etc.). PARS further recommends future periodic testing per state and federal regulations.



1.0 INTRODUCTION

PARS Environmental, Inc. (PARS) was retained by the Woodbridge Township School District (District) to conduct lead in drinking water testing at the John F. Kennedy High School Field House/Concession Stand (JFK FH/CS). The purpose of the investigation was to further test for lead in drinking water in the building. The water samples were collected from strategic high priority locations throughout the building, as recommended in the *USEPA 3Ts*. PARS collected the additional water samples from kitchen faucet sinks throughout the building. The sample collection took place in the morning prior to the facility opening and before any water was drawn.

Sampling methodology is described in Section 2.0, the Lead in Drinking Water Findings are discussed in Section 3.0, and the Conclusions and Recommendations are presented in Section 4.0. A list of the sample locations and results are provided in **Table 1**. The Laboratory Analytical Report and Laboratory NJDEP Certification are provided in **Appendix A** and **B**, respectively.

This report is intended for the sole use of the District. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations, is at risk of said user.



2.0 LEAD IN DRINKING WATER SAMPLING

PARS conducted lead in drinking water testing at JFK FH/CS on May 4, 2016. The lead in drinking water sampling was conducted by Rafael Torres and Jessica Perrini of PARS.

Based upon the results of the initial testing, PARS returned to complete the expanded testing on July 14, 2016. The expanded lead in drinking water sampling was conducted by Rafael Torres and Christopher Casella of PARS.

PARS performed lead in drinking water testing at the two (2) kitchen faucet sinks in the building that exceeded the 15 µg/l action level from the May 4, 2016 sampling event.

All samples were collected following the USEPA First Draw and Flush Draw sampling protocol. The First Draw sample collection occurred in the morning prior to the facility opening and before any water was drawn in the building, including toilet flushing. The Flush Draw sample collection involves the collection of water from an outlet where the water has run for thirty (30) seconds and is performed to analyze lead content in the piping behind walls leading to an outlet. The water was unused within the building for six (6) to eight (8) hours prior to collection. Arrangements were made to sample the water outlets prior to the arrival of building occupants.

The samples were placed in pre-preserved plastic bottles and submitted for laboratory analysis to International Asbestos Testing Laboratories (IATL) of Mount Laurel, New Jersey for a two-week turnaround. IATL is a New Jersey Department of Environmental Protection (NJDEP) certified laboratory for lead in drinking water (#03863). All samples were analyzed using USEPA Method 200.9 for the determination of trace elements by stabilized temperature graphic furnace atomic absorption (GFAA). Chain-of-custody protocols were followed.



3.0 LEAD IN DRINKING WATER FINDINGS

Based on the laboratory analytical results, lead concentrations exceeding 15 µg/l action level was identified in three (3) of the four (4) water samples collected at JFK FH/CS.

An exceedance of the 15 µg/l action level was identified in the following locations:

- Kitchen Faucet #1 (Initial and Flush Draws)
- Kitchen Faucet #3 (Initial Draw)

Lead in drinking water tabulated results for the JFK FH/CS are provided in **Table 1**. The laboratory analytical report is included in **Appendix A**. The laboratory certification is included in **Appendix B**.



4.0 CONCLUSIONS AND RECOMMENDATIONS

A total of four (4) kitchen faucets were tested at the John F. Kennedy High School Field House/Concession Stand. The USEPA recommends that action be taken if samples from any drinking water outlet exhibit lead concentrations greater than 15 µg/l. An exceedance of the 15 µg/l action level was identified in the following locations:

- Kitchen Faucet #1 (Initial and Flush Draws)
- Kitchen Faucet #3 (Initial Draw)

Based on the laboratory analytical results, there may be a lead issue with the pipes and fixtures within the building. PARS recommends immediate corrective actions at this location (i.e., take out of service, install appropriate filtration, replace fixture, retest, etc.). PARS further recommends future periodic testing per state and federal regulations.

-o0o-

PARS appreciates the opportunity to assist Woodbridge Township School District with this project. Should you have any questions or comments please feel free to contact us at (609) 890-7277.

Respectfully submitted,

PARS ENVIRONMENTAL, INC.

