



Occupational Health & Safety, Environmental Consultants

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September 2, 2015

Mr. Jeff Kaufman
[REDACTED]

Somerville, MA 02144

Re: Mercury Clearance Sampling

sent via: jeff.t.kaufman@gmail.com

Dear Mr. Kaufman:

Enclosed, please find the final report for the airborne mercury assessment conducted by OccuHealth, Inc. (OHI) on August 27, 2015. Eight hour airborne mercury monitoring was conducted in conjunction with the mercury remediation project in the second and third floors of the residence at [REDACTED] in Somerville, Massachusetts.

Please feel free to contact us at (508) 339-9119 if you have any questions. Thank you for the opportunity to be of continued service.

Regards,
OCCUHEALTH, INC.

Jay McNeff, Sr. Project Manager

Thomas E. Hamilton, CIH

OccuHealth

**AIRBORNE MERCURY ASSESSMENT
RESIDENCE - SECOND AND THIRD FLOOR
[REDACTED]
SOMERVILLE, MASSACHUSETTS**

Prepared for:

**MR. JEFF KAUFMAN
[REDACTED]
SOMERVILLE, MA 02144**

Conducted by:

**OCCUHEALTH, INC.
44 WOOD AVENUE
MANSFIELD, MA 02048
(508) 339-9119
15-8625**

Report Date:

SEPTEMBER 2, 2015

**AIRBORNE MERCURY ASSESSMENT
RESIDENCE - SECOND AND THIRD FLOOR
[REDACTED]
SOMERVILLE, MASSACHUSETTS**

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EXECUTIVE SUMMARY

Introduction

OccuHealth, Inc. (OHI) was retained by Jeff Kaufman to perform airborne mercury clearance testing following a cleanup of a mercury release in the third floor of the residence located at [REDACTED] Somerville, Massachusetts. The assessment was conducted on August 27, 2015 after clean up activities had been concluded by others. The sampling was conducted on the second and third floors since the clean up activities progressed to include the second level.

Final clearance sampling was conducted at the end of the remediation work. Two air samples were taken over an 8 hour period on August 27th to provide certification that the mercury cleanup was successful and that occupancy of the residence may be allowed.

Results of Clearance Air Monitoring

The results of the two (2) air samples collected post remediation indicated airborne concentrations less than 0.3 micrograms per cubic meter of air ($\mu\text{g}/\text{m}^3$) which is below the OSHA Permissible Exposure Limit (PEL) of 100 $\mu\text{g}/\text{m}^3$, the ACGIH TLV of 25 $\mu\text{g}/\text{m}^3$ and the US EPA Residency Occupancy Level (ROL) of 1 $\mu\text{g}/\text{m}^3$.

Recommendations

1. The residence may be re-occupied without any restrictions with regard to the mercury spill.
2. The results of this evaluation should be shared with any affected individuals.
3. A copy of this report should be maintained on record for at least 30 years to meet the exposure monitoring record keeping requirements of 29 CFR 1910.1020.

1. INTRODUCTION

OccuHealth, Inc. (OHI) was retained by Jeff Kaufman to provide airborne mercury final clearance sampling with regards to a mercury release that occurred in the residence located at 69 Morrison Avenue, Somerville, Massachusetts.

The assessment was conducted by Mr. Jay McNeff, Sr. Project Manager under the direction of Mr. Thomas E. Hamilton, CIH, both of OHI. The project was requested and authorized by Mr. Jeff Kaufman, owner of the property.

2. BACKGROUND

The mercury spill was discovered on the third level during some recent renovation activities. The source of the mercury is believed to be some heating equipment from the 1970's or earlier. Mr. Kaufman retained Clean Harbors to conduct the mercury clean up and remediation activities.

2.1 Clearance Plan

A clearance level of 1 ug/m³ is the current USEPA Residency Occupancy Level (ROL). This clearance level indicates the accepted exposure levels in homes post remediation as per US EPA guidance from Region V. This level is also used by the EPA and the DEP in Massachusetts for reoccupancy of buildings.

OccuHealth was not present during the clean up phase but expects measured airborne mercury concentrations of less than 0.3 ug/m³ were obtained. Clearance air sampling utilizing National Institute of Occupational Safety and Health (NIOSH) Method 6009 was then scheduled and conducted.

2.2 Air Sampling Methodology

Air samples were collected to evaluate the airborne mercury concentrations in the affected second and third floors following the completion of mercury remediation activities. The third floor is where the spill occurred and the clean up extended to the second floor including the removal of a portion of the third floor. A field blank was also collected.

The samples were collected by drawing air through a SKC 226-17-1A (hopcalite) tubes using Casella APEX pumps. The sampling pumps were calibrated prior to and after the sampling event using a BIOS DryCal primary standard.

The samples were forwarded to Galson Laboratories (Galson) located in East Syracuse, New York under a chain of custody. Galson is an accredited American Industrial Hygiene Association (AIHA) laboratory. Galson analyzed the samples for mercury in accordance with NIOSH Method 6009. Copies of the Galson Laboratory report and chain of custody form are attached.

3. RESULTS

The results of the two air samples collected post remediation indicated airborne concentrations less than 0.3 µg/m³ which is well below the OSHA Permissible Exposure Limit of 100 µg/m³, the ACGIH TLV of 25 µg/m³ and the US EPA Residency Occupancy Level (ROL) of 1 µg/m³. The following table has the detailed results.

Mercury Vapor Sampling Results

Sample Number	Location	Sample Volume (liters)	Mercury Concentration (µg/m ³)
4922505967	2 nd Floor	96	<0.31
4922505969	3 rd Floor	96	<0.31
4922505975	field blank	NA	<0.030 µg

µg/m³ = micrograms per cubic meter

µg = micrograms

< indicates concentration below the laboratory method level of quantitation

4. RECOMMENDATIONS

Based on the air sampling results, no further mercury abatement measures are required and the residence may be occupied without restriction.

Results of the air monitoring should be reviewed with all affected individuals within 15 days of the receipt of this report.

A copy of this report should be maintained on record for at least 30 years to meet the exposure monitoring record keeping requirements of 29 CFR 1910.1020

5. LIMITATIONS

The contents of this report are based on OccuHealth, Inc.'s best professional judgment, comparison of collected data with established industry guidelines and applicable regulatory limits, and information received from representatives of our client.



Mr. Jay McNeff
OccuHealth, Inc.
44 Wood Avenue
Mansfield, MA 02048-1255

September 02, 2015

DOH ELAP #11626
AIHA-LAP #100324

Account# 13558

Login# L354489

Dear Mr. McNeff:

Enclosed are the analytical results for the samples received by our laboratory on August 28, 2015. All test results meet the quality control requirements of AIHA-LAP and NELAC unless otherwise stated in this report. All samples on the chain of custody were received in good condition unless otherwise noted.

Results in this report are based on the sampling data provided by the client and refer only to the samples as they were received at the laboratory. Unless otherwise requested, all samples will be discarded 14 days from the date of this report, with the exception of IOMs, which will be cleaned and disposed of after seven calendar days.

Current Scopes of Accreditation can be viewed at www.galsonlabs.com in the accreditations section under the "about Galson" tab.

Please contact John Bailey at (888) 432-5227, if you would like any additional information regarding this report. Thank you for using Galson Laboratories.

Sincerely,

Galson Laboratories

A handwritten signature in cursive script that reads "Mary G. Unangst". The signature is written in dark ink and is positioned above the printed name of the Laboratory Director.

Mary G. Unangst
Laboratory Director

Enclosure(s)

Galson Laboratories, Inc. is now a part of SGS, the world's leading inspection, verification, testing, and certification company. As part of our transition to SGS, you will begin to see some formatting changes with reports that will improve the presentation of data and allow for the transition to the new logo.



6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

LABORATORY ANALYSIS REPORT

Client : OccuHealth, Inc.
Site : Kaufman
Date Sampled : 27-AUG-15
Date Received : 28-AUG-15

Account No.: 13558
Login No. : L354489

Date Analyzed : 31-AUG-15
Report ID : 898676



LAB #100324

Mercury

Sample ID	Lab ID	Air Vol liter	Total ug	Conc mg/m3
4922505967	L354489-1	96	<0.030	<0.00031
4922505969	L354489-2	96	<0.030	<0.00031
4922505975 BLANK	L354489-3	NA	<0.030	NA

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of quantitation: 0.030 ug	Submitted by: PWL/MLH				
Analytical Method : mod. NIOSH 6009; CVAA TUBE	Approved by : mlh				
OSHA PEL : 0.1 mg/m3	Date : 02-SEP-15				
Collection Media : 226-17-1A	Supervisor: KEG				
NYS DOH # : 11626					
QC by: KSB					
<hr/>					
< -Less Than	mg -Milligrams	m3 -Cubic Meters	kg -Kilograms	NA -Not Applicable	ND -Not Detected
> -Greater Than	ug -Micrograms	l -Liters	NS -Not Specified	ppm -Parts per Million	



LABORATORY FOOTNOTE REPORT

Client Name : OccuHealth, Inc.
Site : Kaufman

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.galsonlabs.com

Date Sampled : 27-AUG-15
Date Received: 28-AUG-15
Date Analyzed: 31-AUG-15
Account No.: 13558
Login No. : L354489

Unless otherwise noted below, all quality control results associated with the samples were within established control limits or did not impact reported results.