Rafael L. Torres, III
Senior Industrial Hygienist



**LEAD IN DRINKING WATER TESTING REPORT – PHASE II
WOODBIDGE TOWNSHIP SCHOOL DISTRICT
JOHN F. KENNEDY HIGH SCHOOL FIELD HOUSE/CONCESSION STAND
AUGUST 2016**

PARS

**TABLE 1
DRINKING WATER RESULTS TABLE**

TABLE 1
 LEAD IN DRINKING WATER TESTING REPORT - PHASE II
 WOODBRIDGE TOWNSHIP SCHOOL DISTRICT
 JOHN F. KENNEDY HIGH SCHOOL FIELD HOUSE/CONCESSION STAND

iATL Batch #	iATL Sample #	Client Sample #	Project #	Project Name	Location	Concentration (1)	Dilution Factor (1)	Qualifier (1)	Results (1) in ppb
514832	5980945	JFKHS-CON-KC-1-P	1135-01	JFK High School Field House; Woodbridge Public Schools	JFKHS-CON-KC-1-P, 7-14-16	7.8	50		390.0
514832	5980946	JFKHS-CON-KC-1-FLUSH	1135-01	JFK High School Field House; Woodbridge Public Schools	JFKHS-CON-KC-1-Flush, 7-14-16	7.5	20		150.0
514832	5980947	JFKHS-CON-KC-3-P	1135-01	JFK High School Field House; Woodbridge Public Schools	JFKHS-CON-KC-3-P, 7-14-16	12	2		24.0
514832	5980948	JFKHS-CON-KC-3-FLUSH	1135-01	JFK High School Field House; Woodbridge Public Schools	JFKHS-CON-KC-3-Flush, 7-14-16	1.6	1	<	2.0

Client Sample ID Format: School-Floor-Room-Outlet-Sample Type

Floor:

- B = Basement
- 01 = First floor
- 02 = Second floor

Exceeds 15 ppb

Room:

- ### = Room number ###
- ###-### = Sample between room number ### and room ###
- H### = Hallway by room number ###
- BLR = Boy's locker room
- CAF = Cafeteria
- FR = Faculty room
- GLR = Girl's locker room
- KIT = Kitchen
- MGYM = Main gym
- MO = Main office
- NUR = Nurse's office
- SGYM = Small gym
- TGL = Team girl's locker room
- TL = Teacher's lounge
- TP = Teacher's prep room
- PLR = Pool Locker room
- GU = Guidance Office

Outlet:

- BF = Bathroom faucet
- CF = Classroom faucet
- DW= Drinking water bubbler
- FP = Food preparation
- EC = Home economics room, cold
- KC = Kitchen faucet, cold
- LC = Lounge faucet, cold
- NS = Nurse's office sink
- SC = Service Connection
- TF or TS = Teacher's faucet or Teacher's sink
- WC = Water cooler (chiller unit)
- HS = Hand Sink



**APPENDIX A
LABORATORY ANALYTICAL REPORT**

CERTIFICATE OF ANALYSIS

Client: PARS Environmental
500 Horizon Drive, Suite 540
Robbinsville NJ 08691

Report Date: 7/20/2016
Report No.: 514832 - Lead Water
Project: JFK High School Field House; Woodbridge Public Schools
Project No.: 1135-01

Client: PAR559

LEAD WATER SAMPLE ANALYSIS SUMMARY

Lab No.:5980945 **Location:**JFKHS-CON-KC-1-P, 7-14-16 **Result(ppb):**390
Client No.:1

Lab No.:5980946 **Location:**JFKHS-CON-KC-1-Flush, 7-14-16 **Result(ppb):**150
Client No.:2

Lab No.:5980947 **Location:**JFKHS-CON-KC-3-P, 7-14-16 **Result(ppb):**24
Client No.:3

Lab No.:5980948 **Location:**JFKHS-CON-KC-3-Flush, 7-14-16 **Result(ppb):**<2.0
Client No.:4

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 7/14/2016

Date Analyzed: 07/20/2016

Signature: 

Analyst: Chad Shaffer

Approved By: 

Frank E. Ehrenfeld, III

Laboratory Director

CERTIFICATE OF ANALYSIS

Client: PARS Environmental
500 Horizon Drive, Suite 540
Robbinsville NJ 08691

Report Date: 7/20/2016
Report No.: 514832 - Lead Water
Project: JFK High School Field House; Woodbridge
Public Schools
Project No.: 1135-01

Client: PAR559

Appendix to Analytical Report:

Customer Contact: Margaret Halasnik
Analysis: AAS-GF - ASTM D3559-08D, USEPA 40CFR 141.11B, 2010

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: cdavis@iatl.com
iATL Account Representative: Shirley Clark
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Water
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by AAS Graphite Furnace:
- ASTM D3559-08D, USEPA 40CFR 141.11B, 2010
- USEPA 200.9Pb, AAS-GF, RL <2 ppb/sample
- USEPA SW 846-7000B:7421 - Pb(AAS-GF, RL <2 ppb/sample)

Certification:
- NYS-DOH No. 11021
- NJDEP No. 03863

Regulatory limit for lead in drinking water is 15.0 parts per billion as cited in EPA 40 CFR 141.11 National Primary Drinking Water Regulations, Subpart B: Maximum contaminant levels for inorganic chemicals.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Sample results are not corrected for contamination by field or analytical blanks.

PPB = Parts per billion. 1 µg/L = 1 ppb MDL = 0.24 PPB Reporting Limit (RL) = 2.0 PPB

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.

Water Sample Turbidity greater than 1.0 NTU does not meet Federal and NJ State Primary & Secondary Drinking Water Standards.

Chain of Custody

– Environmental Lead –

Contact Information

Client Company: <u>PARS Environmental</u>	Project Number: <u>1135-01</u>
Office Address: <u>500 Horizon Drive, Suite 540</u>	Project Name: <u>JFK High School Field House</u>
City, State, Zip: <u>Robbinsville, NJ, 08691</u>	Primary Contact: <u>Rafael Torres</u>
Fax Number: _____	Office Phone: <u>609-890-7277</u>
Email Address: <u>rtorres@parsenviro.com</u>	Cell Phone: _____

iATL is accredited by the National Lead Laboratory Accreditation Program (NLLAP) to perform analytical testing of environmental samples for lead (Pb). The accreditation is through AIHA-LAP, LLC and several other nationally recognized state programs.

Matrix/Method:

- Paint by AAS: ASTM D3335-85a, 2009
- Wipe/Dust by AAS: SW 846: 3050B: 700B, 2010
- Air by AAS: NIOSH 7082, 1994
- Soil by AAS: EPA SW 846 (Soil)
- Water by AAS-GF: ASTM D3559-03D, US EPA 200.9
- Other Metals (Cd, Zn, Cr) by AAS
- Toxicity Characteristic Leaching Procedure (TCLP) by AAS: US EPA 1311
- Other _____

E-MAILED
7-21-16 AO

Special Instructions:

Turnaround Time

Preliminary Results Requested Date: _____ Verbal Email Fax

Specific date / time

10 Day 5 Day 3 Day 2 Day 1 Day* 12 Hour** 6 Hour** RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***

Chain of Custody

Relinquished (Name/Organization): <u>[Signature]</u>	Date: <u>07/14/2016</u> Time: _____
Received (Name / iATL): <u>[Signature]</u>	Date: <u>7-14-16</u> Time: <u>E-MAIL</u>
Sample Login (Name / iATL): <u>[Signature]</u>	Date: <u>7/14/16</u> Time: _____
Analysis(Name(s) / iATL): <u>[Signature]</u>	Date: _____ Time: _____
QA/QC Review (Name / iATL): <u>[Signature]</u>	Date: <u>7/21/16</u> Time: <u>JUL 14 2016</u>
Archived / Released: _____ QA/QC InterLAB Use: _____	Date: _____ Time: _____



Facility Name: WOOD BRIDGE PUBLIC SCHOOLS
JFK HIGH SCHOOL FIELD HOUSE

Date: 7/14/16

Sample #	Sample ID	Sample Time	Comments
1	JFKHS - CON - KC-1-P	0535	5980945
2	JFKHS - CON - KC-1-FLUSH	0536	5980946
3	JFKHS - CON - KC-3-P	0537	5980947
4	JFKHS - CON - KC-3-FLUSH	0538	5980948
	ACQUIRED MS 7/15/16 13:00		

Signature of Sampler:

Sample ID Guide:
Bldg ID - Flr - Rm - Direction - Type (- Faucet #)

DAILY QUALITY CONTROL DATA

LEAD SAMPLE ANALYSIS

(DATE: 07/21/16)

Standard	Total Lead (mg)	Percent Recovery **
Reagent Blank	0.000	< LOQ
Blank Spike	0.500	100
Lab Control Std	1.790	98
Matrix Spike - LBP *	0.28	95
Matrix Spike - Wipe *	0.27	100
Matrix Spike - Soil *	0.332	98
Matrix spike - Air *	0.050	98
2.5 ppm Standard	0.25	98
10.0 ppm Standard	1.0	100
40.0 ppm Standard	4.0	100

AIHA-LAP, LLC No. 100188

NYSDOH-ELAP No. 11021

Analysis Method: ASTM D3335-85A
NIOSH 7082
EPA SW846 3050B 7000B

Comments: IATL assumes that all sampling complies with accepted methods.
All client supplied sampling data is assumed to be correct when calculating results.
Detection limit based upon 0.2 mg/L reporting limit and sample size.
* NIST Traceable.
** 80-120% acceptable limits.