The laboratory does not have control over sampling; reported concentrations are based on client-supplied information (e.g. air volume, sampling time, area).

Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceeding the final result column may have been rounded in order to fit the report format and therefore, if carried through the calculations, may may not yield an identical final result to the one reported.

The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).

Unless otherwise noted below, reported results have not been blank corrected for any field blank or method blank.

L354489 (Report ID: 898676):

Reported results reflect elemental analysis of the requested metals. Certain compounds may not be solubilized during digestion, resulting in data that is biased low.

SOPs: MT-SOP-20(5), MT-SOP-8(12)

L354489 (Report ID: 898676):

Accuracy and mean recovery data presented below is based on a 95% confidence interval ($k=2$). The estimated uncertainty applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process.

Parameter	Accuracy	Mean Recovery
Mercury	+/-13.3%	100%

< -Less than	mg -Milligrams	m3	-Cubic Meters	kg -Kilograms	ppm -Parts per Million
> -Greater than	ug -Micrograms	l -Liters	NS -Not Specified	ND -Not Detected	NA -Not Applicable

129867E80190812494

Date: 08/28/15

Shipper: UPS

Initials: KPM



Prep: NO PREP

L354489

www.galsonlabs.com

☐ New Client?

Report To: Jay McNeff

OccuHealth, Inc.

44 Wood Avenue

Mansfield, MA 02048

Phone No.: 508-339-9119

Cell No.: 617-293-4769

Email Results to: Jay McNeff

Email address: results@occuhealth.com

Invoice To: Sue Hamilton

OccuHealth, Inc.

44 Wood Avenue

Mansfield, MA 02048

Phone No.: 508-339-9119

Email: results@occuhealth.com

P.O. No.: 10584

Credit Card: ☐ Card on File ☐ Call for Credit Card Info.

Need Results By:	(surcharge)
<input type="checkbox"/> Standard	0%
<input checked="" type="checkbox"/> 4 Business Days	35%
<input type="checkbox"/> 3 Business Days	50%
<input type="checkbox"/> 2 Business Days	75%
<input type="checkbox"/> Next Day by 6pm	100%
<input type="checkbox"/> Next Day by Noon	150%
<input type="checkbox"/> Same Day	200%

☐ Samples submitted using the FreePumpLoad™ Program☐ Samples submitted using the FreeSamplingBadges™ Program

Site Name: Kaufman

Project:

Sampled by: Jay McNeff

Comments:

List description of industry or Process/interferences present in sampling area:

State samples were collected in (e.g., NY)

MA

Please indicate which OEL this data will be used for:

☐ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA☐ MSHA ☐ other (specify):Sample Identification*
(Maximum of 20 characters)

4922505967

4922505969

4922505975 Blank

Date Sampled

08/27/15

08/27/15

08/27/15

Collection Medium

226-17-1A

226-17-1A

226-17-1A

Sample Volume
Sample Time
Sample Area*

96

96

-

Sample Units:
L, ml, min, in², cm², ft²

Liters

Liters

-

Mercury

Mercury

Mercury

Analysis Requested*

NIOSH 6009

NIOSH 6009

NIOSH 6009

Hexavalent Chromium
Process (e.g., welding
plating, painting, etc.)*

lowest LOQ

lowest LOQ

lowest LOQ

*Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: ☐ Use method(s) listed on COC

For metals analysis: If requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):

For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite):

Chain of Custody	Print Name/Signature	Date	Time
Relinquished by: Jay McNeff	<i>Jay McNeff</i>	08/27/15	
Relinquished by:	<i>Monica Kay</i>	08/28/15	11:02

Samples received after 3pm will be considered as next day's business

* Required fields, failure to complete these fields may result in a delay in your samples being processed.

Page 4 of 4 Report Reference: 02-SEP-15 10:34

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