Analyzed By:

R. Chad Shaffer

Date:

7/21/16

Approved By:

Frank E. Ehrenfeld, III
Laboratory Director



**LEAD IN DRINKING WATER TESTING REPORT – PHASE II
WOODBIDGE TOWNSHIP SCHOOL DISTRICT
JOHN F. KENNEDY HIGH SCHOOL FIELD HOUSE/CONCESSION STAND
AUGUST 2016**

PARS

**APPENDIX B
LABORATORY CERTIFICATION**

State of New Jersey
Department of Environmental Protection
Certifies That

International Asbestos Testing Laboratories

Laboratory Certification ID # 03863

having duly met the requirements of the
Regulations Governing the Certification of
Laboratories and Environmental Measurements N.J.A.C. 7:18 et. seq.

is hereby approved as a
State Certified Environmental Laboratory
to perform the analyses as indicated on the Annual Certified Parameter List
which must accompany this certificate to be valid

Expires June 30, 2016



Michael M. Patte for JFA

Joseph F. Aiello
Assistant Director

New Jersey Department of Environmental Protection
 Environmental Laboratory Certification Program
ANNUAL CERTIFIED PARAMETER LIST AND CURRENT STATUS
 Effective as of 09/30/2015 until 06/30/2016

Laboratory Name: INTERNATIONAL ASBESTOS TESTING LABORATORIES Laboratory Number: 03863 Activity ID: SLC150001
 9000 COMMERCE PKWY STE B
 Mount Laurel, NJ 08054

Category: AE03 -- Asbestos Analysis

Status	Code	Matrix	Technique Description	Approved Method	Parameter Description
Certified	AE03 .00010	AE	Phase Contrast Microscopy	[OTHER NIOSH 7400]	Asbestos

Category: DW05 -- Asbestos Analysis

Status	Code	Matrix	Technique Description	Approved Method	Parameter Description
Certified	DW05 .00001	DW	Transmission Electron Microscopy	[EPA 100.1]	Asbestos
Certified	DW05 .00010	DW	Transmission Electron Microscopy	[EPA 100.2]	Asbestos

Category: DW06 -- Metals

Status	Code	Matrix	Technique Description	Approved Method	Parameter Description
Certified	DW06 .00340	DW	Graphite Furnace	[ASTM D3559 (D)]	Lead

Category: SCM04 -- Asbestos Analysis

Status	Code	Matrix	Technique Description	Approved Method	Parameter Description
Applied	SCM04.00010	SCM	Polarized Light Microscopy	[EPA 600/R-93-116]	Asbestos
Applied	SCM04.00070	SCM	Transmission Electron Microscopy	[EPA 600/R-93-116]	Asbestos

Michael M. Patta for J2A

Joseph F. Aiello, Manager

KEY: AE = Air and Emissions, BT = Biological Tissues, DW = Drinking Water, NPW = Non-Potable Water, SCM = Solid and Chemical Materials



State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF QUALITY ASSURANCE

401 E. State Street
P.O. Box 420, Mail Code 401-02D
Trenton, NJ 08625-0420
TEL: # (609) 292-3950
FAX # (609) 777-1774

CHRIS CHRISTIE
Governor

BOB MARTIN
Commissioner

KIM GUADAGNO
Lt. Governor

FRANK EHRENFELD
INTERNATIONAL ASBESTOS TESTING
LABORATORIES
9000 COMMERCE PKWY STE B
MOUNT LAUREL, NJ 08054
Lab ID # 03863

Dear Laboratory Manager:

A Certificate and an Annual Certified Parameter List (ACPL) that reflects the current status of your facility are enclosed. If there are any discrepancies, please contact your Laboratory Certification Officer to verify information and make arrangements for a new ACPL. Effective with the receipt of this letter, your facility's certification status is valid through June 30, 2016. Both the ACPL and Certificate should be conspicuously displayed at your facility in a location on the premises that is visible to the public.

As always, we are available to discuss any comments or questions. Please do not hesitate to contact your laboratory certification officer or me.

Sincerely,

Michele Potter
Environmental Specialist 4

Enclosures